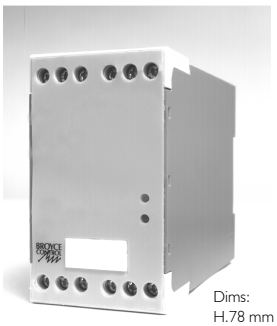
Type: 45 PSR

Phase Sequence Relay

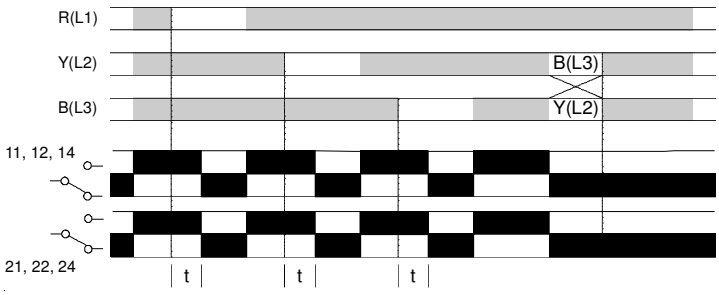
The unit is designed to monitor a three phase, 3 or 4 wire supply for incorrect phase sequence or phase loss. When power is applied, the relay energises and the green "correct" LED illuminates providing all the phases are present and rotating in the correct sequence. If the phase sequence is incorrect when power is applied, the relay remains de-energised and the red "incorrect" LED illuminates.



Dims:
H.78 mm
W. 45 mm
L.99 mm

Terminal Protection to IP20

▪ TIMING DIAGRAM



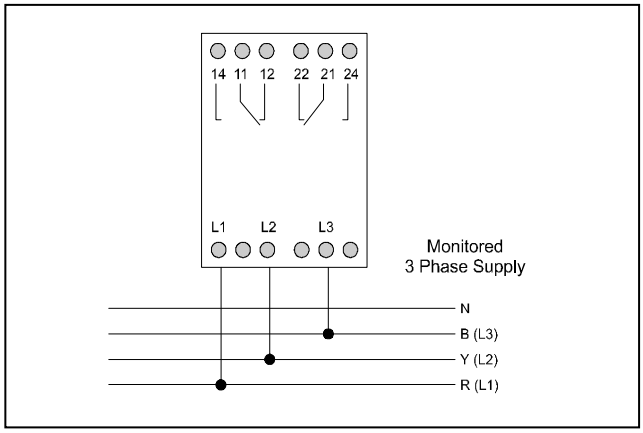
▪ INSTALLATION AND SETTING

BEFORE INSTALLATION, ISOLATE THE SUPPLY. Connect the supply as shown in diagram below. Apply power and the green **'correct'** LED should illuminate and the relay should energise. If this does not occur and instead the red **'incorrect'** LED illuminates, disconnect the supply and reverse any two of the phase inputs. If after re-applying the supply, the red LED still remains illuminated, check that all phases are connected, and that the voltage levels are correct.

Using the 45PSR to detect phase loss: The 45PSR can also be used to monitor phase loss on a supply providing the re-generated voltage is less than 70% of the nominal supply voltage. Where there is a possibility of a higher re-generated voltage, the 45PUVR or 45095 relays should be used.

Note: During phase loss, both LED's may be extinguished.

▪ CONNECTION DIAGRAM



▪ TECHNICAL SPECIFICATION

Supply/Monitored Voltage Un: (phase to phase)	220, 380, 400V AC 45 - 65Hz (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 (red and yellow phases) 0.1VA @ Un (blue phase only)
Reaction Time (t):	≈ 200mS
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:	Orange flame retardant UL94 VO
Weight:	300g approx.
Mounting Option:	Onto 35mm symmetric DIN rail to BS5584:1978 (EN50 002, DIN 46277-3)
Terminal Conductor Size:	Max 2 x 1.5mm^2 stranded (terminated) Max 2 x 2.5mm^2 solid
Approvals:	Conforms to: UL, CUL, CSA, IEC. CE Compliant

Broyce Control Ltd., Pool Street, Wolverhampton, West Midlands WV2 4HN. England

Telephone: +44 (0) 1902 773746 Facsimile: +44 (0) 1902 420639 Email: sales@broycecontrol.com