



Features

- True RMS Power Measurements
- Energy Analysis for 3P4W, 3P3W, 1P3W, 1P2W
- Current Measurements Up to 300 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)
- Supports RS-485, Ethernet (PoE) or CANopen Interface
- Supports Modbus RTU, Modbus TCP or CANopen Protocol
- Supports 2 Power Relay Output (Form A)
- Total Harmonic Distortion (THD)
- IEC 61010-1and EN 61010-1



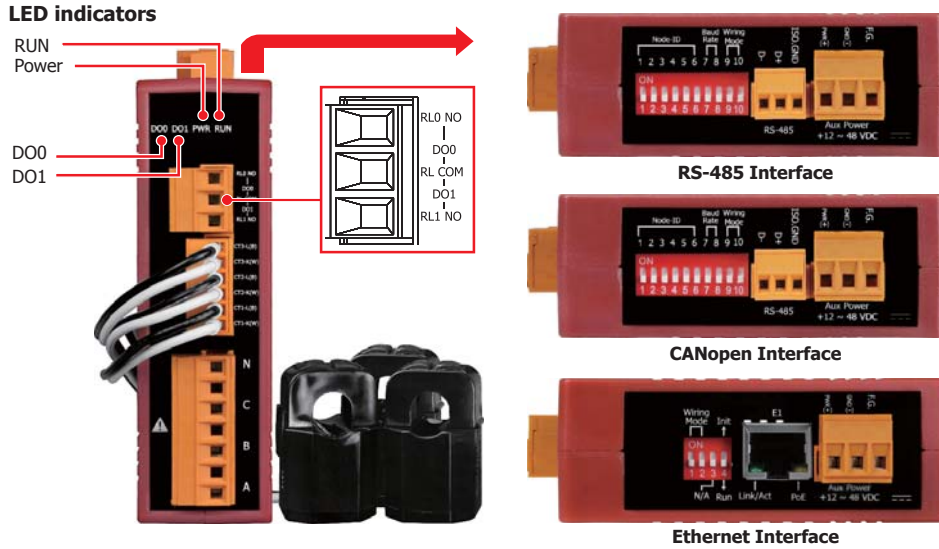
Introduction

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 three-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 300 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 or CANopen protocols for easy integration. You can use CT's that you currently own with PM-3133P (without CTs) Power Meter. The CT inputs of the PM-3133P can handle a maximum of 333mV of AC current.

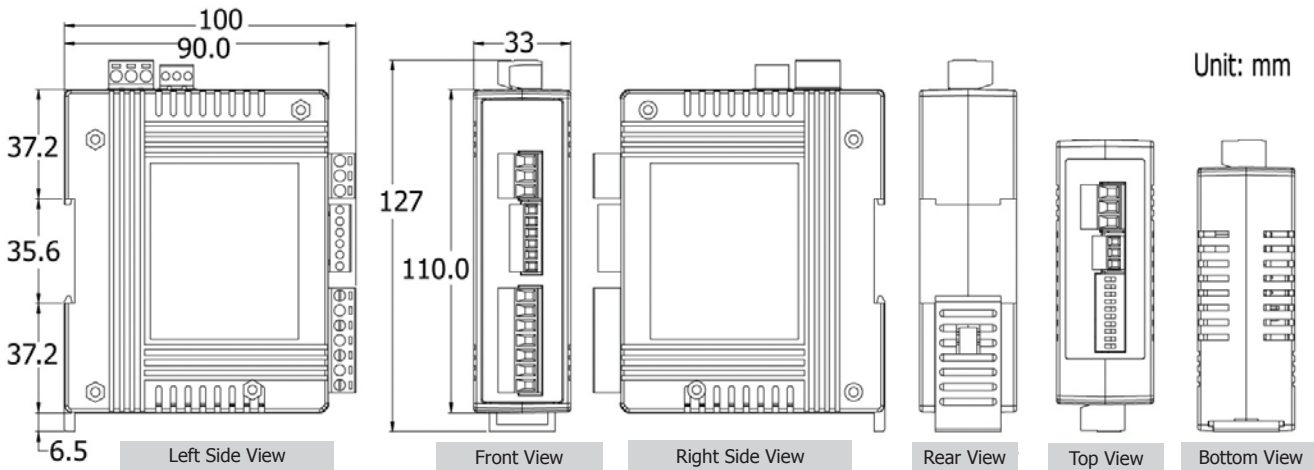
Specifications

Models	PM-3133P	PM-3133	PM-3133-MTCP	PM-3133-CPS
AC Power Measurement				
Wiring	3P4W-3CT, 3P3W-2CT, 3P3W-3CT, 1P2W-1CT, 1P3W-2CT			
Measurement Voltage	10 ~ 500 V			
Measurement Current	Compatible with CTs from 50 to 1200A (333mV output)	CTØ10 mm (60 A); CTØ16 mm (100 A); CTØ24 mm (200 A); CTØ36 mm (300 A)		
Measurement 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	-	-
	Isolation	2500 Vdc	-	-
Ethernet (PoE)	Protocol	-	Modbus TCP	-
CANopen	Protocol	-	-	CANopen
	Baud rate	-	-	125 k (default), 250 k, 500 k, 1 M; DIP Switch Selectable
	Isolation	-	-	2500 Vdc
Alarm Output				
Power Relay	Form A (Normal Open) x 2; Relay Contact Voltage Range: 5 A @ 250 VAC (47 ~ 63Hz), 5 A @ 30 Vdc			
Power				
Power Input	+12 ~ 48 Vdc		+12 ~ 48 Vdc or PoE	+12 ~ 48 Vdc
Power Consumption	4 W			
Mechanical				
Casing	Plastic			
Dimensions (W x L x H)	127 mm x 105 mm x 33 mm			
Module Installation	DIN-Rail Mounting			
CT Installation	Clip-On			
Environment				
Operating Temperature	-10 ~ +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 X** - **X X X**

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

Current Transformers (Secondary voltage 333mV)

Communication
 □: RS-485
 □: CANopen
 □: Modbus TCP

Note: 333mV CT resistor built-in, 333 mV voltage output at rated full scale current, no shorting blocks needed.

Ordering Information

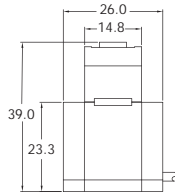
RS-485 Interface	
PM-3133P	Modbus RTU, 3-phase power meter (Compatible with CTs from 50 to 2400A/333mV output)
PM-3133-100	Modbus RTU, 3-phase power meter (60 A)
PM-3133-160	Modbus RTU, 3-phase power meter (100 A)
PM-3133-240	Modbus RTU, 3-phase power meter (200 A)
PM-3133-360P	Modbus RTU, 3-phase power meter (300 A)

Ethernet Interface (NEW)	
PM-3133-100-MTCP	Modbus TCP, 3-phase power meter (60 A)
PM-3133-160-MTCP	Modbus TCP, 3-phase power meter (100 A)
PM-3133-240-MTCP	Modbus TCP, 3-phase power meter (200 A)
CANopen Interface (NEW)	
PM-3133-100-CPS	CANOpen, 3-phase power meter (60 A)
PM-3133-160-CPS	CANOpen, 3-phase power meter (100 A)
PM-3133-240-CPS	CANOpen, 3-phase power meter (200 A)

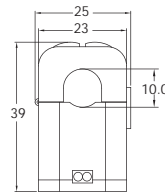
• CT for Smart Power Meter

■ Dimensions (Units: mm)

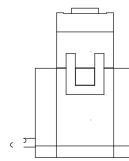
100: CTΦ10mm (60 A Max.)



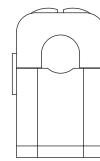
Left View



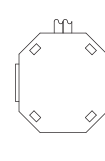
Front View



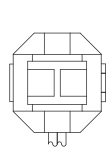
Right View



Rear View

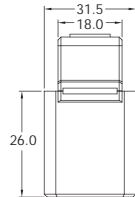


Bottom View

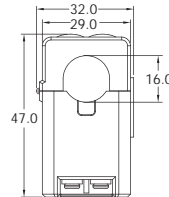


Top View

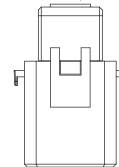
160: CTΦ16mm (100 A Max.)



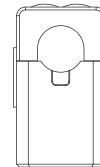
Left View



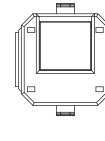
Front View



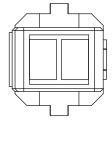
Right View



Rear View

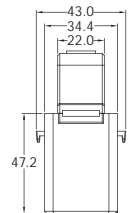


Bottom View

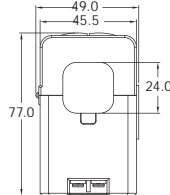


Top View

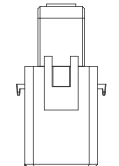
240: CTΦ24mm (200 A Max.)



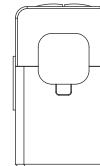
Left View



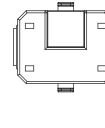
Front View



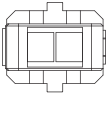
Right View



Rear View

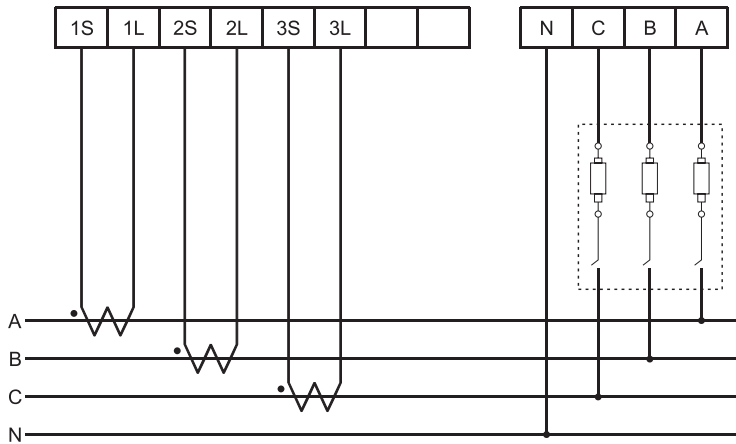


Bottom View



Top View

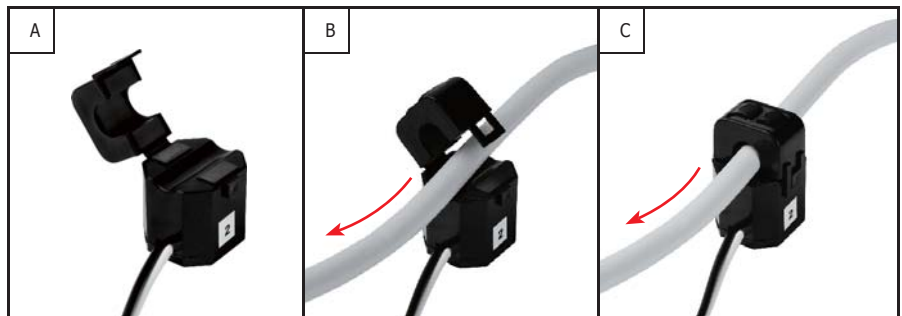
■ Wiring for 3P4W-3CT



■ Installation



DIN-Rail Mounting



Clip-on CT Installation