Single phase power-sensor

Single phase power-sensor



Model number	: PM1-E-D	
	MC-230	
Connect to:	RS485 power sensor bus A - B	
Mounting:	DIN rail, 1M, 18 mm	
Dimensions:	18 × 62 × 119 mm	
Used for measuring power and energy of		
✓ single	single-phase energy sources	
✓ single	single-phase energy consumers	

Applications

• Digital multi-function power-sensor for single phase networks

Features

- DIN rail mounting with direct connection up to 45A
- Compact design in a single module 18mm wide
- Seal-able cover(phase and neutral terminals)

General description

The PM1-E-D series is an advanced single phase energy monitoring solution with built-in configuration push button and LCD data display. Particularly indicated for metering active energy and other power parameters. Housing for DIN-rail mounting, IP51 protection degree, direct connection up to max 45A.

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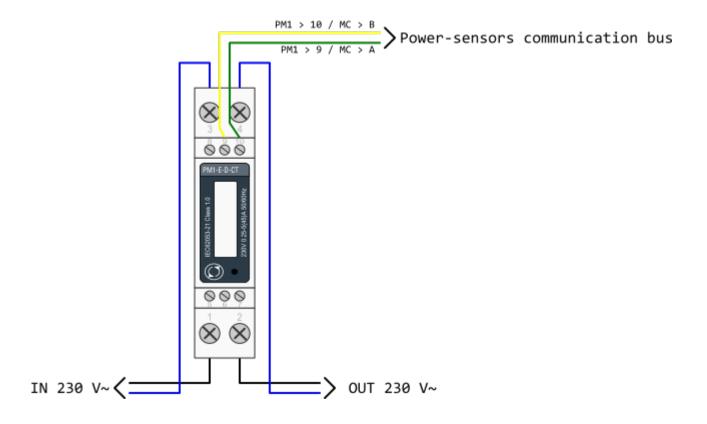
Technical specifications

Energy Measurements			
Imported/Exported active energy	0 to 99999.99 kWh		
Imported/Exported reactive energy	0 to 99999.99 kVArh		
Total active energy	0 to 99999.99 kWh		
Total reactive energy	0 to 99999.99 kVArh		
Measured Inputs			
Nominal Voltage Input	(Ph+N) 176 to 276V		
Max Continuous Voltage	120% of nominal		
Nominal Input Current	5(45)A		
Max Continuous Current	120% of nominal		
Frequency	50Hz (±10%)		
Accuracy			
Voltage	0.5% of range maximum		
Current	0.5% of nominal		
Frequency	0·2% of mid-frequency		
Power factor	1% of unity (0.01)		
Active power (W)	±1% of range maximum		
Reactive power (VAr)	±1% of range maximum		
Apparent power (VA)	±1% of range maximum		
Active energy (Wh)	Class 1 IEC 62053-21		
Reactive energy (VARh)	±1% of range maximum		
Modbus (RS485 Output for Mod	bus RTU & Pulsed Output)		
Baud rate	1200, 2400, 4800, 9600.		
Parity	none / odd / even		
Stop bits	1 or 2		
RS485 network address	1 to 247		
Reference Conditions of Influence Quantities			
Ambient temperature	23°C ±1°C		
Input waveform	50 or 60Hz ±2%		
Input waveform	Sinusoidal (distortion factor < 0.005)		
Auxiliary supply voltage	Nominal ±1%		
Auxiliary supply frequency	Nominal ±1%		
Auxiliary supply waveform (if AC)	Sinusoidal (distortion factor < 0.05)		
Magnetic field of external origin	Terrestrial flux		
Environment			
Operating temperature	-25°C to +55°C		
Storage temperature	-40°C to +70°C		
Relative humidity	0 to 95%, non-condensing		
Altitude	Up to 3000m		
Warm up time	1 minute		
Vibration	10Hz to 50Hz, IEC 60068-2-6, 2g		
Shock	30g in 3 planes		
Mechanics			
DIN rail dimensions	18mm x 90mm (WxH) per DIN 43880		

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Mounting DIN rail (DIN 43880)

PM1-E-D Wiring



hiq_pm1-e-d_user_manual_2020.pdf hiq_pm1-e-d-modbus_protocol_v2.2.pdf

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