

## RDJ2

### Series Thermal Over-load Relay



### Usage and its scope of application

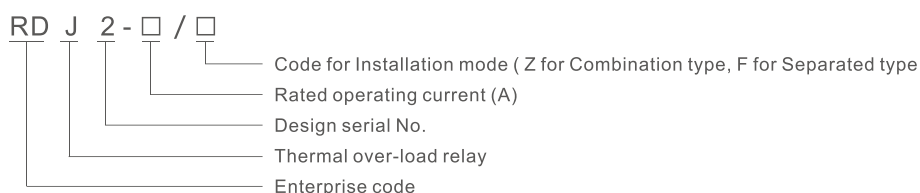
RDJ2 (LR2) series bimetal type thermal over-load relay is suitable for the circuit of AC50Hz/60Hz, rated operating voltage  $U_e$ :660V, rated current 0.10~630 (A), as the use of over-load, break phase and protection of motor and circuit.

The structure and main technique performance index of this thermal relay is the same with LR2 series thermal relay, therefore, LR2 series thermal relay can be entirely replaced by RDJ2 series thermal relay.

Thermal relay with the functions and characteristics of break phase protection temperature compensation, setting current adjusting, optional selection of auto-reset and manual reset, action indication signal, insulation separation of NO, NC auxiliary contacts, small installation section, and various installation mode. Moreover, it has the testing and stop push-buttons, and it can be inspected the action flexibility, has the protective cover that prevent the hand get shocked, safe to use, with the locking device to prevent mis-operation etc.

This product conforms to : IEC60947-4-1 standards.

### Model No.



### Normal operating and installation conditions

- 3.1 Ambient temperature:  $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ , and the average value within 24h does not exceed  $+35^{\circ}\text{C}$
- 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  $+40^{\circ}\text{C}$ , it allowed relatively high humidity at the relatively low temperature, for example, the relative humidity reaches 90% when  $+20^{\circ}\text{C}$ , 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  $\pm 5^{\circ}$ , and without obvious vibration and impact.
- 3.8 Protection grade: IP 20.

# RELAY

## Main technical parameter

Rated operating current, setting current adjusting scope, suited AC contactor model and recommended fuse model for thermal relay to see table 1 table 1

No	Model	Rated current A	Setting current adjusting scope A	Suited AC contactor model	Suited fuse model	Cross section of conductor mm²
1	RDJ2-25	25	0.1-0.16	CJX2-09-32	RDT16-00-2	1
2			0.16-0.25			
3			0.25-0.4			
4			0.4-0.63			
5			0.63-1			
6			1-1.6		RDT16-00-4	
7			1.25-2		RDT16-00-6	
8			1.6-2.5			
9			2.5-4		RDT16-00-10	
10			4--6		RDT16-00-16	
11			5.5-8			
12			7--10		RDT16-00-20	1.5
13	RDJ2-25	25	9--13	CJX2-12-32	RDT16-00-25	2.5
14			12--18		RTD16-00-40	
15			17-25	CJX2-25,CJX2-32	RDT16-00-50	4
16	RDJ2-36	36	23-32		RDT16-00-63	6
17			28-36	CJX2-32	RDT16-00-80	10
18	RDJ2-93	93	23-32	CJX2-40-95	RDT16-00-63	6
19			30-40		RDT16-00-80	10
20			37-50	CJX2-50-95	RDT16-00-100	
21			48-65		RDT16-00-125	16
22			55-70	CJX2-63-95	RDT16-00-160	25
23			63-80	CJX2-80,CJX2-95		
24			80-93	CJX2-95	RDT16-1-200	35
25	RDJ2-200	200	80-125	CJX2-115,150, 185,225	RDT16-1-250	50
26			100-160		RDT16-1-315	70
27			125-200		RDT16-2-400	95
28	RDJ2-630	630	160-250	CJX2-185,225, 265,330,400	RDT16-3-500	120
29			200-320		RDT16-3-630	185
30			250-400		RDT16-4-800	240
31			315-500	CJX2-500,630	RDT16-4-1000	2X150
32			400-630		RDT16-4-1000	2X185

Rated insulation voltage of auxiliary circuit Ui 380V; Rated frequency 50, 60Hz; Usage category, rated operating voltage, rated operating current and rated thermal current to see table 2 table 2

Usage category	AC-15		DC-13
Rated operating voltage V	220	380	220
Rated operating current A	1.64	0.95	0.15
Setting thermal current A	6		

Action characteristics of thermal relay when it is at load balance of each phase confirms to table 3

table 3

No.	Multiple of setting current	Action time			Initial status	Ambient temperature℃
1	1.05	> 2h			Cool status	20±5℃
2	1.20	< 2h			Thermal status (after serial No.1)	
3	1.50	Grade of releasing	10A	< 2min		
			10	< 4min		
4	7.20		10A	2s < top≤10s	Cool status	
			10	4s < top≤10s		

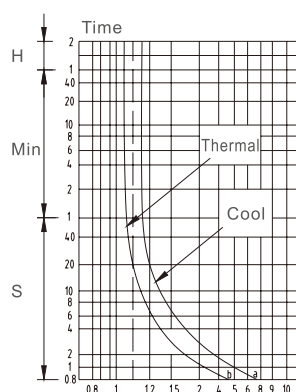
Releasing grade: RDJ2-25, RDJ2-36 is 10A grade, RDJ2-93, 200, 630 is 10 grade.

Action characteristics of thermal relay when it is at load unbalance of each phase to see table 4

table 4

No.	Multiple of setting current		Action time	Initial status	Ambient temperature℃
	Any two phases	Another phase			
1	1.00	0.90	> 2h	Cool status	20±5℃
2	1.15	0	≤ 2h	Thermal status (after serial No.1)	

Time-current characteristics curve of thermal relay to see map 1

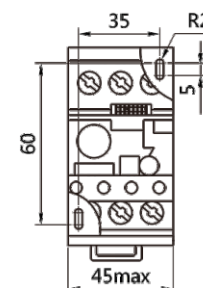
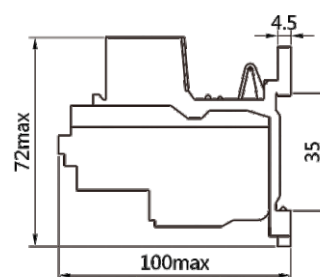
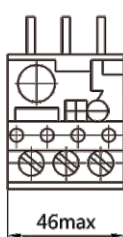
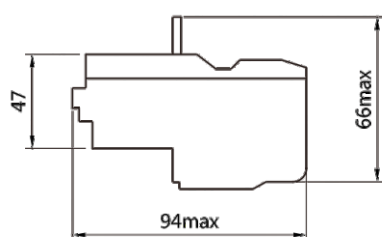


Multiple of setting current  
Map 1 Action scope curve

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

## External and installation dimension

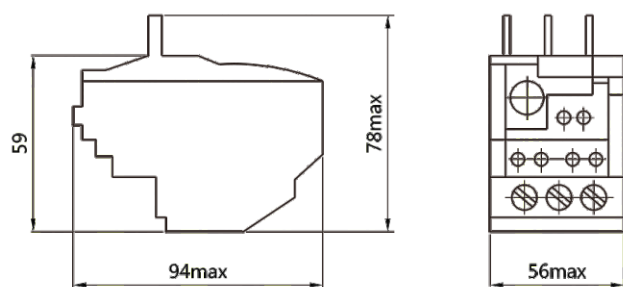
External and installation dimension of thermal relay to see map 2~9



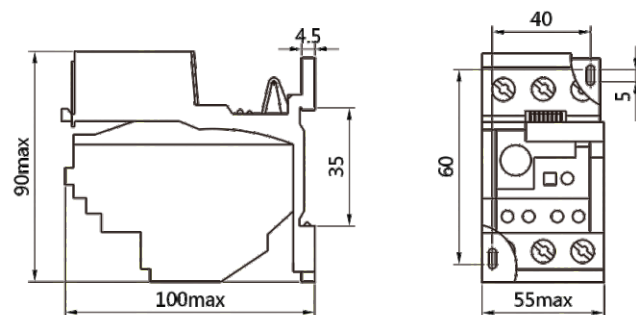
Map 2 External and installation dimension for RDJ2-25/Z

Map 3 External and installation dimension for RDJ2-25/F

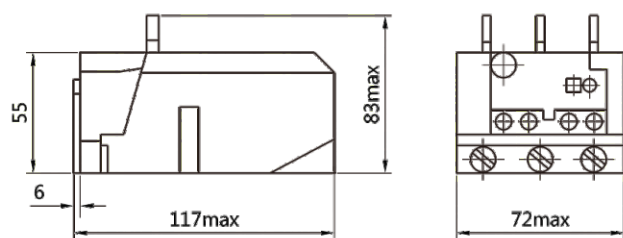
# RELAY



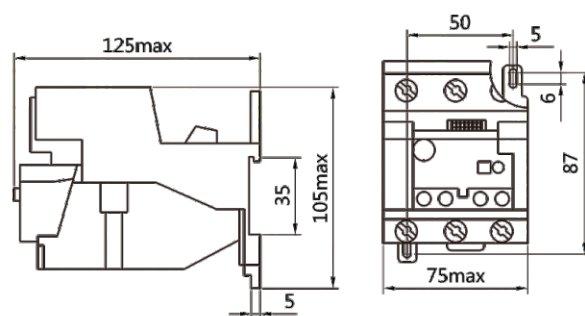
Map 4 External and installation dimension for RDJ2-36/Z



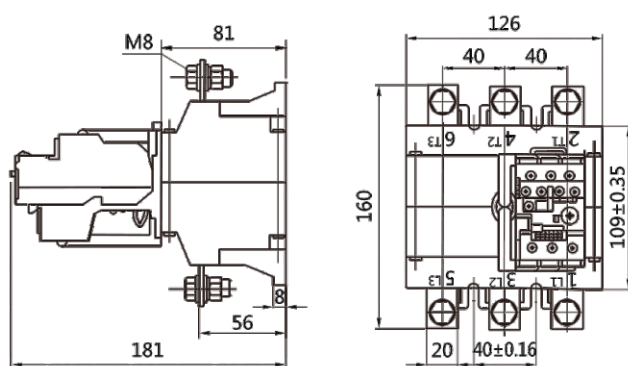
Map 5 External and installation dimension for RDJ2-36/F



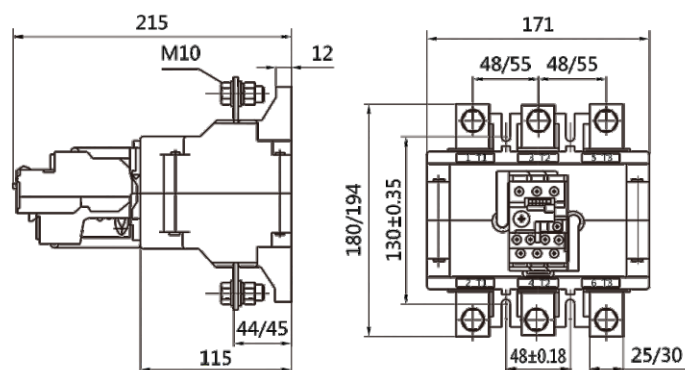
Map 6 External and installation dimension for RDJ2-93/Z



Map 7 External and installation dimension for RDJ2-93/F



Map 8 External and installation dimension for RDJ2-200/Z



Map 9 External and installation dimension for RDJ2-200/F