

Smart Power Meter



Features

- True RMS Power Measurements
- Energy Analysis for 3P4W, 3P3W, 1P3W, 1P2W
- Direct input of secondary side 1A/5A CT
- Voltage Measurements Up to 500 V
- W Accuracy Better than 0.5% (PF= 1)
- Supports RS-485, Ethernet (PoE) or CANopen Interface
- Supports Modbus RTU, Modbus TCP or CANopen Protocol
- Total Harmonic Distortion (THD)
- IEC 61010-1 and EN 61010-1



Introduction

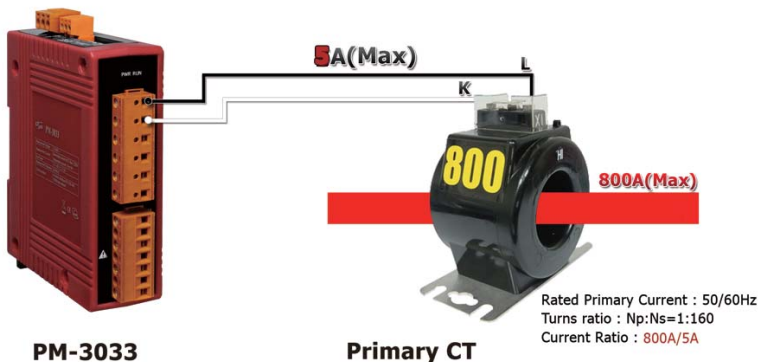
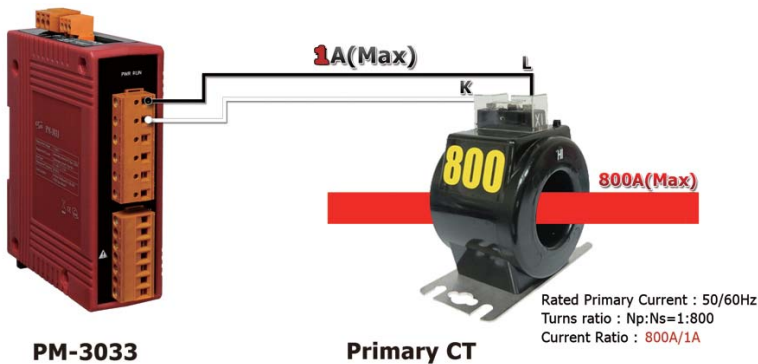
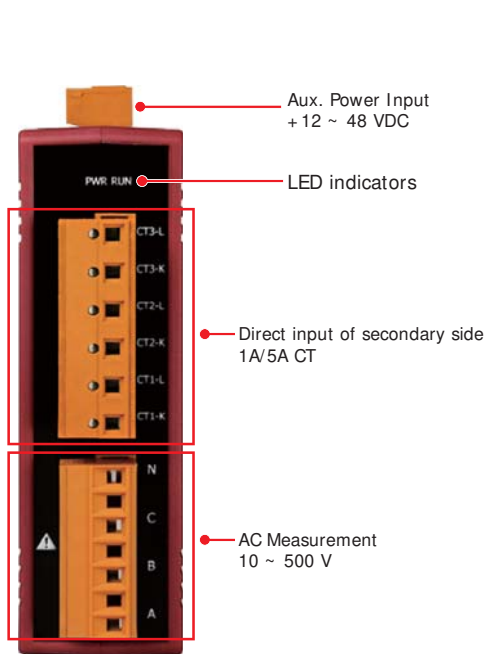
ICP DAS brings the most powerful, cost-effective, advanced Smart Power Meters PM-3033 series that gives you access to real-time electric usage for three-phase power measurement. With its high accuracy ($< 0.5\%$, $PF=1$), the PM-3033 series can be applied to both low voltage primary side and/or medium/high voltage secondary side and enables the users to obtain reliable and accurate energy consumption readings from the monitored equipments in real time under operation.

Direct input from "secondary side 1A/5A" type CTs. Dedicated CTs are no longer needed, which lowers the cost of implementation. It operates over a wide input voltages range 10 ~ 500 VAC which allows worldwide compatibility. It also supports Modbus RTU, Modbus TCP or CANopen protocols for easy integration.

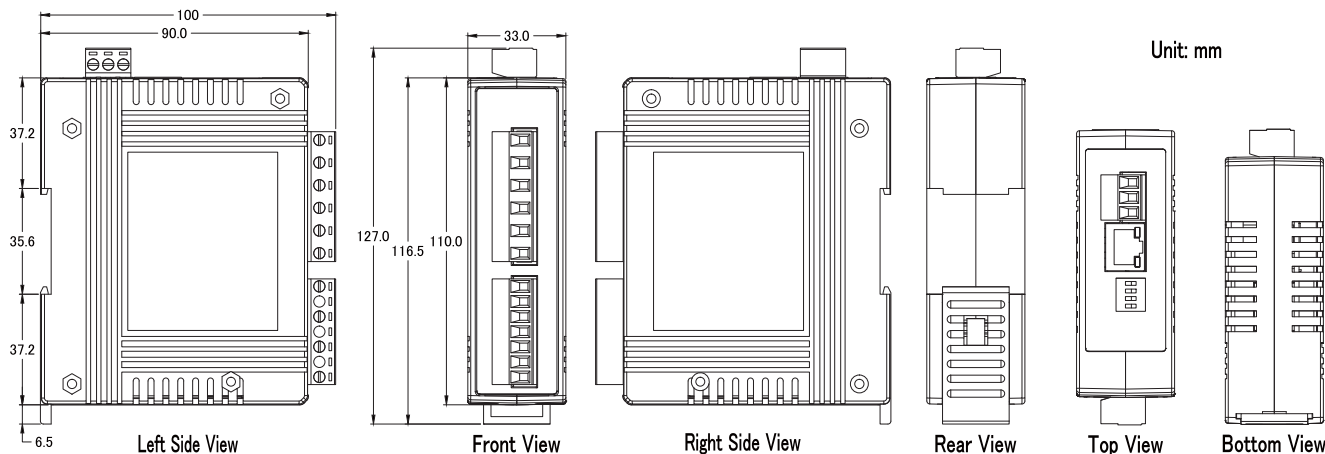
Specifications

Models		PM-3033	PM-3033-MTCP	PM-3033-CPS
AC Power Measurement				
Wiring		3P4W-3CT, 3P3W-2CT, 3P3W-3CT, 1P2W-1CT, 1P3W-2CT		
Measurement Voltage		10 ~ 500 V		
Measurement Current		1A or 5A		
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 (default); N,8,2; E,8,1; E,8,2; O,8,1; O,8,2	-	-
	Isolation	3000 VDC	-	-
Ethernet (PoE)	Protocol	-	Modbus TCP	-
CANopen	Protocol	-	-	CANopen
	Baud rate	-	-	125 k (default), 250 k, 500 k, 1 M; DIP Switch Selectable
	Isolation	-	-	3000 VDC
Power				
Power Input		+ 12 ~ 48 VDC	+ 12 ~ 48 VDC or PoE	+ 12 ~ 48 VDC
Power Consumption		2 W		
Mechanical				
Casing		Plastic		
Dimensions (W x L x H)		127 mm x 100 mm x 33 mm		
Module Installation		DIN-Rail Mounting		
Environment				
Operating Temperature		-20 ~ +70 °C		
Storage Temperature		-25 ~ +80 °C		
Ambient Relative Humidity		10% ~ 90% RH, Non-condensing		

CT Installation and Wiring



Dimensions (Units: mm)



Selection Guide

PM-3033 -



Communication
 RS-485
 CANopen
 Modbus TCP

Ordering Information

RS-485 I Interface	
PM-3033	Modbus RTU, 3-phase power meter (1A/5A CT Input type)
Ethernet I Interface	
PM-3033-MTCP	Modbus TCP, 3-phase power meter (1A/5A CT Input type)
CANopen Interface	
PM-3033-CPS	CANopen, 3-phase power meter (1A/5A CT Input type)