

# Single Phase DIN Rail Energy Meter with RS485

This three-phase rail-mounted energy meter is suited for residential billing, room rental billing, and industrial use. It can use external current transformers to extend the current measurement range up to 999A.



## ADDITIONAL IMAGES



## Overview

### Advanced Energy Monitoring Solution

The DEM-4MC series is a versatile DIN-rail mounted energy meter designed for residential energy metering and smart energy projects. It offers seamless integration with data acquisition systems via Modbus-RTU and pulse output communication, supporting both 4G/5G and LoRa wireless transmissions. This highly integrated device provides comprehensive AC parameter measurement, including harmonic analysis and demand measurement, making it ideal for industries ranging from petrochemicals to transportation.

## Key Features

### Core Functionalities

- 35mm DIN rail mounting for easy installation
- Optional 2-channel relay control output
- 4-channel switch input functions
- Harmonic and unbalance analysis
- Multi-rate energy and maximum demand measurement
- Optional prepaid billing (IC card) support

## Technical Performance

### Measurement Accuracy

**0.5 %**

Voltage/Current Accuracy

**1 %**

Active Power Accuracy

**2 %**

Reactive Power Accuracy

## Electrical Specifications

### Input & Power Data

Parameter	Specification
Rated Voltage	AC 220V
Rated Current Options	10A, 20A, 40A, 80A
Frequency Range	40~65Hz
Auxiliary Power Supply	AC 85-465V
Pulse Constant	1600 imp/kWh

## Communication & Connectivity

### Communication Interfaces

RS485, Modbus-RTU, DL/T645, 4G/5G, LoRa, Pulse Output

## Physical & Environmental

### Build & Environment

Feature	Value
Display	LCD with white backlight
Protection Rating	IP40 (Front) / IP20 (Casing)
Module Width	4 modules (70mm)
Weight	230g
Operating Temp	-10°C to 55°C

## Compliance

### International Standards

IEC 62053-21 Class 1.0 • IEC 62053-22 Class 0.5 • IEC 61557-12 • Utility Revenue Grade

## Application Areas

### Target Industries

Electric Power, Railway, Telecommunications, Petrochemical, Steel Production, Transportation