

PM-2133D-RCT

3-Phase Smart Power Meter with LED Display

Features

- Bi-directional Energy
- True RMS Power Measurements
- Energy Analysis for 3P4W, 3P3W, 1P3W, 1P2W
- Current Measurements Up to 4000 A
- Voltage Measurements Up to 500 V
- Rogowski Coil Soft CT for Easy Installation
- W Accuracy Better than 2% (PF=1; Input Current >50A; for -500P and -1000P)
  W Accuracy Better than 2% (PF=1; Input Current >200A; for -2000P and -4000P)
- Total Harmonic Distortion (THD)
- 8-Digit LED Display

Introduction

ICP DAS brings the most powerful, cost-effective Smart Power Meters PM-2133D-RCT series that access real-time electric usage for three-phase power measurement. The PM-2133D-RCT series can be applied to the 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. In addition to its compact size and cost performance, the additional Rogowski Coil CT is suitable for high current measurements from 500A to 4000A, large wire diameters (e.g. busway conductor), and for installation in tight spaces. It operates over a wide input voltage range of 10 ~ 500 VAC which allows worldwide compatibility. It operates over a wide input voltages range 10 ~ 500 VAC which allows worldwide compatibility. This meter has LED display shows power.

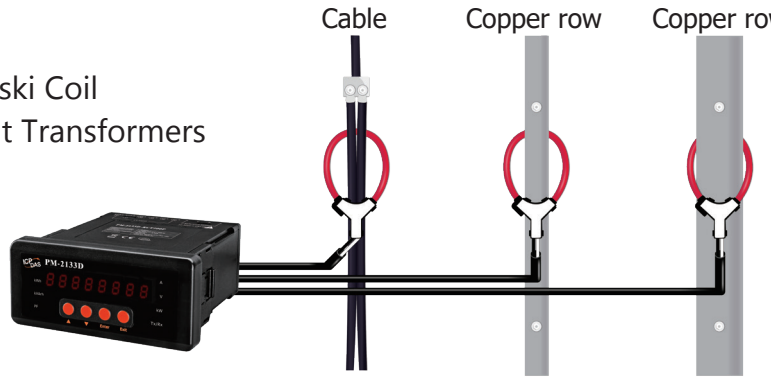
Specifications

Models	PM-2133D-RCT	PM-2133D-RCT-MTCP
AC Power Measurement		
Wiring	3P4W-3CT, 3P3W-2CT, 3P3W-3CT, 1P2W-1CT, 1P3W-2CT	
Loops	3-phase: 1; 1-phase: 3 @ 1P2W-1CT, 1 @ 1P3W-2CT	
Measurement Voltage	10 to 500 V	
Measurement Current	CTØ55 mm (5 A to 500 A), CTØ80 mm (5 A to 1000 A), CTØ105 mm (5 A to 2000 A), CTØ185 mm (5 A to 4000 A)	
Measurement Frequency	50/60 Hz	
W Accuracy	Better than 2% (PF=1)	
Power Parameter Measurement	True RMS voltage (V_{rms}), True RMS current (I_{rms}), 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		
Interface	RS-485	Ethernet
Protocol	Modbus-RTU	Modbus TCP
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 V_{DC}	-
Power		
Power Input	+85 ~ +264 VAC (277 VAC available)	
Power Consumption	6 W	
Environment		
Temperature	Operating Temperature: -20 to +70°C / Storage Temperature: -25 to +80 °C	
Ambient Relative Humidity	10% to 90% RH, Non-condensing	

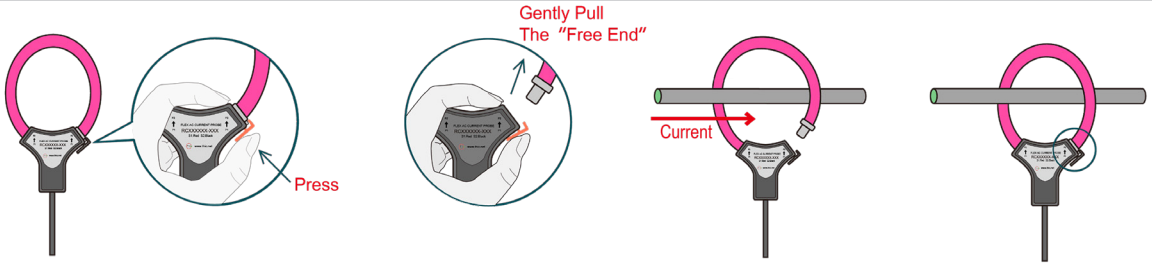
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Installation

Rogowski Coil
Flexible Current Transformers



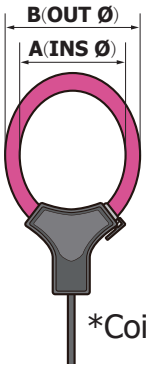
Rogowski Coil CT is "ropestyle" which delivers "Easy Installation" features for large window size and mechanical flexibility for tight space.



Rogowski Coil Soft CT Installation

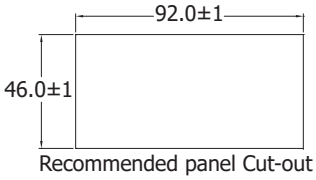
CT Dimensions (Units: mm)

Models	A (Inside diameter)	B (Outer diameter)
PM-2133D-RCT500P	55 mm	68 mm
PM-2133D-RCT1000P	80 mm	93 mm
PM-2133D-RCT2000P	105 mm	118 mm
PM-2133D-RCT4000P	185 mm	199 mm



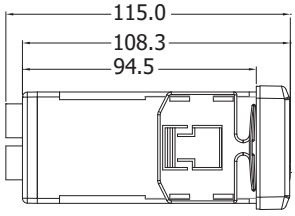
*Coil Cross Section 6.5mm

Dimensions (Units: mm)

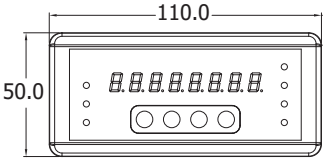


Recommended panel Cut-out

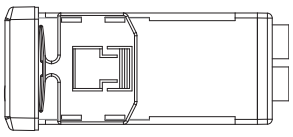
Recommended Panel Cut-Out



Left View



Front View



Right View

Ordering Information

RS-485 Interface (Modbus RTU)	
PM-2133D-RCT500P CR	Modbus RTU, 3-phase power meter with LED Display, 500A Rogowski Coil CT (Ø55 mm; wire lead 4 m) x 3 (RoHS)
PM-2133D-RCT1000P CR	Modbus RTU, 3-phase power meter with LED Display, 1000A Rogowski Coil CT (Ø80 mm; wire lead 4 m) x 3 (RoHS)
PM-2133D-RCT2000P CR	Modbus RTU, 3-phase power meter with LED Display, 2000A Rogowski Coil CT (Ø105 mm; wire lead 4 m) x 3 (RoHS)
PM-2133D-RCT4000P CR	Modbus RTU, 3-phase power meter with LED Displays, 4000A Rogowski Coil CT (Ø185 mm; wire lead 4 m) x 3 (RoHS)

Ethernet Interface (Modbus TCP)	
PM-2133D-RCT500P-MTCP CR	Modbus TCP, 3-phase power meter with LED Display, 500A Rogowski Coil CT (Ø55 mm; wire lead 4 m) x 3 (RoHS)
PM-2133D-RCT1000P-MTCP CR	Modbus TCP, 3-phase power meter with LED Display, 1000A Rogowski Coil CT (Ø80 mm; wire lead 4 m) x 3 (RoHS)
PM-2133D-RCT2000P-MTCP CR	Modbus TCP, 3-phase power meter with LED Display, 2000A Rogowski Coil CT (Ø105 mm; wire lead 4 m) x 3 (RoHS)
PM-2133D-RCT4000P-MTCP CR	Modbus TCP, 3-phase power meter with LED Display, 4000A Rogowski Coil CT (Ø185 mm; wire lead 4 m) x 3 (RoHS)

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