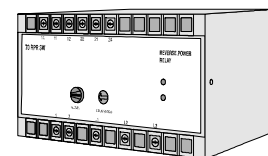


Type: 70 RPR-3W & 70 RPR-4W

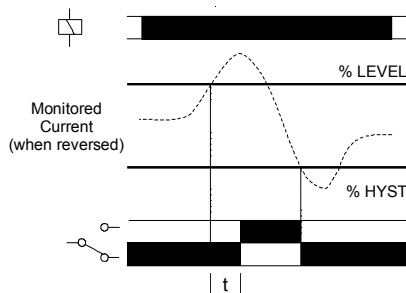
Reverse Power Relay

The 70RPR 3-wire and 4-wire units are designed to monitor AC generators operating in parallel or boosting mains supplies. If the current in the supply being monitored is reversed to a value greater than the adjustable trip point, the relay will energise after a time delay (user adjustable). The relay will de-energise when the current drops below the trip point minus the hysteresis. Accurate setting of the trip point and time delay will ensure protection against "motoring" in the event of generator failure and prevent tripping due to surges encountered during synchronising. A green LED indicates the supply present whilst a red LED indicates the relay is energised.



Terminal Protection to IP20 W.100 mm

TIMING DIAGRAM



INSTALLATION AND SETTING

BEFORE INSTALLATION, ISOLATE THE SUPPLY. Connect the supply as shown in diagram below. Apply power and the green LED should illuminate and the relay remain de-energised (red LED extinguished).

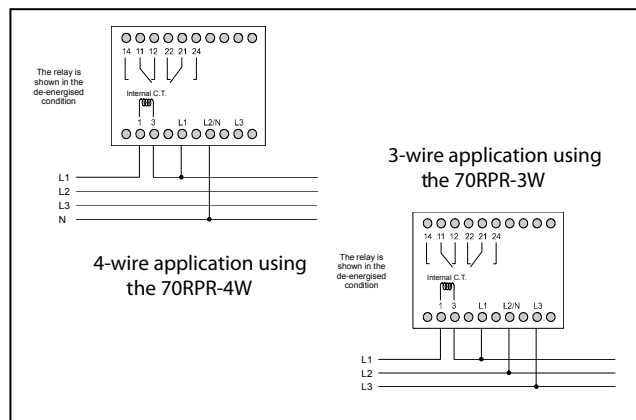
Setting the unit:

The '% level' adjustment relates to the % of the input current e.g. a 20% setting is equal to 1A for 5A nominal current (In).

To set the unit, rotate the '% level' adjustment as required, 7.5 to 10% is normal. The accuracy of the setting can be checked by reversing the connections to terminals '1' and '3', and with forward power, measuring the trip point value on a suitable ammeter. Ensure the connections are restored on completion. Now set the delay 'as required'.

Note: The supply to the 70RPR-4W unit is derived between phase and neutral in a three phase 4-wire supply. The same unit can also be used in single phase supplies, again connecting between live/phase and neutral.

CONNECTION DIAGRAM



TECHNICAL SPECIFICATION

Supply Voltage Un: 110, 230V AC 45 - 65Hz (4Wire)
220, 380, 400V AC 45 - 65Hz (3Wire)
(Galvanic isolation by transformer)

Supply Variation: 75 - 125% of Un

Isolation: Over voltage cat. III (IEC 664)

Overload: 1.5 x Un continuous
2 x Un for 3 seconds

Power

Consumption: 3VA @ Un

Monitored

Current (In): 5A AC (50/60Hz)

Trip Level: 2 - 20% Reverse current

Hysteresis: 1% (factory set)

Repeat Accuracy: $\pm 0.5\%$ at constant conditions

Reaction Time (t): 0.2 to 20S

Ambient

Temperature: -20 to +60°C

Relative Humidity: +95%

Contact Rating: DPDT

AC 1 250V AC 8A (2000VA)

AC 15 250V AC 3A

DC 1 25V DC 8A (200W)

Electrical Life: Minimum 150,000 ops at rated load

Housing: Grey flame retardant UL94 VO

Weight: 480g approx.

Mounting Option: Onto 35mm symmetric DIN rail to BS5584:1978

(EN50 002, DIN 46277-3)

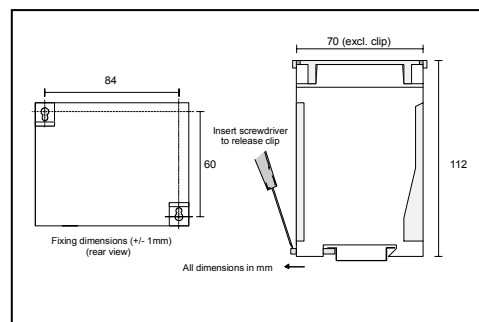
Or direct surface mounting via 2 x M3.5 or 4BA screws using the fixing slots provided on the unit

Terminal

Conductor Size: Max 2 x 2.5mm² solid or stranded

Approvals: Conforms to: UL, CUL, CSA, IEC
CE Compliant

MOUNTING DETAILS



R-D1999-05-06