



PM-5133-005P

3.5" Touchscreen 3-phase Smart Power Meter

Introduction

The PM-5133-005P is a touch-type 3-phase smart meter designed for industrial automation and energy management. Equipped with a 3.5" high resolution color TFT touch screen, users can intuitively monitor power information and control demand to meet contracted capacity requirements for carbon inventory and ISO-50001 energy management.

The product offers a full range of power measurement features, including a voltage range of up to 500VAC, 5A open current transformer (CT), bi-directional kWh measurement, RMS measurement, energy consumption analysis with multiple wiring options, and power measurement with an accuracy of better than 0.5% (PF=1). It supports Total Harmonic Distortion (THD) measurement to ensure high-precision energy management with visualization.

In addition, the PM-5133-005P features time-stamped power information logging, 1-hour demand trend display and contracted capacity alert with relay alarm linkage, 32 event and alarm information displays and the Modbus RTU protocol RS-485 interface, all of these features are helpful to predict and manage power demand in flexible system integration and remote monitoring applications.

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 | |
| Measurement Voltage | 10 to 500 V | |
| Measurement Current | 0.05 A to 5 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 | Mini-B Connector USB 1.1 Client (Firmware updates only) | |

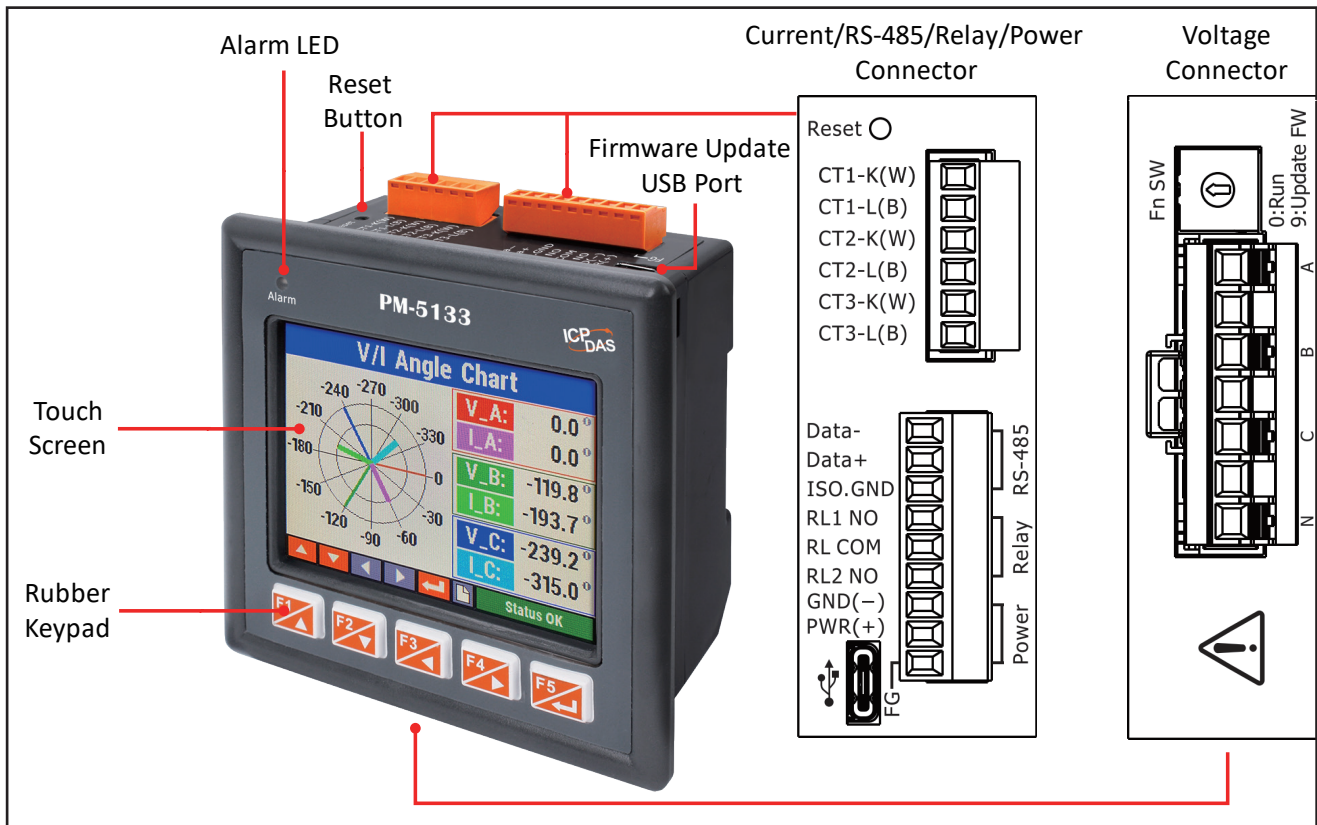
Features

- 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)
- 1 Modbus RTU communication interface
- 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

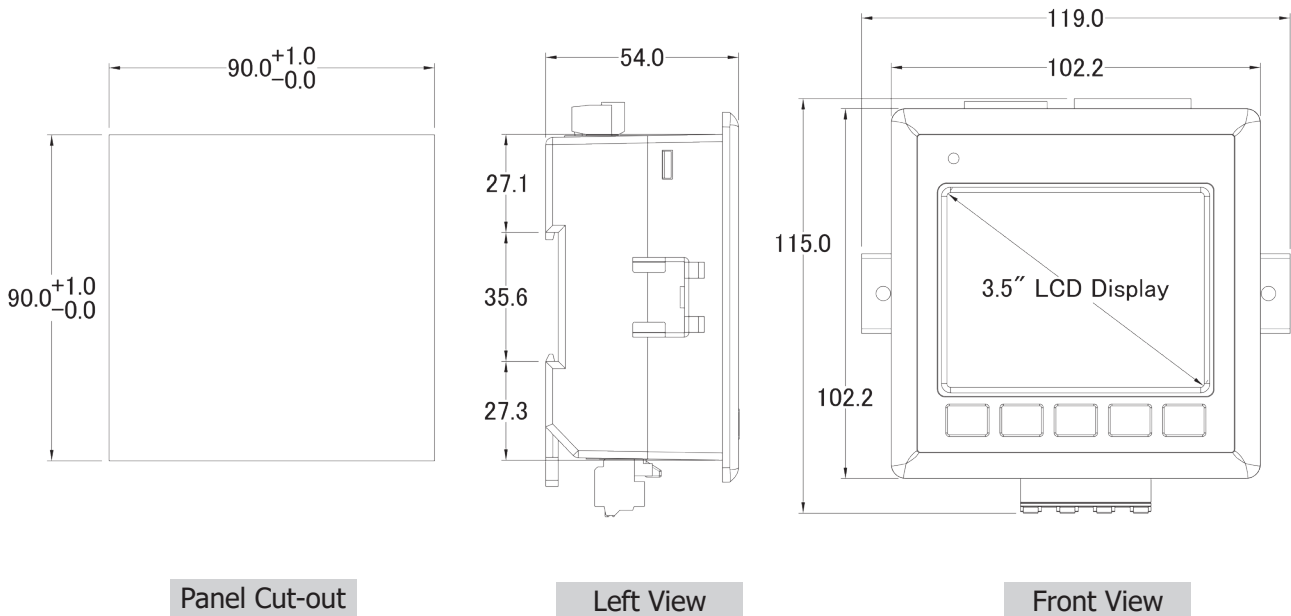


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|---------------------------|---|
| Alarm Output | |
| Power Relay | Form A (Normal Open) x 2; Relay Contact Voltage Range: 5 A @ 250 VAC (47 to 63Hz), 5 A @ 30 VDC |
| HMI | |
| LCD Display | 3.5 TFT (Resolution 240 x 320, 65535 colors) |
| Backlight 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 |

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)