Usage and its scope of application

JRS1 series thermal over-load relay is suitable for the circuit of AC50~60Hz, rated operating voltage Ue: 380V, rated current 0.1~80A, as the use of over-load and break phase protection for AC motor. Thermal relay is with reasonable structure, has setting current adjusting device, manual reset device, stop device, temperature compensation device, as well as protective structure that protect the hands from electric shock.

This product confirms to: GB14048.4, IEC60947-4-1 etc. standards

Model and its implication

JR S 1 - □ / □

- Installation mode (Z for combined type, F for separated type
- Code for basic specification (to be indicated as rated current A)
- Design serial No.
- Three phase type
- Thermal Over-load Relay

Normal operating condition and installation condition

3.1 Ambient temperature: -5℃~+40℃, and the average value within 24h does not exceed +35℃；

3.2 Altitude of the installation place does not exceed 2000m;

3.3 Atmosphere condition: The relative humidity does not exceed 50% when it is at +40℃, it allowed relatively high humidity at the relatively low temperature, for example, the relative humidity reaches 90% when +20℃, and it should take special measurements when there produced the condensation on the product due to the temperature variation.

3.4 It should be at the no explosion danger medium, and the medium without the gas that cannot corrode the metal and damage the insulation as well as the places that without conductive dust.

3.5 Grade of pollution: 3

3.6 Installation category: III

3.7 Installation position: installed at the normal position, the gradient between the installation side and the vertical side does not exceed ±5°, and without obvious vibration and impact.

3.8 Protection grade: IP 00

Main technique paramter

4.1 Setting current adjusting scope for thermal parts of thermal relay, suited AC contactor and the suited fuse type to see table 1

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Table 1

No.	Model	Rated current of thermal relay A	Thermal part		Suited AC contactor model (for combined type)	Fuse model
			Rated setting current A	Setting current adjusting scope A		
1	JR1-25	25	0.16	0.1~0.12~0.14~0.16	CJX2-09~25	RDT1600-2
2			0.25	0.16~0.19~0.22~0.25		RDT1600-2
3			0.40	0.25~0.3~0.35~0.4		RDT1600-2
4			0.63	0.4~0.5~0.63		RDT1600-2
5			1	0.63~0.75~0.9~1		RDT1600-2
6			1.6	1~1.2~1.4~1.6		RDT1600-4
7			2.5	1.6~1.9~2.2~2.5		RDT1600-6
8			4	2.5~3~3.5~4		RDT1600-10
9			6	4~5~6		RDT1600-16
10			8	5.5~6.5~8		RDT1600-16
11			10	7~8.5~10		RDT1600-20
12			13	10~11.5~13		RDT1600-25
13			18	13~15.5~18	CJX2-12~25-32	RDT1600-40
14			25	18~21.5~25		RDT1600-50
15	JR1-80	80	32	23~27.5~32	CJX2-40-50-63	RDT1600-63
16			40	30~35~40		RDT1600-80
17			50	38~44~50		RDT1600-100
18			57	48~52~57		RDT1600-125
19			66	57~62~66		RDT16-1-160
20			80	63~72~80		RDT16-1-160

4.2 Action characteristics when thermal relay three phase balance to see table 2

Table 2

No.	Multiple of setting current	Action time tp			Predict resuts	Initial status	Ambient temperature
1	1.05	> 2h			No action	Cool status	20±5℃
2	1.20	< 2h			Action	Thermal status (after serial No.1)	
3	1.5	Releasing grade	10A	< 2min	Action		
4	7.2		10A	2S < tp≤10S	Action	Cool status	

Releasing grade: JRS1-25, 80 is 10A grade

4.3 Action characteristics when thermal relay three phase unbalance to see table 3

Table 3

No.	Multiple of setting current		Action time	Predict resuts	Initial status	Ambient temperature
	Any two phases	Another phase				
1	1.0	0.9	> 2h	No action	Cool status	20±5℃
2	1.15	0	< 2h	Action	Thermal status (after serial No.1)	

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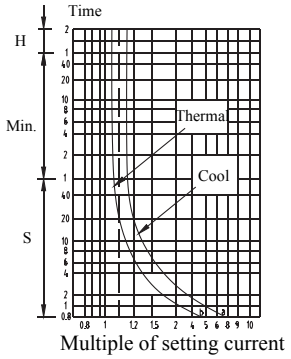
4.4 Usage category, rated operating voltage, setting thermal current and rated operating current of auxiliary circuit to see table 4

Table 4

Usage category	AC-15	
Rated operating voltage Ue (V)	220	380
Rated operating current Ie (A)	1.64	0.95
Setting thermal current Ith (A)	6	

4.5 Action characteristics curve of thermal relay to see map 2

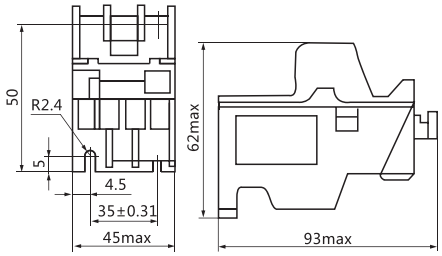


A. Three phase balance, unbalance, starting by cool status;
B. Three phase balance, break phase, starting by thermal status

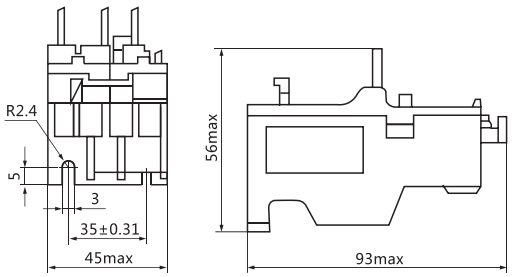
Map 2 Action scope curve

External and installation dimension

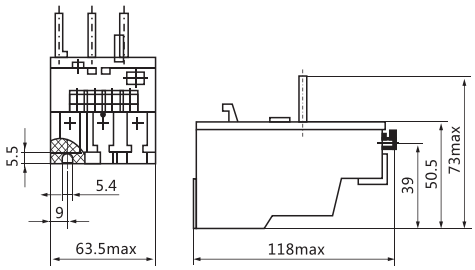
External and installation dimension of thermal relay to see map 3~6



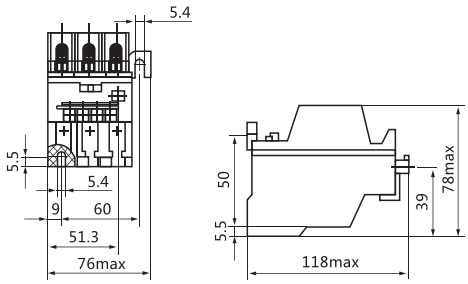
Map 3 External and installation dimension for JRS1-25/F



Map 4 External and installation dimension for JRS1-25/Z



Map 5 External and installation dimension for JRS1-80/Z



Map 5 External and installation dimension for JRS1-80/F

Ordering Notice

It required to be noted: product model, specification, setting current adjusting scope and required quantity.
For example: JRS1-25/F, 0.1~0.12, 100 pcs