





## Multifunction Meter

## **DISPLAY SPECIFICATION**

Display 4 rows, LCD with backlight

Digits 4 (Lowest 8 digits for energy display)

Bargraph For Current representation

## **OUTPUT SPECIFICATIONS**

**FEATURES** 

• 3Ø True RMS (Voltage, Current)

CT Polarity Error DetectionVariable Pulse width Selection

• Neutral Current Measurement

• Single Pulse Output / Demand Phase Sequence Detection

• THD up to 31st Level.

 3Ø Power (Active, Reactive, Apparent), Energy (Active, Reactive, Apparent)
 Programmable CT/PT Primary/Secondary

Single Phase Network with Phase Selection
 Modbus RTU Communication (RS485)

OUTPUT SPECIFICATIONS		
Pulse Output	Voltage Range : External 24V DC max Current Capacity : 100mA max Pulse Width : 100 ms $\pm$ 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)	

## 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	

#### **AUXILIARY SUPPLY SPECIFICATIONS**

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

#### **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)

#### **MECHANICAL SPECIFICATIONS**

(non-condensing) Up to 85% RH

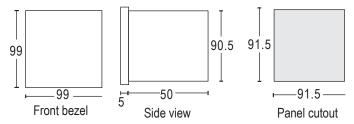
ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -10 to 55°C

Storage Temperature : -20 to 75°C

Mounting Panel mount
Weight 318 gms

#### **DIMENSIONS**

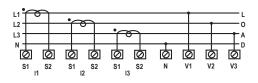


## **TERMINAL CONNECTIONS**

**Temperature** 

Humidity





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 613	26-1	
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

# **Mouser Electronics**

**Authorized Distributor** 

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Mueller Electric: VCFP96M