

Terminal Protection to IP20



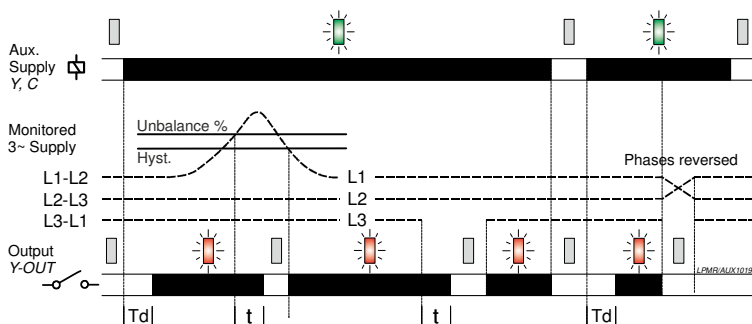
Dims: to DIN 43880
W. 17.5mm

- ❑ Low cost, compact and simple to install and no user adjustments
- ❑ Wide 3-Phase voltage monitoring range 190 – 600VAC
- ❑ Automatically detects if monitored system is 50Hz or 60Hz
- ❑ True R.M.S monitoring
- ❑ Measures phase to phase voltages
- ❑ Detects phase unbalance
- ❑ Detects incorrect phase sequence and phase loss
- ❑ Powered from Auxiliary source (24VAC)
- ❑ 1 x SPNO relay output 6A
- ❑ Green LED indication for Auxiliary supply status
- ❑ Red LED indication for relay status



ISO 9001:2015
Cert. No. 14125771

FUNCTION DIAGRAM



TECHNICAL SPECIFICATION

Aux. Supply voltage	24VAC
Un (Y, C):	48 – 63Hz
Frequency range:	75 – 125% Un
Supply variation:	1W
Power consumption (max.):	
Monitoring voltage	
U (L1, L2, L3):	190 – 600VAC
Frequency range:	48 – 63Hz
Overvoltage category:	III (IEC 60664)
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664
Monitoring mode:	Phase unbalance
Phase unbalance/loss threshold:	67.5V ± 2.5V (between highest and lowest phase to phase voltages)
Phase unbalance reset level (Hyst.):	6.5V ± 1.5V below trip level
Repeat accuracy:	± 0.5% at constant conditions
Delay from fault (t):	<0.2s
Power on delay (Td):	0.5s (worst case = Td x 2)
Power on indication:	Green LED
Relay status indication:	Red LED
Ambient temp:	-20 to +60°C
Relative humidity:	+95%
Output (Y-OUT):	SPNO relay
Output rating:	6A
Electrical life:	≥ 150,000 ops at rated load
Dielectric voltage:	2kV AC (rms) IEC 60947-1
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664
Housing:	Grey flame retardant UL94
Weight:	90g
Mounting option:	On to 35mm symmetric DIN rail to BS EN 60715 or direct surface mounting via 2 x M3.5 or 4BA screws using the black clips provided on the rear of the unit.
Terminal conductor size	≤ 2 x 2.5mm ² solid or stranded
Approvals:	Conforms to: IEC 60664-1, IEC 60947-1, UL508 CE, UKCA, and RoHS Compliant.

INSTALLATION

- BEFORE INSTALLATION, ISOLATE THE MONITORED AND AUXILIARY SUPPLIES Installation work must be carried out by qualified personnel.
- Connect the unit as per the diagram below. The auxiliary supply must be present for the unit to function.
- The Connection Diagram below shows a typical installation whereby the supply to a load is being monitored by the Phase monitoring relay. If a fault should occur in the supply (i.e. phase loss or two phases become reversed), the contactor will de-energise and Load will be turned off.

Applying power

- Apply power to terminals Y and C. The green "Power supply" LED will illuminate.
- Apply the monitored 3-phase supply to terminals L1, L2 and L3. The red "Relay" LED will illuminate, and relay will energise. The voltage that is applied to the Auxiliary input will now be present on terminals Y-OUT and C and contactor (if connected) will energise.
- Refer to the troubleshooting table if the unit fails to operate correctly.

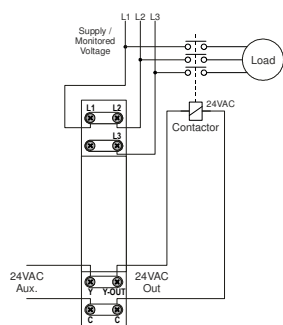
Troubleshooting.

The table below shows the status of the unit during a fault condition.

Supply fault	Green LED	Red LED	Relay
Aux. supply missing	Off	Off	De-energised
Phase missing or below threshold ¹	On	Off	De-energised
Phases reversed	On	Off	De-energised
Phase unbalance exceeds threshold	On	Off	De-energised

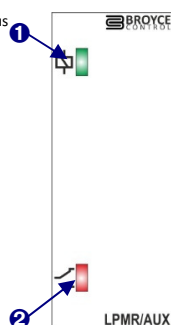
¹ see technical specification

CONNECTION DIAGRAM



LED INDICATORS

1. Aux. Power supply status (Green) LED
2. Relay output status (Red) LED



DIMENSIONS

