Himel

HDRX
Thermal Overload Relay

www.himel.com

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	Frame size	Setting currents
HDRX	**38**	**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

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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

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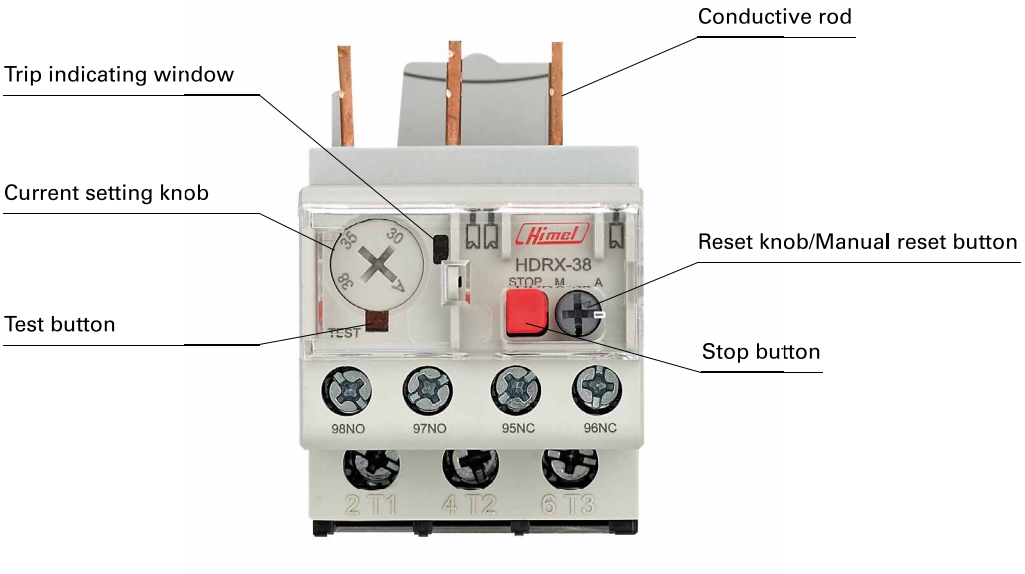
Overview



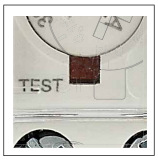
1, Trip indicating window

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.

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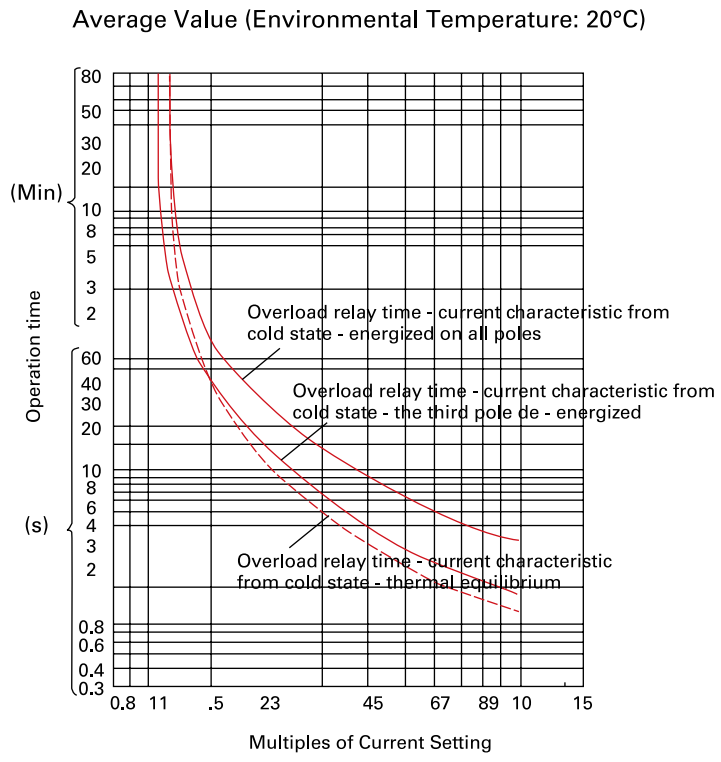
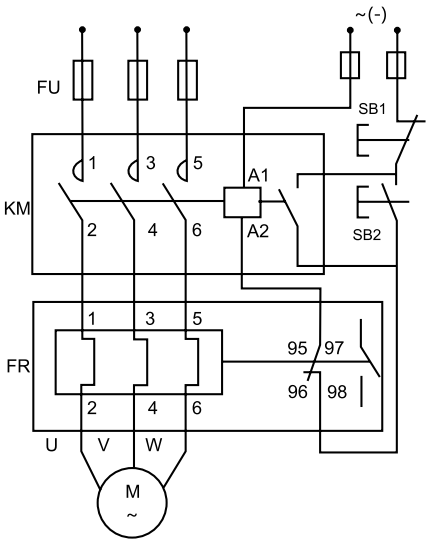
Tripping Characteristics

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

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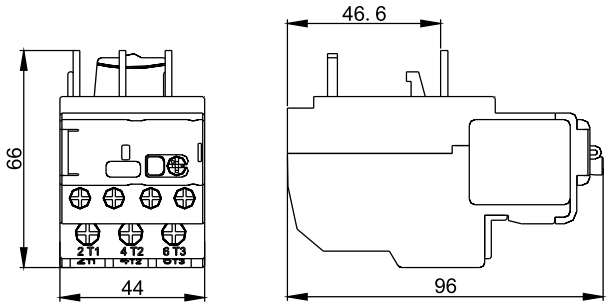
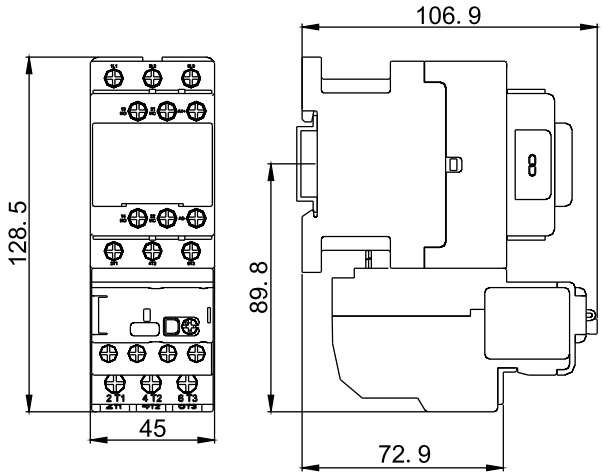
Installation Dimensions

Overall Dimensional Drawing of HDRX-38

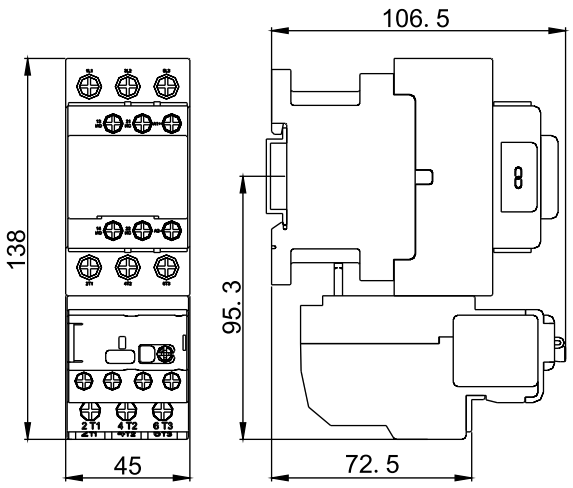


Installation Instruction

HDRX-38 With HDCX-09/12/18 DC Assembly Installation



HDRX-38 With HDCX-25/32/38 DC Assembly Installation



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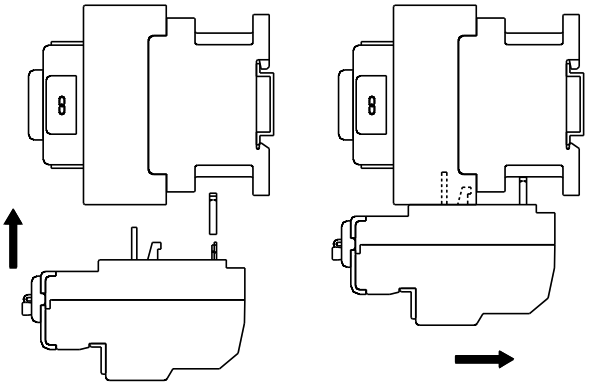
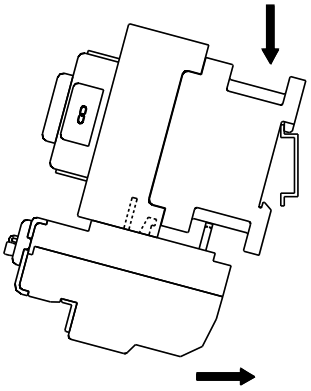
Installation Instruction

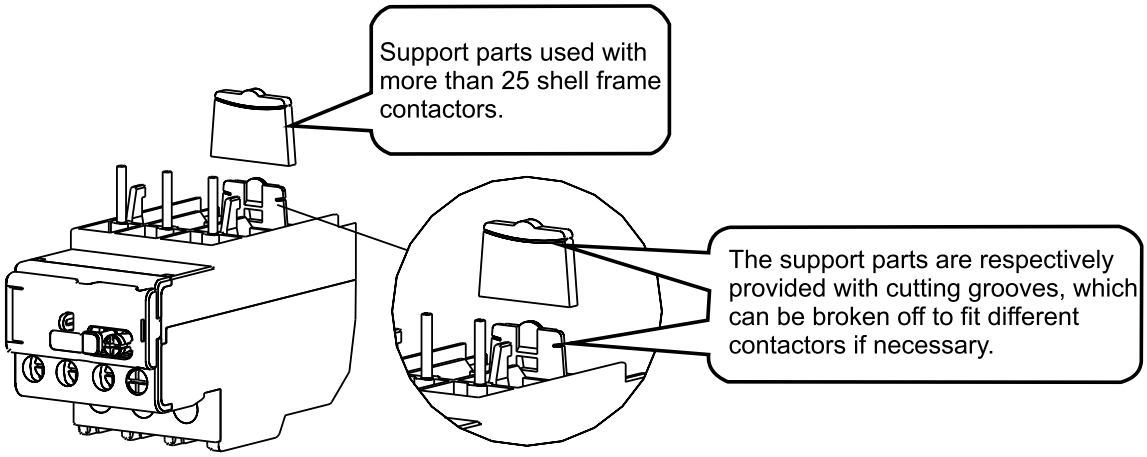
HDRX-38 Assembly Installation Instruction

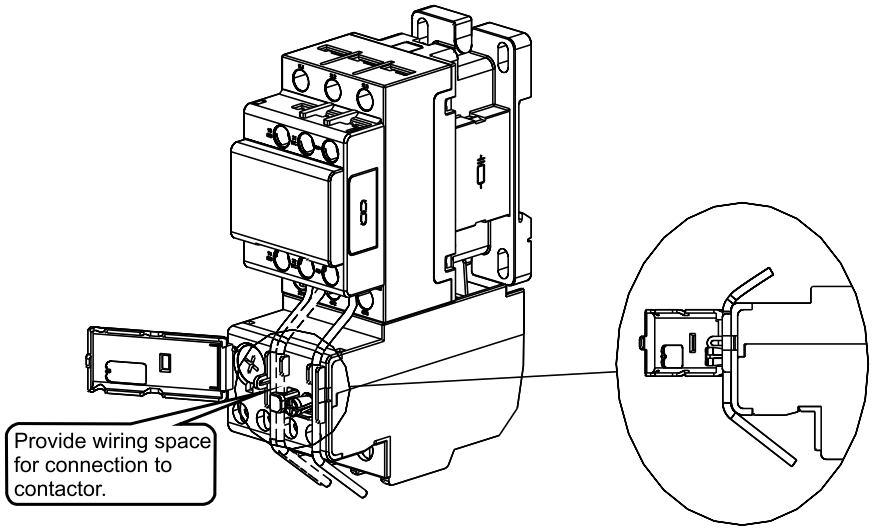


Installation method 1: Install the contactor to the DIN rail, then install the thermal relay



Installation method 2: Assemble the contactor andthermal relay, then install them on the DIN rail.





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