



## AC VOLTAGE PROTECTION TRIP RELAYS

### DIGITAL METERING SYSTEM

#### KEY FEATURES

- LED fault indication
- Adjustable nominal voltages, trip points, time delay and differentials
- Compact DIN-rail enclosure
- Power on LED (Green)
- Designed to avoid nuisance tripping

TE Connectivity's (TE) Crompton Instruments AC voltage protection trip relays provides continuous measurement of voltage. When the measured voltages moves outside the set point limit for longer than the time delay, the relay will operate giving an alarm control or tripping signal. The AC voltage relay can be used for under and over voltage detection, start standby generators, operation of mains failure units and switching standby suppliers. An illuminated red LED indicates a fault condition. The three-phase, three or four-wire models will protect each phase independently.

The set point adjustment range is 25%, operating between 75% and 100% of the nominal supply for under voltage and between 100% and 125% for the over voltage.

The adjustable differential setting range is 1% to 15% and can be used to reduce nuisance tripping if the measured signal is noisy or unstable.

An adjustable time delay is provided to eliminate premature operation on short duration voltage fluctuations. During this delay period the red LED will flash. The protectors draw their operating power from the measured inputs. Three-phase products monitor the voltage level for each phase and are not phase sequence sensitive.

**Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.**

## AC Voltage Protection Trip Relays



SPECIFICATION									
Technical parameters	PVU/Z-100 /120	PVU/Z-173 /240	PVU/Z-380 /480	PVO/H-100 /120	PVO/H-173 /240	PVO/H-380 /480	PVB-100 /120	PVB-173 /240	PVB-380 /480
Under voltage protection (de-energise on trip)	●	●	●	-	-	-	●	●	●
Over current protection (energise on trip)	-	-	-	●	●	●	●	●	●
System type	1-phase (1-)	1-phase (1-)	1-phase (1-)	1-phase (1-)	1-phase (1-)	1-phase (1-)	1-phase (1-)	1-phase (1-)	1-phase (1-)
Voltage input terminals	L1, N								
Nominal voltage (L-N) (Adjustable)	57.7, 63.5, 69.3V	100, 110, 115, 120, 127, 139V	220, 230, 240, 254, 265, 277V	57.7, 63.5, 69.3V	100, 110, 115, 120, 127, 139V	220, 230, 240, 254, 265, 277V	57.7, 63.5, 69.3V	100, 110, 115, 120, 127, 139V	220, 230, 240, 254, 265, 277V
Voltage burden (max)	1VA/0.7W		1VA/0.7W	1.8VA/1.1W PV/H-380/480		3VA/1.7W			
Operating frequency AC	45-65 Hz								
Trip level under Umin	Adjustable 75-100% Un								
Trip level over Umax	Adjustable 100-125% Un								
Overload capacity -continuous: (L-N) -max. 10s: (L-N) Opening level off (L-N)	87V 104V 38V	174V 209V 66V	346V 416V 145V	87V 104V 38V	174V 209V 66V	346V 416V 145V	87V 104V 38V	174V 209V 66V	346V 416V 145V
Differential (hysteresis)	Adjustable 1-15% Un								
Time delay	Adjustable 0.5-10s (t)								
Output relay-contact	1x change over (AgNi) plated								
Output relay-contact terminals	15, 16, 18	15, 16, 18	15, 16, 18	15, 16, 18	15, 16, 18	15, 16, 18	Under 25, 26, 28/Over 15, 16, 18		
Load capacity AC	250 V/ 8A, max. 2000 VA								
Load capacity DC	30 V/ 8 A								
Mechanical life	3x10 <sup>6</sup> by rated load								
Relay reset	Automatic								
ANSI no.	27	27	27	59	59	59	27/59	27/59	27/59
Operating temp	-20 + 55°C								
Storage temp	-30 + 70°C								
Insulation	4 kV / 1 min.								
Overvoltage category	III.								
Pollution degree	2								
Enclosure integrity	IP40 from the front panel/IP10 terminals		IP40 from the front panel/IP20 terminals	IP40 from the front panel/IP10 terminals		IP40 from the front panel/IP20 terminals			
Enclosure style	DIN-rail, 1 module			DIN-rail, 1 module			DIN-rail, 3 module		
Case material	Flame retardant polycarbonate								
Connecting conductors	max .2 x 2.5 mm <sup>2</sup> / 1 x 4 mm <sup>2</sup>		max .2 x 1.5 mm <sup>2</sup> / 1 x 2.5 mm <sup>2</sup>	max .2 x 2.5 mm <sup>2</sup> / 1 x 4 mm <sup>2</sup>		max .2 x 1.5 mm <sup>2</sup> / 1 x 2.5 mm <sup>2</sup>			
Dimensions	H 90 x W 17.6 x D 64 mm					H 90 x W 17.6 x D 64 mm			
Weight	65 g					125 g			
Standards	EN 60255-6, EN 60255-27, EN 61000-6-2, EN 6100-6-4								

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