

PME-1210/1230

1-phase Multifunction Power Meter
3-phase Multifunction Power Meter



Features

- Small size with 100mm depth
- Panel cut 92 x 46 mm
- Multi-function power measurement
- Modbus RTU protocol over RS485

Introduction

The PME-1210 and PME-1230 are multi-function power meter for sub-metering applications, ranging from power distribution, small motor control to lighting load circuit. It measures individual current & voltage, KW, kwh, kvarh, PF and kVAR values. The measurement data can be viewed directly from local display, and also can be transmitted through a RS-485 using the Modbus protocol.

Specifications

Voltage Measurement

- **Phase/Wire** 1P3W or 3P3W-2CT or 3P3W-3CT or 3P4W (PME-1230 only)
- **Phase Voltage** 80 to 350 V_{AC}
- **Line Voltage** 138 to 600 V_{AC}
- **Resolution/Accuracy** 0.1 V/0.5% full scale
- **Permanent Overload** 450 V_{AC}
- **Transient Voltage** 2 x V_{in} (1sec)

Current Measurement (Std. 5A CT)

- **Range** 5 mA ~ 5 A
- **Resolution** 1 mA
- **Starting Current** 5 mA
- **Permanent Overload** 10 A
- **Transient current** 20 x I_{in} (1sec)
- **Accuracy** 0.5% full scale

Power Measurement (total)

- **Resolution** 1W (per phase)
- **Accuracy** 1% full scale

Energy Measurement (total)

- **Display Resolution** 0.1 kWh (Range from 0 to 9,999,999.9kWh)
- **Record Resolution** 0.01 kWh (Range from 0 to 9,999,999.99kWh)
- **kWh Accuracy** 1% with PF 0.5 ~ 1.0

Frequency Measurement

- **Range** 45.0 to 65.0 Hz
- **Resolution/Accuracy** 0.1 Hz

PF Measurement

- **Range** 0.000 to 1.000
- **Resolution** 0.001 (polarized)
- **Accuracy** 1% (PF 0.5 ~ 1.0)

Front Panel Interface

- **Display** 6 digit 7 segment LED
- **Indicators** 8 LED
- **Mode** Display and Setting
- **Setting** 3 Function Key, ID address, Baud Rate, PT Ratio, CT Ratio, Phase/Wire.

Communication Interface

- **Bus** RS-485, Photo Isolated
- **Protocol** Modbus/RTU (format: 8/N/1)
- **Baud Rate** 1200/2400/4800/9600
- **Meter ID** 0 ~ 254

Reliability

- **Communication** IEC61000-4-4 1kV
- **Surge Test** IEC61000-4-5 4kV
- **EFT Test** IEC61000-4-4 1kV

AC Insulation

- **Aux. Power** 4.0kV
- **Current Input** 4.0kV

Power Supply

- **AC 110V** 93 ~ 126 V_{AC}
- **AC 220V** 187 ~ 253 V_{AC}

Physical

- **Operating Temperature** -10 ~ 70°C
- **Operating Humidity** 0 ~ 90% RH (Non-condensing)
- **Storage Humidity** 0 ~ 95% (Non-condensing)
- **Weight** 425g (Std. 5A CT)
- **Panel Cut** 92 x 46 mm
- **Dimensions (W x H x D)** 110 x 50 x 115 mm

Ordering Information

- **PME-1210-AE** 1-phase Multifunction Power Meter
- **PME-1230-AE** 3-phase Multifunction Power Meter