

Terminal Protection to IP20

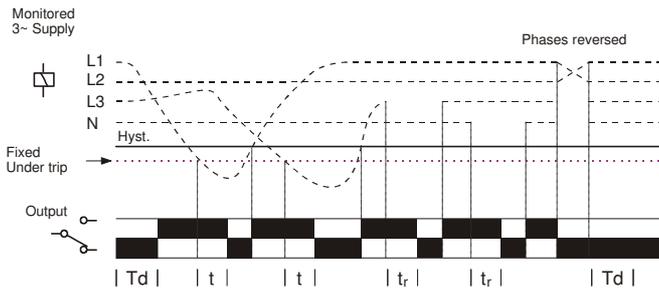


Dims: to DIN 43880
W. 17.5mm

- ❑ ***NEW* 17.5mm DIN rail housing**
- ❑ **Microprocessor based**
- ❑ **True R.M.S. monitoring**
- ❑ **Monitors own supply and detects an Under voltage condition on one or more phases**
- ❑ **Measures phase to neutral voltages**
- ❑ **Detects incorrect phase sequence, phase loss and neutral loss**
- ❑ **Fixed Under voltage trip level**
- ❑ **Fixed Time delay**
- ❑ **1 x SPDT relay output 8A**
- ❑ **Green LED indication for supply status**
- ❑ **Red LED indication for relay status**



FUNCTION DIAGRAM



TECHNICAL SPECIFICATION

Supply/monitoring voltage	U* (L1, L2, L3, N): 63.5V (110V), 133V (230V), 230V (400V) ¹ AC (see note)	
Frequency range:	48 – 63Hz	
Supply variation:	± 30%	
Overvoltage category:	III (IEC 60664)	
Rated impulse withstand voltage:	¹ 4kV (1.2/50µs) IEC 60664	
Power consumption (max.):	6VA	
Monitoring mode:	Under voltage	
Trip level (fixed) ± 2%:	Under	
Supply voltage	63.5V:	44.5V
	133V:	93V
	230V:	161V
Hysteresis:	≈ 2% of trip level (factory set)	
Repeat accuracy:	± 0.5% at constant conditions	
Immunity from micro power cuts:	<50ms	
Response time:	≈ 50ms	
Time delay (t):	≈ 100ms	
	<i>Note: actual delay (t) = delay + response time</i>	
Delay from Phase/Neutral loss (tr):	≈ 150ms (worst case = tr x 2)	
Power on delay (Td):	≈ 1 sec. (worst case = Td x 2)	
Power on indication:	Green LED	
Relay status indication:	Red LED	
Ambient temp:	-20 to +60°C	
Relative humidity:	+95% max.	
Output (15, 16, 18):	SPDT relay	
Output rating:	AC1	250V 8A (2000VA)
	AC15	250V 5A (no), 3A (nc)
	DC1	25V 8A (200W)
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:	Orange flame retardant UL94 V0	
Weight:	75g	
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.	
	IND. CONT. EQ. E111187	
	CE, and RoHS Compliant.	
	EMC: Immunity: EN 61000-6-2 (EN 61000-4-3 15V/m 80MHz - 2.7GHz)	
	Emissions: EN 61000-6-4	

* Please state Supply/monitoring voltage when ordering

INSTALLATION AND SETTING



Installation work must be carried out by qualified personnel.

- BEFORE INSTALLATION, ISOLATE THE SUPPLY.
- Connect the unit as required. 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 (i.e. fuse blowing), the relay will de-energise and assuming control of the external Contactor, de-energise the Contactor as well.

Applying power.

- Apply power and the green "Power supply" ① and red "Relay" ② LED's will illuminate, relay energise and contacts 15 and 18 will close. Refer to the troubleshooting table if the unit fails to operate correctly.

Note:

If the supply voltage increases above the maximum supply/monitoring voltage range by approx. 10% or more, the relay will de-energise immediately.

This device is not suitable for applications where there could be a percentage of re-generative voltage present during a fault condition, i.e. fuse failure. During these conditions a monitor that includes an adjustable under voltage trip level is necessary which allows this type of fault to be detected. It is therefore recommended that the LXPRF or LXPRF-4W phase monitors be considered.

Troubleshooting.

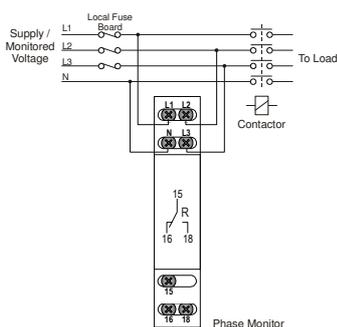
The table below shows the status of the unit during a fault condition.

Supply fault	Green LED	Red LED	Relay
Phase or neutral missing	On	Off	De-energised
Phases reversed (no delay)	Flashing	Off	De-energised
Phase below 70% (fixed under trip level)	On	Off	De-energised

Note:

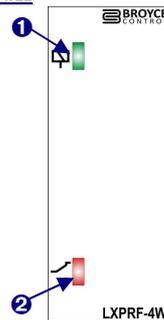
The "Supply / monitoring voltage U" refers to the phase to neutral nominal voltage for the product and voltage variants available. To convert these voltages to a phase to phase voltage, multiply by 1.732. The voltage shown in brackets is the equivalent phase to phase voltage.

CONNECTION DIAGRAM



SETTING DETAILS

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



DIMENSIONS

