APM530 Multifunction Power Meter

APM530 Series

- Highly reliable, compact design
- Track real-time power conditions
- Monitor control functions
- Provide basic power quality values
- Monitor equipment and network statuses
- BACnet/IP protocol
- RS485 communication interface

APM530 multifunction power meter is a robust and cost-effective electricity meter which adopts micro-electronic technology with a special integrated circuit. It has anti-EMI and low-power features and is widely used in office buildings, shopping malls, residences, airports, metro stations, and more.

APM530 energy meter features digital sampling processing technology. Its technical performance complies with international standards. The device is capable of accurately measuring 50 Hz or 60 Hz active energy consumption from AC power grid loads.

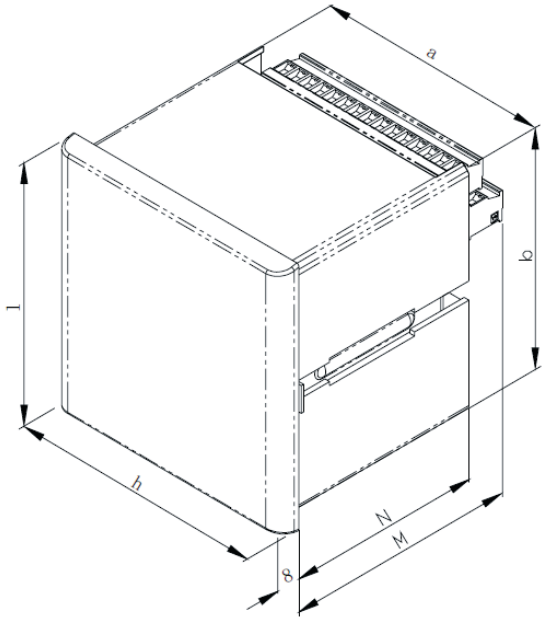
With its compact design, APM530 can be installed quickly and conveniently. The large display shows active power consumption, which can be remotely monitored through an RS485 interface.

Key Features

- Easy to install and operate
- Easy circuit breaker monitoring and control
- Direct metering of neutral circuits and calculated ground current values to avoid overload and resulting outages (PM556x)
- Power quality analysis
- Load management combined with alarm and timestamping
- High performance and accuracy
- BACnet/IP protocol support

Diagrams

APM530 series meter dimensions



Model	APM530
Outline Dimensions (L × H)	96 mm × 96 mm
Screen Coordinating Dimensions (a × b)	90 mm × 90 mm
Cut-out (s × y)	91 mm × 91 mm
Min. Horizontal Installation Distance	96 mm
Min. Vertical Installation Distance	96 mm
Overall Length (N)	96 mm

Specifications

Item	Description
Signal Input	
Connection	Three-Phase Four Wire Y34 / Three-Phase Three Wire V33
Voltage	Range: 400 V / 100 V
	Overload: Sustained: 1.2 times; momentary: Twice
	Power Consumption: <1 W
Current	Range: 5 A / 1 A
	Sustained : 1.2 times; momentary: Twice
	Power Consumption: <1 W
Frequency	40 Hz to 65 Hz
Power Supply	AC/DC 80 V to 270 V
	<5 W
Electric Energy Pulse	Passive optocoupler collector output
	Fixed pulse width 80 ms ±20 %
	RS485 communication interface physical isolation
Communication	Conforms to MODBUS-RTU international standards
	Communication speed 4800 bps to 38400 bps
	Verification method N81, E81, O81
Transmitting Output	0/4 mA to 20 mA or 0 V to 5/10 V transmitting output
	Transmitting items and corresponding values are programmable
Analog Output	Programmable remote control / alarming relay output
	Capacity 5 A / 250 V AC; 5 A / 30 V DC
	Alarming electric quantity, switching input, analog input and controlling method are programmable
Relay Output	Telemetering switch input measurement, passive dry contact
	Associated alarming output is programmable
Telemetering Switching	0/4 mA to 20 mA analog input measurement
	Alarming output is programmable
Analog Input	Electric quantity: 05; frequency: ±0.1 Hz
Measuring Class	Active electric energy: 0.1
	Reactive electric energy: 0.5
	Analog input: 0.5
Display	LCD
Operating Temperature	-10 °C to +55 °C
Storage Temperature	-20 °C to +75 °C
Safety	Insulation: Signal, power supply, resistance of output terminal against shell >5 MΩ
	Pressure-tolerant, output between signal input and power supply > AC 2 kV
Outline	Dimensions: 96 mm × 96 mm × 95 mm
	Weight: 0.5 kg

Model	APM530	APM530+

Real-Time Measurement	Three-phase voltage	✓	✓
	Three-phase current	✓	✓
	Power frequency	✓	✓
Electric Energy	Active electric energy	✓	✓
Measurement	Reactive electric energy	✓	✓
	Two-way measurement	✓	✓
Maximum Demand	UIPQ slip	-	✓
RS485 Communication	RS485 interface ports (MODBUS-RTU agreement)	✓	✓
Display	LCD screen	✓	✓
Electric Energy Pulse	Passive dry contact	2	2
Transmitting Output	4 mA to 20 mA / 0 V to 5 V	4	4
Switch Output	Passive dry contact	12	12
Relay Output	AC 250 V / 5 A remote control / alarming	4	4
DC Measurement	0 mA to 20 mA	-	✓

Note: Value denotes number of ports. These features are not included by default, and require additional costs.

Standards Compliance

- IEC 61557-12
- IEC 62053-22
- IEC 62053-24
- EN 50470-1
- EN 50470-3
- IEC 61010-1
- IEC 61000-4-2
- IEC 61000-4-3
- IEC 61000-4-4
- IEC 61000-4-5
- IEC 61000-4-6
- IEC 61000-4-8
- CISPR 22 class B

Ordering Information

Item	Description
APM530-PE-400-05-485	APM530 Series three-phase Power and Energy Meter 400V 5A, RS485 interface
APM530P-PE-400-05-485	APM530 Plus Series three-phase Power and Energy Meter 400V 5A, RS485 interface

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