

Terminal Protection to IP20



Dims: to DIN 43880 W. 17.5mm

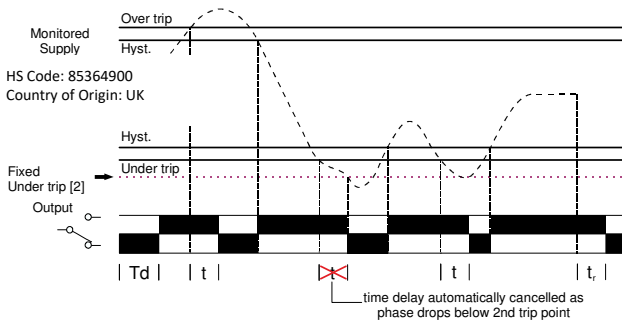
- For use in Electric Vehicle Charging Stations
- Meets the requirements of BS7671: Amendment 1, 2020 – Section 722
- Designed for single phase, 230V AC supplies
- Fixed Under voltage trip level – 207V AC
- Fixed Over voltage trip level – 256V AC
- Fixed Time delay (from Under or Over voltage condition) – 4s
- True R.M.S. monitoring
- Monitors own supply and detects if the supply exceeds the fixed Under or Over voltage trip levels
- 1 x SPDT relay output 8A
- Green LED indication for supply status
- Red LED indication for relay/timing status
- 17.5mm DIN rail housing



ISO 9001:2015 Cert. No. 14125771

FUNCTION DIAGRAM

Under and Over Voltage Monitoring



TECHNICAL SPECIFICATION

Supply/monitoring voltage	Un* (A1, A2): 230V AC							
Frequency range:	48 – 63Hz							
Supply variation:	70 – 130% Un							
Overvoltage category:	III (IEC 60664)							
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664							
Power consumption (max.):	8VA							
Monitoring mode:	Under and Over voltage							
Trip levels:	<table border="0"> <tr> <td>Under [2]:</td> <td>70% of Un (fixed) ± 2%</td> </tr> <tr> <td>Under:</td> <td>207V +/- 2%</td> </tr> <tr> <td>Over:</td> <td>256V +/- 2%</td> </tr> </table>		Under [2]:	70% of Un (fixed) ± 2%	Under:	207V +/- 2%	Over:	256V +/- 2%
Under [2]:	70% of Un (fixed) ± 2%							
Under:	207V +/- 2%							
Over:	256V +/- 2%							
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):	4 sec. (± 5%)							
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%							
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:	Grey flame retardant UL94							
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							

INSTALLATION



Installation work must be carried out by qualified personnel.

- BEFORE INSTALLATION, ISOLATE THE SUPPLY.
- The Connection Diagram below shows a basic EV installation, whereby the supply is being monitored by the Voltage monitoring relay. If an under or over voltage condition should occur the internal relay will de-energise and de-energise the Contactor as well.

Applying power.

- Apply power and the green "Power supply" ① and red "Relay" ② LED's will illuminate, the relay will energise and contacts 15 and 18 will close. 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
No supply	Off	Off	De-energised
Under or Over Voltage condition (during timing)	On	Flashing	Energised for set delay (t)
Under or Over Voltage condition (after timing)	On	Off	De-energised
Supply below 70% of Un (fixed under trip level [2])	On	Off	De-energised

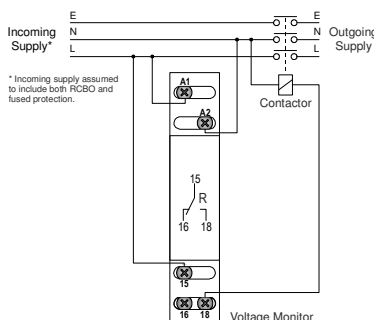
Approvals:



IND. CONT. EQ. E111187

Conforms to IEC, CE, UKCA, and RoHS Compliant.
EMC: Immunity: EN 61000-6-2 (EN 61000-4-3 15V/m 80MHz - 2.7GHz)
Emissions: EN 61000-6-4

CONNECTION DIAGRAM



LED INDICATION

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



DIMENSIONS

