TRINITY

MAKING ENERGY MATTER

SLM PRO

ELECTRICAL POWER METER

Trinity introduces the SLM PRO, an easy-to-use, accurate and very versatile electrical power meter with innovative features, which is ideal for remote monitoring of electrical installations, Energy accounting and management, tenant billing and Power quality analysis.The meter has three LEDs in the front, one to calibrate energies, one to indicate the status of RS485 communication and one to indicate conversion from kilo to mega. The display consists of three rows of four-digit seven segment red LEDs of 0.56 inches. Twenty four LEDs in two columns on either side of the display indicate the various parameters being shown.

It supports MODBUS-RTU protocol over RS-485 port.

FEATURES

- Class 0.5s accuracy for Active energy as per the IS14697.
- 4 digits X3 rows bright 7-Segment display.
- Compact 96 X 96 DIN Enclosure.
- Computed Neutral Current.
- Shows all three types of Power Factors-Thue, Displacement and Distortion.
- Harmonic measurement: All six waveforms up to 30 order, even and odd, including THD.
- Event logging of Sags, Swells and Interruptions as perIEC 61000-4-30.
- Demand Measurement: Fixed or Sliding for KW, KVA, KVAR and Avg. Amps.
- RUN Hour and ON Hour measurement.
- Energy Pulse Output LED on the front-selectable for Real/Apparent/Reactive Energy.
- 3P4W, 3P3W and 1P2W connections.
- Import-Export counters for all three energies and all Power Demands.
- User selectable CT and PT Ratios. 5A or 1A operation, field selectable.

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Installation & Connection

The CT Primary and Secondary, PT Ratio and installation types are site selectable, thus making it possible to use the meter in all types of installations like 3P4W, 3P3W and 1P2W.

Comprehensive Measurement

In addition to basic metering of the previous models, SLM PRO adds support for Import-Export measurement on three energies and demands, logging of minimum-maximum values, all three types of power factors like True, Displacement and Distortion, Phase angle measurements, unbalance percentages and computed neutral current.

Power Quality Analysis as per IEC 61000-4-30 & IEC 61557-12

For Power Quality Analysis - SLM PRO measures individual harmonics for all voltage and current waveforms, both even and odd, up to the 30th order, with THD as per IEC 61557-12. It also records in it's non-volatile memory with date and time stamp, twenty Interruption events and thirty SAG/SWELLevents, as per IEC 61000-4-30 standard

Parameters		
Type	**Name**	**Statistics**
INPUT	Supply	Three Phases and Neutral of a 3P4W system / Three Phases of a 3P3W system / Single Phase and Neutral of a 1P2W System
	Voltage	Direct Voltage Input : up to 500V L-L, 300V L-N PT Ratio : Site Selectable Burden : 0.5VA
	Current	Secondary Current Input : 5A or 1A (Site Selectable) CT Primary : Site Selectable Range of Reading : up to 5000A Burden : < 1.0VA Overload : 5A CT → 6A RMS Continuous : 1A CT → 1.2A RMS Continuous
	Power Supply	Auxiliary Supply : 60 - 480 VAC/DC, 50-60 Hz.

Type		Name	Statistics
MEASUREMENT	True RMS Basic Parameters	Voltage (Volts L-N & L-L)	Accuracy : 0.5% of Reading.
		Current (Amps IR, IY, IB)	Accuracy : 0.25% of Reading
		Line Frequency	45 to 55 Hz, Accuracy : 0.05% of Reading
	Power	Active Power (P)	Accuracy : 0.5% of Reading(For IPFI>0.5)
		Reactive Power (Q)	Accuracy : 1.0% of Reading
		Apparent Power (S)	Accuracy : 0.5% of Reading
		Power Factor	For Individual phases and System PF Accuracy : 0.5% 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 999999999.9 Accuracy : Class 0.5s as per IS14697
		Total Apparent Energy (KVAh)	Range of Reading : 0 to 999999999.9 Accuracy : 0.5% of Reading
		Total Reactive Energy (KVARh)	Range of Reading : 0 to 999999999.9 Accuracy : 1.0% of Reading
	Power Quality	THD and Individual Harmonic For each phase V and A	Class 5.0 as per IEC 61557-12 up to 30th order.
	Demand	Parameters	KW, KVA, KVAR and Avg.Amps.
		Window	15 minutes or 30 minutes selectable.
		Mode	Fixed or Sliding selectable.
		Calculation	Present, Predicted, Maximum Demand and Last Maximum Demand (Import & Export – For Power Parameter Only)

Type		Name	Statistics
MISCELLANEOUS	Dimensions	Bezel	96 X 96 mm
		Panel Cutout	92 X 92 mm
		Depth of installation	55 mm
		Display	4x3, 7 Segment, bright Red.
		Operating temp	0°C to 50°C
		Weight	310 gms (Approx).
		Operating Current Range	0.4% to 120% of CT primary
	Communication	RS485 PORT	Modbus-RTU protocol : 2 – Wires, 9600, 19200, 38400 baud. Parity – None, Stop bit – 1. Isolation : 2.5KV RMS
	Display update	Instantaneous	1 S
		Demand	1 S
		Harmonics	3 S
		Keypad	Three Keys for navigation and programming of various parameters.
		Calibration LED.	Red color. 1000 impulses/unit. Import/Export of KWh/KVAh/KVARh.
		Communication LED	Dual color LED. Data Receive – Green LED. Data Transmit – Red LED.
	*** 0.5s accuracy applicable only in 3P4W mode.** **Note : Some parameters are available only on RS485 , so please refer to the user manual for more details.**		