

Three-phase Smart Power Meter



PM-3133/-MTCP/-CPS

Features:

- 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)
- 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 61010-1 and EN 61010-1

Introduction:

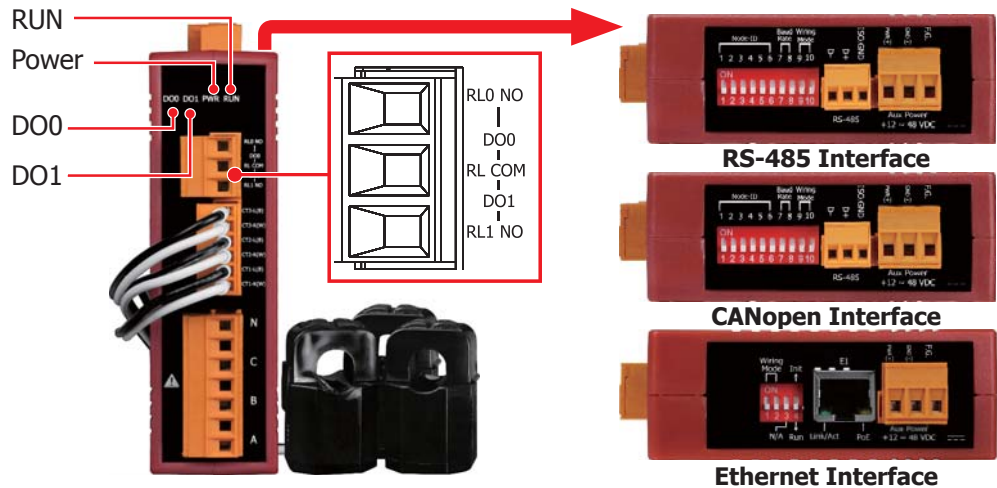
ICP DAS brings the most powerful, cost-effective, advanced Smart Power Meters PM-3133 series that gives you access to real-time electric usage for three-phase power measurement. With its high accuracy (<0.5%, PF=1), the PM-3133 series can be applied to both low voltage primary side and/or medium/high voltage secondary side and enables the users to obtain reliable and accurate energy consumption readings from the monitored 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 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 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:

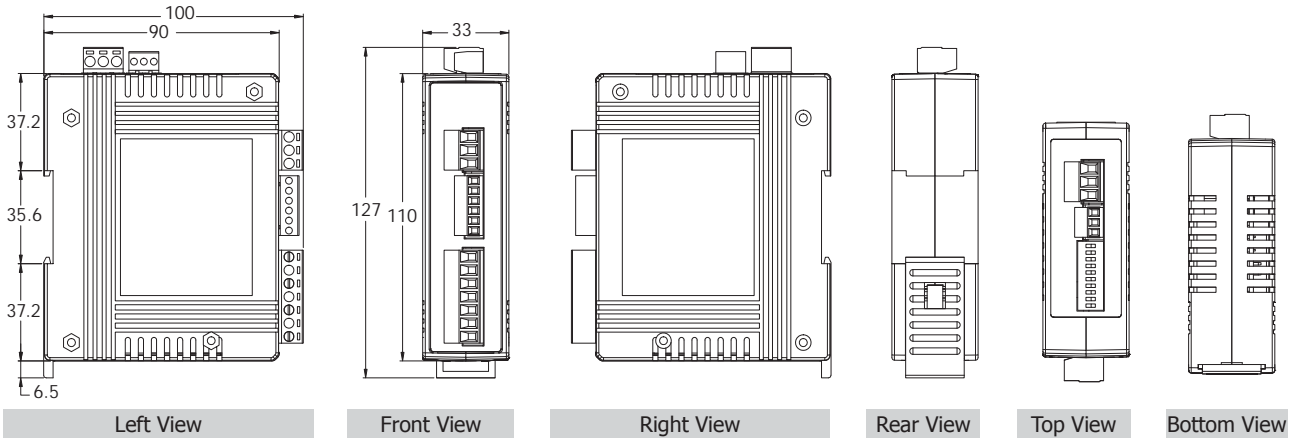
Models	PM-3133	PM-3133-MTCP	PM-3133-CPS
AC Power Measurement			
Wiring	3P4W-3CT, 3P3W-2CT, 3P3W-3CT, 1P2W-1CT, 1P3W-2CT		
Measurement Voltage	10 ~ 500 V		
Measurement Current	CTØ10 mm (60 A); CTØ16 mm (100 A); CTØ24 mm (200 A); CTØ36 mm (300 A); CTØ36 mm (400 A)		
Measurement Frequency	50/60 Hz		
W Accuracy	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	3000 VDC	-
Ethernet (PoE)	Protocol	-	Modbus TCP
	Protocol	-	-
CANopen	Protocol	-	CANopen
	Baud rate	-	125 k (default), 250 k, 500 k, 1 M; DIP Switch Selectable
	Isolation	-	3000 VDC
Alarm Output			
Power Relay	Form A (Normal Open) × 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	2 W		
Environment			
Temperature	Operating Temperature: -20 ~ +70°C / Storage Temperature: -25 ~ +80°C		
Ambient Relative Humidity	10% ~ 90% RH, Non-condensing		

Appearance:

LED indicators



Dimensions (Units: mm):



Selection Guide:

PM-3133 - X X X P - 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.
 400P: CTΦ36 mm, 400 A Max.

**Current Transformers
 (Secondary voltage 333mV)**

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

Ordering Information:

RS-485 Interface	
PM-3133P	Modbus RTU, 3-phase power meter (Compatible with CTs from 50 to 1000 A/333 mV 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)
PM-3133-400P	Modbus RTU, 3-phase power meter (400 A)

Ethernet Interface	
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)
PM-3133-360P-MTCP	Modbus TCP, 3-phase power meter (300 A)
PM-3133-400P-MTCP	Modbus TCP, 3-phase power meter (400 A)

CANopen Interface	
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)
PM-3133-360P-CPS	CANopen, 3-phase power meter (300 A)
PM-3133-400P-CPS	CANopen, 3-phase power meter (400 A)