CHORDN

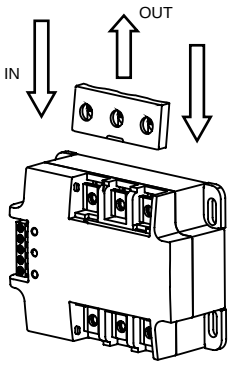
INSTALLATION USER MANUAL

Three phase angle controller

Electric current danger to life !
Following operations shall be carried out by qualified persons.
Disconnect all power source before wiring.

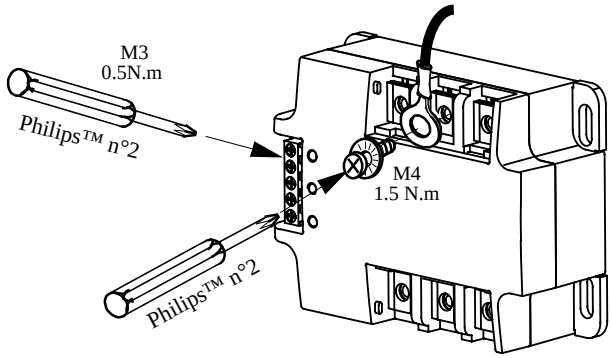
Warning

Reference standard: IEC/EN60947-1



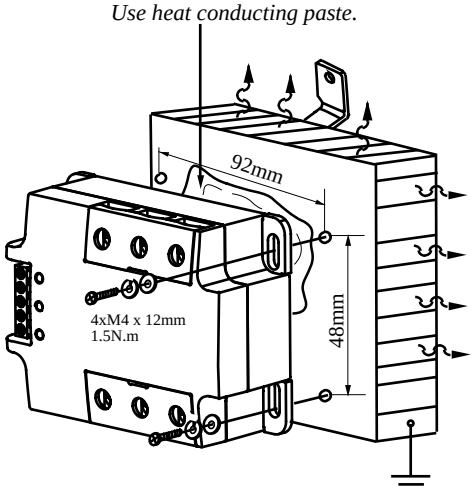
Warning *! IP00 housing. Use adapted cover to protect against direct touching. In cases for which the cover can't be used, care should be taken to protect the user against electric shocks.*

Insulated crimp terminals (eyelet type)



For other terminals, always use the adapted connection method (connector, soldering on a PCB).
As for the output terminals, the wire cross sections must be adapted to the load current. The relay rated voltage must be adapted to the mains rated voltage.

Use heat conducting paste.



Connect to protective ground.

Must be used only in conjunction with a heatsink mounted in vertical position to help the air flow.
Minimum air distances all around the heatsink:20mm.
For heatsink choice : see the technical data sheet of the considered product.

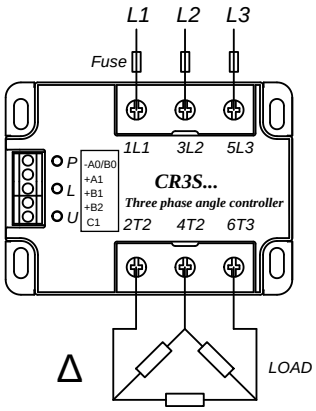
heatsink surfaces may be hot. Protect them against contact with heat sensitive materials (wire insulation, plastic parts...).

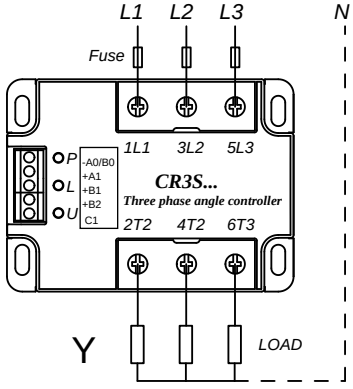
Caution

Semiconductor relays don't provide any galvanic insulation between the load and the mains. Always use in conjunction with an adapted circuit breaker with isolation feature or a similar device in order to ensure a reliable isolation in the event of malfunction and when the relay must be insulated from the mains (maintenance ; if not used for a long duration ...).

Warning

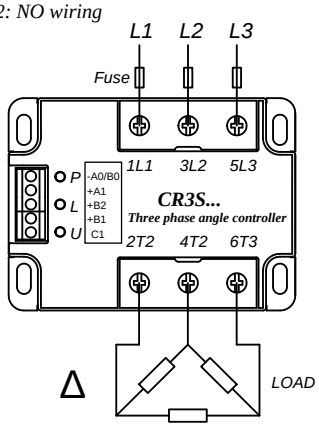
Wiring possibilities

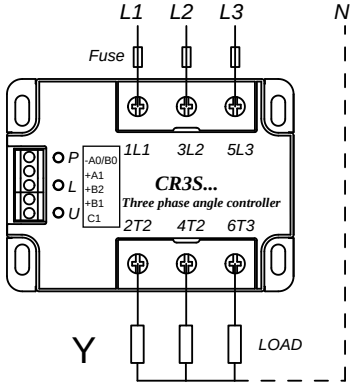




Control description
-A0/B0: 0V
+A1: 10-32Vdc
+B1: 0-5V/0-10Vdc
+B2: NO wiring

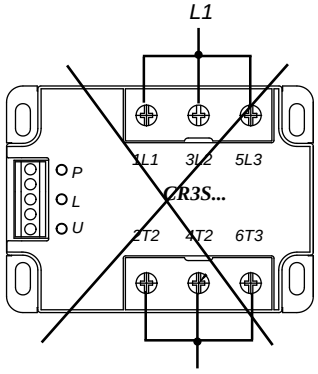
0-5V/0-10Vdc control





4-20mA control

Control description
-A0/B0: 0V
+A1: 10-32Vdc
+B1: 4-20mA
+B2: NO wiring



C1 select load type
C1 hanging: star without neutral or delta;
C1 with -A0/B0: star with neutral;

LED description
P: Power supply indication
L: Output operating indication
U: Undervoltage indication

NOTE:

- *There exists phase detection circuit inside the product, so it could work normally just in the case that L1, L2 and L3 are connected to phase line, T1, T2 and T3 are connected to load. Otherwise,it will not work properly.*
- *Reference to the different connection modes of the load, connecting C1 strictly according to the wiring diagram. Otherwise, it will not work normally.*

Short-circuit protection choice chart

The rated current of a solid state relay is:
For AC relays, a maximum nominal R.M.S current, in an AC1 utilization category (resistive load).
For any use on other load types, especially those with a high inrush current during turn ON, consult us.

Relay rated current	*Utilization category EN60947-4-2*	*CHORDN fuse references (Mains Iq<10kA)*
25A	*AC1(Resistive load)*	*aR 16A - 690V - 10x38 / I2t @ 400V ≤ 225A2s*
40A	*AC1(Resistive load)*	*aR 25A - 690V - 10x38 / I2t @ 400V ≤ 400A2*
50A	*AC1(Resistive load)*	*aR 40A - 690V - 14x51 / I2t @ 400V ≤ 900A2s*
75A	*AC1(Resistive load)*	*aR 63A - 690V - 22x58 / I2t @ 400V ≤ 3900A2s*

Caution

Read carefully the safety guidelines and programming instructions in this manual before using/connecting the device.

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