HJRS1D Thermal Overload Relay

Standard: IEC 60947-4-1 IEC 60947-5-1

Function

HJRS1D relay provide:

- Protect motor and circuit
- Possess overload and phase failure protection functions.

Order Information

Reference Description

HJRS1D 25 P16

- P16 — Setting current
- 25 — Rated current
- HJRS1D — Model

Frame size rated current(A)	Current setting(A)	Reference	Recommended contactor	Recommended fuse
25	0.1~0.16	HJRS1D25P16	HJX2-09~32	HRT16-4
	0.16~0.25	HJRS1D25P25	HJX2-09~32	HRT16-4
	0.25~0.4	HJRS1D25P4	HJX2-09~32	HRT16-4
	0.4~0.63	HJRS1D25P63	HJX2-09~32	HRT16-4
	0.63~1	HJRS1D251	HJX2-09~32	HRT16-4
	1~1.6	HJRS1D251P6	HJX2-09~32	HRT16-4
	1.6~2.5	HJRS1D252P5	HJX2-09~32	HRT16-6
	2.5~4	HJRS1D254	HJX2-09~32	HRT16-10
	4~6	HJRS1D256	HJX2-09~32	HRT16-16
	5.5~8	HJRS1D258	HJX2-09~32	HRT16-20
	7~10	HJRS1D2510	HJX2-09~32	HRT16-20
	9~13	HJRS1D2513	HJX2-12~32	HRT16-25
	12~18	HJRS1D2518	HJX2-18~32	HRT16-35
	17~25	HJRS1D2525	HJX2-25~32	HRT16-50
36	23~32	HJRS1D3632	HJX2-25~32	HRT16-63
	30~40	HJRS1D3640	HJX2-32	HRT16-80
93	23~32	HJRS1D9332	HJX2-40~95	HRT16-63
	30~40	HJRS1D9340	HJX2-40~95	HRT16-80
	37~50	HJRS1D9350	HJX2-50~95	HRT16-100
	48~65	HJRS1D9365	HJX2-50~95	HRT16-100
	55~70	HJRS1D9370	HJX2-65~95	HRT16-125
	63~80	HJRS1D9380	HJX2-80~95	HRT16-125
	80~93	HJRS1D9393	HJX2-95	HRT16-160

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Technical Data

Temperature compensation		-5˚C~+40˚C	
Trip class 10A		HJRS1D-25, 36	
10		HJRS1D-93	
Rated insulation voltage Ui V		660V	
Structure characteristics			
Protection Function		Overload protection	
		Phase-failure protection	
		Manual reset	
		Automatic reset	
		Stop button	
		Test button	
		Trip direction	
Tolerance on slope in any direction		±5°	
Auxiliary circuit			
Utilization category		AC-15	DC-13
Rated frequency Hz		50 50	50
Rated insulation voltage Ui V		500 500	500
Rated operational voltage Ue V		230 400	230
Rated operational current Ie A		1.64 0.95	0.15
Conventional free air thermal current I_{th} A	NO	5 5	5
	NC	5 5	5

Motor Control & Protection

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Accessories

Thermal Overload Relay	Reference
HJRS1D-25	HJRS1D25J
HJRS1D-36	HJRS1D36J
HJRS1D-93	HJRS1D93J

Trip Characteristic

Sequence	Multiples of setting current		Trip time		Initial condition	Ambient temperature
			Trip class 10A	Trip class 10		
Limits of operation of relays when energized on all poles						
1	1.05		>2h	>2h	From cold state	+20℃
2	1.2		<2h	<2h	From hot state(immediately following sequence 1 test)	
3	1.5		＜2min	＜4min	From hot state(immediately following sequence 1 test)	
4	7.2		2s＜Tp≤10s	4s＜Tp≤10s	From cold state	+20℃
Limits of operation when energized on two poles						
	Any two poles	The third-pole				
1	1.0	0.9	>2h	>2h	From cold state	+20℃
2	1.15	0	<2h	<2h	From hot state(immediately following sequence 1 test)	

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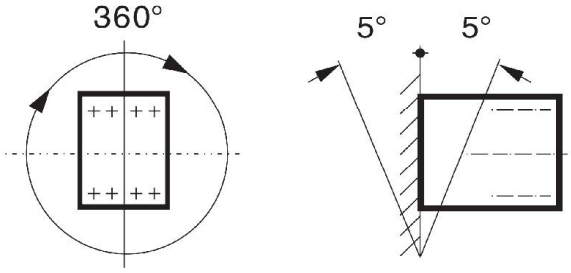
Work Conditions

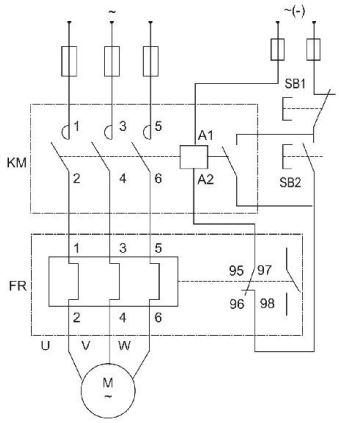
- Ambient temperature: -5℃~+40℃, daily average temperature ≤35℃
- Altitude: ≤2000m
- Humidity:The relative humidity of the installtion position shall not exceed 50% when the maximum temperature reaches +40℃. But there can be higher relative humidity under lower temperature. For example, it can reach 90% when temperature is at 20℃. Special measures should be taken against condensation occuring on product surface caused by temperature change
- Pollution class: 3

Installation Conditions

- Installation Type: III
- Installation position: Unobvious shake and impact shock is necessary. Vertically mounting. Tolerance on slope in any direction shall not exceed 5°



Wire Connection Picture



FU-Fuse
KM-Contactor
FR-Relay
SB1-Stop Button
SB2-Start Button

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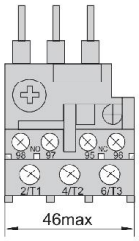
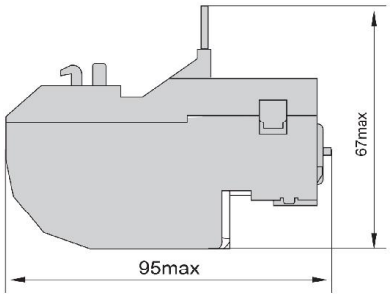
Overall Dimensions

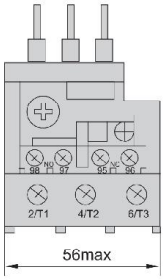
Unit: mm

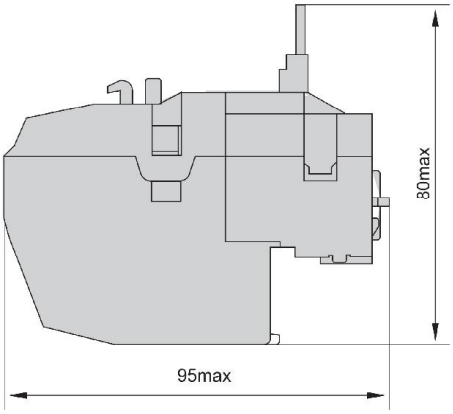
■ HJRS1D-25





■ HJRS1D-36





■ HJRS1D-93