

Installation Note for CKR Series

Crydoms CKR Series Solid State Relays were developed to offer the advantages of semiconductor switching technology in a standard 22.5mm industrial package. Quick and easy installation is coupled with low drive power requirements and efficient, reliable power SCR output. Box Clamp terminals and LED status indication complete the package. This compact new design offers up to 30Arms in ambient temperatures of 25C.

Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

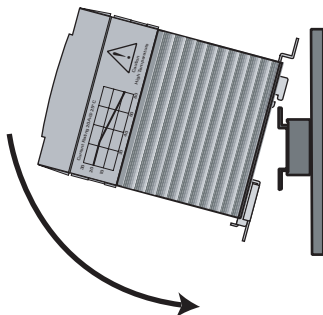
APPROVALS: UL, CSA, VDE, CE Mark.

MOUNTING OF CKR SERIES OF SOLID STATE RELAYS

CKR Series SSRs are designed to fit to an industry standard TS35 DIN Rail. Mounting clip incorporates tabs for screw mounting to panel.

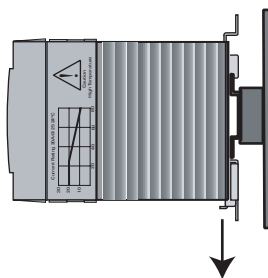
FITTING TO THE DIN RAIL

Locate rail and align with non moveable end of CKR DIN clip. Using reasonable force, push CKR in the direction of the arrow shown.



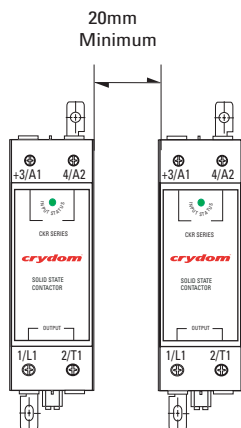
REMOVAL FROM DIN RAIL

Pull release tag in direction of arrow using blade of screwdriver.



MOUNTING CONSIDERATIONS

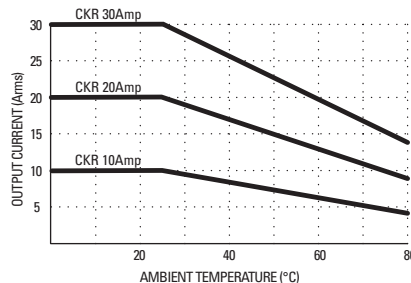
To achieve maximum ratings, there must be a minimum spacing of 20mm between the devices in free air.



THERMAL CONSIDERATIONS

The CKR power switching range is based on semiconductor technology and therefore generates heat during operation. The following derating curves must be observed before installation. Crydom products are rated for 100% Duty Cycle.

Load Current vs Ambient Temperature
(100 % Duty Cycle)



Caution
High Temperature

Warning - Heatsink will become hot during operation.

ORDERING INFORMATION

Part Number

CKR A 2 4 3 0 E P - 1 0

Package Style

CKR = CKR Series

Input (Control) Type

D = 4.5-32 Vdc
A = 90-280 Vrms
= 18-36 Vrms (suffix E)

Output Voltage

24 = 24 - 280 Vrms
48 = 48 - 530 Vrms
60 = 48 - 660 Vrms

Output Current

10 = 10 Amp
20 = 20 Amp
30 = 30 Amp

AC Control Range

Blank = 90-280 Vrms
E = 18-36 Vrms

Integrated Overvoltage Protection

Blank = Not Included
P = Included

Control Mode

Blank = Zero Cross
10 = Random

Note: For detailed electrical specifications see Crydom individual data sheets.

GENERAL NOTES

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- All parameters at 25°C unless otherwise specified.
- Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- Turn-on time for DC control random turn-on versions is 0.02msec.
- Input circuitry for DC control version incorporates active current limiter.

PROTECTION

Over Current and Short Circuit

A solid state relay should be protected by a semiconductor fuse. This type of fuse provides extremely fast opening of the circuit. A fuse should be selected that has an I²t let-through rating that is less than the I²t capability of the SSR, for the same duration.

Transient Over Voltage (P OPTION)

Select "P" option for internal overvoltage protection. At the presence of high voltage transient the output of the SSR will be triggered on, and the transient will be passed on to the load circuit. This is a non-degrading method of protection that ensures that other SSR benefits are maintained.

Earth Bonding (Grounding)

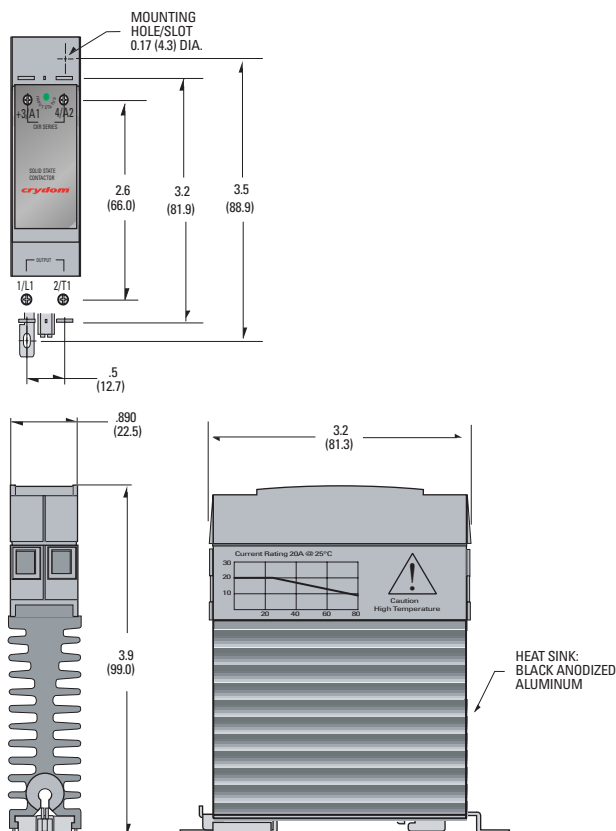
The CKR heatsink is equipped with an earth bonding screw as is required for Class 1 Protection, in accordance with EN 60950 (VDE 0804).

Terminations

- Wire Size • Maximum wire size of AWG#10 (3mm) on both input and output terminals.
- Connections • Ensure that wires ends are stripped to a minimum length of 10mm.
- Recommended Screw Torque Range • 5.0-6.0 in lb (0.6-0.7 Nm) on input and output termination.

MECHANICAL SPECIFICATIONS

All dimensions are in inches (millimeters)



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CONTACT DETAILS

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