

POWERPRO

ELECTRICAL POWER METER



Multiparameter Monitoring

Measures all important Electrical Parameters

All parameters with default accuracy class 1.0S

Compact 96 X 96 DIN enclosure

Optional RS-485 port for connection to SCADA/EMS

Optional Alarm/Trip Outputs (Two) programmable for any parameter including Demand

16 X 1 backlit LC display and 128 X 64 backlit graphical LC display (Optional)

Dual source measurement (EB & DG) option available

The POWERPRO from **Trinity** is an easy-to-use, cost effective electrical power meter that offers all the basic measurement capabilities required to monitor an electrical installation. In addition to measuring the instantaneous parameters, it also measures accurately all three energies, and also demand, thus helping to measure and control energy costs.

Over the basic metering, it optionally provides two relay outputs, RS485 port supporting MODBUS RTU protocol, dual source metering and THD measurements.

The relays are site programmable for parameter of action, and the value on which to operate.

The CT primary and secondary, PT ratio and installation type are site selectable, thus making it possible to use the meter in all types of three phase installations.

Technical Specifications

| | | Parameter | |
|---------------|---------------------------|--|---|
| Type | Name | Statistics | |
| INPUT | Supply | Three Phases and Neutral of a 3P4W system / Three Phases of a 3P3W system | |
| | Voltage | Direct Voltage Input : Up to 500V L-L, Up to 300V L-N PT Ratio : Site Selectable Burden : 0.5VA | |
| | Current | Secondary Current Input: 5A or 1A (Site Selectable) CT Ratio : Site Selectable Range of Reading : 5 – 5000A Burden : < 1.0VA Overload : 5A CT = 6A RMS Continuous 1A CT = 1.2A RMS Continuous | |
| | Power Supply | Auxiliary Supply: 90 - 480 VAC, 50-60 Hz. | |
| OUTPUT | Relay | Two. Individually Field Programmable. Switching Voltage : Max. 250 VAC Switching Power : Max. 1000W Expected Mechanical Life: >10 x 10 ⁶ switching operations. Expected Electrical Life : >4 x 10 ⁶ switching operations. @(Load = 200VA, Cosφ = 0.5) | |
| MEASUREMENT | True RMS Basic Parameters | Voltage (Volts L-N & L-L) | VL-N - Accuracy : 0.5% of Reading VL-L - Accuracy : 1.0% of Reading |
| | | Current (Amps IR, IY, IB) | Accuracy : 0.25% of Reading |
| | | Line Frequency | 45 to 55 Hz, Accuracy: 0.3% of Reading |
| | Power | Active Power (P) | Accuracy: 1% of Reading (For IPFI>0.5) |
| | | Reactive Power (Q) | Accuracy: 1.5% of Reading (Between 0.5 Lag to 0.8 Lead) |
| | | Apparent Power (S) | Accuracy: 1%% of Reading |
| | | Power Factor | For Individual phases and System Accuracy: 1.0% of Reading (IPFI≥0.5) Range of Reading: 0.05 to 1.00 Lag/Lead |
| | Energy | Total Active Energy (KWh) | Range of Reading: 0 to 9999999.9 Accuracy: 1.0S as per IS13779 |
| | | Total Apparent Energy (KVAh) | Range of Reading: 0 to 9999999.9 Accuracy: 1.0% of Reading |
| | | Total Apparent Energy (KVARh) | Range of Reading: 0 to 9999999.9 Accuracy: 1.5% of Reading |
| | Power Quality | THD for each Voltage (Optional) | |
| | | THD for each Current (Optional) | |
| | Demand | KVA/ KWA Demand | Site Selectable. Demand Interval 15/30 Min. Also site selectable |
| | | Max. Demand | Max. Value reached only. No time & date stamp |
| MISCELLANEOUS | Dimensions | Bezel | 96 X 96 mm |
| | | Panel Cutout | 92 X 92 mm |
| | | Depth of installation | 55 mm |
| | Display | 16 X 1 Backlit LCD or 128 X 64 graphical backlit LCD (Optional) | |
| | Operating temp | 10°C to 50°C | |
| | Weight | 0.35 Kgs (Approx.) | |
| | Min. Operating Current | 0.4% to 120% of CT primary | |
| | Comm. | RS485 | Modbus-RTU protocol |

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