PM210-X

Dual Source Multi-Function Power Meter

Smart for Greenlife !

Features

- Measure both utility and generator power
- Models available for regular 5A CT
- Shallow enough to allow placement in most panels
- Dual channel source power meter
- Communication through Modbus over RS485 with Rx/Tx activity indicators for easy diagnostics
- Highly accurate, suitable for a wide range of voltage measurements
- CE and FCC certified

	Parameters Measured			
	A	B	C	Σ
V	O	O	O	
A	O	O	O	
Hz				O
kW	△	△	△	O
kVAr	△	△	△	△
PF	△	△	△	O
kWh	△	△	△	O
kVArh	△	△	△	O
VA	△	△	△	△

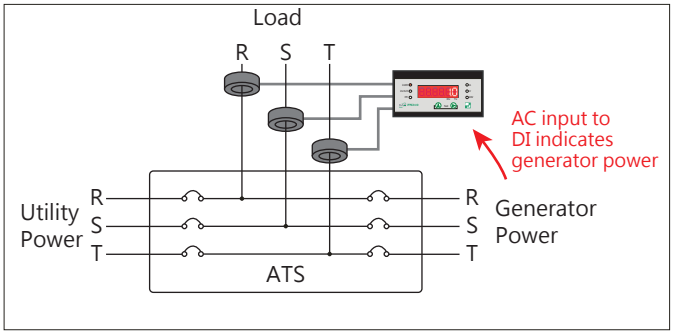
O :Available on display and through Modbus

△ :Available through Modbus only

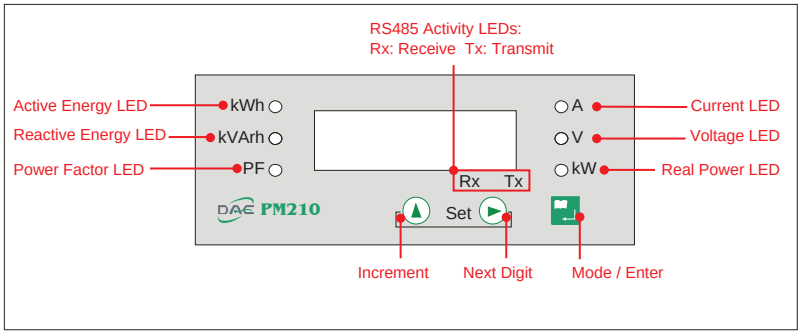
Description

- The PM210-X is a panel mounted electronic power meter designed with the latest in digital technology. It is multi-function and can measure various types of electrical parameters in addition to its basic energy metering capability.
- Facilities such as hospitals, high tech factories, high end office buildings, military installations, airports, communication centers, data centers and traffic control have stringent safety standards and require a dual source of power. It may be a combination of generator and utility power, or even two separate utility power sources. This is precisely the kind of application that require a power meter capable of measuring dual power sources.
- The communication interface of the PM210 is both optically isolated and has surge protection, providing an effective means of preventing damage from stray noise and interference.
- An internal fuse and an over voltage component protect the auxiliary power of the PM210 and increases its reliability even further. The PM210 does not contain any battery, which reduces its maintenance cost. The PM210 has passed stringent CE and FCC certifications making it undoubtable in its reliability.

Schematic



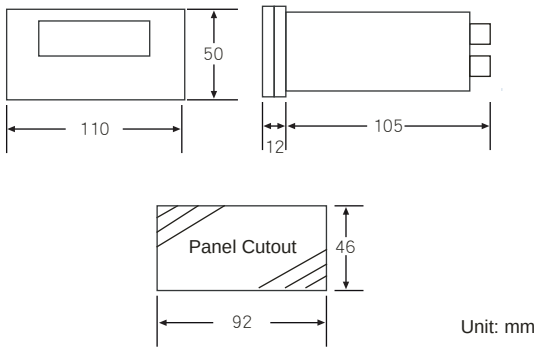
Front Panel



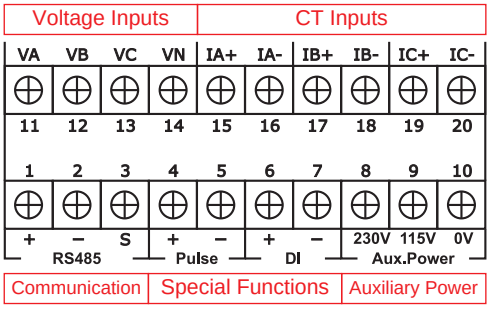
Specifications

Aux. Power	- 115 or 230VAC ±10%, 50 or 60Hz, Select from input terminal	Accuracy	- Voltage: 0.5% reading - Current: 0.5% reading - Power: 1% full scale - Power Factor: 1% full scale * Note: excluding CT error
Voltage Measurement	- Voltage Measurement: Phase Voltage (L-N): 80~350 VAC Line Voltage (L-L): 140~600 VAC - Frequency Measurement: 45~65Hz	Enclosure Material	Heat resistant ABS plastic, UL 94 V-0 standard
Current Input	Regular 5A output CT - Rated Current: 5A	Protection	- Dielectric Strength: 4000 Vrms for 1 minute - Basic Insulation: 4000 Vrms between all inputs/outputs to ground
		Operating Environment	- Temperature: 0 to 70˚C - Humidity: < 90% RH (non-condensing)
		Terminals	Wire gauge: 16~22AWG, Rated: 10Amp AC300V
Display and Keys	- 6 Digit LED display - Communication activity indicators: RX and TX - 3 keys: up, right, page/enter - Measurement Indicators: V (voltage), A (current), kW (active power), kWh (active energy), kVArh (reactive power), PF (power factor), and Hz (no indicator, F on far left of display)	Reliability Certifications	- Standards: CE, FCC - EMC Test: EN61326-1:2006 Class B - EMC Test: CISPR11:2003/A1:2004/A2:2006 Group 1 Class B - Harmonic Current Emissions: EN 61000-3-2:2006/A2:2009 - Limits of Voltage Fluctuations and Flicker: EN 61000-3-2:2008 - Electrostatic Discharge: EN 61000-4-2 - Radiated Susceptibility: EN 61000-4-3 - Electrical Fast Transient: EN 61000-4-4/1kV - Surge: EN 61000-4-5/4kV - Conducted Susceptibility: EN 61000-4-6 - Voltage Dips and Interruption: EN 61000-4-11 - Conducted Disturbance: FCC Part 15 Subpart B, CISPR22 Class B - Radiated Disturbances: FCC Part 15 Subpart B, CISPR22 Class B - General Requirements: EN 61010-1: Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1
Reset kWh	Sets kWh back to zero using front panel		
Communication	- Interface: bidirectionally optically isolated RS485 - Wiring: 2 wires, up to 1000 meters - Address setting: 1 to 254 (via keypad or Modbus) - Protocol: industry standard Modbus/RTU - Data format: 8/n/1, 8/o/1, 8/e/1 - Baud rates: 1200/2400/4800/9600 bps (via keypad or Modbus) - PT ratio: 1.00 to 400.00 (via keypad or Modbus) - CT ratio: 1 to 1000 (via keypad or Modbus)		
		Mounting	Panel Mounted

Dimensions



Terminals



*Note on DI:
- No input means utility power
- AC input means generator power

Ordering

Ordering Code	Description
PM210-X-STD	Dual Source Multi-Function Power Meter

Due to continuous product improvement, this data sheet is subject to change without notice