Industrial Automation Technology
Innovator and Enhancer.

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Precision Power Monitoring & Energy Management

3.5” Touchscreen 3-Phase Smart Power Meter

Capture the Value of Every kWh

Move Toward Green Manufacturing

PM-5133

Built-in 3.5” Color Touchscreen (IP65)

Provides over 30 power information displays.

600,000 Data Records

Provides time-stamped power information for subsequent analysis.

Trend Display & Alerts

Display 1-hour demand trend and contracted capacity alerts.

25 Customized Alarm Conditions

Built-in dual relay alarm linkage to multiple alarm conditions for immediate response.

Introduction

The PM-5133 series is a touchscreen 3-phase smart meter specifically designed for industrial automation and energy management. Equipped with a 3.5'' color TFT touchscreen display, enables intuitive power monitoring, demand control, and compliance with carbon tracking and ISO-50001.

Manage Demand Trends Effectively

Real-time Alerts

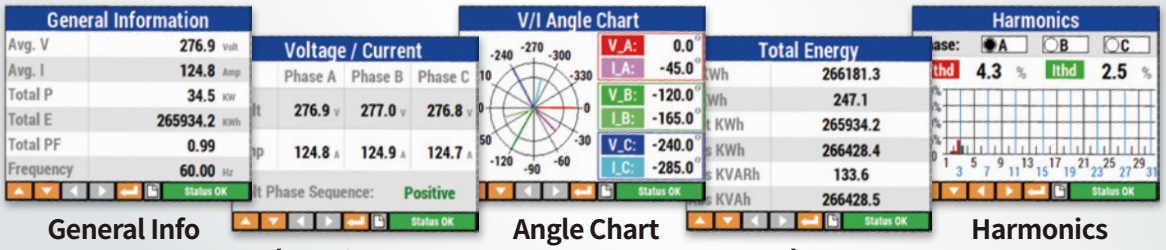
Flexible CT Options

Data Logging

PM-5133 Series

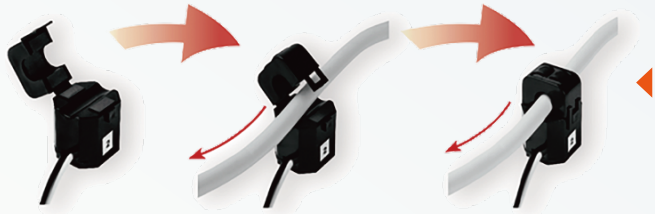
Over 30 power analysis pages, with a user-friendly experience

With a resistive touchscreen and physical buttons, it provides intuitive operation and displays 30+ color pages of power data and settings.



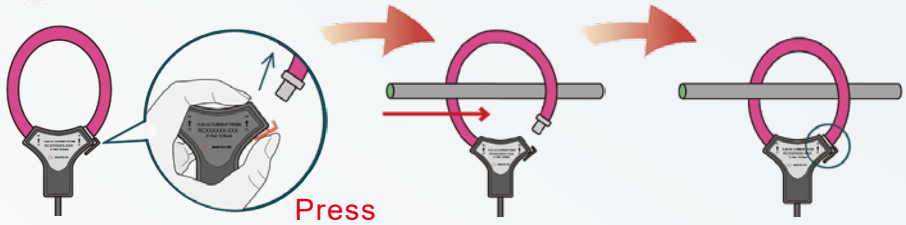
General Info | Phase Sequence | Angle Chart | Total Energy | Harmonics

Supports Various CT Models & Cable Diameters



Clip-on CT Installation
Φ10 ~ 36 mm, 5 ~ 400 A

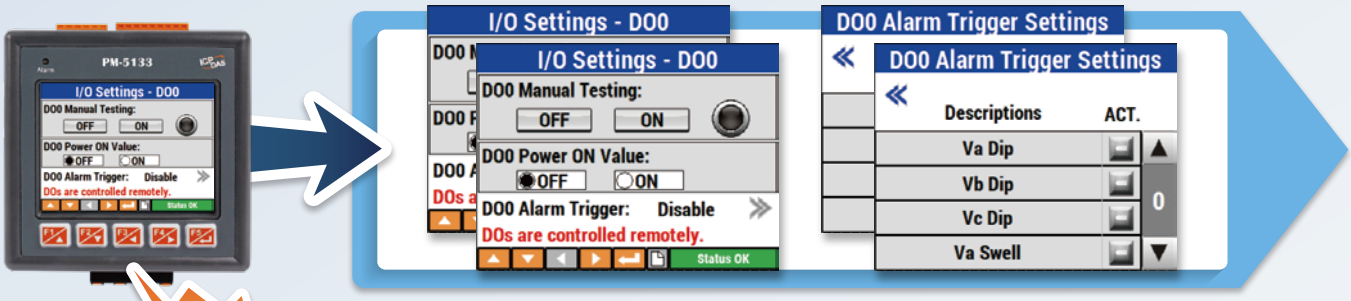
Rogowski Coil Installation
Φ55 ~ 185 mm, 500 ~ 4000 A
Coil Cross Section 6.5 mm

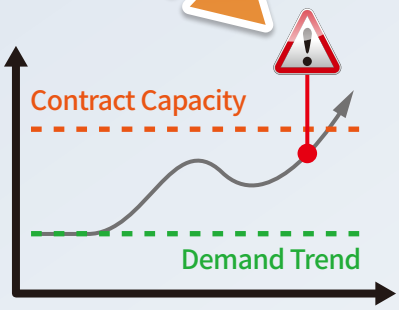


25 Alarm Conditions & Event Logs

In addition to real-time demand status and trend forecasts, the module' s HMI supports up to 25 alarm conditions. Its dual-relay design can trigger alarms or cut off the load when demand approaches preset thresholds, improving demand management. All alarm events are logged for later review.

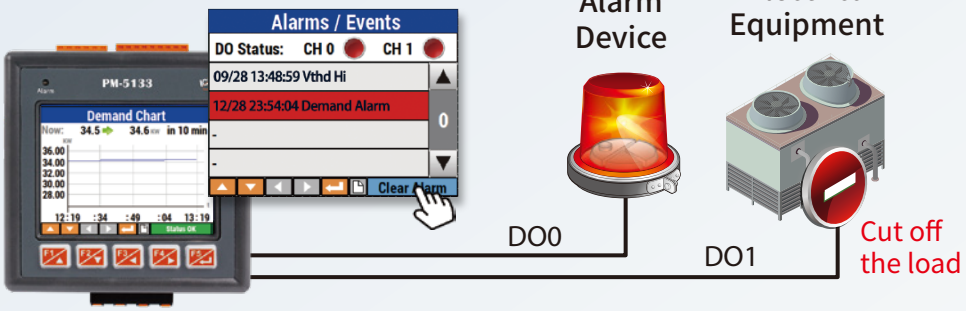
Alarm Condition Settings



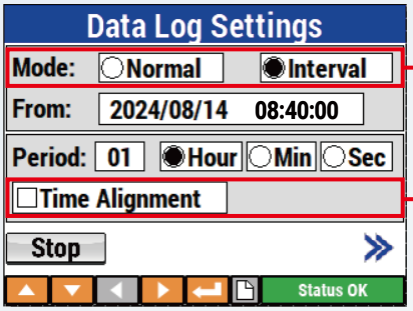


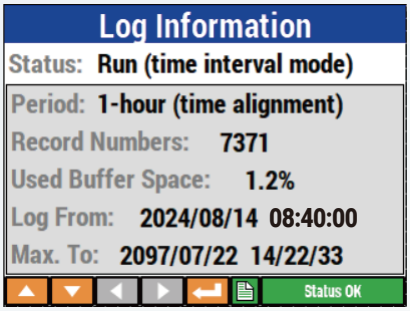
Cut off the load when forecasted demand approaches the limit.

Alarms & Logs

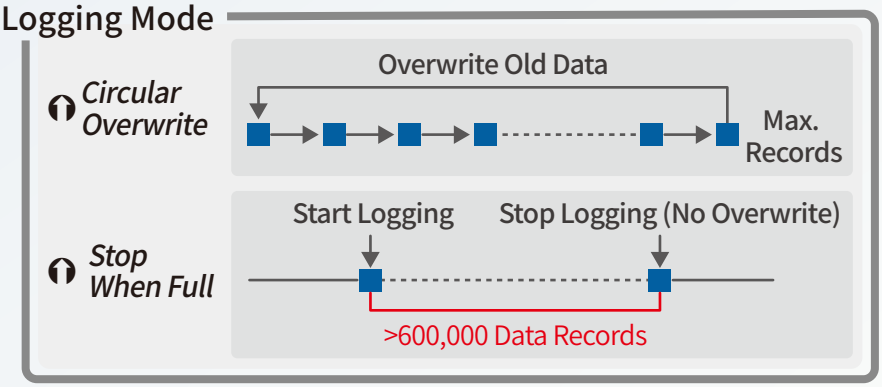


600,000 Data Records

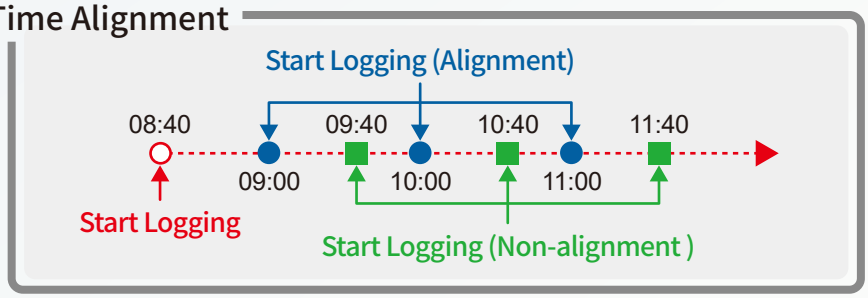




Logging Mode



Time Alignment



Applications

Help enterprises monitor power usage, forecast demand, and send real-time alerts for an efficient, low-risk smart energy environment. Integrate with factories, equipment suppliers, or energy platforms to upgrade energy monitoring systems.

Real-time Monitoring
Data Analysis
Energy Management

Power Distribution

- Monitor power quality
- Improve energy efficiency & control costs
- Real-time alerts and maintenance

Efficiency Analysis

- Real-time monitoring and data logging
- Data interface with government energy platforms
- Remote monitoring and real-time alarms

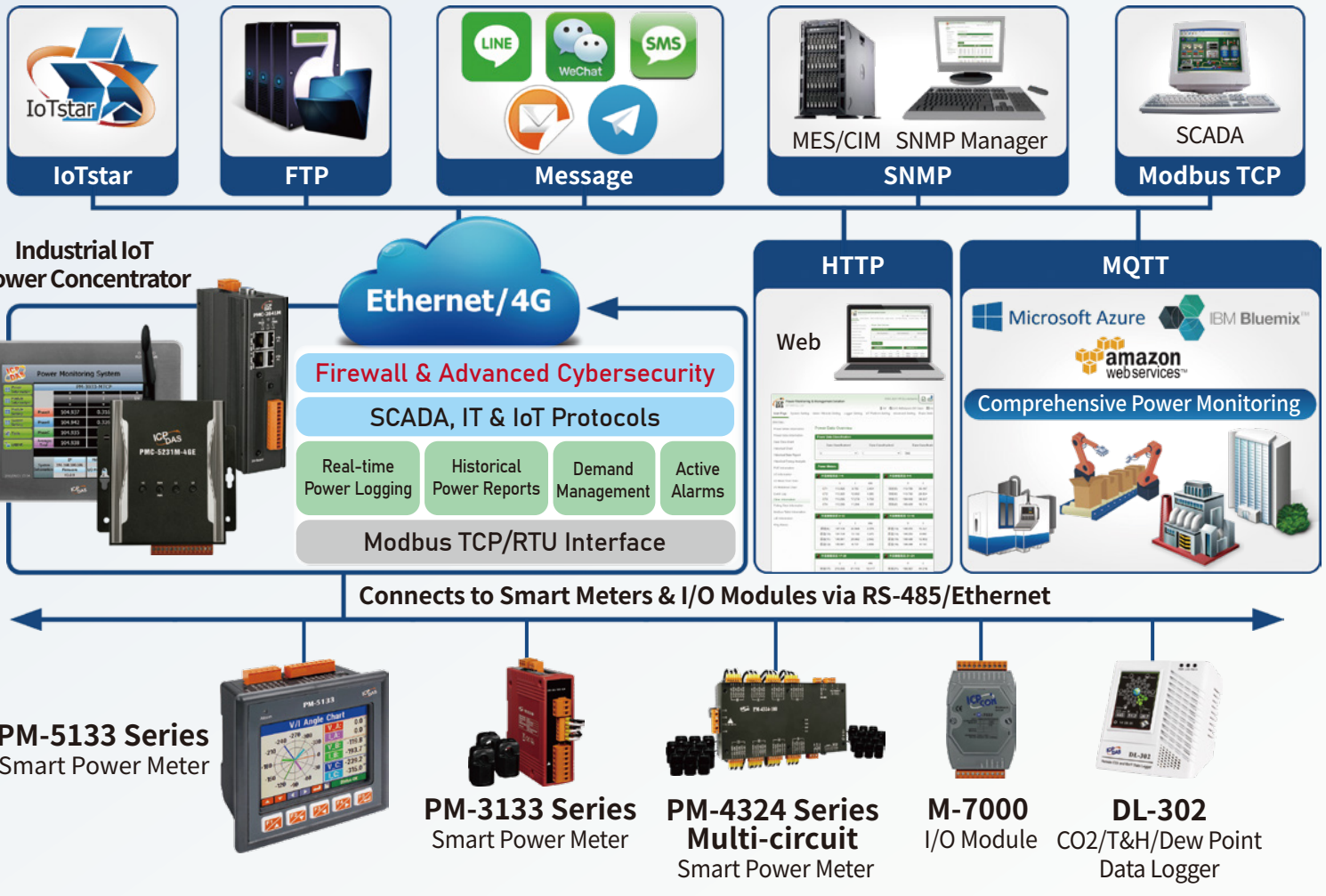
Remote Monitoring

- Real-time equipment status
- Optimize energy management
- Multi-platform integration for better efficiency

ISO-50001

- Reduce operating costs
- Enhance data insights and decisions
- Stay on trend, enhance sustainability competitiveness

From Edge to Cloud, Elevate Energy Management & Analytics



PM-5133 Series
Smart Power Meter

PM-3133 Series
Smart Power Meter

PM-4324 Series
Multi-circuit
Smart Power Meter

M-7000
I/O Module

DL-302
CO2/T&H/Dew Point Data Logger

Efficient Energy Monitoring for Sustainable Manufacturing

Ethernet

RS-485

Zone A: 10 robots normal

Power Measurement Module	Modbus Concentrator	Industrial LED Display	Power Meter Concentrator
PM-5133	**MDC-714**	**iKAN-116S**	**PMC-5231M**

The PM-5133 series is a touchscreen 3-phase smart meter specifically designed for industrial automation and energy management. Paired with PMC edge controllers and IoTStar cloud software, it supports power monitoring and ESG needs, offering up to 600,000 time-stamped records for analyzing process energy use and product carbon footprints.

IoT Cloud Management
IoTstar

Mobile Device
Browse and Control

Panel Factory - Predictive Maintenance

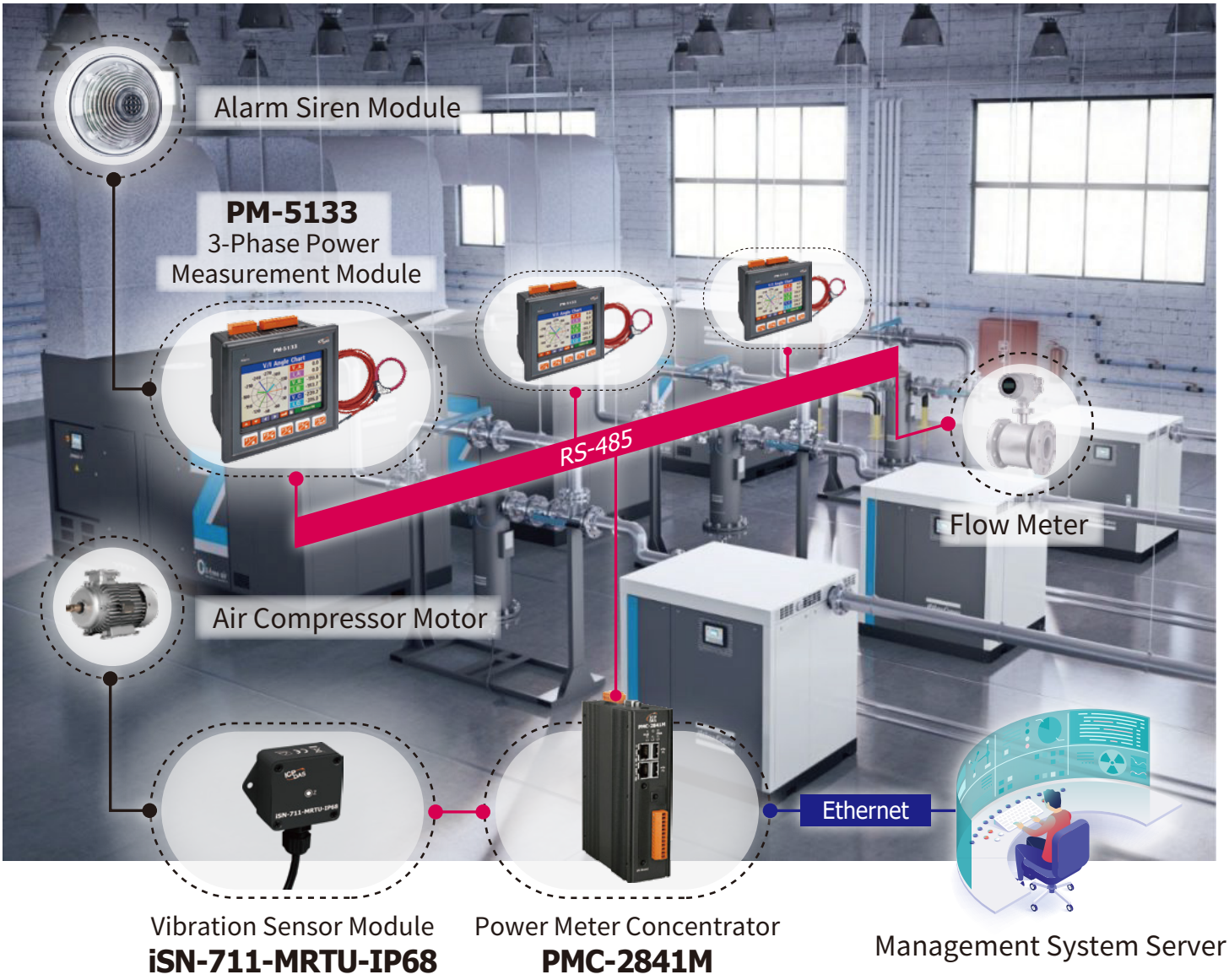
Monitor production equipment and upload power data to IoTStar for energy analysis and efficiency optimization.
Integrate with MES/ERP for maintenance planning, inventory management, and predictive maintenance. Application solutions include:

- **PM-5133:** Measures motor current, panel energy, and power quality, displaying real-time data for on-site verification.
- **PMC-5231M:** Collects, analyzes data from multiple PM-5133 modules, and sends alerts.
- **IoTstar** handles PMC-5231M devices, stores power data, and enables third-party use.

ESG Net - Zero Energy Management

With global net-zero trends, rising carbon taxes, and partner carbon requirements, energy management is critical.
Semiconductor manufacturing faces challenges in monitoring numerous process equipment in compact cleanrooms. Effective strategies include:

- **PM-5133** is a 3-phase smart meter for equipment panels, using clip-on CTs or Rogowski coils to fit circuit current and cable size. It provides on-site monitoring, real-time alerts, and flexible installation.
- **MDC-714** uploads on-site power data to cloud software for energy ratio analysis, capacity planning, and energy-saving evaluation, helping meet ISO 50001 goals.



Air Compressor: Maintenance & Carbon Assessment

Monitor air compressor power use and automatically upload data for energy management and cost analysis. By integrating vibration and flow sensors, the system tracks operating status in real time and issues early warning alerts.
With multiple monitoring, it supports predictive maintenance to reduce failures, minimize downtime, and extend equipment lifespan.

iSN-711-MRTU-IP68

- Real-time vibration data upload to edge controllers.
- Set thresholds to warn before air compressor motor abnormalities.

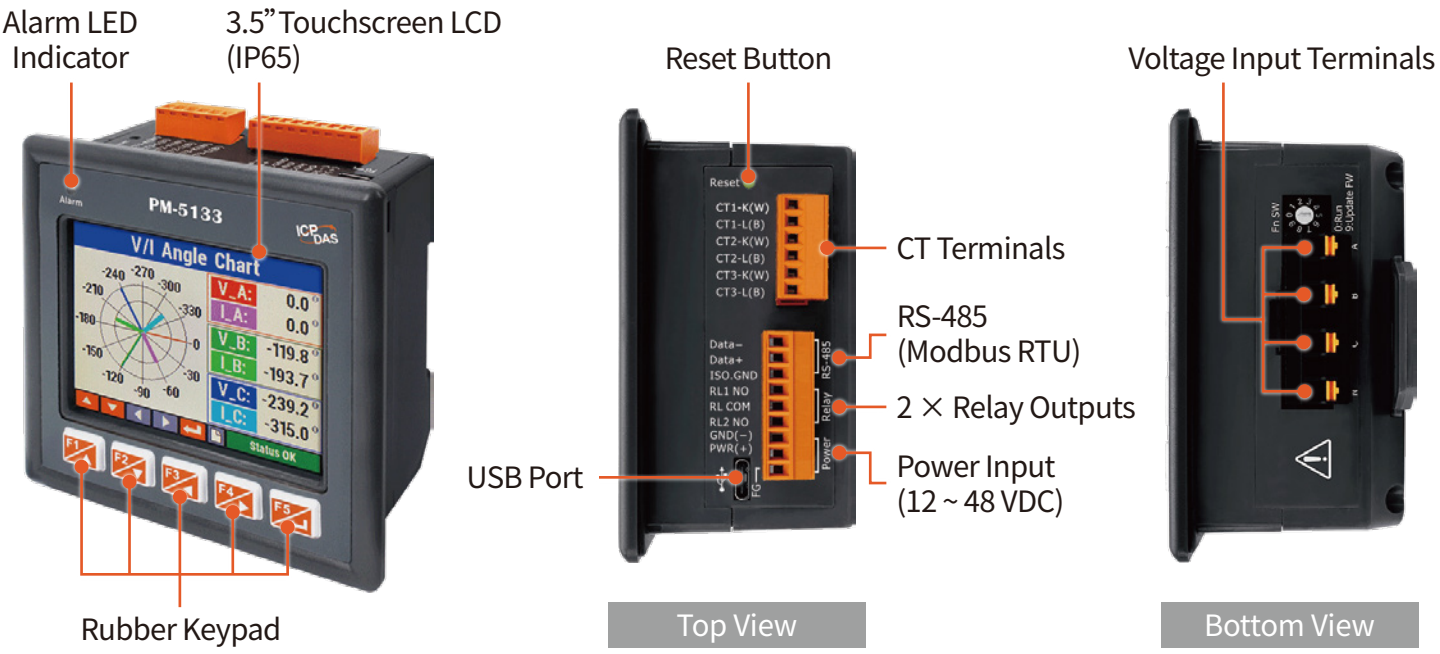
PM-5133 Series

- 3.5'' screen for intuitive power display.
- Digital Output Abnormal Alarm.
- Real-time upload of energy consumption and power quality.

PMC-2841M

- Collect air compressor data via Modbus RTU, including power, vibration, and flow.
- Logic and trend analysis for preventive alerts and maintenance.

Selection Guide



PM-5133-xxxP Series — 3.5" Touchscreen 3-phase Smart Power Meter

Data Logging		
Real-Time Clock (RTC)	Yes (Time-stamped data logging)	
Max. Records	Time Interval: 1 second ~ 24 hours; Number of records stored: Up to 638,586 records	
Power Measurement		
Wiring	3P4W-3CT, 3P3W-2CT, 3P3W-3CT, 1P2W-1CT, 1P3W-2CT	
Loops	1-phase: 3@1P2W-1CT / 1@1P3W-2CT; 3-phase	
Input Voltage	10 ~ 500 V	
Input Current	**Clip-on CT** PM-5133-005P: CTØ10 mm (0.05 ~ 5 A) PM-5133-100P: CTØ10 mm (0.05 ~ 60 A) PM-5133-160P: CTØ16 mm (0.1 ~ 100 A) PM-5133-240P: CTØ24 mm (0.15 ~ 200 A) PM-5133-360P: CTØ36 mm (0.3 ~ 300 A) PM-5133-400P: CTØ36 mm (0.3 ~ 400 A)	**Rogowski Coil CT** PM-5133-RCT500P: CTØ55 mm (5 ~ 500 A) PM-5133-RCT1000P: CTØ80 mm (5 ~ 1000 A) PM-5133-RCT2000P: CTØ105 mm (5 ~ 2000 A) PM-5133-RCT4000P: CTØ185 mm (5 ~ 4000 A) *Coil Cross Section: 6.5 mm
W Accuracy	Better than 0.5% (PF=1)	Better than 2% (PF=1) Condition: Input current > 50 A (for 500P, 1000P) Input current > 200 A (for 2000P, 4000P)
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 ~ 65 Hz)	
Others		
Display	Touchscreen LCD, 3.5'' TFT (Resolution 240 x 320)	
Relay Output	Power Relay x 2	
COM Port	RS-485 x 1	
Protocol	Modbus RTU	

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