

PM-5133

3.5" Touchscreen 3-phase Smart Power Meter

Features

- Bi-directional Energy
- True RMS Power Measurements
- Energy Analysis for 3P4W, 3P3W, 1P3W, 1P2W
- W Accuracy Better than 0.5% (PF=1)
- Total Harmonic Distortion (THD)
- 3.5” High-resolution color touch screen
- Provides time-stamped power information logging function
- 1-hour demand trend display and contract capacity warning
- 2 Power Relay outputs triggered by defined alarm
- Offers 32 alarms or events information display

Introduction

The PM-5133 series is a touch-screen 3-phase smart power meter specifically designed for industrial automation and energy management applications. Featuring a 3.5-inch high-resolution color TFT touch screen, it enables users to intuitively monitor power data and control demand to comply with contracted capacity requirements, fulfilling the needs of carbon inventory reporting and ISO-50001 energy management. This product offers comprehensive power measurement capabilities, including a voltage range of up to 500VAC, support for open-type current transformers (CT) with input currents up to 400A, bi-directional kWh measurement, true RMS measurement, multi-wiring energy consumption analysis, and power measurement accuracy better than 0.5% (PF = 1). It also supports Total Harmonic Distortion (THD) measurement, ensuring high-precision and visualized energy management. Additionally, the PM-5133 series provides advanced power information logging with timestamps, 1-hour demand trend visualization, and contracted capacity pre-warning with relay alarm linkage. With support for 32 sets of event and alarm notifications, it enables flexible system integration and remote monitoring for optimized power management.

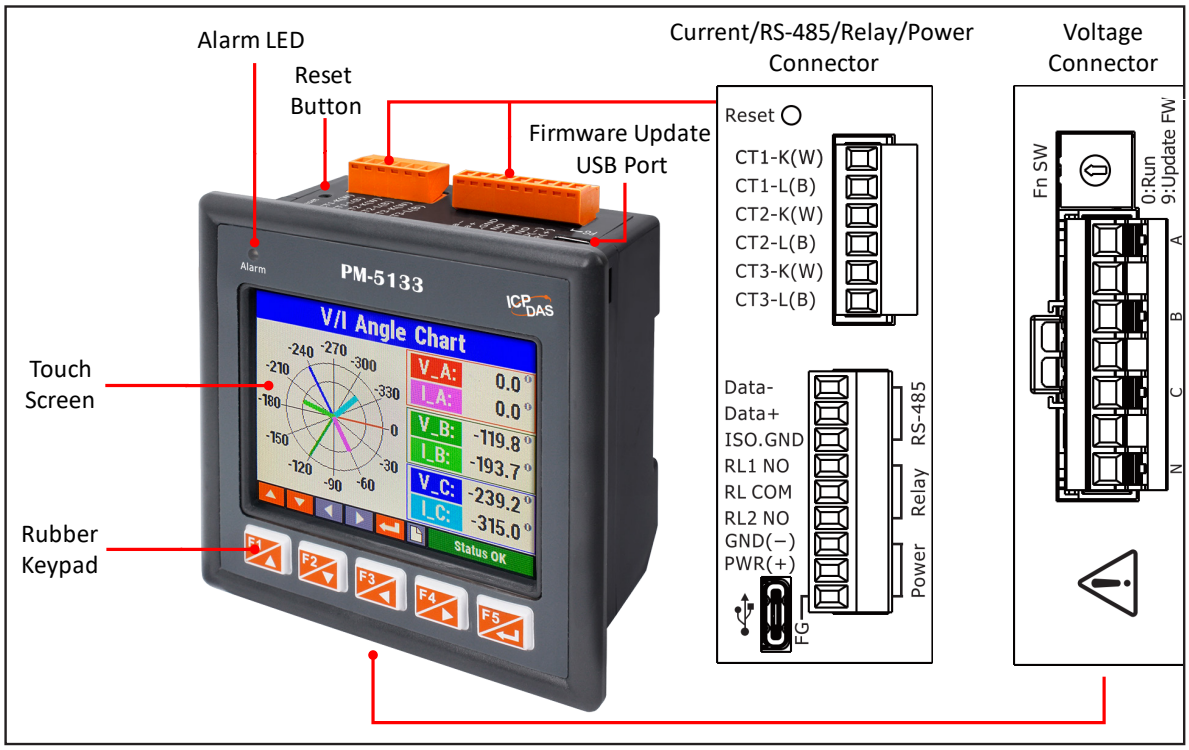
Specifications

System		
Real Time Clock(RTC)		Yes
Data Logger		
Time Stamp		Yes
Time Interval		1 second to 24 hours
Max. Records		638,586 records 7.39 days @ 1 second, 443 days @ 1 minute 24 power parameters per record (selectable)
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		-005 (0.05 A ~ 5 A); -100 (0.05 A ~ 60 A); -160 (0.1 A ~ 100 A) ; -240 (0.15 A ~ 200 A) ; -360 (0.3 A ~ 300 A) ; -400 (0.3 A ~ 400 A)
Measurement Frequency		50 Hz (Range 45 to 55 Hz)/ 60 Hz (Range 55 to 65 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 (45 to 65 Hz)
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
USB		Type C Connector; USB 1.1 Client (Firmware updates only)

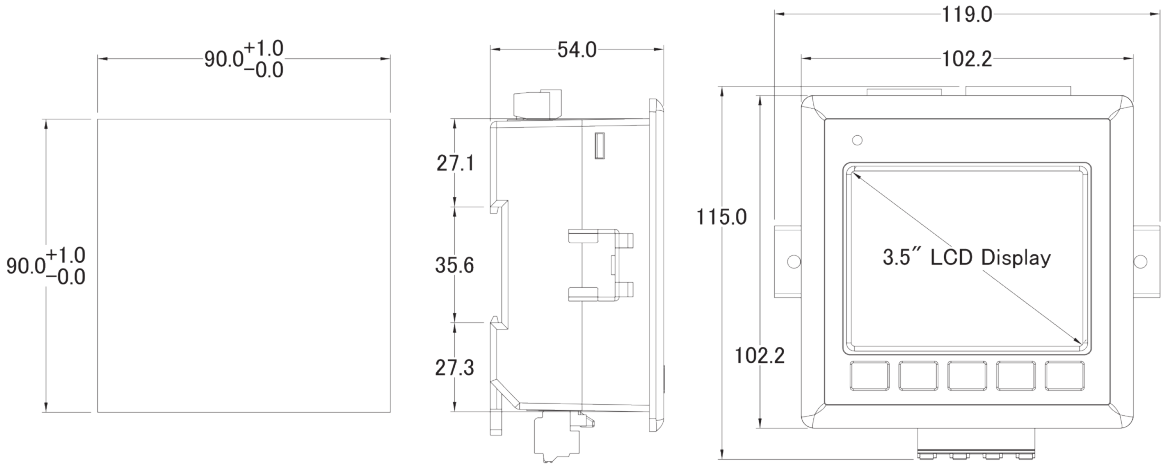
Alarm Output	
Power Relay	Form A (Normal Open) x 2; Relay Contact Voltage Range: 5 A @ 250 V_{AC} (47 to 63Hz), 5 A @ 30 V_{DC}
HMI	
LCD Display	3.5 TFT (Resolution 240 x 320, 65535 colors)
Backlight Life	20,000 hours
Brightness	270 cd/m2
LED Indicators	Yes, 1 Alarm LED
Touch Screen	Yes
Reset Button	Yes
Rotary Switch	Yes(Firmware updates only)
Rubber Keypad	5 keys(Programmable)
Buzzer	Yes
Power	
Power Input	+12 to 48 VDC
Power Consumption	3 W
Mechanical	
Casing	Plastic
Dimensions (mm)	119 x 115 x 54 (W x L x H)
Ingress Protection Rating	Front Panel: IP65
Installation	DIN-Rail Mounting and Panel Mounting
Panel Cut-out (mm)	90 x 90, +1/-0
Environment	
Temperature	Operating Temperature: -20 to +50 °C Storage Temperature: -25 to +80 °C
Humidity	10% to 90% RH, Non-condensing

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Appearance



Dimensions (Units: mm)



Ordering Information

RS-485 Interface	
PM-5133-005P CR	3.5" Touch LCD screen, Modbus RTU, 3-phase power meter; includes 5A CT (Inside diameter 10 mm; wire lead 4 m) x 3 (RoHS)
PM-5133-100P CR	3.5" Touch LCD screen, Modbus RTU, 3-phase power meter; includes 60A CT (Inside diameter 10 mm; wire lead 4 m) x 3 (RoHS)
PM-5133-160P CR	3.5" Touch LCD screen, Modbus RTU, 3-phase power meter; includes 100A CT (Inside diameter 16 mm; wire lead 4 m) x 3 (RoHS)
PM-5133-240P CR	3.5" Touch LCD screen, Modbus RTU, 3-phase power meter; includes 200A CT (Inside diameter 24 mm; wire lead 4 m) x 3 (RoHS)
PM-5133-360P CR	3.5" Touch LCD screen, Modbus RTU, 3-phase power meter; includes 300A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)
PM-5133-400P CR	3.5" Touch LCD screen, Modbus RTU, 3-phase power meter; includes 400A CT (Inside diameter 36 mm; wire lead 4 m) x 3 (RoHS)

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