

# Datasheet

## Stock No. 102-6133

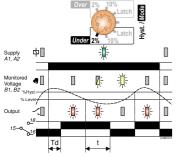
#### **Multifunction, Combined Voltage Relay**

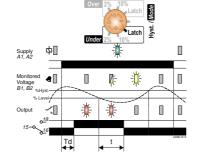
- \*NEW\* 17.5mm DIN rail housing
- Microprocessor based
- True R.M.S. monitoring

- 7 Selectable monitoring ranges (20 500V AC/DC)
- Selectable Under or Over Voltage monitoring
- Selectable hysteresis or latch option
- Adjustable trip level and time delay
- Isolated Auxiliary Supply (24 230V AC/DC)
- 1 x SPDT relay output 8A
- **Green LED indication for supply status**
- Yellow LED indication for alarm status
- Red LED indication for relay status

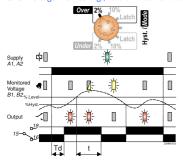
# **FUNCTION DIAGRAMS**

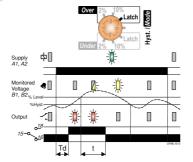
Under Voltage Monitoring (with and without Latch enabled)





#### Over Voltage Monitoring (with and without Latch enabled)





#### **INSTALLATION AND SETTING**

- BEFORE INSTALLATION, ISOLATE THE SUPPLY.
- Connect the Auxiliary and Monitored Inputs as required.

- Set the "Hyst. / Mode" selector 🕡 to the required position depending whether under or over monitoring is required. Select either a suitable hysteresis setting of 2% or 10% or choose Latch if required.
- Set the "Range" 1 to the required position (depending on monitored input voltage to be monitored).
- Set the "Trip Level %" and "Delay" to suit the selected monitoring range and delay to tripping period.

#### Applying power.

Apply power and the green LED 1 will illuminate

If Under voltage mode is selected

Relay energises / red LED 3 illuminate if the voltage is above the set "Trip Level". If the voltage falls below the "Trip Level", yellow LED 2 flashes for the set "Delay" then remains lit. Red LED extinguishes / relay de-energises. If Over voltage mode is selected:

Relay energises / red LED 3 illuminate if the voltage is below the set "Trip Level". If the voltage rises above the "Trip Level", yellow LED **2** flashes for the set "Delay" then remains lit. Red LED extinguishes / relay de-energises

### TECHNICAL SPECIFICATION

Auxiliary supply voltage U (A1, A2): 24 - 230V AC/DC 48 - 63Hz (AC supplies) Frequency range: Supply variation: +15%/ - 10% Overvoltage category III (IEC 60664) Rated impulse withstand voltage 4kV (1.2/50µS) IEC 60664 Power consumption (max.): 24V 48V 115V 2301/ 0.84 VA 0.82 VA 1.1 VA 1.4 VA 0.47 W 0.6 W 0.46 W 0.53 W Monitoring mode:

Under or Over voltage (selectable) 2 or 10% (selectable) Hysteresis Enabled using Mode selector switch 2 – 20V, 5 – 50V, 10 – 100V, 20 – 200V, 50 – 500V Monitoring ranges: 10 - 100% of selected monitoring range Trip level: Time delay (t): 0.1 – 30S (from fault occurring to relay de-e Power up delay (Td): 1 second (fixed) Reset time: 100mS

± 0.2% / V

Accuracy ± 1% of maximum full scale Adjustment accuracy: < 5% of maximum full scale Repeat accuracy: ± 0.5% at constant conditions Drift with temperature:  $\pm\,0.05\%$  / °C

0.2 to 500V AC/DC Monitoring input (B1, B2): Frequency: Maximum input rating: DC. 48 - 500Hz 1.2 x 500V Overload: 1kV for 1s

Overvoltage category: Rated impulse withstand voltage: III (IFC 60664) 4kV (1.2/50μS) IEC 60664 Power on indication: Green LED

Alarm status indication: Yellow LED Relay status indication: Red LED -20 to +60°C Ambient temp: Relative humidity +95%

SPDT relay Output (15, 16, 18): Output rating: AC1 AC15

DC1 Electrical life: ≥ 150,000 ops at rated load 2kV AC (rms) IEC 60947-1 4kV (1.2/50μS) IEC 60664 Dielectric voltage Rated impulse withstand voltage

Orange flame retardant UL94 Weight: 63g

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

Approvals:

Drift with voltage:

CUL US LISTED IND. CONT. EQ.

CE and RoHS Compliant. EMC: Immunity: EN 61000-6-2 (EN 61000-4-3 10V/m 80MHz - 2.7GHz)

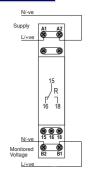
250V 10A (2500VA)

25V 10A (250W)

250V 5A (no), 3A (nc)

Emissions: EN 61000-6-4

#### **CONNECTION DIAGRAM**



# SETTING DETAILS

Installation work must be carried

out by qualified personnel.

1. Power supply status (Green) LED

2. Alarm status (Yellow) LED

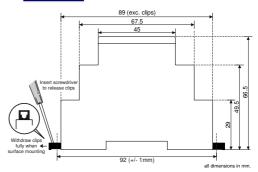
3. Relay output status (Red) LFD

4. Time delay adjustment 5. Trip level adjustment 6. Monitoring range

selector 7. Hysteresis / Mode selector

# 6

#### **DIMENSIONS**





**ENGLISH**