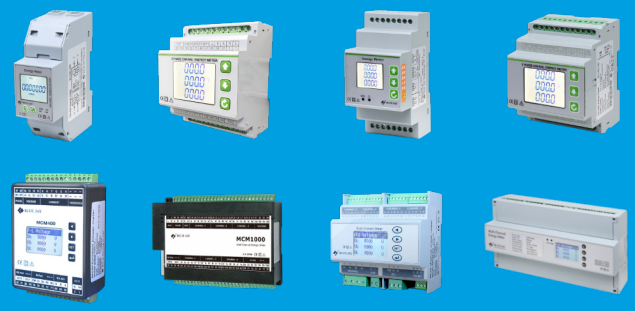
DIN-RAIL ENERGY METER



Introduction

The Din-rail energy meter, an energy meter for DIN rail mounting, used for residential energy metering and smart energy project, and measuring energy usage in industrial environments. High performance DIN rail energy meters can provide cost-effective power and energy metering solutions.

Majority of meters have LCD display and certification approved. Besides, as a leading din rail energy meter manufacturer in China, we support OEM and DOM service for these din rail energy meters.

Reference Standards

Measurement standard

Basic electricity	IEC 61557-12:2007
Active energy	IEC 62053-22:2003
Reactive energy	IEC 62053-23:2003

LVD test standard

IEC/EN 61010-1	2017, CATIII-300V

EMC test

Discharge immunity	IEC 61557-12:2007
Fast transient burst immunity	IEC 62053-22:2003
Surge (Shock) immunity	IEC 62053-23:2003

Measurement Parameter

Basic parameter	Voltage(U), Current (I)@0.2% Power (P, Q, S)@0.5% Power factor (H)@ 0.1% Frequency (Hz)@0.1%
Active energy	Consumed (Ep+)@0.5% Generated (Ep-)@0.5%
Reactive energy	Consumed (Eq+)@2.0% Generated (Eq-)@2.0%

Application

- Replace mechanical meters.
- Tenant sharing, cost sharing.
- Commercial, industrial, utility.
- Middle and low voltage systems.
- Calculation and settlement of household electricity bills.
- Metering of distribution feeders, transformers, generators, capacitor banks and motors.

DEM SERIES DIN-RAIL ENERGY METER

Introduction

DEM series design for DIN-Rail mounting, suit for residential energy metering and smart energy project. DEM seires has Modbus-RTU and pulse output communication allows seamless integration with data acquisition systems.

Various sub-models available, expansion modules are available in built-in and external versions. Combines high performance smart energy meter, ease of integration to provide a cost-effective power and energy metering solution. Featuring a LCD display designed to simplify setup and local reading of meter data.

Main Features

- 35mm DIN-rail installation.
- High precision measurement.
- Large LCD screen with backlight.
- RS485 port built-in with Modbus-RTU.
- 80A current direct input, 0.04A start current.
- Built-in energy pulse output and alarm output.
- Compatible with both 50Hz and 60Hz systems.
- IEC 62053-21 1.0 Class / IEC 62053-22 0.5 class.
- Optional multiple tariffs and prepaid billing functions.
- 10-400VAC direct voltage input, optional VTs connect.
- Tamper-proof design approved for revenue applications.
- Optional multiple types CTs input: 5A/1A, 333mV, 100mA.
- Universal series power supply (85-265VAC/DC), 20-60VDC optional.

Measurement Function

Model	DEM-4MC	DEM-2M1D	DEM-3M1C	DEM-4M1D	DEM-7M3D
Parameters					
Basic para. (1)	●	●	●	●	●
4-quad. energy	●	●	●	●	●
Max demands	○	-	-	○	○
Multi-tariffs	○	-	-	○	○
RTC	○	-	-	○	○
Others					
RS485 modbus	●	●	●	●	●
Pulse port	1600imp/kwh	1600imp/kwh	1600imp/kwh	1600imp/kwh	1600imp/kwh
Digital output	○	-	-	-	●
Remote control	-	-	-	○	○
Wireless function	-	-	-	○	○

●With this function ○Optional function -Without this function

(1) Basic parameters: Voltage, Current, Frequency, Total power factor, Active power, Reactive power.

Ordering Information

DEM- [1][2][3]

- [1] Module number
- [2] Phase number
- [3] Access method

Num.	Code	Description
[1]	2M	2 Modules width Din-rail
	3M	3 Modules width Din-rail
	4M	4 Modules width Din-rail
	7M	7 Modules width Din-rail
[2]	1	Single-phase
	3	Three-phases
[3]	D	Direct access
	C	Use external CT

Technical Characteristics

Model	DEM-2M1D	DEM-3M1C	DEM-4M1D	DEM-4MC	DEM-7M3D
Basic parameter					
Wiring method	Single-phase,1P2W			Three-phases,3P4W	
Power supply	Self-powered	85-265 VAC/DC	Self-powered	85-265 VAC/DC	Self-powered
Display capacity	9,999,999 KWh	9,999,999 MWh	99,999,999 KWh	99,999,999 MWh	99,999,999 KWh
Voltage rating	230V	100V, 230V	230V	100V, 230V	100V, 220V, 380V
Current	0.04-10(80)A	5A or.../1A CTs	0.04-10(80)A	5A or.../1A CTs	0.04-10(80)A
Measurement accuracy					
Current	0.5%	0.2%	0.5%	0.2%	0.5%
Voltage	0.5%	0.2%	0.5%	0.2%	0.5%
Active energy	Class 1	Class 0.5	Class 1	Class 0.5	Class 1
Reactive energy	Class 2	Class 1	Class 2	Class 1	Class 2
Others					
Module number	2	3	4	4	7
Weight	130g	170g	230g	250g	310g
Temperature	-25°C to 55°C				
IP protection	IP40 front panel and IP20 casing				