

PM-3112/-MTCP/-CPS
PM-3114/-MTCP/-CPS
Single-phase Smart Power Meter

Features

- True RMS Power Measurements
- Energy Analysis for 1P2W
- 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 2 Power Relay Output (Form A)
- IEC 61010-1 and EN 61010-1

Introduction

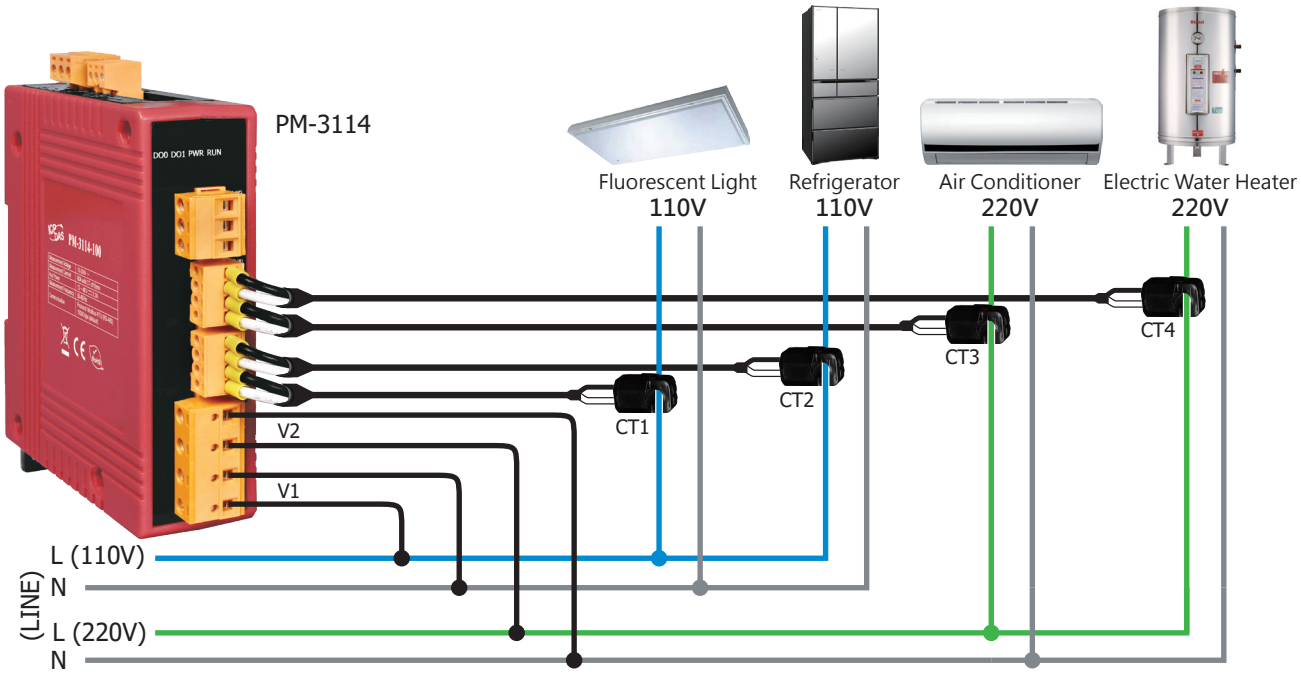
ICP DAS brings the most powerful, cost-effective, advanced Smart Power Meters PM-3000 series that gives you access to real-time electric usage for single-phase power measurement. With its high accuracy (< 0.5%, PF=1), the PM-3000 series can be applied to both low voltage primary side and/or medium/high 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 to 300 V_{AC} which allows worldwide compatibility. And with 2 channels relay outputs, it can be linked with sirens or lightings for alarm messages.

Specifications

Models		PM-3112	PM-3114	PM-3112-MTCP	PM-3114-MTCP	PM-3112-CPS	PM-3114-CPS
AC Power Measurement							
Wiring		1P2W-1CT					
Loops		1-phase: 2	1-phase: 4	1-phase: 2	1-phase: 4	1-phase: 2	1-phase: 4
Input Voltage		10 to 300 V					
Input Current		PM-311x-100P: CTØ10 mm (0.05 A to 60 A) PM-311x-160P: CTØ16 mm (0.1 A to 100 A) PM-311x-240P: CTØ24 mm (0.15 A to 200 A)					
Input Frequency		50/60 Hz					
W Accuracy		Better than 0.5% (PF=1)					
Power Parameter Measurement		True RMS voltage (Vrms), True RMS current (Irms), Active Power (kW), Active Energy (kWh), Apparent Power (kVA), Apparent Energy (kVAh), Reactive Power (kVAR), Reactive Energy (kVARh), Power Factor (PF), Frequency					
Data Update Rate		1 Second					
Communication							
RS-485	Protocol	Modbus-RTU		-		-	
	Baud Rate	9600,19200 (default), 38400, 115200; DIP Switch Selectable		-		-	
	Data Format	N,8,1 (default); N,8,2; E,8,1; 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 to 63Hz), 5 A @ 30 V_{DC}					
Power							
Input Range/Power Consumption		+12 to 48 V_{DC}/2 W					
Environment							
Temperature/Ambient Relative Humidity		Operating Temperature: -20 to +70°C/Storage Temperature: -25 to +80°C/10% to 90% RH, Non-condensing					

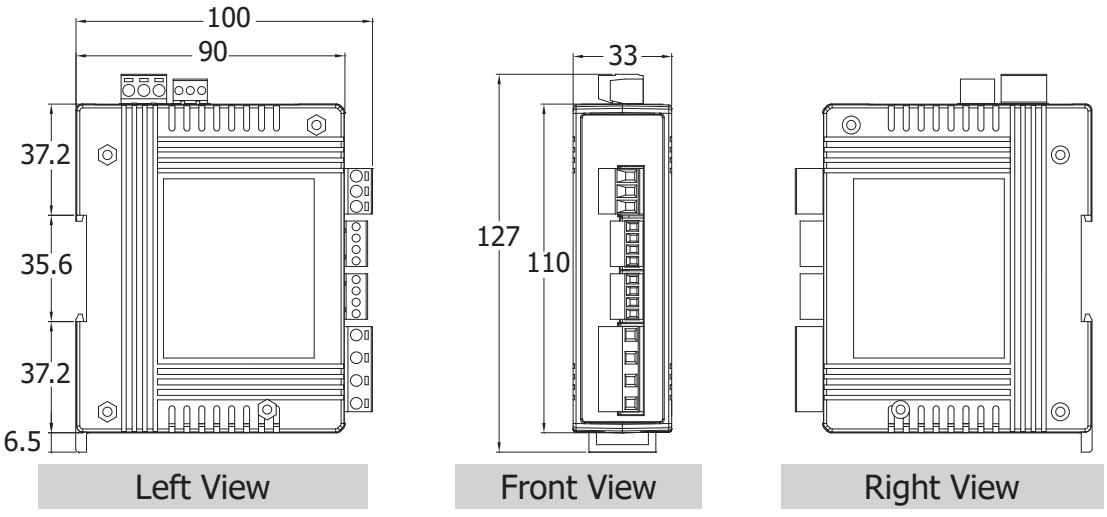
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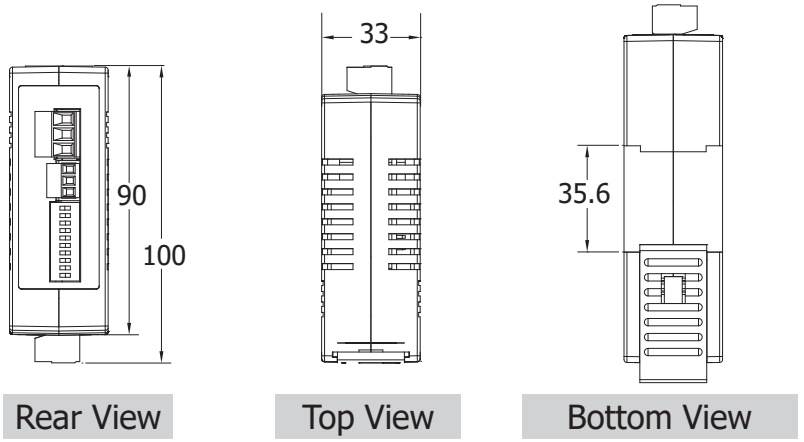
2 Independent Main Circuit Inputs



CT1 and CT2 for reference voltage V1; CT3 ~ CT4 for reference voltage V2.

Dimensions (Units: mm)





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Ordering Information

RS-485 Interface	
PM-3112-100P CR	Modbus RTU, 2 loops 1-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 2 (RoHS)
PM-3112-160P CR	Modbus RTU, 2 loops 1-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 2 (RoHS)
PM-3112-240P CR	Modbus RTU, 2 loops 1-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 2 (RoHS)
PM-3114-100P CR	Modbus RTU, 4 loops 1-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 4 (RoHS)
PM-3114-160P CR	Modbus RTU, 4 loops 1-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 4 (RoHS)
PM-3114-240P CR	Modbus RTU, 4 loops 1-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 4 (RoHS)

Ethernet Interface	
PM-3112-100P-MTCP CR	Modbus TCP, 2 loops 1-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 2 (RoHS)
PM-3112-160P-MTCP CR	Modbus TCP, 2 loops 1-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 2 (RoHS)
PM-3112-240P-MTCP CR	Modbus TCP, 2 loops 1-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 2 (RoHS)
PM-3114-100P-MTCP CR	Modbus TCP, 4 loops 1-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 4 (RoHS)
PM-3114-160P-MTCP CR	Modbus TCP, 4 loops 1-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 4 (RoHS)
PM-3114-240P-MTCP CR	Modbus TCP, 4 loops 1-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 4 (RoHS)

CAN bus Interface	
PM-3112-100P-CPS CR	CANopen, 2 loops 1-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 2 (RoHS)
PM-3112-160P-CPS CR	CANopen, 2 loops 1-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 2 (RoHS)
PM-3112-240P-CPS CR	CANopen, 2 loops 1-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 2 (RoHS)
PM-3114-100P-CPS CR	CANopen, 4 loops 1-phase Power Meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 4 (RoHS)
PM-3114-160P-CPS CR	CANopen, 4 loops 1-phase Power Meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 4 (RoHS)
PM-3114-240P-CPS CR	CANopen, 4 loops 1-phase Power Meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 4 (RoHS)

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