



Features

- Bi-directional Energy
- True RMS Power Measurements
- Energy Analysis for 3P4W, 3P3W, 1P3W, 1P2W
- Current Measurements Up to 400 A with Different CT Ratio
- Voltage Measurements Up to 500 V
- Clip-on CT for Easy Installation
- W Accuracy Better than 0.5% (PF=1)
- Total Harmonic Distortion (THD)
- Supports RS-485, Ethernet (PoE) or CANopen Interface
- Supports Modbus RTU, Modbus TCP, CANopen or EtherNet/IP Protocol
- Supports 2 Power Relay Output (Form A)
- IEC 61010-1 and EN 61010-1
- Multiple Data Format

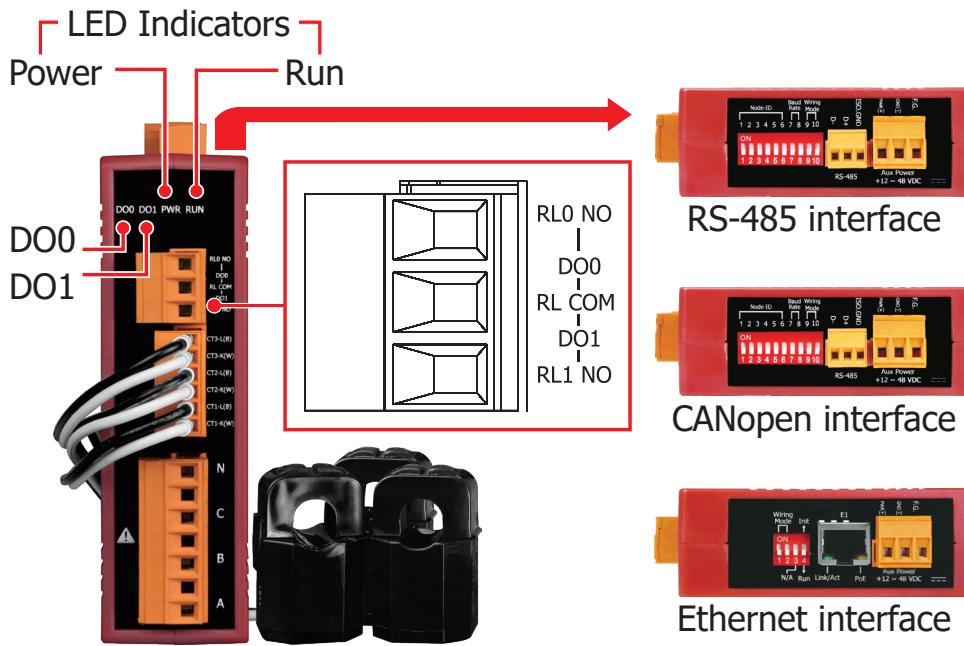


ICP DAS brings the most powerful, cost-effective, advanced Smart Power Meters PM-3133 series that gives you access to real-time electric usage for three-phase power measurement. With its high accuracy ($<0.5\%$, $PF=1$), the PM-3133 series can be applied to both low voltage primary side and/ or medium/high voltage secondary side and enables the users to obtain reliable and accurate energy consumption readings from the monitored equipment 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 400 A). It operates over a wide input voltages range 10 ~ 500 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, CANopen or EtherNet/IP protocols for easy integration.

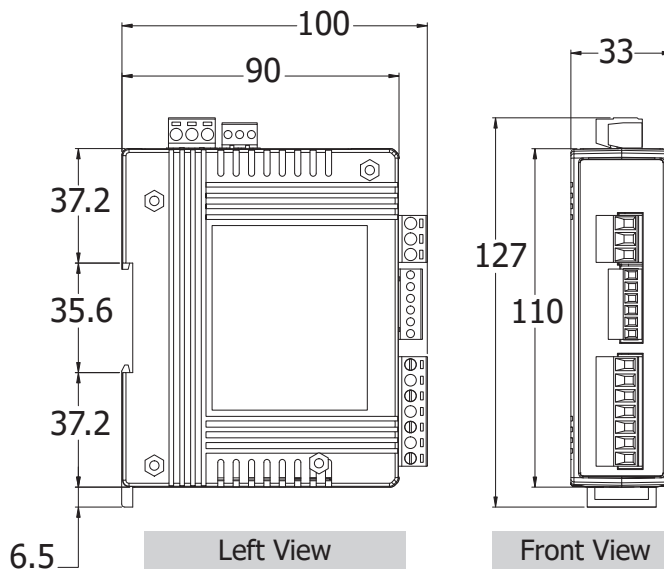
Specifications

Models	PM-3133	PM-3133-MTCP	PM-3133-EIP	PM-3133-CPS
AC Power Measurement				
Wiring	3P4W-3CT, 3P3W-2CT, 3P3W-3CT, 1P2W-1CT, 1P3W-2CT			
Measurement Voltage	10 ~ 500 V			
Measurement Current	CT \varnothing 10 mm (60 A); CT \varnothing 16 mm (100 A); CT \varnothing 24 mm (200 A); CT \varnothing 36 mm (300 A); CT \varnothing 36 mm (400 A)			
Measurement Frequency	50/60 Hz			
W Accuracy	Better than 0.5% (PF=1)			
Power Parameter Measurement	True RMS voltage (V_{rms}), True RMS current (I_{rms}), 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 (PoE)	Protocol	-	Modbus TCP	EtherNet/IP
	Protocol	-	-	CANopen
CANopen	Baud Rate	-	-	125 k (default), 250 k, 500 k, 1 M; DIP Switch Selectable
	Isolation	-	-	3000 V _{DC}
	Isolation	-	-	3000 V _{DC}
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				
Power Input	+12 ~ 48 V _{DC}	+12 ~ 48 V _{DC} or PoE	+12 ~ 48 V _{DC}	
Power Consumption	2 W			
Environment				
Temperature	Operating Temperature: -20 ~ +70 °C / Storage Temperature: -25 ~ +80 °C			
Ambient Relative Humidity	10% ~ 90% RH, Non-condensing			

Appearance



Dimensions (Units: mm)



Selection Guide

PM-3133 - **X X X P** - **X X X**

CT dimensions (Max. Current)
 100: CTΦ10 mm, 60 A Max.
 160: CTΦ16 mm, 100 A Max.
 400: CTΦ36 mm, 400 A Max.
100P: CTΦ10 mm, 60 A Max.
160P: CTΦ16 mm, 100 A Max.
240P: CTΦ24 mm, 200 A Max.
360P: CTΦ36 mm, 300 A Max.
400P: CTΦ36 mm, 400 A Max.

Current Transformers (Secondary voltage 333 mV)

Communication
 □: RS-485
 □: CANopen
 MTCP: Modbus TCP
 EIP: EtherNet/IP

Ordering Information

RS-485 Interface	
PM-3133-100 CR	Modbus RTU, 3-phase power meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 3 (RoHS)
PM-3133-160 CR	Modbus RTU, 3-phase power meter; includes 100A CT (Inside diameter 16 mm; wire lead 1.8 m) x 3 (RoHS)
PM-3133-400-L080 CR	Modbus RTU, 3-phase power meter; includes 400A CT (Inside diameter 36 mm; wire lead 8 m) x 3 (RoHS)
PM-3133-100P CR	Modbus RTU, 3-phase power meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-160P CR	Modbus RTU, 3-phase power meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-240P CR	Modbus RTU, 3-phase power meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-360P CR	Modbus RTU, 3-phase power meter; includes 300A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-400P CR	Modbus RTU, 3-phase power meter; includes 400A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)

Ethernet Interface (Modbus TCP)	
PM-3133-100-MTCP CR	Modbus TCP, 3-phase power meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 3 (RoHS)
PM-3133-160-MTCP CR	Modbus TCP, 3-phase power meter; includes 100A CT (Inside diameter 16 mm; wire lead 1.8 m) x 3 (RoHS)
PM-3133-100P-MTCP CR	Modbus TCP, 3-phase power meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-160P-MTCP CR	Modbus TCP, 3-phase power meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-240P-MTCP CR	Modbus TCP, 3-phase power meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-360P-MTCP CR	Modbus TCP, 3-phase power meter; includes 300A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-400P-MTCP CR	Modbus TCP, 3-phase power meter; includes 400A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)

Ethernet Interface (EtherNet/IP)	
PM-3133-100-EIP CR	EtherNet/IP, 3-phase power meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 3 (RoHS)
PM-3133-100P-EIP CR	EtherNet/IP, 3-phase power meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-160P-EIP CR	EtherNet/IP, 3-phase power meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-240P-EIP CR	EtherNet/IP, 3-phase power meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-360P-EIP CR	EtherNet/IP, 3-phase power meter; includes 300A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-400P-EIP CR	EtherNet/IP, 3-phase power meter; includes 400A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)

CAN bus Interface	
PM-3133-100-CPS CR	CANopen, 3-phase power meter; includes 60A CT (Inside diameter 10 mm; wire lead 1.8 m) x 3 (RoHS)
PM-3133-160-CPS CR	CANopen, 3-phase power meter; includes 100A CT (Inside diameter 16 mm; wire lead 1.8 m) x 3 (RoHS)
PM-3133-240P-CPS CR	CANopen, 3-phase power meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-360P-CPS CR	CANopen, 3-phase power meter; includes 300A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-400P-CPS CR	CANopen, 3-phase power meter; includes 400A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)