



2025

General Catalog

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ACCESSIBLE



RELIABLE



AFFORDABLE

Himel is an award-winning manufacturer and supplier of electric products for Low Voltage Power Distribution, Final Distribution, Power Management, Motor Control and Protection, Industrial Components, and Home Electric offers.

We operate in over 55+ countries and specialize in manufacturing value-engineered electrical products for residential, commercial, and industrial sectors, while maintaining the highest standards of quality and performance.



Low Voltage
Power Distribution



Final Distribution



Power Management



Motor Control &
Protection

We are determined to build a world where electricity is safe and accessible to one and all.



Committed to minimizing carbon footprint through smart & green manufacturing



proportion of green materials in products



factories certified for zero carbon / carbon neutral

Powering Infinity.



60+

COUNTRIES



32K+

SKUs



130+

DISTRIBUTORS



7900+

POS



500+

TRADE STORES



48+

E-STORES



8000+

RESELLERS



Control Components



Industrial Solutions



Solar Offer



Home Electric

We value opportunities for all and provide the best combination of affordable and reliable offers to meet the demand for access to safe electricity.



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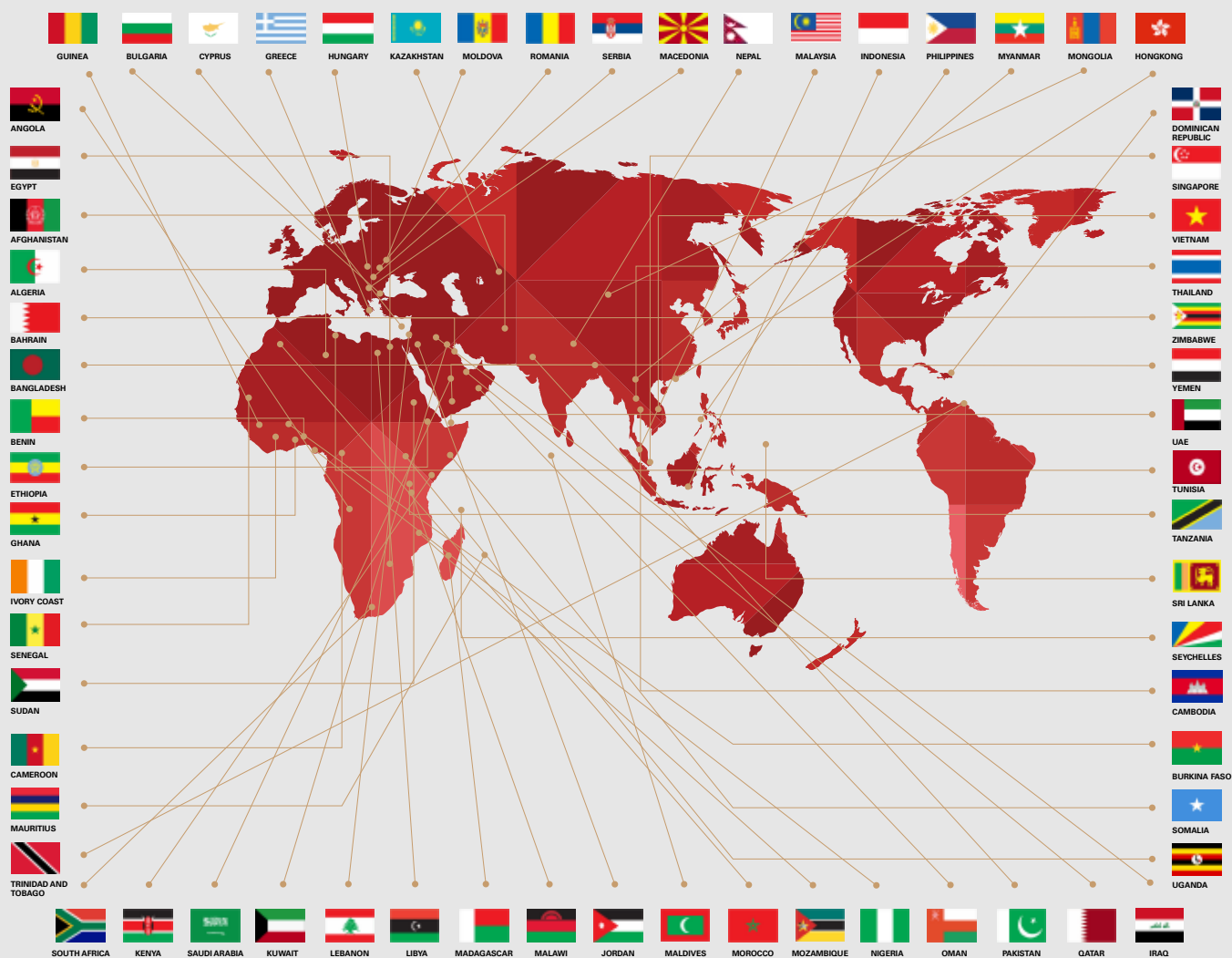
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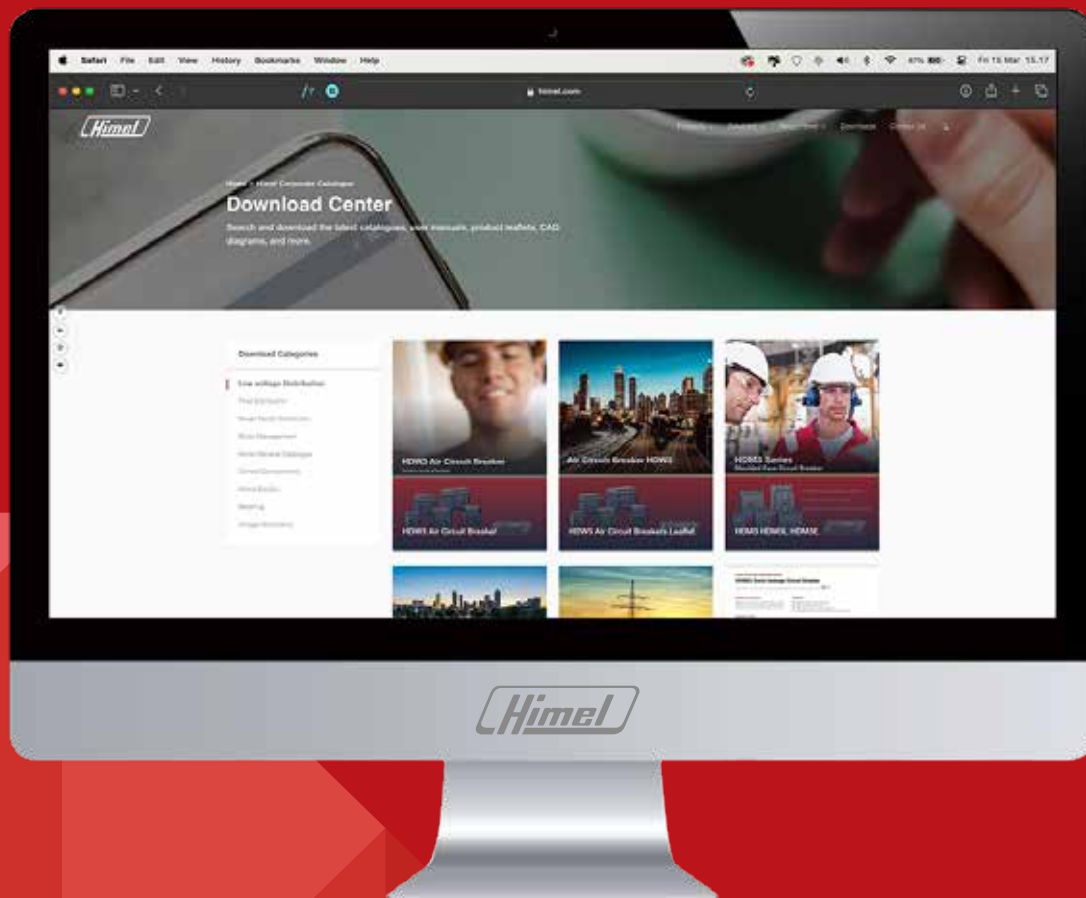


Multinational Presence.



Committed to Quality.

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- Project References



Search and download user manuals, product leaflets, CAD diagrams, and more at <https://www.himel.com/gb/downloads>



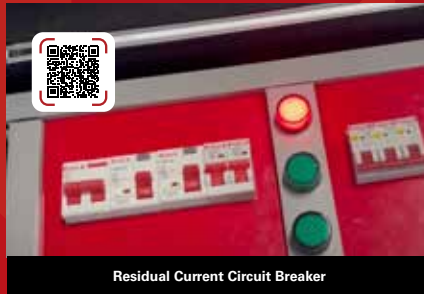
Download Product Datasheet and Certificates directly at <https://www.himel.com/gb/product-details-more/HDM3160S10032XX2> *

*Substitute "[HDM3160S10032XX2]" with the right reference code

Watch Himel products in action



CUBO Modular Home



Residual Current Circuit Breaker



Withdrawable Panel



Single Phase Pump Booster



Bread Making Machinery



Electric Press



PID Application Booster Pump



Home Appliance Automation



Variable Speed Drive



For more Product and Application Videos, Customer Testimonials and Project References - please scan to visit our You Tube Channel

DISCLAIMER

These catalogue pages do not purport to cover all details or variations in product, nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the local Himel Products Distributor or Sales team. The contents of this catalogue shall not become part of or modify any prior or existing agreement, commitment or relationship. The sales contract contains the entire obligation of Himel's portfolio.

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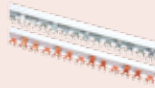
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Power Distribution

For modern infrastructure demanding extensive electrical planning, electrical products must be efficient, safe, and reliable. Himel Power Distribution portfolio is designed to exceedingly meet the requirements of engineers, planners, panel builders and operators.

Our experts have paid close attention to demands of diverse applications—planning to installation, and maintenance, so that we can match your needs with complete portfolio of Low, Medium and Final Distribution products.



FINAL DISTRIBUTION

Assurance of Safety, For your Home & Facility



Final Distribution is a critical part of power distribution construction. Himel products offer reliable and safe solutions for consistent distribution of power from the utility to feed lights, sockets and other appliances



Himel designs, manufactures, and supplies products that provide power & circuit protection and higher operational endurance trusted by millions of homes, businesses and commercial set-ups



Our Final Distribution products have been proven for superior application performance, safe power supply & load management in homes, commercial setups, and residential projects



Our Value Engineered products are designed and manufactured to minimize downtime, last longer and optimize maintenance for cost-efficient power distribution in varied environment

FINAL DISTRIBUTION



3 Series

3 Series Miniature Circuit Breakers



Rated current: 1-125A
Pole: 1P/1P+N/2P/3P/3P+N/4P
Breaking capacity: 6kA

017

9 Series

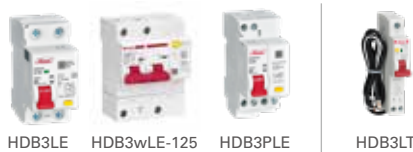
9 Series Miniature Circuit Breakers



Rated current: 1-63A
Pole: 1P/2P/3P/4P
Breaking capacity: 6kA, 10kA

028

3 Series RCBO



Rated current: 6A-63A
Pole: 1P+N/2P/3P/3P+N/4P
Breaking capacity: 6kA

6,10,16,20,23,32,40,50A
1P+N
6kA,10kA

020

9 Series RCBO



Rated current: 6A-63A
Pole: 1P+N/2P/3P/3P+N/4P
Breaking capacity: 6kA

031

3 Series RCCB & Switch Disconnectors



HDB3VR

HDG3

Rated current: 10A-100A
Pole: 2P/4P

Rated current: 20A-125A
Pole: 1P/2P/3P/4P

024

9 Series Switch Disconnectors



HDG9

Rated current: 32A-125A
Pole: 1P/2P/3P/4P

033

3 Series Accessories



OF

SD

MO

MV

MVMN

027

9 Series Accessories



SD

OF

MX+OF

034

FINAL DISTRIBUTION

HDBK Plug in Miniature Circuit Breakers



HDBK

Rated current: 6-63A
Pole: 1P/2P/3P
Breaking capacity: 6kA, 10kA

035

HBBT Comb Busbars



HBBT

Pole: 1P/2P/3P/4P
Material of busbar: E-CU-F25
Type: PIN-type/U-type

043

HDPZ50 & HEDB Consumer Boxes



HDPZ50



HEDB

Rated current: 100A
Protection grade: IP30
Material: Full plastic/metal

036

HDCH8S Modular Contactors



HDCH8S

Rated current: 16A-63A
Pole: 2P/3P/4P

044

HJXF Metal Enclosures



HJXF

Thickness: 1.0-1.5mm
Protection grade: IP43/IP54
Material: Metal

040

HDY3N Surge Protective Devices



HDY3N

Type II
Max discharge current:
20KA, 40KA, 65KA, 80KA, 120KA, 160KA
Pole: 1P/1P+N/2P/3P/3P+N/4P

045

FINAL DISTRIBUTION

HDYNEZ DC Surge Protector



HDYNEZ

Max. discharge current: 40kA
Max. continuous voltage: 800-1500VDC

046

HDPV1-20 Photovoltaic Fuse



HDPV1-20

Working temperature: -25°C~+60°C
Rated current: 1-20A

052

HDYNZT DC Surge Protector



HDYNZT

Max. discharge current: 20kA, 40kA
Max. continuous voltage: 30-275VDC

048

HDPV2-32(L) Photovoltaic Fuse



HDPV2-32(L)

Working temperature: -25°C~+60°C
Rated current: 1-32A

054

HDG9Z DC Switch Connector



HDG9Z

Pole: 1-4P
DC applications up to 1000VDC

050

3 Series MCB

Standard: IEC/EN 60898-1



Range Presentation

HDB3w series is Himel 3 series range of Miniature Circuit Breakers designed to protect the power system from short circuit and overload faults.

3 series MCB is mainly used in commercial and residential buildings, including 18mm AC MCB, 27mm AC MCB, phase neutral MCB, and DC MCB.

Features

- ◆ Full product range: AC and DC MCB, from 1 to 125A
- ◆ MCB without or with indicator window (H series) to display tripping status.
- ◆ DPN: Phase neutral MCB in single pole
- ◆ Smart design: Complete range of accessories with convenient mounting hole
- ◆ HDB3w, HDB3wH: SNI (Indonesia)
- ◆ HDB3w, HDB3wH: PS MARK (Philippines)
- ◆ HDB3wH: SIRIM (Malaysia)
- ◆ HDB3wH, HDB3w-125: TSE (Turkey)

Selection Code

Range name	Breaking capacity	Number of poles	Tripping type	Rated current		
HDB3w	N	3	C	10		
HDB3w: MCB without indicator HDB3wH: MCB with indicator	N: 6kA	1: 1P 2: 2P 3: 3P 4: 4P 5: 1P+N 6: 3P+N	B: Type B C: Type C D: Type D	1: 1A 2: 2A 3: 3A 4: 4A 5: 5A	6: 6A 10: 10A 13: 13A 16: 16A 20: 20A	25: 25A 32: 32A 40: 40A 50: 50A 63: 63A
HDB3w125: 27mm MCB with indicator, up to 125A	N: 6kA H: 10kA	1: 1P 2: 2P 3: 3P 4: 4P	B: Type B C: Type C D: Type D	63: 63A 80: 80A 100: 100A 125: 125A2		
HDB3wP: Phase Neutral MCB without indicator HDB3wHP: Phase Neutral MCB with indicator	N: 4.5kA (HDB3wP) Default: 4.5kA (HDB3wHP)	Default: all are 1P+N in single pole	C: Type C D: Type D	6: 6A 10: 10A 20: 20A	25: 25A 32: 32A 40: 40A	
HDB3wZ: DC MCB (Direct Current) without indicator	Default: 6kA (1P: 250V, 2/3P: 500V)	1: 1P 2: 2P 3: 3P	B: Type B C: Type C	1: 1A (Type C) 2: 2A (Type C) 3: 3A (Type C) 4: 4A (Type C) 5: 5A (Type C) 6: 6A 8: 8A 10: 10A	13: 13A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	

Online Content



HDB3w



HDB3wH



HDB3w-125



HDB3wP



HDB3wHP



HDB3wZ

3 Series MCB

Standard: IEC/EN 60898-1





3 Series MCB

IEC/EN 60898-1



FEATURES

- High performance and long durability
- Smart design provides easy installation
- With indicator window to display the breaker status
- Complete range of accessories including Shunt release and Alarm contact

SPECIFICATIONS

- High Breaking Capacity upto 6kA
- Current range from 1A to 63A
- Available in 1P/2P/3P/4P/1P+N/3P+N
- Wide Operating Temperature from -20°C to +60°C

 www.himel.com

3 Series MCB

Standard: IEC/EN 60898-1



Technical Parameters						
MCB	HDB3w	HDB3wH	HDB3w-125	HDB3wP	HDB3wHP	HDB3wZ
Description	18mm Miniature Circuit Breaker without indicator	18mm Miniature Circuit Breaker with indicator	27mm Miniature Circuit Breaker with indicator	18mm Phase Neutral MCB without indicator	18mm Phase Neutral MCB with indicator	18mm DC MCB without indicator
Indication: red and green tripping indication window	No	Yes	Yes	No	Yes	No
Electrical characteristics						
Standard	IEC 60898-1		IEC 60947-2	IEC 60898-1		IEC60947-2
Certificate	CE,TUV, CB, ROHS		CE, CB,TUV, ROHS	CE, CB,TUV, ROHS		CE, CB, ROHS
Rated insulation voltage Ui	500V		500V	500V		500V
Frequency	50/60Hz		50/60Hz	50/60Hz		/
Rated operational voltage Ue	240 (1P, 1P+N) 415V (2P, 3P, 4P, 3P+N)		230V (1P) 400V (2P, 3P, 4P)	240V		DC 250V (1P) DC 500V (2P/3P)
Rated short-circuit capacity Icn	6kA		6kA 10kA	4.5kA		6kA
Rated impulse withstand voltage Uimp	4kV		4kV	4kV		4kV
Pollution class	2		2	2		2
Isolation function	Yes		Yes	Yes		Yes
Tripping characteristics	B, C, DType		B, C, DType	C, DType		B, CType
Mechanical characteristics						
Mechanical endurance	25000		8500 (In ≤ 100A) 7000 (In > 100A)	10000		20000
Electrical endurance	6000		1500 (In ≤ 100A) 1000 (In > 100A)	4000		3000
Protection class	IP40(Installed in DB box) IP20(Installed directly)		IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)		IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms		30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms		30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C ; 50°C		30°C ; 50°C	30°C ; 50°C		30°C ; 50°C
Operating ambient temperature	-20°C ~ +60°C		-20°C ~ +60°C	-20°C ~ +60°C		-20°C ~ +60°C
Storage temperature	-40°C ~ +70°C		-40°C ~ +70°C	-40°C ~ +70°C		-40°C ~ +70°C
Installation features						
Maximum wiring capacity	25mm²		50mm²	16mm²		25mm²
Maximum torque	2.5N.m		3.5N.m	1.5N.m		2.5N.m
Tool	Cross head screwdriver or flat head screwdriver		Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver		Cross head screwdriver or flat head screwdriver
Installation	35mm DIN rail		35mm DIN rail	35mm DIN rail		35mm DIN rail
Line incoming type	Top or bottom		Top or bottom	Top or bottom		Top or bottom

FINAL DISTRIBUTION

3 Series RCBO

Standard: IEC/EN 61009-1



Range Presentation

Himel 3 series range of Residual Current Operated Circuit Breakers (RCBO) is designed to protect people and power system from short circuit, overload faults and earth leakage.

3 series RCBO is mainly used in commercial and residential buildings including standard RCBO and phase neutral RCBO.

Features

- ◆ Full product range
- ◆ Short circuit protection
- ◆ Overload protection
- ◆ Isolating function
- ◆ Earthleakage protection function
- ◆ Residual Current Operated Circuit Breaker over voltage protection function

Selection Code

Range name	Breaking capacity	Number of poles	Tripping type	Rated current	Residual current	Over-voltage protection
HDB3wLE125	N	1	C	6	R50	G
HDB3wLE125: RCBO with indicator, up to 125A	Default: 10kA	1: 1P+N 2: 2P 3: 3P 4: 4P 6: 3P+N	C: Type C D: Type D	63: 63A 80: 80A 100: 100A 125: 125A	Default: 30mA W: 50mA Q: 75mA Y: 100mA T: 300mA	Default: NO G: Over-voltage protection
Product name	Incoming mode	Number of poles	Trip type	Rated current	Residual current	Other functions
HDB3LE	R	2	C	16	R10	A
HDB3LE: RCBO with indicator	Default: Line R: Bottom	2: 2P 3: 3P 4: 4P	B: B type C: C type D: D type	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	Default: 30mA R10: 10mA (2P only) R50: 50mA R75: 75mA R100: 100mA R300: 300mA	Default: AC type A: A type
Product name	Number of poles	Trip type	Rated current	Other functions		
HDB3PLE	Default	C	16	G		
HDB3PLE: Phase Neutral RCBO with indicator	Default: 1P+N	C: C type D: D type	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A	Default: No G: Over-voltage protection		

3 Series RCBO

Standard: IEC/EN 61009-1



Compact Protection

CompaPRO RCBO

Protection and safety for your loved ones from electric shocks

- Smaller size, greater cost saving
30-50% more compact, fits in smaller size distribution board
- Greater functionality
Available in A-Type to suit both AC and pulse DC environments
- Bigger wiring terminal
Enhanced convenience with 25 mm² wiring capacity
- Next-generation technology
Anti-arc spray and quicker break for greater safety
- Enhanced life
Quick connect function for more durability
- RoHS Compliant
Safeguard life, property and environment
- Protection in extreme temperatures
Tested for wide range temperature -35°C ~ 70°C
- Integral overcurrent protection
Complies with IEC61009-1



Online Content



HDB3wLE125



HDB3LE



HDB3PLE

3 Series RCBO

Standard: IEC61009-1



Technical Parameters				
RCBO		HDB3wLE125	HDB3LE	HDB3PLE
Certification		CE, CB, RoHS	CE, CB, RoHS	CE, CB, RoHS
Electrical characteristics				
Rated insulation voltage U_i (V)		500	500	500
Maximum working voltage U_{Bmax} 1P+N (V)		"230VAC (1P+N, 2P) 400VAC (3P,4P,3P+N)"	"230VAC (2P) 400VAC (3P,4P)"	230VAC
Rated short-circuit capacity I_{cn} (kA)		10(IEC/EN 60947-2)	6 (IEC/EN 60898)	3.5 (IEC/EN61009-1)
Rated impulse withstand voltage U_{imp} (1.2/50) (kA)		4	4	4
Isolating function		Available	Available	Available
Pollution class		2	2	2
Electric shock protection grade		II	II	II
Tripping type		Thermal magnetic tripping	Thermal magnetic tripping	Thermal magnetic tripping
	C curve (5In~10In)	Y	Y	Y
	D curve (10In~14In)	Y	Y	Y
Electrical and mechanical accessories		-	Y	Y
Mechanical characteristics				
Trip indication		Upspring of the reset button indicates leakage of trip	Upspring of the reset button indicates leakage of trip	Upspring of the reset button indicates leakage of trip
Handle		Red, pad printing indicating ON-OFF position	Red, pad printing indicating ON-OFF position	Red, pad printing indicating ON-OFF position
Mechanical life		8,500 times	20,000 times	20,000 times
Electrical life		3,000 times	10,000 times	10,000 times
Protection rating		Installed in distribution box IP40 Installed directly IP20	Installed in distribution box IP40 Installed directly IP20	Installed in distribution box IP40 Installed directly IP20
Mechanical shock resistance		30g, 3 shocks, last for 11ms (No significant vibration or shock)	30g, 3 shocks, last for 11ms (No significant vibration or shock)	30g, 3 shocks, last for 11ms (No significant vibration or shock)
Anti-vibration (IEC/EN 60068-2-6)		No significant vibration or shock	No significant vibration or shock	No significant vibration or shock
Reference ambient temperature °C		30°C	30°C	30°C
Operating ambient temperature (daily mean temperature ≤ +35°)°C		-20°C~+60°C	-35°C~+70°C	-35°C~+70°C
Storage temperature °C		-40°C~+70°C	-40°C~+85°C	-40°C~+85°C
Installation Features				
Terminal form		U type	U type	U type
Wiring capacity (A)		Max 50mm ²	25mm ²	25mm ²
Ultimate torque		3.5N.m	2.5N.m	2.5N.m
Tool		Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver
Installation		Installed on standard DIN guide rail (35mm)	Installed on standard DIN guide rail (35mm)	Installed on standard DIN guide rail (35mm)
Line incoming mode		Top	Top & Bottom (only for 2P)	Top

HDB3LT Longtail Residual Current Operated Circuit Breaker

Standard: IEC/EN 61009-1



Function

HDB3LT Longtail Residual Current Operated Circuit Breaker has the following features:

- ◆ Overload protection
- ◆ Short-circuit protection
- ◆ Earth leakage current protection
- ◆ Isolating function
- ◆ Extend Neutral-wire and Ground-wire

Online Content



HDB3LT

Selection Guide

Product Name	Breaking Capacity	Number of Poles	Trip Type	Rated Current	Residual Current
HDB3LT	H	1	C	32	R100
HDB3LT: Electronic RCBO	H: 10kA N: 6kA	1P+N	C type	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 50A(only for 10kA)	R10: 10mA R30: 30mA R100: 100mA R300: 300mA

Functions and Features

Electrical Characteristics

Standard	IEC/EN 61009-1
Certificates	CE, CB, SEMKO, ROHS
Rated insulation voltage U_i (V)	500
Rated operating voltage U_e (V)	230~240VAC
Rated short-circuit capacity I_{cn} (IEC/EN60898) (kA)	6kA, 10kA
Rated impulse withstand voltage U_{imp} (kV)	4
Dielectric test voltage	2500
Isolating function	Available
Pollution class	2
Electric shock protection grade	II
Type	AC
Trip type	Thermal magnetic trip
Thermal magnetic trip characteristics	Type B curve (3In~5In) Type C curve (5In~10In) Type D curve (10In~14In)
Electrical and mechanical accessories	/

Mechanical Characteristics

Handle	Red, pad printing indicating ON-OFF position
Mechanical endurance	Times 20,000
Electrical endurance	Times 10,000
Protection grade	Installed directly IP20 ; Installed in distribution box IP40
High temperature humidity resistant	Category 2, 28 cycles Relative humidity <50% at 60°C Relative humidity <90% at 20°C
Rated ambient temperature	30°C
Operating ambient temperature (daily mean temperature $\leq +35^\circ\text{C}$)	-20°C~+60°C ; Storage temperature -40°C~+70°C

Installation Features

Terminal form	U type
Wiring capacity (A)	25mm ²
Ultimate torque	Input terminal 2.0N.m Output terminal 1.2N.m
Tool	Cross head screwdriver or flat head screwdriver
Installation	Installed on standard DIN guide rail (35mm)
Line incoming mode	Top

FINAL DISTRIBUTION

3 Series Switch Disconnectors

Standard: IEC/EN 60947-3



Range Presentation

HDG3 is the Himel 3 series range of switch disconnector designed to switch on and off the power system.

The 3 series switch disconnector is mainly used in commercial and residential buildings.

Features

- ◆ Full product portfolio from 20A to 125A
- ◆ Suitable for industrial application

Online Content



HDG3

Selection Code

Range name	Number of poles	Rated current
HDG3	3	32
HDG3	1: 1P 2: 2P 3: 3P 4: 4P	20: 20A 63: 63A 25: 25A 80: 80A 32: 32A 100: 100A 40: 40A 125: 125A 50: 50A

Technical Parameters	
Switch Disconnectors	HDG3
Electrical characteristics	
Standard	IEC 60947-3
Certificate	CE, CB, ROHS
Rated insulation voltage U_i	500V
Frequency	50/60Hz
Rated operational voltage U_e	230 (1P) 400V (2P, 3P, 4P)
Rated short-time withstand current I_{cw} (kA)	20le/1s
Rated short-circuit making capacity I_{cm} (kA)	28, 1le
Rated impulse withstand voltage U_{imp}	4kV
Pollution class	2
Isolation function	Yes
Mechanical characteristics	
Mechanical endurance	8500($\leq 100A$) 7000(125A)
Electrical endurance	3000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C
Operating ambient temperature	-20°C ~ +60°C
Storage temperature	-40°C ~ +70°C
Installation Features	
Maximum wiring capacity	25mm ²
Maximum torque	2.5N.m
Installation	35mm DIN rail
Line incoming type	Top or bottom

3 Series RCCB

Standard: IEC/EN 61008-1



Range Presentation

HDB3VR is Himel 3 series range of Residual Current Circuit Breaker (RCCB) designed to protect people and power system from earth leakage. HDB3VR RCCB can be widely used in commercial and residential buildings.

Features

- ◆ Full range from 10A to 100A
- ◆ 4 residual current sensitivity: 10mA, 30mA, 100mA, and 300mA
- ◆ Two types for application: AC type and A type
- ◆ HDB3VR: Safety mark (Singapore) TSE (Turkey)
- ◆ SNI (Indonesia)

Online Content



HDB3VR

Selection Code

Range name	Number of poles	Rated current	Residual current	Type
HDB3VR	2	10	L	C
HDB3VR : Electromagnetic Type RCCB	2: 2P 4: 4P	10: 10A 16: 16A 25: 25A 40: 40A 63: 63A 80: 80A 100: 100A	L: 10mA S: 30mA Y: 100mA T: 300mA F: 500mA	C: ACType A: A Type

Technical Parameters	
RCCB	HDB3VR
Electrical characteristics	
Standard	IEC 61008-1
Certificate	CE, TUV, ROHS
Rated insulation voltage Ui	500V
Frequency	50/60Hz
Rated operational voltage Ue	240 (2P) 415V (4P)
Rated short-circuit capacity Icn	6kA
Rated impulse withstand voltage Uimp	4kV
Pollution class	2
Type	A , ACType
Isolation function	Yes
Rated residual operating current I△n	10, 30, 100, 300, 500 mA
Mechanical characteristics	
Endurance	Mechanical endurance: 8500(≤100A) 7000(125A) Electrical endurance: 3000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C
Operating ambient temperature	-20°C ~ +60°C
Storage temperature	-40°C ~ +70°C
Installation Features	
Maximum wiring capacity	25mm ² (≤63A) 35mm ² (> 63A)
Maximum torque	Rated current 6-32A: 2.5N.m Rated current 40-63A: 3N.m
Installation	35mm DIN rail
Line incoming type	Top or bottom

3 Series RCCB

Standard: IEC/EN 61008-1



HIMEL ON, SAFETY ON

HDB3VR is Himel 3 series range of Residual current circuit breaker (RCCB) designed to protect people and power system from earth leakage.



Features

- Standard IEC/EN 61008-1
- Operating Temperature -20°C to 60°C
- Suitable for A-Type & AC-Type applications
- ROHS Compliant

Specifications

- Sensitivity range 10mA, 30mA, 100mA, 300mA
- Current range from 10A to 100A
- Available in 2P & 4P

FINAL DISTRIBUTION

3 Series Accessories for MCB & RCBO

Standard: IEC/EN 60947

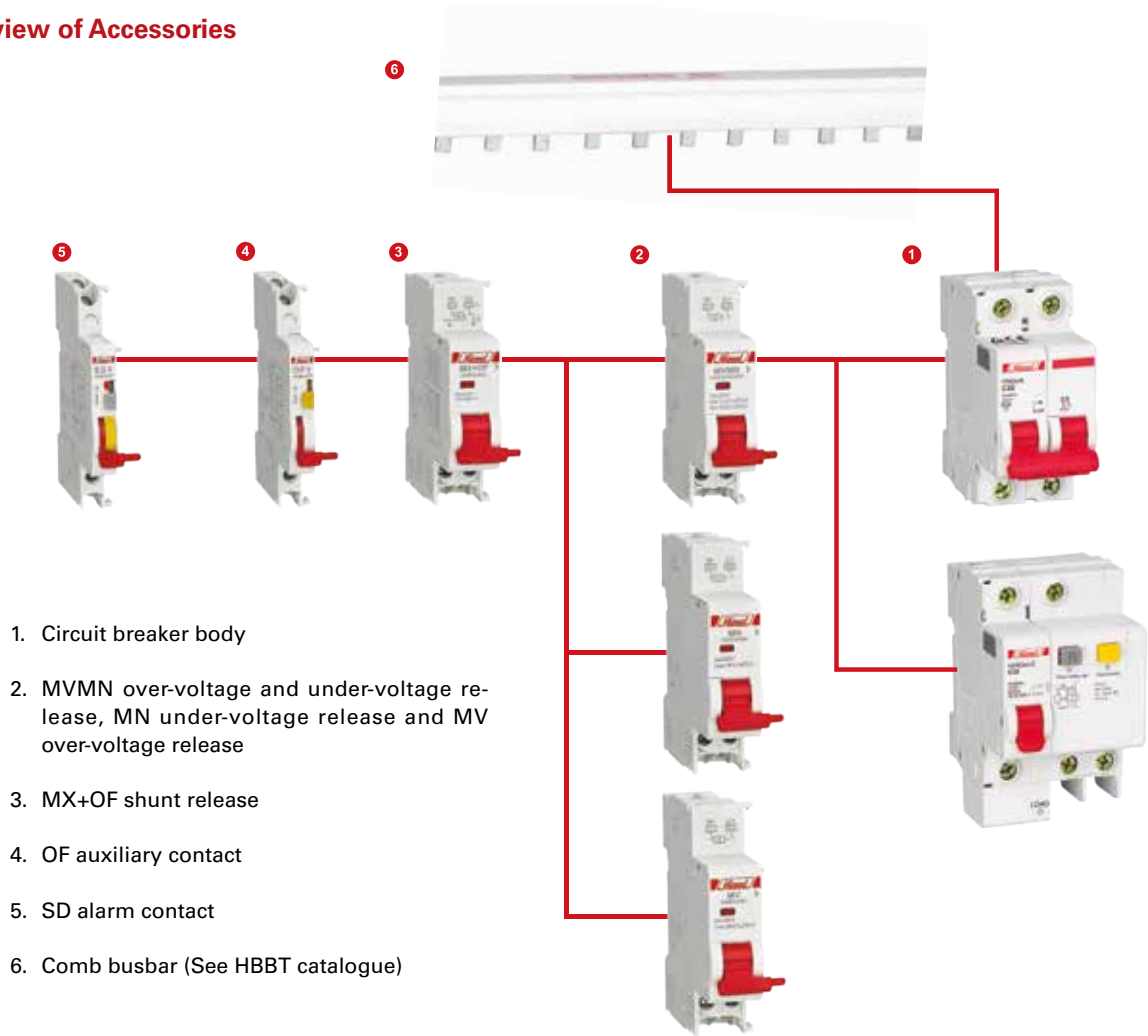


Compatible with HDB3w, HDB3wH, HDB3wP, HDB3wHP, HDB3LE, HDB3PLE

Technical Parameters						
MCB Accessories	OF	SD	MO	MV	MN	MVMN
Description	Auxiliary contact	Alarm contact	Shunt release MOWY model; Passive type	Over-voltage release	Under-voltage release	Over-voltage and under-voltage release
Reference	HDB3wOFN	HDB3wSDN	HDB3WMO24N HDB3WMO220N HDB3WMOWY24N HDB3WMOWY220N	HDB3wMVN	HDB3wMNN	HDB3wMVMNN
Rated voltage	AC 240/415V DC 130V,48V,24V	AC 240/415V DC 130V,48V,24V	MO24N: AC/DC 24~28V MO220N: AC 110~415V DC 110~130V	Ue:230V Uvo:280(1±5%)V	Ue:230V Uoe:161(1±5%)V	Ue: 230V MN: Uoe: 161(1±5%)V MV: Uvo: 280(1±5%)V
Wiring capacity	1~2.5mm²	1~2.5mm²	1~2.5mm²	1~2.5mm²	1~2.5mm²	1~2.5mm²
Width	9mm	9mm	18mm	18mm	18mm	18mm
Installation side of MCB	Left	Left	Left	Left	Left	Left
Max installation quantity	6	3	2	2	2	2

Remark: Maximum width of the accessory assembly is 54mm

Overview of Accessories



FINAL DISTRIBUTION

9 Series MCB

Standard: IEC/EN 60898-1



Range Presentation

HDB9 series is Himel 9 series range of Miniature Circuit Breakers designed to protect the power system from short circuit and overload. HDB9 is Himel's most advanced range of miniature circuit breakers.

9 series MCB can be widely used in commercial and residential buildings including 18mm AC MCB, phase neutral MCB, and DC MCB.

Features

- ◆ Breaking capacity up to 10kA
- ◆ Energy limiting class 3
- ◆ Standard open and close state indication window
- ◆ High performance
- ◆ HDB9:
 - SNI (Indonesia), SIRIM (Malaysia),
 - TSE (Turkey), PS MARK (Philippines)

Selection Code

Range name	Breaking capacity	Number of poles	Tripping type	Rated current	
HDB9	N63A	3	C	10	
HDB9: MCB	N63A: 6kA H63A: 10kA	1: 1P 2: 2P 3: 3P 4: 4P 5: 1P+N 6: 3P+N	B: Type B C: Type C D: Type D	1: 1A 2: 2A 4: 4A 6: 6A 10: 10A 16: 16A	20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A
HDB9P: Phase Neutral MCB	A40: 4.5kA N40: 6kA	Default: all are 1P+N in single pole	C: Type C	6: 6A 10: 10A 16: 16A 20: 20A 32: 32A 40: 40A	
HDB9Z: DC MCB (Direct Current)	63: 1P/2P 125V/250V(10kA) 1P/2P/4P 250V/500V/1000V (6kA)	1: 1P 2: 2P 4: 4P	B: B Type C: C Type	1: 1A 2: 2A 4: 4A 6: 6A 10: 10A 16: 16A	20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A

Online Content



HDB9



HDB9P



HDB9Z

9 Series MCB

Standard: IEC/EN 61009-1





Miniature Circuit Breaker **9 Series**



FEATURES

- Wide breaking capacity up to 10kA
- Smart design and easy installation
- Energy limiting class 3
- Complete range of accessories

APPLICATION

- Residential and office
- Hospital and school
- Manufacturing and industry
- As component of electrical appliances

 www.himel.com

9 Series MCB

Standard: IEC/EN 60898-1



Technical Parameters			
MCB	HDB9	HDB9P	HDB9Z
Description	18mm Miniature Circuit Breaker	18mm Phase neutral MCB	18mm DC Miniature Circuit Breaker
Indication: red and green tripping indication window	Yes	Yes	Yes
Electrical characteristics			
Standard	IEC 60898-1	IEC 60898-1	IEC60947-2
Certificate	CE, KEMA, CB, ROHS	CE, CB, TUV, ROHS	CE, CB, SEMKO, ROHS
Rated insulation voltage Ui	500V	500V	1000V
Frequency	50/60Hz	50/60Hz	/
Rated operational voltage Ue	230 (1P, 1P+N) 400V(2P, 3P, 3P+N, 4P)	240V	DC 125V, 250V (1P) DC 250V, 500V (2P) DC 1000V (4P)
Rated short-circuit capacity Icn	6kA 10kA	6kA	10KA (125V/1P,250V/2P) 6kA (250V/1P, 500V/2P, 1000V/4P)
Rated impulse withstand voltage Uimp	4kV	4kV	6kV
Pollution class	2	2	2
Isolation function	Yes	Yes	Yes
Tripping characteristics	B, C, DType	CType	B, C, DType
Energy limiting class 3	B, CType	No	No
Mechanical characteristics			
Mechanical endurance	20000	20000	20000
Electrical endurance	10000	10000	3000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30° C	30° C	30° C
Operating ambient temperature	- 30° C~ + 70° C	- 30° C~ + 70° C	- 30° C~ + 70° C
Storage temperature	- 40° C~ + 70° C	- 40° C~ + 70° C	- 40° C~ + 70° C
Installation Features			
Maximum wiring capacity	25mm ²	16mm ²	25mm ²
Maximum torque	2.5N.m	1.5N.m	2.5N.m
Tool	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver
Installation	35mm DIN rail	35mm DIN rail	35mm DIN rail
Line incoming type	Top or bottom	Top or bottom	Top or bottom

9 Series RCBO

Standard: IEC/EN 61009-1



Range Presentation

HDB9LE series is Himel 9 series range of Residual Current Operated Circuit Breakers, designed to protect people and power system from short circuit, overload faults, earth leakage.

9 series RCBO can be widely used in commercial and residential building. It includes electronic type and electromagnetic type (HDB9LM).

Features

- ◆ Multi-selection: Electronic or electromagnetic type.
- ◆ High performance: up to 6kA breaking capacity
- ◆ Standard open and close state indication

Selection Code

Range name	Breaking capacity	Number of poles	Tripping type	Rated current	Residual current
HDB9LE	N63A	2	C	6	R50
HDB9LE: Electronic RCBO	N32A: 6kA for rating up to 32A N63A: 6kA for rating above 32A	1: 1P+N 2: 2P 3: 3P 4: 4P 6: 3P+N	C: Type C	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	S: 30mA Y: 100mA T: 300mA
HDB9LM: Electromagnetic RCBO	63: 6kA	5: 1P+N 6: 3P+N	C: Type C	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	S: 30mA T: 300mA
HDB9PLE: Phase Neutral RCBO	N: 6kA	Default: 1P+N	C: Type C	6: 6A 10: 10A 16: 16A 20: 20A 32: 32A 40: 40A	L: 10mA S: 30mA

Online Content



HDB9LE



HDB9LM



HDB9PLE

9 Series RCBO

Standard: IEC/EN 61009-1



Technical Parameters			
RCBO	HDB9LE	HDB9LM	HDB9PLE
Description	Electronic RCBO	Electromagnetic RCBO	Electronic phase neutral RCBO
Indication: red and green tripping indication window	Yes	Yes	Yes
Electrical characteristics			
Standard	IEC 61009-1	IEC 61009-1	IEC 61009-1
Certificate	CE, ROHS (2P, 3P, 4P)	CE, CB, TUV, RoHS	CE, CB, TUV, RoHS
Rated insulation voltage Ui	500V	500V	500V
Frequency	50/60Hz	50/60Hz	50/60Hz
Rated operational voltage Ue	230 (1P+N, 2P) 400V (3P, 4P, 3P+N)	230 (1P+N) 400V (3P+N)	240V
Rated short-circuit capacity Icn	6kA	6kA	6kA
Rated impulse withstand voltage Uimp	4kV	4kV	4kV
Pollution class	2	2	2
Tripping type	Thermal magnetic tripping	Thermal magnetic tripping	Thermal magnetic tripping
Isolation function	Yes	Yes	Yes
Rated residual operating current I Δ n	30, 50, 75, 100, 300mA	30, 300mA	30mA
Tripping characteristics	C, DType	CType	C, DType
Mechanical characteristics			
Mechanical endurance	20000	20000	20000
Electrical endurance	10000	10000	4000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C	30°C	30°C
Operating ambient temperature	-30°C ~ +70°C	-30°C ~ +70°C	-30°C ~ +70°C
Storage temperature	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C
Installation features			
Maximum wiring capacity	Rated current 6-32A: 16mm ² Rated current 40-63A: 25mm ²	25mm ² (< 40A) 35mm ² (≥ 40A)	16mm ²
Maximum torque	Rated current 6-32A: 2N.m Rated current 40-63A: 2.5N.m	3N.m (< 40A) 3.5N.m (≥ 40A)	1.5N.m
Tool	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver
Installation	35mm DIN rail	35mm DIN rail	35mm DIN rail
Line incoming type	Top	Top	Top

9 Series Switch Disconnectors

Standard: IEC 60947-3



Range Presentation

HDG9 is Himel 9 series range of Switch disconnectors designed to switch on and off the power system.

9 series switch disconnector is mainly used in commercial and residential buildings.

Features

- ♦ Rated current up to 125A
- ♦ High performance

Online Content



HDG9

Selection Code

Range name	Frame	Number of poles	Rated current
HDG9	125	3	32
HDG9	125	1: 1P 2: 2P 3: 3P 4: 4P	32: 32A 63: 63A 100: 100A 125: 125A

Technical Parameters	
Switch Disconnectors	HDG9
Electrical characteristics	
Standard	IEC 60947-3
Certificate	CE, CB, TUV, ROHS
Rated insulation voltage U_i	500V
Frequency	50/60Hz
Rated operational voltage U_e	230V (1P) 400V (2P, 3P, 4P)
Rated short-time withstand current I_{cw}	20Ie/1s
Rated short-circuit making capacity I_{cm}	28,1Ie
Rated impulse withstand voltage U_{imp}	4kV
Pollution class	2
Isolation function	Yes
Mechanical characteristics	
Mechanical endurance	50000
Electrical endurance	30000 (32A) 20000 (63A) 10000 (100A) 2500 (125A)
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C
Operating ambient temperature	-30°C ~ +70°C
Storage temperature	-40°C ~ +70°C
Installation Features	
Maximum wiring capacity	50mm ²
Maximum torque	3.5N.m
Installation	35mm DIN rail
Line incoming type	Top or bottom

FINAL DISTRIBUTION

9 Series Accessories

Standard: IEC/EN 60947



Compatible with HDB9, HDB9P, HDB9LE, HDB9PLE

Technical Parameters						
MCB Accessories	OF	SD	MX	MV	MN	MVMN
Description	Auxiliary contact	Alarm contact	Shunt release MOWY model: passive type	Over-voltage release	Under-voltage release	Over-voltage and under-voltage release
Reference	HDB963OFN	HDB963SDN	HDB963MX24N HDB963MX48N HDB963MX415N HDB363MOWY24N HDB963MOWY48N HDB963MOWY415N	HDB9MVN	HDB9MNN	HDB9MVMNN
Rated voltage	AC 240/415V DC130V, 48V, 24V	AC 240/415V DC 130V, 48V, 24V	AC 100-415V DC 110V-130V AC/DC 12/24/48V	Ue: 230V Uvo: 280(1±5%)V	Ue: 230V Uoe: 161(1±5%)V	Ue: 230V MN: Uoe:161(1±5%)V MV: Uvo:280(1±5%)V
Wiring capacity	1-2.5mm²	1-2.5mm²	1-2.5mm²	1-2.5mm²	1-2.5mm²	1-2.5mm²
Width	9mm	9mm	18mm	18mm	18mm	18mm
Installation side of MCB	Left	Left	Left	Left	Left	Left
Max installation quantity (From left to right)	3	3	2	2	2	2

Remark: The total width of the accessory assembly is within 54mm

Overview of Accessories

Sketch map of installation with breaker



FINAL DISTRIBUTION

HDBK Plug in MCB

Standard: IEC/EN 60898-1



Range Presentation

HDBK series is Himel plug in MCB designed to protect power system from short circuit, overload faults.

HDBK can be used with NEMA load center.

Features

- ◆ Plug in installation
- ◆ Breaking capacity: up to 10kA

Online Content



HDBK

Selection Code

Range name	Number of poles	Tripping type	Rated current
HDBK	3	C	10
HDBK: Plug in MCB	1: 1P 2: 2P 3: 3P	C: Type C	6: 6A 32: 32A 10: 10A 40: 40A 16: 16A 50: 50A 20: 20A 63: 63A 25: 25A

Technical Parameters

Plug in MCB	HDBK
Electrical features	
Rated current In(A)	6, 10, 16, 20, 25, 32, 40, 50, 63
Pole(P)	1, 2, 3
Rated voltage Ue(V)	AC 240/415
Insulation voltage Ui(V)	500
Rated frequency(Hz)	50/60
Rated breaking capacity(A)	6000 (AC 240/415V) 10000 (AC 120V)
Rated impulse withstand voltage(1.2/50)Uimp(V)	4000
Pollution degree	2
Thermo-magnetic trip characteristic	C
Mechanical features	
Electrical durability(t)	4000
Mechanical durability(t)	10000
Protection degree(V)	IP20
Reference temperature for setting of thermal element(V)	50
Ambient temperature(with daily average≤35°C)	15~+60
Storage temperature(°C)	-25~+70
Installation	
Terminal size for cable(mm²)	25
Torque(N.m)	2
Mounting	Plug in
Connection	Top

FINAL DISTRIBUTION

HDPZ50 Consumer Boxes

Standard: IEC/EN 60670



Range Presentation

HDPZ50 series is Himel Distribution Box designed to be used with Himel MCB, RCBO, RCCB and surge protection device.

Distribution box can be widely used in commercial and residential building.

Features

- ◆ Multiple material selection: full plastic, metal box and plastic cover
- ◆ Multiple installation: surface installation or flush installation
- ◆ IP30 protection grade
- ◆ Fire-retardancy option is available

Online Content



HDPZ50

Selection code of Metal Box and Plastic cover DB

Range name	Installation	Number of ways
HDPZ50	M	4
HDPZ50	M: Surface installation R: Flush installation	6: 6 ways 8: 8 ways 12: 12 ways 16: 16 ways 20: 20 ways 24: 24 ways

Selection code of full plastic DB

Range name	Installation	Number of ways	IP Grade	Fire-retardancy
HDPZ50P	M	4	IP30	NF
HDPZ50P	M: Surface installation R: Flush installation	4: 4 ways 6: 6 ways 8: 8 ways 12: 12 ways 15: 15 ways 18: 18 ways 24: 24 ways 36: 36 ways	Default: IP30 for non fire-retardancy IP30: IP30 protection grade for fire-retardancy	F: Fire-retardancy NF: Non fire-retardancy

2 Pole MCB Plastic cover is available on demand

Technical Parameters

Consumer Boxes	HDPZ50	HDPZ50P
Material	Box: Metal, Cover: Plastic	Full Plastic
Fire-resistancy	Fire-resistant	Optional
Protection grade	IP30	IP30
Rated operation voltage	230/400V	230/400V
Rated insulated voltage	500V	500V
Rated operating current	100A	100A
Withstand current	6kA	6kA

HDPZ50 Consumer Boxes

Standard: IEC/EN 60670

Overall Dimensions

HDPZ50

Unit: mm

Metal Box & Plastic	Surface Installation		Flush Installation		Thickness
	A	B	A	B	C
6	170	222	163	200	90
8	206	222	199	200	90
12	279	222	272	200	90
16	350	222	343	200	90
20	419	222	413	200	90
24	309	390	282	364	90

HDPZ50P

Unit: mm

Full Plastic Loop Number	Dimension for Flush Installation				Dimension for Surface Installation				
	Height	Width	Thickness		Height	Width	Thickness	Installation Dimension	
	A	B	C	C1	D	E	F	H	I
4	200	114	61	78	200	111	91	144	-
6	200	150	61	78	200	148	96	144	-
8	200	186	61	78	200	184	96	144	-
12	200	258	61	78	200	256	96	144	-
15	200	312	61	78	200	310	96	144	-
18	215	365	61	78	220	362	96	156	290
24	310	258	68	88	326	270	96	230	207
36	440	258	68	88	460	270	96	385	207

HDPZ50

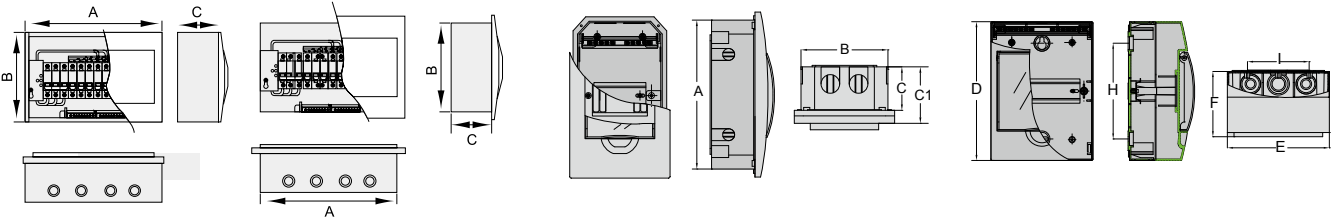
HDPZ50P

Surface installation

Flush installation

Flush installation

Surface installation



FINAL DISTRIBUTION

HEDB Series Distribution Box

Standard: IEC/EN60439



Function

HEDB distribution box provide:

- Control, monitoring, measurement and protection for the electric power loops and main power
- Controlling equipment

Main Features

	full plastic	Metal base and plastic cover
Standard	IEC/EN60439	IEC/EN60439
Number of ways	2-4,4-6,7-9,10-13	2-4,4-6,7-9,10-13,14-17,17-20,20-26
Installation method	Surface/Flush installation	Flush installation
Color	White box, grey cover	White box, grey cover
Rated voltage	AC 230/400V	AC 230/400V
Frequency	50/60Hz	50/60Hz
Rated current	100A/one phase 63A/three phase	100A/one phase 63A/three phase
IP grade	IP30	IP30
Temperature	- 25~50°C	- 25~50°C
Material of cover	PP	PP
Material of base	PVC	Cold rolled steel
Thickness of cover	1.5mm	1.5mm
Thickness of base	1.5mm	2~20 ways/0.6mm,20~26ways.0.8mm

HEDB Selection Guide

HEDB

M

F

4

Economic DB

M: Metal base & plastic cover
P: Full plastic

F: Flush installation
S: Surface installation

4: 2~4 ways
6: 4~6 ways
9: 7~9 ways
13: 10~13 ways
17: 14~17 ways
20: 17~20 ways
26: 20~26 ways

Online Content



HEDB

FINAL DISTRIBUTION

HEDB Series Distribution Box

Standard: IEC/EN60439

	Picture	Description	Dimension(mm)
HEDBPF4		2~4ways full plastic flush installation	160.1(A)*185.1(B)*90.7(C) 138(D)*159(E)*76(F)
HEDBPF6		4~6ways full plastic flush installation	200.1(A)*215.1(B)*90.7(C) 178(D)*184(E)*76(F)
HEDBPF9		7~9ways full plastic flush installation	254.1(A)*215.1(B)*90.7(C) 232(D)*184(E)*76(F)
HEDBPF13		10~13ways full plastic flush installation	326.1(A)*215.1(B)*90.7(C) 303(D)*184(E)*76(F)
HEDBPS4		2~4ways full plastic surface installation	140(A)*160(B)*90.7(C) 138(D)*159(E)*76(F)
HEDBPS6		4~6ways full plastic surface installation	180(A)*185(B)*90.7(C) 178(D)*184(E)*76(F)
HEDBPS9		7~9ways full plastic surface installation	234(A)*185(B)*90.7(C) 232(D)*184(E)*76(F)
HEDBPS13		10~13ways full plastic surface installation	305(A)*185(B)*90.7(C) 303(D)*184(E)*76(F)
HEDBMF4		2~4ways metal box and plastic cover flush installation	160.1(A)*185.1(B)*90.7(C) 130(D)*165(E)*78(F)
HEDBMF6		4~6ways metal box and plastic cover flush installation	200.1(A)*215.1(B)*90.7(C) 168(D)*196(E)*78(F)
HEDBMF9		7~9ways metal box and plastic cover flush installation	254.1(A)*215.1(B)*90.7(C) 222(D)*196(E)*78(F)
HEDBMF13		10~13ways metal box and plastic cover installation	326.1(A)*215.1(B)*90.7(C) 294(D)*196(E)*78(F)
HEDBMF17		14~17ways metal box and plastic cover flush installation	395.1(A)*215.1(B)*90.7(C) 365(D)*196(E)*78(F)
HEDBMF20		17~20ways metal box and plastic cover flush installation	449.1(A)*215.1(B)*90.7(C) 419(D)*196(E)*78(F)
HEDBMF26		20~26ways metal box and plastic cover flush installation	324.1(A)*429.1(B)*90.7(C) 294(D)*412(E)*78(F)

FINAL DISTRIBUTION

HJXF Metal Enclosures

Standard: IEC/EN 60529



Range Presentation

HJXF is Himel metal enclosure designed to be used with Himel MCB, RCBO, RCCB and surge protection device.

HJXF can be widely used in commercial and residential building.

Features

- ◆ Multiple protection grade: IP43, IP54

Online Content



HJXF

Selection Code

Range name	Height	Width	Depth	Protection grade
HJXF	25	20	14	B
HJXF: Metal Enclosure	25: 250 30: 200 40: 400 50: 500 60: 600 70: 700 80: 800 100: 1000	20: 200 25: 250 30: 300 40: 400 50: 500 60: 600 80: 800	14: 140 16: 160 18: 180 20: 200 25: 250 30: 300	B: IP 43 Q: IP 54

Available combination see below

Order Information

Type	Thickness	Dimension (mm)								Lock	Reference
		Overall			Installation		Mounting				
		H	W	D	H1	B1	H6	B6	Thick		
HJXF - 2520/14 IP43 Improved	1.0	250	200	140	295	128	130	128	1.0	1	HJXF252014B
HJXF - 3025/14 IP43 Improved	1.0	300	250	140	345	178	180	178	1.0	1	HJXF302514B
HJXF - 3025/18 IP43 Improved	1.0	300	250	180	345	178	180	178	1.0	1	HJXF302518B
HJXF - 3030/14 IP43 Improved	1.0	300	300	140	345	228	180	228	1.0	1	HJXF303014B
HJXF - 3030/18 IP43 Improved	1.0	300	300	180	345	228	180	228	1.0	1	HJXF303018B
HJXF - 4030/14 IP43 Improved	1.0	400	300	140	445	228	280	228	1.0	1	HJXF403014B
HJXF - 4030/20 IP43 Improved	1.0	400	300	200	445	228	280	228	1.0	1	HJXF403020B
HJXF - 5040/14 IP43 Improved	1.0	500	400	140	545	328	380	328	1.0	2	HJXF504014B
HJXF - 5040/20 IP43 Improved	1.0	500	400	200	545	328	380	328	1.0	2	HJXF504020B
HJXF - 5040/25 IP43 Improved	1.0	500	400	250	545	328	380	328	1.0	2	HJXF504025B
HJXF - 6040/14 IP43 Improved	1.2	600	400	140	645	328	480	328	1.2	2	HJXF604014B
HJXF - 6040/20 IP43 Improved	1.2	600	400	200	645	328	480	328	1.2	2	HJXF604020B
HJXF - 6040/25 IP43 Improved	1.2	600	400	250	645	328	480	328	1.2	2	HJXF604025B
HJXF - 6050/14 IP43 Improved	1.2	600	500	140	645	428	480	428	1.2	2	HJXF605014B
HJXF - 6050/20 IP43 Improved	1.2	600	500	200	645	428	480	428	1.2	2	HJXF605020B
HJXF - 6050/25 IP43 Improved	1.2	600	500	250	645	428	480	428	1.2	2	HJXF605025B
HJXF - 7050/16 IP43 Improved	1.2	700	500	160	745	428	580	428	1.2	2	HJXF705016B
HJXF - 7050/20 IP43 Improved	1.2	700	500	200	745	428	580	428	1.2	2	HJXF705020B
HJXF - 7050/25 IP43 Improved	1.2	700	500	250	745	428	580	428	1.2	2	HJXF705025B
HJXF - 8060/20 IP43 Improved	1.5	800	600	200	845	528	680	528	1.5	2	HJXF806020B
HJXF - 8060/25 IP43 Improved	1.5	800	600	250	845	528	680	528	1.5	2	HJXF806025B
HJXF - 10080/20 IP43 Improved	1.5	1000	800	200	1045	728	880	728	1.5	2	HJXF1008020B
HJXF - 10080/25 IP43 Improved	1.5	1000	800	250	1045	728	880	728	1.5	2	HJXF1008025B
HJXF - 10080/30 IP43 Improved	1.5	1000	800	300	1045	728	880	728	1.5	2	HJXF1008030B

HJXF Metal Enclosures

Standard: IEC/EN 60529



Metal Enclosures HJXF Series

Standard: IEC/EN 60529



HJXF is a metal enclosure designed to be used with Himel MCB, RCBO, RCCB, and Surge Protection Devices.

HJXF can be widely used in commercial and residential building.

FINAL DISTRIBUTION

HJXF Metal Enclosures

Standard: IEC/EN 60529

Order Information

Type	Thickness	Dimension (mm)								Lock	Reference
		Overall			Installation		Mounting				
		H	W	D	H1	B1	H6	B6	Thick		
HJXF - 2520/14 IP54	1.2	250	200	140	310	150	172	122	2.0	1	HJXF252014Q
HJXF - 3025/14 IP54	1.2	300	250	140	360	200	222	172	2.0	1	HJXF302514Q
HJXF - 3025/18 IP54	1.2	300	250	180	360	265	222	172	2.0	1	HJXF302518Q
HJXF - 3030/14 IP54	1.2	300	300	140	360	265	222	222	2.0	1	HJXF303014Q
HJXF - 3030/18 IP54	1.2	300	300	180	360	265	222	222	2.0	1	HJXF303018Q
HJXF - 4030/14 IP54	1.2	400	300	140	460	365	322	222	2.0	1	HJXF403014Q
HJXF - 4030/20 IP54	1.2	400	300	200	460	365	322	222	2.0	1	HJXF403020Q
HJXF - 5040/14 IP54	1.2	500	400	140	560	465	422	322	2.0	2	HJXF504014Q
HJXF - 5040/20 IP54	1.2	500	400	200	560	465	422	322	2.0	2	HJXF504020Q
HJXF - 5040/25 IP54	1.2	500	400	250	560	465	422	322	2.0	2	HJXF504025Q
HJXF - 6040/14 IP54	1.5	600	400	140	660	565	522	322	2.0	2	HJXF604014Q
HJXF - 6040/20 IP54	1.5	600	400	200	660	565	522	322	2.0	2	HJXF604020Q
HJXF - 6040/25 IP54	1.5	600	400	250	660	565	522	322	2.0	2	HJXF604025Q
HJXF - 6050/14 IP54	1.5	600	500	140	660	565	522	422	2.0	2	HJXF605014Q
HJXF - 6050/20 IP54	1.5	600	500	200	660	565	522	422	2.0	2	HJXF605020Q
HJXF - 6050/25 IP54	1.5	600	500	250	660	565	522	422	2.0	2	HJXF605025Q
HJXF - 7050/16 IP54	1.5	700	500	160	760	665	622	422	2.0	2	HJXF705016Q
HJXF - 7050/20 IP54	1.5	700	500	200	760	665	622	422	2.0	2	HJXF705020Q
HJXF - 7050/25 IP54	1.5	700	500	250	760	665	622	422	2.0	2	HJXF705025Q
HJXF - 8060/20 IP54	1.5	800	600	200	860	765	722	522	2.0	2	HJXF806020Q
HJXF - 8060/25 IP54	1.5	800	600	250	860	765	722	522	2.0	2	HJXF806025Q
HJXF - 10080/20 IP54	1.5	1000	800	200	1060	965	922	722	2.0	2	HJXF1008020Q
HJXF - 10080/25 IP54	1.5	1000	800	250	1060	965	922	722	2.0	2	HJXF1008025Q
HJXF - 10080/30 IP54	1.5	1000	800	300	1060	965	922	722	2.0	2	HJXF1008030Q

Technical Parameters	
Metal Enclosures	HJXF
Protection grade	IP43, IP54
Standard	IEC/EN60529
Sheet thickness	1.0 -1.5mm
Mounting plate thickness	1.0 -1.5mm
Hinge	Enhanced
Sealing rubber gasket	Black rubber gasket
Cable gland	Bottom only

FINAL DISTRIBUTION

HBBT Comb Busbars

Standard: IEC/EN 60439



Range Presentation

HBBT is compatible with both 3 series and 9 series

Features

- ◆ 2 connection options: PIN or U type
- ◆ 2 PIN thickness options: 1.2mm and 1.5mm

Online Content



HBBT

Selection Code

Range name	Number of poles	Max current	Thickness of pin	Type of terminal
HBBT	1P	40A	12	P
HBBT	1P: 1 pole 2P: 2 Poles 3P: 3 Poles 4P: 4 Poles	40A: 40A 63A: 63A 75A: 75A 80A: 80A 85A: 85A	12: 1.2mm 15: 1.5mm	P: Pin type F: U type

Technical Parameters

Comb Busbars	HBBT
Material of busbar	E-CU-F25
Material of insulation	PVC
Short-circuit strength	50kA
Nominal voltage	415V
Operating voltage	Max 500V
Surge voltage	4kV
Standard length	1m

HDCH8S Modular Contactors

Standard: IEC 61095



Range Presentation

HDCH8S is Himel modular contactor designed to switch on and switch off lighting or other equipment, can be widely used in commercial and residential building.

Features

- ◆ Multi-selection for main contacts
- ◆ Full range from 16A to 63A

Online Content



HDCH8S

Selection Code

Range name	Current	Number of poles	Contacts
HDCH8S	16	3	20
HDCH8S	16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 63: 63A	2: 2P 3: 3P 4: 4P	20: 2NO (2P) 12: 1NO 2NC (3P) 02: 2NC (2P) 40: 4NO (4P) 11: 1NO 1NC (2P) 04: 4NC (4P) 30: 3NO (3P) 22: 2NO 2NC (4P) 03: 3NC (3P) 31: 3NO 1NC (4P) 21: 2NO 1NC (3P)

Technical Parameters						
Modular Contactors			HDCH8S			
Type			16A	20A	25A	40A 63A
Standard			IEC 61095			
Certificate			CE, CB			
Rated current In(A)	AC-7a		16	20	25	40 63
	AC-7b		6	7	8.5	15 20
Conventional free air thermal current Ith (A)			25	25	25	63 63
Rated insulation voltage ui (V)			500			
Rated voltage ue (V)			250 400			
Rated impulse withstand voltage uimp (V)			4kV			
Ambient temperature			-5°C~ 60°C			
Making and breaking capacity (AC-7a)			1.05Ie			
Main contacts	2P		1NO1NC, 2NO, 2NC			
	3P		3NO, 3NC, 2NO1NC, 1NO2NC			
	4P		2NO2NC, 3NO1NC, 4NO, 4NC			
Controlled power (kW)	AC-7a	250V	3.5	4.5	5.5	9 14
		400V	6.5	8	10	16 25
	AC-7b	250V	1.4	1.6	2	3.5 4.5
		400V	2.4	2.8	3.4	6 8
Operation frequency	times		≥30000			
Operation frequency /1h (AC-7a)			360			
Coil voltage Us (V)			AC24V AC220-240V 50/60Hz			
IP grade			IP20			
Wiring Ability (mm²)	Control circuit	Hard wire	1.5-2.5 mm²		2×1.5mm²	
		Soft wire	1.5-2.5 mm²		2×2.5mm²	
	Main circuit	Hard wire	1.5-6mm²		6-25mm²	
		Soft wire	1-4 mm²		6-16mm²	

FINAL DISTRIBUTION

HDY3N Power Surge Protector

Standard: IEC 61643-11



Main features						
Rated voltage Uo	230V					
Poles	1P, 2P, 3P, 4P, 1P+N, 3P+N					
Protection rating	II					
Waveform	8/20us					
Product model	HDY3N-20	HDY3N-40	HDY3N-65	HDY3N-80	HDY3N-120	HDY3N-160
Nominal discharge current In	10kA	20kA	30kA	40kA	60kA	80kA
Maximum discharge current Imax	20kA	40kA	65kA	80kA	120kA	160kA
Maximum allowable backup fuse strength(gL)	50A	100A	125A	160A	200A	250A
Maximum continuous operating voltage Uc	275/385/440V	275/385/440V	275/385/440V	275/385/440V	275/385/440V	275/385/440V
Protection level Up	1.3/1.6/1.8kV	1.5/1.8/2.0kV	1.6/2.0/2.2kV	1.8/2.2/2.2kV	2.2/2.5/2.5kV	3.2/3.3/3.4kV
Response time	≤25ns					
Operating state indicator	Green: normal; red: fault					
Terminal wiring capacity	Solid line≤35mm², soft line 2.5-25mm²,torque 3.5N.m					
Optional accessories	Available (YX remote signaling)					

HDY3N Selection Guide

Product name	Protection Type	Maximum discharge current	Poles	Maximum continuous voltage	Accessories
HDY3N	Default	65	2	275	YX
HDY3N	Default: II	20: 20kA 40: 40kA 65: 65kA 80: 80kA 120: 120kA 160: 160kA	1: 1P 2: 2P 3: 3P 4: 4P 5: 1P+N 6: 3P+N	Default: 385V 275: 275V 440: 440V	YX: Remote signaling Default: No remote signaling

Online Content



HDY3N

FINAL DISTRIBUTION

HDYNEZ DC Surge Protector

Standard IEC/EN 61643-31



Function

HDYNEZ the DC SPD has following features:

- ◆ Surge protection
- ◆ Protection from discharge surge energy
- ◆ DC application only, upto 1500V
- ◆ Special offer for Photovoltaic, certificated by IEC 61643-31

Specification

HDYNEZ-40/2P				
Technical Parameters				
Certification	CE, CB,TUV, ROHS			
Test type	T2			
Poles	2P			
Rated discharge current In	20kA			
Maximum discharge current Imax	40kA			
Wave form μs	8/20			
Maximum continuous operating voltage Uc	DC 800V	DC 1000V	DC 1200V	DC 1500V
Protection level Up	3.0kV	3.6kV	4.0kV	4.5kV
Maximum allowable backup fuss gL	80A/40A (DC)			
Recommended backup MCB	40A (DC)			
Others				
Working indicator	Available (GREEN: normal; RED: fault)			
Respose time	25 ns			
Terminal wiring capacity	Hard wire: 35mm² ; Flexible wire: 2.5-25mm²			
Torque capacity	3.5 N.m			
Recommended wiring for L/N	≥6mm²			
Recommended wiring for Grounding	≥10mm²			
IP grade	IP 20			
Optional function	YX-remote signaling			

HDYNEZ Selection Guide

Range Name	Max discharge current	Number of poles	Max continuous voltage	Accessory
HDYNEZ	40	2	H	YX
HDYNEZ: PV SPD	40: 40kA	2P	L: 800VDC M: 1000VDC H: 1200VDC E: 1500VDC	Default: No accessory YX: Remote signaling

FINAL DISTRIBUTION

HDYNEZ DC Surge Protector

Standard IEC/EN 61643-31

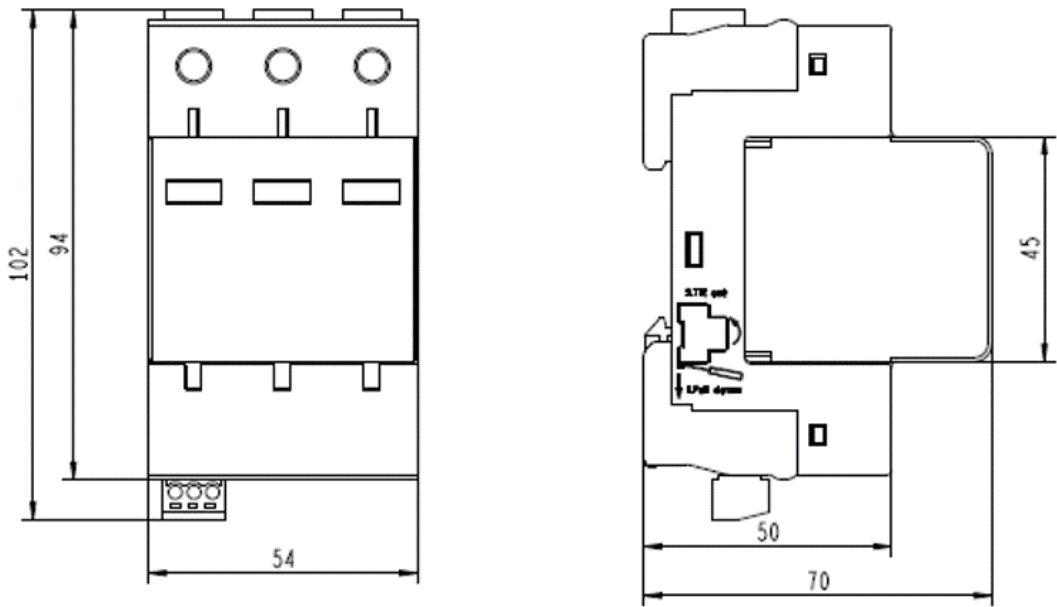


Order information

Product name	Max discharge current	Number of poles	Max continuous voltage	Without accessory
HDYNEZ	40kA	2P	800VDC	HDYNEZ402L
			1000VDC	HDYNEZ402M
			1200VDC	HDYNEZ402H
			1500VDC	HDYNEZ402E

Product name	Max discharge current	Number of poles	Max continuous voltage	With accessory
HDYNEZ	40kA	2P	800VDC	HDYNEZ402LYX
			1000VDC	HDYNEZ402MYX
			1200VDC	HDYNEZ402HYX
			1500VDC	HDYNEZ402EYX

Overall dimension



FINAL DISTRIBUTION

HDYNZT DC Surge Protector

Standard IEC/EN 61643-31



Function

HDYNZT the DC SPD has following features:

- ◆ Surge protection
- ◆ Protection from discharge surge energy
- ◆ DC application only, lower operating volt from 30V to 275V
- ◆ Special offer for Photovoltaic, certificated by IEC 61643-31

Specification

HDYNZT				
Technical Parameters				
Certification	CE, CB,TUV, ROHS			
Test type	T2			
Poles	2P			
Rated discharge current In	10kA		20kA	
Maximum discharge current I _{max}	20kA		40kA	
Rated operating voltage U _o	DC 24V	DC 48V	DC 110V	DC 220V
Maximum continuous operating voltage U _c	DC 30V	DC 60V	DC 150V	DC275V
Protection level U _p	0.6kV	0.6kV	1.2kV	1.6kV
Maximum allowable backup f _{uss} gL	80A (DC)			
Recommended backup MCB	40A (DC)			
Others				
Working indicator	Available (GREEN: normal; RED: fault)			
Respose time	25 ns			
Terminal wiring capacity	Hard wire: 35mm ² ; Flexible wire: 2.5-25mm ²			
Torque capacity	3.5 N.m			
Recommended wiring for L/N	≥4mm ²			
Recommended wiring for Grounding	≥6mm ²			
IP grade	IP 20			
Optional function	YX-remote signaling			

HDYNZT Selection Guide

Range Name	Max discharge current	Number of poles	Max continuous voltage	Accessory
HDYNZT	20	2	30	YX
HDYNZT: PV SPD	20: 20kA 40: 40kA	2P	30: 30VDC 60: 60VDC 150: 150VDC 275: 275VDC	Default: No accessory YX: Remote signaling

FINAL DISTRIBUTION

HDYNZT DC Surge Protector

Standard IEC/EN 61643-31

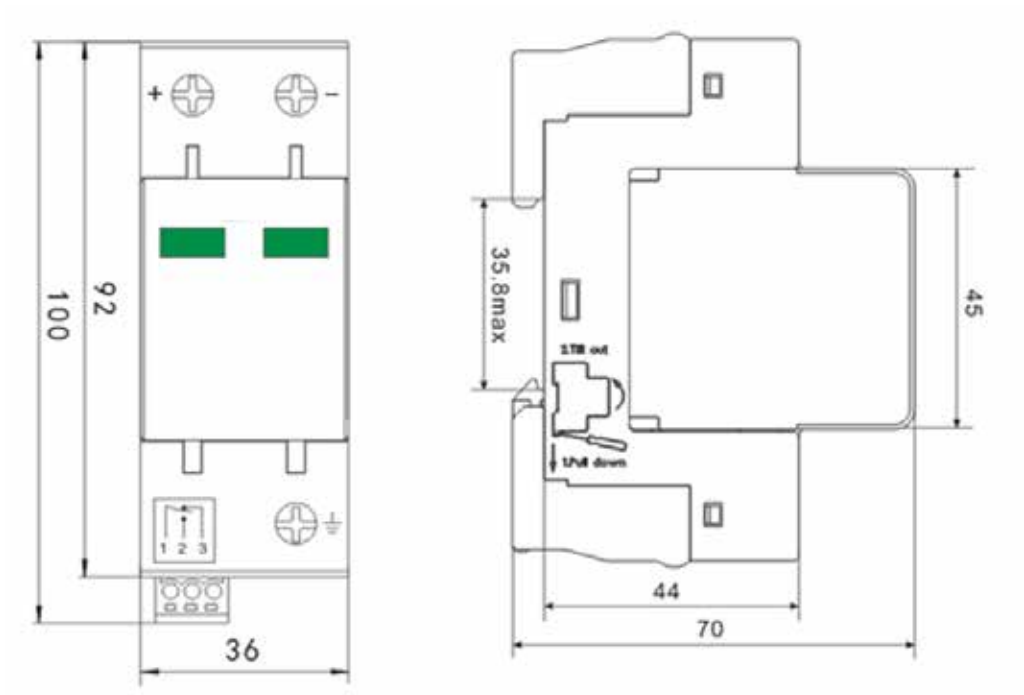


Order information

Product name	Max discharge current	Number of poles	Max continuous voltage	Without accessory
HDYNZT	20kA	2P	30VDC	HDYNZT20230
			60VDC	HDYNZT20260
	40kA	2P	150VDC	HDYNZT402150
			275VDC	HDYNZT402275

Product name	Max discharge current	Number of poles	Max continuous voltage	With accessory
HDYNZT	20kA	2P	30VDC	HDYNZT20230YX
			60VDC	HDYNZT20260YX
	40kA	2P	150VDC	HDYNZT402150YX
			275VDC	HDYNZT402275YX

Overall dimension



FINAL DISTRIBUTION

HDG9Z DC Switch Disconnectors

Standard IEC/EN 60947-3



Function

HDG9Z the DC switch disconnectors has following features:

- ◆ Isolation function
- ◆ Circuit breaking with load
- ◆ Power switch function
- ◆ Special offer for DC application, upto 1000VDC

Specification

HDG9Z				
Electrical characteristics				
Certification	CE, CB,TUV, ROHS			
Rated current In	20, 25, 32, 40, 50, 63A			
Usage category	DC-22B			
Poles	1P	2P	3P	4P
Rated operating voltage Ue	250VDC	500VDC	750VDC	1000VDC
Rated short-time withstand current Icw	12In, 1s			
Rated short-circuit making capacity Icm	20In, 0.1s			
Rated impulse withstand voltage Uimp	6kV			
Pollution class	2			
Isolation function	Yes			
Mechanical characteristics				
Mechanical endurance	15,000			
Electrical endurance	1,500			
Protection class	IP20 (Installed directly); IP40 (Installed in DB box)			
Mechanical shock resistance	30g, 3 shocks, lasting 11ms			
Rated ambient temperature	30°C			
Operating ambient temperature	-30~70°C			
Storage temperature	-40~80°C			
Installation features				
Maximum wiring capacity	50mm²			
Maximum torque capacity	3.5 N·m			
Installation	35mm Din Rail			

HDG9Z Selection Guide

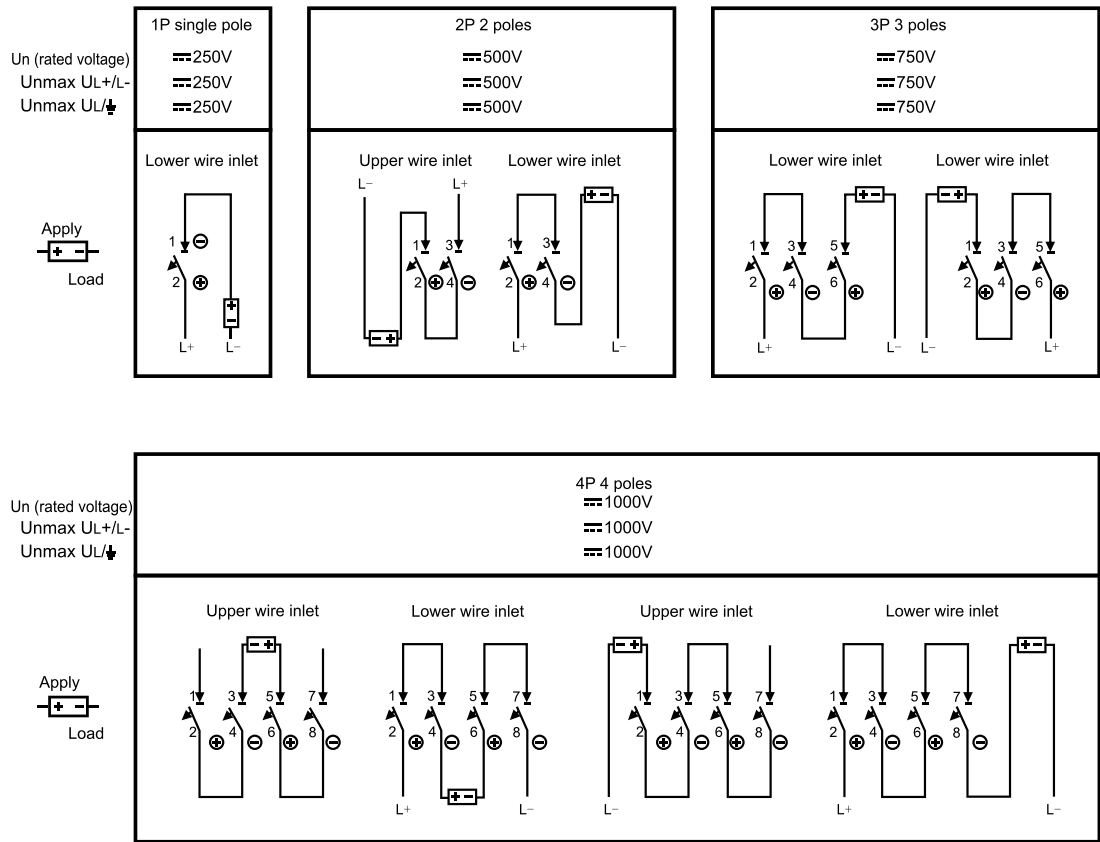
Range Name	Number of poles	Rated current
HDG9Z	1	20
HDG9Z	1: 1P 2: 2P 3: 3P 4: 4P	20: 20A 63: 63A

HDG9Z DC Switch Disconnectors

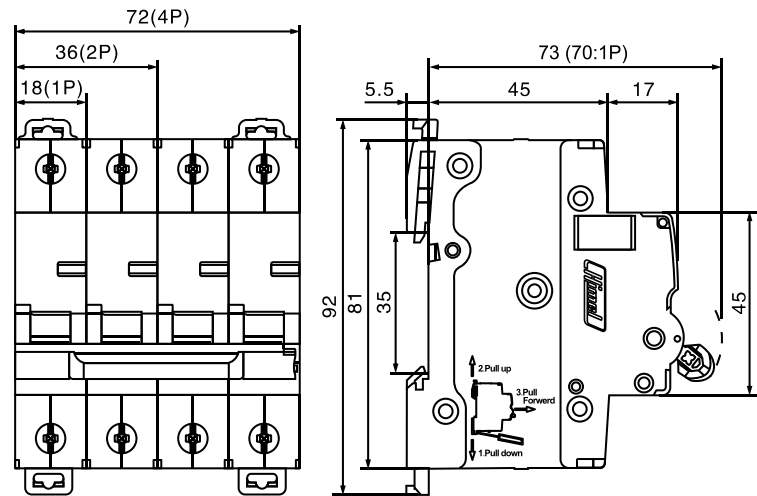
Standard IEC/EN 60947-3



Wiring diagram



Overall dimension



FINAL DISTRIBUTION

HDPV1-20 Photovoltaic Fuse

Standard: IEC/EN 60269; IEC/EN 60947-3



Function

- ◆ The **HDPV1-20(X)** fuse for solar photovoltaic system protection is suitable for the power distribution line with the rated voltage of not greater than DC1000V, the rated current of not greater than 20A, and the rated short circuit capacity of not greater than 20kA as short circuit overload protection.
- ◆ Main material of fuse type disconnecter is PA66 reinforced nylon, and the material of conductive socket is T2 copper.
- ◆ Small size can mounted with din-rail.
- ◆ Good fusing characteristics and low power loss

Installation Conditions

- ◆ Ambient temperature: -25°C~+60°C refers to the working temperature directly around the fuse, not room temperature. The temperature of the fuse might be quite high since the fuse is arranged in the support piece/base of different structures and the entire fuse is enclosed in the power distribution control cabinet.
- ◆ Atmospheric conditions: The relative humidity of the air at the highest temperature +60°C at the installation site shall not exceed 50%. The minimum temperature in the wettest month does not exceed -25°C, and the maximum relative humidity of that month does not exceed 90%.
- ◆ Pollution class: 3
- ◆ Installation category: III
- ◆ Installation site: The fuse shall be installed at a place free of obvious shaking and impact vibration

Selection Guide

HDPV1-20 fuse-links

Range Name	Model	Size	Type	Rated current
HDPV1	20		T	20
HDPV1	20	Default: 10x38mm	T: Fuse-link	1: 1A 20: 20A



HDPV1-20 fuse-disconnector

Range Name	Model	Size	Type	Rated current
HDPV1	20			X
HDPV1	20	Default: Used with 10x38mm fuse links	Default: Fuse-disconnector	Default: No indicator X: with indicator



FINAL DISTRIBUTION

HDPV1-20 Photovoltaic Fuse

Standard: IEC/EN 60269; IEC/EN 60947-3



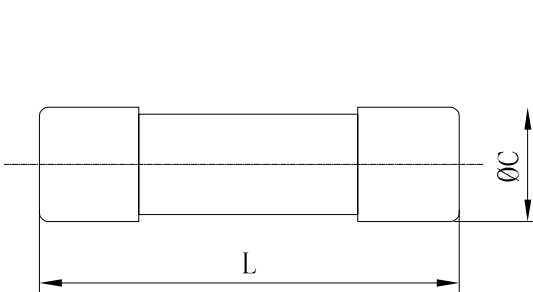
Specification

Fuse-link					
Product	Size (mm)	Rated voltage (V)	Rated current (A)	Rated breaking I1 (kA)	Rated dissipates power (W)
HDPV1-20	10X38	DC 1000V	1,2,3,4,5,6,8,10,12,15,20	DC 20	≤3.5

Fuse-disconnector									
Product	Rated current (A)	Resistive current (A)	Rated voltage (V)	Rated insulation voltage (V)	Usage category	Rated impulse voltage (V)	Rated limit short current (kA)	Poles	Fuse-link
HDPV1-20(X)	20	20	DC 1000	DC 1000	DC-20B	6	20	1P	HDPV1-20

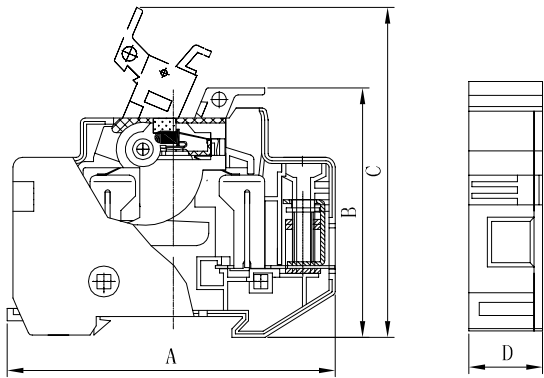
Dimension

Fuse-link



Product	L	C
HDPV1-20	38±0.6	10.2±0.215

Fuse-disconnector



Product	A	B	C	D
HDPV1-20	80±1.5	61±1.5	78±1.5	18±0.2

FINAL DISTRIBUTION

HDPV2-32(L) Photovoltaic Fuse

Standard: IEC/EN 60269; IEC/EN 60947-3



Function

- ◆ The **HDPV2-32(L)** fuse for solar photovoltaic system protection is suitable for the power distribution line with the rated voltage of not greater than DC1500V, the rated current of not greater than 32A, and the rated short circuit capacity of not greater than 33kA as short circuit overload protection.
- ◆ This product is composed of molten tube, contact cap, quartz sand and melt. The melt adopts spot welding process, which give a stronger and has stable performance.
- ◆ Small size can mounted with din-rail.
- ◆ Good fusing characteristics and low power loss

Installation Conditions

- ◆ Ambient temperature: -25°C~+60°C refers to the working temperature directly around the fuse, not room temperature. The temperature of the fuse might be quite high since the fuse is arranged in the support piece/base of different structures and the entire fuse is enclosed in the power distribution control cabinet.
- ◆ Atmospheric conditions: The relative humidity of the air at the highest temperature +60°C at the installation site shall not exceed 50%. The minimum temperature in the wettest month does not exceed -25°C, and the maximum relative humidity of that month does not exceed 90%.
- ◆ Pollution class: 3
- ◆ Installation category: III
- ◆ Installation site: The fuse shall be installed at a place free of obvious shaking and impact vibration

Selection Guide

HDPV2-32(L) fuse-links

Range Name	Model	Size	Type	Rated current
HDPV2	32	L	T	30
HDPV2	32	Default: 10x65mm L: 10x85mm	T: Fuse-link	1: 1A 32:32A



HDPV2-32(L) fuse-disconnector

Range Name	Model	Size	Type	Rated current
HDPV2	32	L	G	
HDPV2	32	Default: 10x65mm L: 10x85mm	G: Fuse-disconnector	Default: all current



FINAL DISTRIBUTION

HDPV2-32(L) Photovoltaic Fuse

Standard: IEC/EN 60269; IEC/EN 60947-3



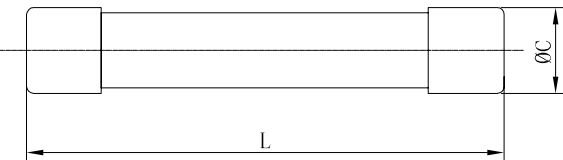
Specification

Fuse-link					
Product	Size (mm)	Rated voltage (V)	Rated current (A)	Rated breaking I ₁ (kA)	Rated dissipates power (W)
HDPV2-32	10x65	DC 1500V	1,2,3,4,5,6, 8,10,12,15, 20,25,30,32	33	≤8
HDPV2-32L	10x85				

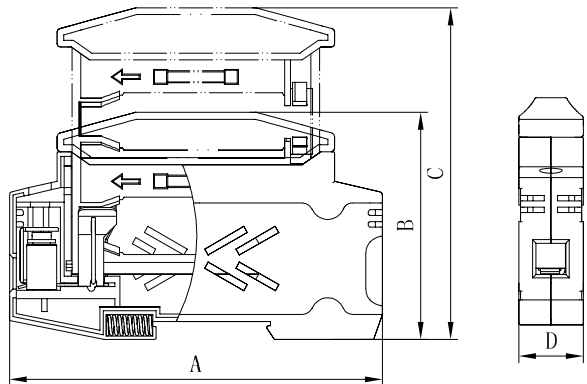
Fuse-disconnector									
Product	Rated current (A)	Resistive current (A)	Rated voltage (V)	Rated insulation voltage (V)	Usage category	Rated impulse voltage (V)	Rated limit short current (kA)	Poles	Fuse-link
HDPV2-32(L)	32	32	DC 1500	DC 1500	DC-20B DC-PV0	8	33	1P	HDPV2-32(L)

Dimension

Fuse-link



Fuse-disconnector



Product	L	C
HDPV2-32	65 ^{+0.6} _{-1.0}	10.3±0.1
HDPV2-32L	85 ^{+0.6} _{-1.0}	10.3±0.1

Product	A	B	C	D
HDPV2-32	107±1.5	65±1.5	95±1.5	18±0.5
HDPV2-32L	127±1.5	67±1.5	97.5±1.5	18±0.5



LOW-VOLTAGE DISTRIBUTION

Value Engineered to Match Industry Standards



Himel Low-Voltage Distribution products facilitate affordable, efficient and reliable electrical infrastructure so that you utilize electricity with utmost safety



Proven for superior application performance, safe power supply and load management in buildings, industrial plants, and infrastructure projects



Tested against regional and international quality standards, Himel products ensure reliable power supply anywhere, anytime



Himel Low-Voltage Distribution products improve operational efficiency and modernize existing installations in the most cost-efficient way

LOW VOLTAGE DISTRIBUTION



HDM3 Molded Case Circuit Breakers



HDM3

Rated current : 10-1600A

Pole: 3P/4P

Sharing accessories for 3/3E/3L

Certificates:CB,CE,TUV,KEMA

059

HDM3STM Adjustable Molded Case Circuit Breaker



HDM3S

Rated current : 25-630A

Pole: 3P/4P

TM adjustable

Thermal & Magnetic

Certificates:CB,CE,TUV

127

HDM3E Electronic Circuit Breakers



HDM3E

Rated current: 32-1600A

Pole: 3P/4P

Sharing accessories for 3/3E/3L

Certificates:CB,CE,TUV

059

HDM2 Molded Case Circuit Breakers



HDM2

Rated current: 10-125A

Pole: 1P/2P

Certificates:CB,CE,SEMKO

145

HDM3L Earth-Leakage Circuit Breakers



HDM3L

Rated current : 16-630A

Pole: 3P/4P

Sharing accessories for 3/3E/3L

Certificates: CE

059

HDM2L Earth-leakage Circuit Breaker



HDM2L

Rated current : 16-250A

Pole: 2P

Adjustable residual current protection

Adjustable time delay

150

LOW VOLTAGE DISTRIBUTION

HDW3 Air Circuit Breakers



HDW3

Rated current : 400A-6300A
Pole: 3P/4P
3 types of intelligent controllers
Certificates:KEMA

154

HDGL Switch Disconnectors



HDGL

Rated current: 16-3150A
Pole: 3P/4P

225

ATSE Transfer Switch Equipment



ATSE

3 kinds of power interlock available
Suitable for ACB application

200

HRT Fuse



HRT16

Rated current: 2-630A
Certificates:CB,CE



HRT18

Rated current: 2-63A
Certificates:CB,CE

227

HDQ3HB Transfer Switch Equipment



HDQ3HB

Rated current In: 16 - 630A
Poles: 3 & 4
Integrated or split intelligent controller

211

HDM3/3L/3E Series MCCB



Range Presentation

HDM3 is Himel 3 series range of Molded Case Circuit Breakers with fixed thermal magnetic trip unit, providing line protection and motor protection, up to 1600A.

HDM3E is Himel 3 series range of MCCB with electronic type trip unit, providing LSI protection, up to 1600A.

HDM3L is Himel 3 series range of earth leakage MCCB, providing protection against residual current, up to 630A.

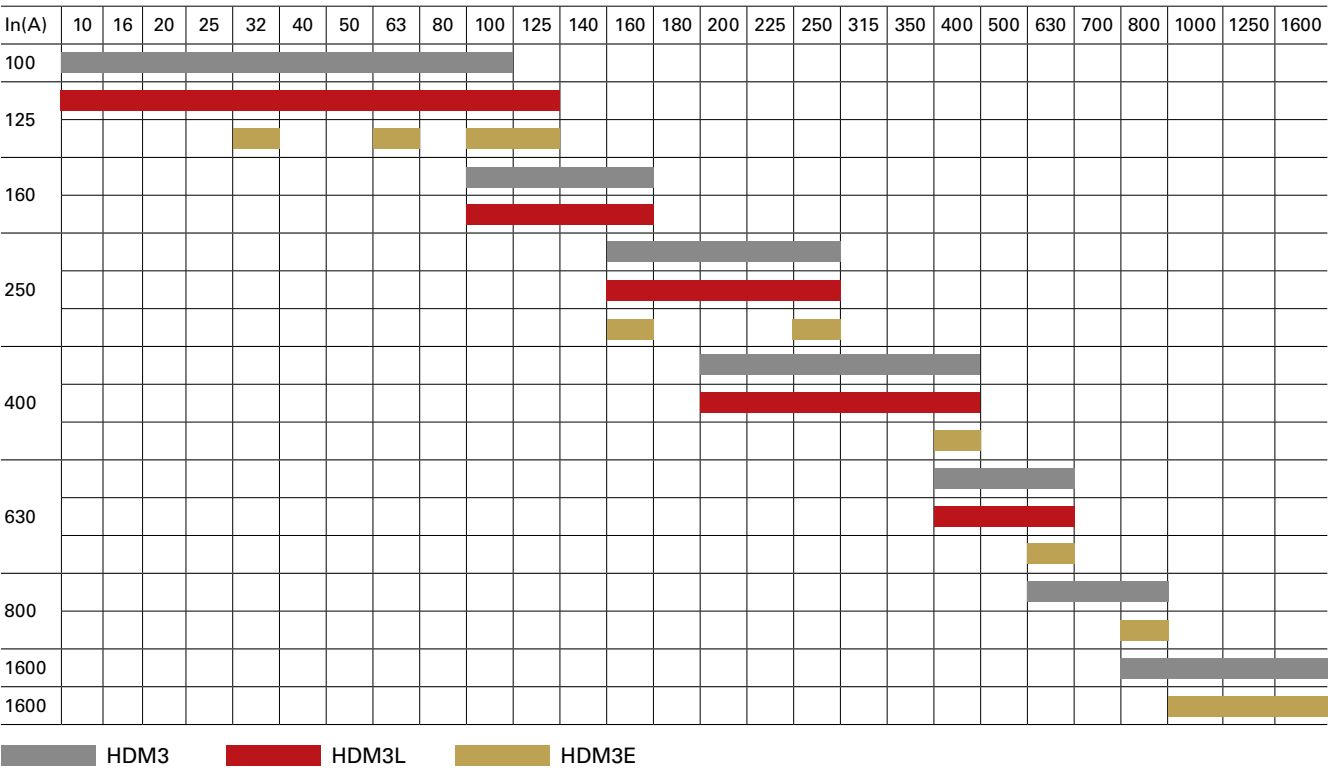
Features

Easy Installation and Safe Operation

- ◆ Double-deck cover design assures easy installation and removal of accessories.

High Performance

- ◆ Patented design ensures quick extinguishing of arc.
- ◆ Suitable for wide environment conditions, max. -40°C~+70°C



Online Content



HDM3



HDM3E



HDM3L

HDM3/3L/3E Series MCCB



Selection Guide

HDM3 MCCB Selection Code-@40° Products

Range Name	Frame Size	Breaking Capacity (Icu/Ics)	Rated current	Poles	Protection
HDM3	250	L	250	3	3XX
HDM3 MCCB	100: 100A	L: 18/18kA S: 25/18kA	10,16,20,25,32, 40,50,63,100A	3: 3P B*: 4P	2XX2: Mag only motor protection 3XX: Mag-Therma line protection
		T: 30/30kA N: 50/30KA	40,50,63,100A		
	160: 160A	L: 21/21kA S: 35/21kA T: 36/36kA N: 60/36KA	100,125,140,160A		
	250: 250A	L: 21/21kA S: 35/21kA T: 36/36kA N: 60/36KA	160,180,200, 225,250A		
	400: 400A	F: 50/30kA T: 39/39kA N: 70/39kA	200,225,250,315, 350,400A		
	630: 630A	F: 50/30kA T: 39/39kA N: 70/39kA	400,500,630A		
	800: 800A	M: 40/40kA F: 70/40kA	500,630,700,800A		
	1600: 1600A	N: 70/50kA	800,1000,1250,1600A		

Note: for more details of HDM3-1600 characteristics, please see its individual catalogue

HDM3E MCCB Selection Code-@40° Products

Range Name	Frame Size	Breaking Capacity (Icu/Ics)	Rated current	Poles	Protection
HDM3E	250	M	250	3	3XX
HDM3E Electronic type MCCB	125: 125A	M: 50/50kA	32: 32A 63: 63A 100: 100A 125: 125A	3: 3P C*: 4P	3XX: Electronic tripping, line protection
	250: 250A		160: 160A 250: 250A		
	400: 400A		400: 400A		
	630: 630A		630: 630A		
	800: 800A		800: 800A		

HDM3/3L/3E Series MCCB



HDM3 MCCB Selection Code-@50° Products

Range name	Frame size	Breaking capacity (Icu/Ics)	Rated current	Poles	Protection	Temperature
HDM3	250	S	250	3	3XX	T
HDM3 MCCB	100: 100A	S: 25/18kA F: 35/26kA N: 50/30kA	10, 16, 20, 25, 32, 40, 50, 63, 80, 100A	3: 3P *A: 4P *B: 4P	2XX2: Mag only motor protection 3XX: Mag-Therma line protection	T: 50
	160: 160A	S: 35/21kA F: 50/30kA N: 60/36kA	100, 125, 140, 160A			
	250: 250A	S: 35/21kA F: 50/30kA N: 60/36kA	100, 125, 140, 160, 180, 200, 225, 250A			
	400: 400A	S: 35/21kA F: 50/30kA N: 70/39kA	200, 225, 250, 315, 350, 400A			
	*800: 800A	F: 50/30kA N: 70/40kA	500,630,700,800A			

HDM3E MCCB selection Code-@50° Products

Range Name	Frame Size	Breaking apacity (Icu/Ics)	Rated current	Poles	Protection	Temperature
HDM3E	250	M	250	3	3XX	T
HDM3E Electronic type MCCB	125: 125A	M: 50/50kA	125: 125A	3: 3P *C: 4P	3XX: Electronic tripping, line protection	T: 50
	250: 250A		250: 250A			
	400: 400A		400: 400A			
	630: 630A		630: 630A			
	800: 800A		800: 800A			

Note:

*A: The N phase is directly connected with a wire, and without contacts. It's always closed.

*B: The N phase is equipped with contacts, but without protection. It closes earlier and opens later than the other 3 poles.

*C: The N phase is equipped with contacts, and with protection. It closes earlier and opens later than the other 3 poles.

* There is no motor protection for frame current 800A breaker.



HDM3 * HDM3E offer is available only in Middle East / North African countries. For more information, contact local Himel Sales.

HDM3/3L/3E Series MCCB



HDM3L Earth Leakage MCCB Selection Code-@40° Products

Series Name	Frame Size	Breaking capacity	Rated current	Poles	Trip unit and Protection	Residual current	Time delay
HDM3L	25	F	250	3	3X0	A	1
HDM3L	12: 125A	F: 50/30kA	16,20,25,32,40,50,63, 80,100,125A	3: 3P B*: 4P	3X0: line protection	A: 30/100/300 B: 100/300/500 C: 300/500/1000	0: No delay 1: 0.1/0.2/0.3s 2: 0.4/0.5/1s 3: 0.1/0.3/0.5s
	16: 160A		100,125,140,160A				
	25: 250A		160,180, 200, 225,250 A				
	40: 400A	F: 70/42kA	200,225,250,315, 350,400				
	63: 630A	F: 70/40kA	400,500,630A				

HDM3E 1600A MCCB Selection Code-@40°/50° Products

Series Name	Frame Size	Breaking Capacity	Rated current	Poles	Trip unit	MCH +XF	MX	MN	Controller	Temperature
HDM3E	16	M	16	3	F	5	5	5	L	T
HDM3E	16 : 1600A	M: 50/50kA	10: 1000A	3: 3P 4: 4P	F: Fixed front connection	5: Without MCH+XF N: AC230V V: AV400V D: DC220V	5: Without Shunt release N: AC230V V: AV400V D: DC220V	5: Without undervoltage release N: AC230V V: AV400V	L: iTR326	T: 50° Default: 40°
			12: 1250A							
			16: 1600A							

Note:

B: The N phase is equipped with contacts, but without protection. It closes earlier and opens later than the other 3 poles.

C: The N phase is equipped with contacts, and with protection. It closes earlier and opens later than the other 3 poles.

"T" is thermal trip calibrated in 50 degree. please contact with HIMEL local office for further information.

HDM3/3L/3E Series MCCB



Technical Parameters-@ 40° Products																							
MCCB		HDM3-100				HDM3-160				HDM3-250				HDM3-400				HDM3-630				HDM3-800	
Rated Voltage Ue(V)																							
Rated insulation Voltage Ui(V)		800				800				800				800				800				800	
Rated impulse withstand voltage Uimp(kV)		8				8				8				8				8				8	
Rated frequency(Hz)																							
Rated current In(A)		10-100				100-160				160-250				200-400				400-630				630-800	
Number of poles		3/4																					
Use Category		A																					
Breaking capacity	Breaking Class	L	S	T	N	L	S	T	N	L	S	T	N	F	T	N	F	T	N	M	F		
	Icu(kA) 400/415V AC	18	25	30	50	21	35	36	60	21	35	36	60	50	39	70	50	39	70	40	70		
	Ics(kA) 400/415V AC	18	18	30	30	21	21	36	36	21	21	36	36	30	39	39	30	39	39	40	40		
Mechanical life		20000				20000				20000				10000				10000				5000	
Electrical life	AC 400/415V	8000				8000				8000				7500				7500				2500	
Power distribution protection	Thermal magnetic trip unit																						
Motor protection	Magnetic trip unit																					-	
Isolation function																							
Certification		TUV, CE				KEMA, CE				KEMA, CE				KEMA, CE				KEMA, CE				KEMA, CE	

Note: for HDM3-100T/N support rated current from 40~100A

Technical Parameters-@ 50° Products																
Frame current		HDM3-100			HDM3-160			HDM3-250			HDM3-400			HDM3-800		
Rated Voltage Ue(V)		400/415														
Rated insulation Voltage Ui(V)		800			800			800			800			800		
Rated impulse withstand voltage Uimp(kV)		8			8			8			8			8		
Rated frequency(Hz)		50/60														
Rated current In(A)		10-100	40-100		100-160			100-250			200-400			500-800		
Number of poles		3/4														
Use Category		A														
Breaking capacity	Breaking Class	S	F	N	S	F	N	S	F	N	S	F	N	F	N	
	Icu(kA) 400/415V AC	25	35	50	35	50	60	35	50	60	35	50	70	50	70	
	Ics(kA) 400/415V AC	18	26	30	21	30	36	21	30	36	21	30	39	30	40	
Mechanical life		20000			20000			20000			10000			5000		
Electrical life	AC 400/415V	8000			8000			8000			7500			2500		
Power distribution protection	Thermal magnetic trip unit	■			■			■			■			■		
Motor protection	Magnetic trip unit	■			■			■			■			-		
Isolation function		■			■			■			■			■		
Certification		TUV, CE			TUV, CE			TUV, CE			TUV, CE			TUV, CE		

HDM3/3L/3E Series MCCB



Technical Parameters-@40°/50°products

Electronic type MCCB		HDM3E-125			HDM3E-250		HDM3E-400		HDM3E-630		HDM3E-800		HDM3E-1600	
Rated Voltage Ue(V)		400/415												
Rated insulation Voltage Ui(V)		800			800		800		800		1000		1000	
Rated impulse withstand voltage Uimp(kV)		8			8		8		8		12		12	
Rated frequency(Hz)		50/60												
Rated current In(A)		32	63	100,125	160,250		400		630		800		1000/1250/1600	
Number of poles		3/4												
Use Category		A			A		B		B		B		B	
Breaking capacity	Breaking Class	M			M		M		M		M		M	
	Icu(kA) 400/415V AC	50			50		50		50		50		50	
	Ics(kA) 400/415V AC	50			50		50		50		50		50	
	Icw(kA) 400/415V AC	0.5(1s)	1(1s)	2.5(1s)	2.5(1s) ¹⁾		5(1s)		8(1s)		10(1s)		42(1s)	
Mechanical life		20000			20000		1000		1000		5000		12500	
Electrical life	AC 400/415V	8000			8000		7500		7500		2500		6000	
Power distribution protection	Electronic trip unit													
Isolation function														
Certification		TUV, CE			TUV, CE		TUV, CE		TUV, CE		TUV, CE		TUV, CE	

Note:

1) Icw will upgrade to 3kA(1s) soon.

HDM3/3L/3E Series MCCB



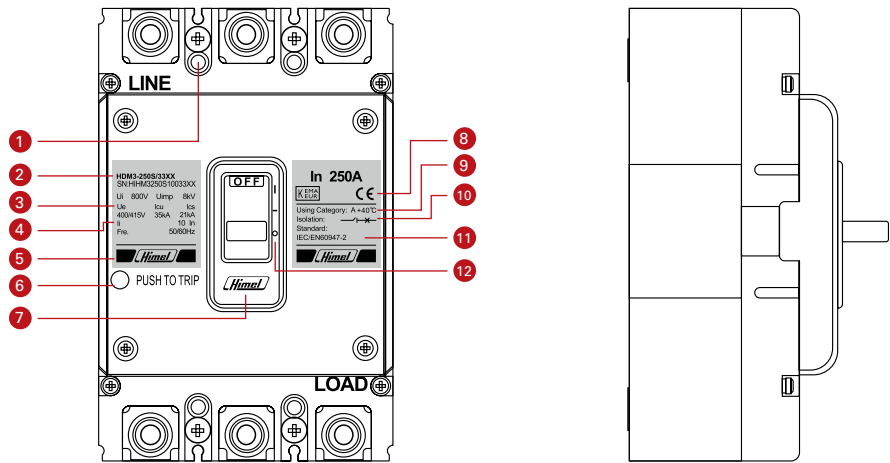
Technical Parameters-@40° Products						
Earth leakage MCCB		HDM3L-125	HDM3L-160	HDM3L-250	HDM3L-400	HDM3L-630
Rated voltage Ue(V)		400/415				
Rated insulation voltage Ui(V)		800	800	800	800	800
Rated impulse withstand voltage Uimp(kV)		8	8	8	8	8
Rated frequency(Hz)		50/60				
Rated current In(A)		16-125	100-160	160-250	200-400	400-630
Number of poles		3/4				
Use category		A				
Breaking capacity	Breaking class	F	F	F	F	F
	Icu(kA) 400/415V AC	50	50	50	70	70
	Ics(kA) 400/415V AC	30	30	30	42	40
	Icw(kA) 400/415V AC	25% Icu				
Mechanical life		20000	20000	20000	10000	10000
Electrical life	AC 400/415V	8000	8000	8000	7500	7500
Power distribution protection	Electronic trip unit					
Isolation function						
Leakage protection						
Rated residual operating current IΔn mA (three rating adjustable)	Non-delay type	30, 100, 300	30, 100, 300	30, 100, 300	100, 300, 500	100, 300, 500
		100, 300, 500	100, 300, 500	100, 300, 500	300, 500, 1000	300, 500, 1000
	Delay type	100, 300, 500	100, 300, 500	100, 300, 500	100, 300, 500	100, 300, 500
					300, 500,1000	300, 500, 1000
Rated residual non-tripping current I Δ no (mA)		50% I Δ n				
Non-delay type: breaking time (s)		≤ 0.2				
Fixed delay: 2I Δ n limit non-actuating time (s)		0.1/0.2/0.3/0.4/0.5/1	0.1/0.2/0.3/0.4/0.5/1	0.1/0.2/0.3/0.4/0.5/1	0.1/0.2/0.3/0.4/0.5/1	-
Delay adjustable type: 2I Δ n limit non-actuating time (s)		0.1/0.2/0.3	0.1/0.2/0.3	0.1/0.2/0.3	0.1/0.2/0.3	0/0.2/0.5
		0.4/0.5/1	0.4/0.5/1	0.4/0.5/1	0.4/0.5/1	-
Certification		CE	CE	CE	CE	CE

HDM3/3L/3E Series MCCB



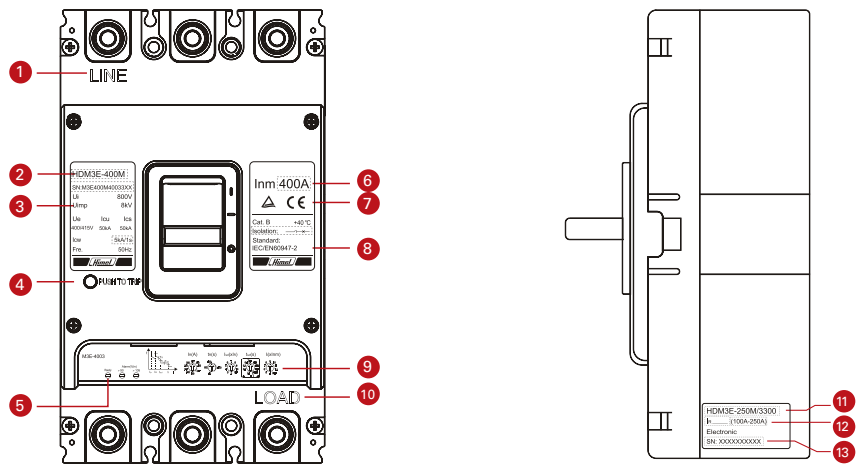
Front Overview

HDM3 100-800



1	Mounting hole	6	Test button	11	Complied standard
2	Product name	7	Brand trademark	12	Closing, tripping and opening
3	Technical parameters	8	Certification mark		
4	Breaking capacity	9	Use category		
5	Brand name	10	Breaker with isolating function		

HDM3E 125-800

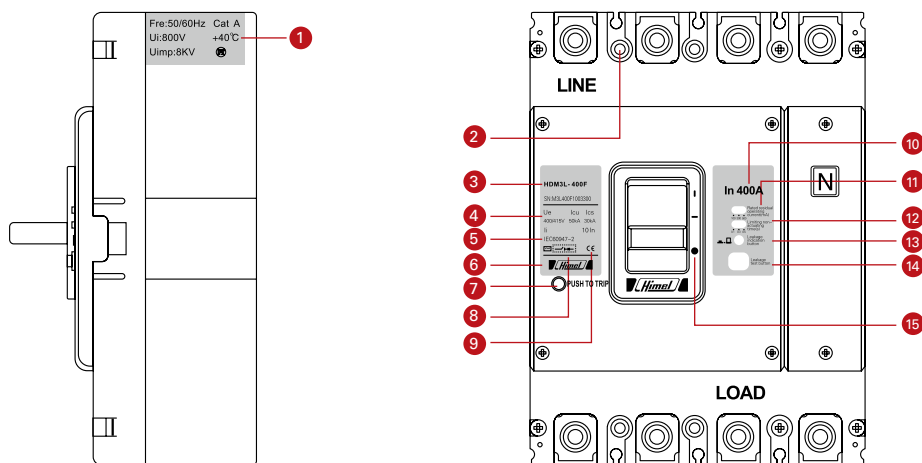


1	Inlet line	6	Frame Current inm	11	Product type
2	Product type	7	Certificate Mark	12	Overload delay time setting current
3	Technical Parameters	8	Standard	13	Reference code
4	Tripping button	9	Parameter adjust knob		
5	Alarm light	10	Outlet line		

HDM3/3L/3E Series MCCB



HDM3L 125-630



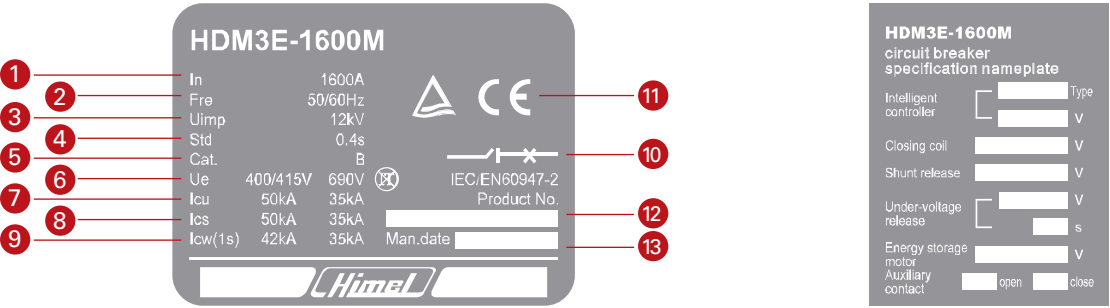
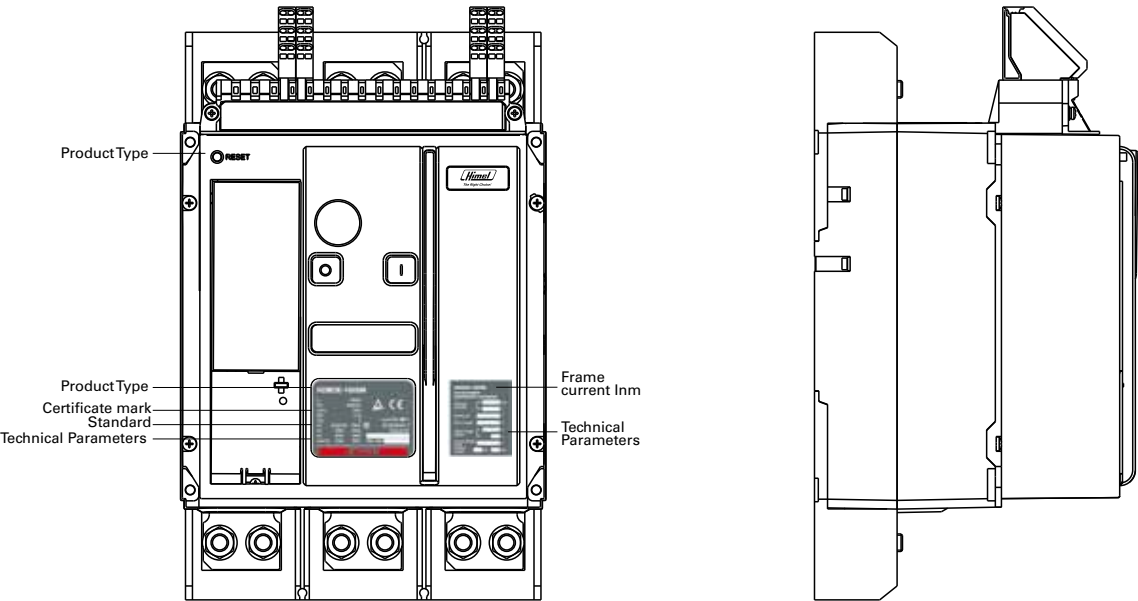
1	Technical parameters	6	Manufacturer trademark	11	Rated residual operating current
2	Mounting hole	7	Trip button	12	Limiting non-actuating time
3	Product model	8	Breaker with isolating function	13	Leakage indication button
4	Breaking capacity	9	Certification mark	14	Leakage test button
5	Conformance standard	10	Rated current	15	Closing, tripping and opening

LOW VOLTAGE DISTRIBUTION

HDM3/3L/3E Series MCCB



HDM3E 1600



1 Rated current	6 Rated voltage	11 Certification and standard
2 Rated frequency	7 Breaking capacity of limit short circuit	12 Ex-factory code
3 Rated impulse withstand voltage	8 Breaking capacity of operation short circuit	13 Production date
4 Maximum short circuit delay time	9 Rated short time withstand current	
5 Application category	10 Applicability	

Operating Conditions

Pollution Degree

HDM3 products operate in the environment (industrial environment) with pollution class 3 defined in IEC/EN 60947-1 and IEC/EN 60947-2 standards.

Wet and heat resistance

Dry and cold
Dry and heat
Wet and heat

Environment temperature

- HDM3 series can work for a long time under normal environment and operating temperature between -5°C and 50°C.
- Refer to the temperature derating factor table or contact us if the operating ambient temperature exceeds 40°C (motor protection exceeds 60°C).
- Storage temperature ranges between -20°C and 70°C.

Altitude

- Altitude at normal installation site does not exceed 2000m.
- If the altitude exceeds 2000m, the changes in the dielectric strength and the air temperature drop must be considered. Refer to the altitude derating factor table or contact us.

Humidity

The following conditions must be met during normal operation:

- The relative humidity of atmosphere does not exceed 50% if the ambient air temperature is +40°C. The product can be used at a high relative humidity if the temperature is low.
- The monthly average relative humidity at the wettest month is 90%.
- The impact of the condensation generated on the product surface on the product property shall be considered.

Reliable contact indication with isolating function

HDM3 moulded case circuit breaker complies with the isolation defined in IEC standard 60947-2

- The isolated location corresponds to O (OFF)
 - The operating handle can indicate "OFF" only when the contact is really open
 - The rotation handle or electric operating mechanism will not change the reliability of the contact indication system.
- Through the test, the isolating function must guarantee:
- Mechanical reliability of contact indication system
 - No leakage current
 - There is a certain overvoltage resistance capacity between the input and output terminals.

Protection class

- IP protection class of circuit breaker body: IP20
- Circuit breaker installed in the switch cabinet:
circuit breaker with a toggle handle: IP40
circuit breaker with an electric operating mechanism: IP40

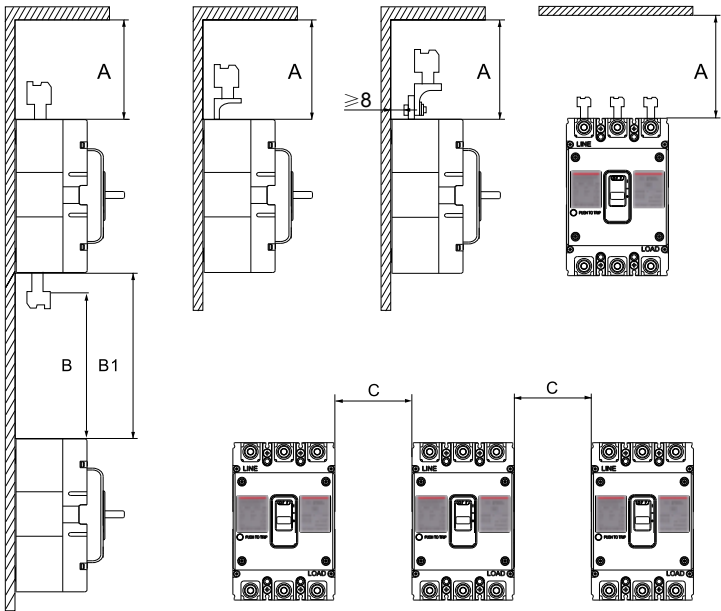
LOW VOLTAGE DISTRIBUTION

HDM3/3L/3E Series MCCB



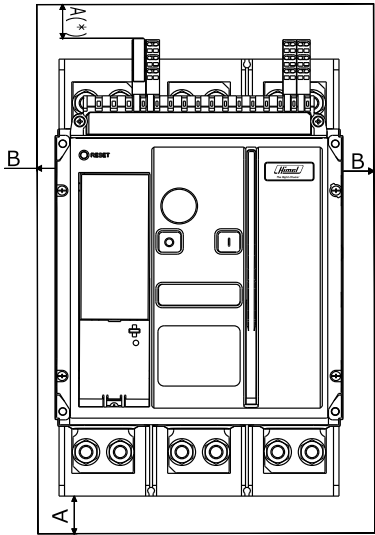
Safety Distance

HDM3/3L/HDM3E-125~800



Product type	A(mm)	B(mm)	B1(mm)	C(mm)
HDM3-100/160/250	60	60	Bare cable length+B	30
HDM3E-125/250				
HDM3L-125/160/250				
HDM3-400/630/800	110	110	Bare cable length+B	70
HDM3E-400/630/800				
HDM3L-400/630				

HDM3E-1600

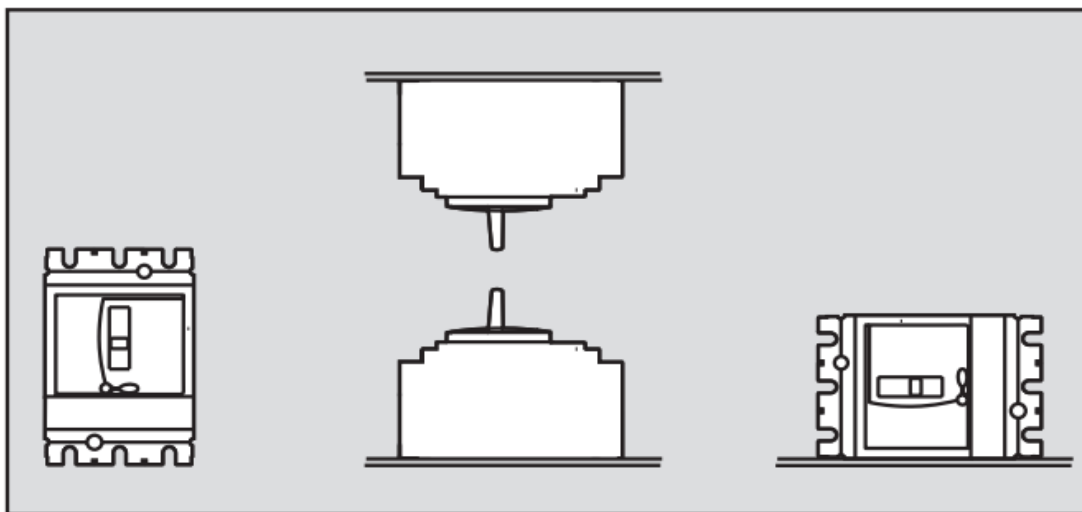


	Insulation part	Metal part	Charged part
A	0	120	180
B	0	10	60

Note: X and Y are front plane symmetric axis.
 (*) 50mm safety distance for removing arcing cover, 20mm safety distance for removing terminals.
 [F] : Reference point.

HDM3/3L/3E Series MCCB

Installation Type



Derating of Temperature

Product type	Ambient temperature (40°C product)				
	40	45	50	55	60
HDM3-100L/S/T/N	1	0.96	0.89	0.83	0.75
HDM3-160/250 HDM3L-160/250	1	0.92	0.85	0.79	0.71
HDM3-400/630 HDM3L-400	1	0.94	0.87	0.81	0.73
HDM3-800 HDM3L-630	1	0.95	0.88	0.82	0.74

Product type	Ambient temperature (40°C product)				
	40	45	50	55	70
HDM3E-125	1	1	1	Inm=80A	Inm=63A
HDM3E-250	1	1	1	Inm=200A	Inm=160A
HDM3E-400	1	1	1	Inm=315A	Inm=250A
HDM3E-630	1	1	1	Inm=500A	Inm=400A
HDM3E-800	1	1	1	Inm=560A	Inm=500A
HDM3E-1600	1	1	Inm=1500A	Inm=1250A	Inm=1000A

Note: Max IR is smaller than Inm

HDM3/3L/3E Series MCCB



Derating of Altitude

Altitude	2000m	3000m	4000m	5000m
Insulation voltage U_i (V)	800	728	664	616
U_{imp} (kV)	8	7	6.5	6
Power frequency withstand voltage (V)	3000	2500	2100	1800
Rated heat value at 40°C (A)	I_n	$0.94I_n$	$0.88I_n$	$0.85I_n$

Power Consumption for Three Poles

Product type	Rated current (A)	Front connection (W)	Rear connection (W)	Plug-in connection (W)	Withdrawable connection (W)
HDM3-100L/S	100	26	29	29	-
HDM3-100T/N	100	40	50	50	-
HDM3-160	160	60	87	87	-
HDM3-250	250	63	90	90	-
HDM3-400	400	115	120	125	128
HDM3-630	630	180	190	200	205
HDM3-800	800	200	230	290	300

Product type	Rated current (A)	Front connection (W)	Rear connection (W)	Plug-in connection (W)	Withdrawable connection (W)
HDM3E-125	125	60	87	87	-
HDM3E-250	250	63	90	90	-
HDM3E-400	400	115	120	125	128
HDM3E-630	630	180	190	200	250
HDM3E-800	800	200	230	290	300
HDM3E-1600	1600	250	-	-	-

HDM3/3L/3E Series MCCB



Trip Units

Thermal and magnetic trip unit HDM3/HDM3L 63-800

Protection

The circuit breaker equipped with TM thermomagnetic release is mainly for protection of the cable, which is on the power distribution system for transformer power supply.

Overload protection: thermal protection Ir (Fixed)

The overload protection function provides inverse time limit curve on the basis of bimetal. If the limit is exceeded, the deformation of the bimetal can lead in the tripping of the circuit breaker operating mechanism.

Test No.	I/In	Conventional time	Breaker status	Initial status
1	1.05	$> 1h (I_n \leq 63A)$ $> 2h (I_n > 63A)$	Non-tripping	Cold status
2	1.3	$\leq 1h (I_n \leq 63A)$ $\leq 2h (I_n > 63A)$	Tripping	Immediately after test 1

Short circuit protection: magnetic protection Ii (Fixed)

Magnetic protection achieves short circuit protection through a magnetic trip device. The circuit breaker will trip instantaneously. Ii set at $10I_n$.

Test No.	I	Breaker status	Conventional time
1	$80\% I_i$	Non-tripping	$\geq 0.2s$
2	$120\% I_i$	Tripping	$\leq 0.2s$

Magnetic

The circuit breaker equipped with magnetic release is mainly for protection of the motor.

Short circuit protection: magnetic protection Ii (Fixed)

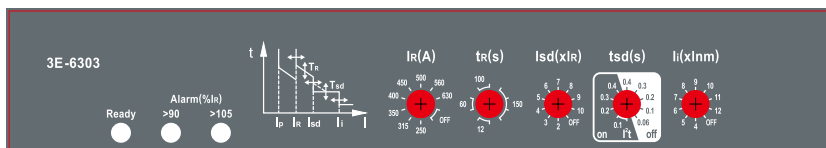
Magnetic protection achieves short circuit protection through a magnetic trip device. The circuit breaker will trip instantaneously. Ii set at $12I_n$

Test No.	I	Breaker status	Conventional time
1	$80\% I_i$	Non-tripping	$\geq 0.2s$
2	$120\% I_i$	Tripping	$\leq 0.2s$

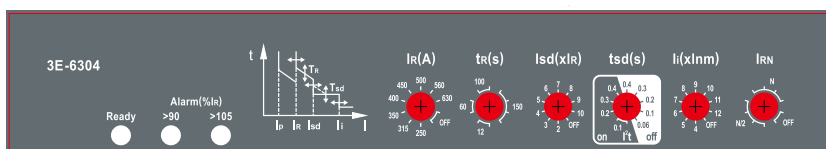
HDM3/3L/3E Series MCCB

Electronic trip unit HDM3E-125~800

3P controller



4P controller



Controller Description

I_R : Overload long delay setting current
 Isd : Short-circuit short delay setting current
 li : Short-circuit instantaneous setting current
 Ready : Run light
 > 90%I_R : pre-alarm light
 LSI : LSI three section protection curve

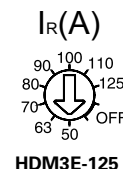
t_R : Overload long delay setting time
 tsd : Short-circuit short delay setting time
 I_{RN} : Short-circuit short delay setting time
 Alarm : Alarm light
 >105%I_R : Overload alarm light

1) Overload long delay setting current I_R

Adjust I_R knob, can select the different current value of HDM3E, to satisfy the rated operating current requirement of different electrical wiring.

Following sketch is the adjust knob: I_R

Product Type	Overload long delay current protection feature setting value I _R (A)	Remark
HDM3E-125 32A	14,16,18,20,25,28,30,32	OFF means close overload long delay protection
HDM3E-125 63A	32,36,40,45,50,56,60,63	OFF means close overload long delay protection
HDM3E-125 100A	40,45,50,63,70,80,90,100	OFF means close overload long delay protection
HDM3E-125 125A	50,63,70,80,90,100,110,125	OFF means close overload long delay protection
HDM3E-250 160A	80,90,100,110,125,140,150,160	OFF means close overload long delay protection
HDM3E-250 250A	100,125,140,160,180,200,225,250	OFF means close overload long delay protection
HDM3E-400 400A	160,200,225,250,300,315,350,400	OFF means close overload long delay protection
HDM3E-630 630A	250,315,350,400,450,500,560,630	OFF means close overload long delay protection
HDM3E-800 800A	350,400,450,500,560,630,700,800	OFF means close overload long delay protection

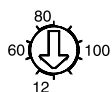


HDM3/3L/3E Series MCCB



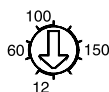
2) Overload long delay setting time t_R

$t_R(s)$



HDM3E-125/250

$t_R(s)$



HDM3E-400/630/800

t_R Action time @ $2I_R$

The following table is action value corresponding for different overload long delay time when the fault current is $1.5I_R$, $2I_R$, $6I_R$

Actual Current	Action time to different knob $t_R(s)$, accuracy $\pm 10\%$, $t = (2I_R / I)^2 \times t_R$				
	12	60	80	100	150
$1.5I_R$	21.3	106.7	142.2	177.8	266.7
$2I_R$	12	60	80	100	150
$6I_R$	1.33	6.67	8.89	11.11	16.67

As example of HDM3E-400 product, how to set the overload long delay setting current and time. If select I_R 300, T_R is 60.

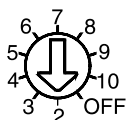
When overload current is $1.5I_R$ (450A), the range of overload action time is $106.7 \pm 10.67s$. When overload current is $2I_R$ (600A), the range of overload action time is $60 \pm 6s$.

When overload current is $6I_R$ (1800A), the range of overload action time is $6.67 \pm 0.667s$.

It is the same theory for the other section knob value.

3) Short-circuit short delay setting current I_{sd}

$I_{sd}(\times I_R)$

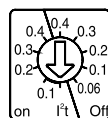


Selection knob of short-circuit short delay setting current I_{sd} : 2、3、4、5、6、7、8、9、10、OFF

Setting current I_{sd} value is the tap position of xI_R (can adjust by overload tripping current setting value) OFF means close the action option of short-circuit short delay time.

4) Short-circuit short delay setting time t_{sd}

$t_{sd}(s)$



Short time delay protection is used to ensure the selectivity coordination with the downstream circuit breakers. There are I^2t ON (inverse time limit) and I^2t OFF (fixed time limit) two type. The following table is the value of short delay tripping

time t_{sd} : $t = (8I_{sd}/I)^2 \times t_{sd}$

t_{sd} action time @ $8I_{sd}$

I^2t ON @ $8I_{sd}$	Setting time $t_{sd}(s)$	-	0.1	0.2	0.3	0.4
	$I > 8I_{sd}$ delay time(s)	-	0.1	0.2	0.3	0.4
I^2t OFF	Setting time $t_{sd}(s)$	0.06	0.1	0.2	0.3	0.4
	Return time(ms)	20	80	140	230	350
	Max break time(ms)	100	140	220	320	500

As example of HDM3E-250, how can we set inverse time limit setting time of short-circuit short delay.

If I_R is selected 200, I_{sd} is selected on $2xI_R$ position, t_{sd} is selected I^2t ON, t_{sd} is selected on 0.2 position When short-circuit current is $2xI_R$ (400A), the short-circuit short time delay action time is 3.2s.

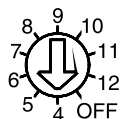
Note: when $I_R = OFF$, short-circuit short delay action current I_{sd} is matching to I_{nm} .

HDM3/3L/3E Series MCCB



5) Short-circuit Instantaneous setting current $I_i (\times I_{nm})$

$I_i (\times I_{nm})$

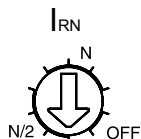


Short-circuit Instantaneous setting current $I_i (\times I_{nm})$

HDM3E-125/250
/400/630/800

(4,5,6,7,8,9,10,11,12,OFF) $\times I_{nm}$

6) Neutral phase setting protection $I_{RN} (\times I_R / I_{nm})$



Setting current I_{RN} value selected knob is $\times I_R / I_{nm}$. Neutral phase protection is special for 4 poles circuit breakers. There are three type:

- OFF: Close neutral phase protection function, used for power distribution system without neutral protection situation
- N/2: Used for neutral phase wiring conductor cross-section equal to half of phase line of power distribution system long time delay, short time delay are also equal to the 1/2 of setting value of phase line protection in this status
- N: Used for neutral phase wiring conductor cross-section equal to phase line of power distribution system long time delay, short time delay instantaneous setting value are also equal to setting value of phase line protection in this status.

Note: When I_R is OFF, controller will automatically use the basic reference (I_{nm}) current as the neutral phase protection

7) Controller working status indicate

Following table is status of Run indicate light(Ready), Alarm indicate light(Alarm):

Run status	Ready	Alarm		Remark
	Green	Yellow	Red	
Normal	Blink	Extinguish	Extinguish	$I < 0.9 I_R$
Pre-alarm	Blink	Blink	Extinguish	$0.9 I_R \leq I \leq I_R$
Tripping	Extinguish	Extinguish	Extinguish	$1.05 I_R < I$

Note:

1, I is current of main circuit, I_R is overload long time delay setting current value.

2, When yellow light blink, that means intelligent controller had worker on overload long time delay, setting parameters on the controller board is unavailable in this process.

LOW VOLTAGE DISTRIBUTION

HDM3/3L/3E Series MCCB



Electronic trip unit HDM3E-1600

Controller Function and Characteristics

3E-1600(Basic type)

Indicate and button description

- 1

Alarm indicate light
- 2

Long time delay tripping indicate
- 3

Short time delay or Instantaneous tripping indicate
- 4

Earthing tripping indicate
- 5

High level protection
- 6

Reset button
- 7

Long time delay current setting I_R
- 8

Long time delay tripping delay t_R

9

Short time delay I_{sd}

10

Short time delay tripping delay t_{sd}

11

Earthing fault tripping I_g

12

Earthing fault tripping delay t_g

13

Lock position

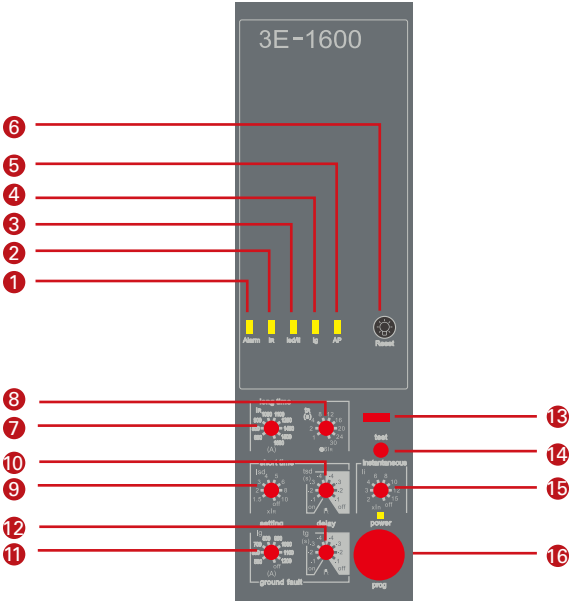
14

Testing button

15

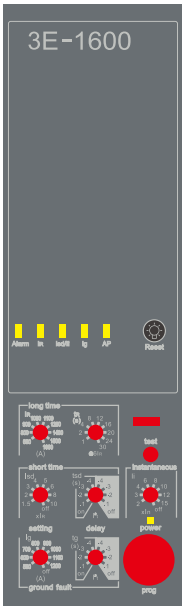
Instantaneous tripping current

16

Testing connection port

Electronic unit HDM3E-1600

Protection Function	Long-time delay protection I_R Short-time delay protection I_{sd} Instantaneous protection I_i Earthing protection I_g
Miscellaneous Function	Pre-alarm Self-diagnosis function



3E-1600

HDM3/3L/3E Series MCCB



Intelligent controller protection characteristics

Intelligent controller protection characteristics have inverse time limit and fixed time limit.
When fault current exceed the setting value of inverse time limit, controller will work on the delay time protection according to fixed time limit setting.
Inverse time limit curve conform to characteristics curve $I^2 t$

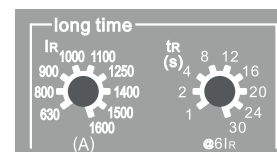
1) Overload long time dealy protection characteristics I_R

Overload long time delay protection action threshold vaule

$< 1.05 I_{Ri} > 2h$ inaction

$\geq 1.2 I_R$,action delay

I_R current setting range:630A,800A,900A,1000A,1100A,1250A,1400A,1500A,1600A



Inverse time limit action characteristics		$I^2 t: t=(6/N)^2 * t_R$							
Setting current	Action time s								
1.5 I_R	16s 32s 64s 128s 192s 256s 320s 384s 480s								
2 I_R	9s 18s 36s 72s 108s 144s 180s 216s 270s								
6 I_R	1s 2s 4s 8s 12s 16s 20s 24s 30s								

Notes: N---- Fault current divide by setting current I/I_R

t-----Fault action delay time

t_R ----Long time delay setting value

Action time permissible error $\pm 10\%$

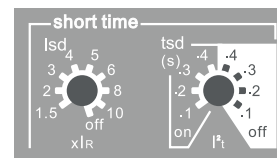
2) Short-circuit short time dealy protection characteristics I_{sd}

Short-circuit short time delay protection action threshold vaule

$< 0.9 I_{sd}$ inaction

$\geq 1.1 I_{sd}$;action delay

I_{sd} current setting range:1.5 I_R ,2 I_R ,3 I_R ,4 I_R ,5 I_R ,6 I_R ,8 I_R ,10 I_R ,OFF



Setting current	Action time				
$I_{sd} < I \leq 8I_R$	Inverse time limit	Action character	$I^2 t=(8I_{sd}/t)^2 t_{sd}$		
		Delay time s	0.1,0.2,0.3,0.4		
$I \geq 1.1I_{sd}$	Fixed time limit, returned time is minimum value	Setting time s	0.1	0.2	0.3 0.4
		Min s	0.08	0.14	0.23 0.35
		Max s	0.14	0.2	0.32 0.5

Notes: I_{sd} ---- Short time delay current setting value

I ---- Fault current value

I_R ---- Long delay time current setting value

t ---- Fault action delay time

t_{sd} ---- Short time delay inverse time limit setting value

Action time permissible error $\pm 20\%$

(The off of time means $I^2 t$ is inverse time limit closed, this state is fixed inverse limit; use current konb is off, that means short time delay protection function is closed.)

HDM3/3L/3E Series MCCB



3) Instantaneous protection characteristics li

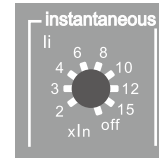
Short-circuit instantaneous protection action threshold value

< 0.85 li inaction

> 1.15 li action

Instantaneous action current setting value 2In, 3In, 4In, 6In, 8In, 10In, 12In, 15In, OFF

Note: Action time permissible error ≤ 50ms.



4) Earthing fault protection action characteristics lg

Earthing fault protection action threshold value

< 0.9 lg; inaction

≥ 1.1 lg; action delay

lg current setting range: 500A, 600A, 700A, 800A, 900A, 1000A, 1100A, 1200A, OFF

tg(s)	Inverse time limit	Action Charater				
$t = \frac{(I_f)^2}{I^2} \times tg$						
Fixed time limit, returned time is minimum value	Settingtime (s)	0.1	0.2	0.3	0.4	
	Settingtime (s)	0.1	0.2	0.3	0.4	
	Min (s)	0.08	0.14	0.23	0.35	
	Max (s)	0.14	0.2	0.32	0.5	

Notes: IJ Earthing protection setting value, IJ = 1200A

I Fault current value

T Fault action delay time

tg Earthing inverse time limit setting value

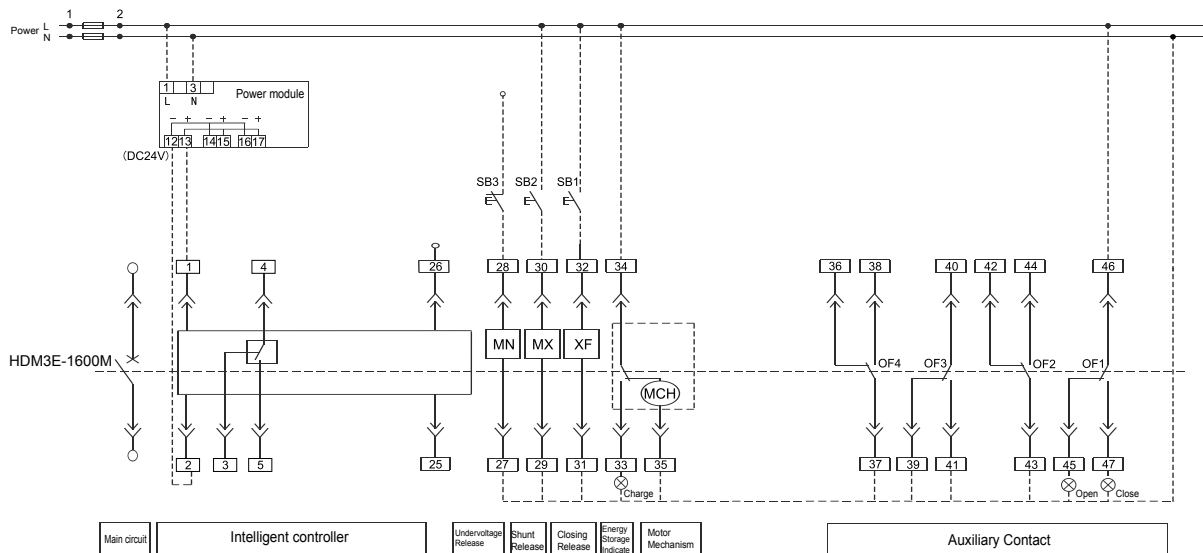
Inverse time limit action permissible error ± 20%

(The off means is inverse time limit closed, this state is fixed time limit. Use current knob is off, that means earthing protection function is closed.)

5) Intelligent controller setting value

	Long time delay		Short time delay		Instantaneous	Earthing fault		Thermal memory
Tripping curve	IR	tr	Isd	ts	li	lg	tg	
I2t	1600A	30s	6In	0.2s	10In	1100A	0.4s	20min

Controller Function and Characteristics



Controller Introduction:

Power: Power supply

1#,2# is auxiliary power DC24V , 1# is connect to positive terminal, and 2# is connect to negative terminal.

SWT: Fault tripping contact outlet(alarm contact)

3#,4#,5# are a set of transfer contact, and 4# is the common terminal, AC 400V,5A.

Note 1: 27#, 28# is under-voltage release terminal, connect from main circuit.

Note 2: controller must connect power supply, when voltage power is AC220~400V, use iAPU334 power module; when power is DC220/110V, use iAPU332D power module.

Note 3: HDM3E-1600M standard equipped with 4 NO 4 NC close contact.

Note 4: MN, MX, XF,MCH are also optional accessories.

Note 5: Terminal 35# can not only be connected to power supply directly, achieve pre-storage energy automatically, but also can connect to the power supply by tandem connection with normal open button (achieve pre-storage energy manually). The dotted line part need connect by user.

Button by users:

SB1—closing button

SB2—opening button

SB3—emergency cut-off button

Components:

MN— Under-voltage release

MX— Shunt release

XF— Closing release

MCH— Motor mechanism

OF1~OF4—Auxiliary contacts

- Function introduction
- In direct current, supply auxiliary power supply for intelligent controller

HDM3/3L/3E Series MCCB



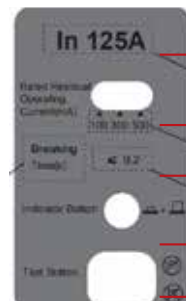
Earth leakage protection

Residual current circuit breakers are used to provide protection against leakage current which may cause insulation failure , electric shock to equipment and human body. HDM3L ELCB also can provide protection against over load & short circuit.

- ① Rated Current I_n
- ② Rated residual operating current $I_{\Delta n}$
- ③ IBreaking time
- ④ Indicator button
- ⑤ Test button



Time-delayed type
(Time adjustable)



Non-time-delayed
type

Rated residual operating current $I_{\Delta n}$:

Adjustable $I_{\Delta n}$ can select different value to provide protection against leakage current in different condition.

Product type	Time-delayed type	Non-time-delayed type
	Rated residual operating current $I_{\Delta n}$ /mA	
HDM3L-125	100/300/500	30/100/300; 100/300/500
HDM3L-160	100/300/500	30/100/300; 100/300/500
HDM3L-250	100/300/500	30/100/300; 100/300/500
HDM3L-400	100/300/500; 300/500/1000	100/300/500;300/500/1000
HDM3L-630	100/300/500; 300/500/1000	100/300/500;300/500/1000

Limiting non-actuating time

Maximum delay during which a residual current higher than the rated residual non-operating current can be applied to the ELCB without bringing it actually to operate. The limiting non-actuating time is defined at $2 I_{\Delta n}$.

Product type	Time-delayed type
	Limiting non-actuating time(s) @ $2 I_{\Delta n}$
HDM3L-125	0.1/0.2/0.3; 0.4/0.5/1
HDM3L-160	0.1/0.2/0.3; 0.4/0.5/1
HDM3L-250	0.1/0.2/0.3; 0.4/0.5/1
HDM3L-400	0.1/0.2/0.3; 0.4/0.5/1
HDM3L-630	0.1/0.3/0.5

For Non-time-delayed type ELCB,break times $\leq$ 0.2S

Indicator button

- ① Status means that breaker is tripped by leakage current.
- ② Status means that if breaker is tripped, it is caused by overload or short circuit



Test button

It is used to simulate the passing through the detecting device of a residual current, in order to allow periodic testing of the ability of ELCB to operate.

Attention:

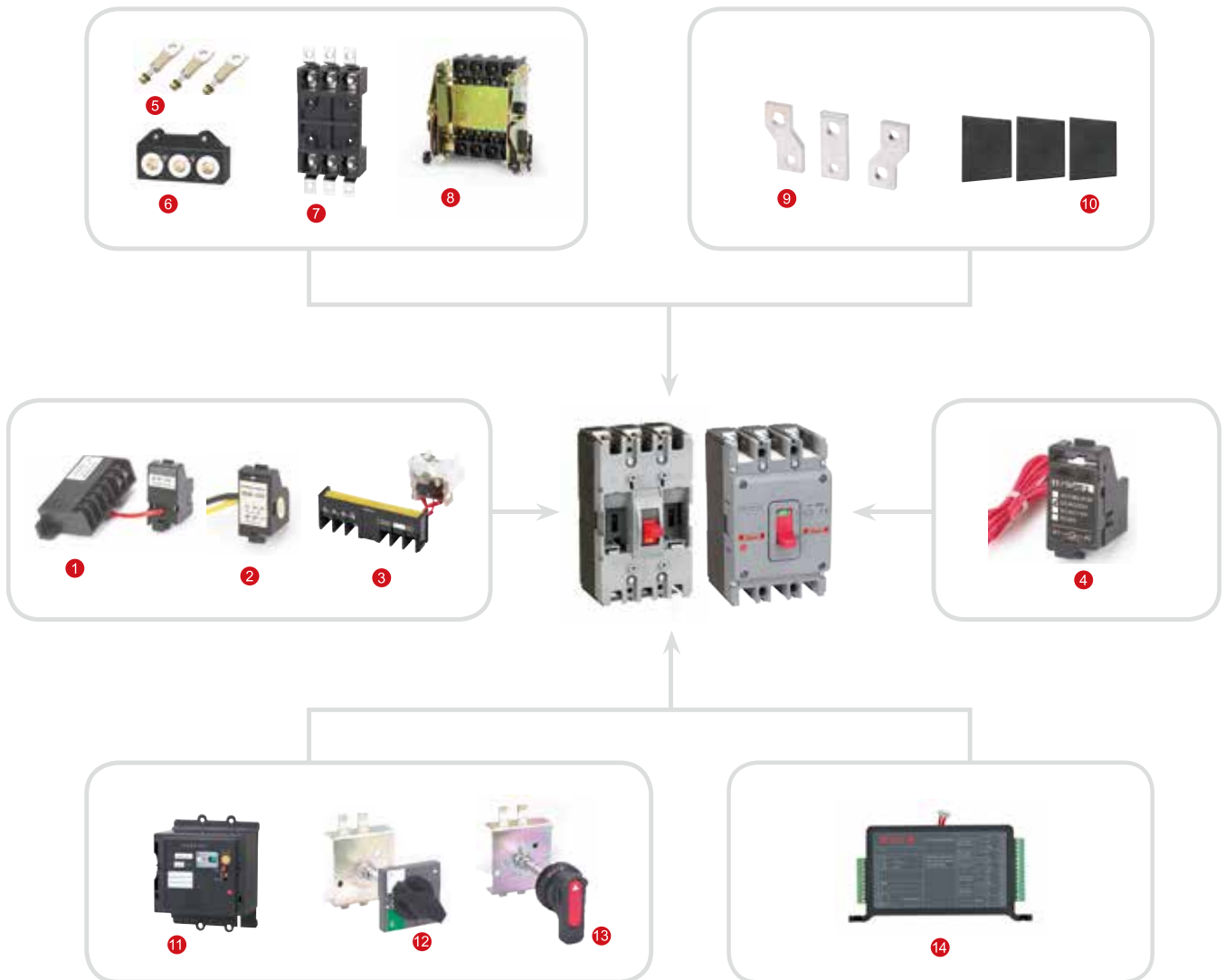
Wiring power input from load side is not permitted.

HDM3/3L/3E Series MCCB



Accessories HDM3/HDM3L/HDM3E 125-800

Overview of Accessories



1	Undervoltage release	6	Plug-in rear connection	11	Electric operating mechanism
2	Auxiliary contact	7	Plug-in front connection	12	Square handle operating mechanism
3	Alarm contact	8	Withdrawable connection	13	Round handle operating mechanism
4	Shunt release	9	Extension terminal	14	Modbus RTU (for HDM3E 125-800)
5	Fixed rear connection	10	Interphase barriers		

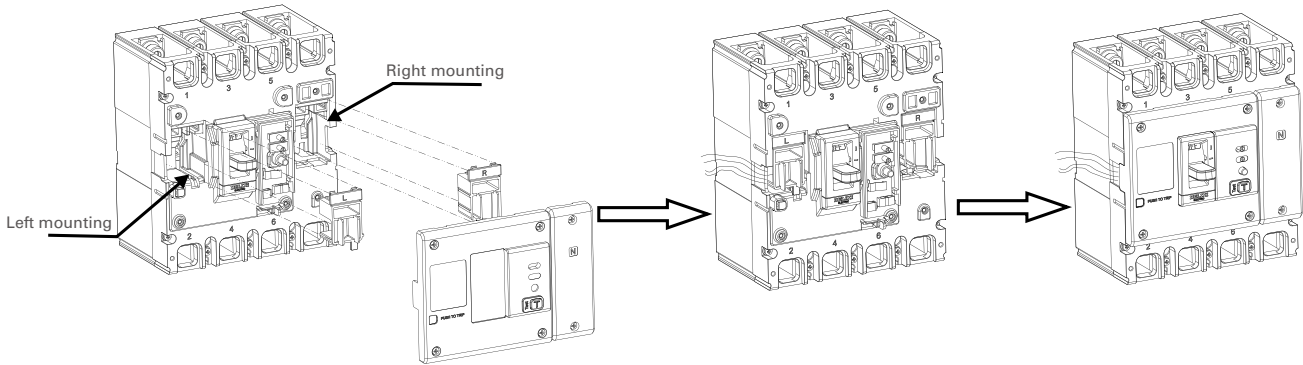
*Note: For more information about the accessories, please download MCCB catalogue from Himel website.

HDM3/3L/3E Series MCCB



Internal Accessories

Accessories installation



Take the top cover down, and put accessories into left and right chamber of the middle cover and compress it. and install the top cover, tighten the screws. An accessory can be installed in the left or right position,including shunt release,undervoltage release,auxiliary contact,alarm and auxiliary contact.

Auxiliary contact

An accessory connected in the auxiliary circuit of the switching device to indicate the circuit breaker status of ON, OFF or TRIP

Electrical wiring diagram

Accessory name	ON	OFF/TRIP
Auxiliary		



Electrical parameters			
Conventional Thermal Current		3A	
Use category		AC 15	DC 13
Working electricity 50Hz	AC 400V	0.3A	/
	DC 220V	/	0.15A

Alarm contact

An accessory used to indicate the circuit breaker status of ON, OFF or TRIP. When the alarm contact indicates that the circuit breaker is at Trip status, there are the following five possibilities

- Overload or short circuit fault
- Residual current fault
- Manual test button trip
- Shunt release action
- Line fault and undervoltage release action

Electrical wiring diagram

Accessory name	ON	OFF/TRIP
Alarm		

Electrical parameters			
Conventional Thermal Current		3A	
Use category		AC 15	DC 13
Working electricity 50Hz	AC 400V	0.3A	/
	DC 220V	/	0.15A

HDM3/3L/3E Series MCCB



Undervoltage release

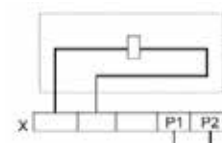
- The undervoltage release shall reliably trip the circuit breaker at the voltage between 35% and 70% of the rated operational voltage;
- The undervoltage release shall ensure that the circuit breaker can be switched on at the voltage between 85% and 110% of the rated operational voltage;
- The undervoltage release shall prevent the circuit breaker from switching on when voltage is below 35% of the rated operational voltage

Electric wiring diagram of undervoltage release

Note: X- terminal block

Note: In the dashed box,

it is the wiring diagram of accessories in the circuitbreaker.

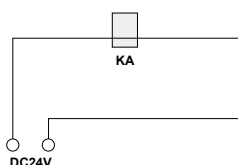


Power input

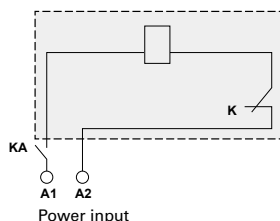
Product type	Undervoltage release power consumption(W)	
	AC400V	AC230V
HDM3-100L/S	4	3.1
HDM3-100T/N HDM3L-125	3.9	3.2
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	4.3	3.3
HDM3-400 HDM3L-400 HDM3E-400	3.6	2.5
HDM3-630 HDM3E-630/800	3.4	2.5
HDM3-800 HDM3L-630	2	1.6

Shunt release

- >The shunt release shall reliably trip the circuit breaker at the voltage between 70% and 110% of the rated control power voltage U
- >The circuit breaker shall be reset on the site after tripping through the shunt release.



KA: DC24V intermediate relay with the contact current capacity of 1A



Power input



Product type	Shunt release power loss(W)		
	AC400V	AC230V	DC24V
HDM3-100L/S	91.6	76.1	91.2
HDM3-100T/N HDM3L-125	96.8	73	91.2
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	112	68.6	85.3
HDM3-400 HDM3L-400 HDM3E-400	67	62.3	100
HDM3-630 HDM3E-630/800	68	58.2	100
HDM3-800 HDM3L-630	163	153	120

HDM3/3L/3E Series MCCB



External accessories

	Fixed front	Fixed rear	Plug-in front	Plug-in rear	Withdrawable
HDM3-100					/
HDM3-160					/
HDM3-250 HDM3E-125/250					/
HDM3-400 HDM3E-400			/		
HDM3-630 HDM3E-630			/		
HDM3-800 HDM3E-800			/		
HDM3E-1600		/	/	/	/

Plug-in

The wiring type is divided into plug-in Rear Connection and plug-in Front Connection
The plug-in connection for the products is easy for maintenance and replacement, but plug-in and plug-out cannot be done with the electricity.



Draw out

The drawer-out products can be easily maintained and replaced Visual connection and break-up.



Handle

Handle operating mechanism

The circuit breaker can be operated by the rotation of the handle and the ergonomically designed rotation handle makes the operation of the circuit breaker more flexible.

2 types of rotation handle operating mechanisms:

- > Direct rotation handle (round handle operating mechanism and square handle operating mechanism)
- > Extended rotation handle (round extending handle operating mechanism and square extended handle operating mechanism)



User visualization information/settings:

- > 3 position indications: OFF, ON and TRIP
- > The circuit breaker cannot be switched on when the door is open
- > The door cannot be opened when the circuit breaker is switched on
- > The axial length of the extended handle can be custom made according to the distance from the back of the circuit breaker to the door.



HDM3/3L/3E Series MCCB



Rear connection

Easy to install and connect the products in the rear connection.



Extend terminal

The extension terminal is connected to the standard terminal

of the circuit breaker, in order to provide many other wiring schemes in the limited space:

>Direct extension terminal

>Extension terminal with inter-electrode distance



The busbar and extension terminal can be connected to the inlet or outlet terminal of the circuit breaker.

Interphase barriers

The interphase barriers can enhance the insulating performances between phase and phases .

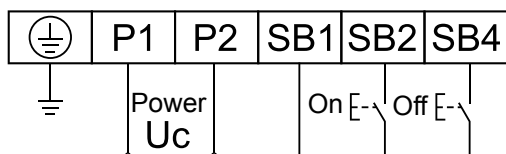
They can be installed from the product front even though the products had mounted.

Interphase barriers will be offered by standard, 3P product(4pcs), 4P product(6pcs).



Motor

- Apply to remote electric connection, disconnection and re-trip of the circuit breaker and the automation control occasions.
- Rated voltage of electric operating mechanism: AC400V;AC230V/DC220V;AC/DC110V;DC24V
- Operating voltage range of electric operating mechanism: 85%-110% U_e



- There are two types of electric operating mechanisms:
 - CD2 General electric operating mechanism for AC and DC(HDM3-63~800)
- CD2 electric operating voltage and tolerance range:
 - CD2:63A-250A:Operating frequency ≤ 180 times/hour and actuation ; time $\leq$ greater than 0.7s
 - CD2:400A-630A:Operating frequency of ≤ 60 times/hour; actuation time ≤ 1 s
- The voltage tolerance range is 184~253VAC/187~242VDC when the rated control power voltage is 230VAC/220VDC.
 - The voltage tolerance range is 320~440VAC when the rated control power voltage is 400VAC.
 - As for different operating forces of the circuit breaker, the switch with relatively small force can be normal.



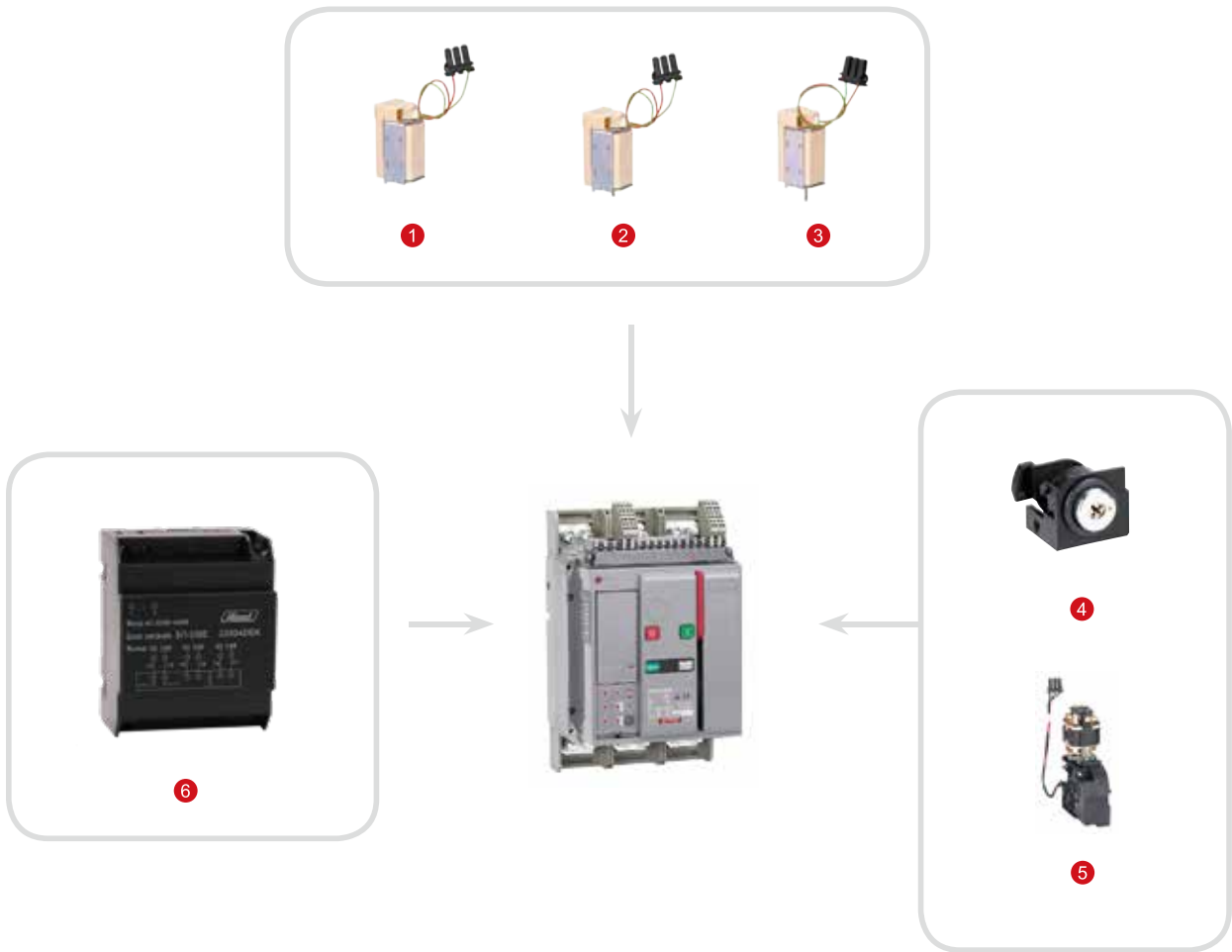
LOW VOLTAGE DISTRIBUTION

HDM3/3L/3E Series MCCB



Accessories HDM3E 1600

Overview of Accessories

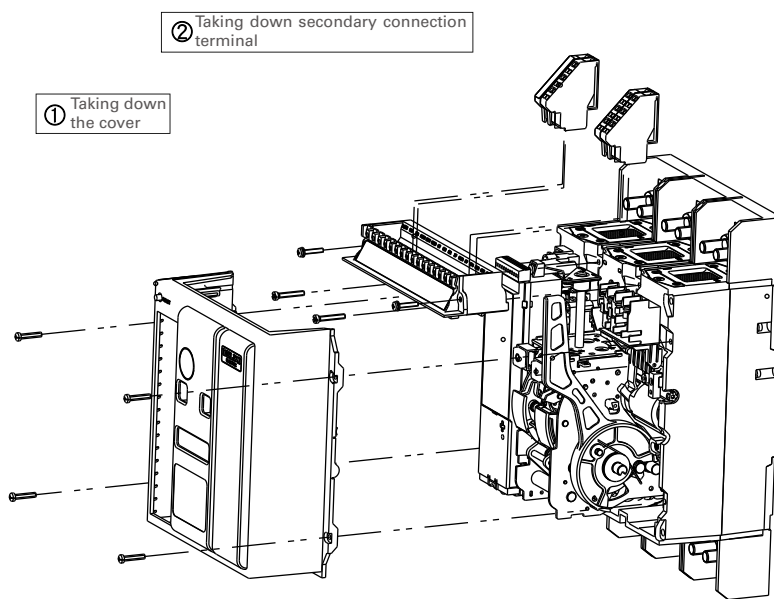


1	Close release	3	Undervoltage release	5	Motor
2	Shunt release	4	Key lock	6	Power Module

HDM3/3L/3E Series MCCB

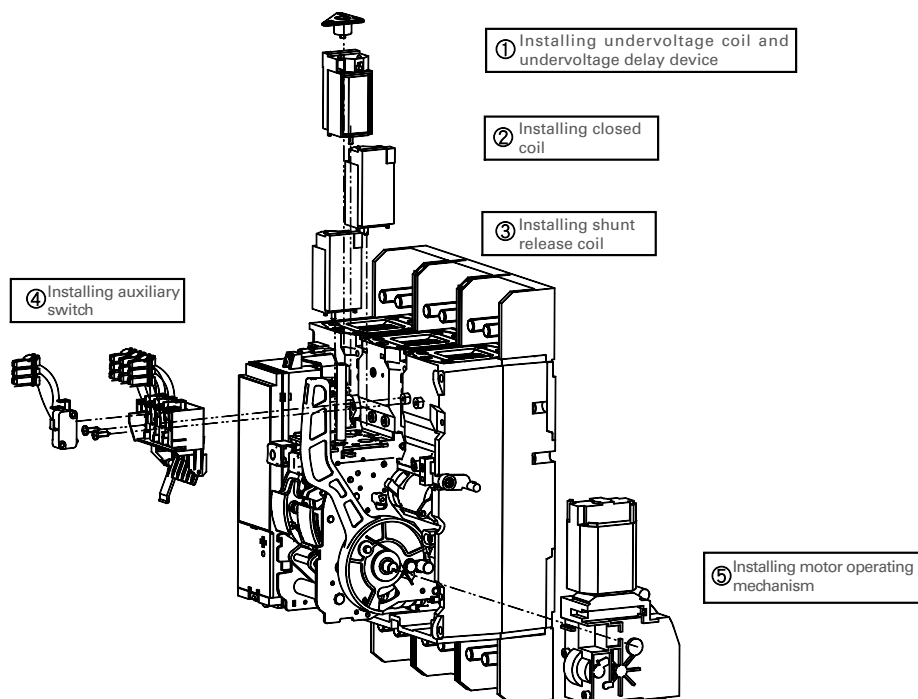
HDM3E 1600 Accessories install and wiring

Taking down the cover and secondary connection terminal.



Danger:
Make sure power supply shut down before installation

Installing coil, motor operating mechanism and auxiliary contact



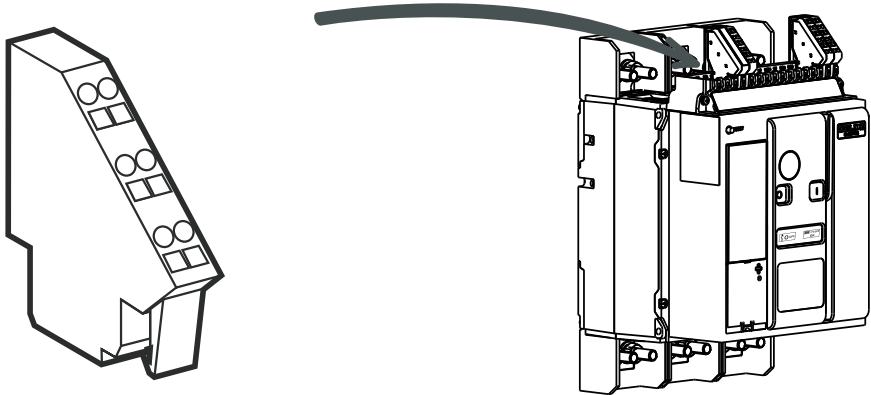
LOW VOLTAGE DISTRIBUTION

HDM3/3L/3E Series MCCB

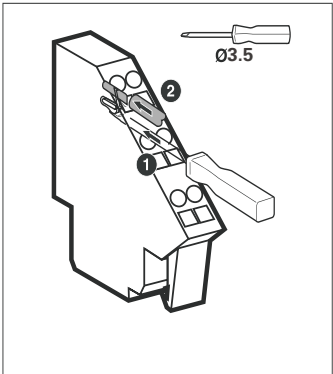
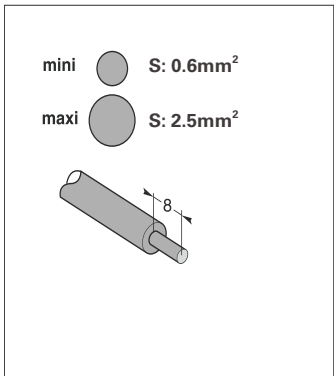


Fixing auxiliary terminal

Fixed type
Inserting auxiliary terminal into groove directly



Wiring for axuiliary terminal



Sectional area of wire
Min 0.6mm ²
Max 2.5mm ²
The stripper wire needs at least 8mm

- 1 Insert screwdriver into the box and press down
- 2 Meanwhile insert wire into circle
- 3 Release screwdriver, make sure wire connect with auxiliary terminal

Terminal layout

DC24V															
Res(SWT2)	UM	ZSI	Pow	SWT	Com	CT	MN	MX	XF	MCH	PF	OF4	OF3	OF2	OF1
	22	13 17	1	5	10	25	27	29	31	35		38	41	44	47
	23	16 19		3	12					33		36	39	42	45
	21 24	14 15	2	4	11	26	28	30	32	34		37	40	43	46
Control Unit						Remote Operating					Auxiliary Switch				

1. Check terminal serial number
2. Inserting same serial number of connection port
3. Pow 1,2 is DC24V power supply port, make sure use with DC 24V from factory. Note:DC24V can be positive and negative connection, do not access directly to 230V power.

HDM3/3L/3E Series MCCB



Undervoltage release

- Function introduction
- The under-voltage release automatically opens a circuit breaker when voltage drops to a value ranging between 35% to 70% of the line voltage. After tripping the circuit breaker cannot be re-closed again when the voltage goes below 35% or until it returns to 85% of line voltage. Under-voltage relay release makes the breaker break in 1s-3s (adjustable)

Accessory parameter	
Rated operational voltage V	AC400V AC230V
Operational voltage	(0.35-0.7)U _e
Dependable closing voltage	(0.85-1.1)U _e
Unable closing voltage	≤0.35U _e
Consumption	12VA
Delay time	1s-3s



Shunt release

- Function introduction
- When the breaker is stored and under specified voltage, Shunt release can make the breaker break through long-distance remote control.

Accessory parameter	
Rated operational voltage V	AC230V AC400V DC220V
Operation voltage	(0.7-1.1)U _s
Consumption	300VA(AC) 40W(DC)
Breaking time	<30ms



Closing release

- Function introduction
- When the breaker is stored and under specified voltage, Shunt release can make the breaker close through long-distance remote control.

Accessory parameter	
Rated operational voltage V	AC230V AC400V DC220V
Operational voltage	(0.85-1.1)U _s
Consumption	300VA(AC) 40W(DC)
Breaking time	<70ms

HDM3/3L/3E Series MCCB



Motor

- When the breaker is open with power supply, MCH can store energy for ACB automatically, thus the breaker can be opened and closed with the operation of MX, MN, XF. It can be manually stored when there is no power.

Accessory parameter	
Rated control power voltage V	AC230V AC400V DC220V
Action voltage	(0.85-1.1)Us
Consumption	150W (maxi.)
Energy storage time	<5s



Power supply

- Function introduction
- In direct current, supply auxiliary power supply for intelligent controller

Accessory parameter		
Model	Input	Output
IAPU334	AC220V~400V	DC24V 0.4A
IAPU332D	DC220V/110V	



HDM3/3L/3E Series MCCB

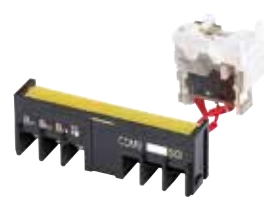


Accessories Selection Guide



Frame Size	Contact	Auxiliary contact with wire		Auxiliary contact with Terminal		
		Left	Right	Left	Right 3P	Right 4P
HDM3-100L/S	1NC+1NO	HDM3100SOF11K1BL	HDM3100SOF11K1BR	HDM3100SOF21K1BL	HDM3100SOF21K1BR3	HDM3100SOF21K1BR4
HDM3-100T/N HDM3L-125	1NC+1NO	HDM3100FNOF11K1BL	HDM3100FNOF11K1BR	HDM3100FNOF21K1B	HDM3100FOF21K1BR3	HDM3100FOF21K1BR4
HDM3-160/250 HDM3E-125/250 HDM3L-160/250	1NC+1NO	HDM3250OF11K1BL	HDM3250OF11K1BR	HDM3250OF21K1BL	HDM3250OF21K1BR3	HDM3250OF21K1BR4
	2NC+2NO	HDM3E250OF12K2BL	HDM3E250OF12K2BR	HDM3E250OF22K2BL	HDM3E250OF22K2BR3	HDM3E250OF22K2BR4
HDM3-400/630 HDM3E-400/630/800 HDM3L-400	1NC+1NO	HDM3630OF11K1BL	HDM3630OF11K1BR	HDM3630OF21K1BL	HDM3630OF21K1BR3	HDM3630OF21K1BR4
	2NC+2NO	HDM3E630OF12K2BL	HDM3E630OF12K2BR	HDM3E630OF22K2BL	HDM3E630OF22K2BR3	HDM3E630OF22K2BR4
HDM3-800 HDM3L-630	1NC+1NO	HDM3800OF11K1BL	HDM3800OF11K1BR	HDM3800OF21K1BL	HDM3800OF21K1BR3	HDM3800OF21K1BR4

Note: Right side mounted part is not adept with HDM3L MCCB



Frame Size	Alarm contact with wire		Alarm contact with Terminal		
	Left	Right	Left	Right 3P	Right 4P
HDM3-100L/S	HDM3100SAL1L	HDM3100SAL1R	HDM3100SAL2L	HDM3100SAL2R3P	HDM3100SAL2R4P
HDM3-100T/N HDM3L-125	HDM3100FNAL1L	HDM3100FNAL1R	HDM3100FNAL2L	HDM3100FNAL2R3P	HDM3100FNAL2R4P
HDM3-160/250 HDM3E-125/250 HDM3L-160/250	HDM3250AL1L	HDM3250AL1R	HDM3250AL2L	HDM3250AL2R3P	HDM3250AL2R4P
HDM3-400/630 HDM3E-400/630/800 HDM3L-400	HDM3630AL1L	HDM3630AL1R	HDM3630AL2L	HDM3630AL2R3P	HDM3630AL2R4P
HDM3-800 HDM3L-630	HDM3800AL1L	—	HDM3800AL2L	—	—

Note: Right side mounted part is not adept with HDM3L MCCB

HDM3/3L/3E Series MCCB



Frame Size	Auxiliary Alarm with wire		Auxiliary Alarm with Terminal		
	Left	Right	Left	Right 3P	Right 4P
HDM3-100L/S	HDM3100SOFAL1L	HDM3100SOFAL1R	HDM3100SOFAL2L	HDM3100SOFAL2R3P	HDM3100SOFAL2R4P
HDM3-100T/N HDM3L-125	HDM3100FNOFAL1L	HDM3100FNOFAL1R	HDM3100FNOFAL2L	HDM3100FNOFAL2R3	HDM3100FNOFAL2R4
HDM3-160/250 HDM3E-125/250 HDM3L-160/250	HDM3250OFAL1L	HDM3250OFAL1R	HDM3250OFAL2L	HDM3250OFAL2R3P	HDM3250OFAL2R4P
HDM3-400/630 HDM3E-400/630/800 HDM3L-400	HDM3630OFAL1L	HDM3630OFAL1R	HDM3630OFAL2L	HDM3630OFAL2R3P	HDM3630OFAL2R4P
HDM3-800 HDM3L-630	HDM3800OFAL1L	—	HDM3800OFAL2L	—	—

Note: Right side mounted part is not adept with HDM3L MCCB



Frame Size	Under voltage release with Terminal	
	Voltage	Left
HDM3-100L/S	AC230V	HDM363MNA2L
	AC400V	HDM363MNA3L
HDM-100T/N HDM3L-125	AC230V	HDM3100FNMNA2L
	AC400V	HDM3100FNMNA3L
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	AC230V	HDM3E125250MNA2L
	AC400V	HDM3E125250MNA3L
HDM3-400/630 HDM3L-400 HDM3E-400/630/800	AC230V	HDM3E400630MNA2L
	AC400V	HDM3E400630MNA3L
HDM3-800 HDM3L-630	AC230V	HDM3800MNA2L
	AC400V	HDM3800MNA3L

Under voltage release with Terminal

HDM3/3L/3E Series MCCB



Frame Size	Voltage	Shunt release with wire		Shunt release with Terminal		
		Left	Right	Left	Right 3P	Right 4P
HDM3-100L/S	AC230V	—	HDM3100SMX1A2	—	HDM3100SMX2A23P	HDM3100SMX2A24P
	AC400V	—	HDM3100SMX1A3	—	HDM3100SMX2A33P	HDM3100SMX2A34P
	DC24V	—	HDM3100SMX1D2	—	HDM3100SMX2D23P	HDM3100SMX2D24P
HDM3-100T/N	AC230V	HDM3100FNMX1A2L	HDM3100FNMX1A2	HDM3100FNMX2A2L	HDM3100FNMX2A23P	HDM3100FNMX2A24P
	AC400V	HDM3100FNMX1A3L	HDM3100FNMX1A3	HDM3100FNMX2A3L	HDM3100FNMX2A33P	HDM3100FNMX2A34P
	DC24V	HDM3100FNMX1D2L	HDM3100FNMX1D2	HDM3100FNMX2D2L	HDM3100FNMX2D23P	HDM3100FNMX2D24P
HDM3-160/250 HDM3E-125/250 HDM3L-160/250	AC230V	HDM3250MX1A2L	HDM3250MX1A2	HDM3250MX2A2L	HDM3250MX2A23P	HDM3250MX2A24P
	AC400V	HDM3250MX1A3L	HDM3250MX1A3	HDM3250MX2A3L	HDM3250MX2A33P	HDM3250MX2A34P
	DC24V	HDM3250MX1D2L	HDM3250MX1D2	HDM3250MX2D2L	HDM3250MX2D23P	HDM3250MX2D24P
	DC110V	—	HDM3E125250MX1D11	—	HDM3E250MX2D113P	HDM3E250MX2D114P
	DC220V	—	HDM3E125250MX1D22	—	HDM3E250MX2D223P	HDM3E250MX2D224P
HDM3-400/630 HDM3E-400/630/800 HDM3L-400	AC230V	HDM3630MX1A2L	HDM3630MX1A2	HDM3630MX2A2L	HDM3630MX2A23P	HDM3630MX2A24P
	AC400V	HDM3630MX1A3L	HDM3630MX1A3	HDM3630MX2A3L	HDM3630MX2A33P	HDM3630MX2A34P
	DC24V	HDM3630MX1D2L	HDM3630MX1D2	HDM3630MX2D2L	HDM3630MX2D23P	HDM3630MX2D24P
	DC110V	—	HDM3E400630MX1D11	—	HDM3E630MX2D113P	HDM3E630MX2D114P
	DC220V	—	HDM3E400630MX1D22	—	HDM3E630MX2D223P	HDM3E630MX2D224P
HDM3-800 HDM3L-630	AC230V	HDM3800MX1A2L	HDM3800MX1A2R	HDM3800MX2A2L	HDM3800MX2A2R3P	HDM3800MX2A2R4P
	AC400V	HDM3800MX1A3L	HDM3800MX1A3R	HDM3800MX2A3L	HDM3800MX2A3R3P	HDM3800MX2A3R4P
	DC24V	HDM3800MX1D2L	HDM3800MX1D2R	HDM3800MX2D2L	HDM3800MX2D2R3P	HDM3800MX2D2R4P

Note: Right side mounted part is not adept with HDM3L MCCB

HDM3/3L/3E Series MCCB



Front connection



Rear connection

Frame Size	Plug-in		
	Connection type	3P	4P
HDM3-100L/S	Front connection	HDM3100SPFC3	HDM3100SPFC4
	Rear connection	HDM3100SPRC3	HDM3100SPRC4
HDM3-100T/N	Front connection	HDM3100FNPF3	HDM3100FNPF4
	Rear connection	HDM3100FNPR3	HDM3100FNPR4
HDM3-160/250L/S	Front connection	HDM3250SPFC3	HDM3250SPFC4
	Rear connection	HDM3250SPRC3	HDM3250SPRC4
HDM3-160/250M/F/T/N HDM3E-125/250	Front connection	HDM3E125250PFC3	HDM3E125250PFC4
	Rear connection	HDM3E125250PRC3	HDM3E125250PRC4
HDM3-400 HDM3E-400 HDM3-630 HDM3E-630	Rear connection	HDM3E630PRC3	HDM3E630PRC4
HDM3-800	Rear connection	HDM3800PRC3	HDM3800PRC4
HDM3E-800	Rear connection	HDM3E800PRC3	HDM3E800PRC4



Frame Size	Motor		
	AC230V	AC400V	DC220V
HDM3-100L/S	HDM3100SD1A2	HDM3100SD1A3	HDM3100SD2
HDM3-100T/N	HDM3100FND1A2	HDM3100FND1A3	HDM3100FND2
HDM3-160/250L/S HDM3-160/250M/F/T/N	HDM3250FD1A2	HDM3250FD1A3	HDM3250FD2
HDM3E-125/250	HDM3E125250D2	HDM3E125250D4	—
HDM3-630 HDM3E-630	HDM3630D1A2	HDM3630D1A3	HDM3630D2
HDM3-800	HDM3800D1A2	HDM3800D1A3	—
HDM3E-800	HDM3E800D2	HDM3E800D4	—

HDM3/3L/3E Series MCCB



Frame Size	Rotation Handle		
	Handle shape	Direct	Extended (Default 150mm)
HDM3-100L/S	Round	HDM3100SH1	HDM3100SHL1
	Square	HDM3100SH2	HDM3100SHL2
HDM3-100T/N	Round	HDM3100FNH1	HDM3100FNHL1
	Square	HDM3100FNH2	HDM3100FNHL2
HDM3-160/250	Round	HDM3250H1	HDM3250HL1
	Square	HDM3250H2	HDM3250HL2
HDM3-400/630	Round	HDM3630H1	HDM3630HL1
	Square	HDM3630H2	HDM3630HL2
HDM3-800	Round	HDM3800H1	HDM3800HL1
	Square	HDM3800H2	HDM3800HL2
HDM3E-125/250	Round	HDM3E125250H1	HDM3E125250HL1
	Square	HDM3E125250H2	HDM3E125250HL2
HDM3E-400/630	Round	HDM3E400630H1	HDM3E400630HL1
	Square	HDM3E400630H2	HDM3E400630HL2
HDM3E-800	Round	HDM3E800H1	HDM3E800HL1
	Square	HDM3E800H2	HDM3E800HL2



Round



Square

Note: Default length of rod is 150mm. On further requirement, please order below rod individually.

	300mm
Under 250A:	HDM3-8x8ROD300
Over 250A:	HDM3-10x10ROD300

Frame Size	Draw-out		
	Connection type	3P	4P
HDM3-400 HDM3E-400	Horizontal conection	HDM3E400DOR3	HDM3E400DOR4
HDM3-630 HDM3E-630	Horizontal conection	HDM3E630DOR3	HDM3E630DOR4
HDM3E-800	Horizontal conection	HDM3E800DOR3	HDM3E800DOR4



HDM3/3L/3E Series MCCB



Frame Size	Expanding terminal	
	3P(3pcs)	4P(4pcs)
HDM3-100L/S	DM3100FNC3	HDM3100FNC4
HDM3-100T/N HDM3L-125		
HDM3-160/250L/S HDM3-160/250M/F/T/N HDM3L-160/250 HDM3E-125/250	HDM3250C3	HDM3250C4
HDM3-400 HDM3L-400 HDM3E-400	HDM3400C3	HDM3400C4
HDM3-630 HDM3E-630	HDM3630C3	HDM3630C4
HDM3-800 HDM3E-800 HDM3L-630	HDM3E800C3	HDM3E800C4



Frame Size	Modbus RTU module
HDM3E-125	HDM3ECOM
HDM3E-250	
HDM3E-400	
HDM3E-630	
HDM3E-800	



Frame Size	Interphase barriers	
	3P(2pcs)	4P(3pcs)
HDM3-100L/S	HDM3100SIB3	HDM3100SIB4
HDM3-100T/N HDM3L-125	HDM3100FNIB3	HDM3100FNIB4
HDM3-160/250L/S	HDM3250SIB3	HDM3250SIB4
HDM3-160/250M/F/T/N HDM3L-160/250 HDM3E-125/250	HDM3250FIB3	HDM3250FIB4
HDM3-400 HDM3L-400 HDM3E-400 HDM3-630 HDM3E-630	HDM3630IB3	HDM3630IB4
HDM3-800 HDM3L-630	HDM3800IB3	HDM3800IB4
HDM3E-800	HDM3E800IB3	HDM3E800IB4



HDM3/3L/3E Series MCCB



Frame Size	Rear connection	
	3P(6pcs)	4P(8pcs)
HDM3-100L/S	HDM363RC3	HDM363RC4
HDM3-100T/N HDM3L-125	HDM3100FNRC3	HDM3100FNRC4
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	HDM3250RC3	HDM3250RC4
HDM3-400/630 HDM3L-400 HDM3E-400/630	HDM3630RC3	HDM3630RC4
HDM3-800 HDM3E-800 HDM3L-630	HDM3800RC3	HDM3800RC4



Frame Size	Terminals	Torque	Cross-section of cable/mm ²	Minimum order quantity
HDM3-100L/S	LUG100S1E (Extend)	12	20~70	84pcs/box
HDM3-100T/N HDM3L-125	LUG100F1 (Normal) LUG100F1E (Extend)	12 12	20~70 20~70	84pcs/box 84pcs/box
HDM3-160 HDM3L-160 HDM3E-125	LUG1601 (Normal) LUG1601E (Extend)	20 20	25~200 25~200	36pcs/box 24pcs/box
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	— (Normal) LUG2502E (Extend)	— 20	— 25~150	— 12pcs/box
HDM3-400 HDM3L-400 HDM3E-400	LUG4001 (Normal) LUG4001E (Extend)	30 35	95~240 50~240	12pcs/box 12pcs/box
HDM3-400/630 HDM3L-400 HDM3E-400/630	— (Normal) LUG6302E (Extend)	— 35	— 50~240	— 6pcs/box
HDM3-800 HDM3L-630 HDM3E-800	— (Normal) LUG8004E (Extend)	— 35	— 50~240	— 3pcs/box



HDM3E-1600A Accessories		
Acc Name	AC230V	AC400V
Close release	HDW3XF2A	HDW3XF3A
Shunt release	HDW3MX2A	HDW3MX3A
Undervoltage release	HDW3MN2A	HDW3MN3A
Motor	HDW3MCH162A	HDW3MCH163A



1600A Accessories		
Acc Name	AC220~400V Input	DC220/110V Input
Power module	IAPU334	IAPU332D



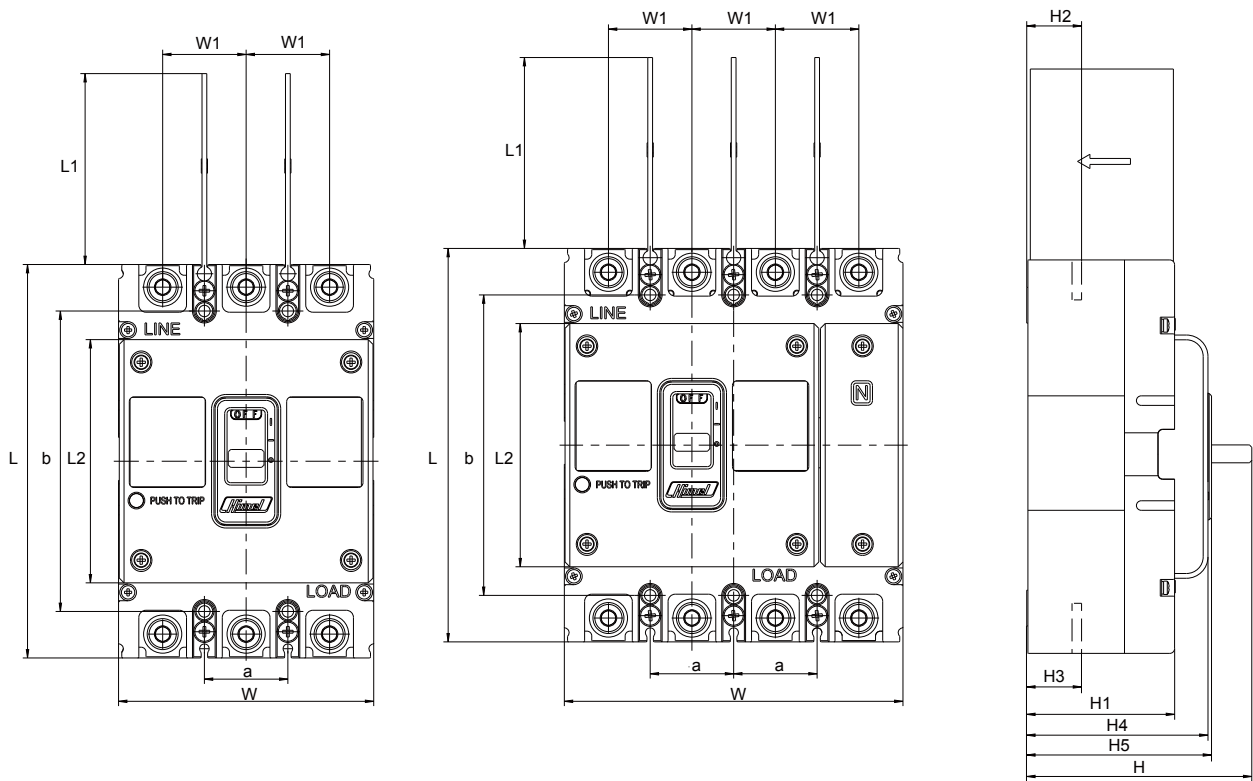
HDM3/3L/3E Series MCCB



Dimensions and conenction HDM3/HDM3L/HDM3E 125-800

Fixed MCCB mounting dimension

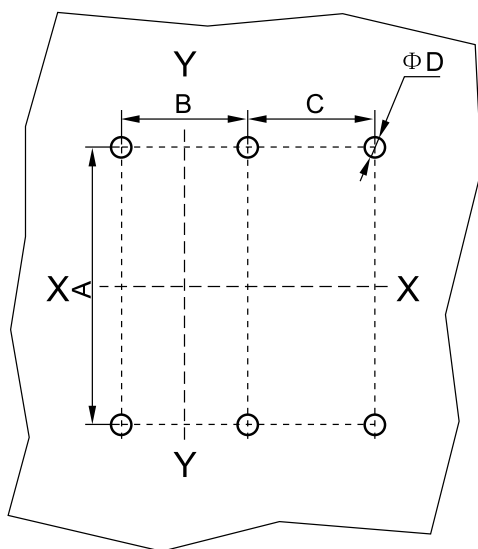
Front connection(mm)



Product type	Poles	Overall dimension											Installation dimension		
		L	L1	L2	W	W1	H	H1	H2	H3	H4	H5	a1	a2	b
HDM3-100L/S	3/4	130	50	83	75/100	25	81.5	54	24	24	68	70.5	25	25	111
HDM3-100T/N HDM3L-125	3/4	150	50	96	92/122	30	111.5	81	28.5	28	93.5	95.5	30	30	129
HDM3-160/250S	3/4	165	50	102	107/142	35	94.5	62	23	23	76	77.5	35	35	126
HDM3-160/250FN HDM3L-160/250	3/4	165	80	102	107/142	35	112.5	80	23	23	94	95.5	35	35	126
HDM3E-125								86	21.5						
HDM3E-250									23						
HDM3-400 HDM3L-400	3/4	257	104.5	102	150/198	48	145.9	96.2	36	36.5	107.5	112.5	44	44	215
HDM3E-400				161.5										-	
HDM3-630				150										44	
HDM3E-630				161.5					38	39				-	
HDM3L-630	3/4	280	102	102	210/280	70	160	108	40.5	41.5	111	119	70	70	243
HDM3-800	3/4	280	104.5	102	210/280	70	146.5	97.5	32.5	35.5	100	114	70	70	243
HDM3E-800				170			154	103	40.5	47	116	121			

HDM3/3L/3E Series MCCB

Fixed front installation hole dimensions



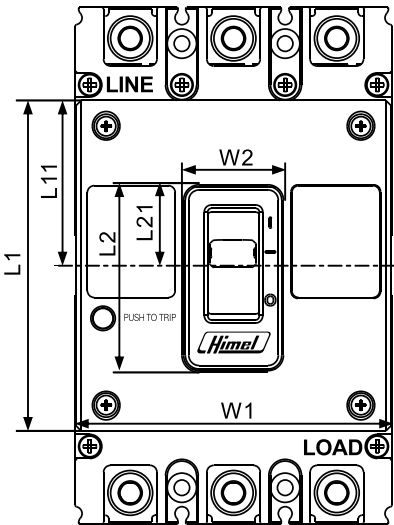
Note: X-X and Y-Y is the center of the three-pole breaker

Product type	Poles	Installation dimension			
		A	B	C	D
HDM3-100L/S	3	111	25	/	4.5
	4	111	25	25	
HDM3-100T/N HDM3L-125	3	129	30	/	5
	4	129	30	30	
HDM3-160/250 HDM3L-160/250	3	126	35	/	5.5
	4	126	35	35	
HDM3-400/630 HDM3L-400	3	215	44	/	6.5
	4	215	44	/	
HDM3L-630	3	243	70	/	7.5
	4	243	70	70	
HDM3-800	3	243	70	/	7.5
	4	243	70	70	
HDM3E-800	3	243	70	/	7.5
	4	243	70	70	

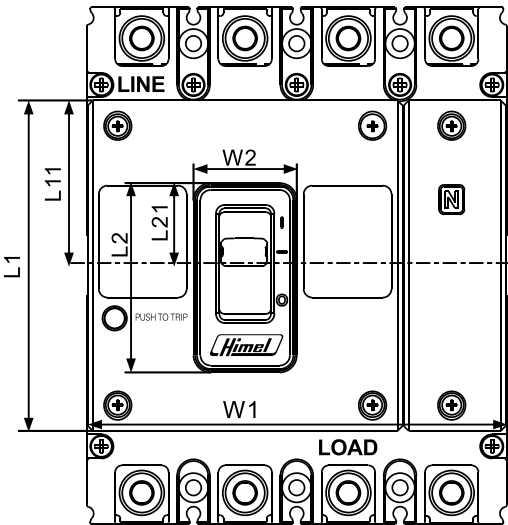
HDM3/3L/3E Series MCCB



Fixed and insert type breaker panel cut off dimensions



HDM3L 125-800 3P



HDM3L 125-800 4P

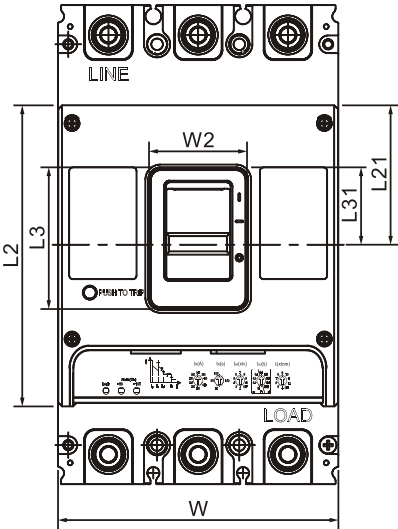
Model	Poles	Exposed front cover Exposed toggle handle			Exposed toggle handle		
		W1	W2	L11	W2	L2	L21
HDM3-100L/S	3P	75	83	41.5	22	50	26
	4P	100	83	41.5	22	50	26
HDM3-100T/N HDM3L-125	3P	92	96	48	30	55	24
	4P	122	96	48	30	55	24
HDM3-160 HDM3-250 HDM3L-160 HDM3L-250	3P	107	102	51	26	54	27
	4P	142	102	51	26	54	27
HDM3-400 HDM3-630 HDM3L-400	3P	150	150	75	52.5	75.5	41
	4P	198	150	75	52.5	75.5	41
HDM3-800 HDM3L-630	3P	210	200	100	65	105	51
	4P	280	200	100	65	105	51

LOW VOLTAGE DISTRIBUTION

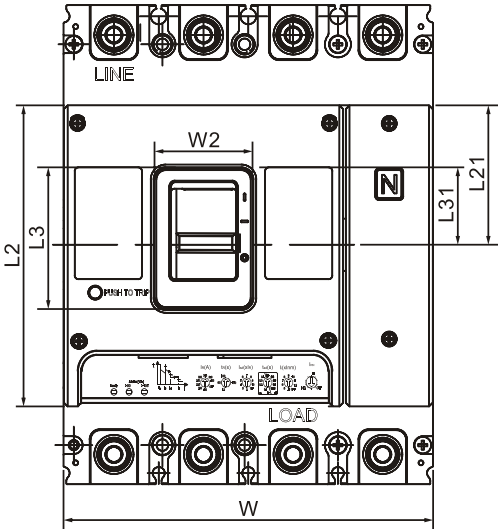
HDM3/3L/3E Series MCCB



Hole dimensions of fixed and inserted panels (mm)



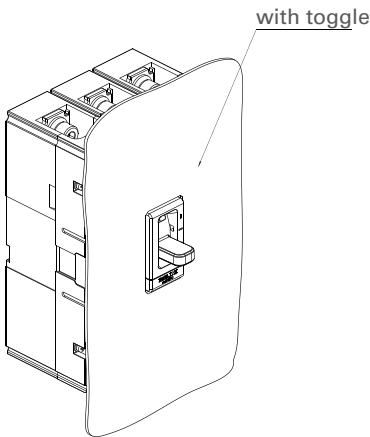
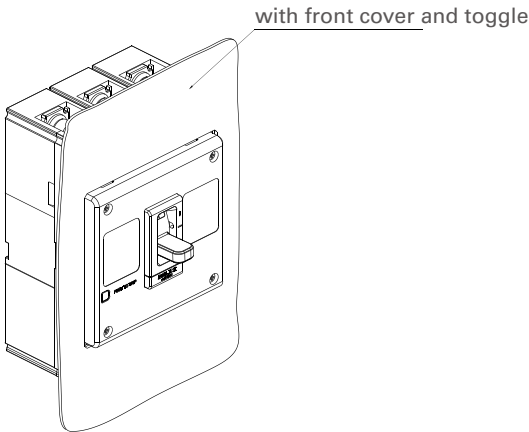
HDM3E 125-800 4P



HDM3E 125-800 4P

Notes: dimension shown in the table is the actual dimension of the product
Please control the clearance of installation on your own

Product Model	Poles	Exposed Panel and toggle handle			Only the toggle handle is exposed		
		W	L2	L21	W2	L3	L31
HDM3E-125/250	3	107	102.5	51	26	50.5	26.5
	4	142					
HDM3E400/630	3	150	161.5	75	52.5	75.5	41
	4	198					
HDM3E-800	3	210	170	67.5	55	85	42.5
	4	280					

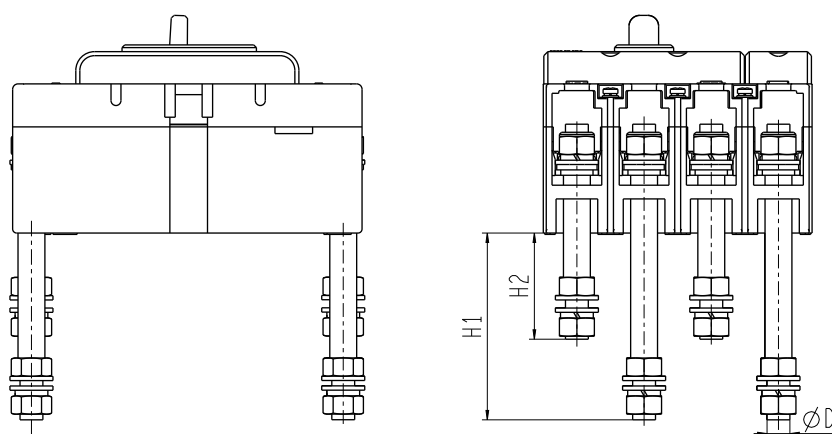


HDM3/3L/3E Series MCCB



Rear connection (mm)

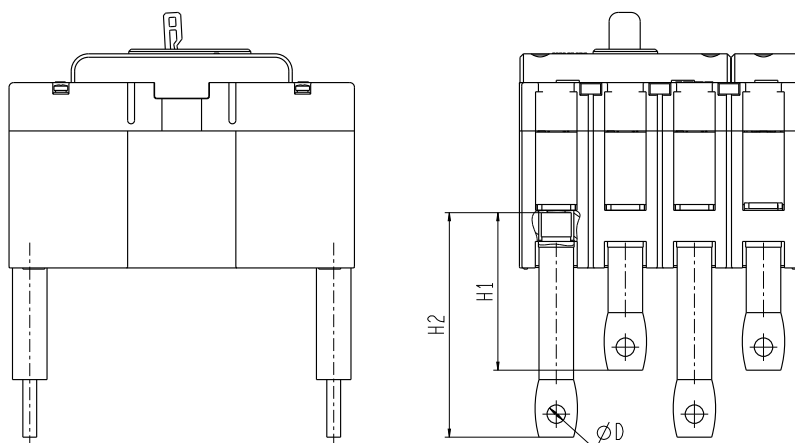
Product type	H1	H2	D
HDM3-100L/S	80	67	8
HDM3-100T/N	97	47	8
HDM3-160	102	72	10
HDM3-250	102	72	10
HDM3E-125/250	102	72	10



Under 250A dimension drawing

Installation dimensions

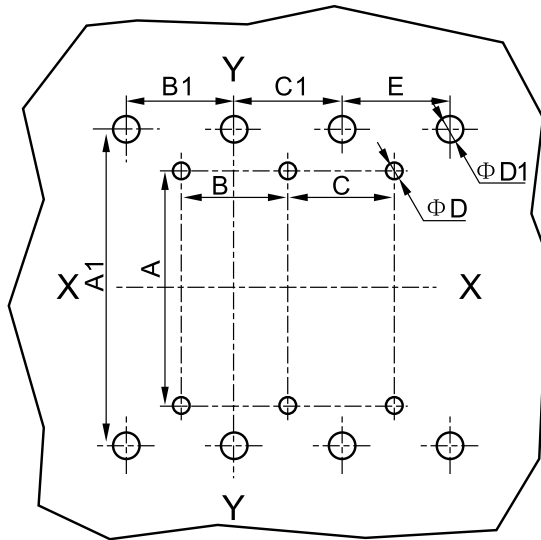
Product type	H1	H2	D
HDM3-400	98	134	12.5
HDM3-630	98	134	12.5
HDM3-800	107	141	12.5
HDM3E-400/630	92	128	12.5
HDM3E-800	129	129	13



Above 250A dimension drawing

HDM3/3L/3E Series MCCB

Fixed rear installation hole dimensions



Note: X-X and Y-Y is the center of the three-pole breaker

Product type	Poles	A	B	C	D	A1	B1	C1	E	D
HDM3-100L/S	3	111	25	/	4.5	116	25	25	/	12
	4			25					25	
HDM3-100T/N	3	129	30	/	5	132	30	30	/	12
	4			30					30	
HDM3-160/250 HDM3E-125/250	3	126	35	/	5.5	145	35	35	/	15
	4			35					35	
HDM3-400/630	3	215	44	/	6.5	225	48	48	/	18
	4			/					48	
HDM3E-400/630	3	215	44	/	6.5	225	48	48	/	32
	4			/					48	
HDM3-800	3	243	70	/	7.5	243	70	70	/	27
	4			70					70	
HDM3E-800	3	243	70	/	7.5	243	70	70	/	40
	4			70					70	

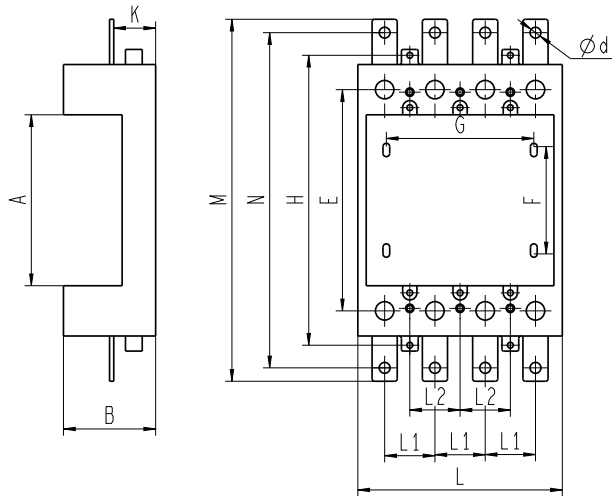
HDM3/3L/3E Series MCCB



Plug-in MCCB mounting dimension

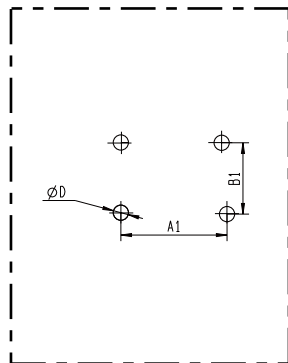
Front connection(mm)

Product type	A	B	E	F	G _(3P/4P)	H	L _(3P/4P)	L1	L2	M	N	K	d
HDM3-100L/S	91.5	48.2	111	60	50/75	145	75/100	25	25	190	173	22.5	6
HDM3-100T/N	100.5	56.2	132	67	60/90	170	90/120	30	30	216	198	25	6.5
HDM3-160/250 HDM3E-125/250	108.5	73.2	144	74	70/105	191	105/140	35	35	243	223	37.5	8.5



Plug-in front hot position drawing

Product type	Number of poles	A1	B1	D
HDM3-100L/S	3	50	60	5.5
	4	75		
HDM3-100T/N	3	60	67	6.5
	4	90		
HDM3-160/250 HDM3E-125/250	3	70	74	6.5
	4	105		

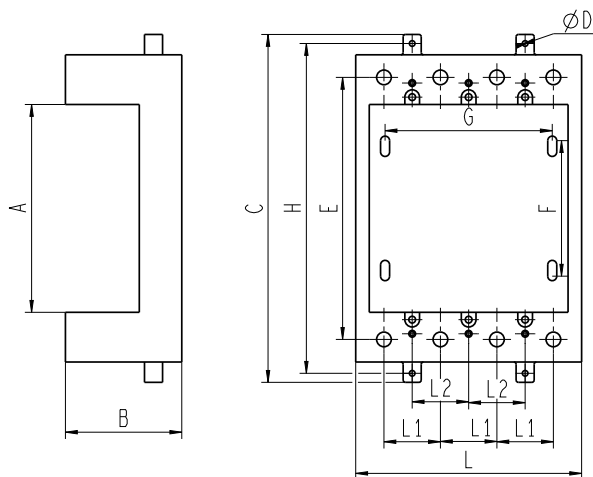


HDM3/3L/3E Series MCCB

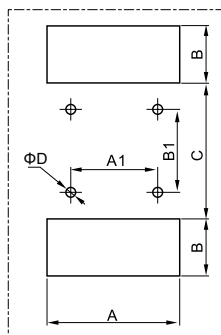


Rear connection(mm)

	A	B	C	D	E	F	G(3/4P)	H	L(3/4P)	L1	L2
HDM3-100L/S	91.5	48.2	154	M3	111	60	50/75	145	75/100	25	25
HDM3-100T/N	100.5	56.2	180	M4	132	67	60/90	170	90/100	30	30
HDM3-160/250 HDM3E-125/250	108.5	73.2	203	M4	144	74	70/105	191	105/140	35	35
HDM3-400/630 HDM3E-400/630	170	60	/	/	225	130	60/108	/	152/200	48	44
HDM3800	187	62	/	/	243	143	140/210	/	210/280	70	70
HDM3E-800	187	125	342	M5	243	143	140/210	328	210/280	70	70



Product type	Poles	A	A1	B	B1	C	D
HDM3-100L/S	3	79	50	30	60	90	5.5
	4	104	75				
HDM3-100T/N	3	94	60	40	67	90	6.5
	4	124	90				
HDM3-160/250 HDM3E-125/250	3	110	70	45	74	100	6.5
	4	145	105				
HDM3-400/630 HDM3E-400/630	3	157	88	60	145	170	8.5
	4	205	132				
HDM3-800	3	212	140	62	143	185	11
	4	282	210				
HDM3E-800	3	212	140	64	143	185	11
	4	282	210				

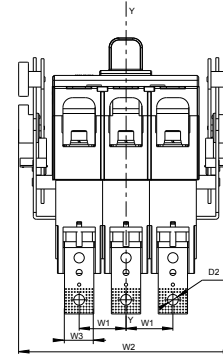
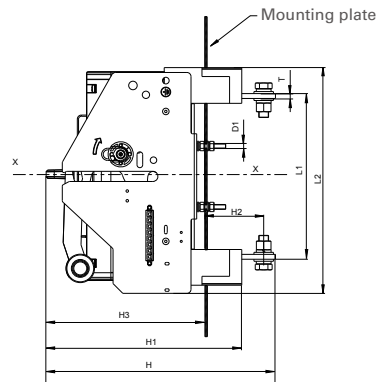
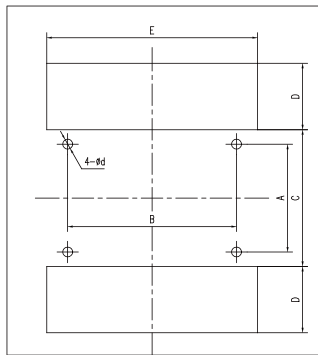


HDM3/3L/3E Series MCCB

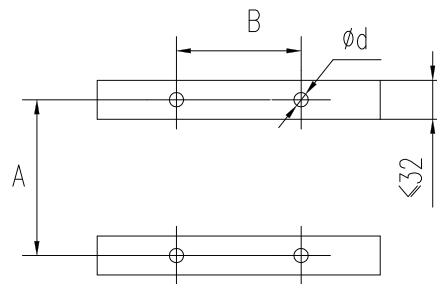
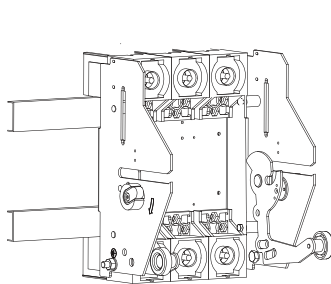


Draw out mounting dimension

Rear connection(mm)



Product type	Poles	Installation Dimensions						Dimensions										
		A	B	C	D	E	d	L1	L2	H	H1	H2	H3	W1	W2	W3	φD1	φD2
HDM3-400	3	140	96	178	47	147	7	203	269	281	240	77	189	48	223	30	φ6.2	φ11
HDM3E-400	4	140	144	178	47	195	7	203	269	281	240	77	189	48	271	30	φ6.2	φ11
HDM3-630	3	140	96	178	47	147	7	207	269	281	240	77	189	48	223	30	φ6.2	φ11
HDM3E-630	4	140	144	178	47	195	7	207	269	281	240	77	189	48	271	30	φ6.2	φ11
HDM3-800	3	131	140	170	77	213	7	241	317	302	250	73	208	70	289	40	φ6.2	φ13
HDM3E-800	4	131	210	170	77	283	7	241	317	302	250	73	208	70	359	40	φ6.2	φ13
HDM3E-800	3	131	140	170	77	213	7	241	317	302	250	73	208	70	289	40	φ6.2	φ13
	4	131	210	170	77	283	7	241	317	302	250	73	208	70	359	40	φ6.2	φ13



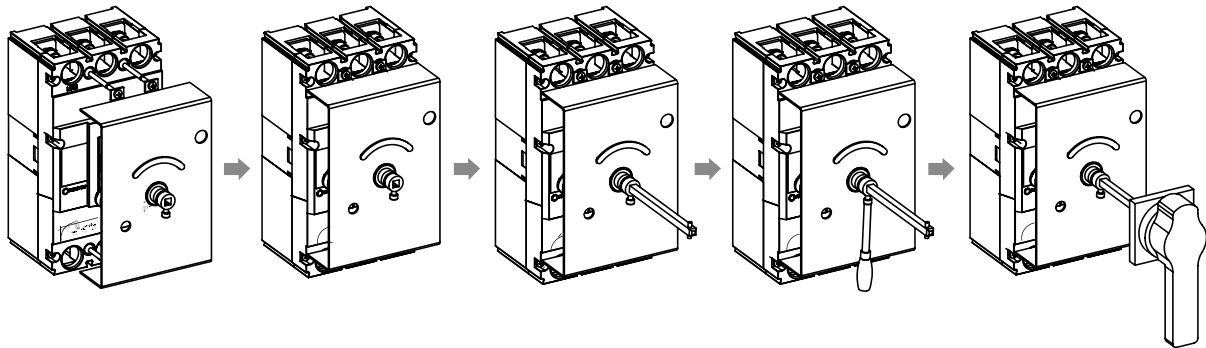
Product type	Poles	Installation Dimensions		
		A	B	d
HDM3-400	3	140	96	7
HDM3E-400	4	140	144	7
HDM3-630	3	140	96	7
HDM3E-630	4	140	144	7
HDM3-800	3	131	140	7
HDM3E-800	4	131	210	7

HDM3/3L/3E Series MCCB

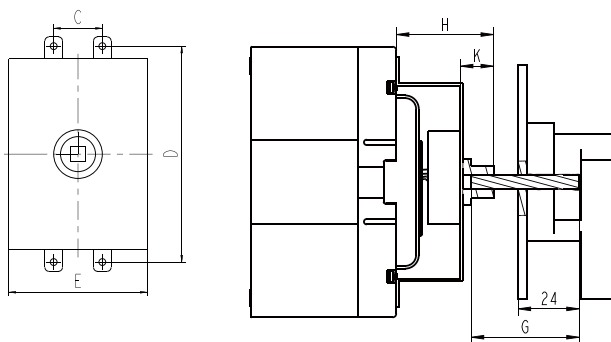


Rotary handle dimension

Handle operation mechanism installation

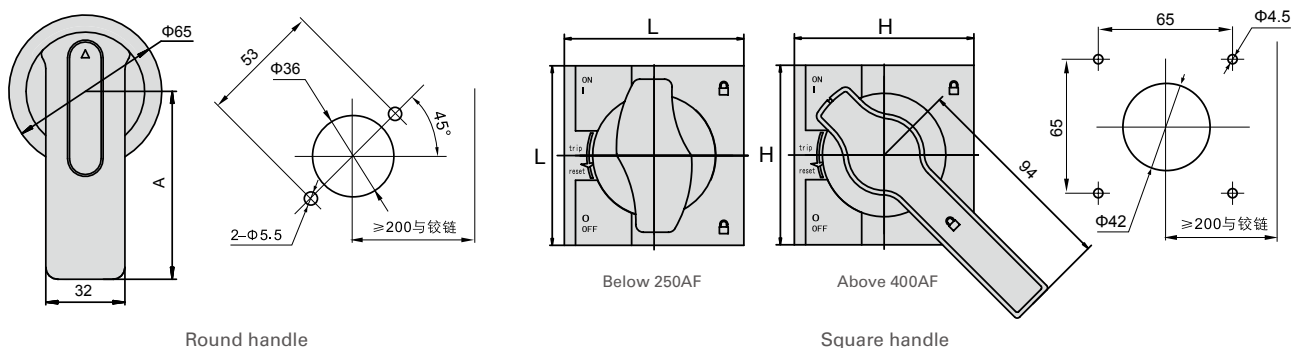


Mounting with MCCB dimensions(mm)



Product type	C	D	E	H	K
HDM3-100L/S	25	111	75	54	20
HDM3-100T/N	30	129	92	57	20
HDM3-160/250	35	143	100	54	20
HDM3E-125/250	35	143	100	49	20
HDM3-400/630	44	215	150	78	20
HDM3E-400/630	44	215	140	76	20
HDM3-800A	70	243	/	76	20
HDM3E-800A	70	243	210	76	20

Installation hole dimensions



Round handle

Square handle

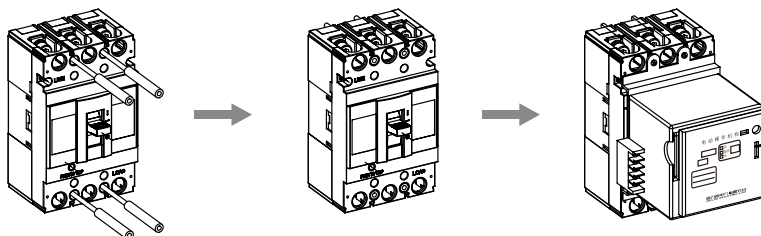
Product type	Round handle	Square handle	
	A	L	H
HDM3-100L/S	65	80	80
HDM3-100T/N	65	80	80
HDM3-160/250	65	80	80
HDM3E-125/250			
HDM3-400/630	95	80	80
HDM3E-400/630			
HDM3-800	95	80	80
HDM3E-800			

HDM3/3L/3E Series MCCB

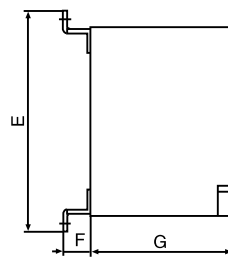
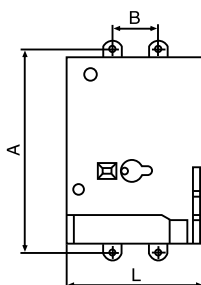
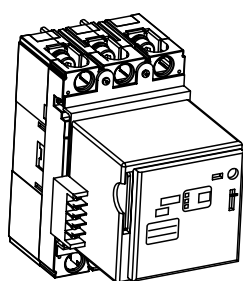


Motor Mounted with MCCB Dimensions (mm)

Installation of electric operating mechanism



After tripping of the breaker with an electrically operated mechanism, the electrically operated mechanism must be opened first before closed.

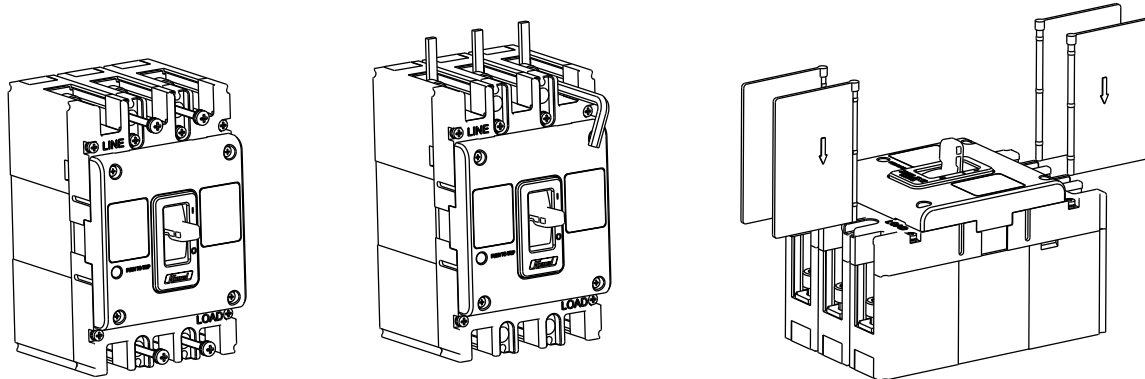


Product type	A	B	E	F	G	L
HDM3-100L/S	111	25	120	15	79	74
HDM3-100T/N	129	30	140	16	77	90
HDM3-160/250	126	35	140	17	77	90
HDM3E-125/250	126	35	140	12	77	90.5
HDM3-400/630	215	44	232	32	115	130
HDM3E-400/630						
HDM3-800	243	70	/	31	115	/
HDM3E-800	243	70	260	31	115	130

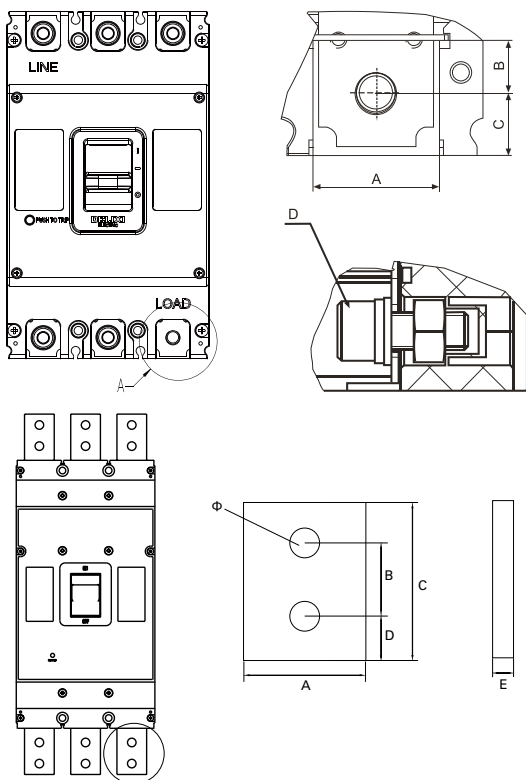
HDM3/3L/3E Series MCCB



Terminal Connection Dimensions (mm)



Connection terminal and torque table



Product type	A	B	C	D	Torque(N.M)
HDM3-100L/S	16	7.5	7	M6	4~8
HDM3-100T/N HDM3L-125	18	7.5	9	M8	4~8
HDM3-160/250 HDM3L-160/250	25	12.5	9.5	M8	9.5~10.5
HDM3E-125/250	25.5	12	10	M8	9.5~10.5
HDM3-400/630 HDM3L-400	32	14	16	M10	19.5~20.5
HDM3E-400/630	32	13	16	M10	19.5~20.5
HDM3-800 HDM3L-630	44.5	12	16	M12	29.5~30.5
HDM3E-800	45.5	16.8	18.5	M12	29.5~30.5

Connecting conductor (mm²)

Rated current A	10	16 20	25	32	40 50	63	80	100	140	160	180 200 225	250	315	400
Cross-section of conductor	1.5	3	4	6	10	16	25	35	50	70	95	120	185	240

Rated current A	Quantity	Copper conductor or insulated copper wire Cross section mm ²	Copper busbar Size: mm x mm
500	2	150	30x5
630	2	185	40x5
700.800	2	240	50x5

HDM3/3L/3E Series MCCB



Expanding Terminal Information

Frame Size	Outside view	Size (mm)	QTY	
			3P	4P
HDM3-100 L/S/T/N HDM3L-125			3	4
HDM3-160/250L/S HDM3-160/250M/F/T/N HDM3L-160/250 HDM3E-1125/250			1	2
			2	2
HDM3-400 HDM3L-400 HDM3E-400 HDM3-630 HDM3E-630			2	2
			1	2
HDM3-800 HDM3E-800 HDM3L-630			3	4

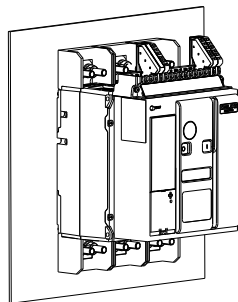
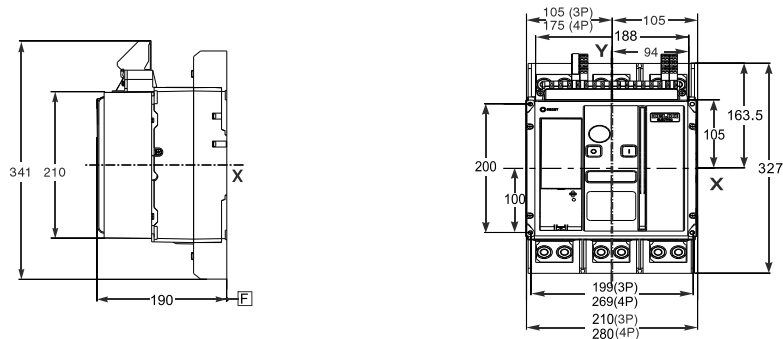
HDM3/3L/3E Series MCCB



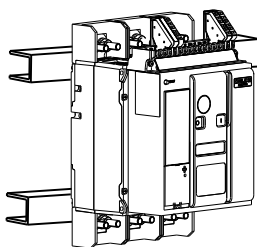
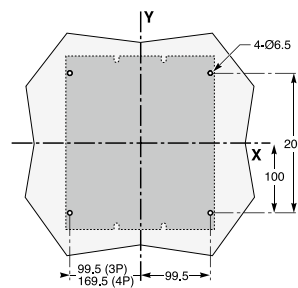
Dimensions and Connection for HDM3E-1600

Fixed MCCB mounting dimension (mm)

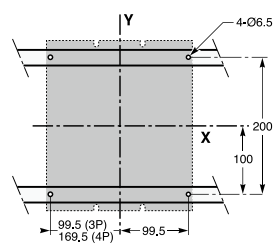
Unit:mm



Installed on plate

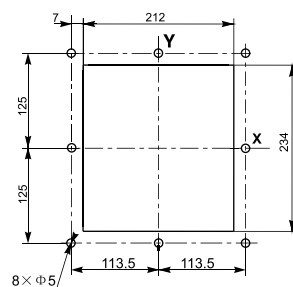


Installed on din rail

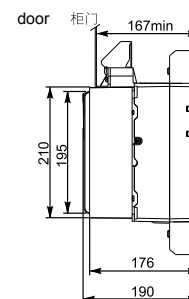
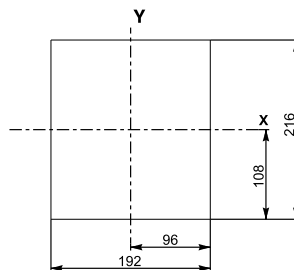


Note:X and Y are plane of symmetry of 3 pole breaker Z is back plane of breaker.

With doorframe:
Holes dimension on door



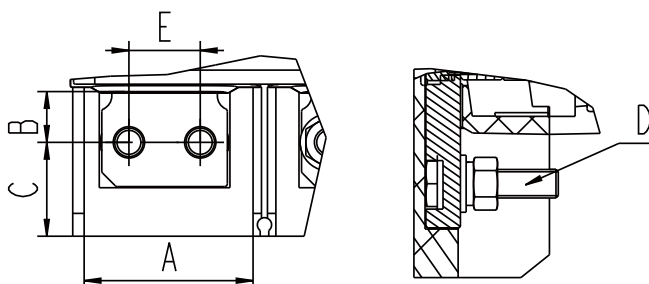
Without doorframe:
Holes dimension on door



HDM3/3L/3E Series MCCB

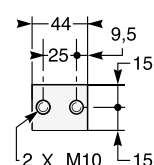
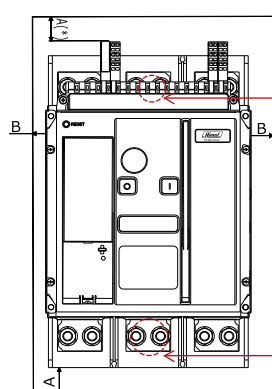


Terminal connection dimensions (mm)

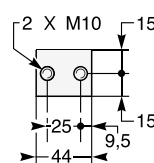


Product type	A	B	C	D	E	Torque(N.M)
HDM3E-1600	59	17.2	32.8	M10	25	50

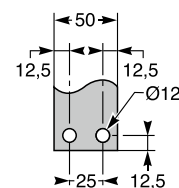
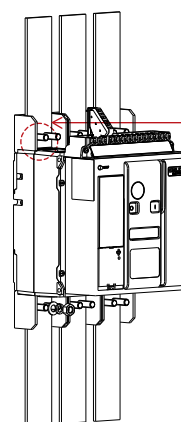
Terminal and busbar dimensions (mm)



The size of top terminal



The size of bottom terminal



The size of busbar

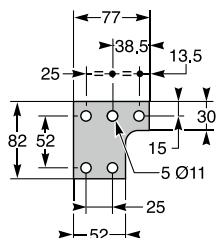
Max current	Ti:40°C the number of busbar		Ti:50°C the number of busbar		Ti:60°C the number of busbar	
	5mm Thickness	10mm Thickness	5mm Thickness	10mm Thickness	5mm Thickness	10mm Thickness
1000	3b.50x5	1b.63 x 10	3b.50x5	2b.50 X 10	3b.63x5	2b.50 x 10
1250	3b.50x5	2b.40 x 10	3b.50x5	2b.50 X 10	3b.63x5	2b.50 x 10
	2b.80x5	2b.40 x 10	2b.80x5			
1600	3b.80x5	2b.63 x 10	3b.80x5	2b.63 x 10	3b.80x5	2b 50 x 10

HDM3/3L/3E Series MCCB

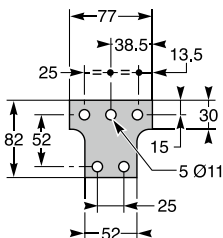
Expending terminal dimensions (mm)

Unit:mm

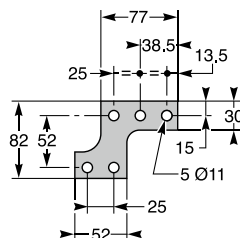
Extension terminal for A phase or B phase of 4 pole



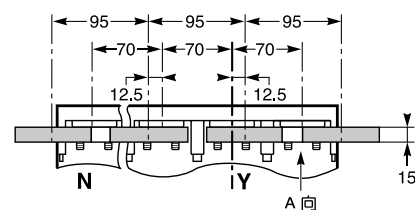
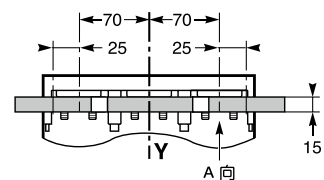
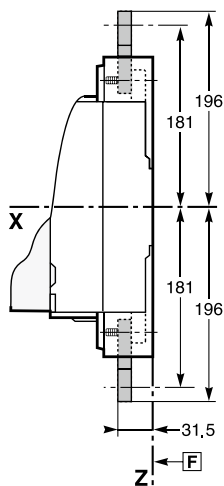
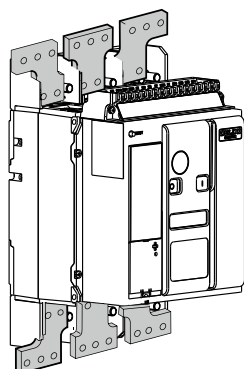
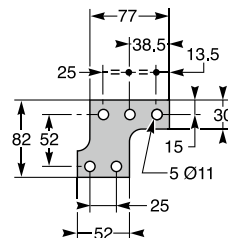
Extension terminal for B phase of 3 pole



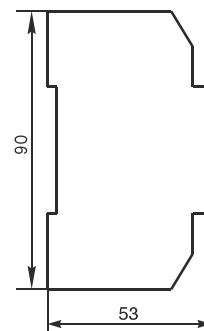
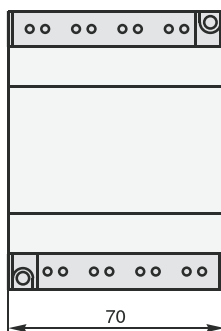
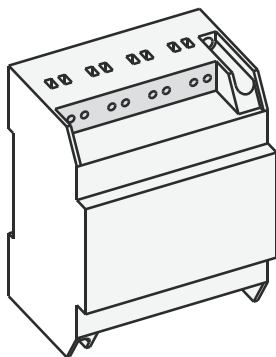
Extension terminal for N phase or C phase of 4 pole



Extension terminal for A phase or C phase of 3 pole



Dimensions of power module (35mm Dim rail fitted)



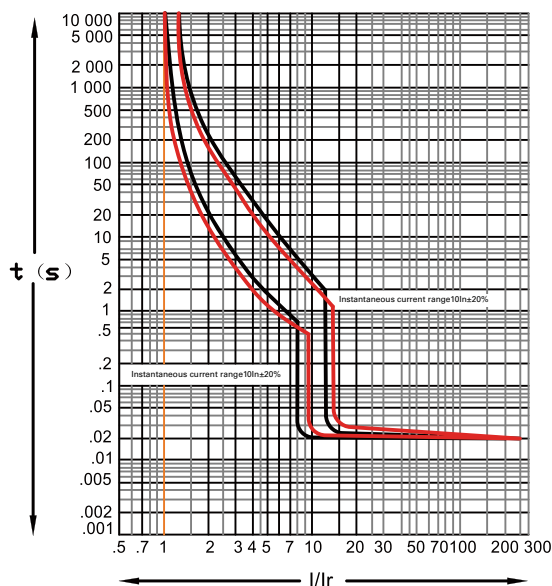
HDM3/3L/3E Series MCCB

Tripping curve

HDM3-100L/S

HDM3-100L/S 10~100A

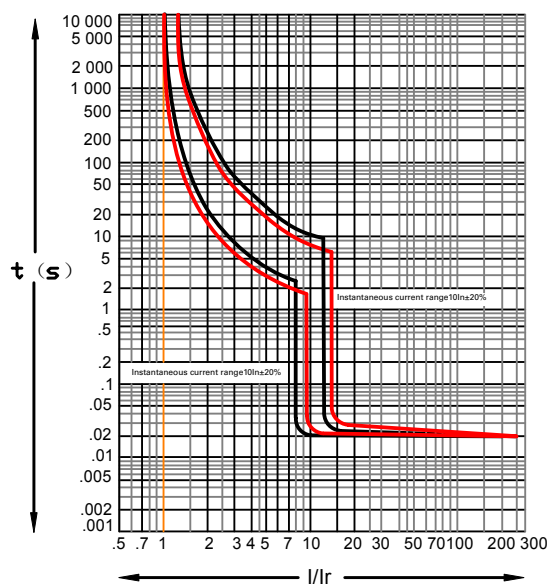
Black line: power distribution protection,
red line: motor protection;



HDM3-100T/N

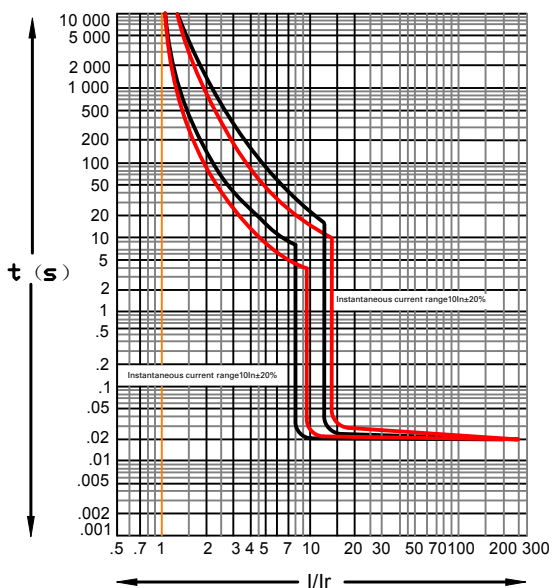
HDM3-100T/N 40A~100A

Black line: power distribution protection ,
red line: motor protection;



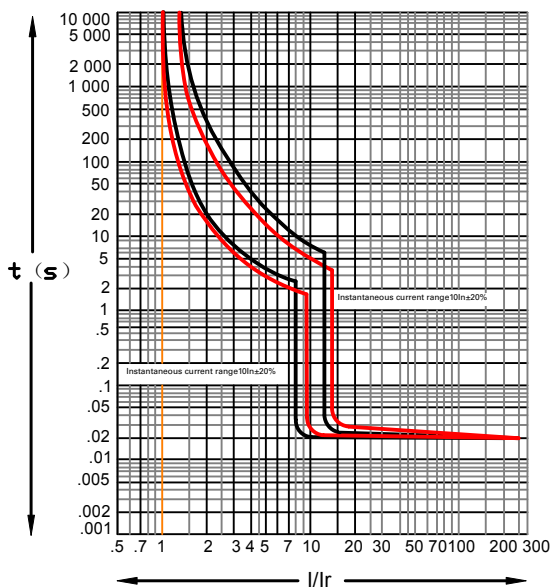
HDM3-160/250

Black line: power distribution protection ,
red line: motor protection;



HDM3-400

Black line: power distribution protection ,
red line: motor protection;

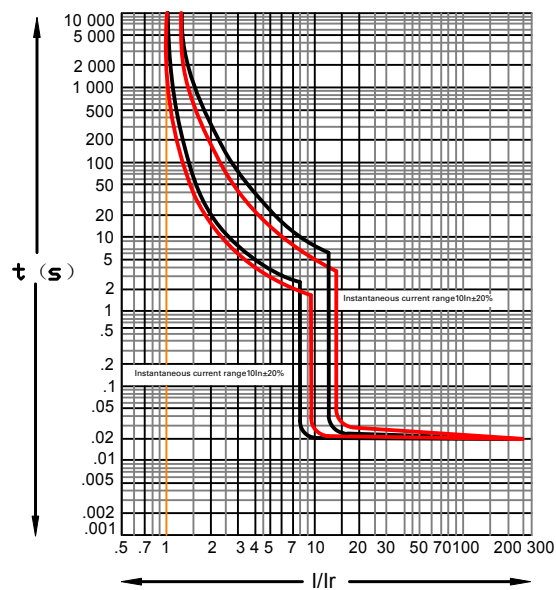


HDM3/3L/3E Series MCCB



HDM3-630

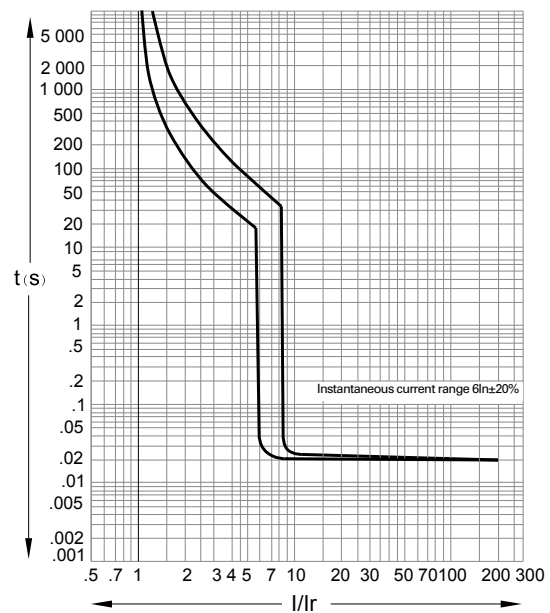
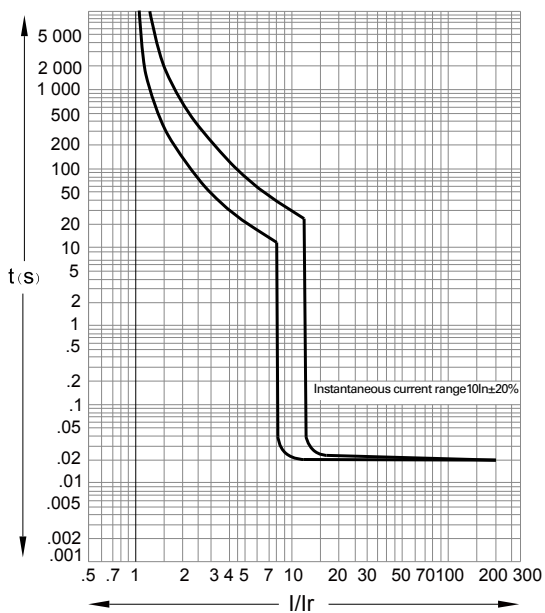
Black line: power distribution protection ,
red line: motor protection;



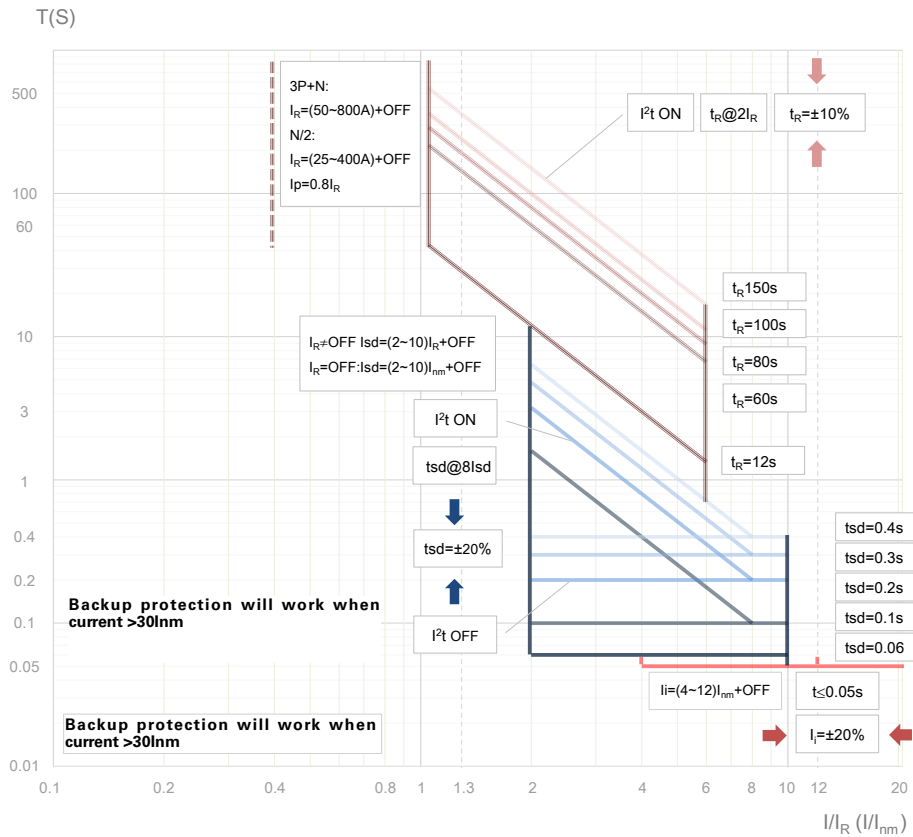
HDM3-800A

HDM3-800A 630A

For power distribution

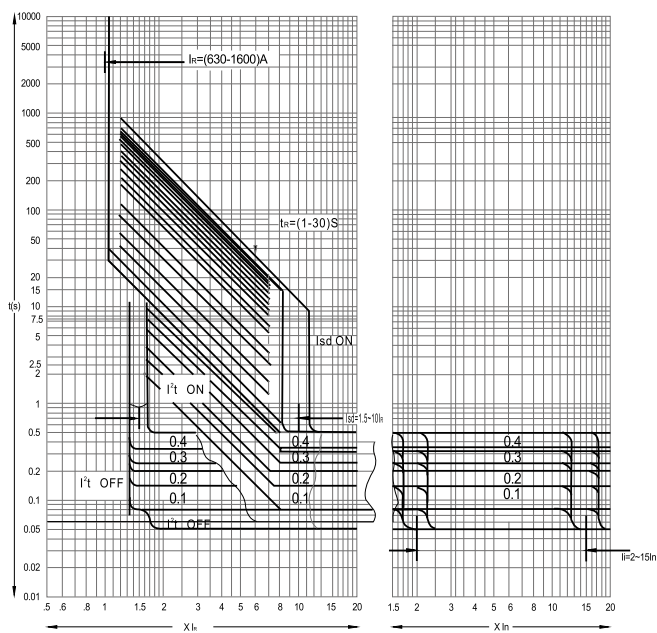


HDM3E(125~800AF) Tripping curve

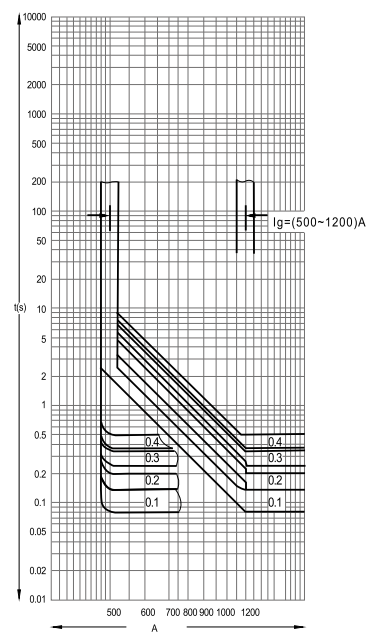


HDM3E-1600AF Tripping characteristic

Triple protection



Underground protection



HDM3-1600 MCCB



Range Presentation

HDM3 is Himel 3 series range of molded case circuit breakers with fixed thermal magnetic trip unit, providing line protection and motor protection, up to 1600A.

HDM3E is Himel 3 series range of MCCB with electronic type trip unit, providing LSI protection, up to 1600A.

HDM3L is Himel 3 series range of earth leakage MCCB, providing protection against residual current, up to 630A.

Features

Easy Installation and Safe Operation

- ◆ Double-deck cover design assures easy installation and removal of accessories.

High Performance

- ◆ Patented design ensures quick extinguishing of arc.
- ◆ Suitable for wide environment conditions, max. -40°C~+70°C

Selection Guide

MCCB Selection Code-@40°products

Range Name	Frame Size	Breaking apacity (Icu/Ics)	Rated current	Poles	Protection
HDM3	1600	N	1600	3	3XX
HDM3 MCCB	1600: 1600A	N: 70/50	800,1000,1250,1600A	3: 3P	3XX: Mag-Therma line protection

Commercial Ref	Commercial Ref Desc
HDM31600N80033XX	HDM3-1600N 800A 3P 40°C
HDM31600N100033XX	HDM3-1600N 1000A 3P 40°C
HDM31600N125033XX	HDM3-1600N 1250A 3P 40°C
HDM31600N160033XX	HDM3-1600N 1600A 3P 40°C
HDM31600OF12K2BR	Auxiliary contact (Right/wire) 2NO+2NC HDM3-1600
HDM31600AL1R	Alarm (Right/wire HDM3-1600
HDM31600OFAL1R	Auxiliary/Alarm (Right/wire) HDM3-1600
HDM31600HL2	Square Extended Rotation Handle HDM3-1600
HDM31250CD1A2	Motor Mechanism AC230V HDM3-1600
HDM31250CD1A3	Motor Mechanism AC400V HDM3-1600
HDM31600MNA2	Undervoltage release (Left/Wire) AC230V HDM3-1600
HDDM31600MNA3	Undervoltage release (Left/Wire) AC400V HDM3-1600
HDDM31600MX1A2L	Shunt Release (Left/Wire) AC230V HDM3-1600
HDDM31600MX1A3L	Shunt Release (Left/Wire) AC400V HDM3-1600
HDDM31600MX1D2L	Shunt Release (Left/Wire) DC24V HDM3-1600

HDM3-1600 MCCB

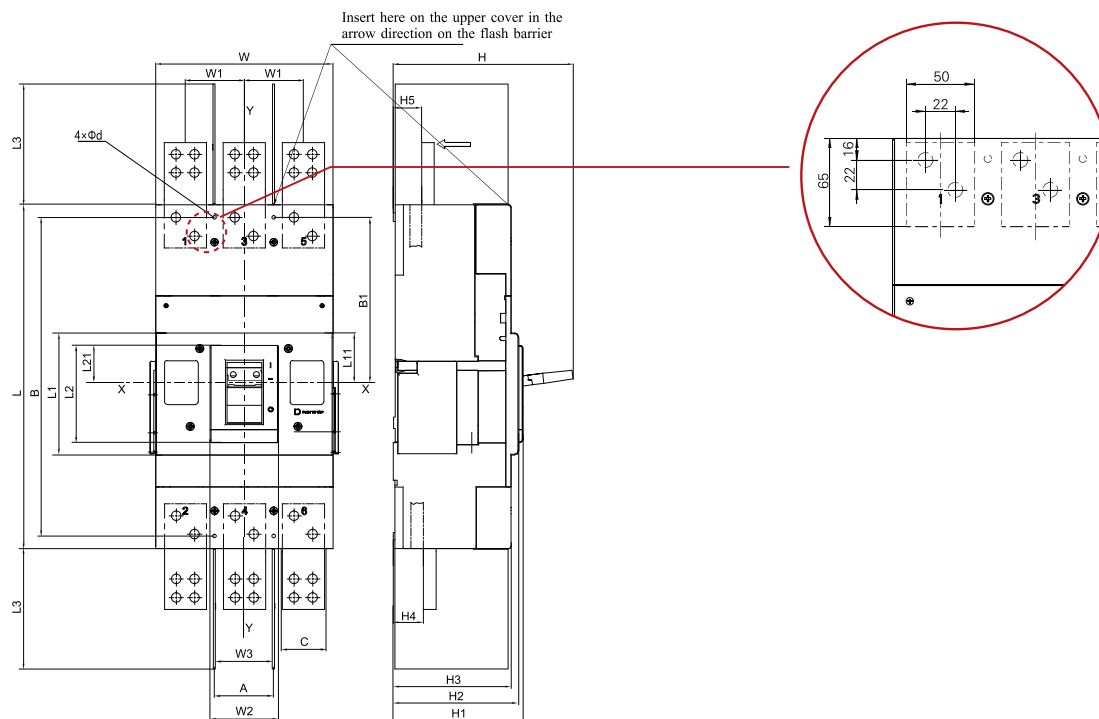


Technical Parameters-@40°products

MCCB		HDM3-1600
[Ue] rated operational voltage 50/60Hz		400/415
[Ui] rated insulation voltage		1000
[Uimp] rated impulse withstand voltage		12
[In]Current (A)		800/1000/1250/1600
Pole		3
Breaking Capacity		N
Icu(KA)	AC 400/415V	70
Ics(KA)	AC 400/415V	50
Mechanical Life		5000
Electrical Life	AC 415V	2500
Trip units	line protection	
	Thermal & magnetic (10In)	
connection type	Front connection	
Accessory	Undervoltage release	
	Shunt Release	
	Alarm	
	Auxiliary/Alarm	
	Auxiliary contact	
	Motor Mechanism	
	Square Extended Rotation Handle)	
Suitability for isolation		
Utilisation category		A
Certification		TUV-CB

HDM3-1600 MCCB

Dimensions and conenction HDM3 1600



Unit:mm

Product model HDM3-	Number of poles	Outline dimensions															Installation dimensions					
		L	L1	L11	L2	L21	L3	W	W1	W2	W3	H	H1	H2	H3	H4	H5	A	B	B1	C	Φd
1600F/N	3	408	145	52	115	37	140	223	70	81	68	213	154	149	140	36	34	70	378	189	50	6

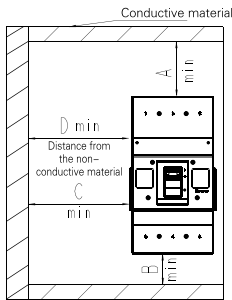
Recommended value for the wiring capacity

Rated current(A)	700 800	1000	1250	1600
Recommended sectional area of wire(mm ²)	240x2	-	-	-
Recommended sectional area of copper busbar(mm ²)	250x2	300x2	400x2	500x2

Recommended value of the wiring screw tightening torque

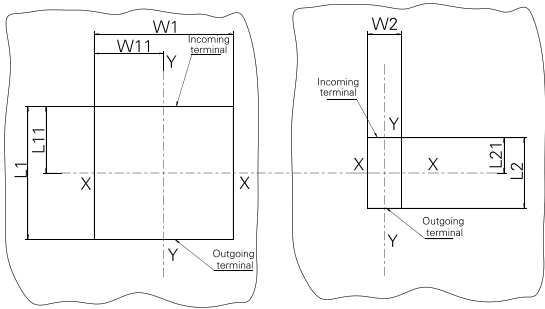
Product model HDM3-	1600
Socket hex wiring screw	M10
Torque(N.m)	11-14

HDM3-1600 MCCB



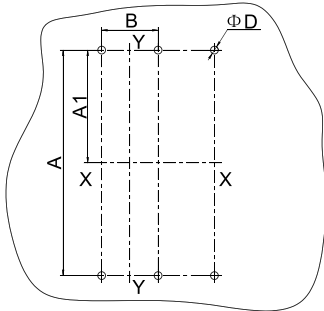
Safety Distance

Product model HDM3-	Amin	Bmin	Cmin	Dmin
1600F/N	110	55	10	0



Hole dimensions of fixed and inserted panels (mm)

Product model HDM3-	Number of poles	1600Exposed front cover and toggle handle				Exposed toggle handle		
		L1	L11	W11	W1	L2	L21	W2
1600/F	3P	148	53.5	106.5	213	118	38.4	84



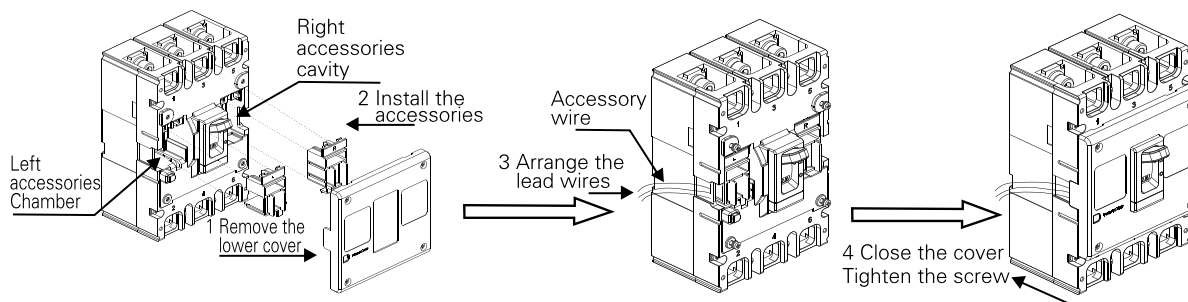
Size of the hole on the mounting plate

Product model HDM3-	Number of poles	A	A1	B	Φd
1600/F	3P	378	189	70	6.2

Internal accessories and expansion functions

Internal accessories(undervoltage release, shunt release, assists, alarm, dualassist, and auxiliary alarm)

• Assembly diagram

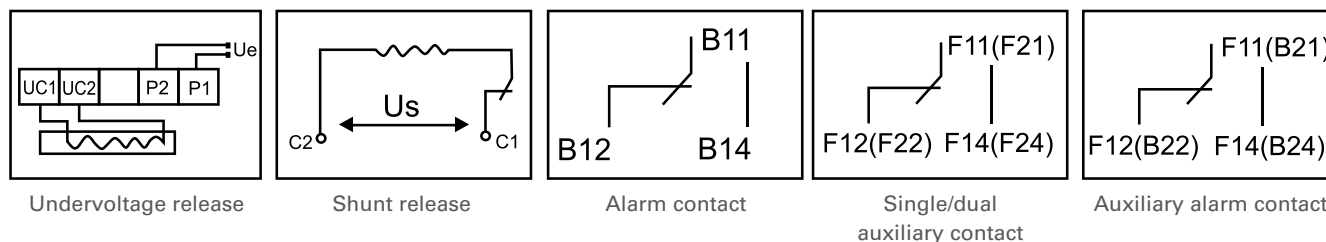


• Installable accessories in each cavity

Left accessory cavity for: left shunt,and left undervoltage

Right accessory cavity for: right single assist,right dual assist,right alarm,and right auxiliary alarm

• Wiring and schematic diagram



• Electrical parameters

Product model HDM3-1600F/N	Undervoltage coil holding power consumption(W)		Min. power for suction of undervoltage coil(W)	
	AC400V	AC230V	AC400V	AC230V
	1.12	1.08	Auxiliary suction type	Auxiliary suction type

Product model HDM3-1600	Installation position AC400V Left cavity-	Min. power for suction of undervoltage coil(W)		
		AC400V	AC230V	DC24
		175	130	80

Alarm and assist electrical parameters

Resistive current	3A		
Use category(GB/T 14048.5-1)	AC15		DC13
Working voltage 50/60Hz	AC400V	0.3A	-
	DC220V	-	0.15A

• Test requirements for internal accessories

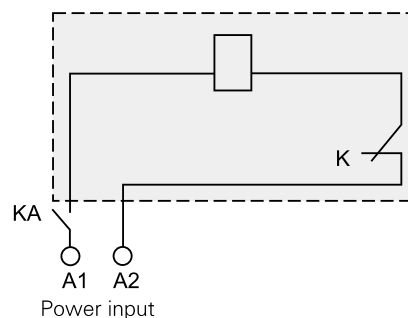
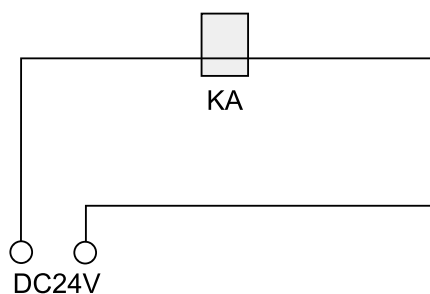
- Undervoltage release
 - When the rated working voltage is ranged 35% to 70%, the undervoltage release will work to trip the circuit breaker;
 - When the rated working voltage is ranged 85% to 110%, the undervoltage release can work to allow the circuit breaker can be closed reliably;
 - When the rated working voltage is below 35%, the undervoltage release can work to prevent the circuit breaker from being closed;
- When 70%~110% rated voltage is applied onto the shunt release, the circuitbreaker can be open reliably, and the handle is turned to the Trip position;
- For circuit breaker with an auxiliary contact, when the circuit breaker is open or closed, the conversion signal of the auxiliary contact shall be issued normally;
- For circuit breaker with an alarm contact, when the circuit breaker is closed or trips (press the red trip button), the conversion signal of the alarm contact shall be issued normally.

⚠ Attention

When the rated power voltage of the shunt release is DC24V, the maximum length of the copper wire cannot exceed the value listed in the table below.

Rated control power voltage U_s (DC24V)	Sectional area is 1.5mm ²	Sectional area is 2.5mm ²
100% U_s	150m	250m
80% U_s	100m	160m

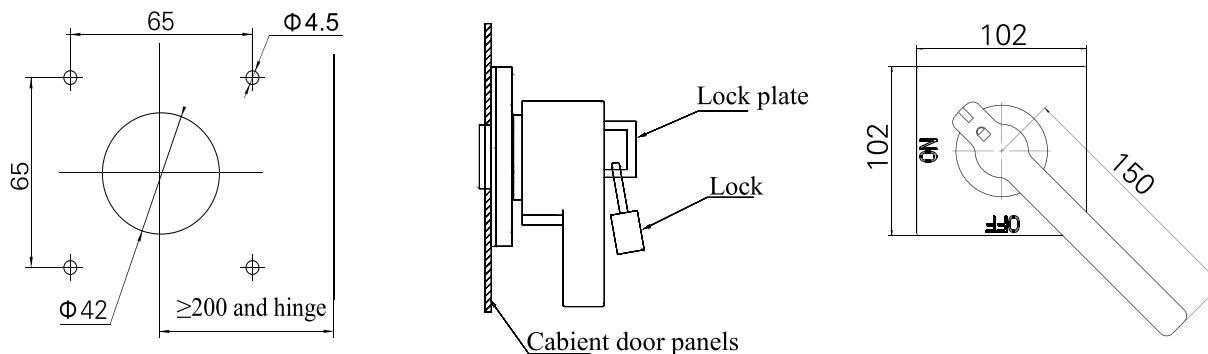
If the requirements of the above table cannot be met, it is recommended to use the following figure for the design of the control circuit of the shunt release:



External Accessories

Manual operating mechanism

- Optional handle style and size



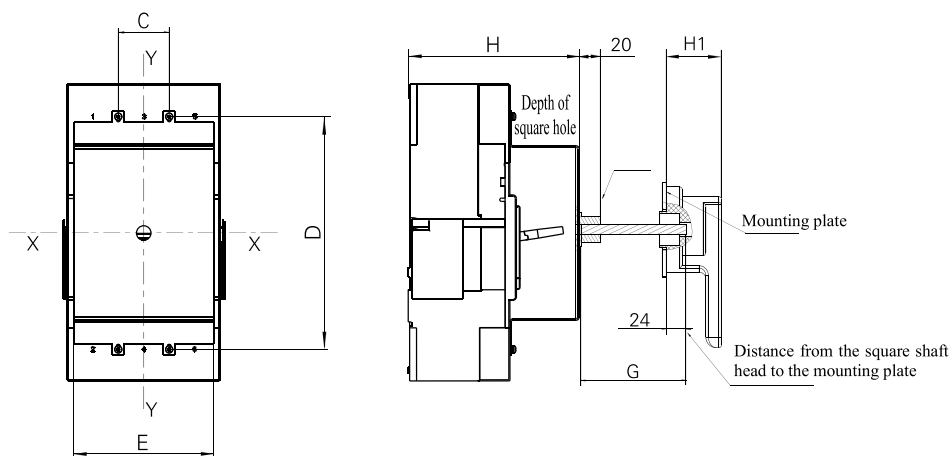
Dimensions of the mounting hole for handle cabinet door

- Features of the operating handle:

When the circuit breaker is at the Closed state, the cabinet door cannot be opened;

When at the Closed or Open state, pull the lock plate marked with on the square operating handle for locking (lock with a diameter ranged 5 to 8mm self-provided by the user).

- Outline dimensions of manual operating mechanism



Model HDM3-	A*	C	D	E	H	G*direct manual operating mechanism	G* extended manual operating mechanism (by default)	Height of round handle H1
1600F/N	-	70	320	193	236	40	150	91

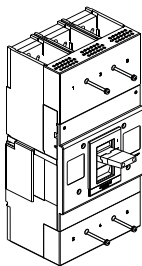
 Attention

G* For other length to be customized, please contact the manufacturer.

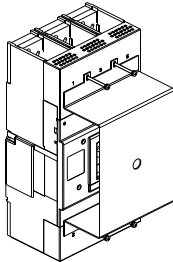
HDM3-1600 MCCB



• Manual operating mechanism installation method



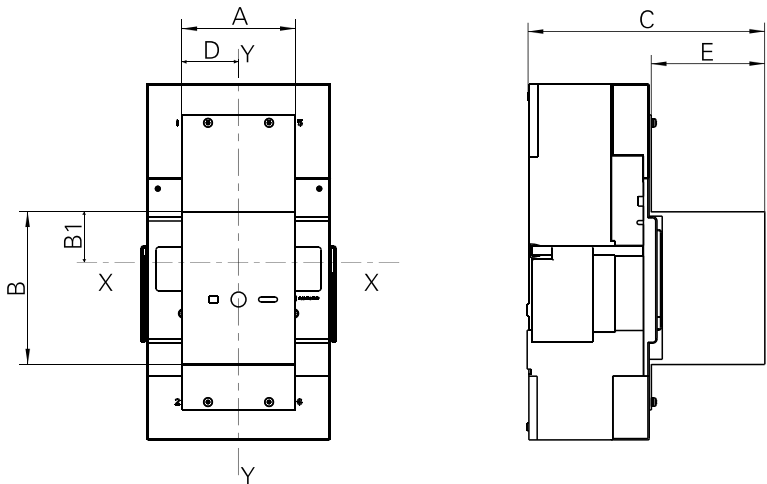
Step1
Remove four screws from
the cover of circuit breaker



Step 2
Insert the handle of thecircuit breaker into
the manual operating mechanism, and
tighten the screw; Insert the square shaft,
and tighten the screw with a screwdriver;
assemble the handle and check whether the
product can be closed and opened normally.

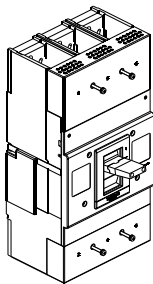
Electric operating mechanism

• Electric operating mechanism installation dimensions

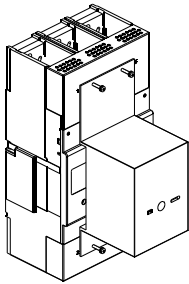


Model HDM3-	A	B	B1	C	D	E
1600F/N	131	177	63	281	65.5	141

• Installation method



Step1
Turn the handle to the
Open position



Step 2
Install the electric operating mechanism,and
tighten the screw and nut

⚠ Attention

Check whether the handle can be inserted into the electric operating mechanism before operation.

HDM3-1600 MCCB



Electric operating mechanism wiring diagram

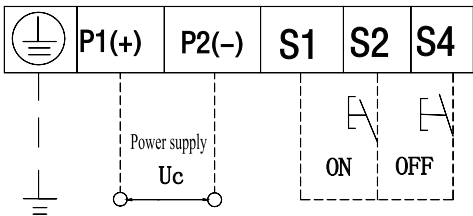


Figure: 1. P1 and P2 are connected to the power wire;
2.S1 is the common terminal; closed if S1 and S2 are powered on, and opened if S1 and S4 are powered on.

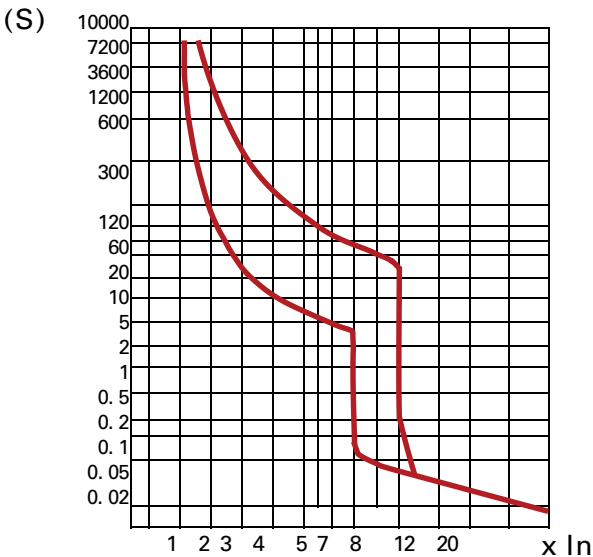
⚠ Attention

- 1. When the circuit breaker of the electric operating mechanism trips, the electric operating mechanism must be opened firmly and then closed;
- 2. At the manual operation mode, turn it clockwise 180° rather than counter clockwise operation.
- 3. Voltage withstand test: The 50HZ,1890V power frequency voltage can be withstood between the incoming terminals P1 and P2(not including S1,S2 and S4) of the power supply and the electric operating mechanism mounting screw.
- 4 For electric operating mechanism, P1 and P2 cannot be connected to the S1, S2, and S4.

Technical Parameters of Electric Operating Mechanism		
Model of electric operating mechanism	Action current(A)	Motor power(W)
	230VAC / 400VAC	
1600	≤2	35

* Rated control power voltage: When AC 230V, the allowable voltage tolerance is ranged AC184~253V.
* Rated control power voltage: At AC 400V, the allowable voltage tolerance is ranged 320 to 440V.

Trip curve HDM3 1600



HDM3S MCCB ⚠



Range Presentation

HDM3S is Himel 3 series range of Molded Case Circuit Breakers with adjustable thermal magnetic trip unit, providing line protection, up to 630A.

Features

- ◆ Double-deck cover design assures easy intallation and removal of accessories.
- ◆ Thermal adjustable range (0.8~1)In ,magnetic adjustable range (5~10)In
- ◆ All series Ics=100%Icu.

Online Content



HDM3S

MCCB Selection Code

Range name	Frame Size	Breaking capacity	Rated current	Poles	Protection	Temperature
HDM3S	160	M	160	3	3XX	
HDM3S	160: 160A 250: 250A	M: 35/35kA	025: 25A 032: 32A ...	3: 3P B: 4P*	3XX: Thermal-magnetic adjustable 2XX: Magnetic protection, Magnetic adjustable only 1XX: Thermal-magnetic protection, Thermal adjustable only	Default: 40°C T: 50°C
	400: 400A 630: 630A	M: 50/50kA	500: 500A 630: 630A			

- Note: 1. B: The N phase is equipped with contacts, but without protection. It closes earlier and opens later than the other 3 poles.
 2. If 2xx, 1xx products required, please contact local Himel sales.
 3. Thermal -magnetic adjustable (3XX) , the minimun In=63A
 4. "T" is thermal trip calibrated in 50 degree. For further requirement, please contact local sales.

Frame Size(A)	Rated Current (A) @40°C In															
	25	32	40	50	63	80	100	125	140	160	200	250	320	400	500	630
160																
250																
400																
630																

Technical Parameters					
Frame	HDM3S-160		HDM3S-250	HDM3S-400	HDM3S-630
Standard	IEC 60947-2		IEC 60947-2	IEC 60947-2	IEC 60947-2
[Uimp] rated impulse withstand voltage	8kV		8kV	8kV	8kV
[Ui] rated insulation voltage	AC1000V		AC1000V	AC1000V	AC1000V
Network frequency	50/60 Hz		50/60 Hz	50/60 Hz	50/60 Hz
[Ue] rated operational voltage	400/415VAC		400/415VAC	400/415VAC	400/415VAC
Poles	3/4		3/4	3/4	3/4
Suitability for isolation	Yes		Yes	Yes	Yes
Utilisation category	Category A		Category A	Category A	Category A
[In]Current	25/32/40/50	63/80/100/125/160	140/160/200/250	250/320/400	500/630
Thermal Adjustable	0.8,0.9,1.0	0.8,0.9,1.0	0.8,0.9,1.0	0.8,0.9,1.0	0.8,0.9,1.0
Magnetic Adjustable	/	5,6,7,8,9,10	5,6,7,8,9,10	5,6,7,8,9,10	5,6,7,8,9,10
Breaking Capacity	M		M	M	M
400VAC Icu	35		35	50	50
400VAC Ics	35		35	50	50
Mechanical Life	8500		7000	4000	4000
Electrical Life	1500		1000	1000	1000
Dimension (WxHxD)	90-155-108(3P)/ 120-155-108(4P)		105-165-116(3P)/ 140-165-116(4P)	140-257-155(3P)/ 184-257-155(4P)	140-257-155(3P)/ 184-257-155(4P)
Ambient air temperature for operation	40/50 °C		40/50 °C	40/50 °C	40/50 °C
Certificates	TUV/ CB		TUV/ CB	TUV/ CB	TUV/ CB

HDM3S MCCB



Operating Conditions

Pollution degree

HDM3S products operate in the environment (industrial environment) with pollution class 3 defined in IEC/EN 60947-1 and IEC/EN 60947-2 standards.

Environment temperature

- HDM3S series can work for a long time under normal environment and operating temperature between -5°C and 50°C.
- Refer to the temperature derating factor table or contact us if the operating ambient temperature exceeds 40°C
- Storage temperature ranges between -20°C and 70°C.

Altitude

- Altitude at normal installation site does not exceed 2000m.
- If the altitude exceeds 2000m, the changes in the dielectric strength and the air temperature drop must be considered. Refer to the altitude derating factor table or contact us.

Humidity

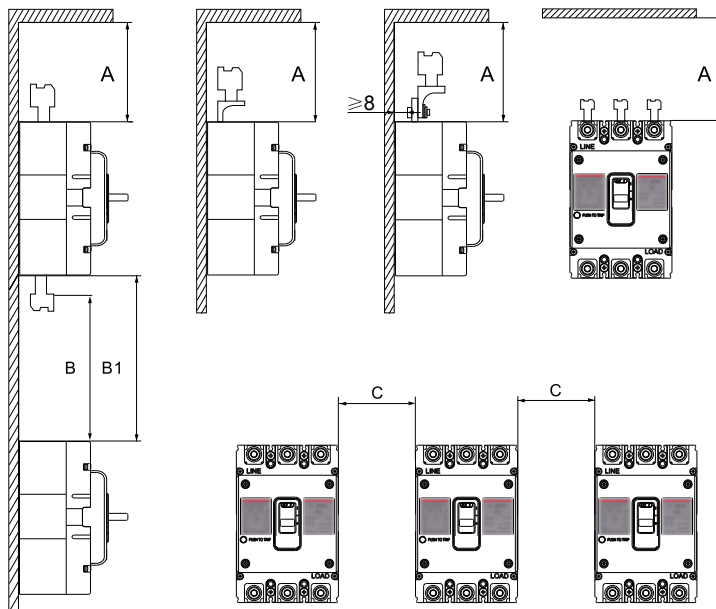
The following conditions must be met during normal operation:

- The relative humidity of atmosphere does not exceed 50% if the ambient air temperature is +40°C. The product can be used at a high relative humidity if the temperature is low.
- The monthly average relative humidity at the wettest month is 90%.
- The impact of the condensation generated on the product surface on the product property shall be considered.

Protection class

- IP protection class of circuit breaker body: IP20
- Circuit breaker installed in the switch cabinet:
circuit breaker with a toggle handle IP40
circuit breaker with an electric operating mechanism IP40

Safety Distance



Model	A	B	C(mm)
HDM3S-160	60	60	30
HDM3S-250	60	60	30
HDM3S-400	110	110	70
HDM3S-630	110	110	70



This offer is available only in Middle East / North African countries.
For more information, contact local Himel Sales.

HDM3S MCCB





Molded Case Circuit Breakers

HDM3s Series



APPLICATIONS

-  Utility
-  Building and Residential
-  Industrial
-  Panel Building

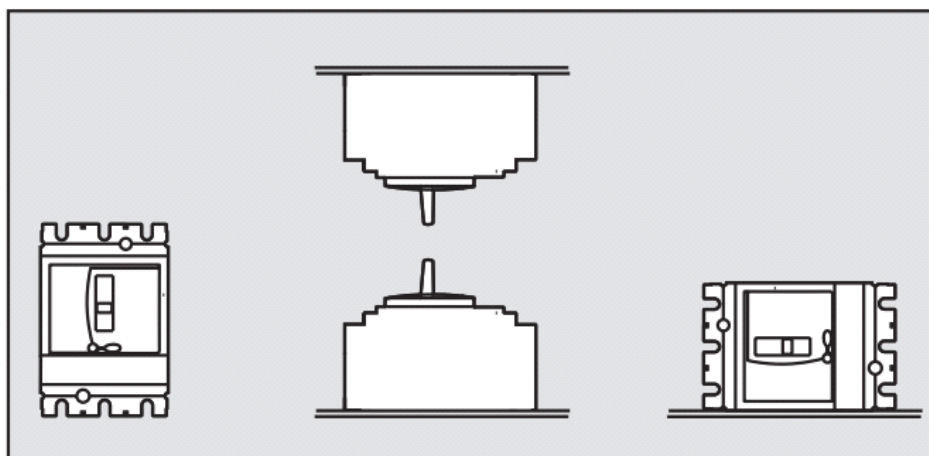
FEATURES

-  Double-deck cover design
-  $I_{cs} = I_{cu}$
-  Wide Thermal and Magnetic Adjustable Ranges

HDM3S MCCB



Installation Position



Derating

Product type	Ambient temperature(40°C product)				
	40	45	50	55	60
HDM3S-160	1	0.96	0.89	0.83	0.75
HDM3S-250	1	0.92	0.85	0.79	0.71
HDM3S-400/630	1	0.94	0.87	0.81	0.73

Note: For 50°C product temperature derating, please confirm with local Himel sales office.

	Altitude			
	2000m	3000m	4000m	5000m
Insulation voltage U_i (V)	800	728	664	616
U_{imp} (kV)	8	7	6.5	6
Power frequency withstand voltage (V)	3000	2500	2100	1800
Rated heat value at 40°C (A) *In	1	0.94	0.88	0.85

Power loss of three poles(W)

Product type	Rated current	Front connection	Rear connection	Plug-in connection	Withdrawable connection
HDM3S-160	160	60	87	87	—
HDM3S-250	250	63	90	90	—
HDM3S-400	400	115	120	120	128
HDM3S-630	630	180	190	190	205

HDM3S MCCB

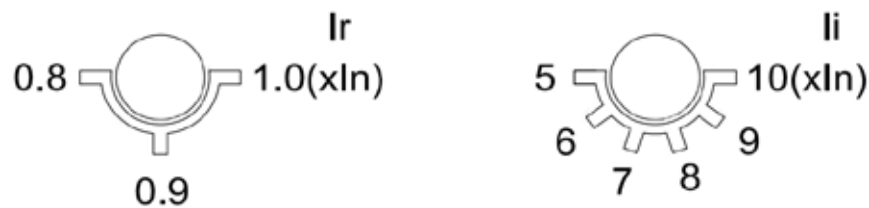


Trip Units

Thermal and magnetic

Protection

The circuit breaker equipped with TM thermomagnetic release is mainly for protection of the cable, which is on the power distribution system for transformer power supply.



Overload protection: thermal protection Ir (Adjustable)

The overload protection function provides inverse time limit curve on the basis of bimetal. If the limit is exceeded, the deformation of the bimetal can lead in the tripping of the circuit breaker operating mechanism.

Thermal adjustable range: 0.8, 0.9, 1.0In

Test No.	I/In	Conventional time	Breaker status	Initial status
1	1.05	> 1h(In ≤ 63A) > 2h(In > 63A)	Non-tripping	Cold status
2	1.3	≤ 1h(In ≤ 63A) ≤ 2h(In > 63A)	Tripping	Immediately after test 1

Note: For 160A breaker, rated current is under 50A, only have thermal adjustable breaker.

Short circuit protection: magnetic protection Ii (Adjustable)

Magnetic protection achieves short circuit protection through a magnetic trip device. The circuit breaker will trip instantaneously.

Magnetic adjustable range: 5, 6, 7, 8, 9, 10In

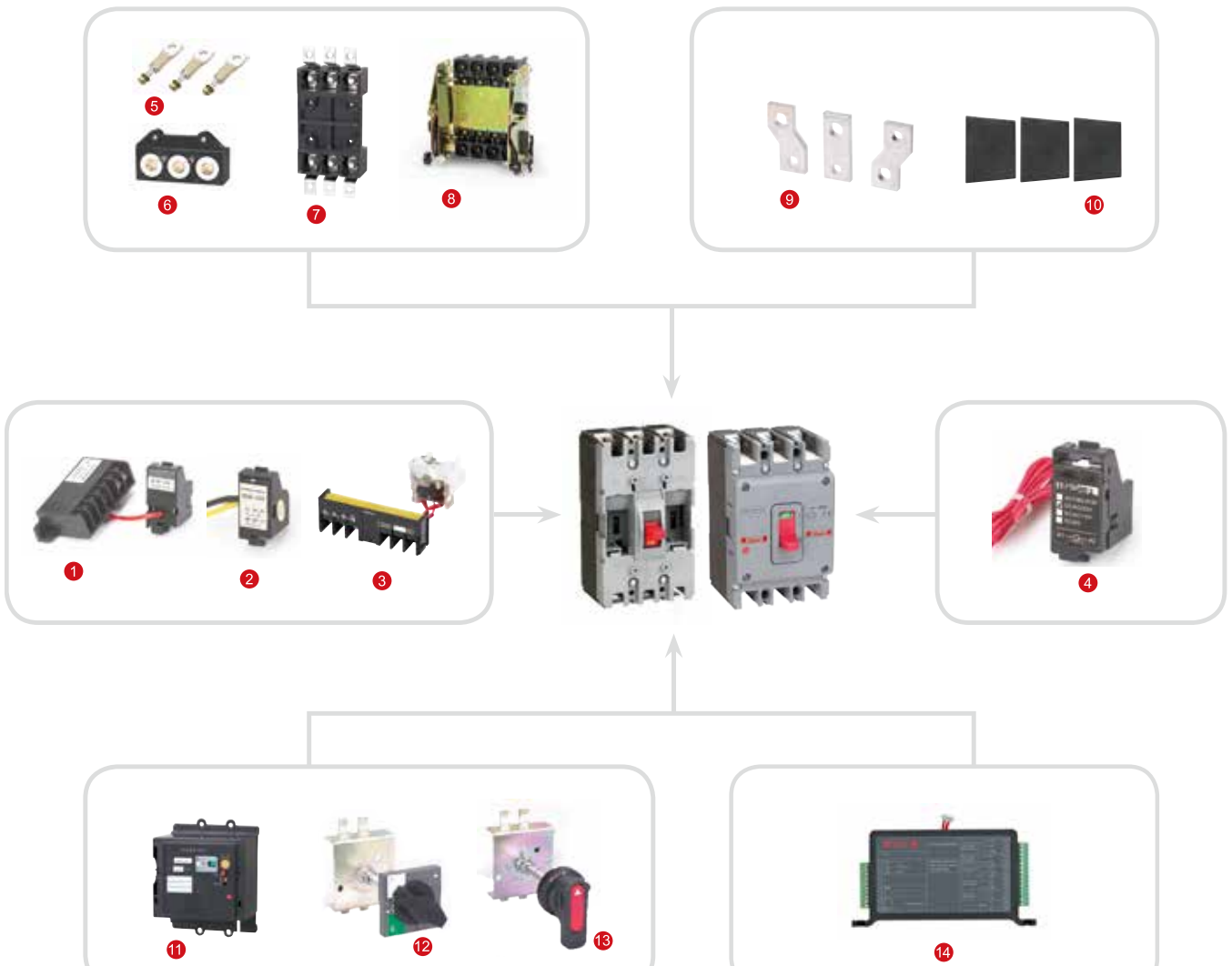
Test No.	I	Breaker status	Conventional time
1	80%Ii	Non-tripping	≥ 0.2s
2	120%Ii	Tripping	≤ 0.2s

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Accessories

Overview of Accessories



1	Undervoltage release	7	Plug-in front connection	13	Round handle operating mechanism
2	Auxiliary contact	8	Withdrawable connection	14	Hand lock
3	Alarm contact	9	Extension terminal	15	Terminal cover
4	Shunt release	10	Interphase barriers	16	Cage lug
5	Fixed rear connection	11	Electric operating mechanism		
6	Plug-in rear connection	12	Square handle operating mechanism		

Note:

For more information about the accessories, please go to Himel website and download MCCB catalogue.

HDM3S MCCB



Internal Accessories

Auxiliary contact

An accessory connected in the auxiliary circuit of the switching device to indicate the circuit breaker status of ON or not.

Electrical wiring diagram

Accessory name	ON	OFF/TRIP
Auxiliary		

Electrical parameters

Conventional Thermal Current	3A		
Use category	AC 15 DC 13		
Working electricity 50Hz	AC 400V	0.3A	
	DC 220V		0.15A

Alarm contact

An accessory used to indicate the circuit breaker status of ON or not. When the alarm contact indicates that the circuit breaker is at Trip status, there are the following five possibilities.

- Overload or short circuit fault.
- Residual current fault.
- Shunt release action.
- Line fault and undervoltage release action.

Electrical wiring diagram

Accessory name	ON/OFF	TRIP
Alarm		

Electrical parameters

Conventional Thermal Current	3A		
Use category	AC 15 DC 13		
Working electricity 50Hz	AC 400V	0.3A	
	DC 220V		0.15A

Undervoltage release

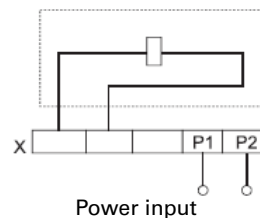
- The undervoltage release shall reliably trip the circuit breaker at the voltage between 35% and 70% of the rated operational voltage;
- The undervoltage release shall ensure that the circuit breaker can be switched on at the voltage between 85% and 110% of the rated operational voltage;
- The undervoltage release shall prevent the circuit breaker from switching on when voltage is below 35% of the rated operational voltage.

Electric wiring diagram of undervoltage release

Wiring diagram

Note: X- terminal block

Note: In the dashed box, it is the wiring diagram of accessories in the circuitbreaker.



Electrical parameters

Electrical parameters	Undervoltage release power loss(W)	
	AC400V	AC230V
HDM3S-160	3.9	3.2
HDM3S-250	4.3	3.3
HDM3S-400/630	3.6	2.5



HDM3S MCCB



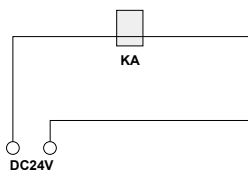
Internal Accessories

Shunt release

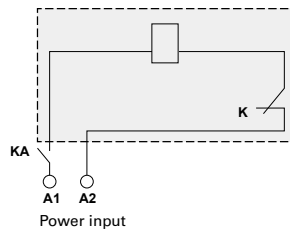
>The shunt release shall reliably trip the circuit breaker at the voltage between 70% and 110% of the rated control power voltage U

>The circuit breaker shall be reset on the site after tripping through the shunt release.

Electrical wiring diagram



KA: DC24V intermediate relay with the contact current capacity of 1A



Electrical parameters

Product type	Shunt release power loss(W)		
	AC400V	AC230V	DC24V
HDM3S-160	96.8	73	91.2
HDM3S-250	112	68.6	85.3
HDM3S-400/630	67	62.3	100

External Accessories

Model	Fixed front	Fixed rear	Plug-in front	Plug-in rear	Withdrawable
HDM3S-160	■	■	■	■	-
HDM3S-250	■	■	■	■	-
HDM3S-400	■	■	■	■	■
HDM3S-630	■	■	■	■	■

Plug-in

The wiring type is divided into plug-in Rear Connection and plug-in Front Connection

The plug-in connection for the products is easy for maintenance and replacement, but plug-in and plug-out cannot be done with the electricity.

Draw out

The drawer-out products can be easily maintained and replaced Visual connection and break-up.

Extended Handle

Handle operating mechanism

The circuit breaker can be operated by the rotation of the handle and the ergonomically designed rotation handle makes the operation of the circuit breaker more flexible.

2 types of rotation handle operating mechanisms:

>Direct rotation handle (round handle operating mechanism and square handle operating mechanism)

>Extended rotation handle (round extending handle operating mechanism and square extended handle operating mechanism)

User visualization information/settings:

> 3 position indications: OFF, ON and TRIP

>The circuit breaker cannot be switched on when the door is open

>The door cannot be opened when the circuit breaker is switched on

>The axial length of the extended handle can be custom made according to the distance from the back of the circuit breaker to the door.



HDM3S MCCB



Rear connection

Easy to install and connect the products in the rear connection.

Expend terminal

The extension terminal is connected to the standard terminal of the circuit breaker, in order to provide many other wiring schemes in the limited space:

- >Direct extension terminal
- >Extension terminal with inter-electrode distance

The busbar and extension terminal can be connected to the inlet or outlet terminal of the circuit breaker.

Interphase barriers

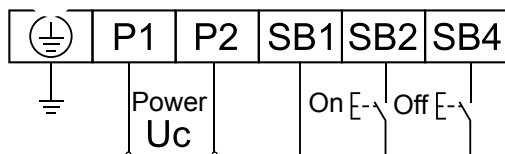
The interphase barriers can enhance the insulating performances between phase and phases . They can be installed from the product front even though the products had mounted.

Interphase barriers will be offered by standard, 3P product(4pcs), 4P product(6pcs).

Motor

- Apply to remote electric connection, disconnection and re-trip of the circuit breaker and the automation control occasions.
- Rated voltage of electric operating mechanism: AC400V;AC230V/DC220V;AC/DC110V;DC24V
- Operating voltage range of electric operating mechanism: 85%-110% Ue.

Electrical wiring diagram



Electrical parameters

Product type	IP degree	Current	Voltage	Switch on/off time	Electric life
HDM3S160	20	$\leq 1.5A$	230v/380v	1S	12000
HDM3S250	20	$\leq 1.5A$	230v/380v	1S	12000
HDM3S400/630	20	$\leq 2A$	230v/380v	1S	8000

Terminal cover

Protection degree: IP40.

Protect from being contacted with main circuit.

Note: only for 3P.

Handle lock

Locking the breaker at the status of making.

Cage lug

It is used to connect with copper (aluminum) cable directly.



HDM3S MCCB



Accessories Selection Guide

Auxiliary contact with Wire

Frame Size	Auxiliary contact with Wire	
	Contact	Left
HDM3S-160	1NC+1NO	HDM3S160OF11L
	2NC+2NO	HDM3S160OF21L
HDM3S-250	1NC+1NO	HDM3S250OF11L
	2NC+2NO	HDM3S250OF21L
HDM3S-400/630	1NC+1NO	HDM3S630OF11L
	2NC+2NO	HDM3S630OF21L



Auxiliary contact with Terminal

Frame Size	Auxiliary contact with terminal	
	Contact	Left
HDM3S-160	1NC+1NO	HDM3S160OF12L
	2NC+2NO	HDM3S160OF22L
HDM3S-250	1NC+1NO	HDM3S250OF12L
	2NC+2NO	HDM3S250OF22L
HDM3S-400/630	1NC+1NO	HDM3S630OF12L
	2NC+2NO	HDM3S630OF22L



Alarm contact with Wire

Frame Size	Alarm contact Wire	
	Left	
HDM3S-160	HDM3S160AL1L	
HDM3S-250	HDM3S250AL1L	
HDM3S-400/630	HDM3S630AL1L	



Alarm contact with Terminal

Frame Size	Alarm contact terminal	
	Left	
HDM3S-160	HDM3S160AL2L	
HDM3S-250	HDM3S250AL2L	
HDM3S-400/630	HDM3S630AL2L	



Auxiliary Alarm with Wire

Frame Size	Alarm contact Wire	
	Left	
HDM3S-160	HDM3S160OFAL1L	
HDM3S-250	HDM3S250OFAL1L	
HDM3S-400/630	HDM3S630OFAL1L	



HDM3S MCCB



Auxiliary Alarm with Terminal

Frame Size	Alarm contact terminal
	Left
HDM3S-160	HDM3S160OFAL2L
HDM3S-250	HDM3S250OFAL2L
HDM3S-400/630	HDM3S630OFAL2L



Shunt release with Wire

Frame Size	Shunt release with Wire	
	Voltage	Right
HDM3S-160	AC230V	HDM3S160MX1A2R
	AC400V	HDM3S160MX1A3R
	DC110V	HDM3S160MX1D1R
	DC220V	HDM3S160MX1D2R
	DC24V	HDM3S160MX1D3R
HDM3S-250	AC230V	HDM3S250MX1A2R
	AC400V	HDM3S250MX1A3R
	DC110V	HDM3S250MX1D1R
	DC220V	HDM3S250MX1D2R
	DC24V	HDM3S250MX1D3R
HDM3S-400/630	AC230V	HDM3S630MX1A2R
	AC400V	HDM3S630MX1A3R
	DC110V	HDM3S630MX1D1R
	DC220V	HDM3S630MX1D2R
	DC24V	HDM3S630MX1D3R



Shunt release with Terminal

Frame Size	Shunt release with Terminal	
	Voltage	Right
HDM3S-160	AC230V	HDM3S160MX2A2R
	AC400V	HDM3S160MX2A3R
	DC110V	HDM3S160MX2D1R
	DC220V	HDM3S160MX2D2R
	DC24V	HDM3S160MX2D3R
HDM3S-250	AC230V	HDM3S250MX2A2R
	AC400V	HDM3S250MX2A3R
	DC110V	HDM3S250MX2D1R
	DC220V	HDM3S250MX2D2R
	DC24V	HDM3S250MX2D3R
HDM3S-400/630	AC230V	HDM3S630MX2A2R
	AC400V	HDM3S630MX2A3R
	DC110V	HDM3S630MX2D1R
	DC220V	HDM3S630MX2D2R
	DC24V	HDM3S630MX2D3R



HDM3S MCCB



Under voltage release with Terminal

Frame Size	Under voltage release with Terminal	
	Voltage	Right
HDM3S-160	AC230V	HDM3S160MN2A2R
	AC400V	HDM3S160MN2A3R
	DC110V	HDM3S160MN2D1R
	DC220V	HDM3S160MN2D2R
	DC24V	HDM3S160MN2D3R
HDM3S-250	AC230V	HDM3S250MN2A2R
	AC400V	HDM3S250MN2A3R
	DC110V	HDM3S250MN2D1R
	DC220V	HDM3S250MN2D2R
	DC24V	HDM3S250MN2D3R
HDM3S-400/630	AC230V	HDM3S630MN2A2R
	AC400V	HDM3S630MN2A3R
	DC110V	HDM3S630MN2D1R
	DC220V	HDM3S630MN2D2R
	DC24V	HDM3S630MN2D3R



Plug-in

Frame Size	Plug-in		
	Connection type	3P	4P
HDM3S-160	Front connection	HDM3S160PF3	HDM3S160PF4
	Rear connection	HDM3S160PR3	HDM3S160PR4
HDM3S-250	Front connection	HDM3S250PF3	HDM3S250PF4
	Rear connection	HDM3S250PR3	HDM3S250PR4
HDM3S-400/630	Rear connection	HDM3S630PR3	HDM3S630PR4



Draw-out

Frame Size	Plug-in		
	Connection type	3P	4P
HDM3S-400	Horizontal connection	HDM3S400DOR3	HDM3S400DOR4
HDM3S-630	Horizontal connection	HDM3S630DOR3	HDM3S630DOR4



Motor

Frame Size	Motor				
	AC230V	AC400V	DC110V	DC220V	DC24V
HDM3S-160	HDM3S160MOA2	HDM3S160MOA3	HDM3S160MOD1	HDM3S160MOD2	HDM3S160MOD3
HDM3S-250	HDM3S250MOA2	HDM3S250MOA3	HDM3S250MOD1	HDM3S250MOD2	HDM3S250MOD3
HDM3S-400/630	HDM3S630MOA2	HDM3S630MOA3	HDM3S630MOD1	HDM3S630MOD2	HDM3S630MOD3



HDM3S MCCB



Rotation Handle

Frame Size	Rotation Handle		
	Handle shape	Direct	Extended (Default 150mm)
HDM3S-160	Round	HDM3S160H1	HDM3S160HL1
	Square	HDM3S160H2	HDM3S160HL2
HDM3S-250	Round	HDM3S250H1	HDM3S250HL1
	Square	HDM3S250H2	HDM3S250HL2
HDM3S-400/630	Round	HDM3S630H1	HDM3S630HL1
	Square	HDM3S630H2	HDM3S630HL2



Rear connection

Frame Size	Rear connection	
	3P(6pcs)	4P(8pcs)
HDM3S-160	HDM3S160RC3	HDM3S160RC4
HDM3S-250	HDM3S250RC3	HDM3S250RC4
HDM3S-400/630	HDM3S630RC3	HDM3S630RC4



Expanding terminal

Frame Size	Expanding terminal	
	3P(3pcs)	4P(4pcs)
HDM3S-160	HDM3S160C3	HDM3S160C4
HDM3S-250	HDM3S250C3	HDM3S250C4
HDM3S-400/630	HDM3S630C3	HDM3S630C4



Interphase barriers

Frame Size	Interphase barriers	
	3P(2pcs)	4P(3pcs)
HDM3S-160	HDM3S160IB3	HDM3S160IB4
HDM3S-250	HDM3S250IB3	HDM3S250IB4
HDM3S-400/630	HDM3S630IB3	HDM3S630IB4



Cage lug

Frame Size	Cage lug	
	Normal(1pcs)	
HDM3S-160	HDM3S160LUG	
HDM3S-250	HDM3S250LUG	
HDM3S-400	HDM3S400LUG	
HDM3S-630	HDM3S630LUG	

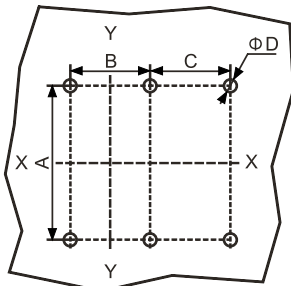


HDM3S MCCB

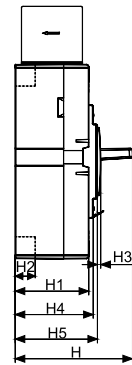
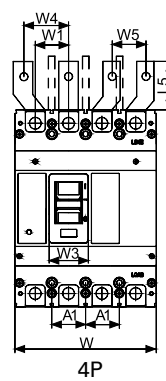
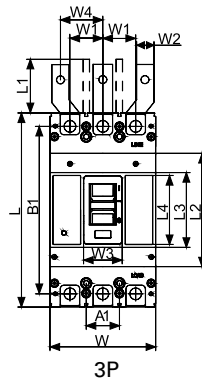


Fixed MCCB Mounting Dimension

Front connection(mm)



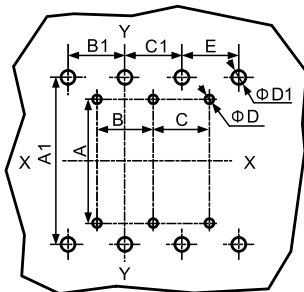
Note: X-X and Y-Y is the center of the three-pole breaker



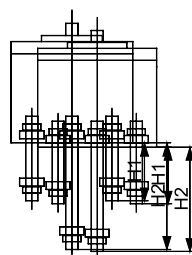
Model	Poles	Installation dimension			
		A	B	C	D
HDM3S-160	3	132	30	/	4.5
	4	132	30	30	4.5
HDM3S-250	3	126	35	/	4.5
	4	126	35	35	4.5
HDM3S-400/630	3	194	44	/	7
	4	194	44	44	7

Model	Poles	Overall dimensions																		Installation dimension	
		L	L1	L2	L3	L4	L5	W	W1	W2	W3	W4	W5	H	H1	H2	H3	H4	H5	A1	B1
HDM3S-160	3P	155	98	121	55	50	21.8	90	30	15	25.3	39	/	107	75	20	2.6	82	87	30	134
	4P	155	98	121	55	50	21.8	120	30	15	25.3	39	30	107	75	20	2.6	82	87	30	134
HDM3S-250	3P	165	98	102	59	50	41.8	105	35	20	24	42	/	116	81	23	3	88	93	35	144
	4P	165	98	102	59	50	41.8	140	35	20	24	42	35	116	81	23	3	88	93	35	144
HDM3S-400/630	3P	257	98	150	99	91	45.4	140	43.5	28	51	56	/	150	97	30	4	103	109	44	230
	4P	257	98	150	99	91	45.4	185	43.5	28	51	56	44	150	97	30	4	103	109	44	230

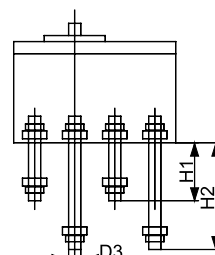
Rear connection(mm)



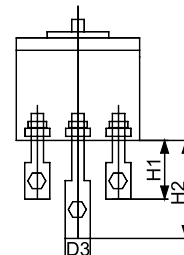
Note: X-X and Y-Y is the center of the three-pole breaker



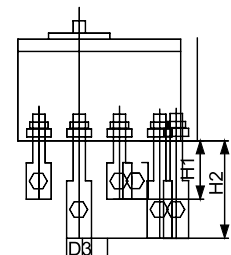
160/250 3P



160/250 4P



400/630 3P



400/630 4P

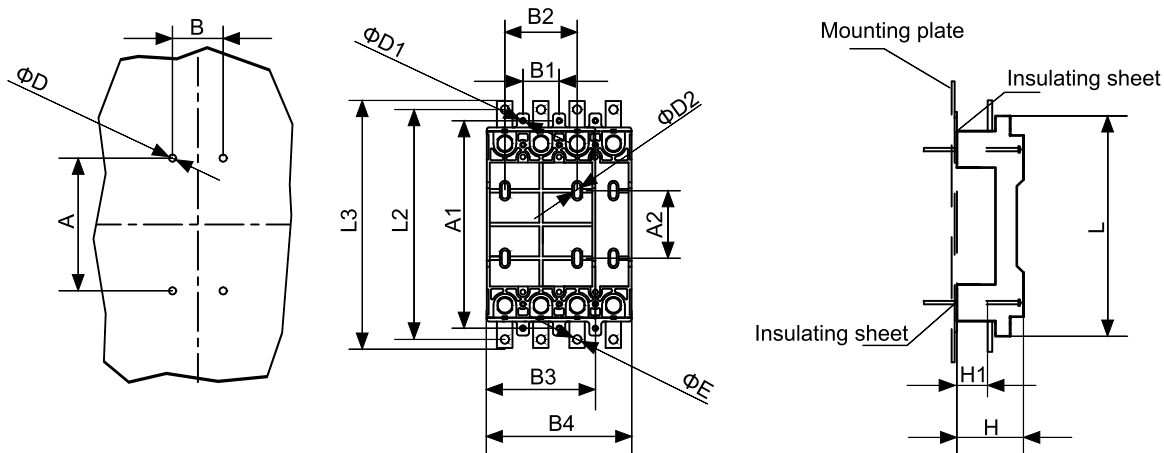
Model	Poles	Dimensions											
		A	B	C	D	A1	B1	C1	E	D1	H1	H2	D3
HDM3S-160	3	132	30	/	4.5	134	30	30	/	9.8	112	72	φ 8
	4	132	30	30	4.5	134	30	30	30	9.8	112	72	φ 8
HDM3S-250	3	126	35	/	4.5	144	35	35	/	8	126	87	φ 8
	4	126	35	35	4.5	144	35	35	35	8	126	87	φ 8
HDM3S-400	3	194	44	/	7	230	43.5	43.5	/	10.5	136	83	30
	4	194	44	44	7	230	43.5	43.5	44	10.5	136	83	30
HDM3S-630	3	194	44	/	7	230	43.5	43.5	/	10.5	136	83	32
	4	194	44	44	7	230	43.5	43.5	44	10.5	136	83	32

HDM3S MCCB



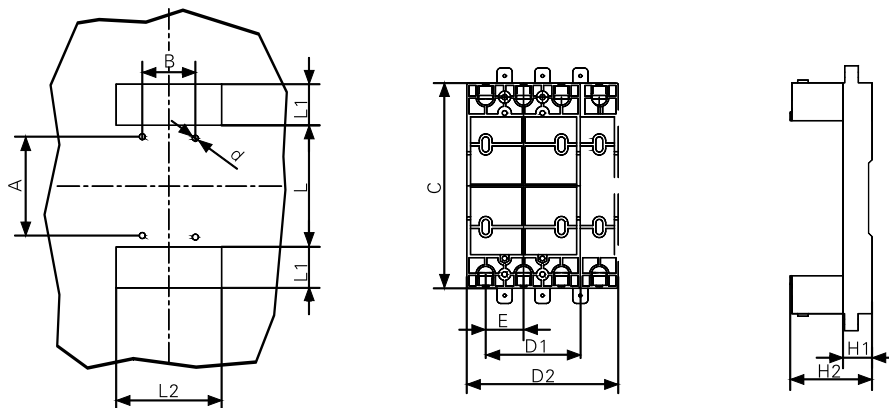
Plug-in MCCB Mounting Dimension

Front connection (mm)



Model	Poles	Dimension																
		A	B	L2	L3	D	E	H	H1	L	A1	B1	D1	A2	B2	B3	B4	D2
HDM3S-160	3	112	30	200	216	4.5	6.5	56	28	182	172	30	5.5	67	60	90	-	6.5
	4	112	30	200	216	4.5	6.5	56	28	182	172	30	5.5	67	60	-	120	6.5
HDM3S-250	3	150	35	223	243	4.5	8.5	74	33	202	191	35	5.5	74	70	105	-	6.5
	4	150	35	223	243	4.5	8.5	74	33	202	191	35	5.5	74	70	-	140	6.5
HDM3S-400	3	249	44	332	358	5.5	10.5	85	36	310	295	44	6.5	146	88	140	-	7
	4	249	44	332	358	5.5	10.5	85	36	310	295	44	6.5	146	88	-	184	7
HDM3S-630	3	249	44	332	358	5.5	10.5	85	36	310	295	44	6.5	146	88	140	-	7
	4	249	44	332	358	5.5	10.5	85	36	310	295	44	6.5	146	88	-	184	7

Rear connection(mm)



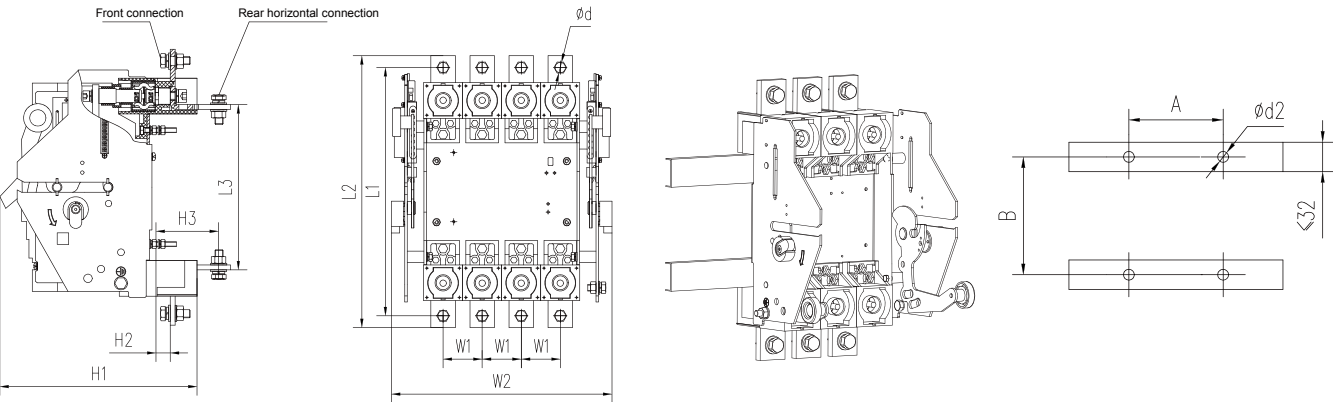
Model	Poles	Dimensions											
		A	B	L	L1	L2	d	C	D1	D2	E	H1	H2
HDM3S-160	3	67	60	90	51	94	φ6.5	162	90	-	30	20	56
	4	67	90	90	51	124	φ6.5	162	-	120	30	20	56
HDM3S-250	3	74	70	100	55	110	φ6.5	179	105	-	35	27	73
	4	74	105	100	55	145	φ6.5	179	-	140	35	27	73
HDM3S-400	3	146	88	183	70	135	φ7	279	132	-	44	45	85
	4	146	132	183	70	179	φ7	279	-	176	44	45	85
HDM3S-630	3	146	88	183	70	135	φ7	279	132	-	44	45	85
	4	146	132	183	70	179	φ7	279	-	176	44	45	85

HDM3S MCCB



Draw out Mounting Dimension

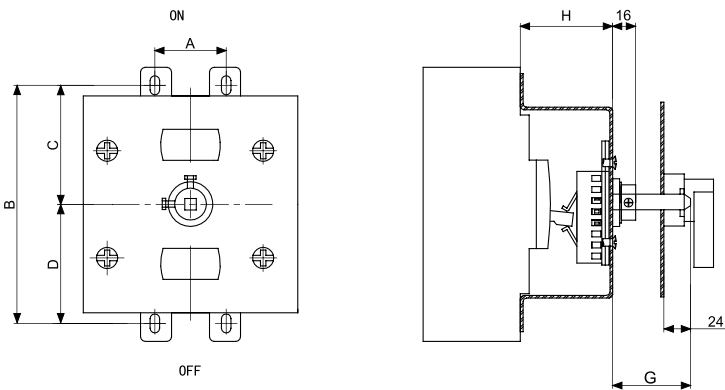
Rear connection(mm)



Model	Installation dimension										
	L1	L2	L3	H2	H3	W1	W2	Φ D	A	B	Φ c
HDM3S-400	316	345	210	25	78	44	211	11	88	146	6.5
HDM3S-630											

Rotary Handle Dimensions

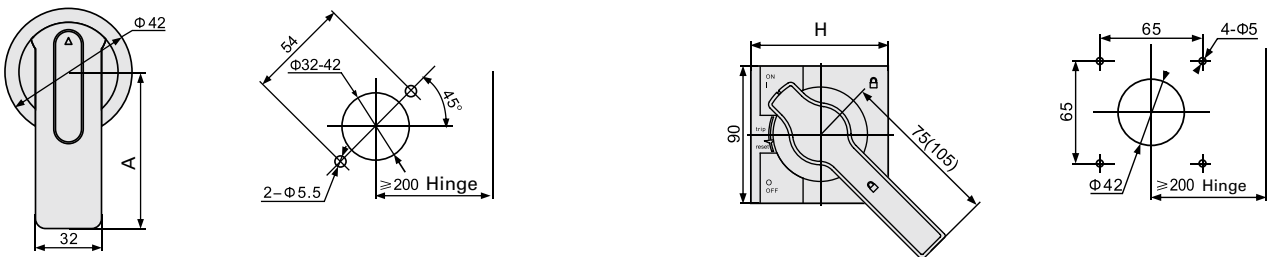
Mounting with MCCB dimensions(mm)



Model	A	B	C	D	H
HDM3S-160	30	132	66	66	46
HDM3S-250	35	126	63	63	51
HDM3S-400	128	194	97	97	76

Note: Default is 150mm

Handle and door cutting dimensions(mm)



Round handle dimensions

Model	A
HDM3S-160	60/90
HDM3S-250	60/90
HDM3S-400/630	60/90

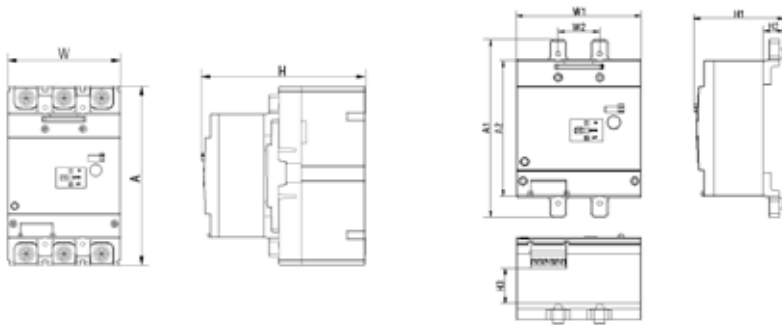
Square handle dimensions

Model	H
HDM3S-160	90
HDM3S-250	90
HDM3S-400/630	90

HDM3S MCCB

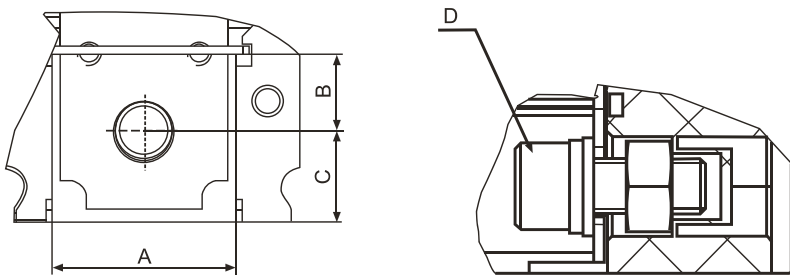


Motor Mounted with MCCB Dimensions (mm)



Model	A	A1	A2	W	W1	W2	H	H1	H2	H3
HDM3S-160	155	144	109.5	90	90	30	151	78.2	16.7	34.2
HDM3S-250	165	149.6	114	105	105	35	153.5	75.8	17.2	29.5
HDM3S-400	257	212	177	140	140	44	170.5	77	16.3	32.5
HDM3S-630	257	212	177	140	140	44	170.5	77	16.3	32.5
HDM3S-800	275.5	264	174	210	210	70	188.5	95	17	45

Terminal Connection Dimensions (mm)



Model	A	B	C	D
HDM3-160	16	7.7	10.5	M8*20
HDM3-250	21	10	11	M8*20
HDM3-400	27.5	15.3	13.4	M10*30
HDM3-630	27.5	15.3	13.4	M10*30

Copper Conductors Size for up to 400A MCCB

Rated current A	mm ²	25	32	40 50	63	80	100	125 140	160	200	250	315	400
Cross-section of conductor	mm ²	4	6	10	16	25	35	50	70	95	120	185	240

Copper Conductors or Bars Size for above 400A MCCB

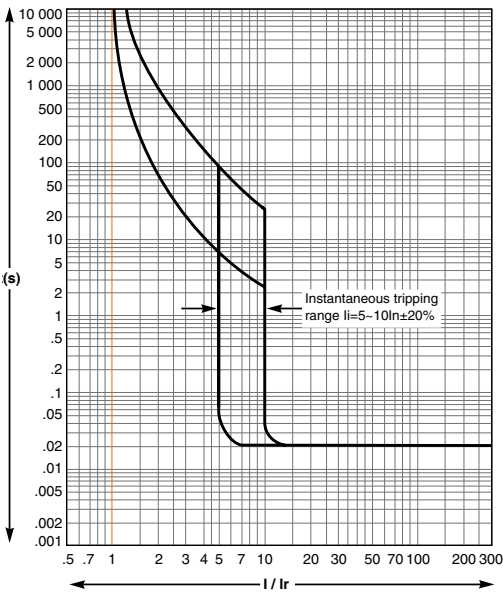
Rated current A	Quantity	Copper conductors Cross section mm ²	Copper busbar Size:mm*mm
500	2	150	30*5
630	2	185	30*5

HDM3S MCCB

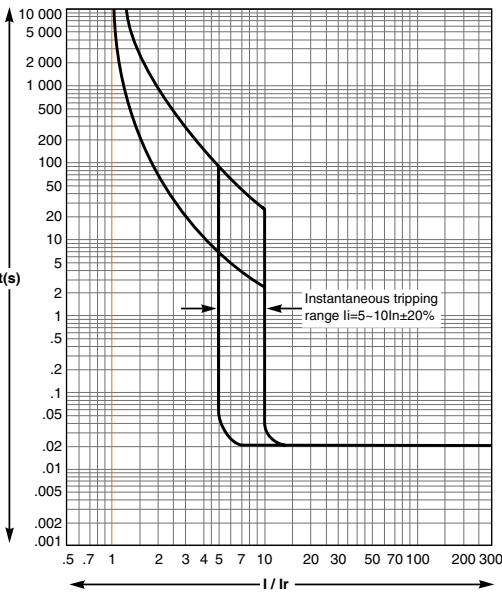


Tripping Curves

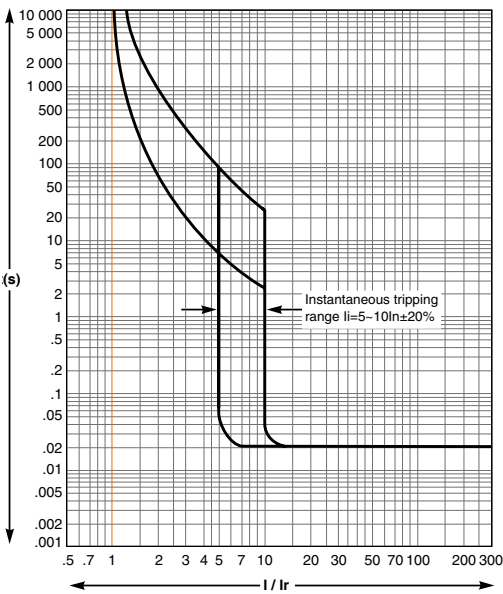
HDM3S-160



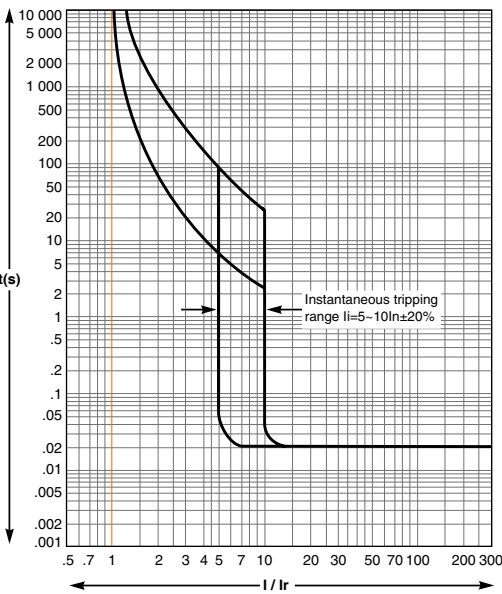
HDM3S-250



HDM3S-400



HDM3S-630



HDM2 MCCB



Range Presentation

HDM2 is Himel range of 1P/2P MCCB , rated current 10A to 125A, rated Voltage 220V/240V, 400V, suitable for AC 50/60Hz and mainly used in the power distribution system, to provide protection against overload and short circuit.

Features

- ◆ Rated current 10A to 125A
- ◆ Icu/Ics certified
1P: Icu/Ics=20/15kA@220/240V
2P: Icu/Ics=30/18kA@220/240V
Icu/Ics=20/15kA@400V
- ◆ Thermal trip calibrated under 40°C and 50°C, suitable for higher ambient temperature

Online Content



HDM2

Selection Code

Range name	Frame Size	Breaking capacity	Rated current	Poles	Temperature
HDM2	125	L	100	1	
HDM2	125: 125AF	L	010: 10A 016: 16A ... 100: 100A 125: 125A	1: 1P 2: 2P	Default: 40°C T: 50°C

Note: "T" is thermal trip calibrated in 50 degree. Please contact local sales for further information.

Technical Parameters			
MCCB		HDM2-125	
Rated voltage Ue(V)		1P: 220/240VAC; 2P: 400VAC	
Rated frequency (Hz)		50/60Hz	
Rated insulation voltage Ui(V)		690V	
Rated impulse withstand voltage uimp(kV)		8kV	
Rated current In(A)		10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A, 100A,125A	
Utilization category		A	
Reference temperature		40°C	
Number of Poles		1P	2P
Icu(kA)	220/240VAC	20	30
Ics(kA)	220/240VAC	15	18
Icu(kA)	400VAC	/	20
Ics(kA)	400VAC	/	15
Mechanical life		9000	
Electrical life		2000	
Isolation function		Available	
Certification		SEMKO	

HDM2 MCCB



Ambient temperature (40°C product)											
Temperature	0°C	10°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
Model											
HDM2-1P	1.19	1.16	1.12	1.1	1.08	1.03	1	0.95	0.86	0.81	0.73
HDM2-2P	1.19	1.16	1.12	1.1	1.08	1.03	1	0.95	0.86	0.81	0.73

Altitude derating table							
Altitude(m)	2000	2500	3000	3500	4000	4500	5000
Rated insulation voltage Ui (V)	690	627	627	572	572	531	531
Rated impulse withstand voltage Uimp (kV)	8	7	7	6.5	6.5	6	6
Rated operating voltage Ue (V)	400	400	330	305	280	265	250
De-rated rated current at ambient temperature of 40°C	1In	0.98In	0.94In	0.92In	0.88In	0.86In	0.85In

Installing and Operation

- ◆ Before installation :
 - (1) Check whether the parameters on nameplate comply with the application requirement;
 - (2) Make sure the handle at the "Trip" position;
 - (3) Open and close the circuit breakers 3 times, and the operation should be reliable and no clamping, and the handle should be at "OFF" position;
- ◆ When installing :
 - (1) Check whether the wire connection is correct, and connect "LINE" to power supply, and "LOAD" to equipments.
 - (2) Refer to below table 1 for recommended wiring cross section and related rated current, to make sure the breaker work properly;
 - (3) Refer to table 2 for wiring fastening torque;

Rated current and related wiring cross section

Rated current A	10	16,20	25	32	40,50	63	80	100	125
Cross section of wire mm2	1.5	2.5	4	6	10	16	25	35	50

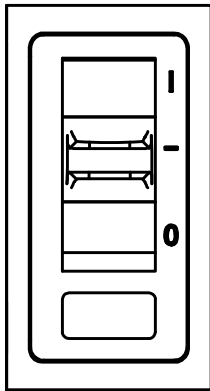
Fastening torque

Model	Screw	Fastening torque N·m
125AF	M8	9.5-10.5

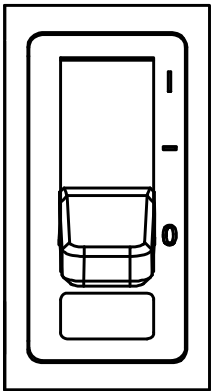
HDM2 MCCB



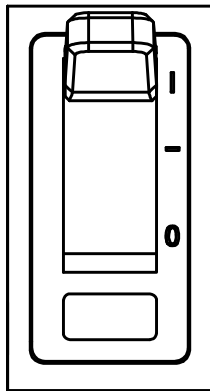
Handle Position Indication



TRIP

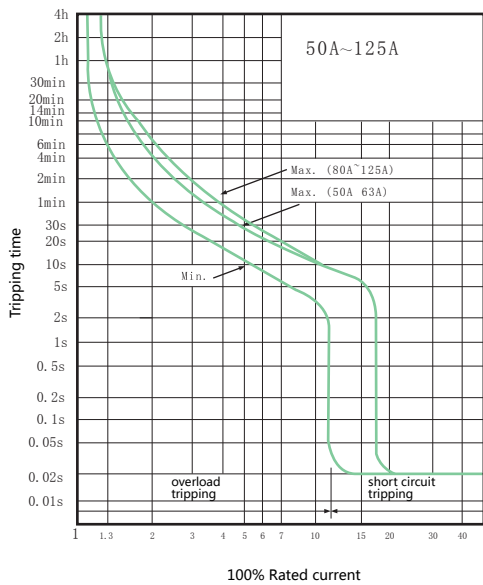
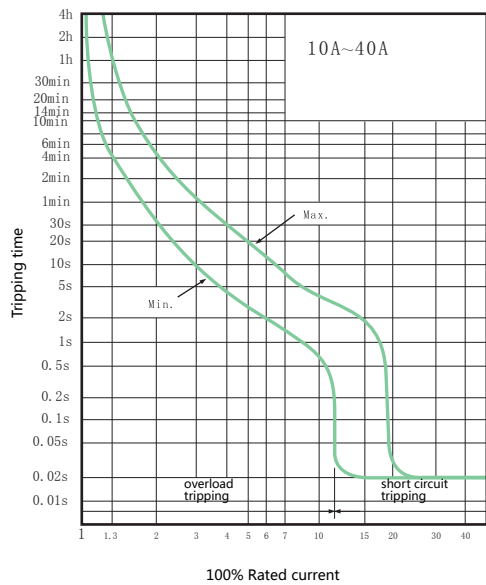


OFF



ON

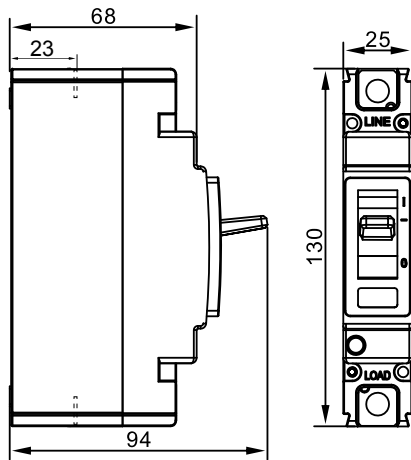
HDM2 Series Trip Curve



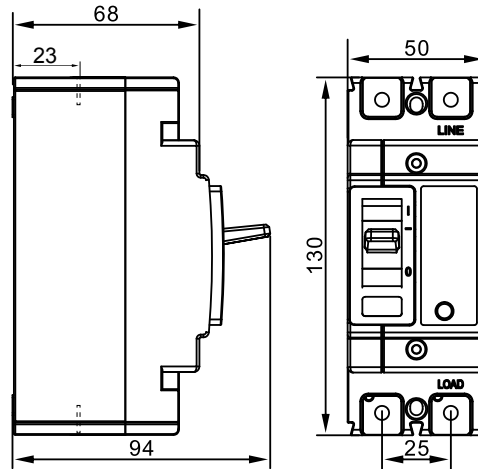
HDM2 MCCB



Dimensions

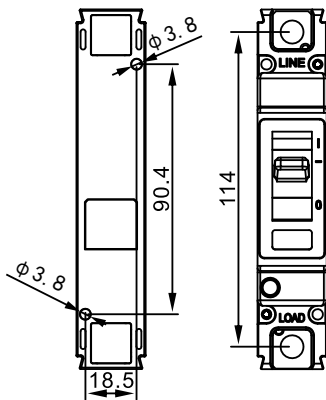


HDM2-125/1P

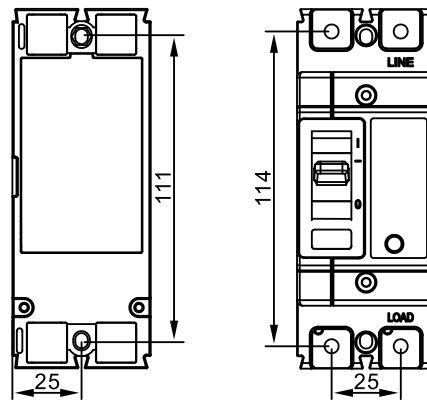


HDM2-125/2P

Installation Size

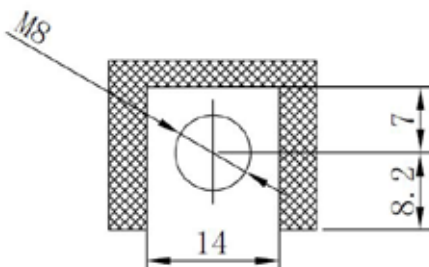


HDM2-125/1P



HDM2-125/2P

Terminal Connection Size



HDM2 MCCB



Maintenance and Care

- ◆ The maintenance and care must be implemented by qualified professional persons;
- ◆ Make sure that the breaker is electrically neutral;
- ◆ Conduct maintenance and care once a year under normal operation condition.
- ◆ See below table for maintenance content.

Type	Item	Content
Circuit Breaker	Appearance	Free of dust or condensation. Clean if there is any. Free of damage. No discoloration at the shell or connecting terminal.
	Terminal Connection	Not loose and tighten according to the torque specified in table 2
	Interphase barrier	Should be inserted tightly, and no damage
	Handle closing and opening	Operation shall be flexible
	Insulation test	Prohibited to test insulation between any two load phases by short circuit
	Test button	The handle should be at trip position after tripping
Circuit breaker with accessories (If applicable)	Installed with undervoltage release	The breaker shall open reliably when cut off the power supply of undervoltage release, and the handle should be at TRIP position
	Installed with shunt release	The breaker shall open reliably when energizing the shunt release with rated voltage, and the handle should be at TRIP position
	Installed with auxiliary contacts	Open and close the breaker, the auxiliary contacts shall transfer signal reliably.

HDM2L Earth-leakage Circuit Breaker



Range Presentation

HDM2L is Himel range of 2P ELCB with thermal magnetic trip unit and residual operating current protection, providing line protection, up to 250A

Features

- ◆ 125AF & 250AF , 2P, 2 Frame Size
- ◆ Rated current 16A to 250A
- ◆ Adjustable residual current protection
- ◆ Adjustable time delay with residual current protection

Online Content



HDM2L

Selection Code

Series Name	Frame Size	Breaking Capacity	Rated Current	Poles	Leakage current	Leakage current	Time delay
HDM2L	125	S	100	2	3C	C	1
HDM2L	125: 125A (16-125A) 250: 250AF (100-125A)	S	016: 16A 020: 20A 025: 25A 032: 32A 040: 40A 050: 50A 063: 63A 080: 80A 100: 100A 125: 125A 160: 160A 180: 180A 200: 200A 225: 225A 250: 250A	2: 2P	3C: thermal -Magnet with line protection, N pole with switch and protection	A: 30/100/300mA B: 100/300/500mA C: OFF/100/300mA	0: No delay 1: 0.1/0.2/0.3s

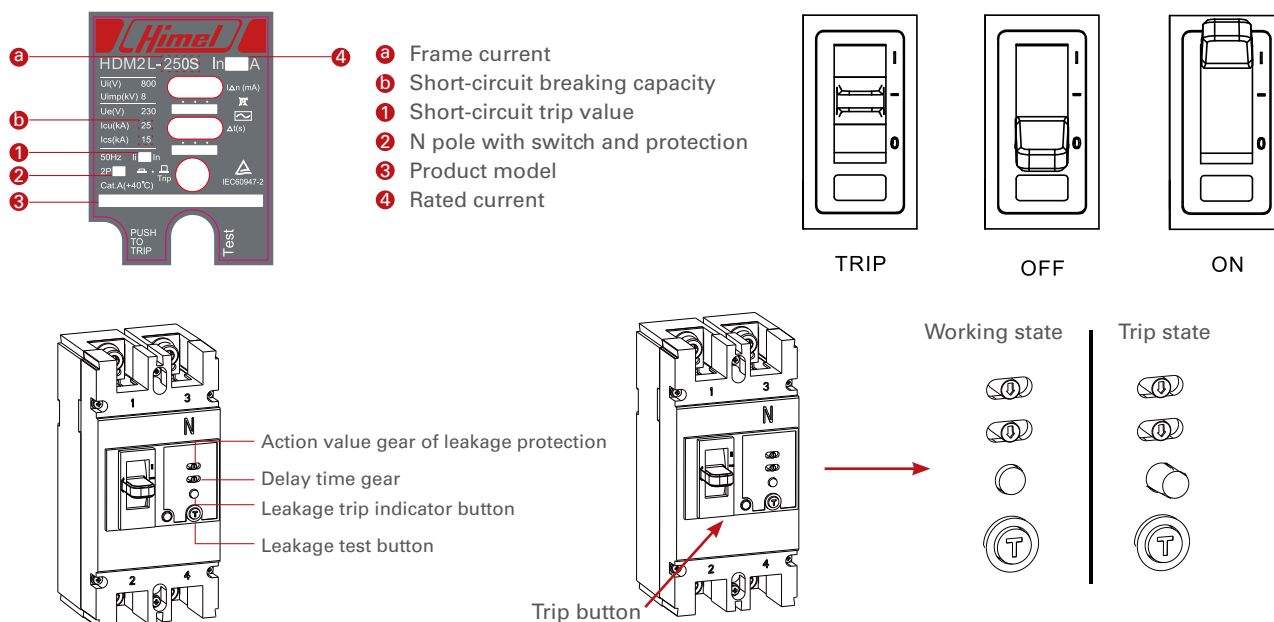
Technical Parameters		
Frame Size	HDM3L-125	HDM3L-250
[Ue] rated operational voltage (V)	230	230
[In]Current (A)	16/20/25/32/40/50/63/80/100/125	100/125/140/160/180/200/225/250
[Ui] rated insulation voltage (V)	800	800
[Uimp] rated impulse withstand voltage (Kv)	8	8
Pole	2	2
Breaking Capacity (Ka)	S	S
Icu (230V)	35	35
Ics (230V)	21	21
Rated residual operating current $I_{\Delta n}$ (mA)	A:30/100/300mA B:100/300/500mA C: OFF/100/300mA	A:30/100/300mA B:100/300/500mA C: OFF/100/300mA
Non time delay		
Adjustable time delay	B:100/300/500mA	B:100/300/500mA
rated residual non-operating current $I_{\Delta n}$ (mA)	50% $I_{\Delta n}$	50% $I_{\Delta n}$
Non time delay: tripping time (s)	≤ 0.1	≤ 0.1
Adjustable time delay: 2I Δn non tripping time (s)	Y1: 0.1/0.2/0.3s	Y1: 0.1/0.2/0.3s
Rated residual short-circuit connection capacity $I_{\Delta m}$ (kA)	25% Icu	25% Icu
Mechanical Life	10000	10000
Electrical Life	4000	4000
Utilisation category	Category A	
Trip unit technology	Thermal-magnetic (Fixed) , line protection (10xIn,400A below In=40A)	
Suitability for isolation	■	
IP degree of protection	IP20 conforming to IEC 60529	
Ambient air temperature for operation	upto...40 °C	
Certificates	IEC60947-2 TUV/CB	
Dimension (WxHxD)	62*150*72	75*165*74

HDM2L Earth-leakage Circuit Breaker

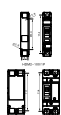


Operation

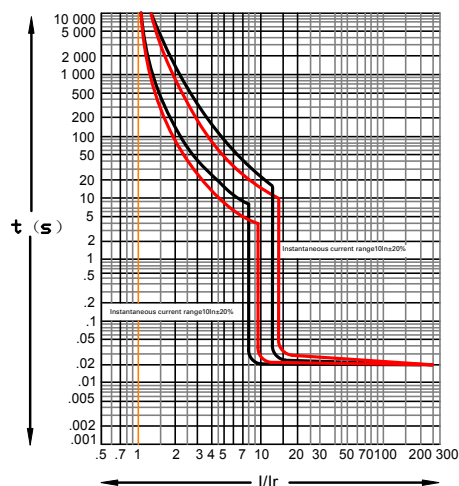
- Turn the handle to the “Trip” position before the shipment of circuit breaker;
- Turn the operating handle to the “Open” position before re-trip;
- Turn the circuit breaker to the “Closed” position;
- With the trip button pressed, the circuit breaker handle shall be return to the “Trip” position;
- The leakage test button shall be pressed once a month to check the leakage function of the product for failure;
- Select the action value gear and delay time gear of leakage protection properly.



Installation and Wiring Dimensions



HDM2L 125/250AF trip curve



X-X: Central axis of base Y-Y: Central axis of handle

Unit: mm

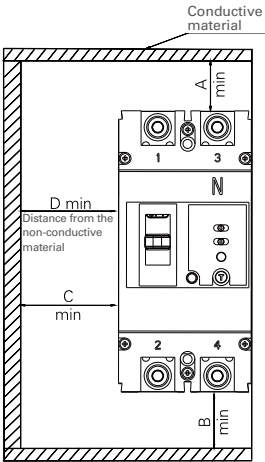
Installation dimensions	Number of poles	Installation dimensions																		
		L	L1	L2	L21	L3	W	W1	W2	H	H1	H2	H3	H4	H5	B	C	C1	C2	Ød
125	2	151	96	50	24.5	50	63	30	59	96	82	73	66	27	27	129	18	7.5	8.5	5
250	2	165	96	50.5	29	63	78	35	72	98	82	73.5	70	26	26.5	126.3	21.5	12.5	9	5

HDM2L Earth-leakage Circuit Breaker



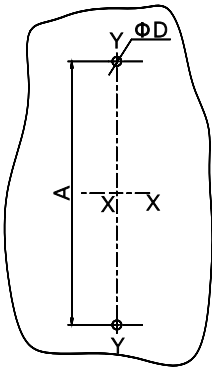
Safety distance of circuit breaker

Unit: mm



Dimensions of holes on the mounting plate

Unit: mm

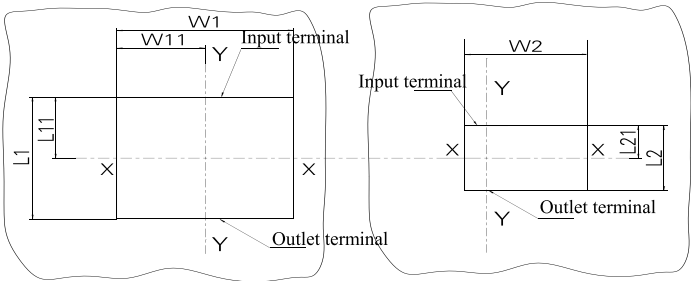


Product model HDM2L	Amin	Bmin	Cmin	Dmin
125	60	30	10	0
250	85	42.5	10	0

Product model HDM2L	Number of poles	A	Φ D
125	2	129	5
250	2	126.3	5

Dimensions of holes on the circuit breaker panel

Unit: mm



Exposed front cover and toggle handle

Exposed toggle handle

Product model HDM2L	Number of poles	Exposed front cover and toggle handle				Exposed toggle handle		
		L1	L11	W11	W1	L2	L21	W2
125	2	99	49.5	17	66	53	26	62
250	2	99	49.5	23	75	53	31	75

HDM2L Earth-leakage Circuit Breaker



Wiring capacity and recommended value

Rated current (A)	10	16 20	25	32	40 50	63	80	100	125 140	160	180 200 225	250
Recommended cross section of wire (mm ²)	1.5	2.5	4	6	10	16	25	35	50	70	95	120

⚠ Attention: Please note the outline, installation, and dimensions C, C1 and C2 and corresponding wiring screw diameter in the wiring dimensions, and select the appropriate wiring terminals or bus bar according to the corresponding wiring capacity requirements.

Recommended tightening torques of wiring screws

Product Spec. HDM2L-	125	250
Wiring hex screw	M8	M8
Torque (N.m)	7-10	7-10

⚠ Attention: Please tighten the wiring screws according to the recommended torque, because too large or too small tightening torque will result in poor contact or damage to the shell.

Recommended self-tapping and self-drilling mounting screw (cross recessed countersunk self-tapping and self-drilling screw GB/T15856.2)

Product spec. HDM2L-	125	250
Model and specification of recommended self-tapping and self-drilling screw	ST4.2X42	ST4.2X70 (Without self-lock slot)

⚠ Attention: Some models of this product support the use of self-tapping and self-drilling screws for installation. Only general screws and nuts are provided with the product. Please purchase the self-tapping and self-drilling screws of the corresponding specifications.

Maintenance and Repair

- The maintenance and repair must be performed by the qualified professions.
- Cut off the product power;
- Please maintain and service the product once a year under normal operating conditions. The maintenance contents refer to the table below.

Item	Contents
Appearance	No dust, no condensation; clean if necessary; no damage to the shell.
Terminal connection	Tightened according to the torques listed in the recommended wiring screw tightening torque table of 4.5 without looseness.
Closed / open / trip operations via handle	The handle shall be operated flexibly without blockage. With the self-cleaning contact structure used, open and closed operations can be performed many times to peel the oxide layers of dynamic and static sliver points for any change of contact resistance due to oxidation to reduce the contact resistance.

Unpacking Inspection

Check the product for damage, check the exposed metal for rust, and check the product for defects due to poor transport or storage after unpacking. If found, do not use the product and please contact the supplier without hesitation.

Product model HDM2L-	Number of poles	Mounting screws - Qty.	Wiring screws - Qty.	Phase partition - Qty	Extended handle	Circuit breaker	Manual (with certificate)
125	2	M4×40-2	M8×16-4	2	-	1	1
250	2	M4×60-2	M8×20-4	2	-	1	1

Air Circuit Breakers



Range Presentation

HDW3 is Himel 3 series comprehensive range of Air Circuit Breakers designed to distribute electric energy and protect overload, under voltage, short circuit and ground faults

HDW3 can be mainly used in power stations, factories, mines and modern high-rise buildings with smart power distribution system.

Application standard: IEC/EN 60947-2

Features

- ◆ 6 Frame Size: 1000,1600,2000,3200,4000,6300AF
- ◆ Rated current In (A): 400 - 6300
- ◆ Rated voltage AC Ue (V): 400/415, 660/690
- ◆ Poles: 3 & 4
- ◆ 3 type of intelligent controllers

Online Content



HDW3

Selection code

Range name	Frame size	Breaking capacity	Rated current	Poles	Installation type
HDW3	16	M	16	3	FH
HDW3	10: 1000 16: 1600 20: 2000 32: 3200 40: 4000 63: 6300	M: Icu≠Ics=Icw S: Icu=Ics=Icw	04: 400A 06: 630A 08: 800A 10: 1000A 12: 1250A 16: 1600A 20: 2000A 25: 2500A 32: 3200A 40: 4000A 50: 5000A 63: 6300A(only 3P)	3: 3P 4: 4P	DH: Draw-out horizontal FH: Fixed horizontal
Motor mechanism (MCH)+Closing coil (XF)	Shunt release (MX)	Undervoltage release(MN)	Auxiliary contact	Intelligent controller	
5	5	5	4	M	
D: DC220V N: AC230V V: AC400V 5: Without MCH+XF	D: DC220V N: AC230V V: AC400V 5: Without shunt release	N: AC230V V: AC400V P: with undervoltage delayed AC230V T: with undervoltage delayed AC400V 5: Without undervoltage release	4: 4NO+4NC (1000,1600,4000AF) 6: 6NO+4NC (2000,3200,6300AF)	L: iTR326(50Hz) M: iTR326A(50Hz) H: iTR326H((50/60Hz) E: iTR326(60Hz) T: iTR326A(60Hz) 5: without controller	

Example: HDW316M163FH5554M: HDW3-1600M 1600A 3P Fixed breaker, M type controller, without accessory.

Note: 1000AF/1600AF the accessory is same parts.

Main Parameters

- Frame Size: 1000,1600,2000,3200,4000,6300AF
- Rated current I_n (A): 400 ~ 6300
- Rated voltage AC U_e (V): 400/415, 660/690
- Poles: 3 & 4
- Installation method: Fixed type and draw-out type
- Wiring method: Horizontal rear connection, Vertical rear connection

Intelligent Controllers

iTR326 (basic type)
Basic protection (L, S, I & G)

iTR326A (standard type)
Basic protection
Basic measurement
Auxiliary function

iTR326H (advanced type)
Basic + high level protection
Multiple measurement
Auxiliary function
Advanced function
Communication

Accessories

- Motor operating mechanism: shunt coil, undervoltage coil, closing coil
- Intelligent controller accessories: N phase External transformer, Ground transformer, leakage current transformer, power module, Signal conversion module
- Lock: key lock , door lock
- Mechanical interlocking : cable interlocking
- Operation and protection: door frame, phase partition
- Indicator contact: auxiliary contact, alarm contact

Range of Application

HDW3 series air circuit breaker, the rated current is from 400A to 6300A, the rated voltage is 400V/415V, 660/690V, suitable for AC 50/60Hz and mainly used in Power distribution system networks, to distribute electric energy and protect the line and power supply equipment far away from the fault hazard of overload, under voltage, short circuit and single-phase grounding.

The circuit breaker can be widely used in power stations, factories, mines and modern high-rise buildings, especially the intelligent building power distribution system.

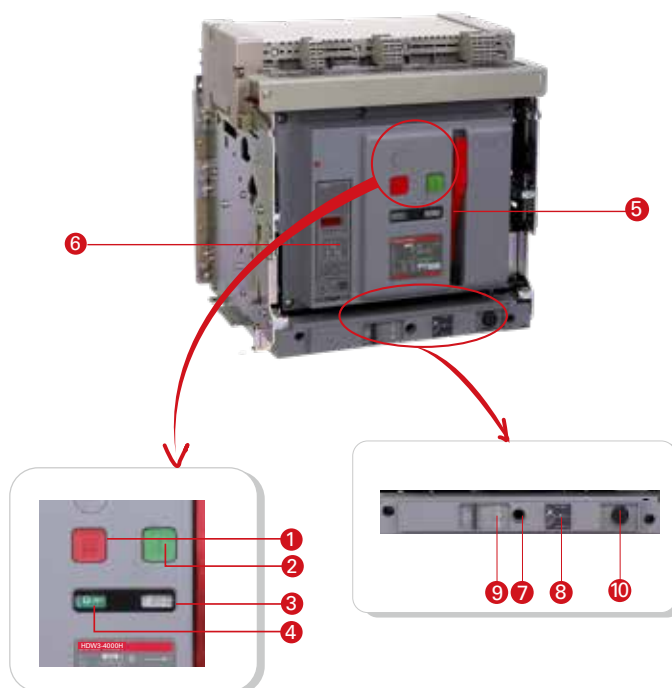
Application standard: IEC/EN 60947-2

Normal Working Condition

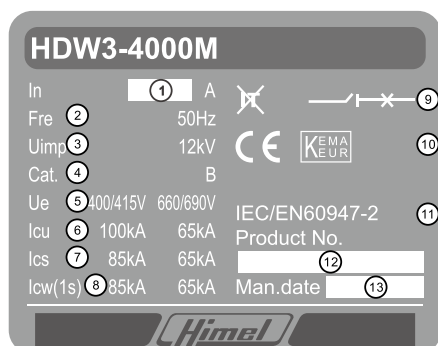
Environment temperature	Ambient temperature is -5°C ~+40°C(certification); mean value of 24h shall not exceed +35°C. It can also be used at ultimate temperature -40°C ~+70°C(L type, M type controller).
Altitude	≤ 5000m
Electromagnetic interference	Applies to Environment A
Class of pollution	Class of pollution level 3 Installation position shall be vertical, inclination of each direction shall not more than 5°
Installation level	Circuit breaker main circuit and undervoltage trip coil, power transformer primary coil are level IV, auxiliary circuit and control circuit is level III
Transportation condition	Move gentle, do not put upside down, avoid collision

Front Face

- 1 Open button
- 2 Closing button
- 3 Spring charge mechanism status indicator
 - Spring charged , closing is allowed
- 4 Main contact position indicator
 - Spring charged , closing is not allowed
- 5 Spring charge operation handle
- 6 Controller
- 7 Draw in (out) device
- 8 Connection, test and disconnection position indication
- 9 Connect, test and disconnection position limiter
- 10 Rocker storage



Name plate



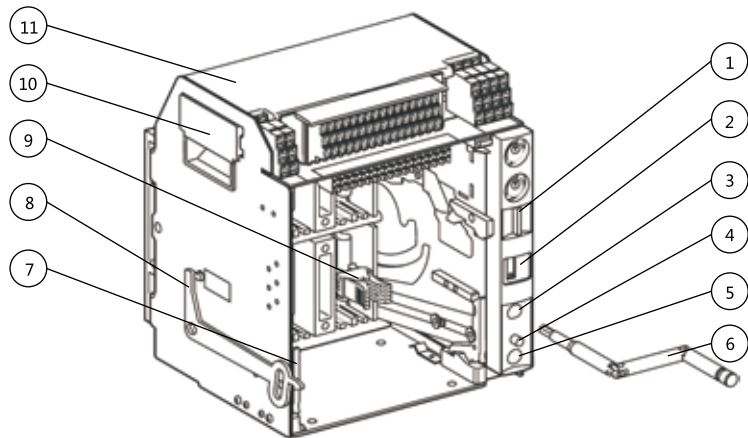
1	Rated Current	8	Rated short-time withstand current
2	Rated frequency	9	Applicability
3	Rated impulse withstand voltage	10	Certificates
4	Utilization category	11	Standard
5	Rated voltage	12	Factory code
6	Rated ultimate short-circuitbreaking capacity	13	Manufacture date
7	Rated service short-circuit breaking capacity		

Air Circuit Breakers



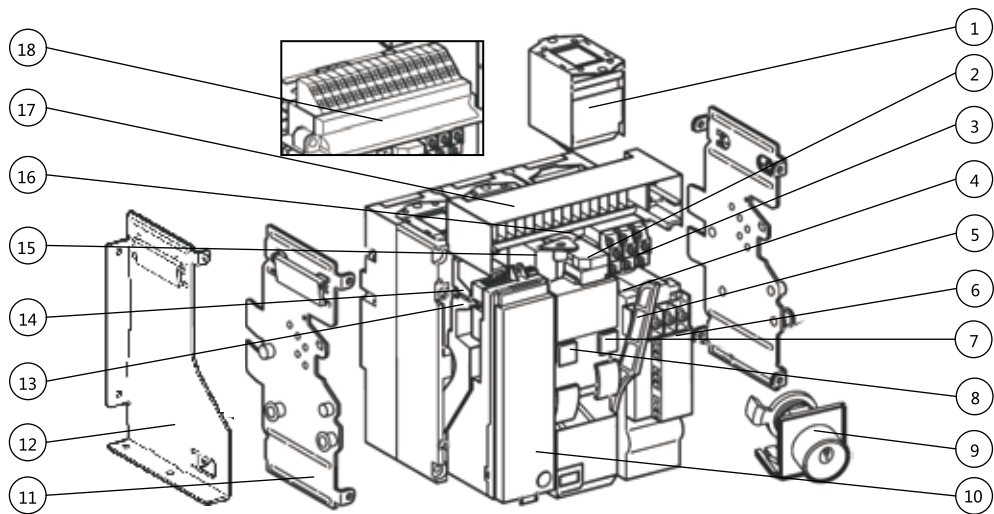
HDW3 structure

Draw-out base



1	key lock	5	rocker storage	9	cluster contact
2	Indicator	6	rocker	10	chassis handle
3	rocker entry	7	draw out handle	11	arc extinguish chamber cover
4	three -position unlocking button	8	door interlock		

Main body



1	arc extinguish chamber	7	Closing button	13	SWT Fault tripping contact
2	XF Closing release	8	Opening button	14	SWT/2 Fault tripping contact or remote restoration
3	OF auxiliary contact	9	Opening button	15	MN undervoltage release
4	PF Ready to close contact	10	iTR controller	16	MX shunt release
5	Energy storage handle	11	Draw-out type side plate	17	Draw-out type secondary circuit terminals
6	MCH motor mechanism	12	Fix type side plate	18	Fixed type secondary circuit terminals

Air Circuit Breakers



Technical Parameters

Common features

Pole	3, 4
Rated operational voltage Ue	AC400V/AC415V、AC660V/ AC690V
Rated insulation voltage Ui	1000 V
Rated impulse withstand voltage Uimp(kV)	12 kV
Rated frequency	50/60 Hz
Suitable for isolation	
Standard	EC 60947-2



Product										HDW3													
Frame Size	1000M		1600M		1600S		2000M		2000S		3200M		3200S		4000M		4000S		6300M		6300S		
Rated current In(A)																							
400																							
630																							
800																							
1000																							
1250																							
1600																							
2000																							
2500																							
3200																							
4000																							
5000																							
6300																							
Breaking capacity	400V	690V	400V	690V	400V	690V	400V	690V	400V	690V	400V	690V	400V	690V	400V	690V	400V	690V	400V	690V	400V	690V	
Icu (kA)	42	25	50	35	42	35	80	50	65	40	80	65	65	50	100	65	85	65	120	85	85	75	
Ics (kA)	30	25	42	35	42	35	65	40	65	40	65	50	65	50	85	65	85	65	100	75	85	75	
Icw(1s) (kA)	30	20	42	35	42	35	65	40	65	40	65	50	65	50	85	65	85	65	85	75	85	75	
Service life																							
Mechanical life (with maintenance)	30000		25000				30000				30000				20000				5000				
Mechanical life (without maintenance)	15000		12500				15000				15000				10000				2500				
Electrical life(400V)	6500		6000				6500				6500				5000				800				
Electrical life(690V)	4000		4000				4000				4000				3000				500				
Dimension(mm)																							
Draw-out	3P	322*288*329		322*288*330				436*405*425				436*465*425				439*441*428.6				441.5*815*508			
	4P	322*358*329		322*358*330				436*500*425				436*580*425				439*556*428.6				441.5*930*508			
Fixed type	3P	310*276*235		301*276*229				397*364*327				397*428*327				352*422*329.5				/			
	4P	310*346*235		301*346*229				397*459*327				397*543*327				352*537*329.5				/			
Weight(KG)																							
Draw-out type	3P	27.8		34				73.6				93.8				78				233			
	4P	33.1		41				85.5				115				95				271.8			
Fixed type	3P	13		14				41.4				53.4				42				/			
	4P	15.8		17				52				68				52				/			
Tripping time																							
Tripping time with arc extinguishing												≤25ms											
Closing time												≤70ms											

Temperature derating table

Frame	Current/temperature	-5°C~+40°C	+45°C	+50°C	+55°C	+60°C
HDW3-1000	400	400	400	400	400	400
	630	630	630	630	630	550
	800	800	800	800	800	700
	1000	1000	1000	1000	950	900
HDW3-1600	400	400	400	400	400	400
	630	630	630	630	630	550
	800	800	800	800	800	700
	1000	1000	1000	1000	950	900
	1250	1250	1200	1200	1150	1050
	1600	1600	1550	1500	1450	1350
HDW3-2000	630	630	630	630	630	630
	800	800	800	800	800	700
	1000	1000	1000	1000	1000	1000
	1250	1250	1250	1250	1250	1150
	1600	1600	1600	1500	1500	1300
	2000	2000	1900	1900	1800	1700
HDW3-3200	2000	2000	2000	2000	2000	2000
	2500	2500	2400	2300	2200	2200
	3200	3200	3000	3000	2800	2800
HDW3-4000	1600	1600	1600	1600	1600	1600
	2000	2000	2000	2000	2000	2000
	2500	2500	2500	2500	2500	2200
	3200	3200	3200	3200	3000	2500
	4000	4000	4000	3600	3400	3200
HDW3-6300	4000	4000				
	5000	5000				
	6300	6300				

All derating data is calculated based on experiment and theory, only for selection guide.

Altitude derating table

Altitude below 2000 m will not affect circuit breaker performance. Above this altitude, the diminution of air insulation characteristics and cooling capacity must be considered; The correction coefficients given in the table below are used for installation above 2000 meters:

Altitude (m)	2000	2500	3000	3500	4000	4500	5000
Isolation voltage (V)	1000	910	910	830	830	770	770
Withstand voltage (kV)	12	10.5	10.5	9.5	9.5	9	9
Maximum operation voltage (V)	690	690	690	660	600	600	550
Current on 40 °C	1In	0.98In	0.93In	0.91In	0.87In	0.84In	0.81In

If altitude is over 4000m, please contact the manufacture.

Air Circuit Breakers



Power loss and resistance per pole

Power loss is measuring at $I_n/50/60\text{Hz}$, input/output resistance is the value at cold state in per pole.

Frame	Rated Current (A)	Draw-out type		Fixed type	
		Power Loss (W)	Input/Output resistance($\mu\Omega$)	Power Loss (W)	Input/Output resistance($\mu\Omega$)
1000 1600	400	28.8	42.0	20.5	27
	630	55.6	42.0	32.8	27
	800	98.2	42.0	53.5	27
	1000	153.5	42.0	82.6	27
	1250	250.8	42.0	131.8	27
	1600	460.5	38.0	220	26
2000	630	56.8	48.5	26.5	21.9
	800	73.0	48.5	38.6	21.9
	1000	116.3	38.0	56.9	20.2
	1250	179.8	38.0	90.2	20.2
	1600	294.9	38.0	145.8	20.2
	2000	399.6	33.7	202.5	18
3200	2000	200.6	18.6	99.6	15.8
	2500	310.0	16.2	147.8	14.7
	3200	486.9	15.8	216.3	9.2
4000	1600	390.6	27.5	180.2	13
	2000	480.8	27.0	252.8	13
	2500	600.0	19.0	265	9
	3200	670.0	13.0	423.6	8.5
	4000	900.0	11.8	652.7	8
6300	4000	910.7	9.5	/	/
	5000	940.0	9.0	/	/
	6300	1150.0	8.5	/	/

Air Circuit Breakers iRT 326 Controller

Intelligent Controller Introduction

	iTR326	iTR326A	iTR326H
			
	L	M	H
Protection function	Overload protection L	Overload protection L	Overload protection L
	Short-circuit protection with short delay S	Short-circuit protection with short delay S	Short-circuit protection with short delay S
	Short-circuit protection instantaneous I	Short-circuit protection instantaneous I	Short-circuit protection instantaneous I
	Ground protection G	Ground protection G	Ground protection G
	MCR Protection	MCR protection	MCR protection
	HSISC protection	HSISC protection	HSISC protection
			Under voltage protection/alarm
			Overvoltage protection/alarm
			Voltage unbalance protection /alarm
			Phase sequence protection/alarm
			Low frequency protection/alarm
			High frequency protection/alarm
			Reverse power protection/alarm
Measurement		Current measurement	Current measurement
			Voltage measurement
			Power measurement
			Frequency measurement
			Harmonics measurement
Auxiliary	Pre-alarm	Pre-alarm	Pre-alarm
	Event record	Self-diagnostic	Self-diagnostic
	Test	Event record	Event record
		Test	Test
Display		LED	LCD
Special function			Load monitoring
			Zone selective interlock
Communication			Modbus

Air Circuit Breakers iRT 326 Controller

- ① Top fixation
- ② LED indicator light
- ③ Controller name plate
- ④ Bottom fixation
- ⑤ External connection terminal
- ⑥ Transformer connector
- ⑦ Flux/jogging connector



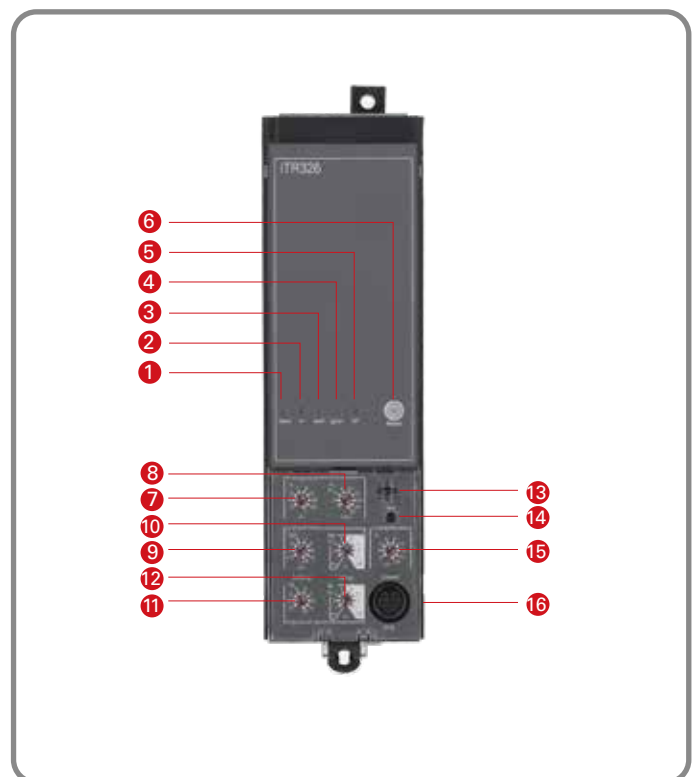
L type (basic type)

Indications

- ① Alarm lamp
- ② Over current tripping indication
- ③ Short delay or instantaneous tripping indication
- ④ Ground or leakage current fault tripping indication
- ⑤ Advanced protection
- ⑥ Reset button

Settings

- ⑦ Overload current setting IR
- ⑧ Over current time delay tR
- ⑨ Short delay tripping I_{sd}
- ⑩ Short delay tripping time t_{sd}
- ⑪ Ground fault tripping I_g
- ⑫ Ground fault tripping time t_g
- ⑬ Padlock position
- ⑭ Test button
- ⑮ Instantaneous tripping I_i
- ⑯ Test connection



Air Circuit Breakers iRT 326 Controller

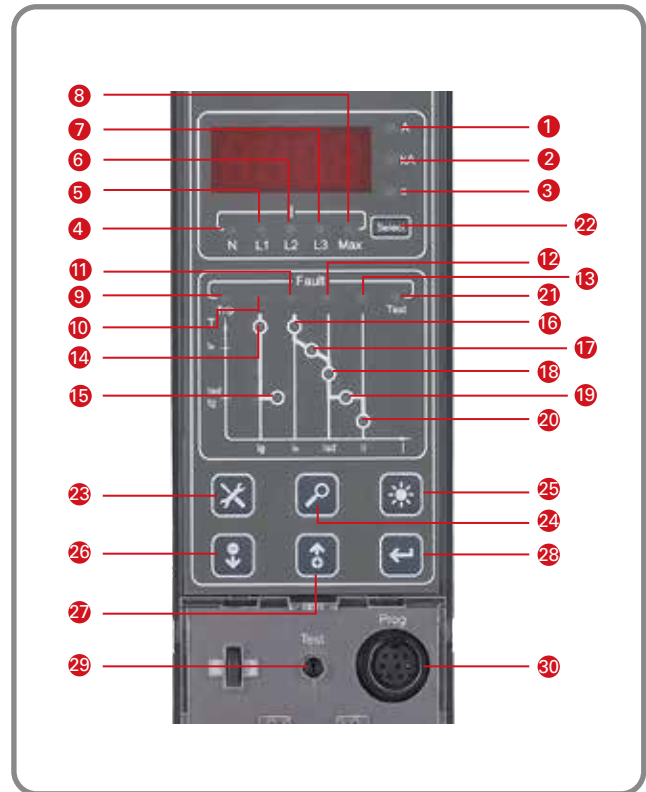
M type (standard type)

Indications and Settings

- 1 Current unit A
- 2 Current unit kA
- 3 Time unit S
- 4 N phase Current
- 5 A phase Current
- 6 B phase Current
- 7 C phase Current
- 8 Maximum Current
- 9 Tripping indication
- 10 Ground protection
- 11 Long delay protection
- 12 Short delay protection
- 13 Instantaneous protection
- 14 Ground Current set value
- 15 Ground time set value
- 16 Long delay Current set value
- 17 Long delay time set value
- 18 Short delay Current set value
- 19 Short delay time set value
- 20 Instantaneous Current set value
- 21 Tests action state

Navigation keys

- 22 Toggle key
- 23 Set key
- 24 Query key
- 25 Return /clear light
- 26 -/ down page
- 27 +/- up page
- 28 Enter key
- 29 Test key
- 30 Test connection



H type (advanced type)

Indications

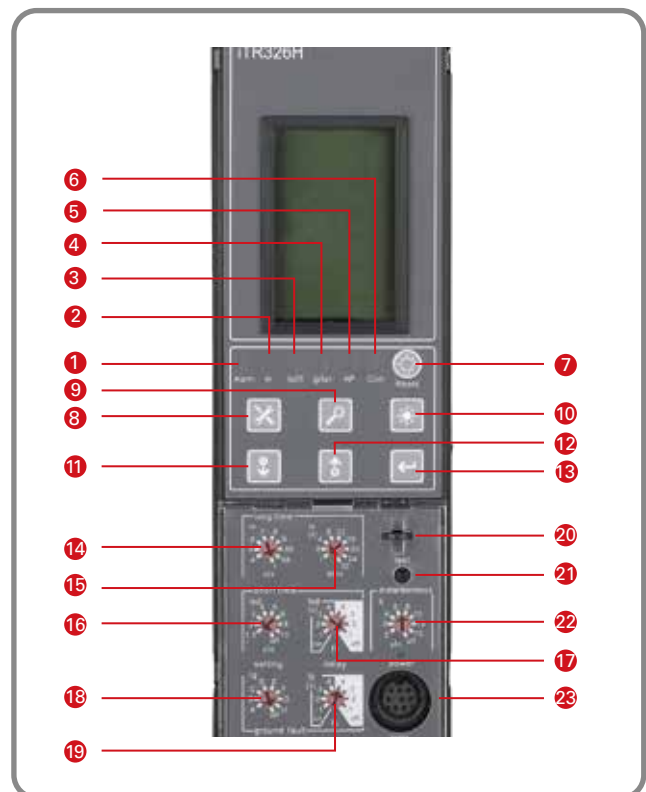
- 1 Alarm lamp
- 2 Long delay tripping indication
- 3 Short delay or instantaneous tripping indication
- 4 Ground or electric leakage fault tripping indication
- 5 Advanced protection
- 6 Communication function
- 7 Reset button

Navigation keys

- 8 Set key
- 9 Query key
- 10 Return/clear light
- 11 -/ Down page
- 12 +/- Up page
- 13 Enter key

Settings

- 14 Long delay Current setting IR
- 15 Long delay tripping time tR
- 16 Short delay tripping lsd
- 17 Short delay tripping time tsd
- 18 Ground fault tripping Ig
- 19 Ground fault tripping time tg
- 20 Padlock position
- 21 Test button
- 22 Instantaneous tripping Current
- 23 Test connection
- 24 Button description adjustment panel



Intelligent Controller Protection

Intelligent controller protection characteristics are inverse time limit and constant time-lag, when fault Current exceeds inverse time limit set value, controller can have delay protection according to the constant time-lag.

Inverse time limit curve conforms to characteristic curve I^2t

Overload protection with long time delay

Threshold of overload protection with long time delay Threshold

$<1.05 I_R$: $>2h$ No tripping;

$>1.2 I_R$: $<1h$ Tripping

$\geq 1.2 I_R$: Tripping with time delay;

I_R Current setting range: $0.4I_n$, $0.5I_n$, $0.6I_n$, $0.7I_n$, $0.8I_n$, $0.9I_n$, $0.95I_n$, $0.98I_n$, $1.0I_n$

Inverse Time Protection Tripping Characteristics $I^2t: t=(6/N)^2 * t_R$

Setting electric current	Action time (s)								
$1.5 I_R$	16s	32s	64s	128s	192s	256s	320s	384s	480s
$2 I_R$	9s	18s	36s	72s	108s	144s	180s	216s	270s
$6 I_R$	1s	2s	4s	8s	12s	16s	20s	24s	30s

Note: N---- Overload current is divided from the setting current I/I_R

t---- time delay of overload current

t_R ---- time delay of setting value

Allowed tolerance of the tripping time $\pm 10\%$

Short circuit protection with short time delay

Threshold of Short circuit protection with short time delay

$<0.9 I_{sd}$: No tripping

$>1.1 I_{sd}$: Tripping;

$\geq 1.1 I_{sd}$: Tripping with time delay

I_{sd} setting range: $1.5 I_R$, $2 I_R$, $3 I_R$, $4 I_R$, $5 I_R$, $6 I_R$, $8 I_R$, $10 I_R$ +OFF

Short circuit current	Tripping Time						
$I_{sd} \leq 8 I_R$	Inverse time protection	Formula of tripping curve	$I^2t: t=(8I_R)^2 tsd$				
		Setting time s	0.1	0.2	0.3	0.4	
$I \geq 1.1 I_{sd}$	constant time delay protection	Setting time s	0.1	0.2	0.3	0.4	
		Min. s	0.08	0.14	0.23	0.35	
		Max. s	0.14	0.2	0.32	0.5	

Note: I_{sd} --- setting short circuit protection value

I---- short circuit current

I_R ---- setting current

t---- tripping time of short circuit

tsd ---- setting time delay of short circuit protection

Allowed tolerance of the tripping time $\pm 20\%$

Short Circuit Instantaneous Protection

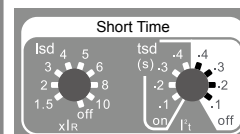
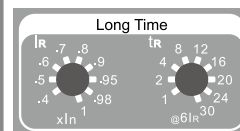
Short Circuit Instantaneous Protection Action Threshold

$<0.85 I_i$: No tripping

$>1.15 I_i$: tripping

Instantaneous action current setting: $2I_n$, $3I_n$, $4I_n$, $6I_n$, $8I_n$, $10I_n$, $12I_n$, $15I_n$ +OFF

Note: tolerance of the tripping time $\leq 50ms$



Air Circuit Breakers iRT 326 Controller

Ground Fault Protection Action

Ground Fault Protection Action Threshold

<0.9 I_g: No tripping

>1.1 I_g: tripping

≥1.1 I_g: Tripping with time delay

Current	A	B	C	D	E	F	G	H	OFF
I _n <1250	0.2I _n	0.3I _n	0.4I _n	0.5I _n	0.6I _n	0.8I _n	0.9I _n	I _n	
I _n ≥1250	500A	600A	700A	800A	900A	1000A	1100A	1200A	

Ground current	tripping time		formula of tripping curve	$t = \frac{(I_g)^2}{I^2} \times t_g$				
	Inverse time protection							
tg(s)		Setting time		0.1	0.2	0.3	0.4	
	constant time delay protection	Setting time		0.1	0.2	0.3	0.4	
		Min. (s)		0.08	0.14	0.23	0.35	
		Max. (s)		0.14	0.2	0.32	0.5	

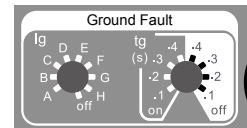
Note: I_g ground protection setting, when I_n ≥ 1250A, I_J=1200A, when I_n<1250A, I_J=I_n

I Ground fault current

T tripping time with time delay

t_g setting tripping time of ground fault

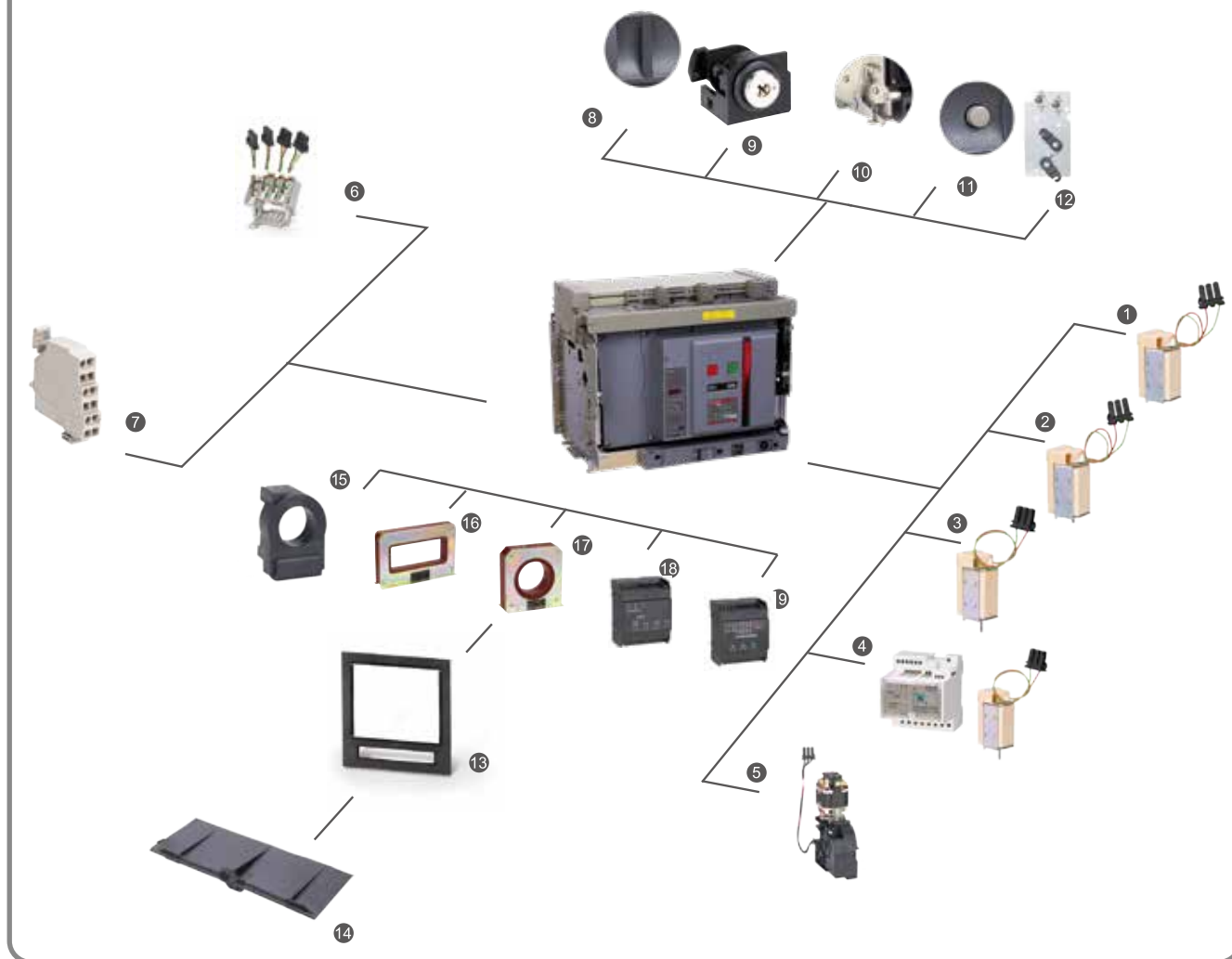
Allowed tolerance of the inverse tripping time ±20%



Default setting

Tripping curves I ² t	over current		short circuit with time delay		Inst.	Ground fault		Thermal memory
	I _R	t _R	I _{sd}	t _s	I _i	I _g	t _g	
	1I _n	30s	6I _n	0.2s	10I _n	3P - "OFF" 4P - "G"	0.4s	20min

HDW3 Breaker Accessory Indicator



Remote Operation	Indication Contact	Lock and Connection	Operation and protection	Controller accessories
1 Shunt coil	6 Auxiliary switch OF	8 Padlock	13 Door frame	15 N phase external transformer
2 Closing coil	7 Secondary terminal	9 Key lock	14 Phase partition	16 Leakage current transformer
3 Undervoltage release		10 Door lock		17 Ground transformer
4 Undervoltage delay release		11 Connection, separation, test position locking mechanism		18 Power module
5 Motor operating mechanism		12 Mechanical interlocking		19 Signal conversion module

Note: 1000AF/1600AF the accessory is same parts.

Air Circuit Breakers Accessory and Overview

Remote Operation

Shunt release MX

After circuit breaker is switched on, when shunt release is under specified power supply voltage, disconnect the circuit breaker instantaneously by remote operation.

- Rated control supply voltage AC220/AC230V, AC380/AC400V, DC220V, DC110V
- Operation voltage: (0.7-1.1) U_s
- Break-time: 50 ± 10 ms

Closing coil XF

After spring be fully charged, Closing coil can make the circuit breaker close under the specified power supply voltage and can have remote operation.

- Rated control supply voltage AC220/AC230V, AC380/AC400V, DC220V, DC110V
- Operating voltage: (0.85-1.1) U_s
- Closing time: 55 ± 10 ms

Undervoltage release MN

After the breaker switch on , Undervoltage release will tripped circuit breaker instantaneously when power supply drop down between 70%-35% U_e .

The breaker can be switched on when the power supply is 85% U_e .

- Rated control supply voltage AC220/AC230V, AC380/AC400V
- Operation voltage: (0.35-0.7) U_e
- Reliable Closing voltage: (0.85-1.1) U_e
- Non closing voltage: $\leq 0.35U_e$
- Delay time: 0.5s, 1s, 1.5s, 3s (1600, 4000), 1s, 3s, 5s (2000, 3200)

Under voltage release with time delay MNR

The MNR (when voltage drop) will switched off the circuit breaker with certain time delay , 0.5s, 1s, 1.5s, 3s(1600, 4000), 1s, 3s, and 5s (2000, 3200).

Motor Operating Mechanism MCH

When the circuit breaker is disconnected and power supply is available, motor operating mechanism can automatically charge the spring of the circuit breaker, so that the circuit breaker is disconnected or closed under the action of shunt excitation, undervoltage trip and closing electromagnet. In the absence of power supply, the handle can be used to store energy for the circuit breaker.

- Rated control supply voltage AC220/AC230V, AC380/AC400V, DC220V, DC110V
- Operation voltage: (0.85-1.1) U_s
- Power dissipation: 75W/180W(1600), 85W(2000), 110W(3200), 180W(4000)
- Spring charging : <5s
- Utilization category: AC15, DC13



Air Circuit Breakers Accessory and Overview

Indication Contacts

Auxiliary Contact OF

4NO+4NC by default

(4000H can provide 8NO+8NC and 6NO+6NC, 2000, 3200 also can provide 6NO+6NC)

It can be used to monitor the status of circuit breakers, such as connecting circuit breaker position indicator and disconnecting indicator

Rated thermal current Ith: AC380V/AC400V 0.75A, DC220V 0.15A, AC220V/AC230V 1.3A

Lock

Drawer Padlock

Lock provided by user

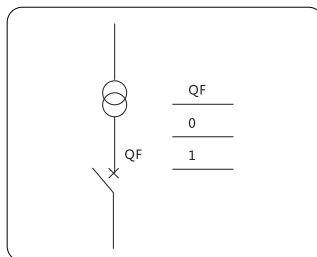
If the padlock is provided by the user himself, and the circuit breaker is in the position of "separation", pull out the padlock plate. After locking, the crank handle cannot be inserted.

Keylock

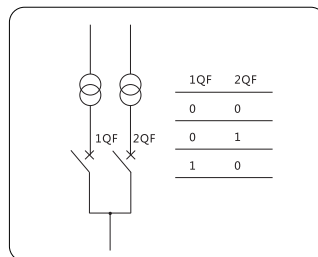
The breaker can be locked by key lock in switch off position. When the key is inserted into the lock and turned on to "on" position, the breaker can be allowed to switched on. (Key turned off or removed from lock, breaker can be switched on)

There are 3 options of key lock available (available for 2 Breaker Interlock & 3 Breaker Interlock)

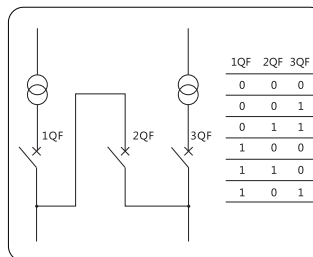
• One lock one key



• Two locks one key



• Three locks two key



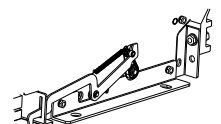
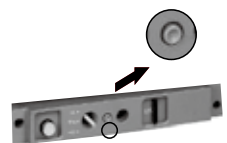
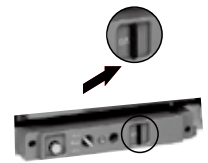
Drawer Position Locking Mechanism

It is a locker when the breaker is in the position of "connection," "test," and "disconnection" in a drawer type circuit breaker. Circuit breaker three positions are indicated through the indicator, the advance and retreat handle is locked in the exact position and is unlocked through the reset button.

Door Lock

It is suitable for cabinet frame of 2000 and 3200

In drawer type circuit breaker, it is installed on the side of circuit breaker and linkages to distribution cabinet door. It can not be opened when the circuit breaker is connected or tested. The cabinet door can be opened in the open position. It can prevent the circuit breaker from slipping and causing damage.



Air Circuit Breakers Accessory and Overview

Operation and Protection

Mechanical interlock

- The mechanical interlocks are available for fixed and drawout circuit breakers, enabling the direct interlocking of the breakers, mounted side by side or stacked.
- The interlocking systems are available in one configuration for 2 breakers and in three others for 3 breakers.

Door Frame

- The door frame installed on the door of distribution cabinet can increase IP protection level to IP40
- It is applicable to stationary type and drawer type.

Phase Partition

- The insulation board installed in the middle of the breaker bus can increase the creepage distance and improve the insulation capacity

Controller Accessories

N Phase External Transformer

In a 3P+N grounding mode, an External transformer used to measure neutral phase current is harnessed to the wiring bus by the user

Ground Transformer

- A special External transformer is used to measure the earth current when the ground current returns. It can protect the upper and lower ground faults of the circuit breaker at the same time
- It is only applicable to iTR326H controller

Leakage Current Transformer

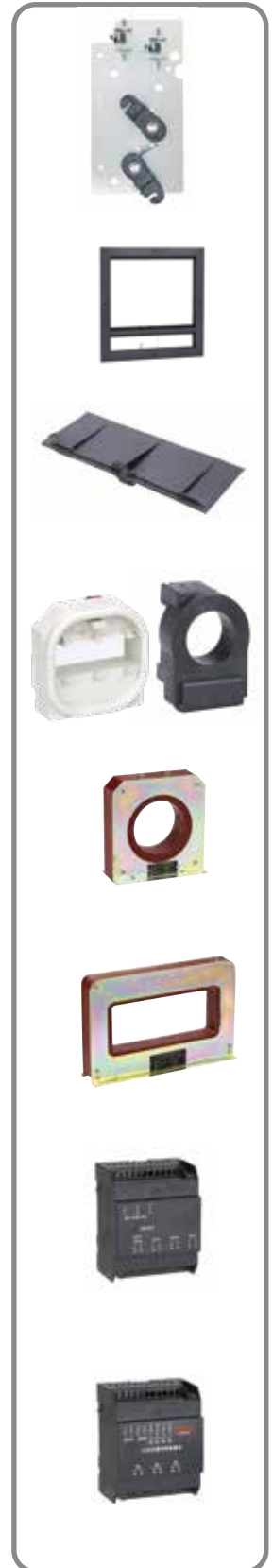
- When the earth protection is leakage type, a special rectangular transformer is added
- It is only applicable to iTR326H controller

Power Module

- It can provide auxiliary power for intelligent controller at the circuit of AC220V/AC230V, AC380V/AC400V, DC220V, DC110V
- Input is AC220V/AC230V, AC400V/AC380V, DC220V, DC110V, output is DC24V
The input fluctuation range is 20%, the output fluctuation range is 5%, and the total power of 4 sets of DC24V is 7W.

Signal Conversion Module

- Output signal unit is applicable to communication function, such as regional interlocking, signal processing of four remote functions or fault alarm or indication, etc.
- It is only applicable to iTR326H controller



Air Circuit Breakers Accessory and Overview

Accessory Coding

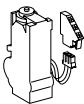
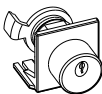
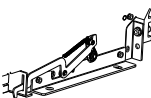
	Accessory coding	Accessory name
Controller 	HDW3TUL	Controller iTR326
	HDW3TUM	Controller iTR326A
	HDW3TUH	Controller iTR326H
	HTE100C	HDW3 Test Kits
Remote Operation		
Shunt release 	HDW3MX12A	Shunt tripper AC230V(CDW3-2000AF/3200AF/6300AF)
	HDW3MX13A	Shunt tripper AC400V(CDW3-2000AF/3200AF/6300AF)
	HDW3MX12D	Shunt tripper DC220V(CDW3-2000AF/3200AF/6300AF)
	HDW3MX11D	Shunt tripper DC110V(CDW3-2000AF/3200AF/6300AF)
	HDW3MX2A	Shunt tripper AC230V(CDW3-1600AF/4000AF)
	HDW3MX3A	Shunt tripper AC400V(CDW3-1600AF/4000AF)
	HDW3MX2D	Shunt tripper DC220V(CDW3-1600AF/4000AF)
	HDW3MX1D	Shunt tripper DC110V(CDW3-1600AF/4000AF)
Closing Coil 	HDW3XF12A	Closing tripper AC230V(CDW3-2000AF/3200AF/6300AF)
	HDW3XF13A	Closing tripper AC400V(CDW3-2000AF/3200AF/6300AF)
	HDW3XF12D	Closing tripper DC220V(CDW3-2000AF/3200AF/6300AF)
	HDW3XF11D	Closing tripper DC110V(CDW3-2000AF/3200AF/6300AF)
	HDW3XF2A	Closing tripper AC230V(CDW3-1600AF/4000AF)
	HDW3XF3A	Closing tripper AC400V(CDW3-1600AF/4000AF)
	HDW3XF2D	Closing tripper DC220V(CDW3-1600AF/4000AF)
	HDW3XF1D	Closing tripper DC110V(CDW3-1600AF/4000AF)
Undervoltage release 	HDW3MN12A	Undervoltage tripper AC230V(CDW3-2000AF/3200AF/6300AF)
	HDW3MN13A	Undervoltage tripper AC400V(CDW3-2000AF/3200AF/6300AF)
	HDW3MN2A	Undervoltage tripper AC230V(CDW3-1600AF/4000AF)
	HDW3MN3A	Undervoltage tripper AC400V(CDW3-1600AF/4000AF)
Undervoltage Delay release 	HDW3MNR12A	Undervoltage delay tripper AC230V(CDW3-2000AF/3200AF/6300AF)
	HDW3MNR13A	Undervoltage delay tripper AC400V(CDW3-2000AF/3200AF/6300AF)
	HDW3MNR2A	Undervoltage delay tripper AC230V(CDW3-1600AF/4000AF)
	HDW3MNR3A	Undervoltage delay tripper AC400V(CDW3-1600AF/4000AF)

NOTE:

HDW3Test Kits can test overload , short circuit , instantenous , gourd trip on site.

HDW3Test kits adapt with L & H type controller, Do not test on M type controller (iTR326A) If you have any requirement of test kits please contact with local HIMEL sales team.

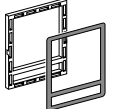
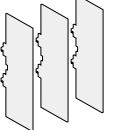
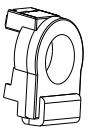
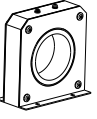
Air Circuit Breakers Accessory and Overview

Remote Operation	Accessory Coding	Accessory Name
Motor Mechanism 	HDW3MCH202A	Motor mechanism AC230V(HDW3-2000AF)
	HDW3MCH203A	Motor mechanism AC400V(HDW3-2000AF)
	HDW3MCH202D	Motor mechanism DC220V(HDW3-2000AF)
	HDW3MCH201D	Motor mechanism DC110V(HDW3-2000AF)
	HDW3MCH322A	Motor mechanism AC230V(HDW3-3200AF)
	HDW3MCH323A	Motor mechanism AC400V(HDW3-3200AF)
	HDW3MCH322D	Motor mechanism DC220V(HDW3-3200AF)
	HDW3MCH321D	Motor mechanism DC110V(HDW3-3200AF)
	HDW3MCH162A	Motor mechanism AC230V(HDW3-1600AF)
	HDW3MCH163A	Motor mechanism AC400V(HDW3-1600AF)
	HDW3MCH162D	Motor mechanism DC220V(HDW3-1600AF)
	HDW3MCH161D	Motor mechanism DC110V(HDW3-1600AF)
	HW3MCH402A	Motor mechanism AC230V(HDW3-4000AF)
	HDW3MCH403A	Motor mechanism AC400V(HDW3-4000AF)
	HDW3MCH402D	Motor mechanism DC220V(HDW3-4000AF)
	HDW3MCH401D	Motor mechanism DC110V(HDW3-4000AF)
	HDW3MCH632A	Motor mechanism AC230V(HDW3-6300AF)
	HDW3MCH633A	Motor mechanism AC400V(HDW3-6300AF)
	HDW3MCH632D	Motor mechanism DC220V(HDW3-6300AF)
Indicator Contact		
Auxiliary Contact 	HDW3OF1644	Auxiliary contact 4 open 4 close (HDW3-1600AF)
	HDW3OF3266	Auxiliary contact 6 open 6 close (HDW3-2000/3200/6300AF)
	HDW3OF4044	Auxiliary contact 4 open 4 close (HDW3-4000AF)
Lock		
Key Lock 	HDW316L3	3 locks 2 keys HDW3-1600AF
	HDW316L2	2 locks 1 key HDW3-1600AF
	HDW316L1	1 lock 1 key HDW3-1600AF
	HDW3L3	3 locks 2 keys HDW3-2000AF/3200AF/6300AF
	HDW3L2	2 locks 1 key HDW3-2000AF/3200AF/6300AF
	HDW3L1	1 lock 1 key HDW3-2000AF/3200AF/6300AF
	HDW340L3	3 locks 2 keys HDW3-4000AF
	HDW340L2	2 locks 1 key HDW3-4000AF
	HDW340L1	1 lock 1 key HDW3-4000AF
Door Lock 	HDW316DLR	Drawout type Door interlock HDW3-1600AF
	HDW320DLR	Drawout type Door interlock HDW3-2000AF
	HDW332DLR	Drawout type Door interlock HDW3-3200AF
	HDW340DLR	Drawout type Door interlock HDW3-4000AF
	HDW363DLR	Drawout type Door interlock HDW3-6300AF

NOTE: Door interlock is not available for fix type HDW3

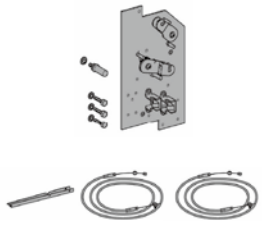
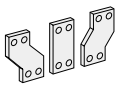
Air Circuit Breakers Accessory and Overview



Operation and Protection	Accessory Coding	Accessory Name
Door Frame 	HDW316FCDP	Fixed type door frame HDW3-1600AF
	HDW316DCDP	Drawer type door frame HDW3-1600AF
	HDW320FCDP	Fixed type door frame HDW3-2000AF
	HDW320DCDP	Drawer type door frame HDW3-2000AF
	HDW332FCDP	Fixed type door frame HDW3-3200AF
	HDW332DCDP	Drawer type door frame HDW3-3200AF
	HDW340FCDP	Fixed type door frame HDW3-4000AF
	HDW340DCDP	Drawer type door frame HDW3-4000AF
	HDW363DCDP	Drawer type door frame HDW3-6300AF
Phase Partition 	HDW316FD	Fixed type phase partition 3PHDW3-1600AF
	HDW316DD	Drawer type phase partition 3PHDW3-1600AF
	HDW332FD	Fixed type phase partition 3PHDW3-2000/3200/6300AF
	HDW332DD	Drawer type phase partition 3PHDW3-2000/3200/6300AF
	HDW340FD	Fixed type phase partition 3PHDW3-4000AF
	HDW340DD	Drawer type phase partition 3PHDW3-4000AF
	HDW3164FD	Fixed type phase partition 4PHDW3-1600AF
	HDW3164DD	Drawer type phase partition 4PHDW3-1600AF
	HDW3324FD	Fixed type phase partition 4PHDW3-2000/3200/6300AF
	HDW3324DD	Drawer type phase partition 4PHDW3-2000/3200/6300AF
	HDW3404FD	Fixed type phase partition 4PHDW3-4000A
	HDW3404DD	Drawer type phase partition 4PDW3-4000AF
Intelligent Controller Accessories		
N Phase Mutual Inductor 	HDW31604NCT	N phase External mutual inductor HDW3-1600AF/400A
	HDW3160616NCT	N phase External mutual inductor HDW3-1600AF/630-1600A
	HDW3200608NCT	N phase External mutual inductor HDW3-2000AF/630-800A
	HDW3201020NCT	N phase External mutual inductor HDW3-2000AF/1000-2000A
	HDW332NCT	N phase External mutual inductor HDW3-3200AF/2000-3200A
	HDW340NCT	N phase External mutual inductor HDW3-4000AF/1600-4000A
	HDW363NCT	N phase External mutual inductor HDW3-6300SF
Ground Mutual Inductor 	HDW3ZT100-400	Ground mutual inductor HDW3-400A (is only applicable to type H Controller)
	HDW3ZT100-630	Ground mutual inductor HDW3-630A (is only applicable to type H Controller)
	HDW3ZT100-800	Ground mutual inductor HDW3-800A (is only applicable to type H Controller)
	HDW3ZT100-1000	Ground mutual inductor HDW3-1000A (is only applicable to type H Controller)
	HDW3ZT100-1250	Ground mutual inductor HDW3-1250A (is only applicable to type H Controller)
	HDW3ZT100-1600	Ground mutual inductor HDW3-1600A (is only applicable to type H Controller)
	HDW3ZT100-2000	Ground mutual inductor HDW3-2000A (is only applicable to type H Controller)
	HDW3ZT100-2500	Ground mutual inductor HDW3-2500A (is only applicable to type H Controller)
	HDW3ZT100-3200	Ground mutual inductor HDW3-3200A (is only applicable to type H Controller)
	HDW3ZT100-6300	Ground mutual inductor HDW3-6300A(is only applicable to type H Controller)

Air Circuit Breakers Accessory and Overview



Intelligent controller accessories	Accessory coding	Accessory name
Leakage current mutual inductor 	HDW3ZCT1	Leakage current mutual inductor HDW3 (is only applicable to H controller)
Signal conversion module 	HDW3TR	Signal conversion module (H communication, regional interlocking, 4 remote controllers)
Power module 	iAPU334	Power module input AC220V-AC400V / output 24VDC
	iAPU332D	Power module input DC220V/DC110V / output 24VDC
Mechanical interlocking		
Cable interlocking 	HDW316FL2	Fixed type cable interlocking (2 sets) HDW3-1600AF
	HDW332FL2	Fixed type cable interlocking (2 sets) HDW3-2000/3200/6300AF
	HDW340FL2	Fixed type cable interlocking (2 sets) HDW3-4000AF
	HDW332FL3	Fixed type cable interlocking (3 sets) HDW3-2000/3200/6300AF
	HDW340FL3	Fixed type cable interlocking (3 sets) HDW3-4000AF
	HDW316DL2	Drawer type cable interlocking (2 sets) HDW3-1600AF
	HDW332DL2	Drawer type cable interlocking (2 sets) HDW3-2000/3200/6300AF
	HDW340DL2	Drawer type cable interlocking (2 sets) HDW3-4000AF
	HDW332DL3	Drawer type cable interlocking (3 sets) HDW3-2000/3200/6300AF
	HDW340DL3	Drawer type cable interlocking (3 sets) HDW3-4000AF
Connection accessory		
	HDW3V3	Vertical L adaptor 3PW3-2000 (2000A Below)
	HDW3V4	Vertical L adaptor 4PW3-2000 (2000A Below)
	HDW3S3	Expanding terminal 3P (1600N)
	HDW3S4	Expanding terminal 4P (1600N)

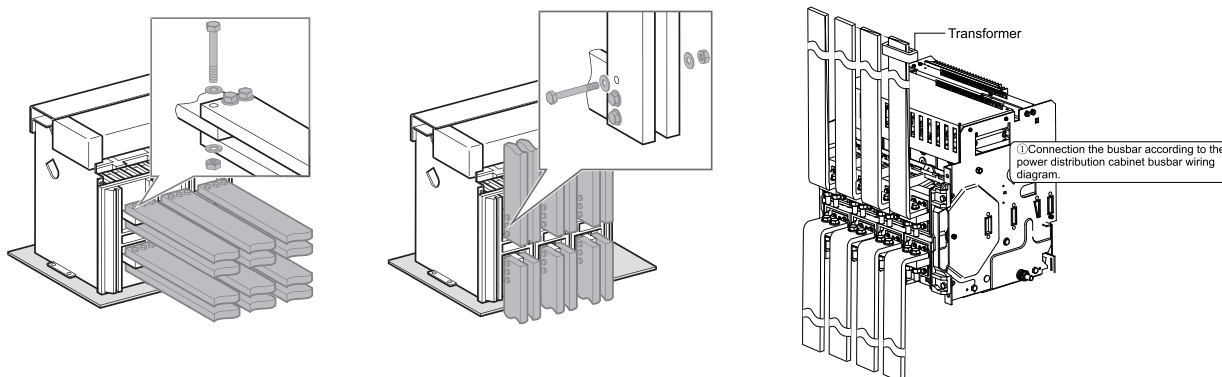
Note

1. HDW3 series package is default with Power module / Door frame / Phase partition / Auxiliary contact.
2. shunt release / closing coil / under voltage release , 1600/4000 is common used , 2000 /3200/6300 is common used.
3. Door interlock requirement , please contact with local office.

Air Circuit Breakers Installation Dimension

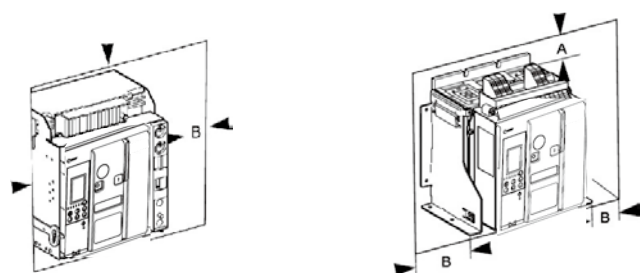
Busbar connection

Draw-out and fixed type



Remark: vertical connection only for 1600AF/4000AF

Safety clearances



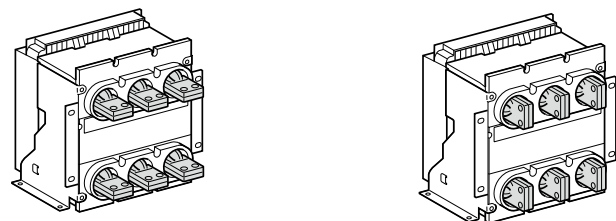
Safety clearances(mm)	Draw-out type*		Fixed type	
	A	B	A	B
Non-conductor	0	10	0	0
Metals	0	10	0	0
Energized conductor	30	60	100	60

*only suitable for 1000AF and 1600AF

Rear connection

Horizontal

Vertical



Note:

1. All shell frames are provided with horizontal connections, only 1600&4000 providing vertical connections
2. 1600 horizontal and vertical connections can be made by rotating the bus
3. The vertical connection of 2000 shell frame can be realized by optional vertical L adapter, which is only limited below 2000A.

Air Circuit Breakers Installation Dimension



Recommended dimension of busbar

Busbar type table in different temperatures

Busbar max temperature

Material of busbar is copper

Frame (AF)	Rated Current (A)	ambient temperature +40°C				ambient temperature +50°C				ambient temperature +60°C			
		5mm Busbar		10mm Busbar		5mm Busbar		10mm Busbar		5mm Busbar		10mm Busbar	
		Quantity	dimension	Quantity	dimension	Quantity	dimension	Quantity	dimension	Quantity	dimension	Quantity	dimension
1000	400	2	30*5	1	30*10	2	30*5	1	30*10	2	30*5	1	30*10
	630	2	40*5	1	40*10	2	40*5	1	40*10	2	40*5	1	40*10
	800	2	50*5	1	50*10	2	50*5	1	50*10	2	50*5	1	50*10
	1000	3	50*5	2	40*10	3	50*5	2	40*10	4	50*5	2	50*10
1600	400	2	30*5	1	30*10	2	30*5	1	30*10	2	30*5	1	30*10
	630	2	40*5	1	40*10	2	40*5	1	40*10	2	40*5	1	40*10
	800	2	50*5	1	50*10	2	50*5	1	50*10	2	50*5	1	50*10
	1000	3	50*5	2	40*10	3	50*5	2	40*10	3	50*5	2	40*10
	1250	4	40*5	2	40*10	4	50*5	2	50*10	4	50*5	2	50*10
	1600	4	50*5	2	50*10	4	50*5	2	50*10	4	50*5	2	50*10
2000	630	2	40*5	1	40*10	2	50*5	1	50*10	2	60*5	1	60*5
	800	2	50*5	1	50*10	2	50*5	1	50*10	2	60*5	1	60*5
	1000	3	50*5	2	40*10	3	50*5	2	40*10	3	60*5	2	50*5
	1250	3	60*5	2	50*10	3	60*5	2	50*10	3	60*5	2	50*5
	1600	4	60*5	2	60*10	4	60*5	2	60*10	4	60*5	2	60*5
	2000	6	60*5	3	60*10	6	60*5	3	60*10	6	60*5	3	60*5
3200	2000	4	100*5	2	100*10	4	100*5	2	100*10	4	100*5	2	100*10
	2500	4	100*5	2	100*10	4	100*5	2	100*10	4	100*5	2	100*10
	3200	8	100*5	4	100*10	8	100*5	4	100*10	8	100*5	4	100*10
4000	1600	2	100*5	1	100*10	2	100*5	1	100*10	2	100*5	1	100*10
	2000	4	100*5	2	100*10	4	100*5	2	100*10	4	100*5	2	100*10
	2500	4	100*5	2	100*10	4	100*5	2	100*10	4	100*5	2	100*10
	3200	8	100*5	4	100*10	8	100*5	4	100*10	8	100*5	4	100*10
	4000			5	100*10			5	100*10			6	100*10
6300	4000			5	100*10			5	100*10			6	100*10
	5000			7	100*10			7	100*10			8	100*10
	6300			8	100*10			8	100*10				

Screw table

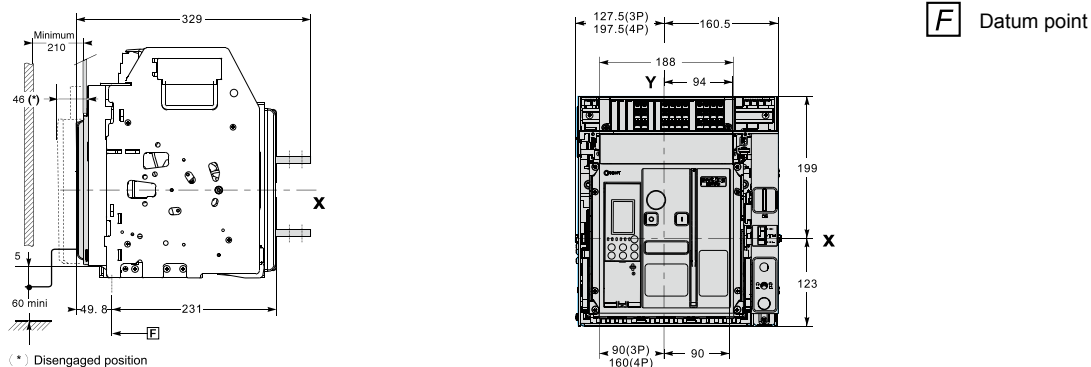
	1000M	1600M&S	2000M&S	3200M&S	4000M&S	6300M&S
Screw dimension	M10	M10	M12	M12	M10	M12
Torque	50N·m	50N·m	95N·m	95N·m	50N·m	95N·m

Holes dimension on busbar and installation torque

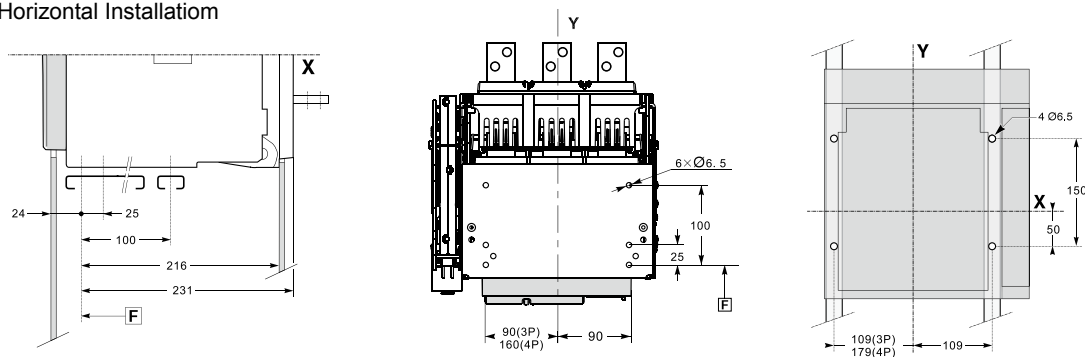
	1600M&S	1600M&S	2000M&S	3200M&S	4000M&S	6300M&S
Hole dimension	Ø11	Ø11	Ø13	Ø13	Ø11	Ø13
Torque	50N·m	50N·m	95N·m	95N·m	50N·m	95N·m

Air Circuit Breakers Installation Dimension

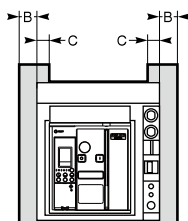
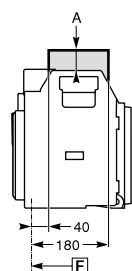
Dimensions HDW3-1000 Draw-out type 3P&4P



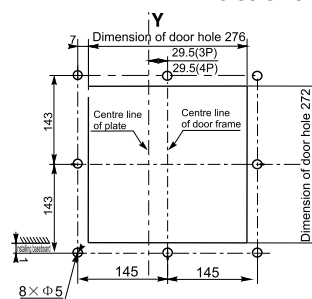
Horizontal Installation



Safety clearance



Holes size on door



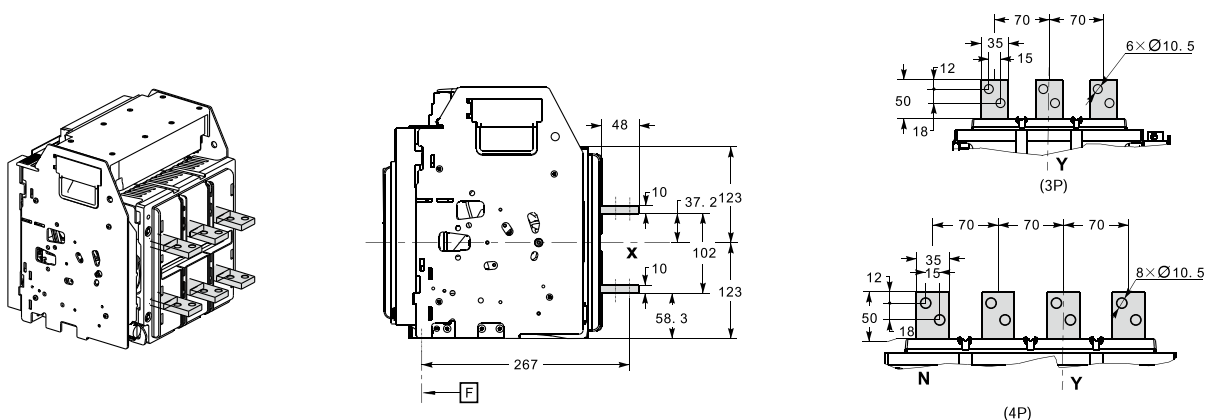
F Datum point

Safety clearance(mm)	Draw-out type		
	A	B	C
Non-conductor	0	10	0
Metals	0	10	0
Energized conductor	30	60	30

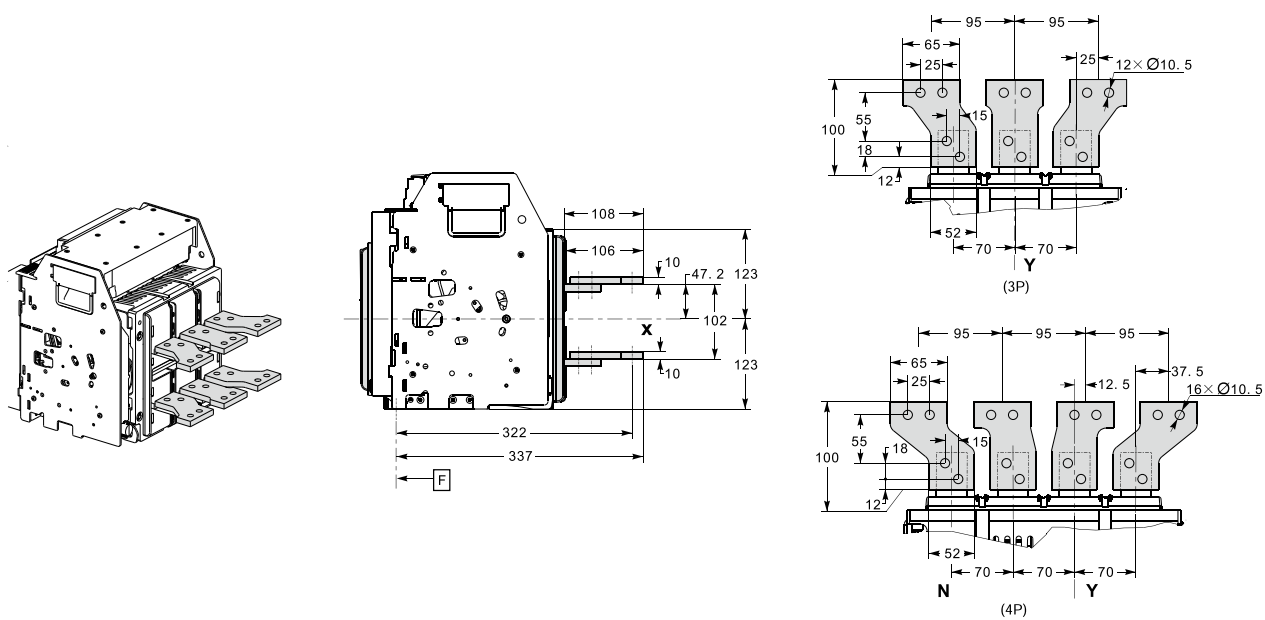
Air Circuit Breakers Installation Dimension

Dimensions HDW3-1000 Draw-out type 3P&4P

Horizontal connection



connection with expanding terminals

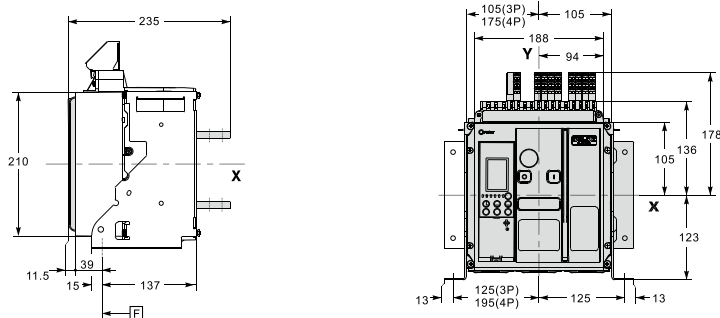


F Datum point

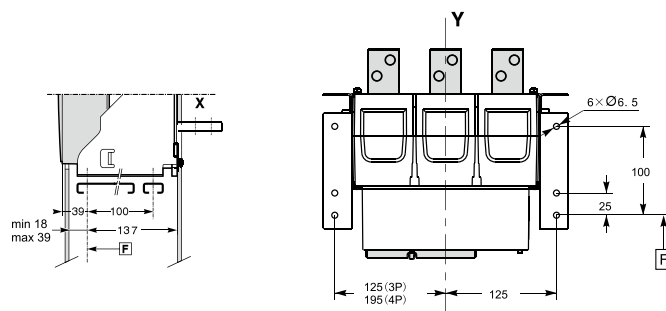
Air Circuit Breakers Installation Dimension

Dimensions HDW3-1000 Fixed type 3P&4P

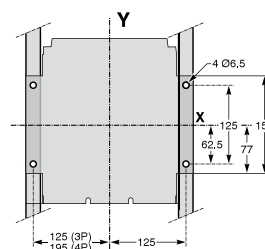
F Datum point



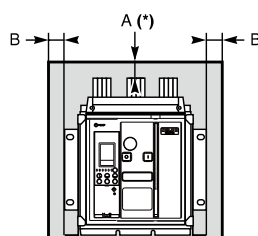
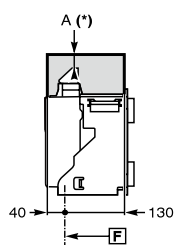
Horizontal Installation



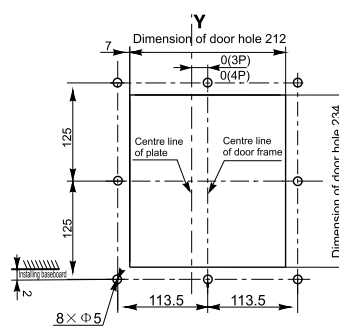
Vertical installation



Safety clearance



Holes size on door



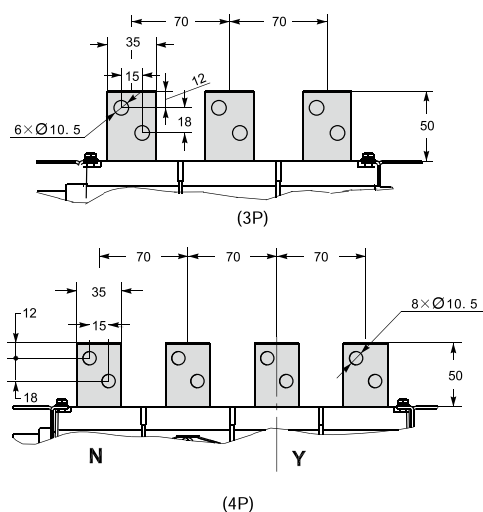
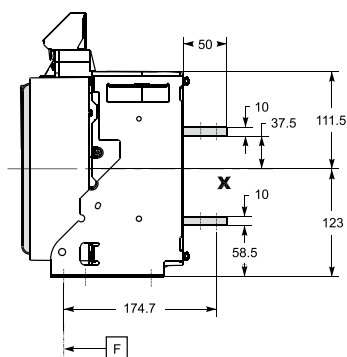
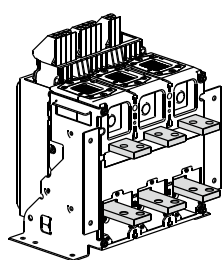
F Datum point

Safety clearance(mm)	Fixed type	
	A	B
Non-conductor	0	0
Metals	0	0
Energized conductor	100	60

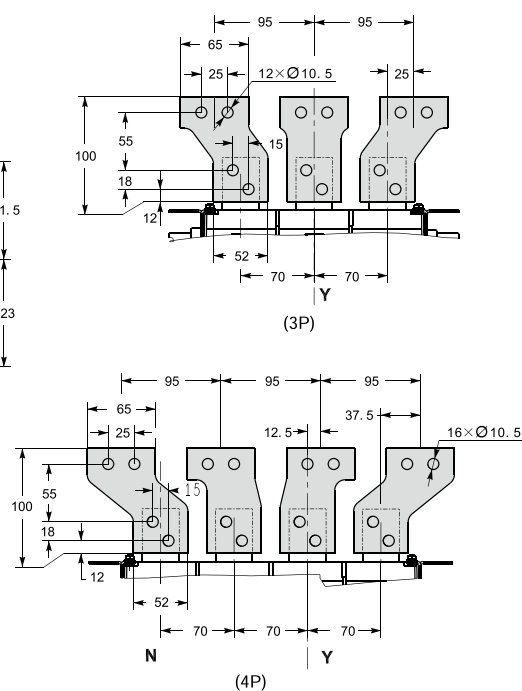
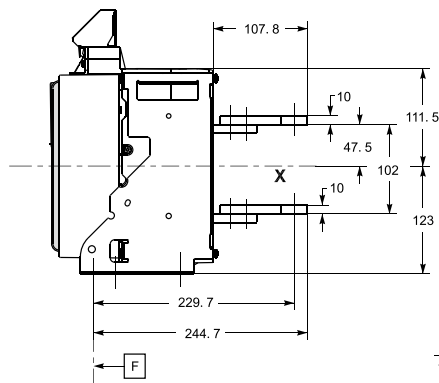
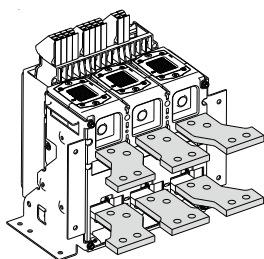
Air Circuit Breakers Installation Dimension

Dimensions HDW3-1000 Fixed type 3P&4P

Horizontal connection



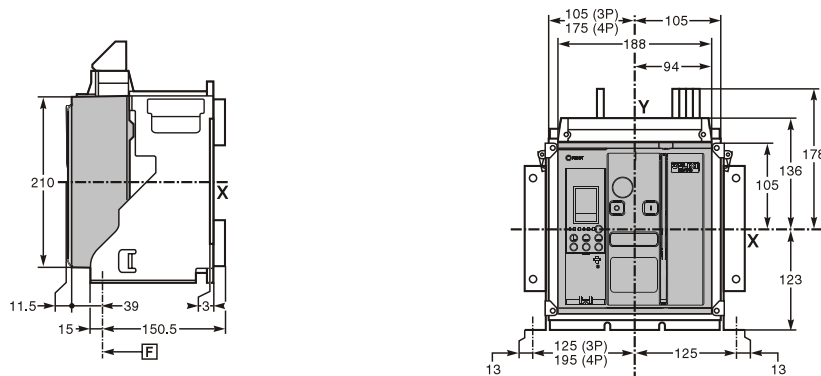
connection with expanding terminals



F Datum point

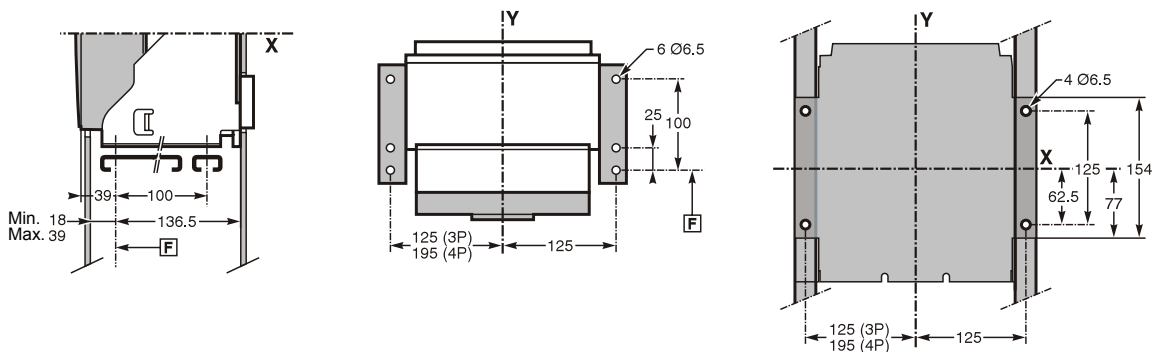
Air Circuit Breakers Installation Dimension

Dimensions HDW3-1600 Fixed type 3P&4P



Horizontal Fixed (On a substrate or track)

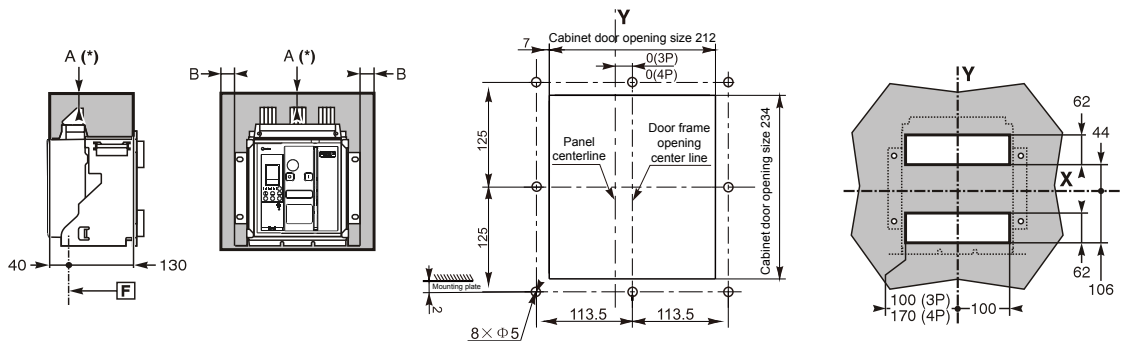
Vertical Fixed diagram (On the back or rack)



Safety clearance

Door open dimension

Back panel open dimension

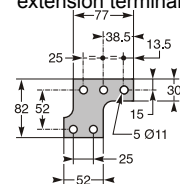
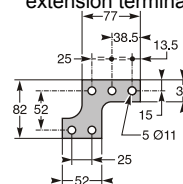
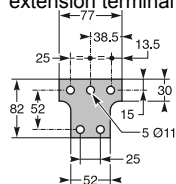
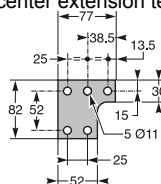
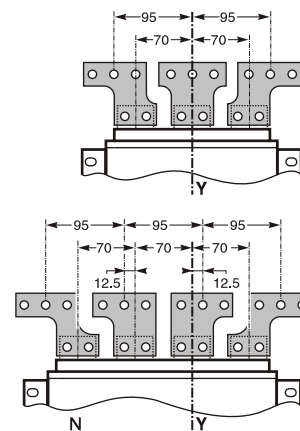
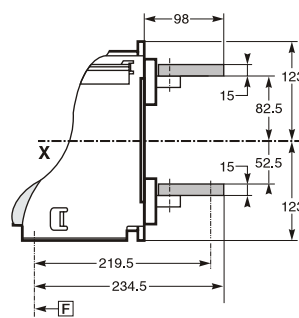
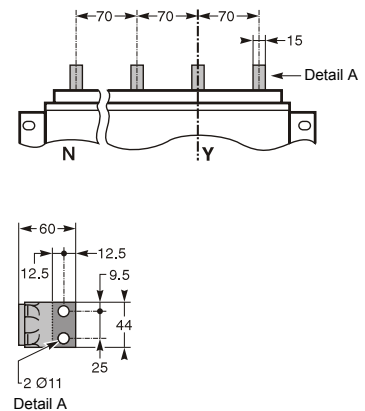
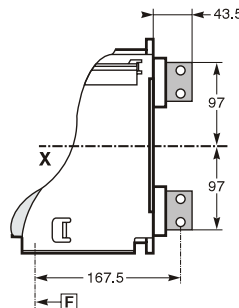
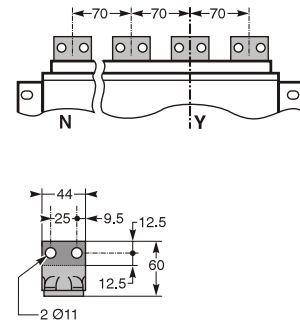
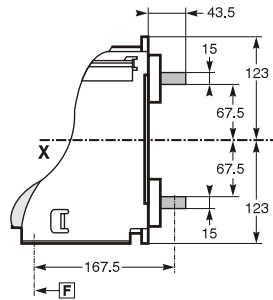


F : Datum point

	Insulation parts	Metal parts	Energized parts
A	0	0	100
B	0	0	60

Note: the X and Y axes of the 3-pole breaker are symmetrical with the breaker front face mask.

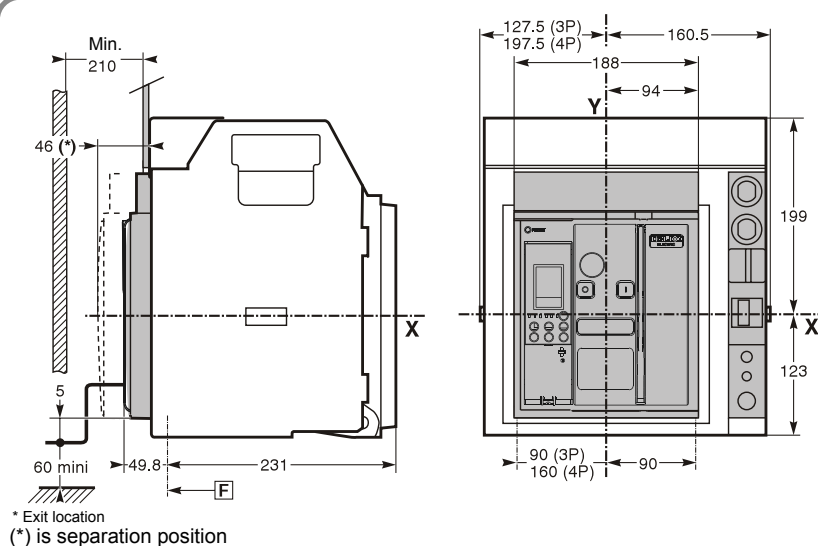
(*) For the safety distance, the space required for removing the arcing mask shall be considered as 50mm, and the safety distance for removing the terminal block shall be 20mm.



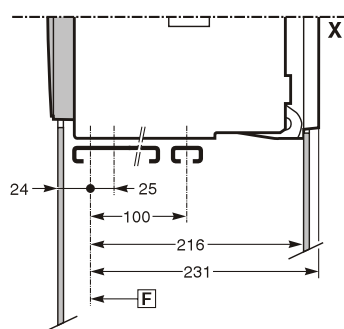
F : Datum point

Air Circuit Breakers Installation Dimension

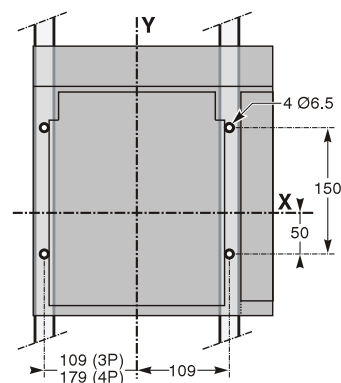
Dimensions HDW3-1600 draw-out type 3P&4P



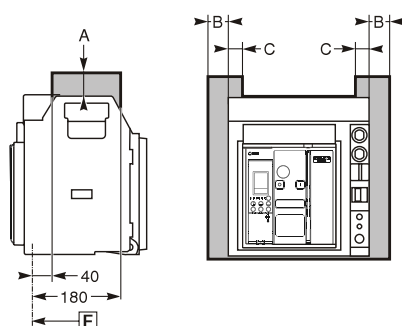
Horizontal Fixed (On a substrate or track)



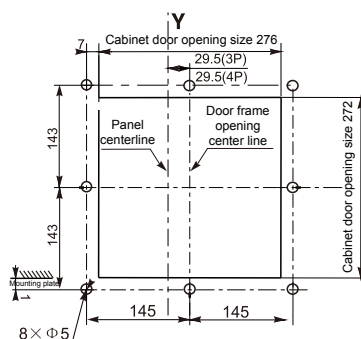
Vertical fixation diagram (On the back or rack)



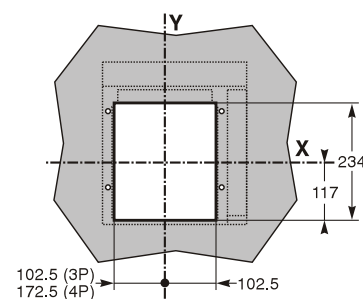
Safety clearance



Door open dimension



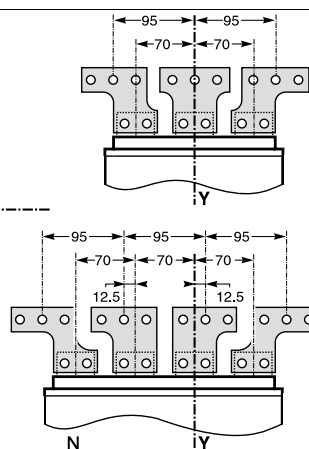
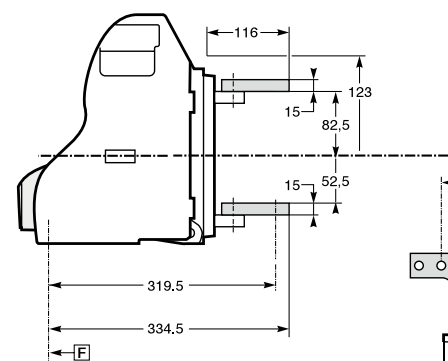
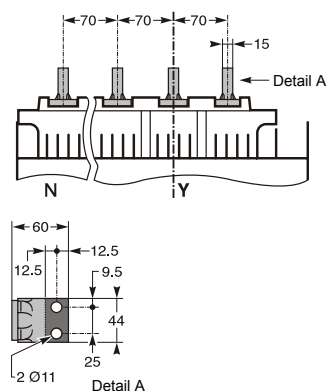
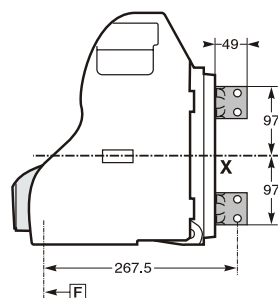
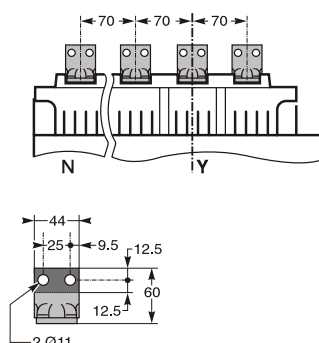
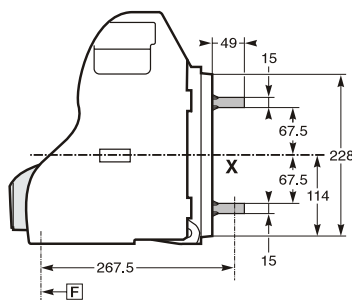
Back panel open dimension



	Insulation parts	Metal parts	Energized parts
A	0	0	30
B	10	10	60
C	0	0	30

F : Datum point

Note: The X and Y axes of the 3-pole breaker are symmetrical with the breaker nomenclature front face mask.

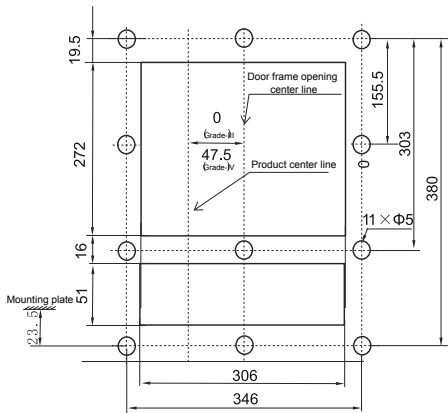


F : Datum point

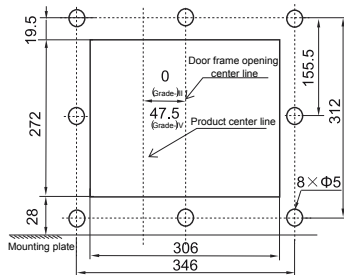
Dimensions of HDW3-2000 3P&4P

Door frame

• Draw-out type

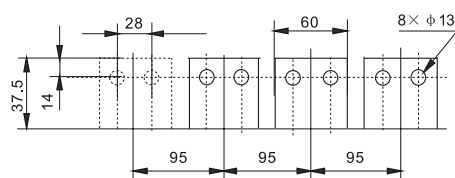


• Fixed type

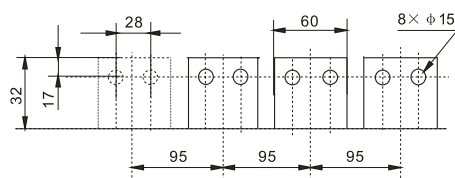


Busbar size

• Draw-out type

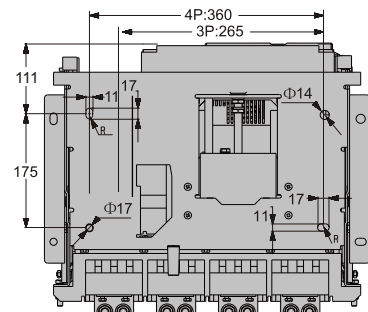
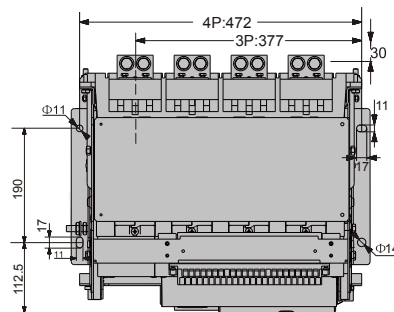
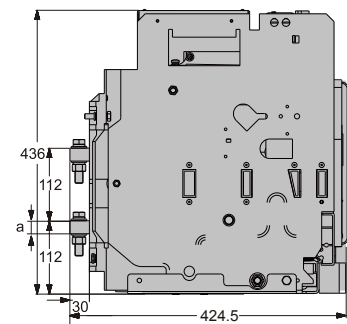
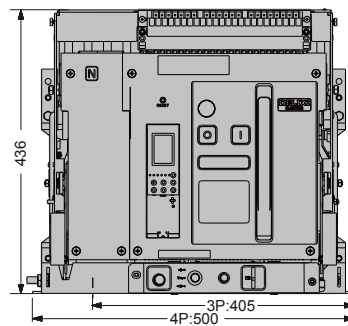


• Fixed type



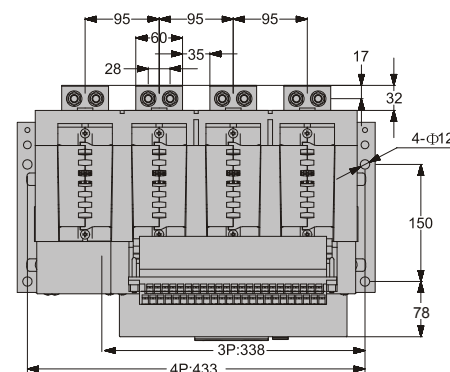
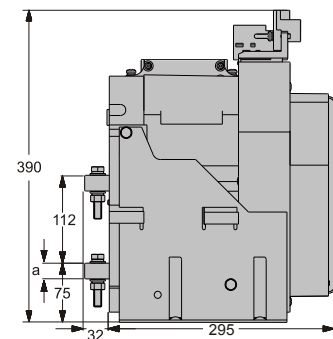
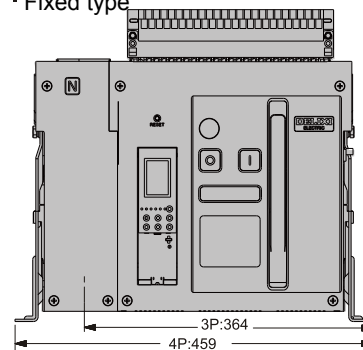
Volume

• Draw-out type



The cover is 5mm higher than the Delixi accessory door frame will be suitable

• Fixed type

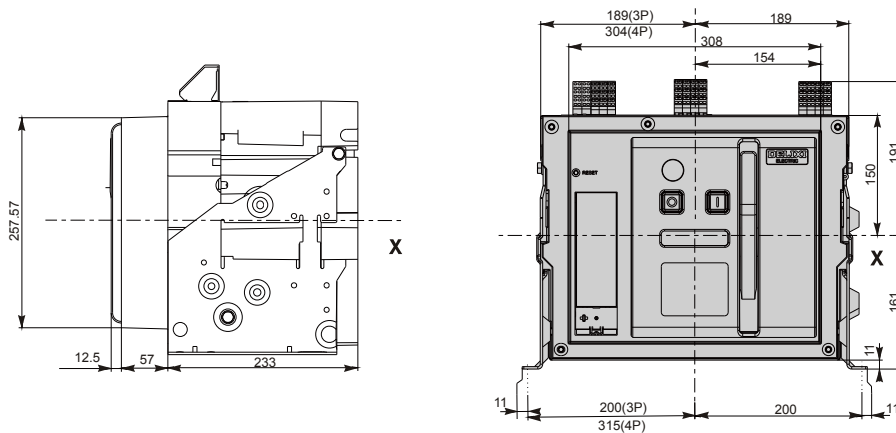


The cover is 5mm higher than the Delixi accessory door frame will be suitable

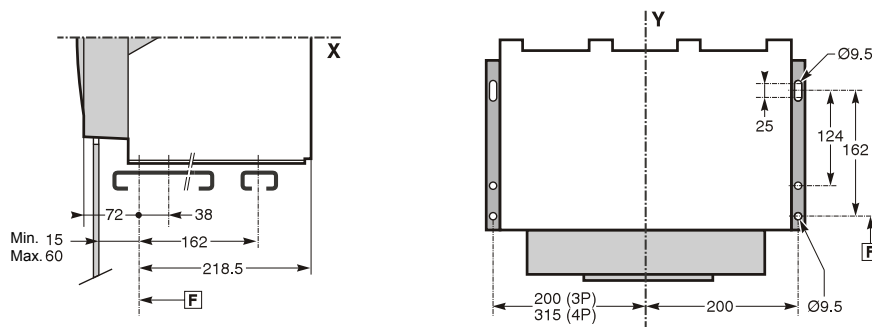
In(A)	a(mm)
630~800	10
1000~1600	15
2000	20

Air Circuit Breakers Installation Dimension

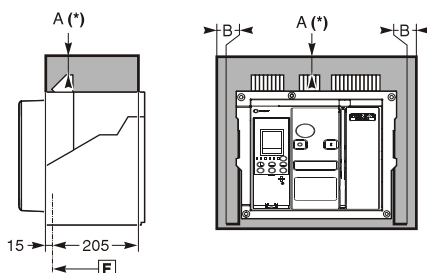
Dimensions of HDW3-4000 fixed type 3P&4P



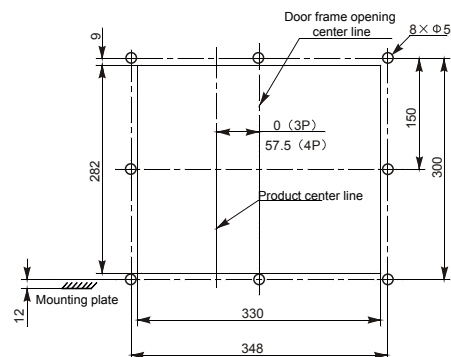
Horizontal Fixed (On a substrate or track)



Safety clearance



Door open dimension



	Insulated part	Metal part	Live part
A	0	0	100
B	0	0	60

F: Datum point

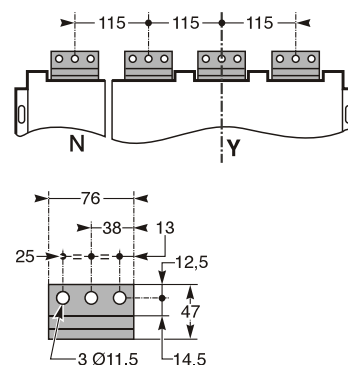
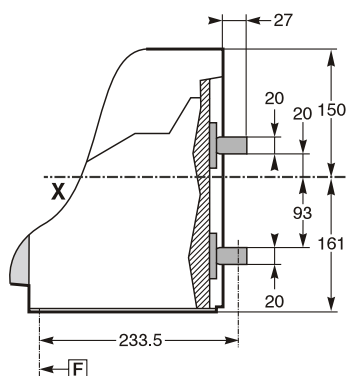
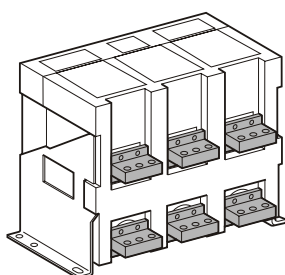
Note: The X and Y axes of the 3-pole breaker are symmetrical with the breaker nomenclature front face mask.

* The safe distance should consider the space needed to remove the arcing shield 110mm, the safe distance when removing the terminal block is 20mm

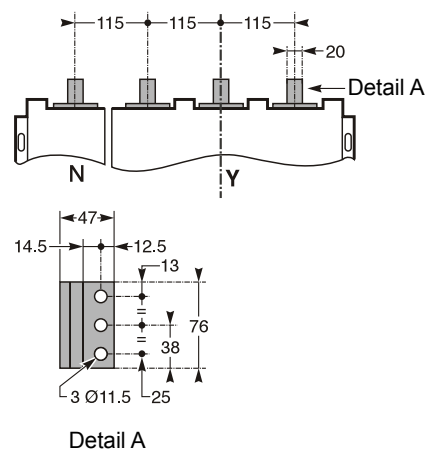
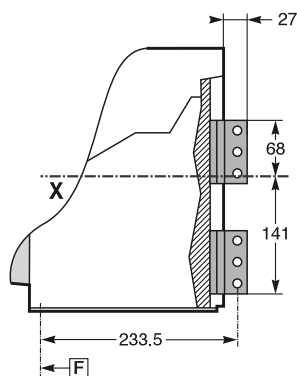
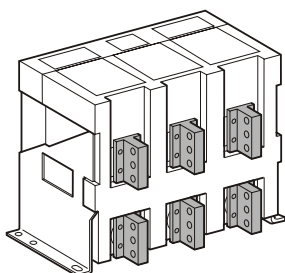
Air Circuit Breakers Installation Dimension

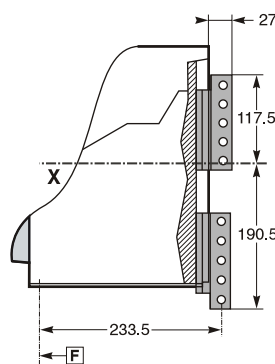
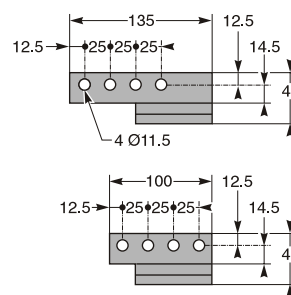
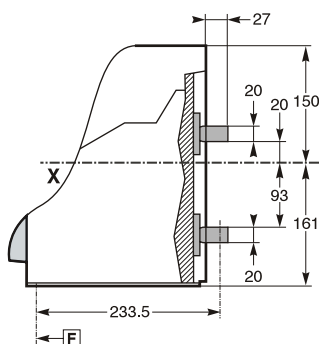
Connection HDW3-4000 fixed type 3P&4P 1600A~3200A

Horizontal rear connection

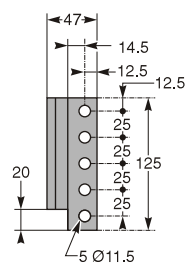
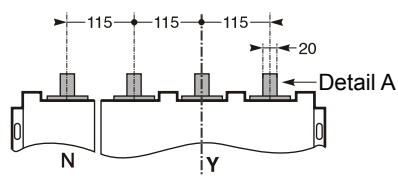


Vertical rear connection

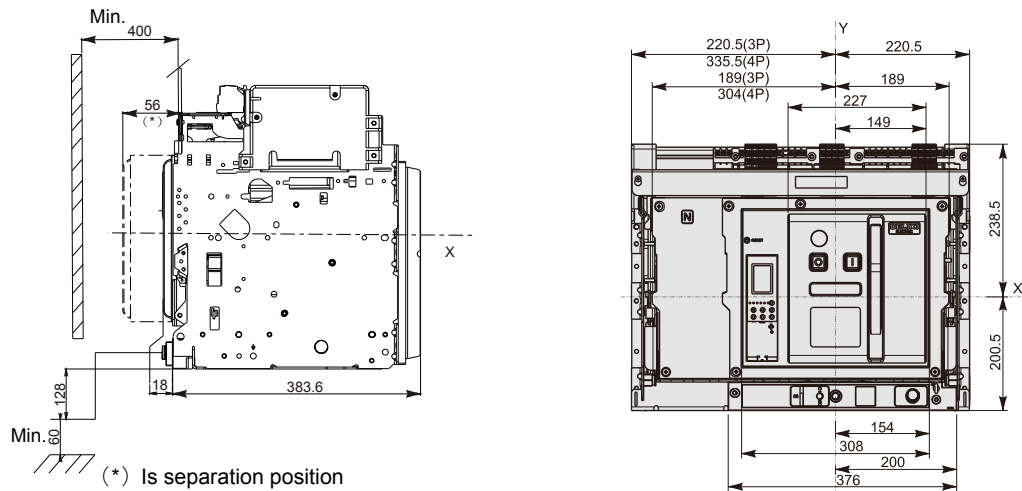




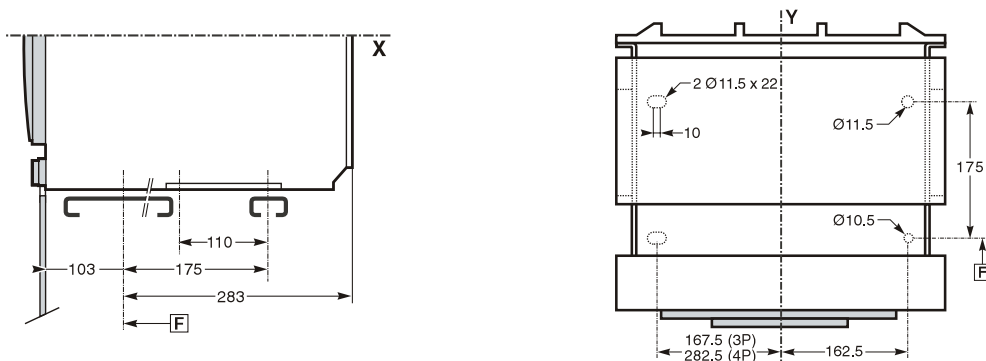
$\boxed{F}$: Datum point



Dimensions of HDW3-4000 draw-out type 3P&4P

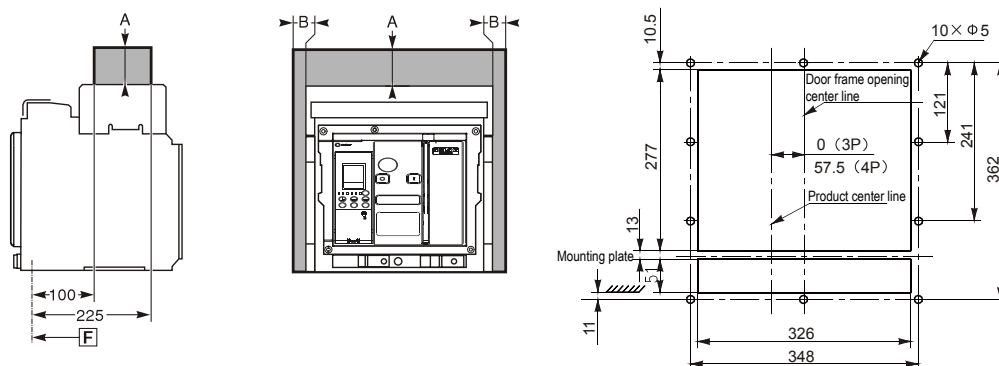


Horizontal Fixed(On a substrate or track)



Safety clearance

Door open dimension



	Insulated part	Metal part	Live part
A	0	0	0
B	0	0	60

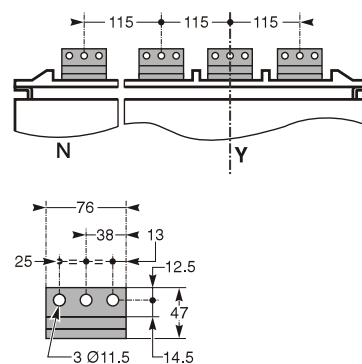
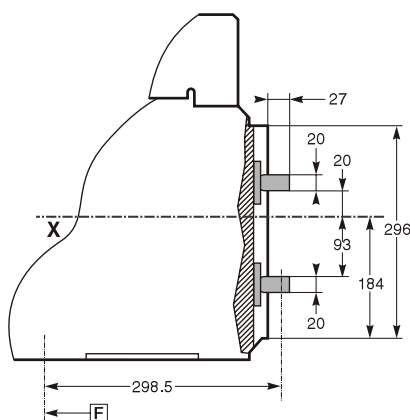
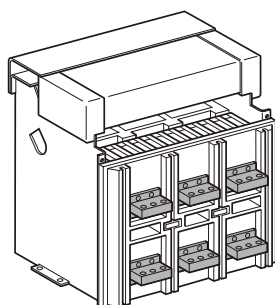
[F]: Datum point

* Note: The X and Y axes of the 3-pole breaker are symmetrical with the breaker nomenclature front face mask. The safe distance should consider the space needed to remove the arcing shield

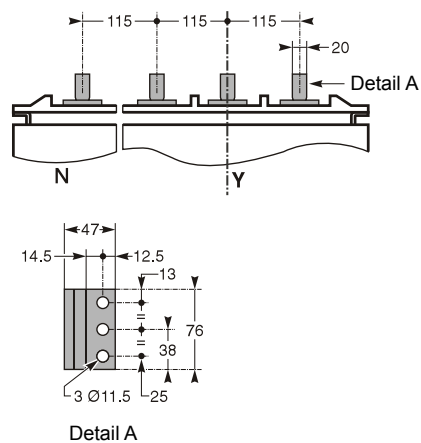
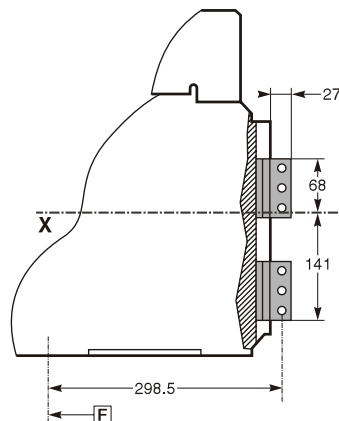
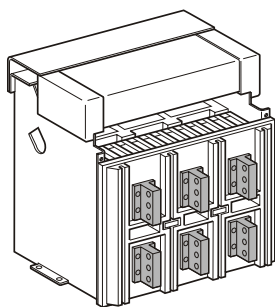
Air Circuit Breakers Installation Dimension

Connections HDW3-4000 draw-out type 3P&4P 1600A~3200A

Horizontal rear connection



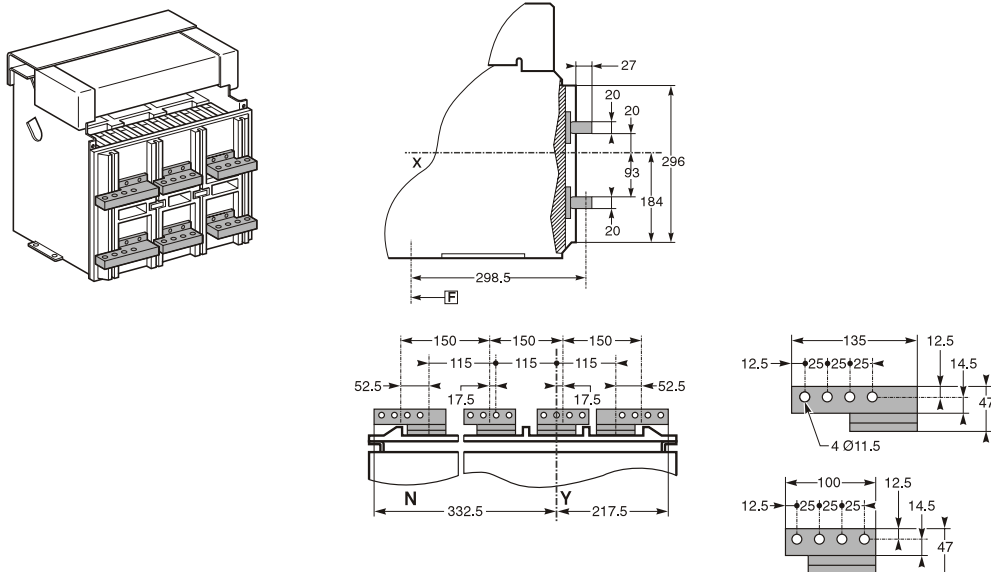
Vertical rear connection



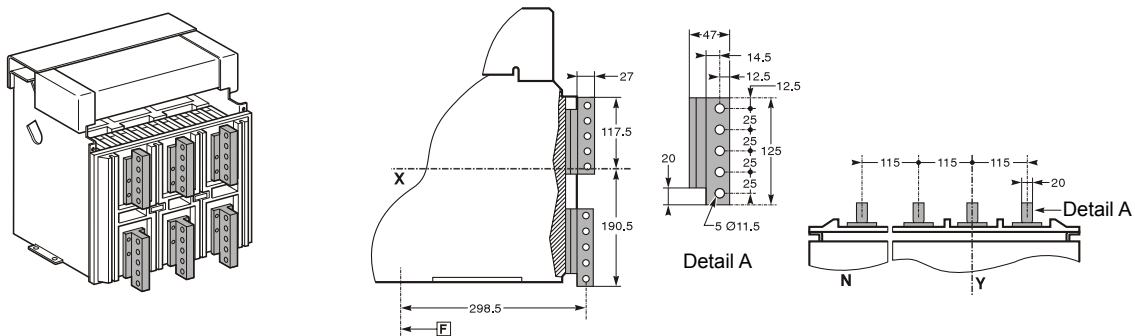
Air Circuit Breakers Installation Dimension

Connections HDW3-4000 draw-out type 3P&4P 4000A

Horizontal rear connection



Vertical rear connection



F: Datum point

It is suggested to connect the circuit breaker with guide line

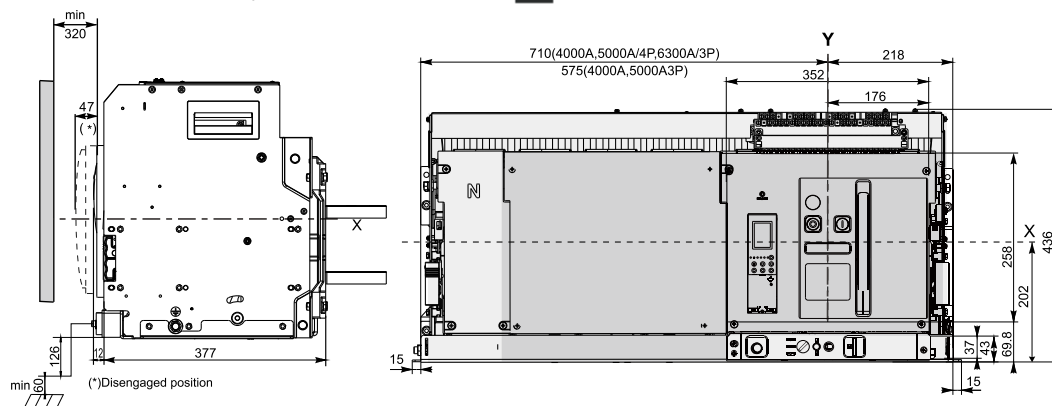
Rated current A	Specification of external copper platoon	Pole number	Sectional areamm ²
400	None	1	240
630	40×5	2	400
800	50×5	2	500
1000	60×5	2	600
1250	80×5	2	800
1600	100×5	2	1000
2000	100×5	3	1500
2500	100×5	4	2000
3200	120×10	3	3600
4000	100×10	5	5000

Detailed information please refer to the specification

Air Circuit Breakers Installation Dimension

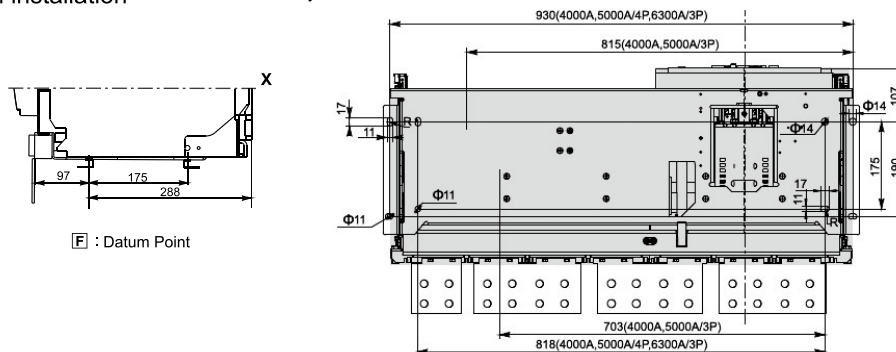
Connections HDW3-6300M&S

6300M&S Draw-out type 3P&4P Dimension **F** Datum Point

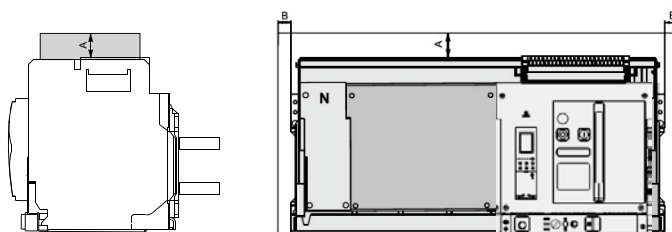


Horizontal installation

*Cover is 5mm beyond door frame.

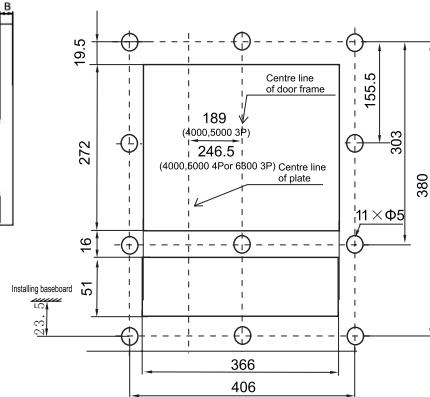


Safety clearance



Safety clearance (mm)	Draw-out type	
	A	B
Non-conductor	0	0
Metals	0	0
Energized conductor	100	60

Holes size on door



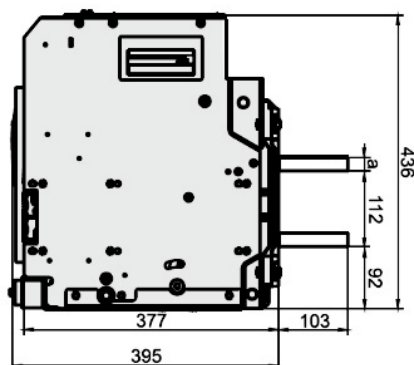
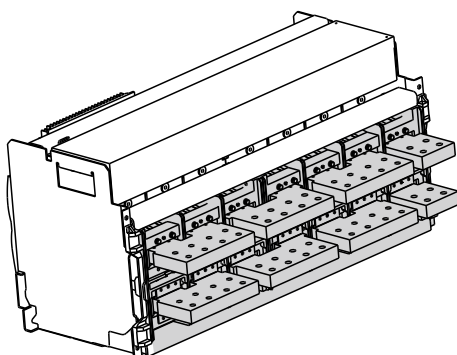
Air Circuit Breakers Installation Dimension

Connections HDW3-6300M&S

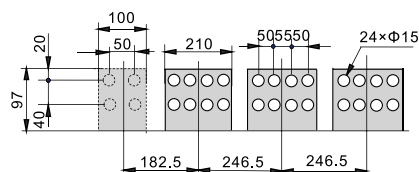
6300M&S Draw-out type connection  Datum Point

4000A-6300A

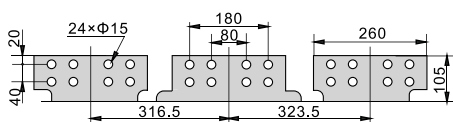
Horizontal connection



In=4000A/5000A



In=6300A



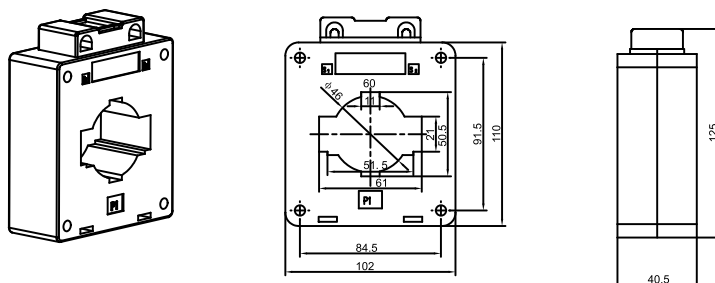
In (A)	a (mm)
4000	20
5000	30
6300	30

Air Circuit Breakers Installation Dimension

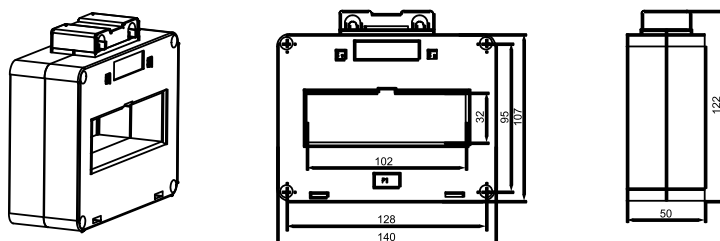
Dimensions of external transformer

N-phase extend current transformer

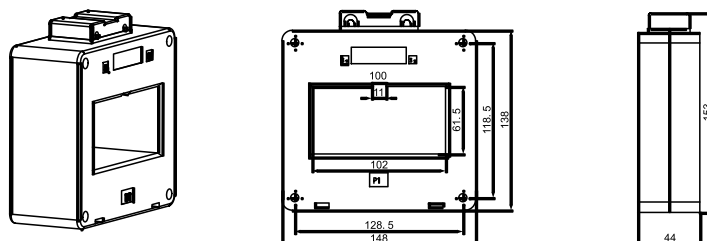
1) 1600M&S



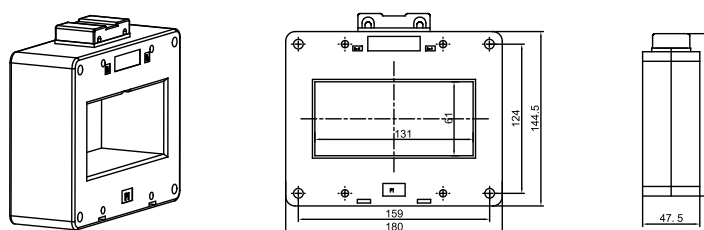
2) 2000M&S



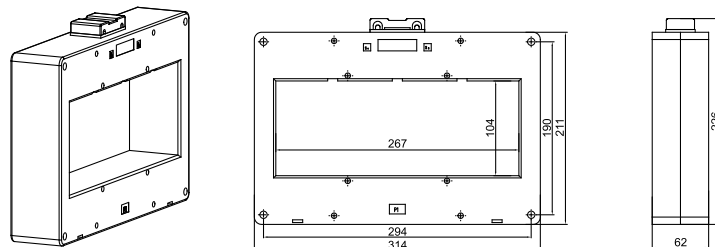
3) 3200M&S



4) 4000M&S

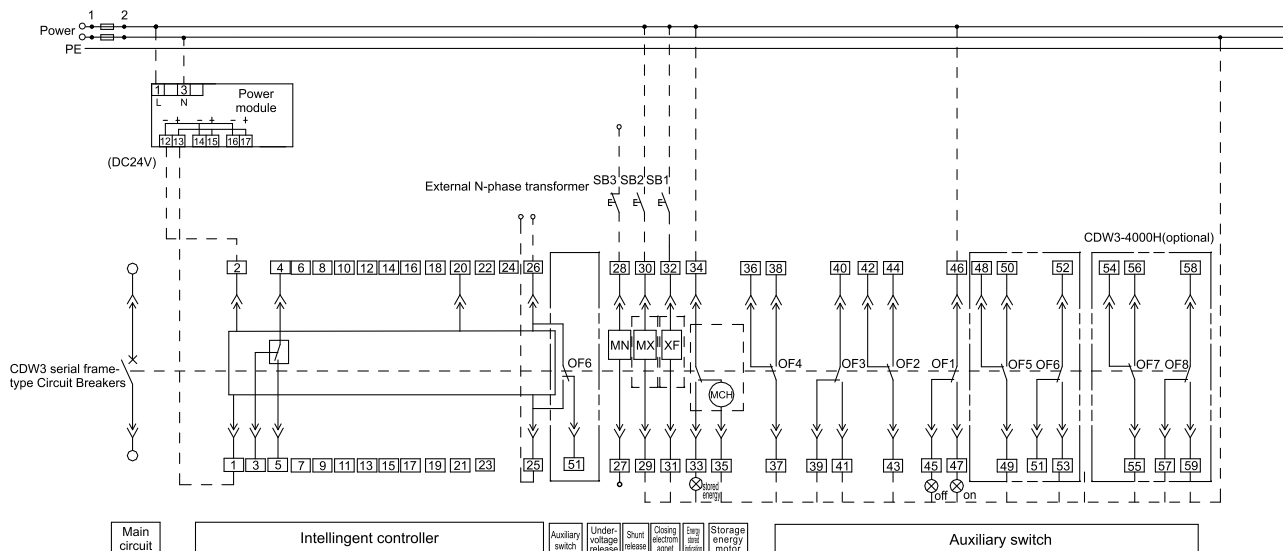


5) 6300M&S



itr326、itr326A Electrical schematic diagram

Wiring diagrams of itr326, itr326A intelligent controllers



Controller wiring annotations

UM: Voltage test signal input

21#(UN), 22#(UA), 23#(UB), 24#(UC) represent the input ends of N, A, B, C phase voltage respectively.

POW: External power input

1#(V1+), 2#(V2-): Auxiliary power input/output terminals, 1#(V1) is the positive terminal for DC

SWT: Fault trip contact output

3#(S2), 4#(S1), 5#(S3): Fault trip contact output (4#(S1) is the common terminal), contact capacity: AC400V, 5A

CT: External transformer, including external N-phase transformer or ZT100 or ZCT1(one out of three), where

25# - 26#: apply to external N-phase transformer input;

25# - 26#: apply to external ground transformer ZT100 input;

25# - 26#: apply to external leakage transformer ZCT1 input;

Note 1: MN under-voltage release 27#, 28# wired on the main circuit line

Note 2: Different powers can be applied respectively if the control power voltages for MN, MX, XF, MCH are different from each other, HDW3-1600 auxiliary switch offer 4a4b only; HDW3-2000&HDW3-3200 auxiliary switches can offer 4a4b and 6a6b; HDW3-4000 auxiliary switch can offer 4a4b, 6a6b, 8a8b, where 4a4b is a standard configuration, others need to be purchased separately (the dashed parts in the diagram are connected by the users);

Note 3: Terminal 35# not only can be connected directly to the power (pre-store energy automatically), but also can be connected with the NO button in series then connected to the power (hand control energy pre-storage)

Note 4: The controller should be connected to the power module, adopt iAPU334 power module when the power voltage is AC220V-AC400V; adopt iAPU332D when the power voltage is DC220V/DC110V;

Note 5: The auxiliary switch is 4a4b when HDW3-2000 and HDW3-3200 are circuit 47;

Note 6: The auxiliary switch is 6a6b (5a5b) when HDW3-2000 and HDW3-3200 are circuit 51: 25#, 26#, 51# can not take the external transformer after forming a NO NC contact.

Elements:

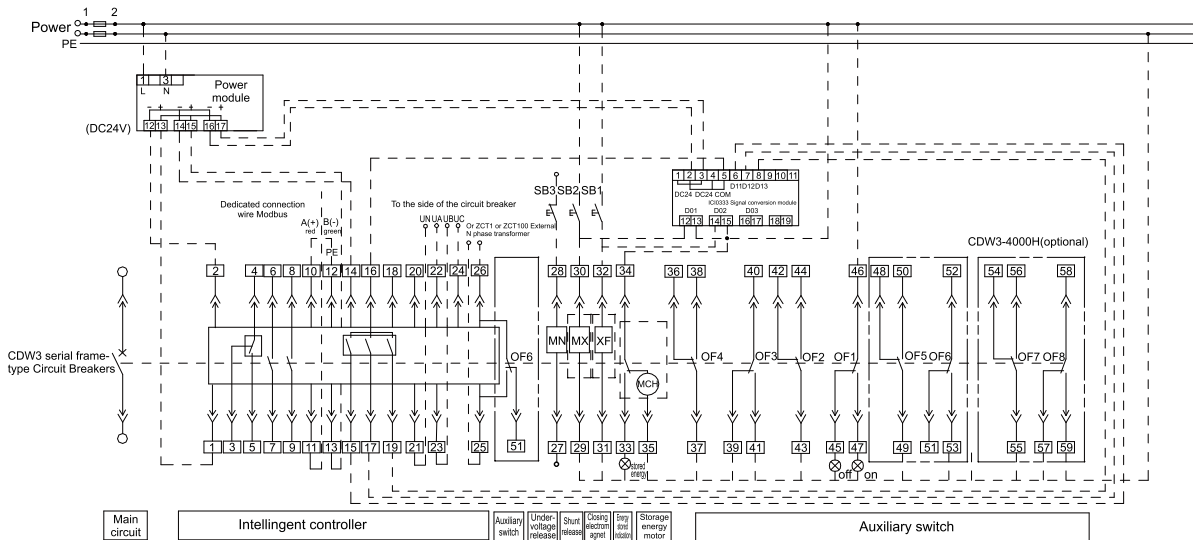
MN	Under-voltage release
MX	Shunt release
XF	Closed electromagnet
OF1-OF8	auxiliary switch
SB1	closing button
SB2	opening button
SB3	emergent disconnect button

Equal No.
27=D2
28=D1
29=C2
30=C1
31=A2
32=A1
33=B3
34=B1
35=B2

Air Circuit Breakers Electrical Schematic Diagram

iTR326H Electrical schematic diagram

Wiring diagrams of iTR326H intelligent controllers



Controller wiring annotations:

UM: Voltage test signal input

21#(UN), 22#(UA), 23#(UB), 24#(UC) represent the input ends of N, A, B, C phase voltage respectively.

ZSI: Zone selective interlock

13#(Z+), 14#(Z-) are the zone selective interlock input DC24V

16#(Z11), 15#(Z1), 17#(Z2), 19#(Z3) are 3D0 output, adopt the optocoupler output, where 16# (Z11) is the common terminal

POW: External power input

1#(V1+), (2# V2-): Auxiliary power input/output terminals, 1#(V1+) is the positive pole for DC.

SWT: Fault trip contact output

3#(S2), 4#(S1), 5#(S3): Fault trip contact output (4#(S1) is the common terminal, contact capacity: AC400V, 5A)

COM: Communication output

10#, 11#: Communication outgoing lines of

RS485A(485+), RS485B(485-) respectively, 12#: PE line, shield ground wire

CT: External transformer, including an external N-phase transformer or ZT100 or ZCT1(one out of three), where

25# - 26#: Apply to external N-phase transformer input;

25# - 26#: Apply to external ground transformer ZT100 input;

25# - 26#: Apply to external leakage transformer ZCT1 input;

Note 1: MN under-voltage release 27#, 28#, wired on the main circuit line

Note 2: Different powers can be applied respectively if the control power voltages for MN, MX, XF, MCH are different from each other, HDW3-1600 auxiliary switch offer 4a4b only; HDW3-2000 and HDW3-3200 auxiliary switches can offer 4a4b and 6a6b; HDW3-4000 auxiliary switch can offer 4a4b, 6a6b and 8a8b, where 4a4b is a standard configuration others need to be purchased separately (the dashed parts in the diagram are connected by the users);

Note 3: Terminal 35# not only can be connected directly to the power (pre-store energy automatically), but also can be connected with the NO button in series then connected to the power (hand control energy pre-storing)

Note 4: The controller should be connected to the power module, adopt iAPU334 power module when the power voltage is AC220V-AC400V; adopt iAPU332D when the power voltage is DC220V/DC110V ;

Note 5: The auxiliary switch is 4a4b when HDW3-2000 and HDW3-3200 are circuit 47;

25#, 26# are the external transformer input terminals, used for ground fault protection (3P+N)T;

Note 6: The auxiliary switch is 6a6b (5a5b) when HDW3-2000 and HDW3-3200 are circuit 51:

25#, 26#, 51# can not take the external transformer after forming a NO NC contact.

Note 7: When the remote control is working, the signal conversion modules are needed, signal conversion module contact capacity is AC240V, 10A

Note 8: The communication protocol is Modbus, iCAU486 or iCAU485 is needed to be ordered when Profibus or Devicenet protocol is used, the module uses DC24V electricity supply, the input end is connected to the secondary circuit 10#(485+), terminal 11#(485-) , the output end is connected to the corresponding protocol bus.

Elements:

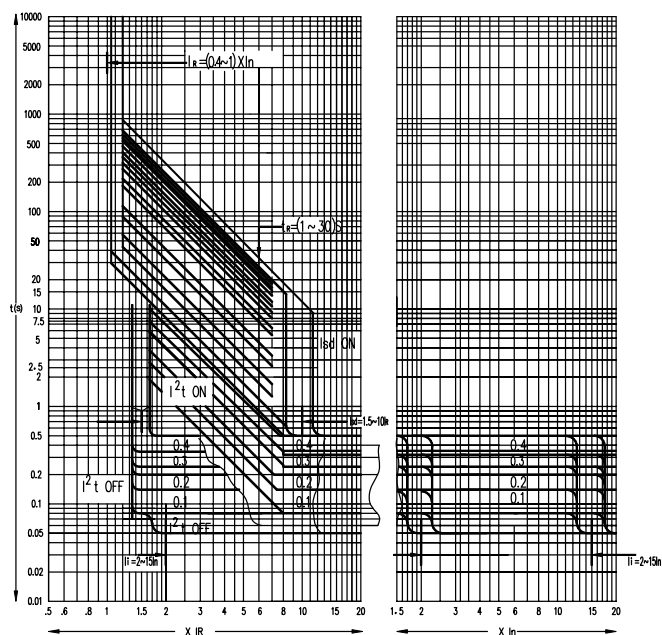
MN Under-voltage release
XF Closed electromagnet
OF1—OF8 Auxiliary switch
ZT100 Ground transformer
SB1 Closing button
SB2 Opening button
SB3 Emergent disconnect button
MX Shunt release
MCH Motor
ZCT1 Leakage transformer

Equal No.
27=D2
28=D1
29=C2
30=C1
31=A2
32=A1
33=B3
34=B1
35=B2

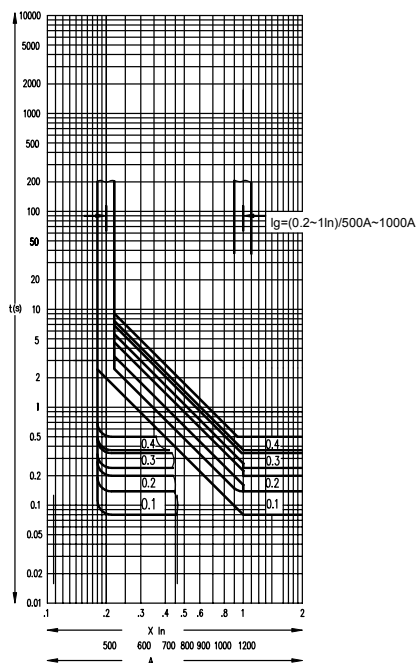
Air Circuit Breakers Electrical Tripping Curve

Tripping Curve

3 phases protection



Ground protection



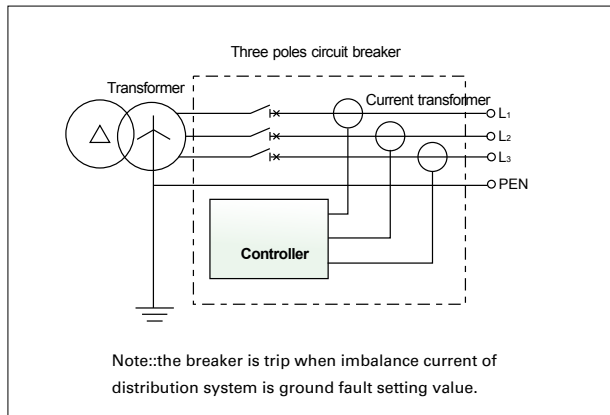
Air Circuit Breakers Ground Fault Protection

Ground Fault Protection

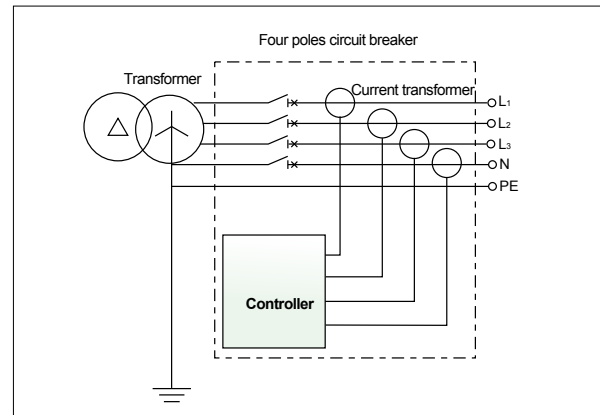
For definite earth-fault protection the setting current I_g can be adjusted $0.4-1 I_n$, can be setted "OFF", Delay time can be adjusted t_g $0.1-0.4$.

Protection ways Inverse timedelay protection and constant time delay protection is available.

Vectorial summation type



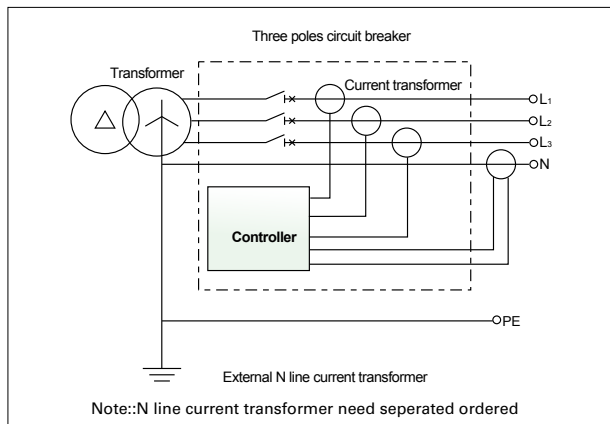
HDW3 with three poles are used in the power distribution system of TN-C, TN-C-S and TN-S without additional current transformer of neutral line N. The signal of earth-fault protection from the vectorial summation of three poles of current. Characteristic of definite protection.



HDW3 with four poles are used in the power distribution system of TN-S.

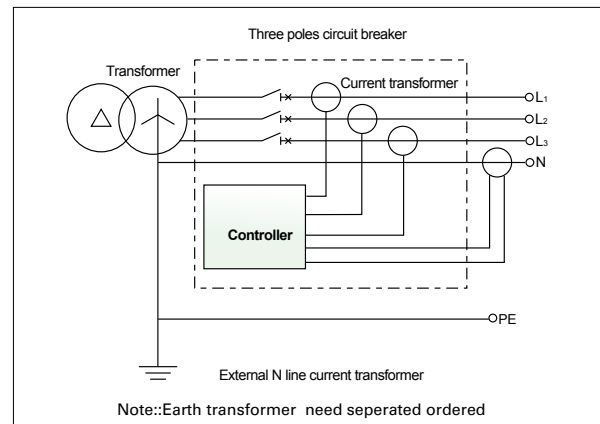
The signal of earth-fault protection from the vectorial summation of three poles of current and N phase current. Characteristic of definite protection.

Earth type of transformer center



HDW3 with three poles are used in the power distribution system of TN-S.

N line current transformer connected externally, which is installed 2meters at maximum from the circuit breaker, takes the hole of earth-fault protection. The signal of earth-fault protection from the vectorial summation of three poles of current and N phase current.



TN-S distribution system selects transformer's center earth type protection.

Earth transformer with transformer's center takes the hole of sampling earth-fault current.

Earth-fault protection signal is from earth line of transformer.

HDW3 ATS Controller

Product Introduction

HDW3 Transfer Switch Equipment is an intelligent ATSE controller with programmable functions, automatic measuring, LCD menu display, and digital communication. It can automatically realize voltage, frequency, phase etc. electrical parameters measurement and automatic control according to setting strategy which can reduce human operation error. It is an ideal product of ATSE.

HDW3 Transfer Switch Equipment consists of microprocessor as core 3-phase voltage to make precise detection of abnormal voltage (overvoltage, under-voltage, missing phase, over-frequency, or underfrequency)

With compact structure, advanced circuit, and simple wiring; it can be widely applied to electrical devices, automatic control and debug system in power management, post and telecommunications, petroleum, coal, metallurgical, and railways.

ATSEC2

Two-source AC power input
Main power source and standby power source



ATSECM

Two-source AC power input
Two Main power source and tie bus interlock



ATSEC3

Three-source AC power input
Main power source and two standby power source



Main function of ATS controller

ATSEC2

Two-source AC power input

Main power source and standby power source

Functional Parameters

- Graphic LCD 128x64 pixel;
- Two-source AC power input: 3-phase 4-wire;
- Measured values, settings, and message texts are supported in English and Chinese
- 10~30VDC power supply.
- Detection function for over-voltage, under-voltage, phase loss, reverse phase sequence, over-frequency, under-frequency;
- 8-channel programmable digital input (grounding effective);
- 10-channel programmable digital output;
- Integrated RS-485 isolation interface, MODBUS protocol;
- Storage of last 200 events;
- Real time clock
- All parameters are field programmable, use password access to avoid misoperation by unprofessional persons;
- The fixed washer is IP65 degree of protection
- Module structure design, Retardant PC cover, pluggable terminal, embedded installation mode, compact structure and easy installation;

Main function of ATS controller

ATSECM

Two-source AC power input

Two Main power source and tie bus interlock

ATSEC3

Three-source AC power input

Main power source and two standby power source

Functional Parameters

- Graphic LCD 128x64 pixel, 5 inch TFT;
- Two-source AC power input: 3-phase 4-wire; (Three -source AC power input-ATSEC3)
- Measured values, settings, and message texts are supported in English and Chinese;
- 12~48VDC power supply;
- Detection function for over-voltage, under-voltage, phase loss, reverse phase sequence, over-frequency, under-frequency;
- 8-channel programmable digital input (grounding effective);
- 10-channel programmable digital output;
- Integrated RS-485 isolation interface, MODBUS protocol;
- Storage of last 200 events;
- Real time clock;
- All parameters are field programmable, use password access to avoid misoperation by unprofessional persons;
- The fixed washer is IP65 degree of protection;
- Module structure design, Retardant PC cover, pluggable terminal, embedded installation mode, compact structure and easy installation;

HDW3 ATS Controller



Parameter					
Parameter	Definition	Default	ATSE2C	ATSECM	ATSE3C
Basic Parameter					
operation temperature	-20°C~+70°C		■	■	■
storage temperature	-30°C~+85°C		■	■	■
Humidity	20%~90%		■	■	■
Altitude	≤2000m		■	■	■
Breaker Operation voltage(V)	AC 230/415V	AC 230V	■	■	■
ATS Operation voltage(V)	AC 230V/415V DC10-30V		■	■	■
IP degree	IP20		■	■	■
Display	LCD , English ,Chinese	English	■	■	■
Parameter Setting					
Power source voltage	AC 50-415V		■	■	■
Power source frequency	50 Hz/60 Hz	50 Hz	■	■	■
Power grid	3 Pole 4 wires / 3 Pole 3 wires	3P4W	■	■	■
ATSE2C/ATSECM power transfer type	M-M:Mains to Mains Supply M-G:Mains to Generator Supply G-M:Generator to Mains Supply	M-M	■	■	
ATSE3C power transfer type	M-M:Mains to Mains Supply to Mains Supply M-M:Mains to Mains Supply to Generator Supply	M-M			■
RETURNS					
RETURNS model	Self return/No return/Backup eachother	Self return	■	■	■
Power grid	Choose S1 or S2 for Priority Net	S1	■		
Transfer Parameter					
Loss phase/loss voltage	Main & standby power supply		■	■	■
Under voltage	70%-98%	85%	■	■	■
Over voltage	102% -130%	115%	■	■	■
Under frequency	OFF/80%-98%	OFF	■	■	■
Over frequency	OFF/101%-119%	OFF	■	■	■
Phase unbalance	Main & standby power supply		■	■	■
Fire signal	Fire signal :D/O switch off all breaker		■	■	■
Manu/Auto	Manu model/Auto model		■	■	■
Dual switch off button	push dual switch off button,switch off all breaker		■		
alarm for transfer failure	panel LED light +sound alarm		■	■	■
Communicate & event log					
Event log	Transfer and alarm event		■	■	■
Communication	RS-485, MODBUS		■	■	■
Dry contact output					
Main power's breaker switch on	10A 250VAC	☒	■	■	■
standby power's breaker switch on		☒	■	■	■
Main power status		☒	■	■	■
standby power status		☒	■	■	■
generator start		☒	■	■	■
Control cable	ATSE2C default with 2m ATSE3C ATSECM default with 4m	☒	■	■	■

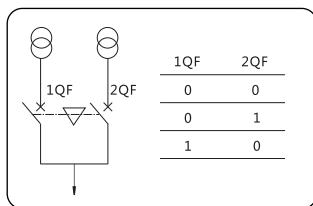
How to order complete set of ATS with ACB

The complete set must include 2 or 3 set ACB, cable interlock ,220VAC motor/shunt release /closing coil,ATS Controller
 Do not install key lock with ACB, it will damage the ACB when automatic transfer
 Do not install the undervoltage release with ACB, it will impact ATS automatic transfer
 Do not use ACB's MODBUS or remote singal to Switch ON/OFF breaker by MX/XF, it will impact the ATS automatic transfer

Cable Interlocking

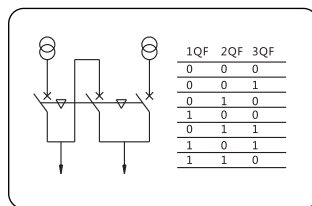
Two Breaker Interlock C2

Interlock type A in which one of the two breakers (B1 or B2) can be switched ON. Each breaker must be equipped with a factory mounted interlock type A. Two cables are needed.



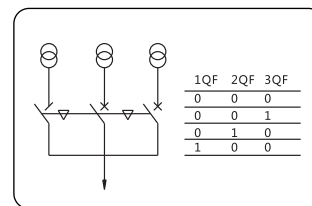
Three Breaker Interlock C3

Interlock type B in which one of the three breakers (B1, B2 or B3) can be switched ON. Each breaker must be equipped with a factory mounted interlock type B. Six cables are needed.



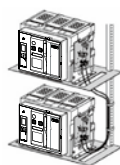
Three Breaker Interlock type CM

Interlock type A in which one of the two breakers (B1 or B2) can be switched ON. Each breaker must be equipped with a factory mounted interlock type A. Two cables are needed.



ATS controller + ACB + Mechanical interlock

Two Breaker Interlock type C2

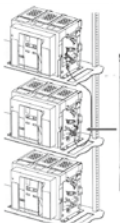


Two Breaker Interlock type A



ATSEC2

Three Breaker Interlock type C3

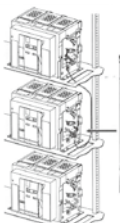


Three Breaker Interlock type B



ATSEC3

Three Breaker Interlock type CM



Three Breaker Interlock type C



ATSECM

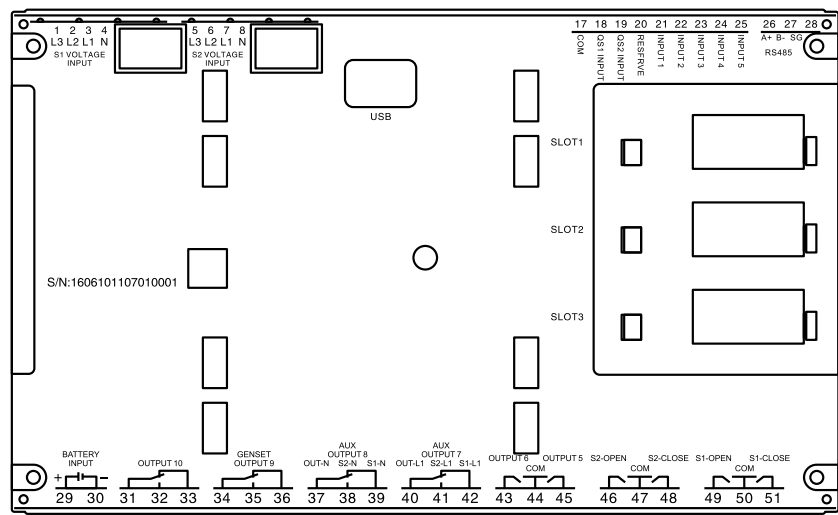
LOW VOLTAGE DISTRIBUTION

HDW3 ATS Controller

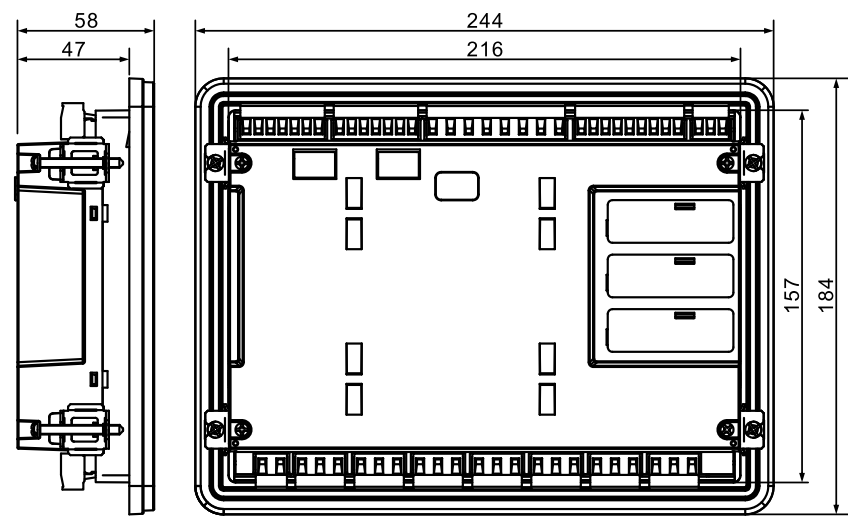


ATS controller-Wiring diagram -ATSEC2

Terminal diagram

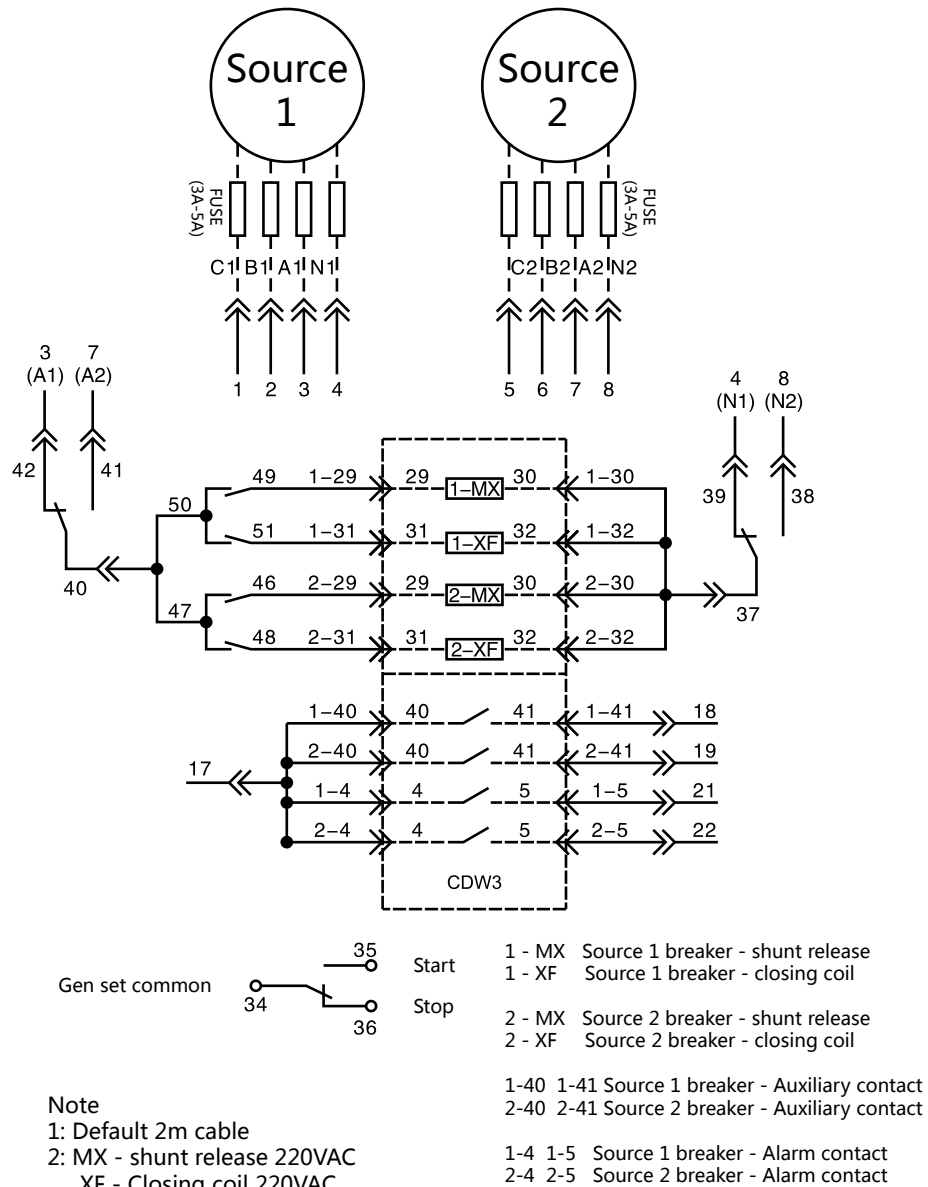


Installation Dimension



ATS controller-Wiring diagram -ATSEC2

Electrical Schematic Diagram



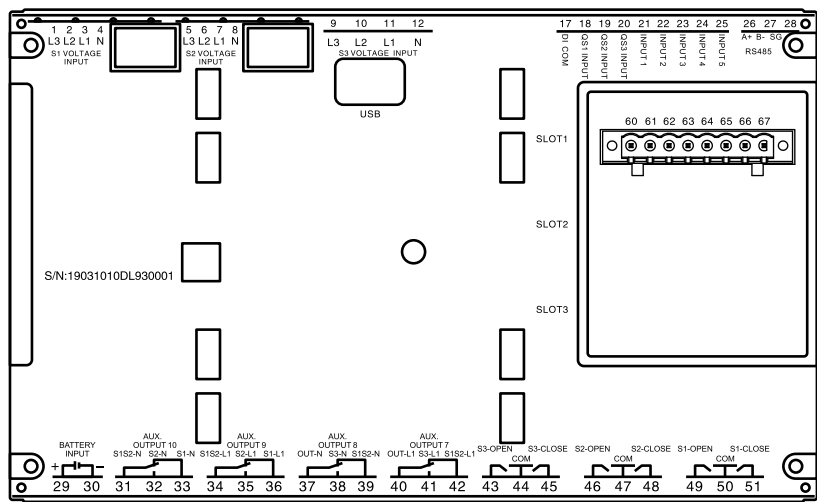
LOW VOLTAGE DISTRIBUTION

HDW3 ATS Controller

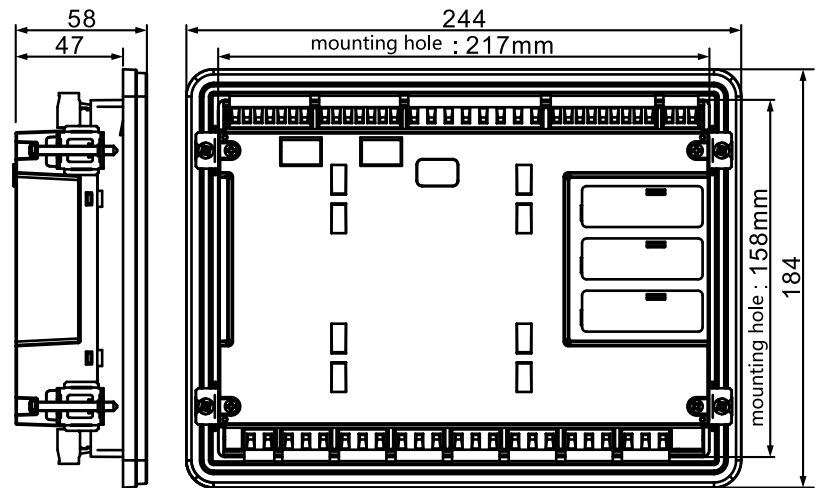


ATS controller-Wiring diagram –ATSEC3

Terminal diagram

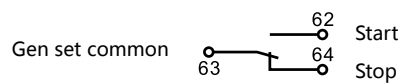
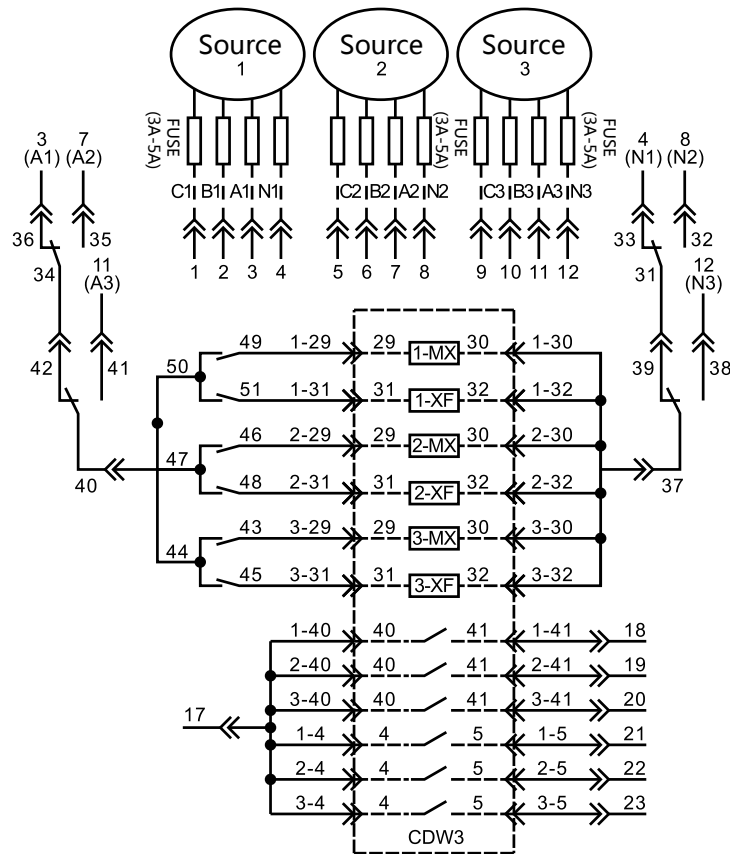


Installation Dimension



ATS controller-Wiring diagram –ATSEC3

Electrical Schematic Diagram



1 - MX Source 1 breaker - shunt release
1 - XF Source 1 breaker - closing coil

2 - MX Source 2 breaker - shunt release
2 - XF Source 2 breaker - closing coil

3 - MX Source 3 breaker - shunt release
3 - XF Source 3 breaker - closing coil

1-40 1-41 Source 1 breaker - Auxiliary contact
2-40 2-41 Source 2 breaker - Auxiliary contact
3-40 3-41 Source 3 breaker - Auxiliary contact

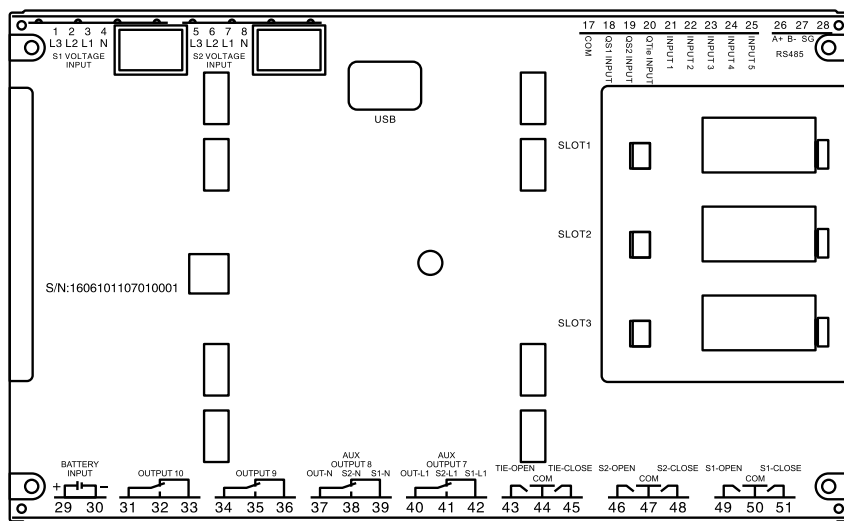
1-4 1-5 Source 1 breaker - Alarm contact
2-4 2-5 Source 2 breaker - Alarm contact
3-4 3-5 Source 3 breaker - Alarm contact

Note

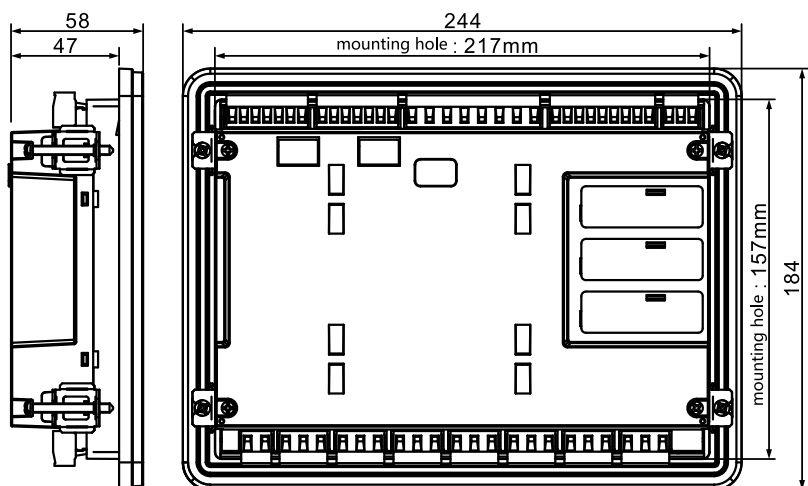
- 1: Default 4m cable
- 2: MX - shunt release 220VAC
XF - Closing coil 220VAC
OF3- Auxiliary contact
AL - Alarm contact
- 3: The ACB must install with cable interlock
- 4: out of dotted line is connect to ACB terminal by customer
- 5: ATS already have under & over voltage protection, do not install undervoltage release into ACB
- 6: Intelligent controller iTR326H, don't use MODBUS control ACB ON/OFF(MX+XF)
- 7: Not suitable for 1600 frame size

ATS controller-Wiring diagram –ATSECM

Terminal diagram

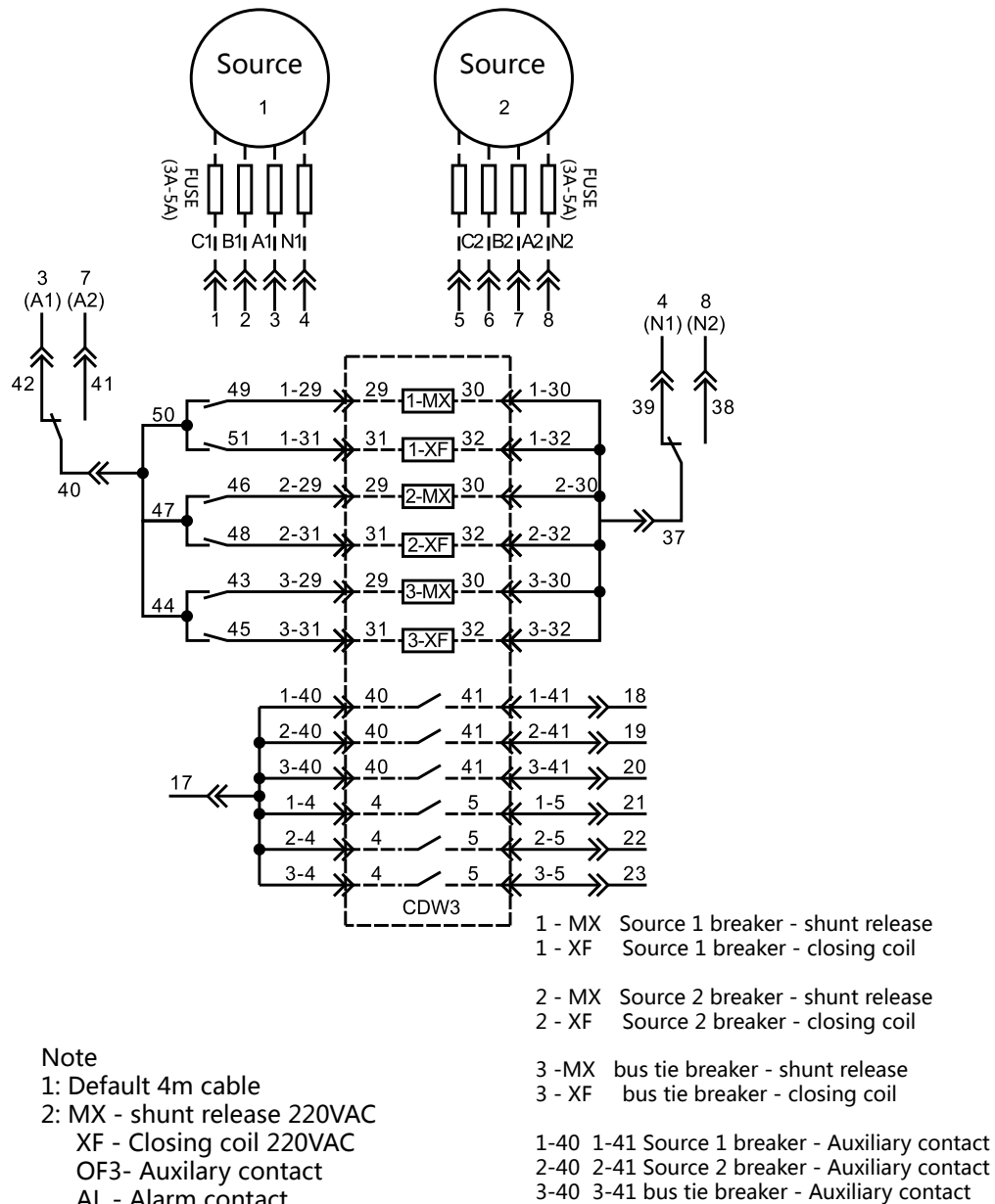


Installation Dimension



ATS controller-Wiring diagram –ATSECM

Electrical Schematic Diagram



Note

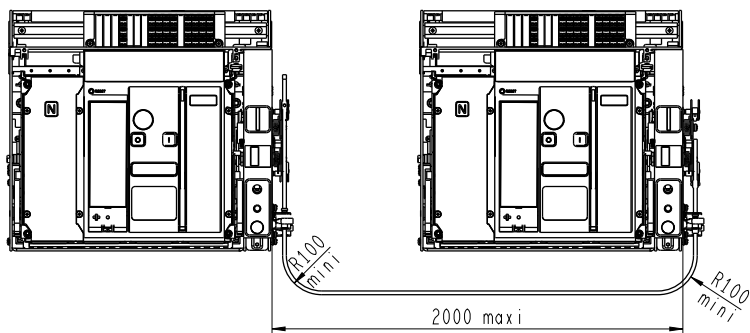
- 1: Default 4m cable
- 2: MX - shunt release 220VAC
XF - Closing coil 220VAC
OF3- Auxiliary contact
AL - Alarm contact
- 3: The ACB must install with cable interlock
- 4: out of dotted line is connect to ACB terminal by customer
- 5: ATS already have under & over voltage protection, do not install undervoltage release into ACB
- 6: Intelligent controller iTR326H, don't use MODBUS control ACB ON/OFF(MX+XF)
- 7: Not suitable for 1600 frame size

LOW VOLTAGE DISTRIBUTION

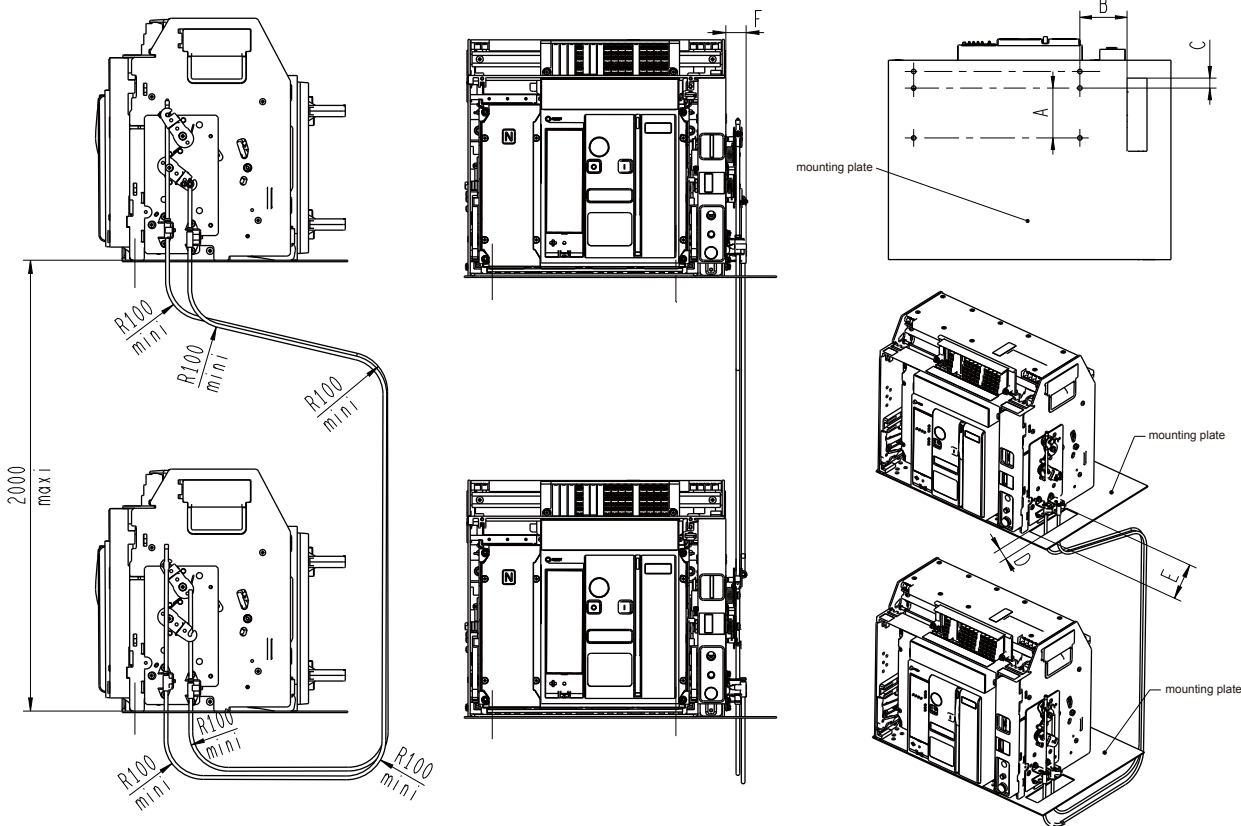
HDW3 ATS Controller



Cable interlock : horizontal



Cable interlock : Vertical



cut off dimension of mounting plate

mm

Frame	A		B		C		D	E	F	
	D/O	Fix	D/O	Fix	D/O & Fix	D/O & Fix	D/O & Fix	D/O & Fix	D/O	Fix
1600AF	75	75	70	13	25	30	120	28	42	
2000AF	175	150	70	13	60	30	180	28	52	
3200AF	175	150	70	13	60	30	180	28	52	
4000AF	175	124	70	13	60	30	180	40	40	
6300AF	175	--	70	--	60	30	180	28	52	

HDQ3HB Transfer Switch Equipment ⚠

GB14048.11 / IEC60947-6-1

Range Presentation

HDQ3HB is Himel 3 series range of CB type Transfer Switch Equipment, automatic transferring the power supply between the normal power & standby power.

Standby power supply can be net power or generator. It can be integrated with HDM3 series MCCB to provide over current protection with integrated or split type controller available.

Features

- ◆ 5 Frame Sizes: 63, 100, 250, 400, 630AF
- ◆ Rated current In (A): 16 - 630A
- ◆ Rated voltage AC Ue (V): 400/415, Poles: 3 & 4
- ◆ Integrated or split intelligent controller
- ◆ HDM3 integrated with overload , short circuit protection

Online Content



HDQ3HB



This offer fits GB14048.11 with AC-33iB / IEC60947-6-1AC-32B standard. For country product certificate, application requirements & more information, contact local Himel Sales.

Ordering Code

Product	Frame Size	Breaker Capacity	Rated current	Pole	Controller
HDQ3HB	63	S	10	3	Z
HDQ3HB	63: 63AF 100: 100AF 250: 250AF 400: 400AF 630: 630AF	S: 25kA F: 50kA	10: 10A 100: 100A 250: 250A 630: 630A	3: 3P 4: 4P	Default: Split Z: integrated

Order Information

Current shell frame	Conventional thermal current	Breaking capacity	CDQ3HB	
			3 poles	4 Ordering code
			Ordering code	Ordering code
63AF	10	S	HDQ3HB63S103Z	HDQ3HB63S104Z
	...		...	...
	63		HDQ3HB63S633Z	HDQ3HB63S634Z
100AF	16	S	HDQ3HB100S163Z	HDQ3HB100S164Z
	...		...	...
	100		HDQ3HB100S1003Z	HDQ3HB100S1004Z
250AF	100	F	HDQ3HB250F1003Z	HDQ3HB250F1004Z
	...		...	...
	225		HDQ3HB250F2253Z	HDQ3HB250F2254Z
	250		HDQ3HB250F2503Z	HDQ3HB250F2504Z
400AF	200	F	HDQ3HB400F2003Z	HDQ3HB400F2004Z
	...		...	...
	400		HDQ3HB400F4003Z	HDQ3HB400F4004Z
630AF	400	F	HDQ3HB630F4003Z	HDQ3HB630F4004Z
	...		...	...
	630		HDQ3HB630F6303Z	HDQ3HB630F6304Z

HDO3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Technical Parameters					
Model & Spec	HDO3HB-63	HDO3HB-100	HDO3HB-250	HDO3HB-400	CDQ3HB-630
Executive circuit breaker	HDM3-63	HDM3-100	HDM3-250	HDM3-400	HDM3-630
Number of poles	3、4				
Available standard	GB14048.11 / IEC60947-6-1				
Electrical level	CB-level				
Use category	GB14048.11 AC-33iB / IEC60947-6-1 AC-32B				
Electrical performance	HDO3HB-63	HDO3HB-100	HDO3HB-250	HDO3HB-400	HDO3HB-630
Rated insulation voltage Ui (V)	690	800			
Rated impulse withstand voltage Uimp (kV)	6	8			
Rated operating voltage Ue (V)	400				
Conventional thermal current Ie (A)	10/16/20/25/ 32/40/50/63	16/20/25/32/40 /50/63/80/100	100/125/140/160/ 180/200/225/250	200/225/250 /315/350/400	400/500/630
Rated working frequency (Hz)	50				
Breaking capacity level	S	S	F	F	F
Rated short circuit breaking capacity Icn (kA)	25	25	50	50	50
Rated short circuit making capacity Icm (kA)	52.5	52.5	105	105	105
Mechanical life (cycles)	10000	10000	5000	5000	5000
Electrical life (cycles)	1500		1000		
Conversion time	≤3s				
EMC level	Environment B				
Sampling mode	Normal and standby three-phase sampling				
Control function					
Power grid (P) – Power grid (P)	■				
Power grid (P) – Generator (G)	■				
Auto operation mode – Auto power-on and auto reset	■				
Auto operation mode – Auto power-on but not auto reset	■				
Auto operation mode – Mutual backup	■				
Electric operation vis button	■				
Manual operation vis handle	■				
Remote transfer	■				
Normal and standby power state output	■ ²⁾				
Normal and standby power-on state output	■				
Normal and standby trip state output	■				
Fire dual-divided	■(Alarm lamps flash simultaneously)				
Generator startup	■				

HDQ3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Technical Parameters								
Controller	HDQ3HB-63		HDQ3HB-250	HDQ3HB-400	CDQ3HB-630			
Overload protection	■							
Instantaneous protection	■							
Over-voltage protection	■ (Factory set: 264V)							
Under-voltage protection	■ (Factory set: 184V)							
No-voltage protection	■							
Lost phase protection	■							
Motor load phase sequence identification protection	■ ¹⁾							
Special lost phase protection for motor load	■ ¹⁾							
Switch fusion welding protection	■ (ERROR02)							
Switch movement protection	■ (ERROR02)							
Power failure alarm	■ (Power indicator at the failure side flashes)							
Trip failure alarm	■ (Trip indicator at the failure side flashes)							
Trip failure button electrically reclosed	■							
Setting functions								
Over-voltage valve value adjustable	■ 253V~276V							
Under-voltage valve value adjustable	■ 253V~276V							
Conversion delay T1 time adjustable	■ 0~99.9s (Factory setting: 3s)							
Return delay T2 time adjustable	■ 0~99.9s (Factory setting: 3s)							
Generator starting delay T3 time adjustable ⁴⁾	■ 0~99.9s (Factory setting: 15s)							
Generator stop delay T4 time adjustable	■ 0~99.9s (Factory setting: 15s)							
Dimensions (mm)	HDQ3HB-63	HDQ3HB-100	HDQ3HB-250	HDQ3HB-400	HDQ3HB-630			
Breaking capacity level	S	S	F	F	F			
Integral 3P dimensions (W x H x D)	375x220x121	415x220x148	465x220x148	610x330x185	610x402x185			
Integral 4P dimensions (W x H x D)					(Expansion row)			
Split 3P dimensions (W x H x D)	335x220x121	375x220x148	425x220x148	575x330x185	575x402x185			
Split 4P dimensions (W x H x D)					(Expansion row)			
Split controller dimensions (W x H x D)	85x166x92							
Split lead wire length	Standard length: 1.6m (customized wire length: 2m, 2.5m, 3m, 3.5m, 4m, 4.5m, 5m)							
Integral 3P installation hole sizes (W x H)	322x220	365x200	420x200	510x300				
Integral 4P installation hole sizes (W x H)								
Split 3P installation hole sizes (W x H)	282x200	325x200	380x200	478x300				
Split 4P installation hole sizes (W x H)								
Split controller installation hole sizes (W x H)	81x162							
Product phase spacing	25	30	35	48				
Phase spacing after expansion	-	-	-	-	68			

- No this option

■ Standard

□ Optional

¹⁾ OFF by default, with ON set by the controller menu

²⁾ External power connected by customer

³⁾ Only 3P product is provided

⁴⁾ This delay function will be automatically off when the common terminal is completely turned off.

HDO3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Product Features

Convenient

Installed without sampling wires

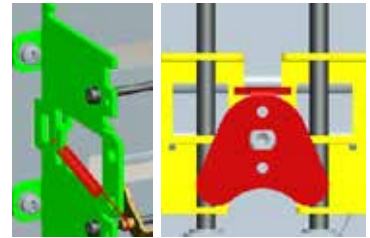
With sampling wires built in for convenient installation



Reliable

With patented mechanism, the mechanical life increases to 15,000 cycles

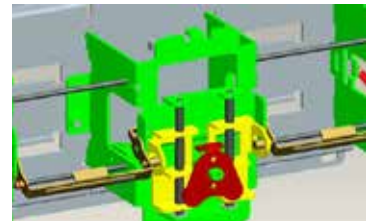
Dual-rail patented interlock mechanism and auxiliary ON-OFF mechanism are configured to provide reliable operation.



Safety

Compact size and multiple functions

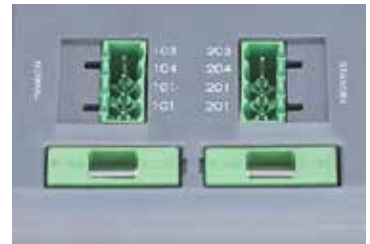
With full steel frame structure and accurate locating features, an insulation cover and three-protection paining layers are provided outside the line board for guaranteeing multiple protections for safety.



Robust

Powerful function and more selection

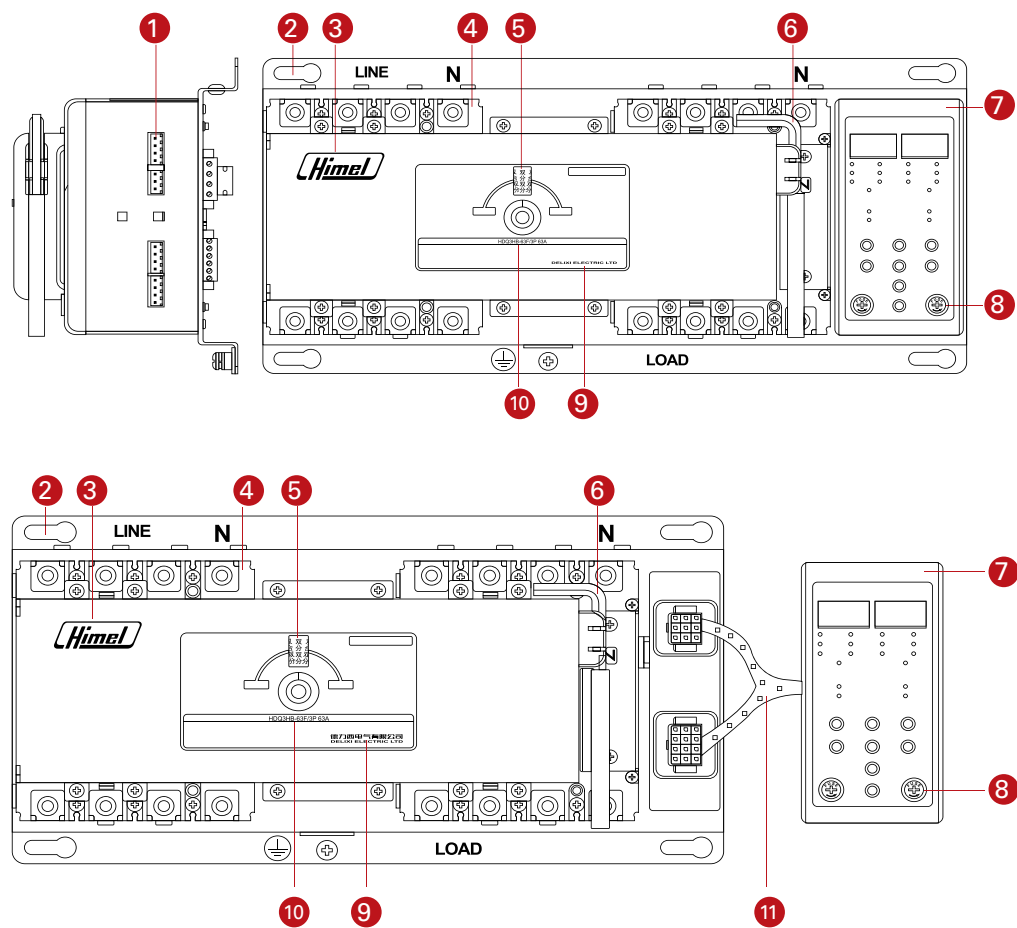
A type standard configuration provides auto-switch and self-reset for economical operation
B type standard configuration provides auto-switch and self-reset, auto-switch and not-self-reset and fire dual-division functions and powerful function



HDQ3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Product Diagram



Product Nameplate

HDQ3HB		Automatic transfer switching equipment
Rated voltage:400V	Rated short-circuit making capacity:	Standard: IEC60947-6-1
Rated current:	Rated short-circuit breaking capacity:	
rated frequency:50Hz	Rated impulse withstand voltage:6kA	
Class:CB class	Number of poles:	
Use category:AC-32B	Production date	

1	Wiring terminal	6	Operating handle	11	Split controller connecting cable
2	Mounting hole	7	Controller	12	Nameplate parameters
3	Company logo	8	Fuse tube		
4	Power terminal	9	Company name		
5	Transfer position indication window	10	Product mode		

HDAQ3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Installation of HDAQ3HB

Split controller

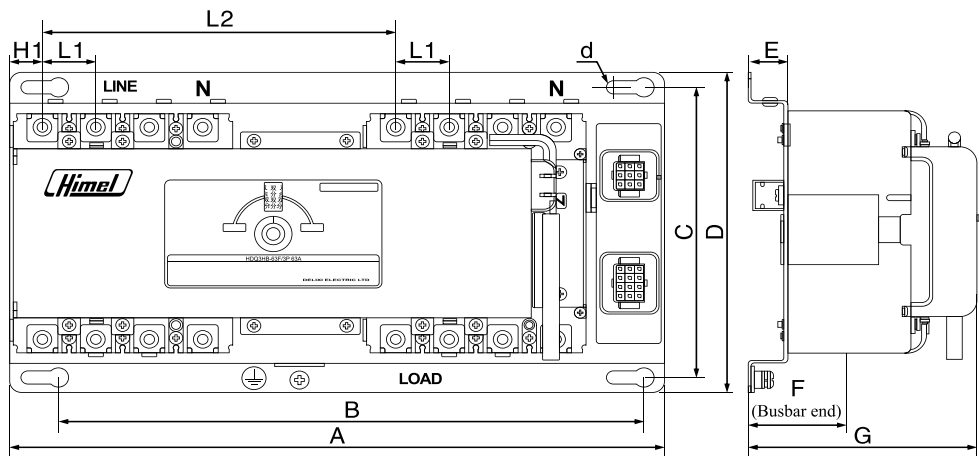


Figure1:Split HDAQ3HB-630~400/ 3P and 4P

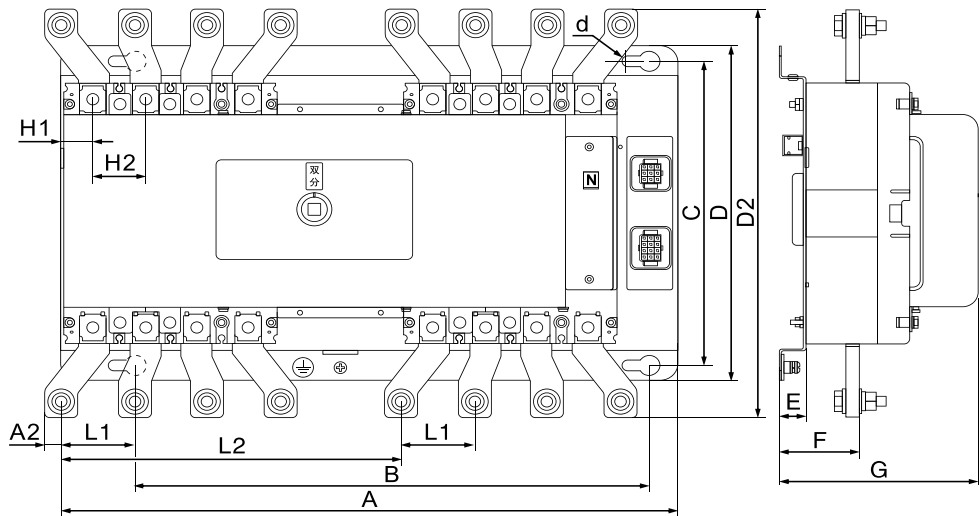


Figure2:Split HDAQ3HB-630/ 3P and 4P

Spec.	Size	A	A2	B	C	D	D2	E	F	G	L1	L2	H1	H2	d
CDQ3HB-63S		335	-	282	200	220	-	25	49	121	25	180	15.5	-	9
CDQ3HB-100S		335	-	282	200	220	-	25	49	121	25	180	15.5	-	9
CDQ3HB-250F		425	-	380	200	220	-	25	48	148	35	230	21.5	-	9
CDQ3HB-400F		575	-	478	300	330	-	25	62	185	48	316	30.5	-	10
CDQ3HB-630F		575	14.5	478	300	330	402	25	77	185	68	316	30.5	48	10

HDQ3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Installation of HDQ3HB

Integrated controller

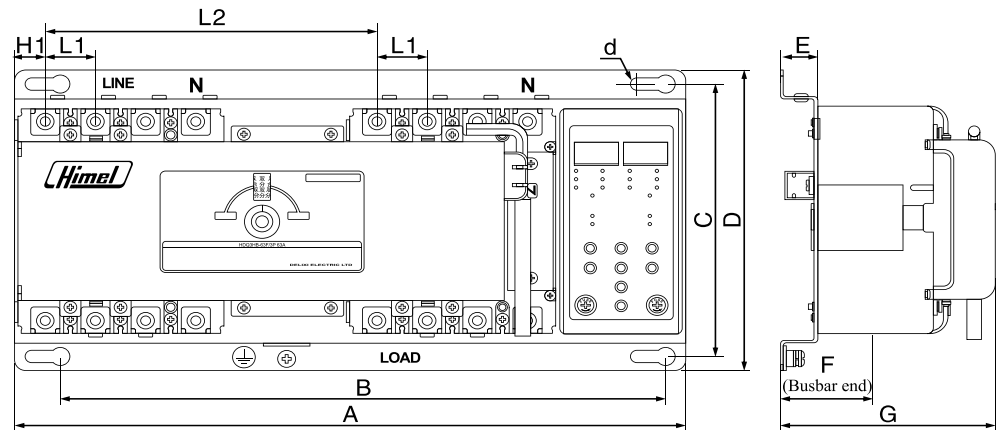


Figure3:Integrated HDQ3HB-630~400/ 3P and 4P

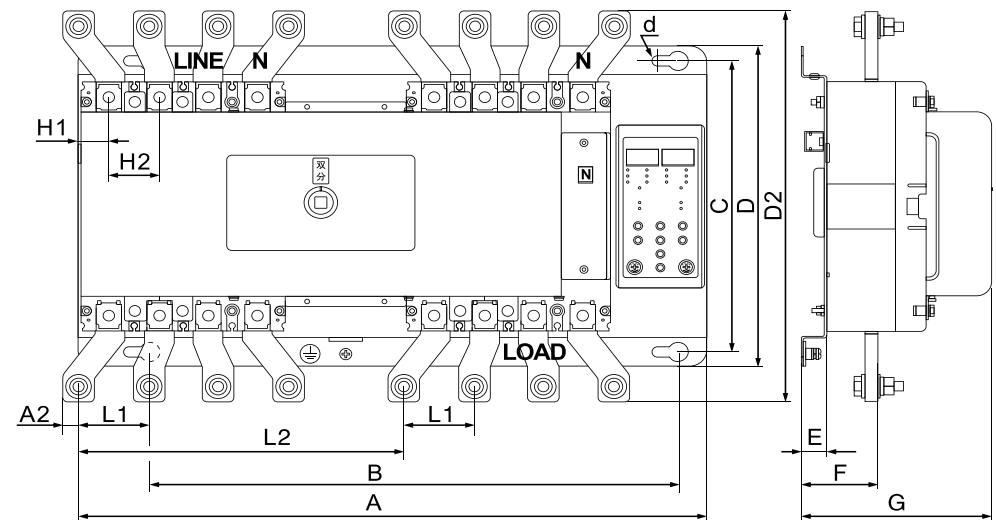


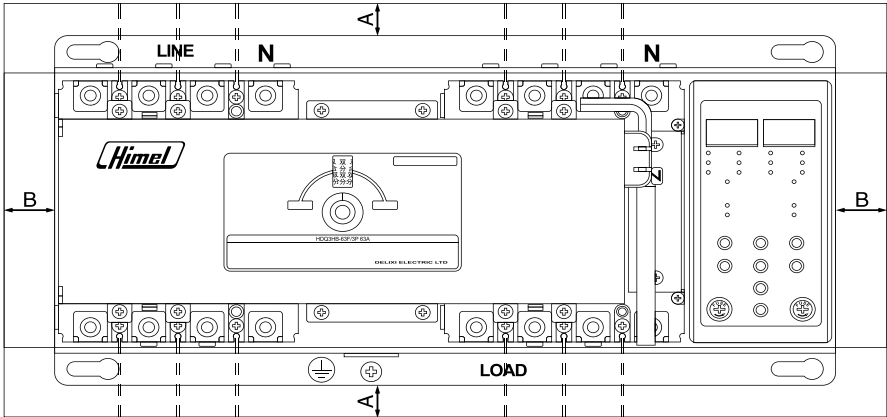
Figure4:Integrated HDQ3HB-630/ 3P and 4P

Spec.	Mode	A	A2	B	C	D	D2	E	F	G	L1	L2	H1	H2	d
CDQ3HB-63S		375	-	322	200	220	-	25	49	121	25	180	15.5	-	9
CDQ3HB-100S		375	-	322	200	220	-	25	49	121	25	180	15.5	-	9
CDQ3HB-250F		465	-	420	200	220	-	25	48	148	35	230	21.5	-	9
CDQ3HB-400F		610	-	510	300	330	-	25	62	185	48	316	30.5	-	10
CDQ3HB-630F		610	14.5	510	300	330	402	25	77	185	68	316	30.5	48	10

HDO3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Safety Clearance

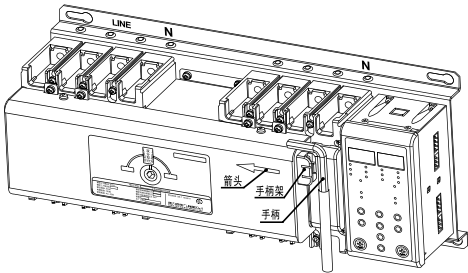


A:installation dimension to the upper and lower housings
B:installation dimension to the housing of the non-conductive part

	CDQ3HB-63S	CDQ3HB-100S	CDQ3HB-250F	CDQ3HB-400F	CDQ3HB-630F
A	25	25	45	85	85
B	40	40	40	80	80

Manual Operation Handle

When the Transfer Switch Equipmenting equipment is installed and commissioned,insert the handle into the handle housing in the arrow direction shown in the figure.



Controller Cut Out Dimension for Front Door

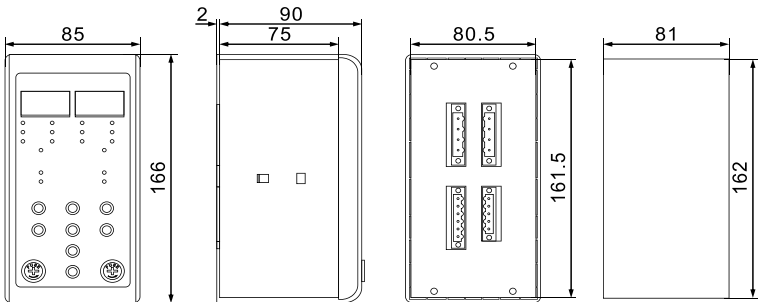


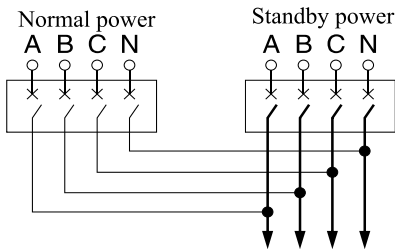
Figure6:Controller dimensions and cutout

HDQ3HB Transfer Switch Equipment

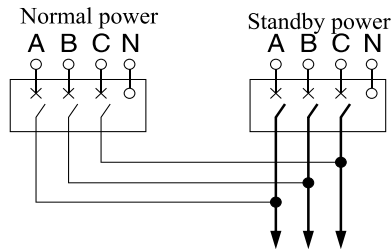
GB14048.11 / IEC60947-6-1

Products Connection

Main circuit diagram



4P wiring diagram

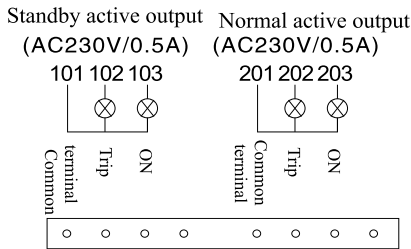


3P wiring diagram

ATS Status Indicator

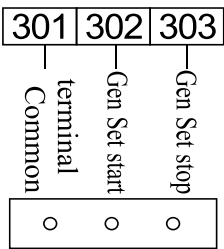
- 103 standby power ON
- 102 standby MCCB trip
- 203 normal power ON
- 202 normal MCCB trip

If need to be lighted the LED , Access the power from normal & standby main circuit



Gen Set control

- 302 Gen Set start
- 303 Gen Set stop



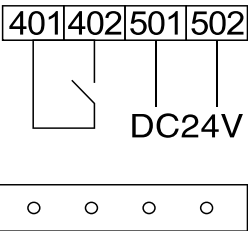
Remote Control

401 402 remote transfer to standby power

- Active with Auto model only
- 401 402 "On" ATS will transfer to standby power, whatever normal power is available or not.
- 401 402 "OFF" ATS will return to Auto control according to transfer setting.
- If standby power is abnormal , ATS will not to be transferred

501 502 dual switch off by fire control signal

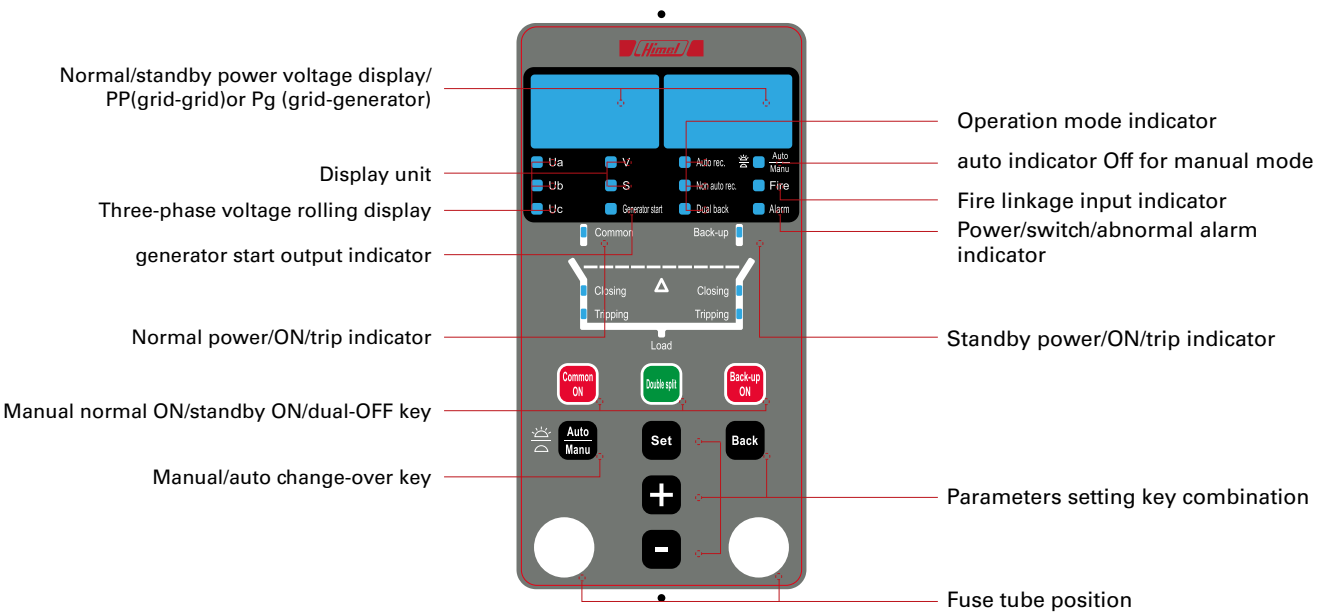
- Active by 24VDC input from fire control signal whatever Auto/Manu model (+ - polarity free)
- 24VDC "ON" , switch off both normal/standby power immediately.
- 24VDC "ON turn to OFF", ATS will return to normal power at Auto model.



HDO3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Instruction for Controller Setting

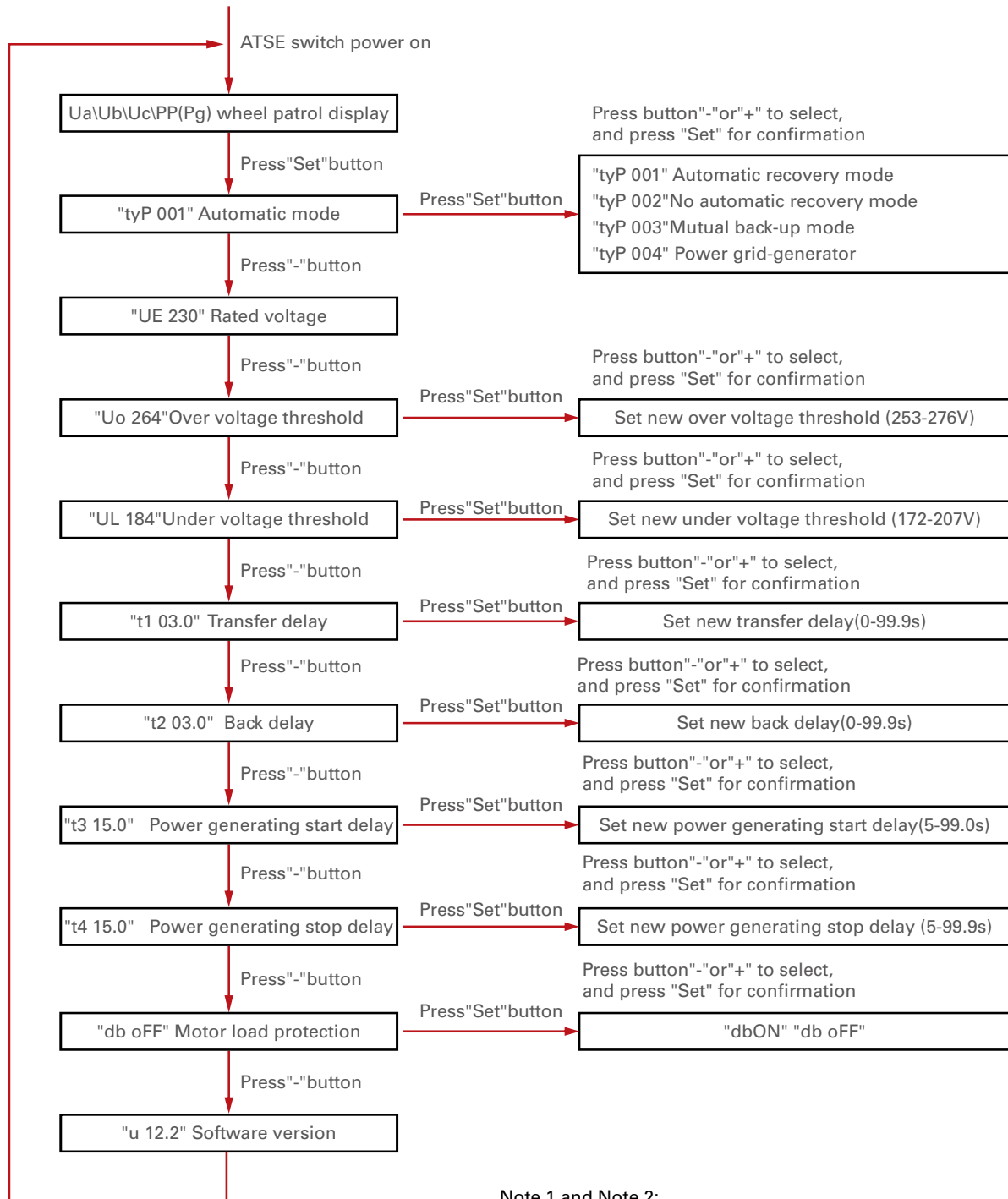


Indicator display description			
Indicator	Function description	Indicator	Function description
Ua	ON: The displayed value is a phase-A voltage value of the power supply. OFF: No.	Auto-reset	ON: Auto-switch and auto-reset mode OFF: NO
Ub	ON: The displayed value is a phase-B voltage value of the power supply. OFF: No.		ON: Auto-switch and not-auto-reset mode OFF: NO
Uc	ON: The displayed value is a phase-C voltage value of the power supply. OFF: No.		ON: Mutual standby mode OFF: No
V	ON: Voltage unit OFF: No.		ON: Auto mode OFF: Manual mode
s	ON: Time unit OFF: No.	Fire control	Flash: Fire signal input OFF: No
Generator starts	ON: Output the generator starting signal OFF: No.	Alarm	Flash: System works abnormally (power supply or switch) OFF: No abnormal phenomenon
Normal	ON: Normal power works normally Flash: Normal power works abnormally OFF: loss voltage of normal power (no power)	Standby	ON: Standby power works normally Flash: Standby power works abnormally OFF: loss voltage of standby power (no power)
ON (normal)	ON: Normal switch ON OFF: Normal switch OFF	ON (standby)	ON: Standby switch ON OFF: Standby switch OFF
Trip (normal)	Flash : Normal switch trips OFF:	Trip (standby)	Flash : Standby switch trips OFF:

HDQ3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Flowchart for Controller parameters setting



Note 1 and Note 2:

Inquiry and set are only available when controller is under power grid-generator mode.

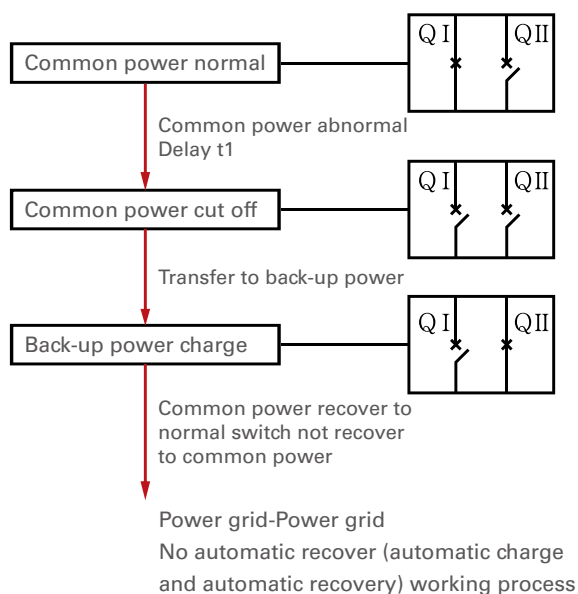
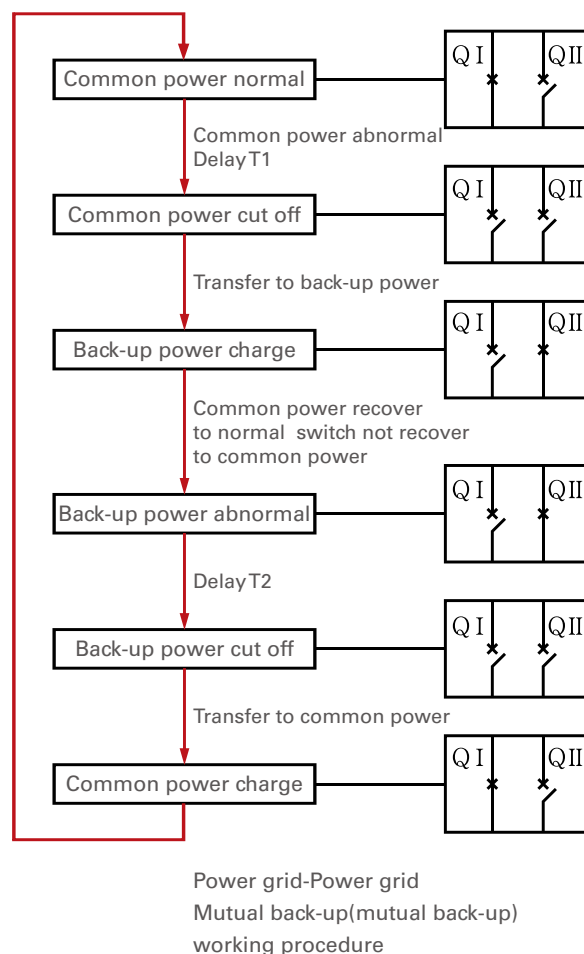
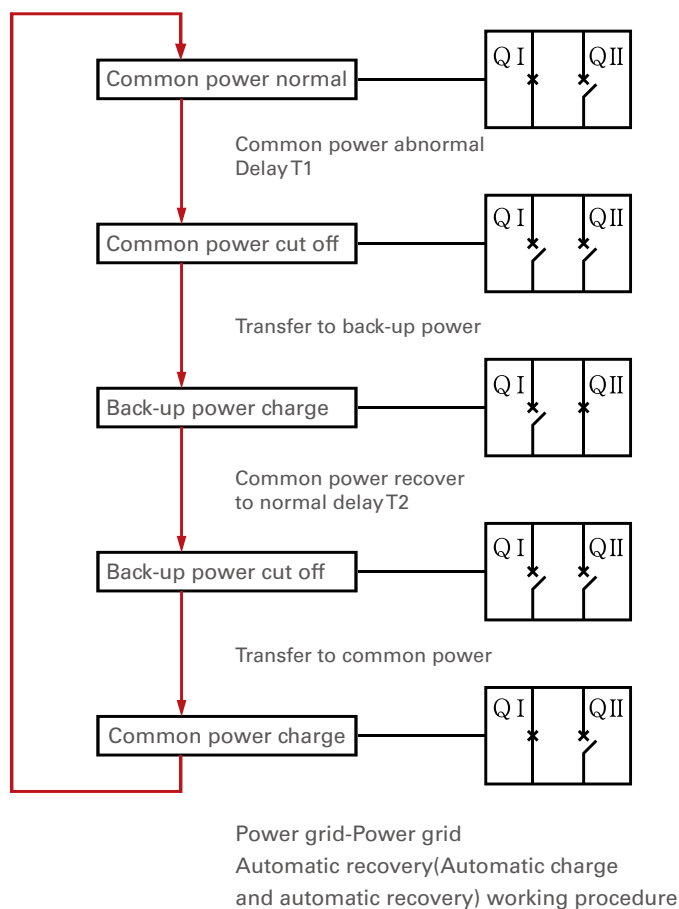
Note 3:

Motor load protection function: incl. phase sequence identification and open-phase detection.

HDO3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Flowchart for Auto switching action



t1: Transfer delay, time from common power abnormal till QI cut off.

t2: Recovery delay, time from common power recovering to normal till QII cut off

t3: Generator start delay, time from common power abnormal till send generator starting signal.

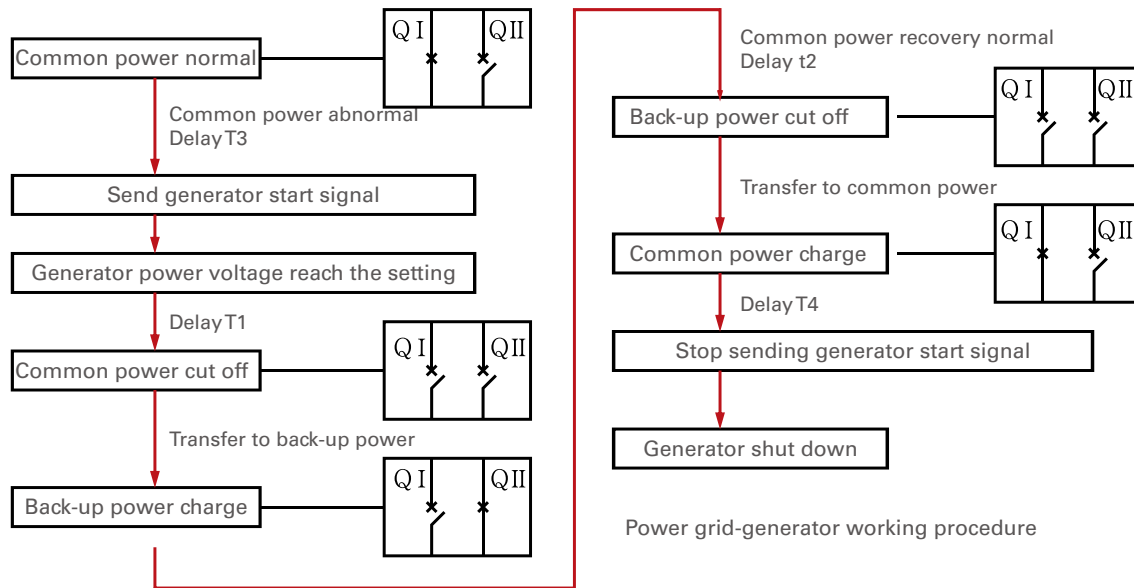
t4: Generator stop delay, time from recover to common power till stop sending generator starting signal

QI: Breaker for common

QII: Breaker for back-up

HDQ3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1



Maintenance and service

- ◆ Maintenance and service must be performed by the qualified professional.
- ◆ Do not maintain and repair the product, when it is in use.
- ◆ This product can work reliably at the rated voltage (85%~110%) U_e . To connect the product wires, the incoming terminal, the outgoing terminal, and N phase shall be distinguished strictly. Also, the neutral line shall not be shared.
- ◆ Do not use this product in the conditions out of the normal use condition range.
For example: no preventive measures shall be taken when there is continuous water vapor or condensation, flammable or corrosive powder, the expected short-circuit current is out of the range, the voltage is very high or low, the current exceeds the rated value, and the altitude is very high.
- ◆ To transfer manually, please use the special handle provided on this product.
- ◆ If the protective device is disconnected due to line or load failure, eliminate the failure and then power on the load.
- ◆ The product shall be checked generally during operation at regular interval (such as once in every three months).
- ◆ To check whether the product works normally, transfer the switch manually or automatically.

HDO3HB Transfer Switch Equipment

GB14048.11 / IEC60947-6-1

Fault analysis and troubleshooting

The common faults and their solutions are listed below. If error happens while using the product check the following table.

Fault	Cause	Solution
No display on the controller panel	The power supplied to the controller by main circuit is abnormal	Check whether the fuse tube on the controller panel is installed or burnt out. Then re-install or replace it, if necessary. Check the line connection between main circuit to the controller is loose and insert it firmly, if necessary.
The voltage is abnormal, but the auto transfer power switch does not work	The connection between the controller and the switch body failed.	Check whether the connecting plug from the controller to the switch is loose, and whether the connector fastening screw is installed firmly.
The voltage is normal, but the panel displays abnormally	The connection between the power line and the circuit breaker power supply failed	Ensure the connection between the power line and the circuit breaker power supply is in good state. Check whether there is a lack of voltage during construction.
The alarm lamp flashes; the Transfer Switch Equipment is switched to another circuit of power supply	One circuit of power supply failed (over-voltage, under-voltage, lack of voltage, phase loss)	Check the failed power supply for troubleshooting.
The alarm lamp flashes and the Transfer Switch Equipment does not work	Two circuits of power supply failed The product is in the standby power and auto-switch & not-auto-reset state	Check the failed power supply for troubleshooting. Set the product working mode by the user according to the actual demands (auto-switch & auto-reset, auto-switch & not-auto-reset, mutual standby)
Controller displays ERROR1	Phase sequence error	Voltage at the user incoming terminal is disconnected; check the phase sequence at the normal and standby circuit incoming terminal.
Controller displays ERROR2	Mechanism blocked Switch trips Switch handle cracked Switch contact fusion welding Switch action time is too long	Manual dual-division of product; take out the normal and standby fuses from the controller and re-install them. so the controller will restart automatically. If the ERROR2 is still there , please contact the manufacturer after-sales department.
Product display trip alarm	Lower load failure Auxiliary alarm inside the plastic housing damaged	Set the controller to the Manual state, operate the product manually to the normal dual division, or standby dual division. When the load failure is eliminated, set the controller to the user required state. For damaged auxiliary alarm, contact the manufacturer after-sales department.

LOW VOLTAGE DISTRIBUTION

HDGL Switch Disconnectors

Standard: IEC60947-3



Range Presentation

HDGL is Himel range of Switch Disconnectors used in power distribution system for isolation and switching.

Features

- ◆ For AC 50/60Hz systems
- ◆ Max. rated operating voltage: 690V
- ◆ Max. rated operating current: 3150A

Online Content



HDGL

Selection Code

Range name	Type	Frame current	Pole number	Shaft	Window	Rated current
HDGL	Z	160	3	J	K	100
HDGL	Default: Normal type Z: Overlap type ZC: Symmetric type	63: 63A 100: 100A 160: 160A 250: 250A 630: 630A 1600: 1600A 3150: 3150A	3: 3P 4: 4P	Default: no shaft J: External operation with extended shaft 300mm	Default: no window K: with observing window	16: 16A 25: 25A 32: 32A 40: 40A 63: 63A ... 2000: 2000A 2500: 2500A 3150: 3150A



Technical Parameters

Switch Disconnectors	HDGL							
Utilization Category	AC-22B							
Conventional free air thermal current (A)	16 25 32 40 63	80 100	100 125 160	200 250	315 400	500 630	800 1000 1250 1600	2000 2500 3150
Power frequency withstand voltage (V)	2000							
Rated insulation voltage (V)	800							
Rated impulse withstand voltage Uimp	12kV(2000m)							
Rated short-time withstand current (kA)	2		12	20	25	50		
Mechanical Endurance	8000				5000		3000	1000
Electrical Endurance	1500		200			100		

Note:

- Default length of the extended shaft for external operation handle is 300mm, (500mm available on request).
- Window: no window for 16-100A, and 125A-3150A can be manufactured with window
- No auxiliary contact for 16-100A
- Maximum rated current for symmetric type double-throw switch is 1600A

HDGL Switch Disconnectors

Standard: IEC60947-3

Accessories Selection Code



HDGL1600OF11



HDGL3150OF11



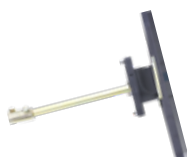
HDGLZ(C)630OF11



HDGL100J300



HDGL630J300



HDGL3150J300



HDGL3150JB300



HDGLZ630J300

Standard Reference	Description
HDGL1600OF11	HDGL-100~1600A Auxiliary contact 1NO1NC
HDGL1600OF22	HDGL-100~1600A Auxiliary contact 2NO2NC
HDGL3150OF11	HDGL-2000~3150A Auxiliary contact 1NO1NC
HDGL3150OF22	HDGL-2000~3150A Auxiliary contact 2NO2NC
HDGLZ630OF11	HDGLZ-100~630A Auxiliary contact 1NO1NC
HDGLZ630OF22	HDGLZ-100~630A Auxiliary contact 2NO2NC
HDGLZ3150OF11	HDGLZ-800~3150A Auxiliary contact 1NO1NC
HDGLZ3150OF22	HDGLZ-800~3150A Auxiliary contact 2NO2NC
HDGLZC630OF11	HDGLZC-100~630A Auxiliary contact 1NO1NC
HDGLZC630OF22	HDGLZC-100~630A Auxiliary contact 2NO2NC
HDGLZC1600OF11	HDGLZC-800~1600A Auxiliary contact 1NO1NC
HDGLZC1600OF22	HDGLZC-800~1600A Auxiliary contact 2NO2NC
HDGL100J300	HDGL(Z)(C) 16~100A External operation handle with 300mm shaft
HDGL630J300	HDGL 100~630A External operation handle with 300mm shaft
HDGL3150J300	HDGL(Z)(C) 800~3150AF External operation handle with 300mm shaft
HDGL3150JB300	HDGL(Z)(C) 800~3150A External operation handle with 300mm shaft B type
HDGLZ630J300	HDGLZ(C) 100~630A External operation handle with 300mm shaft

HRT16 Fuse with Blade Contacts Fuse-link

Standard: IEC60269

Range Presentation

- HRT16: Knife-shape Fuses

Features

- ◆ For HRT16 series
 - 5 sizes of "gG" fuse link 000, 00, 1, 2, 3
 - High breaking capacity 120kA
 - Wide current range from 2A up to 630A
 - Rated voltage 500Va.c, 690Va.c, 250Vd.c, 440Vd.c
 - Situated for standard HRT16 fuse base

Online Content



HRT16

HRT16 Selection Code

Model	Fuse-link Type	Rated Operating current
HRT16	000S	100
HRT16: HRT16 Fuse link	000S: HRT16 -00C 00: HRT16 -00 1: HRT16 -1 2: HRT16 -2 3: HRT16 -3	2: 2A 4: 4A 6: 6A ... 450: 450A 500: 500A 630: 630A
HRT16: HRT16 Fuse Base	00: rated current is 160A 1: rated current is 250A 2: rated current is 400A 3: rated current is 630A	ZS: Resin Material



Accessory	Usage	Reference
Fuse puller	To Assemble and replace HRT16	HRT16C

Technical Parameters of Fuse link

Product Series	HRT16000S	HRT1600	HRT161	HRT162	HRT163
Other Business Model	NH000	NH00	NH1	NH2	NH3
Rated Current	2-100A	2-160A	80-250A	125-400A	315-630A
Rated operating voltage	AC500/690V/DC250	AC500/690V/DC250	AC500/690V/DC440	AC500/690V/DC440	AC500/690V/DC440
Rated breaking capacity	120/50/100kA	120/50/100kA	120/50/100kA	120/50/50kA	120/50/50kA
Rated Power dissipation Max.	12w	12w	32w	45w	60w
Breaking range and Utilization category	gG				

LOW VOLTAGE DISTRIBUTION

HRT16 Fuse with Blade Contacts Fuse-link

Standard: IEC60269

Fuse Link Order Information

Size	Rated Current In (A)	Suitable fuse base	Weight (g)	Reference
000	2	HRT16-00	123	HRT16000S2
	4			HRT16000S4
	6			HRT16000S6
	8			HRT16000S8
	10			HRT16000S10
	12			HRT16000S12
	16			HRT16000S16
	20			HRT16000S20
	25			HRT16000S25
	32			HRT16000S32
	40			HRT16000S40
	50			HRT16000S50
	62			HRT16000S63
	80			HRT16000S80
	100			HRT16000S100
00	2	HRT16-00	170	HRT16002
	4			HRT16004
	6			HRT16006
	8			HRT16008
	10			HRT160010
	12			HRT160012
	16			HRT160016
	20			HRT160020
	25			HRT160025
	32			HRT160032
	40			HRT160040
	50			HRT160050
	63			HRT160063
	80			HRT160080
	100			HRT1600100
	125			HRT1600125
	160			HRT1600160
1	80	HRT16-1	450	HRT16180
	100			HRT161100
	125			HRT161125
	160			HRT161160
	200			HRT161200
	250			HRT161250
2	125	HRT16-2	660	HRT162125
	160			HRT162160
	200			HRT162200
	250			HRT162250
	300			HRT162300
	315			HRT162315
	355			HRT162355
	400			HRT162400

LOW VOLTAGE DISTRIBUTION

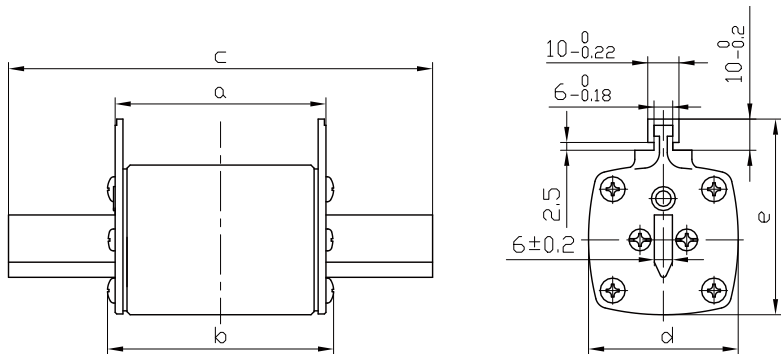
HRT16 Fuse with Blade Contacts Fuse-link

Standard: IEC60269

Fuse Base Order Information

Size	Rated Current In (A)	Suitable fuse base	Weight (g)	Reference
3	315	HRT16-3	850	HRT163315
	355			HRT163355
	400			HRT163400
	450			HRT163450
	500			HRT163500
	630			HRT163630

Fuse Link Overall Dimensions

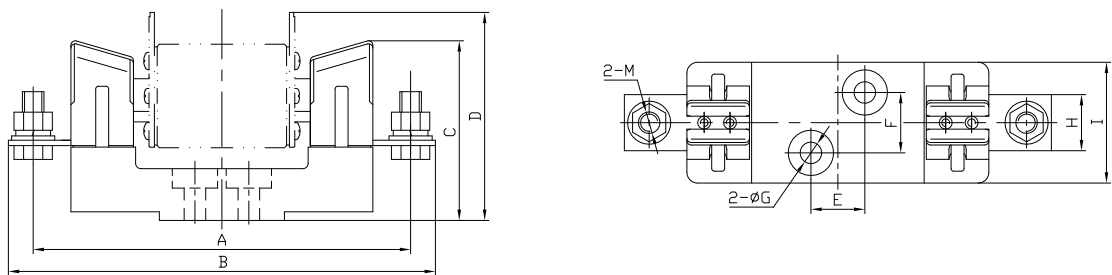


Dimension	HRT16-000S	HRT16-00	HRT16-1	HRT16-2	HRT16-3
a	49	49	67	67	67
b	54	54	72	72	72
c	78	78.5	136	150	150
d	21	29	48	59	67
e	53	57	62	73	85

HRT16 Fuse with Blade Contacts Fuse-link

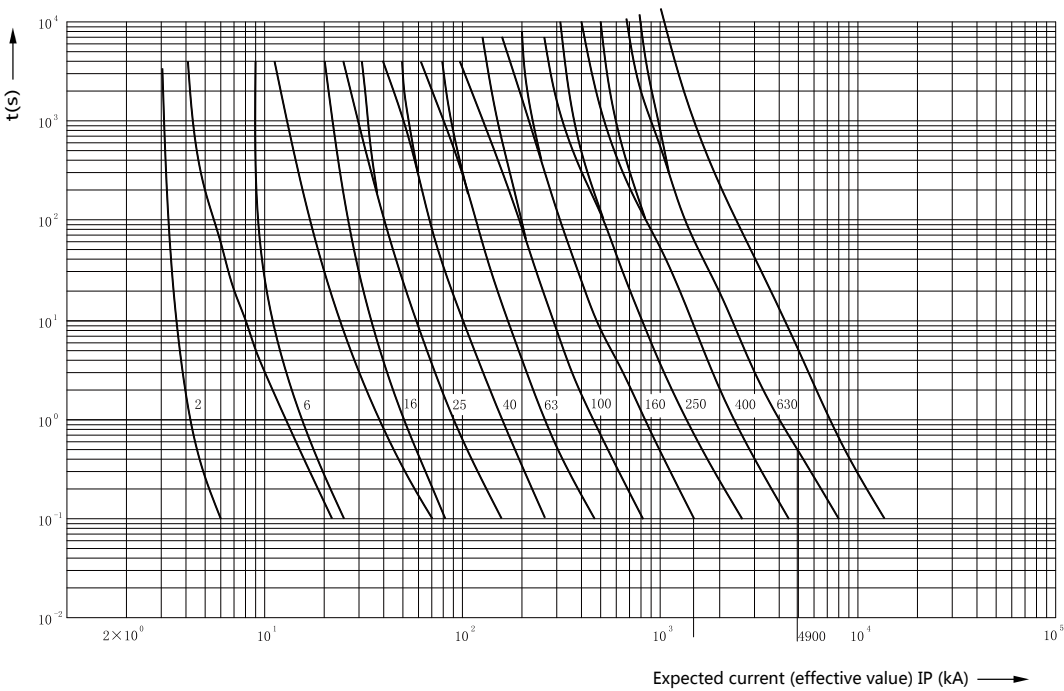
Standard: IEC60269

Fuse Base Overall Dimensions



Dimension	HRT16-00	HRT16-1	HRT16-2	HRT16-3
a	102	175	200	260
b	122	198	225	248
c	60	83	96	104
d	82	96	116	126
e	25	25	25	25
f	-	28	28	28
g	8	11	11	11
h	25	26	30	39
i	30	56	61	61
m	M8	M10	M10	M12

Time Current Characteristic Curve



HRT18 Fuse with Cylindrical Contacts Fuse-link

Standard: IEC60269

Range Presentation

- HRT18: Cyliner Cap-shape Fuses

Features

- ◆ For HRT18 series
 - The rating is between 2A to 63A, total 13 ratings
 - Two kinds of materials for fuse holders: Resin and Nylon
 - Indicator can be a option for customers

Online Content



HRT18

HRT18 Selection Code

Range name	Fuse-link Type	Rated operating current
HRT18	1038	2
HRT18: HRT18 Fuse link	1038: maximum rating is 32A 1451: maximum rating is 63A	2: 2A 4: 4A ... 63: 63A



Range name	Fuse-link Type	Pole number	Indicator	Material
HRT18	32Z	2	X	B
HRT18: HRT18 Fuse Holder	32Z: 32A holder 63Z: 63A holder	Default: 1P 2: 2P 3: 3P	Default: Without indicator X: With indicator	Default: Nylon (only available for 32A holder) B: Resin



Technical Parameters of Fuse link		
Product Series	HRT181038	HRT181451
Rated Current	2-32A	2-63A
Rated operating voltage	AC380/AC500	AC380/AC500
Rated breaking capacity	100kA	100kA
Rated Power dissipation max.	3w	5w
Breaking range and Utilization category	gG	

LOW VOLTAGE DISTRIBUTION

HRT18 Fuse with Cylindrical Contacts Fuse-link

Standard: IEC60269

Fuse Link Order Information

Cylindrical Fuse	Rated Current In(A)	Weight (g)	Reference
HRT18-32	2	8	HRT1810382
	4		HRT1810384
	6		HRT1810386
	8		HRT1810388
	10		HRT18103810
	12		HRT18103812
	16		HRT18103816
	20		HRT18103820
	25		HRT18103825
	32		HRT18103832
HRT18-32	2	20	HRT1814512
	4		HRT1814514
	6		HRT1814516
	8		HRT1814518
	10		HRT18145110
	12		HRT18145112
	16		HRT18145116
	20		HRT18145120
	25		HRT18145125
	32		HRT18145132
	40		HRT18145140
	50		HRT18145150
	63		HRT18145163

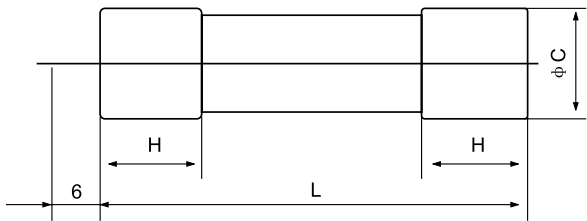
Fuse Holder Order Information

Fuse Holder	Pole	Rated Current In(A)	Note	Weight(g)	Reference
HRT18-32X	1P	32	Material: Resin	82	HRT1832ZXB
	2P		With indicator		HRT1832Z2XB
	3P				HRT1832Z3XB
HRT18-32	1P	32	Material: Resin	82	HRT1832ZB
	2P		Without indicator		HRT1832Z2B
	3P				HRT1832Z3B
HRT18-32X	1P	32	Material: Nylon	82	HRT1832ZX
	2P		With indicator		HRT1832Z2X
	3P				HRT1832Z3X
HRT18-32	1P	32	Material: Nylon	82	HRT1832Z
	2P		Without indicator		HRT1832Z2
	3P				HRT1832Z3
HRT18-63X	1P	63	Material: Resin	206	HRT1863ZXB
	2P		With indicator		HRT1863Z2XB
	3P				HRT1863Z3XB
HRT18-63	1P	63	Material: Resin	206	HRT1863ZB
	2P		Without indicator		HRT1863Z2B
	3P				HRT1863Z3B

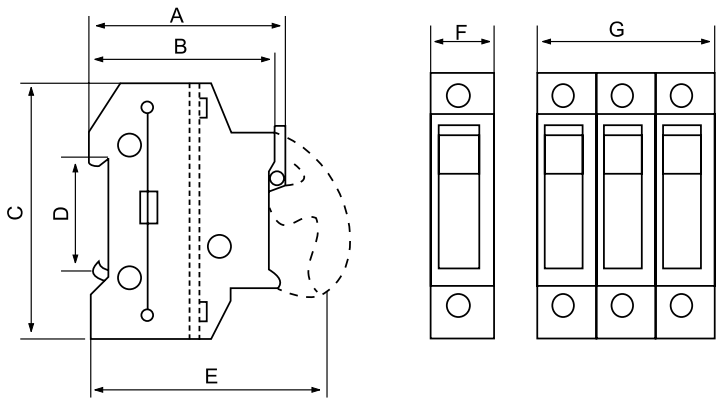
HRT18 Fuse with Cylindrical Contacts Fuse-link

Standard: IEC60269

Overall Dimensions



Type	Size	L	C	Hmax
HRT18-32	10x38	38±0.6	10.3±0.1	10.5
HRT18-63	14x51	51 ^{+0.6} _{-1.0}	14.3±0.1	13.8



Type	A	B	C	D	E	F	G
HRT18-32	63	60	79	35	80	18	54
HRT18-63	78	76	103	35	110	25	75



POWER FACTOR CORRECTION

Improve power quality with best-in-class reliability

Power Factor Correction products are crucial for all medium- and low-voltage power distribution systems to ensure power loss reduction, scalability of electrical infrastructure, and efficient monitoring so that additional transmission capacity is readily available.

Himel offers Low-Voltage Capacitors, Capacitor Switching Contactors, Reactive Power Compensation Controllers, and Three-phase Serial Reactors for diverse installation architecture, extending the life of machines and components, and ensuring significant savings on active energy.



Proven for superior application performance, safe power supply and load management in industrial installations



Wide variety of applications including buildings, chemical, pulp and paper, cement, plastics, printing and food industry



Rigorous testing done in the manufacturing plant for the highest international and regional standards



Enhanced cost saving with better power quality, reduced voltage drops, and transmission losses

POWER FACTOR CORRECTION



HDCAP3 Low-voltage Capacitor



HDCAP3

Rated Operating Voltage: AC 400V, 450V, 480V, 525V **238**
Rated Capacity: 1~30kvar
Connection Type: Three-phase
Rated Frequency: 50Hz/60Hz
Appearance: Cylinder
Inside Dipping Material: Polypropylene Metallized Film
Ambient Temperature: -25°C ~+50°C
Certificates: CE, TUV

HBSM Low-voltage Capacitor



HBSM

Rated Operating Voltage: AC 230V, 250V, 280V, 400V, 415V, 440V, 450V, 480V, 525V, 660V
Rated Capacity: 0.5~60kvar
Connection Type: Single-phase, three-phase, three-phase four-wire
Rated Frequency: 50Hz
Appearance: Box
Inside Dipping Material: Polypropylene Metallized Film
Ambient Temperature: -25°C ~+50°C **239**

HJKF Reactive Power Compensation Controller



HJKF

Rated operating voltage: AC400V (±15%) **249**
Rated current: ≤5A
Output Loops: 12 loops
Four running output modes: circulate switching, coding switching, cut-on first and then cut-off, optimization switching
Frequency: 50 / 60Hz

HKSG Three-phase Serial Reactor



HKSG

Rated Operating Voltage: AC0.48kV, AC0.525kV **251**
Detuning: 7% and 14%
Connection Type: Three-phase
Rated Frequency: 50Hz

HDC19s Capacitor Switching Contactor



HDC19s

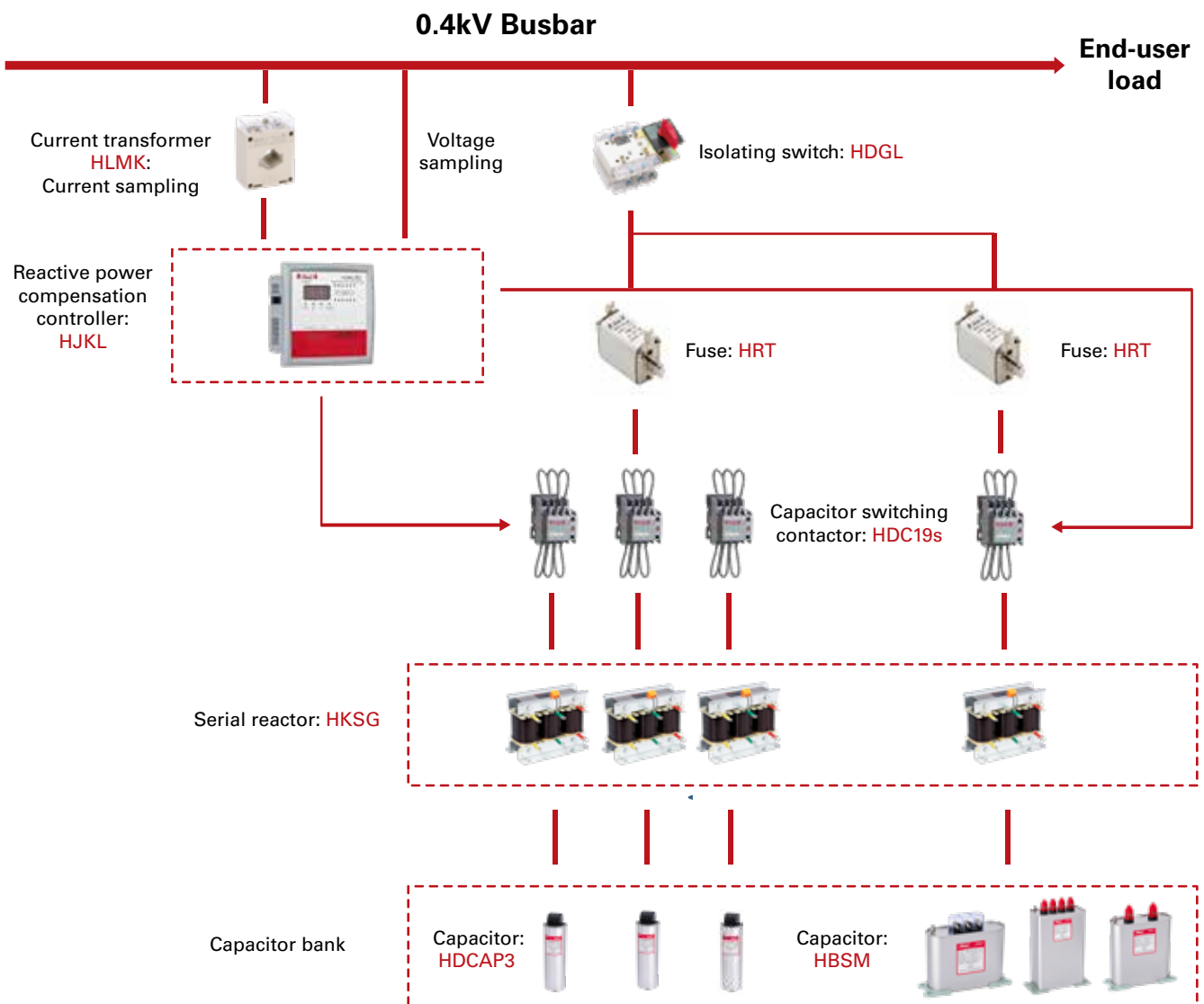
Rated Operating Voltage: 380/400V **255**
Frame Current: 25A, 32A, 43A, 63A, 95A, 115A
Poles: 3P
Rated Frequency: 50Hz, 50/60Hz
Coil Voltage: 24V, 36V, 48V, 110V, 127V, 220/230V, 240V, 380/400V, 415V, 440V
Certificate: CE

POWER FACTOR CORRECTION

Power Factor Correction Solution

Standard: IEC60947-4-1, IEC60947-5-1

Reactive Power Compensation Solution



System solution for reactive power compensation cabinet.

POWER FACTOR CORRECTION

HDCAP3 Low-voltage Capacitors

Standard: IEC60831



Range Presentation

Power Factor Correction capacitors with and without reactor form part of a comprehensive offer of products perfectly coordinated to meet low-voltage power distribution needs.

HDCAP3: Cylinder type

Features

- ◆ Low loss of medium and temperature with long serving time to save electricity bill.
- ◆ Metallized Polypropylene technology with built-in SELF HEALING properties.
- ◆ Full specifications:
 - **HDCAP3**
 - Capacity:** 1-30kvar
 - Voltage:** 400V, 450V, 525V
 - Connection type:** Three-phase

Online Content



HDCAP3

Selection Code

HDCAP3 series

Range name	Rated voltage	Rated compensation capacity	Compensation method
HDCAP3	400	5	3
HDCAP3: Cylinder type	0400: 400V 0450: 450V 0525: 525V	005: 5kvar 705: 7.5kvar 010: 10kvar 025: 25kvar 030: 30kvar	3: Three-phase compensation

Technical Parameters

Low-voltage Capacitor	HDCAP3
Rated Voltage(AC)	400V, 450V, 525V
Rated Capacity	1-30kvar
Capacity deviation (μ F)	0~+10% of the rated capacity
Loss angle tangent (tan)	At the rated power-frequency voltage, 20°C $\tan \delta \leq 0.2\%$
Connection Type	Three-phase
Rated Frequency	50Hz
Ambient Temperature	-25°C~+50°C
AC withstand voltage	Inter-electrode: $2.15U_n/10s$ Between shell and phase: $3kV/10s$
Allowable over-voltage (U_n)	1.10 of rated voltage (not greater than 8h in 24h)
Allowable over-current (I_n)	1.43 of rated current
Altitude	$\leq 2000m$
Relative humidity	$\leq 50\%$ at 40°C $\leq 90\%$ at 20°C
Appearance	Cylinder
Inside Dipping Material	Polypropylene metallized film
Self discharge characteristic	The residual voltage reduces to 50V or below from $\sqrt{2}U_n$ after 3 minutes in case of power failure
Standard	IEC60831

HBSM Low-voltage Capacitors

Standard: IEC60831



Range Presentation

Power Factor Correction capacitors with and without reactor form part of a comprehensive offer of products perfectly coordinated to meet low-voltage power distribution needs.

HBSM: Box type

Features

- ◆ Low loss of medium and temperature with long serving time to save electricity bill.
- ◆ Metallized Polypropylene technology with built-in SELF HEALING properties.
- ◆ Full specifications:
 - **HBSM: Capacity:** 0.5~60kvar
 - Voltage:** 230V, 250V, 280V, 400V, 415V, 440V, 450V, 480V, 525V, 660V, 690V, 760V
 - Connection type:** Single-phase, three-phase, three-phase four-wire
 - Housing type:** D, M and Q

Online Content



HBSM

Single-Phase

Range Name	With or without reactor	Rated Voltage	Rated compensation capacity	Compensation method	Housing type
HBSM	0	02500	0150	1	D
HBSM: Box type	0: Without reactor	02500: 250V	0020: 2kvar 0030: 3kvar 0040: 4kvar 0050: 5kvar 0080: 8kvar 0100: 10kvar 0120: 12kvar 0150: 15kvar	1: Single-phase compensation	D: D type
			0200: 20kvar		M: M type

*For other voltages(230V, 280V, 400V, 415V, 450V, 480V, 525V), please consult local Himel office.

Three-phase

Range Name	With or without reactor	Rated Voltage	Rated compensation capacity	Compensation method	Housing type
HBSM	0	04500	0150	3	D
HBSM: Box type	0: Without reactor	04000: 400V 04150: 415V 04500: 450V 05250: 525V	0005: 0.5kvar ... 0200: 20kvar ... 0320: 32kvar	3: Three-phase compensation	D: D type
			0300: 30kvar 0350: 35kvar 0400: 40kvar		M: M type
			0400: 40kvar 0450: 45kvar 0500: 50kvar 0600: 60kvar		Q: Q type

*For other voltages(230V, 250V, 440V, 480V, 690V, 750V), please consult local Himel office.

POWER FACTOR CORRECTION

HBSM Low-voltage Capacitors

Standard: IEC60831

Three-phase four-wire

Range Name	With or without reactor	Rated Voltage	Rated compensation capacity	Compensation method	Housing type
HBSM	0	02503	0150	4	D
HBSM: Box type	0: Without reactor	02303: 230√3V 02503: 250√3V	0030: 3kvar ... 0180: 18kvar	4: Three-phase four-wire compensation 3YN	D: D type
			0200: 20kvar 0240: 24kvar		M: M type
			0250: 25kvar 0300: 30kvar 0400: 40kvar 0450: 45kvar		Q: Q type

*For other voltages(280√3V,400√3V),please consult local Himel office.

Technical Parameters		
Low-voltage Capacitor		HBSM
Rated Voltage(AC)	Single-phase	230V,250V,280V,400V,415V,450V,480V,525V
	Three-phase	230V,250V,400V,415V,440V,450V,480V,525V
	Three-phase four-wire	400V(230√3V),450V(250√3V),480V(280√3V),690V(400√3V)
Rated Capacity		0.5-60kvar
Capacity deviation (μ F)		0~+10% of the rated capacity
Loss angle tangent (tan)		At the rated power-frequency voltage, 20°C tan δ≤0.2%
Connection Type		Single-phase, three-phase, three-phase four-wire
Rated Frequency		50/60Hz
Ambient Temperature		-25°C ~+50°C
AC withstand voltage	Inter-electrode: 2.15Un/10s	
	Between shell and phase: 3kV/10s	
Allowable over-voltage (Un)		1.10 of rated voltage (not greater than 8h in 24h)
Allowable over-current (In)		1.43 of rated current
Altitude		≤2000m
Relative humidity		≤50% at 40°C ≤90% at 20°C
Appearance		Box
Inside Dipping Material		Polypropylene metallized film
Self discharge characteristic		The residual voltage reduces to 50V or below from √ 2Un after 3 minutes in case of power failure
Standard		IEC60831

POWER FACTOR CORRECTION

Selection Guide

Standard: IEC60831

HDCAP3 50/60Hz Selection Guide

Commercial Reference	Description	Ue (V)	50Hz			60Hz		
			kvar	Ie (A)	Contact	kvar	Ie (A)	Contact
HDCAP304000053	HDCAP3-400V-5kvar-3phase	400	5	7.2	HDC19s-25	6	8.7	HDC19s-25
HDCAP304007053	HDCAP3-400V-7.5kvar-3phase	400	7.5	10.8	HDC19s-25	9	13	HDC19s-25
HDCAP304000103	HDCAP3-400V-10kvar-3phase	400	10	14.4	HDC19s-25	12	17.3	HDC19s-32
HDCAP304000123	HDCAP3-400V-12kvar-3phase	400	12	17.3	HDC19s-32	14.4	20.8	HDC19s-32
HDCAP304000143	HDCAP3-400V-14kvar-3phase	400	14	20.2	HDC19s-32	16.8	24.2	HDC19s-43
HDCAP304000153	HDCAP3-400V-15kvar-3phase	400	15	21.7	HDC19s-43	18	26	HDC19s-43
HDCAP304000163	HDCAP3-400V-16kvar-3phase	400	16	23.1	HDC19s-43	19.2	27.7	HDC19s-43
HDCAP304000183	HDCAP3-400V-18kvar-3phase	400	18	26	HDC19s-43	21.6	31.2	HDC19s-63
HDCAP304000203	HDCAP3-400V-20kvar-3phase	400	20	28.9	HDC19s-63	24	34.6	HDC19s-63
HDCAP304000253	HDCAP3-400V-25kvar-3phase	400	25	36.1	HDC19s-63	30	43.3	HDC19s-95
HDCAP304000303	HDCAP3-400V-30kvar-3phase	400	30	43.3	HDC19s-95	36	52	HDC19s-95
HDCAP304500053	HDCAP3-450V-5kvar-3phase	450	5	6.4	HDC19s-25	6	7.7	HDC19s-25
HDCAP304507053	HDCAP3-450V-7.5kvar-3phase	450	7.5	9.6	HDC19s-25	9	11.5	HDC19s-25
HDCAP304500103	HDCAP3-450V-10kvar-3phase	450	10	12.8	HDC19s-25	12	15.4	HDC19s-25
HDCAP304500123	HDCAP3-450V-12kvar-3phase	450	12	15.4	HDC19s-25	14.4	18.5	HDC19s-32
HDCAP304500143	HDCAP3-450V-14kvar-3phase	450	14	18	HDC19s-32	16.8	21.6	HDC19s-43
HDCAP304500153	HDCAP3-450V-15kvar-3phase	450	15	19.2	HDC19s-32	18	23.1	HDC19s-43
HDCAP304500163	HDCAP3-450V-16kvar-3phase	450	16	20.5	HDC19s-32	19.2	24.6	HDC19s-43
HDCAP304500183	HDCAP3-450V-18kvar-3phase	450	18	23.1	HDC19s-43	21.6	27.7	HDC19s-43
HDCAP304500203	HDCAP3-450V-20kvar-3phase	450	20	25.7	HDC19s-43	24	30.8	HDC19s-63
HDCAP304500253	HDCAP3-450V-25kvar-3phase	450	25	32.1	HDC19s-63	30	38.5	HDC19s-63
HDCAP304500303	HDCAP3-450V-30kvar-3phase	450	30	38.5	HDC19s-63	36	46.2	HDC19s-95
HDCAP305250053	HDCAP3-525V-5kvar-3phase	525	5	5.5	HDC19s-25	6	6.6	HDC19s-25
HDCAP305257053	HDCAP3-525V-7.5kvar-3phase	525	7.5	8.2	HDC19s-25	9	9.9	HDC19s-25
HDCAP305250103	HDCAP3-525V-10kvar-3phase	525	10	11	HDC19s-25	12	13.2	HDC19s-25
HDCAP305250123	HDCAP3-525V-12kvar-3phase	525	12	13.2	HDC19s-25	14.4	15.8	HDC19s-25
HDCAP305250143	HDCAP3-525V-14kvar-3phase	525	14	15.4	HDC19s-25	16.8	18.5	HDC19s-32
HDCAP305250153	HDCAP3-525V-15kvar-3phase	525	15	16.5	HDC19s-25	18	19.8	HDC19s-32
HDCAP305250163	HDCAP3-525V-16kvar-3phase	525	16	17.6	HDC19s-32	19.2	21.1	HDC19s-32
HDCAP305250183	HDCAP3-525V-18kvar-3phase	525	18	19.8	HDC19s-32	21.6	23.8	HDC19s-43
HDCAP305250203	HDCAP3-525V-20kvar-3phase	525	20	22	HDC19s-43	24	26.4	HDC19s-43
HDCAP305250253	HDCAP3-525V-25kvar-3phase	525	25	27.5	HDC19s-43	30	33	HDC19s-63
HDCAP305250303	HDCAP3-525V-30kvar-3phase	525	30	33	HDC19s-63	36	39.6	HDC19s-63

POWER FACTOR CORRECTION

Selection Guide

Standard: IEC60831

HBSM 50/60Hz Selection Guide

Single-phase , 250V

Commercial Reference	Description Single-phase Δ 250V	50Hz			60Hz		
		kvar	Ie (A)	Contact	kvar	Ie (A)	Contact
HBSM00250000201D	HBSM-0-250V-2kvar-1phase-D	2	8	HDC19s-25	2.4	9.6	HDC19s-25
HBSM00250000251D	HBSM-0-250V-2.5kvar-1phase-D	2.5	10	HDC19s-25	3	12	HDC19s-25
HBSM00250000301D	HBSM-0-250V-3kvar-1phase-D	3	12	HDC19s-25	3.6	14.4	HDC19s-25
HBSM00250000401D	HBSM-0-250V-4kvar-1phase-D	4	16	HDC19s-25	4.8	19.2	HDC19s-32
HBSM00250000501D	HBSM-0-250V-5kvar-1phase-D	5	20	HDC19s-32	6	24	HDC19s-43
HBSM00250000801D	HBSM-0-250V-8kvar-1phase-D	8	32	HDC19s-43	9.6	38.4	HDC19s-63
HBSM00250001001D	HBSM-0-250V-10kvar-1phase-D	10	40	HDC19s-63	12	48	HDC19s-95
HBSM00250001201D	HBSM-0-250V-12kvar-1phase-D	12	48	HDC19s-95	14.4	57.6	HDC19s-95
HBSM00250001501D	HBSM-0-250V-15kvar-1phase-D	15	60	HDC19s-95	18	72	HDC19s-115
HBSM00250002001M	HBSM-0-250V-20kvar-1phase-M	20	80	HDC19s-150	24	96	HDC19s-150

Three-phase, 400V

Commercial Reference	Description Three-phase Δ 400V	50Hz			60Hz		
		kvar	Ie (A)	Contact	kvar	Ie (A)	Contact
HBSM00400000103D	HBSM-0-400V-1kvar-3phase-D	1	1.4	HDC19s-25	1.2	1.7	HDC19s-25
HBSM00400000203D	HBSM-0-400V-2kvar-3phase-D	2	2.9	HDC19s-25	2.4	3.5	HDC19s-25
HBSM00400000303D	HBSM-0-400V-3kvar-3phase-D	3	4.3	HDC19s-25	3.6	5.2	HDC19s-25
HBSM00400000403D	HBSM-0-400V-4kvar-3phase-D	4	5.8	HDC19s-25	4.8	7	HDC19s-25
HBSM00400000503D	HBSM-0-400V-5kvar-3phase-D	5	7.2	HDC19s-25	6	8.7	HDC19s-25
HBSM00400000753D	HBSM-0-400V-7.5kvar-3phase-D	7.5	10.8	HDC19s-25	9	13	HDC19s-25
HBSM00400000803D	HBSM-0-400V-8kvar-3phase-D	8	11.5	HDC19s-25	9.6	13.8	HDC19s-25
HBSM00400001003D	HBSM-0-400V-10kvar-3phase-D	10	14.4	HDC19s-25	12	17.3	HDC19s-32
HBSM00400001203D	HBSM-0-400V-12kvar-3phase-D	12	17.3	HDC19s-32	14.4	20.8	HDC19s-32
HBSM00400001403D	HBSM-0-400V-14kvar-3phase-D	14	20.2	HDC19s-32	16.8	24.2	HDC19s-43
HBSM00400001503D	HBSM-0-400V-15kvar-3phase-D	15	21.7	HDC19s-43	18	26	HDC19s-43
HBSM00400001603D	HBSM-0-400V-16kvar-3phase-D	16	23.1	HDC19s-43	19.2	27.7	HDC19s-43
HBSM00400001803D	HBSM-0-400V-18kvar-3phase-D	18	26	HDC19s-43	21.6	31.2	HDC19s-63
HBSM00400002003D	HBSM-0-400V-20kvar-3phase-D	20	28.9	HDC19s-63	24	34.6	HDC19s-63
HBSM00400002403D	HBSM-0-400V-24kvar-3phase-D	24	34.6	HDC19s-63	28.8	41.5	HDC19s-63
HBSM00400002503D	HBSM-0-400V-25kvar-3phase-D	25	36.1	HDC19s-63	30	43.3	HDC19s-95
HBSM00400002803D	HBSM-0-400V-28kvar-3phase-D	28	40.4	HDC19s-63	33.6	48.5	HDC19s-95
HBSM00400003003D	HBSM-0-400V-30kvar-3phase-D	30	43.3	HDC19s-95	36	52	HDC19s-95
HBSM00400003003M	HBSM-0-400V-30kvar-3phase-M	30	43.3	HDC19s-95	36	52	HDC19s-95
HBSM00400003503M	HBSM-0-400V-35kvar-3phase-M	35	50.5	HDC19s-95	42	60.6	HDC19s-95
HBSM00400004003M	HBSM-0-400V-40kvar-3phase-M	40	57.7	HDC19s-95	48	69.3	HDC19s-115
HBSM00400004503Q	HBSM-0-400V-45kvar-3phase-Q	45	65	HDC19s-115	54	78	HDC19s-150
HBSM00400005003Q	HBSM-0-400V-50kvar-3phase-Q	50	72.2	HDC19s-115	60	86.6	HDC19s-150
HBSM00400006003Q	HBSM-0-400V-60kvar-3phase-Q	60	86.6	HDC19s-150	72	103.9	HDC19s-170

POWER FACTOR CORRECTION

Selection Guide

Standard: IEC60831

Three-phase, 415V

Commercial Reference	Description Three-phase Δ 415V	50Hz			60Hz		
		kvar	Ie (A)	Contact	kvar	Ie (A)	Contact
HBSM00415000303D	HBSM-0-415V-3kvar-3phase-D	3	4.2	HDC19s-25	3.6	5	HDC19s-25
HBSM00415000503D	HBSM-0-415V-5kvar-3phase-D	5	7	HDC19s-25	6	8.4	HDC19s-25
HBSM00415000753D	HBSM-0-415V-7.5kvar-3phase-D	7.5	10.4	HDC19s-25	9	12.5	HDC19s-25
HBSM00415000803D	HBSM-0-415V-8kvar-3phase-D	8	11.1	HDC19s-25	9.6	13.3	HDC19s-25
HBSM00415001003D	HBSM-0-415V-10kvar-3phase-D	10	13.9	HDC19s-25	12	16.7	HDC19s-32
HBSM00415001203D	HBSM-0-415V-12kvar-3phase-D	12	16.7	HDC19s-32	14.4	20	HDC19s-32
HBSM00415001403D	HBSM-0-415V-14kvar-3phase-D	14	19.5	HDC19s-32	16.8	23.4	HDC19s-43
HBSM00415001503D	HBSM-0-415V-15kvar-3phase-D	15	20.9	HDC19s-32	18	25.1	HDC19s-43
HBSM00415001603D	HBSM-0-415V-16kvar-3phase-D	16	22.3	HDC19s-43	19.2	26.8	HDC19s-43
HBSM00415002003D	HBSM-0-415V-20kvar-3phase-D	20	27.8	HDC19s-43	24	33.4	HDC19s-63
HBSM00415002503D	HBSM-0-415V-25kvar-3phase-D	25	34.8	HDC19s-63	30	41.7	HDC19s-63
HBSM00415003003D	HBSM-0-415V-30kvar-3phase-D	30	41.7	HDC19s-63	36	50.1	HDC19s-95
HBSM00415003503M	HBSM-0-415V-35kvar-3phase-M	35	48.7	HDC19s-95	42	58.4	HDC19s-95
HBSM00415004003M	HBSM-0-415V-40kvar-3phase-M	40	55.6	HDC19s-95	48	66.8	HDC19s-115
HBSM00415004503Q	HBSM-0-415V-45kvar-3phase-Q	45	62.6	HDC19s-95	54	75.1	HDC19s-115
HBSM00415005003Q	HBSM-0-415V-50kvar-3phase-Q	50	69.6	HDC19s-115	60	83.5	HDC19s-150
HBSM00415006003Q	HBSM-0-415V-60kvar-3phase-Q	60	83.5	HDC19s-150	72	100.2	HDC19s-170

Three-phase, 450V

Commercial Reference	Description Three-phase Δ 450V	50Hz			60Hz		
		kvar	Ie (A)	Contact	kvar	Ie (A)	Contact
HBSM00450000103D	HBSM-0-450V-1kvar-3phase-D	1	1.3	HDC19s-25	1.2	1.6	HDC19s-25
HBSM00450000203D	HBSM-0-450V-2kvar-3phase-D	2	2.6	HDC19s-25	2.4	3.1	HDC19s-25
HBSM00450000303D	HBSM-0-450V-3kvar-3phase-D	3	3.8	HDC19s-25	3.6	4.6	HDC19s-25
HBSM00450000403D	HBSM-0-450V-4kvar-3phase-D	4	5.1	HDC19s-25	4.8	6.1	HDC19s-25
HBSM00450000503D	HBSM-0-450V-5kvar-3phase-D	5	6.4	HDC19s-25	6	7.7	HDC19s-25
HBSM00450000753D	HBSM-0-450V-7.5kvar-3phase-D	7.5	9.6	HDC19s-25	9	11.5	HDC19s-25
HBSM00450000803D	HBSM-0-450V-8kvar-3phase-D	8	10.3	HDC19s-25	9.6	12.4	HDC19s-25
HBSM00450001003D	HBSM-0-450V-10kvar-3phase-D	10	12.8	HDC19s-25	12	15.4	HDC19s-25
HBSM00450001203D	HBSM-0-450V-12kvar-3phase-D	12	15.4	HDC19s-25	14.4	18.5	HDC19s-32
HBSM00450001403D	HBSM-0-450V-14kvar-3phase-D	14	18	HDC19s-32	16.8	21.6	HDC19s-43
HBSM00450001503D	HBSM-0-450V-15kvar-3phase-D	15	19.2	HDC19s-32	18	23.1	HDC19s-43
HBSM00450001603D	HBSM-0-450V-16kvar-3phase-D	16	20.5	HDC19s-32	19.2	24.6	HDC19s-43
HBSM00450001803D	HBSM-0-450V-18kvar-3phase-D	18	23.1	HDC19s-43	21.6	27.7	HDC19s-43
HBSM00450002003D	HBSM-0-450V-20kvar-3phase-D	20	25.7	HDC19s-43	24	30.8	HDC19s-63
HBSM00450002203D	HBSM-0-450V-22kvar-3phase-D	22	28.2	HDC19s-43	26.4	33.8	HDC19s-63
HBSM00450002403D	HBSM-0-450V-24kvar-3phase-D	24	30.8	HDC19s-63	28.8	37	HDC19s-63
HBSM00450002503D	HBSM-0-450V-25kvar-3phase-D	25	32.1	HDC19s-63	30	38.5	HDC19s-63
HBSM00450002803D	HBSM-0-450V-28kvar-3phase-D	28	35.9	HDC19s-63	33.6	43.1	HDC19s-95
HBSM00450003003D	HBSM-0-450V-30kvar-3phase-D	30	38.5	HDC19s-63	36	46.2	HDC19s-95
HBSM00450003003M	HBSM-0-450V-30kvar-3phase-M	30	38.5	HDC19s-63	36	46.2	HDC19s-95
HBSM00450003203D	HBSM-0-450V-32kvar-3phase-D	32	41.1	HDC19s-63	38.4	49.3	HDC19s-95
HBSM00450003503M	HBSM-0-450V-35kvar-3phase-M	35	44.9	HDC19s-95	42	53.9	HDC19s-95
HBSM00450004003M	HBSM-0-450V-40kvar-3phase-M	40	51.3	HDC19s-95	48	61.6	HDC19s-95
HBSM00450004503Q	HBSM-0-450V-45kvar-3phase-Q	45	57.7	HDC19s-95	54	69.3	HDC19s-115
HBSM00450005003Q	HBSM-0-450V-50kvar-3phase-Q	50	64.2	HDC19s-115	60	77	HDC19s-150
HBSM00450006003Q	HBSM-0-450V-60kvar-3phase-Q	60	77	HDC19s-150	72	92.4	HDC19s-150

POWER FACTOR CORRECTION

Selection Guide

Standard: IEC60831

HBSM 50/60Hz Selection Guide

Three-phase, 525V

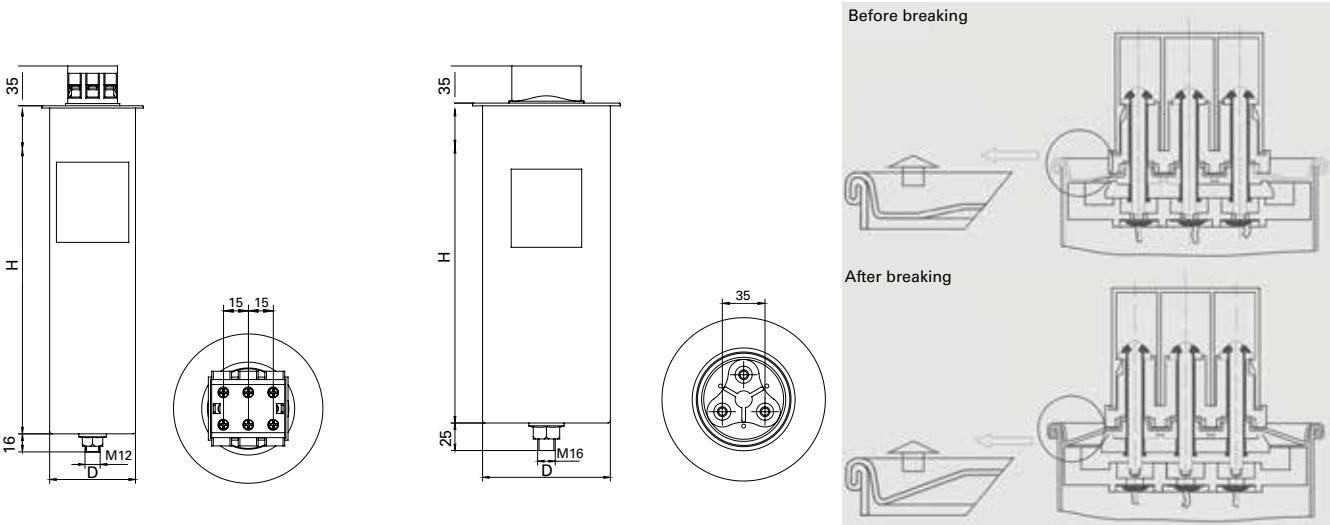
Commercial Reference	Description Three-phase Δ 525V	50Hz			60Hz		
		kvar	Ie (A)	Contact	kvar	Ie (A)	Contact
HBSM00525000303D	HBSM-0-525V-3kvar-3phase-D	3	3.3	HDC19s-25	3.6	4	HDC19s-25
HBSM00525000503D	HBSM-0-525V-5kvar-3phase-D	5	5.5	HDC19s-25	6	6.6	HDC19s-25
HBSM00525001003D	HBSM-0-525V-10kvar-3phase-D	10	11	HDC19s-25	12	13.2	HDC19s-25
HBSM00525001203D	HBSM-0-525V-12kvar-3phase-D	12	13.2	HDC19s-25	14.4	15.8	HDC19s-25
HBSM00525001503D	HBSM-0-525V-15kvar-3phase-D	15	16.5	HDC19s-25	18	19.8	HDC19s-32
HBSM00525001603D	HBSM-0-525V-16kvar-3phase-D	16	17.6	HDC19s-32	19.2	21.1	HDC19s-32
HBSM00525001803D	HBSM-0-525V-18kvar-3phase-D	18	19.8	HDC19s-32	21.6	23.8	HDC19s-43
HBSM00525002003D	HBSM-0-525V-20kvar-3phase-D	20	22	HDC19s-43	24	26.4	HDC19s-43
HBSM00525002503D	HBSM-0-525V-25kvar-3phase-D	25	27.5	HDC19s-43	30	33	HDC19s-63
HBSM00525003003M	HBSM-0-525V-30kvar-3phase-M	30	33	HDC19s-63	36	39.6	HDC19s-63
HBSM00525003503M	HBSM-0-525V-35kvar-3phase-M	35	38.5	HDC19s-63	42	46.2	HDC19s-95
HBSM00525004003M	HBSM-0-525V-40kvar-3phase-M	40	44	HDC19s-95	48	52.8	HDC19s-95
HBSM00525004003Q	HBSM-0-525V-40kvar-3phase-Q	40	44	HDC19s-95	48	52.8	HDC19s-95
HBSM00525005003Q	HBSM-0-525V-50kvar-3phase-Q	50	55	HDC19s-95	60	66	HDC19s-115
HBSM00525006003Q	HBSM-0-525V-60kvar-3phase-Q	60	66	HDC19s-115	72	79.2	HDC19s-150

Overall Dimension

Standard: IEC60831

HDCAP3 Overall Dimension

Model	Overall dimensions D*H(mm)	Mounting dimensions	Capacitance (μ F)
HDCAP3-0.4-5-3	76*245	M12×16	99.47
HDCAP3-0.4-7.5-3	76*245	M12×16	149.21
HDCAP3-0.4-10-3	76*245	M12×16	198.95
HDCAP3-0.4-12-3	76*245	M12×16	238.74
HDCAP3-0.4-14-3	86*245	M12×16	278.53
HDCAP3-0.4-15-3	86*245	M12×16	298.42
HDCAP3-0.4-16-3	86*245	M12×16	318.31
HDCAP3-0.4-18-3	86*290	M12×16	358.11
HDCAP3-0.4-20-3	86*290	M12×16	397.9
HDCAP3-0.4-25-3	116*290	M16×25	497.37
HDCAP3-0.4-30-3	116*290	M16×25	596.85
HDCAP3-0.45-5-3	76*245	M12×16	78.6
HDCAP3-0.45-7.5-3	76*245	M12×16	117.9
HDCAP3-0.45-10-3	76*245	M12×16	157.19
HDCAP3-0.45-12-3	76*245	M12×16	188.63
HDCAP3-0.45-14-3	86*245	M12×16	220.07
HDCAP3-0.45-15-3	86*245	M12×16	235.79
HDCAP3-0.45-16-3	86*245	M12×16	251.51
HDCAP3-0.45-18-3	86*290	M12×16	282.95
HDCAP3-0.45-20-3	86*290	M12×16	314.39
HDCAP3-0.45-25-3	116*290	M16×25	392.99
HDCAP3-0.45-30-3	116*290	M16×25	471.58
HDCAP3-0.525-5-3	76*245	M12×16	57.74
HDCAP3-0.525-7.5-3	76*245	M12×16	86.62
HDCAP3-0.525-10-3	76*245	M12×16	115.49
HDCAP3-0.525-12-3	76*245	M12×16	138.59
HDCAP3-0.525-14-3	86*245	M12×16	161.69
HDCAP3-0.525-15-3	86*245	M12×16	173.23
HDCAP3-0.525-16-3	86*245	M12×16	184.78
HDCAP3-0.525-18-3	86*290	M12×16	207.88
HDCAP3-0.525-20-3	86*290	M12×16	230.98
HDCAP3-0.525-25-3	116*290	M16×25	288.72
HDCAP3-0.525-30-3	116*290	M16×25	346.47



POWER FACTOR CORRECTION

Overall Dimension

Standard: IEC60831

HBSM Overall Dimension

• Single-phase dimension (250V)

Commercial Reference	Shell Code	Capacitance (μ F)
HBSM00250000201D	D130	101.86
HBSM00250000251D	D130	127.33
HBSM00250000301D	D130	152.79
HBSM00250000401D	D130	203.72
HBSM00250000501D	D130	254.65

Commercial Reference	Shell Code	Capacitance (μ F)
HBSM00250000801D	D210	407.44
HBSM00250001001D	D210	509.3
HBSM00250001201D	D210	611.15
HBSM00250001501D	D290	763.94
HBSM00250002001M	M265	1018.59

• Three-phase dimension (400V)

Commercial Reference	Shell Code	Capacitance (μ F)
HBSM00400000103D	D130	19.89
HBSM00400000203D	D130	39.79
HBSM00400000303D	D130	59.68
HBSM00400000403D	D130	79.58
HBSM00400000503D	D130	99.47
HBSM00400000753D	D130	149.21
HBSM00400000803D	D130	159.15
HBSM00400001003D	D130	198.95
HBSM00400001203D	D185	238.73
HBSM00400001403D	D185	278.52
HBSM00400001503D	D185	298.42
HBSM00400001603D	D185	318.31

Commercial Reference	Shell Code	Capacitance (μ F)
HBSM00400001803D	D210	358.1
HBSM00400002003D	D210	398
HBSM00400002403D	D245	477.46
HBSM00400002503D	D245	497.37
HBSM00400002803D	D290	557.04
HBSM00400003003D	D290	596.85
HBSM00400003003M	M210	596.85
HBSM00400003503M	M265	696.3
HBSM00400004003M	M265	795.77
HBSM00400004503Q	Q210	895.25
HBSM00400005003Q	Q210	994.75
HBSM00400006003Q	Q240	1193.7

• Three-phase dimension (415V)

Commercial Reference	Shell Code	Capacitance (μ F)
HBSM00415000303D	D130	55.45
HBSM00415000503D	D130	92.41
HBSM00415000753D	D130	138.62
HBSM00415000803D	D130	147.86
HBSM00415001003D	D130	184.82
HBSM00415001203D	D185	221.79
HBSM00415001403D	D185	258.75
HBSM00415001503D	D185	277.23
HBSM00415001603D	D185	295.72

Commercial Reference	Shell Code	Capacitance (μ F)
HBSM00415002003D	D210	369.64
HBSM00415002503D	D245	462.06
HBSM00415003003D	D290	554.47
HBSM00415003503M	M265	646.88
HBSM00415004003M	M265	739.29
HBSM00415004503Q	Q210	831.7
HBSM00415005003Q	Q210	924.11
HBSM00415006003Q	Q210	1108.94

• Three-phase dimension (450V)

Commercial Reference	Shell Code	Capacitance (μ F)
HBSM00450000103D	D130	15.72
HBSM00450000203D	D130	31.44
HBSM00450000303D	D130	47.16
HBSM00450000403D	D130	62.88
HBSM00450000503D	D130	78.6
HBSM00450000753D	D130	117.89
HBSM00450000803D	D130	125.75
HBSM00450001003D	D130	157.19
HBSM00450001203D	D185	188.63
HBSM00450001403D	D185	220.07

Commercial Reference	Shell Code	Capacitance (μ F)
HBSM00450002803D	D290	440.13
HBSM00450003003D	D290	471.58
HBSM00450003003M	M210	471.58
HBSM00450003203D	D290	503.01
HBSM00450003503M	M265	550.17
HBSM00450004003M	M265	628.78
HBSM00450004503Q	Q210	707.36
HBSM00450005003Q	Q210	785.95
HBSM00450006003Q	Q240	943.14

POWER FACTOR CORRECTION

Overall Dimension

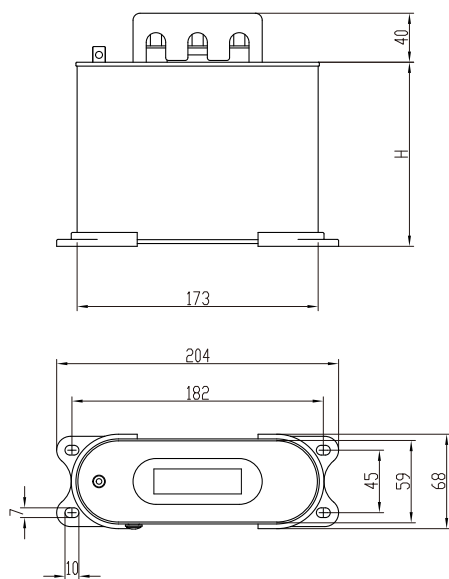
Standard: IEC60831

•Three-phase dimension (415V)

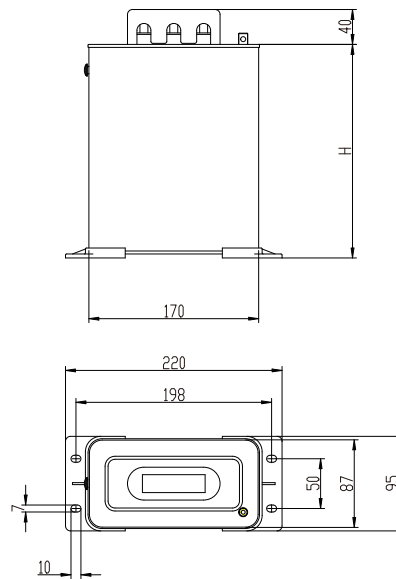
Commercial Reference	Shell Code	Capacitance (μ F)
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HBSM00415000503D	D130	92.41
HBSM00415000753D	D130	138.62
HBSM00415000803D	D130	147.86
HBSM00415001003D	D130	184.82
HBSM00415001203D	D185	221.79
HBSM00415001403D	D185	258.75
HBSM00415001503D	D185	277.23
HBSM00415001603D	D185	295.72

Commercial Reference	Shell Code	Capacitance (μ F)
HBSM00415002003D	D210	369.64
HBSM00415002503D	D245	462.06
HBSM00415003003D	D290	554.47
HBSM00415003503M	M265	646.88
HBSM00415004003M	M265	739.29
HBSM00415004503Q	Q210	831.7
HBSM00415005003Q	Q210	924.11
HBSM00415006003Q	Q210	1108.94

HBSM



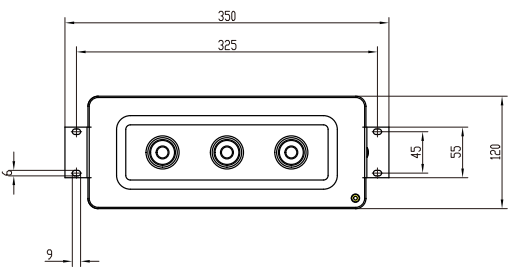
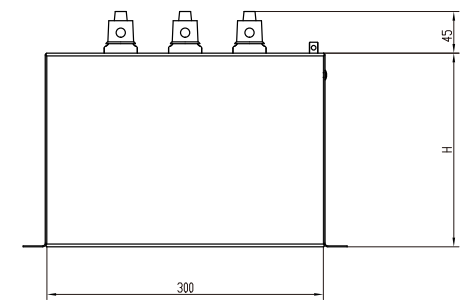
	DType					Unit: mm
Housing code	D130	D185	D210	D245	D290	
Capacitor body height (H)	130	185	210	245	290	



	M Type		Unit: mm
Housing code	M210	M265	
Capacitor body height (H)	210	265	

Overall Dimension

Standard: IEC60831



	QType	Unit: mm
Housing code	Q210	Q240
Capacitor body height (H)	210	240

HJKF Power Factor Correction Controllers

Standard: IEC60051



Range Presentation

HJKF is Himel range of the reactive power compensation controller. It is a special controller used for three-phase low-voltage power grid which facilitates automatic generation of multiple alarm events, reminding users through nodes or sounds. Temperature adjustment function is involved in all models, which can save 1 pcs temperature-control regulator in capacitor cabinet. Harmonics detecting and protection functions are included as well. All parameters are protected by password to avoid any unexpected modifications.

Online Content



HJKF

Features

- ◆ Elegant LCD display with rich content
- ◆ Wiring identification by manual assistance is included for easy wiring
- ◆ Current dotted terminal identification is included for easy wiring switch
- ◆ Output code can be arbitrary coding, and it can be compatible with various capacity configurations
- ◆ Four running output modes: circulate switching, coding switching, cut-on first and then cut-off, optimization switching
- ◆ Temperature control node included is easy to adjust ambient temperature of the reactive power compensation cabinet
- ◆ Alarm node included is easy for users to temperature control, remote monitoring and fault protection
- ◆ Built-in buzzer alarm function, and alarm events can be optional which will be convenient for users on-site to find abnormal cases
- ◆ RS485 port is for communication type model which can be arbitrary wiring without differentiating A and B. It's easy for users to do wiring with master computers.

Selection Code

Range Name	Sampling Voltage	Output Loops	Function
HJKF5C	V	12	Z
HJKF5C	V: 400V	12: 12 loops	Default: without communication Z: Communication type

Technical Parameters	
Rated operating voltage	AC400V (±15%)
Frequency	50 / 60Hz
Rated current	≤5A
Sensitivity	≤50mA
Compensation method	Common three-phase compensation
Power loss	<5VA
Response time	1s~120s
Output capacity	220V/5A
Output loop number	12 loops
Hole size	113*113(mm)
Weight	<0.6kg

POWER FACT CORRECTION

Wiring Diagram & Dimension

Standard: IEC60831



HJKL5C

HJKL5C

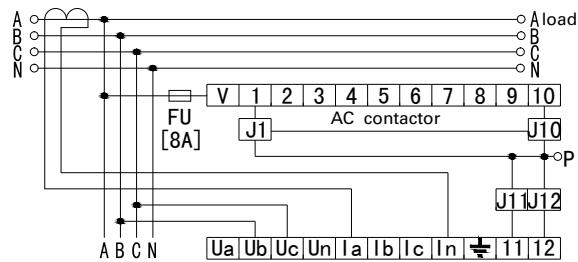
Ub, Uc: input of voltage signal

Ia, In: input of current signal

V: common terminal of control output

e.g. Contactor 380V: point P is connected to phase B or phase C;

e.g. Contactor 220V: point P is connected to phase N



HJKL5C-DC

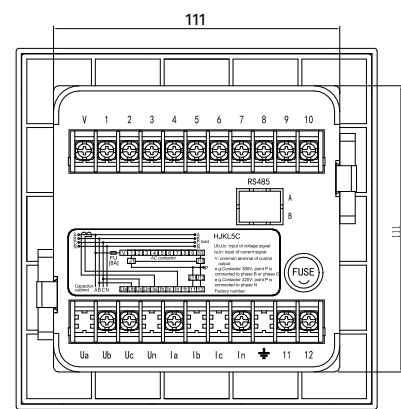
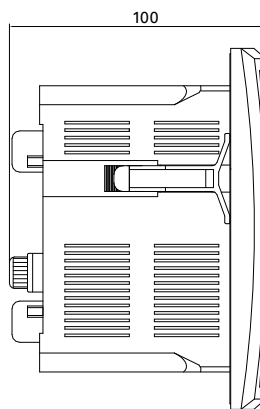
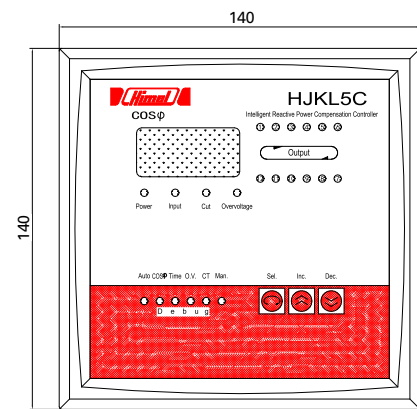
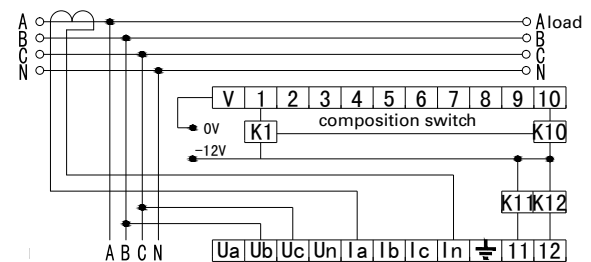
Ub, Uc: input of voltage signal

Ia, In: input of current signal

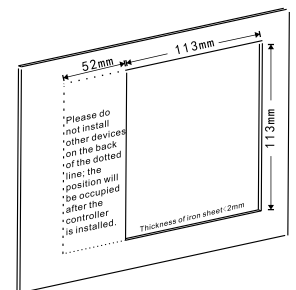
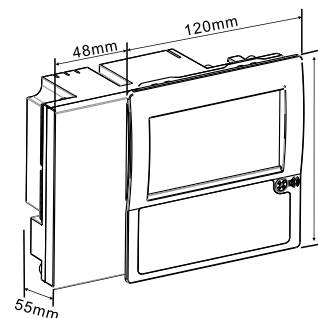
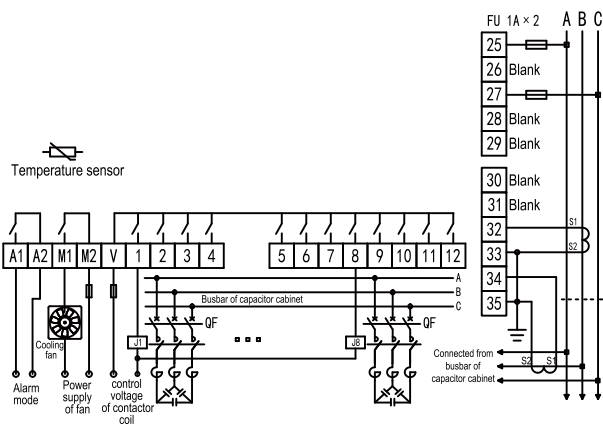
V, K(1-12): output of DC control signal

V: 0V

K(1-12): output -12V



HJKF5C



HKSG Detuned Reactors

Standard: IEC60289



Range Presentation

Capacitors get easily affected and damaged by harmonic current, inrush current, and due to over voltage in the reactive power compensation system. Therefore, to avoid parallel resonance and the issue about amplified harmonic current, reactors need to be added in series along with the capacitors. Reactors are applied to avoid excessive amplification of power grid harmonics and resonance resulting from the connection of capacitor banks to prolong the service time of capacitors.

Features

Reactors adopt three-phase three-column type structure:

- ◆ High-impact binder is applied (high-temperature tolerance) and no noise during the operation
- ◆ Coils are tightly wound with enameled flat wires to ensure that coils of reactors do not vibrate during the operation (foil winding is used when current is more than 100A).
- ◆ High efficiency and low loss

Online Content



HKSG

Selection Code

Model	Winding Material	Rated Capacity of the Reactor	Rated Voltage of the Capacitor	Reactance Ratio
HKSG	L	1P0	G048	H7
	Default: Copper windings L: Aluminum windings	P6: 0.6kvar P7: 0.7kvar 1P0: 1kvar ... 9P8: 9.8kvar	G048: 480V G052: 525V	H7: 7% H14: 14%"

Technical Parameters

Basic Information	HKSG Series
Rated Operating Voltage(AC)	AC0.48kV, AC0.525kV (others can be customized)
Reactance Ratio	7% and 14% (others can be customized)
Phase	Three-phase
Rated Frequency	50Hz
Withstand voltage grade	3000V / min
Overload ability	≤1.35 times
Temperature rise limitation	Coil temperature rise≤85K Winding temperature rise≤95K
Reactor noise	< 50dB
Insulation class	> F
IP grade	IP00
Altitude	≤ 2000m
Ambient temperature	-25°C~+50°C
Standard	IEC 60289

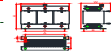
POWER FACTOR CORRECTION

HKSG Detuned Reactors

Standard: IEC60289

Dimension

No.	Product Parameter			Aluminum			Product outline	Copper			Product outline
	Reactor Model	Reactor capacity (kvar)	Capacitor capacity (kvar)	Dimension (mm)	Installation dimension (mm)	Hole dimension (mm)		Dimension (mm)	Installation dimension (mm)	Hole dimension (mm)	
				L*W*H	A*B	a*b		L*W*H	A*B	a*b	
1	HKSG-0.35/0.48-7%	0.35	5	160*115*170	130*75	17*φ7	D	160*115*170	130*75	17*φ7	D
2	HKSG-0.7/0.48-7%	0.7	10	160*120*170	130*82	17*φ7		200*110*195	170*72	17*φ7	
3	HKSG-0.84/0.48-7%	0.84	12	200*145*185	170*72	17*φ7	Y	200*115*195	170*77	17*φ7	Y
4	HKSG-1.05/0.48-7%	1.05	15	200*150*185	170*77	17*φ7		200*155*185	170*82	17*φ7	
5	HKSG-1.4/0.48-7%	1.4	20	200*165*185	170*87	17*φ7		200*165*185	170*92	17*φ7	
6	HKSG-1.75/0.48-7%	1.75	25	200*170*185	200*95	17*φ7		240*180*210	200*95	22*φ10	
7	HKSG-2.1/0.48-7%	2.1	30	240*180*210	200*95	22*φ10		240*185*230	200*100	22*φ10	
8	HKSG-2.45/0.48-7%	2.45	35	240*190*235	200*100	22*φ10		250*190*235	200*105	22*φ10	
9	HKSG-2.8/0.48-7%	2.8	40	240*190*235	200*100	22*φ10		250*195*235	200*110	22*φ10	
10	HKSG-3.15/0.48-7%	3.15	45	250*195*235	210*105	22*φ10		250*205*235	210*120	22*φ10	
11	HKSG-3.5/0.48-7%	3.5	50	250*200*235	210*110	22*φ10		250*205*255	210*120	22*φ10	
12	HKSG-4.2/0.48-7%	4.2	60	250*210*255	210*120	22*φ10		310*200*255	250*110	22*φ10	
13	HKSG-0.7/0.525-14%	0.7	5	200*110*190	170*72	17*φ7	D	200*110*190	170*72	17*φ7	D
14	HKSG-1.4/0.525-14%	1.4	10	200*125*190	170*87	17*φ7		200*125*190	170*87	17*φ7	
15	HKSG-1.68/0.525-14%	1.68	12	240*175*210	200*90	22*φ10	Y	240*170*210	200*90	22*φ10	Y
16	HKSG-2.1/0.525-14%	2.1	15	240*185*210	200*100	22*φ10		240*180*230	200*100	22*φ11	
17	HKSG-2.8/0.525-14%	2.8	20	240*185*230	200*100	22*φ10		240*190*230	200*110	22*φ10	
18	HKSG-3.5/0.525-14%	3.5	25	250*200*235	210*110	22*φ10		250*200*235	210*115	22*φ10	
19	HKSG-4.2/0.525-14%	4.2	30	250*200*255	210*110	22*φ10		250*205*255	210*120	22*φ10	
20	HKSG-4.9/0.525-14%	4.9	35	250*210*255	210*120	22*φ10		310*205*285	210*120	22*φ10	
21	HKSG-5.6/0.525-14%	5.6	40	310*200*285	250*110	22*φ10		310*205*285	250*120	22*φ10	
22	HKSG-6.39/0.525-14%	6.3	45	310*200*285	250*110	22*φ10		310*215*285	250*130	22*φ10	
23	HKSG-7.0/0.525-14%	7	50	310*215*285	250*120	22*φ10		310*225*285	250*140	22*φ10	
24	HKSG-8.4/0.525-14%	8.4	60	310*225*285	250*130	22*φ10		310*235*285	250*150	22*φ10	



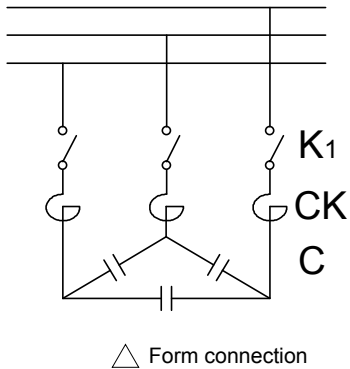
Appearance D

Appearance Y

HKSG Detuned Reactors

Standard: IEC60289

Product Connection Method



Note:

the standard type of connection is $\triangle$ type connection (as shown in the figure above).

Other connection methods have to make separate comments when ordering.

Operating Environment and Working Conditions

Ensure the following:

- ◆ No harmful gas, inflammable and explosive materials are around.
- ◆ Surrounding is well ventilated. For example: if it is installed in the cabinet, ventilation facilities should be added.
- ◆ There is no pollution, corrosive, and explosive medium in the atmosphere, which can seriously affects the insulation of reactors.
- ◆ No serious vibration and turbulence at the installation sites.
- ◆ The place is free from direct contact of rain and snow.

HKSG Detuned Reactors

Standard: IEC60289

Guideline for Model Selection

With modern electronic technology and developed applications, the number of harmonics generating devices is gradually growing with high harmonic content. All other types of equipment, except the resistance heating devices and filament lamps, generate harmonics with different levels of harmonic content.

Harmonic Generating Devices:

The devices, which can generate harmonics include:

- ◆ Magnetic-core equipment (transformer, motor, reactor, electric welder, and inductive heating machine)
- ◆ Electric-control transmission equipment (variable frequency speed control, thyristor-type voltage regulation control, elevator or hoister)
- ◆ Electronic rectifier, inverter, electric arc furnace, furnace of calcium carbide, switching mode power supply, UPS, electronic office equipment (computers and printers),
- ◆ medical electronic equipment
- ◆ household appliances and many more.
- ◆ Converters, frequency conversion equipment, rolling mills, electric arc furnaces, and electric locomotive and saturated transformers with high ratings are the main sources of harmonics.

Sources Generating 3rd Harmonics:

The main sources for generating 3rd harmonics include:

- ◆ Electric arc furnace
- ◆ Electric locomotive
- ◆ Distribution system of shopping mall, business building, and residential building

Sources Generating 5th Harmonics:

The main sources for generating 5th harmonics include:

- ◆ Electric locomotive
- ◆ Distribution system of shopping mall, business building, and residential building
- ◆ Converter and frequency conversion equipment with high ratings

Sources Generating 7th Harmonics:

The main sources for generating 7th harmonics are converters and frequency conversion equipment with high ratings.

Where does our Reactor Fit :

Our reactors are mainly used to filter 3rd and 5th harmonics. Normally, reactance ratio is selected from the below list:

- ◆ 3rd harmonics is the main content: 14%
- ◆ 5th harmonics is the main content: 7%

Note: If a customer has requirements for other reactance ratio, it can be customized.

Please contact local Himel Sales for more information.

POWER FACTOR CORRECTION

HDC19s Capacitor Switching Contactors

Standard: IEC60947-4-1, IEC60947-5-1



Range Presentation

HDC19s is Himel range of contactors dedicated for switching of capacitors. It is developed based on 3 series contactor with technology to reduce capacitor closing current impact on contactor contacts.

Features

- ◆ Current range covers from 25A to 170A
- ◆ Various auxiliary contact types can be selected for different applications
- ◆ Manufactured on automated production line for better reliability.

Online Content



HDC19s

Selection Code

Range name	Frame current	Auxiliary contact	Coil voltage	Frequency
HDC19s	25	11	M	5
HDC19s: Capacitor Switching Contactor	25: 25A 32: 32A 43: 43A 63: 63A 95: 95A 115: 115A *150: 150A *170: 170A	HDC19s-25~43A: 11: 1NO+1NC 20: 2NO+0NC 02: 0NO+2NC HDC19s-63~115A: 12: 1NO+2NC 21: 2NO+1NC HDC19s-150~170A: 32: 3NO+2NC	F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	5: 50Hz 7: 50/60Hz

Note: "*" products are not yet on the market, please consult local Himel office if necessary.

Technical Parameters										
Capacitor Switching Contactors			HDC19s-25	HDC19s-32	HDC19s-43	HDC19s-63	HDC19s-95	HDC19s-115	HDC19s-150	HDC19s-170
Standard			IEC60947-4-1, IEC60947-5-1							
Certificate			CE							
Main circuit										
Rated operating voltage (Ue)		V	380/400							
Rated insulation voltage (Ui)		V	690							
Rated current of controlled capacitor	AC-6b 380V	A	17	23	29	43	63	87	115	130
Rated capacity of controlled capacitor (Qn: kvar)	Rated operating voltage of capacitor	AC-6b 220V	6	10	15	18	30	35	46	52
		AC-6b 380V	12	20	25	30	50	60	80	90
Rated conventional thermal current		A	25	32	43	63	95	125	200	200
Controlling capability of inrush current		A	≤35In			≤55In			≤60In	
Mechanical endurance		10000 times	100							
Electrical endurance	AC-6b 380V	10000 times	15				12			
Operating frequency	AC-6b 380V	Times/h	300				120			
Coil										
Coil voltage (Us)		V	24,36,48,110,127,220/230,240,380/400,415,440							
Coil frequency		Hz	AC 50Hz & 50/60Hz							
Operating voltage		V	85%-110%Us							
Drop-out voltage		V	20%-75%Us							
Auxiliary Contact										
Auxiliary contact combination			11,20,02			12,21			32	
Rated conventional thermal current (Ith)		A	10							

Note: Parameters above are considered under three-phase system; for single-phase capacitor, please reach out to local sales.

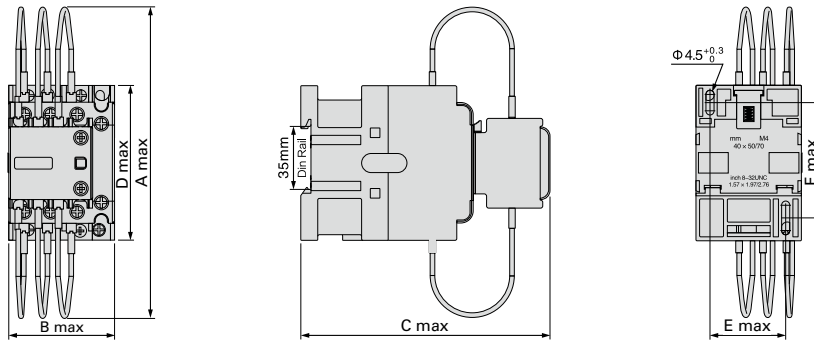
HDC19s Capacitor Switching Contactors

Standard: IEC60947-4-1, IEC60947-5-1

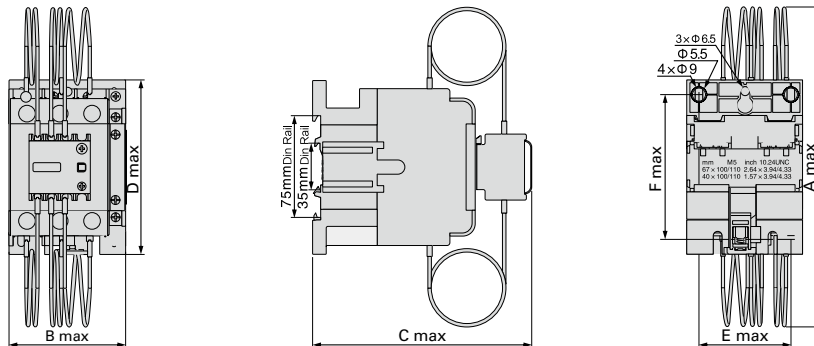


Dimension

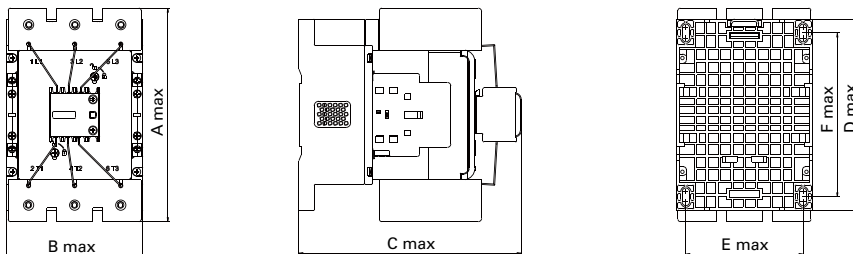
HDC19s-25,32,43



HDC19s-63,95,115



HDC19s-150,170



Overall and Installation Dimensions

Model	104.5Overall size				Installation dimension	
	A max	B max	C max	D max	E max	F max
HDC19s-25	176	45.5	122	74.5	35	50/60
HDC19s-32	180	56.5	132	83	40	50/60
HDC19s-43	180	56.5	132	83	40	50/60
HDC19s-63	190	74.5	154	127.5	59	100/110
HDC19s-95	190	85.5	160	127.5	67	100/110
HDC19s-115	190	85.5	160	127.5	67	100/110
HDC19s-150	188.5	120.5	196	170	104.5	136.5/151.5
HDC19s-170	188.5	120.5	196	170	104.5	136.5/151.5

HDC19s Capacitor Switching Contactors

Standard: IEC60947-4-1, IEC60947-5-1

Working Conditions

Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, and the daily average temperature: $\leq 35^{\circ}\text{C}$

Altitude: $\leq 2000 \text{ m}$

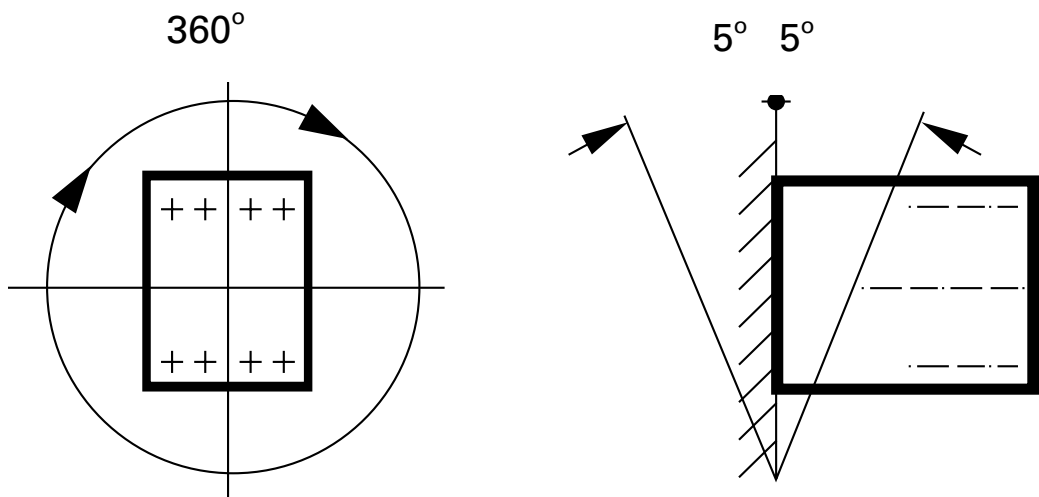
The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is $+40^{\circ}\text{C}$. It is allowed to have a relative higher humidity under lower temperature, e.g. up to 90% at $+20^{\circ}\text{C}$. For occasional dew due to the temperature change, preventive measures shall be taken.

Pollution Level: 3

Installation Conditions

Installation Type: III

Installation position: should be installed in the absence of a significant shock and vibration point





MOTOR MANAGEMENT

Products of today, ready for tomorrow

Efficient motor management is central to any plant's management strategy. For realizing long-term maintenance saving, developing contingency for motor failures, and to prolong motor life for running cost-efficient operations, a right motor control set up is required.

Himel offers complete spectrum of motor control products for reliable motor management systems that optimize performance of operations and processes, all the while ensuring operator safety. Our motor protection products have been proven for success in panel building and industrial applications.



Motor failure is often devastating to equipment. To keep personnel safe in an industrial application environment, Himel products offer easy start, speed control, and operations



Our Motor Management products are proven for superior performance in industries, conveyors, ventilators, food processing applications and more



Motor uptime is critical for high plant productivity, central to manufacturing and industrial performance. Himel's high-quality motor management products let you be in control of your plant



Himel Motor Management products allow you to get more from your motor investment with increased efficiencies and optimized cost of ownership

MOTOR MANAGEMENT



HDC3 AC Contactors



HDC3

Rated current: 6-95A

Pole: 3P

* 120~630A

262

HDCX AC Contactors



HDCX

Rated current: up to 38A

284

HDC3S AC Contactors



HDC3S

Rated current: 120-400A

Pole: 3P

270

HJX2 4P AC Contactors



HJX2 4P

Rated current: 9-95A

Pole: 4P

294

HDR3s Thermal Overload Relays



HDR3s

Frame rated current: 25, 38, 93A

Setting current: 0.1-93A

* 120~630A

276

HJX2-F 4P AC Contactors



HJX2-F 4P

Rated current: 115-800A

Pole: 4P

296

HDRX Thermal Overload Relays



HDRX

Frame rated current: 38A

Setting current: 0.1-38A

278

HDC17K Miniature AC Contactors



HDC17K

Rated current: 6-12A

Pole: 3P/4P

298

MOTOR MANAGEMENT

HDZ3 Contactor Relays



HDZ3

Pole: 3P

300

BASIC Series Variable Speed Drives



BASIC

Small and simple general-purpose applications

338

HDP6 Motor Circuit Breakers



HDP6

Frame rated current: 32/80A

Setting Current : 0.1-0.16A,..., 24-32A, 40-80A

302

EXPERT Standard Variable Speed Drives



EXPERT Standard

Advanced General-Purpose Applications

339

HDS3 Magnetic Starters



HDS3

Frame current: 38A, 95A

Rated current: 09-95A

Protection level: IP54

324

Smart Pump Variable Speed Drives



Smart Pump

Pumps, fans and chillers

344

BASIC & EXPERT Soft Starters



BASIC



EXPERT

327

Solar Variable Speed Drives



SOLAR

376

MOTOR MANAGEMENT

HDC3 AC Contactors

Standard: IEC60947-4



Range Presentation

HDC3 is Himel 3 series range of contactors designed for Motor Control AC3 applications up to 630A .

HDC3 contactors are applicable to AC power systems 50Hz or 60Hz with rated operating voltage up to 690V.

HDC3 contactors can be combined with HDR3s thermal overload relays to form magnetic motor starters up to 630A.

Features

- ◆ 5 Frame Sizes: 25, 38, 95, 225, 630A
- ◆ Wide range of operating voltage from 70%~120% Us
- ◆ Full range of accessories for any type of application
- ◆ Can be combined with HDR3s thermal overload relay

Online Content



HDC3

Selection Code

Range name	Current specification	Reversible	Auxiliary contact	Coil voltage	Coil frequency
HDC3	06	N	11	M	5
06-95A	06: 06A 09: 09A 12: 12A 18: 18A 25: 25A 32: 32A 38: 38A 40: 40A 50: 50A 65: 65A 80: 80A 95: 95A	N: reversible AC Contact with mechanical interlock Default: AC Contact	06A: 01: 1NC 10: 1NO 09-95A: 11: 1NO+1NC	B: 24V C: 36V E: 48V F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	5: 50Hz 7: 50/60Hz
120-630A	120: 120A 160: 160A 185: 185A 225: 225A 265: 265A 330: 330A 400: 400A 500: 500A 630: 630A	Default: AC Contact	Default: 22: 2NO+2NC	F: 110V S: 127V M: 220V Q: 380V EHE7: 48-130V KUE7: 100-250V URE7: 250-500V EHE7: 48-130V KUE7: 100-250V URE7: 250-500V	Default: 5: 50Hz 7: 50/60Hz

Note: 265-630A only wide coil voltage ratings available (EHE7 , KUE7 , URE7)

HDC3 AC Contactors

Standard: IEC60947-4





AC Contactors HDC3 Series



FEATURES

-  Wide range of operating voltage
-  Complete set of accessories
-  5 frame sizes
-  Can be combined with HDR3s (thermal overload relay)

APPLICATIONS

-  Machine tool
-  Hoisting machinery
-  Textile machinery
-  Building material machines
-  Welding machine

HDC3 AC Contactors

Standard: IEC60947-4



Technical Parameter															
AC Contactors			HDC3												
Contactor model			06	09	12	18	25	32	38	40	50	65	80	95	
Main circuit characteristics															
Conversional thermal current(Ith), AC-1	380/400V	A	16	25	25	32	40	50	50	60	80	80	125	125	
Rated operating current (Ie), AC-3		A	6	9	12	18	25	32	38	40	50	65	80	95	
Rated operating power(Pe), AC-3	220/230V	kW	1.1	2.2	3	4	5.5	7.5	11	11	15	18.5	22	25	
	380/400V	kW	2.2	4	5.5	7.5	11	15	18.5	18.5	22	30	37	45	
	660/690V	kW	3	5.5	7.5	10	15	18.5	18.5	30	33	37	45	45	
Mechanical endurance		10k times	1200				1000			900			650		
Electrical endurance	AC-3	10k times	110					90					65		
Operation frequency		Times/hour	1200					600							
Number of poles			3P												
Rated insulation voltage(Ui)		V	690												
Maximum rated operating voltage(Ue)		V	660/690												
Certificate			CB, CE, SEMKO												
Coil															
Rated control circuit voltage(Us)	50Hz	V	24, 36, 48, 110, 127, 220/230, 240, 380/400, 415, 440												
	50/60Hz	V	24,36, 48, 110, 127, 220/230, 240, 380/400, 415, 440												
Allowable control circuit voltage(Us)	Operation	V	AC:70%~120% (vertical installation)												
	Drop-out	V	AC: 20%-75%												
Coil power	Actuation	VA	50	60			70			200			200		
	Holding	VA	6-9.5	6-9.5			6-9.5			15-20			15-20		
Main circuit terminal wiring capability															
Soft wire	1 wire	mm²	1...4				1.5...6			2.5..25			4...50		
	2 wire	mm²	1...4				1.5...6			2.5..16			4...25		
Hard wire	1 wire	mm²	1...4				1.5...6		1.5...10		2.5..25			4...50	
	2 wire	mm²	1...4				1.5...6		1.5...6		2.5..10			4...25	
Auxiliary contact															
Conventional thermal current(Ith)		A	10												
Rated operating voltage	AC	V	380												
	DC	V	220												
Rated control capacity	AC-15	VA	380												
	DC-13	W	33												

HDC3 AC Contactors

Standard: IEC60947-4



Main technical parameter

AC Contactor			HDC3								
Contactor model			120	160	185	225	265	330	400	500	630
Main Circuit Characteristic											
Conversional thermal current(I _{th}), AC-1	380/400V	A	200	200	275	275	315	380	450	630	700
Rated operating current (I _e), AC-3		A	120	160	185	225	265	330	400	500	630
Rated Operating Power(P _e), AC-3	220/230V	kW	37	45	55	63	75	90	132	160	200
	380/400V	kW	55	75	90	110	132	160	220	250	355
	660/690V	kW	80	100	110	110	165	220	300	350	450
Mechanical Durabilities		10k times	600								
Electrical Durabilities	AC-3	10k times	120				80		60		
Operation Frequency		Times/hour	1200		600						
Number of Poles			3P								
Rated Insulation Voltage(U _i)		V	1000								
Maximum Rated Operating Voltage(U _e)		V	690								
Certificate			CB, CE, SEMKO								
Coil											
Rated Control Circuit Voltage(Us)	50Hz	V	110V,127V,220V,380V				-				
	50/60Hz	V	48-130V, 100-250V, 250-500V (AC-DC)								
Allowable Control Circuit Voltage(Us)	Operation	V	AC:85%-110% (vertical installation); AC-DC: 85%-110%								
	Drop-out	V	AC: 20%-75%; AC-DC: 10%-70%								
Coil Power	Actuation	VA	500		600		800				
	Holding	VA	78		18.5		18.5				
Main Circuit terminal Wiring Capability											
Soft Wire	1 wire	mm ²	10~240								
	2 wire	mm ²	10~75								
Hard Wire	1 wire	mm ²	10-150				50-240				
	2 wire	mm ²	10-75				50-240				
Auxiliary Contact											
Conventional Thermal Current(I _{th})		A	10								
Rated Operating Voltage	AC	V	380								
	DC	V	220								
Rated Control Capacity	AC-15	VA	380								
	DC-13	W	33								

HDC3 AC Contactors

Standard: IEC60947-4



Technical Parameter														
AC Contactors	HDC3													
Contactor model		06	09	12	18	25	32	38	40	50	65	80	95	
Thermal relay														
HDR3s thermal relay 6-95 A		HDR3s-25 P16 : 0.1-0.16A P25 : 0.16-0.25A 25 : 17-25A					HDR3s-38 32 : 23-32A 38 : 30-40A			HDR3s-95 40 : 30-40A 50 : 37-50A 93 : 80-93A				
Independent installation base		HJRS1D25J					HJRS1D38J			HJRS1D93J				
Accessories														
Top auxiliary contact		2 Poles : HF4-11, HF4-20 , HF4-02 4 Poles : HF4-22, HF4-31 , HF4-13 , HF4-40 , HF4-40												
Side auxiliary contact		2 Poles : HFC6-11 , HFC6-20 , HFC6-02												
Air delayed head		Making time delay : HFT6-20 , HFT6-22 , HFT6-24 Breaking time delay : HFT6-30 , HFT6-32 , HFT6-34												
Mechanical interlock		HDC3 09-32 horizontal installation : HRF6-32 HDC3 40-95 horizontal installation : HRF6-95												
Spare coil		HX3 + Contact AF + Ue + Hz EXP : HX395M7 , HDC3 Coil 80-95A 220/230V 50/60Hz												

HDC3 AC Contactors

Standard: IEC60947-4



Technical Parameter										
AC Contactors	HDC3									
Contactor model HDC3		120	160	185	225	265	330	400	500	630
Thermal relay										
HDR3s thermal relay 120-630 A		HDR3s-185 95 : 75-95A 135 : 105-135A 185 : 150-185A			HDR3s-630 200F : 145-200A 250F : 180-250A 630F : 460-630A					
Accessories										
Top auxiliary contact		2 Poles : HF4-11, HF4-20 , HF4-02 4 Poles : HF4-22, HF4-31 , HF4-13 , HF4-40 , HF4-40								
Side auxiliary contact		2 Poles : HFC4-11								
Air delayed head		Making time delay : HFT6-20 , HFT6-22 , HFT6-24 Breaking time delay : HFT6-30 , HFT6-32 , HFT6-34								
Mechanical interlock	Please connect with local Himel Sales to check availability									
Spare coil		EXP : HX3225M, HDC3 Coil 120-225A 220VAC 50Hz HX3225KUE7, HDC3 Coil 120-225A 100-250VAC/DC 50/60Hz								

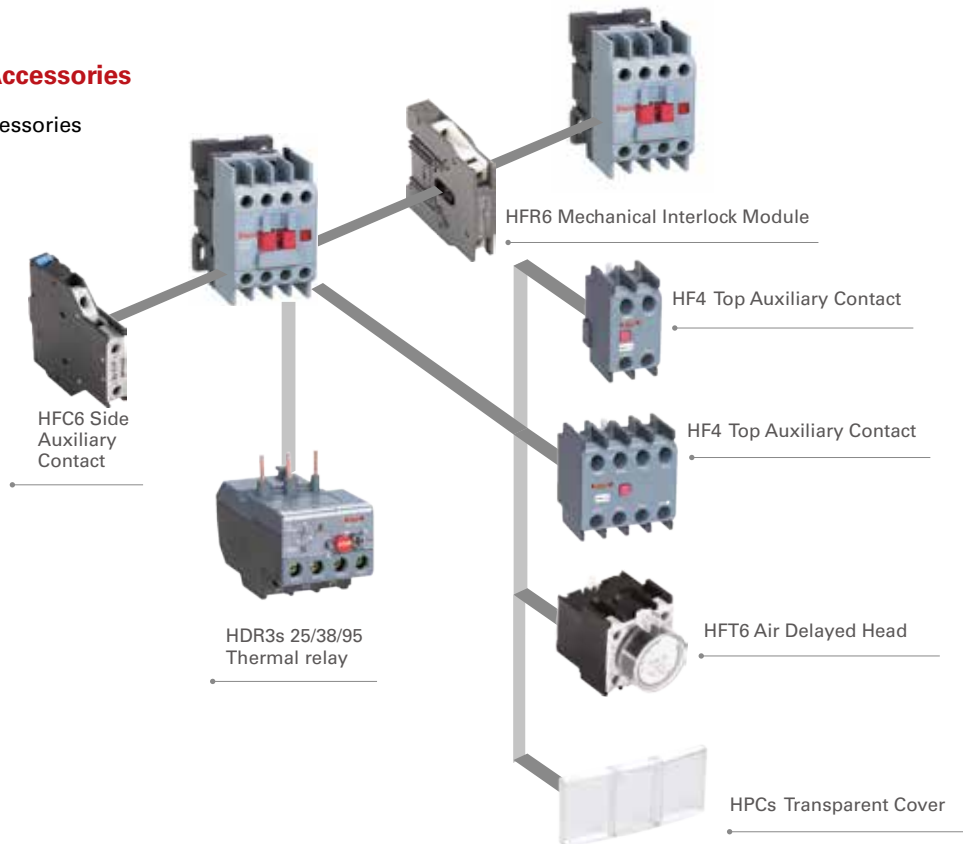
HDC3 AC Contactors

Standard: IEC60947-4

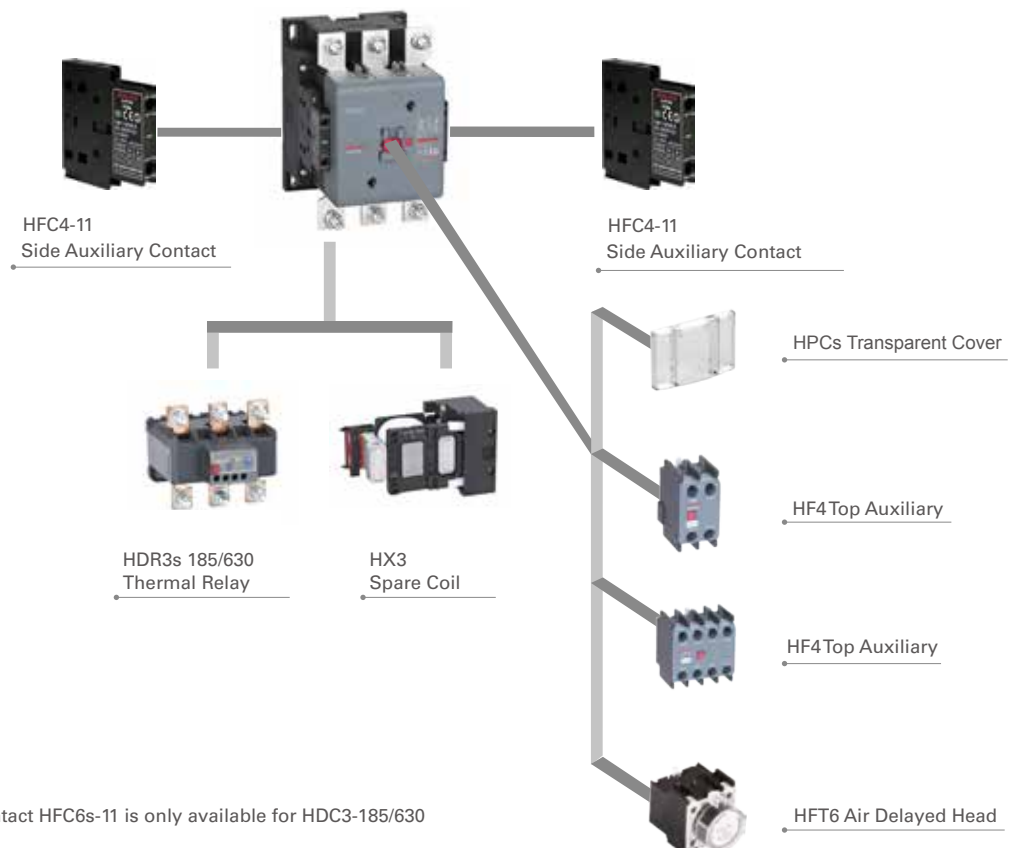


Overview of Accessories

HDC3 09-95A Accessories



HDC3 120-630A Accessories



Note: Side Auxiliary Contact HFC6s-11 is only available for HDC3-185/630

MOTOR MANAGEMENT

HDC3 AC Contactors

Standard: IEC60947-4



HDC3 6-95A & 120-630A Contactor Accessories

Transparent cover

Contactor Type	Reference
HDC3-6~38A/HDZ3	HPCs38
HDC3-40~65A	HPCs65
HDC3-80~630A	HPCs95

Auxiliary contact

Installation position	Pole	Auxiliary Contact NO	Auxiliary Contact NC	Contact point layout	Reference
Top	2	0	2	 2NC 1NO1NC 2NO	HF4 02
		1	1		HF4 11
		2	0		HF4 20
	4	0	4	 4NC1 1NO3NC 2NO2NC	HF4 04
		1	3		HF4 13
		2	2		HF4 22
		3	1		HF4 31
		4	0		HF4 40
	Side	0	2	 2NC 1NO1NC 2NO	HFC6 02
		1	1		HFC6 11
		2	0		HFC6 20



Air Delayed Head

Installation Position	Delay type	Wiring diagram	Delay range	Reference
Top	Making time-delay		0.1-3s	HFT6 20
			0.1-30s	HFT6 22
			10-180s	HFT6 24
	Breaking time-delay		0.1-3s	HFT6 30
			0.1-30s	HFT6 32
			10-180s	HFT6 34



MOTOR MANAGEMENT

HDC3S AC Contactors

Standard:



Range Presentation

HDC3S is Himel 3 series range of contactors designed for Motor Control AC3 applications form 120 to 400A.

HDC3S contactors are applicable to AC power systems 50Hz or 60Hz with rated operating voltage up to 690V.

HDC3S contactors can be combined with HDR3s thermal overload relays to form magnetic motor starters up to 630A.

HDC3S contactors can use all Himel 3 series accessories expect Spare Coil

Online Content



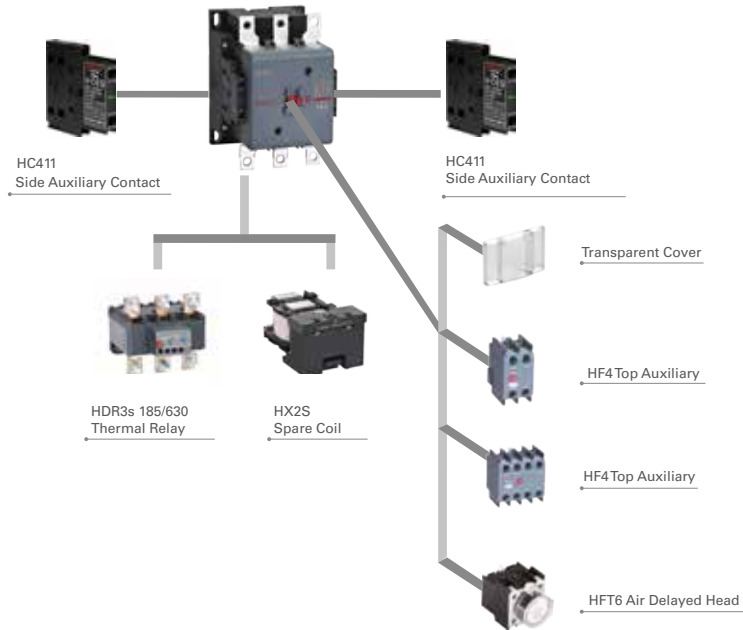
HDC3S

Selection Code

Range name	Current specification	Reversible	Auxiliary contact	Coil voltage	Coil frequency
HDC3S	120			F	7
120-400A	120:120A 160:160A 185:185A 225:225A 265:265A 330:330A 400:400A	Default: AC Contact	Default: 2NO+2NC	F:AC/DC 110V S:AC/DC 127V M:AC/DC 220/230V Q:AC/DC 380/400V	7:50/60Hz

Overview of Accessories

HDC3 120-630A Accessories



HDC3S AC Contactors

Standard: I



specification

Main technical parameter								
AC Contactor		HDC3S						
Contactor model		120	160	185	225	265	330	400
Number of Poles		3P						
Rated Insulation Voltage(Ui)	V	690						
Maximum Rated Operating Voltage(Ue)	V	AC220/230V;380/400V;660/690V						
Conversional thermal current(Ith), AC-1	A	200	200	275	275	315	380	450
Rated operating current (Ie)	AC-3;220/230V(A)	120	160	185	225	265	330	400
	AC-3;380/400V(A)	120	160	185	225	265	330	400
	AC-3;660/690V(A)	86	107	107	118	170	225	303
Rated Operating Power(Pe)	AC-3;220/230V(kW)	37	45	55	63	75	90	132
	AC-3;380/400V(kW)	55	75	90	110	132	160	220
	AC-3;660/690V(kW)	80	100	110	110	165	220	300
Mechanical Durabilities	10k times	1000	1000	1000	1000	600	600	600
Electrical Durabilities,AC-3	10k times	120	120	110	110	90	90	90
Operation Frequency,AC-3	Times/hour	1200	1200	600	600	600	600	600
Main Circuit terminal Wiring Capability								
Soft Wire	1 wire(mm ²)	10-150	10-150	10-150	10-150	10-150	10-150	10-150
	2 wire(mm ²)	10-75	10-75	10-75	10-75	10-75	10-75	10-75
Hard Wire	1 wire(mm ²)	10-150	10-150	10-150	10-150	10-150	50-240	50-240
	2 wire(mm ²)	10-75	10-75	10-75	10-75	10-75	50-240	50-240
Main loop tightening torque	N·m	12	12	12	12	14	14	14
Coil								
Rated Control Circuit Voltage(Us)	50/60Hz	AC/DC:110V、127V、220/230V、380/400V						
Allowable Control Circuit Voltage(Us)	Operation	85%-110% (vertical installation)						
	Drop-out	20%~60%Us						
Coil Power	Actuation(VA)	1500	1500	1500	1500	2800	2800	2800
	Holding(VA)	15	15	15	15	25	25	25
Auxiliary Contact								
Number of contacts		2NO+2NC						
Conventional Thermal Current(Ith)	A	10						
Rated Operating Voltage(Ue)	AC	380V						
	DC	220V						
Rated Control Capacity	AC-15	360VA						
	DC-13	33W						
Certificate		CE/CB						

HDC3S AC Contactors

Standard:



Technical Parameter											
AC Contactors	HDC3S										
Contactor model HDC3		120	160	185	225	265	330	400	500	630	
Thermal relay											
HDR3s thermal relay 120-630 A		HDR3s-185 95 : 75-95A 135 : 105-135A 185 : 150-185A				HDR3s-630 200F : 145-200A 250F : 180-250A 630F : 460-630A					
Accessories											
Top auxiliary contact		2 Poles : HF4-11, HF4-20 , HF4-02 4 Poles : HF4-22, HF4-31 , HF4-13 , HF4-40 , HF4-40									
Side auxiliary contact		Side auxiliary contact HC411									
Air delayed head		Making time delay : HFT6-20 , HFT6-22 , HFT6-24 Breaking time delay : HFT6-30 , HFT6-32 , HFT6-34									
Mechanical interlock		FR4225 FR4400 FR4630									
Spare coil		HX2S225M7 :Spare Coil For HDC3S 120-225 A AC/DC 220/230V 50/60Hz									

HDC3S AC Contactors

Standard:



Motor Power

Motor power of HDC3 (AC-4)

Product	Ith(A)	AC-4						Intermittent work; rated operating frequency at 40% load factor
		Ie(A)			Pe(kW)			
		220/230V	380/400V	660/690V	220/230V	380/400V	660/690V	AC-4
HDC3S-120	200	54	54	48	18.5	30	50	220/380V : 120times/h 660V : 30times/h
HDC3S-160	200	68	68	57	22	37	55	
HDC3S-185	275	81	81	65	30	45	63	
HDC3S-225	275	96	96	85	30	55	80	
HDC3S-265	315	117	117	105	37	63	100	
HDC3S-330	380	125	125	115	40	75	110	
HDC3S-400	450	150	150	135	45	90	132	

Normal Installation And Operation Conditions

Standards

- ◆ GB/T 14048.4
- ◆ IEC60947-4-1

Pollution class

- ◆ Class 3

Ambient temperature

- ◆ In normal operation, the ambient temperature range is between -5°C and +40°C, but average value in 24h is no more than +35°C;
- ◆ Storage temperature: -25°C ~ +55°C; a short time (24h) is allowed with maximum +70°C

Altitude

- ◆ Altitude at normal installation position does not exceed 2000m.

Humidity

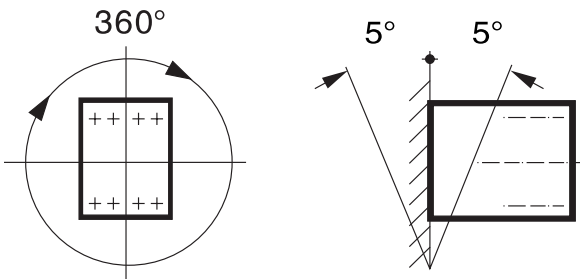
- ◆ The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is +40°C. It is allowed to have a relative higher humidity under lower temperature, e.g. up to 90% at +20°C.

Product protection grade

- ◆ IP20

Installation Conditions

- ◆ Installation type: III
- ◆ Installation position: should be installed in the absence of a significant shock and vibration place. The installation site shall be vertical, and inclination at all directions shall not exceed $\pm 5^\circ$. When the coil control voltage is not lower than 85%Us, the inclination should be no more than $\pm 30^\circ$.



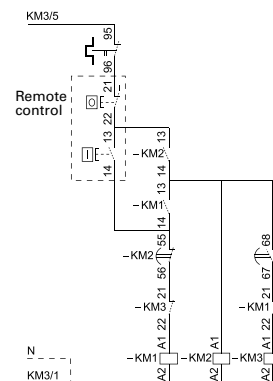
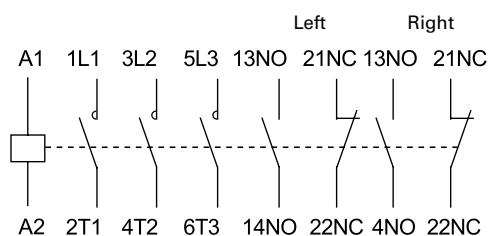
HDC3S AC Contactors

CE

Ambient temperature(°C)	55°C	60°C	65°C	70°C
Correction factor	1	0.93	0.875	0.75

Altitude(m)	2000	3000	4000
Rated impulse withstand voltage coefficient	1	0.88	0.78
Rated working current coefficient	1	0.92	0.9

HDC3S 120-400A with 2NO+2NC Auxiliary Contact

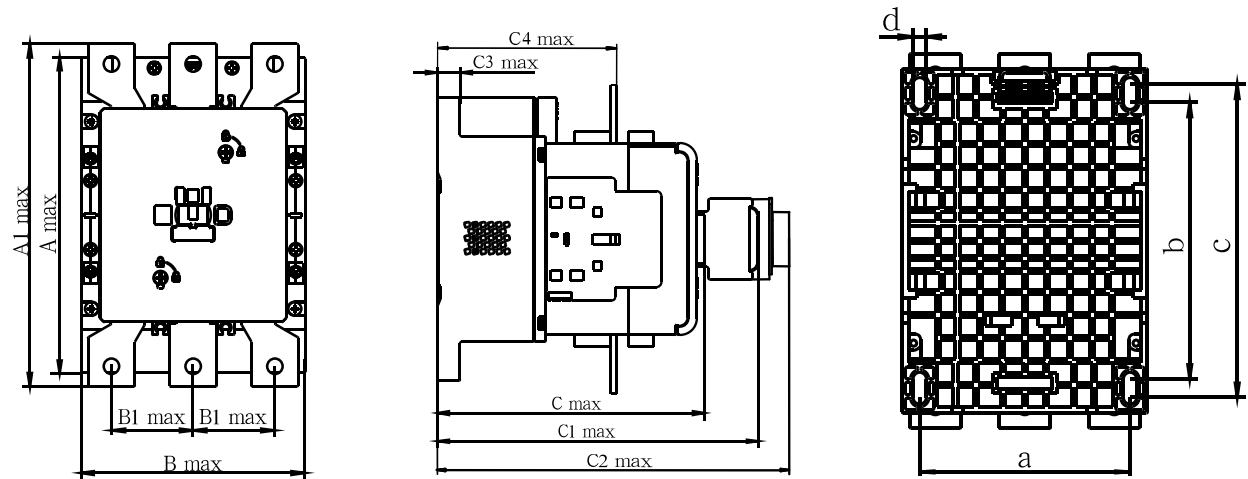
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HDC3S AC Contactors

Standard:



HDC3S-120~400A



Contactor	Amax	A1max	Bmax	B1max	Cmax	C1max	C2max	C3max	C4max	a	b	c	d
HDC3S-120	168.5	182.5	120	40.5	161	193	198	13.5	109	103	135	153	6.5
HDC3S-160	168.5	182.5	120	40.5	161	193	198	13.5	109	103	135	153	6.5
HDC3S-185	168.5	182.5	120	40.5	161	193	198	13.5	109	103	135	153	6.5
HDC3S-225	168.5	182.5	120	40.5	161	193	198	13.5	109	103	135	153	6.5
HDC3S-265	210	200	154	52.5	208	240	245	17	142	128	173	188	9
HDC3S-330	210	200	154	52.5	208	240	245	17	142	128	173	188	9
HDC3S-400	210	200	154	52.5	208	240	245	17	142	128	173	188	9

MOTOR MANAGEMENT

HDR3s Thermal Overload Relays

Standard: IEC60947-4



Range Presentation

HDR3s is Himel 3 series range of thermal overload relays designed to provide protection against overload, phase loss and current imbalance.

HDR3s thermal overload relays can be combined with HDC3 contactors into motor starter.

Features

- ◆ Frame Rating Current: 25, 38, 93, 185, 630A
- ◆ Setting Current: 0.1-630 A

Online Content



HDR3s

Selection Code

Range name	Frame Size	Setting currents
HDR3s	25	P16
HDR3s	25: 25A	P16: 0.1- 0.16A 25: 17 - 25A
	38: 38A	32: 25 - 32A 40: 32 - 38A
	93: 93A	10: 7.0- 10A 93: 80 - 93A
	185: 185A	65: 48-65A 185: 150-185A
	630: 630A	200: 145-200A 630: 460-630A

Technical Parameters					
Thermal overload relay	HDR3s				
Main technical parameters					
Temperature compensation	-5°C~+40°C				
HDR3s Thermal Relay	25	38	93	185	630
Trip level	10A		10		10A
Rated insulation voltage(Ui) V	660V			690V	
Base	HJRS1D25J	HJRS1D36J	HJRS1D93J	-	-
Certificate	CB, CE, SEMKO				
Product features					
Overload protection	Yes				
Phase-failure protection	Yes				
Manual reset	Yes				
Automatic reset	Yes				
Stop button	Yes				
Test button	Yes				
Trip indication	Yes				
Tolerance on slope in any direction	±5°				
Auxiliary circuit 1NO+1NC					
Utilization category	AC-15			DC-13	
Rated frequency Hz	50/60		50/60		
Rated insulation voltage (Ui) V	500		500		500
Rated operating voltage (Ue) V	230		400		230
Rated operating current Ie A	1.57		0.90		0.14
Conventional thermal current Ith A	5		5		5
Wiring	1mm ²				

HDR3s Thermal Overload Relays

Standard: IEC60947-4





Thermal Overload Relays HDR3s Series



FEATURES

-  Easy to Use
-  Upgraded Components
-  Strong Conformity

APPLICATIONS

-  Machine Tool
-  Hoisting Machinery
-  Textile Machinery
-  Building Material Machines
-  Welding Machine
-  HVAC

MOTOR MANAGEMENT

HDRX Thermal Overload Relays

Standard: IEC60947-4



Range Presentation

HDRX is Himel X series range of thermal overload relays designed to provide protection against overload, phase loss and current imbalance.

HDRX thermal overload relays can be combined with HDCX contactors into motor starter.

Features

- ◆ Frame Rating Current: 38A
- ◆ Setting Current: 0.1-38A

Online Content



HDRX

Selection Code

Range name

HDRX

Frame size

38

Setting currents

P16

HDRX	38: 38A	P16: 0.1-0.16A P25: 0.16-0.25A 38: 30-38A
-------------	----------------	---

Technical Parameters

Thermal overload relays			HDRX
Relay model			38
Main circuit technical characteristics			
Temperature compensation			-5°C~+40°C
Trip class			10A
Rated insulation voltage(Ui)	V		690
Rated operational voltage(Ue)	V		690
Rated impulse withstand voltage(Uimp)	kV		6
Certificate			CB, CE, SEMKO
Product features			
Overload protection			Yes
Phase-failure protection			Yes
Manual reset			Yes
Automatic reset			Yes
Stop button			Yes
Test button			Yes
Trip indication			Yes
Tolerance on slope in any direction			±5°
Auxiliary circuit technical characteristics			
Rated frequency	Hz		50/60
Rated insulation voltage(Ui)	V		500
Rated impulse withstand voltage(Uimp)	kV		4
Conversional thermal current(Ith)	A		5
Rated operational voltage(Ue)	AC-15	V	220/380
	DC-13	V	220
Rated operational current(Ie)	AC-15	A	1.64/0.95
	DC-13	A	0.15
Auxiliary(standard)			1NO+1NC
Wiring	mm ²		1

HDRX Thermal Overload Relays

Standard: IEC60947-4



Order Information

Frame Current (A)	Setting Current(A) code	Recommended HRT16	Recommended Contactor	Reference
38	0.1~0.16	4	HDCX-09~38	HDRX38P16
	0.16~0.25	4		HDRX38P25
	0.25~0.4	4		HDRX38P4
	0.4~0.63	4		HDRX38P63
	0.63~1	4		HDRX381
	1~1.6	4		HDRX381P6
	1.6~2.5	6		HDRX382P5
	2.5~4	10		HDRX384
	4~6	16		HDRX386
	5.5~8	20		HDRX388
	7~10	20		HDRX3810
	9~13	25	HDCX-12~38	HDRX3813
	12~18	35	HDCX-18~38	HDRX3818
	17~25	50	HDCX-25~38	HDRX3825
	23~32	63		HDRX3832
	30~38	80	HDCX-38	HDRX3838

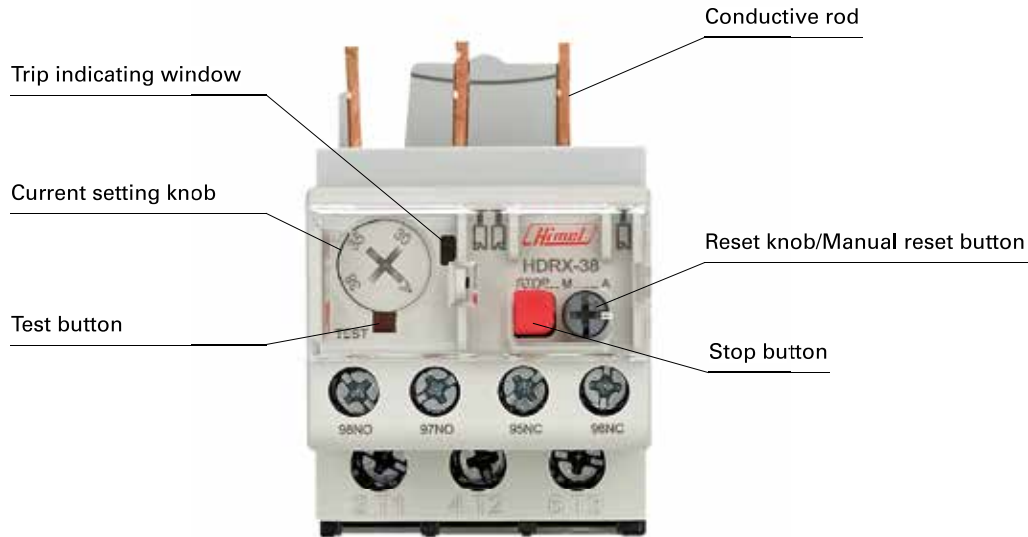


HDRX Thermal Overload Relays

Standard: IEC60947-4



Overview



1, Trip indicating window



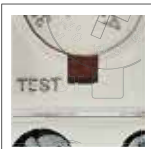
When the thermal overload relay tripped, the trip indicating window will show orange color, which means "tripped"

2, Current setting knob



Set the adjusting current for the electric motor

3, Test button



Simulate "trip"(make NO, NC contacts act) to check the control circuit

4, Reset knob/Manual reset button



Reset knob:
When the wedge points to M: Manual reset
When the wedge points to A: Automatic reset
Manual reset button:
When the thermal overload relay tripped(indicating window shows orange color), push this button to reset the relay.

5, Stop button



Make the NC contacts act, but not affect the NO contacts. When push STOP button, the control circuit will be open, and motor stops working.

6, Conductive rod



Can be inserted into main circuit terminal of the contactor. The square rod increase the contact surface, and make the wire connection more tight.

HDRX Thermal Overload Relays

Standard: IEC60947-4



Tripping Characteristics

No.	Multiples of Current Setting	Tripping Time		Initial Condition	Reference Ambient Air Temperature
		Trip class 10A	Trip class 10		

Limits of operation of time-delay overload relays when energized on all poles

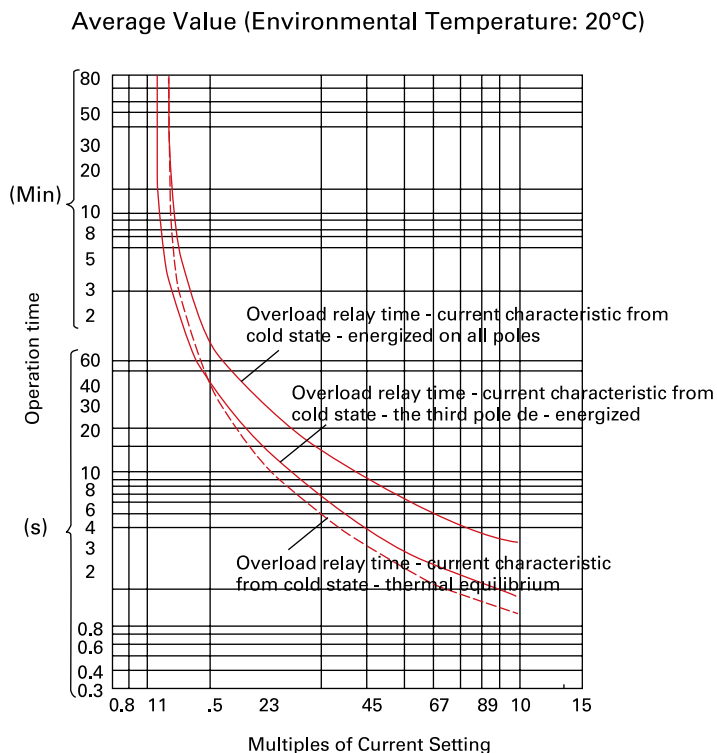
1	1.05	Non-tripping within 2h	Non-tripping within 2h	Cold State	+20°C
2	1.25	Tripping within 2h	Tripping within 2h	After No.1 Test (Thermal Equilibrium)	
3	1.5	<2min	<4min	After No.1 Test (Thermal Equilibrium)	
4	7.2	2s<Tp≤10s	4s<Tp≤10s	Cold State	

Limits of operation of three-pole thermal overload relays when energized on two poles only

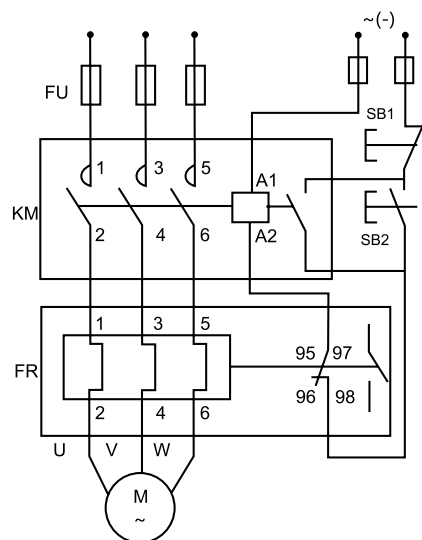
When the value of current flowing in two poles and the third pole de-energized

1	1.0	0.9	Non-tripping within 2h	Non-tripping within 2h	Cold State	+20°C
2	1.15	0	Tripping within 2h	Tripping within 2h	After No.1 Test (Thermal Equilibrium)	

Tripping Characteristics



Wiring Diagram



FU-Fuse
KM-Contactor
FR-Thermal overload relay
SB1-Stop button
SB2-Start button

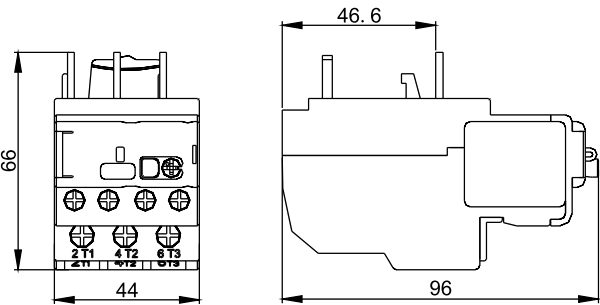
HDRX Thermal Overload Relays

Standard: IEC60947-4



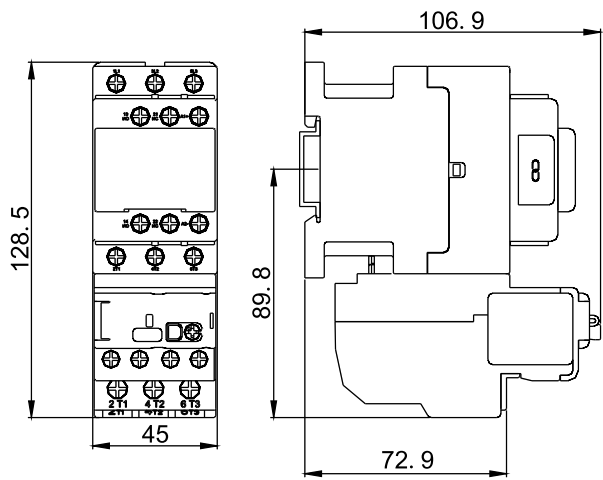
Installation Dimensions

Overall Dimensional Drawing of HDRX-38

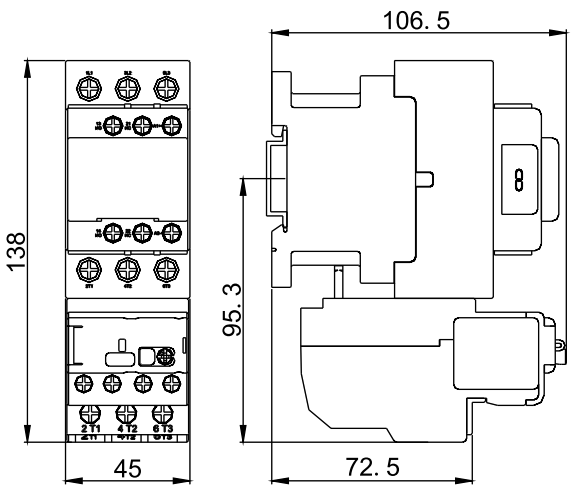


Installation Instruction

HDRX-38 With HDCX-09/12/18 DC Assembly Installation



HDRX-38 With HDCX-25/32/38 DC Assembly Installation



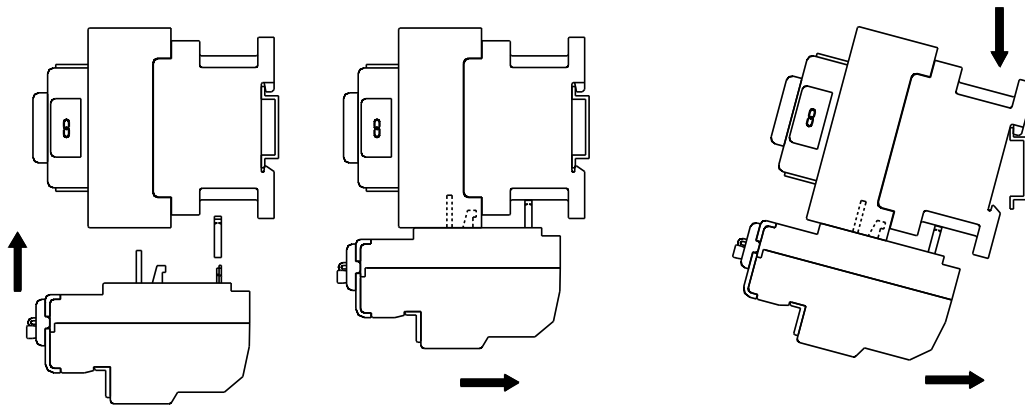
HDRX Thermal Overload Relays

Standard: IEC60947-4



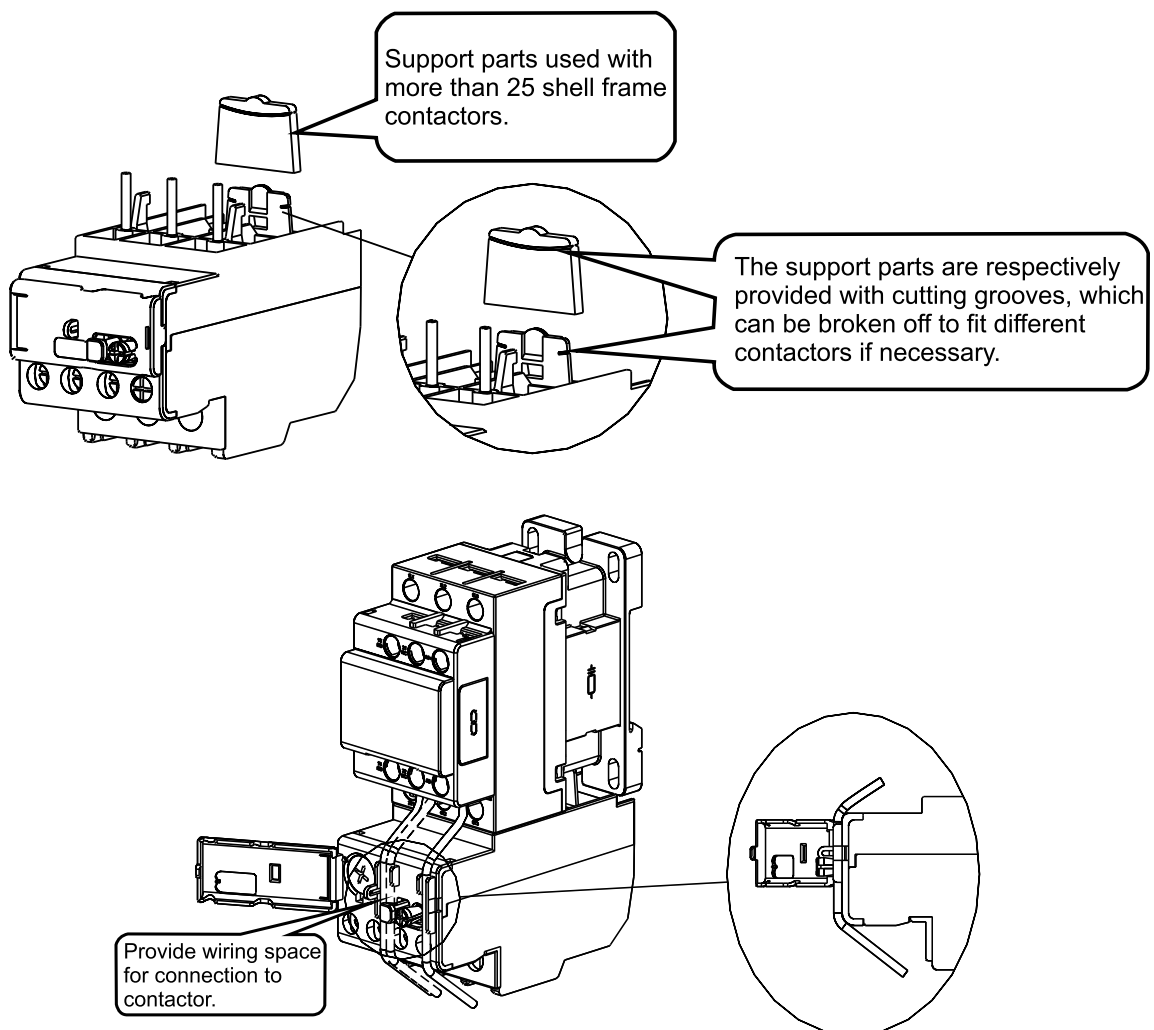
Installation Instruction

HDRX-38 Assembly Installation Instruction



Installation method 1: Install the contactor to the DIN rail, then install the thermal relay

Installation method 2: Assemble the contactor and thermal relay, then install them on the DIN rail.



MOTOR MANAGEMENT

HDCX AC Contactors

Standard: IEC60947-4



Range Presentation

HDCX is Himel X series range of contactors designed for Motor Control AC3 applications up to 38A .

HDCX contactors are applicable to DC power systems with rated operating voltage up to 220V.

HDCX contactors can be combined with HDRX thermal overload relays to form magnetic motor starters up to 38A.

- ◆ 2 frame sizes: 18A DC 38A DC
- ◆ Wide range of operating voltage from 80%~110% Us
- ◆ Full range of accessories for any type of application
- ◆ Can be combined with HDRX thermal overload relay

Selection Code

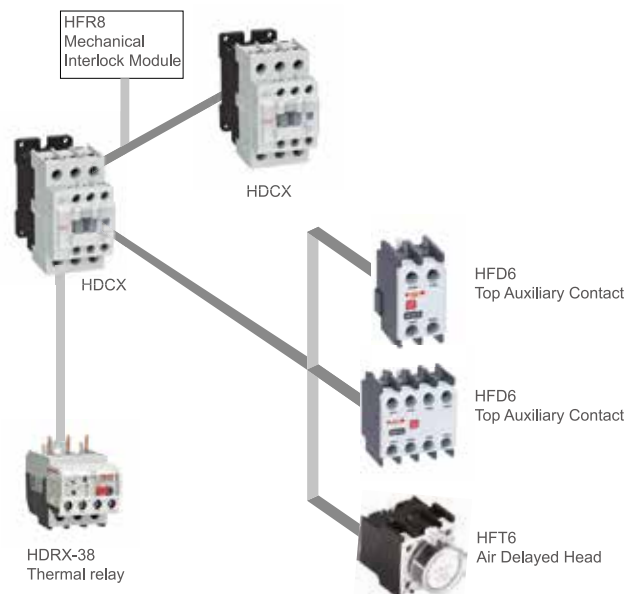
Range name	Current specification	Auxiliary contact	Coil voltage	Coil type
HDCX	09	11	B	D
09-38A	09:09A 12:12A 18:18A 25:25A 32:32A 38:38A	11: 1NO+1NC	B: 24V E: 48V F: 110V M: 220V	D: DC

Note:

The current specifications of DC operation products are only 38A at present, and the operating coils are B, E, F, and M specifications. 3P is a conventional pole number and is not indicated in the model number.

Overview of Accessories

HDCX 09-38A Accessories



HDCX AC Contactors

Standard: IEC60947-4



Specification

Technical Parameter								
DC Coil Contactor			HDCX					
Contactor model			09	12	18	25	32	38
Main circuit characteristics								
Conversional thermal current(Ith)		A	25	25	32	40	50	50
Rated operational current(Ie)	AC-3 220/230V	A	9	12	18	25	32	38
	AC-3 380/400V	A	9	12	18	25	32	38
	AC-3 660/690V	A	6.6	8.9	12	18	22	22
Rated Operational Power(Pe)	AC-3 220/230V	kW	2.2	3	4	5.5	7.5	9
	AC-3 380/400V	kW	4	5.5	7.5	11	15	18.5
	AC-3 660/690V	kW	5.5	7.5	10	15	18.5	18.5
Mechanical durability		Million times	15					
Electrical durability	AC-3	Million times	1				0.8	
Operation frequency		Times/hour	1200				600	
Auxiliary(standard)			1NO+1NC					
Number of poles			3P					
Rated insulation voltage(Ui)		V	690					
Maximum rated operational voltage(Ue)		V	660/690					
Certificate			CB, CE, SEMKO					
Coil								
Rated control circuit voltage(Us)	DC	V	24, 48, 110, 220					
Allowable control circuit voltage(Us)	Operation	V	80%~110%					
	Drop-out	V	10%~70%					
DC coil power	Actuation	VA	6.5					
	Holding	VA	6.5					
Main circuit terminal wiring capability								
Soft wire	1 wire	mm²	1...4			1.5...10		
	2 wire	mm²	1...4			1.5...6		
Hard wire	1 wire	mm²	1...4			1.5...6		
	2 wire	mm²	1...4			1.5...6		
Auxiliary contact								
Conventional thermal current(Ith)		A	10					
Rated operational voltage(Ue)	AC	V	220/380					
	DC	V	220					
Rated control capacity	AC-15	VA	360					
	DC-13	VA	33					

HDCX AC Contactors

Standard: IEC60947-4



Technical Parameter							
DC Coil Contactors	HDCX						
Contactor model		09	12	18	25	32	38
Thermal relay							
HDRX thermal relay 0.1-38A	 HDRX-38 P16: 0.1-0.16A P25: 0.16-0.25A 38: 30-38A						
Accessories							
Top auxiliary contact	 2 Poles : HFD6-11, HFD6-20 , HFD6-02 4 Poles : HFD6-22, HFD6-31 , HFD6-13 , HFD6-40 , HFD6-04						
Air delayed head	 Making time delay : HFT6-20 , HFT6-22 , HFT6-24 Breaking time delay : HFT6-30 , HFT6-32 , HFT6-34						
Mechanical interlock	HDCX 09-38 horizontal installation: HFR8-38						

HDCX AC Contactors

Standard: IEC60947-4



Order Information

HDCX 09-38A

Motor power AC-3 380/400V(kW)	Ie (A)	Auxiliary contact		Reference No
4	09	1	1	HDCX0911*
5.5	12	1	1	HDCX1211*
7.5	18	1	1	HDCX1811*
11	25	1	1	HDCX2511*
15	32	1	1	HDCX3211*
18.5	38	1	1	HDCX3811*

HDCX 09-38A Contactor Accessories

Auxiliary contact

Installation position	Pole	Auxiliary Contact		Contact point layout	Reference
Top	2	0	2		HFD6 02
		1	1		HFD6 11
		2	0		HFD6 20
	4	0	4		HFD6 04
		1	3		HFD6 13
		2	2		HFD6 22
		3	1		HFD6 31
		4	0		HFD6 40



MOTOR MANAGEMENT

HDCX AC Contactors

Standard: IEC60947-4:



Air Delayed Head

Installation Position	Delay type	Wiring diagram	Delay range	Reference
Top	Making time-delay		0.1-3s	HFT6 20
			0.1-30s	HFT6 22
			10-180s	HFT6 24
	Breaking time-delay		0.1-3s	HFT6 30
			0.1-30s	HFT6 32
			10-180s	HFT6 34



Mechanical Interlock

Horizontal installation		
Interlock method	Contact type	Reference
Mechanical interlock with electrical interlock	HDCX-09~38	HFR838HR

Motor Power

Motor power of HDCX (AC-4)

Product	Ith(A)	AC-4					
		Ie(A)			Pe(kW)		
		220/230V	380/400V	660/690V	220/230V	380/400V	660/690V
HDCX-09	25	3.5	3.5	1.5	0.6	1.5	1.1
HDCX-12	25	5	5	2	1.1	2.2	1.5
HDCX-18	32	7.7	7.7	3.8	1.5	3.3	3
HDCX-25	40	8.5	8.5	4.4	2.2	4	3.7
HDCX-32	50	12	12	7.5	3	5.4	5.5
HDCX-38	50	14	14	8.9	4	5.5	6

MOTOR MANAGEMENT

HDCX AC Contactors

Standard: IEC60947-4:



Motor power of HDCX (Reversible AC contactor)

Product	Ith(A)	AC-4					
		Ie(A)			Pe(kW)		
		220/230V	380/400V	660/690V	220/230V	380/400V	660/690V
HDCX-09	25	3.5	3.5	1.5	0.6	1.5	1.1
HDCX-12	25	5	5	2	1.1	2.2	1.5
HDCX-18	32	7.7	7.7	3.8	1.5	3.3	3
HDCX-25	40	8.5	8.5	4.4	2.2	4	3.7
HDCX-32	50	12	12	7.5	3	5.4	5.5
HDCX-38	50	14	14	8.9	4	5.5	6

Star-Delta Stater

Contactor (HDCX-09~38)

Max. Starting Frequency: 30 times/h; Max. Starting Time: 30s						
Class AC-3 50Hz 3-Phase Electromotor Delta Connection		Contactor			Thermal Relay	
		Straight Connection	Delta Connection	Star Connection		
		KM2	KM3	KM1		
In (A)	IrD (A)	Type	Type	Type	Type	Setting Range (A)
3.5	2	HDCX-09	HDCX-09	HDCX-09	HDRX-38	1.8~2.5
5	3	HDCX-09	HDCX-09	HDCX-09	HDRX-38	2.5~3.6
6.6	4	HDCX-09	HDCX-09	HDCX-09	HDRX-38	3.5~4.8
8.5	5	HDCX-09	HDCX-09	HDCX-09	HDRX-38	4.5~6.3
11.5	7	HDCX-09	HDCX-09	HDCX-09	HDRX-38	5~7
15.5	9	HDCX-12	HDCX-12	HDCX-09	HDRX-38	9~12
18.5	11	HDCX-18	HDCX-18	HDCX-12	HDRX-38	11~15
22	13	HDCX-18	HDCX-18	HDCX-12	HDRX-38	11~15
30	17	HDCX-25	HDCX-25	HDCX-18	HDRX-38	14~18
37	21	HDCX-25	HDCX-25	HDCX-18	HDRX-38	18~25
44	25	HDCX-32	HDCX-32	HDCX-25	HDRX-38	23~32

HDCX AC Contactors

Standard: IEC60947-4:



Normal Installation And Operation Conditions

Standards

- ◆ IEC 60947-1 General rules
- ◆ IEC 60947-4-1 Contactors
- ◆ IEC 60947-5-1 Relays

Pollution class

- ◆ Class 3

Ambient temperature

- ◆ In normal operation, the ambient temperature range is between -5°C and +40°C , but average value in 24h is no more than +35°C ;
- ◆ Storage temperature: -25°C ~ +55°C ; a short time (24h) is allowed with maximum +70°C

Altitude

- ◆ Altitude at normal installation position does not exceed 2000m.

Humidity

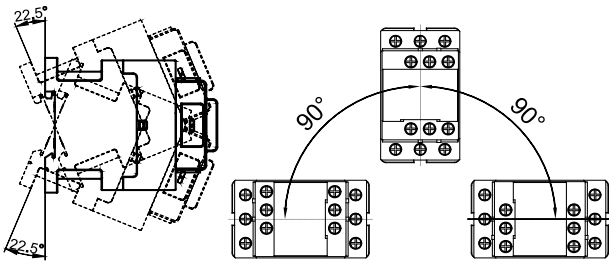
- ◆ The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is +40°C. It is allowed to have a relative higher humidity under lower temperature, e.g. up to 90% at +20°C.
- ◆ For occasional dew due to the temperature change, preventive measures shall be taken.

Product protection grade

- ◆ IP20

Installation Conditions

- ◆ Installation type: III
- ◆ Installation position: should be installed in the absence of a significant shock and vibration place. The installation site shall be vertical , and inclination at all directions shall not exceed ±22.5°. When the coil control voltage is not lower than 85%Us, the inclination should be no more than ±30°.



Temperature Derating				
Ambient temperature(°C)	55°C	60°C	65°C	70°C
Correction factor	0.73	0.64	0.5	0.4

Altitude Derating				
Altitude(m)	2000	3000	4000	5000
Rated operational current coefficient	1	0.87	0.82	0.8
Rated impulse withstand voltage coefficient	1	0.9	0.7	0.6

MOTOR MANAGEMENT

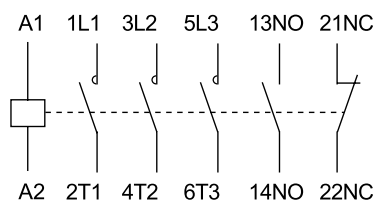
HDCX AC Contactors

Standard: IEC60947-4:

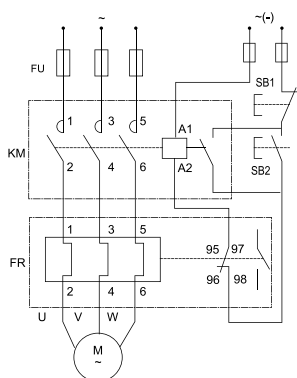


Wiring Diagram

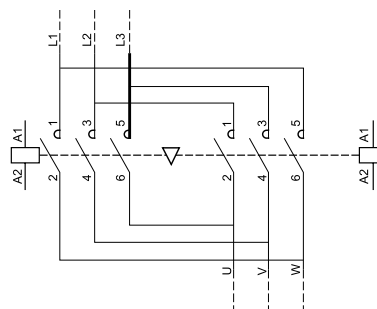
HDCX 09~38 with 1NO+1NC Auxiliary Contact



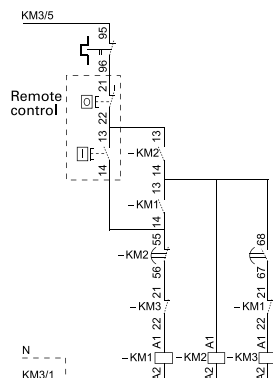
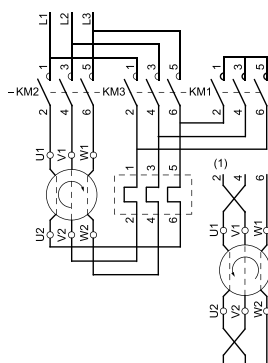
DOL Control



Reversible Control



Star-Delta Control



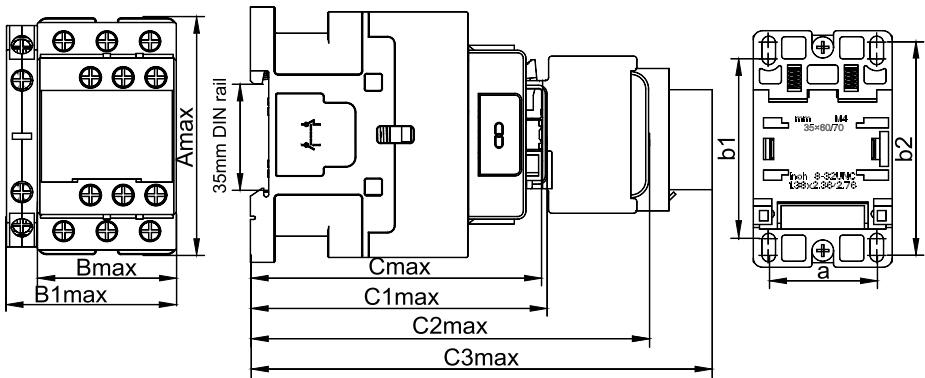
HDCX AC Contactors

Standard: IEC60947-4:



Installation Dimensions

HDCX-09~38A



Overall Dimension of HDCX-09~38A DC Coil Contactor

Model	Amax	Bmax	B1max	Cmax	C1max	C2max	C3max
HDCX-09, 12, 18	79	45.5	-	97	98.5	130	155
HDCX-25, 32, 38	86.5	45.5	-	103	104.5	136	161

Note: B1max- Contactor+HC4 C1max- Contactor+Transparent cover C2max- Contactor+HFD6 C3max- Contactor+HFT6

Plate Installation Dimension of HDCX-09~38A DC Coil Contactor

Model	a	b1	b2
HDCX-09, 12, 18	35	69.6	70.4
HDCX-25, 32, 38	35	69.6	70.4

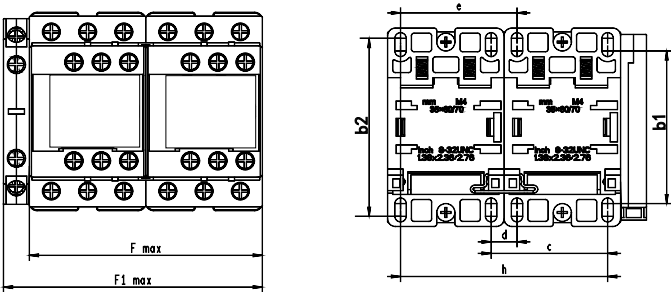
HDCX AC Contactors

Standard: IEC60947-4:



Installation Dimensions

HDCX-09~38A Reversible



Overall Dimension of HDCX-09~38A Reversible Directional AC Contactor

Model	Fmax	F1max	b1	b2	c	d	e	h
HDCX-09, 12, 18	90	100	60	70	45±0.5	10±0.5	45±0.5	80±0.8
HDCX-25, 32, 38	90	100	60	70	45±0.5	10±0.5	45±0.5	80±0.8

MOTOR MANAGEMENT

HJX2 4P AC Contactors

Standard: IEC60947-4



Range Presentation

HJX2 & HJX2F 4P AC Contactor is Himel HJX series range of contactors designed for Motor Control AC3 applications up to 800A 690V.

HJX2 & HJX2F contactors are applicable to AC power systems 50Hz or 60Hz with rated operating voltage up to 690V.

HJX2 & HJX2F contactors can be combined with HDR3s thermal overload relays to provide overload protection.

Features

- ◆ Current specifications: 9-800A
- ◆ Pole: 4-pole
- ◆ Coil voltage: 24-440V
- ◆ Coil frequency: 50/60Hz

Online Content



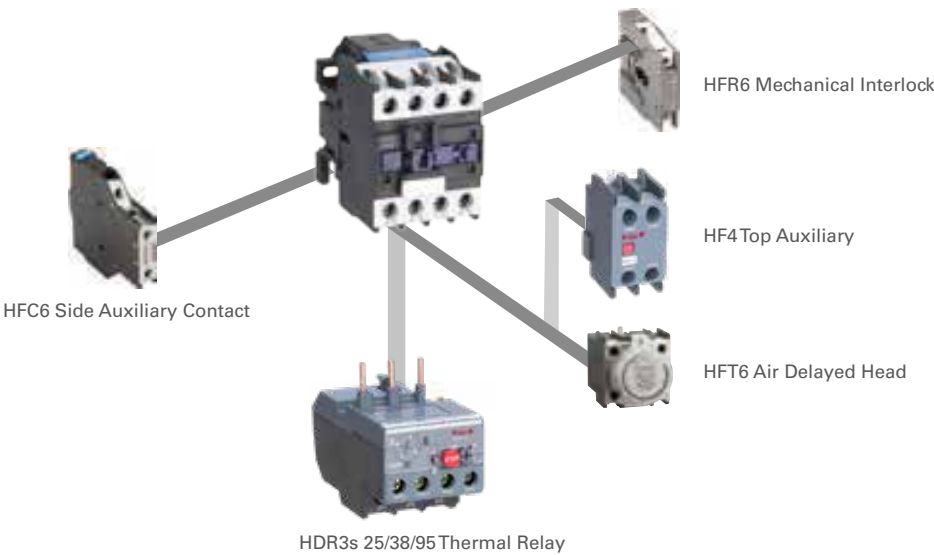
HJX2

Selection Code

Range name	Current specification	Main contact	Coil voltage	Coil frequency
HJX2	09	4	M	7
HJX2	09: 09A 95: 95A	04: 4NO+0NC 08: 2NO+2NC	B: 24V C: 36V E: 48V F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	7: 50/60Hz

Overview of Accessories

HJX2 4P AC Contactor 09-95A



HJX2 4P AC Contactors

Standard: IEC60947-4



Technical Parameters									
AC Contactors		HJX2-09	HJX2-12	HJX2-25	HJX2-40	HJX2-50	HJX2-65	HJX2-80	HJX2-95
Main circuit characteristics									
Maximum rated operating voltage (Ue)		690V							
Rated insulation voltage (Ui)		690V							
Rated impulse withstand voltage (Uimp)		8kV							
Conventional thermal current A		25	25	40	60	80	80	125	125
Rated Operating Current	380/400V AC-3 A	9	12	25	40	50	65	80	95
	660/690V AC-3 A	6.6	8.9	18	34	39	42	49	49
	380/400V AC-4 A	3.3	5	8.5	18.5	24	28	37	44
	660/690V AC-4 A	1.5	2	4.4	9	12	14	17.3	21.3
Rated power of controlled 3-phase cage motor	380/400V AC-3 KW	4	5.5	11	18.5	22	30	37	45
	660/690V AC-3 KW	5.5	7.5	15	30	33	37	45	45
	380/400V AC-4 KW	1.2	2.2	4	7.5	11	15	18.5	22
	660/690V AC-4 KW	1.1	1.5	4	7.5	11	11	15	18.5
Electric durabilities	AC-3 ×10 ⁴ operations	100	100	100	80	80	80	60	60
	AC-4 ×10 ⁴ operations	20	20	20	15	15	15	10	10
Mechanical durabilities ×10 ⁴ operations		1000	1000	1000	800	800	800	600	600
Operating frequency	AC-3 cycles/h	1200	1200	1200	600	600	600	600	600
	AC-4 cycles/h	300	300	300	300	300	300	300	300
Matched fuse		HRT16-25	HRT16-25	HRT16-50	HRT16-63	HRT16-80	HRT16-80	HRT16-125	HRT16-125
Cable connection cross section mm ²		1.5	1.5	4	10	16	16	25	35
Certificate		SEMKO							
Coil									
Coil voltage(Us) V		AC 24V, 36V, 110V, 220V, 380V							
Operating voltage V		85%...110% Us							
Drop-out voltage V		20%...75% Us							
Coil power	Actuation VA	70	70	110	200	200	200	200	200
	Holding VA	9	9	11	24	24	24	24	24
	Heat dissipation W	2.7	2.7	4	10	10	10	10	10
Terminal wiring ability									
Flexible wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Flexible wire with terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 2.5	1 - 2.5	1 - 4	2.5 - 10	2.5 - 10	2.5 - 10	4 - 16	4 - 16
Fixed wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Auxiliary contact									
Rated thermal Current (Ith) A		10							
Rated operating Voltage (Ue)	AC V	400							
	DC V	220							
Rated control capacity	AC-15 VA	360							
	DC-13 VA	33							

MOTOR MANAGEMENT

HJX2-F 4P AC Contactors

Standard: IEC60947-4



Range Presentation

HJX2 & HJX2F 4P AC contactor is Himel range of contactors designed for Motor Control AC3 applications up to 800A 690V.

HJX2 & HJX2F contactors are applicable to AC power systems 50Hz or 60Hz with rated operating voltage up to 690V.

HJX2 & HJX2F contactors can be combined with HDR3s thermal overload relays to provide overload protection.

Features

- ◆ Current Specifications: 115-800A
- ◆ Pole: 4 poles
- ◆ Coil Voltage: 110-440V
- ◆ Coil Frequency: 50/60Hz

Online Content



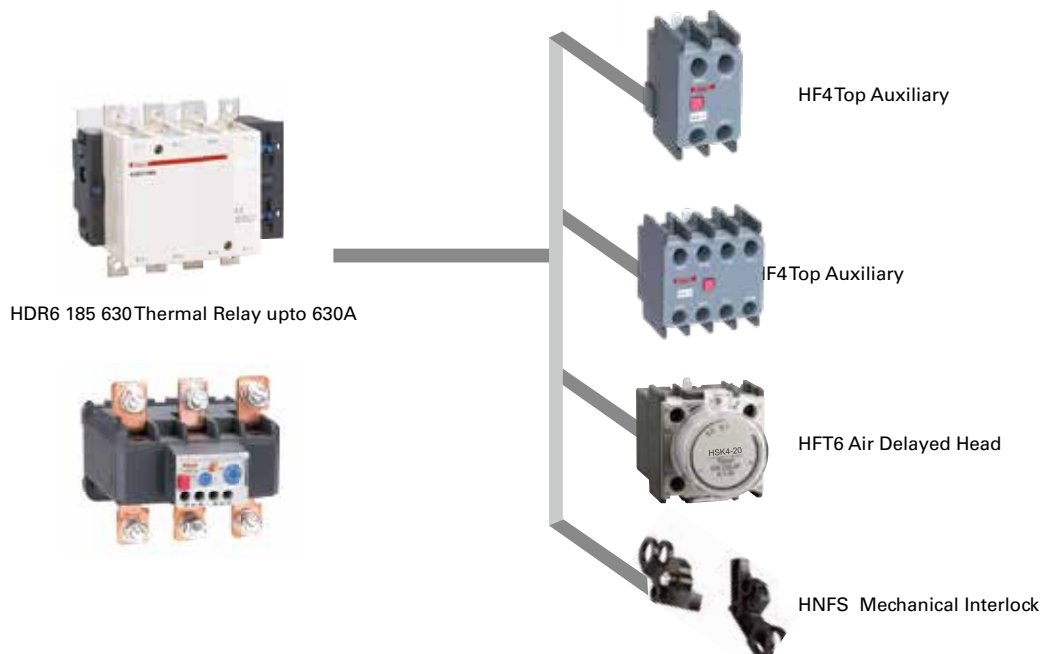
HJX2-F

Selection Code

Range name	Current specification	Main contact	Coil voltage	Coil frequency
HJX2F	115	4	M	7
HJX2F	115: 115A 150: 150A 800: 800A	4: 4NO+0NC	F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	7: 50/60Hz

Overview of Accessories

HJX2F 4P AC Contactor 115-800A



HJX2-F 4P AC Contactors

Standard: IEC60947-4



Technical Parameters									
AC Contactors		HJX2-09	HJX2-12	HJX2-25	HJX2-40	HJX2-50	HJX2-65	HJX2-80	HJX2-95
Main circuit characteristics									
Maximum rated operating voltage (Ue)		690V							
Rated insulation voltage (Ui)		690V							
Rated impulse withstand voltage (Uimp)		8kV							
Conventional thermal current A		25	25	40	60	80	80	125	125
Rated Operating Current	380/400V AC-3 A	9	12	25	40	50	65	80	95
	660/690V AC-3 A	6.6	8.9	18	34	39	42	49	49
	380/400V AC-4 A	3.3	5	8.5	18.5	24	28	37	44
	660/690V AC-4 A	1.5	2	4.4	9	12	14	17.3	21.3
Rated power of controlled 3-phase cage motor	380/400V AC-3 KW	4	5.5	11	18.5	22	30	37	45
	660/690V AC-3 KW	5.5	7.5	15	30	33	37	45	45
	380/400V AC-4 KW	1.2	2.2	4	7.5	11	15	18.5	22
	660/690V AC-4 KW	1.1	1.5	4	7.5	11	11	15	18.5
Electric durabilities	AC-3 ×10 ⁴ operations	100	100	100	80	80	80	60	60
	AC-4 ×10 ⁴ operations	20	20	20	15	15	15	10	10
Mechanical durabilities ×10 ⁴ operations		1000	1000	1000	800	800	800	600	600
Operating frequency	AC-3 cycles/h	1200	1200	1200	600	600	600	600	600
	AC-4 cycles/h	300	300	300	300	300	300	300	300
Matched fuse		HRT16-25	HRT16-25	HRT16-50	HRT16-63	HRT16-80	HRT16-80	HRT16-125	HRT16-125
Cable connection cross section mm ²		1.5	1.5	4	10	16	16	25	35
Certificate		SEMKO							
Coil									
Coil voltage(Us) V		AC 24V, 36V, 110V, 220V, 380V							
Operating voltage V		85%...110% Us							
Drop-out voltage V		20%...75% Us							
Coil power	Actuation VA	70	70	110	200	200	200	200	200
	Holding VA	9	9	11	24	24	24	24	24
	Heat dissipation W	2.7	2.7	4	10	10	10	10	10
Terminal wiring ability									
Flexible wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Flexible wire with terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 2.5	1 - 2.5	1 - 4	2.5 - 10	2.5 - 10	2.5 - 10	4 - 16	4 - 16
Fixed wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Auxiliary contact									
Rated thermal Current (Ith) A		10							
Rated operating Voltage (Ue)	AC V	400							
	DC V	220							
Rated control capacity	AC-15 VA	360							
	DC-13 VA	33							

MOTOR MANAGEMENT

HDC17K Miniature AC Contactors

Standard: IEC60947-4



Range Presentation

HDC17K is Himel Miniature AC Contactor for remote make and break of circuits. It facilitates seamless functioning of applications requiring frequent start and stop of small power motors.

Features

- ◆ Current: 6-12A
- ◆ Pole: 3/4-pole
- ◆ Coil voltage: 24-400V
- ◆ Coil frequency: 50/60Hz

Online Content



HDC17K

Selection Code

Range name	Current specification	Main contact	Auxiliary contact	Coil voltage	Coil frequency
HDC17K	06	30	10	M	5
HDC17K	06: 06A 09: 09A 12: 12A	30: 3NO 40: 4NO 22: 2NO+2NC	10: 1NO 01: 1NC	B: 24V C: 36V F: 110V S: 127V M: 220/230V Q: 380/400V	7: 50/60Hz

Order Information

Motor P(kW) 380V	Rated current(A)	Main contact		Auxiliary contact		Reference
		NO	NC	NO	NC	
2.2	6	3	0	1	0	HDC17K63010*
		3	0	0	1	HDC17K63001*
		4	0	0	0	HDC17K64000*
		2	2	0	0	HDC17K62200*
4	9	3	0	1	0	HDC17K93010*
		3	0	0	1	HDC17K93001*
		4	0	0	0	HDC17K94000*
		2	2	0	0	HDC17K92200*
4	12	3	0	1	0	HDC17K123010*
		3	0	0	1	HDC17K123001*
		4	0	0	0	HDC17K124000*

HDC17K Miniature AC Contactors

Standard: IEC60947-4



Technical Parameters					
Miniature AC Contactors			HDC17-K06	HDC17-K09	HDC17-K12
Main circuit characteristics					
Rated operating current	380V/400V, AC-3	A	6	9	12
	380V/400V, AC-4	A	2.6	3.5	5
	660V/690V, AC-3	A	3.5	5	6
	660V/690V, AC-4	A	1.2	1.5	2
Rated operating voltage		V	220/230, 380/400, 660/690		
Rated insulation voltage		V	690		
Rated conventional thermal current		A	16	20	20
Pole			3, 4		
Power of controlled 3-phase cage motor	220V/230V, AC-3	kW	1.5	2.2	3
	380V/400V, AC-3	kW	2.2	4	5.5
	660V/690V, AC-3	kW	3	4	4
Electric endurance	AC-3	×10 ⁴ operations	100		
Operating rate		cycles/h	1200		
Electric endurance	AC-4	×10 ⁴ operations	20		
Operating rate		cycles/h	600		
Mechanical endurance		×10 ⁴ cycles	1000		
Matched Fuse			HRT16-16	HRT16-20	
Cable connection	Inflexible cable	number of piece	2		
	Cross Section of Cable	mm ²	4		
Certificate			CB, CE		
Coil					
Coil voltage(Us)		V	AC 24V,36V,110V,127V,220/230V,380/400V		
Operating voltage		V	85%~110% Us		
Drop-out voltage		V	20%~75% Us		
Inrush		VA	30		
Auxiliary contact					
Rated conventional thermal current		V	690		
Rated insulation voltage		A	10		
Rated operating current		A	0.95		
Control capacity	380V, AC-15	A	0.15		
	220V, DC-13	VA	360		
	AC-15	W	33		
	DC-13				

MOTOR MANAGEMENT

HDZ3 Contactor Relays

Standard: IEC60947-4



Range Presentation

HDZ3 is Himel 3 series range of contactor relays designed for industrial control applications.

HDZ3 contactor relays are suitable for both AC and DC 50/60Hz control circuits.

Features

- ◆ For both DC and AC 50/60Hz control circuits
- ◆ 3 poles, similar design as HDC3 contactor
- ◆ 4 contacts with different NO+NC combinations
- ◆ Wide range of coil voltages 24V-440V

Online Content

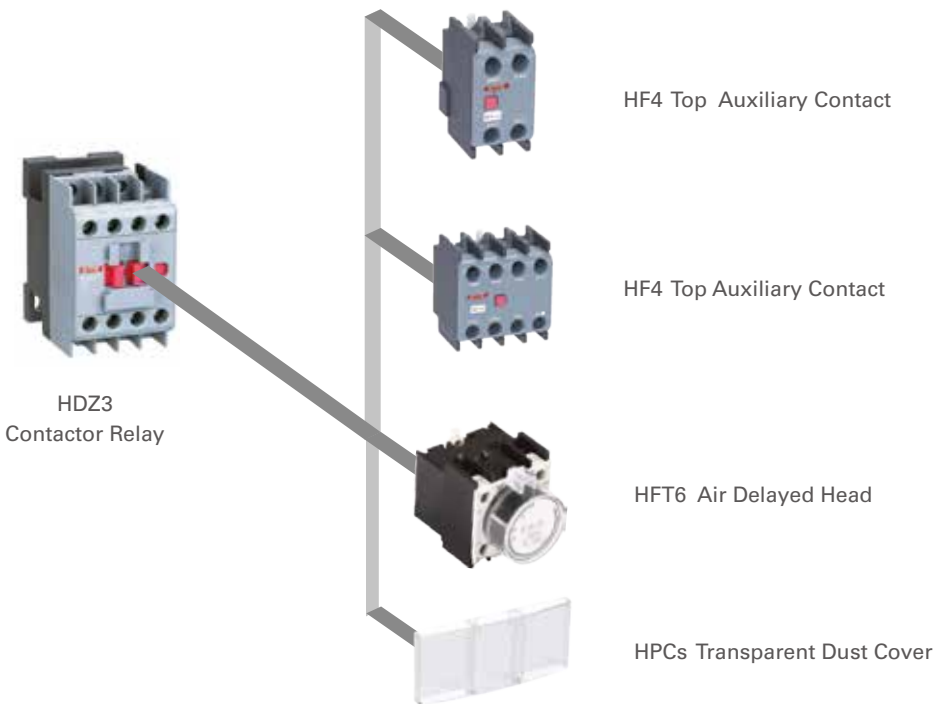


HDZ3

Selection Code

Range name	Main contact	Coil voltage	Coil frequency
HDZ3	22	M	5
HDZ3	22: 2NO+2NC 31: 3NO+1NC 40: 4NO+0NC 13: 1NO+3NC 04: 0NO+4NC	B: 24V C: 36V E: 48V F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	5: 50Hz 7: 50/60Hz

Overview of Accessories



HDZ3 Contactor Relays

Standard: IEC60947-4



Technical Parameters		
Contactor Relays		HDZ3
Rated insulation voltage (Ui)	V	690
Conventional thermal current (Ith)	A	10
Rated operating current (Ie)	A	AC-15 380V: 0.95
		DC-13 220V: 0.15
Contact combination		2NO+2NC, 3NO+1NC, 4NO+0NC, 1NO+3NC, 0NO+4NC
Electrical endurance	10,000 times	110
Mechanical endurance	10,000 times	1100
Operating frequency	times/Hour	1200
Rated control circuit voltage(Us)	50Hz	24, 36, 48, 110, 127, 220/230, 240, 380/400, 415, 440
	50/60Hz	24, 36, 48, 110, 127, 220/230, 240, 380/400, 415, 440
Operating voltage range	V	AC 85%...110% Us
Drop-out voltage range	V	AC 20%...75% Us
Certificate		CE, CB, SEMKO

MOTOR MANAGEMENT

HDP6 Motor Circuit Breakers

Standard: IEC60947-4



Range Presentation

HDP6 Motor Circuit Breaker range optimizes and secures your installation from HVAC to small genset applications. Proven for the best performance of packaging or pumping businesses, they facilitate superior protection from overload, phase-loss, and short circuit.

Features

- ◆ Frame Current:
32A, 80A
- ◆ Setting Current:
0.1-32A, 25-80A

Online Content



HDP6

Selection Code

Range name	Frame Size	Setting currents
HDP6	32	P16
HDP6	32: 32A	P16: 0.1-0.16A 32: 24-32A
HDP17Z	80: 80A	40: 25-40A 63: 40-63A 80: 56-80A

Order Information

Thermal release Setting current	Magnetic release Current Id	400/415V, 50/60Hz, AC-3 Rated operating power	Recommended Contactor	Reference
0.1-0.16A	1.5A	-	HDC3-0911	HDP632P16
0.16-0.25A	2.4A	0.06kW	HDC3-0911	HDP632P25
0.25-0.4A	5A	0.09kW	HDC3-0911	HDP632P4
0.4-0.63A	8A	0.12kW	HDC3-0911	HDP632P63
0.63-1A	13A	0.25kW	HDC3-0911	HDP6321
1-1.6A	22.5A	0.37kW	HDC3-0911	HDP6321P6
1.6-2.5A	33.5A	0.75kW	HDC3-0911	HDP6322P5
2.5-4A	51A	1.5kW	HDC3-0911	HDP6324
4-6.3A	78A	2.2kW	HDC3-0911	HDP6326P3
6-10A	138A	4kW	HDC3-0911	HDP63210
9-14A	170A	5.5kW	HDC3-1211	HDP63214
13-18A	223A	7.5kW	HDC3-1811	HDP63218
17-23A	327A	9kW	HDC3-2511	HDP63223
20-25A	327A	11kW	HDC3-2511	HDP63225
24-32A	416A	15kW	HDC3-3211	HDP63232
25-40A	480A	16kW	HDC3-4011	HDP17K8040
40-63A	756A	20kW	HDC3-6511	HDP17K8065
56-80A	960A	25kW	HDC3-8011	HDP17K8080

HDP6 Motor Circuit Breakers

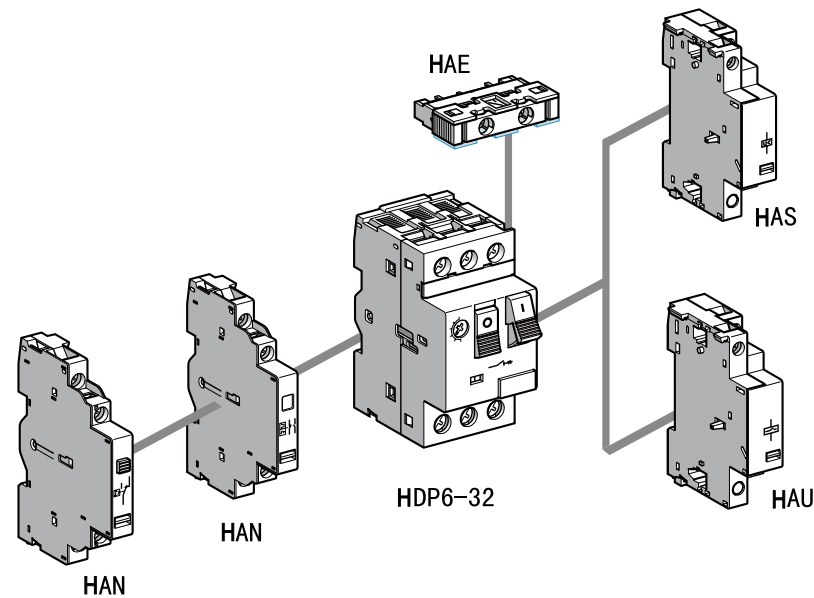
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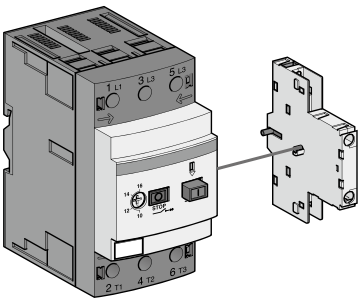
Technical Parameters		
Motor Circuit Breakers	HDP6-32	HDP17Z-80
Operation mode	Button operated	
Frame current	32A	80A
Rated impulse withstand voltage	6000V	
Maximum rated operating voltage	690V	
Rated insulation voltage	400/690V	
Rated operating frequency	50/60Hz	
Trip class	10A	
Fastening torque	1.7N • m	4 N • m
Mechanical durabilities	100,000	
Electrical durabilities AC-3 400V	100000	
Overload protection category	Thermal Overload Protection Open-phase Protection	
Short circuit protection	Yes	
Isolation function	Yes	
Temperature compensation function	Yes	
Accessories	Side Auxiliary Contact Top Auxiliary Contact Shunt release	Side Auxiliary Contact
Certificate	CE, SEMKO	

Overview of Accessories

HDP6-32



HDP17Z-80



MOTOR MANAGEMENT

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



Range Presentation

HDP6 Motor Control & Protection range is meant to help optimize and secure your installation from HVAC to small Genset applications. It also helps your packaging or pumping businesses to run on a reliable product.

The range covers application up to 32A including wide range of voltage from 230V up to 690V

Rotary handle operation can solve the need for greater force to operate the switch, makes the use of circuit breakers more convenient and efficient.

Features

- ◆ Frame Current: 32A, 80A
- ◆ Setting Current: 0.1-32A, 25-80A

Selection Code

Range name	Operation mode	Trip unit	Setting currents
HDP6	X	L	03
HDP6	Default: Push Button	Default: Thermal Magnetic	01: 0.1-0.16A 02: 0.16-0.25A 32: 24-32A
	X: Rotary Handle	Default: Thermal Magnetic L: Magnetic	01: 0.1-0.16A 02: 0.16-0.25A 32: 24-32A

Note: HDP6XL setting current start from 0.4A

HDP6 Series Motor Circuit Breaker

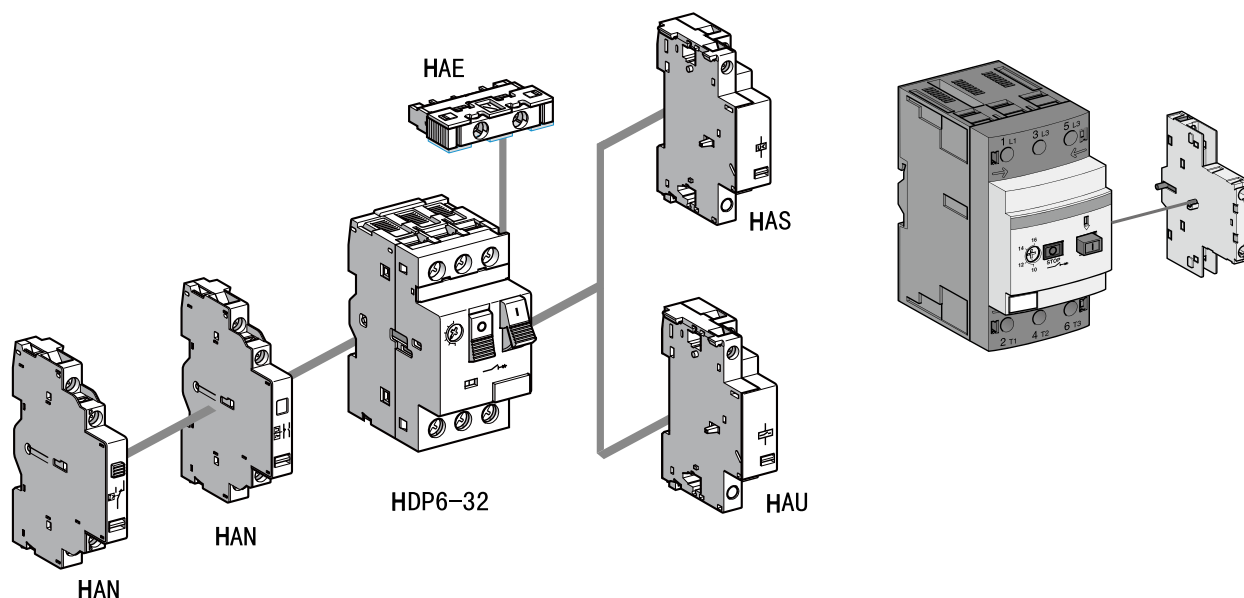
Standard: IEC60947-4



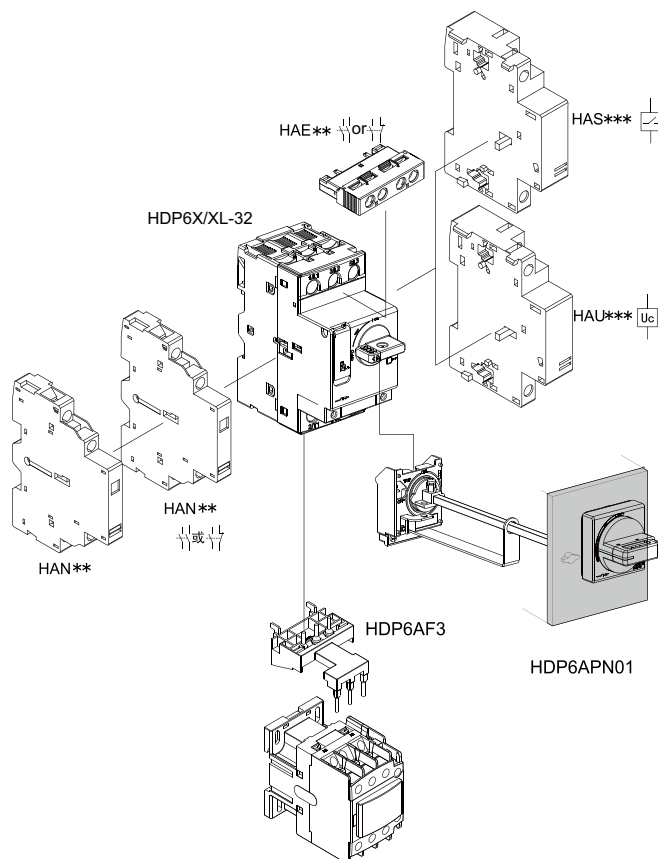
Overview of Accessories

HDP6-32

HDP17Z-80



HDP6X-32 & HDP6XL-32



Note: HAU and HAS cannot be used together.

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



Specification

Technical Parameter																	
Motor Circuit Breakers			HDP6														
Frame rated current(Inm)		A	32														
Rated insulation voltage(Ui)		V	690														
Rated operational voltage(Ue)		V	690														
Rated impulse withstand voltage(Ui)		kV	6														
Rated frequency		Hz	50/60														
Utilization category			AC-3A														
Trip unit technology			Thermal-magnetic														
Operation mode			Push button														
Trip class			10A														
Electrical durability		Times	100000														
Mechanical durability		Times	100000														
Flash-Over distance		mm	≥40														
Accessories			Under-Voltage Release, Shunt Release, Instantaneous Auxiliary Contact (Side and Face-up Installation), Fault Signal Contact, Combination Blocks, Current Limiter, Parallel Busbar, Plastic enclosure														
Rated current(In)		A	0.16	0.25	0.4	0.63	1	1.6	2.5	4	6.3	10	14	18	23	25	32
Thermal release setting current		A	0.10~0.16	0.16~0.25	0.25~0.40	0.40~0.63	0.63~1.00	1.00~1.60	1.60~2.50	2.50~4.00	4.00~6.30	6.00~10.00	9.00~14.0	13.0~18.0	17.0~23.0	20.0~25.0	24.0~32.0
Rated operational power	AC-3 400V	kW	-	-	-	-	-	0.37	0.75	1.5	2.2	4	5.5	7.5	11	11	15
	AC-3 690V	kW	-	-	-	0.37	0.55	1.1	1.5	3	4	7.5	9	11	15	18.5	23
Breaking Capacity	400/415V Icu	kA	100	100	100	100	100	100	100	100	100	100	15	15	15	15	10
	400/415V Ics	kA	100	100	100	100	100	100	100	100	100	100	7.5	7.5	6	6	5
	690V Icu	kA	100	100	100	100	100	100	3	3	3	3	3	3	3	3	3
	690V Ics	kA	100	100	100	100	100	100	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
Certificate			CB, CE, SEMKO														

Note: Icu-Rated ultimate short-circuit breaking capacity; Ics-rated operational short-circuit breaking capacity.

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



Technical Parameter					
Motor Circuit Breakers			HDP17Z		
Frame rated current(Inm)	A		80		
Rated insulation voltage(Ui)	V		690		
Rated operational voltage(Ue)	V		690		
Rated impulse withstand voltage(Ui)	kV		6		
Rated frequency	Hz		50/60		
Utilization category			AC-3A		
Trip unit technology			Thermal-magnetic		
Operation mode			Push button		
Trip class			10A		
Electrical durability	Times		100000		
Mechanical durability	Times		100000		
Flash-Over distance	mm		≥40		
Accessories			Side Auxiliary Contact		
Rated current(In)	A		40	63	80
Thermal release setting current	A		25.0-40.0	40.0-63.0	56.0-80.0
Rated operational power	AC-3 400V	kW	16	20	25
	AC-3 690V	kW	18.5	30	40
Breaking Capacity	400/415V Icu	kA	35	35	15
	400/415V Ics	kA	17.5	17.5	7.5
	690V Icu	kA	4	4	2
	690V Ics	kA	3	3	2
Certificate			CB, CE, SEMKO		

Note: Icu-Rated ultimate short-circuit breaking capacity; Ics-rated operational short-circuit breaking capacity.

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



Technical Parameter

Motor Circuit Breakers			HDP6X															
Frame rated current(Inm)	A		32															
Rated insulation voltage(Ui)	V		690															
Rated operational voltage(Ue)	V		690															
Rated impulse withstand voltage(Ui)	kV		6															
Rated frequency	Hz		50/60															
Utilization category			AC-3A															
Trip unit technology			Thermal-magnetic															
Operation mode			Rotary handle															
Trip class			10A															
Electrical durability	Times		100000															
Mechanical durability	Times		100000															
Flash-Over distance	mm		≥40															
Accessories			Under-Voltage Release, Shunt Release, Instantaneous Auxiliary Contact (Side and Face-up Installation), Extended Rotary Handle, Fault Signal Contact, Combination Blocks, Current Limiter, Parallel Busbar, Plastic enclosure															
Rated current(In)	A		0.16	0.25	0.4	0.63	1	1.6	2.5	4	6.3	10	14	18	23	25	32	
Thermal release setting current	A		0.10~ 0.16	0.16~ 0.25	0.25~ 0.40	0.40~ 0.63	0.63~ 1.00	1.00~ 1.60	1.60~ 2.50	2.50~ 4.00	4.00~ 6.30	6.00~ 10.00	9.00~ 14.0	13.0~ 18.0	17.0~ 23.0	20.0~ 25.0	24.0~ 32.0	
Rated operational power	AC-3 400V	kW	-	-	-	-	-	0.37	0.75	1.5	2.2	4	5.5	7.5	11	11	15	
	AC-3 690V	kW	-	-	-	0.37	0.55	1.1	1.5	3	4	7.5	9	11	15	18.5	23	
Breaking Capacity	400/415V Icu	kA	100	100	100	100	100	100	100	100	100	100	15	15	15	15	10	
	400/415V Ics	kA	100	100	100	100	100	100	100	100	100	100	7.5	7.5	6	6	5	
	690V Icu	kA	100	100	100	100	100	100	3	3	3	3	3	3	3	3	3	
	690V Ics	kA	100	100	100	100	100	100	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Certificate			CB, CE, SEMKO															

Note: Icu-Rated ultimate short-circuit breaking capacity; Ics-rated operational short-circuit breaking capacity.

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



Technical Parameter

Motor Circuit Breakers			HDP6XL												
Frame rated current(Inm)	A		32												
Rated insulation voltage(Ui)	V		690												
Rated operational voltage(Ue)	V		690												
Rated impulse withstand voltage(Ui)	kV		6												
Rated frequency	Hz		50/60												
Utilization category			AC-3A												
Trip unit technology			Magnetic												
Operation mode			Rotary handle												
Trip class			10A												
Electrical durability	Times		100000												
Mechanical durability	Times		100000												
Flash-Over distance	mm		≥40												
Accessories			Under-Voltage Release, Shunt Release, Instantaneous Auxiliary Contact (Side and Face-up Installation), Extended Rotary Handle, Fault Signal Contact, Combination Blocks, Current Limiter, Parallel Busbar, Plastic enclosure												
Rated current(In)	A		0.4	0.63	1	1.6	2.5	4	6.3	10	14	18	25	32	
Magnetic release setting current	A		5.0	8.0	13.0	22.5	33.5	51.0	78.0	138.0	170.0	223.0	327.0	416.0	
Rated operational power	AC-3 400V	kW	-	-	-	0.37	0.75	1.5	2.2	4	5.5	7.5	11	15	
	AC-3 690V	kW	-	0.37	0.55	1.1	1.5	3	4	7.5	9	11	18.5	23	
Breaking Capacity	400/415V Icu	kA	100	100	100	100	100	100	100	100	100	100	15	10	
	400/415V Ics	kA	100	100	100	100	100	100	100	100	7.5	7.5	6	5	
	690V Icu	kA	100	100	100	100	3	3	3	3	3	3	3	3	
	690V Ics	kA	100	100	100	100	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Certificate			CB, CE, SEMKO												

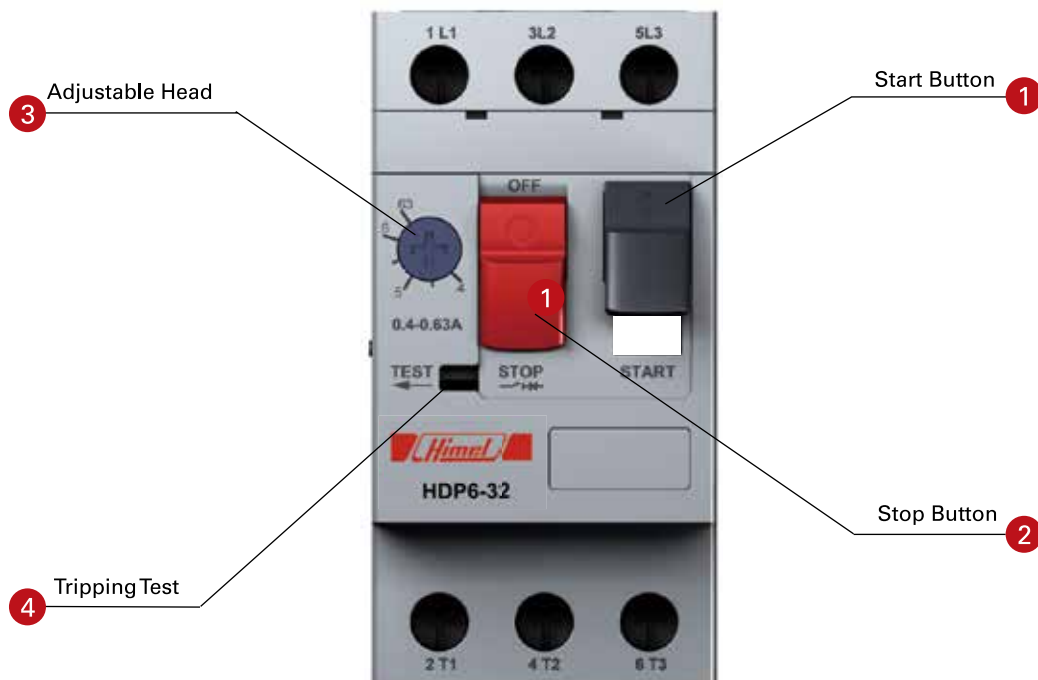
Note: Icu-Rated ultimate short-circuit breaking capacity; Ics-rated operational short-circuit breaking capacity.

HDP6 Series Motor Circuit Breaker

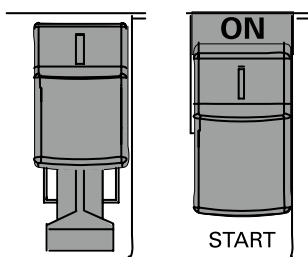
Standard: IEC60947-4



HDP6 Introduction for Functions

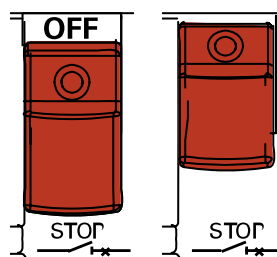


1 Start Button



- Press to start HDP6
- After downward pull-out, lock the start button to stop the work

2 Stop Button



- Press to stop HDP6

3 Adjustable Head



- Set the thermal tripping current

4 Tripping Test



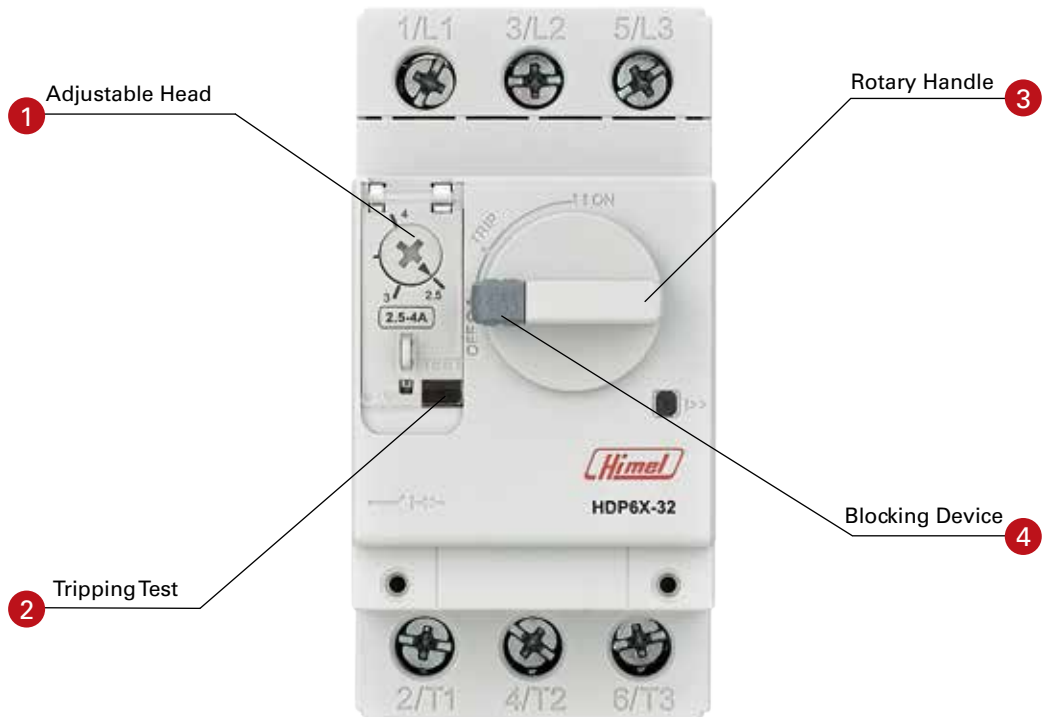
- Can simulate the tripping action, test product performance

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



HDP6X Introduction for Functions



1 Adjustable Head



- Set the thermal tripping current

2 Tripping Test



- Can simulate the tripping action, test product performance

3 Rotary Handle



- Rotate to start and stop HDP6X

4 Blocking Device



- After pulling out to the left, lock the start knob to stop working

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



HDP6XL Introduction for Functions



1 Blocking Device



- Rotate to start and stop HDP6X

2 Rotary Handle



- After pulling out to the left, lock the start knob to stop working

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



HDP6 & HDP6X Breaking Capacity						
Thermal release setting current(A)	Ue: 230/240V		Ue: 400/415V		Ue: 690V	
	Icu(kA)	Ics(kA)	Icu(kA)	Ics(kA)	Icu(kA)	Ics(kA)
0.10~0.16	100	100	100	100	100	100
0.16~0.25	100	100	100	100	100	100
0.25~0.40	100	100	100	100	100	100
0.40~0.63	100	100	100	100	100	100
0.63~1.00	100	100	100	100	100	100
1.00~1.60	100	100	100	100	100	100
1.60~2.50	100	100	100	100	3	2.25
2.50~4.00	100	100	100	100	3	2.25
4.00~6.30	100	100	100	100	3	2.25
6.00~10.00	100	100	100	100	3	2.25
9.00~14.0	100	100	15	7.5	3	2.25
13.0~18.0	100	100	15	7.5	3	2.25
17.0~23.0	50	50	15	6	3	2.25
20.0~25.0	50	50	15	6	3	2.25
24.0~32.0	50	50	10	5	3	2.25

HDP6XL Breaking Capacity						
Magnetic release setting current(A)	Ue: 230/240V		Ue: 400/415V		Ue: 690V	
	Icu(kA)	Ics(kA)	Icu(kA)	Ics(kA)	Icu(kA)	Ics(kA)
0.4	100	100	100	100	100	100
0.63	100	100	100	100	100	100
1	100	100	100	100	100	100
1.6	100	100	100	100	100	100
2.5	100	100	100	100	3	2.25
4	100	100	100	100	3	2.25
6.3	100	100	100	100	3	2.25
10	100	100	100	100	3	2.25
14	100	100	100	7.5	3	2.25
18	50	50	100	7.5	3	2.25
25	50	50	15	6	3	2.25
32	50	50	10	5	3	2.25

HDP6 Series Series Motor Circuit Breaker

Standard: IEC60947-4



HDP6 & HDP6X Main Technical Parameters

Fuse gL/gG (When the prospective short-circuit current is greater than the rated ultimate short-circuit breaking capacity I_{cu} , need a spare fuse)

Setting Current	Ue: 230/240V	Ue: 400/415V	Ue: 690V
0.1-0.16A	-	-	-
0.16-0.25A	-	-	-
0.25-0.4A	-	-	-
0.4-0.63A	-	-	-
0.63-1A	-	-	-
1-1.6A	-	-	-
1.6-2.5A	-	-	20
2.5-4A	-	-	32
4-6.3A	-	-	40
6-10A	-	-	40
9-14A	-	80	50
13-18A	-	80	50
17-23A	100	100	50
20-25A	100	100	50
24-32A	100	100	50

Note: '-'no need to use fuse

HDP6XL Main Technical Parameters

Fuse gL/gG (When the prospective short-circuit current is greater than the rated ultimate short-circuit breaking capacity I_{cu} , need a spare fuse)

Setting Current	Ue: 230/240V	Ue: 400/415V	Ue: 690V
0.4A	-	-	-
0.63A	-	-	-
1.0A	-	-	-
1.6A	-	-	-
2.5A	-	-	20
4.0A	-	-	32
6.3A	-	-	40
10A	-	-	40
14A	-	80	50
18A	-	80	50
25A	100	100	50
32A	100	100	50

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



3 Phase Motor Rated Power, 50/60Hz, AC-3

Setting Current	Ue: 230/240V	Ue: 400/415V	Ue: 690V
0.1-0.16A	-	-	-
0.16-0.25A	-	0.06kw	-
0.25-0.4A	-	0.09kw	-
0.4-0.63A	-	0.12kw	0.37kw
0.63-1A	-	0.25kw	0.55kw
1-1.6A	-	0.37kw	1.1kw
1.6-2.5A	0.37kw	0.75kw	1.5kw
2.5-4A	0.75kw	1.5kw	3kw
4-6.3A	1.1kw	2.2kw	4kw
6-10A	2.2kw	4kw	7.5kw
9-14A	3kw	5.5kw	9kw
13-18A	4kw	7.5kw	11kw
17-23A	5.5kw	9kw	15kw
20-25A	5.5kw	11kw	18.5kw
24-32A	7.5kw	15kw	22kw

Order Information

Thermal release Setting current	Magnetic release Current Id	400/415V, 50/60Hz, AC-3Rated operating power	Recommended Contactor	Reference		
0.1-0.16A	1.5A	-	HDC3-0911 HDCX-0911	HDP632P16	HDP6X01	HDP6XL03
0.16-0.25A	2.4A	0.06kW		HDP632P25	HDP6X02	HDP6XL03
0.25-0.4A	5A	0.09kW		HDP632P4	HDP6X03	HDP6XL03
0.4-0.63A	8A	0.12kW		HDP632P63	HDP6X04	HDP6XL04
0.63-1A	13A	0.25kW		HDP6321	HDP6X05	HDP6XL05
1-1.6A	22.5A	0.37kW		HDP6321P6	HDP6X06	HDP6XL06
1.6-2.5A	33.5A	0.75kW		HDP6322P5	HDP6X07	HDP6XL07
2.5-4A	51A	1.5kW		HDP6324	HDP6X08	HDP6XL08
4-6.3A	78A	2.2kW		HDP6326P3	HDP6X10	HDP6XL10
6-10A	138A	4kW		HDP63210	HDP6X14	HDP6XL14
9-14A	170A	5.5kW	HDC3-1211 HDCX-1211	HDP63214	HDP6X16	HDP6XL16
13-18A	223A	7.5kW	HDC3-1811 HDCX-1811	HDP63218	HDP6X20	HDP6XL20
17-23A	327A	9kW	HDC3-2511 HDCX-2511	HDP63223	HDP6X21	HDP6XL22
20-25A	327A	11kW		HDP63225	HDP6X22	HDP6XL22
24-32A	416A	15kW	HDC3-3211 HDCX-3211	HDP63232	HDP6X32	HDP6XL32
25-50A	480A	16kW	HDC3-4011	HDP17Z8040	-	-
40-63A	756A	20kW	HDC3-6511	HDP17Z8063	-	-
56-80A	960A	25kW	HDC3-8011	HDP17Z8080	-	-

HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



Accessories

HDP6 Series Accessories			
Name	Type	Spec.	Reference
Undervoltage Release	HAU	110~115V,50Hz;110~127V,60Hz	HAU110
		220~240V,50/60Hz	HAU220
		380~400V,50Hz;380~440V,60Hz	HAU380
		415V,50/60Hz	HAU415
Shunt Release	HAS	110~115V,50Hz;110~127V,60Hz	HAS110
		220~240V,50/60Hz	HAS220
		380~400V,50Hz;380~440V,60Hz	HAS380
		415V,50/60Hz	HAS415
Top Auxiliary Contact	HAE	2NO	HAE20
		1NC+1NO	HAE11
Side Auxiliary Contact	HAN	2NO	HAN20
		1NC+1NO	HAN11
Extended Rotary Handle	HAPN	140~434mm	HDP6APN01
Fault Signal Contact	HAD	1N/C+1N/O	HAD0110
		1N/O+1N/C	HAD1001
		1N/C+1N/C	HAD0101
		1N/O+1N/O	HAD1010
Short Circuit Signal Contact	HAM	1N/O+1N/C	HAM11
Combination Blocks	HAF	HDCX	HAFX
		HDC3 09-18	HAF318
		HDC3 25-38	HAF338
Current Limiter Blocks	HAL	32A	-
Parallel Busbar	HAG	54mm, 2	-
		54mm, 3	-
		54mm, 4	-
		54mm, 5	-
Waterproof Case	HMC	HDP6, IP55, 166*88*163 mm	HDP632MC
		HDP6X/HDP6XL, IP55, 166*88*163 mm	HDP6X32MC



HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



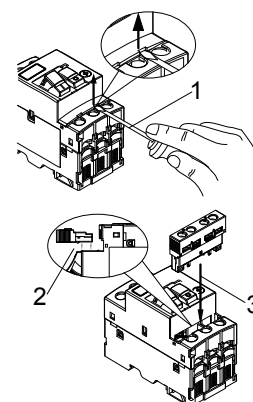
HDP17Z-80 Accessories

Name	Type	Spec.	Reference
Side Auxiliary Contact	HAN	2NO	HDP17Z80A02
		1NC+1NO	HDP17Z80A01

Parameters of instantaneous auxiliary contact

Name	Rated Insulation Voltage Ui	Utilization Category	Rated Operating Voltage	Rated Operating Current	Conventional Thermal Current
Top Auxiliary Contact	250V	AC-15	24V	2A	2.5A
			48V	1.25A	2.5A
			110V	1A	2.5A
			230V	0.5A	2.5A
		DC-13	24V	1A	2.5A
			48V	0.3A	2.5A
Side Auxiliary Contact	690V	AC-15	48V	6A	6A
			110V	4.5A	6A
			230V	3.3A	6A
			380V	2.2A	6A
		DC-13	24V	6A	6A
			48V	5A	6A
			220V	0.5A	6A

Installation of HAE11 or HAE20



1. Pry the top auxiliary protective cover up;
2. Put the flat surface of the top auxiliary contact close to the circuit breaker;
3. Align the installation position and insert it.

HDP6 Series Motor Circuit Breaker

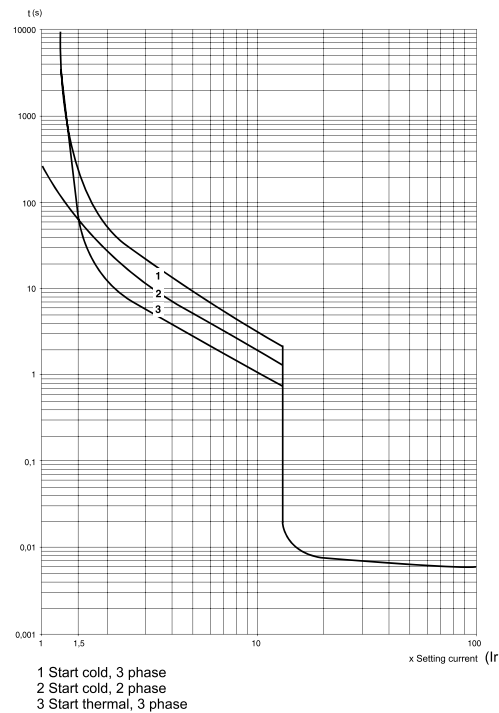
Standard: IEC60947-4



Operating Characteristics

No.	Multiples of Current Setting		Tripping time	Initial Conditions	Reference Ambient Air Temperature
Tripping Characteristics for Phase Load Balance					
1	1.05		Non-tripping within 2h	Cold State	+20°C
2	1.2		Tripping within 2h	Immediately after No.1 test	+20°C
3	1.5		Tripping within 2m	Immediately after No.1 test	+20°C
4	7.2		Tripping within 2s<Tp≤10s	Cold State	+20°C
Tripping Characteristics for Phase Load Unbalance (Phase Failure)					
	Any 2-Phase	3 rd Phase			
1	1.0	0.9	Non-tripping within 2h	Cold State	+20°C
2	1.15	0	Tripping within 2h	Immediately after No.1 test	+20°C
The temperature compensation performance					
1	1.0		Non-tripping within 2h	Cold State	+40°C
2	1.2		Tripping within 2h	Immediately after No.1 test	+40°C
3	1.05		Non-tripping within 2h	Cold State	-5°C
4	1.3		Tripping within 2h	Immediately after No.3 test	-5°C

Start-up time-current characteristic curve

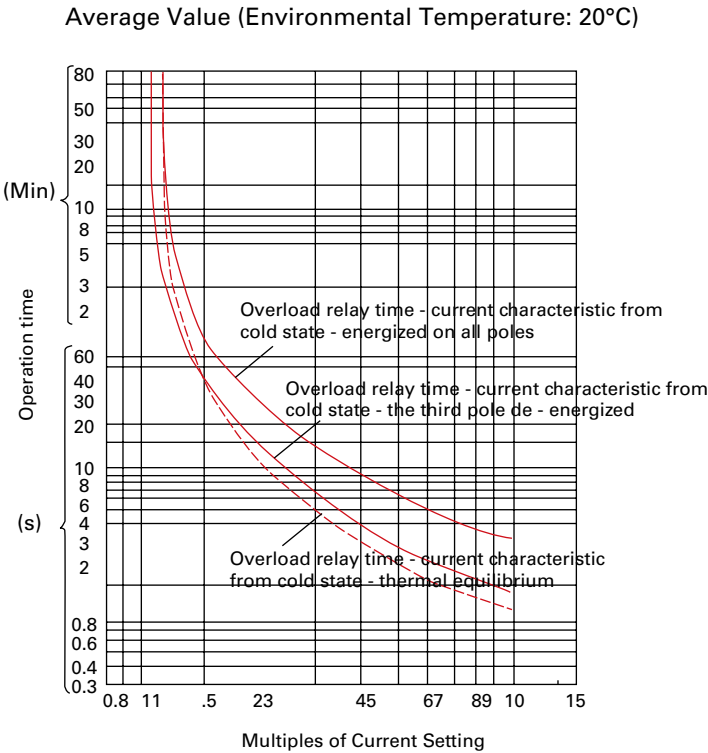


HDP6 Series Motor Circuit Breaker

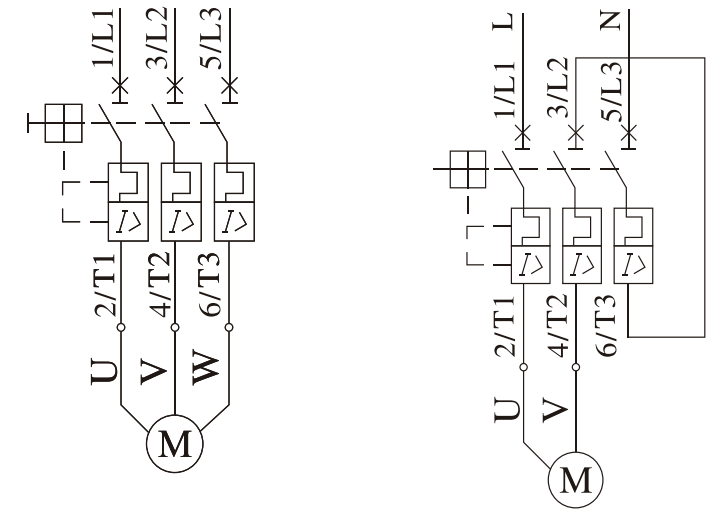
Standard: IEC60947-4



Thermal Tripping Curve



Wiring Diagram



Starter working principle diagram

Single phase or DC motor application wiring diagram

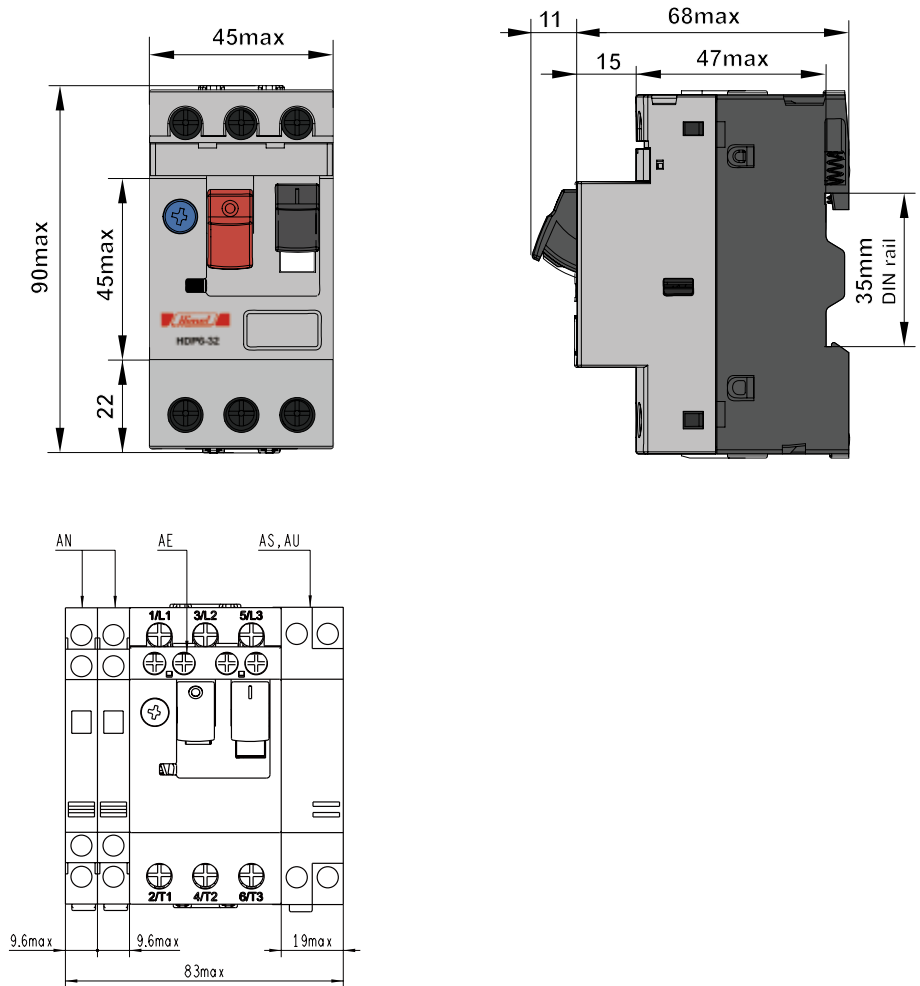
HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4

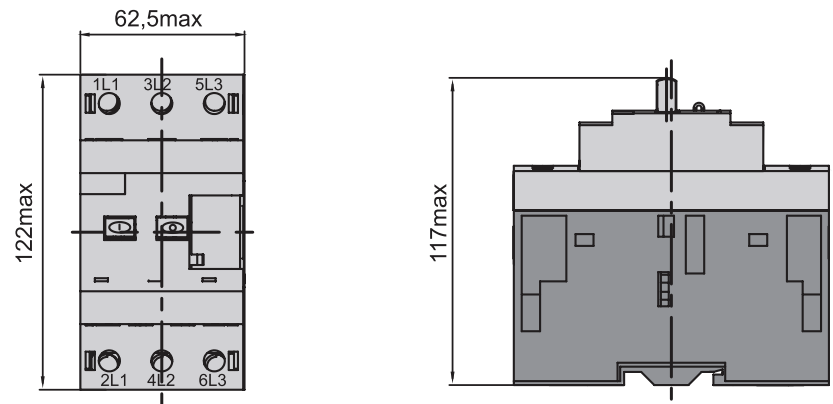


Overall Dimension for Installation

HDP6-32



HDP17Z-80

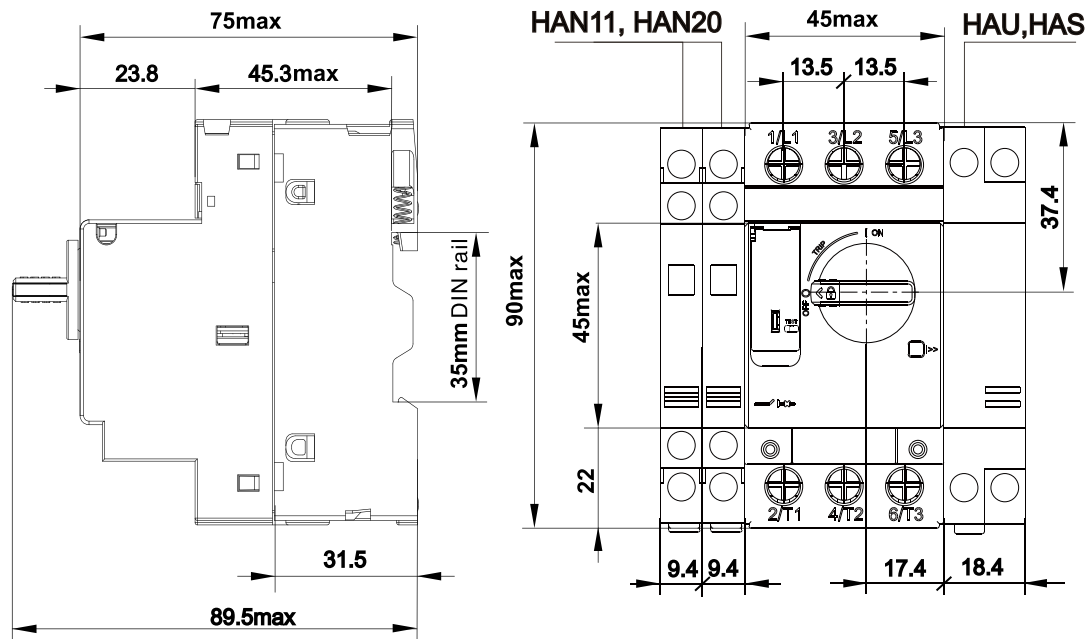


HDP6 Series Motor Circuit Breaker

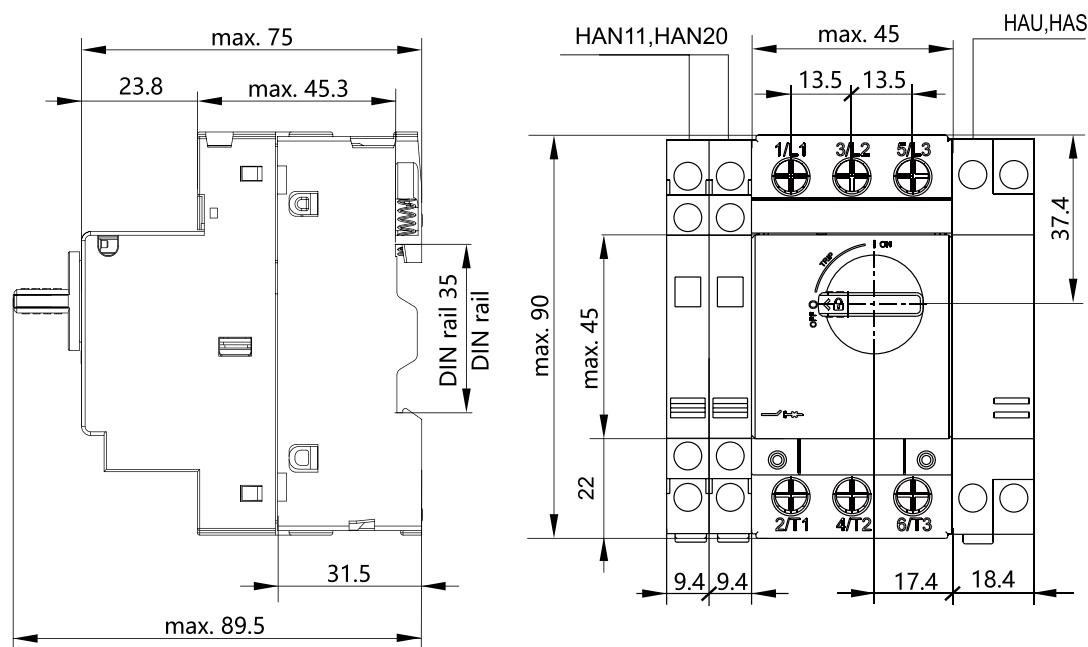
Standard: IEC60947-4



HDP6X

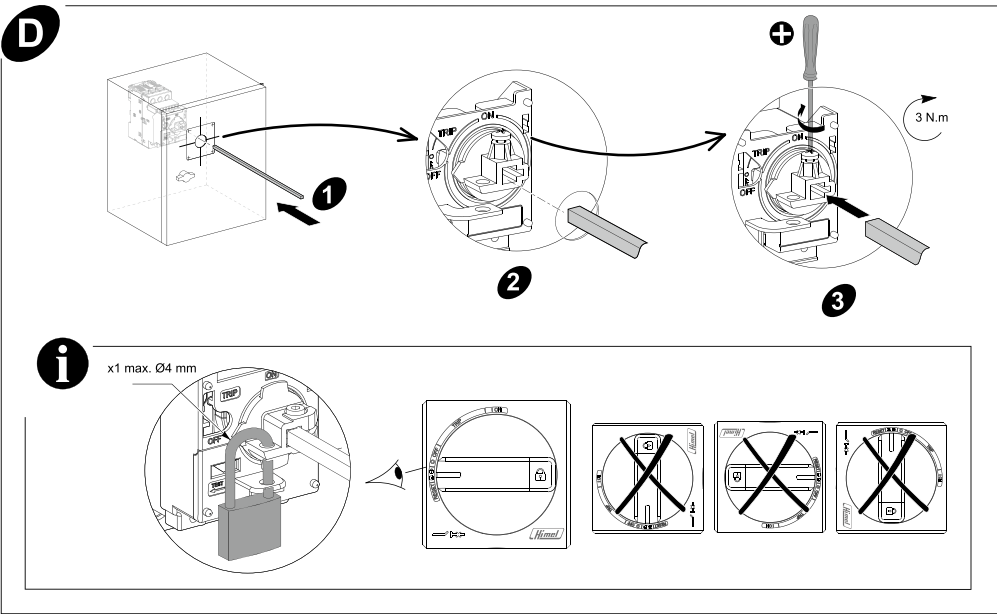


HDP6XL



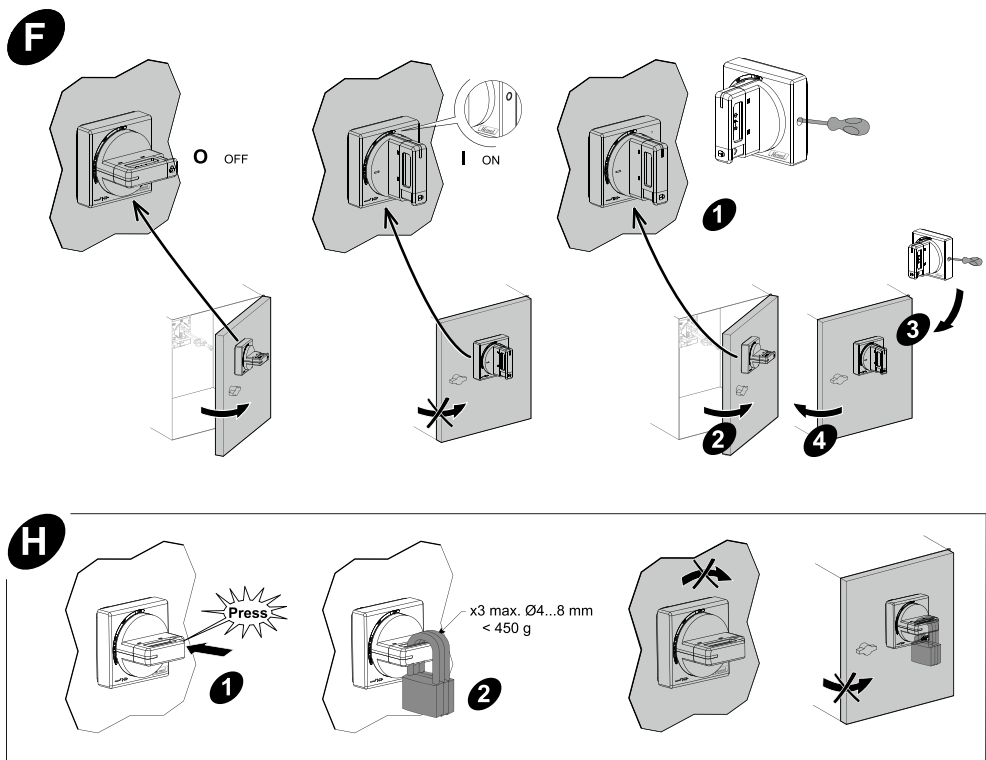
HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



HDP6 Series Motor Circuit Breaker

Standard: IEC60947-4



HDS3 Magnetic Starters

Standard: IEC60947-4



Range Presentation

HDS3 is Himel 3 series range of Magnetic Starter mainly used for AC 50/60Hz control system and maximum rated working voltage up to 660V. Direct start and stop of three-phase squirrel cage induction motor with maximum rated working current up to 95A under AC-3 using type, and overload protection is provided for the motor.

Features

- ◆ Frame Size 38 with plastic housing
- ◆ Frame Size 18/38/95 with metal housing
- ◆ IP54 Protection level
- ◆ With HDC3 series contactor and HDR3s series thermal relay

Online Content



HDS3

Selection Code

Range name	Frame size	Operation type	Rated current	Coil voltage	Coil frequency	Thermal relay	Housing
HDS3	38	B	09	M	7	P16	
HDS3	18: 18A 38: 38A 95: 95A	B: with push button	09: 9A 12: 12A 18: 18A 25: 25A 32: 32A 38: 38A 40: 40A 50: 50A 65: 65A 80: 80A 95: 95A	C: 36V F: 110V S: 127V M: 220/230V Q: 380/400V L: 415V X: 440V	7: 50/60Hz	P16: 0.1-0.16A 1P6: 1.0-1.6 A 93: 80-93A	Default: Plastic M: Metal Default: M: Metal

Note: Please refer to P(89) for detailed order information.

Technical Parameters

Magnetic Starters		HDS3-18 Metal		HDS3-38 Metal			HDS3-95 Metal					
		HDS3-38 Plastic										
Rated operating current (Ie) AC-3		9A	12A	18A	25A	32A	38A	40A	50A	65A	80A	95A
Maximum motor power kW (AC-3,380V)		4	5.5	7.5	11	15	18.5	18.5	22	30	37	45
Horse power hp (AC-3,380V)		5.4	7.4	10.1	20.1	24.8	40.2	40.2	44.2	49.6	60.4	60.4
Mechanical endurance	10 thousand times	1200			1000			900			650	
Electrical endurance AC-3	10 thousand times	110				90				65		
Operation frequency AC-3	time/h	1200				600						
Rated insultaion voltage (Ui)		690V										
Rated operating voltage (Ue)		240V, 380V/400V, 440V, 660V										
Rated control circuit voltage (Uc)		36V, 110V, 127V, 220/230, 380/400, 415V, 440V										
Coil frequency		50/60Hz										
Operation type		With Pushbutton										
IP grade		IP54										
Certificate		CE, SEMKO										
Standard		IEC 60947-4-1										
Environmental requirement	Altitude	2000m										
	Ambient temperature	-5°C ~ +40°C										
	Storage temperature	-25°C ~ +70°C										
	Installation position	The inclination to the vertical plane does not exceed ±5°										
	Rated withstand voltage	6kV										
	Humidity requirement	The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is +40°C. It is allowed to have a higher humidity under lower temperature, e.g. up to 90% at +25°C and the dew on the product due to the temperature change should be taken into consideration.										
	Installation condition	a. In a medium with no explosion danger, and minimal metal corrosion possibility or damage due to insulated gas and conductive dust b. Snow-proof equipment and lack of water vapour c. Without significant shock and vibration										

HDS3 Magnetic Starters

Standard: IEC60947-4





Magnetic Starters

HDS3 Series



FEATURES

- 3 3 frame sizes
- Available in plastic or metal housing
- IP54 protection level

APPLICATIONS

- Machine tool
- Hoisting machinery
- Textile machinery
- Building material machines
- Welding machine
- HVAC

HDS3 Magnetic Starters

Standard: IEC60947-4



Order Information

Motor power pe (KW,AC-3,380V)	Rated current (A)	Frame Size		Setting current (A)		AC Contactor type	Thermal overload relay type	Order reference with pushbutton
		HDS3		Range	Code	HDC3	HDR3s	
	9	HDS3-18 Metallic		0.1~0.16	P16	HDC3-9A	HDR3s-25	HDS318B09*7P16M /HDS338B09*7P16
				0.16~0.25	P25			HDS318B09*7P25M /HDS338B09*7P25
				0.25~0.4	P4			HDS318B09*7P4M /HDS338B09*7P4
				0.4~0.63	P63			HDS318B09*7P63M /HDS338B09*7P63
				0.63~1	01			HDS318B09*701M /HDS338B09*701
0.37				1~1.6	1P6			HDS318B09*71P6M /HDS338B09*71P6
0.75				1.6~2.5	2P5			HDS318B09*72P5M /HDS338B09*72P5
1.5				2.5~4	04			HDS318B09*704M /HDS338B09*704
2.2	12	HDS3-38 Plastic		4~6	06	HDC3-12A	HDR3s-25	HDS318B09*706M /HDS338B096*706
3				5.5~8	08			HDS318B09*708M /HDS338B09*708
4				7~10	10			HDS318B12*710M /HDS338B12*710
5.5				9~13	13			HDS318B18*713M /HDS338B18*713
7.5	25	HDS3-38 Metallic		12~18	18	HDC3-25A	HDR3s-38	HDS338B25*718M /HDS338B25*718
11				17~25	25			HDS338B25*725M /HDS338B25*725
15	32			23~32	32	HDC3-32A	HDR3s-38	HDS338B32*732M /HDS338B32*732
18.5	38			30~40	38	HDC3-38A		HDS338B38*740M /HDS338B38*740
18.5	40	HDS3-95 Metallic		30~40	40	HDC3-40A	HDR3s-93	HDS395B40*740
22	50			37~50	50	HDC3-50A		HDS395B50*750
30	65			48~65	65	HDC3-65A		HDS395B65*765
37	80			63~80	80	HDC3-80A		HDS395B80*780
45	93A			80~93	93	HDC3-95A		HDS395B95*793

Himel Soft Starters

Himel Basic (HASBS) is a full-digital intelligent soft-starter for asynchronous motors to effectively control the starting current for asynchronous motors. It is a desired alternative to reduced-voltage motor starters like star-delta, resistance/reactance or auto transformer methods.



Online Content



HASBS

Himel Expert (HASXS) is an advanced soft-starter with a built-in bypass contactor that can control the starting inrush current of asynchronous motors. The integrated contactor reduces the total number of external components (wiring and contactor etc.)



Online Content



HASXS

Capacity Range (Motor capacity in kW)																			
11	15	19	22	30	37	45	55	75	90	110	132	160	200	250	320	400	450	500	600
HAS-XS-4T																			
HAS-BS-4T																			

Multiple start methods

- Current limit soft start
- Ramp voltage soft start
- Ramp voltage + current limit soft start

High robustness

- High anti-interference capability
- Compact design

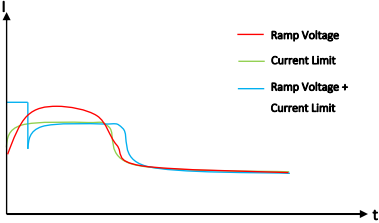
Motor protections

- Overcurrent, overload protection
- Phase-loss protection
- Over-heating protection
- 3-phase imbalance

Easy to use

- 24 hour monitoring
- Quick diagnosis

Highlights

Features		Your benefits
Multiple start methods		
	◆ Current limit soft start ◆ Ramp voltage soft start ◆ Ramp voltage + current limit soft start	◆ Provides multiple starting methods to meet different application needs
High Robustness		
	◆ High anti-interference capability ◆ Compact design ◆ 3 sets of thyristors to control start/stop voltage	◆ Better electromagnetic immunity against signal noises ◆ Supports longer connection cables. ◆ Unique compact design with double-layer shell consisting of plastic upper layer and metal lower layer makes it durable and nice looking ◆ 3 sets of thyristors provides better performance, safety and reliability
Motor protections		
	◆ Overcurrent, overload protection ◆ Phase-loss protection ◆ Over-heating protection ◆ 3-phase imbalance	◆ Protect your motor against different abnormalities
Easy to use		
	◆ Easy tuning ◆ 24-hour monitoring ◆ Quick diagnosis	◆ 8 segment LED display to monitor different parameters and troubleshooting. ◆ Easy to maintain

Himel Soft Starters

Range		HASBS	HASXS
Applications		Controlled acceleration/deceleration of simple and complex machines	
Design			
Power Range	Three Phase 380...440V	11...600kW	
Drive	Control Type	Current limit, voltage ramp, voltage ramp + current limit	
Functions	Bypass	Need to install externally	Integrated
	Operation control mode	Keypad/external terminals/RS485 Modbus communication	
	Start mode	Current limit/voltage limit/current + voltage limit	
	Adjustable Acceleration/Deceleration time	√	√
	Start delay	√	√
	Emergency stop	√	√
	Current Limit function	√	√
	Initial voltage setting	√	√
	No/Light load detection	Protects against accidents such as belt tripping	
	Auto-restart	√	√
	Fault signal	Relay output - AC 250V 5A, DC 30V 5A	
	Multifunction relay output	Start delay, start, running, stop, complete stop, restart	
	Analog output	0~20mA / 4~20mA, optional	
	Protections	Overcurrent, overload, overheat, phase imbalance, phase-loss, light load, external fault	
	Alarms	Emergency shutdown, light load and restart	
Keypad		Pluggable	
Working Conditions	Rated insulation voltage	660V	
	Rated impulse withstand voltage	4kV	
IP rating	IP20	11 to 55kW	-
	IP00	75 to 600kW	11 to 600kW
Environment	Operation frequency	≤ 12 times/h	
	Ambient temperature	-10°C~ 40°C(Derating above 40°C)	
	Storage temperature	-20 °C ~ 65 °C	
	Ambient humidity	Max. 90 % RH (no condensation)	
	Altitude	< 1,000 m (Deration above 1,000 m)	
	Vibration	< 5.9m/s² (=0.6g)	
	Type	No corrosive/inflammable gas, oil mist, dust or others	
Cooling Method	Natural air cooling	11 to 600kW	11 to 75kW
	Forced air cooling	-	93 to 600kW

BASIC Series (HASBS)

Presentation

Himel BASIC soft-starter(HASBS) is an intelligent soft-starter featuring latest electronic, micro-processing and control technology. It offers effective control for the starting current of asynchronous motors via voltage control. It is an ideal alternative to the reduced voltage starters like star-delta, resistance/reactance or auto-transformer methods.

It can cover motors from 11kW to 600kW.

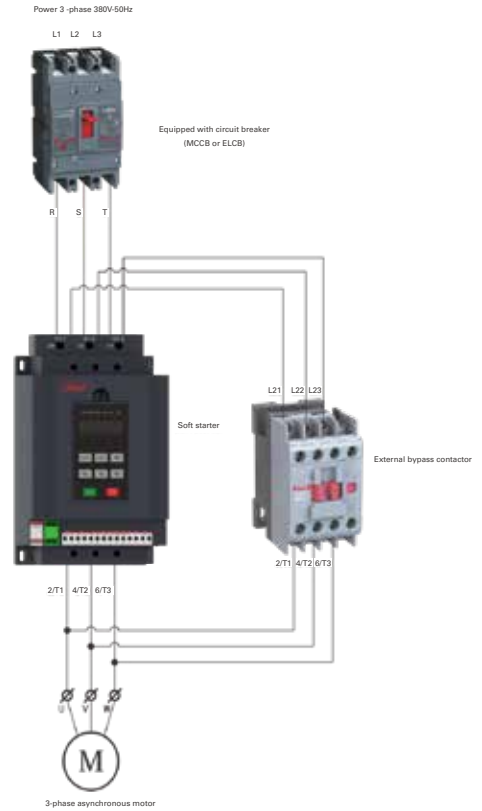
Applications

With its unique, compact design it can be used in harsh environments with the focus on human and other equipment safety. It can be used in typical building or industrial applications:

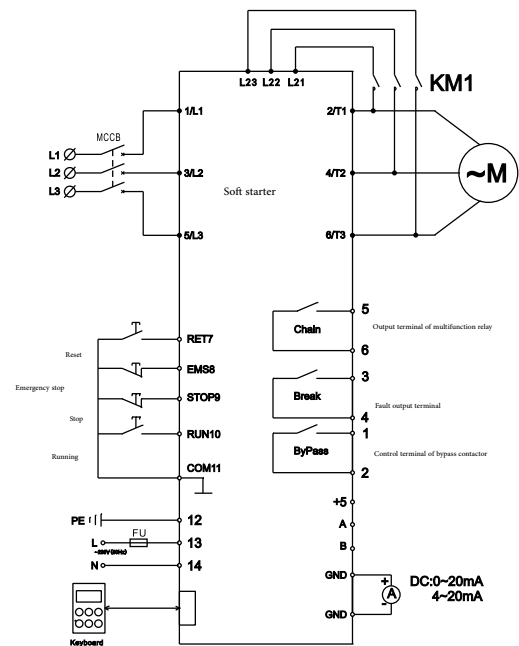
- Pumps
- Fans
- Compressors
- Conveyers
- Complex and advanced machines

Features

- HASBS has 3 starting modes: current-limit, voltage ramp and current limit + voltage ramp.
- Built-in protections include overcurrent, phase loss, short circuit and overheat.
- Multiple control ways like keypad, I/O terminals and Modbus communication.
- Multifunctional output relays provide different signals based on application requirements.



Connection diagram



Wiring diagram

EXPERT Series (HASXS)

Presentation

Himel Expert Soft-starter(HASXS) is an advance soft-starter to control the starting and stopping of asynchronous motors via voltage control. It can cover motors from 11kW to 600kW. HASXS comes with a built-in bypass contactor hence reducing the total number of external components required by the system.

The starting inrush current to the motor is controlled by managing the voltage to the motor. Silicon-controlled rectifiers (SCRs) are used to control the voltage. These SCRs are bypassed at the end of starting phase using built-in contactor.

Integrated keypad allows user to program the soft-starter and monitor different parameters according to the customer requirements.

Applications

Himel Expert soft-starter (HASXS) is designed for rugged applications with the focus on safety and reduced commissioning times. It can be used in typical building or industrial applications:

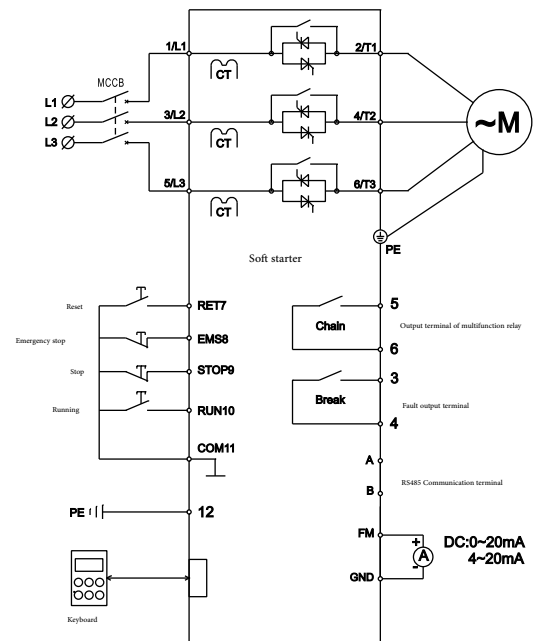
- Pumps
- Fans
- Compressors
- Conveyers
- Complex and advanced machines

Features

- Integrated bypass contactor.
- HASXS has 3 starting modes: current-limit, voltage ramp and current limit + voltage ramp.
- High performance microprocessor makes it highly reliable.
- Opto-electronic isolation provides high anti-interference performance.
- New optimized and compact design
- Built-in protections include overcurrent, phase loss, short circuit and overheat.
- User can monitor different system parameters hence making it easy to maintain



Connection diagram



Wiring diagram

Reference rules

Range name	Series Name	Input	Adaptation	Type
HAS	BS	4T	0015	G
HA: Himel Automation	BS: Basic XS: Expert	4: 380V – 440V	0110: 11kW 0185: 18.5kW 1100: 110kW	P: Normal-Duty G: Heavy Duty
S: Soft Starter		T: Three-phase		

References and Dimensions

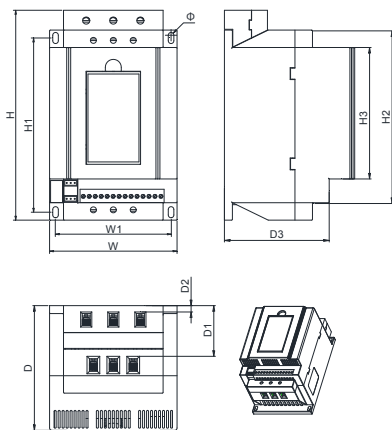
Range	Input Voltage	Himel reference	Motor Power (kW)	Motor Power (HP)	Rated Output Current (A)	Dimensions(mm)			Mounting Dimensions (mm)					Mounting Hole Diameter (mm)	CAD Diagram
						W	H	D	W1	H1	D1	D2	D3	Ø	
HASBS	380-440V Three Phase	HASBS4T0110G	11	15	25	160	265	164	145	220	67	10	111	8	(a)
		HASBS4T0150G	15	20	32	160	265	164	145	220	67	10	111	8	
		HASBS4T0185G	18.5	25	37	160	265	164	145	220	67	10	111	8	
		HASBS4T0220G	22	30	45	160	265	164	145	220	67	10	111	8	
		HASBS4T0300G	30	41	60	160	265	164	145	220	67	10	111	8	
		HASBS4T0370G	37	50	75	160	265	164	145	220	67	10	111	8	
		HASBS4T0450G	45	61	90	160	265	164	145	220	67	10	111	8	
		HASBS4T0550G	55	75	110	160	265	164	145	220	67	10	111	8	
		HASBS4T0750G	75	102	152	280	534	255	230	430	98	44	180	10	(b)
		HASBS4T0900G	93	127	176	280	534	255	230	430	98	44	180	10	
		HASBS4T1100G	110	150	210	280	534	255	230	430	98	44	180	10	
		HASBS4T1320G	132	180	253	280	534	255	230	430	98	44	180	10	
		HASBS4T1600G	160	218	300	280	534	255	230	430	98	44	180	10	
		HASBS4T2000G	200	272	380	310	594	255	265	475	98	44	180	10	
		HASBS4T2500G	250	340	480	310	594	255	265	475	98	44	180	10	
		HASBS4T3200G	320	435	600	310	594	255	265	475	98	44	180	10	
		HASBS4T4000G	400	544	750	416	740	275	375	555	106	44	200	10	
		HASBS4T4500G	450	612	892	416	740	275	375	555	106	44	200	10	
		HASBS4T5000G	500	680	930	416	740	275	375	555	106	44	200	10	
		HASBS4T6000G	600	816	1100	416	740	275	375	555	106	44	200	10	

References and Dimensions

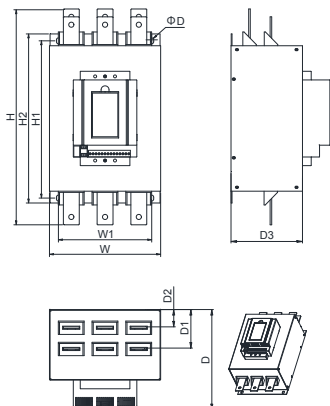
Range	Input Voltage	Himel reference	Motor Power (kW)	Motor Power (HP)	Rated Output Current (A)	Dimensions(mm)			Mounting Dimensions (mm)					Mounting Hole Diameter (mm)	CAD Diagram
						W	H	D	W1	H1	D1	D2	D3	Ø	
HASXS	380-440V Three Phase	HASXS4T0110G	11	15	25	150	264	170	128	262	242	96	96	7	(c)
		HASXS4T0150G	15	20	32	150	264	170	128	262	242	96	96	7	
		HASXS4T0185G	18.5	25	37	150	264	170	128	262	242	96	96	7	
		HASXS4T0220G	22	30	45	150	264	170	128	262	242	96	96	7	
		HASXS4T0300G	30	41	60	150	264	170	128	262	242	96	96	7	
		HASXS4T0370G	37	50	75	150	264	170	128	262	242	96	96	7	
		HASXS4T0450G	45	61	90	150	264	170	128	262	242	96	96	7	
		HASXS4T0550G	55	75	110	200	384	226	165	345	360	137.5	137.5	7	
		HASXS4T0750G	75	102	152	200	384	226	165	345	360	137.5	137.5	7	(d)
		HASXS4T0900G	93	127	176	255	579	230	180	520	545	160	151	9	
		HASXS4T1100G	110	150	210	255	579	230	180	520	545	160	151	9	
		HASXS4T1320G	132	180	253	255	579	230	180	520	545	160	151	9	
		HASXS4T1600G	160	218	300	255	579	230	180	520	545	160	151	9	
		HASXS4T2000G	200	272	380	300	684	235	235	620	650	159	154	9	
		HASXS4T2500G	250	340	480	300	684	235	235	620	650	159	154	9	
		HASXS4T3200G	320	435	600	300	684	235	235	620	650	159	154	9	
		HASXS4T4000G	400	544	750	520	810	240	400	715	740	166	163	9	(e)
		HASXS4T4500G	450	612	892	520	810	240	400	715	740	166	163	9	
		HASXS4T5000G	500	680	930	520	810	240	400	715	740	166	163	9	
		HASXS4T6000G	600	816	1100	520	810	240	400	715	740	166	163	9	

CAD Diagrams

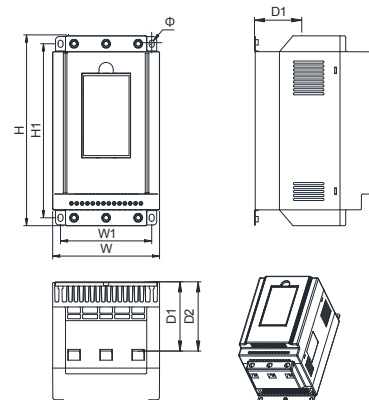
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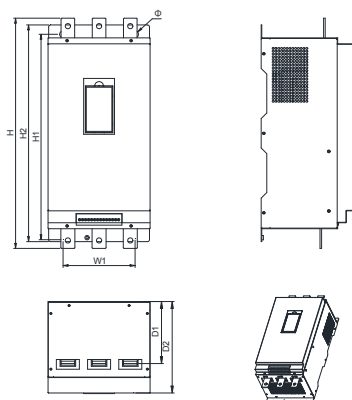
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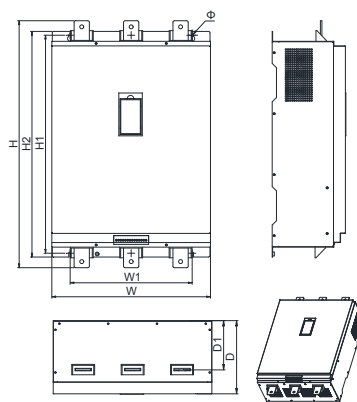
(c)



(d)



(e)



Selection Reference

Machine Type	Load Type	Start Mode			Value Setting		StartTime
		Voltage	Current	Heavy Load	Voltage (%)	Current (%)	
Centrifugal pump	Standard load(ND)		√	√		250	5
Fan	Standard load(ND)		√			400	30
Compressor (pistol)	Standard load(ND)		√			300	10
Compressor (centrifugal)	Standard load(ND)	√			30		20
Conveyor	Standard load(ND)		√	√		250	10
Mixer	Standard load(ND)		√	√		350	5
Ball mill	Heavy load(HD)		√		70	400	50
Crusher	Heavy load(HD)	√			60		45



VARIABLE SPEED DRIVES

Himel VSDs are designed and manufactured for applications that require high-efficiency components and future configurability.

They are suitable for industrial, HVAC, water/wastewater treatment, machinery OEM, and other applications. Himel VSDs meet performance requirements while saving space.



High
Performance



Improved
Energy Savings



Multiple
Functions



Easy to
Use



Longer
Lifespan



Basic Series

Economical range, with capacity from 0.75kW to 15kW

Applications

BOILER WATER FEEDER PUMP,
SAND BLASTING, GRINDER



Expert Standard Series

Built-in braking unit, with capacity from 0.75kW to 850kW

Applications

CIRCULATING PUMP, INDUSTRIAL
FAN, METAL WORK



Smart Pump Series

Multi pump control, with power range from 2.2kW to 315kW

Applications

WATER BOOSTER PUMP,
VENTILATION, SCROLL CHILLERS

VARIABLE SPEED DRIVES

Reliable motor control solutions to meet
the demands of diverse applications



HIGH PERFORMANCE

Excellent overload performance:
150% 60s, 180% 3s, 200% 1s

High start torque performance:
0.5Hz, 150%

Excellent current control capability

BENEFITS

Improves machine productivity

Reduces production line interruptions

Sufficient stable output torque when the
load is suddenly changed to avoid trip
operation



IMPROVED ENERGY SAVINGS

Integrated Eco-mode for V/f and V2/f

Improved special PID control
with sleep mode

Energy-saving capabilities for
pumps and fans

BENEFITS

Energy savings during low load cycles

Increases potential savings by
up to 70%

Reduces return time of investment



MULTITUDE OF FUNCTIONS

New software platform supporting
functions such as flexible V/F curve,
16-stage multi-speed control, command
binding, industry specific functions, etc.

Built-in RS485 Modbus protocol

Easy system integration for
large production lines

BENEFITS

No need for additional upper controller

Simplifies system integration for large
production line and long distance
communication

Cost-effective solution for stand-alone
machines



EASY TO USE

Compact design and side-by-side or wall
mounting and din-rail installation,

High accuracy motor parameters
self-tuning

Supports pluggable keypad and
extension keypad

BENEFITS

Fits in smaller cabinets

No need to set motor parameters

Easy operation and maintenance



LONGER LIFETIME

Reliable operation with net tension
between 380V-440V (-15%/+10 %)

Fully coated PCB and dust shield cover

Better cooling and removable fan design

BENEFITS

Wider voltage range increases
robustness

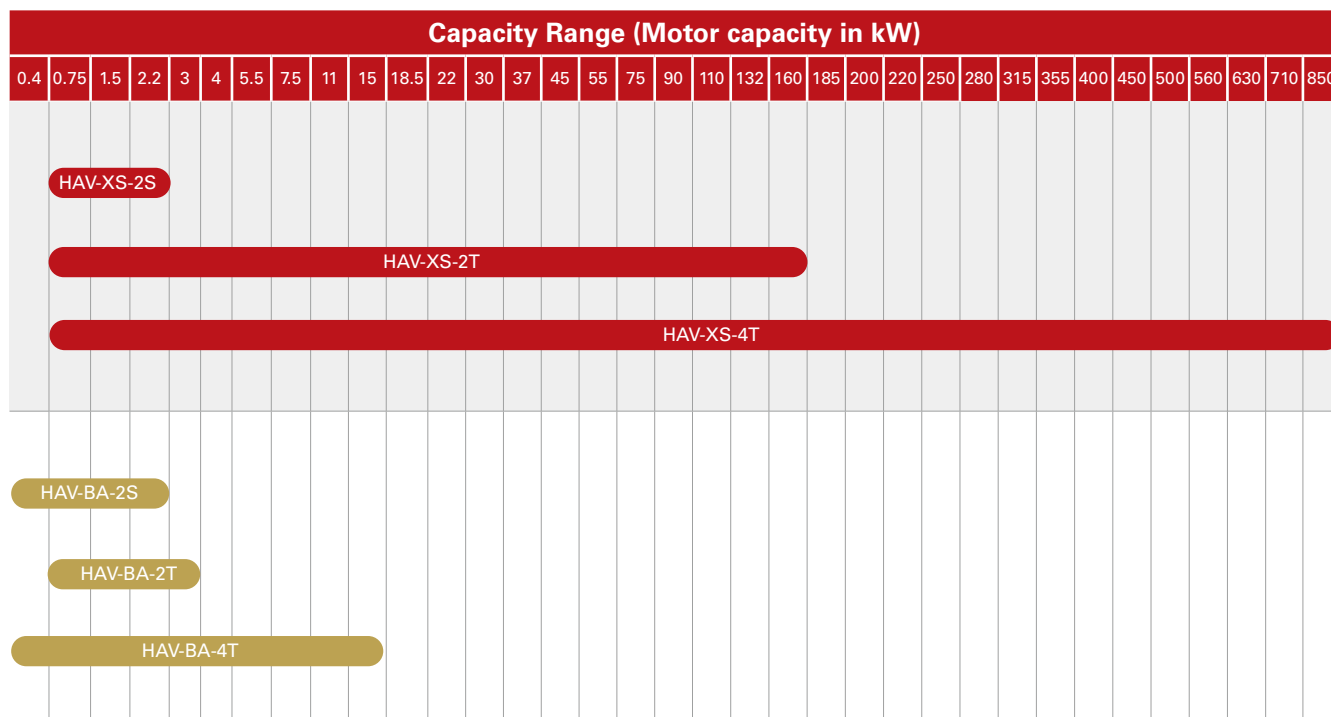
Automatic adaptation to unstable
power supply

Longer life in high humid and high
dust environments

General Purpose Variable Speed Drives



Range Selection



* 2S = 200-240V Single Phase, 2T = 200-240V Three Phase, 4T = 380-440V Three Phase

BASIC Range

Range Presentation

Himel BASIC range Variable Speed Drives (VSDs) are for single phase/three phase asynchronous motors from 0.4 kW to 5.5 kW. Designed for your small machines and simple general purpose applications like pumps, fans, carving machines etc. Himel BASIC VSDs are designed to focus on essential needs in terms of hardware and software. It is a high performance economical range.

Features

- ◆ Economical range
- ◆ Easy to use
- ◆ Robust design
- ◆ Embedded protection and communication functions
- ◆ Built in PLC

Online Content



Basic

Selection Code



Series name	Input	Power range	Drive type
HAVBA	4T	0007	G
HAVBA: BASIC	2: 200-220V 4: 380V – 440V S: Single-phase T: Three-phase	0004: 0.4kW 0007: 0.75kW 0015: 1.5kW 0022: 2.2kW 0037: 3.7kW 0040: 4.0kW 0055: 5.5kW 0075: 7.5kW 0110: 11kW 0150: 15kW	G: Heavy Duty

General Purpose Variable Speed Drives

EXPERT Standard

Range Presentation

Himel EXPERT Standard range Variable Speed Drives are for single/three phase asynchronous motors from 0.75kW to 850kW. EXPERT Standard is designed for advanced machines and advanced general purpose applications like material handling, wood machines, process machines, textile machines and packaging etc.

Features

- ◆ Advanced functions and performances
- ◆ Embedded EMC filter
- ◆ Built-in braking unit
- ◆ Embedded protection and communication functions
- ◆ Different communication protocols options

Online Content



EXPERT Standard

Selection Code



Range name	Input	Power range	Drive type	Range	Drive type
HAVXS	4T	0007	G	0015	P(W)
HAVXS: EXPERT Standard	2: 200-240V 4: 380V – 440V S: Single-phase T: Three-phase	0007: 0.75kW 0015: 1.5kW 0022: 2.2kW 7100: 710kW 8500: 850kW	G: Heavy Duty	0055: 5.5kW 0075: 7.5kW 0110: 11kW 7100: 710kW 8500: 850kW	P: Normal Duty W: Wall Mounted



Target Application		Small & Simple General Purpose Applications	P&F & Advanced General Purpose Applications
Range Name		BASIC	EXPERT XS
Capacity range	Single phase 200V Class	200V(-15%)-240V(+10%) 0.4~2.2kW	200V(-15%)-240V(+10%) 0.75~2.2kW
	Three phase 200V Class	—	200V(-15%)-240V(+10%) 0.75~160kW
	Three phase 400V Class	380V(-15%)-440V(+10%) 0.4~15kW	0.75~450kW [380V (-15%)~440V (+10%)] 500kW ~ 850kW (380V -15% +10%)
Frequency	Input frequency	50/60Hz	
	Output frequency	0-599Hz	0 - 550Hz
Overload capacity	Normal Duty	—	120% for 1min, 150% for 1s, 180% instant protection
	Heavy Duty	150% for 1min, 180% for 1s, 200% instant protection	150% for 1min, 180% for 3s, 200% instant protection
Control method	V/f	√	√
	Sensor less vector control		√
	Eco-mode control	√	√
Start torque		0.5Hz, 150%	
Inbuilt PID		√	√
Keypad		Fixed	Pluggable
Display		Single row LED	Double row LED
Multispeed control		Up to 16 stages in one cycle	

General Purpose Variable Speed Drives



Target Application		Small & Simple General Purpose Applications	P&F & Advanced General Purpose Applications
Range Name		BASIC	EXPERT XS
I/O	DI1-DI4	NPN/PNP, Input: 9-30VDC	
	DI5	NPN/PNP, Input: 15-30VDC, Pulse input: max. 50kHz	
	DO1	9-30VDC, max. 50mA	
	DO2	9-30VDC, max. 50mA Pulse output max. 50kHz	
	AI1	V: 0-10V I: 0-20mA Resolution: 1/1000	V: 0-10V I: 0-20mA Resolution: 1/1000
	AI2	V: 0-10V Resolution: 1/1000	
	AO1	V:0-10V	V:0-10V I: 0-20mA
	AO2	V:0-10V I: 0-20mA	
	RO(Ta,Tb,Tc)	NO: 24VDC 3A / 250VAC 5A NC: 24VDC 3A / 250VAC 3A	
Inbuilt communication (Max. speed)		RS485, Modbus RTU (38.4kbps)	
Options	Extension I/O	—	DI/DO/AI/AO/RO/PT100/PT1000
	Extension keypad	Support, cable length:2m, 5m	
Installation Way		Wall mounted, cabinet, din-rail	Wall mounted, cabinet, flange installation
Dust Shields		—	Optional
EMC Filter C3		—	External card available (≥ 30kW)
Braking unit		Built-in	Built-in (≤ 22W)
Environment	Operation temperature	-10-40°C no capacity reduction, 40°C-50°C capacity reduction	
	Humidity	95%RH	
	Altitude	≤1000m, no capacity reduction	
	IP level	IP20	
Standards		EN 61800-3: 2004 +A1: 2012 +A1: 2012, EN 55011: 2016+A1: 2017, EN 61000-6-2: 2005, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 61000-4-2: 2009, EN 61000-4-3: 2006+A1: 2008+A2: 2010, EN 61000-4-4: 2012, EN 61000-4-5: 2014, EN 61000-4-6: 2014, EN 61000-4-8: 2010, EN 61000-4-11: 2004	
Certificates		CE	CE
Features	Velocity ratio	1:100	
	Frequency precision	Digital setting: Max frequency X ±0.01% Analog setting: Max frequency X ±0.2%	
	Frequency resolution	Digital setting :Max frequency X ±0.01% Analog setting: Max frequency X ±0.1%	
	Torque rise	Integrated auto-torque rising function Manual- setting: 0.1%~30.0%	
	V/F control curve	Linear, Square, V ^{1/7} /F, V ^{1/2} /F	
	Acceleration/Deceleration Time	4 types of ACC/DEC time selection; optional time unit selection (Min/s); setting range: 0~60hours;	
	DC braking	Start frequency: 0.00~60.00Hz; braking time: 0.0~30.0s; braking current: 0.0~100%	
	Automatic voltage regulation(AVR)	√	
	Auto current limitation	√	
	Auto PWM adjustment	√	
Protection	Prevent mis operation	—	√
	Protection function	Over-current, over-voltage, under-voltage, over-heat, over-load, short circuit.	
	Cooling	Air- cooling	
Warranty		24 months	

General Purpose Variable Speed Drives



Accessories Selection

Category	Type	Range	Commercial Reference	Short Description	Applicable Product		Pictures
					Applicable Commercial Reference	Specifications	
ADD-ON	Encoder card	Expert XS	HAVXSEC	Encoder for XS series	All XS series	All XS series	
	EMC filter card	Expert XS	HAV-XS-4T0370G-FL	Simple EMC filter	HAV-XS-4T0300G-0370P ~ HAV-XS-4T0370G-0450P	4T*: 30 - 37kW	
			HAV-XS-4T0550G-FL		HAV-XS-4T0450G-0550P ~ HAV-XS-4T0550G-0750P	4T*: 45 - 55kW	
			HAV-XS-4T1850G-FL		HAV-XS-4T0750G-0900P ~ HAV-XS-4T1850G-2000P	4T*: 75 - 185kW	
	IO extension card	Expert XS	HAV-XS-IO-3DI-R	IO extension card with 3 Di and 1 relay	All XS series	All XS series	
	Communication card	Expert XS	HAV-XS-PN	Extension communication card	All XS series	All XS series	
			HAV-SP-BN	Extension communication card	All XS series	All XS series	
			HAV-XS-DP	Communication bus translator	All XS series	All XS series	
Dust Preventive Accessories	Dust cover	EXPERT XS	HAV-XS-FCB	Dust prevention cover	HAV-XS-2S0007 ~ HAV-XS-2S0022G HAV-XS-2T0007G ~ HAV-XS-2T0220G-0300P HAV-XS-4T0007G ~ HAV-XS-4T0220G-0300P	2S*: 0.75 - 2.2kW 2T*: 0.75 - 22kW 4T*: 0.75 - 22kW	
		BASIC BA	HAV-BA-4T0040		HAV-BA-2T0022G HAV-BA-2S0022G HAV-BA-4T0040G HAV-BA-4T0055G	2T*: 2.2kW 2S*: 2.2kW 4T*: 4kW, 5.5kW	
	Dust Guaze	Expert XS	HAV-XS-4T0075-FSB	Dust guaze for Expert Series	HAV-XS-4T0055G-0075P HAV-XS-4T0075G-0110P	4T*: 5.5kW, 7.5kW	
			HAV-XS-4T0150-FSB		HAV-XS-4T0110G-0150P HAV-XS-4T0150G-0180P	4T*: 11kW, 15kW	
			HAV-XS-4T0220-FSB		HAV-XS-4T0185G-0220P HAV-XS-4T0220G-0300P	4T*: 18.5kW, 22kW	
	Dust Sticker	BASIC BA	HAV-BA-4T0022 HAV-BA-4T0075 HAV-BA-4T0150	Dust sticker for BASIC Series	HAV-BA-2S0004G ~ HAV-BA02S0015G HAV-BA-4T0004G ~ HAV-BA-4T0022G HAV-BA-4T0075G HAV-BA-4T0110G, HAV-BA-4T0150G	2S*: 0.4 - 1.5kW 4T*: 0.4 - 2.2kW 4T*: 7.5kW 4T*: 11-15kW	

General Purpose Variable Speed Drives



Category	Type	Range	Commercial Reference	Short Description	Applicable Product		Pictures
					Applicable Commercial Reference	Specifications	
Installation Accessories	Flange-mounting	Expert XS	HAV-XS-4T0040-QRZJ	Embedded installation accessories	HAV-XS-4T0007G ~ HAV-XS-4T0040G-0055P HAV-XS-2T0007G ~ HAV-XS-2T1600G	4T*: 0.75 - 4kW 2S*: 0.75 - 2.2kW	
			HAV-XS-4T0075-QRZJ		HAV-XS-4T0055G-0075P ~ HAV-XS-4T0075G-0110P	4T*: 5.5 - 7.5kW	
			HAV-XS-4T0150-QRZJ		HAV-XS-4T0110G-0150P ~ HAV-XS-4T0150G-0185P	4T*: 11 - 15kW	
			HAV-XS-4T0220-QRZJ		HAV-XS-4T0185G-0220P ~ HAV-XS-4T0220G-0300P	4T*: 18.5 - 22kW	
			HAV-XS-4T0370-QRZJ		HAV-XS-4T0300G-0370P ~ HAV-XS-4T0370G-0450P	4T*: 30 - 37kW	
			HAV-XS-4T0750-QRZJ		HAV-XS-4T0450G-0550P ~ HAV-XS-4T0750G-0900P	4T*: 45 - 75kW	
			HAV-XS-4T1320-QRZJ		HAV-XS-4T0900G-1100P ~ HAV-XS-4T1320G-1600P	4T*: 90 - 132kW	
			HAV-XS-4T1600-QRZJ		HAV-XS-4T1600G-1850P ~ HAV-XS-4T1850G-2000P	4T*: 160 ~ 185kW	
	Wall-mounting	Expert XS	HAV-XS-4T2200-BGZJ	Accessory for wall mounting installation	HAV-XS-4T2000G-2200P ~ HAV-XS-4T2200G-2500P	4T*: 200 - 220kW	
			HAV-XS-4T2800-BGZJ		HAV-XS-4T2500G-2800P ~ HAV-XS-4T4500G-5000P	4T*: 250~450kW	
	Floor-standing	Expert XS	HAV-XS-4T0370-DZ	Accessory for floor-standing installation	HAV-XS-4T0300G-0370P ~ HAV-XS-4T0370G-0450P	4T*: 30 - 37kW	
			HAV-XS-4T0750-DZ		HAV-XS-4T0450G-0550P ~ HAV-XS-4T0750G-0900P	4T*: 45 - 75kW	
			HAV-XS-4T1100-DZ		HAV-XS-4T0900G-1100P ~ HAV-XS-4T1320G-1600P	4T*: 90 - 132kW	
			HAV-XS-4T1600-DZ		HAV-XS-4T1600G-1850P ~ HAV-XS-4T1850G-2000P	4T*: 160 ~ 185kW	

General Purpose Variable Speed Drives



Category	Type	Range	Commercial Reference	Short Description	Applicable Product		Pictures
					Applicable Commercial Reference	Specifications	
Keypad & Accessories	Keypad bracket	Expert XS	HAV-XS-JPT	Keypad holder for external keypad	HAV-XS-2S0007G ~ HAV-XS-2S0022G HAV-XS-2T0007G ~ HAV-XS-2T1600G HAV-XS-4T0007G ~ HAV-XS-4T8500G	2S*: 0.75 - 2.2kW 2T*: 4 - 7.5kW 4T*: 0.75kW - 850kW	
	External Keypad	BASIC BA	HAV-SP-LKD	External Keypad for BASIC	HAV-BA-2S0004G ~ HAV-BA-2S0022G HAV-BA-4T0004G ~ HAV-BA-4T0150G	2S*: 0.4 - 2.2kW 4T*: 0.4 - 15kW	
		EXPERT XS	HAV-XS-LKD	External Keypad for EXPERT XS	HAV-XS-2S0007G ~ HAV-XS-2S0022G HAV-XS-2T0007G ~ HAV-XS-2T1600G HAV-XS-4T0007G ~ HAV-XS-4T8500G	2S*: 0.75 - 2.2 kW 2T*: 4 - 7.5kW 4T*: 0.75 ~ 850kW	
	Keypad cable	BASIC Expert XS	HAV-XS-CAB2	Length 2m	HAV-BA-2S0004G ~ HAV-BA-2S0022G HAV-BA-4T0004G ~ HAV-BA-4T0150G HAV-XS-2S0007G ~ HAV-XS-2S0022G HAV-XS-2T0007G ~ HAV-XS-2T1600G HAV-XS-4T0007G ~ HAV-XS-4T8500G	2S*: 0.4 - 2.2 kW 2T*: 0.75 - 160kW 4T*: 0.4 - 850kW	
			HAV-XS-CAB5	Length 5m			

* 2S = 200-240V Single Phase, 2T = 200-240V Three Phase, 4T = 380-440V Three Phase

* Please note: Before August 2023, BASIC series use HAVBALKD. After August 2023, BASIC series use HAVSPLKD

SMART Pump (SP)

SMART Pump (SP) drives are full-featured dedicated drives for parabolic load applications like pumps, fans, and chillers. SP drives have a wide range of integrated features like multi-pump control, dry run protection, and energy calculation, pump cleaning, fire override mode, frost, condensation and hammer effect protections to meet the needs of pump, fans and chillers for modern buildings.

Motor Capacity (kW)																							
2.2	3	4	5.5	7.5	11	15	19	22	30	37	45	55	75	90	110	132	160	185	200	220	250	280	315
HAV-SP-4T*																							
HAV-SP-2T**																							

*4T: 380V-480V 3phase

**2T: 230V 3 phase

Improved Energy Savings

With many integrated control modes like ECO-mode, V^2/F , and PID with sleep mode.

High Robustness

- Stable operation in difficult environments
- Built-in category C3 EMC filter ($\geq 11kW$)

Special program functions

- Multi-pump control
- Energy meter
- Flow calculation
- Pump cleaning
- Fire Override mode
- Dual Ramp
- Bypass function

Pump-specific protections

- Dry run detection
- Frost and condensation protection
- Hammer effect protection
- Undervoltage, overvoltage, overcurrent, overload protection
- Phase-loss protection
- Short-circuit protection

PC Tool-Himel studio

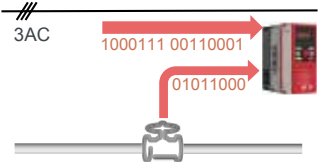
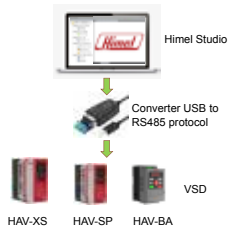
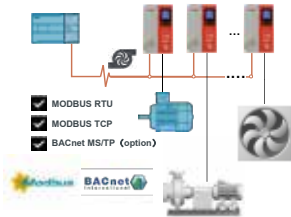
- Parameters setting and copy
- Monitoring drive status
- Monitoring IO terminal status and test
- Drive debugging and trial run
- Fault record and measurement
- Firmware upgrade

Support most communication protocols for the pump and fan

- One drive support most popular 3 protocols in the pump and fan applications
- Build in Modbus RTU/RS485 port
- Build in Modbus TCP/RJ45 port
- Provide BACnet IP extension card



Reliable made affordable

Features		Your benefits
Improved energy savings		
	◆ Integrated Eco-mode for V/f and V²/f automatically adapts the motor magnetic flux to save energy ◆ Improved special PID control with sleep mode helps to save more energy for pump application	◆ Energy savings during low dynamic load cycles such as pump and Fan ◆ Increase the potential savings by up to 70% ◆ Greatly reduces the return time of investment
High Robustness		
	◆ Stable operation under main input voltage fluctuations. Reliable operation with net tensions between 380V and 440V (-15%/+10%) ◆ Equipped with built-in category C3 standard EMC filter (≥11kW)	◆ Wider voltage range, increases robustness of the drive in difficult environment ◆ Automatic adaptation in case of unstable power supply ◆ Better electromagnetic immunity against signal noises. ◆ Supports longer connection cables.
Special pump functions		
	◆ Multi-pump control ◆ Built-in energy and flow meter ◆ Pump cleaning ◆ Fire Override mode ◆ Dual Ramp ◆ Bypass function	◆ Control 4 pumps (with external I/O card) ◆ Measure energy and flow without an external sensor ◆ Clears the blockage in the pump ◆ Reduces the maintenance requirements ◆ Keeps the critical fans and pumps running in case of fire in a building ◆ Separate initial and final ramp ratio optimizes the motor start and stop ◆ Controls multiple inverters with an inverter ◆ The external contactor can be controlled by relay to achieve power conversion switching and reduce energy consumption
Pump-specific protections		
	◆ Dry run detection ◆ Frost and condensation protection ◆ Hammer effect protection. ◆ Overvoltage, overcurrent, overload protection ◆ Phase-loss protection ◆ Short-circuit protection	◆ Protects the impeller and rear housing against dry run. ◆ Protects the pump against moisture and water freezing inside pump. ◆ Controls the water flow when pipe is empty hence eliminating the hammer effect at the starting phase. ◆ Long lifecycle running in high humidity and high dust occasions ◆ Easy to maintain
PCTool- Himel Studio		
	◆ Parameters setting and copy ◆ Monitoring drive status ◆ Monitoring IO terminal status and test ◆ Drive debugging and trial run ◆ Fault record and measurement ◆ Firmware upgrade	◆ Easy to commission
Support most communication protocols for the pump and fan		
	◆ One drive support most popular 3 protocols in the pump and fan applications ◆ Build in Modbus RTU/RS485 port ◆ Build in Modbus TCP/RJ45 port ◆ Provide BACnet IP extension card	◆ Easy system configuration with PLC,HMI and upper controller. ◆ Full flexibility to configure the baud rate, parity / stop bit and address by parameterization. ◆ Suitable for HVAC application

Target Applications



■ Irrigation



■ Sewage



■ Fountain



■ Sand pump



■ Circulating pump



■ Rod pump



■ Drying



■ Ventilation



■ Dust removal



■ Hot surface treatment



■ Air supply fan for boiler



■ Industrial fan



■ Centrifugal chillers



■ Reciprocating chillers



■ Scroll chillers



Specifications

Range Name		SMART Pump
Design		
Capacity range	Three phase 230V Class	AC: 200V(-10%)-240V(+10%) 2.2~45kW
	Three phase 400V Class	AC:380V(-15%)~480V(+10%) 2.2~315kW
Frequency	Input frequency	50/60Hz
	Output frequency	0-599Hz
Overload capacity		120% for 1min
Control method	V/f	√
	Eco mode control	√
Start torque		0.5Hz, 120%
Built-in PID		√
Keypad		Pluggable
Display		LED/LCD
Multispeed control		16 stages in one cycle
I/O	DI1-DI4	NPN/PNP, Input: 9-30VDC
	DI5	NPN/PNP, Input: 15-30VDC
	DO1	Pulse input: max. 50kHz
	DO2	9-30VDC, max. 50mA
		9-30VDC, max.50mA
	AI1	Pulse output max.50kHz
	AI2	V: 0-10V
	AO1	I:0-20mA
	AO2	Resolution:1/1000
	RO(TA,TB,TC/RA, RB, RC)	V: 0-10V
Built-in communication (Max. speed)		I:0-20mA
Options	Extension I/O	Resolution:1/1000
	Extension Keypad	V: 0-10V
	Extension Communication Card	I:0-20mA
Functionality		Resolution:1/1000
		NO: 24VDC 3A/ 250VAC 5A
		NC: 24VDC 3A/ 250VAC 3A
		RS485, Modbus TCP/RTU (38.4kbps)
		DI/DO/RO
		Support, cable length:2m, 5m
		BACnet (<18.5kW installed independent; ≥18.5kW installed in VSD)
		Multi-pump control
		Dry run protection
		Energy/ flow calculator
Installation Way		Frost and condensation protection
Dust Shields		Pump cleaning
EMC Filter	C2	Fire override mode
	C3	Eco-mode/PID with sleep mode/Special pump protections
Braking unit		Master slave function
Environment	Operation temperature	Bypass function
	Humidity	Wall mounted, cabinet,
	Altitude	flange installation
	IP level	√
Global certificates		—
		Built-in EMC filter (≥11kW)
		Built-in (4T ≤37kW; 2T ≤18.5kW)
		-10-40° C no capacity reduction, 40° C-50° C capacity reduction
		≤95%RH
		≤1000m, no capacity reduction
		IP20
		CE

Specifications

Range Name		SMART Pump	
Design			
Features	Velocity ratio	1:100	
	Frequency precision	Digital setting: Max frequency X $\pm 0.01\%$	
		Analog setting: Max frequency X $\pm 0.2\%$	
	Frequency resolution	Digital setting: Max frequency X $\pm 0.01\%$	
		Analog setting: Max frequency X $\pm 0.1\%$	
	Torque rise	Integrated auto-torque raising function; with manual- setting: 0.1%~30.0%	
	V/F control curve definition	Linear, Square, $V^{1/2}/F$, $V^{1/2}/F$	
	Acceleration/Deceleration Time	4 types of ACC/DEC time selection; optional time unit selection(Min/s); setting range: 0~60hours;	
	DC braking	Start frequency: 0.20~60.00Hz; braking time: 0.0~10.0S;	
		braking current: 0.0~150%	
	Automatic voltage regulation(AVR)	√	
Protections	Auto current limitation	√	
	Auto PMW adjustment	√	
	Special pump protection	Voltage limit, dry run, pump load monitor, frost and condensation protections	
Protections	VSD protection function	Over-current, over-voltage, under-voltage, over-heat, over-load, short circuit.	
	Cooling	Air- cooling	
Warranty		24 months	

Reference Selection

Range Name	Series Name	Input	Adaptation	Drive
HAV	SP	4T	0110	P
	↓	↓	↓	↓
HA: Himel Automation	S:SMART	2: 230V 4: 380-480V	0022: 2.2kW 0075: 7.5kW 0110: 11kW 0185: 18.5kW 1100: 110kW	P: Normal-duty
V: VSD M: Motion H: HMI P: PLC	P: Pump	T: Three-phase		

References

Input Voltage	Commercial Reference	Selection			Overload Output Current		DC Choke
		Motor Power (kW)	Motor Power (HP)	Continuous Output Current (A)	A	%	
AC: 200 - 240V Three Phase	HAVSP2T0022P	2.2	3	10.08	12.1	120%	-
	HAVSP2T0030P	3	4	11.5	13.8	120%	-
	HAVSP2T0040P	4	5	16.2	19.4	120%	-
	HAVSP2T0055P	5.5	7.5	20.3	24.4	120%	-
	HAVSP2T0075P	7.5	10	26.7	32	120%	-
	HAVSP2T0110P	11	15	39	46.8	120%	-
	HAVSP2T0150P	15	20	52.5	63	120%	-
	HAVSP2T0185P	18.5	25	62.4	74.9	120%	-
	HAVSP2T0220P	22	30	73.6	88.3	120%	-
	HAVSP2T0300P	30	40	98.7	118.4	120%	-
	HAVSP2T0370P	37	50	121	145.2	120%	-
	HAVSP2T0450P	45	60	147	176.4	120%	HAV-DCL0450-G3
AC: 380 - 480V Three Phase	HAVSP4T0022P	2.2	3	5	6	120%	-
	HAVSP4T0030P	3	4	7.5	9	120%	-
	HAVSP4T0040P	4	5	8.8	10.6	120%	-
	HAVSP4T0055P	5.5	7.5	13	15.6	120%	-
	HAVSP4T0075P	7.5	10	17	20.4	120%	-
	HAVSP4T0110P	11	15	25	30	120%	-
	HAVSP4T0150P	15	20	32	38.4	120%	-
	HAVSP4T0185P	18.5	25	37	44.4	120%	-
	HAVSP4T0220P	22	30	45	54	120%	-
	HAVSP4T0300P	30	40	60	72	120%	-
	HAVSP4T0370P	37	50	75	90	120%	-
	HAVSP4T0450P	45	60	90	108	120%	HAV-DCL0450-G3
	HAVSP4T0550P	55	75	110	132	120%	HAV-DCL0550-G3
	HAVSP4T0750P	75	100	157	188.4	120%	HAV-DCL0750-G3
	HAVSP4T0900P	90	125	180	216	120%	HAV-DCL0900-G3
	HAVSP4T1100P	110	150	214	256.8	120%	HAV-DCL1100-G3
	HAVSP4T1320P	132	175	256	307.2	120%	HAV-DCL1320-G3
	HAVSP4T1600P	160	200	307	368.4	120%	HAV-DCL1600-G3
	HAVSP4T1850P	185	230	350	420	120%	HAV-DCL1850-G3
	HAVSP4T2000P	200	250	380	456	120%	HAV-DCL2000-G3
	HAVSP4T2200P	220	280	456	547.2	120%	Build-in
	HAVSP4T2500P	250	317	497	596.4	120%	Build-in
	HAVSP4T2800P	280	355	556	667.2	120%	Build-in
	HAVSP4T3150P	315	450	626	751.2	120%	Build-in

Dimensions

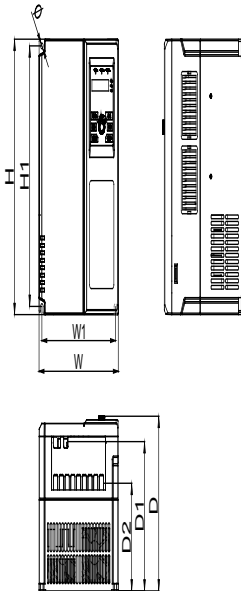
Input Voltage	Commercial Reference	Dimensions(mm)			Mounting Dimensions (mm)				Mounting Hole Diameter (mm)	CAD Diagram
		W	H	D	W1	H1	D1	D2		
AC: 200-240V Three Phase	HAVSP2T0022P	120	215	163	109	204	133	85	5.5	(a)
	HAVSP2T0030P	120	215	163	109	204	133	85	5.5	
	HAVSP2T0040P	120	215	163	109	204	133	85	5.5	
	HAVSP2T0055P	150	259	181	138	248	150	104	5.5	
	HAVSP2T0075P	150	259	181	138	248	150	104	5.5	
	HAVSP2T0110P	205	322	215	188	305	176	130	6.5	
	HAVSP2T0150P	235	370	235	218	350	200	146	7	
	HAVSP2T0185P	235	370	235	218	350	200	146	7	
	HAVSP2T0220P	305	490	275	200	470	264	211	10	(b)
	HAVSP2T0300P	305	490	275	200	470	264	211	10	
	HAVSP2T0370P	320	560	307	197	543	295	241	10	
	HAVSP2T0450P	320	560	307	197	543	295	241	10	
AC: 380-440V Three Phase	HAVSP4T0022P	120	215	163	109	204	133	85	5.5	(a)
	HAVSP4T0030P	120	215	163	109	204	133	85	5.5	
	HAVSP4T0040P	120	215	163	109	204	133	85	5.5	
	HAVSP4T0055P	120	215	163	109	204	133	85	5.5	
	HAVSP4T0075P	120	215	163	109	204	133	85	5.5	
	HAVSP4T0110P	150	259	181	138	248	150	104	5.5	
	HAVSP4T0150P	150	259	181	138	248	150	104	5.5	
	HAVSP4T0185P	205	322	215	188	305	176	130	6.5	
	HAVSP4T0220P	205	322	215	188	305	176	130	6.5	
	HAVSP4T0300P	235	370	235	218	350	200	146	7	
	HAVSP4T0370P	235	370	235	218	350	200	146	7	(b)
	HAVSP4T0450P	305	490	275	200	470	270	211	10	
	HAVSP4T0550P	305	490	275	200	470	270	211	10	
	HAVSP4T0750P	320	560	307	197	543	295	241	10	
	HAVSP4T0900P	320	560	307	197	543	295	241	10	
	HAVSP4T1100P	320	560	307	197	543	295	241	10	
	HAVSP4T1320P	355	678	319	240	659	307	261	11	
	HAVSP4T1600P	355	678	319	240	659	314	261	11	

Dimensions

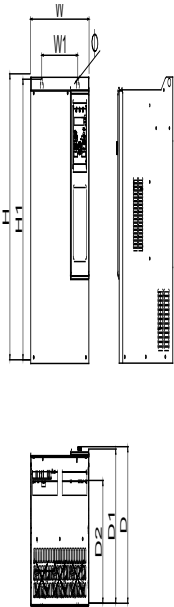
Input Voltage	Commercial Reference	Dimensions(mm)			Mounting Dimensions (mm)				Mounting Hole Diameter (mm)	CAD Diagram
		W	H	D	W1	H1	D1	D2		
AC: 380-440V Three Phase	HAV-SP-4T1850P	450	900	377	300	875	365	302	12	(b)
	HAV-SP-4T2000P	450	900	377	300	875	365	302	12	
	HAVSP4T2200P	480	1070	411	-	-	399	314	-	(c)
	HAVSP4T2500P	480	1070	411	-	-	399	314	-	
	HAVSP4T2800P	525	1300	437	-	-	425	335	-	
	HAVSP4T3150P	525	1300	437	-	-	425	335	-	
	HAVSP4T2200P (Wall-mounting)	480	1158	426	320	1127	414	329	12	(d)
	HAVSP4T2500P (Wall-mounting)	480	1158	426	320	1127	414	329	12	
	HAVSP4T2800P (Wall-mounting)	525	1387	452	400	1356	440	350	12	
	HAVSP4T3150P (Wall-mounting)	525	1387	452	400	1356	440	350	12	

CAD Diagrams

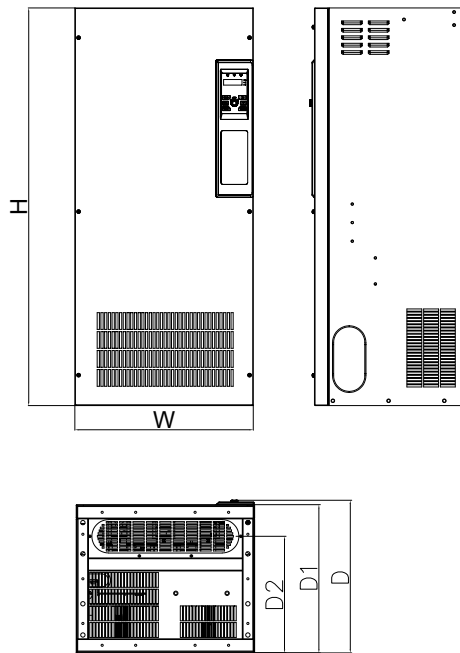
(a)



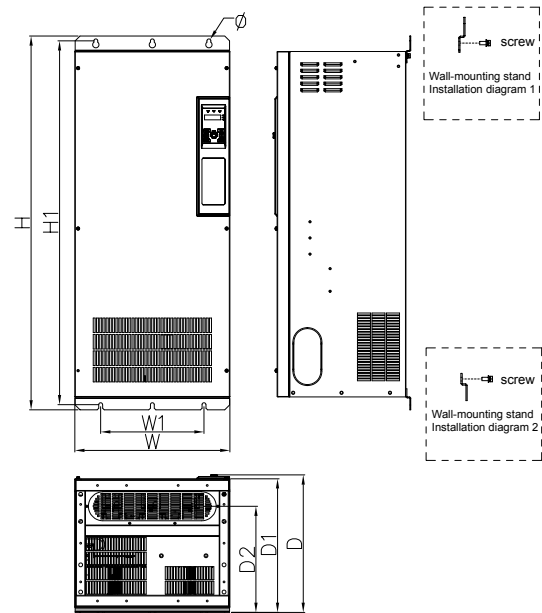
(b)



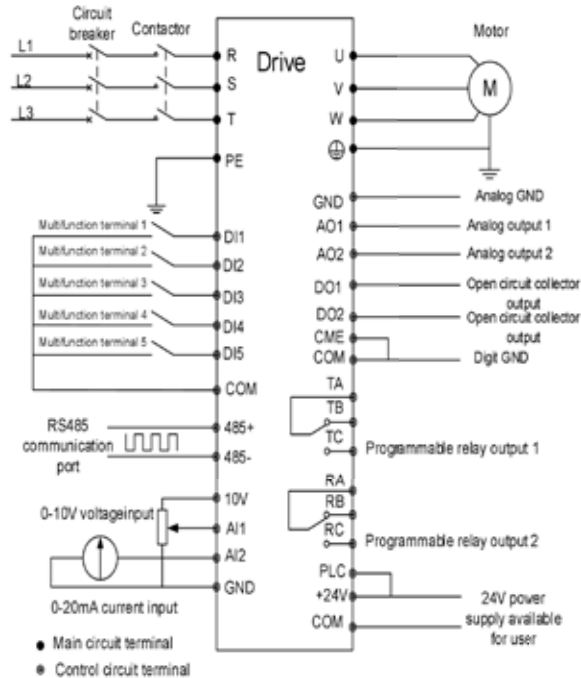
(c)



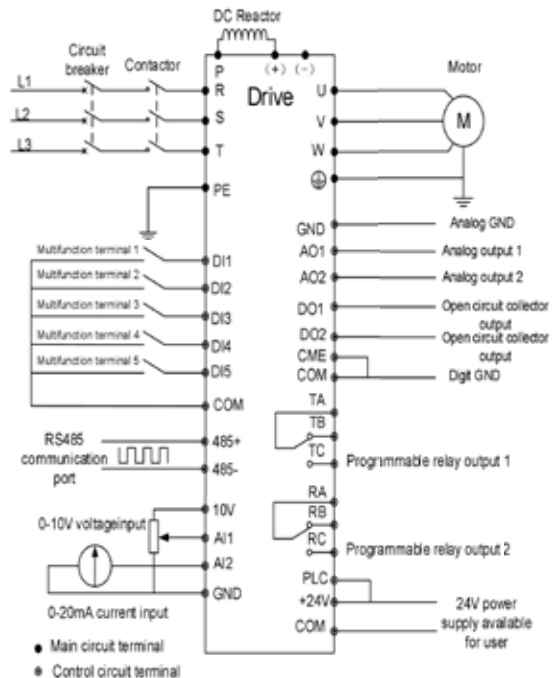
(d)



Wiring Diagrams



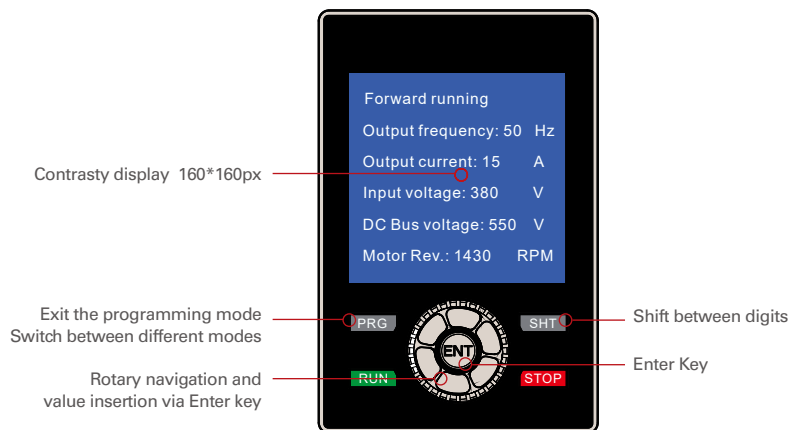
**Figure (a): HAVSP4T0370P and below
HAVSP2T0185P and below**



**Figure (b): HAVSP4T0450P and above
HAVSP2T0220P and above**

Note: The drive of 220kW to 315kW have built-in DC reactor.

LCD Keypad



Features	Benefits
Display	◆ More visible status information ◆ Intuitive operation ◆ Short commissioning times ◆ User-friendly interface
Rotary navigation	◆ Quick navigation and input of values
Quick commissioning	◆ Visible parameter names ◆ Possible to commission without documentation ◆ Easily copy parameters between multiple drives

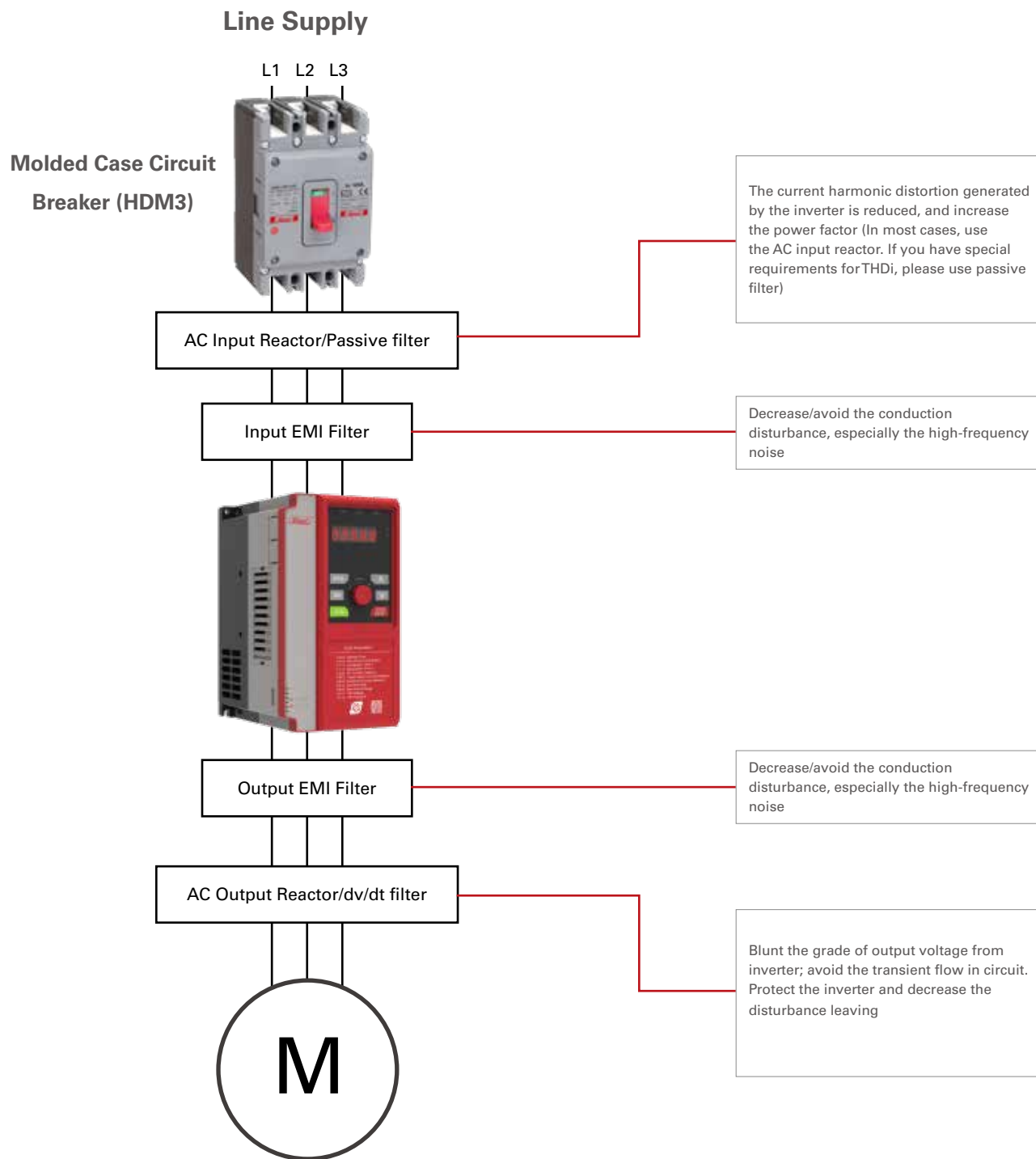
VSD Accessories

Type	Commercial Reference	Short Description	Applicable product		Pictures
			Applicable Commercial Reference	Specifications	
IO extension card	HAVSPIO4DI8R	IO extension card with 4DI and 8 relay	All SP series	All SP series	
Keypad bracket	HAVXSJPT	Keypad holder for external keypad	All SP series	All SP series	
External Keypad	HAVSPLKD**	External keypad	All SP series	All SP series	
	HAVSPLCD	LCD keypad	All SP series	All SP series	
Keypad cable	HAVXSCAB2	Length 2m	All SP series	All SP series	
	HAVXSCAB5	Length 5m	All SP series	All SP series	
Communication card	HAVSPBN	Extension communication card	All SP series	All SP series	

** All VSDs have built-in removable keypad. HAVSPLKD is sold as a spare part.

Power quality improvement

You can also select any option to improve the power by different use case.



Notes: When the wire connecting drive to motor is greater than 50m and less than 100m, you had better add AC output reactor.
When the wire connecting drive to motor is greater than 100m and less than 300m, you had better add DV/DT filter.

Passive filter

Features

- When connected to the front end of the VSD, the total harmonic current after filtering by the passive filter is less than 10% of the fundamental current at full load
- The efficiency is greater than 98%, the power can reach 250KW, and the passive harmonic filter provides a cost-effective, stable and reliable harmonic solution



Technical Specifications

- Rated voltage: 400V
- Operating frequency: 50Hz
- Overload capacity: 1.6 times, 60s
- Full load efficiency: more than 98%
- Cooling mode: AN AF
- Harmonic filtering effect: the total harmonic current distortion rate THDi<10% at the input of the filter under full load conditions (background voltage THDu <2%)
- No-load current: less than 25% of rated current

Application

- Passive filter is used when you have requirements for THDi. It can decrease the harmonic component.

Selection table

Range	Commercial reference	Power (kW)	Rated current (A)	Harmonic currentd ≤10%	BASIC	EXPERT Standard	Smart Pump	Diagrams
Passive filter	HAVHFL0015KWA10	1.5	5	10%	HAVBA4T0015G	HAVXS4T0015G	/	O
	HAVHFL0022KWA10	2.2	7	10%	HAVBA4T0022G	HAVXS4T0022G	HAVSP4T0022P	
	HAVHFL0037KWA10	3.7	8	10%	HAVBA4T0030G		HAVSP4T0030P	
	HAVHFL0037KWA10	3.7	8	10%	HAVBA4T0040G	HAVXS4T0040G0055P	HAVSP4T0040P	
	HAVHFL0055KWA10	5.5	12	10%	HAVBA4T0055G	HAVXS4T0055G0075P	HAVSP4T0055P	
	HAVHFL0075KWA10	7.5	15	10%	HAVBA4T0075G	HAVXS4T0075G0110P	HAVSP4T0075P	
	HAVHFL0110KWA10	11	25	10%	HAVBA4T0110G	HAVXS4T0110G0150P	HAVSP4T0110P	
	HAVHFL0150KWA10	15	30	10%	HAVBA4T0150G	HAVXS4T0150G0185P	HAVSP4T0150P	
	HAVHFL0185KWA10	18.5	40	10%		HAVXS4T0185G0220P	HAVSP4T0185P	
	HAVHFL0220KWA10	22	50	10%		HAVXS4T0220G0300P	HAVSP4T0220P	
	HAVHFL0300KWA10	30	60	10%		HAVXS4T0300G0370P	HAVSP4T0300P	
	HAVHFL0370KWA10	37	75	10%		HAVXS4T0370G0450P	HAVSP4T0370P	
	HAVHFL0450KWA10	45	90	10%		HAVXS4T0450G0550P	HAVSP4T0450P	
	HAVHFL0550KWA10	55	110	10%		HAVXS4T0550G0750P	HAVSP4T0550P	
	HAVHFL0750KWA10	75	160	10%		HAVXS4T0750G0900P	HAVSP4T0750P	P
	HAVHFL0900KWA10	90	180	10%		HAVXS4T0900G1100P	HAVSP4T0900P	
	HAVHFL1100KWA10	110	220	10%		HAVXS4T1100G1320P	HAVSP4T1100P	
	HAVHFL1320KWA10	132	260	10%		HAVXS4T1320G1600P	HAVSP4T1320P	
	HAVHFL1600KWA10	160	330	10%		HAVXS4T1600G1850P	HAVSP4T1600P	
	HAVHFL1850KWA10	185	390	10%		HAVXS4T1850G2000P	HAVSP4T1850P	
	HAVHFL2000KWA10	200	400	10%		HAVXS4T2000G2200P	HAVSP4T2000P	
	HAVHFL2200KWA10	220	450	10%		HAVXS4T2200G2500P	HAVSP4T2200P	
	HAVHFL2500KWA10	250	500	10%		HAVXS4T2500G2800P	HAVSP4T2500P	

Note:

- If 60Hz is required, please note 60Hz when placing an order.
- Below (including) 55KW is AN natural cooling, 75KW and above is AF, with its own cooling fan

EMC C2 filter



Features

- This product has good interference suppression capacity, and can be used in equipment that requires strong interference suppression such as data processing systems, telecommunication systems, frequency converters and power purification.
- Prevent the electromagnetic interference generated by the device itself from entering the power line, and at the same time prevent the interference generated by the power line from entering the equipment; it can effectively suppress the radio interference from the audio equipment. Applicable wavelength range is 100K to 30MHz

Technical Specifications

- Rated voltage: 230V/400V
- Operating frequency: 50/60Hz
- Insulation resistance: line to ground: 300A and below: $\geq 1500\text{M}\Omega$
- Line to ground: 1500VAC/2500VDC
- Leakage current (440VAC/50Hz): $\leq 36\text{A}$ $< 2\text{mA}$
 $\leq 80\text{A}$ $< 3\text{mA}$
 $\leq 200\text{A}$ $< 6\text{mA}$
 $\leq 1200\text{A}$ $< 35\text{mA}$

Application

- Power line filters are required for devices that can generate strong interference and for devices that are sensitive to external interference

EMC C2 filter



Selection table

Range	Commercial reference	Power (kW)	Rated current (A)	BASIC	EXPERT Standard	Smart Pump	Diagrams
EMC C2 filter	HAVRFI3C01002D	0.75	10	HAVBA2S0007G	HAVXS2S0007G	/	q
	HAVRFI3C01002D	1.5	10	HAVBA2S0015G	HAVXS2S0015G	/	
	HAVRFI3C02002D	2.2	20	HAVBA2S0022G	HAVXS2S0022G	/	r
	HAVRFI3C005	0.75	5	HAVBA4T0007G	HAVXS4T0007G	/	a
	HAVRFI3C005	1.5	5	HAVBA4T0015G	HAVXS4T0015G	/	
	HAVRFI3C007	2.2	7	HAVBA4T0022G	HAVXS4T0022G	HAVSP4T0022P	
	HAVRFI3C010	3	10	HAVBA4T0030G		HAVSP4T0030P	
	HAVRFI3C010	4	10	HAVBA4T0040G	HAVXS4T0040G0055P	HAVSP4T0040P	
	HAVRFI3C015	5.5	15	HAVBA4T0055G	HAVXS4T0055G0075P	HAVSP4T0055P	
	HAVRFI3C020	7.5	20	HAVBA4T0075G	HAVXS4T0075G0110P	HAVSP4T0075P	
	HAVRFI3C030	11	30	HAVBA4T0110G	HAVXS4T0110G0150P	HAVSP4T0110P	
	HAVRFI3C040	15	40	HAVBA4T0150G	HAVXS4T0150G0185P	HAVSP4T0150P	
	HAVRFI3C050	18.5	50		HAVXS4T0185G0220P	HAVSP4T0185P	
	HAVRFI3C060	22	60		HAVXS4T0220G0300P	HAVSP4T0220P	
	HAVRFI3C080	30	80		HAVXS4T0300G0370P	HAVSP4T0300P	
	HAVRFI3C090	37	90		HAVXS4T0370G0450P	HAVSP4T0370P	
	HAVRFI3C120	45	120		HAVXS4T0450G0550P	HAVSP4T0450P	
	HAVRFI3C150	55	150		HAVXS4T0550G0750P	HAVSP4T0550P	
	HAVRFI3C200	75	200		HAVXS4T0750G0900P	HAVSP4T0750P	b
	HAVRFI3C250	90	250		HAVXS4T0900G1100P	HAVSP4T0900P	
	HAVRFI3C250	110	250		HAVXS4T1100G1320P	HAVSP4T1100P	
	HAVRFI3C290	132	290		HAVXS4T1320G1600P	HAVSP4T1320P	
	HAVRFI3C330	160	330		HAVXS4T1600G1850P	HAVSP4T1600P	
	HAVRFI3C390	185	390		HAVXS4T1850G2000P	HAVSP4T1850P	
	HAVRFI3C490	200	490		HAVXS4T2000G2200P	HAVSP4T2000P	
	HAVRFI3C490	220	490		HAVXS4T2200G2500P	HAVSP4T2200P	
	HAVRFI3C530	250	530		HAVXS4T2500G2800P	HAVSP4T2500P	
	HAVRFI3C600	280	600		HAVXS4T2800G3150P	HAVSP4T2800P	
	HAVRFI3C660	315	660		HAVXS4T3150G3550P	HAVSP4T3150P	

DV/DT filter



Features

- When the DV/DT filter is used, the voltage at the motor end is still a pulse voltage, but the energy rise time will be reduced, greatly reducing the insulation pressure on the motor to prevent the motor insulation from breakdown.

Technical Specifications

- Rated voltage: 400V
- Operating frequency: 50/60Hz
- Insulation class: class F, H
- Max. current: 1.5xrated current, continued for 60s
- Protection grade: IP00-IP22

Application

- DV/DT filter is designed to protect the motor. When the distance between the inverter and the motor is too large, the peak voltage applied on the motor will exceed the rating of the motor insulation series. In this case, a DV/DT filter is required to prevent the destructive effect on the peak voltage of motor.
- When the wire connecting drive to motor is greater than 100m and less than 300m, you had better add DV/DT filter.

DV/DT filter



Selection table

Range	Commercial reference	Power (kW)	Rated current (A)	BASIC	EXPERT Standard	Smart Pump	Diagrams
DV/DT filter	HAVVTR00054SC	0.75	5	HAVBA4T0007G	HAVXS4T0007G	/	k
	HAVVTR00054SC	1.5	5	HAVBA4T0015G	HAVXS4T0015G	/	
	HAVVTR00074SC	2.2	7	HAVBA4T0022G	HAVXS4T0022G	HAVSP4T0022P	
	HAVVTR00104SC	3	10	HAVBA4T0030G		HAVSP4T0030P	
	HAVVTR00104SC	4	10	HAVBA4T0040G	HAVXS4T0040G0055P	HAVSP4T0040P	
	HAVVTR00154SC	5.5	15	HAVBA4T0055G	HAVXS4T0055G0075P	HAVSP4T0055P	
	HAVVTR00204SC	7.5	20	HAVBA4T0075G	HAVXS4T0075G0110P	HAVSP4T0075P	
	HAVVTR00304SC	11	30	HAVBA4T0110G	HAVXS4T0110G0150P	HAVSP4T0110P	
	HAVVTR00404SC	15	40	HAVBA4T0150G	HAVXS4T0150G0185P	HAVSP4T0150P	
	HAVVTR00504SC	18.5	50		HAVXS4T0185G0220P	HAVSP4T0185P	
	HAVVTR00604SC	22	60		HAVXS4T0220G0300P	HAVSP4T0220P	
	HAVVTR00804SC	30	80		HAVXS4T0300G0370P	HAVSP4T0300P	
	HAVVTR00904SC	37	90		HAVXS4T0370G0450P	HAVSP4T0370P	
	HAVVTR01204SA	45	120		HAVXS4T0450G0550P	HAVSP4T0450P	l
	HAVVTR01504SA	55	150		HAVXS4T0550G0750P	HAVSP4T0550P	
	HAVVTR02004SA	75	200		HAVXS4T0750G0900P	HAVSP4T0750P	m
	HAVVTR02504SA	90	250		HAVXS4T0900G1100P	HAVSP4T0900P	
	HAVVTR02504SA	110	250		HAVXS4T1100G1320P	HAVSP4T1100P	
	HAVVTR02904SA	132	290		HAVXS4T1320G1600P	HAVSP4T1320P	
	HAVVTR03304SA	160	330		HAVXS4T1600G1850P	HAVSP4T1600P	
	HAVVTR03904SA	185	390		HAVXS4T1850G2000P	HAVSP4T1850P	
	HAVVTR04904SA	200	490		HAVXS4T2000G2200P	HAVSP4T2000P	
	HAVVTR04904SA	220	490		HAVXS4T2200G2500P	HAVSP4T2200P	
	HAVVTR06004SA	250	600		HAVXS4T2500G2800P	HAVSP4T2500P	n
	HAVVTR06004SA	280	600		HAVXS4T2800G3150P	HAVSP4T2800P	
	HAVVTR06604SA	315	660		HAVXS4T3150G3550P	HAVSP4T3150P	
	HAVVTR08004SA	355	800		HAVXS4T3550G4000P		
	HAVVTR08004SA	400	800		HAVXS4T4000G4500P		
	HAVVTR10004SA	450	1000		HAVXS4T4500G5000P		
	HAVVTR12004SA	500	1200		HAVXS4T5000G5600P		

AC input reactor



Features

- Provide improved overload protection to line power
- Reduce current harmonic distortion generated by the VSD
- Improve the power factor of the input power supply
- Suppress the surge of the VSD on the power supply equipment

Technical Specifications

- Rated voltage: 230V/400V
- Operating frequency: 50/60Hz
- Max. current: 1.5×rated current, continued for 60s
- Protection grade: IP00-IP22
- Temperature rise: ≤85K
- Pressure drop: 2%

Application

AC input reactors are especially recommended in the following environments:

- Several converters are connected in parallel and tightly
- The line power supply has obvious disturbances (interference, overvoltage) from other equipment
- There is a voltage imbalance between the phases of the line power supply, and it exceeds 1.8% of the rated voltage
- A large number of frequency converters installed on the same line
- Reduce the overload on the COS ϕ correction capacitor if the device contains a power coefficients correction equipment
- The power supply capacity is 600 kVA and above, and the converter is installed within 10 m from the large-capacity power supply
- The converter is powered by a line with very low impedance (the transformer capacity is 10 times higher than the rated value of the converter)

AC input reactor



Selection table

Range	Commercial reference	Power (kW)	Rated current (A)	Inductance (mH)	BASIC	EXPERT Standard	Smart Pump	Diagrams
AC input reactor	HAVACL00054SC	0.75	5	2.8	HAVBA4T0007G	HAVXS4T0007G	/	c
	HAVACL00054SC	1.5	5	2.8	HAVBA4T0015G	HAVXS4T0015G	/	
	HAVACL00074SC	2.2	7	2	HAVBA4T0022G	HAVXS4T0022G	HAVSP4T0022P	
	HAVACL00104SC	3	10	1.4	HAVBA4T0030G		HAVSP4T0030P	
	HAVACL00104SC	4	10	1.4	HAVBA4T0040G	HAVXS4T0040G0055P	HAVSP4T0040P	
	HAVACL00154SC	5.5	15	0.94	HAVBA4T0055G	HAVXS4T0055G0075P	HAVSP4T0055P	
	HAVACL00204SC	7.5	20	0.7	HAVBA4T0075G	HAVXS4T0075G0110P	HAVSP4T0075P	
	HAVACL00304SA	11	30	0.47	HAVBA4T0110G	HAVXS4T0110G0150P	HAVSP4T0110P	d
	HAVACL00404SA	15	40	0.36	HAVBA4T0150G	HAVXS4T0150G0185P	HAVSP4T0150P	
	HAVACL00504SA	18.5	50	0.28		HAVXS4T0185G0220P	HAVSP4T0185P	
	HAVACL00604SA	22	60	0.24		HAVXS4T0220G0300P	HAVSP4T0220P	
	HAVACL00804SA	30	80	0.18		HAVXS4T0300G0370P	HAVSP4T0300P	
	HAVACL00904SA	37	90	0.156		HAVXS4T0370G0450P	HAVSP4T0370P	
	HAVACL01204SA	45	120	0.117		HAVXS4T0450G0550P	HAVSP4T0450P	e
	HAVACL01504SA	55	150	0.094		HAVXS4T0550G0750P	HAVSP4T0550P	
	HAVACL02004SA	75	200	0.07		HAVXS4T0750G0900P	HAVSP4T0750P	
	HAVACL02504SA	90	250	0.056		HAVXS4T0900G1100P	HAVSP4T0900P	
	HAVACL02504SA	110	250	0.056		HAVXS4T1100G1320P	HAVSP4T1100P	
	HAVACL02904SA	132	290	0.048		HAVXS4T1320G1600P	HAVSP4T1320P	
	HAVACL03304SA	160	330	0.042		HAVXS4T1600G1850P	HAVSP4T1600P	f
	HAVACL03904SA	185	390	0.036		HAVXS4T1850G2000P	HAVSP4T1850P	
	HAVACL04904SA	200	490	0.028		HAVXS4T2000G2200P	HAVSP4T2000P	
	HAVACL04904SA	220	490	0.028		HAVXS4T2200G2500P	HAVSP4T2200P	
	HAVACL06004SA	250	600	0.024		HAVXS4T2500G2800P	HAVSP4T2500P	
	HAVACL06004SA	280	600	0.024		HAVXS4T2800G3150P	HAVSP4T2800P	
	HAVACL06604SA	315	660	0.022		HAVXS4T3150G3550P	HAVSP4T3150P	
	HAVACL08004SA	355	800	0.0175		HAVXS4T3550G4000P		f
	HAVACL08004SA	400	800	0.0175		HAVXS4T4000G4500P		
	HAVACL10004SA	450	1000	0.014		HAVXS4T4500G5000P		
	HAVACL12004SA	500	1200	0.0117		HAVXS4T5000G5600P		
	HAVACL16004SA	560	1600	0.0086		HAVXS4T5600G6300P		
	HAVACL16004SA	630	1600	0.0086		HAVXS4T6300G7100P		

AC input reactor



Selection table

Range	Commercial reference	Power (kW)	Rated current (A)	Inductance (mH)	BASIC	EXPERT Standard	Smart Pump	Diagrams
AC input reactor	HAVACL00052SC	0.75	5	2.8	HAVBA2T0007G	HAVXS2T0007G	/	c
	HAVACL00102SC	1.5	10	1.4	HAVBA2T0015G	HAVXS2T0015G	/	
	HAVACL00152SC	2.2	15	0.94	HAVBA2T0022G	HAVXS2T0022G	HAVSP2T0022P	
	HAVACL00202SC	3	20	0.7			HAVSP2T0030P	
	HAVACL00202SC	4	20	0.7		HAVXS2T0040G	HAVSP2T0040P	
	HAVACL00302SA	5.5	30	0.47		HAVXS2T0055G	HAVSP2T0055P	d
	HAVACL00402SA	7.5	40	0.36		HAVXS2T0075G	HAVSP2T0075P	
	HAVACL00502SA	11	50	0.28		HAVXS2T0110G	HAVSP2T0110P	
	HAVACL00802SA	15	80	0.18		HAVXS2T0150G	HAVSP2T0150P	
	HAVACL00802SA	18.5	80	0.18		HAVXS2T0185G	HAVSP2T0185P	
	HAVACL01202SA	22	120	0.117		HAVXS2T0220G	HAVSP2T0220P	e
	HAVACL01502SA	30	150	0.094		HAVXS2T0300G	HAVSP2T0300P	
	HAVACL02002SA	37	200	0.07		HAVXS2T0370G	HAVSP2T0370P	
	HAVACL02002SA	45	200	0.07		HAVXS2T0450G	HAVSP2T0450P	
	HAVACL02502SA	55	250	0.056		HAVXS2T0550G		
	HAVACL03302SA	75	330	0.042		HAVXS2T0750G		
	HAVACL03902SA	90	390	0.036		HAVXS2T0900G		
	HAVACL04902SA	110	490	0.028		HAVXS2T1100G		
	HAVACL06002SA	132	600	0.024		HAVXS2T1320G		
	HAVACL06602SA	160	660	0.022		HAVXS2T1600G		

AC output reactor



Features

- Limit the capacitive charging current of the connecting cable between the VSD and the motor and to passivate the voltage rise rate of the PWM wave output by the VSD.

Technical Specifications

- Rated voltage: 230V/400V
- Operating frequency: 50/60Hz
- Insulation class: class F, H
- Protection grade: IP00-IP22
- Voltage drop: <4%, if larger than this range, torque loss will occur
- Max. current: 1.5×rated current, continued for 60s
- Temperature rise: ≤85K
- Insulation resistance: 1000VDC

Application

- Limit dv/dt to 500V/us
- Limit the overvoltage on the motor terminals to: 1000V to 400V~ (rms value)
1150V to 460V~(rms value)
- Filter interference caused by opening the contactor between the filter and the motor
- Reduce the ground leakage current motor

AC output reactor



Selection table

Range	Commercial reference	Power (kW)	Rated current (A)	Inductance (mH)	BASIC	EXPERT Standard	Smart Pump	Diagrams
AC output reactor	HAVOCL00054SC	0.75	5	1.4	HAVBA4T0007G	HAVXS4T0007G	/	g
	HAVOCL00054SC	1.5	5	1.4	HAVBA4T0015G	HAVXS4T0015G	/	
	HAVOCL00074SC	2.2	7	1	HAVBA4T0022G	HAVXS4T0022G	HAVSP4T0022P	
	HAVOCL00104SC	3	10	0.7	HAVBA4T0030G		HAVSP4T0030P	
	HAVOCL00104SC	4	10	0.7	HAVBA4T0040G	HAVXS4T0040G0055P	HAVSP4T0040P	
	HAVOCL00154SC	5.5	15	0.47	HAVBA4T0055G	HAVXS4T0055G0075P	HAVSP4T0055P	
	HAVOCL00204SC	7.5	20	0.35	HAVBA4T0075G	HAVXS4T0075G0110P	HAVSP4T0075P	
	HAVOCL00304SA	11	30	0.23	HAVBA4T0110G	HAVXS4T0110G0150P	HAVSP4T0110P	h
	HAVOCL00404SA	15	40	0.18	HAVBA4T0150G	HAVXS4T0150G0185P	HAVSP4T0150P	
	HAVOCL00504SA	18.5	50	0.14		HAVXS4T0185G0220P	HAVSP4T0185P	
	HAVOCL00604SA	22	60	0.12		HAVXS4T0220G0300P	HAVSP4T0220P	
	HAVOCL00804SA	30	80	0.087		HAVXS4T0300G0370P	HAVSP4T0300P	
	HAVOCL00904SA	37	90	0.078		HAVXS4T0370G0450P	HAVSP4T0370P	
	HAVOCL01204SA	45	120	0.058		HAVXS4T0450G0550P	HAVSP4T0450P	i
	HAVOCL01504SA	55	150	0.047		HAVXS4T0550G0750P	HAVSP4T0550P	
	HAVOCL02004SA	75	200	0.028		HAVXS4T0750G0900P	HAVSP4T0750P	
	HAVOCL02504SA	90	250	0.028		HAVXS4T0900G1100P	HAVSP4T0900P	
	HAVOCL02504SA	110	250	0.028		HAVXS4T1100G1320P	HAVSP4T1100P	
	HAVOCL02904SA	132	290	0.024		HAVXS4T1320G1600P	HAVSP4T1320P	
	HAVOCL03304SA	160	330	0.021		HAVXS4T1600G1850P	HAVSP4T1600P	j
	HAVOCL03904SA	185	390	0.018		HAVXS4T1850G2000P	HAVSP4T1850P	
	HAVOCL04904SA	200	490	0.014		HAVXS4T2000G2200P	HAVSP4T2000P	
	HAVOCL04904SA	220	490	0.014		HAVXS4T2200G2500P	HAVSP4T2200P	
	HAVOCL06004SA	250	600	0.012		HAVXS4T2500G2800P	HAVSP4T2500P	
	HAVOCL06004SA	280	600	0.012		HAVXS4T2800G3150P	HAVSP4T2800P	
	HAVOCL06604SA	315	660	0.011		HAVXS4T3150G3550P	HAVSP4T3150P	
	HAVOCL08004SA	355	800	0.0087		HAVXS4T3550G4000P		
	HAVOCL08004SA	400	800	0.0087		HAVXS4T4000G4500P		
	HAVOCL10004SA	450	1000	0.007		HAVXS4T4500G5000P		
	HAVOCL12004SA	500	1200	0.0058		HAVXS4T5000G5600P		
	HAVOCL16004SA	560	1600	0.0043		HAVXS4T5600G6300P		
	HAVOCL16004SA	630	1600	0.0043		HAVXS4T6300G7100P		

AC output reactor



Selection table

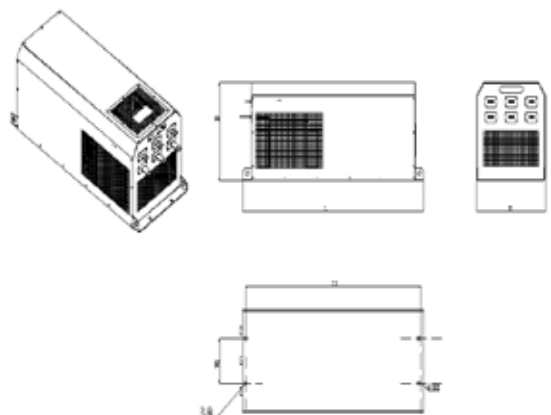
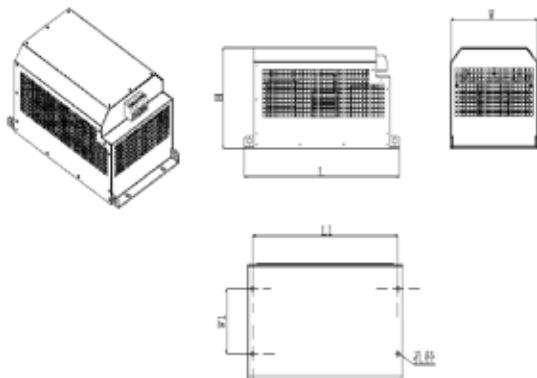
Range	Commercial reference	Power (kW)	Rated current (A)	Inductance (mH)	BASIC	EXPERT Standard	Smart Pump	Diagrams
AC output reactor	HAVOCL00052SC	0.75	5	1.4	HAVBA2T0007G	HAVXS2T0007G		g
	HAVOCL00102SC	1.5	10	0.7	HAVBA2T0015G	HAVXS2T0015G		
	HAVOCL00152SC	2.2	15	0.47	HAVBA2T0022G	HAVXS2T0022G	HAVSP2T0022P	
	HAVOCL00202SC	3	20	0.35			HAVSP2T0030P	
	HAVOCL00202SC	4	20	0.35		HAVXS2T0040G	HAVSP2T0040P	
	HAVOCL00302SA	5.5	30	0.23		HAVXS2T0055G	HAVSP2T0055P	h
	HAVOCL00402SA	7.5	40	0.18		HAVXS2T0075G	HAVSP2T0075P	
	HAVOCL00502SA	11	50	0.14		HAVXS2T0110G	HAVSP2T0110P	
	HAVOCL00802SA	15	80	0.087		HAVXS2T0150G	HAVSP2T0150P	
	HAVOCL00802SA	18.5	80	0.087		HAVXS2T0185G	HAVSP2T0185P	
	HAVOCL01202SA	22	120	0.058		HAVXS2T0220G	HAVSP2T0220P	i
	HAVOCL01502SA	30	150	0.047		HAVXS2T0300G	HAVSP2T0300P	
	HAVOCL02002SA	37	200	0.035		HAVXS2T0370G	HAVSP2T0370P	
	HAVOCL02002SA	45	200	0.035		HAVXS2T0450G	HAVSP2T0450P	
	HAVOCL02502SA	55	250	0.028		HAVXS2T0550G		
	HAVOCL03302SA	75	330	0.021		HAVXS2T0750G		
	HAVOCL03902SA	90	390	0.018		HAVXS2T0900G		
	HAVOCL04902SA	110	490	0.014		HAVXS2T1100G		
	HAVOCL06002SA	132	600	0.012		HAVXS2T1320G		
	HAVOCL06602SA	160	660	0.011		HAVXS2T1600G		

Installation table

Range	Commercial reference	Diagrams	Dimensions(mm)					
			L(max)	W(max)	H(max)	L1	W1	AxB
Passive filter	HAVHFL0015KWA10	o	350	260	220	325	120	9*16
	HAVHFL0022KWA10		350	260	220	325	120	
	HAVHFL0037KWA10		350	260	220	325	120	
	HAVHFL0055KWA10		350	260	220	325	120	
	HAVHFL0075KWA10		350	260	220	325	120	
	HAVHFL0110KWA10		420	280	245	395	120	11*18
	HAVHFL0150KWA10		420	280	245	395	120	
	HAVHFL0185KWA10		500	285	250	470	160	11*18
	HAVHFL0220KWA10		500	285	250	470	160	
	HAVHFL0300KWA10		560	315	300	525	175	12*20
	HAVHFL0370KWA10		560	315	300	525	175	
	HAVHFL0450KWA10	p	590	355	300	560	175	12*20
	HAVHFL0550KWA10		590	355	300	560	175	
	HAVHFL0750KWA10		950	405	365	900	175	12*20
	HAVHFL0900KWA10		950	405	365	900	175	
	HAVHFL1100KWA10		950	405	365	900	175	
	HAVHFL1320KWA10		950	405	365	900	175	
	HAVHFL1600KWA10		1060	405	385	1030	175	12*20
	HAVHFL1850KWA10		1060	405	385	1030	175	
	HAVHFL2000KWA10		1060	405	385	1030	175	12*20
	HAVHFL2200KWA10		1060	405	385	1030	175	
	HAVHFL2500KWA10		1060	405	385	1030	175	

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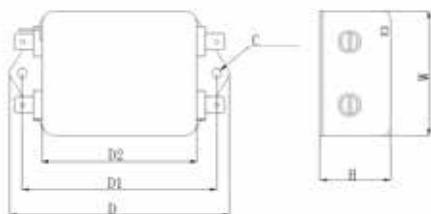
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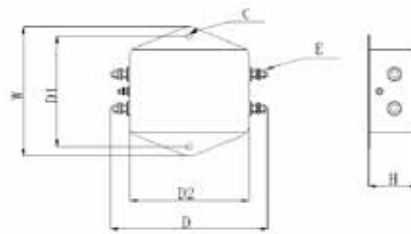
Installation table

Range	Commercial reference	Diagrams	Dimensions(mm)							
			D	D1	D2	W	W1	H	C	E
EMC C2 filter	HAVRFI3C01002D	q	85	75	64	51	/	29	2- ϕ 4.5	/
	HAVRFI3C02002D	r	87	61	51	74	/	29	2- ϕ 4.5	M4
	HAVRFI3C005	a	140	125	110	93	70	58	5.3*7	M4
	HAVRFI3C007		140	125	110	93	70	58	5.3*7	M4
	HAVRFI3C010		140	125	110	93	70	58	5.3*7	M4
	HAVRFI3C015		185	165	145	105	85	70	6.5*9.5	M6
	HAVRFI3C020		185	165	145	105	85	70	6.5*9.5	M6
	HAVRFI3C030		185	165	145	105	85	70	6.5*9.5	M6
	HAVRFI3C040		185	165	145	105	85	70	6.5*9.5	M6
	HAVRFI3C050		240	220	200	120	100	85	6.5*9.5	M6
	HAVRFI3C060		240	220	200	120	100	85	6.5*9.5	M6
	HAVRFI3C080		280	250	220	150	120	95	8.0*15	M8
	HAVRFI3C090		280	250	220	150	120	95	8.0*15	M8
	HAVRFI3C120		320	285	250	170	140	105	8.0*15	M10
	HAVRFI3C150		320	285	250	170	140	105	8.0*15	M10
	HAVRFI3C200	a	325	250	200	216	190	115	6.5*9.5	25*5
	HAVRFI3C250		325	250	200	216	190	115	6.5*9.5	25*5
	HAVRFI3C290		395	300	240	260	235	115	6.5*9.5	25*5
	HAVRFI3C330		395	300	240	260	235	115	6.5*9.5	25*5
	HAVRFI3C390		395	300	240	260	235	115	6.5*9.5	25*5
	HAVRFI3C490		445	350	290	250	230	128	6.5*9.5	30*5
	HAVRFI3C530		445	350	290	250	230	128	6.5*9.5	30*5
	HAVRFI3C600		445	350	290	250	230	128	6.5*9.5	30*5
	HAVRFI3C660		445	350	290	250	230	128	6.5*9.5	30*5

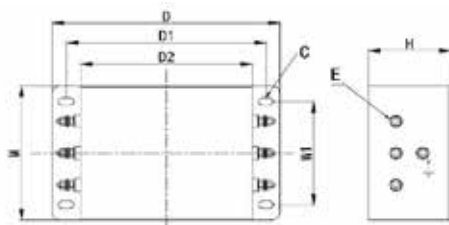
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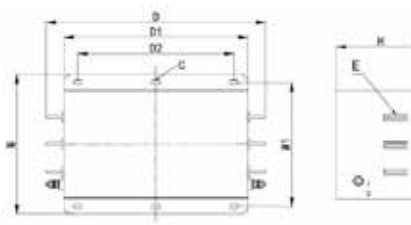
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(a)



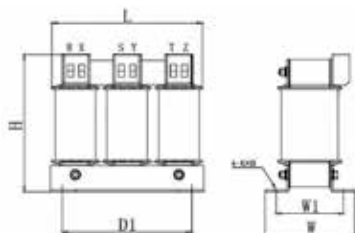
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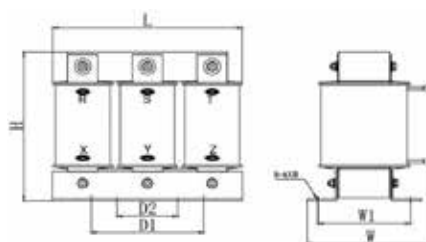
Installation table

Range	Commercial reference	Diagrams	Dimensions(mm)						
			L(max)	W(max)	H(max)	D1±2	D2±2	Wl±3	A×B
AC input reactor	HAVACL00052SC	c	125	70	115	100		47	6×12
	HAVACL00102SC		125	80	115	100		57	6×12
	HAVACL00152SC		125	80	115	100		57	6×12
	HAVACL00202SC		125	80	115	100		57	6×12
	HAVACL00302SA	d	155	150	140	95	55	75	6×15
	HAVACL00402SA		155	150	140	95	55	75	6×15
	HAVACL00502SA		195	150	165	120	64	80	8.5×20
	HAVACL00802SA		195	160	165	120	64	92	8.5×20
	HAVACL01202SA	e	230	175	230	150		93	11*18
	HAVACL01502SA		230	175	230	150		93	11*18
	HAVACL02002SA		250	190	240	182		98	11×18
	HAVACL02502SA		250	190	240	182		98	11×18
	HAVACL03302SA		290	200	260	214		102	11×18
	HAVACL03902SA		290	210	260	214		112	11×18
	HAVACL04902SA		290	230	300	214		112	11×18
	HAVACL06002SA		320	260	310	243		135	12×20
	HAVACL06602SA		320	260	310	243		135	12×20

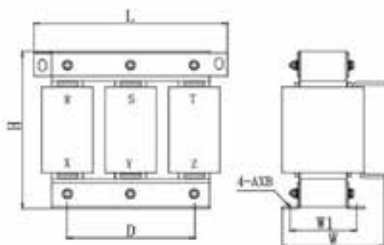
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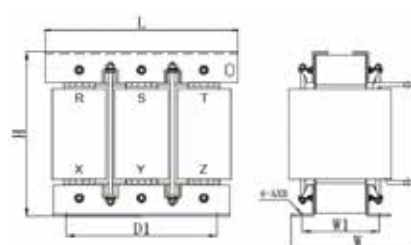
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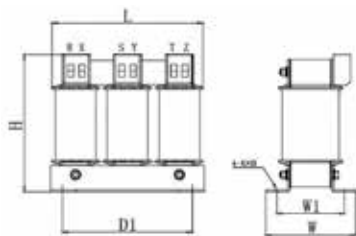
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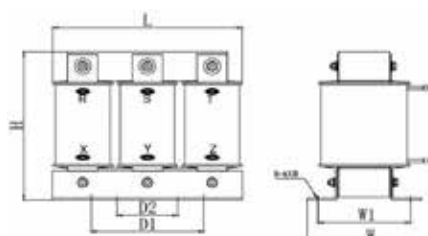
Installation table

Range	Commercial reference	Diagrams	Dimensions(mm)						
			L(max)	W(max)	H(max)	D1±2	D2±2	Wl±3	A×B
AC output reactor	HAVOCL00054SC	g	125	70	125	100		47	6×12
	HAVOCL00074SC		125	70	125	100		47	6×12
	HAVOCL00104SC		125	80	125	100		57	6×12
	HAVOCL00154SC		125	80	125	100		57	6×12
	HAVOCL00204SC		125	80	125	100		57	6×12
	HAVOCL00304SA	h	155	130	140	95	55	63	6×15
	HAVOCL00404SA		155	150	140	95	55	76	6×15
	HAVOCL00504SA		195	150	165	120	64	80	8.5×20
	HAVOCL00604SA		195	150	165	120	64	80	8.5×20
	HAVOCL00804SA		195	150	165	120	64	92	8.5×20
	HAVOCL00904SA		195	150	165	120	64	92	8.5×20
	HAVOCL01204SA	i	230	175	220	150		93	11×18
	HAVOCL01504SA		230	175	220	150		93	11×18
	HAVOCL02004SA		250	190	240	182		93	11×18
	HAVOCL02504SA		250	200	240	182		98	11×18
	HAVOCL02904SA		250	200	240	182		98	11×18
	HAVOCL03304SA		290	210	260	214		102	11×18
	HAVOCL03904SA		290	210	260	214		112	11×18
	HAVOCL04904SA		290	230	300	214		112	11×18
	HAVOCL06004SA		320	260	310	243		135	12×20
	HAVOCL06604SA		320	260	310	243		135	12×20
	HAVOCL08004SA		320	260	310	243		140	12×20
	HAVOCL10004SA		320	290	350	243		140	12×20
	HAVOCL12004SA	j	365	310	430	260		145	15×25
	HAVOCL16004SA		365	320	435	260		175	15×25

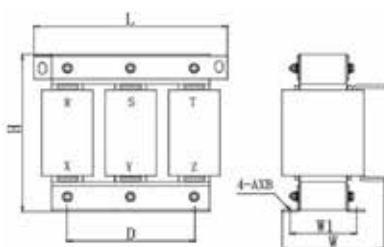
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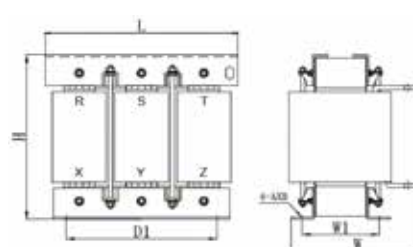
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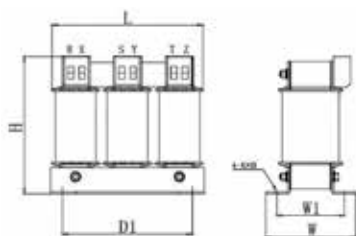
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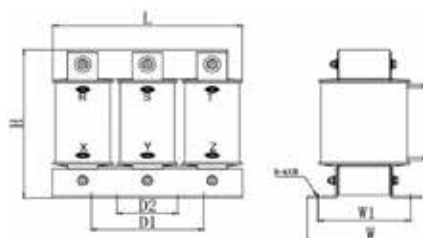
Installation table

Range	Commercial reference	Diagrams	Dimensions(mm)						
			L(max)	W(max)	H(max)	D1±2	D2±2	Wl±3	A×B
AC output reactor	HAVOCL00052SC	g	125	70	125	100		47	6×12
	HAVOCL00102SC		125	80	125	100		57	6×12
	HAVOCL00152SC		125	80	125	100		57	6×12
	HAVOCL00202SC		125	80	125	100		57	6×12
	HAVOCL00302SA	h	155	130	140	95	55	63	6×15
	HAVOCL00402SA		155	150	140	95	55	76	6×15
	HAVOCL00502SA		195	150	165	120	64	80	8.5×20
	HAVOCL00802SA		195	150	165	120	64	92	8.5×20
	HAVOCL01202SA	i	230	175	220	150		93	11×18
	HAVOCL01502SA		230	175	220	150		93	11×18
	HAVOCL02002SA		250	190	240	182		93	11×18
	HAVOCL02502SA		250	200	240	182		98	11×18
	HAVOCL03302SA		290	210	260	214		102	11×18
	HAVOCL03902SA		290	210	260	214		112	11×18
	HAVOCL04902SA		290	230	300	214		112	11×18
	HAVOCL06002SA		320	260	310	243		135	12×20
	HAVOCL06602SA		320	260	310	243		135	12×20

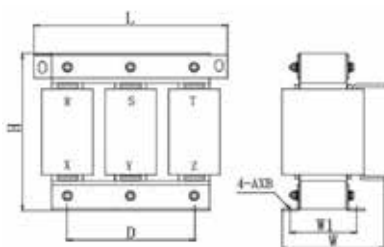
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(h)



(i)



Solar series VSD

Himel Solar VSD is an innovative solution that uses solar power as a reliable energy source for pumping water. It is to maximum solar energy to run the pump for maximum duration in a day by controlling the speed of the motor based on the power available from the solar panel.

Series	Voltage Class	Motor Capacity Table																											
		0.4	0.75	1.5	2.2	4	5.5	7.5	11	15	19	22	30	37	45	55	75	90	110	132	160	185	200	220	250	280	315		
Solar	Single-phase 200 - 240V																												
	Three-phase 380 - 440V																												

• 2S = 200-240V Single Phase; 4T = 380-440V Three Phase;

Build-in MPPT

Maximum power point tracking ensures that you get the most power output possible from your solar panel and maximizes the performance of your pump throughout the day.

Hybrid mode - Dual supply (AC&DC) capability

The VSD is customized to operate in dual supply mode, so the grid connected supply is used in the absence of energy from PV cells.

Automatic start-run-stop through out the day

With water level detection in the tank and pump overload and under-load protection.

Easy to use

- Compact design
- Easy to install with Din rail
- Can run with default setting, no parameter set need
- One-key recovery function

Special program function

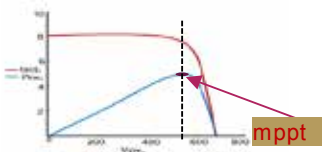
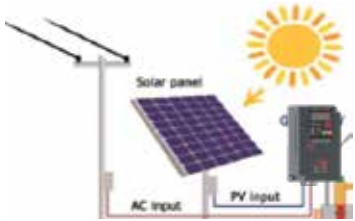
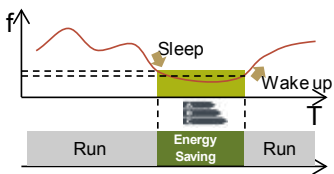
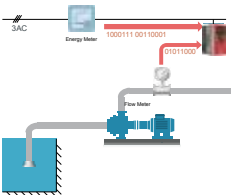
- Energy meter
- Flow calculation

Pump-specific protection

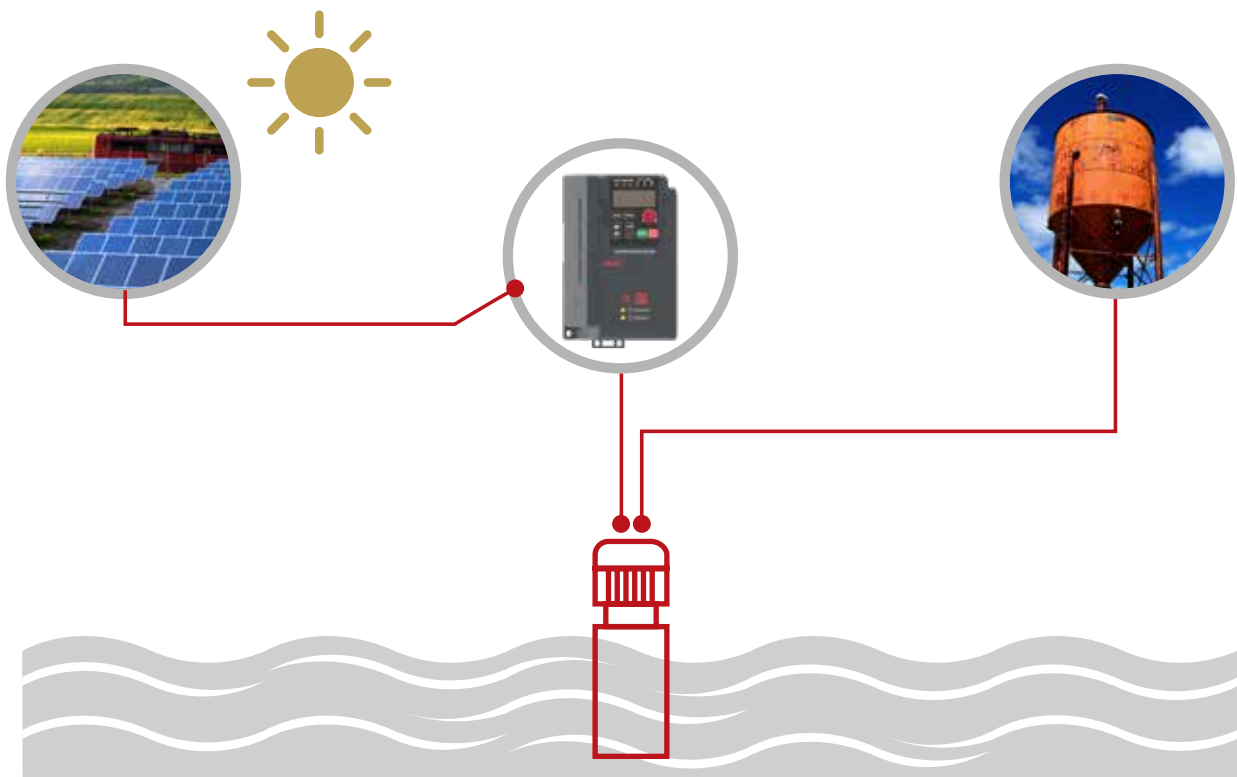
- Dry run detection.
- Voltage limit
- Overvoltage , overcurrent, overload protection
- Phase-loss protection
- Short-circuit protection



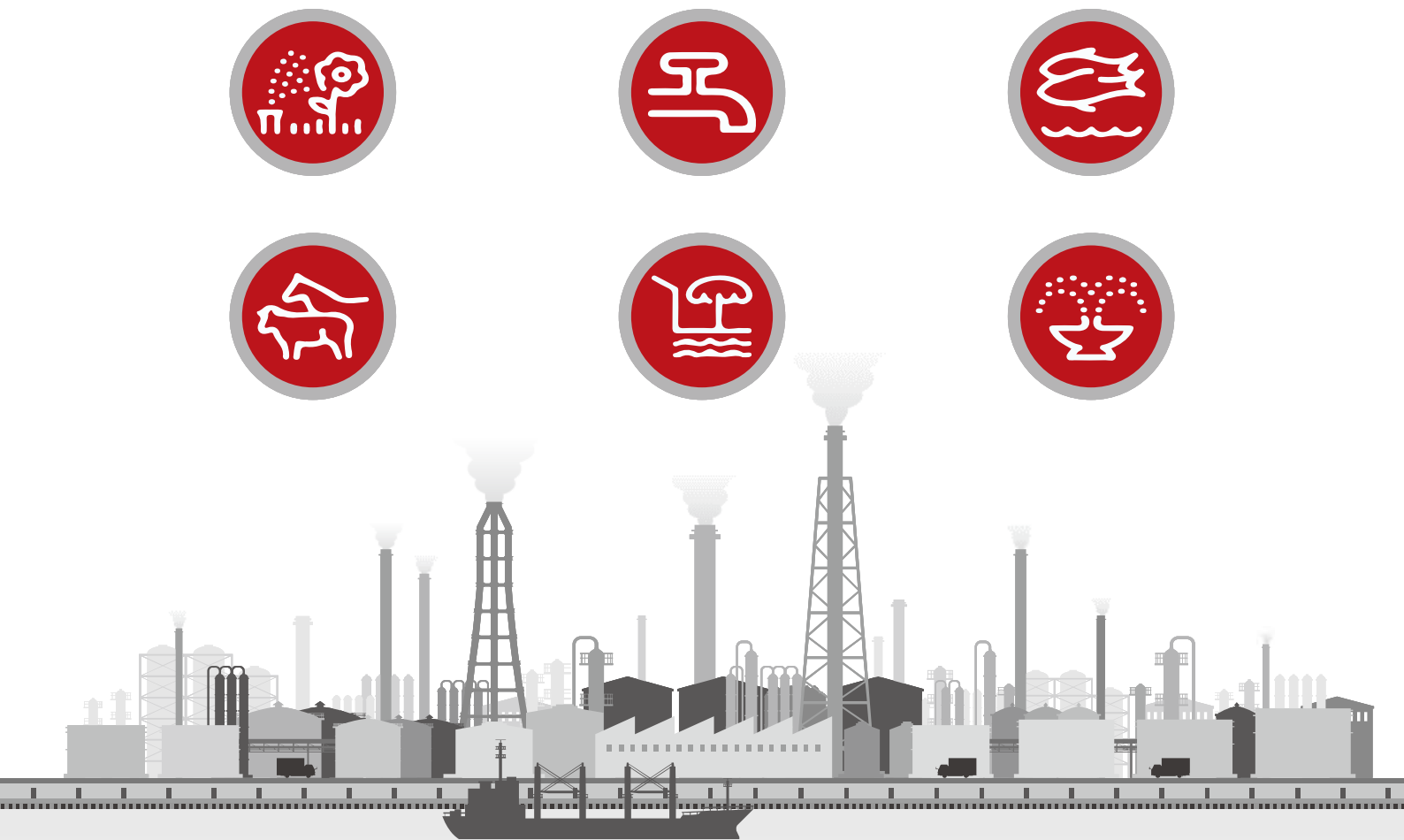
General Highlights

Features	Your benefits
Build-in MPPT  ◆ Maximum power point tracking ensures that you get the most power output possible from your solar panel	◆ maximizes the performance of your pump throughout the day
Easy to use  ◆ Compact design ◆ Easy to install with Din rail ◆ Can run with default setting ◆ One-key recovery function	◆ Makes it possible to use in smaller cabinets ◆ No need to set additional parameters anymore ◆ Easy to operate and maintain
Dual supply (AC & DC) capability  ◆ The VSD is customized to operate in dual supply mode	◆ The grid connected supply is used in the absence of energy from PV cells
Automatic start-run-stop  ◆ Automatic start and stop according to the power of solar cell ◆ With water level detection in the tank and pump overload and under-load protection	◆ No need to operate ◆ Save more time and maintain cost
Special program function  ◆ AVR function ◆ Energy meter ◆ Flow calculation	◆ Automatic adaptation in case of unstable power supply ◆ Visible energy savings and flow ◆ Easy system upgrade
Pump-specific protection  ◆ Dry run detection ◆ Voltage limit ◆ Overvoltage , overcurrent, overload protection ◆ Phase-loss protection ◆ Short-circuit protection	◆ Automatic adaptation in case of unstable power supply ◆ Long lifecycle running in high humidity and high dust occasions ◆ Easy to maintain

Target Application



Target Application



Successful Applications



Swimming Pool



Livestock



Fountain



Fish Farming



Irrigation



Domestic Water Supply

Specification

Range Name		Solar VSD	
Range type		*2S*	*4T*
Design			
Capacity range	AC input voltage(V)	220(±15%)(1PH)	380(±15%)(3PH)
	Power rating	0.4~4kW	0.75~160kW
	Mix. DC voltage(V)	440	800
	Start voltage(V)	200	300
	Min. DC voltage(V)	150	250
	DC input range(V)	200~400	300~750
	MPPT working voltage(V)	330	550
Frequency	Input frequency	50/60Hz	50/60Hz
	Output frequency	0-400Hz	0-400Hz
Overload capacity	Capacity	150% for 1min, 180% for 3s	G Type:150% for 1 min, 180% for 3s P Type:120% for 1 min, 150% for 3s
Control method	V/f	√	√
	Sensorless vector control	√	√
	Eco mode control	-	-
Start torque		0.5Hz, 150%	G Type: 0.5Hz, 150% P Type: 0.5Hz, 100%
Keypad		Removable Keyboard	Removable Keyboard
Display		LED	
Multispeed Sequence		-	
I/O	DI1-DI4	NPN/PNP;Input: 9-30VDC	
	AI1	V: 0-10V	
		I:0-20mA	
	AO1	V: 0-10V	
		I:0-20mA	
	RO(Ta, Tb, Tc)	NO: AC 250V below 3A/DC30V below 3A NC: AC 250V below 3A/DC30V below 3A	
Built-in communication (Max. speed)		0.4~22kW: extension card; ≥30kW: Build in	
Option	Communication	RS485,Modbus RTU (38.4kbps)	
	Extension operation panel	Support, cable length:2m, 5m	
Functionality		MPPT function	
		Support AC/DC supply	
		Auto start-run-stop	
		Energy/ flow calculator	
		Low Light protection	
		Eco-mode/PID with sleep mode/Special pump protection	
Installation Way		Wall mounted,Din-rail	
Environment and certificate	Operation temperature	The ambient temperature of inverter is -10°C~50°C while air temperature change should be less than 0.5°C per minute.The inverter will be derated once ambient temperature exceeds 40°C. It is not recommended to use the inverter if ambient temperature is above 50°C	
	Humidity	≤95%RH	
	Altitude	≤1000m, no capacity reduction	
	IP level	IP20	
	Global certificates	CE	

Specification

Range Name		Solar VSD	
Range type		*2S/2S*	*4T*
Design			
Features	Velocity ratio	1:200	
	Velocity precision at steady state	≤±0.2%	
	Frequency precision	±0.01Hz	
	Frequency resolution	±0.01%	
	Torque rise	Integrated auto-torque raising function; with manual- setting: 0.1%~10.0%	
	V/F control curve definition	1: Straight line V/F curve; applying to the constant torque load2: Multi-dots V/F curve3: Torque-stepdown characteristic curve (1.3 order)4: Torque-stepdown characteristic curve (1.7 order)5: Torque-stepdown characteristic curve (2.0 order)6: Customized V/F(V/F separation)	
	Acceleration/Deceleration Time	four groups of ACC/DEC time which can be selected by F28	
	DC braking	Start frequency: 0.00~Max. output frequency; braking time: 0.0~50.0Sbraking current: 0.0~100%	
	Automatic voltage regulation(AVR)	The output voltage of the inverter is automatically adjusted to eliminate the influence of bus voltage fluctuations on the output voltage of the inverter	
	Auto current limitation	Limit current automatically to avoid tripping from frequent over current.	
	Auto PMW adjustment	Can adjust the PWM frequency automatically according to the load characteristic	
Protection	Special pump protection	Voltage limit, dry run,pump load monitor,Motor overload	
	VSD protection function	Over-current, over-voltage, under-voltage, over-heat, over-load, short circuit,phase loss	
	Cooling	Air- cooling, Forced air cooling	

Reference Selection

Range Name	Series Name	Input	Adaptation	Inverter
HAV	SO	2S	0015	G
↓ ↓ ↓ ↓				
HA: Himel Automation		2: 220V 4: 380V – 440V	Adaptation 0004: 0.4kW 0007: 0.75kW 0015: 1.5kW 0022: 2.2kW 0040: 4kW	Torque Type G: Heavy-duty P: Normal-duty
V: VSD M: Motion H: HMI P: PLC	SO: Solar	S: Single-phase T: Three-phase		

Selection

• G type

Range	Input Voltage	HIMEL-reference	Rated input current	Heavy duty(constant torque) G-type			Dimensions (mm)			Mounting Dimensions (mm)			CAD
			(A)	Motor Power (kW)	Motor Power (HP)	Continuous Output Current (A)	W	H	D	W1	H1	D1	No.
	AC:220V(±15%) Single Phase DC:150V-440V	HAVSO2S0004G	6.5	0.4	0.5	3	84	152	148.4	74	140	141	(a)
		HAVSO2S0007G	9.5	0.75	1.0	5	84	152	148.4	74	140	141	(a)
		HAVSO2S0015G	15.7	1.5	2.0	7	105	165	161.4	95	153	154	(b)
		HAVSO2S0022G	27	2.2	3.0	10	105	165	161.4	95	153	154	(b)
		HAVSO2S0040G	32.8	4	5.0	17	145	230	177.4	133	218	170	(c)
	AC:380V(±15%) Three Phase DC:250V-800V	HAVSO4T0007G	3.4	0.75	1.0	3	84	152	148.4	77	144	141	(a)
		HAVSO4T0015G	5	1.5	2.0	4.5	84	152	148.4	77	144	141	(a)
		HAVSO4T0022G	6.8	2.2	3.0	6	105	165	161.4	95	153	154	(b)
		HAVSO4T0040G	10.5	4	5.0	9.5	105	165	161.4	95	153	154	(b)
		HAVSO4T0055G	15.5	5.5	7.5	13	145	230	177.4	133	218	170	(c)
		HAVSO4T0075G	20.5	7.5	10.0	17	145	230	177.4	133	218	170	(c)
		HAVSO4T0110G	26	11	15.0	25	180	285	167.4	168	273	160	(d)
		HAVSO4T0150G	35	15	20.0	32	180	285	167.4	168	273	160	(d)
		HAVSO4T0185G	38.5	18.5	25.0	37	210	350	205	198	335	193.5	(e)
		HAVSO4T0220G	46.5	22	30.0	45	210	350	205	198	335	193.5	(e)
		HAVSO4T0300G	62	30	40.0	60	250	430	235.5	160	415	220	(f)
		HAVSO4T0370G	76	37	50.0	75	250	430	235.5	160	415	220	(f)
		HAVSO4T0450G	92	45	60.0	90	300	530	285.5	240	515	270	(g)
		HAVSO4T0550G	113	55	75.0	110	300	530	285.5	240	515	270	(g)
		HAVSO4T0750G	157	75	100.0	152	340	580	328.5	260	565	313	(h)
		HAVSO4T0900G	180	90	120.0	176	340	580	328.5	260	565	313	(h)
		HAVSO4T1100G	214	110	150.0	210	340	580	328.5	260	565	313	(h)
		HAVSO4T1320G	256	132	180.0	253	400	940	367	300/365	910	336	(i)
		HAVSO4T1600G	305	160	200.0	300	400	940	367	300/365	910	336	(i)

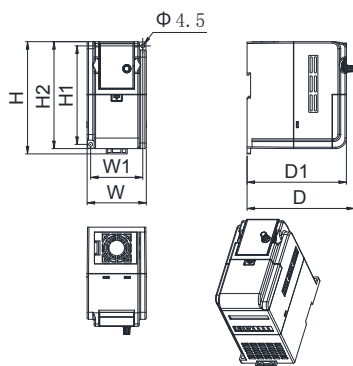
Selection

• P type

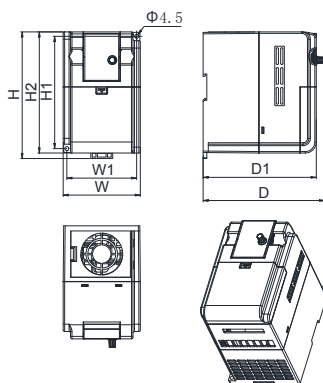
Range	Input Voltage	HIMEL-reference	Rated input current	Normal duty(Variable torque) P-type			Dimensions (mm)			Mounting Dimensions (mm)			CAD
			(A)	Motor Power (kW)	Motor Power (HP)	Continuous Output Current (A)	W	H	D	W1	H1	D1	No.
Solar	AC: 380V(±15%) Three Phase DC: 250V-800V	HAVSO4T0015P	3.4	1.5	2	3	84	152	148.4	77	144	141	(a)
		HAVSO4T0022P	5	2.2	3	4.5	84	152	148.4	77	144	141	(a)
		HAVSO4T0040P	6.8	4	5	6	105	165	161.4	95	155	154	(b)
		HAVSO4T0055P	10.5	5.5	7.5	9.5	105	165	161.4	95	155	154	(b)
		HAVSO4T0075P	15.5	7.5	10	13	145	230	177.4	133	218	170	(c)
		HAVSO4T0110P	20.5	11	15	17	145	230	177.4	133	218	170	(c)
		HAVSO4T0150P	26	15	20	25	180	285	167.4	168	273	160	(d)
		HAVSO4T0185P	35	18.5	25	32	180	285	167.4	168	273	160	(d)
		HAVSO4T0220P	38.5	22	30	37	210	350	205	198	335	193.5	(e)
		HAVSO4T0300P	46.5	30	40	45	210	350	205	198	335	193.5	(e)
		HAVSO4T0370P	62	37	50	60	250	430	235.5	160	415	222	(f)
		HAVSO4T0450P	76	45	60	75	250	430	235.5	160	415	222	(f)
		HAVSO4T0550P	92	55	75	90	300	530	285.5	240	515	272	(g)
		HAVSO4T0750P	113	75	100	110	300	530	285.5	240	515	272	(g)
		HAVSO4T0900P	157	90	120	152	340	580	328.5	260	565	315	(h)
		HAVSO4T1100P	180	110	150	176	340	580	328.5	260	565	315	(h)
		HAVSO4T1320P	214	132	180	210	340	580	328.5	260	565	315	(h)
		HAVSO4T1600P	256	160	200	253	400	940	367	300/365	910	336	(i)
		HAVSO4T1850P	305	185	245	300	400	940	367	300/365	910	336	(i)

CAD Diagrams

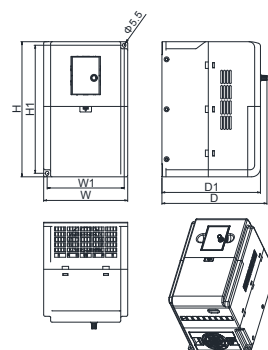
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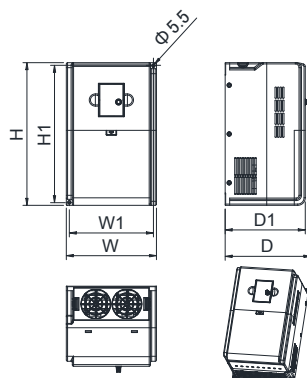
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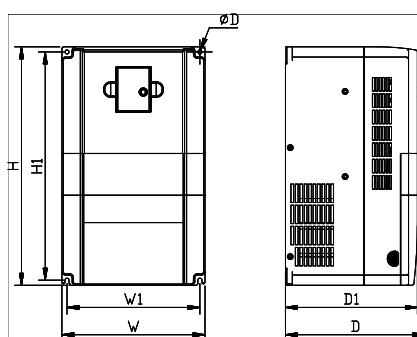
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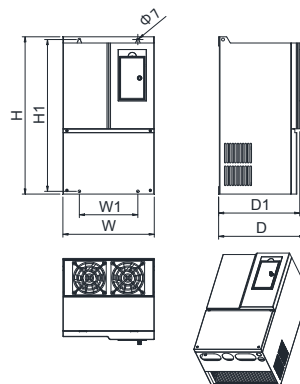
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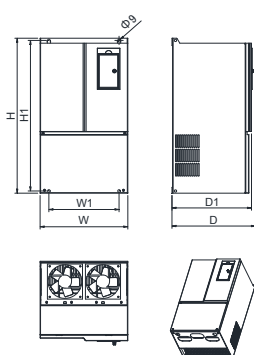
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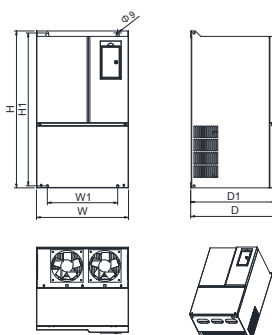
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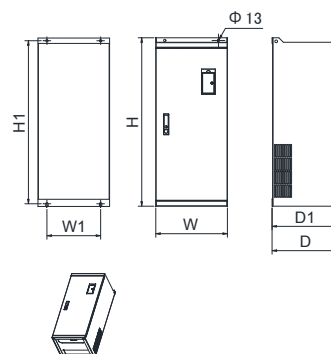
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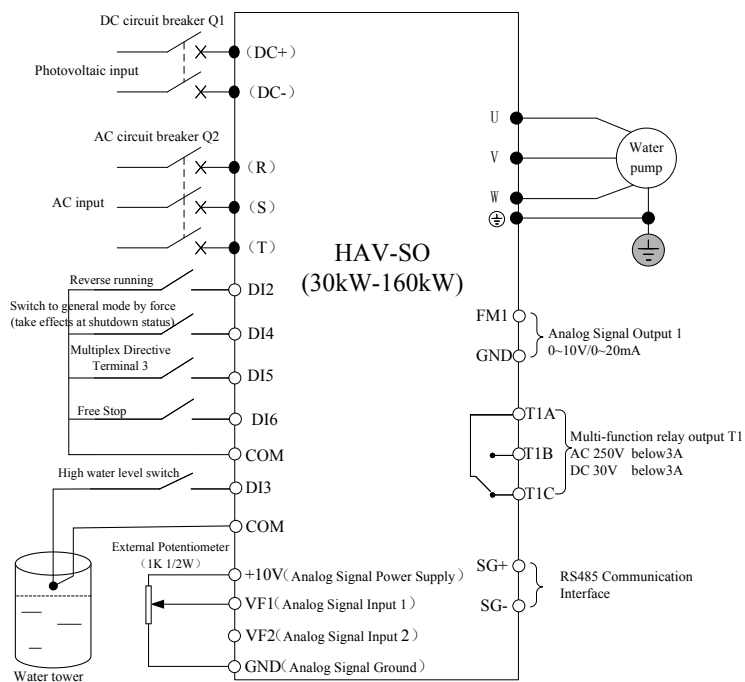
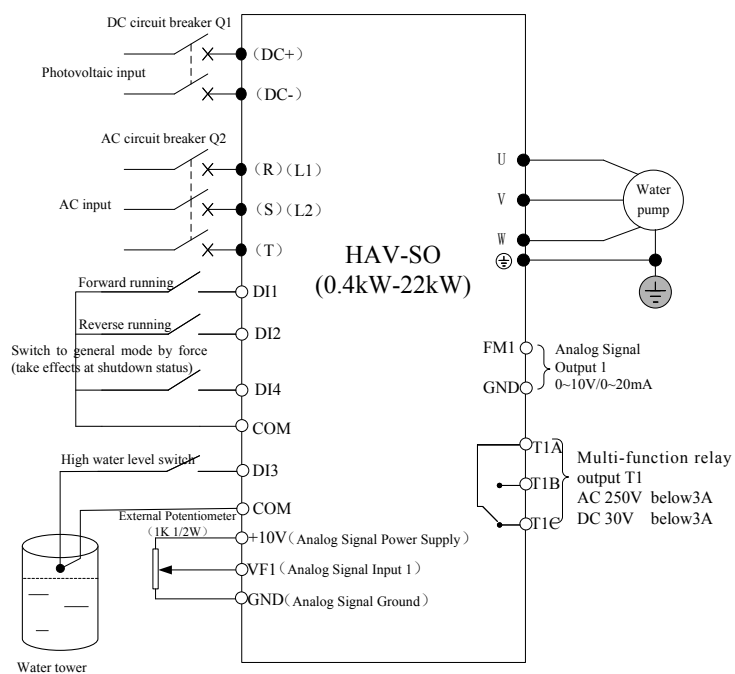
(h)



(i)



Wiring Diagrams



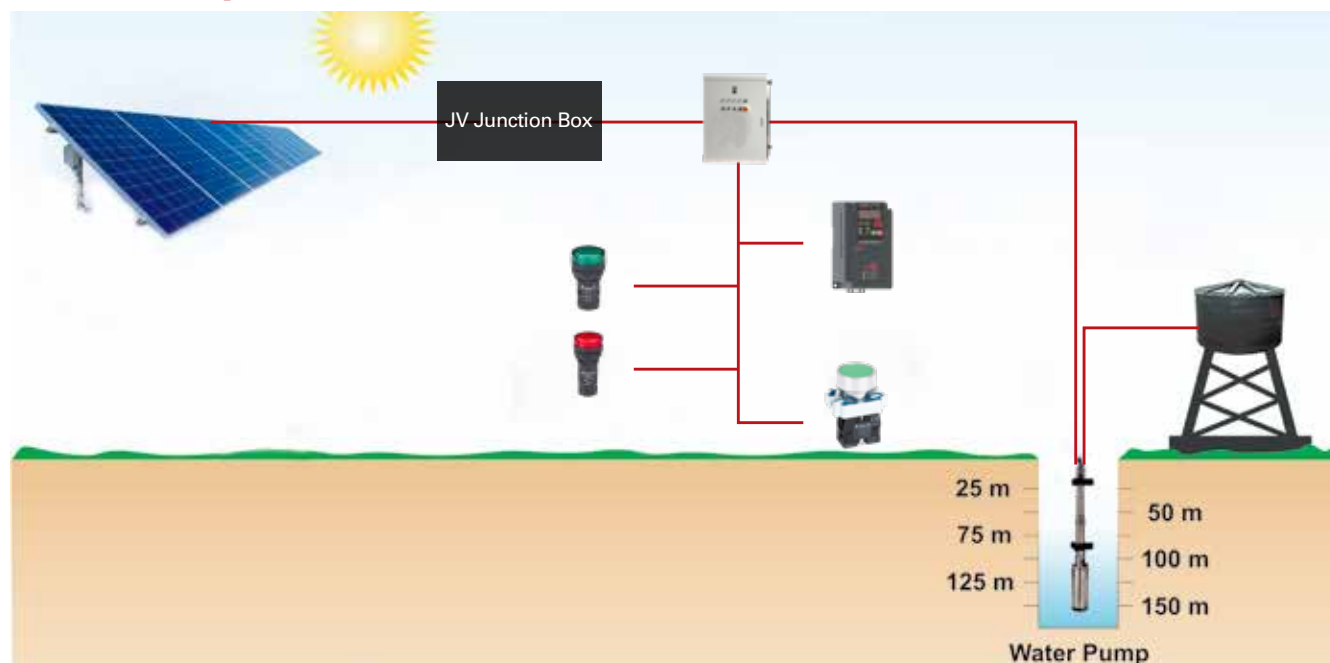
Accessories

Type	Commercial Reference	Short Description	Applicable Product		Pictures
			Applicable Commercial Reference	Specifications	
External Keypad	HAV-SO-ELCD	External keypad	All Solar series	All Solar series	
Keypad cable	HAV-SO-CAB	Keyboard extension cable, Length: 2m, 5m	HAVSO Series(0.4~160kW)	2S:0.4-4.0kW 4T:0.7-160kW	
GPRS module	HAV-SO-GT90	GPRS module remote monitoring	All Solar serie	All Solar series	
RS485 Communication Extension card	HAV-SO-485	Support MODBUS-RTU protocol	HAV-SO Series(0.4~22kW)	2S:0.4-4.0kW 4T:0.7-22kW	
Power frequency & PV switching solution	HAV-SO-AS055-2	Size: W×H×D:240×90×125 W1×H1×D:229×65×1254×Ø6	HAV-SO Series	2S:0.4-4.0kW	
	HAV-SO-AS055-4	Size: W×H×D:240×90×125 W1×H1×D:229×65×1254×Ø6	HAV-SO Series	4T:0.7-15kW	
	HAV-SO-AS110-4	Size: W×H×D:240×90×125 W1×H1×D:229×65×1254×Ø6	HAV-SO Series	4T:18.5-37kW	

* 2S = 200-240V Single Phase, 2T = 200-240V Three Phase, 4T = 380-440V Three Phase

* If you need an external LCD keypad, please remark that you need a Solar LCD keypad when ordering drive

Solar Pump Solution



Solar Array Selection

Range	Input Voltage	Commercial Reference	Solar panel selection			
			37±1V		45±1V	
			Cell panel power±5Wp	Panel per array*arraies	Panel power±5Wp	Panel per array*arraies
	AC:220V(±15%) Single Phase DC:150V-440V	HAVSO2S0004G	250	11*1	300	9*1
		HAVSO2S0007G	250	11*1	300	9*1
		HAVSO2S0015G	250	11*1	300	9*1
		HAVSO2S0022G	250	11*1	300	9*1
		HAVSO2S0040G	250	11*2	300	9*2
	AC:380V(±15%) Three Phase DC:250V-800V	HAVSO4T0007G	250	18*1	300	15*1
		HAVSO4T0015G	250	18*1	300	15*1
		HAVSO4T0022G	250	18*1	300	15*1
		HAVSO4T0040G	250	18*2	300	15*2
		HAVSO4T0055G	250	18*2	300	15*2
		HAVSO4T0075G	250	18*2	300	15*2
		HAVSO4T0110G	250	18*3	300	15*3
		HAVSO4T0150G	250	18*4	300	15*4
		HAVSO4T0185G	250	18*5	300	15*5
		HAVSO4T0220G	250	18*6	300	15*6
		HAVSO4T0300G	250	18*8	300	15*8
		HAVSO4T0370G	250	18*10	300	15*10
		HAVSO4T0450G	250	18*12	300	15*12
		HAVSO4T0550G	250	18*15	300	15*15
		HAVSO4T0750G	250	18*20	300	15*20
		HAVSO4T0900G	250	18*25	300	15*25
		HAVSO4T1100G	250	18*30	300	15*30
		HAVSO4T1320G	250	18*36	300	15*36
		HAVSO4T1600G	250	18*43	300	15*43

Electric Device Selection

Range	Input Voltage	Commercial Reference	AC Circuit Breaker	DC Circuit Breaker	AC contactor	SPD	Fuse
	AC:220V(±15%) Single Phase DC:150V-440V	HAVSO2S0004G	16	16A/1000VDC	16	Type II 1000VDC	30A Fast fuse
		HAVSO2S0007G	16		16		
		HAVSO2S0015G	25		25		
		HAVSO2S0022G	40	25A/1000VDC	40		
		HAVSO2S0040G	50	63A/1000VDC	50		
	AC:380V(±15%) Three Phase DC:250V-800V	HAVSO4T0007G	10	16A/1000VDC	12		
		HAVSO4T0015G	10		12		
		HAVSO4T0022G	10		12		
		HAVSO4T0040G	25		25		
		HAVSO4T0055G	25	25A/1000VDC	25		
		HAVSO4T0075G	40		40		
		HAVSO4T0110G	50		50		
		HAVSO4T0150G	63	63A/1000VDC	63		
		HAVSO4T0185G	63		63		
		HAVSO4T0220G	100		95		
		HAVSO4T0300G	100	100A/1000VDC	95		
		HAVSO4T0370G	125		115		



METERING

Efficient metering and monitoring at affordable price

Electricity is lifeline of your business. Measuring critical power parameters can help you manage the energy costs, making a positive impact on your bottom-line. Himel Metering products facilitate analysis of power quality reliability and preventative maintenance.

Fast and reliable parametrization is pivotal to high operational efficiency of industrial and commercial operations. From billing to monitoring and diagnostics, Himel Metering portfolio offers cost efficient devices to analyze, measure and control key electrical parameters.



Himel Meters enable facility managers and personnel to better understand the resource consumption—critical to the operation of modern manufacturing units



Himel Metering devices offer a cost-efficient approach to a wide variety of metering requirements for residential, commercial or industrial applications



Our Metering products are tailored to monitor electrical consumption and power distribution in the circuit—proven to improve the reliability of electrical energy in critical operations



Himel Metering products have user-friendly LCD display with keypad providing intuitive navigation through the menu structure, ideal for building power management and monitoring

METERING



HP606 Digital Panel Meters



HP606

Meter model: Amperemeter, Voltmeter,
Combination meter, Multifunction Meter
Connection type: Single-phase / Three-phase
Accuracy: class 0.5
Frequency: 45-65Hz
Dimension types: 3 types (96, 72, 48)

386

HDT(S)S606 Three-phase Four-wire Watt-hour Meter



HDT(S)S606

Current specification: 1.5(6)A, 3(6)A, 5(20)A, 5(40)A,
5(60)A, 20(80)A, 10(100)A
Connection Type: Three-phase Four-wire
Accuracy: Class 1
Frequency: 50/60Hz

397

H72 & H96 Panel Meters



H96

H72

Specification: 72x72mm, 96x96mm
Type: Ammeter, Voltmeter, Frequency Meter
Frequency: 50/60Hz

393

HLMK Current Transformers



HLMK

Rated primary current: 30A-5000A
Rated secondary current: 5A
Maximum rated voltage: 0.66kV
Accuracy class: 0.5, 1.0
Frequency: 50Hz

404

HDDS606 Single-phase Watt-hour Meter



HDDS606

Current specification: 1.5(6)A, 2.5(10)A, 5(20)A, 5(30)A,
10(40)A, 15(60)A, 20(80)A, 10(100)A
Connection Type: Single-phase
Accuracy: Class 1
Frequency: 50/60Hz

397

METERING

Range Presentation

HP606 is Himel range of new Digital Meters:

- Applied to power monitoring and panel builder cabinet
- Product types: current, voltage, combination, and multifunction
- Dimension types: 3 types (96, 72, 48)



Features

- ◆ New design and elegant appearance: material of high permeability plexiglass, LED or LCD display; and wide visual range
- ◆ Accurate metering and reliable performance: high accuracy and resolution ratio; high ability of overloading
- ◆ Four-remote control: teleindication, telecontrol, Telemetering, and remote regulating
 - √ Teleindication: build communication with data collector, network module, and workstation via Rs485
 - √ Telecontrol: operation on local or remote workstation (off-site), e.g. remote tripping and closing
 - √ Telemetering: remote parameters adjustment
 - √ Remote regulating: remote parameters metering

Range Presentation

HDDS606 and HDT(S)S606 series are Himel range of Electronic Watt-hour Meter, which provide:

- Measuring the active energy in the single-phase or three-phase AC power network at frequency of 50Hz or 60Hz
- Measuring the active energy of enterprises, transformer sub-station or power stations, and be used as automatic meters of power transmission and distribution network



Features

- ◆ Smaller and Elegant:
 - 50% smaller in size to save installation space
 - Upgraded appearance design
- ◆ Accurate Measurement & Safe and Reliable:
 - Automatic calibration for inspection
 - Three lead sealings: factory, verification and installation; more secure for electricity anti-stealing.
- ◆ Well Designed & Intelligent and Convenient:
 - Wider current range, and easier for model selection
 - First limit design of bump on the tail cover in our industry, and flip angle of the tail cover can be more than 135°
 - More convenient and firming on wiring.
- ◆ Qualified Materials & Excellent Performance:
 - Temperature rise is only 15K, which is far less than national standard 25K.
 - Power loss is less than 0.5W.
 - Heat deformation temperature reaches to 200°C

Range Presentation

HLMK Series is Himel range of Current Transformer, to measure and transform high current to low current

Features

- ◆ 100% pure copper varnished wire
- ◆ Optimized electric conductivity, less power loss and better stability
- ◆ Shell is made of flame retardant PC material
- ◆ Maximum rated voltage is 0.66kV



METERING

HP606 Digital Panel Meters

Standard: IEC60051



Product Overview

- New design, and it's applied to power monitoring and panel builder cabinet
- Product types: current, voltage, combination, and multifunction
- Dimension types: 3 types (96, 72, 48)

Model Selection

The HP606 Series includes the following models:

- HPZ single/three-phase voltmeter
- HPA single/three-phase amperemeter
- HPD combination meter
- HPDM multifunction meter

Selection Code

Features

- ◆ New design and elegant appearance: material of high permeability plexiglass, LED or LCD display; and wide visual range
- ◆ Accurate metering and reliable performance: high accuracy and resolution ratio; high ability of overloading
- ◆ Four-remote control: teleindication, telecontrol, Telemetering, and remote regulating
- √ Teleindication: build communication with data collector, network module, and workstation via Rs485
- √ Telecontrol: operation on local or remote workstation (off-site), e.g. remote tripping and closing
- √ Telemetering: remote parameters adjustment
- √ Remote regulating: remote parameters metering

Online Content



HP606

Model	Input mode	Panel dimension	Meter structure	Display mode	Range	
HP*606	L	72	P	1	Y	5A
HPA606: HPA606 Amperemeter	L: AC	48: 96×48 mm (only for single-phase meter)	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display	NA	5A: Secondary 1A: Secondary
		72: 72×72 mm		1: One-row LED display 4: Three-row LED display		
		96: 96×96 mm	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display 4: Three-row LED display		
			4: Three-row LED display			
HPZ606: HPZ606 Voltmeter	L: AC	48: 96×48 mm (only for single-phase meter)	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display	Y: 100V O: 600V	NA
		72: 72×72 mm	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display 4: Three-row LED display		
		96: 96×96 mm	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display 4: Three-row LED display		
			4: Three-row LED display			
HPD606: HPD606 Combination meter	L: AC	72: 72×72 mm	P: Programmable Display Instrument T: RS485	4: Three-row LED display	Y: 100V O: 600V	5A: Secondary 1A: Secondary
		96: 96×96 mm				
HPDM606: HPDM606 Multifunction meter	L: AC	72: 72×72 mm	P: Programmable Display Instrument T: RS485	3Y: Three-phase LCD display (only for multifunction meter) 4: Three-row LED display	Y: 100V O: 600V	5A: Secondary 1A: Secondary
		96: 96×96 mm	P: Programmable Display Instrument T: RS485		Y: 100V O: 600V	5A: Secondary 1A: Secondary

Note: Normally the combination meter is composed of voltage, current, and frequency. If customer needs more functions, then a multi-function meter is required.

METERING

HP606 Digital Panel Meters

Standard: IEC60051

Range Table

Current range	Direct connection AC: 0.1~5A DC: 0~5A
	AC: external current transformer 5A/5A 10kA/5A DC: current shunt 75mV 10kA/75mV
Voltage range	Direct connection AC: 3~600V; DC: 0~600V
	AC: external voltage transformer 380V/100V~ 380kV/100V; DC: external resistor of 750V~ 1.5kV
Frequency range	45Hz~65Hz
Power factor	0.5 (lead) ~1 ~0.5 (lag)

Technical Parameters

Input	Network system		Single-phase & Three-phase
	Voltage	Overload	Continuous: 1.2×Un; Instantaneous: 2×Un for lasting 1s
	Current	Overload	Continuous: 1.2×In; Instantaneous: 10×In for lasting 5s
	Frequency		45~65Hz
Function module	Switch input (DI)		Photocoupler Isolation of passive dry contact
	Switch output (DO)		Output of two-loop passive relay, contact capacity: 3A/30VDC,3A/250VAC, Values of upper and lower limit alarm, hysteresis can be set as what you want.
			Output method: remote control (used as switch output) or off-limit alarm
	Electrical energy pulse		Two-loop electrical pulse output
	Electrical energy pulse constant		Active power: 8000imp/kwh Reactive power: 8000imp/kvarh
	Communication	Method	RS485
		Protocol	MODBUS-RTU
		Baud rate	1200, 2400, 4800, 9600 bps
Parity bit		Odd parity, even parity, no parity	
Display	Display mode		(1) Long lifecycle and highlighted LED display; (2) Wide viewing LCD display
Accuracy Class	Voltage, current, frequency, active power,power factor		Class 0.5
	active energy		Class 1
IP Protection			IP54
Auxiliary power supply	Range		AC220V
	Power consumption		< 5VA
Standard			IEC 60068-2, IEC 61010-1, IEC 60529, IEC 61000-4, IEC 61557-1

Working Environment and Condition

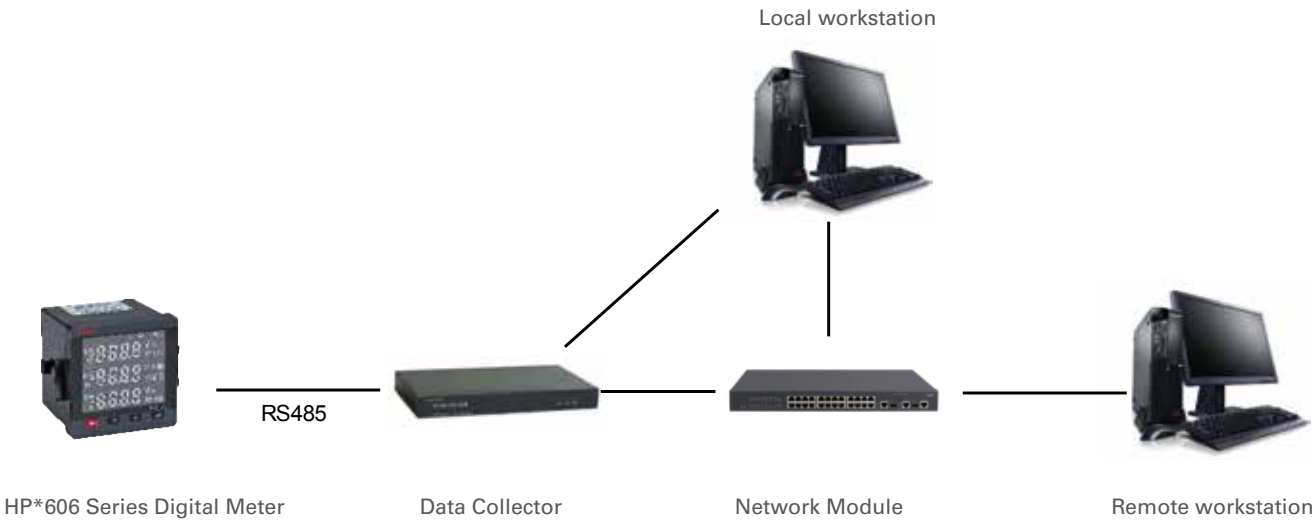
Ambient temperature	Allowed ambient temperature: -10°C~+45°C ; limited operating temperature: -25°C~+55°C
Environmental humidity	≤ 85%RH
Working environment	No mold and insect, no salt spray, no dewing, light dust and sand are allowed, withstand mechanical force of instruments is the basic type, altitude ≤ 2000m.

METERING

HP606 Digital Panel Meters

Standard: IEC60051

Communication Application



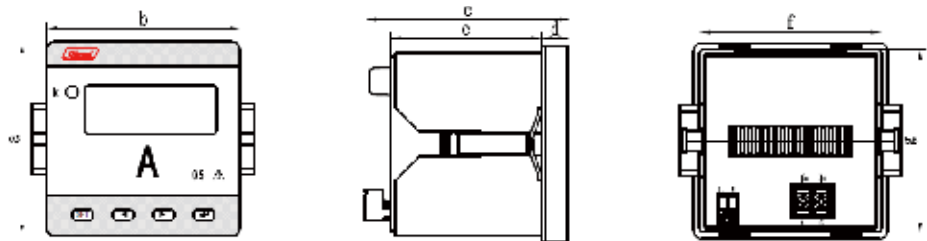
METERS

HP606 Digital Panel Meters

Standard: IEC60051

Product Dimension

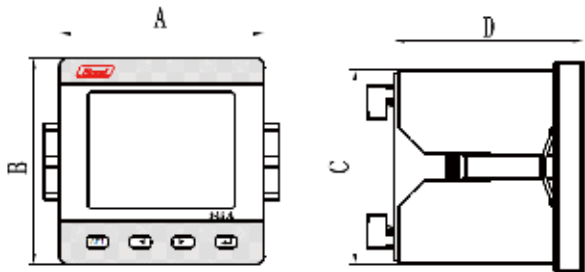
·Single-phase Amperemeter / Voltmeter Dimension



Unit: mm

Model	Dimension							Mounting hole size	
	a	b	c	d	e	f	g		
72	72	72	100.5	13.5	74.5	66	66	67	67
96	96	96	100.5	13.5	74.5	90.5	90.5	92	92
48	48	96	100.5	13.5	74.5	90.5	43.5	45	92

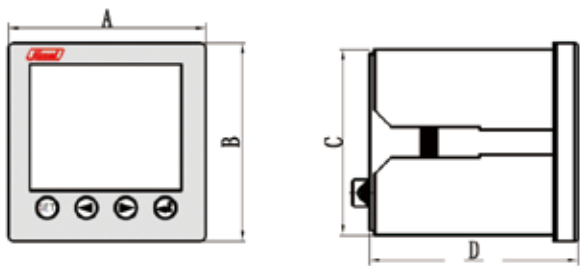
Three-phase Amperemeter / Voltmeter Dimension



Unit: mm

Model	Dimension				Mounting hole size
	A	B	C	D	
72	72	72	66	88	67*67
96	96	96	90.5	88	92*92

·Three-phase Combination / Multifunction Meter Dimension



Unit: mm

Model	Dimension				Mounting hole size
	A	B	C	D	
72	72	72	66	88	67*67
96	96	96	90.5	88	92*92

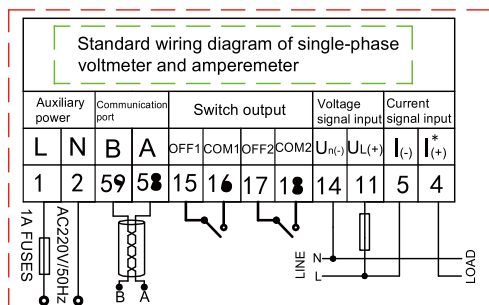
METERS

HP606 Digital Panel Meters

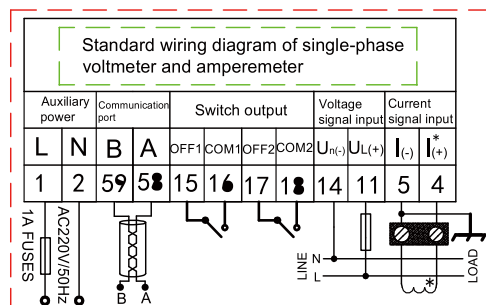
Standard: IEC60051

Wiring Diagram for Terminal Block

Single-phase Amperemeter / Voltmeter

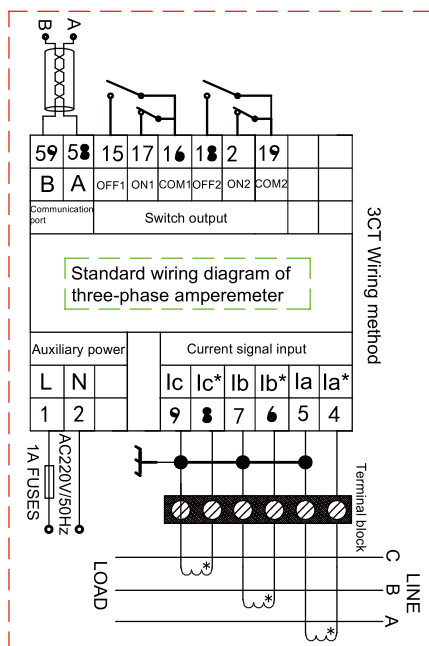


Direct Connection

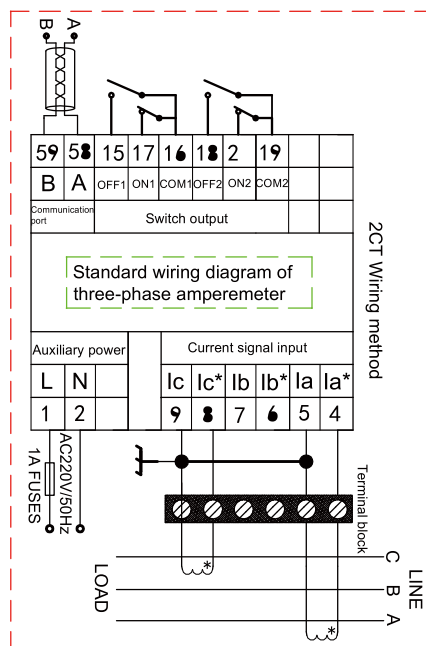


External transformer connection

Three-phase Amperemeter



Three-phase three-wire



Three-phase four-wire

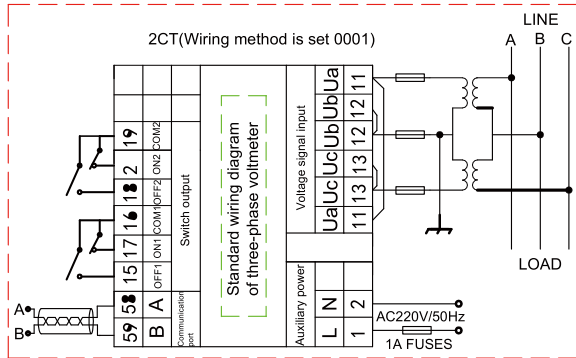
METERING

HP606 Digital Panel Meters

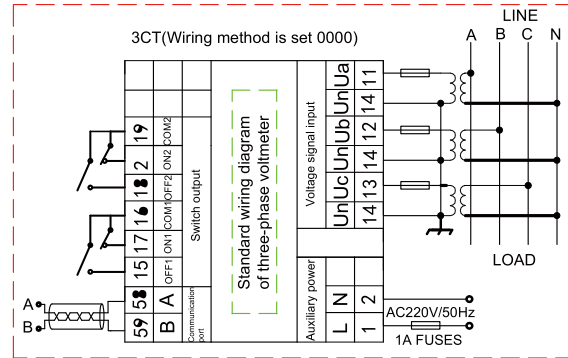
Standard: IEC60051

Wiring Diagram for Terminal Block

Three-phase Voltmeter

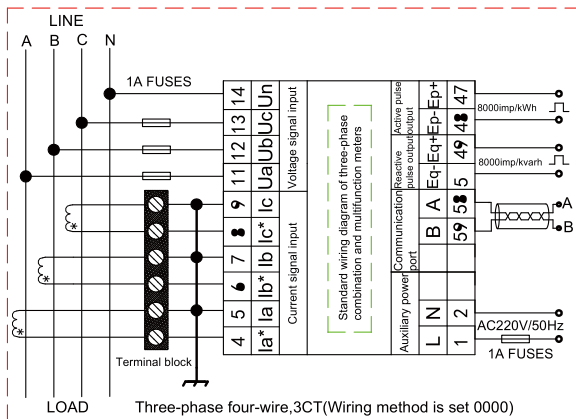


Three-phase three-wire

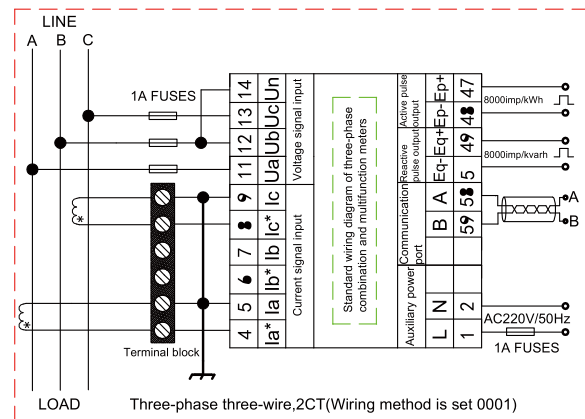


Three-phase four-wire

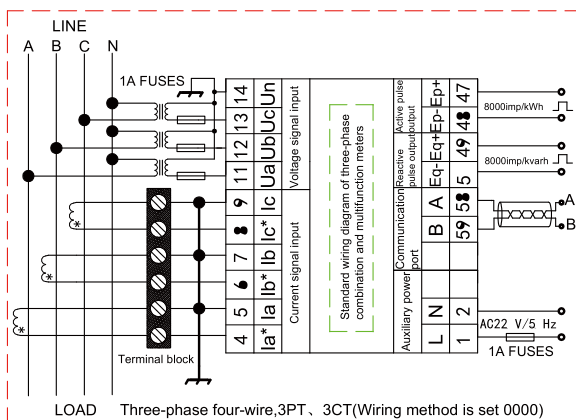
Three-phase Combination and Multifunction meters



Direct Connection



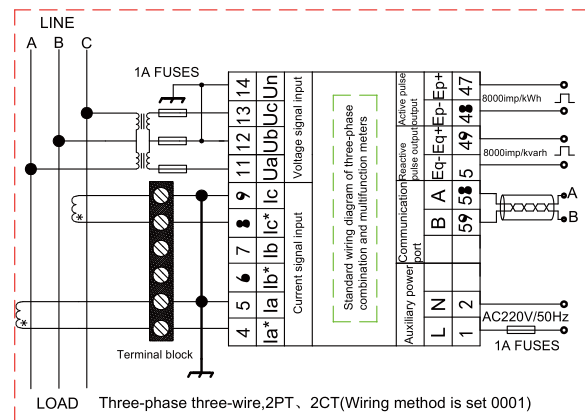
Direct Connection



External voltage

transformer connection

Three-phase three-wire



External voltage

transformer connection

Three-phase four-wire

METERING

H72 & H96 Panel Meter

Standard: IEC60051



Range Presentation

H72 & H96 series is Himel range of panel meters which provides:

- H72T/H72L & H96T/H96L can be used to measure the current, voltage or frequency in the AC circuit
- H72C & H96C can be used to measure the current or voltage in the DC circuit
- They are mainly used as indicating instrument for high or low-voltage switch cabinet, power supply cabinet, control cabinet and other electric-control facilities in the AC transmission circuit system.

Features

- ◆ 72*72mm dimension for H72 series, while 96*96mm dimension for H96 series;
- ◆ For amperemeter with direct connection, maximum current can reach 50A in AC circuit, while maximum current is 20A in DC circuit;
- ◆ For voltmeter with direct connection, maximum voltage can reach 600V in both AC and DC circuits;
- ◆ Accuracy of amperemeter and voltmeter is class 1.5, and accuracy of frequency meter is class 1.0.

Online Content



H72



H96

Selection Code

Range name	Primary Current / Voltage / Frequency	Connection method
H72	50	A
H72TA: H72 AC Amperemeter H96TA: H96 AC Amperemeter	5: 5A 20: 20A ... 5000: 5000A 10000: 10000A	Default: External transformer connection A: Direct connection (1-20A)
H72LV: H72 AC Voltmeter H96LV: H96 AC Voltmeter	300: 300V 500: 500V 600: 600V	Default: Direct connection (30-600V)
H96CV: H96 DC Voltmeter	300: 300V 500: 500V 600: 600V	Default: Direct connection (3-600V)
H72LHZ: H72 frequency meter H96LHZ: H96 frequency meter	01200V	

Note: • CT must be purchased separately for Amperemeter above 20A

- the last digit of selection code plus WG by default

Technical Parameters	
Panel Meters	H72/H96
Standard	IEC 60051
Dielectric strength test	Frequency 50/60Hz, Voltage 2000V, duration 1 minute
Impact test	Maximum acceleration 147m/s ²
Response time	≤4s
Angular Deflection	90°
Temperature	-25°C ~ +40°C
Humidity	(25%-80%) RH
Environment	No mildew, insects, salt mist, dew, sand and dust are permitted
Installation	Installed vertically
IP Grade	IP42

METERING

H72 & H96 Panel Meter

Standard: IEC60051

H72 series panel meter provides

- ◆ H72T/H72L applies to measure the current, voltage or frequency in the AC circuit
- ◆ H72C applies to measure the current or voltage in the DC circuit
- ◆ Mainly be used as an indicating instrument for high or low-voltage switch cabinet, power supply cabinet, control cabinet and other electric-control facilities in the AC transmission circuit system

Order Information

Type	Accuracy rating	Specification	Note	Dimensions (mm)	Reference
Ammeter	1.5	30/5A	ACType External connection transformer 2 times of current overload	72×72×67.5	H72TA30WG
		40/5A		72×72×67.5	H72TA40WG
		50/5A		72×72×67.5	H72TA50WG
		60/5A		72×72×67.5	H72TA60WG
		75/5A		72×72×67.5	H72TA75WG
		80/5A		72×72×67.5	H72TA80WG
		100/5A		72×72×67.5	H72TA100WG
		150/5A		72×72×67.5	H72TA150WG
		160/5A		72×72×67.5	H72TA160WG
		200/5A		72×72×67.5	H72TA200WG
		250/5A		72×72×67.5	H72TA250WG
		300/5A		72×72×67.5	H72TA300WG
		400/5A		72×72×67.5	H72TA400WG
		600/5A		72×72×67.5	H72TA600WG
		800/5A		72×72×67.5	H72TA800WG
		1000/5A		72×72×67.5	H72TA1000WG
		1600/5A		72×72×67.5	H72TA1600WG
		5000/5A		72×72×67.5	H72TA5000WG
		10000/5A		72×72×67.5	H72TA10000WG
		5A	ACType Direct connection	72×72×67.5	H72TA5AWG
Voltmeter	1.5	5A	DCType	72×72×67.5	H72CA5AWG
		300V	ACType	72×72×67.5	H72LV300WG
		500V		72×72×67.5	H72LV500WG
		600V		72×72×67.5	H72LV600WG
		500V	DCType	72×72×67.5	H72CV500WG
Frequency meter	1.0	45-55HZ (200V)	ACType	72×72×67.5	H72LHZ01200VWG

METERING

H72 & H96 Panel Meter

Standard: IEC60051

H96 series panel meter provides

- ◆ H96T/H96L applies to measure the current, voltage or frequency in the AC circuit
- ◆ H96C applies to measure the current or voltage in the DC circuit
- ◆ Mainly be used as an indicating instrument for high or low-voltage switch cabinet, power supply cabinet, control cabinet and other electric-control facilities in the AC transmission circuit system

Order Information

Type	Accuracy rating	Specification	Note	Dimensions (mm)	Reference
Ammeter	1.5	30/5A	AC Type	96×96×67.5	H96TA30WG
		40/5A		96×96×67.5	H96TA40WG
		50/5A		96×96×67.5	H96TA50WG
		60/5A		96×96×67.5	H96TA60WG
		75/5A		96×96×67.5	H96TA75WG
		80/5A		96×96×67.5	H96TA80WG
		100/5A		96×96×67.5	H96TA100WG
		150/5A		96×96×67.5	H96TA150WG
		160/5A		96×96×67.5	H96TA160WG
		200/5A	External connection transformer	96×96×67.5	H96TA200WG
		250/5A		96×96×67.5	H96TA250WG
		300/5A		96×96×67.5	H96TA300WG
		400/5A		96×96×67.5	H96TA400WG
		600/5A		96×96×67.5	H96TA600WG
		800/5A		96×96×67.5	H96TA800WG
		1000/5A		96×96×67.5	H96TA1000WG
		1600/5A		96×96×67.5	H96TA1600WG
		5000/5A		96×96×67.5	H96TA5000WG
		10000/5A		96×96×67.5	H96TA10000WG
		5A	AC Type Direct connection	96×96×67.5	H96TA5AWG
Voltmeter	1.5	5A	DC Type	96×96×67.5	H96CA5AWG
		300V	AC Type	96×96×67.5	H96LV300WG
		500V		96×96×67.5	H96LV500WG
		600V		96×96×67.5	H96LV600WG
		500V	DC Type	96×96×67.5	H96CV500WG
Frequency meter	1.0	45-55HZ (200V)	AC Type	96×96×67.5	H96LHZ01200VWG

METERING

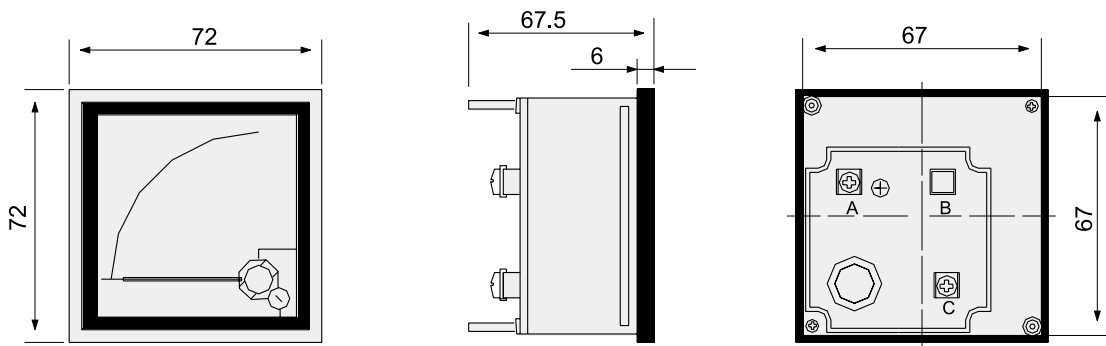
H72 & H96 Panel Meter

Standard: IEC60051

Overall Dimensions

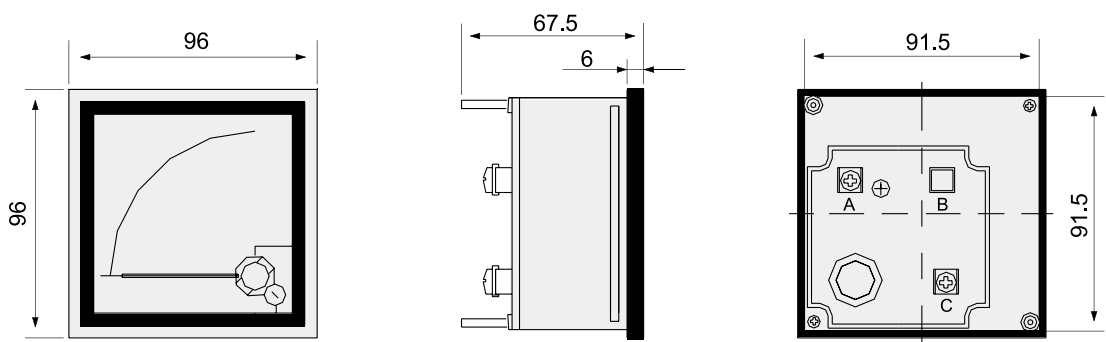
H72 series panel meter

Unit:mm



H96 series panel meter

Unit:mm



METERING

Electronic Watt-hour Meters HDDS606 & HDT(S)S606



Product Introduction

Our new generation watt-hour meters are designed and developed to adapt to the reconstruction of power network. They are the high-tech products manufactured with high quality, intelligent and convenient applications. Our new meters are widely used in high and low voltage metering cabinets, final distribution metering cabinets, residentials, shopping malls, etc.

New generation includes:

- Single-phase: HDDS606 dial display or LCD display with RS485 and infrared.
- Three-phase: HDT(S)S606 dial display or LCD display with RS485 and infrared.

Online Content



HDDS606



HDT(S)S606

Selection Code

Model	Voltage	Accuracy	Current Specification	Frequency	Connection	Display Mode
HDDS606	M	1	6M4	6	H	C
HDDS606: Single-phase Electronic Watt-Hour Meter	M: 220V N: 230V	Default: Class 1	6M4: 1.5(6)A 10M4: 2.5(10)A 20M4: 5(20)A 30M6: 5(30)A 40M4: 10(40)A 60M4: 15(60)A 80M4: 20(80)A 100M10: 10(100)A	Default: 50Hz 6: 60Hz	Default: Direct connection (No external CT/VT type)	Default: Dial display without any optional function C: LCD display (485 interface & infrared)
HDT(S)S606: Three-phase Four-wire Electronic Watt-Hour Meter	V: 3*230/400V W: 3*57.7/100V V: 3*230/400V	Default: Class 1	20M4: 5(20)A 40M8: 5(40)A 60M12: 5(60)A 80M4: 20(80)A 100M10: 10(100)A 6M4: 1.5(6)A 6M2: 3(6)A	Default: 50Hz 6: 60Hz	Default: Direct connection H: Connect via VT/CT	Default: Dial display C: LCD display(485 interface & infrared)

Note: for HDDS606 the last digit of selection code plus L by default

METERING

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

Product Features



Smaller & Elegant

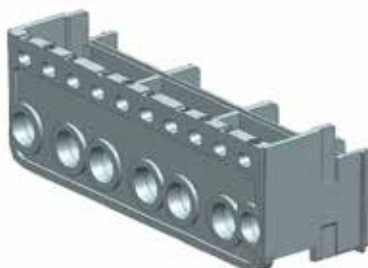
- 50% smaller in size to save installation space
- Upgraded appearance design

Accurate Measurement, Safe & Reliable

- Automatic calibration for inspection
- Three lead sealings: factory, verification and installation; more secure for electricity anti-stealing.

Well Designed, Intelligent & Convenient

- Wider current range, and easier for model selection
- First limit design of bump on the tail cover in our industry, and flip angle of the tail cover can be more than 135°
- More convenient and firming on wiring.



Qualified Materials & Excellent Performance

- Temperature rise is only 15K, which is far less than national standard 25K.
- Power loss is less than 0.5W.
- Heat deformation temperature reaches to 200°C.

METERING

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606



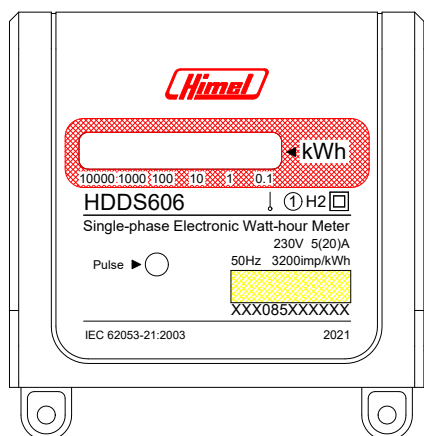
Technical Parameters		
Energy Meters	HDDS606	HDT(S)S606
Connection Method	Single phase	Three-phase four-wire
Accuracy	Class 1	
Rated Voltage (V)	220, 230	3*57.7/100V (External transformer) 3*230/400V
Current Specification	1.5(6)A, 2.5(10)A, 5(20)A, 10(40)A, 15(60)A, 10(100)A	3*57.7/100V: 1.5(6)A, 3(6)A
		3*230/400V: 1.5(6)A, 3(6)A, 5(20)A, 5(40)A, 5(60)A, 20(80)A, 10(100)A
Display Mode	Dial meter or LCD	
Default functions in LCD Model	Infrared communication, RS485 communication	
Normal working voltage	0.9~1.1 (Reference voltage)	
Ultimate working voltage	0.0~1.15 (Reference voltage)	
Rated Voltage	0.75Un~1.15Un	

Working Conditions

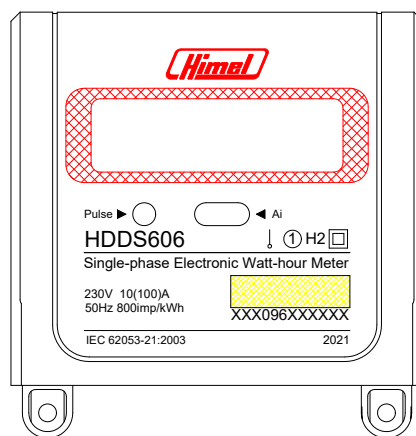
- Power consumption
Power consumption in voltage circuit: 2W/10VA
Power consumption in current circuit: 4VA
- Temperature range
Range of specified working temperature: -10°C~+45°C
Range of ultimate working temperature: -25°C~+55°C
- Humidity range
Annual average relative humidity: <75%.

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

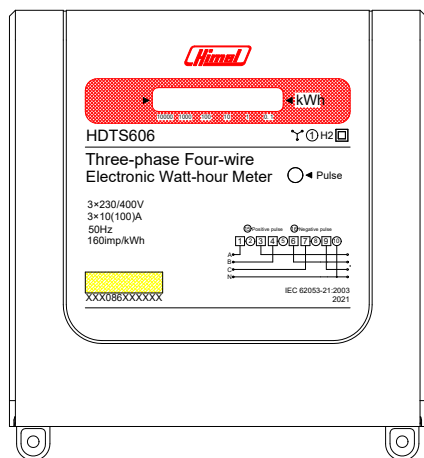
Nameplate Design



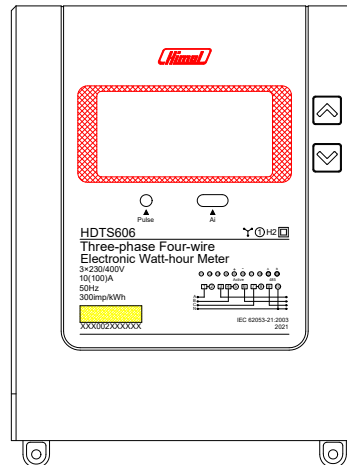
HDDS606 - Dial display



HDDS606 - LCD display



HDT(S)S606 - Dial display



HDT(S)S606 - LCD display

METERING

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

Error Limit of Watt-hour Meters

• HDDS606

Load Current	Power factor COSφ	Error (%)	
		Class 1	Class 2
$0.05I_b \leq I < 0.1I_b$	1	±1.5	±2.5
$0.1I_b \leq I \leq I_{max}$	1	±1.0	±2.0
$0.1I_b \leq I < 0.2I_b$	0.5L	±1.5	±2.5
	0.8C	±1.5	-
$0.2I_b \leq I \leq I_{max}$	0.5L	±1.0	±2.0
	0.8C	±1.0	-

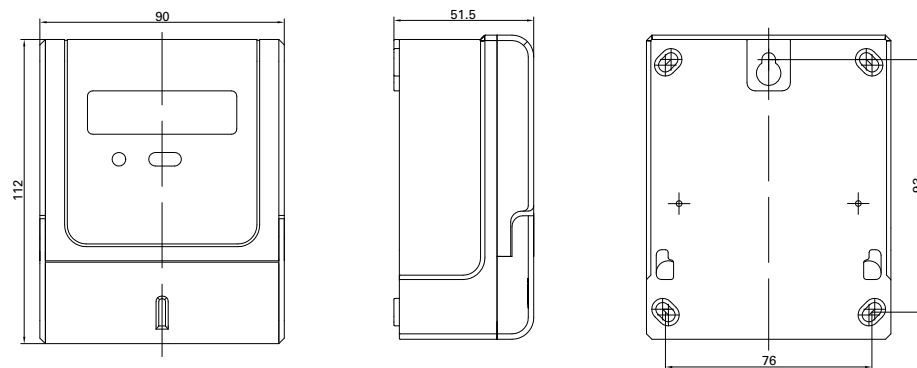
• HDT(S)S606

Current value		Active Power Class 1		Active Power Class 2	
Direct connection	Through the transformer	Power factor COSφ	Error %	Power factor COSφ	Error %
$0.05I_b \leq I < 0.1I_b$	$0.02I_n \leq I < 0.05I_n$	1	±1.5	1	±2.5
$0.1I_b \leq I \leq I_{max}$	$0.05I_n \leq I \leq I_{max}$	1	±1.0	1	±2.0
$0.1I_b \leq I < 0.2I_b$	$0.05I_n \leq I < 0.1I_n$	0.5L	±1.5	0.5L	±2.5
		0.8C	±1.5	0.8C	±2.5
$0.2I_b \leq I \leq I_{max}$	$0.1I_n \leq I \leq I_{max}$	0.5L	±1.0	0.5L	±2.0
		0.8C	±1.0	0.8C	±2.0

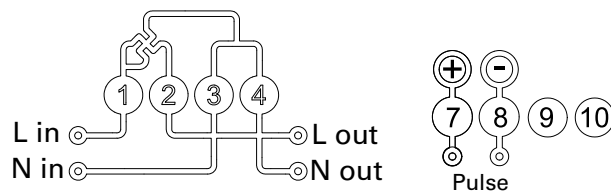
Installation dimensions and Wiring Diagrams

Single-phase

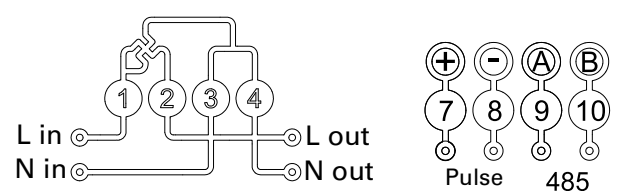
• Overall Dimension



• Wiring Diagram



Without communication



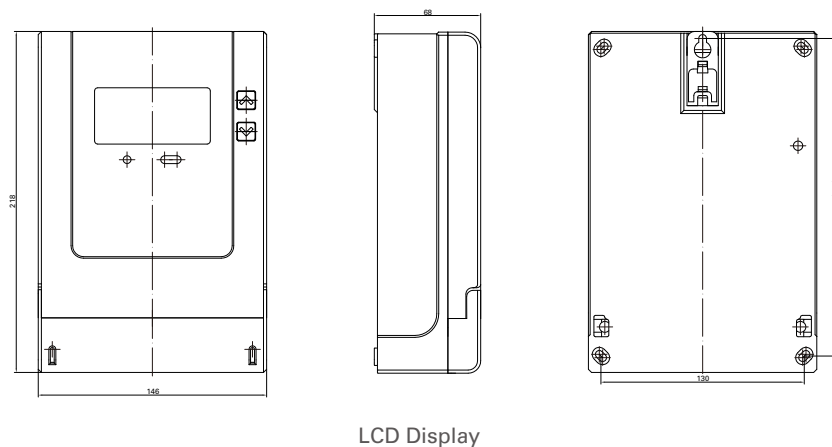
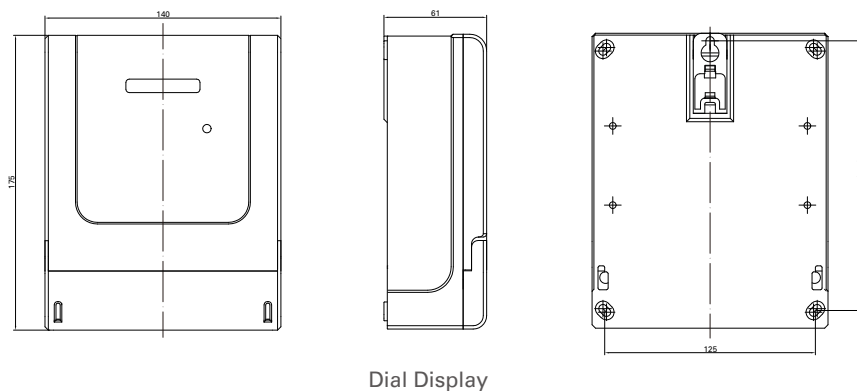
With communication

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

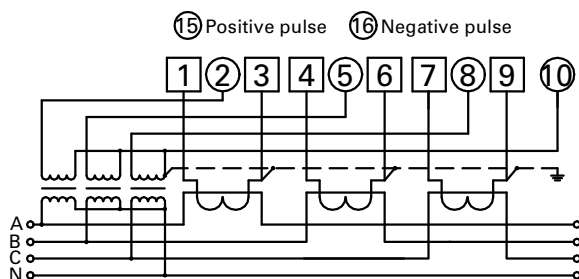
Installation dimensions and Wiring Diagrams

Three-phase

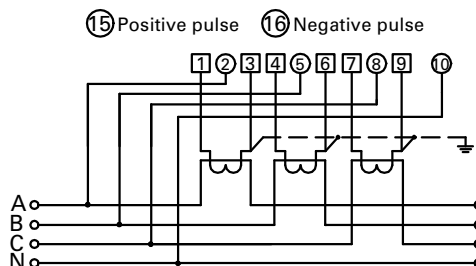
• Overall Dimension



• Wiring Diagram



Wiring diagram of three-phase four-wire external current and voltage transformer connection
($3 \times 57.7/100V$ $3 \times 1.5(6)A$, $3 \times 3(6)A$)



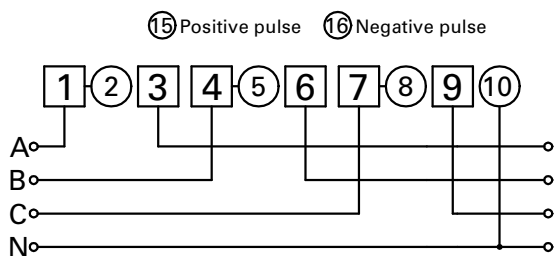
Wiring diagram of three-phase four-wire external current transformer connection
($3 \times 230/400V$ $3 \times 1.5(6)A$, $3 \times 3(6)A$)

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

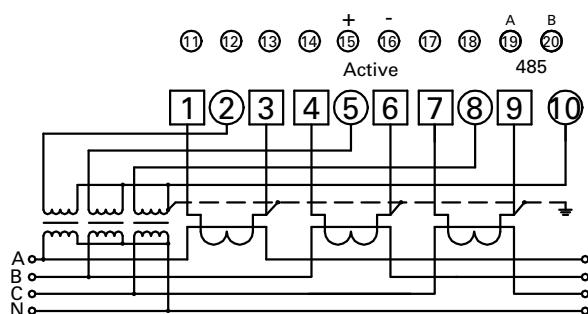
Installation dimensions and Wiring Diagrams

Three-phase

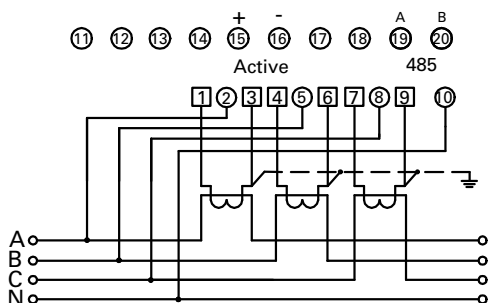
•Wiring Diagram



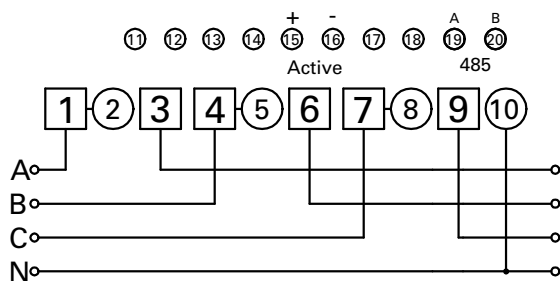
Wiring diagram of three-phase four-wire direct-connection
(3×230/400V I ≥ 3×5(20)A)



HDT S606 three-phase four-wire electronic watt-hour meter
(LCD, infrared, and 485) (3×57.7/100V 3×1.5(6)A/3×3.6(A),
connected through the external current and voltage transformer



HDT S606 three-phase four-wire electronic watt-hour meter
(LCD, infrared, and 485) (3×230/400V 3×1.5(6)A,
3×3(6)A),connected through the external current transformer



HDT S606 three-phase four-wire electronic watt-hour meter
(LCD, infrared, and 485) (3×230/400V I ≥ 3×5(20)A),
direct connection type

METERING

HLMK Current Transformers

Standard: IEC60044-1



Range Presentation

HLMK Series is Himel range of Current Transformer, to measure and transform high current to low current

Features

- ◆ 100% pure copper varnished wire
- ◆ Optimized electric conductivity, less power loss and better stability
- ◆ Shell is made of flame retardant PC material
- ◆ Maximum rated voltage is 0.66kV

Online Content



HLMK

Selection Code

Range name	Maximum rated voltage	Accuracy class	Rated primary current	Bus-bar dimension
HLMK	P6	P1	30	30
HLMK	P6: 0.66kV	Default: class 0.5 P1: class 1	30: 30A 50: 50A 75: 75A ... 5000: 5000A	30: 30×10mm 40: 40×10mm 50: 50×15mm 60: 60×20mm 80: 80×10mm or 60×30mm 100: 100×30mm or 60×40mm 120: 120×25mm or 80×30mm

Rating Table

Busbar diameter (mm)	Φ 30	Φ 40	Φ 50	Φ 60	Φ 80	Φ 100	Φ 120
Rated primary current to select (A)	30 50 75 100 150 200	250 300 400 500	300 400 500 600 750 800 1000	500 600 750 800 1000 1200 1500	600 750 800 1000 1200 1500 2000 2500	600 750 800 1000 1200 1500 2000 2500 3000	1500 2000 2500 3000 4000 5000

Technical Parameters

Current Transformers	HLMK
Rated primary current	30A-5000A
Rated secondary current	5A
Maximum rated voltage	0.66kV
Accuracy class	0.5, 1.0
Short time thermal current	I _{th} =100I _n
Security coefficient security coefficient	FS<5
Standard	IEC 60044-1
Certificate	CE

HLMK Current Transformers

Standard: IEC60044-1



HLMK Series Current Transformer provides

- ♦ Measuring and transforming the high current to low current

Order Information

Accuracy Class: 0.5 Maximum Rated Voltage: 0.66KV

Model	Rated Current Primary/Secondary (A)	Rated Load (VA)	Bus-bar (mm)	Diameter (mm)	Number of Turns through the core	Reference
HLMK-0.66-30	30/5	5-3.75		20	5	HLMKP63030
	50/5	5-3.75		20	3	HLMKP65030
	75/5	5-3.75		20	2	HLMKP67530
	100/5	5-3.75		20	2	HLMKP610030
	150/5	5-3.75	30×10	20	1	HLMKP615030
	200/5	5-3.75	30×10	20	1	HLMKP620030
HLMK-0.66-40	250/5	5-3.75	40×10	30	1	HLMKP625040
	300/5	5-3.75	40×10	30	1	HLMKP630040
	400/5	5-3.75	40×10	30	1	HLMKP640040
	500/5	5-3.75	40×10	30	1	HLMKP650040
HLMK-0.66-50	300/5	5-3.75	50×15	35	1	HLMKP630050
	400/5	5-3.75	50×15	35	1	HLMKP640050
	500/5	5-3.75	50×15	35	1	HLMKP650050
	600/5	10-3.75	50×15	35	1	HLMKP660050
	750/5	10-3.75	50×15	35	1	HLMKP675050
	800/5	10-3.75	50×15	35	1	HLMKP680050
	1000/5	10-3.75	50×15	35	1	HLMKP6100050
HLMK-0.66-60	500/5	5-3.75	60×20	45	1	HLMKP650060
	600/5	10-3.75	60×20	45	1	HLMKP660060
	750/5	10-3.75	60×20	45	1	HLMKP675060
	800/5	10-3.75	60×20	45	1	HLMKP680060
	1000/5	10-3.75	60×20	45	1	HLMKP6100060
	1200/5	10-3.75	60×20	45	1	HLMKP6120060
HLMK-0.66-80	1500/5	10-3.75	60×20	45	1	HLMKP6150060
	600/5	10-3.75	80×10 or 60×30	50	1	HLMKP660080
	750/5	10-3.75	80×10 or 60×30	50	1	HLMKP675080
	800/5	10-3.75	80×10 or 60×30	50	1	HLMKP680080
	1000/5	10-3.75	80×10 or 60×30	50	1	HLMKP6100080
	1200/5	10-3.75	80×10 or 60×30	50	1	HLMKP6120080
	1500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6150080
	2000/5	15-3.75	80×10 or 60×30	50	1	HLMKP6200080
HLMK-0.66-100	2500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6250080
	600/5	10-3.75	100×30 or 60×40	60	1	HLMKP6600100
	750/5	10-3.75	100×30 or 60×40	60	1	HLMKP6750100
	800/5	10-3.75	100×30 or 60×40	60	1	HLMKP6800100
	1000/5	10-3.75	100×30 or 60×40	60	1	HLMKP61000100
	1200/5	10-3.75	100×30 or 60×40	60	1	HLMKP61200100
	1500/5	15-3.75	100×30 or 60×40	60	1	HLMKP61500100
	2000/5	15-3.75	100×30 or 60×40	60	1	HLMKP62000100
HLMK-0.66-120	2500/5	15-3.75	100×30 or 60×40	60	1	HLMKP62500100
	3000/5	20-3.75	100×30 or 60×40	60	1	HLMKP63000100
	1500/5	15-3.75	120×25 or 80×30	60	1	HLMKP61500120
	2000/5	15-3.75	120×25 or 80×30	60	1	HLMKP62000120
	2500/5	15-3.75	120×25 or 80×30	60	1	HLMKP62500120
	3000/5	20-3.75	120×25 or 80×30	60	1	HLMKP63000120
HLMK-0.66-120	4000/5	20-3.75	120×25 or 80×30	60	1	HLMKP64000120
	5000/5	20-3.75	120×25 or 80×30	60	1	HLMKP65000120

HLMK Current Transformers

Standard: IEC60044-1



Accuracy Class: 1 Maximum Rated Voltage: 0.66KV

Model	Rated Current Primary/ Secondary (A)	Rated Load (VA)	Bus-bar (mm)	Diameter (mm)	Number of Turns through the core	Reference
HLMK-0.66-30	30/5	5-3.75		20	5	HLMKP6P13030
	50/5	5-3.75		20	3	HLMKP6P15030
	75/5	5-3.75		20	2	HLMKP6P17530
	100/5	5-3.75		20	2	HLMKP6P110030
	150/5	5-3.75	30×10	20	1	HLMKP6P115030
	200/5	5-3.75	30×10	20	1	HLMKP6P120030
HLMK-0.66-40	300/5	5-3.75	30×10	20	1	HLMKP6P130030
	250/5	5-3.75	40×10	30	1	HLMKP6P125040
	300/5	5-3.75	40×10	30	1	HLMKP6P130040
	400/5	5-3.75	40×10	30	1	HLMKP6P140040
	500/5	5-3.75	40×10	30	1	HLMKP6P150040
	600/5	10-3.75	40×10	30	1	HLMKP6P160040
HLMK-0.66-50	300/5	5-3.75	50×15	35	1	HLMKP6P130050
	400/5	5-3.75	50×15	35	1	HLMKP6P140050
	500/5	5-3.75	50×15	35	1	HLMKP6P150050
	600/5	10-3.75	50×15	35	1	HLMKP6P160050
	750/5	10-3.75	50×15	35	1	HLMKP6P175050
	800/5	10-3.75	50×15	35	1	HLMKP6P180050
	1000/5	10-3.75	50×15	35	1	HLMKP6P1100050
HLMK-0.66-60	1200/5	10-3.75	50×15	35	1	HLMKP6P1120050
	500/5	5-3.75	60×20	45	1	HLMKP6P150060
	600/5	10-3.75	60×20	45	1	HLMKP6P160060
	750/5	10-3.75	60×20	45	1	HLMKP6P175060
	800/5	10-3.75	60×20	45	1	HLMKP6P180060
	1000/5	10-3.75	60×20	45	1	HLMKP6P1100060
	1200/5	10-3.75	60×20	45	1	HLMKP6P1120060
	1500/5	10-3.75	60×20	45	1	HLMKP6P1150060
HLMK-0.66-80	2000/5	10-3.75	60×20	45	1	HLMKP6P1200060
	600/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P160080
	750/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P175080
	800/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P180080
	1000/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P1100080
	1200/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P1120080
	1500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6P1150080
	2000/5	15-3.75	80×10 or 60×30	50	1	HLMKP6P1200080
HLMK-0.66-100	2500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6P1250080
	600/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P1600100
	750/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P1750100
	800/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P1800100
	1000/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P11000100
	1200/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P11200100
	1500/5	15-3.75	100×30 or 60×40	60	1	HLMKP6P11500100
	2000/5	15-3.75	100×30 or 60×40	60	1	HLMKP6P12000100
HLMK-0.66-120	2500/5	15-3.75	100×30 or 60×40	60	1	HLMKP6P12500100
	3000/5	20-3.75	100×30 or 60×30	60	1	HLMKP6P13000100
	1500/5	15-3.75	120×25 or 80×30	60	1	HLMKP6P11500120
	2000/5	15-3.75	120×25 or 80×30	60	1	HLMKP6P12000120
	2500/5	15-3.75	120×25 or 80×30	60	1	HLMKP6P12500120
	3000/5	20-3.75	120×25 or 80×30	60	1	HLMKP6P13000120
	4000/5	20-3.75	120×25 or 80×30	60	1	HLMKP6P14000120
	5000/5	20-3.75	120×25 or 80×30	60	1	HLMKP6P15000120

HLMK Current Transformers

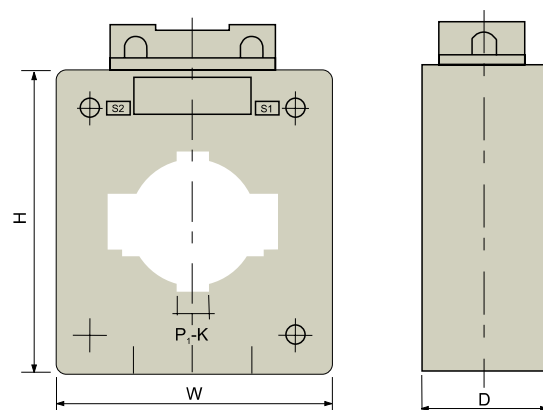
Standard: IEC60044-1



Technical Data	
Current Transformers	HLMK
Rated primary current	30A-5000A
Rated secondary current	5A
Maximum rated voltage	0.66kV
Accuracy class	0.5, 1.0
Short time thermal current	I _{th} =100I _n
Security coefficient security coefficient	FS<5
Standard	IEC 60044-1

Overall Dimensions

Unit: mm



Model	H	W	D
HLMK-0.66-30	79	60	37
HLMK-0.66-40	99	75	40
HLMK-0.66-50	99	82	40
HLMK-0.66-60	126	102	40
HLMK-0.66-80	118	125	40
HLMK-0.66-100	136	170	40
HLMK-0.66-120	136	190	41



VOLTAGE STABILIZERS

Keep your appliances safe at an affordable price

Stabilizers are perfect guard for equipment against voltage fluctuations critical to high performance, greater reliability and saving electricity. Himel Voltage Stabilizers ensure safe functioning of the connected load by facilitating seamless adjustment of regulation range as per the supply voltage variation.

The compact design allows them to fit into a wide variety of spaces in homes, offices, and commercial setups. Our Stabilizers improve power quality, increase power delivery, minimize maintenance costs and extend equipment life.



Himel Voltage Stabilizers provide protection against under and over-voltage, overload, short circuit, and temperature rise



Himel Voltage Stabilizers are compact devices suitable for residential, commercial, industrial, and utility applications



The advanced technology of Himel Voltage Stabilizers ensures a substantially reliable output voltage, critical for application health



Himel Voltage Stabilizers have a built-in convenient status indication to monitor the input and output performance with ease

VOLTAGE STABILIZERS



HTND Servo type Voltage Stabilizers



HTND



HTND2



HTND3

Rated capacity: 0.5~30kVA
Regulation type: servo motor type

413

HAVRL Relay type Voltage Stabilizers



HAVRL

Rated capacity: 0.5-10kVA
Regulation type: relay type

417

HSVCB Servo type wall-mounted Voltage Stabilizers



HSVCB

Rated capacity: 3-10kVA
Regulation type: servo motor type
Installation method: wall-mounted

415

HSJW Three-phase AC Voltage Stabilizers up to 60kVA



HSJW

Rated capacity: 1.5-60kVA
Regulation type: servo motor type

419

HAVRB Relay Type Wall-Mounted Voltage Stabilizer



HAVRB

Rated Capacity: 1-12kVA
Regulation Type: Relay Type
Installation Method: Wall-mounted

416

HSBW Three-phase AC Voltage Stabilizers up to 2000kVA



HSBW

Rated capacity: 10-2000kVA
Regulation type: servo motor type

420

VOLTAGE STABILIZERS

Easy Selction Guide for Single-phase Voltage Stabilizer

Capacity: $\leq 2\text{kVA}$:

- Plug socket is available for applications
- Suitable for protections of home appliances, e.g. TV, washing machine, fridge, etc.

3kVA ~10kVA:

- Suitable for home, office and shops
- Suitable for protections of more than 1 device working, e.g. air conditioner plus lamps and TV.

10-30kVA:

- Cabinet type
- It is available in home, office and shops
- Selection of HTND/HTND2/HTND3 will depend on your specified requirement
- Suitable for protection of multi devices.

Product Overview

Single-Phase Voltage Stabilizer

√ Servo motor type

· HTND · HTND2 · HTND3 · HSVC

√ Relay type

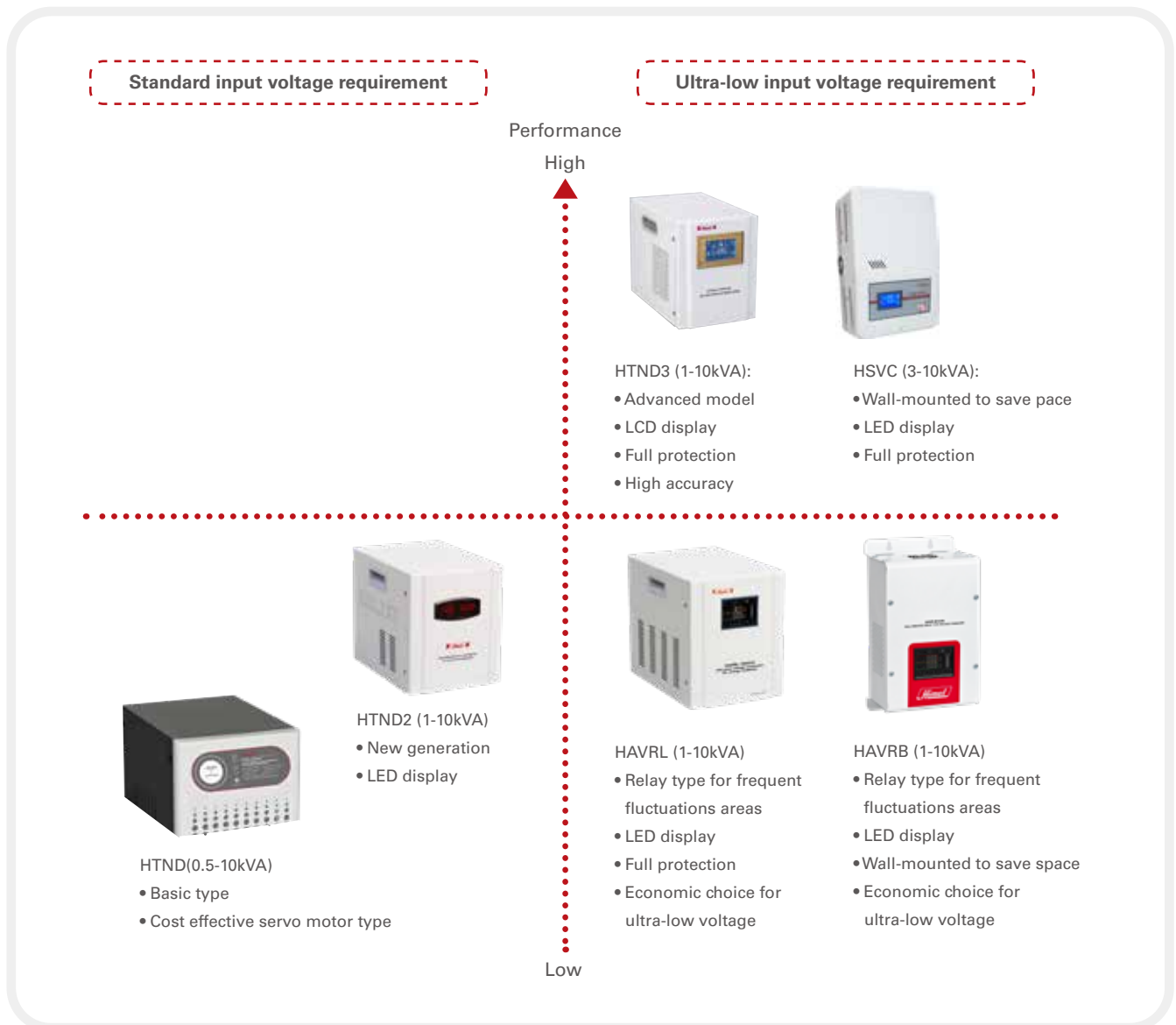
· HAVRL

Three-Phase Voltage Stabilizer

√ Servo motor type

· HSJW · HSBW

Voltage Stabilizer capacity: 1kVA~10kVA (single-phase)



HTND Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Voltage Stabilizers

Keep your appliances safe from unstable power supply



Meet Wide Range of Specifications Requirement

- **Rated capacity**
0.5–30kVA
- **Connection Type**
European plug, British Plug and Terminal Connect
- **Standard**
EN61000-6-2, EN61000-6-4, EN61558-1
- **Input Voltage Range**
150–250 V with Ultra Low Voltage Type 110–250V



Robust All Round Protection

- **Stable Output Voltage**
With delay, overvoltage, undervoltage and overcurrent protection functions
- **Control System with Linear Integrated Circuits**
efficiently control the servomotor

VOLTAGE STABILIZERS

HTND Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HTND is Himel range of single-phase servo motor type voltage stabilizers. It's up to 30kVA with high accuracy and smooth stabilization.

Online Content



HTND



HTND2



HTND3

Selection Code

Model	Power Rating	Connection Type	Input Voltage	Output Voltage
HTND	P5	HE	I110	O230
HTND: HTND series	P5: 0.5kVA 1: 1kVA 1P5: 1.5kVA 2: 2kVA 3: 3kVA 5: 5kVA 7: 7kVA 10: 10kVA 10G: 10kVA cabinet 15G: 15kVA cabinet 20G: 20kVA cabinet 30G: 30kVA cabinet	HE: Europe plug (1.5kVA) HB: British plug (only when capacity $\leq$ 1.5kVA) H: Terminal connect	Default: Standard 150-250V I110: Input: 110-250V	Default: Output 220V O230: Output 230V
HTND2: HTND2 series	1: 1kVA 1P5: 1.5kVA 2: 2kVA 3: 3kVA 5: 5kVA 7: 7kVA 10: 10kVA 10G: 10kVA cabinet 15G: 15kVA cabinet 20G: 20kVA cabinet 30G: 30kVA cabinet	HE: Europe plug (only when capacity $\leq$ 10kVA) HB: British plug (only when capacity $\leq$ 10kVA) H: Terminal connect	Default: Standard 140-250V I85: Input: 85-250V I110: Input: 110-250V	Default: Output 220V O230: Output 230V
HTND3: HTND3 series	1: 1kVA 1P5: 1.5kVA 2: 2kVA 3: 3kVA 5: 5kVA 7: 7kVA 10: 10kVA 10G: 10kVA cabinet 15G: 15kVA cabinet 20G: 20kVA cabinet 30G: 30kVA cabinet	HE: Europe plug (only when capacity $\leq$ 10kVA) HB: British plug (only when capacity $\leq$ 10kVA) H: Terminal connect	Default: Standard 140-250V I85: Input: 85-250V I110: Input: 110-250V	Default: Output 220V O230: Output 230V

Note: Additional features are available, please consult us if you want to customized type.

Spare Parts List - For HTND Family

√ Servo motor √ Carbon brush √ PCB √ Limit switch √ Regulating coil √ Compensating coil (when capacity $\geq$ 15kVA)
 √ Screen

Note: Additional features are available. Please reach to local sales for further information.

VOLTAGE STABILIZERS

HTND Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Technical Parameters

HTND product series		HTND	HTND2	HTND3
Rated Capacity		kVA	0.5~30	1~30
Output voltage	Accuracy of stabilized voltage	V	0.5~5kVA: 220 (or 230) $\pm 4\%$; 110 (or 115) $\pm 4\%$; 7~30kVA: 220 (or 230) $\pm 4\%$	1~5kVA: 220 (or 230) $\pm 4\%$; 110 (or 115) $\pm 4\%$; 7~30kVA: 220 (or 230) $\pm 4\%$
	Undervoltage Protection	V	184 (or 194) ± 4	
	Overvoltage Protection	V	246 (or 256) ± 4	
Range of Input Voltage		V	140~250	
Customized Input Range		V	100-240	85-250 or 110-250
Extended Function		Optional	By-pass (not available for 30kVA) Fan Output undervoltage protection Overload protection Temperature rise protection Input undervoltage protection Time delay	By-pass (not available for 30kVA) Fan Input undervoltage protection
Cooling Mode		Air cooling can be customized (not for standard product: standard one is self-cooling)		
Voltage-regulating Speed		s	<1 (variation of input voltage is 10%)	
Temperature rise		K	<80	
Frequency		Hz	50/60	
Display mode			Dial meter (0.5-10kVA) LED (10-30kVA)	LCD
Insulation grade			B	
Insulation resistance		M Ω	≥ 5	
Time Delay		min	5 ± 2 (not for standard product) can be customized	
Withstand voltage		V/1min	1500	
Efficiency			92%	
Maximum rated current		A	2.3 (0.5kVA), 4.5 (1kVA), 6.8 (1.5kVA), 9.1 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45.5 (10kVA), 68 (15kVA), 90.9 (20kVA), 136 (30kVA)	
Certification			CE	
Standard			EN61000-6-2/ EN61000-6-4/EN61558-1	

Note:

• By-pass is not available for 30kVA.

• Customization of additional protection on request.

Portfolio for HTND family (not customized type)

HTND product series		HTND	HTND2	HTND3
Characteristics	Description	Single phase full automatic AC voltage stabilizer		
	Capacity	0.5, 1, 1.5, 2, 3, 5, 7, 10, 15, 20, 30kVA	1, 1.5, 2, 3, 5, 7, 10, 15, 20, 30kVA	1, 1.5, 2, 3, 5, 7, 10, 15, 20, 30kVA
	Type	Servo motor	Servo motor	Servo motor
	Standard	EN 61000-6-2, 61000-6-4, 61558-1		
	Certification	CE	CE	CE
Protection	Overvoltage	✓	✓	✓
	Short circuit	✓	✓	✓
	Overload	*	*	✓
	Undervoltage (output)	*	✓	✓
	Temperature rise	*	*	✓
	Time delay	*	*	✓
	By-pass	*	*	*

Note:

(1) "*" means optional functions for this series, which is required to be customized;

(2) Even through overload protection is not the standard feature for all series, short circuit protection can help the system protect against overload issue at a certain level;

(3) By-pass is not available for 30kVA.

VOLTAGE STABILIZERS

HSVCB Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HSVCB is Himel range of single-phase wall-mounted servo motor type voltage stabilizers. It's up to 10KVA, and facilitates saving of mounting space.

Online Content



HSVCB

Selection Code

Model	Power Rating	Display	Input Voltage	Output Voltage
HSVCB	5	C	I110	O230
HSVCB	3: 3kVA 5: 5kVA 7: 7kVA 8: 8kVA 10: 10kVA	Default: pointer display (dial meter) C: LCD	Default: Standard 140-250V I85: Input: 85-250V I110: Input: 110-250V	Default: Output 220V O230: Output 230V

Note: Additional features are available, please contact local Himel sales.

Technical Parameters

Type		HSVCB High Precise Full-Automatic AC Voltage Stabilizer	
Rated Capacity	kVA	3~7	10
Output Voltage	Accuracy of stabilized voltage	220 (or 230) $\pm 4\%$; 110 (or 115) $\pm 4\%$	220 (or 230) $\pm 4\%$
	Undervoltage Protection	184 (or 194) ± 4 (not for standard product) can be customized	
	Overvoltage protection	246 (or 256) ± 4	
Range of input voltage	V	110-250, 140-150 or 85-250	
Customized Input Range	V	85-250	
Extended function*	Optional	Fan Input undervoltage protection	
Voltage-regulating speed	s	<1 (variation of input voltage is 10%)	
Temperature rise	K	<80	
Frequency	Hz	50/60	
Display mode		LED or LCD	
Insulation resistance	M Ω	≥ 5	
Time delay	min	5 ± 4 (not for standard product) can be customized	
Withstand voltage	V/1min	1500	
Efficiency		> 92%	
Maximum rated current	A	13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45.5 (10kVA)	
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1	
Certification		CE	

* Please consult us.

Spare Parts List

√ Servo motor √ Carbon brush √ PCB √ Limit switch √ Relay √ Regulating coil √ Screen

VOLTAGE STABILIZERS

HAVRB Voltage Stabilizer

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Online Content



HAVRB

Range Presentation

HAVRB is Himel range of single-phase wall-mounted relay type voltage stabilizers. It's up to 12KVA, and it facilitates saving of mounting space and solves the issue of frequent fluctuations issue from power grid.

Selection Code

Model	Power Rating	Input Voltage	Output Voltage
HAVRB	5	I110	-
HAVRB	1: 1kVA 1P5: 1.5kVA 2: 2kVA 3: 3kVA 5: 5kVA 7: 7kVA 8: 8kVA 10: 10kVA 12: 12kVA	Default: Standard 140~250V I85: Input: 85~250V I110: Input: 110~250V	Default: Output 220V

Note: HAVRB only has 220V output. Additional features are available, please consult local sales for further information.

Technical Parameters

Relay Type Wall-mounted Voltage Stabilizers			HAVRB
Output Voltage	Accuracy of stabilized voltage	V	220±8%
	Undervoltage protection	V	184±4
	Overvoltage protection	V	250±4
Range of Input Voltage		V	140~250
Standard Function			Overload protection Short circuit protection Output overvoltage protection Output undervoltage protection Time delay
Customized Input Range		V	110-250 or 85-250
Extended Function*		Optional	Fan By-pass Input undervoltage protection Temperature rise protection
Voltage-regulating Speed		ms	<10
Temperature Rise		K	<75 (with rated load)
Frequency		Hz	50/60
Display Mode			LED
Insulation Resistance		MΩ	≥5
Efficiency			>90%
Maximum Rated Current		A	1.5 (1kVA), 6.8 (1.5kVA), 9.1 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 36.4 (8kVA), 45 (10kVA), 54.5 (12kVA)
Standard			EN61000-6-2/ EN61000-6-4/EN61558-1

*please contact local Himel Sales for customization requirement.

VOLTAGE STABILIZERS

HAVRL Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Online Content



HAVRL

Range Presentation

HAVRL is Himel range of single-phase relay type voltage stabilizers. It's up to 10KVA, and it can solve the frequent fluctuations issue from power grid.

Selection Code

Model	Power Rating	Connection Type	Input Voltage
HAVRL	P5	HE	I110
HAVRL	P5: 0.5kVA 1: 1kVA 1P5: 1.5kVA ... 10: 10kVA	HE: Europe plug HB: British plug	Default: Input: 85-250V I110: Input: 110-250V

Note: HAVRL only has 220V output. Additional features are available, please consult us if you want to customized type.

Technical Parameters

Ultra-Low Voltage Relay Type Voltage Stabilizer			HAVRL	
Type			HAVRL Ultra-Low Voltage Full-Automatic AC Voltage Stabilizer	
			Standard Model	Economic Model
Rated capacity		kVA	0.5-10	
Output voltage	Accuracy of stabilized voltage	V	220±8%;	
	Overvoltage protection	V	110±10% (only when capacity is equal or less than 5kVA)	
Range of input voltage		V	85-250	110-250
Customized input range		V	110-250 or 140-250	140-250
Extended function*		Optional	By-pass Fan Input undervoltage protection	
Power factor			0.8	0.6
Voltage-regulating speed		ms	<10	
Temperature rise		K	<75 (with rated load)	
Frequency		Hz	50/60	
Display mode			LED	
Insulation resistance		MΩ	≥5	
Efficiency			>90%	
Maximum rated current		A	2.3 (0.5kVA), 4.5 (1kVA), 6.8 (1.5kVA), 9.0 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45 (10kVA)	
Standard			EN61000-6-2/ EN61000-6-4/EN61558-1	

*Additional features are available. Please contact local sales for further information.

VOLTAGE STABILIZERS

HAVRL Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1

Portfolio for HSVC & HAVRL & HAVRB (not customized type)

HTND product series		HSVC-B	HTND2		HAVRB
			Standard Model	Economic Model	
Characteristics	Description	Single phase full automatic AC voltage stabilizer			
	Capacity	3,5,7,10kVA	0.5,1,1.5,2,3,5,7,10kVA		1,1.5,2,3,5,7, 8, 10, 12KVA
	Type	Servo motor	Relay type		
	Standard	EN 61000-6-2,61000-6-4,61558-1			
	Certification	CE	-		-
Protection	Overvoltage	✓	✓		✓
	Overload	✓	✓		✓
	Temperature rise	✓	✓		●
	Short circuit	✓	✓		✓
	Undervoltage (output)	●	✓	-	●
	Time delay	●	✓		●
	By-pass	✓	*		●

Note:

(1) "*" means optional functions for this series, which can be customized as per request.

(2) "●" means that for HSVC series, output undervoltage protection and time delay function cannot be extended at the same time: customer can only choose one of them for each order; otherwise, the value of the output undervoltage protection should be set as a fixed value and this function cannot be selected;

(3) Even through overload protection is not the standard one for all series, short circuit protection can help the system protect against overload issue at a certain level.

Spare Parts List - for HSVC & HAVRL

✓ Servo motor (only for HSVC)

✓ Relay (only for HAVRL)

✓ Carbon brush (only for HSVC)

✓ Regulating coil

✓ PCB

✓ Screen

✓ Limit switch (only for HSVC)

VOLTAGE STABILIZERS

HSJW Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HSJW is Himel range of three-phase servo motor type voltage stabilizers. It's up to 60KVA with high accuracy.

Online Content



HSJW

Selection Code

Model	Power Rating	Shape	Display	Input Voltage	Output Voltage
HSJW	1P5	G	E	I250	O400
HSJW	1P5: 1.5kVA 3: 3kVA 4P5: 4.5kVA 6: 6kVA 9: 9kVA 15: 15kVA 20: 20kVA 30: 30kVA 45: 45kVA 60: 60kVA	Default: Desktop; Only for 1.5KVA~4.5KVA G: Cabinet	Default: Dial meter display E: LED display MLCD: Multifunction meter (LCD) display	Default: I/260-430V for 1.5-30kVA; I/ 304-456V for 45-60kVA I250: Input 250-423V	Default: Output 380V O400: Output 400V

Technical Parameters

Three-Phase Voltage Stabilizer			HSJW	
Type			HSJWThree-Phase Full-Automatic AC Voltage Stabilizer	
Rated capacity		kVA	1.5-30	45-60
Output voltage	Accuracy of stabilized voltage	V	380 (or 400) $\pm 4\%$	
	Undervoltage Protection	V	320 (or 340) ± 7 (not for standard product) can be customized	
	Overvoltage Protection	V	425 (or 445) ± 7	
Range of input voltage		V	260-430	304-456 (or 320-480)
Customized input range		V	250~423	
Extended function*		Optional	By-pass Fan Input undervoltage protection Output undervoltage protection Overload protection Phase failure protection Temperature rise protection Time delay Surge protector	
Voltage-regulating speed		s	<1 (variation of input voltage is 10%)	
Temperature rise		K	<80	
Ambient temperature		°C	-5°C~+40°C	
Frequency		Hz	50/60	
Display mode			Dial Meter (Panel Meter) or LED or LCD	
Insulation resistance		MΩ	≥5	
Withstand voltage		V/1min	1500	
Efficiency			> 92%	
Maximum rated current		A	2.3(1.5kVA), 4.6(3kVA), 6.8(4.5kVA), 9.1(6kVA), 13.7(9kVA), 22.8(15kVA), 30.4(20kVA), 45.6(30kVA), 68(45kVA), 91(60kVA)	
Certification			CE	
Standard			EN61000-6-2/ EN61000-6-4/EN61558-1	

* Please consult us.

VOLTAGE STABILIZERS

HSBW Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HSBW is Himel range of three-phase servo motor type voltage stabilizers. It's up to 2000KVA with high accuracy.

Online Content



HSBW

Selection Code

Model	Power Rating	Display	Input Voltage	Output Voltage
HSBW	10	E	I250	O400
HSBW	10: 10kVA 15: 15kVA 30: 30kVA 50: 50kVA ... 1000: 1000kVA 1600: 1600kVA 2000: 2000kVA	Default: Dial meter display E: LED display MLCD: Multifunction meter (LCD) display	Default: I/ 304-456V I250: Input 250~423V	Default: Output 380V O400: Output 400V

Technical Parameters

Three Phase Compensation Voltage Stabilizer			HSBW
Type			HSBW Three-Phase Compensation AC Voltage Stabilizer
Rated capacity		kVA	10-2000
Output voltage	Accuracy of stabilized voltage	V	380 (or 400) $\pm 3\%$
	Undervoltage protection	V	320 (or 340) ± 7
	Overvoltage protection	V	425 (or 445) ± 7
Range of input voltage		V	304-456 (or 320-480)
Customized input range		V	250-423 or 304-470
Extended function*		Optional	By-pass Fan Input undervoltage protection Overload protection Phase failure protection Temperature rise protection Time delay Surge protector
Voltage-regulating speed		s	<1 (variation of input voltage is 10%)
Temperature rise		K	<60
Ambient temperature		°C	-5°C~+40°C
Frequency		Hz	50/60
Display mode			Dial Meter (Panel Meter) or LED or LCD
Insulation resistance		MΩ	≥5
Withstand voltage		V/1min	2000
Efficiency			≥ 95%
Standard			EN61000-6-2/ EN61000-6-4/EN61558-1

* Please contact local Himel sales

VOLTAGE STABILIZERS

HSBW Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Portfolio for HSJW & HSBW (not customized type)

product series		HSJW	HSBW
Characteristics	Description	Three phase full automatic AC voltage stabilizer	
	Capacity	1.5,3,4.5,6,9,15,20,30,45,60kVA	10,15,30,50,100,150,200,250,300,400,500,600,800,1000,1600,2000kVA
	Type	Servo motor	Servo motor
	Standard	EN 61000-6-2,61000-6-4,61558-1	
	Certification	CE	-
Protection	Overvoltage	√	√
	Temperature rise	*	*
	Overload	*	*
	Undervoltage (output)	*	√
	Short circuit	√	√
	Time delay	*	*
	By-pass	*	*

Note:

(1) "*" means optional functions for this series, which is required to be customized with higher cost;

(2) Even through overload protection is not the standard one for all series, short circuit protection can help the system protect against overload issue at a certain level.

Spare Parts List - for HSBW

√ Servo motor √ Carbon brush head √ PCB √ Limit switch √ Screen



CONTROL COMPONENTS

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Industrial Components are the lifeline of operations, especially in factory automation and machine safety. Himel offers a range of control components suitable for industrial, OEM, and systems integrator purposes such as sensing, automation, machine safety, and industrial communication.

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The advanced design of Himel Control Components extends the life cycle of equipment, optimizing maintenance expenditure and application availability

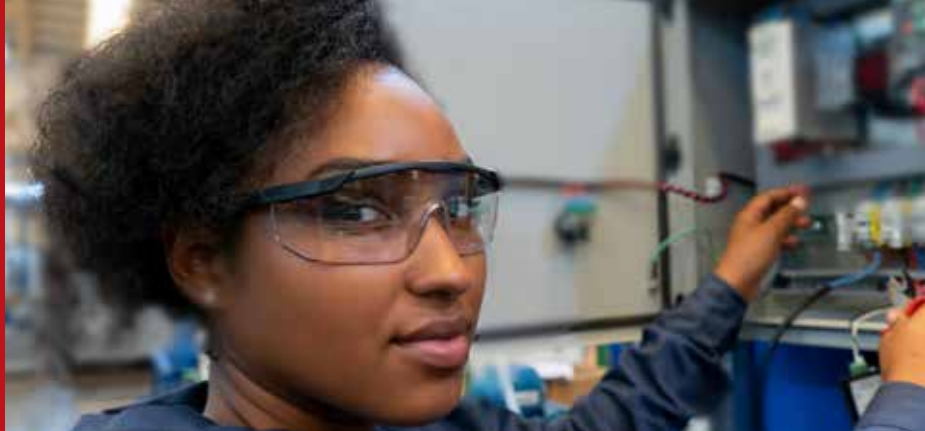


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Himel Control Components are available for a wider range of applications in industries, plants, and utilities

CONTROL COMPONENTS



HLAY5 Pushbuttons, Switches and Pilot Lights



HLAY5

Degree of protection: IP40 (IP65 with protective cover)
Material: Plastic/ Metal
Drilling or cut-out for mounting: Ø 22mm

426

HLAY5CS Control Stations



HLAY5CS

Compatible with HLAY5 pushbutton and switches Ø 22mm

429

Pushbuttons, Switches and Pilot Lights



HLAY7

IP50
Material: Plastic
Drilling or cut-out for mounting: Ø 22/25/30mm

430



HLD11

IP65
Step-down type:
Resistance/ Capacitance
Specification:
AC/DC: 6V-380V
AC: 220V-380V

433



HLAY2

IP40
Material: Plastic
Compact Size

434



HLD12

Material: Plastic
Compact Design
High Brightness LED

438

Miniature Relays



HDZ9

Rated current:
3A, 5A, 10A
Pole:
2P/3P/4P
Maximum Rated voltage:
690V

441



HJSZ3

Rated Voltage:
AC 120, 240, 400V
DC 125, 250V
Delay after power-on :
0.05s-24h,
Delay after power-off :
0.1s-30M

445



HXJ9

Rated voltage : 380, 400V
Overvoltage : 380-460V, 400-480V
Undervoltage : 300-380V, 320-400V

446

HKG Digital Time Switches



HKG

Rated control voltage:
HKG316T: 230/400V AC
HKG316TD: 230/380V AC

447

HDJS18 Time Relays



HDJS18

Rated conventional thermal current: 10A
Control voltage: AC: 220V, 110V (customized),
380V (customized)
AC/DC: 24V
Time delay: 5s, 10s, 30s, 60s, 120s, 180s, 360s, 480s
Time-delay method: Switch-on delay, off delay

448

CONTROL COMPONENTS

HXC Limit Switch



449

HDK Switch Mode Power Supplies



HDK-US

Rated Power: 35-350W
AC Input Voltage: 35~150V: 100-264V
Output Voltage: 5-48V



HDK-NS

Rated Power: 75W, 120W, 240W, 480W
AC Input Voltage: 100-240V
Output Voltage: 75W & 120W: 12V, 24V, 36V, 48V
240W & 480W: 24V, 48V

452

HBK Control Transformers



HBK

Rated voltage up to 1200V
Rated capacity: 25VA~20kVA

457

HICF Axial Fan



HICF

220V AC at 50/60 Hz; DC12V; DC24V
Double ball bearing and oil bearing;
Accessories: Metal protection net, filter net, three in one dustproof net

458

Terminal Blocks



HICTUK

HTB010

HTB112

HTB007

462

HCF Cable Connectors



HCF

Thread specification:
Metric Standard/
Germany Standard
Material: Nylon 66

470

HDIN DIN Rail



HDIN

471

Industrial Plugs & Sockets



HIPS series

HD series

472

Relay



HDT
Time Relay

477



HMT
Mechanical Time Relay

479



HPR
Protect Relay

480



HDV
Voltage Relay

484

HWSD Weatherproof Switched Isolator IP66



HWSD

480

HAP P200 PLC



HAP

487

HAPSR Smart Relay



HAPSR

489

HAH Human Machine Interface



HAH

492

HLAY5 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Range Presentation

HLAY5 is Himel range of Pushbuttons, Switches and Pilot Lights designed to control and indicate the status of the circuit.

Features

- ◆ Compact size, suitable for small cabinet equipment
- ◆ Metal type delivers excellent resistance to mechanical shock and vibration
- ◆ Plastic type provides high resistance to chemical agents
- ◆ Screw clamp terminals allowing fast and easy connection
- ◆ Modular design allows flexible and simple setup for complete products

Online Content



HLAY5

Selection Code

Range Name	Type	Color	Contacts
HLAY5	BA	4	2
	HLAY5BA: Metal Flush HLAY5EA: Plastic Flush	1: White 2: Black 3: Green 4: Red 5: Yellow 6: Blue	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC
	HLAY5BC: Metal Φ 40 Mushroom HLAY5EC: Plastic Φ 40 Mushroom HLAY5BR: Metal Φ 60 Mushroom HLAY5ER: Plastic Φ 60 Mushroom	3: Green 4: Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC
	HLAY5BL832: Metal Double-headed flush/flush HLAY5BL842: Metal Double-headed flush/projecting	Default: Green and Red	5: 1NO+1NC

Range Name	Type	Diameter of Push	Color	Contacts
HLAY5	BS	5	4	2
	HLAY5BS: Metal Emergency stop pushbuttons, turn to release HLAY5ES: Plastic Emergency stop pushbuttons, turn to release	4: Φ 30 5: Φ 40 6: Φ 60	3: Green 4: Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC

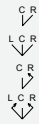
CONTROL COMPONENTS

HLAY5 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Selection Code

Range Name	Type	Number and Type of Positions	Contacts
HLAY5	BD	3	3
	HLAY5BD: Metal Selector switches with standard handle HLAY5ED: Plastic Selector switches with standard handle	2: 2p, stay put 3: 3p, stay put 4: 2p, spring return 5: 3p, spring return 	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC
	HLAY5BJ: Metal Selector switches with long handle HLAY5EJ: Plastic Selector switches with long handle		
	HLAY5BG: Metal Key switches HLAY5EG: Plastic Key switches		

Range Name	Type	Color	Supply Voltage	Contacts	Light Source
HLAY5	BW3	3	M	1	L
	HLAY5BW3: Metal Illuminated pushbuttons with flush push HLAY5EW3: Plastic Illuminated pushbuttons with flush push	1: White 3: Green 4: Red 5: Yellow 6: Blue 7: Pure white 8: Pure blue	T: 6V B: 24V F: 110V M: 220V Q: 380V	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	L: LED
	HLAY5BW84: Metal Illuminated pushbuttons with double-headed flush/projecting HLAY5EW84: Plastic Illuminated pushbuttons with double-headed flush/projecting	Default: Green and Red	T: 6V B: 24V F: 110V M: 220V Q: 380V	5: 1NO+1NC	L: LED

Range Name	Type	Supply Voltage	Color	Light Source
HLAY5	BV	M	3	L
	HLAY5BV: Metal Pilot light	T: 6V B: 24V F: 110V M: 220V Q: 380V	1: White 3: Green 4: Red 5: Yellow 6: Blue 7: Pure white 8: Pure blue	L: LED

CONTROL COMPONENTS

HLAY5 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Selection Code

Range Name	Type	Contacts
HLAY5	BE10	1
	HLAY5BE10: Contact blocks	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC



Technical Parameters

Range name			HLAY5					
Usage mode			Rated value					
AC-15	Rated voltage (Ue)	V	380			220		
	Rated current (Ie)	A	2			3.3		
DC-13	Rated voltage (Ue)	V	220			110		
	Rated current (Ie)	A	0.5			1.1		
Mechanical endurance		10 ⁵	10(Flush, Mushroom, Illuminated type)					
			1(Other types)					
Electric endurance		10 ⁵	AC: 10 / DC: 2 (Flush,Mushroom type)					
			0.5 (Other types)					
Rated themal current (Ith)		A	6					
Rated impulse withstand voltage (Uimp)		V	6000					
Degree of protection			IP40 (IP65 with protective cover)					
Illuminated pushbutton								
Power supplier voltage		V	6	12	24	110	220	380
LED			✓	✓	✓	✓	✓	✓

Environment

Temperature	-5°C to +40°C
Relative humidity	≤ 50% (40°C) 90% (20°C)
Altitude	≤ 2000m
Pollution degree	3

CONTROL COMPONENTS

HLAY5CS Control Stations

Standard: IEC 60947-5-1



Range Presentation

HLAY5CS is Himel range of Control Stations designed for auxiliary or direct control of industrial machinery and processes.

Features

- ◆ Single-brand solution for Himel control stations and pushbuttons simplifies your choices
- ◆ Maximized flexibility
 - Empty control stations for customer assembly
 - Complete control stations with ready-to-use buttons
- ◆ Wide offer of pushbuttons and accessories for commonly encountered functions

Online Content



HLAY5CS

Selection Code

Range name	Type	Enclosure material	Cut-outs	Enclosure cover	Pushbutton Material	Empty Enclosures/ Complete Stations (Pushbutton Code)
HLAY5	CS	P	1	1	B	A
HLAY5	CS: Control station	P: Plastic	1: 1-hole 2: 2-hole 3: 3-hole 4: 4-hole 5: 5-hole	1: White 5: Yellow	B: Metal E: Plastic	Default: Empty enclosures A: Flush S: Emergency stop pushbuttons, turn to release

Technical Parameters

Control Stations		HLAY5CS	
Main			
Associated control and signaling units		Ø 22 control and signalling units	
Number of cut-outs		1, 2, 3, 4 or 5	
Material		ABS	
Lid colour		White or yellow	
Degree of protection		IP40 (IP54 with protective cover)	
Function		According to equipment fitted: ● Start or Stop ● Start-Stop with pilot light ● Motion control ● Emergency stop	
Knockout diameter		M20(PG13.5)	
Complementary			
Rated insulation voltage (Ui)		660V	
Rated conventional thermal current (Ith)		6A	
Rated voltage (Ue)		220V/380V	
Rated current (Ie)	AC-15	1.3A/3A	
	DC-13	0.27A/0.55A	
Environment			
Ambient air temperature for storage		-25 to +70°C	
Ambient air temperature for operation		-25 to +70°C	
Conformity to standards		IEC60947-5-1	



CONTROL COMPONENTS

HLAY7 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Pushbuttons, Switches and Pilot Lights

HLAY7 is Himel range of plastic Pushbuttons, Switches and Pilot lights designed to control and indicate the status of the circuit.

Features

- ◆ Wide choice of heads and cut-outs
- ◆ Stackable modules, flexible to assemble more contacts
- ◆ Anti-rotation plate prevents the pushbutton head from rotation

Online Content



HLAY7

Selection Code

Range Name	Type	Contacts	Color	Drilling or cut-out for mounting
HLAY7	BN	11	3	2
	HLAY7**BN: Flush, spring return	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	1: White 2: Black 3: Green 4: Red 5: Yellow 6: Blue	2: Ø22 3: Ø25 4: Ø30
	HLAY7**BNZS: Flush, push-push HLAY7**GN: Projecting, spring return HLAY7**GNZS: Projecting, push-push HLAY7**JN: Recessed (high guard)		3: Green 4: Red	
	HLAY7**M: Ø40 Mushroom, spring return HLAY7**MZS: Ø40 Mushroom, push-push HLAY7**ZS: Ø40 Emergency stop pushbuttons, turn to release		3: Green 4: Red	

Range Name	Type	Contacts	Number and Type of Positions	Color	Drilling or cut-out for mounting
HLAY7	XB	11	20	2	2
	HLAY7**X: Selector switches with standard handle HLAY7**XB: Selector switches with long handle HLAY7**Y: Key switches	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	20: 2p, stay put 21: 2p, spring return from right to center 30: 3p, stay put 31: 3p, spring return from right to center 33: 3p, spring return to center	2: Black 3: Green 4: Red 0: for Key switches	2: Ø22 3: Ø25 4: Ø30

CONTROL COMPONENTS

HLAY7 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Selection Code

Range Name	Type	Contacts	Color	Supply Voltage	Drilling or cut-out for mounting	Light Source
HLAY7	DZS	11	4	M	2	L
	HLAY7**D: Illuminated projecting, spring return HLAY7**DZS: Illuminated projecting, push-push	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	3: Green 4: Red 5: Yellow 6: Blue 7: Pure white 8: Pure blue	T: 6V B: 24V F: 110V M: 220V Q: 380V	2: Ø22 3: Ø25 4: Ø30	L: LED
	HLAY7**DM: Illuminated mushroom, spring return HLAY7**DMZS: Illuminated mushroom, push-push		3: Green 4: Red			

Range Name	Type	Contacts	Number and Type of Positions (For switches)	Color	Supply Voltage	Drilling or cut-out for mounting	Light Source
HLAY7	XD	11	20	3	M	2	L
	HLAY7**XD: Illuminated selector switches with standard handle	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	20: 2p, stay put 30: 3p, stay put	3: Green 4: Red	T: 6V B: 24V F: 110V M: 220V Q: 380V	2: Ø22 3: Ø25 4: Ø30	L: LED

Range Name	Type	Color	Supply Voltage	Drilling or cut-out for mounting
HLAY7	XD3	4	M	2
	HLAY7XD3: Pilot Light LED	1: White 3: Green 4: Red 5: Yellow 6: Blue 7: Pure white 8: Pure blue	T: 6V B: 24V F: 110V M: 220V Q: 380V	2: Ø22

CONTROL COMPONENTS

HLAY7 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Selection Code

Range Name

Type

Contacts

HLAY7

BE10

1



HLAY7BE10: Contact blocks

1: 1NO
2: 1NC
3: 2NO
4: 2NC
5: 1NO+1NC



Technical Parameters

Pushbuttons and Switches			HLAY7		
Usage mode			Rated value		
AC-15	Rated voltage (Ue)	V	660	380	220
	Rated current (Ie)	A	1.1	2	3.3
DC-13	Rated voltage (Ue)	V	440	220	110
	Rated current (Ie)	A	0.25	0.5	1
Mechanical endurance	10 ⁵		10 (Flush type), 3 (Switches)		
			1 (Push-push type)		
Electric endurance	10 ⁵		6 (Flush type), 1 (Switches)		
			0.5 (Push-push type)		
Rated thermal current (Ith)	A		10		
Operation frequency	T/h		1200		
Contact resistance	mΩ		≤50		
Illuminated pushbutton			LED		
Working voltage	(Ue)V		6, 24, 110, 220, 380		
Lifetime	h		≥3000		

Environment

Ambient temperature	-5°C~+40°C
Relative humidity	≤50% (40°C) 90% (20°C)
Altitude	≤2000m
Pollution degree	3

CONTROL COMPONENTS

HLD11 Pilot Lights

Standard: IEC 60947-5-1



Range Presentation

HLD11 is Himel range of Pilot Lights designed for:

- Pilot signal and alarm signal
- Emergency signals and other instructions incidents signals

Features

- ◆ Compact design, all-in-one functionality
- ◆ LED light with long life, low consumption, high brightness
- ◆ IP65 front-of-panel high protection against ingress of solid objects, dust, and water
- ◆ Excellent resistance to mechanical shock and vibration
- ◆ Anti-interference, no improper indication of residual lights

Online Content



HLD11

Selection Code

Range name	Drilling or cut-out for mounting	Type	Step-down type	Shape of head	Rated voltage	Color
HLD11	22	D	4	1	M	4
	22: Ø22	C: Full cover head & short terminal	2: Resistance type 4: Capacitance type	1: Circular	T: AC/DC 6V J: AC/DC 12V B: AC/DC 24V F: AC/DC 110V M: AC 220V N: AC 230V Q: AC 380V	7: White 3: Green 4: Red 5: Yellow 8: Blue

Technical Parameters

Pilot Lights	HLD11	
Rated voltage	AC/DC (Resistance type) C2: 6V,12V,24V,36V,48V,110V	AC (Capacitance type) C4: 220V,230V,380V
Rated current (mA)	≤50	≤20
Working life (H)	30000	
Brightness of light (cd/m ²)	≥40	
Power frequency withstand voltage	2500V AC 1min	
Degree of protection	IP65	

CONTROL COMPONENTS

HLAY2 Pushbuttons

Range Presentation

HLAY2 is Himel range of Pushbuttons, Switches and Pilot Lights designed to control and indicate the status of the circuit

Features

- ◆ Compact size, suitable for small cabinet equipment
- ◆ Plastic types are more economical and affordable
- ◆ Plastic type provides high resistance to chemical agents Screw clamp terminals allowing fast and easy connection
- ◆ Modular design allows flexible and simple setup for complete products

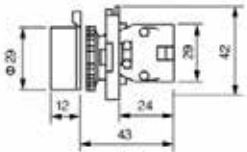
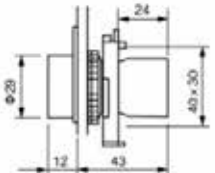
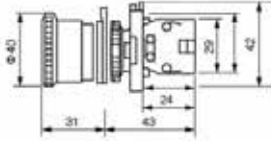
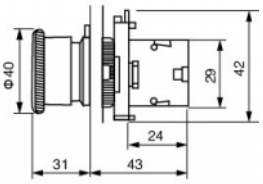
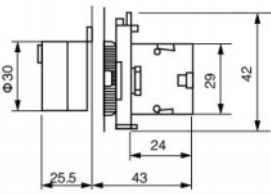
Technical Parameters								
Range name			HLAY2					
Usage mode			Rated value					
AC-15	Rated voltage (Ue)	V	380			240		
	Rated current (Ie)	A	2			3.3		
DC-13	Rated voltage (Ue)	V	240			110		
	Rated current (Ie)	A	0.5			1.1		
Mechanical endurance	10 ⁵		10(Flush)					
			1(Other types)					
Electric endurance	10 ⁵		AC: 10 / DC: 2 (Flush,Mushroom type)					
			0.5 (Other types)					
Rated thermal current (Ith)		A6						
Rated impulse withstand voltage (Uimp)		V	2500					
Degree of protection			IP40					
Illuminated pushbutton								
Power supplier voltage		V	6	12	24	110	240	380
LED			✓	✓	✓	✓	✓	✓

Environment

Temperature-	5°C to +40°C
Relative humidity	≤50% (40°C) 90% (20°C)
Altitude	≤2000m
Pollution degree	3

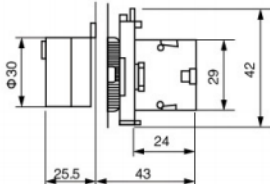
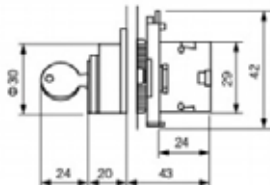
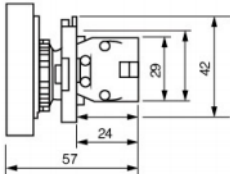
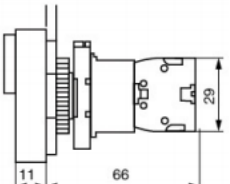
CONTROL COMPONENTS

HLAY2 Pushbuttons

Picture	Name	Model	Colour	Contact type		Structure drawing
				NO	NC	
	Flat push button switch	HLAY2EA11	□ W	1	-	
		HLAY2EA21	■ BL	1	-	
		HLAY2EA31	■ G	1	-	
		HLAY2EA51	■ Y	1	-	
		HLAY2EA61	■ B	1	-	
		HLAY2EA42	■ R	-	1	
		HLAY2EA15	□ W	1	1	
		HLAY2EA25	■ BL	1	1	
		HLAY2EA35	■ G	1	1	
		HLAY2EA55	■ Y	1	1	
		HLAY2EA65	■ B	1	1	
		HLAY2EA45	■ R	1	1	
	Mark push button	HLAY2EA3311	■ I	1	-	
		HLAY2EA3361	■ II	1	-	
		HLAY2EA3341	■ ↑	1	-	
		HLAY2EA3351	■ ↑	1	-	
		HLAY2EA4322	■ STOP	-	1	
		HLAY2EA4342	■ STOP	-	1	
		HLAY2EA4331	■ START	1	-	
	Mushroom pushbutton switch Φ40mm, Φ60mm	HLAY2EC42	■ R Ø40	-	1	
		HLAY2EC21	■ BL Ø40	1	-	
		HLAY2EC31	■ G Ø40	1	-	
		HLAY2ER21	■ BL Ø60	1	-	
		HLAY2ER31	■ G Ø60	1	-	
		HLAY2ER42	■ R Ø60	-	1	
	Emergency stop switch Φ30mm, Φ40mm Φ60mm	HLAY2ES442	■ Ø30	-	1	
		HLAY2ES542	■ Ø40	-	1	
		HLAY2ES642	■ Ø60	-	1	
		HLAY2ES142	■ Ø40&Key	-	1	
	2 Position maintain	HLAY2ED21	∨	1	-	
		HLAY2ED25	∨	1	1	
	2 Position spring	HLAY2ED41	∨	1	-	
		HLAY2ED45	∨	1	1	
	3 Position maintain	HLAY2ED33	∨	2	-	
	3 Position spring	HLAY2ED53	∨	2	-	
		HLAY2ED73	∨	2	-	
		HLAY2ED83	∨	2	-	

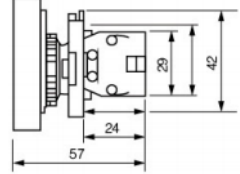
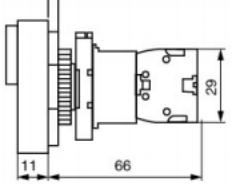
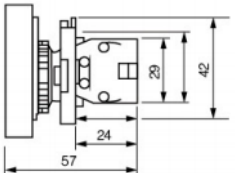
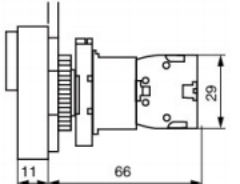
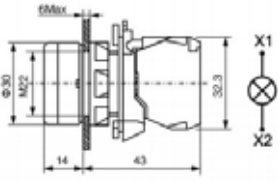
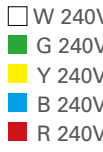
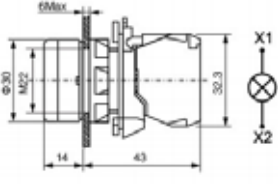
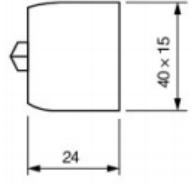
CONTROL COMPONENTS

HLAY2 Pushbuttons

Picture	Name	Model	Colour	Contact type		Structure drawing
				NO	NC	
	2 Position maintain	HLAY2EJ21		1	-	
		HLAY2EJ25		1	1	
	2 Position spring	HLAY2EJ41		1	-	
		HLAY2EJ45		1	1	
	3 Position maintain	HLAY2EJ33		2	-	
	3 Position spring	HLAY2EJ53		2	-	
		HLAY2EJ73		2	-	
		HLAY2EJ83		2	-	
	2 Position switch with key	HLAY2EG21		1	-	
		HLAY2EG25		1	1	
		HLAY2EG41		1	-	
		HLAY2EG45		1	1	
		HLAY2EG61		1	-	
		HLAY2EG65		1	1	
	3 Position switch with key	HLAY2EG33		2	-	
		HLAY2EG53		2	-	
		HLAY2EG03		2	-	
	Double head push button with light	HLAY2EW8365M	 240V	1	1	
		HLAY2EW8365B	 24V	1	1	
	Double head push button with light	HLAY2EW8465M	 240V	1	1	
		HLAY2EW8465B	 24V	1	1	

CONTROL COMPONENTS

HLAY2 Pushbuttons

Picture	Name	Model	Colour	Contact type		Structure drawing
				NO	NC	
	Double head push button	HLAY2EL8325		1	1	
	Double head push button	HLAY2EL8425		1	1	
	Waterproof double head push button	HLAY2EL9325		1	1	
	Waterproof double head push button	HLAY2EL9425		1	1	
	Illuminated push button	HLAY2EW3161B HLAY2EW3361B HLAY2EW3561B HLAY2EW3661B HLAY2EW3462B		1 1 1 1 -	- - - - 1	
	illuminated push button	HLAY2EW3171M HLAY2EW3371M HLAY2EW3571M HLAY2EW3671M HLAY2EW3472M		1 1 1 1 -	- - - - 1	
	Contact block	HLAY2BE101 HLAY2BE102	-	1 -	- 1	

CONTROL COMPONENTS

HLD12 Pilot Lights

HLD12 Selection Code

Series name	Hole size	Type	Shape/ voltage	Colour/resistance
HLD12	22	V	S	G
HLD12		V---voltmeter A---ammeter HZ---Hertz meter VA---voltmeter&ammeter VAZ---voltmeter&ammeter&Hertz meter T---thermometer P---pilot light KB---potentiometer	S---Square M---Round A(pilot light)---AC 240V D(pilot light)---DC 24V potentiometer ---NA	G---Green R---Red Y---Yellow B---Blue W---White R(potentiometer) ---1 2 5 10...value of resistance KΩ

Working Condition

1. ambient temperature:-25 ~+55 ,
2. relative humidity:98% ,
3. Normally workable when vibration frequency is 2-80Hz with acceleration of 0.7g
4. pollution degree is 3, installation group is II.

Features

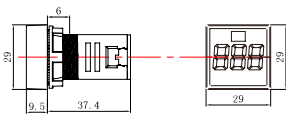
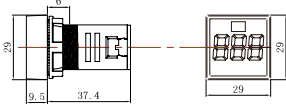
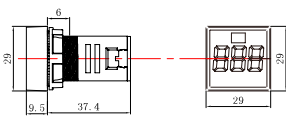
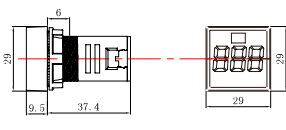
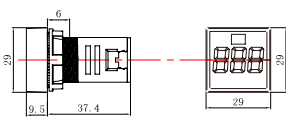
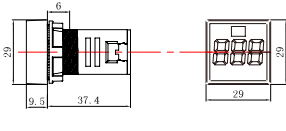
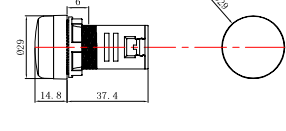
- ◆ Compact design, all-in-one construction
- ◆ LED light provides long life, low consumption, high brightness
- ◆ Excellent resistance to mechanical shock and vibration
- ◆ Anti-interference, no improper indication of residual lights
- ◆ Plastic type provides high resistance to chemical agents

Technical Parameters

Pilot Lights	HLD12
Rated voltage	DC:24V/AC 240V
Rated current (mA)	≤20mA
Working life (H)	30000
Brightness of light (cd/m2)	100
Power frequency withstand voltage	1.9KV/1min(effective AC value)
Applying frequency	AC50-60Hz

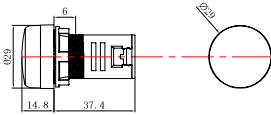
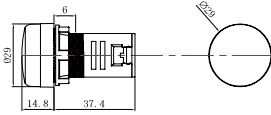
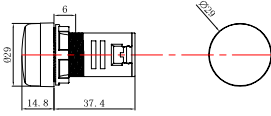
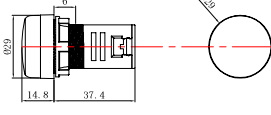
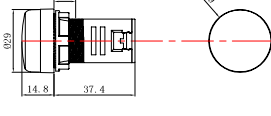
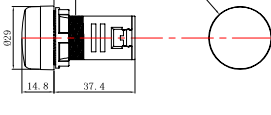
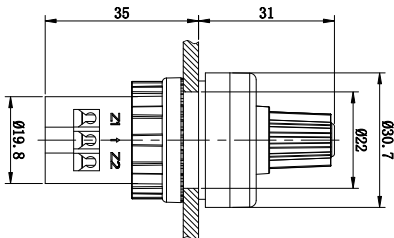
CONTROL COMPONENTS

HLD12 Pilot Lights

Picture	Name	Model	Colour	Voltage/Current/ Frequency/ Temperature	Structure drawing
	Indicator Voltmeter	HLD1222VSG HLD1222VSR HLD1222VSY HLD1222VSB HLD1222VSW	Green Red Yellow Blue White	AC20~500V	
	Indicator Ammeter	HLD1222ASG HLD1222ASR HLD1222ASY HLD1222ASB HLD1222ASW	Green Red Yellow Blue White	0~100A Max AC380V	
	Indicator Frequency meter	HLD1222HZSG HLD1222HZSR HLD1222HZSY HLD1222HZSB HLD1222HZSW	Green Red Yellow Blue White	0-99Hz	
	Indicator Thermometer	HLD1222TSG HLD1222TSR HLD1222TSY HLD1222TSB HLD1222TSW	Green Red Yellow Blue White	0℃ ~+199℃	
	Indicator Voltmeter & Ammeter	HLD1222VASG HLD1222VASR HLD1222VASY HLD1222VASB HLD1222VASW	Green Red Yellow Blue White	AC20-500V 0-100A	
	Indicator Voltmeter & Ammeter Frequency meter	HLD1222VAZSG HLD1222VAZSR HLD1222VAZSY HLD1222VAZSB HLD1222VAZSW	Green Red Yellow Blue White	AC50-500V 0-100A 0-99Hz	
	Indicator Voltmeter	HLD1222VMG HLD1222VMR HLD1222VMY HLD1222VMB HLD1222VMW	Green Red Yellow Blue White	AC50~500V	

CONTROL COMPONENTS

HLD12 Pilot Lights

Picture	Name	Model	Colour	Voltage/Current/ Frequency/ Temperature	Structure drawing
	Indicator Ammeter	HLD1222AMG HLD1222AMR HLD1222AMY HLD1222AMB HLD1222AMW	Green Red Yellow Blue White	0~100A Max AC380V	
	Indicator Frequency meter	HLD1222HZMG HLD1222HZMR HLD1222HZMY HLD1222HZMB HLD1222HZMW	Green Red Yellow Blue White	0-99Hz	
	Indicator Thermometer	HLD1222TMG HLD1222TMR HLD1222TMY HLD1222TMB HLD1222TMW	Green Red Yellow Blue White	0℃ ~199℃	
	Indicator Voltmeter& Ammeter	HLD1222VAMG HLD1222VAMR HLD1222VAMY HLD1222VAMB HLD1222VAMW	Green Red Yellow Blue White	AC50-500V 0-100A	
	Indicator	HLD1222PDG HLD1222PDR HLD1222PDY HLD1222PDB HLD1222PDW	Green Red Yellow Blue White	AC/DC 24V	
	Indicator	HLD1222PAG HLD1222PAR HLD1222PAY HLD1222PAB HLD1222PAW	Green Red Yellow Blue White	AC 240V	
Picture	Name	Type	Resistance	Outline Dimensions	
	Potentiometer	HLD1222KBR1 HLD1222KBR2 HLD1222KBR5 HLD1222KBR10 HLD1222KBR20 HLD1222KBR50 HLD1222KBR100 HLD1222KBR200	1KΩ 2KΩ 5KΩ 10KΩ 20KΩ 50KΩ 100KΩ 200KΩ		

CONTROL COMPONENTS

HDZ9 Miniature Relays

Standard: IEC60947-4



Range Presentation

HDZ9 is Himel range of Miniature Relays designed to implement control signal conversion to low power output. They can be widely used for industrial control applications

Features

- ◆ Rated current: 3A, 5A, 10A
- ◆ Pole: 2-pole, 3-pole, 4-pole
- ◆ Maximum rated operating Voltage: 690V
- ◆ Rated operating frequency: 50/60Hz
- ◆ Coil specification: DC: 6V~220V; AC: 6V~380V
- ◆ New specification: Rotary push button

Online Content



HDZ9

Selection Code

Range name	Current	Poles	AC/DC	LED	Coil voltage	Type
HDZ9	05	2	D	L	M	R
HDZ9	03: 3A 05: 5A 10: 10A	2: 2P 3: 3P 4: 4P	Default: AC D: DC	Default: None L: LED	T: 6V J: 12V B: 24V C: 36V E: 48V F: 110V S: 127V M: 220V N: 230V U: 240V Q: 380V	Default: Classic R: Rotary button

Technical Parameters

Miniature relays		HDZ9						
Type		03	05			10		
		4P	2P	3P	4P	2P	3P	4P
Max load current		3A	5A			10A		
Max operation voltage		250VAC 28VDC						
Contact resistance		≤100mΩ						
Contact material		Silver Alloy						
Electrical endurance		≥100000 times (1800 times/h)						
Mechanical endurance		≥10000000 times (18000 times/h)						
Actuation voltage (23°C)		DC: ≤75% (rated voltage), AC: ≤80% (rated voltage)						
Release voltage (23°C)		DC: ≥10% (rated voltage), AC: ≥30% (rated voltage)						
Maximum voltage (23°C)		110% (rated voltage)						
Insulation resistance		≥100MΩ (500VDC)						
Coil power		DC: 0.9W AC:1.2VA						
Actuation time (rated voltage)		≤15ms						
Release time (rated voltage)		≤10ms						
Withstand voltage	polar- contacts	1500VAC/1min (residual current is 1mA)						
	bipolar - contacts	1200VAC/1min (residual current is 1mA)						
	coil -contacts	1500VAC/1min (residual current is 1mA)						
Ambient temperature		-25°C~+55°C						
Ambient humidity		35%~85%RH						
Atmospheric pressure		86~106KPa						
Installation method		Plug-in						
Weight		30g						
Coil voltage		DC: 6V~220V; AC: 6V~380V.						
Certificate		CB, CE, SEMKO						

HDZ9 Miniature Relays

Standard: IEC60947-4



HDZ9 Miniature Relay

Reliable switching safety in compact space



DURABLE

Longer operation duration
Tested for >100,000 cycle times



RELIABLE

High-quality copper coil
ensures stable magnetic field
Reliable on/off action



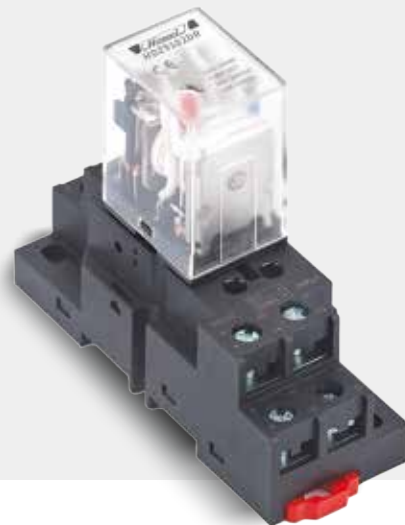
MORE OPTIONS

3 types of base selection
(Eco, Basic and European)
LED and test button available



FIREPROOF CASE

PC flame retardant material
Safe at temperature up to 260°C.



FEATURES

- ✓ High switching capacity
- ✓ Wide operating voltage range
- ✓ High density packaging

IDEAL FOR

- ✓ Factory automation equipment
- ✓ Industrial processes

CONTROL COMPONENTS

HDZ9 Miniature Relays

Standard: IEC60947-4

Base Selection Code

Classic Type



Rated Current	Poles	Control Voltage	LED	Reference	Base		
					Economical	Basic	European
5A	2	AC	L	HDZ9052L*	HPYF08A	HPYF08A15	HPYF08AZ
		AC	None	HDZ9052*	HPYF08A	HPYF08A15	HPYF08AZ
		DC	L	HDZ9052DL*	HPYF08A	HPYF08A15	HPYF08AZ
		DC	None	HDZ9052D*	HPYF08A	HPYF08A15	HPYF08AZ
	3	AC	L	HDZ9053L*	HPYF11A		
		AC	None	HDZ9053*	HPYF11A		
		DC	L	HDZ9053DL*	HPYF11A		
		DC	None	HDZ9053D*	HPYF11A		
	4	AC	L	HDZ9054L*	HPYF14A	HPYF14A15	HPYF14AZ
		AC	None	HDZ9054*	HPYF14A	HPYF14A15	HPYF14AZ
		DC	L	HDZ9054DL*	HPYF14A	HPYF14A15	HPYF14AZ
		DC	None	HDZ9054D*	HPYF14A	HPYF14A15	HPYF14AZ
3A	4	AC	L	HDZ9034L*	HPYF14A	HPYF14A15	HPYF14AZ
		AC	None	HDZ9034*	HPYF14A	HPYF14A15	HPYF14AZ
		DC	L	HDZ9034DL*	HPYF14A	HPYF14A15	HPYF14AZ
		DC	None	HDZ9034D*	HPYF14A	HPYF14A15	HPYF14AZ
10A	2	AC	L	HDZ9102L*	HPTF08A	HPTF08A15	
		AC	None	HDZ9102*	HPTF08A	HPTF08A15	
		DC	L	HDZ9102DL*	HPTF08A	HPTF08A15	
		DC	None	HDZ9102D*	HPTF08A	HPTF08A15	
	3	AC	L	HDZ9103L*	HPTF11A	HPTF11A15	
		AC	None	HDZ9103*	HPTF11A	HPTF11A15	
		DC	L	HDZ9103DL*	HPTF11A	HPTF11A15	
		DC	None	HDZ9103D*	HPTF11A	HPTF11A15	
	4	AC	L	HDZ9104L*	HPTF14A	HPTF14A15	
		AC	None	HDZ9104*	HPTF14A	HPTF14A15	
		DC	L	HDZ9104DL*	HPTF14A	HPTF14A15	
		DC	None	HDZ9104D*	HPTF14A	HPTF14A15	



CONTROL COMPONENTS

HDZ9 Miniature Relays

Standard: IEC60947-4

Base Selection Code

Rotary Button Type



Rated Current	Poles	Control Voltage	LED	Reference	Base		
					Economical	Basic	European
5A	2	AC	L	HDZ9052L*R	HPYF08A	HPYF08A15	HPYF08AZ
		AC	None	HDZ9052*R	HPYF08A	HPYF08A15	HPYF08AZ
		DC	L	HDZ9052DL*R	HPYF08A	HPYF08A15	HPYF08AZ
		DC	None	HDZ9052D*R	HPYF08A	HPYF08A15	HPYF08AZ
3A	4	AC	L	HDZ9034L*R	HPYF14A	HPYF14A15	HPYF14AZ
		AC	None	HDZ9034*R	HPYF14A	HPYF14A15	HPYF14AZ
		DC	L	HDZ9034DL*R	HPYF14A	HPYF14A15	HPYF14AZ
		DC	None	HDZ9034D*R	HPYF14A	HPYF14A15	HPYF14AZ

* is control voltage and with/with not test button
Base type



Accessory jump ring	Adapted
HPY36M2C	HPYF08A15
HPY36S	HPYF08A15 HPYF08A HPYF14A15 HPYF14A HPTF08A
HIHPY36M	HPYF14AZ HPYF08AZ HPTF08A15

HJSZ3 Electronic Timer Relays

Standard: IEC60947-4



Range Presentation

HJSZ3 is Himel range of Electronic Timer relay designed for industrial control applications.

HJSZ3 is applicable to AC 50Hz circuits with controlling voltage up to 400V.

Features

- ◆ Multi-position type Time delay range
- ◆ Power-on/off delay type available
- ◆ Wide rated voltage input range from 85%~110%

Selection Code

Range name	Time delay	Operation voltage	Range name	Time delay	Operation voltage
HJSZ3A	A	120	HJSZ3F	2S	120
HJSZ3A Time delay after power-on	A: 0.05-0.5s/5s/30s/3M B: 0.1-1s/10s/60s/6M C: 0.5-5s/50s/5M/30M D: 1-10s/100s/10M/60M E: 6s-60s/10M/60M/6h F: 0.2M-2M/20M/2h/12h G: 0.4M-4M/40M/4h/24h	120 240 400	HJSZ3F Time delay after power-off	1S: 0.1-1s 2S: 0.2-2s 3S: 0.3s-3s 5S: 0.5s-5s 6S: 0.6s-6s 10S: 1s-10s 20S: 2s-20s 30S: 3s-30s 60S: 6s-60s 100S: 10s-100s 180S: 18s-180s 5M: 0.5min-5min 6M: 0.6min-6min 10M: 1min-10min 20M: 2min-20min 30M: 3min-30min	120 240 400

Technical Parameters		
Electronic Timer Relays		HJSZ3
Condition	AC-15	400V/1.95A; 240V/1.5A; 120V/3.0A
	DC-13	250V/0.27A; 125V/0.55A
Repetitive error		≤5%
Rated thermal current		5A
Mechanical life		≥1×10 ⁶ times
Electric life		≥1×10 ⁵ times
Power loss		≤3W
Working mode		A: Delay after power-on F: Delay after power-off
Reset mode		A: Power-off reset F: External device reset
Contactor endurance		A: 5A (Resistive) F: 1A(Resistive)
Delay time	HJSZ3A: 0.05s-0.5s/5s/30s/3M, 0.1s-1s/10s/60s/6M	
	0.5s-5s/50s/5M/30M, 1s-10s/100s/10M/60M	
	6s-60s/10M/60M/6h, 0.2M-2M/20M/2h/12h	
	0.4M-4M/40M/4h/24h	
	HJSZ3F: 0.1s-1s, 0.2s-2s, 0.3s-3s, 0.5s-5s, 0.6s-6s, 1s-10s, 2s-20s, 3s-30s, 6s-60s, 10s-100s, 10s-120s, 10s-180s, 0.4M-4M, 0.5M-5M, 0.6M-6M, 1M-10M, 2M-20M, 3M-30M	
Temperature		-5°C ~ +40°C
Installation mode		Din rail mounted, Panel mounted

HXJ9 Phase Failure and Sequence Protection Relay

Standard: IEC60947-4



Range Presentation

HXJ9 is Himel range of phase failure and sequence protection relay

Features

- ◆ Rated frequency is 50Hz, and rated control supply AC voltage is 400V
- ◆ Phase failure and phase sequence protections

Online Content

*coming soon

Order Information

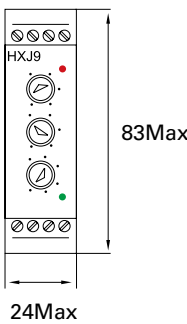
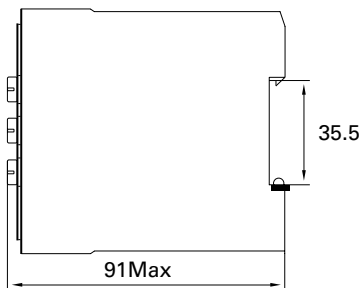
Function	Voltage	Reference
Phase Failure and Sequence Protection	380V	HXJ9
	400V	HXJ9400

Technical Parameters

Standard	IEC 60947-5-1
Overvoltage protection	Adjustable, HXJ9: 380~460V, HXJ9400: 400~480V, Reaction time: 1.5s-4s (adjustable)
Undervoltage protection	Adjustable, HXJ9: 300~380V, HXJ9400: 320~400V. Reaction time: 2s-9s (adjustable)
Phase failure & phase wrong protect time	Reaction time $\leq 2s$
Contactor mode	1 NO, 1NC
Contactor endurance	5A Resistive
Power voltage	AC 400V
Mechanical lifetime	$\geq 1 \times 10^6$ times
Electrical lifetime	$\geq 1 \times 10^5$ times
Power loss	$\leq 1W$
Contactor capacity	AC400V $\times$ 3

Overall Dimensions

Unit: mm



CONTROL COMPONENTS

HKG Digital Time Switches

Standard: IEC60947-5-1



Range Presentation

- HKG is Himel range of Digital Time Switches to control electrical components, turning on and off the circuits according to the scheduled time.
- Rated AC frequency is 50Hz, and rated AC control voltage is 400V or below
- Time control components in automatic control circuit, and turn on or off the circuits according to the scheduled time

Features

- ◆ Full range up to 400V
- ◆ Up to 32 daily switches (16 ON-16 OFF)
- ◆ Daily or weekly program
- ◆ Reset method:
 - HKG316T: Power-off reset
 - HKG316TD: Key-button reset
 - HKG816: Key-button reset

Selection Code

Range name	Rated control voltage	Output number
HKG316T	230	2
HKG316T HKG316TD HKG816A: White cover HKG816B: Transparent cover	230: 230V (HKG816 is only working under 230V) 400: 400V	Default: Single output 2: Double output (only for HKG316T)



Technical Parameters				
Digital Time Switches	HKG316T	HKG316TD	HKG816A	HKG816B
Control time	1min≤t≤168h (time is controlled in a daily cycle or a weekly cycle)			
Utilization mode	AC-15: 240V/3A 400V/1.9A	AC-15: 240V/3A	AC-15: 240V/3A; 400V/1.9A	
Maximum switch times per day	16-ON-16-OFF (Single output) 8-ON-8-OFF (Double output)	16-ON-16-OFF	16-ON-16-OFF	
Rated control voltage	230/400V AC	230/380V AC	230V AC	
Rated thermal current	10A			
Accuracy	≤2s/day			
Display Model	Digital LED display			
Time-set Mode	Digital Keyswitch setting			
Battery	Inner alkaline battery	Inner rechargeable battery		

Online Content



HKG

HDJS18 Time Relays

IEC 60947-5



Range Presentation

HDJS18 is Himel range of Time Relay and it provides:

- Switch-off Delay
- Switch-on Delay
- Interval Delay

It is widely used for staircase lamps on automatic switch-off control according to scheduled time.

Features

- ◆ Small size
- ◆ Elegant appearance
- ◆ High accuracy of time delay
- ◆ High capacity of contacts
- ◆ Strong anti-interference ability
- ◆ Easy for installation

Online Content



HDJS18

Selection Code

Model	Time-delay type	Time delay	Control voltage	Voltage type
HDJS18	A	10S	220	AD
HDJS18: Product name	Default: interval delay A: off delay B: switch-on delay	10S: 1-10s 120S: 12-120s 480S: 48-480s	220: 220V 24: 24V	Default: AC AD: AC/DC

Technical Parameters

Time Relays		HDJS18
Rated conventional thermal current Ith (A)		10
AC-15	Ue (V)	380/240
	Ie (A)	1.9/3
DC-13	Ue (V)	24
	Ie (A)	1.1
Control voltage Us (V)		AC: 220, 110 (customized), 380 (customized)
		AC/DC: 24
Repetitive error		≤5%
Time delay		5s, 10s, 30s, 60s, 120s, 180s, 360s, 480s
Mechanical durability (time)		≥1 million
Electrical durability (time)		≥100 thousand
Time-delay method		Switch-on delay, off delay, interval delay
Standard		IEC 60947-5
Ambient Temperature		-5°C~+40°C
Range of operating control voltage		85%~110% Us
Altitude		≤2000m
Installation category		II
Pollution class		3

CONTROL COMPONENTS

HXC Limit Switch

Standard: EN60947-5-1



Range Presentation

Himel Limit Switches facilitate efficient and precise automatic monitoring of movement limits. Especially suitable for space-restricted applications like OEM machinery, they are designed and tested for harsh environments.

Features

- ◆ Double circuit type of limit switch
- ◆ Compact size, IP65/66 water-proof and oil-proof construction
- ◆ Built-in contact box has double-spring and long mechanical life
- ◆ Smooth operation with larger over travel distance
- ◆ Various types for different application

Online Content



HXC

Selection Code

Range name	Series	Type	Head
HXC	KM	8108	E
Limit Switch	KM: Metal box KP: Plastic box KD: full-metal box MP: Micro switch, plastic box	Selection of triggering head type	E: Eco type



Technical Parameters

series	HXCKM	HXCKP	HXCKD	HXCMP
Operation speed	5mm-0.5m/s	5mm-0.5m/s	5mm-0.5m/s	0.05mm-1m/s (Plunger type)
Operating frequency	Electrical: 30 operations/min	Electrical: 30 operations/min	Electrical: 30 operations/min	Electrical: 20 operations/min
Contact resistance	25mΩ max. (initial value)	25mΩ max. (initial value)	25mΩ max. (initial value)	15mΩ max. (initial value)
Insulation resistance	100mΩ min. (below 500VDC)	100mΩ min. (below 500VDC)	100mΩ min. (below 500VDC)	100mΩ min. (at 500VDC)
Vibration	10-55Hz, 1.5mm double amplitude	10-55Hz, 1.5mm double amplitude	10-55Hz, 1.5mm double amplitude	(*10 to 20Hz): 1.5 Vibration amplitude action duration: 10 to 55Hz
Shock	Mechanical durable: 1, 000m/Sec2 (about 100G'S)	Mechanical durable: 1, 000m/Sec2 (about 100G'S)	Mechanical durable: 1, 000m/Sec2 (about 100G'S)	Mechanical durable: 1, 000m/Sec2 (about 100G'S)
Malfunction	300m/Sec2 (about 30G'S)	300m/Sec2 (about 30G'S)	300m/Sec2 (about 30G'S)	300m/Sec2 (about 30G'S)
Ambient temperature	Using: -20~+70°C (With no icing)	Using: -20~+70°C (With no icing)	Using: -20~+70°C (With no icing)	Using: -20~+80°C (With no icing)
Humidity	<95% RH	<95% RH	<95% RH	General purpose type: 85% RH max. Sealed type: 95% RH max.
Electrical life	500,000 operations above	500,000 operations above	500,000 operations above	500,000 operations above
Protection level	IP65	IP65	IP66	IP65(with cap)
CE	YES	YES	YES	YES

CONTROL COMPONENTS

HXC Limit Switch

Standard: EN60947-5-1

HXCKM Series



HXCKM-8104E



HXCKM-8105E



HXCKM-8107E



HXCKM-8108E



HXCKM-8109E



HXCKM-8111E



HXCKM-8112E



HXCKM-8122E

HXCKP Series



HXCKP-101



HXCKP-102



HXCKP-103



HXCKP-111



HXCKP-112



HXCKP-127



HXCKP-121



HXCKP-121M



HXCKP-131



HXCKP-131M

CONTROL COMPONENTS

HXC Limit Switch

Standard: EN60947-5-1

HXCKD Series



HXCKD-001



HXCKD-003



HXCKD-021



HXCKD-021M



HXCKD-031



HXCKD-031M



HXCKD-012



HXCKD-041



HXCKD-051

HXCMP Series



HXCMP-1701



HXCMP-1702



HXCMP-1703



HXCMP-1703M



HXCMP-1704



HXCMP-1704M



HXCMP-1705



HXCMP-1706



HXCMP-1306



HXCMP-1307



HXCMP-1308



HXCMP-1309



HXCMP-1308X



CAP-B



CAP-Y



CAP-C

CONTROL COMPONENTS

HDK Switch Mode Power Supply

Standard: EN 61558-1



Range Presentation

HDK is Himel range of Switch Mode Power Supply. It can be widely used in the following fields:

- Industrial control system
- Industrial automation machinery
- Mechanical and electrical equipment
- Electronic instruments
- Household appliances

In the above, it can be used as the power supply for LED screen, electronic testing equipment, control equipment, radio and television, computer network, medical apparatus and instruments, intelligent monitoring, and many more.

Features

HDK-US:

- ◆ 30mm ultra-thin enclosure design
- ◆ Easy to install and light weight
- ◆ Full range of AC input voltage (90~264VAC); high efficiency and small output ripple
- ◆ Low power loss design; less heat consumption; no load power consumption is only 0.2-1.0W
- ◆ High frequency PWM control technology & fast response
- ◆ High power MOSFET driving; stable and reliable operation; strong overload ability
- ◆ 100% full load aging test can be passed for all products
- ◆ Complete protection functions: overvoltage protection, overload protection, over-temperature protection, short circuit protection, etc.

HDK-NS (Din-rail type):

- ◆ Din-rail type for installation
- ◆ Narrow surface metal enclosure design
- ◆ Excellent capacity of heat dissipation
- ◆ Full range of AC input voltage (90~264VAC); high efficiency and small output ripple
- ◆ Low power loss design
- ◆ Complete protection functions: overvoltage protection, overload protection, over-temperature protection, short circuit protection, etc.

Selection Code

Model HDK	Type US	Rated Power 50	Output Voltage 12
Product series name	US: Ultra-thin type	35: 35W 50: 50W 75: 75W 100: 100W 150: 150W 200: 200W 350: 350W	05: 5V 12: 12V 24: 24V 36: 36V 48: 48V
Product series name	NS: Narrow surface type	75: 75W 120: 120W 240: 240W 480: 480W	12: 12V 24: 24V 36: 36V 48: 48V (for 240W and 480W, only 24V and 48V are available)

Online Content



HDK

HDK Switch Mode Power Supply

Standard: EN61558-1



HDK Switch Mode Power Supply

Designed for efficient power conversion



MULTI PROTECTION

Protection against overload,
over-voltage, over-temperature
and short circuit



PURE COPPER COIL

More stable magnetic field
Reliable on-off action



HIGH EFFICIENCY

Heat dissipation
Multiple vent design



HIGH LEVEL SAFETY

Dust cover
Fully coated PCB



FEATURES

- ✓ High reliability
- ✓ Wide range of input voltage
- ✓ High output accuracy
- ✓ CB certification (HDKU-S Series)

IDEAL FOR

- ⚙️ Factory automation equipment
- ⚙️ Industrial processes
- 💡 Lighting Industry (HDKU-S Series)

HDK Switch Mode Power Supply

Standard: EN61558-1



Technical Parameters

Item		Technical Parameter						
Rated power		35W	50W	75W	100W	150W	200W	350W
AC Input voltage		100~264 V (actual input voltage range: 90~264 V)					85~132 V / 176~264 V (can be switched)	
AC Input frequency		47~63 Hz						
Output stability		≤1%						
Load regulation rate		≤1% (standard)						
Micro regulation range of output voltage		± 10% (rated output voltage)						
Ripple and noise		≤1% peak value (100mVp-p standard)						
Overvoltage protection		110%~140% (protection mode: output is tripped, and it will be recovered automatically when the abnormal condition is eliminated)						
Overload protection		110%~150% (protection mode: hiccup mode is activated, and it will be recovered automatically when the abnormal condition is eliminated)						
Over-temperature protection		--					100±5℃	
Output loop		Single						
Cooling method		Natural wind cooling (< 200W)						
Working environment		Working temperature: -10℃ +60℃ Humidity: 20%~90%RH						
Outline dimension	mm	99×82×30		99×97×30	129×97×30	159×97×30	215×115×30	
Installation dimension		Figure 1		Figure 2	Figure 3	Figure 4	Figure 5	Figure 6
Weight	kg	0.23	0.23	0.25	0.34	0.48	0.66	0.76
Safety & EMC	Safety standard	UL60950-1, TUV EN60950-1, EN60335-1, EN61558-1/-2-16						
	Withstand voltage	Input versus output: 4kVAC Input versus grounding: 2kVAV Output versus grounding: 1.25kAC/1min						
	Insulation resistance	Input versus output,input versus grounding, output versus grounding/500VDC/25℃ /70%RH						
	EMC emission	EN55032(CISPR32) Class B, EN55014, EN61000-3-2						
	EMC immunity	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61000-6-2 (EN50082-2)						
	Ta: Temperature of Ambient	50°						
	Tc: Temperature of Power Supply Case	64°						

HDK Switch Mode Power Supply

Standard: EN61558-1



Construction of references Principle

Product Name	Rated Power	Output Voltage
HDKUS	50	12
↓	↓	↓
0230: 230V	35: 35W 50: 50W ... 350: 350W	05: 5V 12: 12V ... 48: 48V

Order Information for HDKUS

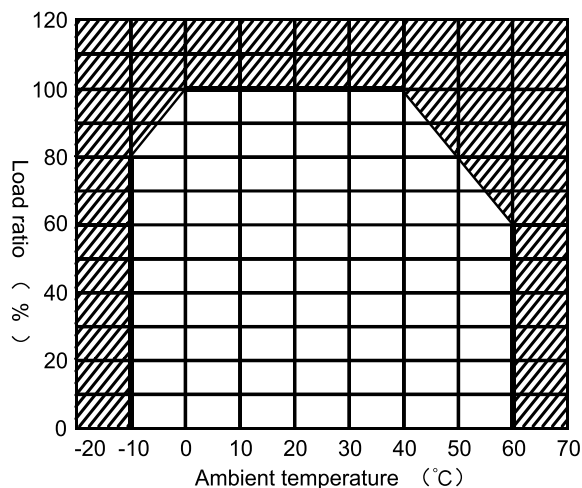
Model	Power	Input	DC Output (A)						Function
	W	Remark 1	5V	12V	15V	24V	36V	48V	Remark 2
HDKUS-35	35	F	7	3	2.4	1.5	1	0.8	ABK
HDKUS-50	50	F	10	4.2	3.4	2.2	1.45	1.1	ABK
HDKUS-75	75	F	14	6	5	3.2	2.1	1.6	ABK
HDKUS-100	100	F	18	8.5	7	4.5	2.8	2.3	ABK
HDKUS-150	150	F/S	22	12.5	10	6.5	4.3	3.3	ABK
HDKUS-200	200	S	40	17	14	8.8	5.9	4.4	ABCK
HDKUS-350	350	S	60	29	23.2	14.6	9.7	7.3	ABCDK

Remark 1: selection method for 85-132/170-264VAC: F: full range; S: switching selection

Remark 2: function A: overload (overcurrent) short circuit protection; B: output overvoltage protection;

C: over-temperature protection; D: automatic switch control of cooling fan (prolong service life); K: output LED display

Derating Curve



Note: working temperature is very important as the load is varying linerly when the temperature is below 0°C or more than 40°C .

• The load ratio is reduced by 2% per degree when the working temperature is decreased from 0°C to -10°C ;

• The load ratio is reduced by 2% per degree when the working temperature is increased from 40°C to 60°C .

HDK Switch Mode Power Supply

Standard: EN61558-1



Model & Overall Dimensions

Figure 1: 35W/50W

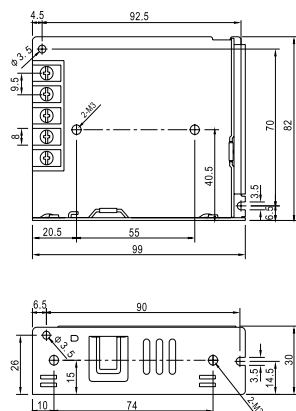


Figure 2: 75W

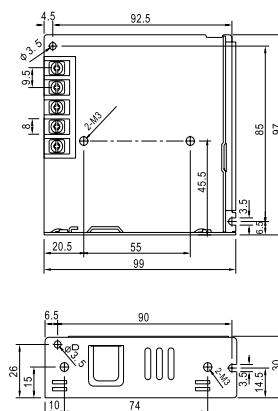


Figure 3: 100W

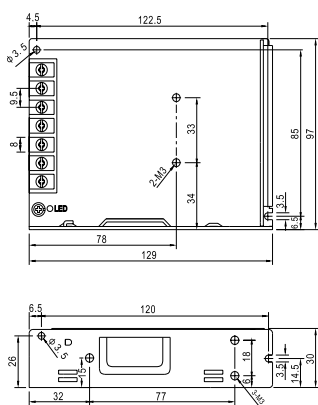


Figure 4: 150W

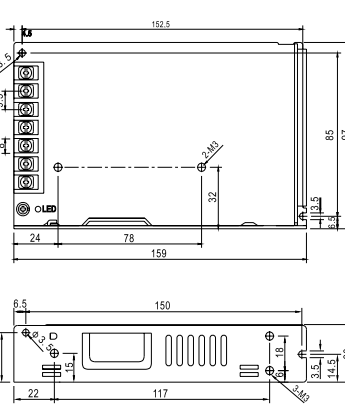


Figure 5: 200W

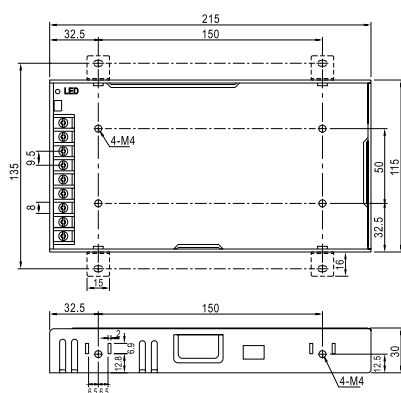
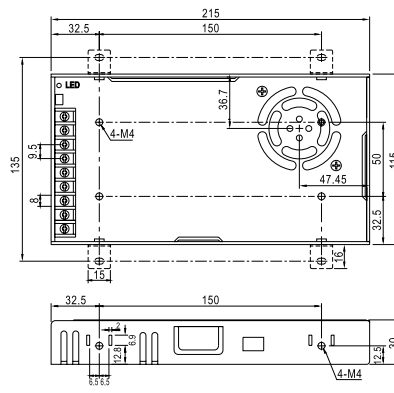


Figure 6: 350W



CONTROL COMPONENTS

HBK Control Transformers

Standard: IEC61558-2-2



Range Presentation

HBK series is Himel range of AC to AC Voltage Transformers, applicable to the electrical system of the machine tool and other mechanical equipment. Used as the power supply of the control circuits, lighting circuit, signaling circuits and electronic devices; it also has two or more than two electrical-isolated winding transformer

Features

- ◆ Simple structure and strong anti-seismic capacity
- ◆ High level automation and good product consistency.
- ◆ Good safety performance and high production efficiency
- ◆ Strong load capacity and overvoltage capacity

Online Content



HBK

Selection Code

Range name	Rated capacity	Voltage ratio (input/output)	Isolation	Transformer type	Voltage type
HBK	100	E9	G	M	C
HBK	00025: 25VA 00050: 50VA 00060: 60VA 00063: 63VA 00100: 100VA 10000: 10kVA 15000: 15kVA 20000: 20kVA	D1: 380V/220V D2: 380V/36V D3: 380V/24V D7: 220V/220V D8: 220V/36V D9: 220V/24V D5V: 380V/5V E1: 400V/230V E7: 230V/230V E8: 230V/36V E9: 230V/24V E5V: 230V/5V F1: 240V380V 415V/12V24V110V F2: 230V380V415V /12V24V230V	Default: no isolation G: isolation: only available when input equals to output voltage	Default: single-input & single-output type M: Multi-input & Multi-output type	For Multi-input & Multi-output type, two structures can be selected: C: Center-tapped Winding S: Separate Winding

Note: For customization requirement, please reach out to local sales.

Technical Parameters

Control Transformers	HBK
Rated voltage	≤1200V
Rated frequency	50Hz, 60Hz
Insulation resistance	≥5MΩ
Insulation class	B
Rated duty	Uninterrupted Duty
Standard	IEC 61558-2-2
Certificate	CE

CONTROL COMPONENTS

HICF Axial Fan

Standard: EN 55032:2015; EN61000-3-2:2014; EN61000-3-3:2013;



Range Presentation:

HICF series axial fan is designed for cooling and air ventilation of control panels, cabinets, machines, electric appliance, EV cars, etc.

The products meet the requirements of 24h continuous working condition.

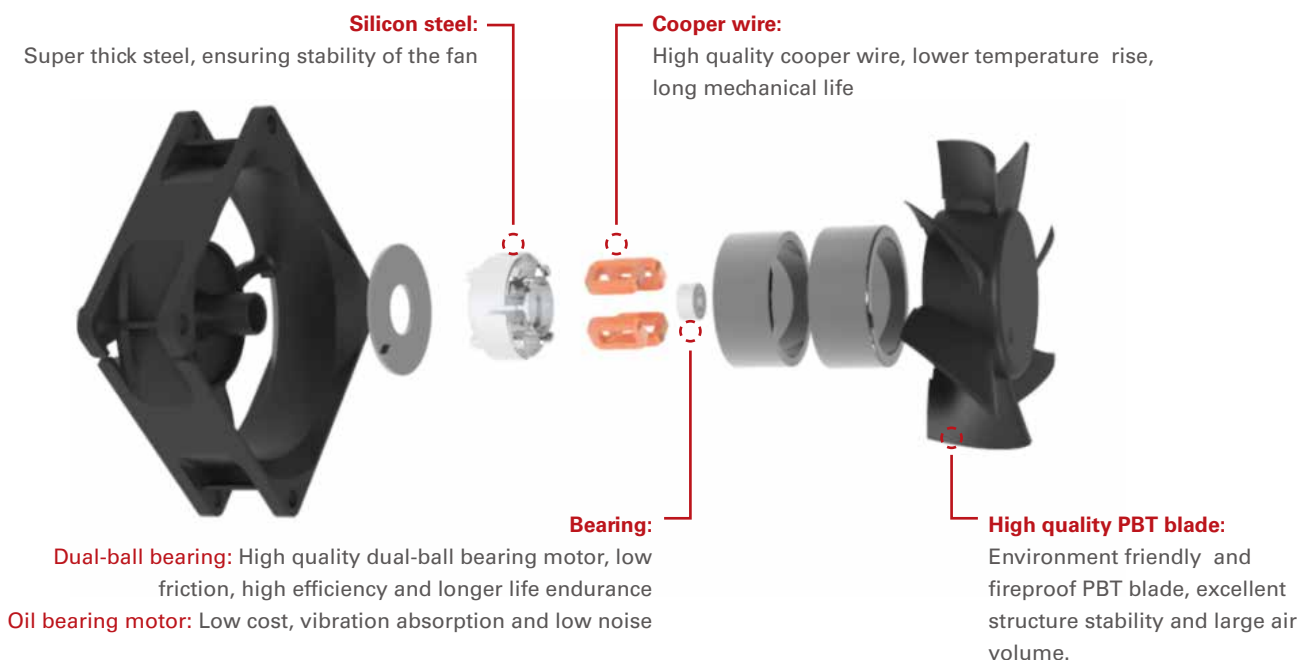
Features:

- ◆ With good quality and high strength shell, the HICF series axial fan is temperature, break and corrosion resistant.
- ◆ Equipped with high quality motor, the axial fan has large air volume, low noise and good heat dissipation effect.
- ◆ High quality copper coil, good conductivity, low power consumption, low heating.
- ◆ Anti-reverse wire connection protection - safer to use.

Online Content



HICF



Selection Code

Range name	Width	Height	Voltage	Bearing	Connection
HICF	280	80	A2	B	L
HICF	40: 40x40mm 50: 50x50mm 80: 80x80mm 92: 92x92mm 120: 120x120mm 160: 160x160mm 180: 180x180mm 200: 200x200mm ... Special: 170: 172x150mm	15: 15mm 20: 20mm 25: 25mm 38: 38mm 50: 50mm 60: 60mm 70: 70mm	A2: AC220V D2: DC24V D1: DC12V ...	B: ball S: lube	L: cable-out

CONTROL COMPONENTS

HICF Axial Fan

Standard: EN 55032:2015; EN61000-3-2:2014; EN61000-3-3:2013;

Technical Parameter

AC axial Fan

Frame is made of Aluminium Alloy material, Impeller is made of :PBT+30%GF material

Insulation level: CLASS B

Protection level: IP44



Commercial reference	HICF8025A2BL	HICF8025A2SL	HICF8038A2BL	HICF8038A2SL
Product size (mm)	80*80*25	80*80*25	80*80*38	80*80*38
Rated voltage	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz
Rated current (A)	0.09/0.08A	0.09/0.08A	0.06/0.05A	0.06/0.05A
Rated power(W)	15/12W	15/12W	9.5/7W	9.5/7W
Speed (RPM)	2300/2750	2300/2750	2550/3100	2550/3100
Air pressure mmH ₂ O (mmAQ)	2.2/2.4	2.2/2.4	2.6/2.8	2.6/2.8
Noise level (dBA)	38	38	38	38
Air flow (CFM)	32/35	32/35	39/42	39/42



Commercial reference	HICF9225A2BL	HICF9225A2SL	HICF9238A2SL	HICF12025A2BL
Product size (mm)	92*92*25	92*92*25	92*92*38	120*120*25
Rated voltage	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz
Rated current (A)	0.1/0.08A	0.1/0.08A	0.06/0.05A	0.1/0.08A
Rated power(W)	13/11W	16/13W	10/8W	17/14W
Speed (RPM)	2350/2800	2350/2800	2300/2750	2300/2700
Air pressure mmH ₂ O (mmAQ)	3.1/3.4	3.1/3.4	4.5/4.9	2.9/3.1
Noise level (dBA)	38	38	41	45
Air flow (CFM)	45/50	45/50	66/72	44/45



Commercial reference	HICF12025A2SL	HICF12038A2BL	HICF12038A2SL	HICF15050A2BL
Product size (mm)	120*120*25	120*120*38	120*120*38	150*150*50
Rated voltage	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz
Rated current (A)	0.1/0.08A	0.15/0.12A	0.15/0.12A	0.25/0.23A
Rated power(W)	17/14W	21/18W	21/18W	35/32W
Speed (RPM)	2300/2700	2600/3000	2600/3000	2600/2900
Air pressure mmH ₂ O (mmAQ)	2.9/3.1	6.7/7.6	6.7/7.6	16/17.8
Noise level (dBA)	45	48	48	51
Air flow (CFM)	44/45	93/98	93/98	372/400

CONTROL COMPONENTS

HICF Axial Fan

Standard: EN 55032:2015; EN61000-3-2:2014; EN61000-3-3:2013;



Commercial reference	HICF16060A2BL	HICF17040A2BL	HICF17050A2BL	HICF20060A2BL	HICF20070A2BL
Product size (mm)	160*160*60	172*150*38	172*150*51	200*200*60	200*200*70
Rated voltage	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz
Rated current (A)	0.13/0.1A	0.14/0.13A	0.25/0.23A	0.48/0.5A	0.2/0.22A
Rated power(W)	25/24W	28/27W	35/32W	68/75W	45/52W
Speed (RPM)	2750/3150	2850/3300	2600/2900	2600/3000	2550/2950
Air pressure mmH ₂ O (mmAQ)	26.5/28.6	10.2/11.6	17/18.8	25/33	32
Noise level (dBA)	61	51	51	67	68
Air flow (CFM)	390/420	150/170	206/251	370/420	465

DC Axial Fan

Made of PBT+30%GF material; Insulation level:CLASS B; protection level: IP44.



Commercial reference	HICF4020D2SL	HICF5015D2BL	HICF5020D2BL	HICF6025D2BL	HICF8025D2BL
Product size (mm)	40*40*20	50*50*15	50*50*20	60*60*25	80*80*25
Rated voltage	24V DC	24V DC	24V DC	24V DC	24V DC
Rated current (A)	0.05A	0.1A	0.12A	0.12A	0.25A
Rated power(W)	0.72W	2.4W	2.4W	4.8W	2.64W
Speed (RPM)	5800RPM	6400RPM	5800RPM	5500RPM	3500RPM
Air pressure mmH ₂ O (mmAQ)	3.9	5.23	6.55	8.1	4.94
Noise level (dBA)	27	36.7	35.08	37.8	37.9
Air flow (CFM)	6.6	14.5	21.71	23.8	43.9



Commercial reference	HICF9225D2BL	HICF9225D2SL	HICF12025D2BL	HICF12025D1BL	HICF12038D1BL	HICF12038D2BL
Product size (mm)	92*92*25	92*92*25	120*120*25	120*120*25	120*120*38	120*120*38
Rated voltage	24V DC	24V DC	24V DC	12V DC	12V DC	24V DC
Rated current (A)	0.38A	0.26A	0.25A	0.25A	0.3A	0.2A
Rated power(W)	7.2W	7.2W	6.72W	7.2W	4.8W	4.8W
Speed (RPM)	4000RPM	4000RPM	2600RPM	2600RPM	2600RPM	2500RPM
Air pressure mmH ₂ O (mmAQ)	6	6	5.3	5.3	6.24	6.24
Noise level (dBA)	41.2	41.2	37.2	37.2	42.6	42.6
Air flow (CFM)	64.8	64.8	78.2	78.2	117.6	117.6

CONTROL COMPONENTS

HICF Axial Fan

Standard: EN 55032:2015; EN61000-3-2:2014; EN61000-3-3:2013;

Accessories			
Picture	Commercial reference	Description	Size
 Metal protection net	HICFG80	Metal protection net, Suitable for 80mm fan	80MM
	HICFG90	Metal protection net, Suitable for 92mm fan	90MM
	HICFG110	Metal protection net, Suitable for 110mm fan	110MM
	HICFG120	Metal protection net, Suitable for 120mm fan	120MM
	HICFG150	Metal protection net, Suitable for 150-160mmfan	150MM
	HICFG200	Metal protection net, Suitable for 200-210mm fan	200MM
 Filter net	HICFF80	Filter net, Suitable for 80mm fan	80MM
	HICFF92	Filter net, Suitable for 90mm fan	90MM
	HICFF120	Filter net, Suitable for 120mm fan	120MM
	HICFF170	Filter net, Suitable for 170×50 150×50mm fan	150MM
	HICFF200	Filter net, Suitable for 200mm fan	200MM
 Three in one dustproof net	HICFD80	Three in one dustproof net for 80mm fan	80MM
	HICFD90	Three in one dustproof net for 92mm fan	90MM
	HICFD120	Three in one dustproof net for 120mm fan	120MM
	HICFD150	Three in one dustproof net for 160mm fan	150MM
	HICFD200	Three in one dustproof net for 210mm fan	200-210mm

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



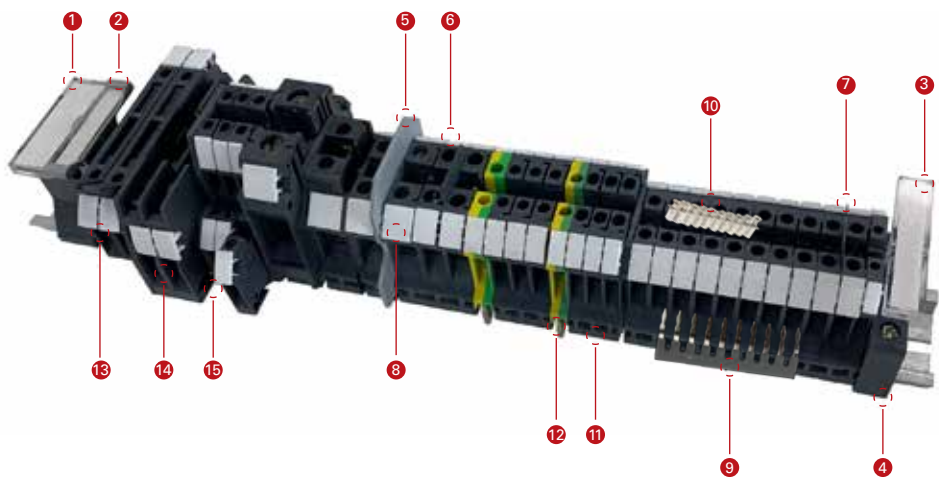
Range Presentation:

HICTUK series terminal is designed for distribution box and control panels. It offers the terminal blocks from 1.5mm²-95mm². Except general terminal block, it also contains the ground terminal block, test terminal block, double-level flange terminal block, and fuse modular terminal block. Accessories like marker bar, spacer plate, fixed bridge and side bridge are also available which making connecting wires easier.

Features:

- ◆ **High quality nickle plated copper material:**
Excellent wear resistance and corrosion resistance, good conductivity
- ◆ **Strong shell with good engineering plastics:** Flame retardant, high temperature resistant, firm and safe
- ◆ **Plenty of connection blocks and accessories:**
Maximum flexibility

Product Appearance



Online Content



HICTUK

Accessories		Terminal blocks
1 Big marker clip	6 Big spacer	11 General terminal block
2 Small marker clip	7 Small spacer	12 Installation ground terminal block
3 Transparent marker clip	8 Blank marker bar	13 Fuse modular terminal block
4 HICTUK fixings	9 Side insert bridge connector	14 Test terminal block
5 Spacer plate	10 Fixed Bridge connector	15 Double-level flange terminal block

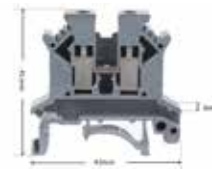
Selection Code

Series name	Connection ability	Terminal block type
HICTUK	3	N
HICTUK: Terminal blocks	1P5: 1.5mm ² 2P5: 2.5mm ² 3: 3mm ² 5: 5mm ² 6: 6mm ² 10: 10mm ² 35: 35mm ² 50: 50mm ² 95: 95mm ²	General Type: N(1P5,3,5,6,10,35,50,95),B(2P5); Ground terminal: JD (From 2P5 to 35); Double-level terminal: K3; K5; KB5(KB5-Both layer can be bridged) Test terminal: T; (Just 6T) Fuse modular terminal: HESI (Just 5HESI)

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



Technical Parameter						
Product Type	HICTUK series general terminal block					
Product reference	HICTUK1P5N	HICTUK2P5B	HICTUK3N	HICTUK5N	HICTUK6N	HICTUK10N
cable cross section(mm ²)	0.14-1.5	0.2-2.5	0.2-2.5	0.2-4	0.2-6	0.5-10
cable cross section(AWG)	26-16	24-12	24-12	24-10	24-8	20-6
In rated current (A)	17.5	24	24	32	41	57
Ue rated operational voltage (V)	500V	800V	800V	800V	800V	800V
Dielectric strength (V)	500V	800V	800V	800V	800V	800V
Product size (Length*Width*Height) (mm*mm*mm)	42.5*4.2*41	42.5*6.2*41	42.5*5.2*46	42.5*6.2*46	42.5*8.2*46	42.5*10.2*46
Installation mode	NS32, NS35					
connections - terminals	M2	M3	M3	M3	M4	M4
Tightening torque(N.m)	0.22-0.25 N.m	0.6-0.8 N.m	0.6-0.8 N.m	0.6-0.8 N.m	1.5-1.8 N.m	1.5-1.8 N.m
Wire stripping length(mm)	7	7	8	8	10	10
Insulation material	PA					
Flame retardance	V2					
Ambient air temperature for operation (°C)	-40 ~100					



HICTUK2P5G



HICTUKFB12P5B



HICTUKEB2P5BD



HICTUKTSK



HICTUKATP



HICTUKW

Accessories Reference:						
Spacer plate	HICTUK2P5G		HICTUK3N10NG			
Fixed bridge	-	HICTUKFB12P5B	HICTUKFB13N	HICTUKFB12P5B	HICTUKFB16N	HICTUKFB110N
Side insert bridge	-	HICTUKEB2P5BD	HICTEB103N	HICTUKEB2P5BD	-	-
Spacer	-	HICTUKTSKK3	HICTUKTSK			
Block sort	HICTUKATP					
Fixing	HICTUKW					
Transparent marker clip	HICTUKLMAT					
Big marker clip	HICTUKB2					
Small marker clip	HICTUKB1					
Blank marker bar	HICTUK1P5NZB4	HICTUK 2P5N5NZB6	HICTUK3NZB5	HICTUK 2P5N5NZB6	HICTUK6NZB8	HICTUK10NZB10
Printed marker bar	-	HICTUK 2P5N5NZB6M	HICTUK3NZB5M	HICTUK 2P5N5NZB6M	HICTUK6NZB8M	HICTUK10NZB10M

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



Technical Parameter

Product Type	HICTUK series general terminal block			
Product reference	HICTUK16N	HICTUK35N	HICTUK50N	HICTUK95N
cable cross section(mm ²)	2.5-16	10-35	16-50	35-95
cable cross section(AWG)	14-4	8-2	6-2/0	4-3/0
In rated current (A)	76	125	150	232
Ue rated operational voltage (V)	800V	800V	1000V	1000V
Dielectric strength (V)	800V	1000V	1000V	1000V
Product size (Length*Width*Height) (mm*mm*mm)	42.5*12.2*53	50*16*62	70.5*20*77	84*25*90.5
Installation mode	NS32, NS35			
connections - terminals	M4	M6	M6	M8
Tightening torque(N.m)	1.5-1.8 N.m	3.2-3.7N.m	6-8N.m	15-20N.m
Wire stripping length(mm)	11	16	24	33
Insulation material	PA			
Flame retardance	V2			
Ambient air temperature for operation (°C)	-40 ~100			



HICTUKLMAT



HICTUKB2



HICTUKB1



HICTUK3NZB5



HICTUK3NZB5 M

Accessories reference

Spacer plate	HICTUK16NG	-	-	-
Fixed bridge	HICTUKFB116N	HICTUKFB135N	-	-
Side insert bridge	-	-	-	-
Spacer	HICTUKTSK		-	-
Block sort	HICTUKATP	-	-	-
Fixing	HICTUKW			
Transparent marker clip	HICTUKLMAT			
Big marker clip	HICTUKB2			
Small marker clip	HICTUKB1			
Blank marker bar	HICTUK16NZB12			
Printed marker bar	HICTUK16NZB12M			

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



Technical Parameter							
Product Type	HICTUK Series installation ground terminal block						
Product reference	HICTUK2P5JD	HICTUK3JD	HICTUK5JD	HICTUK6JD	HICTUK10JD	HICTUK16JD	HICTUK35JD
cable cross section(mm ²)	0.2-2.5	0.2-2.5	0.2-4	0.2-6	0.5-10	2.5-16	10-35
cable cross section(AWG)	24-12	24-12	24-10	24-8	20-6	14-4	8-2
In rated current (A)	24	24	32	41	57	76	125
Ue rated operational voltage (V)	-	-	-	-	-	-	-
Dielectric strength (V)	-	-	-	-	-	-	-
Product size (Length*Width*Height) (mm*mm*mm)	42.5*6.2*41	42.5*5.2*46	42.5*6.2*46	42.5*8.2*46	42.5*10.2*46	42.5*12.2*53	50.5*14.8*61.5
Installation mode	NS32,NS35						
Connections - terminals	M3	M3	M3	M4	M4	M4	M6
Cable cross section(mm ²)	0.2-2.5	0.2-2.5	0.2-4	0.2-6	0.5-10	2.5-16	10-35
Tightening torque(N.m)	0.6-0.8 N.m	0.6-0.8 N.m	0.6-0.8 N.m	1.5-1.8 N.m	1.5-1.8 N.m	1.5-1.8 N.m	3.2-3.7N.m
Wire stripping length(mm)	7	8	8	10	10	11	16
Insulation material	PA						
Flame retardance	V2						
Ambient air temperature for operation(°C)	-40 ~100						



HICTUK2P5G



HICTUKFB12P5B



HICTUKEB2P5BD



HICTUKTSK



HICTUKATP



HICTUKW

Accessories Reference						
Spacer plate	-					
Fixed bridge	-					
Side insert bridge	-					
Spacer	-					
Fixing	HICTUKW					
Transparent marker clip	HICTUKLMAT					
Big marker clip	HICTUKB2					
Small marker clip	HICTUKB1					
Blank marker bar	HICTUK 2P5N5NZB6	HICTUK 3NZB5	HICTUK 2P5N5NZB6	HICTUK 6NZB8	HICTUK 10NZB10	HICTUK16NZB12
Printed marker bar	HICTUK 2P5N5NZB6M	HICTUK 3NZB5M	HICTUK 2P5N5NZB6M	HICTUK 6NZB8M	HICTUK 10NZB10M	HICTUK16NZB12M

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



Technical Parameter					
Product Type	HICTUK series Fuse modular terminal block	HTCTUK series Test terminal block	HICTUK series Double-level flange terminal block		
Product reference	HICTUK5HESI	HICTUK6T	HICTUKK3	HICTUKK5	HICTUKKB5
cable cross section(mm ²)	0.2-4	0.2-6	0.2-2.5	0.2-4	0.2-4
cable cross section(AWG)	24-12	24-8	24-12	24-10	24-10
In rated current (A)	6.3	41	2.5	4	4
Ue rated operational voltage (V)	500V	500V	500V	500V	500V
Dielectric strength (V)	500V	500V	500V	500V	500V
Product size (Length*Width*Height) (mm*mm*mm)	72.5*8.2*56	72.5*8.2*51.5	57*5.2*61	57*6.2*61	68*6.2*61
Installation mode	NS32,NS35				
Connections - terminals	M3	M4	M3	M3	M3
Cable cross section(mm ²)	0.2-4	0.2-6	0.2-2.5	0.2-4	0.2-4
Tightening torque(N.m)	0.6-0.8 N.m	1.5-1.8 N.m	0.6-0.8 N.m	0.6-0.8 N.m	0.6-0.8 N.m
Wire stripping length(mm)	8	13	8	8	8
Insulation material	PA				
Flame retardance	V2				
Ambient air temperature for operation(°C)	-40 ~100				



HICTUKLMAT



HICTUKB2



HICTUKB1



HICTUK3NZB5

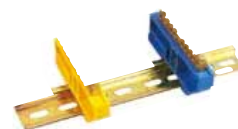


HICTUK3NZB5 M

Accessories Reference					
Spacer plate	-	HICTUK6TG	HICTUKK3G		-
Fixed bridge	-	HICTUKFB1RTKS	HICTUKFB13N	HICTUKFB12P5B	-
Side insert bridge	-	-	HICTUKEB2P5BD	HICTEB103N	-
Spacer	-	-	HICTTSKK3		
Fixing	HICTUKW				
Transparent marker clip	HICTUKLMAT				
Big marker clip	HICTUKB2				
Small marker clip	HICTUKB1				
Blank marker bar	HICTUK6NZB8	HICTUK6NZB8	HICTUK3NZB5	HICTUK2P5N5NZB6	HICTUK2P5N5NZB6
Printed marker bar	HICTUK6NZB8M	HICTUK6NZB8M	HICTUK3NZB5M	HICTUK2P5N5NZB6M	HICTUK2P5N5NZB6M

HTB Brass Terminal Blocks

Standard: EN 61439-6



Range Presentation

HTB is Himel range of Brass Terminal Blocks designed for distribution box, distribution cabinet, lighting box, etc.

Features

- ◆ Brass with high strength, greater hardness, good wear resistance, high carrying capacity, easy wiring, not easy to oxidize
- ◆ Wide choice of thickness and width

Online Content



HTB

Selection Code

Range name	Type	Cross section	Number of holes	*Color of holder	Reference	Hole diameter (mm)	Installation dimension (mm)	Overall dimension (mm)
HTB	010	0609	W4	Y				
	010: 010 typ	0609: 6mm*9mm	W4: 4 holes W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	Y: Yellow B: Blue	HTB0100609W4* HTB0100609W6* HTB0100609W8* HTB0100609W10* HTB0100609W12* HTB0100609W14* HTB0100609W16*	5.2	35x7.5	88.5x12.1 88.5x12.1 88.5x12.1 88.5x12.1 90.5x12.1 103.5x12.1 116.5x12.1
		0812: 8mm*12mm	W4: 4 holes W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	Y: Yellow B: Blue	HTB0100812W4* HTB0100812W6* HTB0100812W8* HTB0100812W10* HTB0100812W12* HTB0100812W14* HTB0100812W16*	6		88.5x12.1 88.5x12.1 88.5x12.1 88.5x12.1 102.5x12.1 117.5x12.1 132x12.1

Range name	Type	Cross section	Number of holes	*Color of holder	Reference	Hole diameter (mm)	Installation dimension (mm)	Overall dimension (mm)
HTB	019	0609	W4	B				
	019: 019 type	0609: 6mm*9mm	W4: 4 holes W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	B: Blue G: Green	HTB0190609W4* HTB0190609W6* HTB0190609W8* HTB0190609W10* HTB0190609W12* HTB0190609W14* HTB0190609W16*	5.2	64.5 77.5 90.5 103.5 116.5 129.5 142.5	76.5x12.5 89.5x12.5 102.5x12.5 115.5x12.5 128.5x12.5 141.5x12.5 154.5x12.5
		0812: 8mm*12mm	W4: 4 holes W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	B: Blue G: Green	HTB0190812W4* HTB0190812W6* HTB0190812W8* HTB0190812W10* HTB0190812W12* HTB0190812W14* HTB0190812W16*	6	71.5 86.5 101.5 116.5 131.5 146.5 161.5	84.5x12.5 99.5x12.5 114.5x12.5 129.5x12.5 144.5x12.5 159.5x12.5 174.5x12.5

HTB Brass Terminal Blocks

Standard: EN 61439-6



Selection Code

Range name	Type	Cross section	Number of holes	Reference	Hole diameter (mm)	Screw dimension (mm)
HTB	112	W2	P7			
	112: 112 type	W2: 2 lines	P7: 7 holes	HTB112W2P7	65*45*51	45xM4
		W2: 2 lines	P15: 15 holes	HTB112W2P15	132*45*51	112xM4
		W4: 4 lines	P7: 7 holes	HTB112W4P7	65*88*51	45xM4
		W4: 4 lines	P11: 11 holes	HTB112W4P11	100*88*51	80xM4
		W4: 4 lines	P15: 15 holes	HTB112W4P15	132*88*51	112xM4

HTB007 DELETED

HTB043 DELETED

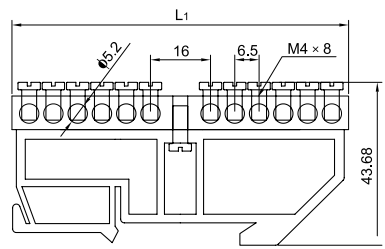
HTB Brass Terminal Blocks

Standard: EN 61439-6

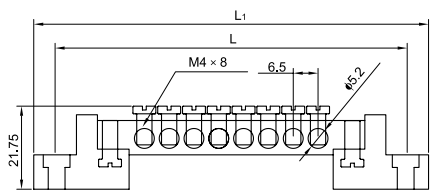


Technical Parameters			
Type	HTB010	HTB019	HTB112
Hole	4, 6, 8, 10, 12, 14, 16	4, 6, 8, 10, 12, 14, 16	2x7, 2x15, 4x7, 4x11, 4x15
Hole diameter (mm)	5.2, 6	5.2, 6	5.2
Screw dimension (mm)	M4*8, M5*10	M4*8, M5*10	M4
Max current(A)	100, 150	100, 150	125

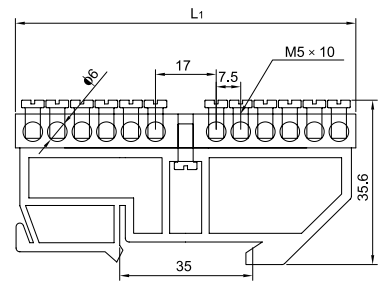
Dimensions



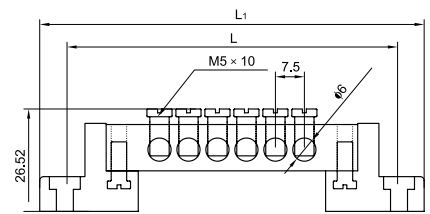
HTB0100609



HTB0190609



HTB0100812



HTB0190812

CONTROL COMPONENTS

HCF Cable Connectors

Standard: EN 60947-1



Range Presentation

HCF is Himel range of Cable Connectors designed for fixing cables of control panel, power distribution box, machine, electrical appliance, etc.

Online Content



HCF

Selection Code

Range name	Thread type	Thread external diameter (mm)	IP	Color	Reference		Cable range (mm)	Panel hole (mm)	Thread length (mm)	Spanner size A&F
HCF	MG	12	IP68	W						
	MG: Metric	12:12	IP68	B: Black W: Gray	HCFMG12IP68B	HCFMG12IP68W	7.6-4.6	12.5	8.5	18/19
		16:16			HCFMG16IP68B	HCFMG16IP68W	10-6	16.5	15	22/22
		20:20			HCFMG20IP68B	HCFMG20IP68W	14-9	20.5	15	27/27
		25:25			HCFMG25IP68B	HCFMG25IP68W	18-13	25.5	15	33/33
		32:32			HCFMG32IP68B	HCFMG32IP68W	25-18	33	15	41/41
		40: 40			HCFMG40IP68B	HCFMG40IP68W	30-24	41	20	50/50
		50: 50			HCFMG50IP68B	HCFMG50IP68W	41-30	51	22	62/62
		63: 63			HCFMG63IP68B	HCFMG63IP68W	51-40	64	25	75/75
		PG: German			7: 7	IP54	W: Gray	-	HCFPG7IP54W	7-3.5
	9: 9		-	HCFPG9IP54W	8-4.5			15.2	8.5	22/19
	11: 11		-	HCFPG11IP54W	10.5-6			18.6	9	24/22
	13: 13		-	HCFPG135IP54W	12.5-7.5			20.4	9.6	27/24
	16:16		-	HCFPG16IP54W	14-8.5			22.5	10	30/27
	21: 21		-	HCFPG21IP54W	18-12.5			28.3	12	36/33
	29: 29		-	HCFPG29IP54W	25-18			37	15	46/41
	36: 36		-	HCFPG36IP54W	30-23			47	15	57/50
	42: 42		-	HCFPG42IP54W	39-30			54	15.5	64/62
	48: 48		-	HCFPG48IP54W	45-35			59.3	15.5	70/65

Technical Parameters

Cable Connectors	HCF
Thread specification	Metric Standard/ German Standard
Material	Nylon 66
Working temperature	-40°C~+100°C
Max temperature in short interval	+120°C
Installation	Standard threaded hole
Colour	Black & gray

CONTROL COMPONENTS

HDIN DIN Rail

Standard: EN 60947-1



Range Presentation

Himel DIN Rail offers unparalleled flexibility in the systematic mounting of electrical components. With strong support for circuit breakers, terminal blocks, relays, contactors, etc. you get optimum space for efficient heat dissipation.

Online Content



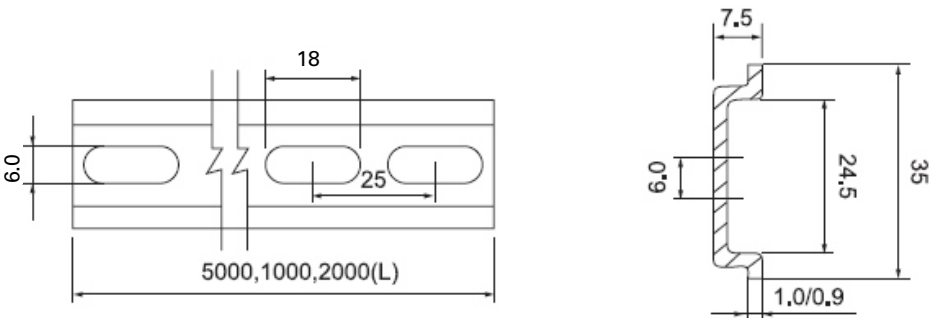
HDIN

Selection Code

Range Name	Material	Length
HDIN	02T	1000
HDIN: Thickness (mm) 1.0 DIN Rail 	02T: Aluminum 12T: Steel	1000: 1000mm 2000: 2000mm

Overall Dimensions

Unit: mm



Industrial Plugs & Sockets

Standard: IEC60309-1; IEC60309-2



HIPS Industrial Plugs & Sockets

Aviation quality, safe and durable

**UP TO 10-YEARS LIFE**

- Nickel-plated H59 copper with high oxidation and corrosion resistance
- Passed 96 hours salt spray test
- RoHS 2.0 certification

**ROBUST & DURABLE**

- PA66 + PA6 mixed patented material case
- Flame retardant up to 850°C
- High IP level, IP67/44

**QUICKER ASSEMBLY**

- Stainless-steel shrapnel, easy to plug and install
- Prevents scratches when wiring



**STRONG OVERLOAD CAPACITY (UP TO 200%)**

- Low temperature rise ensures minimal power loss
- Wide temperature range -25°C ~ 80°C

**RELIABLE WIRING**

- Strong tensile resistance with more threads and cable
- Dirt preventing soft elastomer

CONTROL COMPONENTS

Industrial Plugs & Sockets

Standard: IEC60309-1; IEC60309-2



Range Presentation:

HIPS series is a new generation Industrial Plug and Socket design. Faster to plug and install, they provide better stability, widely used in outdoor and other harsh environments like docks, construction sites, farms, airports, and electric vehicle charging stations etc. HIPS series product line covers moving and fixed plugs and sockets.

Features:

- ◆ **Nickel-plated copper conductor:**
Excellent wear and corrosion resistance, withstand 50000 times of plugging.
- ◆ **High-quality flame retardant PA shell:**
Strong impact resistance, UV resistance and flame retardant, high durability in tough conditions
- ◆ **Snap on design for plug and connector:**
convenient for disassembly and assembly

Online Content



HIPS

Selection Code

Range name	Type	Poles	Rated current	Protection level	Rated voltage	Reference	
HIPS	0	3	16	IP44 IP67	3		
	0- Moving industry plug	3: 2P+E 4: 3P+E 5: 4P+E	16: 16A 32: 32A 64: 63A (IP67 only) 125: 125A (IP67 only)	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS0316IP443 HIPS0332IP443 HIPS0416IP444 HIPS0432IP444 HIPS0516IP445 HIPS0532IP445	HIPS0316IP673 HIPS0332IP673 HIPS0363IP673 HIPS03125IP673 HIPS0416IP674 HIPS0432IP674 HIPS0463IP674 HIPS04125IP674 HIPS0516IP675 HIPS0532IP675 HIPS0563IP675 HIPS05125IP675
	1-Surface mounted industry socket	3: 2P+E 4: 3P+E 5: 4P+E	16: 16A 32: 32A 63: 63A (IP67 only) 125: 125A (IP67 only)	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS1316IP443 HIPS1332IP443 HIPS1416IP444 HIPS1432IP444 HIPS1516IP445 HIPS1532IP445	HIPS1316IP673 HIPS1332IP673 HIPS1363IP673 HIPS13125IP673 HIPS1416IP674 HIPS1432IP674 HIPS1463IP674 HIPS14125IP674 HIPS1516IP675 HIPS1532IP675 HIPS1563IP675 HIPS15125IP675

CONTROL COMPONENTS

Industrial Plugs & Sockets

Standard: IEC60309-1; IEC60309-2

Range name	Type	Poles	Rated current	Protection level	Rated voltage	Reference	
HIPS	0	3	16	IP44	3		
     	2-Moving industry socket	3: 2P+E 4: 3P+E 5: 4P+E	16: 16A 32: 32A 63: 63A (IP67 only) 125: 125A (IP67 only)	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS2316IP443 HIPS2332IP443 HIPS2416IP444 HIPS2432IP444 HIPS2516IP445 HIPS2532IP445	HIPS2316IP673 HIPS2332IP673 HIPS2363IP673 HIPS23125IP673 HIPS2416IP674 HIPS2432IP674 HIPS2463IP674 HIPS24125IP674 HIPS2516IP675 HIPS2532IP675 HIPS2563IP675 HIPS25125IP675
	3-Concealed fixed industry socket	3: 2P+E 4: 3P+E 5: 4P+E	16: 16A 32: 32A 63: 63A (IP67 only) 125: 125A (IP67 only)	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS3316IP443 HIPS3332IP443 HIPS3416IP444 HIPS3432IP444 HIPS3516IP445 HIPS3532IP445	HIPS3316IP673 HIPS3332IP673 HIPS3363IP673 HIPS33125IP673 HIPS3416IP674 HIPS3432IP674 HIPS3463IP674 HIPS34125IP674 HIPS3516IP675 HIPS3532IP675 HIPS3563IP675 HIPS35125IP675
	5-Concealed fixed industry plug	3: 2P+E 4: 3P+E 5: 4P+E	16: 16A 32: 32A 63: 63A (IP67 only) 125: 125A (IP67 only)	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS5316IP443 HIPS5332IP443 HIPS5416IP444 HIPS5432IP444 HIPS5516IP445 HIPS5532IP445	HIPS5316IP673 HIPS5332IP673 HIPS5363IP673 HIPS53125IP673 HIPS5416IP674 HIPS5432IP674 HIPS5463IP674 HIPS54125IP674 HIPS5516IP675 HIPS5532IP675 HIPS5563IP675 HIPS55125IP675

Industrial Plugs & Sockets

Standard: IEC 60309-1-2



Range Presentation

HDPM, HDP, HDSM, HDSF, HDPS are Himel ranges of Industrial Plugs and Sockets designed for quick disassembly and assembly of electrical connection. They are mainly used in OEM industry and temporary power supply.

Features

- ◆ Waterproof and dustproof.
- ◆ Long mechanical life and durability

Selection Code

Range name	Pole no	Rated current	IP	Rated voltage	Reference	
HDPM	3	32	IP44	1		
HDPM: Moving industrial plugs 	3: 2P+E 	16: 16A 32: 32A	IP44: IP44	1: 110~130V	HDPM316IP441 HDPM332IP441	
	4: 3P+E 			Default: 230~250V	HDPM316IP44 HDPM332IP44	
	5: 3P+N+E 			Default: 400~415V	HDPM416IP44 HDPM432IP44	
	Default: 230~400V			HDPM516IP44		
	Default: 240~415V			HDPM532IP44		
	3: 2P+E 	63: 63A	IP67: IP67	Default: 230~250V	HDPM363IP67	
	4: 3P+E 			Default: 400~415V	HDPM463IP67	
	5: 3P+N+E 			Default: 230~400V	HDPM563IP67	
	125: 125A	Default: 240~415V		HDPM5125IP67		
	HDP: Fixed industrial plugs 	3: 2P+E 	16: 16A 32: 32A	IP44: IP44	1: 110~130V	HDP316IP441 HDP332IP441
4: 3P+E 		Default: 230~250V			HDP316IP44 HDP332IP44	
5: 3P+N+E 		Default: 400~415V			HDP416IP44 HDP432IP44	
Default: 230~400V		HDP516IP44				
Default: 240~415V		HDP532IP44				
3: 2P+E 		63: 63A	IP67: IP67	Default: 230~250V	HDP363IP67	
4: 3P+E 				Default: 400~415V	HDP463IP67	
5: 3P+N+E 				Default: 230~400V	HDP563IP67	
HDSM: Moving Industrial sockets 		3: 2P+E 		16: 16A 32: 32A	IP44: IP44	1: 110~130V
		4: 3P+E 	Default: 230~250V			HDSM316IP44 HDSM332IP44
	5: 3P+N+E 	Default: 400~415V	HDSM416IP44 HDSM432IP44			
	Default: 230~400V	HDSM516IP44				
	Default: 240~415V	HDSM532IP44				
	3: 2P+E 	63: 63A 125: 125A	IP67: IP67	Default: 230~250V	HDSM363IP67 HDSM3125IP67	
	4: 3P+E 			Default: 400~415V	HDSM463IP67 HDSM4125IP67	
	5: 3P+N+E 			Default: 230~400V	HDSM563IP67	
	Default: 240~415V			HDSM5125IP67		

CONTROL COMPONENTS

Industrial Plugs & Sockets

Standard: IEC 60309-1-2



HDSF: Fixed industrial sockets



3: 2P+E 	16: 16A 32: 32A	IP44: IP44	1: 110~130V Default: 230~250V Default: 400~415V Default: 230~400V Default: 240~415V	HDSF316IP441 HDSF332IP441
				HDSF316IP44 HDSF332IP44
				HDSF416IP44 HDSF432IP44
				HDSF516IP44
				HDSF532IP44
				HDSF363IP67 HDSF3125IP67
3: 2P+E 	63: 63A 125: 125A	IP67: IP67	Default: 230~250V Default: 400~415V Default: 230~400V Default: 240~415V	HDSF463IP67 HDSF4125IP67
				HDSF563IP67
				HDSF5125IP67

Range Name	Input and Output	Rated Current	Rated Voltage	Reference	Pole no.
HDPS	3	16	230		
HDPS: Multi-function plugs and sockets 	3: 1 Plug & 2 Sockets	16: 16A	230: 230V 110: 110V	HDPS316230 HDPS316110	2P+E
	4: 1 Plug & 3 Sockets		230: 230V 110: 110V	HDPS416230 HDPS416110	

Technical Parameters

Industrial Plugs & Sockets	HDPM, HDP, HDSM, HDSF, HDPS
Connecting type	Fixed, moving, multi-function
Pole	2P+E, 3P+E, 3P+N+E
Voltage	110-415V, 230V
Current	16A, 32A, 63A, 125A
Standard	IEC 60309-1-2

Online Content



HDP

HDT Time relay

Standard: IEC60947-4



Range presentation

This product is suitable for AC 50Hz/60Hz and DC control circuit and for control circuit with an AC voltage up to 230V and DC voltage up to 240V as a time control element to power on or off the circuit according to the scheduled time.

Features

- Wide delay range(0.1s-10d)
- LED display status
- 18mm width saves space
- 35mm rail installation

Selection code

Range Names	Delay function	Number of output contact sets	Delay time	Rated control power voltage
HDT8	A	1	10D	230AC
	A:Power on	1: 1 set of delay transfer contacts 2: 2 set of delay transfer contacts 3: 1 set of delay transfer contacts + 1 set of instantaneous transfer contacts	10d: 0.1s~10d	230AC: AC 230V 240AD: AC/DC 12V-240V
	B:Power off			

Reference list

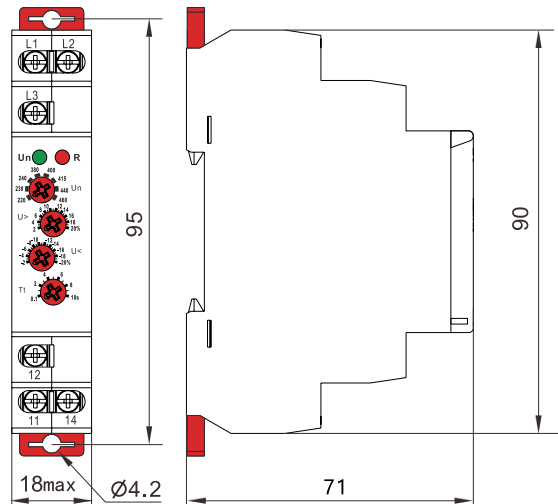
Reference	Delay function	Number of output contact sets	Delay time	Control power voltage
HDT8A110D230AC	Power on delay	1 set of delay transfer contacts	0.1s-10d	AC230V
HDT8A110D240AD	Power on delay	1 set of delay transfer contacts	0.1s-10d	AC/DC 12V-240V
HDT8A210D230AC	Power on delay	2 set of delay transfer contacts	0.1s-10d	AC230V
HDT8A210D240AD	Power on delay	2 set of delay transfer contacts	0.1s-10d	AC/DC 12V-240V
HDT8A310D230AC	Power on delay	1 set of instantaneous contact 1 set of delayed transfer contact	0.1s-10d	AC230V
HDT8A310D240AD	Power on delay	1 set of instantaneous contact 1 set of delayed transfer contact	0.1s-10d	AC/DC 12V-240V
HDT8B110D230AC	Power off delay	1 set of delay transfer contacts	0.1s-10d	AC230V
HDT8B110D240AD	Power off delay	1 set of delay transfer contacts	0.1s-10d	AC/DC 12V-240V
HDT8B210D230AC	Power off delay	2 set of delay transfer contacts	0.1s-10d	AC230V
HDT8B210D240AD	Power off delay	2 set of delay transfer contacts	0.1s-10d	AC/DC 12V-240V
HDT8B310D230AC	Power off delay	1 set of instantaneous contact 1 set of delayed transfer contact	0.1s-10d	AC230V
HDT8B310D240AD	Power off delay	1 set of instantaneous contact 1 set of delayed transfer contact	0.1s-10d	AC/DC 12V-240V

HDT Time relay

Standard: IEC60947-4



Outline dimension diagram



Technical Parameters

	HDT8A1/A2	HDT8A3	HDT8B1/B2	HDT8B3
Timer Description	On delay	On delay	Off delay	Off delay
Functional Diagram				
Supply Voltage	230V AC/12V-240V AD			
Supply Variation	-15%;+10%			
Frequency	50/60 Hz			
Power Consumption	AC/DC12V-240V: AC 0.09-3VA/DC 0.05-1.7WAC220V: AC max 6VA/1.9W			
Timing Ranges	0.1s-10D			
Reset Time	> 200ms			
Setting Accuracy	±10%			
Repeat Accuracy	0.2%			
Relay Output	1CO/2CO	1 set of instantaneous contact 1 set of delayed transfer contact	1CO/2CO	1 set of instantaneous contact 1 set of delayed transfer contact
Contact Rating	250VAC/24VDC 16A			
Electrical Life	1*10 ⁵			
Mechanical Life	1*10 ⁷			
Utilization Category	Ith 16A;AC-15 Ue/Ie: 250V/5A			
Operating Temperature	-20°~+55°			
Storage Temperature	-30°~+75°			
Humidity (Non Condensing)	95% Rh			
LED Indication	Green LED Power ON, Red LED Relay ON			
Shell	Flame Retardant			
Method of Installation	DIN Rail			
Certification	CE			

HMT mechanical time relay

Standard: IEC60947-4



Range presentation

Mechanical time relays is suitable for controlling street lamps, advertising light boxes, household power supplies, etc. It can be set or programmed to control the switch of electrical appliances within 24 hours and save energy.

Features

- Set the cycle time to 24 hours.
- 48/96 instructions can be edited per day
- The minimum interval time is 15/30 minutes.
- Manual or automatic control

Technical Parameters

Technical Parameters			HMT160	HMT388	HMT161
					
Rated voltage			220V	220V	220V
voltage range			100V-240V	100V-240V	100V-240V
Frequency			50/60HZ	50/60HZ	50/60HZ
Power consumption			1W	2W<	2.5W
Time precision			±3sec/day at 22℃	±3sec/day at 22℃	±3sec/day at 22℃
Cycle			24H	24H	24H
load	Circuit		Separate circuit (voltage is notapplied to the load circuit)	Separate circuit (voltage is notapplied to the load circuit)	Separate circuit (voltage is notapplied to the load circuit)
	Switch construction		SPST	SPST	SPST
	Manual ON/OFF		ON/AUTO/OFF switch	ON/AUTO/OFF switch	ON/AUTO/OFF switch
	Capacity	Resistive load	16A	16A	15A
		Inductive(cosΦ=0.7)	12A	12A	12A
setting	Present time setting		Turn the dial till the index is in the present time	Turn the dial till the index is in the present time	Turn the dial till the index is in the present time
	ON/OFF program setting		15M	15M	30M
	Minimum unit		15M	15M	30M
	Minimum interval		15M	15M	30M
	No.of ON/OFF operations		96	48	48
Electrical life			10 ⁵	10 ⁵	10 ⁵
Operating Temperature			-10℃ ~ +50℃	-10℃ ~ +50℃	-10℃ ~ +50℃
Humidity			Max.85%	Max.85%	Max.85%

CONTROL COMPONENTS

HPR protect relay

Standard: IEC60947-4



Range Presentation

The HPR self recovering overvoltage and undervoltage protector is a new type of intelligent protective electrical device. The product adopts modular standard design. When the circuit experiences overvoltage/undervoltage or overcurrent, the protector can quickly and safely cut off the circuit under continuous high-voltage impact, avoiding accidents caused by abnormal voltage and current entering the terminal electrical device. When the voltage returns to normal, the protector will automatically connect the circuit within the specified time.

Features

- Display voltage and current status in real time
- Instantaneous protection, action time < 1s
- Wide voltage protection range
- Guide-rail installation

Selection code

Range Names	Single phase/Three phase	Function code	Current
HPR	S	V	32A
	S :single phase T :Three phase	V :Voltage protection VA :Voltage and current protection	32A 40A 63A

Reference list

Reference	Single phase or Three phase	Function	Current
HPRSV63	Single phase	Voltage protector	63A
HPRSVA32	Single phase	Voltage & current protector	32A
HPRSVA40	Single phase	Voltage & current protector	40A
HPRSVA63	Single phase	Voltage & current protector	63A
HPRTVA63	Three phase	Voltage & current protector	63A

CONTROL COMPONENTS

HPR protect relay

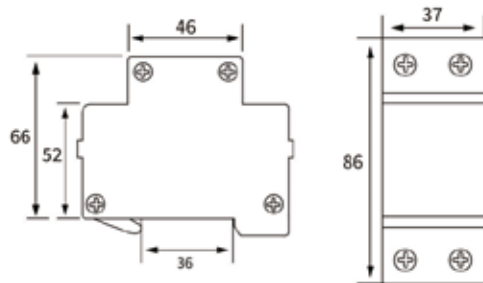
Standard: IEC60947-4



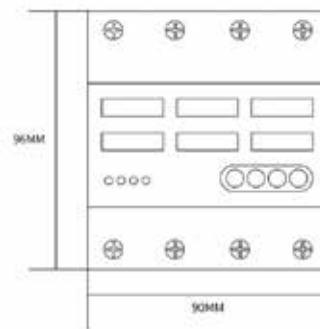
Technical Parameters

Technical Parameters	HPRSVA63	HPRSV63	HPRTVA63
Operation voltage	AC80-300V(single phase)	AC80-300V(single phase)	AC80-300V(single phase)
Rated frequency	50/60HZ	50/60HZ	50/60HZ
Electric current setting range	1-63A	/	1-63A
Overvoltage setting range	130-300V	230-300V	130-300V
Undervoltage setting range	80-210V	80-210V	80-210V
Accuracy	±1%	±1%	±1%
Trip delay	0.1-10s	0.1-99.9s	0.1-10s
Reset/start delay	1-999s	1-600s	1-999s
Rated insulation voltage	400V	400V	400V
Output contact	1NO	1NO	1NO
Electrical life	1,000,000	1,000,000	1,000,000
Mechanical life	10,000,000	10,000,000	10,000,000
Protection	IP20	IP20	IP20
Pollution degree	3	3	3
Altitude	≤2000m	≤2000m	≤2000m
Operating Temperature	-20°~+55°	-20°~+55°	-20°~+55°
Storage Temperature	-30°~+75°	-30°~+75°	-30°~+75°

Outline dimension diagram



Single phase



Three phase

HWSD Weatherproof Switched Isolator IP66

Standard IEC 60947-3



Range Presentation

HWSD is Himel range of weatherproof switched isolator designed to provide complete protection in the harshest weather conditions and suitable for all external applications.

Application

- ◆ Lighthouse
- ◆ Construction site
- ◆ Power station

Selection code

Range Names	Poles	Current
HWSD	1	20
	1: 1 pole 2: 2 pole 3: 3 pole 4: 4 pole	20: 20A 35: 35A 63: 63A

Technical Specification	
Standard Specifications	IEC60947-3
Number of poles	1P & 2P & 3P & 4P
Rated operational current	20A,35A,63A
Rated operational voltage	1P: 250V 2P/4P: 250V/440V 3P: 440v
Rated insulation voltage	630V
Rated frequency	50/60Hz
Rated utilization	AC-22A/AC-23A(20A,35A) AC-22A(63A)
Rated impulse withstand voltage	2500V
Pollution degree	3
Degree of protection	IP66
Certificate	CB certificate

CONTROL COMPONENTS

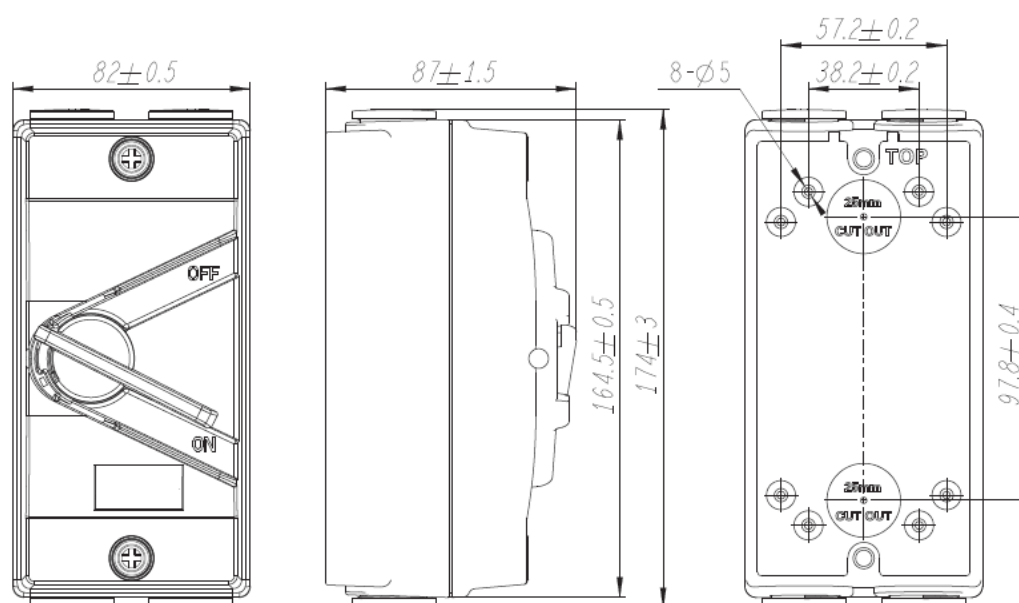
HWSD Weatherproof Switched Isolator IP66

Standard IEC 60947-3

Order details

Commerical reference	Description
HWSD120	Weatherproof switched isolator 1P 20A IP66 250V
HWSD135	Weatherproof switched isolator 1P 35A IP66 250V
HWSD163	Weatherproof switched isolator 1P 63A IP66 250V
HWSD220	Weatherproof switched isolator 2P 20A IP66 250V/440V
HWSD235	Weatherproof switched isolator 2P 35A IP66 250V/440V
HWSD263	Weatherproof switched isolator 2P 63A IP66 250V/440V
HWSD320	Weatherproof switched isolator 3P 20A IP66 440V
HWSD335	Weatherproof switched isolator 3P 35A IP66 440V
HWSD363	Weatherproof switched isolator 3P 63A IP66 440V
HWSD420	Weatherproof switched isolator 4P 20A IP66 250/440V
HWSD435	Weatherproof switched isolator 4P 35A IP66 250/440V
HWSD463	Weatherproof switched isolator 4P 63A IP66 250/440V

Dimensions



HDV voltage relay

Standard: IEC60947-4



Range presentation

Himel HDV8 voltage relay suitable for equipment lines such as electrical equipment or compressor as overvoltage and undervoltage protection and emergency / backup power supply switching control. The product adopts programmable digital integrated circuit design, and potentiometer setting delay time.

Features

- LED display status
- Wide voltage range
- 18mm width saves space
- 35mm rail installation

Selection code

Range Names	Single phase/three-phase	Function code	Rated control power voltage
HDV8	1	A	230AC
	1: Single phase 3: Three-phase	A: Over voltage B: Under voltage C: Over voltage & Under voltage D: Over voltage or Under voltage (Selectable)	AC230V AC/DC 24V-48V AC/DC 110V-240V AC400V AC220V-460V AC127V-265V

Reference list

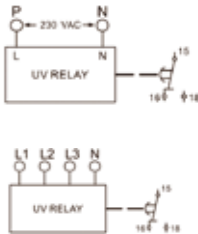
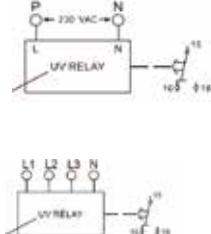
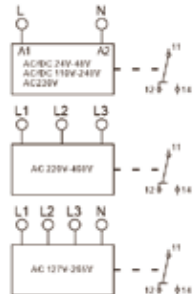
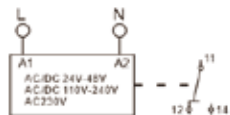
Reference	Single phase or Three phase	Function	Operation voltage
HDV81A230AC	Single phase	Overvoltage	AC230V
HDV81B230AC	Single phase	Undervoltage	AC230V
HDV81C48AD	Single phase	Over voltage & Under voltage	AC/DC 24V-48V
HDV81C240AD	Single phase	Over voltage & Under voltage	AC/DC 110V-240V
HDV81C230AC	Single phase	Over voltage or Under voltage (Selectable)	AC230V
HDV81D48AD	Single phase	Over voltage or Under voltage (Selectable)	AC/DC 24V-48V
HDV81D240AD	Single phase	Over voltage or Under voltage (Selectable)	AC/DC 110V-240V
HDV81D230AC	Single phase	Over voltage or Under voltage (Selectable)	AC230V
HDV83A400	Three phase	Overvoltage	AC400V
HDV83B400	Three phase	Undervoltage	AC400V
HDV83C460	Three phase	Over voltage & Under voltage	AC220V-460V
HDV83C265	Three phase	Over voltage & Under voltage	AC127V-265V

HDV voltage relay

Standard: IEC60947-4



Technical Parameters

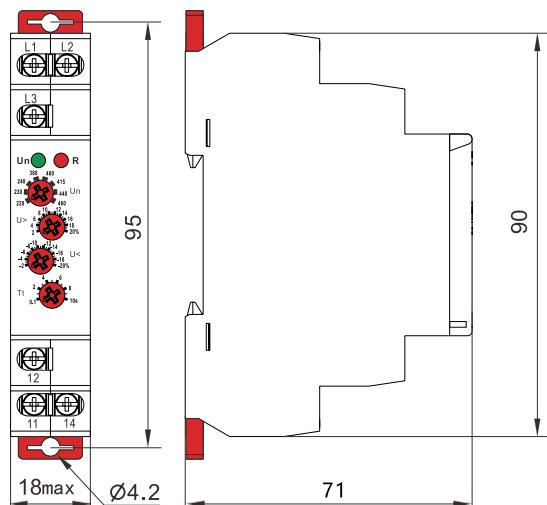
	HDV8*A	HDV8*B	HDV8*C	HDV8*D
Functional Diagram				
Supply Voltage	Single phase:230VThree phase:400V	Single phase:230VThree phase:400V	Single phase:AC/DC 24V-48VAC/DC 110V-240VAC230VThree phase:AC 220V-460VAC 127V-265V	Single phase:AC/DC 24V-48VAC/DC 110V-240VAC230V
Supply Variation	88%-110%			
Frequency	50/60 Hz			
Under Voltage	/	75%±5%	can be adjusted	can be adjusted (overvoltage/ undervoltage)
Over Voltage	120%±5%	/	can be adjusted	can be adjusted (overvoltage/ undervoltage)
ON Delay	5-15m		≤2s	
Off Delay	≤2s		0.1s~10s 10%	
Relay Output	1CO			
Contact Rating	AC 250V/DC 24V 5A		Single phase:AC 250V/DC 24V 10A Three phase:AC 250V/DC 24V 8A	AC 250V/DC 24V 10A
Electrical Life	1*10 ⁵			
Merchanical Life	1*10 ⁷			
Utilization Category	AC15:Ue:120/240V,Ie 3.0/1.5A		Single phase:AC15:Ue 250V,Ie 2.5A Three phase:AC15: Ue250V,Ie 1.5A	AC15:Ue 250V,Ie 2.5A
LED Indication	Green LED Power ON			
Operating Temperature	-20°~+55°			
Storage Temperature	-30°~+75°			
Humidity (Non Condensing)	95%(Rh)			
Method of Installation	DIN Rail			
Certification	CE			

HDV Voltage Relay

Standard: IEC60947-4



Outline dimension diagram



CONTROL COMPONENTS

P200 PLC



High speed

- High logical operation speed
- High floating-point calculation speed
- High-speed Input counter
- High speed pulse output

Intelligent control

- Build-in plenty of integrated functions with simplified programming and flexible control.
- The Himel PLC suitable for various industries. Automation of detection, monitoring and control in various situations.
- Multitudes of functions
- Our PLC offer more functions such as Real-time communication and redundancy features, abundant motion control functions, and many more with the support of a new software platform.

Easy to use

- Himel PLC supports a variety of common programming languages, which makes it easy to get started quickly.
- Multiple communication interfaces make communication easier with other devices

Large memory

- Large program memory
- Large data memory

Selection Code

Range name	Module name	Output	Point number
HAP	xxx	xxx	xxx
HAP2261AD460X24 HAP2261BD460X24 HAP2262AD460X40 HAP2262BD460X40 HAP2261AH462B24	226	1AD46: H226IM transistor output 1BD46: H226IM relay output 2AD46: H226IL transistor output 2BD46: H226IL relay output 1AH46: H226IH transistor output	24: 24 points IO 40: 40 points IO

Applications



| Logistics



| Spinning & Weaving



| Computer Numerical Control



| Building Automation



| HVAC

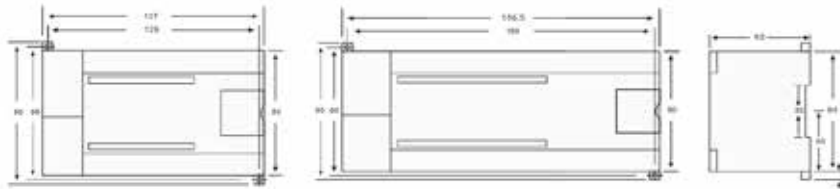


| Printing & Packaging

P200 PLC



Dimension



Product Picture



Specification		
Program memory		128KB+64KB+64KB
Data memory		64KB+100KB
Maximum number of expansion modules		7
Maximum digital		128DI/128DO (With CANopen bus is up to 640DI/640DO)
Maximum analog		32AI/32AQ (With CANopen bus is up to 194AI/194AQ)
Power-off hold mode		permanent retention(FlashROM)
Rated Input Voltage		DC24V/AC220V
Isolation (field side and logic side)		1500 V AC
Total number ofTimer		512
1ms		4
10ms		272
100ms		236
Counters		256
Accumulators		4
Bit memory (M)		256 bits
Temporary (local) memory		64 Bytes(independent)
Sequential relay(S)		256 bits
Cycle interrupt		2 in total, resolution is of 1ms,
Interrupt Edge		8
Boolean performance/ processingTime		≤ 0.15 μs
Float performance/ processingTime		8 μs
Real-time clock		internal
BD expansion board interface		1 (support RS485, CAN, Analog expansion board)
Running switch		RUN/STOP
External battery interface		Specialized Battery Card
Programming Card		Supports the new programming cards of V2 version
System Indicator	SF indicator(red)	ON: System Error OFF: Normal
Communication interface		2 ports; PORT0: PPI / Free port, RS485; PORT1: PPI / Free port, RS485;
PPI baud rate		9.6kbps, 19.2kbps, 187.5kbps
Free port baud rate		1.2kbps~115.2kbps
Maximum number of sites		32 stations per segment, 126 stations per network
Maximum number of masters		8
Point to point (PPI master mode)		Maximum 8 connection, Maximum 200 bytes per connection
MPI Connection		8 total, 2 reserved (1 for PG and 1 for OP)
Cable Length (max)	with isolation repeater	1000 meters at a baud rate of 187.5 kbps, 1200 meters at 38.4 kbps
	without isolation repeater	50 m

CONTROL COMPONENTS

SR Smart Relay



High speed

- Control logic program cycle time: less than 50ms, operation cycle can be configured.

Rich controller configurations

- Both SR1 and SR2 are configured with analog channels to meet the requirements of most application scenarios
- Support network port /USB Type C/RS485 download program
- All AI channels support NTC10K, PT1000, PT100,0-10V, 4-20mA
- Support MODBUSTCP/RTU master-slave communication function

Multitudes of function

- Integrated parameter self-tuning fuzzy logic algorithm and temperature control PID library, with high accuracy and dynamic performance
- Build-in plenty of integrated functions with simplified programming and flexible control

Easy to use

- Support FBD,LD language
- Integrate 2 or 3 COM ports
- Support configuring NTP/SNTP for automatic time synchronization service
- Supports remote and local firmware and control logic updates

Large memory

- SR1 is configured with 512kB (Flash) +192kB RAM programming space
- SR2 is configured with 2MB (Flash) +512kB RAM programming space

Selection Code

Range name	Series name	Power Supply	IO Points	Channel Type
HAP	xxx	xxx	xx	x
HAPSR1AC12 HAPSR1AC24 HAPSR1DC12 HAPSR1DC12A HAPSR1DC24 HAPSR1DC24A HAPSR2AC12 HAPSR2DC12U HAPSR2DC12A HAPSRREMIODC10 HAPSRREDM16 HAPSRREDM08 HAPSRREDM08T HAPSRREDM08AC HAPSRREAM08	SR:SMART Relay 1:SR1 2:SR2 E: Extension Module EC:Extension Cable	AC: 230±15%V AC DC: 12~24V DC	I/Os Qty 12 24 28	A: With AI channels U: with UI channels T: with Transistor type digital output No: with Relay type output

Applications



| Pumping Station



| Greenhouse Environment



| Lighting

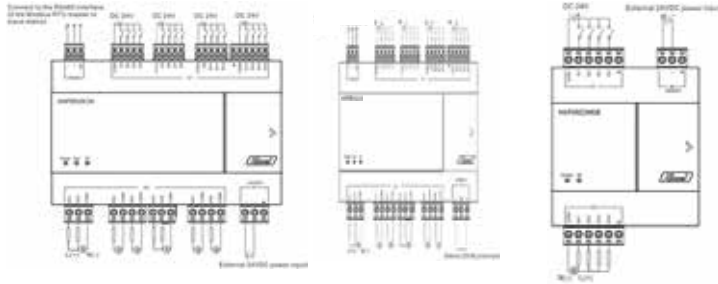


| HVAC

SR Smart Relay



Dimension



Product Picture



Reference	HAPSR1AC12	HAPSR1DC12	HAPSR1DC12A	HAPSR1AC24	HAPSR1DC24	HAPSR1DC24A
Power Supply	230±15%V AC	24±15%V DC	24±15%V DC	230±15%V AC	24±15%V DC	24±15%V DC
Dimension W x H x D (mm)	85x80x58			128x80x58		
Total IO	12			24		
Digital Inputs	8			16		
DI Type	230±15%V AC	12-24V DC	12-24V DC	230±15%V AC	12-24V DC	12-24V DC
Universal Inputs (DI as AI)	No					
DI as FDI (High Speed Inputs), Maximum counting frequency	No					
Analogue Inputs	0	0	2	No	0	4
AI Type	-	-	RTD = NTC10K or T1000, PT100, 0-10 V, 4-20 mA	-	-	RTD = NTC10K or T1000, PT100, 0-10 V, 4-20 mA
Digital outputs	4	4	4	8	8	8
DO Type	Relay					
Sustained current	Inductive load 3A Resistive load 5A					
DO as FDO (High Speed Outputs), Maximum frequency	No					
Analogue outputs	No					
AO Type	-					
LCD	No					
24V Output interface power	24w		1w	24w		1w
Power consumption	24w		10w	24w		10w
Program memory	512kB (Flash) +192kB RAM					
Maximum number of expansion modules	Not support					
Maximum expandable IO	-					
Maximum analog	-					
Power-off hold mode	Permanent retention(Flash ROM)					
Program Backup	Permanent					
Short circuit protection	Support					
RTC	Build in, accuracy ±2S/day, Hold-up time 14 days (25C typical time) without battery					
Signals configuration	Configuration of all signal types (DI, DO) are independent for each signal					
Galvanic isolation	DI/DO					
Communication port	1xRS485 + 1USB(Type C)					
Communication protocol	Modbus RTU Master/Slave					
Certification	CE, RoHS					
Operating temperature	-20°C~55°C					
Storage temperature	-40°C~70°C					
Protection level	IP20					
Terminal	Pluggable					
Installation mode	35mm DIN Rail mounting or wall mounting					
Storage base for signals, states & parameters	Yes					
Self-diagnostic subsystem	Yes					
Software update module	Yes					
Task cycle	< 50ms					
Internal Timer resolution UDINT (32 bit)	1 ms					
IO Scanner for Modbus	Yes					
Task cycle	< 50ms					
Internal Timer resolution UDINT (32 bit)	1 ms					
IO Scanner for Modbus	Yes					

SR Smart Relay



Reference	HAP SR2			HAP SRE		
	HAPSR2AC12	HAPSR2DC12U	HAPSR2DC12A	HAPSREDM08	HAPSREDM08T	HAPSREDM08AC
Standard						
Power Supply	230±15%V AC	24±15%V DC			230±15%V AC	
Dimension W x H x D (mm)	85x80x58			75x80x58		
Total IO	12			8		
Digital Inputs	8			4		
DI Type	230±15%V AC	Dry contact	12-24V DC			230±15%V AC
Universal Inputs (DI as AI)	0	8	0			
Analogue Inputs	0	8	2	0		
AI Type	-	RTD = NTC10K or PT1000, PT100,0-10 V, 4-20 mA		-		
Digital outputs	4					
DO Type	Relay				Transistor	Relay
Sustained current	Inductive load 3A				0.3A	Inductive load 3A
	Resistive load 5A					Resistive load 5A
DO as FDO (High Speed Outputs), Maximum frequency	No	2FDOx20kHz	No			
Analogue outputs	No					
AO Type	No					
LCD	1.7 inch -					
24V Output interface power	24w	1w		-		
Power consumption	24w	10w				24w
Program memory	2 MB (Flash) + 512 kB RAM			-		
Maximum number of expansion modules	7			-		
Maximum expandable IO	238			-		
Maximum analog	AI < 72, AO < 32			-		
Power-off hold mode	Permanent retention(Flash ROM)			-		
Program Backup	Permanent			-		
Short circuit protection	Support					
RTC	Build in, accuracy ±2S/day,			-		
	Hold-up time 14 days (25C typical time) without battery					
Signals configuration	Configuration of all signal types (DI, DO) are independent for each signal					
Galvanic isolation	DI/DO					
Communication port	1xRS485 + 1RJ45 + 1 USB (Type C) -					
Communication protocol	Modbus RTU Master/Slave; ModbusTCP			-		
Certification	CE, RoHS					
Operating temperature	-20°C~55°C					
Storage temperature	-40°C~70°C					
Protection level	IP20					
Terminal	Pluggable					
Installation mode	35mm DIN Rail mounting or wall mounting					
Storage base for signals, states and parameters	Yes			-		
Self-diagnostic subsystem	Yes			-		
Software update module	Yes			-		
Task cycle	< 50ms			-		
Internal Timer resolution UDINT (32 bit)	1 ms			-		
IO Scanner for Modbus	Yes			-		

CONTROL COMPONENTS

HG Human Machine Interface



ARM Infrastructure

- Improved processing power
- Enhanced graphics and multitasking capabilities

Data Storage

- Supports more historical data and log storage
- Support for complex applications and scripts

Feature-rich

- Improved data analysis and visualisation capabilities
- Enhanced alarm management and analysis capabilities

Promptness

- Responsive operation and fast data refresh

Selection Code

Range name Series name Size

HAH

xxx

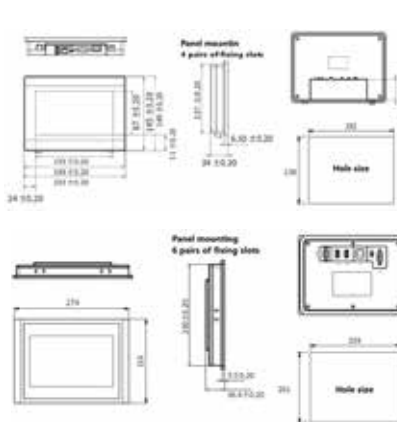
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HAHG070E HAHG101E	HG	070E: 7 inch 101E: 10.1 inch
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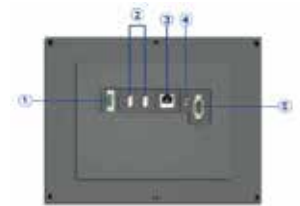
Applications

- Logistics
- Spinning & Weaving
- Computer Numerical Control
- Building Automation
- HVAC
- Printing & Packaging

Dimension



Picture



Model		HAHG070E	HAHG101E
Hardware specification	Dimension	7.0"(16:9)TFT-LCD	10.1"(16:9)TFT-LCD
	LCD Viewing Angle	85° 85° 85° 85°	
	Resolution	1024*600	
	Brightness	250cd/m ²	350cd/m ²
	Color	24-bit true color	
	Average brightness life of background light (25°C)	20000 hours (typical)	
	Touch screen	4-wire industrial resistance touch screen	
	Processor	Dual-core Cortex-A7 processor, 1.0GHz	
	Memorizer	128MBDDR3	256MBDDR3
	FLASH	128MB	256MB
	Real time clock	Built-in RTC, 2-year power-down retention, battery-powered	Built-in RTC, 45 days power-down hold, rechargeable capacitor power supply
	Serial port	1*RS485 (PORT1)	
	Ethernet port	1*10/100M Adaptive	
	USB	1*USB Host	2*USB Host
Electrical specification	Input voltage	24±20% VDC	
	Rated working current	0.25A	0.3A
	Working Temperature	0°C~50°C	
Environmental requirements	Storage temperature	-20°C~60°C	
	Ambient humidity	5%-90% (non-condensing)	
	Use environment	No fumes, no corrosive gases, no flammable gases, no serious conductive dust, no direct sunlight	
	Cooling method	natural cooling	
Installation Specifications	Protection class	IP65 front panel (for installation with flat panel cabinet), IP20 for fuselage backshell	
	Mechanism	Engineering Plastic, Dark Grey	
	Dimension(W*H*D)	203*149*34mm	274.0*216.0*36.0mm
	Opening size(W*H)	192.0*138.0mm	259.0*201.0mm
	Installation method	Panel Mounting	
	Weight of the whole machine	About 0.7KG	About 1.45KG
Communication	RS485 serial port	Currently, serial port supports only the following protocols: ① Himel P200(PPI/MPI), ② SIMATIC S7 200(PPI/MPI), ④ Modicon ModBus RTU (ps:master)	
Protocols	RJ45 network port	Currently, network port supports only the following protocols: ①Himel UDP PPI, ②Modicon Modbus TCP/IP, ③SIMATIC S7 200 SMART (Ethernet), ④Siemens S7-1200/S7-1500 (Ethernet) - Only support absolute address (ps:master)	

Product Portfolio for Panel Builders and Original Equipment Manufacturers

Himel

Final Distribution



Himel

Low-Voltage Distribution



Himel

Metering



Himel

Control Components



Himel

Motor Management





HOME ELECTRIC

Himel Homes, Happy Homes

Safe homes make happy homes—something you and your family deserve. Himel offers a comprehensive line of best-in-class, international standards-compliant, and affordable wiring products designed to meet the needs of homebuilders, architects, project consultants and designers.

Himel's residential solutions are a confluence of design, safety, efficiency, and affordability - just the right mix for the space you live and work in. From switches and sockets to USB chargers and dimmers, you will find products where form and function intertwine.



Our Home Electric products are rigorously tested against international quality standards and can be trusted for human and appliance safety



Himel Home Electric products support ease and flexibility in installation so that you save your valuable time in developing safer homes, offices and buildings



With Himel Wiring Devices you get choice of colours and palettes, and more possibilities to enhance your living space with easier and safer electrical functions



Himel Home Electric products are designed to exceedingly meet the expectations of unique lifestyles. Be it a home office, personal study or a retail showroom

HOME ELECTRIC



Advanced Series Wiring Devices



British & International

Device presentation: Complete Mechanism

Number of gang: Up to 4

Rated current: 10A / 20A / 45A

500

Curvo Series Wiring Devices



2Pin, German & French

Number of Gang: Up to 2

Rated current: 10A/16A

525

Prime V2 Series Wiring Devices



British, 2Pin, German & International

Device presentation: complete mechanism

Number of Gang: Up to 6

Rated current: 16A / 20A / 45A

506

Flexo Series Wiring Devices



2Pin, European, International

Device presentation: complete mechanism

Number of Gang: up to 7

Rated current: 10A/16A

530

Altivo Series Wiring Devices



British

Device presentation: complete mechanism

Number of Gang: up to 4

Rated current: 10A/16A/20A/45A

513

BLiSS Series Wiring Devices



2Pin, European, International

Device presentation: plate and module separated

Number of gang: up to 6

Rated current: 10A / 16A / 20A / 32A/45A

538

Modern Series Wiring Devices



2Pin, German & French

Number of Gang: Up to 3

Rated current: 10AX

520

Lumio Series Wiring Devices



Modular wiring devices, up to 5 gang

546

HOME ELECTRIC

Click Series Wiring Devices



2Pin, American, International

Device presentation: complete mechanism

Number of gang: up to 4

Rated current: 10A & 15A

553

Floor Series Wiring Devices



American, International, British

Euro, 3Pin, 2Pin

Device presentation: box and module separated

Number of modules: Up to 6

560

Metal Clad Wiring Devices



Device presentation: complete mechanism

Number of Gang: up to 3

Rated current: 10A/20A/45A

564

Extension Sockets Accessories and Tools



Socket Outlet Standard: British & Universal

Standard: BS1363 & IEC60884

568

Weatherproof Series Accessories and Tools



Waterproof and Dustproof

IP Level: IP12 and IP55

Color: 6 colors and 2 finishes

Material: ABS & PS

573

Tool Series Accessories and Tools



Enhance the way you work

575

Cable Ties Accessories and Tools



Color: Black / White / Colorful

Material: Nylon 66

Tensile strength (LBS): 18 / 40 / 49

Max bundle diameter: 22 / 35 / 50 / 65 / 82 / 90

576

Electrical Tape Accessories and Tools



Flame retardant material
Available in a range of sizes and colors

578

Accessory Tape Accessories and Tools



Packaging tape, masking tape, fragile tape,
duct tape in various sizes

580

Smart Series Home Accessories



Socket Outlet Standard: British, Euro, American
Remote control: Himel APP
Voice control: Google Home / Amazon Alexa

583

Industrial & Outdoor Lighting



LED Highbay Basic, Highbay G2, Floodlight Basic

587

HHEV Electric Vehicle Charging Solution



AC & DC charger for electronic vehicles

593



BRITISH WIRING DEVICES

With the elegant simplicity of the standard finishes, Himel range of wiring devices compatible with British Standards is a pure class. The classical tones are reimagined for perfect harmony with modern environments, for both residential and commercial applications.

Advanced Series

British Wiring Devices



Range Presentation

Himel's Advanced Series is future-oriented range of switches and sockets, designed to add accent to your interiors, with utmost compliance to international safety standards. With a range of five different finishes, smooth shape, modern and discrete design that fit any home, any application, they set new standards in versatility and ease of use.

Tested to comply with the IEC safety standards and made in high quality polycarbonate, Advanced Switches and Sockets are virtually unbreakable.

Features

- ◆ Two-layered product to offer screw-less design
- ◆ Fire Retardant Polycarbonate
- ◆ Tested under 100 degrees
- ◆ >58% Copper for parts made from cold-rolled sheet
- ◆ Middle east: GCC
- ◆ Malaysia: SIRIM
- ◆ Nigeria: SONCAP
- ◆ Works with Himel Smart

Selection Code

Range name

Functionality

Color

HWDA**xxx****C****A:** Advanced

You may replace XX codes by functionality codes listed Below

Default: White**G:** Gold**M:** Metallic**B:** Brown

Online Content



Advanced Series

Color Selection



White



Gold



Metallic



Brown



This offer is available only in countries following British Standards.
For more information, contact local Himel Sales.

Himel | **Advanced Series**

STYLISH SWITCHES THAT COMPLIMENT MODERN SPACES

Range of Switches and Sockets fully compliant with IEC standards, now available in 4 colours to fit any application.

	DESIGN White, Brown, Silver and Gold colours to match your wall palette.		DURABILITY Rigorous switch on/off and socket insertion quality checks for years-long life.
	SAFETY Fire-retardant polycarbonate material and inbuilt safety shutter.		EASE Fit and forget solution with easy installation of the screwless front plate.

Below the sofa, a row of six electrical devices is displayed: a white 1-gang switch, a brown 1-gang switch, a white 2-gang switch, a gold 2-gang switch, a white 1-gang switch with a rotary dimmer, and a brown 1-gang switch with a rotary dimmer.



EASY INSTALLATION
MODERN DESIGN
MULTIPLE FUNCTIONS



Switches



HWDA1S

10A 1 Gang 1 Way Switch
Box:10
Carton:100



HWDA1S2

10A 1 Gang 2 Way Switch
Box:10
Carton:100



HWDA1S3

10A Intermediate Switch
Box:10
Carton:100



HWDA1PS

Press Switch
Box: 10
Carton: 100



HWDA2S

10A 2 Gang 1 Way Switch
Box:10
Carton:100

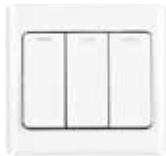


HWDA2S2

10A 2 Gang 2 Way Switch
Box:10
Carton:100

Advanced Series

British Wiring Devices



HWDA3S

10A 3 Gang 1 Way Switch
Box: 10
Carton: 100



HWDA3S2

10A 3 Gang 2 Way Switch
Box: 10
Carton: 100



HWDA4S

10A 4 Gang 1 Way Switch
Box: 10
Carton: 100



HWDA4S2

10A 4 Gang 2 Way Switch
Box: 10
Carton: 100



HWDABS

Bell Switch
Box: 10
Carton: 100



HWDACS

Curtain Switch
Box: 10
Carton: 100



HWDA2MS

2 Gang Momentary
Switch
Box: 10 ; Carton: 100



HWDAD10

1000W Dimmer
Box: 8
Carton: 80



HWD AFC3

300VA 230V Fan Control
Box: 8
Carton: 80

Socket Outlets



HWD A13SS

13A Switched Socket
Box: 10
Carton: 100



HWD A13SN

13A Switched Socket with
Neon
Box: 10 ; Carton: 100



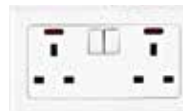
HWD A13SSUSB

13A Socket with
Switch with 2USB
Box: 10 ; Carton: 100



HWD AT13S

13A Twin Switched
Socket
Box: 5
Carton: 50



HWD AT13S

13A Twin Switched
Socket with Neon
Box: 5
Carton: 50



HWD A13USB

13A Socket + 2USB
Box: 8
Carton: 80



HWD AT13SSUSB

2gang 13A Socket with
Switch with 2USB
Box: 5 Carton: 50



HWD A15SS

15A Switched Socket
Box: 10
Carton: 100



HWD A15SN

15A Switched Socket
with Neon
Box: 10 ; Carton: 100

Advanced Series

British Wiring Devices



HWDAUS

13A Universal Socket
Box: 10
Carton: 100



HWDAUSUSB

13A Universal Socket + 2USB
Box: 8
Carton: 80



HWDA20S

1 Gang 20A DP Switch
with Neon
Box: 10 ; Carton : 100



HWDA45S

1 Gang 45A DP Switch
with Neon
Box: 10
Carton : 100



HWDA45ST

1 Gang 45A DP Switch
with Neon(146 Type)
Box: 5
Carton: 50



HWDA20S2

1 Gang 2 Way 20A DP
Switch with Neon
and Earth
Box: 10
Carton : 100



HWDA20SBR

20A 1gang 1way
Double Pole Switch
with big rocker
Box: 10 ; Carton : 100

Telecommunication Accessories



HWDA1TS

RJ11 Telephone Socket
Box: 10
Carton: 100



HWDA2TS

2 RJ11 Telephone Socket
Box: 10
Carton: 100



HWDA1DS

RJ45 Data Socket
Box: 10
Carton: 100



HWDA2DS

2 RJ45 Data Socket
Box: 10
Carton: 100



HWDA1SS

Satellite Socket
Box: 10
Carton: 100



HWDA1S1T

Satellite + RJ11
Tel Socket
Box: 10
Carton: 100



HWDAB

Blank Plate
Box: 20
Carton: 200



HWDA13FCU

13A Fused
Connection Unit
Box: 10 ; Carton: 100



HWDATBP

Twin Gang
Blank Plate
Box: 10
Carton: 100

Advanced Series

British Wiring Devices



Future Ready

Upgrade your Advanced Series switches with our WIFI Smart modules



HHESM
Smart Switch Module
Box: 1
Carton: 100



HHE2SM
2 Gang Switch Module
Box: 1
Carton: 100



HHESD
Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD
2 Gang Dimmer Module
Box: 1
Carton: 100



Prime V2 Series

British Wiring Devices



Range Presentation

Prime V2 series is designed to address the needs for a wide range of applications in residential projects, commercial buildings, offices and hotels etc. Available in more than 100 functionalities required for complete hotel functions, this range is available in a classic white finish with a sleek, elegant appearance.

Features

- ◆ Up to 6 Gangs
- ◆ Complete Hotel offer
- ◆ USB enabled sockets
- ◆ 4mm diameter silver contact
- ◆ 1.5mm metal plate
- ◆ Smartphone holders available
- ◆ Works with Himel Smart

Selection Code

Range name

Functionality

HWDP**XXX****P:** Prime V2

You may replace XX codes by functionality codes listed below

Online Content



Prime V2



This offer is available only in countries following British Standards.
For more information, contact local Himel Sales.

Prime V2 Series

British Wiring Devices



ELEVATE THE BASICS
MINIMALIST DESIGN
COMPLETE SET OF
FUNCTIONS



Switches



HWDPS1G1W

16A 1 Gang 1 Way Switch
Box: 10
Carton: 100



HWDPS1G2W

16A 1 Gang 2 Way Switch
Box: 10
Carton: 100



HWDPS2G1W

16A 2 Gang 1 Way Switch
Box: 10
Carton: 100



HWDPS2G2W

16A 2 Gang 2 Way Switch
Box: 10
Carton: 100



HWDPS3G1W

16A 3 Gang 1 Way Switch
Box: 10
Carton: 100



HWDPS3G2W

16A 3 Gang 2 Way Switch
Box: 10
Carton: 100

Prime V2 Series

British Wiring Devices

**HWDP4S4G1**

16A 4 Gang 1 Way Switch
Box: 10
Carton: 100

**HWDP4S4G2W**

16A 4 Gang 2 Way Switch
Box: 10
Carton: 100

**HWDP5S5G1W**

16A 5 Gang 1 Way Switch
Box: 10
Carton: 100

**HWDP6S6G1W**

16A 6 Gang 1 Way Switch
Box: 10
Carton: 100

**HWDPBDB**

Doorbell Switch
Box: 10
Carton: 100

**HWDPB1G1W**

16A 1 Gang 1 Way Switch,
Big Button
Box: 10
Carton: 100

**HWDPB1G2W**

16A 1 Gang 2 Way Switch,
Big Button
Box: 10
Carton: 100

**HWDPB2G1W**

16A 2 Gang 1 Way Switch,
Big Button
Box: 10
Carton: 100

**HWDPB2G2W**

16A 2 Gang 2 Way Switch,
Big Button
Box: 10
Carton: 100

**HWDPB3G1W**

16A 3 Gang 1 Way Switch,
Big Button
Box: 10
Carton: 100

**HWDPB3G2W**

16A 3 Gang 2 Way, Big Button
Box: 10
Carton: 100

**HWDPB4G1W**

16A 4 Gang 1 Way Switch,
Big Button
Box: 10
Carton: 100

**HWDPB4G2W**

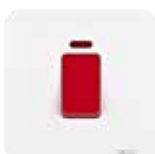
16A 4 Gang 2 Way Switch,
Big Button
Box: 10
Carton: 100

**HWDPBDB**

Doorbell Switch, Big Button
Box: 10
Carton: 100

**HWDP20A**

20A Switch With Neon
Box: 10
Carton: 100

**HWDP45A**

45A Switch With Neon
Box: 10
Carton: 100

Dimmers

**HWDPFS3**

Fan Speed 300W
Box: 8
Carton: 80

**HWDPFS5**

Fan Speed 500W
Box: 8
Carton: 80

**HWDPD3**

Light Dimmer 300W
Box: 8
Carton: 80

Prime V2 Series

British Wiring Devices

**HWDP1D5**

Light Dimmer 500W
Box: 8
Carton: 80

**HWDP1D10**

Light Dimmer 1000W
Box: 8
Carton: 80

**HWDP1D15**

Light Dimmer 1500W
Box: 8
Carton: 80

**HWDP1GD3**

1 Gang Switch With
Dimmer 300W
Box: 8
Carton: 80

**HWDP1GD5**

1 Gang Switch With
Dimmer 500W
Box: 8
Carton: 80

Socket Outlets

**HWDP13AS**

13A Socket
Box: 10
Carton: 100

**HWDP13ASS**

13A Switched Socket
Box: 10
Carton: 100

**HWDP13ASSN**

13A Switched Socket
With Neon
Box: 10
Carton: 100

**HWDP13ASSNUS**

13A Switched Socket + 1USB
Box: 8
Carton: 80

**HWDP13ASSN2USB**

13A Switched Socket + 2USB
Box: 8
Carton: 80

**HWDP16MF**

16A MF Socket
Box: 10
Carton: 100

**HWDP16MFS**

16A MF Switched Socket
Box: 10
Carton: 100

**HWDP16MFSN**

16A MF Switched Socket
With Neon
Box: 10
Carton: 100

**HWDP16MFSNUSB**

16A MF Switched Socket
With Neon + 1USB
Box: 8
Carton: 80

**HWDP16MFSN2U**

16A MF Switched Socket
With Neon + 2USB
Box: 8
Carton: 80

**HWDP15SS**

15A Switched Socket
Box: 10
Carton: 100

**HWDP15SSN**

15A Switched Socket
With Neon
Box: 10
Carton: 100

**HWDP5PS**

16A 5Pin MF Socket
Box: 10
Carton: 100

**HWDP5PSS**

16A 5Pin MF Switched
Socket
Box: 10
Carton: 100

Prime V2 Series

British Wiring Devices

**HWDP5PSSN**

16A 5Pin MF Switched
Socket With Neon
Box: 10
Carton: 100

**HWDP5PSSNUSB**

16A 5Pin MF Switched
Socket With Neon + 1USB
Box: 8
Carton: 80

**HWDP5PSSN2USB**

16A 5Pin MF Switched Socket
With Neon+2USB
Box: 8
Carton: 80

**HWDP213ASS**

2X13A Switched Socket
Box: 5
Carton: 50

**HWDP213ASSN**

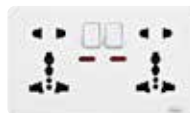
2X13A Switched Socket
With Neon
Box: 5
Carton: 50

**HWDP213ASSN2USB**

2X13A Switched Socket
With Neon + 2USB
Box: 5
Carton: 50

**HWDP2MFS**

2X16A 5Pin MF
Switched Socket
Box: 5
Carton: 50

**HWDP2MFSN**

2X16A 5Pin MF Switched
Socket With Neon
Box: 5
Carton: 50

**HWDP2MFSN2USB**

2X16A 5Pin MF Switched
Socket With Neon + 2USB
Box: 5
Carton: 50

**HWDPEUR**

16A Europe Socket
Box: 10
Carton: 100

**HWDP2PS**

10A 2Pin Socket
Box: 10
Carton: 100

**HWDP2G2PS**

10A 2X2Pin Socket
Box: 10
Carton: 100

**HWDP3G2PS**

10A 3X2Pin Socket
Box: 10
Carton: 100

**HWDP1G1W2P**

1 Gang 1 Way Switch
And 10A 2Pin Socket
Box: 10
Carton: 100

**HWDP1G2W2P**

1 Gang 2 Way Switch And
10A 2Pin Socket
Box: 10
Carton: 100

**HWDP1G1W2**

1 Gang 1 Way Switch And
10A 2X2Pin Socket
Box: 10
Carton: 100

**HWDP1G2W22P**

1 Gang 2 Way Switch And
10A 2X2Pin Socket
Box: 10
Carton: 100

**HWDP2G1W2P**

2 Gang 1 Way Switch And
10A 2Pin Socket
Box: 10
Carton: 100

**HWDP2G2W2P**

2 Gang 2 Way Switch And
10A 2Pin Socket
Box: 10
Carton: 100

**HWDP2G1W22P**

2 Gang 1 Way Switch And
10A 2X2Pin Socket
Box: 10
Carton: 100

**HWDP2G2W22P**

2 Gang 2 Way Switch And
10A 2X2Pin Socket
Box: 10
Carton: 100

**HWDP2PUSB**

10A 2Pin Socket + USB
Box: 10
Carton: 100

**HWDP2P2USB**

10A 2Pin Socket + 2USB
Box: 10
Carton: 100

**HWDP2CU**

10A 2Pin Socket + 2USB
Box: 5
Carton: 50

Prime V2 Series

British Wiring Devices



Accessories



HWDP45AO

45A outlet
Box: 10
Carton: 100



HWDPHS3

Shaver 3X3
Box: 1
Carton: 24



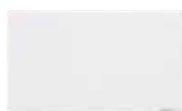
HWDPHS6

Shaver 3X6
Box: 1
Carton: 18



HWDPBP3

Blank Plate 3X3
Box: 20
Carton: 200



HWDPBP6

Blank Plate 6X6
Box: 10
Carton: 100



HWDP TV

TV Socket
Box: 10
Carton: 100



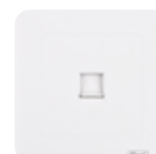
HWDP2TV

Double TV Socket
Box: 10
Carton: 100



HWDPTEL

Tel Socket
Box: 10
Carton: 100



HWDP COM

Computer Socket
Box: 10
Carton: 100



HWDP2TEL

Double Tel Socket
Box: 10
Carton: 100



HWDP2COM

Double Computer Socket
Box: 10
Carton: 100



HWDP COM TEL

Computer+Tel Socket
Box: 10
Carton: 100



HWDP TV TEL

TV+Tel Socket
Box: 10
Carton: 100



HWDP SAT

Satellite Socket
Box: 10
Carton: 100



HWDP SAT TEL

Satellite + Tel Socket
Box: 10
Carton: 100



HWDP SAT TV

Satellite + TV Socket
Box: 10
Carton: 100



HWDP20AO

20A outlet
Box: 10
Carton: 100

Hotel Accessories



HWDP TD

Touch Delay Switch
(With Energy Saving)
Box: 8
Carton: 80



HWDP VC

Voice Control Switch
(With Energy Saving)
Box: 8
Carton: 80



HWDP VC 3L

Voice Control With Fire
Protection And Energy
Saving (Three Line)
Box: 8
Carton: 80

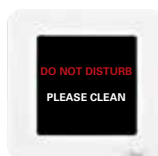
Prime V2 Series

British Wiring Devices



HWDVPC4L

Voice Control With Fire Protection And Energy Saving (Four Line)
Box: 8
Carton: 80



HWDPHDND

Doorbell Switch With Do Not Disturb
Box: 10
Carton: 100



HWDPHDNDI

Do Not Disturb Inside Switch
Box: 10
Carton: 100



HWDPHB

Human Body Sensor Switch
Box: 8
Carton: 80



HWDPHBF

Human Body Sensor Switch With Fire Protection Function
Box: 8, Carton: 80



HWDPHKC

Insert Card For Power (Three Line) 40A
Box: 6
Carton: 60



HWDPHKCLF

Insert Card For Power (Induction Type, Low Frequency) 40A
Box: 6
Carton: 60



HWDPHKCHF

Insert Card For Power (Induction Type, High Frequency) 40A
Box: 5
Carton: 60



HWDPPH

Stick Style Phone Holder
Box: 18
Carton: 180



HWDPPHG

Stick Style Phone Holder Gold
Box: 18
Carton: 180



HWDPPHS

Phone Holder-Single
Box: 20
Carton: 200



HWDPPHSG

Phone Holder-Single Gold
Box: 20
Carton: 200



HWDPPHDG

Phone Holder-Double Gold
Box: 10
Carton: 100

Future Ready

Upgrade your Prime Series switches with our WIFI Smart modules



HHESM

Smart Switch Module
Box: 1
Carton: 100



HHE2SM

2 Gang Switch Module
Box: 1
Carton: 100



HHESD

Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD

2 Gang Dimmer Module
Box: 1
Carton: 100



Altivo Series

Wiring Devices

Range Presentation

Introducing ALTIVO by Himel: the epitome of premium elegance for contemporary buildings—homes, workplaces, hotels and businesses. Designed for eclectic taste, these fully flat switches, sockets, and accessories blend seamlessly into any wall, achieving true integration with your space.

ALTIVO stands out not only for its striking design but also for its exceptional electrical safety with resistance to corrosion, heat, and impact. Tested to endure over a decade of use, ALTIVO is available in five stunning colors and offers over 80 functionalities, making it the perfect blend of aesthetics, quality, and utility.

Features

-  Full plate with ultra-thin appearance
-  One-piece backside design
-  5 trendy colors
-  80 functionalities
-  Compliance with IEC safety standards
-  10 years warranty for switches and sockets

Selection Code

Range name	Functionality	Color
HWDAL	xxx	C
AL: Altivo	You may replace XX codes by functionality codes listed Below	Default: White G: Gold M: Metallic D: Dark grey B: Black

Color Selection



HOME ELECTRIC

Altivo Series

Wiring Devices



SWITCH TO FLAT WITH ALTIVO

Designed and optimized for:



Residential
Buildings



Commercial
Buildings



Professional
Buildings



Switches



HWDAL1G1BQ

16A 1 Gang 1 Way
Switch - Slim
Box: 10
Carton: 100



HWDAL1G2BQ

16A 1 Gang 2 Way
Switch - Slim
Box: 10
Carton: 100



HWDAL1G3BQ

16A 1 Gang Intermediate
Switch - Slim
Box: 10
Carton: 100



HWDAL2G1BQY

16A 2 Gang 1 Way
Switch (1in 2out) - Slim
Box: 10
Carton: 100



HWDAL2G2BQ

16A 2 Gang 2 Way
Switch - Slim
Box: 10
Carton: 100



HWDAL2G3BQ

16A 2 Gang Intermediate
Switch - Slim
Box: 10
Carton: 100

Altivo Series

Wiring Devices

**HWDAL3G1BQY**

16A 3 Gang 1 Way Switch
(2in 3out) - Slim
Box: 10
Carton: 100

**HWDAL3G2BQ**

16A 3 Gang 2 Way
Switch - Slim
Box: 10
Carton: 100

**HWDAL4G1BQY**

16A 4 Gang 1 Way Switch
(2in 4 out) - Slim
Box: 10
Carton: 100

**HWDAL4G2BQ**

16A 4 Gang 2 Way
Switch - Slim
Box: 10
Carton: 100

**HWDAL1G1S**

10A 1 Gang 1 Way Switch
Box: 10
Carton: 100

**HWDAL1G2S**

10A 1 Gang 2 Way Switch
Box: 10
Carton: 100

**HWDAL2G1S**

10A 2 Gang 1 Way Switch
Box: 10
Carton: 100

**HWDAL2G2S**

10A 2 Gang 2 Way Switch
Box: 10
Carton: 100

**HWDAL3G1S**

10A 3 Gang 1 Way Switch
Box: 10
Carton: 100

**HWDAL3G2S**

10A 3 Gang 2 Way Switch
Box: 10
Carton: 100

**HWDAL4G1S**

10A 4 Gang 1 Way Switch
Box: 10
Carton: 100

**HWDAL4G2S**

10A 4 Gang 2 Way Switch
Box: 10
Carton: 100

**HWDALBSS**

1 Gang Bell Push
Switch Small
Box: 10
Carton: 100

**HWDALBSBQ**

1 Gang Bell Push
Switch - Slim
Box: 10
Carton: 100

**HWDAL2BSBQ**

2 Gang Bell Push
Switch - Slim
Box: 10
Carton: 100

**HWDALPBQ**

1 Gang Push Button
- Slim
Box: 10
Carton: 100

**HWDAL2PBQ**

2 Gang Push Button
- Slim
Box: 10
Carton: 100

**HWDAL20SS**

1 Gang 20A DP Switch
with Indicator
Box: 10
Carton: 100

**HWDAL45S**

1 Gang 45A DP Switch
with Indicator
Box: 10
Carton: 100

**HWDAL45SL**

1 Gang 45A DP Large
Switch with Indicator
Box: 10
Carton: 100

**HWDALD5**

1 Gang Light Dimmer 500W
Box: 8
Carton: 80

Altivo Series

Wiring Devices



HWDALF5

1 Gang CV Fan Dimmer
500W
Box: 8
Carton: 20



HWDAL20SB

20A 1 Gang Double
Pole Switch with
Neon Big Button
Box: 10 Carton: 100



HWDALIC

1 Gang 25A Photoelectric
Hotel Key Card
Switch (3 Line)
Box: 8 Carton: 80



HWDALDND

Doorbell Switch with
"Do not disturb"
Box: 10
Carton: 100

Sockets



HWDAL13S

1 Gang 13A
Unswitched Socket
Box: 10
Carton: 100



HWDAL13SS

1 Gang 13A Switched Socket
Box: 10
Carton: 100



HWDAL13SSDP

1 Gang 13A DP
Switched Socket
Box: 10
Carton: 100



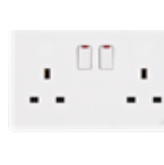
HWDAL13SN

1 Gang 13A Switched
Socket with Indicator
Box: 10
Carton: 100



HWDAL13SNDP

1 Gang 13A DP Switched
Socket with Indicator
Box: 10
Carton: 100



HWDALT13SS

2 Gang 13A Switched
Socket
Box: 5
Carton: 50



HWDALT13SSDP

2 Gang 13A DP
Switched Socket
Box: 5
Carton: 50



HWDAL13SN

2 Gang 13A Switched
Socket with Indicator
Box: 5
Carton: 50



HWDALT13SNDP

2 Gang 13A DP Switched
Socket with Indicator
Box: 5
Carton: 50



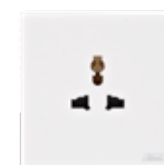
HWDAL15SS

1 Gang 15A
Switched Socket
Box: 10
Carton: 100



HWDAL15SN

1 Gang 15A Switched Socket
with Indicator
Box: 10
Carton: 100



HWDAL3US

3 Pin Socket
Box: 10
Carton: 100



HWDAL3USS

3 Pin MF Switched Socket
Box: 10
Carton: 100



HWDAL3USN

1 Gang 13A Universal
Switched Socket
Box: 10
Carton: 100



HWDAL5US

5 Pin Socket
Box: 10
Carton: 100

Altivo Series

Wiring Devices



HWDAL5USS

5 Pin MF Switched Socket
Box: 10
Carton: 100



HWDAL5USN

5 Pin MF Switched Socket
with Neon
Box: 10
Carton: 100



HWDAL2USS

2 Gang Universal
Switched Socket
Box: 5
Carton: 50



HWDAL2USN

2 Gang Switched Universal
Socket with Neon
Box: 5
Carton: 50



HWDALCCU

Cooker Control Unit with
13A Socket & Indicators
Box: 5
Carton: 50



HWDAL2PS

2 Pin Socket
Box: 10
Carton: 100



HWDAL22PS

4 Pin Socket
Box: 10
Carton: 100



HWDALSS

1 Gang 15A Shaver
Socket 110V/230V
Box: 1
Carton: 24



HWDALES

Europe Socket
Box: 10
Carton: 100



HWDAL20CO

20A Cable Outlet
Box: 10
Carton: 100



HWDAL45CO

45A Cable Outlet
Box: 10
Carton: 100



HWDAL13SNDUSB

1 Gang 13A DP
Switched Socket with
Twin USB Charger
Box: 10 ; Carton: 100



HWDALT13SNDUSB

2 Gang 13A DP
Switched Socket with
Indicators & 2*USB
Box: 5 ; Carton: 50



HWDAL3USNUSB

1 Gang Universal
Switched Socket with
Twin USB Charger
Box: 10 ; Carton: 100



HWDAL5USNUSB

5 pin MF switched socket
with neon + USB+type-C
Box: 10 ; Carton: 100



HWDAL2USNUSB

2 Gang Switched
Universal Socket with
Neon & 2*USB
Box: 5 ; Carton: 50

Altivo Series

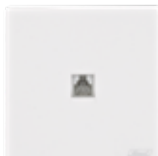
Wiring Devices

Telecommunication sockets



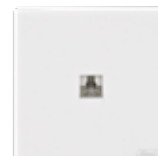
HWDALTV

1 Gang TV Socket
Box: 10
Carton: 100



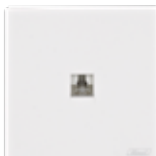
HWDALTS

1 Gang Telephone Socket
Box: 10
Carton: 100



HWDALDS5

Single Computer Socket
Box: 10
Carton: 100



HWDALDS6

1 Gang Cat5 RJ45
Data Socket
Box: 10
Carton: 100



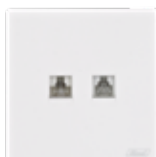
HWDALTVT

2 Gang Telephone
& TV Socket
Box: 10
Carton: 100



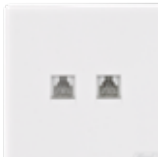
HWDALTVDS

2 Gang Cat5 Data & TV Socket
Box: 10
Carton: 100



HWDALTDS

2 Gang Telephone &
Cat 6 Data Socket
Box: 10
Carton: 100



HWDAL2T

2 Gang Telephone Socket
Box: 10
Carton: 100



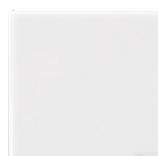
HWDALSSF

1 Gang SAT Socket
Box: 10
Carton: 100



HWDALSFCU

1 Gang 13A DP Switched
Cable Outlet with
Indicator & Fuse
Box: 20, Carton: 200



HWDAL1BP

1 Gang Blank Plate
Box: 10
Carton: 100



HWDAL2BP

2 Gang Blank Plate
Box: 10
Carton: 100



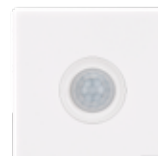
HWDALVC

1 Gang Sound &
Light Sensor with Fire
Emergency Load
Box:8, Carton: 80



HWDALTD

1 Gang Touch Delay Switch
with Fire Emergency Load
Box:8
Carton: 80



HWDALHS

1 Gang Infrared Sensor
with Fire Emergency Load
Box:8
Carton: 80



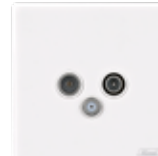
HWDALST

Satellite + Tel Socket
with 4 Protection
Box: 10
Carton: 100



HWDALSTV

2 Gang SAT & TV Socket
Box: 10
Carton: 100



HWDALSTVFM

3 Gang SAT & TV
& FM Socket
Box: 10
Carton: 100



HWDALFCU

Fuse Connection Unit
Box: 10
Carton: 100



HWDAL2DS6

2 Gang Cat6 RJ45
Data Socket
Box: 10
Carton: 100



EUROPEAN WIRING DEVICES

Himel European Wiring Devices are a selection of brilliant finishes with timeless sophistication, making them the perfect choice for new buildings and renovation, alike. Striking a balance between safety and aesthetics, these devices have been rigorously tested against international quality standards.

Modern Series

European Wiring Devices



Range Presentation

Switch to the future with Modern Series. With striking design, high quality material and durable making, Modern switches and sockets are ideally suited for new construction and renovation project, alike. A wide variety of functionalities and large range of colours to choose from, along with latest light and metal edition allows you to create an unlimited number of combinations.

Features

- ◆ 60 functionalities
- ◆ Two material options: light plastic and metallic
- ◆ All sockets available with shutters to prevent accidents
- ◆ Multiple frames up to 6 gangs
- ◆ Sleek design with complete functionality
- ◆ Works with Himel Smart

Selection Code

Range name	Functionality	Color
HWDM	xxx	C
M: Modern	You may replace XX codes by functionality codes listed below	Default: White C: Cream SM: Smoke MK: Metallic Black MO: Mocha MB: Metallic Beige SV: Silver

Online Content



Modern Series

Color Selection



White

Cream

Smoked Grey

Mocha

Silver

Metallic Beige

Metallic Black



This offer is available only in countries following European Standards.
For more information, contact local Himel Sales.

Modern Series

European Wiring Devices



MODERN, SLEEK, MINIMAL
Inspiring aesthetics and
convenience



Socket Outlets



HWDM1S

Switch
Box: 15
Carton: 150



HWDM2S

2 Gang Switch
Box: 15
Carton: 150



HWDM1C

Push Button
Box: 15
Carton: 150



HWDM1S2

2 Way Switch
Box: 15
Carton: 150



HWDM2S2

2 Gang 2 Way Switch
Box: 15
Carton: 150



HWDMDC

Door Check
Box: 15
Carton: 150

Modern Series

European Wiring Devices

**HWDMDB**

Door Bell
Box: 15
Carton: 150

**HWDMCS**

Roller Blind Switch, 1 Gang
Box: 15
Carton: 150

**HWDM2CS**

Roller Blind Switch, 2 Gang
Box: 15
Carton: 150

**HWDMMB**

Volume Control Switch
Box: 12
Carton: 120

**HWDMMW**

Intermediate Switch
Box: 15
Carton: 150

**HWDM3S**

3 Gang Switch
Box: 15
Carton: 150

**HWDMWD**

Water Heater
Box: 15
Carton: 150

**HWDM1SI**

Illuminated Switch
Box: 15
Carton: 150

**HWDM2SI**

Illuminated 2 Gang Switch
Box: 15
Carton: 150

**White:HWDM1CI**

Socket Outlets: Illuminated
Push Button
Box: 15
Carton: 150

**HWDM1CI2**

Illuminated 2 Way Switch
Box: 15
Carton: 150

**HWDMBB**

Illuminated Push Button
with Label Holder
Box: 15
Carton: 150

**HWDMSO**

Socket
Box: 15
Carton: 150

**HWDMSOS**

Socket with Child Protection
Box: 15
Carton: 150

**HWDMESS**

Socket with Side Earth with
Child Protection
Box: 15
Carton: 150

**HWDMES**

Socket with Side Earth
Box: 15
Carton: 150

**HWDMESC**

Socket with Side Earth with
Cover
Box: 15
Carton: 150

**HWDMUPS**

Socket with Pin Earth
Box: 15
Carton: 150

**HWDMUPSSC**

Socket with Pin Earth with
Child Protection with cover
Box: 15
Carton: 150

**HWDMUPSS**

Socket with Pin Earth with
Child Protection
Box: 15
Carton: 150

**HWDMESCS**

Socket with Side Earth with
Child Protection with cover
Box: 15
Carton: 150

**HWDMUPSC**

Socket with Pin Earth with
Cover
Box: 15
Carton: 150

**HWDM2SO**

Double Socket
Box: 10
Carton: 100

**HWDM2ES**

Double Socket with
Side Earth
Box: 10
Carton: 100

Modern Series

European Wiring Devices

**HWDM2UPS**

Double Socket with Pin Earth
Box: 10
Carton: 100

**HWDM1SI**

Dimmer, 1000VA
Box: 12
Carton: 120

**HWDM2SI**

Illuminated Dimmer, 1000VA
Box: 12
Carton: 120

**HWDM1CI**

2Way Dimmer, 600A
Box: 12
Carton: 120

Telecommunication Accessories

**HDMTV**

TV Socket, Ending-Intermediate
Box: 15
Carton: 150

**HDMSAT**

TV SAT Socket, Intermediate
Box: 15
Carton: 150

**HDMSATL**

TV SAT Radio Socket, Intermediate
Box: 15
Carton: 150

**HWDSATV**

TV SAT Socket, Ending
Box: 15
Carton: 150

**HWDSATF**

SAT Socket, Single with F Connector
Box: 15
Carton: 150

**HWDSATE**

SAT Socket, Single
Box: 15
Carton: 150

**HWDMT**

Telephone Socket
Box: 15
Carton: 150

**HWDMNT**

Telephone Socket Cat 3
Box: 15
Carton: 150

**HWDM2NT**

Double Telephone Socket Cat 3
Box: 15
Carton: 150

**HWDMDS**

Data Socket Faceplate w/o connector
Box: 15
Carton: 150

**HWDMDS5**

Data Socket RJ45, Cat 5
Box: 15
Carton: 150

**HWDMDS5**

Double Data Socket RJ45, Cat 5
Box: 15
Carton: 150

**HWDMD5P3**

Data + Tel Socket (RJ45 Cat 5 + Cat 3)
Box: 15
Carton: 150

**HWDMC**

Cable Output
Box: 15
Carton: 150

**HWDMDS6**

Data Socket RJ45, Cat 6
Box: 15
Carton: 150

Modern Series

European Wiring Devices



HWDM2DS6

Double Data Socket RJ45,
Cat 6
Box: 15
Carton: 150



HWDMD6P3

Data + Phone Socket
(Cat 6 + Cat 3)
Box: 15
Carton: 150



HWDM2DS

Double Data Socket Faceplate
w/o connector
Box: 15
Carton: 150



HWDMS

Audio Socket
Box: 15
Carton: 150

Electronic Group



HDMMS

Movement Detector
Box: 15
Carton: 150



HDMKC

Hotel Key Card Switch
Box: 15
Carton: 150



HWDM1F

Single Frame
Box: 15
Carton: 150



HWDM2F

Double Frame
Box: 15
Carton: 150



HWDM3F

Triple Frame
Box: 15
Carton: 150



HWDM4F

Quadruple Frame
Box: 15
Carton: 150

Future Ready

Upgrade your Modern Series switches with our WIFI Smart modules



HHESM

Smart Switch Module
Box: 1
Carton: 100



HHE2SM

2 Gang Switch Module
Box: 1
Carton: 100



HHESD

Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD

2 Gang Dimmer Module
Box: 1
Carton: 100



Curvo Series

European Wiring Devices

Range Presentation

Modern living places demand wiring devices that are safer, versatile, yet offer sophisticated elegance. Designed for YOU in mind, Curvo Series is amalgamation of pleasing aesthetics and wider spectrum of functions for every desired residential and commercial application.

Monochromatic finish, sleek dimensions, and original allure make them the timeless choice.

Features

- ◆ Greater versatility with 21 functionalities
- ◆ Better protection against accident with shutters included in sockets
- ◆ Protected claws to prevent hand injuries during installation
- ◆ Superior safety with fire retardant material
- ◆ Quality assurance with SNI certification
- ◆ Multitask with optional USB charger socket outlet

Selection Code

Range name

Functionality

HWDCV

XXX

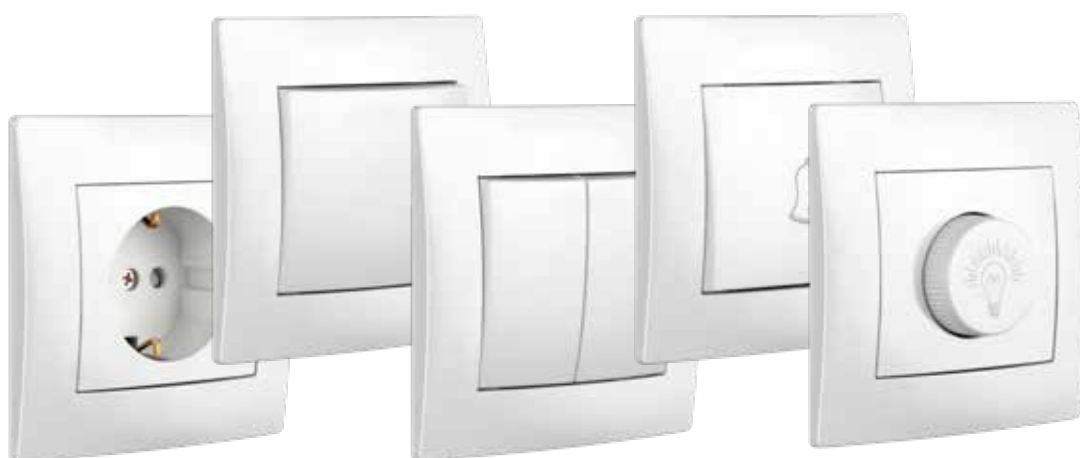
CV: Curvo

20+ Funtionalities

Online Content

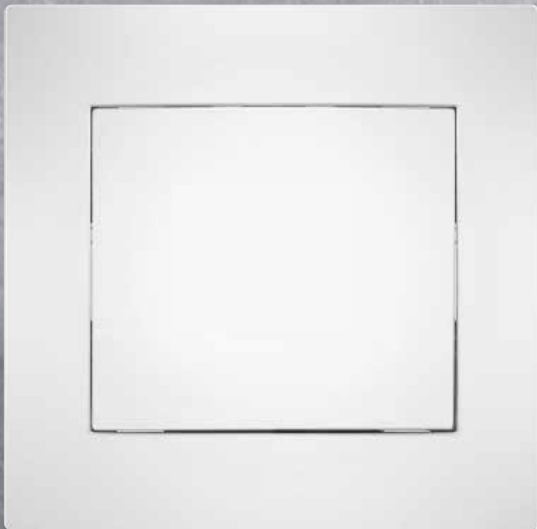


Curvo Series



Curvo Series

European Wiring Devices



TIMELESS DESIGN
ENHANCED SAFETY
MULTIPLE FUNCTIONS



Switches



HWDCV1S

1 Gang 1 Way Switch
Box: 10
Carton: 100



HWDCV1SL

1 Gang 1 Way Switch
with LED
Box: 10 ; Carton: 100



HWDCV1S2

1 Gang 2 Way Switch
Box: 10
Carton: 100



HWDCV2S

2 Gang 1 Way Switch
Box: 10
Carton: 100



HWDCV2S2

2 Gang 2 Way Switch
Box: 10
Carton: 100



HWDCVBS

Bell Switch
Box: 10
Carton: 100

Curvo Series

European Wiring Devices



HWDCVBSL

Bell Switch with LED
Box: 10
Carton: 100



HWDCVLD

1 Gang Light Dimmer
Box: 8
Carton: 80



HWDCVFC

1 Gang Fan Control
Box: 8
Carton: 80



HWDCVDM5

Dismatic Switch
Box: 10
Carton: 100

Socket Outlet



HWDCV2PS

1 Gang 2 Pin Socket
Box: 10
Carton: 100



HWDCVSS

1 Gang Schuko Socket
Box: 10
Carton: 100



HWDCVFS

1 Gang French Socket
Box: 10
Carton: 100



HWDCV2P2S

2 Gang 2 Pin Socket
Box: 6
Carton: 60



HWDCVS2S

2 Gang Schuko Socket
Box: 5
Carton: 50



HWDCVSSC

1 Gang Schuko Socket
with Cover
Box: 10 ; Carton: 100

Telecommunication Accessories



HWDCVTV

1 Gang Isolated TV Socket
Box: 10
Carton: 100



HWDCVSA

1 Gang Satellite Socket
Box: 10
Carton: 100



HWDCVTS

1 Gang Telephone Socket
Box: 10
Carton: 100



HWDCVDS

1 Gang Data Socket
Box: 10
Carton: 100



HWDCVTDS

1 Gang Tel +
Data Socket
Box: 10
Carton: 100



HWDCVUSB

Double USB Socket
Box: 10
Carton: 100

Curvo Series

European Wiring Devices

Flush Plates



HWDCVF2

Double Frame
Box: 20
Carton: 200

Future Ready

Upgrade your Curvo Series switches with our WIFI Smart modules



HHESM

Smart Switch Module
Box: 1
Carton: 100



HHE2SM

2 Gang Switch Module
Box: 1
Carton: 100



HHESD

Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD

2 Gang Dimmer Module
Box: 1
Carton: 100





MODULAR WIRING DEVICES

Himel helps in accentuating your interior décor through Modular Wiring Devices rigorously tested for quality and safety against regional and international standards. Whether you need timeless white or classy metallic or beige, our modular devices offer a wide choice of ergonomics and finishes.

Range Presentation

Introducing our most flexible wiring devices range designed to elevate your living and working spaces, Flexo. Crafted from fire-retardant, high-quality polycarbonate, Flexo offers a versatile combination of switches, sockets, frames, and accessories.

With a wide range of cover sizes and sockets featuring child protection shutters, each product is meticulously designed for safety and convenience.

Flexo is certified for CE and RoHS standards, ensuring best-in-class quality and compliance.

Features



Versatile combination of switches, sockets, frames and accessories



Wide range of cover sizes



Made from polycarbonate, one of the toughest thermoplastics available



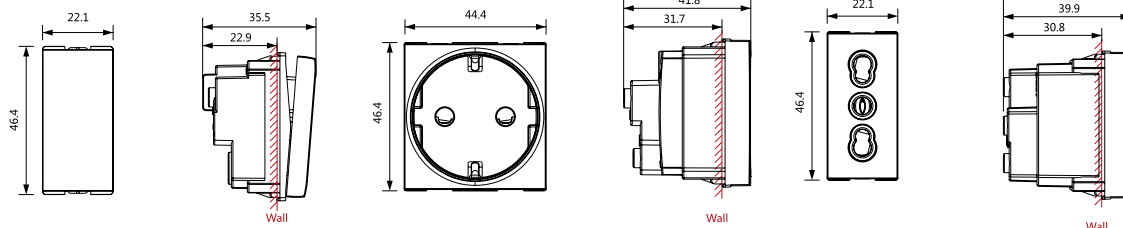
Sockets available with shutter for child protection



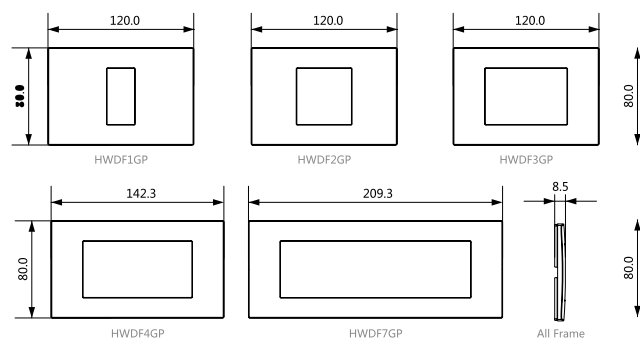
CE and RoHS certification

Product Dimension (mm)

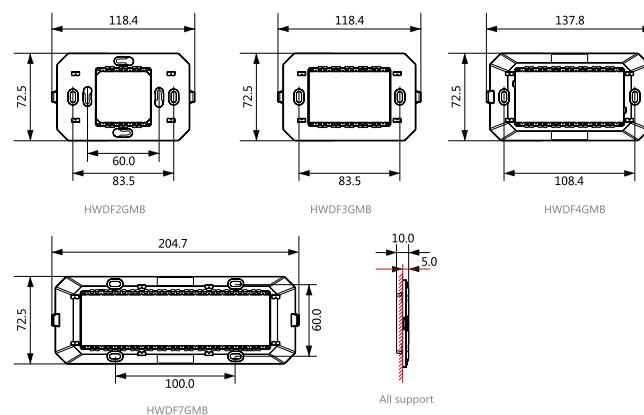
SWITCH & SOCKET



FRAME

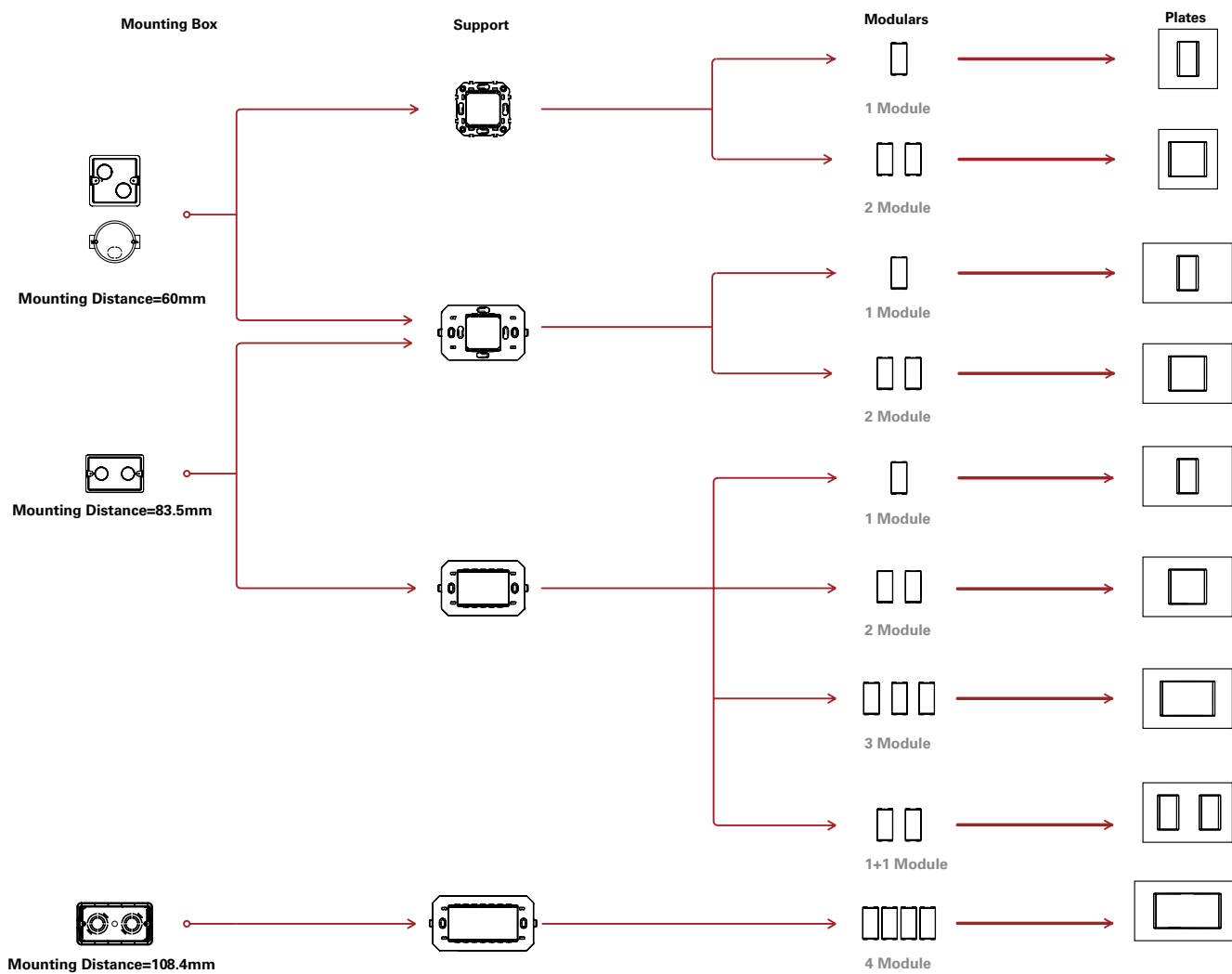


MODULE





Installation System



Flexo Series

Modular Wiring Devices



Selection Code

Range name	Functionality	Colour
HWDF	XXX	X
F: Flexo	You may replace XXX codes by functionality codes listed below	Default: White B: Black S: Silver C: Champagne

Frame Colour Choices



Module Colour Choices

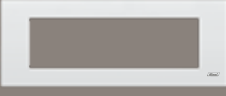
- white
- matte white
- black
- silver
- champagne

Major Functionality Abbreviation

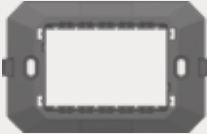
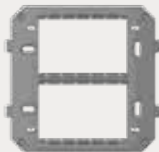
- 1G1W: 1 gang 1 way
- 1G2W: 1 gang 2 way
- PB: push button
- IS: Italian socket
- SS: schuko socket
- DIM: dimmer



Frame

Product Picture	Ref No. (white)	Ref No. (white Matte)	Ref No. (black)	Ref No. (silver)	Ref No. (champagne)	Description	Mod	Qty/ Box	Qty /Carton
	HWDFEP1G	HWDFEP1GWM	HWDFEP1GB	HWDFEP1GS	HWDFEP1GC	1 Gang Frame - 80 size 80 x 80 x 8.5 (mm) PC	1	30	300
	HWDFEP2G	HWDFEP2GWM	HWDFEP2GB	HWDFEP2GS	HWDFEP2GC	2 Gang Frame - 80 size 80 x 80 x 8.5 (mm) PC	2	30	300
	HWDF1GP	HWDF1GPWM	HWDF1GPB	HWDF1GPS	HWDF1GPC	1 Gang Frame - 120 size 120 x 80 x 8.5 (mm) PC	1	20	200
	HWDF2GP	HWDF2GPWM	HWDF2GPB	HWDF2GPS	HWDF2GPC	2 Gang Frame - 120 size 120 x 80 x 8.5 (mm) PC	2	20	200
	HWDFL2GP2	HWDFL2GP2WM	HWDFL2GP2B	HWDFL2GP2S	HWDFL2GP2C	2 Gang Frame - 120 size 120 x 80 x 8.5 (mm) PC	1+1	20	200
	HWDF3GP	HWDF3GPWM	HWDF3GPB	HWDF3GPS	HWDF3GPC	3 Gang Frame - 120 size 120 x 80 x 8.5 (mm) PC	3	20	200
	HWDF4GP	HWDF4GPWM	HWDF4GPB	HWDF4GPS	HWDF4GPC	4 Gang Frame 147 x 80 x 8.5 (mm) PC	4	20	200
	HWDF7GP	HWDF7GPWM	HWDF7GPB	HWDF7GPS	HWDF7GPC	7 Gang Frame 209 x 80 x 8.5 (mm) PC	7	16	160
	HWDFL2GPE	HWDFL2GPEWM	HWDFL2GPEB	HWDFL2GPES	HWDFL2GPEC	2x1 Gang Frame 120 x 120 x 8.5 (mm) PC	2x1	10	100
	HWDFL2GPG	HWDFL2GPGWM	HWDFL2GPGB	HWDFL2GP GS	HWDFL2GP GC	2x(1+1) Gang Frame 120 x 120 x 8.5 (mm) PC	2x (1+1)	10	100
	HWDFL2GPF	HWDFL2GPFWM	HWDFL2GPFB	HWDFL2GPFS	HWDFL2GPFC	2x3 Gang Frame 120 x 120 x 8.5 (mm) PC	2x3	10	100
	HWDFL3GBP	HWDFL3GBPWM	HWDFL3GBP B	HWDFL3GBP S	HWDFL3GBP C	3 Gang Blank Plate 120 x 80 x 8.5 (mm) PC	3	20	200
	HWDFL2X3GBP	HWDFL2X3GBPWM	HWDFL2X3GBP B	HWDFL2X3GBP S	HWDFL2X3GBP C	2x3 Gang Blank Plate 120 x 120 x 8.5 (mm) PC	2x3	10	100
	HWDFLCO	HWDFLCOWM	HWDFLCOB	HWDFLCOS	HWDFLCOC	Cable Outlet 80 x 120 x 8.5 (mm) PC	3	20	200

Support

Product Picture	Ref No.	Description	Terminal	Mod	Qty/Box	Qty/Carton
	HWDFEP2GMB	2 Gang Support w/o Mounting Claw	-	Max. 2 mod	30	300
	HWDFLEP2GMBC	2 Gang Support with Mounting Claw	-	Max. 2 mod	20	200
	HWDF2GMB	2 Gang Support	-	Max. 2 mod	20	200
	HWDF3GMB	3 Gang Support	-	Max. 3 mod	20	200
	HWDF4GMB	4 Gang Support	-	Max. 4 mod	20	200
	HWDF7GMB	7 Gang Support	-	Max. 7 mod	16	160
	HWDFL2X3GMB	2X3 Gang Support	-	Max. 2 x 3 mod	10	100



One Way Switches

Product Picture	Ref No. (White)	Ref No. (White Matte)	Ref No. (Black)	Ref No. (Silver)	Ref No. (Champagne)	Description	Terminal	Mod	Qty/ Box	Qty/ Carton
	HWDF1G1W HWDFL2G1W HWDFL3G1W	HWDF1G1WWM HWDFL2G1WWM HWDFL3G1WWM	HWDF1G1WB HWDFL2G1WB HWDFL3G1WB	HWDF1G1WS HWDFL2G1WS HWDFL3G1WS	HWDF1G1WC HWDFL2G1WC HWDFL3G1WC	1 Way Switch 1P 250V~16AX	Screw	1 2 3	20 14 12	200 140 120
	HWDF1G1WLED HWDFL2G1WLED HWDFL3G1WLED	HWDF1G1WLEDWM HWDFL2G1WLEDWM HWDFL3G1WLEDWM	HWDF1G1WLEDB HWDFL2G1WLEDB HWDFL3G1WLEDB	HWDF1G1WLEDS HWDFL2G1WLEDS HWDFL3G1WLEDS	HWDF1G1WLEDC HWDFL2G1WLEDC HWDFL3G1WLEDC	1 Way Illuminable Switch (with LED indicator) 1P 250V~16AX	Screw	1 2 3	20 14 12	200 140 120

Two Way Switches

Product Picture	Ref No. (White)	Ref No. (White Matte)	Ref No. (Black)	Ref No. (Silver)	Ref No. (Champagne)	Description	Terminal	Mod	Qty/ Box	Qty/ Carton
	HWDF1G2W HWDFL2G2W HWDFL3G2W	HWDF1G2WWM HWDFL2G2WWM HWDFL3G2WWM	HWDF1G2WB HWDFL2G2WB HWDFL3G2WB	HWDF1G2WS HWDFL2G2WS HWDFL3G2WS	HWDF1G2WC HWDFL2G2WC HWDFL3G2WC	2 Way Switch 1P 250V~16AX	Screw	1 2 3	20 14 12	200 140 120
	HWDF1G2WLED HWDFL2G2WLED HWDFL3G2WLED	HWDF1G2WLEDWM HWDFL2G2WLEDWM HWDFL3G2WLEDWM	HWDF1G2WLEDB HWDFL2G2WLEDB HWDFL3G2WLEDB	HWDF1G2WLEDS HWDFL2G2WLEDS HWDFL3G2WLEDS	HWDF1G2WLEDC HWDFL2G2WLEDC HWDFL3G2WLEDC	2 Way Illuminable Switch (with LED indicator) 1P 250V~16AX	Screw	1 2 3	20 14 12	200 140 120

Push Button

Product Picture	Ref No. (White)	Ref No. (White Matte)	Ref No. (Black)	Ref No. (Silver)	Ref No. (Champagne)	Description	Terminal	Mod	Qty/ Box	Qty/ Carton
	HWDFPB HWDFLPB2G HWDFLPB3G	HWDFPBWM HWDFLPB2GWM HWDFLPB3GWM	HWDFPB8 HWDFLPB2GB HWDFLPB3GB	HWDFPBS HWDFLPB2GS HWDFLPB3GS	HWDFPBC HWDFLPB2GC HWDFLPB3GC	Push Button 1P 250V~ 10A	Screw	1 2 3	20 14 12	200 140 120
	HWDFLPB1GLED HWDFLPB2GLED HWDFLPB3GLED	HWDFLPB1GLEDWM HWDFLPB2GLEDWM HWDFLPB3GLEDWM	HWDFLPB1GLEDB HWDFLPB2GLEDB HWDFLPB3GLEDB	HWDFLPB1GLEDS HWDFLPB2GLEDS HWDFLPB3GLEDS	HWDFLPB1GLEDC HWDFLPB2GLEDC HWDFLPB3GLEDC	Illuminable Push Button (with LED indicator) 1P 250V~ 10A	Screw	1 2 3	20 14 12	200 140 120

Double Pole Switches

Product Picture	Ref No. (White)	Ref No. (White Matte)	Ref No. (Black)	Ref No. (Silver)	Ref No. (Champagne)	Description	Terminal	Mod	Qty/ Box	Qty/ Carton
	HWDFLDP1G HWDFLDP2G HWDFLDP3G	HWDFLDP1GWM HWDFLDP2GWM HWDFLDP3GWM	HWDFLDP1GB HWDFLDP2GB HWDFLDP3GB	HWDFLDP1GS HWDFLDP2GS HWDFLDP3GS	HWDFLDP1GC HWDFLDP2GC HWDFLDP3GC	Double Pole Switch 2P 250V~16AX	Screw	1 2 3	20 14 12	200 140 120
	HWDFLDP1GLED HWDFLDP2GLED HWDFLDP3GLED	HWDFLDP1GLEDWM HWDFLDP2GLEDWM HWDFLDP3GLEDWM	HWDFLDP1GLEDB HWDFLDP2GLEDB HWDFLDP3GLEDB	HWDFLDP1GLEDS HWDFLDP2GLEDS HWDFLDP3GLEDS	HWDFLDP1GLEDC HWDFLDP2GLEDC HWDFLDP3GLEDC	Illuminable Double Pole Switch (with LED indicator) 2P 250V~16AX	Screw	1 2 3	20 14 12	200 140 120

Flexo Series

Modular Wiring Devices



Intermediate Switches

Product Picture	Ref No. (White)	Ref No. (White Matte)	Ref No. (Black)	Ref No. (Silver)	Ref No. (Champagne)	Description	Terminal	Mod	Qty/ Box	Qty/ Carton
	HWDFIS	HWDFISWM	HWDFISB	HWDFISS	HWDFISC	Intermediate Switch 1P 250V~16AX	Screw	1	20	200
	HWDFLIS2G	HWDFLIS2GWM	HWDFLIS2GB	HWDFLIS2GS	HWDFLIS2GCS			2	14	140
	HWDFLIS3G	HWDFLIS3GWM	HWDFLIS3GB	HWDFLIS3GS	HWDFLIS3GCS			3	12	120

1-0-2 Mode Blind Switches

Product Picture	Ref No. (White)	Ref No. (White Matte)	Ref No. (Black)	Ref No. (Silver)	Ref No. (Champagne)	Description	Terminal	Mod	Qty/ Box	Qty/ Carton
	HWDF3SCS	HWDF3SCSWM	HWDF3SCSB	WDF3SCSS	WDF3SCSC	1-0-2 Mode Blind Switch 1P 250V~ 10A	Screw	1	20	200
	HWDFL3SCS2G	HWDFL3SCS2GWM	HWDFL3SCS2GB	HWDFL3SCS2GS	HWDFL3SCS2GCS			2	14	140
	HWDFL3SCS3G	HWDFL3SCS3GWM	HWDFL3SCS3GB	HWDFL3SCS3GS	HWDFL3SCS3GCS			3	12	120

Electrical Sockets

Product Picture	Ref No. (White)	Ref No. (White Matte)	Ref No. (Black)	Ref No. (Silver)	Ref No. (Champagne)	Description	Terminal	Mod	Qty/Box	Qty/ Carton
	HWDFSS	HWDFSSWM	HWDFSSB	HWDFSSS	HWDFSSC	Schuko Socket with Safety Shutter 16A 250V~ 2P+E	Screw	2	8	80
	HWDFLSSLID01	HWDFLSSLID01WM	HWDFLSSLID01B	HWDFLSSLID01S	HWDFLSSLID01C	Schuko Socket with Safety Shutter with Lid 16A 250V~ 2P+E	Screw	2	8	80
	HWDFLESUNI	HWDFLESUNIWM	HWDFLESUNIB	HWDFLESUNIS	HWDFLESUNIC	Universal European Socket with Safety Shutter 16A 250V~ 2P+E	Screw	2	8	80
	HWDFL10IS	HWDFL10ISWM	HWDFL10ISB	HWDFL10ISS	HWDFL10ISC	10A Italian Socket with Safety Shutter 10A 250V~ 2P+E	Screw	1	16	160
	HWDF16IS	HWDF16ISWM	HWDF16ISB	HWDF16ISS	HWDF16ISC	10A/16A Universal Italian Socket with Safety Shutter 10A/16A 250V~ 2P+E	Screw	1	16	160

Accessories

Product Picture	Ref No.	Color	Description	Mod	Qty/Box	Qty/Carton
	HWDFLLEDI001	-	LED indicator for screwless terminal switch	-	50	5000
	HWDFLLEDI002		LED indicator for screw terminal switch			
	HWDFBF	WHITE	Blank Insert	1	32	320
	HWDFBFWM	WHITE MATTE				
	HWDFBFB	BLACK				
	HWDFBFS	SILVER				
	HWDFBFC	CHAMPAGNE				

Flexo Series

Modular Wiring Devices



VDI Sockets

Product Picture	Ref No. (White)	Ref No. (White Matte)	Ref No. (Black)	Ref No. (Silver)	Ref No. (Champagne)	Description	Mod	Qty/Box	Qty/ Carton
	HWDFTS	HWDFTSWM	HWDFTSB	HWDFTSS	HWDFTSC	Telephone Socket CAT3 RJ11	1	20	200
	HWDFDS	HWDFDSWM	HWDFDSB	HWDFDSS	HWDFDSC	LAN Socket CAT5E RJ45 UTP	1	20	200
	HWDFTV	HWDFTVWM	HWDFTVB	HWDFTVS	HWDFTVC	TV Socket Female Type End Type w/o Surge protection	1	20	200
	HWDFLSTV	HWDFLSTVWM	HWDFLSTVB	HWDFLSTVS	HWDFLSTVC	End Type w/o Surge protection	1	20	200

Electronics

Product Picture	Ref No. (White)	Ref No. (White Matte)	Ref No. (Black)	Ref No. (Silver)	Ref No. (Champagne)	Description	Mod	Qty/Box	Qty/ Carton
	HWDFLMB	HWDFLMBWM	HWDFLMBB	HWDFLMB S	HWDFLMB C	Mechanical Buzzer 250V~	1	16	160
	HWDFLEDB	HWDFLEDBWM	HWDFLEDBB	HWDFLEDBS	HWDFLEDBC	Electronic Doorbell 110-250V~	2	8	80
	HWDF1USB	HWDF1USBWM	HWDF1USBB	HWDF1USBS	HWDF1USBC	Single USB Charger Input 100-250V~ Output 5V DC 2.4A	1	16	160
	HWDF2USB	HWDF2USBWM	HWDF2USBB	HWDF2USBS	HWDF2USBC	USB + Type C Fast Charger Input 100-250V~ Output: A port / C port only: DC 5V 3A / 9V 2.2A / 12V 1.67A (20W) A+C port both in use: DC 5V 3A (15W)	1	16	160
	HWDFDIM25	HWDFDIM25WM	HWDFDIM25B	HWDFDIM25S	HWDFDIM25C	Trailing Edge Dimmer 250V~ 250W Multi type load	1	16	160
	HWDFDIM50	HWDFDIM50WM	HWDFDIM50B	HWDFDIM50S	HWDFDIM50C	Triac Dimmer 250V~ 500W Resistive type load	1	16	160
	HWDFDIM10	HWDFDIM10WM	HWDFDIM10B	HWDFDIM10S	HWDFDIM10C	1-10V Dimmer For Fluorescent Lamp with Ballast	1	16	160

Bliss Series

Modular Wiring Devices



Range Presentation

Bliss switches and sockets are pure design, offering a versatile alternative to traditional white switches and sockets. With a wider range of combination of panel shapes and colours and a large variety of functional modules, Bliss is totally customizable to meet all home and building needs.

Designed with fireproof polycarbonate with reinforced interior plates, every Bliss product is robust, strong and durable.

Bliss is available in 3 different frames:

- ◆ Bliss Oval, offering simple yet modern combination
- ◆ Bliss Curve, with an attractive finish to adore luxury homes
- ◆ Bliss Flat, high-class electroplated frame for showstopper spaces

Bliss also integrates into any smart home with Himel Smart module compatibility.

Features

- ◆ Euro and Modular plates available
- ◆ 22 colors and 3 different finishes (plain, metallic and wood)
- ◆ 3 different frame design (Oval, Curve and Flat)
- ◆ High grade PC, flame retardant and impact resistant
- ◆ Reinforced honeycomb structure for longer life and stronger support
- ◆ Works with Himel Smart

Online Content



Bliss Series

Selection Code-Overall

Range name	Functionality	Plate Design	Color
HWDB	XXX	X	XX
B: Bliss	You may replace XX codes by functionality codes listed below	O: Oval C: Curve F: Flat	WH: White P0-P9: Original color MP1-MP6: Metallic painting WO1-WO7: Wooden color



This offer is available only in Egypt. For more information, contact local Himel Sales.

HOME ELECTEIC

Bliss Series

Modular Wiring Devices



INFINITE POSSIBILITIES

3 FRAMES | 3 FINISHES | 23 COLOURS |
55 MODULES



Switches



HWDBS1G1W

16A Single Switch 1
gang 1 way -22mm
Box: 48
Carton: 480



HWDBS1G1WWL

16A Single Switch 1 gang
1 way with lamp -22mm
Box: 48
Carton: 480



HWDBS1G2W

16A Single Switch 1
gang 2 way -22mm
Box: 48
Carton: 480



HWDBS1G2WWL

16A Single Switch 1 gang
2 way with lamp -22mm
Box: 48
Carton: 480



HWDBSDB

16A Doorbell
Switch -22mm
Box: 48
Carton: 480



HWDBSDBWL

16A Doorbell Switch
with Lamp -22mm
Box: 48
Carton: 480

Bliss Series

Modular Wiring Devices



HWDBM1G1W
16A Single Switch 1
gang 1 way -44mm
Box: 32
Carton: 320



HWDBM1G1WWL
16A Single Switch 1 gang 1
way with lamp -44mm
Box: 32
Carton: 320



HWDBM1G2W
16A Single Switch 1
gang 2 way -44mm
Box: 32
Carton: 320



HWDBM1G2WWL
16A Single Switch 1 gang
2 way with lamp -44mm
Box: 32
Carton: 320



HWDBMDB
16A Doorbell Switch -44mm
Box: 32
Carton: 320



HWDBMDBWL
16A Doorbell Switch
with Lamp -44mm
Box: 32
Carton: 320



HWDBB1G1W
16A Single Switch 1
gang 1 way -66mm
Box: 24
Carton: 240



HWDBB1G1WWL
16A Single Switch 1 gang
1 way with lamp -66mm
Box: 24
Carton: 240



HWDBB1G2W
16A Single Switch 1 gang
2 way -66mm
Box: 24
Carton: 240



HWDBB1G2WWL
16A Single Switch 1 gang
2 way with lamp -66mm
Box: 24
Carton: 240



HWDBBDB
16A Doorbell Switch -66mm
Box: 24
Carton: 240



HWDBBDBWL
16A Doorbell Switch with
Lamp -66mm
Box: 24
Carton: 240



HWDBISWL
16A Intermediate
Switch with lamp
Box: 48
Carton: 480



HWDB20DPWL
20A DP switch with lamp
Box: 48
Carton: 480



HWDB32DPWL
32A DP switch with lamp
44mm
Box: 32
Carton: 320



HWDB45DPWL
45A DP switch with
lamp 44mm
Box: 32
Carton: 320



HWDB1WCS
Curtain Switch
1 Way
Box: 48
Carton: 480



HWDB2WCS
Curtain Switch 2 Way
Box: 48
Carton: 480



HWDBDOUS
Double switch
Box: 48
Carton: 480

Bliss Series

Modular Wiring Devices

Socket Outlet

**HWDBUS**

10A 250V Universal
Socket
Box: 32
Carton: 320

**HWDB2PS**

16A 250V Euro
American 2 Pin Socket
Box: 48
Carton: 80

**HWDBSS**

16A 250V Schuko Socket
Box: 32
Carton: 320

**HWDBFS**

16A 250V French Socket
Box: 32
Carton: 320

**HWDB16IS**

16A Italian Socket
Box: 48
Carton: 480

**HWDB10IS**

10A Italian Socket
Box: 48
Carton: 480

**HWDB2PES**

10A European 2
round pin socket
Box: 48
Carton: 480

**HWDB1USB**

Single USB 2.1A Socket
Box: 48
Carton: 480

**HWDB2USB**

Double USB 2.1A Socket
Box: 48
Carton: 480

**HWDBSCHO**

Schuko Socket Red
Box: 32
Carton: 320

Blank Filler

**HWDBSBF**

Blank Filler -11mm
Box: 336
Carton: 3360

**HWDBBBF**

Blank Filler -22mm
Box: 192
Carton: 1920

Accessories

**HWDBDS**

Cat 6 Data Socket
Box: 48
Carton: 480

**HWDBTEL**

Cat 3 TEL Socket
Box: 48
Carton: 480

**HWDBSAT**

F Type Satellite Socket
Box: 48
Carton: 480

**HWDBSATE**

Satellite Socket
Straight
Box: 48 ; Carton: 480

**HWDBTV**

TV socket
Box: 48
Carton: 480

**HWDBTD**

Touch Delay 45 seconds
Switch
Box: 32 ; Carton: 320

Bliss Series

Modular Wiring Devices



HWDBEL

Emergency Light
Box: 48
Carton: 480



HWDBPIR

Motion Sensor Switch
PIR more than 4meters
Box: 32
Carton: 320



HWDBVLCS

Voice and Light Control
Switch more than 70Db
Box: 32
Carton: 320



HWDBDNL

Doorbell name light
Box: 32
Carton: 320



HWDBMNL

Night Light 44mm
Box: 32
Carton: 320



HWDBBNL

Night Light 66mm
Box: 16
Carton: 160



HWDBD2EL

Emergency Lighting
2 Gang
Box: 32 ; Carton: 320



HWDBRB

Ring Bell 90DB
Box: 48
Carton: 480

Dimmers



HWDBDIM4

Dimmer Switch 400W
Box: 32
Carton: 320



HWDBDIM3

Dimmer Switch 300W
Box: 32
Carton: 320



HWDBFAN

Fan Switch 300W
Box: 32
Carton: 320



HWDBDV

Volume Control Switch
Box: 32
Carton: 320

Plates



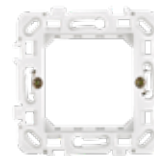
HWDBBP

Blank Plate 118mm
Box: 30
Carton: 300



HWDB2GF

European mounting
bracket without fixation
Box: 24
Carton: 240



HWDB2GEF

European mounting
bracket with fixation
Box: 24
Carton: 240

Bliss Series

Modular Wiring Devices



HWDB3GF

3 Gang Mounting Bracket
Box: 20
Carton: 200



HWDB4GF

4 Gang mounting bracket
Box: 15
Carton: 150



HWDB6GF

6 Gang mounting bracket
Box: 10
Carton: 100



HWDBEPOWH

Oval-European PlateWH
Box: 40
Carton: 400



HWDB1GPOWH

Oval-1 Gang PlateWH
Box: 20
Carton: 200



HWDB2GPOWH

Oval-2 Gang PlateWH
Box: 20
Carton: 200



HWDB2GPSOWH

Oval-2 Gang Plate SeparatelyWH
Box: 20
Carton: 200



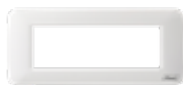
HWDB3GPOWH

Oval-3 Gang PlateWH
Box: 20
Carton: 200



HWDB4GPOWH

Oval-4 Gang PlateWH
Box: 20
Carton: 200



HWDB6GP

Oval-6 Gang PlateWH
Box: 18
Carton: 180



HWDBEPCWH

Curve-European PlateWH
Box: 40
Carton: 400



HWDB3GPCWH

Curve-3 Gang PlateWH
Box: 20
Carton: 200



HWDBEPFWH

Flat-European PlateWH
Box: 40
Carton: 400



HWDB3GPFWH

Flat-3 Gang PlateWH
Box: 20
Carton: 200

Waterproof Case



HWDB2GWP

2 Gang Waterproof Case
Box: 14
Carton: 140



HWDB3GWP

3 Gang Waterproof Case
Box: 10
Carton: 100



HWDB4GWP

4 Gang Waterproof Case
Box: 10
Carton: 100

Bliss Series

Modular Wiring Devices

Selection Code-PLATE

Range name	Functionality	Design	Color
HWDB	XXP	X	XX
B: Bliss	EP: European Plate 1GP: 1 Gang Plate 2GP: 2 Gang Plate 2GPS: 2 Gang Plate Separately 3GP: 3 Gang Plate 4GP: 4 Gang Plate 6GP: 6 Gang Plate	O: Oval C: Curve F: Flat	WH: White P0: Ivory P1: Green P2: Yellow P3: Orange P4: Pink P5: Red P6: Rose P7: Sky blue P8: Dark blue P9: Brown MP1: Metallic painting Sliver MP2: Metallic painting ST MP3: Metallic painting Blue MP4: Metallic painting Gold MP5: Metallic painting Bronze MP6: Metallic painting champagne WO1: Wood Mogano WO2: Wood Glossy WO3: Wood ARO Matt WO4: Wood Brown Matt WO5: Wood Brown Glossy WO6: Wood White WO7: Wood ZAN Matt

Color



HWDB3GPOP1



HWDB3GPOP2



HWDB3GPOP3



HWDB3GPOP4



HWDB3GPOP5



HWDB3GPOP6



HWDB3GPOP7



HWDB3GPOP8



HWDB3GPOP9

Bliss Series

Modular Wiring Devices



HWDB3GPOP9



HWDB3GPOMP1



HWDB3GPOMP2



HWDB3GPOMP3



HWDB3GPOMP4



HWDB3GPOMP5



HWDB3GPOMP6



HWDB3GPOWO1



HWDB3GPOWO2



HWDB3GPOWO3



HWDB3GPOWO4



HWDB3GPOWO5



HWDB3GPOWO6



HWDB3GPOWO7

Lumio Series

Wiring Devices

Range Presentation

LUMIO series is a comprehensive electrical installation system designed for fast and efficient installation. It features a wide range of switches and socket-outlets, including standard, double pole, and push button switches, as well as Schuko, European, and other sockets.

These products are designed to meet essential needs with reliable connections for wire capacities from 1.5 to 4mm². The modular design and IP54 accessories make it a high-performance, economical solution for various applications.

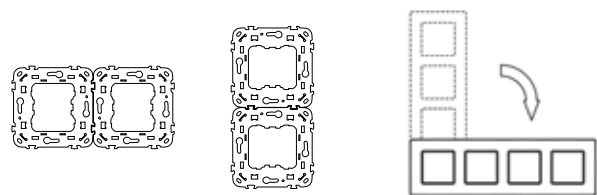
Features

- 50 functionalities for multiple applications
- Sockets with shutters to prevent accidents
- Protected claws to prevent hand injuries during installation
- Optional double-pole switch offers enhanced safety
- Screwless type for fast wire connection
- Couplable in any directions
- Fire retardant material
- CE and Rohs Certification

Selection Code

Range name	Functionality	Color
HWDL	XXX	-
L: Lumio	You may replace XX codes by functionality codes listed Below	Default: White

Modular System



Couplable in any direction

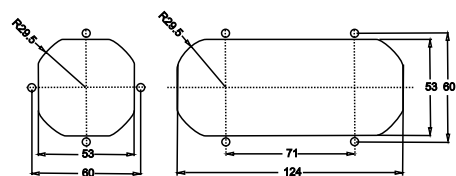
Easy inventory management

Complete Range



Meet all your functional needs

Mounting Distance



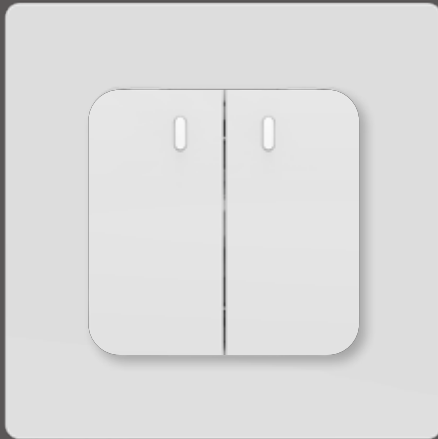
Installation



HOME ELECTRIC

Lumio Series

Wiring Devices



Complete Range
Safe & Stable
Fast Installation

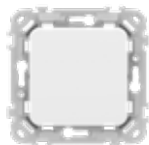


Switches



HWDL01S

1G1W Switch WT
Screwless
Box: 10 ; Carton: 100



HWDL01S2

1G2W Switch WT
Screwless
Box: 10 ; Carton: 100



HWDL01SI

1G1W Switch w Neon
WT Screwless
Box: 10 ; Carton: 100



HWDL01S2I

1G2W Switch w Neon
WT Screwless
Box: 10 ; Carton: 100



HWDL02S

2G1W Switch WT
Screwless
Box: 10 ; Carton: 100



HWDL02S2

2G2W Switch WT
Screwless
Box: 10 ; Carton: 100

Lumio Series

Wiring Devices

**HWDL02SI**

2G1W Switch w Neon
WT Screwless
Box: 10 ; Carton: 100

**HWDL02S2I**

2G2W Switch w Neon
WT Screwless
Box: 10 ; Carton: 100

**HWDL01C**

1G1W Push Button
WT Screwless
Box: 10 ; Carton: 100

**HWDL01CI**

1G1W Push Button w
Neon WT Screwless
Box: 10 ; Carton: 100

**HWDL0LC**

Push Button w Lamp
Sym WT Screwless
Box: 10 ; Carton: 100

**HWDL0LCI**

Illu Push Button w Lamp
Sym WT Screwless
Box: 10 ; Carton: 100

**HWDL0DC**

Push Button w Key
Sym WT Screwless
Box: 10 ; Carton: 100

**HWDL0DCI**

Illu Push Button w Key
Sym WT Screwless
Box: 10 ; Carton: 100

**HWDL0DB**

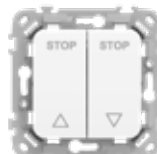
Push Button w Bell
Sym WT Screwless
Box: 10 ; Carton: 100

**HWDL0DBI**

Illu Push Button w Bell
Sym WT Screwless
Box: 10 ; Carton: 100

**HWDL02CRS**

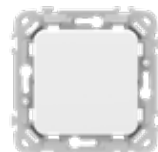
1-2M Push Button BI
Contr WT Screwless
Box: 10 ; Carton: 100

**HWDL02CS**

Interlock BI Switch
WT Screwless
Box: 10 ; Carton: 100

**HWDL0MW**

Intermediate Switch
WT Screwless
Box: 10 ; Carton: 100

**HWDL0DP1S**

1G 2-Pole Switch
WT Screwless
Box: 10 ; Carton: 100

**HWDL0DP1SI**

1G 2-Pole Switch w
Neon WT Screwless
Box: 10 ; Carton: 100

**HWDL0DIM252**

Trailing Edge Dimmer 2W
WT
Box: 6 ; Carton: 60
*can't work with IP54 cover

**HWDL0DIM102**

1-10V Dimmer 2W
WT
Box: 6 ; Carton: 60
*can't work with IP54 cover

**HWDL0MS**

Motion Sensor WT
Box: 6 ; Carton: 60
*can't work with IP54 cover

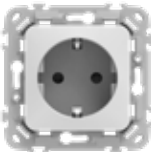
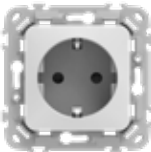
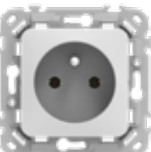
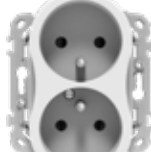
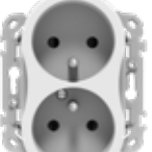
**HWDL0CKS**

Card Key Switch WT
Box: 6 ; Carton: 60
*can't work with IP54 cover

Lumio Series

Wiring Devices

Socket Outlet

 HWDL0SS Schuko Socket WT Screwless Box: 10 ; Carton: 100	 HWDL0SSS Schuko Socket WT Screw Box: 10 ; Carton: 100	 HWDL0FS French Socket WT Screwless Box: 10 ; Carton: 100
 HWDL0FSS French Socket WT Screw Box: 10 ; Carton: 100	 HWDL02PS 2-Pin Socket WT Screwless Box: 10 ; Carton: 100	 HWDL02PSS 2-Pin Socket WT Screw Box: 10 ; Carton: 100
 HWDL0SSC Schuko Socket w cover WT Screwless Box: 10 ; Carton: 100 *can't work with IP54 cover	 HWDL0SSCS Schuko Socket w cover WT Screw Box: 10 ; Carton: 100 *can't work with IP54 cover	 HWDL0FSC French Socket w cover WT Screwless Box: 10 ; Carton: 100 *can't work with IP54 cover
 HWDL0FSCS French Socket w cover WT Screw Box: 10 ; Carton: 100 *can't work with IP54 cover	 HWDL02FS Twin French Socket WT Screwless Box: 6 ; Carton: 60 *can't work with IP54 cover	 HWDL02FSS Twin French Socket WT Screw Box: 6 ; Carton: 60 *can't work with IP54 cover
 HWDL022PS Twin 2-Pin Socket WT Screwless Box: 6 ; Carton: 60 *can't work with IP54 cover	 HWDL022PSS Twin 2-Pin Socket WT Screw Box: 6 ; Carton: 60 *can't work with IP54 cover	 HWDL0SSUB Schuko Socket w USB A+C WT Screwless Box: 6 ; Carton: 60 *can't work with IP54 cover
 HWDL0SSUBS Schuko Socket w USB A+C WT Screw Box: 6 ; Carton: 60 *can't work with IP54 cover	 HWDL0FSUB French Socket w USB A+C WT Screwless Box: 6 ; Carton: 60	 HWDL0FSUBS French Socket w USB A+C WT Screw Box: 6 ; Carton: 60

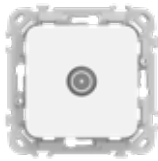
Lumio Series

Wiring Devices

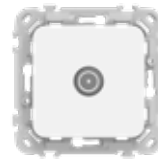
Telecommunication Accessories

**HWDL0TV**

Single TV Socket WT
Box: 10 ; Carton: 100

**HWDL0TVSE**

TV Socket w Surge
Pro. End WT
Box: 10 ; Carton: 100

**HWDL0TVST**

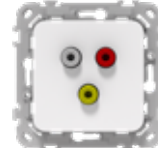
TV Socket w Surge
Pro. Thro. WT
Box: 10 ; Carton: 100

**HWDL0TVSATSE**

TV+SAT Socket w
Surge Pro. End WT
Box: 10 ; Carton: 100
*can't work with IP54 cover

**HWDL0TVSATST**

TV+SAT Socket w
Surge Pro. Thro. WT
Box: 10 ; Carton: 100
*can't work with IP54 cover

**HWDL0RCA**

RCA Socket WT
Box: 10 ; Carton: 100

**HWDL01AS**

Single Audio Socket
WT
Box: 10 ; Carton: 100
*can't work with IP54 cover

**HWDL02AS**

Double Audio Socket
WT
Box: 10 ; Carton: 100
*can't work with IP54 cover

**HWDL0HDMI**

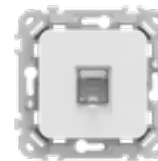
HDMI Socket WT
Box: 10 ; Carton: 100
*can't work with IP54 cover

**HWDL0TEL**

Single Telephone
Socket WT
Box: 10 ; Carton: 100

**HWDL02TEL**

Double Telephone
Socket WT
Box: 10 ; Carton: 100

**HWDL0LAN**

Single LAN Socket
WT
Box: 10 ; Carton: 100

**HWDL02LAN**

Double LAN Socket
WT
Box: 10 ; Carton: 100

**HWDL0TELLAN**

Telephone + LAN Socket
WT
Box: 10 ; Carton: 100

**HWDL0TVTEL**

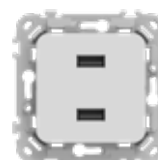
TV + Telephone Socket
WT
Box: 10 ; Carton: 100

**HWDL0TVLAN**

TV + LAN Socket WT
Box: 10 ; Carton: 100

**HWDL02OFB**

Double Optical Fiber
Socket WT
Box: 10 ; Carton: 100
*can't work with IP54 cover

**HWDL02UBAA**

Double USB Socket WT
Box: 10 ; Carton: 100

**HWDL0BZ**

Mechanical Buzzer WT
Box: 10 ; Carton: 100

Lumio Series

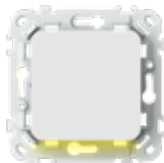
Wiring Devices

Comfort Function



HWDL0TM

Thermostat with mounting claw WT
Box: 6 ; Carton: 60
*can't work with IP54 cover



HWDL0WI

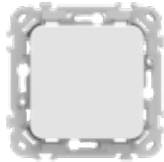
Wall Illuminaire WT
Box: 6 ; Carton: 60

Flush Plates



HWDL0CB

Cable Outlet WT
Box: 10 ; Carton: 100
*cover only without terminal



HWDL0BP

Blank Plate WT
Box: 10 ; Carton: 100



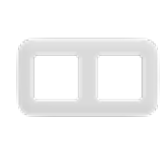
HWDL0SBC

Silicon Back Cover
Box: 10 ; Carton: 100



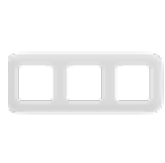
HWDL1FV

1G Artistic frame WT
Box: 20 ; Carton: 200



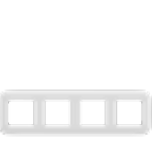
HWDL2FV

2G Artistic frame WT
Box: 10 ; Carton: 100



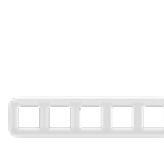
HWDL3FV

3G Artistic frame WT
Box: 15 ; Carton: 150



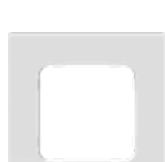
HWDL4FV

4G Artistic frame WT
Box: 10 ; Carton: 100



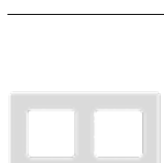
HWDL5FV

5G Artistic frame WT
Box: 10 ; Carton: 100



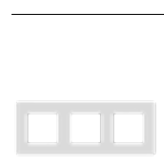
HWDL1FQ

1G Classic Frame WT
Box: 20 ; Carton: 200



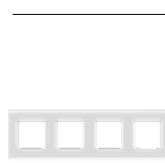
HWDL2FQ

2G Classic Frame WT
Box: 10 ; Carton: 100



HWDL3FQ

3G Classic Frame WT
Box: 15 ; Carton: 150



HWDL4FQ

4G Classic Frame WT
Box: 10 ; Carton: 100



HWDL5FQ

5G Classic Frame WT
Box: 10 ; Carton: 100



HWDL1FIP54

Trailing Edge Dimmer 2W WT
Box: 10 ; Carton: 100



HWDL2FIP54

1G IP54 Cover Frame
Box: 20 ; Carton: 200



HWDL3FIP54

2G IP54 Cover Frame
Box: 10 ; Carton: 100



HWDL0CKS

3G IP54 Cover Frame
Box: 15 ; Carton: 150



AMERICAN WIRING DEVICES

Himel provides a broad selection of American Wiring Devices for residential and commercial applications. Available in an array of classic colours and metallic finishes, we offer industry-leading features for various environments, with the promise of reliability and safety.

Click Series

American Wiring Devices



Range Presentation

Click Series is characterized by its rounded shape and timeless sophistication. Its modern and discrete design can fit in any home application. Being made of high-quality Polycarbonate, the devices are durable and safer. With quick connection terminals, electricians can save up to 40% of installation time. No need of screwdriver, just clip and go.

Features

- ◆ Modular to provide a variety of options
- ◆ Quick connection terminals to save 40% of installation time
- ◆ 5 different colors
- ◆ Works with Himel Smart

Selection Code

Range name	Functionality	Color
HWDC	xxx	C
C: Click	You may replace XX codes by functionality codes listed below	Default: White G: Gold C: Coffee M: Metallic B: Black

Online Content



Click Series

Color Selection



White



Gold



Coffee



Black



Metallic



This offer is available only in Philippines. For more information, contact local Himel Sales.

Click Series

American Wiring Devices



VERSATILE AND SOPHISTICATED WIRING DEVICES

for your homes and offices



Switches



HWDC1SL

1 Gang 1 Way Switch Large Button
Box: 10
Carton: 100



HWDC1S2L

1 Gang 2 Way Switch Large Button
Box: 10
Carton: 100



HWDC1SS

1 Gang 1 Way Switch Small Button
Box: 10
Carton: 100



HWDC1S2S

1 Gang 2 Way Switch Small Button
Box: 10
Carton: 100



HWDC2SL

2 Gang 1 Way Switch Large Button
Box: 10
Carton: 100



HWDC2S2L

2 Gang 2 Way Switch Large Button
Box: 10
Carton: 100

Click Series

American Wiring Devices

**HWDC2SS**

2 Gang 1 Way Switch Small Button
Box: 10
Carton: 100

**HWDC2S2**

2 Gang 2 Way Switch Small Button
Box: 10
Carton: 100

**HWDC3S**

3 Gang 1 Way Switch
Box: 10
Carton: 100

**HWDC3S2**

3 Gang 2 Way Switch
Box: 10
Carton: 100

**HWDC4S**

4 Gang 1 Way Switch
Box: 10
Carton: 100

**HWDC4S2**

4 Gang 2 Way Switch
Box: 10
Carton: 100

**HWDCBS**

Bell Switch
Box: 10
Carton: 100

**HWDCD**

1 Gang Dimmer Switch
(300W/220V)
Box: 8
Carton: 80

**HWDCFS**

1 Gang Fan Speed Switch
(300W/220V)
Box: 8
Carton: 80

Socket Outlets

**HWDC12P**

1 Gang 2 Pin Socket
Box: 10
Carton: 100

**HWDC12P**

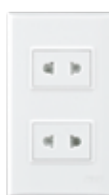
1 Gang 2 Pin Socket + Shutter
Box: 10
Carton: 100

**HWDC22P**

2 Gang 2 Pin Socket
Box: 10
Carton: 100

**HWDC22P**

2 Gang 2 Pin Socket + Shutter
Box: 10
Carton: 100

**HWDC32P**

3 Gang 2 Pin Socket
Box: 10
Carton: 100

**HWDC32P**

3 Gang 2 Pin Socket + Shutter
Box: 10
Carton: 100

**HWDC1S2**

1 Gang 1 Way Switch 2 Pin Socket
Box: 10
Carton: 100

**HWDC1S2**

1 Gang 2 Way Switch 2 Pin Socket
Box: 10
Carton: 100

**HWDC1A**

3 Pin American Socket
Box: 10
Carton: 100

**HWDC1SA**

1 Gang 1 Way Switch American Socket
Box: 10
Carton: 100

**HWDC1S2**

1 Gang 2 Way Switch American Socket
Box: 10
Carton: 100

**HWDC2A**

2 Gang American Socket
Box: 10
Carton: 100

Click Series

American Wiring Devices



HWDC20A
1 Gang 20A Socket
Box: 10
Carton: 100



HWDC2TU
2 Gang Universal
American Socket
Box: 10
Carton: 100



HWDCMF
2 Gang MF Socket
Box: 10
Carton: 100



HWDC1AUSB
American Socket + 2 port USB (2A)
Box: 8
Carton: 80



HWDCUSB
1 Gang USB Charger Socket
Box: 8
Carton: 80



HWDCSEN
1 Gang Sensory Switch
Box: 8
Carton: 80

Telecommunication Accessories



HWDC1T
1 Gang 4core Tel Socket
Box: 10
Carton: 100



HWDCDS
1 Gang 8core Data Socket
+ Shutter
Box: 10
Carton: 100



HWDCS
1 Gang Satellite Socket
Box: 10
Carton: 100



HWDCST
1 Gang Satellite Socket
+ Tel Socket
Box: 10
Carton: 100



HWDCSD
1 Gang Satellite Socket
+ Data Socket
Box: 10
Carton: 100



HWDCWP
Weather-Proof Plate Cover
Slim Type
Box: 8
Carton: 80



HWDC5P1
1 Gang Plate
Box: 20
Carton: 200



HWDC5P2
2 Gang Plate
Box: 20
Carton: 200



HWDC5P3
3 Gang Plate
Box: 20
Carton: 200



HWDCF1P
Blank Plate
Box: 20
Carton: 200



HWDC1MC
1 Gang MCB Cover
Box: 20
Carton: 200



HWDC2MC
2 Gang MCB Cover
Box: 20
Carton: 200

Click Series

American Wiring Devices



Modular

**HWDC51S**

1 Way Switch 72mm
Box: 6
Carton: 144

**HWDC51S2**

2 Way Switch 72mm
Box: 6
Carton: 144

**HWDC52S1**

1 Way Switch 36mm
Box: 12
Carton: 288

**HWDC52S2**

2 Way Switch 36mm
Box: 12
Carton: 288

**HWDC53S**

1 Way Switch 24mm
Box: 18
Carton: 432

**HWDC53S2**

2 Way Switch 24mm
Box: 18
Carton: 432

**HWDC53S3**

3 Way Switch 24mm
Box: 18
Carton: 432

**HWDC54S**

1 Way Switch 18mm*2
Box: 12
Carton: 288

**HWDC54S2**

2 Way Switch 18mm*2
Box: 12
Carton: 288

**HWDC52P**

2 Pin Socket 24mm
Box: 18
Carton: 432

**HWDC52PS**

2 Pin Socket + Shutter 24mm
Box: 18
Carton: 432

**HWDC5MF**

MF Socket 36mm
Box: 12
Carton: 288

**HWDC5AM**

3 Pin American Socket 24mm
Box: 18
Carton: 432

**HWDC520A**

1 Gang 20A Socket 36mm
Box: 12
Carton: 288

**HWDC5TW**

Twin Receptacle
Box: 6
Carton: 144

**HWDC5TWU**

Twin Universal Receptacle
Box: 6
Carton: 144

**HWDCAMUSB**

American Socket + 2 port
USB (2A)
Box: 30
Carton: 300

**HWDC5USB**

2A USB Charger 24mm
Box: 16
Carton: 384

**HWDC5SAT**

Satellite Socket 24mm
Box: 18
Carton: 432

**HWDC5TEL4**

4core Tel Socket 24mm
Box: 18
Carton: 432

**HWDC5DAT8**

8core data Socket +Shutter
CAT5
Box: 18
Carton: 432

Click Series

American Wiring Devices



HWDC5BP

Blank Plate 24mm
Box: 36
Carton: 864



HWDC5BS

Bell Switch 24mm
Box: 18
Carton: 432



HWDC5D

Dimmer Switch
(300W/220V) 24mm
Box: 8
Carton: 192



HWDC5FS

Fan Speed Switch
(200W/220V) 24mm
Box: 8
Carton: 192



HWDC5SEN

Sensory Switch 36mm
Box: 8
Carton: 192



HWDC5BUZ

Buzzer
Box: 10
Carton: 240

Future Ready

Upgrade your Click Series switches with our WIFI Smart modules



HHESM

Smart Switch Module
Box: 1
Carton: 100



HHE2SM

2 Gang Switch Module
Box: 1
Carton: 100



HHESD

Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD

2 Gang Dimmer Module
Box: 1
Carton: 100





PROFESSIONAL WIRING DEVICES

Ditch the cumbersome sockets from aesthetics of your meeting room. With Himel Floor Series, you get enough space for even the largest of plugs and smaller charging units, that vanish below the closed cover, seamlessly. Designed for a wide variety of floorings, such as such as parquet or laminate.

Floor Series

Professional Wiring Devices



Range Presentation

Himel Floor Sockets offer contemporary-design sockets that pop out from the floor and provide convenient power outlets. With corrosion resistance, flame retardant material and shutter protection, they are perfect for a wide range of floorings and countertop applications (including wood, carpet, granite and marble).

Features

- ◆ 22 optional modules
- ◆ Prevent electrical short circuit and reduce tripping hazards
- ◆ Corrosion resistant
- ◆ Wear and pressure-resistant panel material
- ◆ Flame retardant modules
- ◆ Shutter protector
- ◆ Indonesia: SNI
- ◆ Works with Himel Smart

Color Selection



Aluminum



Brass

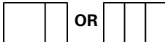
Online Content



Floor Series

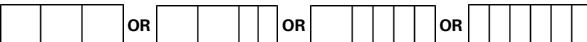
Configuration Selection

Empty Box + Module Accessories

3-Module box 

4-Module box 

3-Module * 2 box 

6-Module box 

How To Order:

HHEFS1CWHHEFSF11HHEFSF21HHEFS1CWF11F21



FOR THE BUILDINGS OF TODAY AND TOMORROW

Integrates seamlessly into any type
of floor.



Empty Boxes



without modules shown

HHEFS1A

POP UP FLOOR
SOCKET Alu. Alloy
3-Module box
Box:1, Carton:12



without modules shown

HHEFS1C

POP UP FLOOR SOCKET
Brass Alloy
3-Module box
Box:1, Carton:20



without modules shown

HHEFS2A

POP UP FLOOR
SOCKET Alu. Alloy
4-Module box
Box:1, Carton:20



without modules shown

HHEFS1CW

POP UP WATERPROOF
FLOOR SOCKET Brass Alloy
3-Module box
Box:1, Carton:20



without modules shown

HHEFS1AW

POP UP WATERPROOF
FLOOR SOCKET Alu. Alloy
3-Module box
Box:1, Carton:20



without modules shown

HHEFS2C

POP UP FLOOR SOCKET
Brass Alloy
4-Module box
Box:1, Carton:20

Floor Series

Professional Wiring Devices



without modules shown

HHEFS22A

POP UP FLOOR SOCKET Alu.
Alloy 3-Module * 2 box
Box:1
Carton:10



without modules shown

HHEFS22C

POP UP FLOOR SOCKET Brass
Alloy 3-Module * 2 box
Box:1
Carton:10



without modules shown

HHEFSTABA

POP UP TABLE SOCKET
AL. 6-Module box
Box:1
Carton:12



without modules shown

HHEFSTAB

OPEN COVER TABLE SOCKET
ABS 6-Module box
Box:1
Carton:12

2 Module Accessories



HHEFSF18

American Socket
Box:10
Carton:250



HHEFSF4

Universal Socket
Box:10
Carton:250



HHEFSF11

British Socket
Box:10
Carton:250



HHEFSF15

Euro Socket
Box:10
Carton:250



HHEFSF3

3Pin 10A Socket
Box:10
Carton:250



HHEFSF9

Double USB Charger
Box:10
Carton:250

1 Module Accessories



HHEFSF2

2Pin Socket
Box:20
Carton:500



HHEFSF58

Sound Socket
Box:50
Carton:1000



HHEFSF23

Tel Socket
Box:50
Carton:1000



HHEFSF21

Data Socket
Box:50
Carton:1000



HHEFSF20

Data Plate
Box:100
Carton:2000



HHEFSF56

Video Socket
Box:50
Carton:1000



HHEFSF55

Audio Socket
Box:50
Carton:1000



HHEFSF50

TV Socket
Box:50
Carton:1000



HHEFSF51

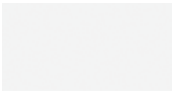
BNC Socket
Box:50
Carton:1000

Floor Series

Professional Wiring Devices



1 Module Accessories

	HHEFSF52 3.5mm Earphone Socket Box:50 Carton:1000		HHEFSF60 Cannon Socket Box:50 Carton:1000		HHEFSF65 15 VGA Pin Socket Box:50 Carton:1000
	HHEFSF66 15 VGA Hole Socket Box:50 Carton:1000		HHEFSF70 Empty Plate Box:100 Carton:2000		HHEFSF68 HDMI Socket Box:50 Carton:1000
	HHEFSF6 USB Charger Box:20 Carton:500				

Metal Clad

Professional Wiring Devices

Safety now comes in style



Industry



Garage



Factory



Warehouse



Service Area



Laboratory

Features

High impact resistance

A heavy duty range of switches and sockets clad in scratch proof high impact resistant steel, perfect for outdoor and service areas.

Durable finish

Armed with a tough powder coating, this series of switches and sockets can withstand extreme conditions in an outdoor setting.

Easy surface mounting

Simplified assembly process with easy surface mounting, making it more accessible and efficient.

Functionality

Switches & Sockets | Telecommunication Accessories | Accessories

Online Content



Metal Clad

Professional Wiring Devices

Selection Code

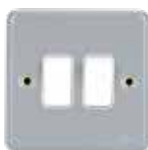
Range Name	Functionality	Color
HWDMC	xxx	C
Metal Clad	1. Switches & Sockets 2. Telecommunication accessories 3. Accessories	Default: Grey

Switches



HWDMC1GS

1 Gang 1 Way Switch
10AX
Spec: 10AX 250V~
Pc(s)/Carton: 40



HWDMC2GS

2 Gang 1 Way Switch
10AX
Spec: 10AX 250V~
Pc(s)/Carton: 40



HWDMC3GS

3 Gang 1 Way Switch 10AX
Spec: 10AX 250V~
Pc(s)/Carton: 40



HWDMC1G2S

1 Gang 2 Way Switch
10AX
Spec: 10AX 250V~
Pc(s)/Carton: 40



HWDMC2G2S

2 Gang 2 Way Switch 10AX
Spec: 10AX 250V~
Pc(s)/Carton: 40



HWDMC3G2S

3 Gang 2 Way Switch
10AX
Spec: 10AX 250V~
Pc(s)/Carton: 40



HWDMC20S

20A 1 Gang Double Pole
Switch
Spec: 20AX 250V~
Pc(s)/Carton: 40



HWDMC20SN

20A 1 Gang Double Pole
Switch with Neon
Spec: 20AX 250V~
Pc(s)/Carton: 40



HWDMCDM

1 Gang LED Dimmer Pc(s)/
Carton: 40

Sockets



HWDMC13S

13A 1 Gang Socket
Spec: 13A 250V~
Pc(s)/Carton: 40



HWDMC13SS

13A 1 Gang Switched
Socket
Spec: 13A 250V~
Pc(s)/Carton: 40



HWDMCUS

1 Gang Universal Socket
Spec: 16A 250V~
Pc(s)/Carton: 40



HWDMC213S

13A 2 Gang Socket
Spec: 13A 250V~
Pc(s)/Carton: 20



HWDMC213SS

13A 2 Gang Switched
Socket
Spec: 13A 250V~
Pc(s)/Carton: 20

Metal Clad

Professional Wiring Devices

Telecommunication Accessories



HWDMCDT

1 Gang RJ45 Data Socket
(cat6)
Pc(s)/Carton: 40



HWDMC2DT

2 Gang RJ45 Data Socket
(cat6)
Pc(s)/Carton: 40



HWDMCTEL

1 Gang RJ11 Telephone
Socket (4 Pin)
Pc(s)/Carton: 40



HWDMC2TEL

2 Gang RJ11 Telephone Socket
(4 Pin)
Pc(s)/Carton: 40



HWDMCDTTEL

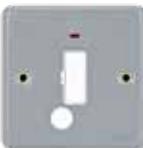
RJ45 Data Socket+RJ11
Telephone Socket
Pc(s)/Carton: 40



HWDMCTV

1 Gang Satellite Socket
Pc(s)/Carton: 40

Accessories



HWDMCFCUN

1 Gang 13A unswitched fused
connection unit
with Neon
Spec: 13A 250V~
Pc(s)/Carton: 40



HWDMCFCUSN

1 Gang 13A switched fused
connection unit with Neon
Spec: 13A 250V~
Pc(s)/Carton: 40



HWDMC1GB

1 Gang Blank Plate
Pc(s)/Carton: 40



HWDMC1MB

1 Gang
Mounting Box
Pc(s)/Carton: 40



HWDMC2GB

2 Gang
Blank Plate
Pc(s)/Carton: 20



HWDMC2MB

2 Gang
Mounting Box
Pc(s)/Carton: 20



ACCESSORIES AND TOOLS

Be it a professional electrician or DIY enthusiast, electric tools and accessories are must-have for repair jobs and regular upkeeps. Himel offers versatile products for professional fixer-upper so that jobs are easy, faster, and safer.

Extension Sockets-British Standard

Standard: BS1363 IEC60884



Range Presentation

A range of multi-outlet extensions with cord that are suitable for both home and workspace, they are perfect to connect several devices equipped with plugs with or without earth.

Our extension sockets are flat and can be fitted underneath furniture, available with or without switch, to power on and off without operating the main socket.

Features

- ◆ BS & Universal extension socket with BS plug
- ◆ Cable length: 3M & 5M
- ◆ Rating: 13A/250V~
- ◆ USB output: 5V 2.1A Max
- ◆ Fire retardant PC material
- ◆ With child-safe shutter
- ◆ Up to 5gangs



This offer is available only in Malaysia & UAE.
For more information, contact local Himel Sales.

Online Content



Extension Socket

Selection Code

Range name	Functionality	Functionality
HESABS	3IS	3M
ES: Extension socket A: Advanced series BS: BS type UNBS: Universal type with BS plug	3IS: 3gang individual switch 4IS: 4gang individual switch 5IS: 5gang individual switch 3IS2USB: 3gang individual switch with 2USB 4IS2USB: 4gang individual switch with 2USB	3M: 3meters 5M: 5meters

Order Information



HESABS3IS3M
HESABS3IS5M

BS 3 Gang With Individual Switches
Cable length:3M/5M
Box:1
Carton:24



HESABS4IS3M
HESABS4IS5M

BS 4 Gang With Individual Switches
Cable length:3M/5M
Box:1
Carton:24



HESABS5IS3M
HESABS5IS5M

BS 5 Gang With Individual Switches
Cable length:3M/5M
Box:1
Carton:24



HESABS3IS2USB3M
HESABS3IS2USB5M

BS 3 Gang Individual Switches with 2USB
Cable length:3M/5M
Box:1
Carton:24

Extension Sockets-British Standard

Standard: BS1363 IEC60884



HESABS4IS2USB3M

HESABS4IS2USB5M

BS 4 Gang Individual Switches with 2USB

Cable length:3M/5M

Box:1

Carton:24



HESAUNBS3IS3M

HESAUNBS3IS5M

Universal BS Plug 3 Gang Individual switch

Cable length:3M/5M

Box:1

Carton:24



HESAUNBS4IS3M

HESAUNBS4IS5M

Universal BS Plug 4 Gang Individual switch

Cable length:3M/5M

Box:1

Carton:24



HESAUNBS5IS3M

HESAUNBS5IS5M

Universal BS Plug 5 Gang Individual switch

Cable length:3M/5M

Box:1

Carton: 3M:24/ 5M:20



HESAUNBS3IS2USB3M

HESAUNBS3IS2USB5M

Universal BS Plug 3 Gang Individual
switch 2USB

Cable length:3M/5M

Box:1

Carton:24



HESAUNBS4IS2USB3M

HESAUNBS4IS2USB5M

Universal BS Plug 4 Gang Individual
switch 2USB

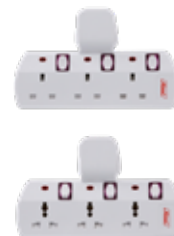
Cable length:3M/5M

Box:1

Carton:3M:24/ 5M:20

Extension Sockets-British Standard

Standard: BS1363 IEC60884



Range Presentation

A range of multi-outlet extensions with cord that are suitable for both home and workspace, they are perfect to connect several devices equipped with plugs with or without earth.

Our extension sockets are flat and can be fitted underneath furniture, available with or without switch, to power on and off without operating the main socket.

Features

- ◆ BS & Universal adaptor with BS plug
- ◆ Rating: 13A/250V~
- ◆ USB output: 5V 2.1A Max
- ◆ Fire retardant PC material
- ◆ With child-safe shutter
- ◆ Up to 4gangs

Online Content



Extension Socket

Selection Code

Range name

Functionality

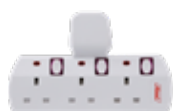
HESABSA

3IS

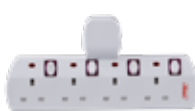
ES: Extension socket
A: Advanced series
BSA: BS adaptor
UNA: Universal adaptor

3IS: 3gang individual switch
4IS: 4gang individual switch
3IS2USB: 3gang individual switch with 2USB

Order Information



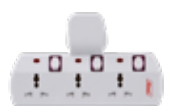
HESABSA3IS
 BS Adaptor 3 Gang
 Individual Switches
 Box:1
 Carton:36



HESABSA4IS
 BS Adaptor 4 Gang
 Individual Switches
 Box:1
 Carton:36



HESABSA3IS2USB
 BS Adaptor 3 Gang
 Individual switch
 2USB
 Box:1
 Carton:36



HESAUNA3IS
 Universal Adaptor 3
 Gang Individual switch
 Box:1
 Carton:36



HESAUNA4IS
 Universal Adaptor 4
 Gang Individual switch
 Box:1
 Carton:36

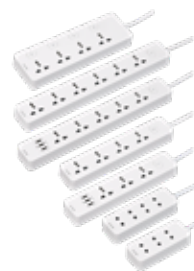


HESAUNA3IS2USB
 Universal Adaptor
 3 Gang Individual
 switch 2 USB
 Box:1
 Carton:36



HEBSP
 BS Plug
 Box:20
 Carton:480

Multi Series Universal Extension Socket



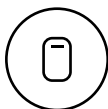
Reliable & Durable, with Extra Protection



5000 cycles of
insertion



Pure copper
power cord

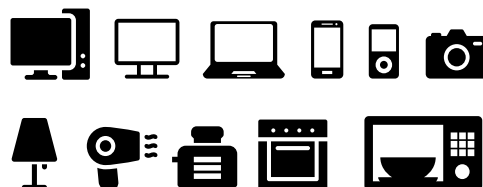


Socket shutter
option



Flame resistant
up to 750°C

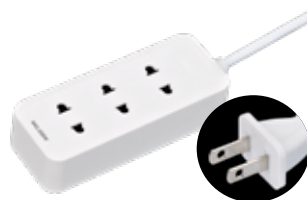
Perfect for:



HHEMA2P3GM3M

2 Pin Universal 3 Gang Without
Switch 3M

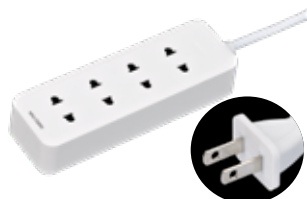
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA2P3GM5M

2 Pin Universal 3 Gang Without
Switch 5M

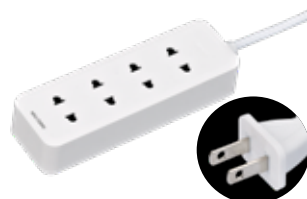
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA2P4GM3M

2 Pin Universal 4 Gang Without
Switch 3M

Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA2P4GM5M

2 Pin Universal 4 Gang Without
Switch 5M

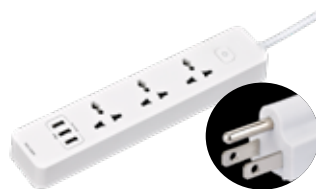
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA3P3GM3U2M

3 Pin Universal 3 Gang +
3 USB Master Switch 2M

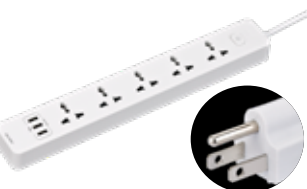
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA3P3GM3U3M

3 Pin Universal 3 Gang +
3 USB Master Switch 3M

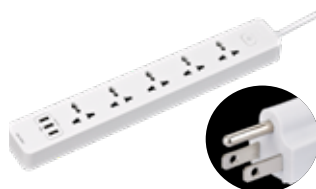
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA3P5GM3U2M

3 Pin Universal 5 Gang +
3 USB Master Switch 2M

Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ

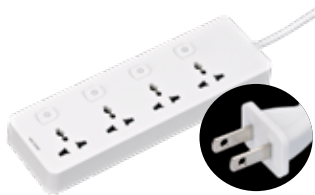


HHEMA3P5GM3U3M

3 Pin Universal 5 Gang +
3 USB Master Switch 3M

Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ

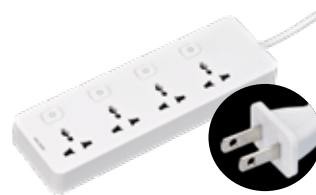
Multi Series Universal Extension Socket



HHEMA3P4GI2M

3 Pin Universal 4 Gang Individual Switch 2M

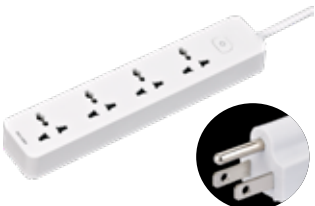
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA3P4GI3M

3 Pin Universal 4 Gang Individual Switch 3M

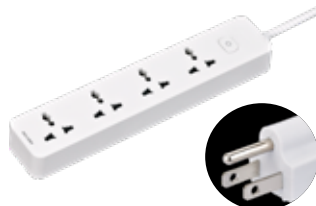
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA3P4GM2M

3 Pin Universal 4 Gang Master Switch 2M

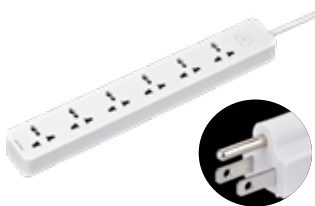
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA3P4GM3M

3 Pin Universal 4 Gang Master Switch 3M

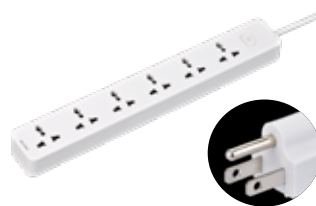
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA3P6GM2M

3 Pin Universal 6 Gang Master Switch 2M

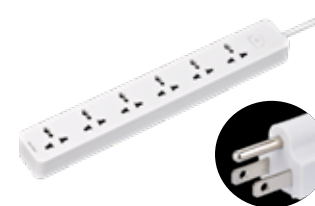
Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA3P6GM3M

3 Pin Universal 6 Gang Master Switch 3M

Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ



HHEMA3P6GM5M

3 Pin Universal 6 Gang Master Switch 5M

Rated current: 10A
Rated power: Max 2500W
Rated voltage: 250V~ 50/60HZ

Weatherproof Series



Range Presentation

Electrical networks are sensitive to rain, moisture, and dust that often pose safety concern to life. With Weatherproof Series, Himel provides the ideal residential weatherproof protection.

Designed with your safety in mind, every Weatherproof product is robust and durable. Our cases are available in 6 different colors and finishing, so that your décor and safety are always on point.

Features

- ◆ IP12, IP55, and IP66 covers available
- ◆ 6 colors and 2 different finishes (matte and shiny)
- ◆ Waterproof and Dustproof
- ◆ Large bottom hole for thick and large wires
- ◆ Safety lock to protect against misuse
- ◆ Compatible with most British format (86mm x 86mm) wall plates

Online Content



Weatherproof Series

Selection Code -Overall

Range Name	Protection	Color
HHEWP	XX	XXXX
WP: Weatherproof	You may replace XX codes by protection degree 55: IP55 Cover	TP: Transparent WH: White GO: Gold SL: Silver MG: Matte Grey MB: Matte Black

COVER CASE IP12



Protect your everyday power socket with style.

Our attractive finishes can suit all types of interior and exterior designs.

WEATHERPROOF CASE IP55



Add an extra level of protection to your power socket with Himel IP55 protection.

Perfect solution for maximum security for outdoor usages.

WEATHERPROOF CASE IP66



Ideal residential weatherproof protection.

Designed with your safety in mind, robust and durable.

Weatherproof Series

COVER CASE IP12

**HHEWPTP**

Waterproof box-Transparent
Material:PS
Box:1
Carton:200

**HHEWPWH**

Waterproof box-White
Material:ABS
Box:1
Carton:200

**HHEWPGO**

Waterproof box-Gold
Material:ABS
Box:1
Carton:200

**HHEWPSL**

Waterproof box-Silver
Material:ABS
Box:1
Carton:200

**HHEWPMG**

Waterproof box-Matte grey
Material:ABS
Box:1
Carton:200

**HHEWPMB**

Waterproof box-Matte black
Material:ABS
Box:1
Carton:200

WEATHERPROOF CASE IP55

**HHEWP55TP**

Weatherproof box IP55-Transparent
Material:PS
Box:1
Carton:100

**HHEWP55WH**

Weatherproof box IP55-White
Material:ABS
Box:1
Carton:100

WEATHERPROOF CASE IP66

**HHEWP1G66**

IP66 waterproof Box 1 gang
Material:PC
Box:1
Carton:30

**HHEWP2G66**

IP66 waterproof Box 2 gang
Material:PC
Box:1
Carton:20

Tool Series



Range Presentation

Designed specifically for the professional electricians, Himel Tool Box is a handy set of the most commonly used tools, including electronic test pencil, cutter, hammer, electrical tape, screwdriver etc. Coming with a sleek attaché case, it can be easily carried and used.

Features

- ◆ Set: 8 pieces / 18 pieces
- ◆ Digital Multimeter / Digital Clamp Meter

Selection Code

Range name

HHETS

Functionality

8

TS: Tool set
D: Digital meter

8: 8 individual tools
18: 18 individual tools
MM: Digital Multimeter
CM: Digital Clamp Meter

Online Content



Tool Boxes

Order Information


HHETS8

Tool Set 8 Pieces
Box: 1, Carton: 10



Stationery Knife 18mm



6 inch Wire Cutter



Claw Hammer



Test Pencil



Cross & straight Screwdriver



Electrical Tape



2M Tape Measure


HHEDCM

Digital Clamp Meter
Box: 1, Carton: 20


HHETS18

Tool Set 18 Pieces
Box: 1, Carton: 6



Cross & straight Screwdriver



Test Pencil



6 inch Long Nose Pliers



Claw Hammer



Hex Key



Stationery Knife 18mm



6 inch Wire Cutter



Electrical Tape



8 inch Adjustable Spanner



2M Tape Measure


HHEDMM

Digital Multimeter
Box: 1, Carton: 45

Cable Ties



Range Presentation

A dependable accessory for electricians, Himel cable ties offer sturdy support to installations by holding cables together or in a designated spot. Our cable ties can also be used for hanging or storing parts. Being made from nylon 66, they are easier to use and meet expectations of DIY enthusiasts and professionals alike.

Features

- ◆ Material: Nylon 66
- ◆ Tensile Strength (LBS): 18 / 40 / 50
- ◆ Max Bundle Diameter: 22 / 35 / 50 / 65 / 82 / 90
- ◆ Flammability rating 94V-2
- ◆ Weather and UV Resistant
- ◆ High Strength locking

Online Content



Cable Ties

Commercial Ref	Length (mm)	Width (mm)	Colour	Minimum Operating Temperature	Maximum Operating Temperature	Maximum Bundle Diameter (mm)	Tensile Strength (LBS)	Quantity per bag	Bags per Master Carton
HHEC1025B	100	2.5	Black	-40°C	85°C	22	18	100	500
HHEC1025W	100	2.5	White	-40°C	85°C	22	18	100	500
HHEC1535B	150	3.5	Black	-40°C	85°C	35	40	100	250
HHEC1535W	150	3.5	White	-40°C	85°C	35	40	100	250
HHEC2048B	200	4.8	Black	-40°C	85°C	50	50	100	100
HHEC2048W	200	4.8	White	-40°C	85°C	50	50	100	100
HHEC2536B	250	3.6	Black	-40°C	85°C	65	40	100	100
HHEC2536W	250	3.6	White	-40°C	85°C	65	40	100	100
HHEC3048B	300	4.8	Black	-40°C	85°C	82	50	100	100
HHEC3048W	300	4.8	White	-40°C	85°C	82	50	100	100
HHEC3548B	350	4.8	Black	-40°C	85°C	90	50	100	100
HHEC3548W	350	4.8	White	-40°C	85°C	90	50	100	100
HHEC1025C1500	100	2.5	Black / White / Red / Blue / Yellow	-40°C	85°C	22	18	1500	40
HHEC1535C800	150	3.5	Black / White / Red / Blue / Yellow	-40°C	85°C	35	40	800	20

Color Selection



Black



White



Colorful

Cable Ties



**Small Thing
Big Use**

Himel Cable Ties

The unmissable products for electricians.

available in assorted
colors and sizes

Electrical Tape

Accessories & Tools



Range Presentation

Suitable for electrical insulation, binding, colour coding and general work.

Strong flame retardant performance

High temperature and high voltage resistance

Effectively protects your electrical wires

Features

- ◆ Available in wide range of sizes and colors
- ◆ Manufactured from flame retardant materials
- ◆ Compliant ROHS 1.0
- ◆ Operational temperature: 0°C to 80°C
- ◆ Compatible with voltage <600V

Online Content



Electrical Tape

Selection Code

Category	Series name	Thickness	Width	Length	Colour
HHE	ET	013	18	10	B
HHE: Himel Home Electric	ET: Electrical Tape	013: 0.13mm	18: 18mm	5: 5m 10: 10m 20: 20m	B: Black BL: Blue W: White G: Green R: Red Y: Yellow GREY: Grey YG: Yellow/Green
		015: 0.15mm	19: 19mm	5: 5m 10: 10m 20: 20m	B: Black BL: Blue W: White G: Green R: Red Y: Yellow YG: Yellow/Green
		018: 0.18mm	19: 19mm	20: 20m	B: Black

Pc(S)/Carton Depending On The Length

Length	Unit(Pc(S))	Pc(S)/Carton
10m	Roll	300
20m	Roll	200
5m	Roll	450

Electrical Tape

Accessories & Tools



The advertisement features a red and white geometric background. At the top left is the Himel logo. To its right is a close-up of a hand applying black electrical tape to a wire. Below these are six rolls of tape in different colors: green, blue, white, red, yellow, and black. Each roll has a label with the Himel logo and 'PVC Electrical Insulation Tape'.

Himel Electrical Tapes

The ultimate tool for electrical safety

-  **Strong Adhesion**
-  **Flame Retardant**
-  **Easy to Tear**
-  **Lead Free**
-  **Works in Temp. up to 80°C**
-  **Indoor /Outdoor application up to 600V**
-  **Made from high quality PVC**

Accessory Tape

Accessories & Tools



MASKING TAPE



Masking Tape is a general-purpose tape designed for use on non damageable surfaces. Use on vinyl, carpet, metal, and plastic for the protection you need to get the job done. Scotch Contractor Grade Masking Tape holds to surfaces for up to 3 days and then removes easily without leaving any sticky residue behind.



remove
cleanly



easy
tearing



write-
able



multiple
applications



HHEATM1825Y

Masking tape 0.14mm x 18mm x 25Y cream

Size: 0.14mm x 18mm x 25Y
Color: Cream
Pc(s)/Carton: 192



HHEATM4825Y

Masking tape 0.14mm x 48mm x 25Y cream

Size: 0.14mm x 48mm x 25Y
Color: cream
Pc(s)/Carton: 72

DUCT TAPE



Duct tape is a type of heavy-duty tape that is often coated with polyethylene and has a cloth or scrim backing. It is used for fixing leaks and sealing products and is durable and heat-resistant. The tape is made of 3 layers: a polyethylene film that protects it from moisture, a cloth mesh that makes it strong, and a rubber-based adhesive that gives it its versatility.



strong &
durable



water
resistant



heat
resistant



indoor /
outdoor



HHEATD4810M

Duck tape 0.19mm x 48mm x 10M silver

Size: 0.19mm x 48mm x 10M
Color: silver
Pc(s)/Carton: 90

FRAGILE TAPE



This Cumberland Fragile Tape is an easy way to label delicate items when you're sending them in the mail. It has a bright and eye-catching design to ensure the message is seen when the carton is being handled.



strong &
durable



eye-
catching



lasting
protection



HHEATFT100M

FRAGILE TAPE 45u x 48mm x 100M

Size: 45u x 48mm x 100M
Color: White/Red
Pc(s)/Carton: 72

Accessory Tape

Accessories & Tools



PACKAGING TAPE

Packing tape secures boxes that hold valuable items for storage or when moving from one location to another. The best packing tape has a strong adhesive, can withstand the jolts and jostles that accompany moving, can resist extreme temperature fluctuations, and will protect the box and its contents.



strong &
durable



strong
adhesive



affordable
price



easy to
use



HHEATPT30M

Packaging tape 45u x 48mm x 30M transparent

Size: 45u x 48mm x 30M
Color: transparent
Pc(s)/Carton: 90



HHEATPT100Y

Packaging tape 45u x 48mm x 100Y transparent

Size: 45u x 48mm x 100Y
Color: transparent
Pc(s)/Carton: 72



HHEATPT50M

Packaging tape 45u x 48mm x 50M transparent

Size: 45u x 48mm x 50M
Color: transparent
Pc(s)/Carton: 90



HHEATPB100Y

Packaging tape 45u x 48mm x 100Y brown

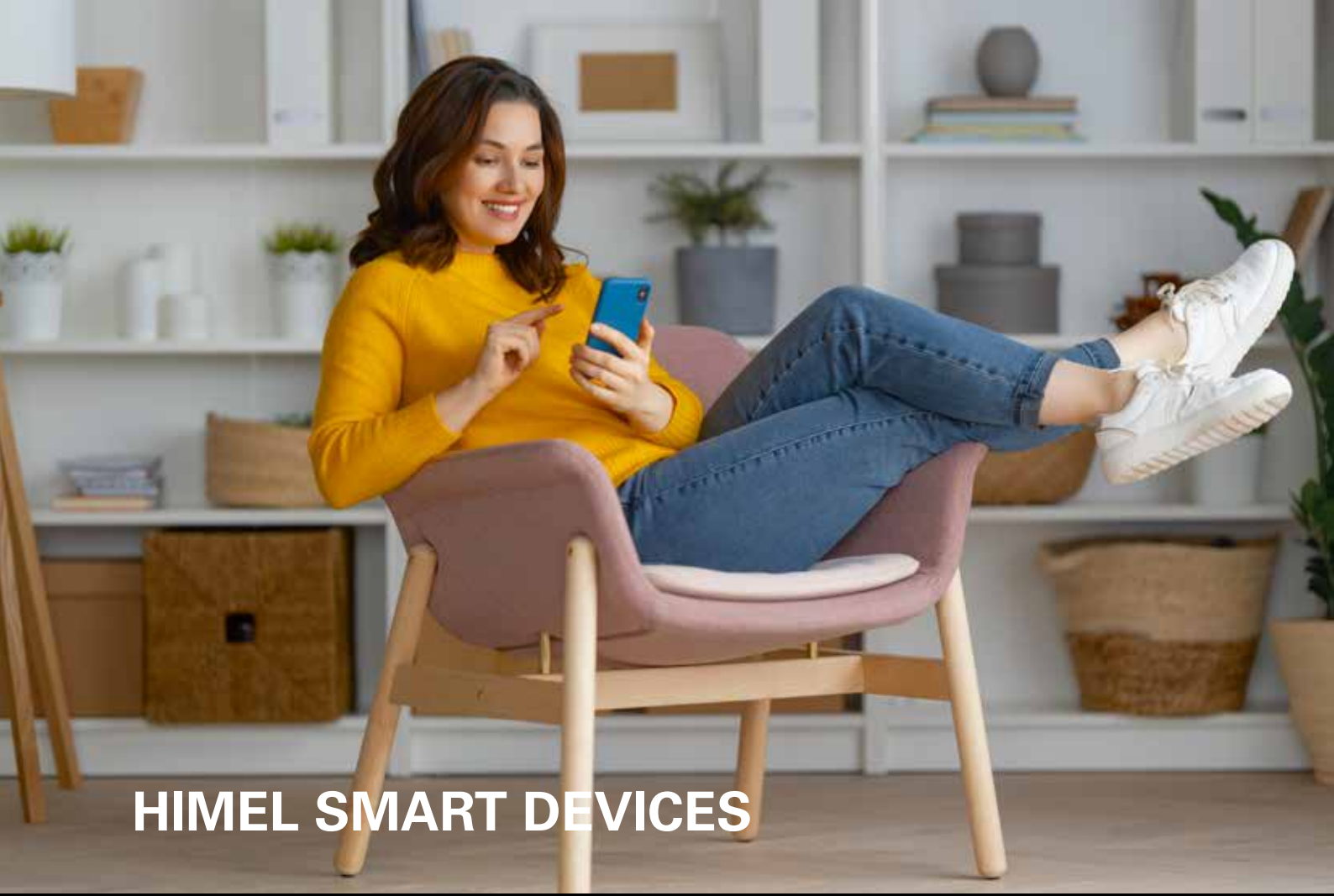
Size: 45u x 48mm x 100Y
Color: brown
Pc(s)/Carton: 72



HHEATPB30M

Packaging tape 45u x 48mm x 30M brown

Size: 45u x 48mm x 30M
Color: brown
Pc(s)/Carton: 90



HIMEL SMART DEVICES

Connected Homes made Affordable

Himel Smart Devices - Smart Plug, Smart Bulb, and Smart Module ensure substantial power saving while making your home connected and safer. Easily controlled with your voice or smartphone, these plug and play devices don't need a separate hub or paid subscription service.



Smart Plug

Smart Devices



Range Presentation

Upgrade your regular appliance and add it to your smart home system via Himel Smart Plug. Easy to install, it can be plugged into most outlets to run small appliances through phone or voice commands. Increase power bill saving through automated scheduling.

Features

- ◆ Overload protection
- ◆ Fire Resistant material
- ◆ Easy installation
- ◆ Control with app or voice
- ◆ Compatible with Amazon Alexa & Google Home
- ◆ Setting Schedule Timer functionality

Selection Code

Range name	Functionality	Standard
HHES	P	US
S: Smart	P: Plug	US: American EU: European UK: British

Online Content



Smart Plug

Order Information

**HHESPUK**

Smart plug-UK 13A
 Box: 1
 Carton: 180

**HHESPUS**

Smart plug-US 16A
 Box: 1
 Carton: 200

**HHESPEU**

Smart plug-EU 16A
 Box: 1
 Carton: 180

Smart Bulbs

Smart Devices



Range Presentation

Brighter and easier to control, Himel Smart bulbs make home lighting more fun and comfortable. With built-in Wi-Fi radios connected directly with your router, you can control our bulbs remotely whenever you have an internet connection. There is no need of an expensive hub to control our devices, that's how we make connected home affordable. Play with our 16 million colors to transform the ambiance of any room.

Features

- ◆ E27 cap type
- ◆ Energy efficient LED lighting
- ◆ 2 color ranges: Soft White and Colorful
- ◆ Control with app or voice
- ◆ Compatible with Amazon Alexa & Google Home
- ◆ ScheduleTimer functionality

Selection Code

Range name

Color

HHES

BW

S: Smart

BW: White
RGB: Colorful

Online Content



Smart Bulbs

Order Information



HHESBW

9W White-E27
Box: 1
Carton: 50



HHESBRGB

9W RGB-E27
Box: 1
Carton: 50

Smart Modules

Smart Devices



Range Presentation

Himel Smart Module is an affordable in-wall on/off module that can be installed behind traditional electrical switches. You can control the on and off status of your devices simply with your smartphone. Himel Smart Module can make all switches smart. As long as the mobile phone has network(2G/3G/4G/WiFi), users can remotely control the lights at home by turning them on or off from anywhere at any time. Another feature available is to set timers for the light, which can include countdown/scheduled/loop timers and thus enhance your everyday life.

Features

- ◆ Compact design
- ◆ Very low power consumption
- ◆ Easy installation
- ◆ Control with app or voice
- ◆ Compatible with Amazon Alexa & Google Home
- ◆ Setting ScheduleTimer

Selection Code

Range name	Gang	Functionality
HHES	2	M
S: Smart	2: 2Gang	M: Switch D: Dimmer

Online Content



Smart Modules

Future Ready

Upgrade your switches with our WIFI Smart modules



HHEM

Smart Switch Module

Box: 1

Carton: 100



HHE2SN

2 Gang Switch Module

Box: 1

Carton: 100



HHESD

Smart Dimmer Module

Box: 1

Carton: 100



HHE2SD

2 Gang Dimmer Module

Box: 1

Carton: 100





HIMEL PROFESSIONAL LIGHTING

Ensuring productivity, safety, and efficiency while illuminating industrial workspaces.

In any industrial setting, such as assembly lines, warehouses, and commercial complexes, lighting is crucial for optimal performance and safety. Efficient and reliable lighting is essential as it can significantly impact operational costs, with lighting accounting for up to 80% of a warehouse's energy bill. Switching to longer-lasting and energy-efficient LED lighting not only reduces downtime and energy consumption but also enhances employee safety and productivity.



LED Highbay Basic

Standard: IEC60598 | Certificate: TIS

Benefits

The Highbay Basic series have high light efficiency and wide temperature application range, providing multiple options. The product specification is competitive and can ensure long-term reliability of quality. This series is suitable for most industrial applications.

Features

- ◆ IP65 dust and waterproof
- ◆ 4KV surge protection
- ◆ Beam angle options: 60°, 90°, 120°
- ◆ Multiple installation options: hook, pole or bracket

Selection Code

Range name	Power	CCT	Beam Angle
HHLHB	XXX	XX	XXX
HB: Highbay Basic	100: 100W 150: 150W 200: 200W	40: 4000K 65: 6500K	60: 60° 90: 90° 120: 120°

Applications



| Hall Area



| Station



| Gym



| Factory



| Warehouse

Online Content



LED Highbay Basic

Standard: IEC60598 | Certificate: TIS



High Efficiency
Flexible Installation
Durable and Robust

Specification

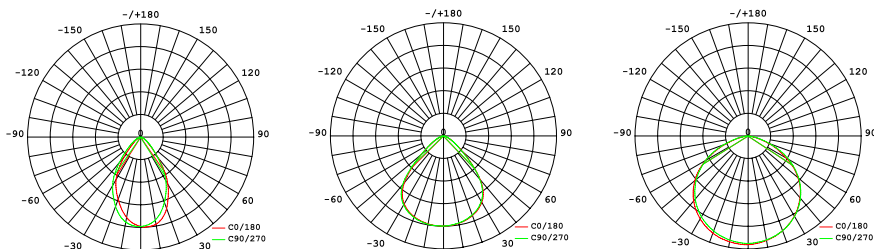
Comercial Reference	Power (W)	Efficacy (lm/W)	Lumen (lm)	CCT (K)	Beam Angle(°)	Average Lifetime
HHLHB100W4060	100	135	13500	4000	60	30Khrs
HHLHB150W4060	150	135	20250	4000	60	30Khrs
HHLHB200W4060	200	135	27000	4000	60	30Khrs
HHLHB100W4090	100	135	13500	4000	90	30Khrs
HHLHB150W4090	150	135	20250	4000	90	30Khrs
HHLHB200W4090	200	135	27000	4000	90	30Khrs
HHLHB100W40120	100	135	13500	4000	120	30Khrs
HHLHB150W40120	150	135	20250	4000	120	30Khrs
HHLHB200W40120	200	135	27000	4000	120	30Khrs
HHLHB100W6560	100	135	13500	6500	60	30Khrs
HHLHB150W6560	150	135	20250	6500	60	30Khrs
HHLHB200W6560	200	135	27000	6500	60	30Khrs
HHLHB100W6590	100	135	13500	6500	90	30Khrs
HHLHB150W6590	150	135	20250	6500	90	30Khrs
HHLHB200W6590	200	135	27000	6500	90	30Khrs
HHLHB100W65120	100	135	13500	6500	120	30Khrs
HHLHB150W65120	150	135	20250	6500	120	30Khrs
HHLHB200W65120	200	135	27000	6500	120	30Khrs
HHLHBB100	/	/	/	/	/	/
HHLHBB150	/	/	/	/	/	/
HHLHBB200	/	/	/	/	/	/

Technical Specification	
CRI	Ra>=80
Colour Consistency (SDCM)	5
Power factor	0,95
Dimmable	non-dim
Housing Colour	ADC (Black)
IP	IP65
IK	IK08
Driver intergrated(Yes/No)	Yes
Input Frequency	50/60Hz
Voltage (V)	AC 220-240

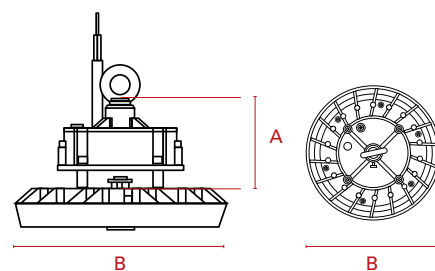
Mechanical Properties	
Housing Material	Die-casting
Optical Material	PC

Application Condition	
Operating Temperature	-30~50°C
Application Temperature	25°C

Photometric Data



Dimensions



Power	A (mm)	B (mm)
100W	115	220
150W	115	270
200W	115	310

LED Highbay G2

Standard: IEC60598 | Certificate: TIS

Benefits

The Highbay G2 series have outstanding energy-saving effect and comfortable optical effect. Bluetooth sensor is optional which benefits for creating more intelligent, secure, efficient, and productive space. The product is sturdy, reliable, efficient, and durable which is suitable for long term use of various industrial and commercial applications.

Features

- ◆ Up to 150lm/W
- ◆ IP65 dust and water proof
- ◆ IK08 impact resistant
- ◆ 6KV surge protection
- ◆ Beam angle options: 60°, 90°, 110°
- ◆ Multiple installation options: hook, pole or bracket
- ◆ Bluetooth infrared and microwave sensor smart control optional
- ◆ 5 years warranty

Selection Code

Range name	Power	CCT	Beam Angle	Sensor Mode
HHLHBG2	XXX	XX	XXX	XX
HB: Highbay G2	100: 100W 135: 135W 165: 165W	65: 6500K	60: 60° 90: 90° 110: 110°	MV: Bluetooth Microwave Sensor IR: Bluetooth Infrared Sensor

Applications



| Hall Area



| Station



| Gym



| Factory



| Warehouse

LED Highbay G2

Standard: IEC60598 | Certificate: TIS



Bluetooth



Dimmer



Detection

Energy Saving & Efficient

Long Life & Durable

Smart Control & Dimmable

Specification

Comercial Reference	Power (W)	Efficacy (lm/W)	Lumen (lm)	CCT (K)	Beam Angle(°)	Average Lifetime
HHLHBG2100W6560	100	150	15000	6500	60	50Khrs
HHLHBG2135W6560	135	150	20250	6500	60	50Khrs
HHLHBG2165W6560	165	150	24750	6500	60	50Khrs
HHLHBG2100W6590	100	150	15000	6500	90	50Khrs
HHLHBG2135W6590	135	150	20250	6500	90	50Khrs
HHLHBG2165W6590	165	150	24750	6500	90	50Khrs
HHLHBG2100W65110	100	150	15000	6500	110	50Khrs
HHLHBG2135W65110	135	150	20250	6500	110	50Khrs
HHLHBG2165W65110	165	150	24750	6500	110	50Khrs
HHLHBG2100W6560MV	100	150	15000	6500	60	50Khrs
HHLHBG2135W6560MV	135	150	20250	6500	60	50Khrs
HHLHBG2165W6560MV	165	150	24750	6500	60	50Khrs
HHLHBG2100W6590MV	100	150	15000	6500	90	50Khrs
HHLHBG2135W6590MV	135	150	20250	6500	90	50Khrs
HHLHBG2165W6590MV	165	150	24750	6500	90	50Khrs
HHLHBG2100W65110MV	100	150	15000	6500	110	50Khrs
HHLHBG2135W65110MV	135	150	20250	6500	110	50Khrs
HHLHBG2165W65110MV	165	150	24750	6500	110	50Khrs
HHLHBG2100W6560IR	100	150	15000	6500	60	50Khrs
HHLHBG2135W6560IR	135	150	20250	6500	60	50Khrs
HHLHBG2165W6560IR	165	150	24750	6500	60	50Khrs
HHLHBG2100W6590IR	100	150	15000	6500	90	50Khrs
HHLHBG2135W6590IR	135	150	20250	6500	90	50Khrs
HHLHBG2165W6590IR	165	150	24750	6500	90	50Khrs
HHLHBG2100W65110IR	100	150	15000	6500	110	50Khrs
HHLHBG2135W65110IR	135	150	20250	6500	110	50Khrs
HHLHBG2165W65110IR	165	150	24750	6500	110	50Khrs

Technical Specification

CRI	Ra>=80
Colour Consistency (SDCM)	5
Power factor	0,95
Dimmable	0-10V
Housing Colour	ADC (Black)
IP	IP65
IK	IK08
Driver intergrated(Yes/No)	Yes
Input Frequency	50/60Hz
Voltage (V)	AC 220-240

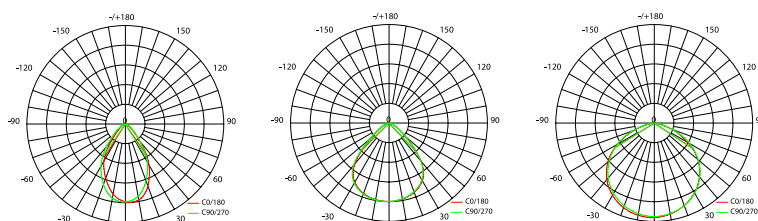
Mechanical Properties

Housing Material	Die-casting
Optical Material	PC

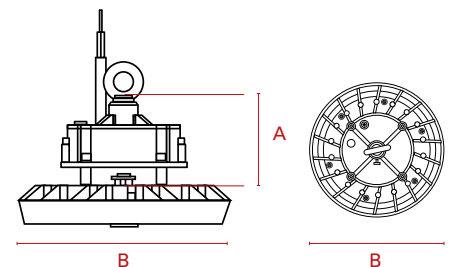
Application Condition

Operating Temperature	-30~50°C
Storage Temperature	-20~70°C

Photometric Data



Dimensions



Power	A (mm)	B (mm)
100W	121	280
135W	121	280
165W	121	280

LIGHTING

LED Floodlight B2

Standard: IEC60598 | Certificate: TIS

Benefits

LED Floodlight B2 has outstanding weatherproof performance which is ideal for outdoor lighting application. The highly compact design makes installation more convenient and cost-effective.

Features

- ◆ Up to 90lm/w
- ◆ IP65 water and dust proof
- ◆ 4KV surge protection
- ◆ 30,000 hours lifetime
- ◆ Power factor: 0.9

Selection Code

Range name	Power	CCT
HHLFLB2	XXX	XX
FLB:Floodlight Basic 2	30: 30W 50: 50W 100: 100W 150: 150W 200: 200W	30: 3000K 40: 4000K 65: 6500K

Applications



| Parking Area



| Billboard



| Squares



| Landscape



| Architecture

LIGHTING

LED Floodlight B2

Standard: IEC60598 | Certificate:TIS



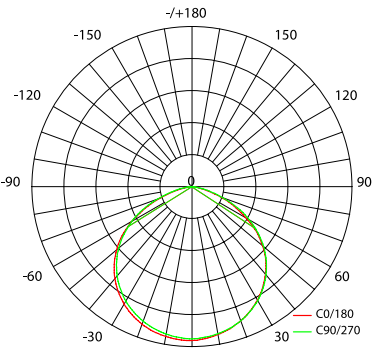
Excellent **dissipation** Design
Robust & Durable
Excellent & **Energy Saving**

Specification

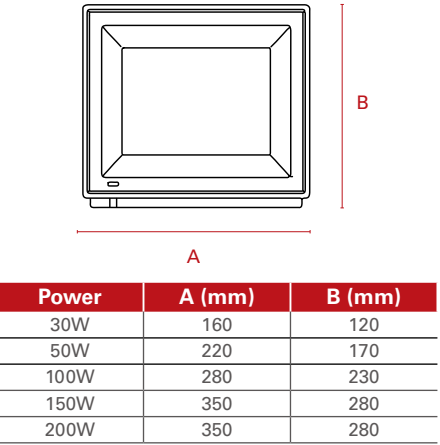
Comercial Reference	Power (W)	Efficacy (lm/W)	Lumen (lm)	CCT (K)	Average Lifetime
HHLFLB230W30	30	90	2700	3000	30Khrs
HHLFLB230W40	30	90	2700	4000	30Khrs
HHLFLB230W65	30	90	2700	6500	30Khrs
HHLFLB250W30	50	90	4500	3000	30Khrs
HHLFLB250W40	50	90	4500	4000	30Khrs
HHLFLB250W65	50	90	4500	6500	30Khrs
HHLFLB2100W30	100	90	9000	3000	30Khrs
HHLFLB2100W40	100	90	9000	4000	30Khrs
HHLFLB2100W65	100	90	9000	6500	30Khrs
HHLFLB2150W30	150	90	13500	3000	30Khrs
HHLFLB2150W40	150	90	13500	4000	30Khrs
HHLFLB2150W65	150	90	13500	6500	30Khrs
HHLFLB2200W30	200	85	17000	3000	30Khrs
HHLFLB2200W40	200	85	17000	4000	30Khrs
HHLFLB2200W65	200	85	17000	6500	30Khrs

Technical Specification	
CRI	Ra>=80
Voltage (V)	AC 220-240
Power factor	0.9
Dimmable	Non Dim
Housing Colour	ADC (Black)
IP	IP65
IK	IK06
Driver intergrated(Yes/No)	Yes
Input Frequency	50/60Hz

Photometric Data



Dimensions



Mechanical Properties	
Housing Material	Die-casting
Optical Material	PC
Application Condition	
Operating Temperature	-40~45°C
Storage Temperature	-40~65°C

Electric Vehicle Charging Solution



supported with
HHEV PRO app



Available on the
App Store

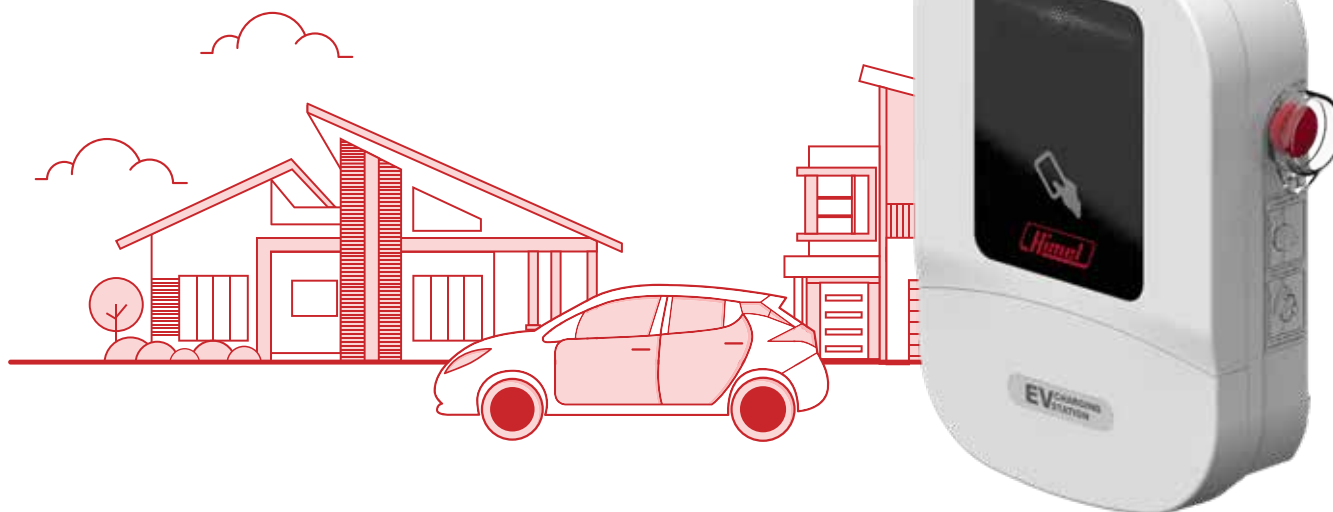
GET IT ON
Google Play



Selection Code

Range name	Power	Charging Plug Type	4G
HHEVXXX	XXX	XXX	XX
HHEV2107HM HHEV2107HP HHEV3401HM HHEV3701HM	XXXK: XXX KW	GB: 1 GBT Plug T2: 1 Type 2 Plug S2: 1 CCS2 Plug 2GB: 2 GBT Plug 2S2: 2 CCS2 Plug S2G: 1 CCS2+ 1 GBT Plug	4G: with 4G modular

Compact Charging Solution



RESIDENTIAL



PARKING LOT



COMMERCIAL



FLEET



Modern & User Friendly Design

- Enhanced second-generation appearance for a more stylish, modern look
- Compact design, ideal for garage pillars
- Easy Installation



Easy to Install

- Lightweight and compact for quick and hassle-free installation



Comprehensive Security Protection

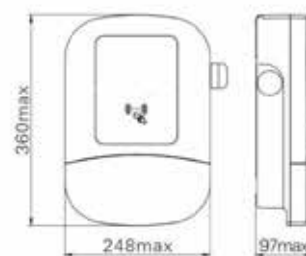
- Features 4 fault detection and 8 protection functions to ensure user safety
- Supports temperatures up to 55°C, offering strong environmental adaptability



User-Friendly Operation

- Supports both local and remote connectivity options, including Bluetooth, WiFi, Ethernet, and 4G
- Equipped with a 4.3-inch screen and multiple LED indicators for easy monitoring of parameters and status
- Modular design for simplified maintenance
- Fully compliant with the OCPP protocol to seamlessly integrate with various management platforms

Dimensions



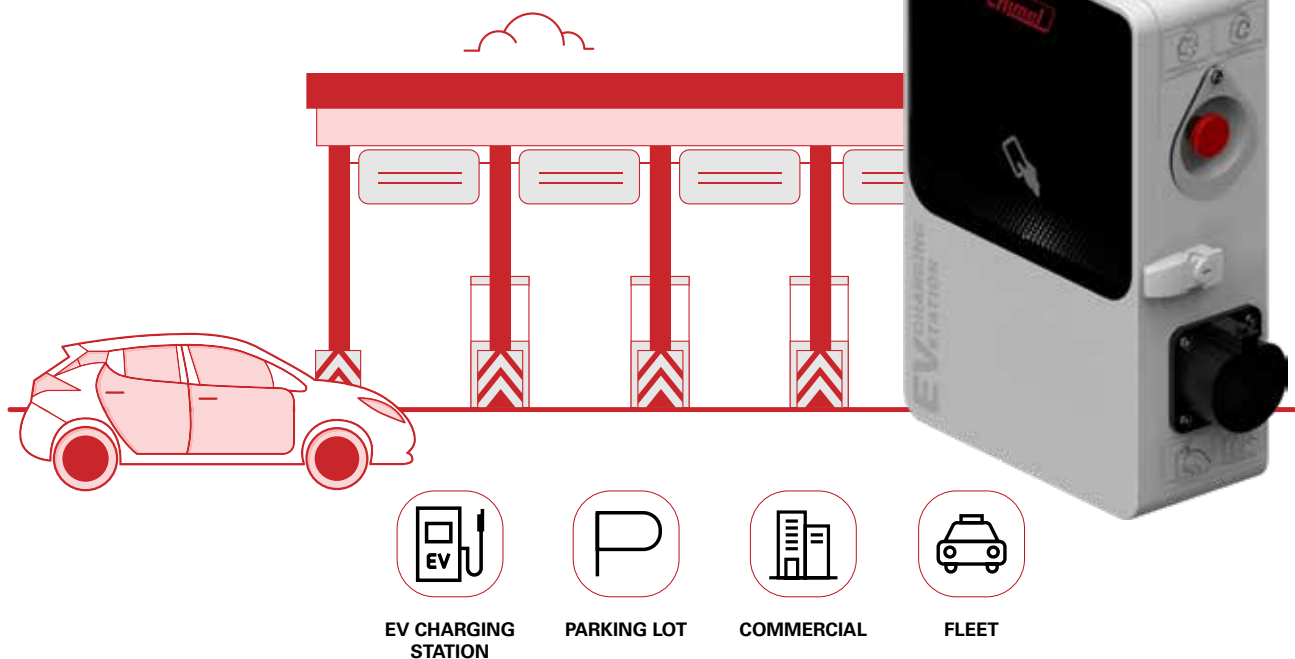
Himel EV AC Charger



Product Specification

Power Input	Input Wiring Scheme	1P+N+PE	3P+N+PE
	Rated Voltage	230VAC±10%	400VAC±10%
	Rated Current	16A or 32A	
	Grid Frequency	50Hz or 60Hz	
Power Output	Output Voltage	230VAC±10%	400VAC±10%
	Max. Current	16A or 32A	
	Rated Power	7.4kW	11kW or 22kW
User Interface	Charge Connector	Type 2 Plug	
	Cable Length	5m	
	LED Indicator	Green/Blue/Red/Yellow	
	LCD Display	4.3" Touch Color Screen	
	RFID Reader	ISO/IEC 14443 RFID Card Reader	
	Start Mode	Plug & charge / RFID Card / APP	
Communication	Backend	Bluetooth / Wi-Fi / Cellular/ Ethernet	
	Charging protocol	OCPP-1.6J	
Safety and Certification	Energy Meter	Embedded Meter	
	Residual Current Device	Type A+DC 6mA	
	Ingress Protection	IP54	
	Impact Protection	IK10	
	Cooling method	Natural Cooling	
	Electrical Protection	Over/Under Voltage Protection, Over Current Protection, Short Circuit protection, Over/Under Temperature Protection, Lightning Protection, Ground Protection	
	Certification	CE	
	Certification and Conformity	IEC61851-1, IEC62196-1	
Environment	Mounting	Wall-mount/Pole-mount	
	Storage Temperature	-40°C- +85°C	
	Operating Temperature	-35°C- +55°C	
	Max. Operating Humidity	95%, Non-condensing	
	Max. Operating Altitude	2000m	
Mechanical	Product Dimension	248mm*97mm*360mm(W*D*H)	
	Accessory	Cable Holder, Pedestal(Optional)	

Flexible Charging Solution



Modern & User-Friendly Design

- Upgraded metal housing for enhanced durability and texture
- Compact design, ideal for garage pillars



Easy Installation

- Integrated charging holder to streamline installation steps



Comprehensive Security Protection

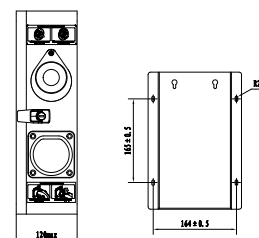
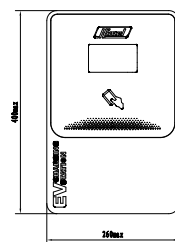
- Equipped with 4 fault detection and 8 protection functions to ensure user safety
- Operates in temperatures up to 55°C, providing robust environmental adaptability



User-Friendly Operation

- Offers both local and remote connectivity options, including Bluetooth, WiFi, Ethernet, and 4G
- Features a 4.3-inch screen and multiple LED indicator colors for easy monitoring of parameters and status
- Modular design for simplified maintenance
- Fully compliant with the OCPP protocol, ensuring compatibility with various management platforms

Dimensions



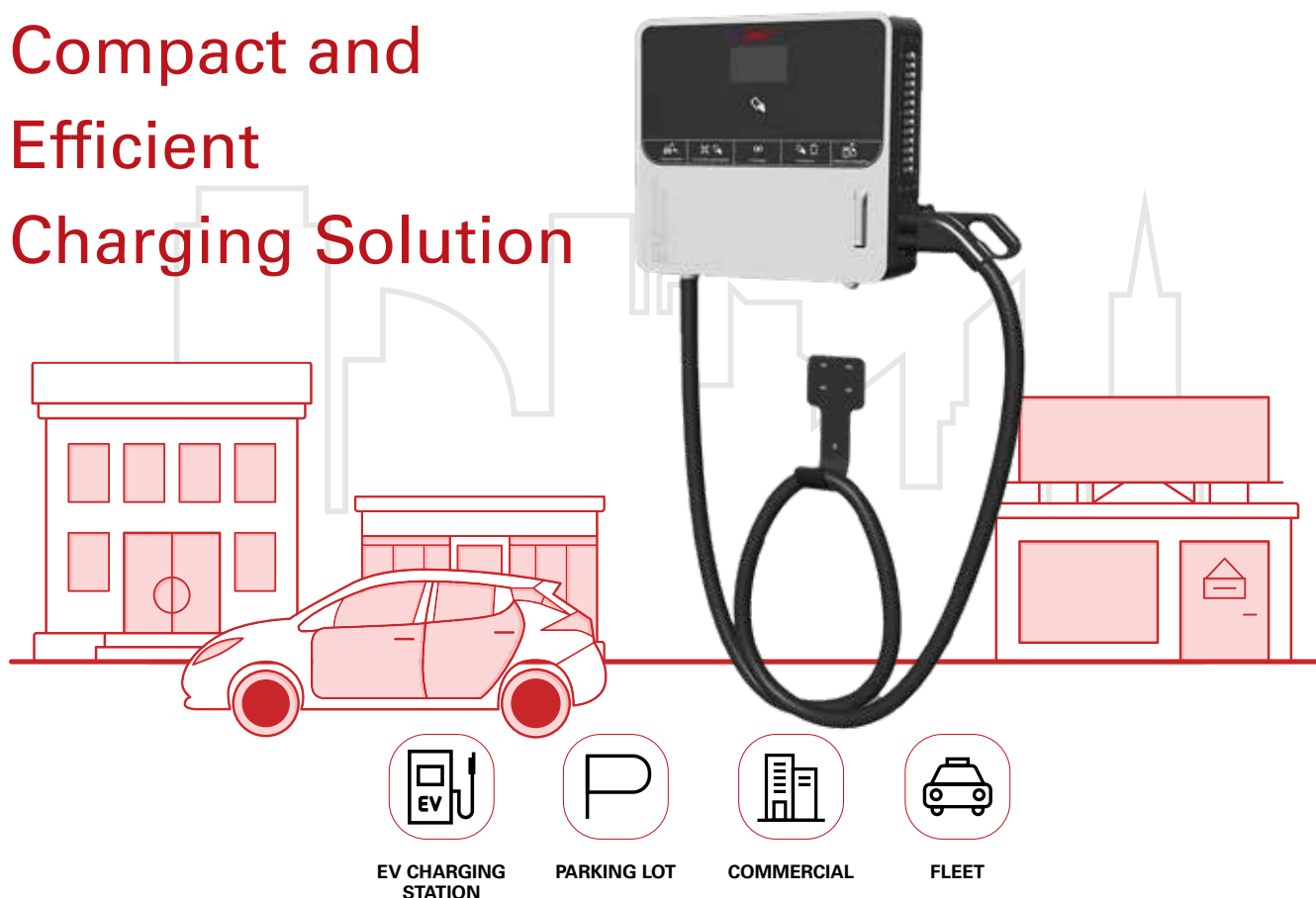
Himel EV AC Charger



Product Specification

Power Input	Input Wiring Scheme	1P+N+PE	3P+N+PE
	Rated Voltage	230VAC±10%	400VAC±10%
	Rated Current	16A or 32A	
	Grid Frequency	50Hz or 60Hz	
Power Output	Output Voltage	230VAC±10%	400VAC±10%
	max. Current	16A or 32A	
	Rated Power	7.4kW	11kW or 22kW
User Interface	Charge Connector	Type 2 Plug	
	Cable Length	5m	
	LED Indicator	Green/Blue/Red/Yellow	
	LCD Display	4.3" Touch Color Screen	
	RFID Reader	ISO/IEC 14443 RFID Card Reader	
	Start Mode	Plug&charge/RFID Card/APP	
Communication	Backend	Bluetooth / Wi-Fi / Cellular/ Ethernet	
	Charging protocol	OCPP-1.6J	
Safety and Certification	Energy Meter	MID Meter with 1% Accuracy	
	Residual Current Device	Type A+DC 6mA	
	Ingress Protection	IP55	
	Impact Protection	IK10	
	Cooling method	Natural Cooling	
	Electrical Protection	Over/Under Voltage Protection, Over Current Protection, Short Circuit protection, Over/Under Temperature Protection, Lightning Protection, Ground Protection	
	Certification	CE	
	Certification and Conformity	IEC61851-1, IEC62196-1	
Environment	Mounting	Wall-mount/Pole-mount	
	Storage Temperature	-40°C - +85°C	
	Operating Temperature	-35°C - +55°C	
	Max. Operating Humidity	95%, Non-condensing	
	Max. Operating Altitude	2000m	
Mechanical	Product Dimension	260mm*160mm*400mm(W*D*H)	
	Accessory	Cable Holder, Pedestal(Optional)	

Compact and Efficient Charging Solution



High Efficiency

- High power and current DC output, filling your car up quickly and making your trip smoother
- Up to 98% power factor and 95% charging efficiency to save energy



Intelligent Control

- Equipped with international general OCPP-1.6 protocol.
- Can charge by RFID swipe card, calculate charging fees for users to provide commercial functions.
- Touch screen control, convenient for maintenance personnel.
- Ethernet and 4G are available for selection.



All-Round Security Protection

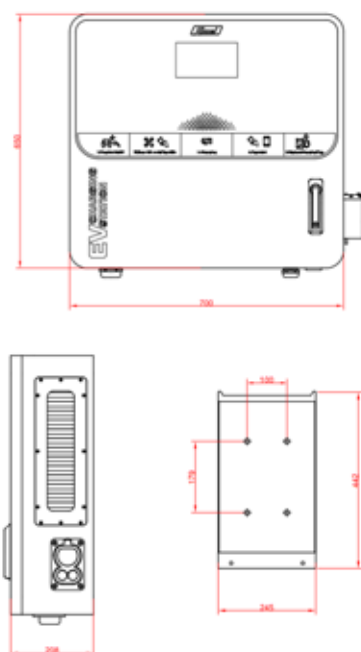
- Multiple electrical protection to ensure the normal use of users.
- The product reached the IK10 protection level, and passes the strict safety test before leaving the factory.



Excellent Adaptability

- Wall mounting or column mounting options.
- High car charging compatibility to meet the needs of different types of vehicles.
- Strong adaptability for both outdoor and indoor use.

Dimensions



Himel EV DC Charger



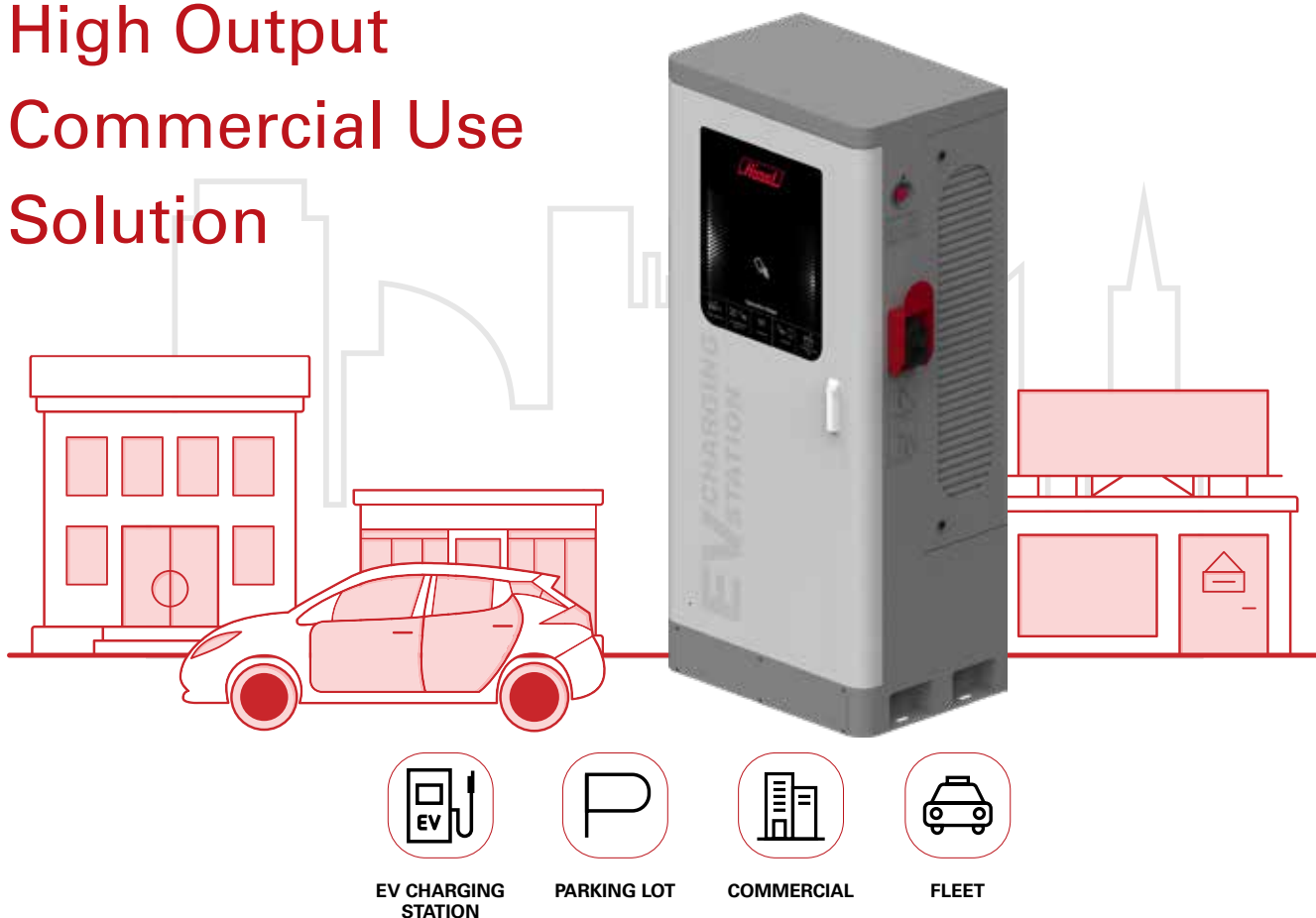
Product Specification

Power Input	Input Type	3-Phase
	Input Wiring Scheme	3P+N+PE
	Rated Voltage	400VAC±15%
	Max. THDi	5%
	Min. Power Factor	0,98
	Grid Frequency	50Hz or 60Hz
Power Output	Output Voltage	150-1000VDC
	Max. Current	200A
	Rated Power	30/40kW
	Number of Connectors	1
	Charge Connector	CCS2 Plug
User Interface	LED Indicator	Green/Blue/Red, Progress Indicator
	LCD Display	7 " Touch Color Screen
	RFID Reader	ISO/IEC 14443 RFID Card Reader
	Start Mode	RFID Card
Communication	Backend	Ethernet and 4G
	Charging protocol	OCPP-1.6J
	Energy Meter	Meter With 1% Accuracy
Safe and certification	Residual Current Device	Yes
	Internal FUSE	Yes
	Ingress Protection	IP54
	Impact Protection	IK10
	Cooling method	Fan Cooling
	Electrical Protection	Over/Under Temperature Protection, Lightning Protection, Ground Fault, Over/Under Voltage Protection, Over Current Protection, Short Circuit Protection, Surge Protection
	Certification	CE
	Certification and Conformity	IEC62196-1/-3, IEC 61851-1/-23/-24
Environment	Mounting	Wall-mounted or Column
	Storage Temperature	-40°C - +75°C
	Operating Temperature	-30°C - +55°C
	Max. Operating Humidity	95%, Non-condensing
	Max. operating altitude	2000m
Mechanical	Product Dimension	700mm*650mm*208mm (W*D*H)

Himel EV DC Charger [High-Wattage]



High Output Commercial Use Solution



Higher Output & Quicker Charge

- Delivers up to 240KW high-power DC output, boosting charging efficiency
- Dual-plug design with intelligent distribution for single and double plug scenarios, minimizing energy waste



Smart and Intelligent Control

- 7-inch touchscreen for convenient access by maintenance personnel
- Modular design for easy replacement of spare parts
- Built-in Wi-Fi connectivity



Comprehensive Security Protection

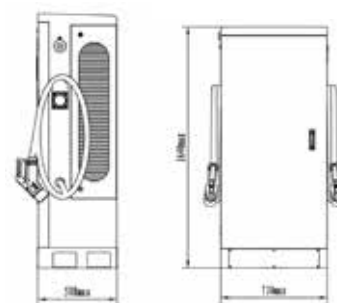
- Multiple electrical protections ensure reliable and safe usage
- Operates in temperatures up to 55°C, enhancing environmental adaptability



Excellent Adaptability

- Compatible with a wide range of vehicle types, meeting diverse charging needs
- Wide voltage range supports various vehicle charging requirements
- RFID swipe available for charging fee calculation in commercial applications

Dimensions



Himel EV DC Charger [High-Wattage]



Product Specification

Power Input	Input Type	3-Phase
	Input Wiring Scheme	3P+N+PE
	Rated Voltage	400VAC±15%
	Max. THDi	5%
	Min. Power Factor	0,98
	Grid Frequency	50Hz or 60Hz
Power Output	Output Voltage	150-750VDC/200-1000VDC
	Max. Current	200A
	Rated Power	60KW/120KW/180KW/240KW
	Number of Connectors	1 or 2
	Charge Connector	CCS2 Plug(GBT Plug Optional)
User Interface	LED Indicator	Green/Blue/Red/Yellow
	LCD Display	7 " Touch Color Screen
	RFID Reader	ISO/IEC 14443 RFID Card Reader
	Start Mode	RFID Card or APP
Communication	Backend	W-iFi/Ethernet, Optional: 4G
	Charging protocol	OCPP-1.6J
	Energy Meter	Meter With 1% Accuracy
Safe and certification	Residual Current Device	Yes
	Internal FUSE	Yes
	Ingress Protection	IP54
	Impact Protection	IK10
	Cooling method	Fan Cooling
	Electrical Protection	Over/Under Temperature Protection, Lightning Protection, Ground Fault, Over/Under Voltage Protection, Over Current Protection, Short Circuit Protection, Surge Protection
	Certification	CE
	Certification and Conformity	IEC62196-1/-3, IEC 61851-1/-23/-24
Environment	Mounting	Free-standing Cabinet
	Storage Temperature	-40°C - +75°C
	Operating Temperature	-35°C - +55°C
	Max. Operating Humidity	95%, Non-condensing
	Max. operating altitude	2000m
	Product Dimension	730mm*290mm*1640mm 730mm*508mm*1640mm (W*D*H)



Awards and Recognitions

2022



2023



2024





Contact us



Get in touch with HimelTeam at
<https://www.himel.com/contact-us>



Find a Local Himel Distributor at
<https://www.himel.com/find-a-distributor>



Reach Himel Global Team at
support@himel.com



Contact Global Himel Marketing and Communication Team at
sm.himel.communications@himel.com



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<https://www.himel.com>
or
Scan QR Code ▼



Himel, 2025