

JD-8 series


Motor Integrated

OPERATION INSTRUCTION

Standard: IEC 60947-4-1

CNC

Deliver
Power For Better Life

 Before installing and using this product, please read this manual carefully and pay more attention to safety.

JD-8 series

Motor Integrated

1.General

JD-8 series motor protector (hereinafter referred to as the protector) is suitable for the control circuit of the motor composed of AC contactor and other switching devices in the power supply circuit of AC 50Hz and voltage 24V to 380V. When the main circuit of the motor is in an abnormal working state such as phase failure or overload, the contacts of the switch are disconnected in time, and the three-phase power supply of the motor is disconnected to quickly and reliably protect the motor.

2.Operating conditions

- Altitude $\leq 2000\text{m}$
 - Ambient temperature Range: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, with daily average $\leq +35^{\circ}\text{C}$
 - Pollution Level: Level 3
 - In the media without explosive risk, and no gases that may be corrosive to metal and damage insulation in the media together with at places where much conducting dust being in existence
 - At places where rain & snow proof facilities are equipped with and not being full of steam
 - At places without prominence rock, impact and vibration
- Installation Category: III

3.Features Table 1

Phase failure action time	When any phase of the three-phase main circuit current is zero, the action time is $\leq 6s$ (when the main circuit current is less than the minimum sampling current, the phase failure may not work)			
Tripping class	10A			
Overload action characteristics	Tripping time at multiples of current setting value T_p			
	1.05I _n	1.2I _n	1.5I _n	7.2I _n
	$T_p > 2h$	$T_p < 2h$	$T_p \leq 4min$	$2s < T_p \leq 10s$
Control circuit working power supply	AC220,AC380V,50Hz			
Output interface load capacity	Solid state output,AC380V 1A(resistance)			
Use category	AC-15;U _e :AC380V;I _e :1A			
Output interface reset mode	Control circuit power off reset			
Reset time	Reset time is not less than 60s			
Installation method	Screw mounting			

4.Features Table 2

Model Parameter	Rated current range	Applicable motor power	Minimum sampling current	Number of turns	
JD-8	0.5A~5A	0.25kW~2.5kW	2A	4	
JD-8	2A~20A	1kW~10kW		10A	1
JD-8	20A~80A	10kW~40kW			
JD-8	32A~80A	15kW~40kW			
JD-8	63A~160A	30kW~80kW			

4.1 Rated insulation voltage U_i : 400V

4.2 Rated impulse withstand voltage U_{imp} : 2.5kV;

4.3 Rated working voltage 3. 3 main circuit: U_e : AC380V:

4.4 Auxiliary circuit:

4.4.1 Rated insulation voltage U_i : 400V

4.4.2 Rated impulse withstand voltage U_{imp} : 2.5kV;

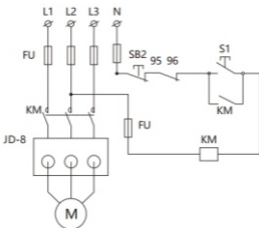
4.4.3 Type and logarithm: 1NC;

4.4.4 Agreed heating current I_{th} : 2A;

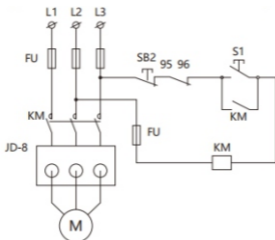
4.4.5 Rated limited short-circuit current with SCPD model: RT18-32 fuse core 6A:

5.wiring diagram

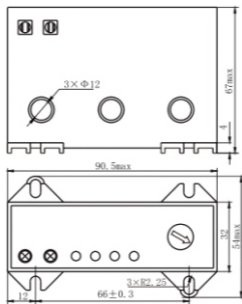
Wiring diagram of control circuit with voltage AC220V



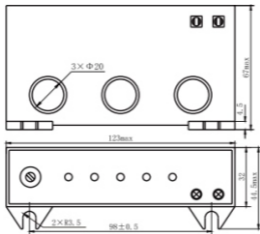
Wiring diagram of control circuit with voltage AC380V



6. Overall and mounting dimensions



JD-8 (0.5-80A)



JD-8 (32-160A)

Instructions for use and safety precautions

7.1 Follow the circuit diagram example to pass the three-phase power supply lines from the AC contactor to the motor through the protector's three terminal holes, with arbitrary phase sequence. Connect the protector's wiring terminals in series to the secondary circuit of the AC contactor.

7.2 Setting and debugging: Rotate the current adjustment knob of the protector clockwise to the maximum. After confirming correct wiring, start the motor. The motor should be in normal operation, and the protector's phase A, phase B, and phase C indicator lights (green) should be lit, while the overload indicator light should remain off. Then slowly rotate the current adjustment knob counterclockwise until the overload indicator light turns on. At this point, the protector is in the critical

state of overload protection. Finally, slowly rotate the knob clockwise until the overload indicator light goes off. The setting and debugging process is complete.

7.3 Since the output interface of the protector is a solid-state AC electronic switch without contacts, the on/off characteristics of the switch cannot be measured using the resistance range of a multimeter.

7.4 If the protector is used in an automatic control circuit and needs to be restarted after the protector trips, the control circuit must be disconnected to power off and reset the output interface of the protector; otherwise, the restart will be rejected.

7.5 When the coil voltage of the AC contactor used with the protector is greater than 380V or the coil current is greater than 1A, an intermediate relay should be used as a conversion interface.

7.6 The protector's housing should not be opened during use, and the energized components and wiring terminals inside should not be touched, as there is a risk of electric shock. The connection between the wiring terminals and the wires should be secure, and the exposed length of wire conductors should be ensured to avoid short-circuiting with adjacent wiring terminals, as it may lead to safety accidents.

7.7 When the protector operates repeatedly, the interval between two operations should be greater

than the reset time; otherwise, the protector may not function properly.

7.8 When the protector is used for connecting or disconnecting loads, its capacity should not exceed the specified control current, as it may damage the protector and pose a risk of accidents.

7.9 If the sampling current is less than 3.1 times the specified value in the table, the motor may stop running after a short period of normal operation.

7.10 The operating environment of the protector should be kept clean and dry. The protector should not be used in environments with explosive hazards, gases or vapors that corrode metals or damage insulation, conductive dust, or severe mold presence.



CERTIFICATE

Product Model: JD-8 series

Standard: IEC 60947-4-1

Inspector: **CNC001**

Production date: Printed on the product
or package.

This product is qualified according
to the delivery inspection

CNC ELECTRIC

Tel: 0086-577-61989999 Fax: 0086-577-61891122

wwwcncele.com E-mail: cncele@cncele.com

CNC

JD-8 series