

Type: 45051

Single Phase Under and Over Voltage plus Time Delay

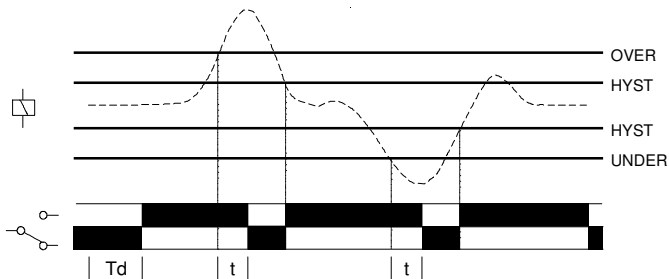
- ❑ Detects Under or Over voltage condition
- ❑ Monitors own supply
- ❑ Separate adjustment for upper level and lower level
- ❑ User selectable nominal voltage (24, 115 or 230V)
- ❑ Time delay (from fault) with adjustable setting
- ❑ 1 x SPDT relay output
- ❑ LED indication for supply and relay status



Dims:
H. 78mm
W. 45mm
L. 99mm

Terminal Protection to IP20

• FUNCTION DIAGRAM



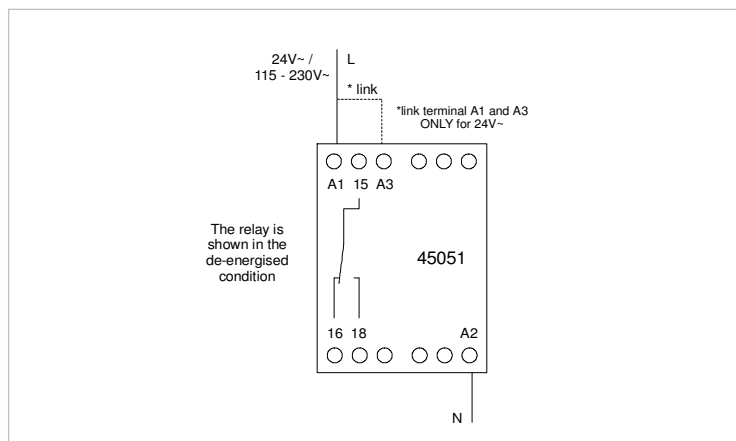
• INSTALLATION AND SETTING

- BEFORE INSTALLATION, ISOLATE THE SUPPLY.
 - Connect the unit as shown in the diagram below.
 - Select the correct nominal voltage using the rotary switch.
 - **If using the unit at 24V~ fit the link across A1 and A3.**
 - Set the 'over volts' adjustment to maximum and the 'under volts' adjustment to minimum.
 - Set the 'delay' adjustment to minimum.
 - Apply power (green 'supply on' and red 'relay' LED's will illuminate, the relay will energise and contacts 15 and 18 will close).
- To set the unit:**
- Set the 'over volts' and 'under volts' adjustments to give the required range.
 - If large supply variations are anticipated, the adjustments should be set further away from the nominal.
 - Set the 'delay' adjustment as required.
 - **Note:** The unit incorporates a 'power on delay (Td)' which operates immediately the supply is applied. The delay prevents the relay from energising if the measured voltage is above or below the set levels.

Troubleshooting.

- If the unit fails to operate as described, check the wiring, linking (24V only) and voltages present on the supply terminals.

• CONNECTION DIAGRAM



• TECHNICAL SPECIFICATION

Supply/Monitored voltage Un*:	24/115/230V AC 45 - 65Hz
Supply variation:	85 - 115% of Un
Rated impulse withstand voltage:	4kV (1.2/50µs)
Power consumption:	≈ 1.5 VA @ 27.6V (maximum) ≈ 9 VA @ 264V
*Voltage selection:	24, 115 or 230V selectable by rotary switch
Under trip level:	87 - 110% of Un
Over trip level:	90 - 113% of Un
Measuring ranges:	Lower Upper
24V:	21 - 26.5V AC 21.5 - 27V AC
115V:	100 - 126.5V AC 103.5 - 130V AC
230V:	200 - 253V AC 207 - 260V AC
(N.B. Unit will measure average value of own supply whereas scale ranges are calibrated to RMS value)	
Accuracy:	± 5%
Hysteresis :	≈ 2%
Reaction time:	τ < 200ms, worst case reaction may be up to 5 x τ
Adjustable time delay (t):	0.1 - 10S (-10/+30% on max setting) (N.B. t = set delay + reaction time)
On delay (Td):	≈ 2S, actual delay may be Td / 2
Ambient temp:	-20 to +50°C
Relative humidity:	+95%
Output:	SPDT relay
Output rating:	AC 1 250V AC 5A (1250VA) AC 15 250V AC 3A DC 1 25V DC 5A (125W)
Electrical life:	≥ 150,000 ops at rated load
Housing:	Orange flame retardant UL94 VO
Weight:	≈ 337 g
Mounting option:	On to 35mm symmetric DIN rail to BS5584:1978 (EN50 002, DIN 46277-3)
Approvals:	Conforms to UL, CUL, CSA & IEC CE Compliant

• MOUNTING DETAILS

