

Matrix IoT

Single Phase Direct Wall Mounted Energy Meter

Model: MAI2026-EM

Product Overview

The **MAI2026-EM Single Phase Direct Wall Mounted Energy Meter** is a compact, high-accuracy electronic energy meter designed for residential, commercial, educational, and smart building applications. It measures active energy consumption with high reliability and supports **Modbus RTU / LORAWAN 1.04** communication for remote monitoring and Building Management Systems (BMS).

Key Features

- High Accuracy Class 1.0
- Single Phase Direct Connected Meter
- LCD Display
- Active Energy Measurement
- Modbus RTU / LORAWAN 1.04 Communication
- DIN Rail Wall Mount Installation
- Wide Operating Temperature
- Long Service Life
- Compact Design
- Low Power Consumption
- Remote Reading Capability
- Suitable for BMS & IoT Applications



Technical Specifications

Parameter	Specification
Model	DDS6682
Meter Type	Electronic Energy Meter
Phase	Single Phase
Connection Type	Direct Connected
Accuracy Class	Class 1.0
Standard	IEC 62053-21

Parameter	Specification
Rated Voltage	110V / 220V / 230V AC
Rated Current	1.5(30)A
Frequency	50Hz / 60Hz
Energy Measurement	Active Energy (kWh)
Measuring Range	0 – 999999.9 kWh
Display	LCD
Communication	RS485
Communication Protocol	Modbus RTU / LORAWAN 1.04
Installation	Wall Mounted / 35mm DIN Rail
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +70°C
Relative Humidity	≤95% RH (Non-condensing)
Degree of Protection	IP51
Power Consumption	≤2W
Dimensions	112 × 50 × 156 mm
Weight	Approx. 0.35 kg

Electrical Characteristics

Item	Value
Voltage Range	110–230 VAC
Current Range	1.5–30A
Starting Current	≤0.4% Ib
Frequency	50/60Hz
Accuracy	Class 1.0

Communication

Parameter	Specification
Interface	RS485
Protocol	Modbus RTU / LORAWAN 1.04
Alternative Protocol	DLT645-2007
Baud Rate	1200–9600 bps
Address	Configurable

Mechanical Specifications

Parameter	Value
Installation	Wall Mounted
Mounting	35mm DIN Rail
Enclosure	ABS Flame Retardant
Dimensions	112 × 50 × 156 mm
Display	LCD
Terminal Type	Screw Terminal

Environmental Conditions

Parameter	Specification
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +70°C
Humidity	≤95% RH
Altitude	<2000m

LCD Display Information

The LCD displays:

- Total Active Energy (kWh)
 - Voltage
 - Current
 - Frequency
 - Communication Status
 - Meter Address
 - Running Status
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Typical Applications

- Residential Apartments
- Villas
- Rental Housing
- Commercial Buildings
- Schools
- Universities
- Shopping Centers
- Smart Communities
- Building Management Systems (BMS)
- Energy Monitoring Systems

- IoT Energy Platforms
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Dimensions

Item	Size
Height	156 mm
Width	50 mm
Depth	112 mm

Ordering Information

Model	Description
DDS6682	Single Phase Direct Wall Mounted Energy Meter with RS485 Modbus RTU / LORAWAN 1.04

Compliance

- IEC 62053-21
 - IEC 62052-11
 - CE (Optional)
 - RoHS (Optional)
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Advantages

- High measurement accuracy
- Stable long-term performance
- Easy installation
- Compact enclosure
- Remote monitoring support
- Suitable for smart energy management
- Compatible with BMS, SCADA, and IoT platforms
- Maintenance-free operation