

ZY-EMS Series

Electronic Energy Meter



Description

ZY-EMS Series electronic energy meters feature high-precision metering and exceptional stability, equipped with a high-resolution LCD digital display that transforms power data into intuitive, real-time visual information to ensure accurate monitoring of on-site power status.

Stable remote data acquisition and automated meter reading are realized via the built-in RS-485 serial port (supporting standard Modbus protocol) and pulse output interface, facilitating precise energy consumption monitoring and cost management for enterprises.

Applications

- Precise sub-metering and billing for commercial offices, rental apartments, and dormitories
- Production energy monitoring for low-carbon operational goals
- Real-time oversight for retail stalls, exhibition activities, and distributed infrastructure
- Providing critical granular data for carbon accounting and energy efficiency evaluation

Selection Table

ZY-EMS Series

Wiring Configuration

Code	Wiring Configuration
12	1P2W/110V
122	1P2W/220V
123	1P2W/110-220V
13	1P3W

Optional Function 1

Code	Optional Function 1
R	Remote disconnect function
Leave blank if none	

Optional Function 2

Code	Optional Function 2
A	Inspection seal
Leave blank if none	

Specifications

■ Measurement & Wiring

Wiring Configuration	Voltage	Current	Frequency
1P2W	110V	20(80)A	50/60Hz
	220V		
	110-220V		
1P3W	110V/220V		

■ Metrological Characteristics

Accuracy Class	Class 0.5
Operating Range	80 ~ 120% rated voltage / 0.05 Ib ~ Imax operating current
Starting Current	0.4% Ib
Resolution	0.01kWh
Pulse Constant	1600 impulse / kWh
Power Consumption	2W / 10VA

■ RS-485 Communication

Communication Interface	RS-485
Communication Protocol	Modbus RTU mode
Station ID	1~247
Baud Rate	2400/4800/9600/19200bps
Parity Check	N, 8, 1
Wiring Distance	1200M max
Terminating Resistor	150Ω
Data Storage Life	≥ 10 years

■ Display & Indicators

LCD Display	
Large LCD	8-digit LCD (6+2)
	Features communication status (phone icon) display
Status Indicators	
Pulse Output Indicator	Red LED, flashes during pulse output
Alarm Status Indicator	Red LED, lights up during alarm events

■ Remote Disconnect Function (Optional)

100 A Relay	Remote control for power disconnect or connect
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Specifications

■ Operating Environment

Operating Environment	Temperature -10 ~ 60°C / Humidity 0 ~ 95% non-condensing
Storage Environment	Temperature -20 ~ 70°C / Humidity 0 ~ 95% non-condensing

■ Electrical Characteristics

Surge Test	6KV, 1.2x50uS
Dielectric Strength	AC 2.5KV, 50/60Hz, 1 minute
Product Standard	CNS 14607

■ Mechanical Dimensions

Sealable Design	Sealable, metrology-compliant design; prevents power theft and tampering
Dimensions	112 x 160 x 60 mm
Enclosure Material	ABS (Flame-retardant)
Mounting	Wall-mount installation
Weight	Approx. 510 g

Dimensions

