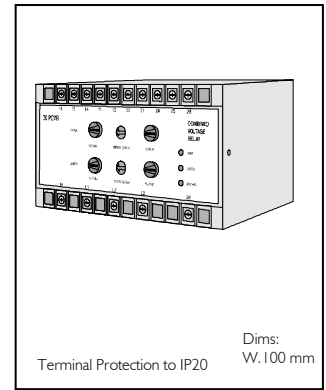


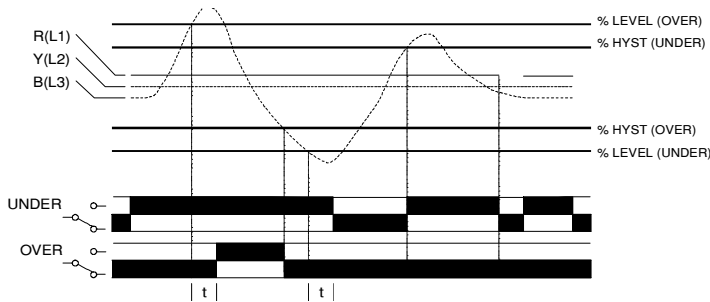
Type: 70 PCVR

Three Phase, Under/Over Voltage Relay

The unit is designed to monitor a three phase, 3 wire supply for an under or over voltage condition. The Under Voltage relay de-energises when the monitored supply drops below the adjustable trip point. The relay re-energises when the supply rises above the trip point plus the hysteresis. The Over Voltage relay energises when the monitored supply rises above the adjustable trip point. The relay will de-energise when the supply drops below the trip point minus the hysteresis. A green 'aux.' LED indicates the supply is present whilst a red LED (one for each relay) indicates the relay is energised.



TIMING DIAGRAM



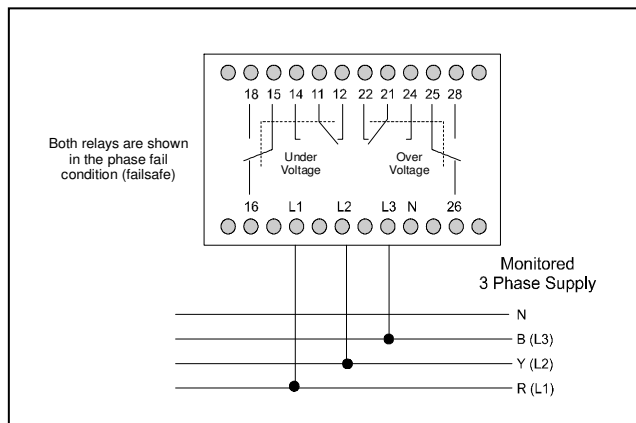
INSTALLATION AND SETTING

BEFORE INSTALLATION, ISOLATE THE SUPPLY. Connect the supply as shown in diagram below. Apply power and the green 'aux.' LED should illuminate. If the supply is at the nominal voltage (U_n) then the Under Voltage relay will energise and the red 'under' LED illuminate. The Over Voltage relay should remain de-energised and the red 'over' LED extinguished. If the green LED illuminates but the relays operate differently to that described above at power on, then check all connections and voltages present.

Set the '% level' and the '% hyst' adjustment on both levels as required. If large phase variations are anticipated and acceptable, the settings should be adjusted further to avoid false tripping.

Note: During phase loss, all LED's may be extinguished. Where monitoring a supply for correct phase sequence is important, the 45PSR Phase Sequence Relay should be used.

CONNECTION DIAGRAM



TECHNICAL SPECIFICATION

Supply/Monitored Voltage U_n :	220, 380, 400V AC 45 - 65Hz
(phase to phase)	(Galvanic isolation by transformer)
Supply Variation:	75 - 125% of U_n
Isolation:	Over voltage cat. III (IEC 664)
Overload:	1.5 x U_n continuous 2 x U_n for 3 seconds
Power Consumption:	\approx 4VA @ U_n (red and blue phases only) 0.2VA @ U_n (yellow phase only)
Trip Level:	75 - 100% Under voltage 100 - 125% Over voltage
Hysteresis:	1 to 15% on both levels (user adjustable)
Repeat Accuracy:	\pm 0.5% at constant conditions
Reaction Time (t):	\approx 0.2S
Ambient Temperature:	-20 to +60°C
Relative Humidity:	+95%
Contact Rating:	2 x DPDT AC I 250V AC 8A (2000VA) AC 15 250V AC 3A DC I 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 2.5mm ² solid or stranded
Approvals:	Conforms to: UL, CUL, CSA, IEC CE Compliant

MOUNTING DETAILS

