

Terminal Protection to IP20



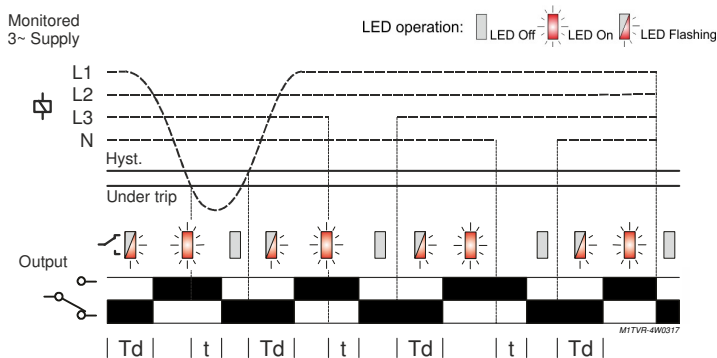
Dims: to DIN 43880 W. 17.5mm

- ❑ **Commissioning mode** feature allows relay to energise within a few seconds after power is applied thus overcoming the need to wait several minutes
- ❑ Red LED flashes during restart delay (Td) confirming power is present and all phases are above the 75% trip level
- ❑ Meets DEWA regulations (Section 8.2)\*
- ❑ Temperature rating up to +60°C
- ❑ Monitors own supply and detects an Under voltage condition on one or more phases
- ❑ Detects phase loss and neutral loss
- ❑ Fixed Under voltage trip level (75% of Un)
- ❑ Adjustable Time delay (5 – 10m)
- ❑ SPDT relay output 6A
- ❑ Red LED also used for relay status
- ❑ Compact 17.5mm DIN rail housing



ISO 9001:2015  
Cert. No. 14125771

### FUNCTION DIAGRAM



### TECHNICAL SPECIFICATION

Supply/monitoring voltage	Un (L1, L2, L3, N): 230/400V AC
Frequency range:	48 – 63Hz
Supply variation:	70 – 110% Un
Overvoltage category:	III (IEC 60664)
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664
Power consumption (max.):	10VA (L3), <0.1VA (L1, L2) @ 1.1 x Un
Monitoring mode:	Under voltage
Trip levels:	75% of Un (Fixed)
Trip accuracy:	± 5%
Hysteresis:	≈ 2% of fixed trip level (factory set)
Response time (t):	< 150ms
Restart time delay (Td):	5 – 10m (± 5%)
Setting accuracy:	± 5%
Repeat accuracy:	± 0.5% at constant conditions
Reset time:	≈ 150ms
LED indication:	Red LED (Relay/timing/commissioning status)
Ambient temperature:	-20 to +60°C
Relative humidity:	+95% max.
Output (15, 16, 18):	SPDT relay
Output rating:	AC1 250V 6A (1500VA) AC15 250V 5A (no), 3A (nc) DC1 25V 6A (150W)
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
Weight:	65g
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 <sup>2</sup> solid or stranded
Terminal screw:	M3 (Designed for use with PZ1 "pozi-driver")
Tightening torque:	0.6Nm Max.
Approvals:	Conforms to IEC, CE,  and RoHS Compliant. EMC: Immunity: EN 61000-6-2 Emissions: EN 61000-6-4

### 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 unit. 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 assuming all phases and neutral are present, the phase voltages are above the fixed trip level (plus hysteresis) the delay period (Td) will commence. The relay will remain de-energised and red LED flash during this period.
- After the set delay has elapsed, the relay will energise red LED will remain on.

#### Setting the unit.

- Set the "Delay (Td)" adjustment as required.

#### Troubleshooting.

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

Supply status	Red LED	Relay
Phase or neutral missing	Off	De-energised
Under voltage condition	Off	De-energised
Following phase/neutral loss or voltage returning > 75% of Un	Flashing	De-energised for delay period (Td)

\* The following extract is taken from **DEWA Regulations for Electrical Installations**

### 8.2 UNDER VOLTAGE (U.V.) RELAYS WITH AUTO-RESET TIMER

- 8.2.1 All air-conditioners or air-conditioning units/plants/equipment installed within the consumer's installation shall be provided with Under Voltage (U.V.) relays with fixed voltage cut off setting at 75% of the nominal supply voltage and auto-reset timer with adjustable time setting between 5 and 10 minutes.

### COMMISSIONING MODE

- The Commissioning Mode feature can be enabled as soon as power is applied provided the "Delay (Td)" adjustment position is changed as described below within the 30s period provided.

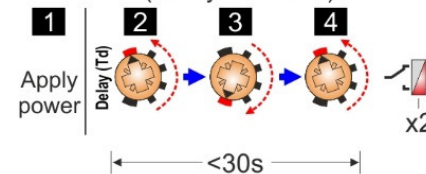
To enter Commissioning mode (note this must be done within 30s of applying power)

1. Apply power.
2. Set "Delay (Td)" adjustment to minimum (fully anti-clockwise) Skip this stage if already set at minimum.
3. Set adjustment to maximum (fully clockwise).
4. Set adjustment to minimum again.

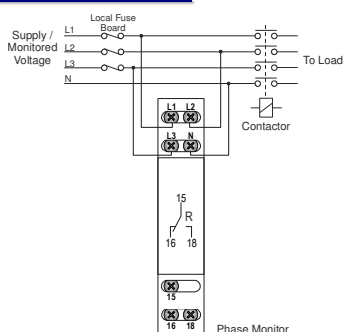
The relay will now energise and red LED flash quickly to denote this mode has been enabled.

To revert to normal operation, remove and re-apply power.

### Entering Commissioning mode (Delay Td = 20s)

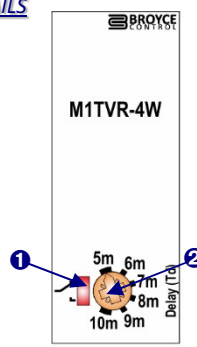


### CONNECTION DIAGRAM



### SETTING DETAILS

1. Relay output/timing status (Red) LED
2. "Delay (Td)" adjustment



### DIMENSIONS

