

# PROTECTION RELAYS

(Digital / Analog)



**Voltage Protection**  
Universal Supply



**Voltage Protection**  
2 C/O DPDT Relay



**Earth Leakage**  
1Ø & 3Ø



**Current Protection**  
10A direct measuring

- TRUE RMS measurement
  - DIN RAIL Mount
  - Voltage, Frequency
  - Current
  - Earth Leakage
- } 1Ø & 3Ø

## LINE MONITORING

### Phase Protection

### Voltage Protection



Adjustable Phase  
Unbalance setting



Fixed Phase Unbalance setting



2 C/O DPDT Relay

Other Protection Relays:



Voltage Protection Relays



Current Protection Relays



Phase Sequence Relay







Earth Leakage Relay





Other Product Ranges:  
**METERS | PLC's | TEMPERATURE CONTROLLERS | TIMERS | COUNTERS | CT'S**

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Specifications overleaf...

# Technical Specification

				
	900VPR-BL-U	VPRD2M	CPRD2M	900ELR-2
Digital Protection Relays (35mm DIN Rail)	VOLTAGE PROTECTION RELAY		CURRENT PROTECTION RELAY	EARTH LEAKAGE RELAY
<b>Functions</b>	<ul style="list-style-type: none"> <li>Under / over voltage, under / over frequency, phase asymmetry, phase failure, neutral loss and phase sequence monitoring in 3Ø system</li> <li>Adjustable switching hysteresis</li> <li>Two separate alarm relays with NO or NC operation selectable</li> <li>Settable trip &amp; time setting</li> <li>Power ON delay, Trip time delay and Recovery time delay</li> </ul>	<ul style="list-style-type: none"> <li>Under / over voltage, phase asymmetry, phase failure and phase sequence monitoring in 1Ø and 3Ø system</li> <li>Adjustable switching hysteresis</li> <li>One relay with two change over</li> <li>Settable trip &amp; time setting</li> <li>Power ON delay, Trip time delay and Recovery time delay</li> <li>Self powered</li> </ul>	<ul style="list-style-type: none"> <li>Under current &amp; over current monitoring in 1Ø system</li> <li>Adjustable switching hysteresis</li> <li>One alarm relays with NO or NC operation selectable</li> <li>Settable trip &amp; time setting</li> <li>Power ON delay, Trip time delay and Recovery time delay</li> </ul>	<ul style="list-style-type: none"> <li>Leakage current monitoring in 1Ø and 3Ø systems</li> <li>CBCT connection monitoring</li> <li>Adjustable switching hysteresis</li> <li>Test and Reset via front / remote</li> <li>Two separate alarm relays with NC or NO operation selectable</li> <li>Settable trip &amp; time setting</li> <li>Power ON delay, Trip time delay and Recovery time delay</li> </ul>
<b>Display</b>	3 digits LCD with backlight	3 digits LCD	3 digits LCD	3 digits LCD with backlight
<b>Electrical Connection</b>	3Ø-3 wire, 3Ø-4 wire	1Ø-2 wire, 3Ø-4 wire	1Ø-2 wire	1Ø-2 wire, 3Ø-3 wire, 3Ø-4 wire,
<b>CT Setting</b>	---	---	CT Primary: 5A/10A - 999A (selectable) CT Secondary: 5A/10A (selectable)	CBCT Ratio: 1000:1 CBCT Size: 35,70,120mm (Inner diameter)
<b>Resolution</b>	Voltage: 1V, Frequency: 0.1Hz	Voltage: 1V	Current: 0.01, 0.1, 1A, 0.01kA (Depends on CT setting)	Current: 0.1mA, 1mA, 0.01A, 0.1A (Depends on trip setting)
<b>Accuracy</b>	Voltage: ±1% of set value ±2 digits, Frequency: ±0.5% ± 1 digits Time: ±5% of Setting ± 120ms	Voltage: ±1% of set value ±2 digits, Time: ±5% of Setting ± 150ms	Current: ±1% of setting ± 2 digits, Time: ±5% of setting ± 100ms	Current: ±5% of Setting, Time delays : ±5% of setting ± 100ms
<b>Output Contact</b>	2 x 1C/O (SPDT)	1 x 2C/O (DPDT)	1C/O (SPDT)	2 x 1C/O (SPDT)
<b>Relay Rating</b>	NO : 5A, 250V AC ; NC : 3A, 250V AC	NO, NC : 5A @ 250V AC	NO, NC : 10A @ 250V AC	NO : 5A, 250V AC; NC : 3A, 250V AC
<b>Supply Voltage</b>	85 – 270V AC/DC	Operating Voltage: 127 to 288V AC (L-N)	230V AC (factory set); ±15%	230V AC (factory set)/110V AC; ±15%
<b>Frequency</b>	45 - 65Hz	48 - 63Hz	45 - 65Hz	45 - 65Hz
<b>Power Consumption</b>	4VA max.	5VA max.	18VA max.	3VA max.

Analog Protection Relays	Model	Functions	Size (DIN Rail)	Accuracy	Output Contacts	Operating Voltage	Auxiliary Supply	LED Indications
	<b>PSR1</b> PHASE SEQUENCE RELAY	Phase Sequence, Phase Failure, Phase Asymmetry: 40V VA Rating: 4VA Max. Reset: Auto  Power ON delay, Trip time delay and Recovery time delay	35mm	Voltage: 1% of F.S. Time: ±5% of F.S. ±100 ms	1 C/O (SPDT) Rating: NO/5A, NC/3A, 250V AC	3Ø/3W 100 - 120 / 220 - 240 / 380 - 440V AC, ±20% 45-65 Hz	230V AC, ±20%	Power ON, Relay ON
	<b>PSR2</b> PHASE SEQUENCE RELAY	Phase Sequence, Phase Failure, Phase Asymmetry: 30 - 70V VA Rating: 4VA Max. Reset: Auto / Manual / Remote  Power ON delay, Trip time delay and Recovery time delay	52.5mm	Voltage: 1% of F.S. Time: ±5% of F.S. ±100 ms	2 C/O (DPDT) Rating: NO/5A, NC/3A, 250V AC	3Ø/3W 100 - 120 / 220 - 240 / 380 - 440V AC, ±20% 45-65 Hz	230V / 415V AC, ±20%	Power ON, Relay ON
	<b>600PSR &amp; 800PSR</b> PHASE SEQUENCE RELAY	Phase Sequence, Phase Failure Trip: <154V AC (L-L), Phase Asymmetry: 30V fixed, VA Rating: 20VA Max. Reset: Auto  Power On Delay & Instant tripping	600PSR (17.5mm) 800PSR (22.5mm)	Trip: ±10V	1 C/O (SPDT) Rating: NO/5A, NC/3A, 250V AC	3Ø/3W 154 to 500V AC(L-L) 50/60 Hz	Self Powered	Relay ON
	<b>VPRA2M</b> VOLTAGE PROTECTION RELAY	Under Voltage, Over Voltage, Phase Sequence Phase Failure, Phase Asymmetry: >10% VA Rating: 5VA Max. Reset: Auto  Power ON delay, Trip time delay and Recovery time delay	35mm	Trip setting Accuracy: ±5% of F.S. Time setting Accuracy: ±10% of F.S.	2 C/O (DPDT) Rating: 5A@ 250V AC/ 28V DC	1Ø / 2W, 3Ø / 4W 127 to 288V AC (L-N) 50/60 Hz	Self Powered	Power ON / Phase Failure blink UV ON, OV ON  Phase Reverse ON/ Phase Asymmetry blink