



| Features |
|--|
| True RMS Power Measurements |
| Energy Analysis for 1P2W, 1P4W |
| Current Measurements Up to 200 A with Different CT Ratio |
| ■ Voltage Measurements Up to 300 V |
| Clip-on CT for Easy Installation |
| W Accuracy Better than 0.5% (PF=1) |
| Supports Modbus RTU, Modbus TCP or CANopen Protocol |
| Supports 2 Power Relay Output (Form A) |
| ■ IEC 61010-1 and EN 61010-1 |
| CE UK FC KOHS Z |

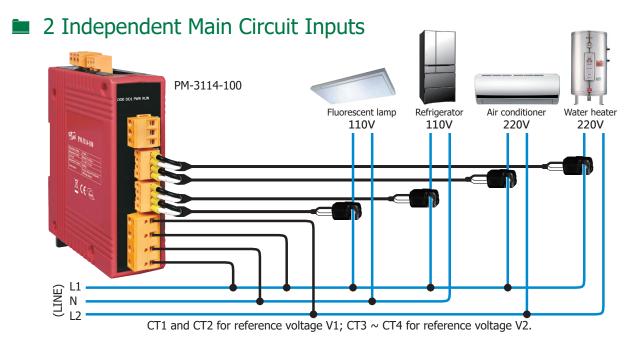
Introduction

ICP DAS brings the most powerful, cost-effective, advanced Smart Power Meters PM-3000 series that gives you access to real-time electric usage for single-phase power measurement. With its high accuracy (< 0.5%, PF=1), the PM-3000 series can be applied to both low voltage primary side and/or medium/high voltage secondary side and enables the users to obtain reliable and accurate energy consumption readings from the monitored equipments in real time under operation. These compact size and cost-effective power meters are equipped with revolutionary wired clip-on CT (various types, support input current up to 200 A). It operates over a wide input voltages range $10 \sim 300$ Vac which allows worldwide compatibility. And with 2 channels relay outputs, it can be linked with sirens or lightings for alarm messages. It also supports Modbus RTU, Modbus TCP or CANopen protocols for easy integration.

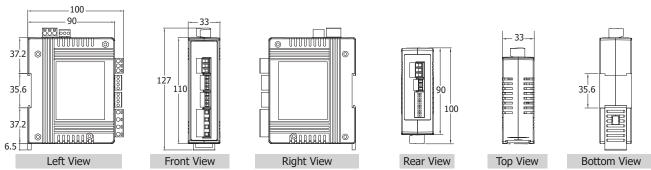
Specifications

| Models | | PM-3112 | PM-3114 | PM-3112-MTCP | PM-3114-MTCP | PM-3112-CPS | PM-3114-CPS | |
|--|-----------|--|---------------------|--------------|--------------|-------------------------|-----------------|--|
| AC Power Meas | urement | | | | | | | |
| Wiring | | 1P2W-2CT | 1P4W-4CT | 1P2W-2CT | 1P4W-4CT | 1P2W-2CT | 1P4W-4CT | |
| Input Voltage | | 10 ~ 300 V | | | | | | |
| Input Current | | CTØ10 mm (60 A); CTØ16 mm (100 A); CTØ24 mm (200 A) | | | | | | |
| Input Frequency | | 50/60 Hz | | | | | | |
| W Accuracy | | Better than 0.5% (PF=1) | | | | | | |
| Starting Current | | >0.03A (60A), >0.05A (100A), >0.09A (200A) | | | | | | |
| Power Parameter | | True RMS voltage (Vrms), True RMS current (Irms), Active Power (kW), Active Energy (kWh), Apparent Power (kVA), Apparent | | | | | | |
| Measurement | | Energy (kVAh), Reactive Power (kVAR), Reactive Energy (kVARh), Power Factor (PF), Frequency | | | | | | |
| Data Update Rate | | 1 Second | | | | | | |
| Communication | | | | | | | | |
| | Protocol | Modbus-RTU | | - | | - | | |
| | Baud Rate | 9600,19200 (| default), 38400, | _ | | | | |
| RS-485 | | 115200; DIP Switch Selectable | | | | | | |
| 1.5 1.05 | Data | N,8,1 (default | E); | _ | | _ | | |
| | Format | | E,8,2; O,8,1; O,8,2 | | | | | |
| | Isolation | 3000 V _{DC} | | | | - | | |
| Ethernet | Protocol | - | | Modbus TCP | | - | | |
| CANopen | Protocol | - | | - | | CANopen | | |
| | Baud Rate | _ | | _ | | 125 k (default), 250 k, | 500 k, 1 M; DIP | |
| | | | | | | Switch Selectable | | |
| Alarm Output | | | | | | | | |
| Power Relay | | Form A (Normal Open) x 2; Relay Contact Voltage Range: 5 A @ 250 V _{AC} (47 ~ 63Hz), 5 A @ 30 V _{DC} | | | | | | |
| Power | | | | | | | | |
| Input Range/Power | | +12 ~ 48 V _{DC} /2 W | | | | | | |
| Consumption | | | | | | | | |
| Environment | | | | | | | | |
| Temperature/Ambient Relative Humidity | | Operating Temperature: -20 ~ +70°C/Storage Temperature: -25 ~ +80°C/10% ~ 90% RH, Non-condensing | | | | | | |

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Dimensions (Units: mm)



Ordering Information

| RS-485 Interface | |
|------------------|--|
| PM-3112-100 CR | Modbus RTU, 2 loops single-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 2 (RoHS) |
| PM-3112-160 CR | Modbus RTU, 2 loops single-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 1.8 m) x 2 (RoHS) |
| PM-3112-240 CR | Modbus RTU, 2 loops single-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 1.8 m) x 2 (RoHS) |
| PM-3114-100 CR | Modbus RTU, 4 loops single-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 4 (RoHS) |
| PM-3114-160 CR | Modbus RTU, 4 loops single-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 1.8 m) x 4 (RoHS) |
| PM-3114-240 CR | Modbus RTU, 4 loops single-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 1.8 m) x 4 (RoHS) |

| Ethernet Interface | | | | | |
|---------------------|--|--|--|--|--|
| PM-3112-100-MTCP CR | Modbus RTU, 2 loops single-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 2 (RoHS) | | | | |
| PM-3112-160-MTCP CR | Modbus RTU, 2 loops single-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 1.8 m) x 2 (RoHS) | | | | |
| PM-3112-240-MTCP CR | Modbus RTU, 2 loops single-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 1.8 m) x 2 (RoHS) | | | | |
| PM-3114-100-MTCP CR | Modbus RTU, 4 loops single-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 4 (RoHS) | | | | |
| PM-3114-160-MTCP CR | Modbus RTU, 4 loops single-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 1.8 m) x 4 (RoHS) | | | | |
| PM-3114-240-MTCP CR | Modbus RTU, 4 loops single-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 1.8 m) x 4 (RoHS) | | | | |

| CAN bus Interface | |
|--------------------------|--|
| PM-3112-100-CPS CR | Modbus RTU, 2 loops single-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 2 (RoHS) |
| PM-3112-160-CPS CR | Modbus RTU, 2 loops single-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 1.8 m) x 2 (RoHS) |
| PM-3112-240-CPS CR | Modbus RTU, 2 loops single-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 1.8 m) x 2 (RoHS) |
| PM-3114-100-CPS CR | Modbus RTU, 4 loops single-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 4 (RoHS) |
| PM-3114-160-CPS CR | Modbus RTU, 4 loops single-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 1.8 m) x 4 (RoHS) |
| PM-3114-240-CPS CR | Modbus RTU, 4 loops single-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 1.8 m) x 4 (RoHS) |

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