Digital Monitoring Device
PVIMD-R

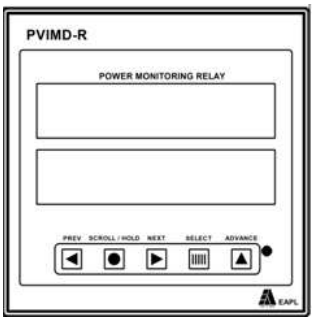
Features

•Din sized enclosure.
- Auto / Manual mode available.
- External potential free (zero volt /no voltage) terminal contacts for auto mode.
- Window displays the type of fault that has occurred during unhealthy condition. Trip delay time and limits for each parameter can be set digitally.
- All programs can be locked by removing short link across specified terminals.
- Relay can be configured to have NO or NC status during healthy condition.
- Monitors and trips the circuit after the set trip delay time when ever power unhealthiness occurs.
- All the parameters can be monitored using RS485 MODBUS Protocol.
- Displays all the 3 phase voltages (line to line), (line to neutral), 3 phase current (line to neutral), frequency, power factor, Active Power, Apparent Power, Active Energy, Apparent Energy and Load On Hour during healthy condition .
- User can program nominal current. Under current and over current limits can be set in percentage with reference to nominal current.
- User can set the in-rush time delay.
- User settable CT primary and Secondary.

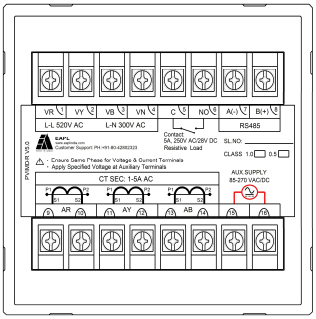
Ordering Information

Models	Function	Source Voltage	Output
PVIMD-R	Phase Voltage Current & Energy Monitoring Device 415V AC 3 phase, 4 wire with RS485	415V AC 3 phase, 4 wire & auxiliary supply 85-270 V AC/DC	1 c/o, 5A resistive

Front View



Rear View



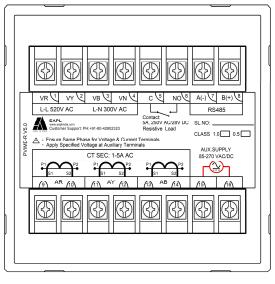
Over-all Dimension

Models	Dimension Details in mm			Cutout Dimension in mm	
	W	H	D	W	H
PVIMD-R	96	96	117	92	92

■ Specifications

Model	PVIMD-R
Function	Energy meter and Phase Unbalance, Phase Reversal, Phase Failure, Under and Over Voltage, Under and Over Current Monitor and Control with RS485
Aux. Supply	85 to 270V AC/DC
Rated frequency	50 / 60 Hz + 5% for AC only
Power Consumption	AC Approx. 9VA DC Approx. 6W
Input Voltage	415V AC(3Ph-4W)
Input Current	Current input (AR,AY,AB) Ib=5A
Input Frequency	50 Hz, ± 2%
Burden	< 0.2 VA per Volts/Amps input
Accuracy	Class 0.5 / Class-1
Recovery Time	2 sec minimum
Communication	RS-485 MODBUS RTU Protocol
Control output	1 c/o rated for 5A @ 250VAC/28VDC resistive load
Trip Time	±1% of set delay ± 2 sec
General	
Trip setting	Phase Unbalance → 1% to 20% Under Voltage → 315 to 410V AC Over Voltage → 420 to 515V AC Over Current → 105% to 800% Under Current → 20% to 95%
Trip time delay	1 to 250secs settable for UB, OV, UV,OC,UC
Phase Failure trip time delay	< 5 sec
Phase reverse trip time delay	Instantaneous
Inrush current delay	1 to 60secs settable
Recovery Time	2 sec Min.
Power On Delay	10 sec Max
Burden	< 0.2 VA per Volts/Amps input
Communication	RS-485 MODBUS RTU Protocol
Mode of Operation	Auto/ Manual
Field Configurable features	
CT Ratio Selectable	Primary 1 to 2500A Secondary 1 to 5A.
PT Ratio Selectable	Primary 110 to 999KV Secondary 110 to 500V
Device ID	1 – 247
Baud rate	2400, 4800, 9600,19200bps
Protection of configuration settings	User settable Password Ranging from 0001 to 9999
Climatic	
Ambient Temperature	Operation: -10° C to +55° C (14° F to 131° F) Storage : -25° C to +80° C (-13° F to 176° F)
Humidity	MAX 95% RH @ 40° C

Connection and Terminal Details

	Connection Details	Terminal Details
PVIMD-R		**1,2,3,4 :** R ,Y,B,N **5,6 :**COM,NO(Relay) **7, 8 :** A(-), B(+),RS-485 **9,10 :**S1,S2 (R phase) **11, 12 :** S1, S2 (Y phase) **13, 14 :** S1, S2 (B phase) **15, 16 :** Auxiliary supply (85-270V AC/DC)