Voltage Protection Relay

900VPR-BL-U-CE



Features :

- 3Ø - 3 wire, 3Ø - 4 wire input
- Monitors under voltage, Over voltage, Under frequency, Over frequency, Phase asymmetry, Phase failure, Neutral loss and Phase sequence
- True RMS measurement
- Power ON delay, Trip time delay and Recovery time delay
- Adjustable switching hysteresis
- Two alarm relay with NC or NO operation selectable
- DIN rail mount

Certifications : CE

Technical specifications

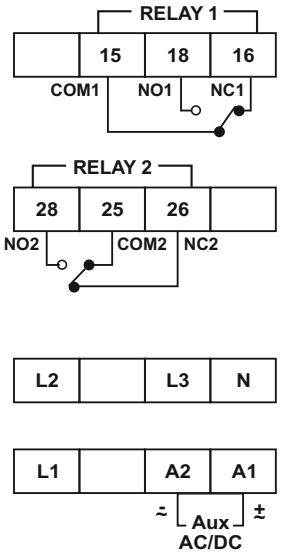
Display specifications		
Type	Digital	
Display	Liquid crystal display with backlight	
No. of LED	2	
LED Indication chart		
Condition	**'R1' LED**	**'R2' LED**
Nominal condition	OFF	OFF
Fault condition (if programming relay1)	ON	OFF
Fault condition (if programming relay2)	OFF	ON
Fault condition (if programming for both relay)	ON	ON
Input specifications		
Functions		
Measurements	Under voltage, Over voltage, under frequency, Over frequency, Phase asymmetry, Phase failure, Neutral loss and Phase sequence	
Time settings	Power on delay, Trip time delay and Recovery time delay	
Alarm indications	Trip	
Latching	Selectable	
Reset	Auto / Manual	
Electrical connection	3Ø - 3 wire, 3Ø - 4 wire	
Measuring range		
(RMS value)	85 to 500V AC (L - L) 50 to 288V AC (L - N)	
Trip settings		
Under voltage	85 to 500V AC (L - L) [for 3Ø - 3 wire] 50 to 288V AC (L - N) [for 3Ø - 4 wire]	
Over voltage	85 to 500V AC (L - L) [for 3Ø - 3 wire] 50 to 288V AC (L - N) [for 3Ø - 4 wire]	
Under frequency	45 / 65Hz	
Over frequency	45 / 65Hz	
Trip time settings		
Power ON delay	0.5 - 300sec	
Trip time delay	0 - 300sec	
Recovery time delay	0 - 300sec (In auto reset mode)	

Response time	
Under voltage	<120ms
Over voltage	<120ms
Phase asymmetry	<120ms
Phase failure	<120ms
Phase sequence	<250ms
Hysteresis	
Voltage	1.0 - 40V
Frequency	0.1 / 2Hz
Asymmetry	2 - 20%
Resolution	
Voltage	1V
Frequency	0.1Hz
Accuracy	
Voltage	±1% ±2 digits
Frequency	±0.5% ±1 digit
Time	±5% of setting ±120ms
Output specifications	
No. of relays	2
Type of output (relay 1)	1C/O (SPDT)
Type of output (relay 2)	1C/O (SPDT)
Relay rating	NO / 5A @250V AC, NC / 3A @250V AC
Auxiliary supply specifications	
Supply voltage	85 to 270V AC / DC
Operating range	50 to 288V AC (L - N), 85 to 500V AC (L - L)
Nominal voltage	240V (L - N), 415V (L - L)
Frequency	50 / 60Hz
Power consumption	4VA max
Environmental specifications	
Temperature	Operating temperature : 25° 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	Device IP20
Mechanical specifications	
Mounting	DIN rail
Weight	150 gms
Screw tightening torque	0.5 NM

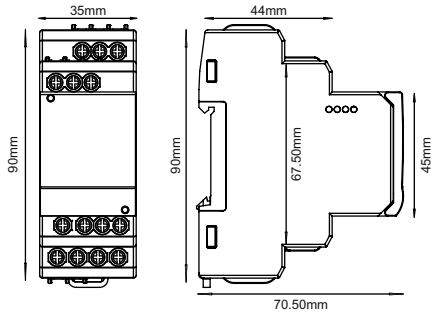
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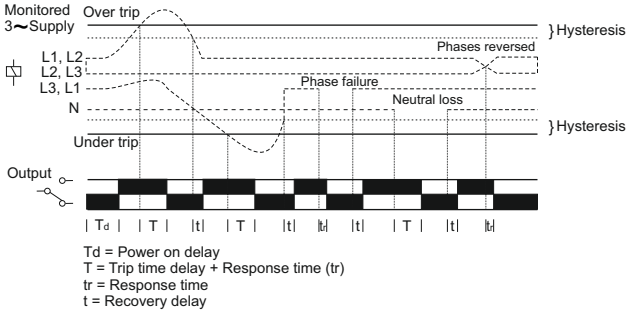
Terminal connections



Dimensions (all are in mm)



Timing diagram



Compliance

Applicable EMI / EMC standards		
Product standard : IEC 60947-2		
Category	**Reference dtandards**	**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
900VPR-BL-U-CE	85 to 270V AC/DC	CE