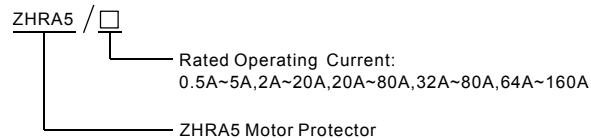


Operating Instructions for ZHRA5 Motor Protector

Function Features

- Non-source design with convenience of use.
- Protection against overload and phase failure.
- Thyristor output with low power consumption and wiring simplicity.
- Small design.
- Low-cost and ideal substitute for JR36 series thermal relay.

Model and Connotation



Technical Parameters

Conventional heat current	1A
Utilisation category	AC-15
Contact capacity	Ue/Ie:AC240V/0.75A AC400V/0.47A
Resistance to interference	IEC61000-4, Grade 3
Height above sea level	≤2000m
IP degree of protection	IP20
Pollution degree	3
Relative humidity	≤50%(40℃)
Storage temperature	-25...75℃

Operating Instructions

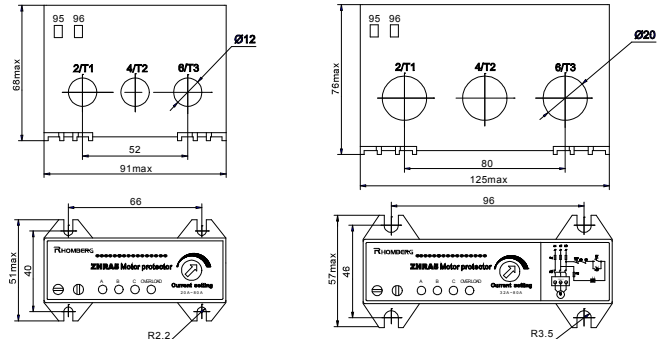
1. Connect the wires according to the wiring diagram.
2. Thread the three main cables between the AC contractor and the motor through the three center holes of the protector and connect them to the motor. (When the rated current is lower than 3A, the cables should be threaded through the center holes repeatedly to ensure that the current flowing through the center holes of the protector is greater than 3A.)
3. Current adjustment: adjust the protector to the maximum value. Start up the motor. When the three phase indicator lamp (red) of the protector lights up and the overload indicator lamp (yellow) goes out, adjust the knob anti-clockwise till the overload indicator lamp lights up. At this time, the protector is in the critical state of overload. Adjust the knob clockwise slowly adjusted until the indicator lamp goes out to complete the whole adjustment process.

Directions for Use

1. This protector is suitable for protecting only one motor. Overload and phase failure tests should be carried out on a regular basis to check the performance of the protector.
 2. Thyristor output should not be examined by using the resistance range of the multi-meter.
 - 3 This protector is only suitable to be used with AC230V and AC400V contactor but can not be used with DC contactor.
 4. If the protector is used in the automatic control circuit, the control circuit should be switched off to reset the protector in power-off state. Otherwise, the protector may work abnormally.
 5. When the voltage of the coil of the AC contactor for the protector is greater than 400V or its current is greater than 1A, the intermediate relay should be used as switching interface.
 6. When the protector works repeatedly, the interval between two times of start-up should be longer than 2min. Otherwise, the protector may not work normally.
 7. When there are other electrical switch components in the control circuit, the protector may not work normally. If it is used to control the AC contactor or signal lamp equipped with energy conservation module, the protector may not work normally.
 8. This protector is not suitable to protect reversing motor circuits.
 9. When the motor stops during operation, check whether there is any phase failure or overload in the motor.
- If the motor still can not be started up when everything is normal, the wiring part between the self-locking contact of the AC contactor and the protector wiring terminal should be checked to find out whether there exists loose connection. Do not start up the motor until all faults are cleared.

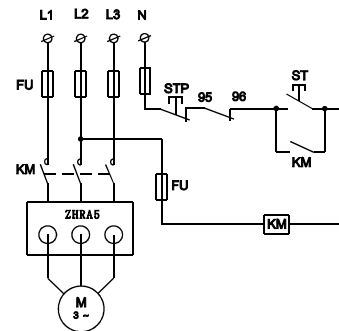
Overall Dimensions

Overall dimensions of ZHRA5-0.5A~5A, Overall dimensions of ZHRA5-32A~80A, ZHRA5-2A~20A, ZHRA5-20A~80A, ZHRA5-64A~160A

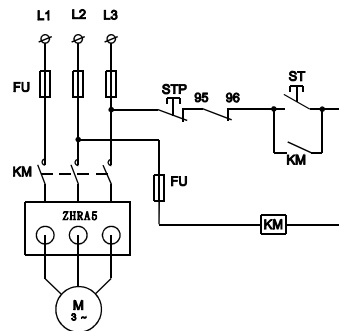


Wiring Diagram

- Wiring diagram for direct start (used with AC230V contactor)



Wiring diagram for direct start (used with AC400V contactor)



Warning

1. This product shall be installed, operated and maintained by qualified personnel.
2. Whether or not the product functions normally, user shall not dismantle or repair the said product without permission, and we shall not assume any responsibility for the accident as a result thereof.
3. Please refer to the wiring diagram in Operation Instructions for installation.
4. Never place power input line in the same conduit with other wires with heavy current. Please use shielded wire if necessary.
5. Do not use this product in areas with dust, corrosive gases and with exposure to direct sunlight and rain.
6. Never use this product in medium with explosion hazard and with gases that may corrode metals and destroy the insulation.
7. Please store and use this product at rated supply voltage and stated temperature, height above sea level and humidity.
8. Failure to follow these instructions can result in, serious injury, or equipment damage.
9. The warranty period of this product shall be 18 months under normal use.