Himel Variable Speed Drives

SMART Pump

About Himel

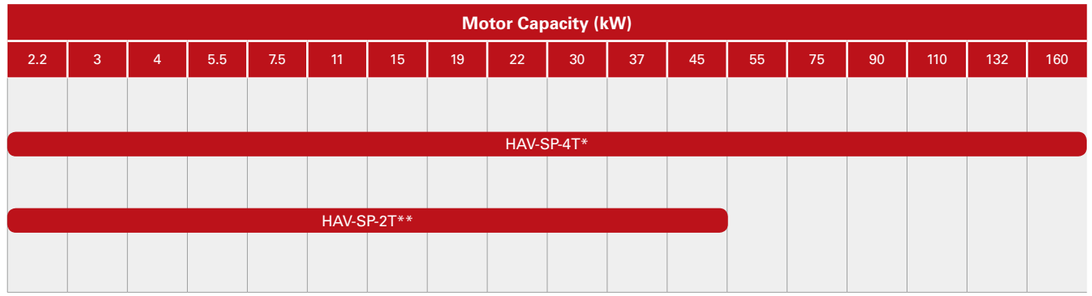
Himel is a multinational manufacturer and provider of electrical products successfully combining global expertise with local knowledge.

Founded by a Spanish entrepreneur in 1958, the company pioneered in exporting quality electrical enclosures, establishing Himel brand globally. Today, our global footprint and technology enable us to provide the best combination of affordable and reliable offers for Low Voltage Power distribution, Industry Automation and Home Electric to our long-term customers and partners in over 50 countries where we are present.

Himel. Reliable made affordable

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, sensor-less flow 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.



*4T: 380V 3 phase

**2T: 220V 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 (≥ 11kW)

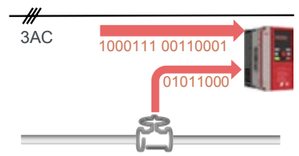
Special program functions

- Multi-pump control
- Energy meter
- Flow calculation
- Pump cleaning
- Fire Override mode
- Dual Ramp

Pump-specific protections

- Dry run detection
- Frost and condensation protection
- Hammer effect protection
- Undervoltage, overvoltage, overcurrent, overload protection
- Phase-loss protection
- Short-circuit protection

Reliable made affordable

	Features	Your benefits
Improved energy savings		
	◆ Integrated Eco-mode for V/f and V^2/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 480V (-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	◆ 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
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

Target Applications

■ Irrigation

■ Sewage

■ Fountain

■ Sand pump

■ Circulating pump

■ Rod pump

■ Drying

■ Ventilation

■ Dust removal

■ Hot surface treatment

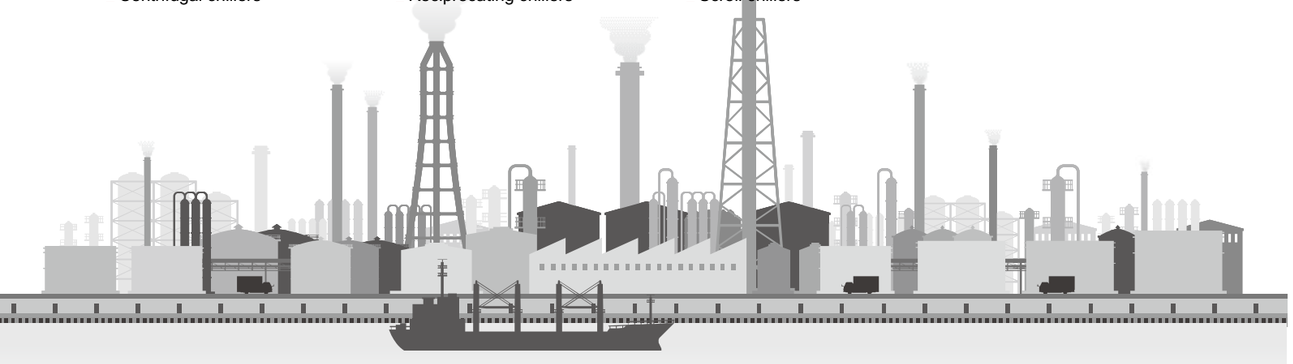
■ Air supply fan for boiler

■ Industrial fan

■ Centrifugal chillers

■ Reciprocating chillers

■ Scroll chillers



Specifications

Range Name		SMART Pump
Design		
Capacity range	Three phase 200V Class	AC: 200V(-15%)-240V(+10%)
		2.2~45kW
	Three phase 400V Class	AC:380V(-15%)~440V(+10%)
		2.2~160kW
Frequency	Input frequency	50/60Hz
	Output frequency	0-599Hz
Overload capacity		120% for 1min
Control method	V/f	√
	Sensorless vector control	√
	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
		Pulse input: max. 50kHz
	DO1	9-30VDC, max. 50mA
	DO2	9-30VDC, max.50mA
		Pusle output max.50kHz
	AI1	V: 0-10V
		I:0-20mA
	AI2	Resolution:1/1000
	AO1	V: 0-10V
		I:0-20mA
	AO2	Resolution:1/1000
	RO(Ta,Tb,Tc)	NO: 24VDC 3A/ 250VAC 5A
		NC: 24VDC 3A/ 250VAC 3A
Built-in communication (Max. speed)		RS485,Modbus RTU (38.4kbps)
Options	Extension I/O	DI/DO/RO
	Extension Keypad	Support, cable length:2m, 5m
Functionality		Multi-pump control
		Dry run protection
		Energy/ flow calculator
		Frost and condensation protection
		Pump cleaning
		Fire override mode
		Eco-mode/PID with sleep mode/Special pump protections
Installation Way		Wall mounted, cabinet,
		flange installation
Dust Shields		√
EMC Filter	C2	—
	C3	Built-in EMC filter （>=11kW)
Braking unit		Built-in （<=22kW)
Environment	Operation temperature	-10-40℃ no capacity reduction, 40℃ -50℃ capacity reduction
	Humidity	≤95%RH
	Altitude	≤1000m, no capacity reduction
	IP level	IP20
Global certificates		CE

Specifications

Range Name		SMART Pump
Design		
Features	Velocity ratio	1:100
	Frequency precision	Digitial setting：Max frequency X ±0.01%
		Analog setting：Max frequency X ±0.2%
	Frequency resolution	Digitial setting：Max frequency X ±0.01%
		Analog setting：Max frequency X ±0.1%
	Torque rise	Integrated auto-torque raising function; with manual- setting: 0.1%~30.0%
	V/F control curve definition	Linear, Square, $V^{1.7}/F$, $V^{1.2}/F$
	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 PMW adjustment	√
Protections	Special pump protection	Voltage limit, dry run, pump load monitor, frost and condensation 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: 220V 4: 380V – 440V	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	
		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%
AC: 380 - 440V 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%
	HAVSP4T0550P	55	75	110	132	120%
	HAVSP4T0750P	75	100	157	188.4	120%
	HAVSP4T0900P	90	125	180	216	120%
	HAVSP4T1100P	110	150	214	256.8	120%
	HAVSP4T1320P	132	175	256	307.2	120%
	HAVSP4T1600P	160	200	307	368.4	120%

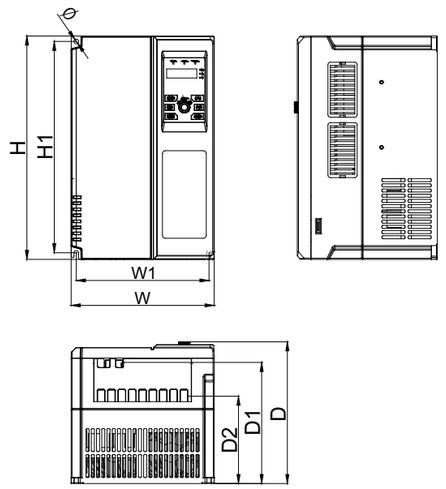
08

Dimensions

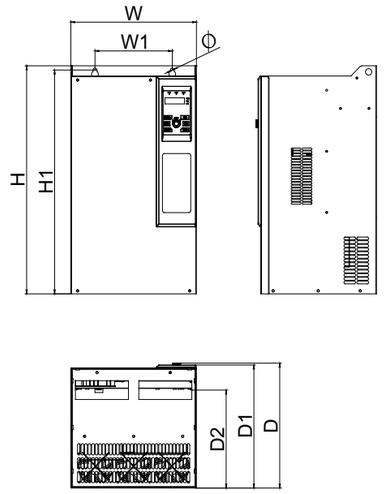
Input Voltage	Commercial Reference	Dimensions(mm)			Mounting Dimensions (mm)				Mounting Hole Diameter (mm)	CAD Diagram
		W	H	D	W1	H1	D1	D2		
AC: 200-240V Three Phase	HAVSP2T0022P	120	215	163	109	204	133	85	5.5	(a)
	HAVSP2T0030P	120	215	163	109	204	133	85	5.5	
	HAVSP2T0040P	120	215	163	109	204	133	85	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	270	211	10	(b)
	HAVSP2T0300P	305	490	275	200	470	270	211	10	
	HAVSP2T0370P	320	560	307	197	543	302	240	10	
	HAVSP2T0450P	320	560	307	197	543	302	240	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	
	HAVSP4T0450P	305	490	275	200	470	270	211	10	(b)
	HAVSP4T0550P	305	490	275	200	470	270	211	10	
	HAVSP4T0750P	320	560	307	197	543	302	240	10	
	HAVSP4T0900P	320	560	307	197	543	302	240	10	
	HAVSP4T1100P	320	560	307	197	543	302	240	10	
	HAVSP4T1320P	355	678	319	240	659	314	261	11	
	HAVSP4T1600P	355	678	319	240	659	314	261	11	

CAD Diagrams

(a)



(b)



Wiring Diagrams

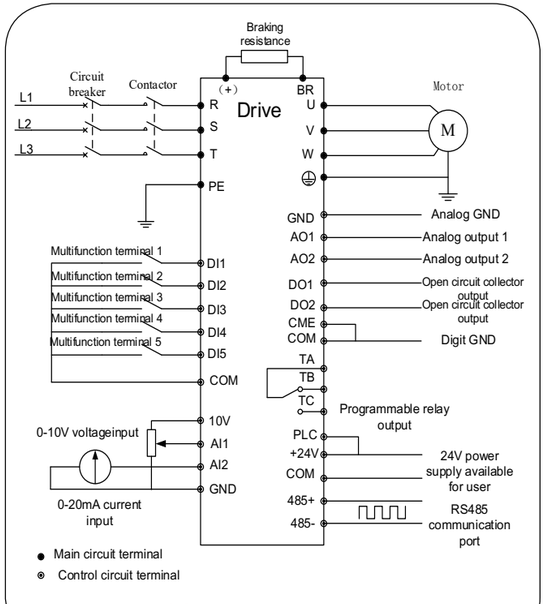


Figure (a) HAVSP4T0370P and below

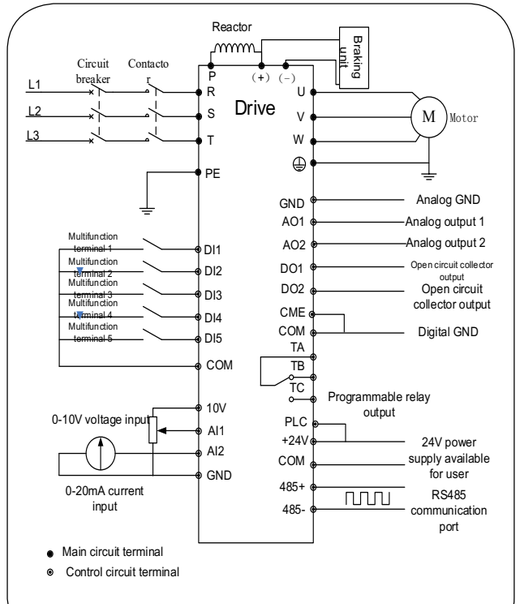
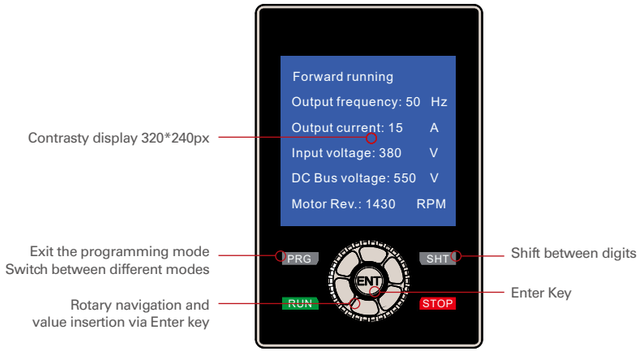


Figure (b) HAVSP4T0450P and above

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	HAVXSIO3DIR	IO extension card with 3 Di and 1 relay	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
Keypad bracket	HAVXSJPT	Keypad holder for external keypad	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
External Keypad	HAVSPLKD**	External keypad	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
	HAVSPLCD	LCD keypad	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
Keypad cable	HAVXSCAB2	Length 2m	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
	HAVXSCAB5	Length 5m	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	

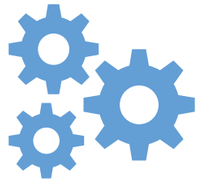
*4T: 380V 3 Phase
** All VSDs have built-in removable keypad. HAVSPLKD is sold as a spare part.

Global sales, global service

Support and Consulting Services

Training Services

Spare Parts Services



Repair Services

Contact Himel team

support@himel.com

Contact local distributor

Company name:

Contact:

Tel:

Email:

Address:

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May 2021

Options for System Integration

Push Buttons (HLAY5)

- Degree of protection: IP44 (IP65 with protection cover)
- Type: Flush button / Mushroom / Selector switches / Key switches / Emergency stop / Illuminated / Double / Pilot light
- Drilling / Cut-out for mounting: Ø22mm
- Standard: IEC 60947-5-1

Push Button
- HLAY5BA31
- HLAY5BA42

Selector Switches
- 1NO: HLAY5BS531
- 1NC: HLAY5BS542

Push Button Switches
- HLAY5BS531
- HLAY5BS542

Indication Light (HLD11)

- Degree of protection: IP65
- Type: Full cover head/ Half cover head/ Long terminal/ Short terminal
- Color: White/ Green/ Red/Yellow/ Blue
- Drilling or cut-out for mounting: Ø22mm
- Standard: IEC 60947-5-1

Indicator Light
- 24V AC/ DC: HLD1122C21B3
- 24V AC/DC: HLD1122C21B4
- 220V AC: HLD1122C21B3
- 220V AC: HLD1122C21B4

Relay (HDZ9)

Rated Current: 3A, 5A, 10A

- Poles: 2-pole, 3-pole, 4-pole
- Maximum Rated Operating Voltage: 690V
- Rated Operating Frequency: 50/60Hz
- Coil Specification: DC: 6V~220V; AC: 6V~380V
- Additional Feature: Rotary push button
- Certificate: CB, CE

Contactor Relay (HDZ3)

- Pole: 3-pole
- Coil Voltage: 24-440V
- Coil Frequency: 50Hz，50/60Hz
- Certificate: CE

Miniature Circuit Breaker (HDB9Z)

- Elegant and clear indication window
- New clip design makes it easy to install
- Square terminal and connection holes makes it more secure to connect wiring
- Specifications
  Rated Current: 1 – 63A
  Breaking Capacity: 6kA, 10kA
  Frame: 63A
  Poles: 1P, 2P, 3P, 4P

Molded Case Circuit Breaker (HDM3)

- Easy Installation
  The double-deck cover design of the HDM3 series assures easy installation and removal of accessories.
- High Performance
  The patent design in HDM3 ensures quick extinguishing of arc.
- Secured Operation
  HDM3 is trustworthy and safe for use due to the double-deck cover design.
- Specifications
  Frame: 63,100, 160, 250,400,630,800,1250A
  Rated Voltage: 400/415V, 50/60 Hz
  Breaking Capacity: 18kA - 85kA
  Rated Current: 10A -1250A
  Poles: 3P, 4P
  Tripping type: Thermal Magnetic, Magnetic

Protection type：Power distribution, Motor protection
Connection：fixed-front connection, fixed-rear connection, plug-in connection, draw-out rear connection
Standard: IEC 60947-2
Certificates：CE, KEMA (TUV), CB
Operating Temp: 40°C & 50°C

Circuit Breaker Selection

Range	Input Voltage	Commercial Reference	Motor Power (kW)	Continuous Output Current (A)	Motor Power (kW)	Continuous Output Current (A)	Circuit Breaker References
BASIC BA	200-240V Single Phase	HAV-BA-2S0007G	0.75	4.5	-	-	HDB3wN2C10*
		HAV-BA-2S0015G	1.5	7.1	-	-	HDB3wN2C20*
		HAV-BA-2S0022G	2.2	9.8	-	-	HDB3wN2C20*
	380-440V Three Phase	HAV-BA-4T0007G	0.75	2.3	-	-	HDM363S1032XX2
		HAV-BA-4T0015G	1.5	3.7	-	-	HDM363S1032XX2
		HAV-BA-4T0022G	2.2	5	-	-	HDM363S1632XX2
		HAV-BA-4T0040G	4	8.8	-	-	HDM363S2032XX2
		HAV-BA-4T0055G	5.5	13	-	-	HDM363S2532XX2
EXPERT XC	200-240V Single Phase	HAV-XC-2S0004G	0.4	3	-	-	HDB3wN2C10*
		HAV-XC-2S0007G	0.75	4.5	-	-	HDB3wN2C10*
		HAV-XC-2S0015G	1.5	7.1	-	-	HDB3wN2C20*
		HAV-XC-2S0022G	2.2	9.8	-	-	HDB3wN2C20*
	380-440V Three Phase	HAV-XC-4T0007G	0.75	2.3	-	-	HDM363S1032XX2
		HAV-XC-4T0015G	1.5	3.7	-	-	HDM363S1032XX2
		HAV-XC-4T0022G	2.2	5	-	-	HDM363S1032XX2
		HAV-XC-4T0040G-	4	8.8	-	-	HDM363S1032XX2
EXPERT XS	200-240V Single Phase	HAV-XS-2S0007G	0.75	5	-	-	HDB3wN2C10*
		HAV-XS-2S0015G	1.5	7.8	-	-	HDB3wN2C20*
		HAV-XS-2S0022G	2.2	10.8	-	-	HDB3wN2C20*
	200-240V Three Phase	HAV-XS-2T0007G	0.75	5	-	-	HDM363S1632XX2
		HAV-XS-2T0015G	1.5	7.8	-	-	HDM363S2032XX2
		HAV-XS-2T0022G	2.2	10.8	-	-	HDM363S2532XX2
		HAV-XS-2T0040G	3.7	16.2	-	-	HDM363S2032XX2
		HAV-XS-2T0055G	5.5	20.3	-	-	HDM363S3232XX2
		HAV-XS-2T0075G	7.5	26.7	-	-	HDM363S5032XX2
		HAV-XS-2T0110G	11	39	-	-	HDM363S6332XX2
		HAV-XS-2T0150G	15	52.5	-	-	HDM363S6332XX2
		HAV-XS-2T0185G	18.5	62.4	-	-	HDM3100S8032XX2
		HAV-XS-2T0220G	22	73.6	-	-	HDM3100S10032XX2
		HAV-XS-2T0300G	30	98.7	-	-	HDM3160S14032XX2
		HAV-XS-2T0370G	37	121	-	-	HDM3160S16032XX2
		HAV-XS-2T0450G	45	147	-	-	HDM3250S20032XX2
		HAV-XS-2T0550G	55	188	-	-	HDM3400S31532XX2

Circuit Breaker Selection

Range	Input Voltage	Commercial Reference	Motor Power (kW)	Continuous Output Current (A)	Motor Power (kW)	Continuous Output Current (A)	Circuit Breaker References
EXPERT XS	200-240V Three Phase	HAV-XS-2T0750G	75	256	-	-	HDM3400S31532XX2
		HAV-XS-2T0900G	90	308	-	-	HDM3400S35032XX2
		HAV-XS-2T1100G	110	376	-	-	HDM3630S50032XX2
		HAV-XS-2T1320G	132	451	-	-	HDM3630S63032XX2
		HAV-XS-2T1600G	160	547	-	-	HDM3630S63032XX2
	380-440V Three Phase	HAV-XS-4T0007G	0.75	2.5	-	-	HDM363S1032XX2
		HAV-XS-4T0015G	1.5	4.1	-	-	HDM363S1032XX2
		HAV-XS-4T0022G	2.2	5.5	-	-	HDM363S1032XX2
		HAV-XS-4T0040G-0055P	3.7	9.6	5.5	13	HDM363S1632XX2
		HAV-XS-4T0055G-0075P	5.5	13	7.5	17	HDM363S2032XX2
		HAV-XS-4T0075G-0110P	7.5	17	11	25	HDM363S3232XX2
		HAV-XS-4T0110G-0150P	11	25	15	32	HDM363S4032XX2
		HAV-XS-4T0150G-0185P	15	32	18.5	37	HDM363S4032XX2
		HAV-XS-4T0185G-0220P	18.5	37	22	45	HDM363S5032XX2
		HAV-XS-4T0220G-0300P	22	45	30	60	HDM363S6332XX2
		HAV-XS-4T0300G-0370P	30	60	37	75	HDM3100S8032XX2
		HAV-XS-4T0370G-0450P	37	75	45	90	HDM3100S10032XX2
		HAV-XS-4T0450G-0550P	45	90	55	110	HDM3160S14032XX2
		HAV-XS-4T0550G-0750P	55	110	75	157	HDM3160S16032XX2
		HAV-XS-4T0750G-0900P	75	157	90	180	HDM3250S20032XX2
		HAV-XS-4T0900G-1100P	90	180	110	214	HDM3250S25032XX2
		HAV-XS-4T1100G-1320P	110	214	132	256	HDM3400S31532XX2
		HAV-XS-4T1320G-1600P	132	256	160	307	HDM3400S31532XX2
		HAV-XS-4T1600G-1850P	160	307	185	340	HDM3400S35032XX2
		HAV-XS-4T1850G-2000P	185	340	200	385	HDM3400S40032XX2
		HAV-XS-4T2000G-2200P (Wall Mounting)	200	385	220	430	HDM3630S50032XX2
		HAV-XS-4T2200G-2500P (Wall Mounting)	220	430	250	465	HDM3630S50032XX2
		HAV-XS-4T2500G-2800P (Wall Mounting)	250	465	280	525	HDM3630S63032XX2
		HAV-XS-4T2800G-3150P (Wall Mounting)	280	525	315	590	HDM3630S63032XX2
		HAV-XS-4T2000G-2200P	200	385	220	430	HDM3630S50032XX2
		HAV-XS-4T2200G-2500P	220	430	250	465	HDM3630S50032XX2
		HAV-XS-4T2500G-2800P	250	465	280	525	HDM3630S63032XX2
		HAV-XS-4T2800G-3150P-	280	525	315	590	HDM3630S63032XX2

Circuit Breaker Selection

Range	Input Voltage	Commercial Reference	Selection			Overload OutputCurrent(A)		AC Circuit breaker	DC Circuit breaker	SPD	Fuse
			Motor Power (kW)	Motor Power (HP)	Continuous Output Current (A)	A	%	HDB3/HDM3			
G-TYPE	AC:200-240V Single Phase DC:150V-400V	HAV-SS-2S0004G	0.4	0.5	2.1	3.2	150%	HDB3wN2C10*			
		HAV-SS-2S0007G	0.75	1	4.5	6.8	150%	HDB3wN2C20*			
		HAV-SS-2S0015G	1.5	2	7.1	10.7	150%	HDB3wN2C20*			
		HAV-SS-2S0022G	2.2	3	9.8	14.7	150%	HDB3wN2C20*			
	AC:380-440V Three Phase DC:250V-800V	HAV-SS-4T0007G	0.75	1	2.3	3.5	150%	HDM363S1032XX2			
		HAV-SS-4T0015G	1.5	2	3.7	5.6	150%	HDM363S1032XX2			
		HAV-SS-4T0022G	2.2	3	5	7.5	150%	HDM363S1632XX2			
		HAV-SS-4T0030G	3	4	6.7	10.1	150%	HDM363S2032XX2			
		HAV-SS-4T0040G	4	5	8.8	13.2	150%	HDM363S2032XX2			
		HAV-SS-4T0055G	5.5	7.5	13	19.5	150%	HDM363S2532XX2			
P-TYPE	AC:200-240V Three Phase DC:150V-400V	HAV-SS-2T0022P	2.2	3	10.08	12.1	120%	HDM363S2032XX2			
		HAV-SS-2T0030P	3	4	11.5	13.8	120%	HDM363S2532XX2			
		HAV-SS-2T0040P	4	5	16.2	19.4	120%	HDM363S2032XX2			
		HAV-SS-2T0055P	5.5	7.5	20.3	24.4	120%	HDM363S3232XX2			
		HAV-SS-2T0075P	7.5	10	26.7	32.0	120%	HDM363S5032XX2			
		HAV-SS-2T0110P	11	15	39	46.8	120%	HDM363S6332XX2			
		HAV-SS-2T0150P	15	20	52.5	63.0	120%	HDM363S6332XX2			
		HAV-SS-2T0185P	18.5	25	62.4	74.9	120%	HDM3100S8032XX2			
		HAV-SS-2T0220P	22	30	73.6	88.3	120%	HDM3100S10032XX2			
		HAV-SS-2T0300P	30	40	98.7	118.4	120%	HDM3160S14032XX2			
		HAV-SS-2T0370P	37	50	121	145.2	120%	HDM3160S16032XX2			
		HAV-SS-2T0450P	45	60	147	176.4	120%	HDM3250S20032XX2			
	AC:380-440V Three Phase DC:250V-800V	HAV-SS-4T0022P	2.2	3	5	6.0	120%	HDM363S1032XX2			
		HAV-SS-4T0030P	3	4	7.5	9.0	120%	HDM363S1032XX2			
		HAV-SS-4T0040P	4	5	8.8	10.6	120%	HDM363S1032XX2			
		HAV-SS-4T0055P	5.5	7.5	13	15.6	120%	HDM363S1632XX2			
		HAV-SS-4T0075P	7.5	10	17	20.4	120%	HDM363S2032XX2			
		HAV-SS-4T0110P	11	15	25	30.0	120%	HDM363S3232XX2			
		HAV-SS-4T0150P	15	20	32	38.4	120%	HDM363S4032XX2			
		HAV-SS-4T0185P	18.5	25	37	44.4	120%	HDM363S4032XX2			
		HAV-SS-4T0220P	22	30	45	54.0	120%	HDM363S5032XX2			
		HAV-SS-4T0300P	30	40	60	72.0	120%	HDM363S6332XX2			
		HAV-SS-4T0370P	37	50	75	90.0	120%	HDM3100S8032XX2			
		HAV-SS-4T0450P	45	60	90	108.0	120%	HDM3100S10032XX2			
		HAV-SS-4T0550P	55	75	110	132.0	120%	HDM3160S14032XX2			
		HAV-SS-4T0750P	75	100	157	188.4	120%	HDM3160S16032XX2			

Notes

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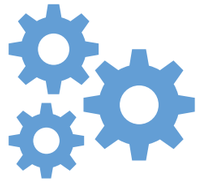
Global sales, global service

Support and Consulting Services

Training Services

Spare Parts Services



Repair Services

Contact Himel team

support@himel.com

Contact local distributor

Company name:

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