

# Three-Phase Power Meter | OM-ACM-A811



This three-phase power meter fully complies with the technical requirements of the IEC 62053-21 international standard for Class 0.5S three-phase active energy meters. It accurately measures electrical parameters such as voltage, current, power, power factor, energy consumption, and total values in three-phase AC networks with a rated frequency of 50Hz or 60Hz. The meter features one built-in RS485 communication interface with MODBUS-RTU protocol for easy integration with various AMR systems. It offers high reliability, compact size, lightweight design, sleek appearance, and convenient installation.

## Product Features

Measurement Capability	Comprehensive three-phase AC parameter measurement including voltage, current, power, energy, and more
Leakage Current Detection	Optional function available
Measurement Technology	Dedicated measurement chip with true RMS measurement for high accuracy
Communication Interface	1 x RS-485 port with standard Modbus-RTU protocol for easy programming and compatibility
Protection	RS-485 interface with ESD protection circuit
Operating Voltage	Wide range AC 80~240V
Reliability	Industrial-grade chip with built-in watchdog timer and comprehensive anti-surge/anti-interference protection
Isolation Voltage	High isolation up to AC 2000V
Current Transformer Options	Compatible with various single-turn feed-through or split-core current transformers

## Specifications

### Input

Voltage Ranges	Optional: 100V, 220V, 380V, etc.
Current Ranges	Optional: 5A, 20A, 50A, 100A, 200A, 300A, 400A, 500A, etc. External split-core CT models available
Signal Processing	Dedicated measurement chip with 24-bit AD sampling
Overload Capacity	Continuous: 1.2 x range; Instantaneous (<200ms): 5 x current, 2 x voltage (non-destructive)
Input Impedance	Voltage channel: >1 kΩ/V; Current channel: ≤100 mΩ

### Communication Interface

Interface Type	1 x RS-485 port
Protocol	Modbus-RTU
Data Format	Software configurable: n,8,1; e,8,1; o,8,1; n,8,2
Baud Rate	Configurable: 1200, 2400, 4800, 9600 bps; Default: 9600 bps, n,8,1 format
Communication Data	Voltage, current, power, energy, and other electrical parameters
Measurement Accuracy	Voltage, Current, Power: ±1.0%; Active Energy: Class 1
Isolation	DO/RS-485 interface isolated from AC power supply, voltage input, and current input; Isolation voltage: 2000V AC

### Power Supply

Power Input	12~15V DC
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### Operating Environment

Operating Temperature	-20°C to +60°C
Storage Temperature	-40°C to +85°C
Relative Humidity	5% to 95%, non-condensing (at 40°C)
Altitude	0 to 3000 meters
Environment Suitable For	Locations free from explosive, corrosive gases and conductive dust; no significant vibration or shock

Temperature Drift	≤100 ppm/°C
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### Mechanical Specifications

Mounting Method	4P DIN rail mounting
Dimensions (W×H×D)	70 × 90 × 57 mm