

# AX-PSSR3-36,54

Panel Mount 3-phase Solid State Relay



## Product overview

The AX-PSSR3 panel mounting three phase solid state relays provide switching of 3-phase loads whilst requiring no additional heat-sinks.

These units use solid-state switching with “zero crossing technology” for minimal RFI.

All units feature over temperature protection with an automatic reset.

This AX-PSSR3-54 features an integral cooling fan which turns on automatically when required.

## Features

- 36 and 54kW options available
- Zero volt switching
- Integral heat-sink
- Self resetting over temperature protected

## Product specifications

Control Input:	4 to 10Vdc into 1K load
Rated Supply:	380-440Vac / 50-60Hz
Rated Load:	See page 2
Control Supply:	24Vac $\pm$ 10% or 24Vdc $\pm$ 10% (see page 2 for current consumption)
Dissipated Heat:	See page 2
LED Indication:	On when output is on
Terminals:	Input Rising clamp for 0.5-2.5mm <sup>2</sup> cable Output Rising clamp for 2.5-16mm <sup>2</sup> stranded cable
Ambient Temperature Range:	0-55°C Note; The units are rated at 40°C. If using at higher ambient temperature de-rate the units by 10% for every 5°C above 40°C up to 50°C.
Dimensions:	See page 2
Country of Origin:	United Kingdom

## Order codes

AX-PSSR3-36	Panel Mount 36kW 3-Phase Solid State Relay
AX-PSSR3-54	Panel Mount 54kW 3-Phase Solid State Relay

# AX-PSSR3-36,54

## Panel Mount 3-phase Solid State Relay



### Specification continued

Part Code	Nominal	Max. Load	Approx	Control Current		Recommended Terminal torque (Nm)	Dimensions (W x H x D) (mm)	Weight (Kg)
	Duty (KW)	Per phase (Amps)	Dissipated heat (Watts)	24Vdc (Amps)	24Vac (Amps)			
AX-PSSR3-36	36	52	167	25mA	50mA	1.4 (slot screw)	188 x 130 x 128	2.05
AX-PSSR3-54	54	78	250	110mA	185mA	1.4 (slot screw)	188 x 160 x 128	2.45

### Installation

The AX-PSSR3 range of units should be installed by a suitably qualified technician in conjunction with any guidelines for the equipment it is to be connected to. Field wiring should be installed to satisfy the requirements set out by the manufacturer of the equipment that the module is being connected to.

The AX-PSSR3 series solid state relays should be mounted on a vertical panel. It is important that free air movement around the heatsink is not restricted. Allow sufficient air space between adjacent units to allow optimum performance of the heatsink. Installation must be carried out in accordance with the relevant statutory regulations. The unit has fixing centres of 4 holes of 5mm diameter, on 85 x 175 centres.

Note that it is imperative that the power connections are fully tightened, without excessive force, and ensure the maximum area of cable is in contact with the terminals. Refer to the specifications for recommended torque settings for the power terminal screws.

#### Load Supply and Protection:

The AX-PSSR3 unit must be protected by external fuses. The fuses should be rated at or below the maximum rating of the unit. Load cables must be sized such that they are rated in excess of the fuse ratings.

#### Control Supply:

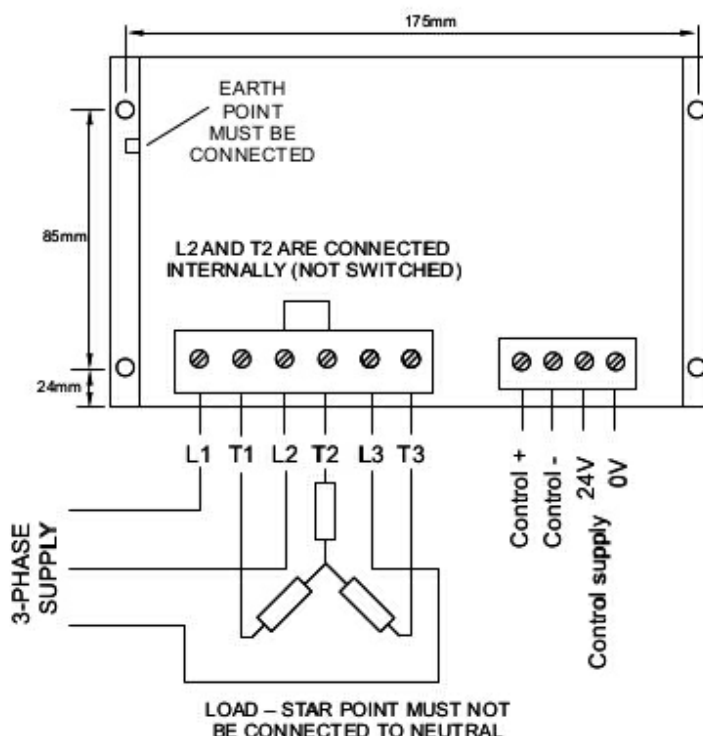
The control input is fully isolated from the control supply. All low voltage signal and supply cables should be kept separate from high voltage or mains cables, separate trays or conduit should be used.

#### Maximum Load:

The power rating of the units are given as a guide. The maximum current (which is dependant on the actual supply voltage and actual load) as shown in the above table must not be exceeded.

#### Earthing:

The protective conductor terminal must always be bonded to a good Earth. This earth bond lead should be rated higher than the maximum load. Refer to BS7671.



#### Ventilation:

The AX-PSSR3 Series are designed to operate in a maximum ambient temperature of 55°C, which should not be exceeded. Where ambient temperatures exceed 40°C enclosures or control panels should be ventilated with a cooling fan. Refer to Product Specification for de-rating to be applied above 40°C.

#### Over Temperature Monitoring:

An electronic thermal cut-out is fitted to the heatsink to protect against over temperature. These units will switch off the load if the heatsink temperature exceeds 95°C, and will reconnect the load once the heatsink temperature has dropped below 85°C. Under normal operating conditions the heatsink temperature will not reach 95°C but this might occur, for example, if the ambient temperature exceeds 40°C.

#### Caution:

In normal operation the heatsink surface can exceed 90°C.

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