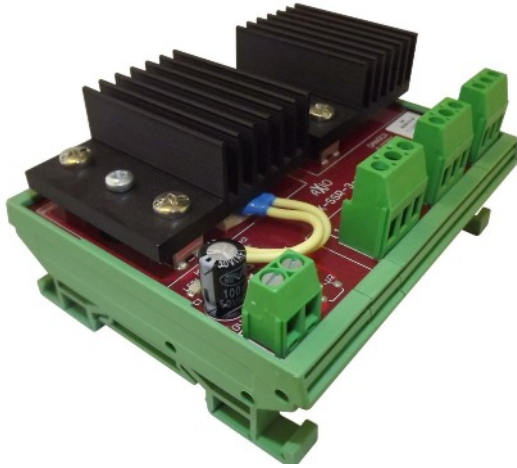


# AX-SSR3-xx-xx

## Three Phase Solid State Relays

# AXIO



## Product overview

The AX-SSR3 Series of DIN Rail mounting Three Phase Solid State Relays are designed for ease of use as they require no additional Heatsinks. Applications include electric heating coils, duct heaters, lighting circuits and electric furnaces. The AX-SSR3 Series use solid-state switching with “zero crossing technology” for minimum RFI and provides accurate switching control, and are designed to mount on TS35 section DIN Rail. Various voltage control input options are available, both ac and dc. Over temperature protection with automatic reset is built-in.

## Features

- 4-38Vdc, 24Vac and 230Vac input options
- 6kW and 12kW Models
- Three Phase
- Zero Volt Switching
- Integral Heatsink
- DIN Rail (TS35) Mounting

## Product specifications

Control Input:	-24	24Vac (requires 10mA)
	-DC	4-38Vdc
	-230	230Vac
Rated Load:	SSR3-6	8.7A (resistive) per phase
	SSR3-12	16.5A (resistive) per phase
Dissipated Heat:	SSR3-6	21W
	SSR3-12	43W
LED Indication:		On when output is on
Load Supply:		380 to 440Vac Three Phase 50/60Hz
Terminals:	Input	Rising Clamp for 0.5-2.5mm stranded
	Load	6kW Rising Clamp for 4mm solid or 2.5mm stranded
	12kW	Rising Clamp for 6mm solid or 4mm stranded
Ambient Temperature Range:		0 to 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:	SSR3-6	102(W) x 85(H) x 45(D)mm 165 gms (230Vac version larger & heavier)
	SSR3-12	140(W) x 95(H) x 60(D)mm xxx gms (230Vac version larger & heavier)
Country Of Origin:		United Kingdom

## Order codes

**xx 24 = 24Vac or DC = 4-38Vdc or 230 = 230Vac**

AX-SSR3-6-xx Solid State Relay Three Phase 6kW

AX-SSR3-12-xx Solid State Relay Three Phase 12kW

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### Installation & configuration

The AX-SSR3 Series Solid State Relays are designed for mounting on a TS35 Section DIN Rail and must be installed with their heatsink cooling fins in a vertical plane. Allow a minimum of 100mm between units mounted in a vertical plane.

#### Load Supply and Back-up Protection

It is recommended that a load disconnect switch and a contactor are installed in the load supply. Fuses or MCB's (miniature circuit breakers) are required to provide back-up protection. High Speed Fuses will protect the solid-state switching devices against short circuit currents. Solid State Relays do not provide safety isolation. Note that only two of the three phases are switched by these SSR's. One phase is connected straight through.

#### Maximum Heating Load

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

#### Principle of Operation

The Solid State Relay Module comprises an opto-isolated input device, coupled to a power semi-conductor. This output device acts as a switch, operating when the applied load voltage crosses or is very close to zero volts. This type of control, referred to as "zero volt switching" ensures minimal RFI is generated and therefore compliance with EMC regulation is achieved.

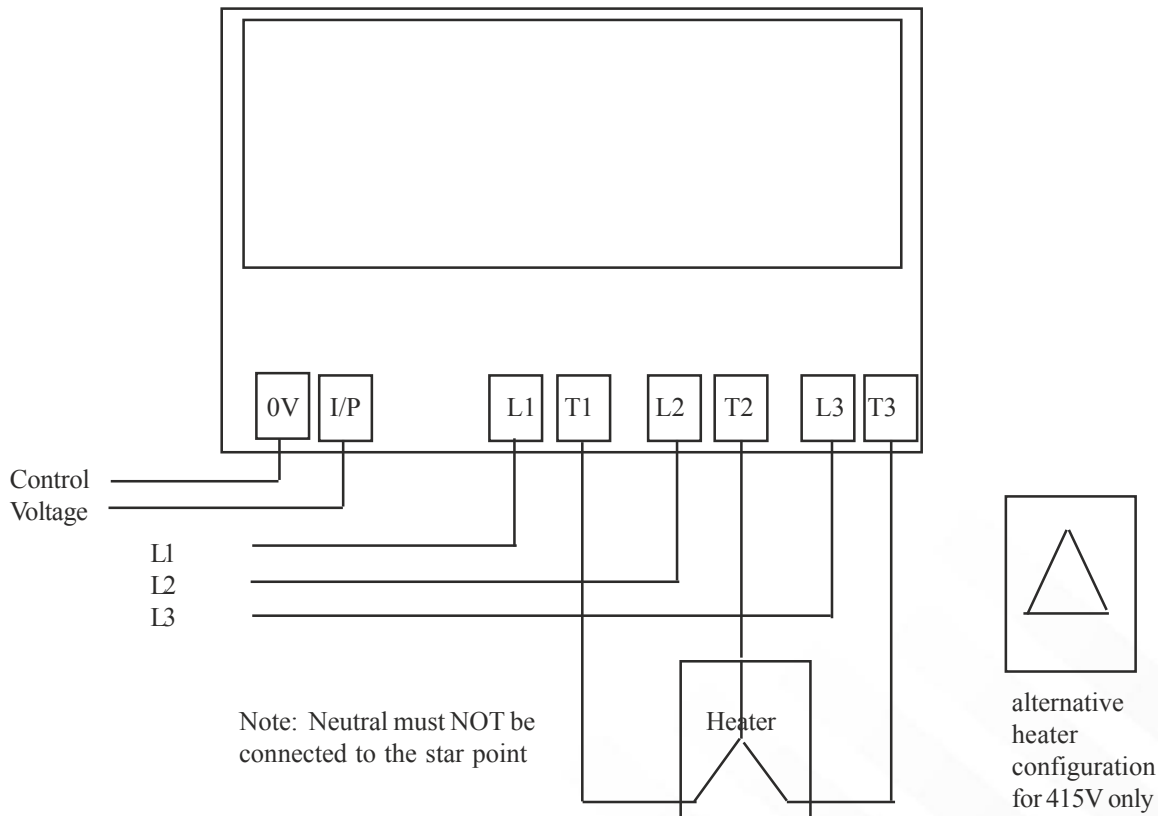
#### CAUTION!

In normal operation the heatsink surface can exceed 90°C. Dangerous voltages exist on the PCB and particular care should be taken. The AX-SSR3 Series Solid STATE relays must be installed in accordance with the relevant statutory regulations and installation must be carried out by an experienced and fully qualified engineer.

#### Ventilation

The AX-SSR3 Series are designed for a maximum ambient temperature of 40°C which should not be exceeded. If necessary, enclosures or control panels should be ventilated with a cooling fan. See note in Product specification for de-rating to be applied above ambient of 40°C.

### Connection details



Every effort has been taken in the production of this data sheet to ensure accuracy. Axio do not accept responsibility for any damage, expense, injury, loss or consequential loss resulting from any errors or omissions. Axio has a policy of continuous improvement and reserves the right to change this specification without notice.