

EMPOWER-PLUS

DIGITAL MULTIFUNCTION METER



Class 1.0s accuracy as per IS13779

Microcontroller Based

Seven Segment LED Based Display

Measures all important Electrical Parameters

Compact 96 X 96 DIN enclosure

RS485 port for connection to SCADA/EMS

The EMPOWER-PLUS 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 all three energies, thus helping to measure energy costs.

Over the basic metering, it provides RS485 port supporting MODBUS RTU protocol, THD measurements, Phase angle, Unbalance % for Voltage and Current, On Hour & Run Hour, Power Interruption recording. These parameters are available over RS485 only.

The CT Primary, Secondary and PT ratios are site selectable.

Technical Specifications

Parameters		
Type	Name	Statistics
INPUT	Supply	Three Phases and Neutral of a 3P4W system
	Voltage	Direct Voltage Input : 25 to 500V L-L, 25 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 (AC) : 60 - 480 VAC/DC, 50-60 Hz. Auxiliary Supply(DC) : 8 - 32 VDC
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 65 Hz, Accuracy : 0.3% of Reading
	Power	Active Power (P) Accuracy (For IPFI>0.5) : 1% of Reading
		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 : Class 1.0s as per IS13779
		Total Apparent Energy (KVAh) Range of Reading : 0 to 9999999.9 Accuracy : 1.0% of Reading
		Total Reactive Energy (KVARh - LG & LD) Range of Reading : 0 to 9999999.9 Accuracy : 1.5% of Reading
	Power Quality	THD for each phase current
		THD for each phase voltage
MISCELLANEOUS	Dimensions	Bezel
		96 X 96 mm
		Panel Cutout
		92 X 92 mm
		Depth of installation
		55 mm
		Display
		4x3 7-Segment
		Operating temp
		10°C to 50°C
		Weight
		0.29 Kgs (Approx.)
		Min. Operating Current
		0.4% to 120% of CT primary
	Comm.	RS485
		Modbus-RTU protocol

* Note: To be specified at the time of ordering

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