

PM-3133-RCT
Three-phase Smart Power Meter

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)
- Total Harmonic Distortion (THD)
- Supports RS-485, Ethernet (PoE) or CANopen Interface
- Supports Modbus RTU, Modbus TCP, CANopen, or EtherNet/IP Protocol
- Supports 2 Power Relay Output (Form A)
- IEC 61010-1 and EN 61010-1
- Multiple Data Format



ICP DAS brings the most powerful, cost-effective, advanced Smart Power Meters PM-3133-RCT that gives you access to real-time electric usage for three-phase power measurement. With its high accuracy (<2%, PF=1; Input Current >50 A), this series can be used to both low voltage primary side and 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 monitoring equipment with Rogowski Coil CT is "rope-style" Current Transformer which delivers "Easy Installation" features for large window size (55 ~ 185 mm) and mechanical flexibility for tight space.

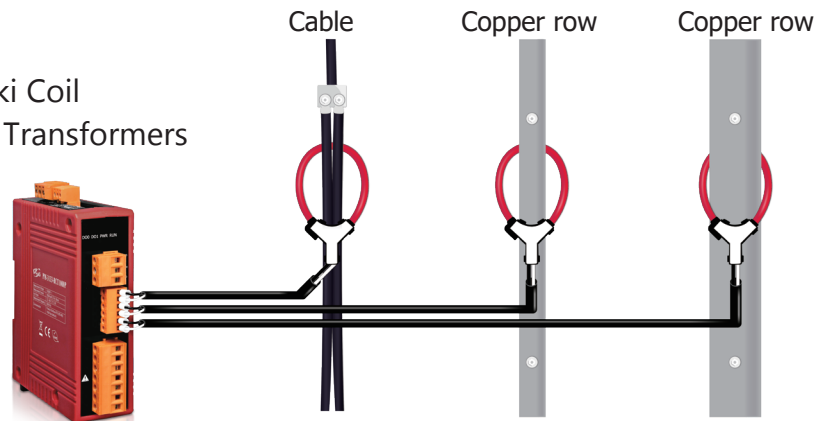
It operates over a wide range of input voltages 10 ~ 500 V_{AC} which allows universal compatibility. Also, with 2 channels relay outputs, it can be linked with sirens or lightings for alarm messages. It also supports Modbus RTU, Modbus TCP, CANopen or EtherNet/IP protocols for easy integration.

Specifications

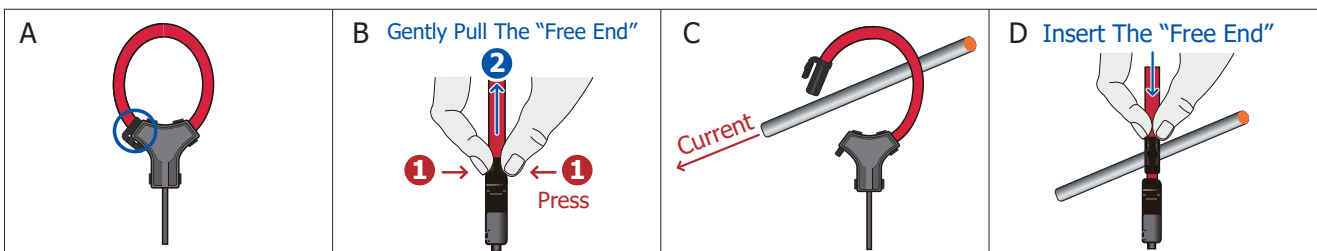
Models	PM-3133-RCT	PM-3133-RCT-MTCP	PM-3133-RCT-EIP	PM-3133-RCT-CPS
AC Power Measurement				
Wiring	3P4W-3CT, 3P3W-2CT, 3P3W-3CT, 1P2W-1CT, 1P3W-2CT			
Measurement Voltage	10 ~ 500 V			
Measurement Current	CTØ55 mm (5 A ~ 500 A), CTØ80 mm (5 A ~ 1000 A), CTØ105 mm (5 A ~ 2000 A), CTØ185 mm (5 A ~ 4000 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 (PoE)		CANopen
Protocol	Modbus-RTU	Modbus TCP	EtherNet/IP	CANopen
Baud Rate	9600,19200 (default), 38400, 115200; DIP Switch Selectable	-		125 k (default), 250 k, 500 k, 1 M; 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}	-		3000 V _{DC}
Alarm Output				
Power Relay	Form A (Normal Open) × 2; Relay Contact Voltage Range: 5 A @ 250 V _{AC} (47 ~ 63Hz), 5 A @ 30 V _{DC}			
Power				
Power Input	+12 ~ 48 V _{DC}	+12 ~ 48 V _{DC} or PoE		+12 ~ 48 V _{DC}
Power Consumption	2 W			
Environment				
Temperature	Operating Temperature: -20 ~ +70 °C / Storage Temperature: -25 ~ +80 °C			
Ambient Relative Humidity	10% ~ 90% RH, Non-condensing			

Installation

Rogowski Coil Flexible Current Transformers

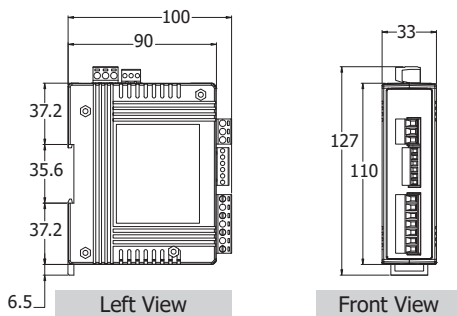


Rogowski Coil CT is "ropestyle" which delivers "Easy Installation" features for large window size and mechanical flexibility for tight space.



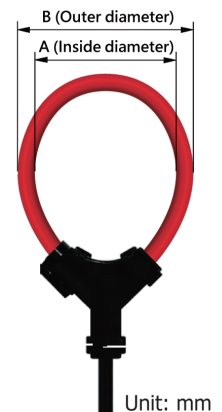
Rogowski Coil Soft CT Installation

Dimensions (Units: mm)



CT Dimensions (Units: mm)

Models	A (Inside diameter)	B (Outer diameter)
PM-3133-RCT500P	55 mm	68 mm
PM-3133-RCT1000P	80 mm	93 mm
PM-3133-RCT2000P	105 mm	118 mm
PM-3133-RCT4000P	185 mm	199 mm



Unit: mm

Ordering Information

RS-485 Interface (Modbus RTU)	
PM-3133-RCT500P CR	Modbus RTU, 3-phase power meter, 500A Rogowski Coil CT (Inside diameter 55 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT1000P CR	Modbus RTU, 3-phase power meter, 1000A Rogowski Coil CT (Inside diameter 80 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT2000P CR	Modbus RTU, 3-phase power meter, 2000A Rogowski Coil CT (Inside diameter 105 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT4000P CR	Modbus RTU, 3-phase power meter, 4000A Rogowski Coil CT (Inside diameter 185 mm; wire lead 4 m) x 3 (RoHS)

Ethernet Interface (Modbus TCP)	
PM-3133-RCT500P-MTCP CR	Modbus TCP, 3-phase power meter, 500A Rogowski Coil CT (Inside diameter 55 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT1000P-MTCP CR	Modbus TCP, 3-phase power meter, 1000A Rogowski Coil CT (Inside diameter 80 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT2000P-MTCP CR	Modbus TCP, 3-phase power meter, 2000A Rogowski Coil CT (Inside diameter 105 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT4000P-MTCP CR	Modbus TCP, 3-phase power meter, 4000A Rogowski Coil CT (Inside diameter 185 mm; wire lead 4 m) x 3 (RoHS)

Ethernet Interface (EtherNet/IP)	
PM-3133-RCT500P-EIP CR	EtherNet/IP, 3-phase power meter, 500A Rogowski Coil CT (Inside diameter 55 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT1000P-EIP CR	EtherNet/IP, 3-phase power meter, 1000A Rogowski Coil CT (Inside diameter 80 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT2000P-EIP CR	EtherNet/IP, 3-phase power meter, 2000A Rogowski Coil CT (Inside diameter 105 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT4000P-EIP CR	EtherNet/IP, 3-phase power meter, 4000A Rogowski Coil CT (Inside diameter 185 mm; wire lead 4 m) x 3 (RoHS)

CAN bus Interface (CANopen)	
PM-3133-RCT500P-CPS CR	CANopen, 3-phase power meter, 500A Rogowski Coil CT (Inside diameter 55 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT1000P-CPS CR	CANopen, 3-phase power meter, 1000A Rogowski Coil CT (Inside diameter 80 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT2000P-CPS CR	CANopen, 3-phase power meter, 2000A Rogowski Coil CT (Inside diameter 105 mm; wire lead 4 m) x 3 (RoHS)
PM-3133-RCT4000P-CPS CR	CANopen, 3-phase power meter, 4000A Rogowski Coil CT (Inside diameter 185 mm; wire lead 4 m) x 3 (RoHS)