



### 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







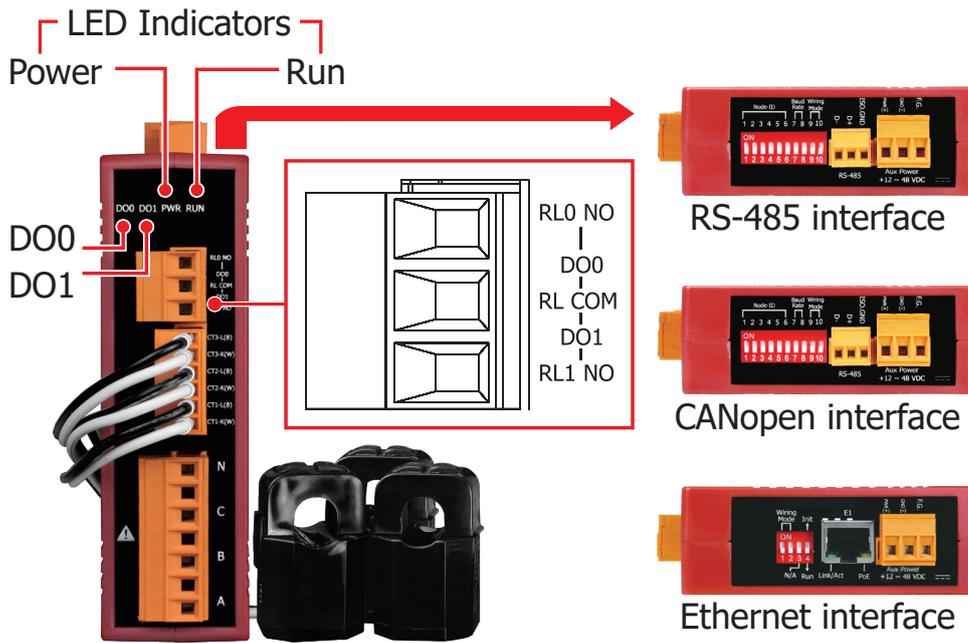
## Introduction

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 to 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.

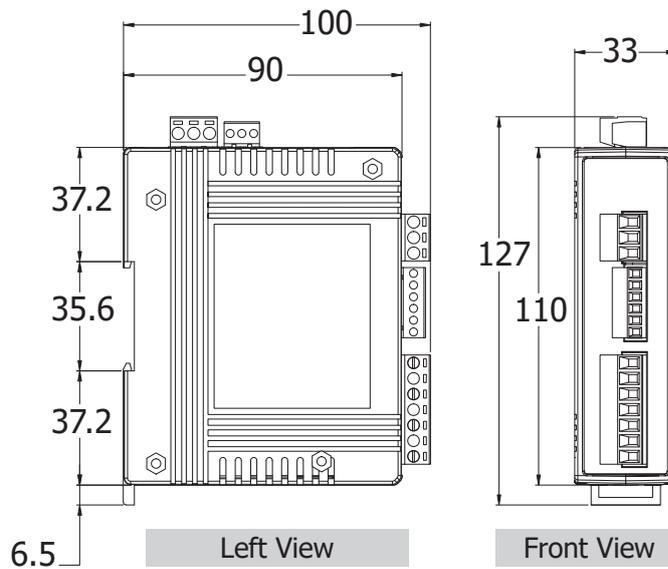
## Specifications

Models	PM-3133	PM-3133-MTCP	PM-3133-EIP	PM-3133-CPS
<b>AC Power Measurement</b>				
Wiring	3P4W-3CT, 3P3W-2CT, 3P3W-3CT, 1P2W-1CT, 1P3W-2CT			
Measurement Voltage	10 to 500 V			
Measurement Current	-005 (0.05 A to 5 A); -100 (0.05 A to 60 A); -160 (0.1 A to 100 A); -240 (0.15 A to 200 A); -360 (0.3 A to 300 A); -400 (0.3 A to 400 A)			
Measurement Frequency	50/60 Hz			
W Accuracy	Better than 0.5% (PF=1; -005 Input Current >0.5A; -100 Input Current >1.5A; -160 Input Current >3A; -240 Input Current >3.5A; -360 Input Current >7A; -400 Input Current >10A).			
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 (45 to 65 Hz)			
Data Update Rate	1 Second			
<b>Communication</b>				
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 VDC	-	-
Ethernet (PoE)	Protocol	-	Modbus TCP	EtherNet/IP
	Isolation	-	-	-
CANopen	Protocol	-	-	CANopen
	Baud Rate	-	-	125 k (default), 250 k, 500 k, 1 M; DIP Switch Selectable
	Isolation	-	-	3000 VDC
<b>Alarm Output</b>				
Power Relay	Form A (Normal Open) x 2; Relay Contact Voltage Range: 5 A @ 250 VAC (47 to 63Hz), 5 A @ 30 VDC			
<b>Power</b>				
Power Input	+12 to 48 VDC	+12 to 48 VDC or PoE	+12 to 48 VDC	
Power Consumption	2 W			
<b>Environment</b>				
Temperature	Operating Temperature: -20 to +70 °C / Storage Temperature: -25 to +80 °C			
Ambient Relative Humidity	10% to 90% RH, Non-condensing			

## Appearance



## Dimensions (Units: mm)



## Selection Guide

**PM-3133 -**



CT dimensions (Max. Current)  
 005: CTΦ10 mm, 5 A Max.  
 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  
: Modbus TCP  
: 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-3133-005P CR	Modbus RTU, 3-phase power meter; includes 5A CT (Inside diameter 10 mm; wire lead 4 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-3133-005P-MTCP CR	Modbus TCP, 3-phase power meter; includes 5A CT (Inside diameter 10 mm; wire lead 4 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-3133-005P-CPS CR	CANopen, 3-phase power meter; includes 5A CT (Inside diameter 10 mm; wire lead 4 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)