



PM-3133

3 Phase Smart Power Meter

Features

- True RMS Power Measurements
- Energy Analysis for 3P4W, 3P3W, 1P3W, 1P2W
- Current Measurements Up to 200 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 or CAN bus Interface
- Supports Modbus RTU, Modbus TCP or CANopen Protocol
- Supports 2 Power Relay Output (Form A)



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 200 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 CAN bus protocols for easy integration.

Specifications

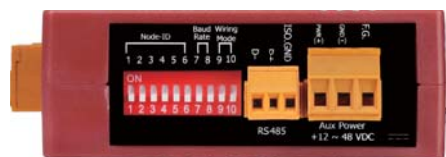
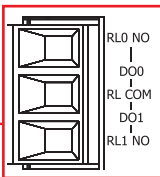
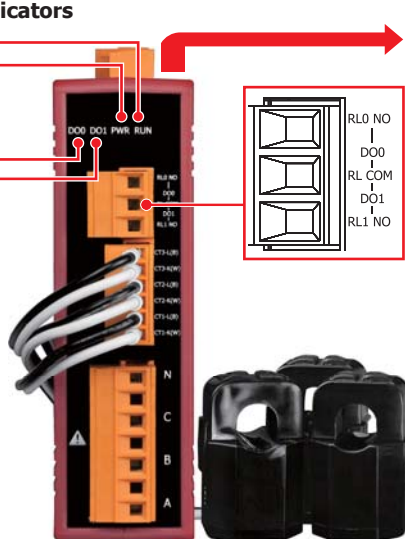
Models		PM-3133	PM-3133-MTCP	PM-3133-CAN
				PM-3133-CPS
AC Power Measurement				
Wiring		3P4W-3CT, 3P3W-2CT, 3P3W-3CT, 1P2W-1CT, 1P3W-2CT		
Input Voltage		10 ~ 500 V		
Input Current		CTØ10 mm (60 A); CTØ16 mm (100 A); CTØ24 mm (200 A)		
Input Frequency		50/60 Hz		
W Accuracy		Better than 0.5% (PF=1)		
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)		
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	Protocol	-	Modbus TCP	-
CAN Bus	Protocol	-	-	CAN and 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				
Input Range		+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

LED indicators

RUN
Power

DO0
DO1



RS-485 Interface

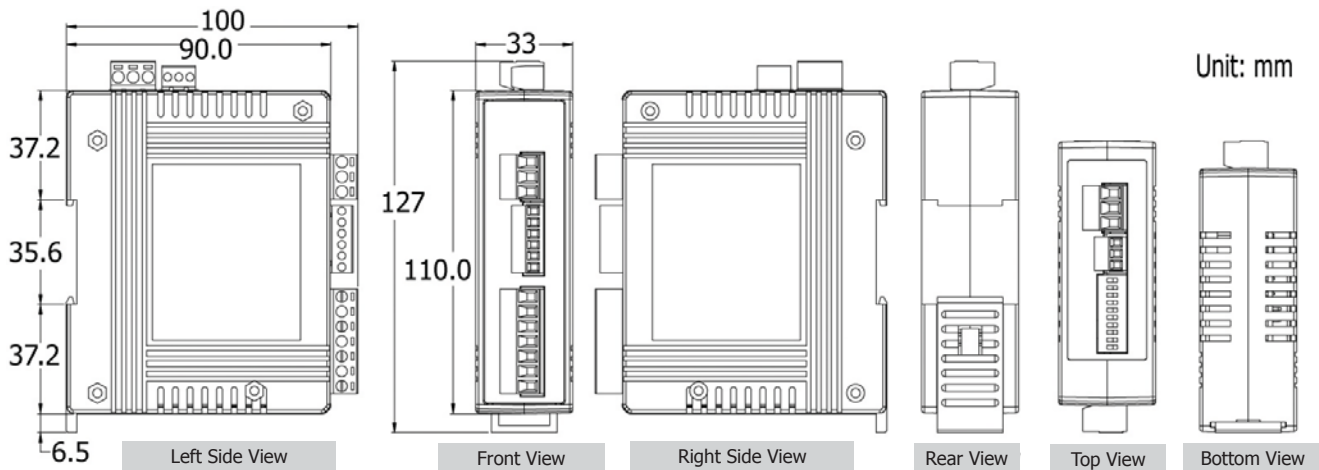


CAN Bus/CANopen Interface



Ethernet Interface

Dimensions (Units: mm)



Selection Guide

PM-3133

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CT size (measurement)

100: CTΦ10 mm (0 ~ 60 A)
160: CTΦ16 mm (0 ~ 100 A)
240: CTΦ24 mm (0 ~ 200 A)

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Communication

□: RS-485
CAN: CAN Bus
CPS: CANopen
MTCP: Modbus TCP

Ordering Information

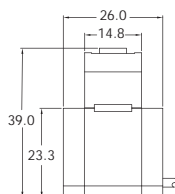
RS-485 Interface	
PM-3133-100	Modbus RTU, 3-phase power meter (60 A)
PM-3133-160	Modbus RTU, 3-phase power meter (100 A)
PM-3133-240	Modbus RTU, 3-phase power meter (200 A)
Ethernet Interface (Available soon)	
PM-3133-100-MTCP	Modbus TCP, 3-phase power meter (60 A)
PM-3133-160-MTCP	Modbus TCP, 3-phase power meter (100 A)
PM-3133-240-MTCP	Modbus TCP, 3-phase power meter (200 A)

CAN Bus Interface (Available soon)	
PM-3133-100-CAN	CAN Bus, 3-phase power meter (60 A)
PM-3133-160-CAN	CAN Bus, 3-phase power meter (100 A)
PM-3133-240-CAN	CAN Bus, 3-phase power meter (200 A)
CANopen Interface (Available soon)	
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)

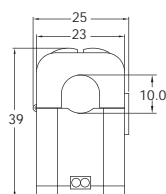
• CT for Smart Power Meter

■ Dimensions (Units: mm)

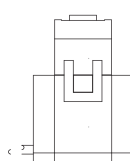
100: CTΦ10mm (0~60A)



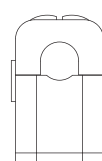
Left View



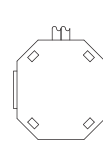
Front View



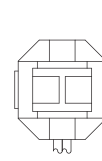
Right View



Rear View

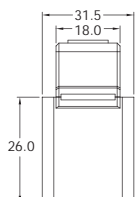


Bottom View

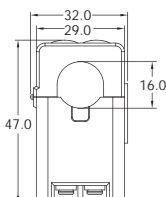


Top View

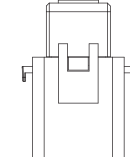
160: CTΦ16mm (0~100A)



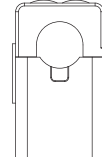
Left View



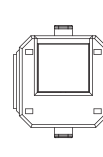
Front View



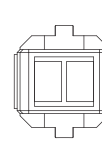
Right View



Rear View

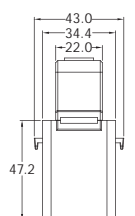


Bottom View

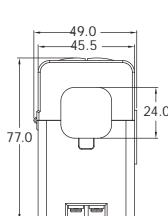


Top View

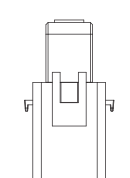
240: CTΦ24mm (0~200A)



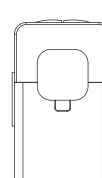
Left View



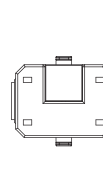
Front View



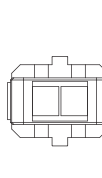
Right View



Rear View

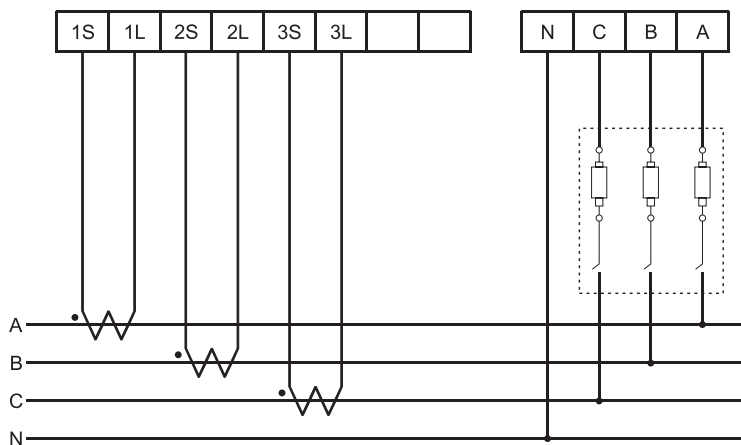


Bottom View



Top View

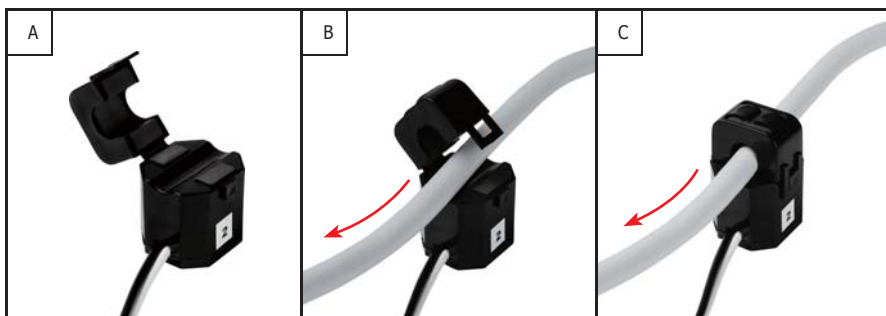
■ Wiring for 3P4W-3CT



■ Installation



DIN-Rail Mounting



Clip-on CT Installation