




Features:

- 1Ø - 2Wire, 3Ø - 4Wire Input
- Monitors Under Voltage, Over Voltage, Phase Sequence, Phase Unbalance, Phase Failure
- LED Indication: Under Voltage, Over Voltage, Phase Sequence / Unbalance, Phase Failure, Power ON
- DIN Rail Mount

Size: 35mm (Width)

Certifications: CE 

Technical Specifications

Display

Type	Analog
No. of LEDs	4
LED Indication	Power ON / Phase Loss, Under Voltage, Over Voltage, Phase Sequence / Unbalance

Input Specifications

Functions	
Measurements	Under Voltage, Over Voltage, Phase Unbalance, Phase Failure, Phase Sequence
Time Setting	Power ON delay, Trip time delay
Alarm Indications	Trip
Reset	Auto
Electrical Connection	1Ø - 2Wire, 3Ø - 4Wire
Auxiliary Supply	
Nominal Input Voltage, Un	230V AC (L-N)
Operating Voltage	127 to 288V AC (L-N)
VA Rating	5VA max
Frequency	48 - 63Hz
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 Unbalance	> 10%
Trip Time Settings	
Power On Delay	0-15 sec (for 0 setting : <400msec)
Recovery Delay Time	5 sec ±200ms
Trip Time Delay	0 - 15 sec
Trip Time Delay	
• Phase Sequence	< 250msec
• Phase Loss (For L2 & L3 Phase)	0 - 15 sec (for 0 setting :<100msec)
• Phase unbalance	0 - 15 sec (for 0 setting :<100msec)
• L1 / Neutral Loss	<200msec

Hysteresis

Voltage 7V (±2V) of trip voltage

Accuracy

Trip Setting Accuracy ±5% of F. S.

Time Setting Accuracy ±10% of F. S.

Output Specifications

Output Contact	DPDT (2 C/O)
Contact Rating	5A @ 250V AC / 28V DC
Electrical Life	1 x 10 ⁵ (10000)
Mechanical Life	1 x 10 ⁷ (10000000)

Environmental Specifications

Temperature	Operating : -10 to 55°C Storage: -25 to 70°C
Humidity (non-condensing)	Upto 95% RH

Mechanical Specifications

Enclosure	UL 94V0
Dimension	35mm (width)
Mounting	DIN Rail
Protection Level	IP20 for Terminals IP40 for Enclosure IP50 for Faceplate

Standards

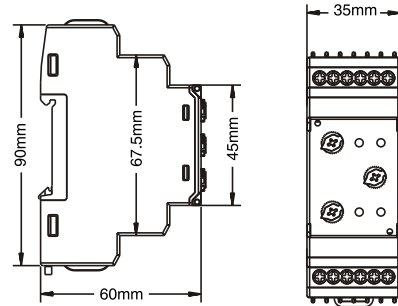
EMI/EMC	IEC61326-1 (2005-12)
Harmonic Current Emission	IEC61000-3-2 ed.3.0 (2005-11) class A
Radiated Susceptibility	IEC 61000-4-3 ed.3.0 (2006-02) level 3
ESD	IEC61000-4-2, level 3 (8kV air, 6kV contact)
Electrical Fast Transients	IEC61000-4-4, level 3 (2kV)
Surge	IEC61000-4-5, level 3 (2kV)
Conducted Susceptibility	IEC61000-4-6, ed.2.2 (2006-05) Level 2
Voltage Dips, Interruptions	IEC61000-4-11, level 3
Conducted Emission	CISPR11, ed.5.1 class B
Radiated Emission	CISPR22, ed.5.2 class A
Safety	IEC61010-1 (2010)
Breakdown Voltage	IEC61010-1 (2.5kV)
Environmental	
Cold Heat	IEC60068-2-1, ed.6.0 (2007-03)
Dry Heat	IEC60068-2-2, ed.5.0 (2007-07)
Vibration	IEC60068-2-6, ed.7.0 (2007-12), 5g
Repetitive Shock	IEC60068-2-27, ed.4.0 (2008-02), 40g, 6ms
Non-Repetitive Shock	IEC60068-2-27, ed.4.0 (2008-02), 30g, 15ms

LED Indication Chart

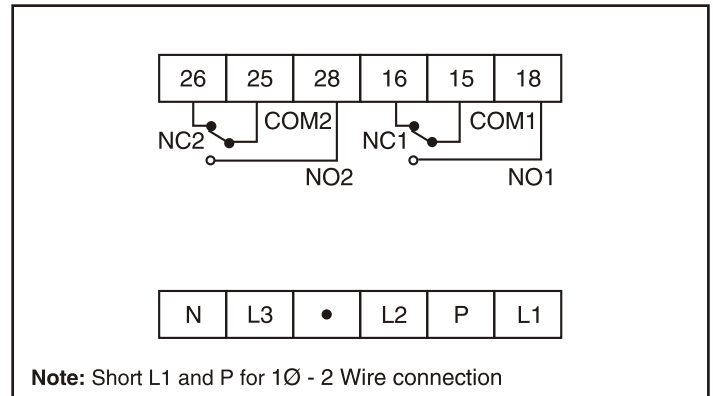
Supply	Power LED	Under Voltage LED	Over Voltage LED	Phase Reverse/Unbalance LED
Nominal Condition	ON	OFF	OFF	OFF
Under Voltage	ON	ON	OFF	OFF
Over Voltage	ON	OFF	ON	OFF
Phase Reverse	ON	OFF	OFF	ON
Phase Unbalance	ON	OFF	OFF	Blink
Phase Loss (L2/L3)	Blink	OFF	OFF	OFF

Note: Phase reverse, Phase unbalance and Phase loss (L2/L3) conditions are not applicable for 1Ø - 2 Wire connection.

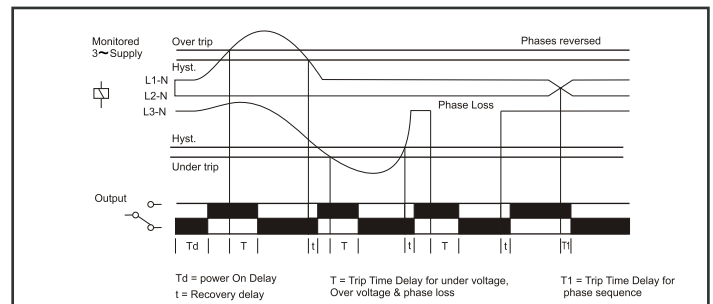
Dimensions



Terminal Connections



Timing Diagram



Ordering Information

Part No.	Supply Voltage	Certification
VPRA2M-RoHS	127 to 288V AC (L-N)	CE
VPRA2M	127 to 288V AC (L-N)	CE