



JRS1Dsp Series | NAVIGATOR
Thermal Overload Relay Series
User Manual



Please carefully read this User Manual before installing and operating the product, and keep this manual properly for future reference

Safety Notice

Please carefully read this instruction before the installation, operation, run, maintenance, and inspection, and follow the contents of the instruction to properly install and operate this product.



Danger:

- Do not operate the relay with your wet hands;
- Do not touch the energized parts during operation;
- Mark sure that the product is de-energized during the maintenance and service;
- It is strictly forbidden to use short circuit method to test the product.

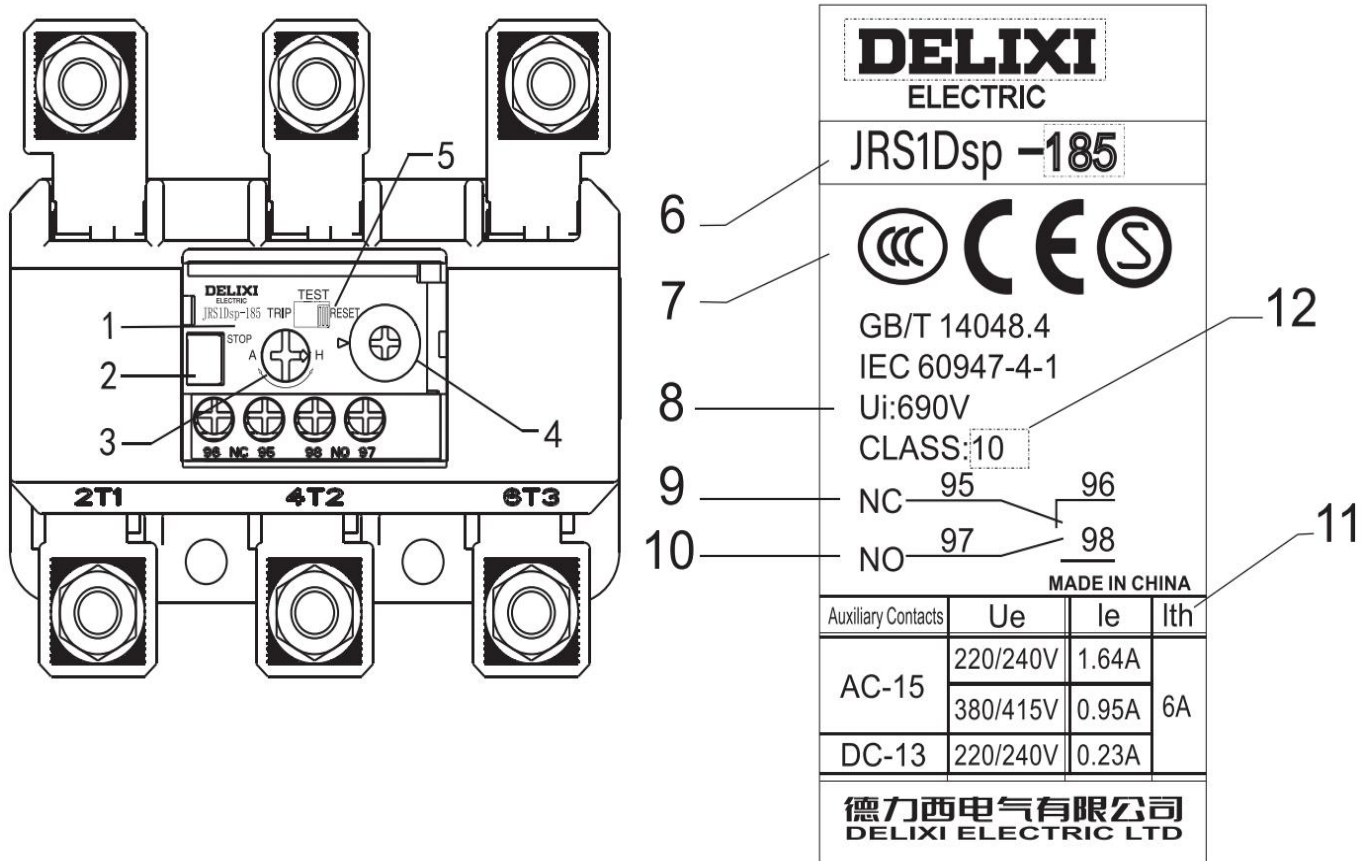


Caution:

- The installation, maintenance and service shall be performed by the qualified professional;
- Before installation, please confirm that the rated operating current value of the motor is within the setting current adjustment range of the thermal relay;
- The thermal relay must be operated and used according to the instructions, and cannot be disassembled at will, including screws or fasteners, otherwise its protection characteristics will be changed, and parts may be damaged at the same time;
- It is not suitable for overload protection of motors with frequent reversible operation or on-off. For heavy-duty starting motors (starting time greater than 2s), measures should be taken to keep the thermal relay away from the starting current;
- Please tighten the terminals regularly, otherwise there is a risk of fire;;
- If found damage or abnormal sound when unpacking, please stop the operation immediately and contact the supplier;
- When scrapping the product, please dispose the product waste properly. Thanks for your cooperation;

About JRS1Dsp Relay

● Panel Introduction



Legends:

- | | |
|-----------------------------------|---|
| 1. Frame current | 6. Model |
| 2. Stop button | 7. Certification mark |
| 3. Reset Setting Knob | 8. Rated insulation voltage |
| A is for automatic reset | 9. NC contact |
| H is manual reset | 10. NO contact |
| 4. Setting current setting button | 11. Conventional thermal current of auxiliary circuit |
| 5. Trip indication, test, reset | 12. Trip level |



Note: It is forbidden to press the stop button when the test button (trip indication) is toggled!

Normal Operation, Installation and Transport Conditions

●Normal Operation and Installation Conditions

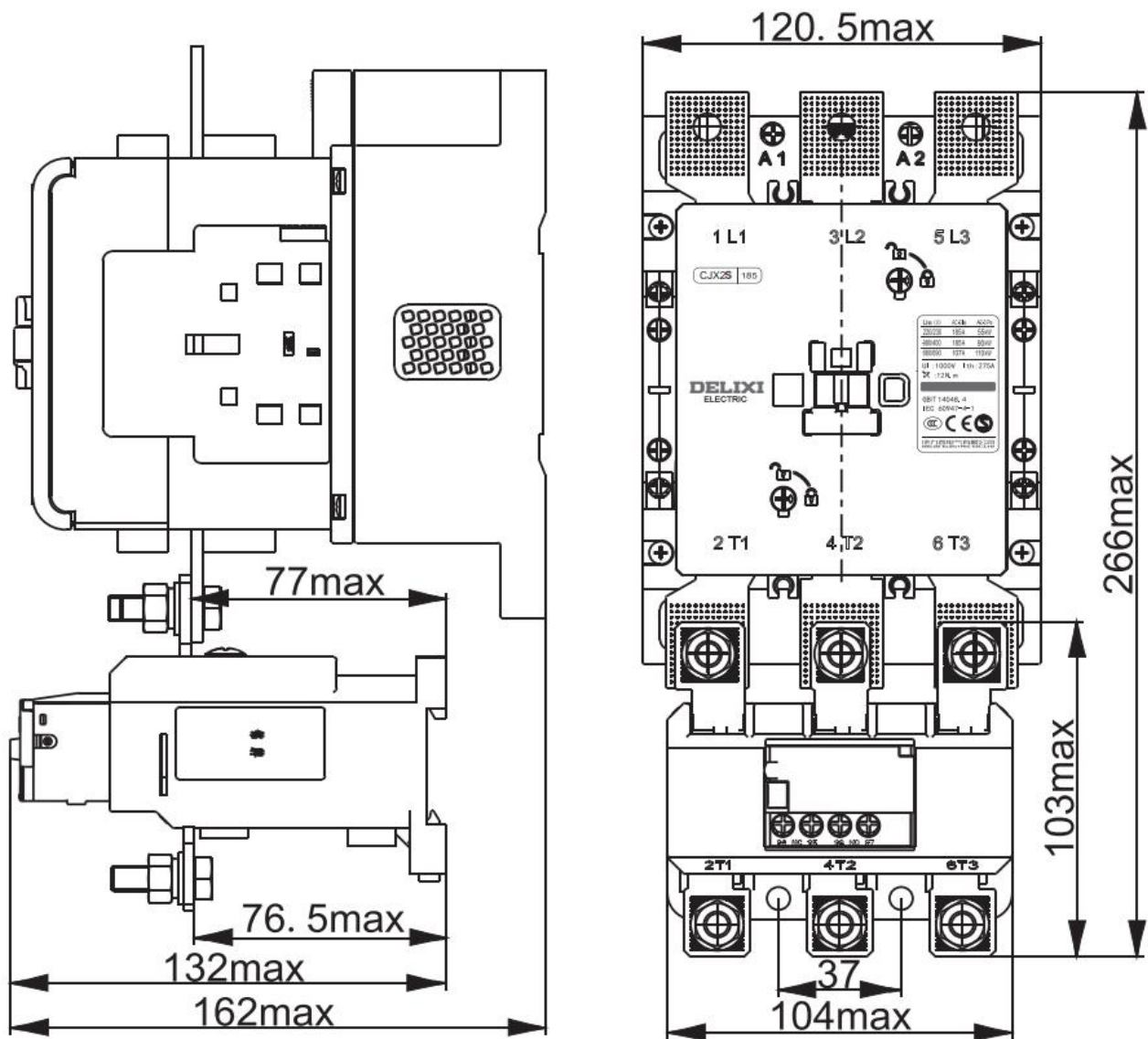
- (1) The ambient air temperature is not higher than +55°C, and is not below -10°C, and the average value within 24 hours does not exceed +35°C;
- (2) The altitude of the installation site does not exceed 2000m;
- (3) Atmospheric conditions
The relative humidity of the atmosphere does not exceed 50% when the highest ambient temperature is +55°C, and a higher relative humidity is allowed at lower temperatures, such as 90% at 20°C. Protective measures shall be taken for condensation occasionally occurred due to temperature changes.
- (4) The installation position shall be vertical, and the inclination angle at each direction shall not exceed 30°;
- (5) Installed at a place where there is no impact, vibration, and rain or snow erosion;
- (6) Pollution level: Level 3;
- (7) Installation category: Class III;
- (8) Rated impact withstand voltage U_{imp} :6000V;
- (9) Protection grade: IP20.

● Normal Storage and Transport Conditions

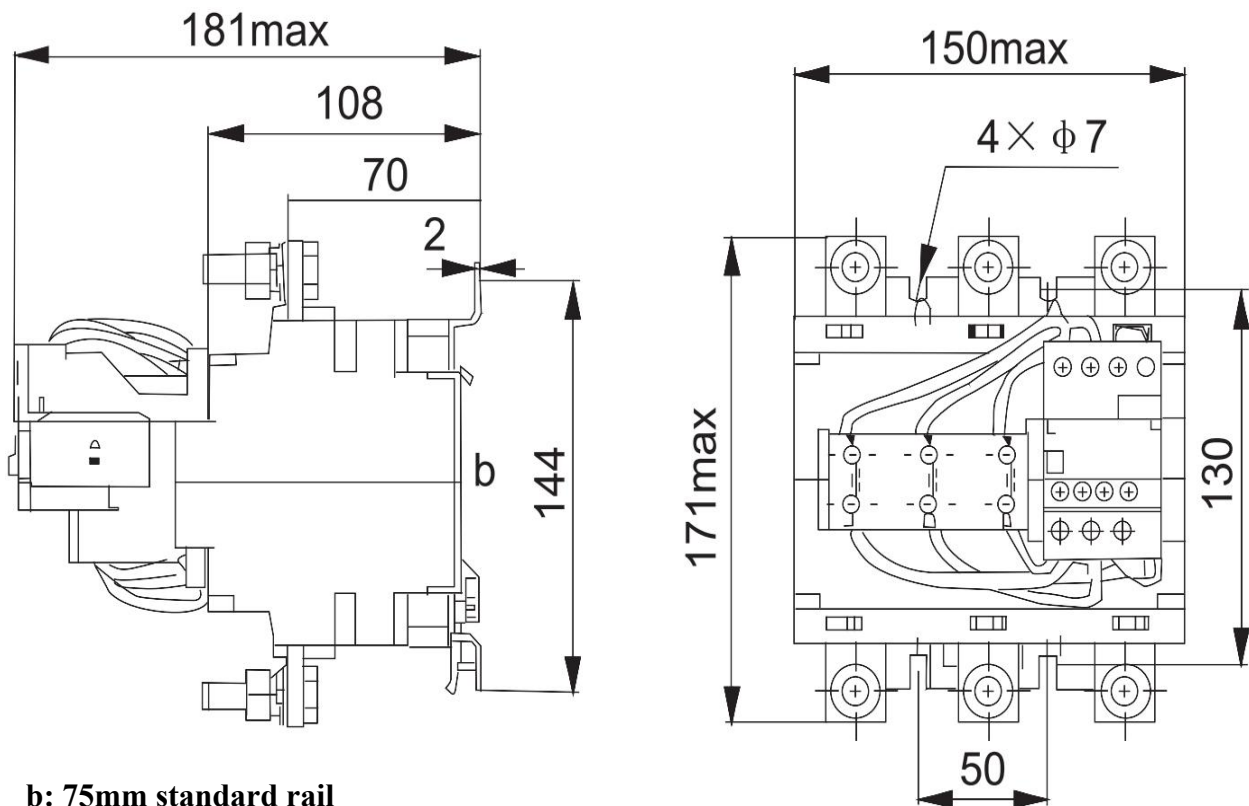
- (1) Temperature: -25°C~+55°C;
- (2) Relative humidity : $\leq 95\%$;
- (3) During the transport, please handle the product gently, and do not upside it down, and prevent the product from harsh collision;

Outline and Installation Dimensions (mm)

- JRS1Dsp -185 (Complete with contactor CJX2s-120/160/185/225)



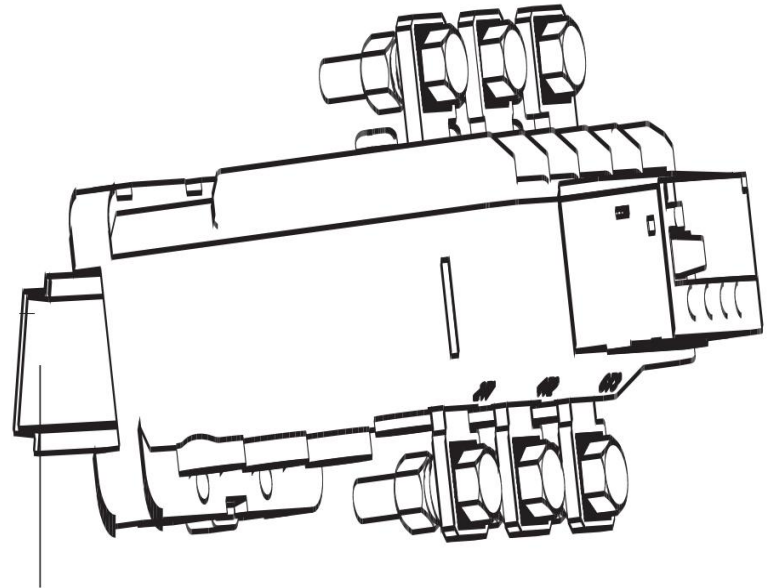
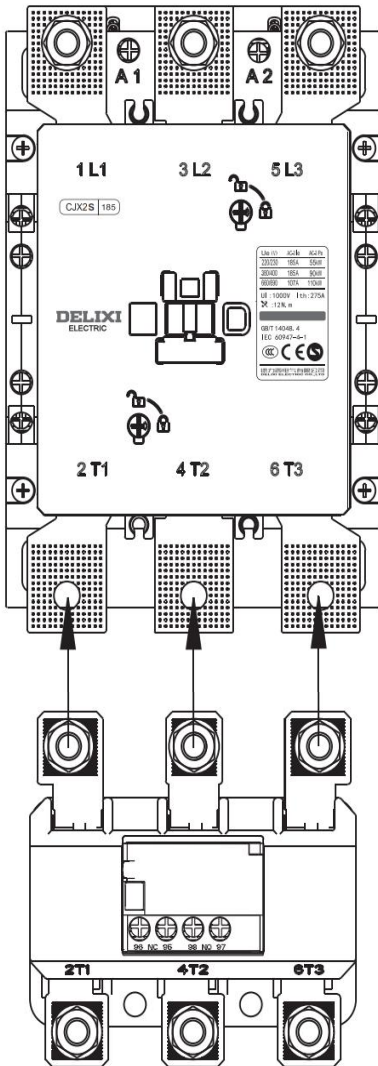
- JRS1Dsp -630/F Independent installation



b: 75mm standard rail

Installation Method

- JRS1Dsp -185



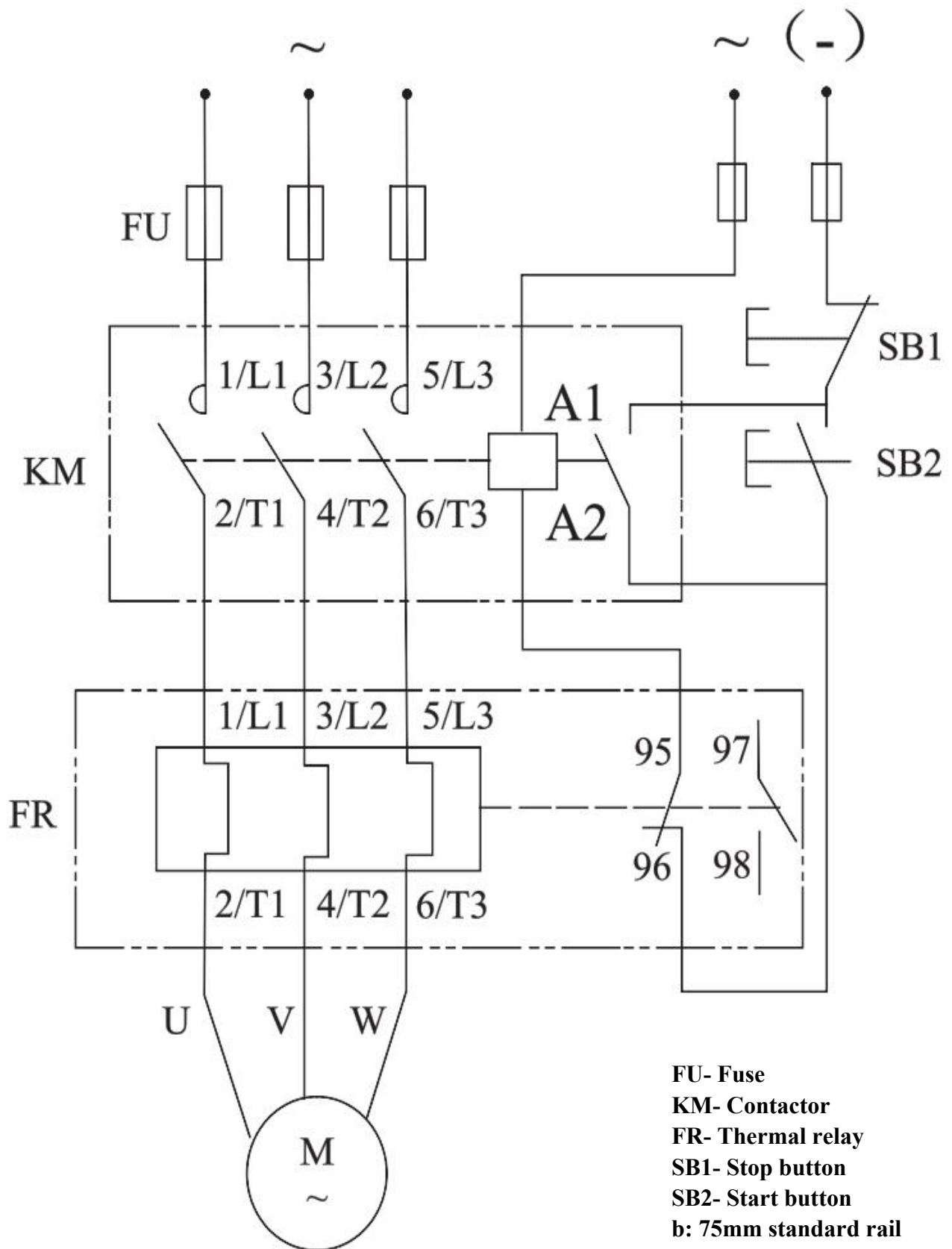
35 mm Rail

- 1) Combined installation: screw connection
- 2) Independent installation: rail or screw fixing

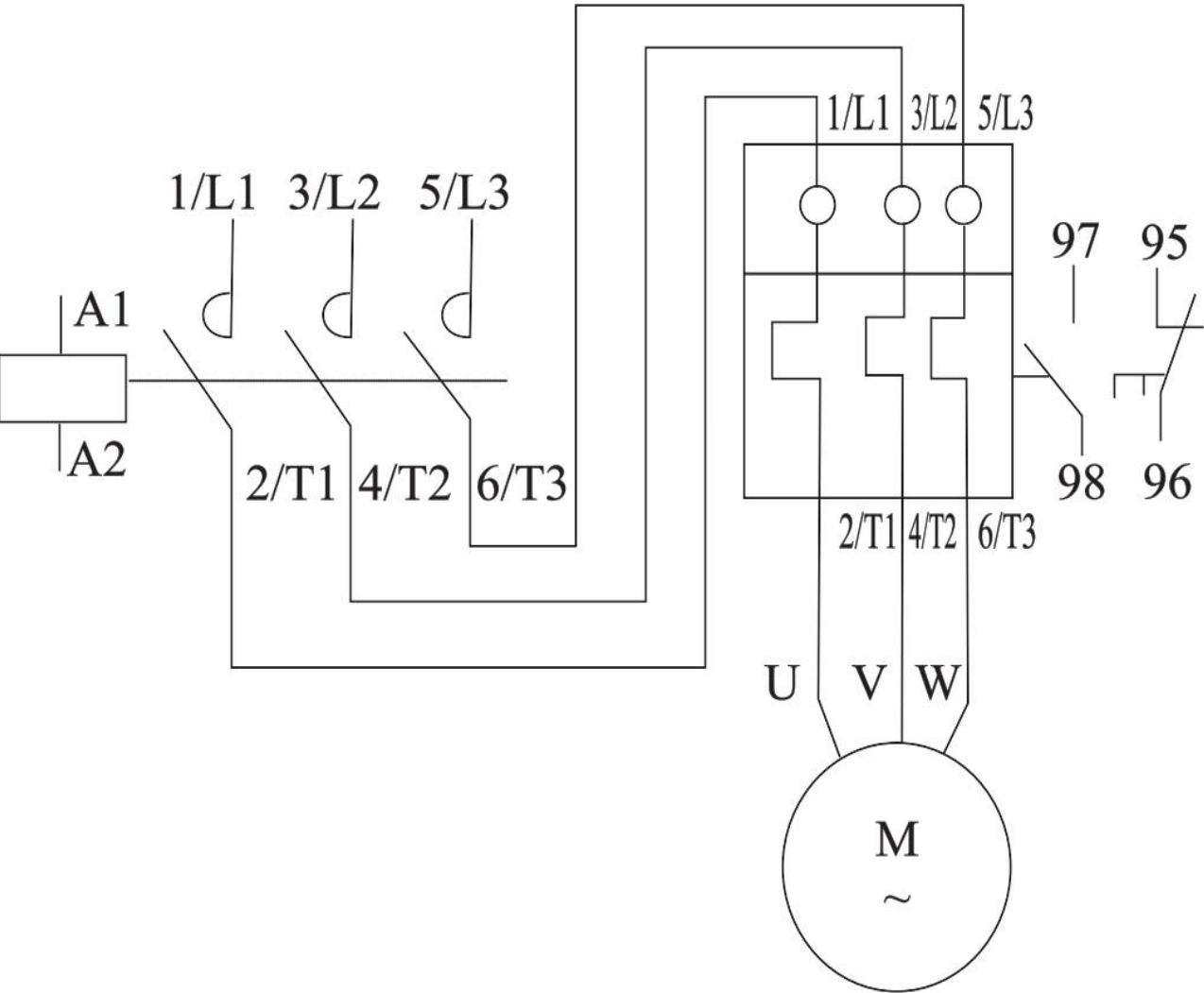
- JRS1Dsp-630/F: Can only be installed independently, 75mm rail or screw fixed

Wiring Diagram

- Combined installation



• Independent installation



The cross-sectional area of the auxiliary circuit connecting wire is 1 mm²

Main circuit connecting wire cross-sectional area table

The JRS1Dsp-630 current is calculated as 100% I_e ,
and the JRS1Dsp-185 current is calculated as 125% I_e .

Main circuit	Setting current range A	Cross-sectional area of connecting wire mm ²	Setting current range A	Cross-sectional area of connecting wire mm ²
	$32 < I_e \leq 50$	10	$175 < I_e \leq 225$	95
	$50 < I_e \leq 65$	16	$225 < I_e \leq 250$	120
	$65 < I_e \leq 85$	25	$250 < I_e \leq 275$	150
	$85 < I_e \leq 115$	35	$275 < I_e \leq 350$	185
	$115 < I_e \leq 150$	50	$350 < I_e \leq 400$	240
	$150 < I_e \leq 175$	70	/	/

Main circuit	Setting current range A	Cross-sectional area of connecting wire mm ²	Bronze size mm ²
	$400 < I_e \leq 500$	150×2	$(30 \times 5) \times 2$
	$500 < I_e \leq 630$	185×2	$(40 \times 5) \times 2$

Maintenance

- Carry out regular maintenance and remove the dust deposited on the thermal overload relay in time
- The thermal overload relay should be tested regularly to ensure that its action mechanism is flexible and the normally open and normally closed contacts are in good contact.
- Terminal screw torque: Auxiliary contact: 1.2N.m
Main circuit: JRS1Dsp-185: 8 N.m
JRS1Dsp-630: 14 N.m

Rated operating current matches the corresponding contactor and fuse model

Frame rated current A	Setting current range A	Fuses for use with relays		Applicable contactor model	Order code
		aM	gG		
JRS1Dsp-185	48-65	80	100	CJX2S-120-225	JRS1Dsp 185 65
	55-70	80	100	CJX2S-120-225	JRS1Dsp 185 70
	63-80	80	100	CJX2S-120-225	JRS1Dsp 185 80
	75-95	100	125	CJX2S-120-225	JRS1Dsp 185 95
	90-115	125	200	CJX2S-120-225	JRS1Dsp 185 115
	105-135	160	200	CJX2S-120-225	JRS1Dsp 185 135
	120-150	160	200	CJX2S-120-225	JRS1Dsp 185 150
	130-160	160	250	CJX2S-120-225	JRS1Dsp 185 160
	150-185	200	250	CJX2S-120-225	JRS1Dsp 185 185
JRS1Dsp-630/F	145-200	200	400	CJX2S-225-400	JRS1Dsp 630 200F
	180-250	250	400	CJX2S-225-400	JRS1Dsp 630 250F
	230-320	355	500	CJX2S-225-400	JRS1Dsp 630 320F
	290-400	400	630	CJX2S-225-400	JRS1Dsp 630 400F
	350-480	500	800	CJX2H-225-630	JRS1Dsp 630 480F
	460-630	630	800	CJX2H-225-630	JRS1Dsp 630 630F

Company Commitment

Under the condition that users follow the use and storage conditions and the product are well sealed, within 24 months from the production date, our company will provide repair and replacement service free of charge for any damage or abnormal operation due to poor manufacture quality. A paid repair will be provided if the warranty period expires. For any damage due to one of the following situations, a paid repair will be given even if within the warranty period:

- (1) Improper operation, maintenance, or storage;
- (2) Modified and improper repair without permission;
- (3) Damage due to falling off or found during installation after purchase;
- (4) Force majeure such as earthquakes, fires, lightning strikes, abnormal voltages, and secondary disasters; If you have any question, please contact the dealer or our company's customer service department.

DELIXI
ELECTRIC
德力西电气

Certificate

DELIXI ELECTRIC LTD

Name: Thermal Overload Relay

Model: JRS1Dsp Series

This product passes the inspection and is allowed to be shipped.

Standard: GB/T 14048.4

Inspector: Check 05

Production date: See label on inner box

www.cn-delixi.com

The first edition of this manual was issued on Sep., 2022.