

MULTIFUNCTION METER

CMM970C



- 3 ϕ True RMS (voltage, current)
- 3 ϕ Power (active, reactive, apparent)
- Import / Export Energy (active, reactive, apparent)
- Programmable CT/PT primary/secondary
- Modbus RTU Communication (RS485)
- Max / Min Demand power

Technical Specifications

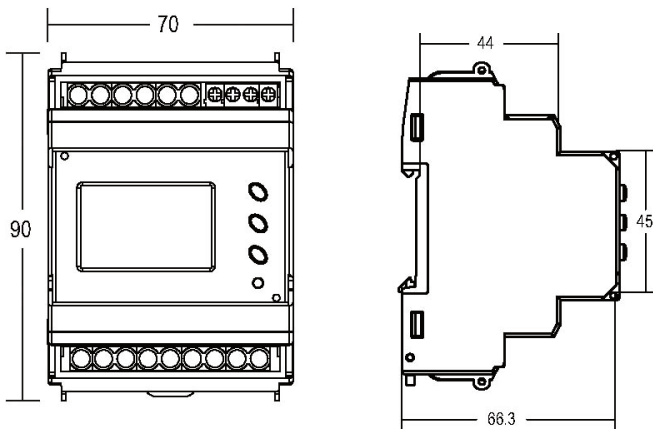
Display	Display	3 rows, LCD with backlight
	Digits	1 row of 4 digits 2 rows of 7 digits
	LED indications	Integration of energy (1000 Pulses/kWh)
Input	Electrical connection	3 ϕ -3/4 wire, 2 ϕ -3 wire, 1 ϕ -2 wire
	Input voltage range	11 to 300V AC, (Phase to Neutral) (L - N) 19 to 519VAC, (Phase to Phase) (L - L)
	Input current range	Nominal 5A AC (Min-11mA, Max-6A)
	Frequency	45Hz-65Hz
	Display scrolling	Automatic / Manual / Default
	Power consumption	8VA Max
	Display reset	Programmable (for Energy) (for energy, auxiliary interrupt, run hour)
	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: 0.01
	Accuracy	Voltage (L-N / LL): $\pm 0.5\%$ of F.S Current: $\pm 0.5\%$ of F.S Power factor: ± 0.01 Frequency: $\pm 0.1\%$ (For L-N: V>20V, LL: V>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 (Individual / Average), Frequency, Power Factor (Individual / Total), Active, Reactive and Apparent power (Individual/ Total), Active, Reactive and Apparent Energy (Import/Export), Demand (Min/Max) active power, Min/Max reactive power, Max apparent power)	
Resettable Parameters	CT Primary	1A/5A to 10kA (programmable for any value)
	CT Secondary	1A/5A (programmable)
	PT Primary	100V to 500kV (programmable for any value)
	PT Secondary	100V to 500V (programmable for any value)

Auxiliary Supply	Supply voltage	85 to 270V AC, (50/60Hz)
Output	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)
Environmental	Temperature	Operating Temperature: -5° to +65° C Storage Temperature: -20° to +75° C
	Humidity	Up to 85% RH (non-condensing)
Mechanical	Mounting	DIN rail
	Weight	208 gr.
EMC	EESD 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)	

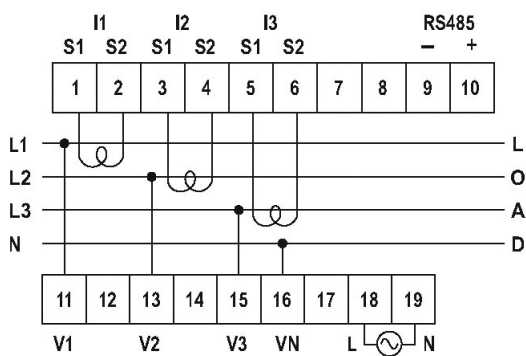
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Dimensions:



Terminal connections:



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

Ordering information

Product	Supply Voltage 85 to 270V AC	Output	Certification CE
		Comm (RS485)	
CMM970C	•	•	-
CMM970C-CE	•	•	•