Voltage Protection Relay

VPRA2M-CE



Features :

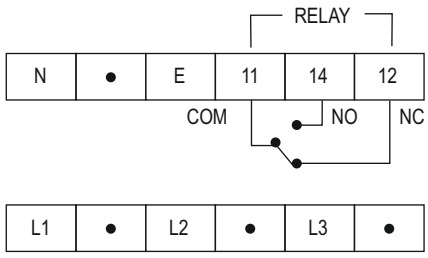
- 1Ø-2 wire, 3Ø-4 wire input
- Monitors : Under voltage, Over voltage, Phase asymmetry, Phase failure, Phase sequence
- LED Indication: Power ON / Phase failure, Under voltage, Over voltage, Phase sequence / Asymmetry
- Adjustable trip time delay
- DIN rail mount.

Technical specifications

Display specifications				
Type	Analog			
No. of LED	4			
LED indication chart				
Condition	**Power LED**	**Under voltage LED**	**Over voltage LED**	**Phase reverse/ Asymmetry LED**
Nominal condition	ON	OFF	OFF	OFF
Under voltage	ON	OFF	OFF	OFF
Over voltage	ON	OFF	OFF	OFF
Phase sequence	ON	OFF	OFF	ON
Phase asymmetry	ON	OFF	OFF	Blink
Phase failure (L2 / L3)	ON	OFF	OFF	OFF
Input specifications				
Functions				
Measurements	Under voltage, Over voltage, Phase asymmetry, Phase failure & Phase sequence			
Reset	Auto			
Electrical connection	1Ø-2 wire, 3Ø-4 wire			
Trip settings				
Under voltage	55 to 95% of Un [127 to 219V AC (L-N)]			
Over voltage	105 to 125% of Un [242 to 288V AC (L-N)]			
Phase sequence	Yes			
Phase failure	Yes			
Phase asymmetry	>10%			
Trip delay				
Power on delay	0-15 sec (for 0 setting: <400msec)			
Trip time delay	0-15 sec (for 0 setting: <100msec)			
Recovery time delay	5 sec (Fixed) ±200ms			
Phase sequence trip delay	<250msec			
Trip time delay	0-15sec (for 0 setting: <100msec)			
Trip time delay	0-15sec (for 0 setting: <100msec)			

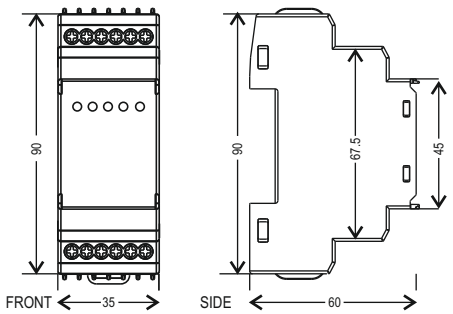
Hysteresis	
Voltage	7V (±2V) of trip setting
Accuracy	
Trip setting accuracy	±5% of Full scale
Time setting accuracy	±10% of Full scale
Output specifications	
Relay contact	2 C/O (DPDT)
Relay rating	5A @250V AC / 28V DC
Auxiliary supply specifications	
Nominal input voltage	230V AC (L-N)
Operating voltage	127 to 288V AC (L-N)
Frequency	48/63 Hz
Power consumption	5VA max
Environmental specifications	
Temperature	Operating temperature: -10° to 55 °C Storage temperature: -25° to 70 °C
Humidity (non-condensing)	Upto 95% RH pollution degree
For PCB	2
For product	3
Degree of protection devices	IP20
Mechanical specifications	
Mounting	DIN rail
Weight	150 gms

Terminal connections

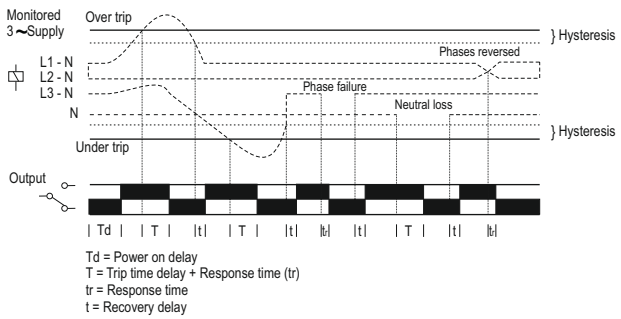


Note: Short L1 and P for 1Ø - 2 Wire connection

Dimensions (All are in mm)



Timing diagram



Compliance

Applicable EMI / EMC standards		
Product standard : IEC 60947-2		
Category	**Reference standards**	**Testing level**
Electrostatic discharge	IEC 61000-4-2	Level-3
Electrical fast transient / Brust	IEC 61000-4-4	Level-3
Electromagnetic field	IEC 61000-4-3	Level-3
Surge	IEC 61000-4-5	Level-3
Conducted RF	IEC 61000-4-6	Level-2
Rated power frequency	IEC 61000-4-8	Level-4
Voltage dip / Short interruptions	IEC 61000-4-11	Level-3
Conducted emissions	CISPR-11	Class-B
Radiated emission	CISPR-22	Class-A
Emission & Immunity	IEC 61326-1	
Safety	IEC 61010-1	

Ordering information

Product code	Supply voltage	Certification
VPRA2M-CE	127 to 288V AC	CE