

JRS1_N Thermal Relay

Functions and Characteristics



Product Overview

The JRS1_N Series Thermal Overload Relay is mainly applied in circuits with AC 50 Hz, rated working voltage up to 660 V and rated working current of 0.1–630 A, which is used to start and accelerate the motor to a normal speed, as well as for overload and phase failure protections of circuits and three-phase AC motors, and can form a starter with the adaptive AC contactor. Models of the same type: LR2/JR28. This product can perfectly replace JRS1.

The product complies with GB/T 14048.4.

Model Description

JRS1_N F 25 7~10A

The setting current is shown in the following table.

Shell frame current (A): 25, 36, 93, 180, 400, 630

Improvement type: Only 180–630 A.

Thermal overload relay model code

Thermal Relay Setting Current and Matching Product Model

Product model	Setting current A	Matching fuse specification (recommended RT16) A	Matching contactor model
JRS1 _N -25	0.1 ~ 0.16	2	CJX2 _N -06, 09 12, 18 25, 32 38
	0.16 ~ 0.25	2	
	0.25 ~ 0.40	2	
	0.40 ~ 0.63	2	
	0.63 ~ 1	4	
	1 ~ 1.6	4	
	1.6 ~ 2.5	6	
	2.5 ~ 4	10	
	4 ~ 6	16	
	5.5 ~ 8	20	
	7 ~ 10	20	
	9 ~ 13	25	
12 ~ 18	35		
JRS1 _N -36	17 ~ 25	50	CJX2 _N -25, 32, 38
	23 ~ 32	63	
JRS1 _N -93	30 ~ 40	80	CJX2 _N -40, 50, 65 80, 95
	23 ~ 32	63	
	30 ~ 40	80	
	37 ~ 50	100	
	48 ~ 65	100	
	55 ~ 70	125	
JRS1 _N -180	63 ~ 80	125	
	80 ~ 93	160	

JRS1_N Thermal Relay

Functions and Characteristics

Product model	Setting current A	Matching fuse specification (recommended RT16) A	Matching contactor model
JRS1 _N -F180	55 ~ 80	125	CJX2_N-F115, 150, 185
	63 ~ 90	125	
	80 ~ 110	200	
	90 ~ 120	200	
	110 ~ 135	200	
	120 ~ 150	250	
	135 ~ 160	250	
	150 ~ 180	250	
JRS1 _N -F400	80 ~ 120	200	CJX2_N-F225, 265, 330, 400
	125 ~ 200	400	
	160 ~ 250	400	
	200 ~ 320	500	
	250 ~ 400	500	
JRS1 _N -F630	320 ~ 500	630	CJX2_N-F500, 630
	400 ~ 630	630	

Product Parameters

Operating environment	~5°C~+40°C
Tripping grade	10A
Rated insulation voltage U _i (V)	660, 690
Product features	
Overload protection	Provided
Phase failure protection	Provided
Manual reset	Provided
Automatic reset	Provided
Stop button	Provided
Test button	Provided
Tripping indication	Provided

Auxiliary Circuit Parameters

Auxiliary circuits	JRS1 _N -25, 36, 93			
Use category	AC-15		DC-13	
Rated insulation voltage U _e (V)	500		500	
Rated working voltage U _e (V)	380	220	220	110
Rated working current I _e (A)	0.95	1.64	0.15	0.3
Conventional thermal current I _{th} (A)	6		6	
Auxiliary contact type	1 NO + 1 NC		1 NO + 1 NC	

JRS1_N Thermal Relay

Functions and Characteristics

Operating Characteristics

Auxiliary circuits	JRS1 _N -F180, 400, 630			
Use category	AC-15		DC-13	
Rated insulation voltage U _e (V)	380		380	
Rated working voltage U _e (V)	380	220	220	110
Rated working current I _e (A)	0.26	0.45	0.14	0.27
Conventional thermal current I _{th} (A)	6		6	
Auxiliary contact type	1 NO + 1 NC		1 NO + 1 NC	

Operating Characteristics

Status	Serial number	Setting current multiple	Operating time		Initial condition	Ambient air temperature (°C)
Load balance of each phase	1	1.05	> 2 h		Cold state starting	+20
	2	1.20	< 2 h		Thermal state (starting after No.1 test)	
	3	1.50	Trip category	10A		
				10	< 4 min	
	4	7.2	10A	2s < TP ≤ 10s	Cold state starting	
Load imbalance of each phase (phase failure)	5	1.0 for any two phases and 0.9 for the other phase	> 2 h		Cold state starting	
	6	1.15 for any two phases and 0 for the other phase	< 2 h		Thermal state (starting after No.5 test)	
Temperature compensation performance	7	1.0	> 2 h		Cold state starting	+40
	8	1.20	< 2 h		Thermal state (starting after No.7 test)	
	9	1.05	> 2 h		Cold state starting	-5
	10	1.3	< 2 h		Thermal state (starting after No.9 test)	

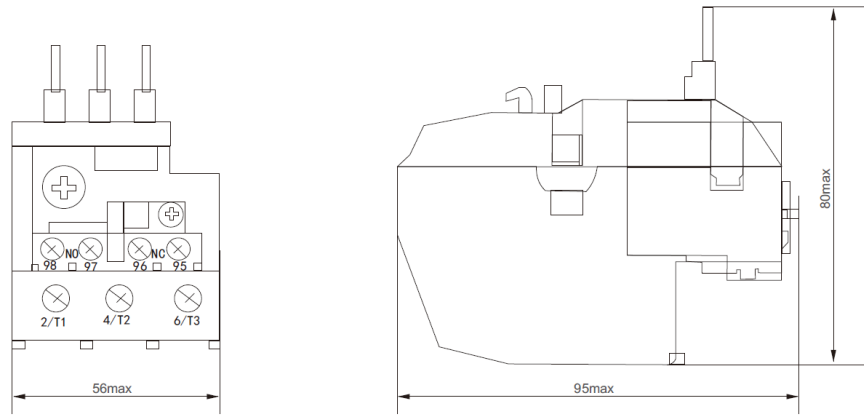
Product Accessories



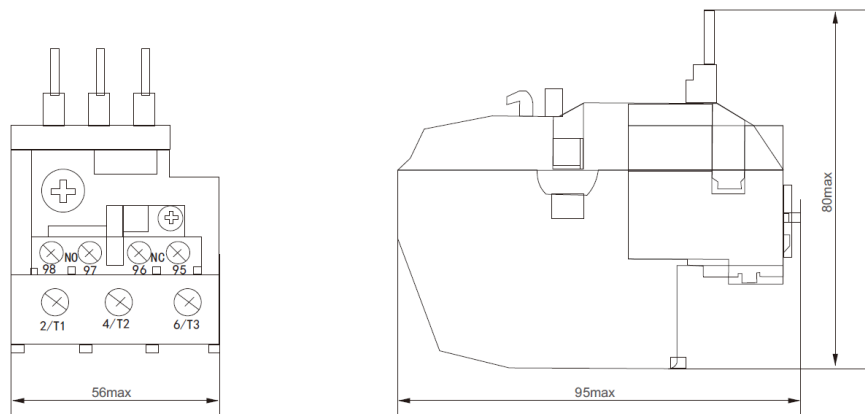
Serial number	Name
1	JRS1 _N -25 mounting base
2	JRS1 _N -36 mounting base
3	JRS1 _N -93 mounting base

Outline and Installation Dimensions

1. Outline and installation dimensions (mm) of JRS1_N-25



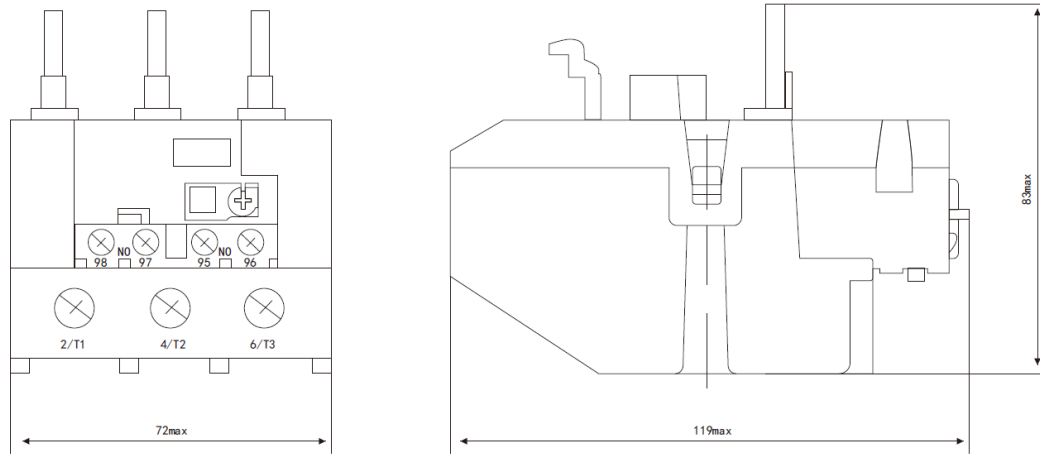
2. Outline and installation dimensions (mm) of JRS1_N-36



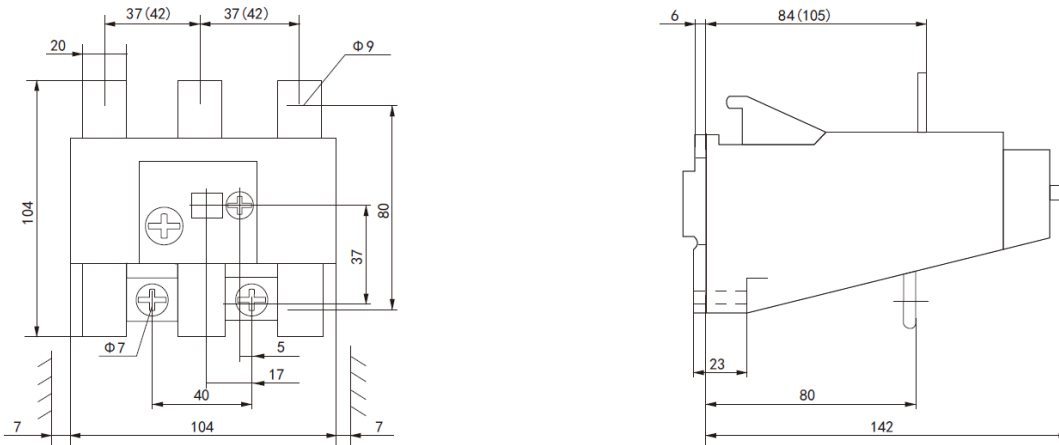
JRS1_N Thermal Relay

Functions and Characteristics

3. Outline dimensions of JRS1_N-93



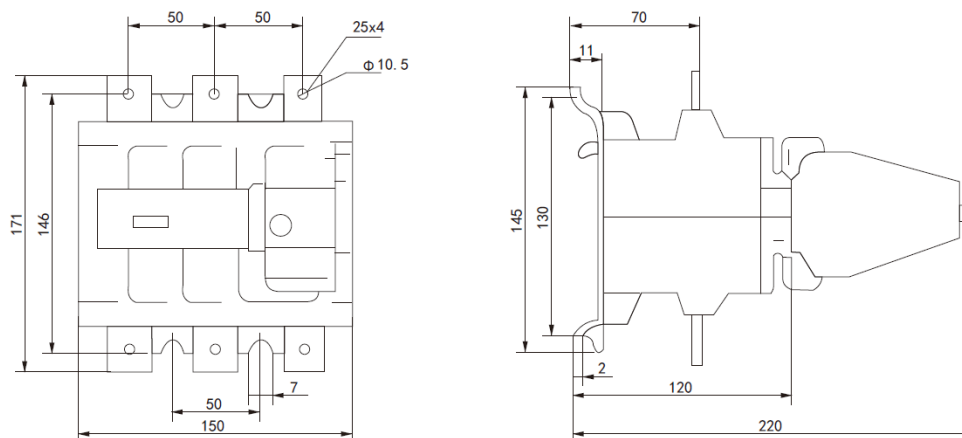
4. Outline dimensions of JRS1_N-F180



JRS1_N Thermal Relay

Functions and Characteristics

5. Outline dimensions of JRS1_N-F400 and 630



Ordering Information

1. When ordering, please specify the product name, model, setting current range and quantity.
2. The mounting base (if required) shall be specified separately. Example of ordering: Thermal overload relay JRS1_N-25, 7–10 A, 50 sets.