CE

c UL us
LISTED
E188860

Multifunction Meter

FEATURES

- 3Ø True RMS (Voltage, Current)
- 3Ø Power (Active, Reactive, Apparent), Energy (Active, Reactive, Apparent)
- Programmable CT/PT Primary/Secondary
- CT Polarity Error Detection
- Variable Pulse width Selection
- Single Phase Network with Phase Selection
- Modbus RTU Communication (RS485)
- Neutral Current Measurement
- THD up to 31st Level.
- Single Pulse Output / Demand Phase Sequence Detection

DISPLAY SPECIFICATION

Display	4 rows, LCD with backlight
Digits	4 (Lowest 8 digits for energy display)
Bargraph	For Current representation

INPUT SPECIFICATIONS

Electrical Connection	3Ø-3 wire, 3Ø-4 wire, 2Ø-3 wire, 1Ø-2 wire
Input Voltage Range	11 to 300V AC, (Phase to Neutral) 19 to 519V AC (Phase to Phase)
Input Current Range	Nominal 5A AC (Min-11mA, Max-6A)
Frequency	45 to 65Hz
Display Scrolling	Automatic / Manual (Programmable)
Power Consumption	8VA Max
Display Reset	Programmable (For energy)
Resolution	For energy : 0.01k, 0.1k, 1k, 0.01m, 0.1m, 1m (depending upon CT ratio x PT ratio) For Power, Voltage, Current : Auto resolution For Power factor : 0.001
Accuracy	Voltage (L-N / L-L) : ±0.5% of F.S. Power Factor ±0.01 Current ±0.5% F.S. Frequency : ±0.1% For L-N Voltage >20V For L-L Voltage >35V Power (Active, Reactive, Apparent) : 1% Energy (Active, Reactive, Apparent) : Class 1
Memory Retention	10 years (For energy)
Measuring Parameters	Voltage (L-L / L-N) (Individual / Average), Current (I1, I2, I3) (Individual / Average), Frequency, Power Factor (Individual /Total), Active, Reactive & Apparent power (Individual / Total), Active, Reactive & Apparent Energy (Total), Demand (Min / Max Active Power, Min/Max Reactive Power, Max Apparent Power), %THD up to 31st Level Max Demand Current, Neutral Current, Phase Sequence Detection

OUTPUT SPECIFICATIONS

Pulse Output	Voltage Range : External 24V DC max Current Capacity : 100mA max Pulse Width : 100 ms ± 5 ms
Communication Interface and Protocol	RS485 and MODBUS RTU
Communication Address	1 to 255
Transmission Mode	Half duplex
Transmission Distance	500 meter maximum
Transmission Speed	300, 600, 1200, 2400, 4800, 9600, 19200 (in bps)
Parity	None, Odd, Even
Stop Bits	1 or 2
Response Time	100 ms (max and independent of baud rate)

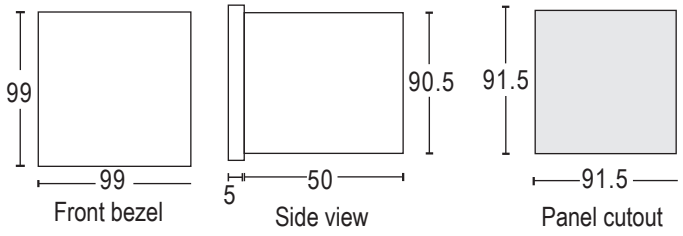
AUXILIARY SUPPLY SPECIFICATIONS

Supply Voltage 100 to 240V AC, -15% +12%, 50/60 Hz, (±5%)

SETTABLE PARAMETERS

CT Primary	1/5A to 10kA (Programmable for any value)
CT Secondary	1/5A (Programmable)
PT Primary	100V to 500kV (Programmable for any value)
PT Secondary	100V to 500V (Programmable for any value)

DIMENSIONS



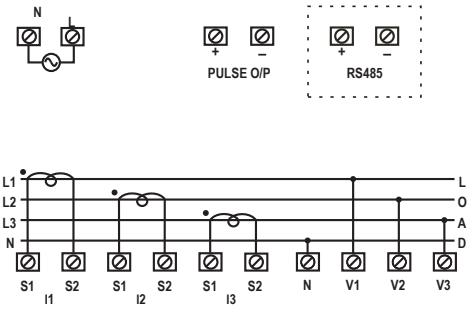
ENVIRONMENTAL SPECIFICATIONS

Temperature	Operating Temperature : -10 to 55°C Storage Temperature : -20 to 75°C
Humidity (non-condensing)	Up to 85% RH

MECHANICAL SPECIFICATIONS

Mounting	Panel mount
Weight	318 gms

TERMINAL CONNECTIONS



IEC Cable Size (mm²): 0.5 to 2.5 ; Tightening Torque (N-m): 0.68 to 0.79

COMPLIANCE

Applicable EMI / EMC Standards

Product Standard : IEC 61326-1

Category		Standards Compliance
ESD Immunity	IEC 61000-4-2	Level IV (Air discharge : 15kV), (Contact Discharge : -8kV
Surge Immunity	IEC 61000-4-5	+/- 2kV common mode, (Line to ground) +/- 1kV differential mode, (Line to Line)
Radiated Susceptibility	IEC 61000-4-3	Level III, 80 to 1000MHz (10V/m) Level II, 1.4GHz to 2GHz (3V/m) Level I, 2GHz to 2.7GHz (1V/m)
Conducted Susceptibility	IEC 61000-4-6	Level II (3V/m)
Voltage Dips and Interruptions	IEC 61000-4-11	Dips : 0% residual voltage / 1 cycle (Criteria B), 40% residual voltage / 10 cycles 50Hz / 12 cycles 60Hz (Criteria C) 70% residual voltage / 25 cycles 50Hz / 30 cycles 60Hz (Criteria C) Interruptions : 0% residual voltage / 250 cycles 50Hz / 300 cycles 60Hz (Criteria C)
Conducted Emission	CISPR-11	
Radiated Emission	CISPR-11	
Electrical Fast Transient	IEC 61000-4-4	Level III (2kV)

ORDERING INFORMATION

Part Number: VCFP96M