

SINGLE-PHASE ENERGY METER

EASTRON SDM230

Single-phase smart DIN-rail energy meter

Item code **M0007**

- › 100A direct connect
- › Two module 36mm wide
- › 2 Pulse outputs
- › Bi-directional measurement for Import/Export
- › RS485 Modbus communication
- › Measures kWh, kvarh, W, var, VA, PF, Hz, dmd, V, A and more



FEATURES



Ideal meter for secondary network

- › Small profile, market-certified and password protection makes the meter perfect for use in secondary networks (customer owned and embedded networks).

MID certified

- › The SDM230-MID (M0007) is approved for use as an NZ electricity market meter under the New Zealand Electricity Industry Participation Code (EIPC).

This series has been assessed and certified as meeting the requirements of EC Directive 2004/22/EC.

The EC Type Examination Certificate Number is 0120/SGS0206.

DESCRIPTION

The SDM230-MID is an advanced digital single-phase multifunction energy meter, which measures up to 100A direct load. It suits a wide range of direct connect submetering and remote monitoring scenarios with onscreen setup for easy installation.

The meter features an LCD screen for perfect reading and measures a broad range of electrical parameters - active energy (kWh), reactive energy (kvarh), active power (W), reactive power (var), apparent power (VA), voltage (V), current (A), power factor, demand and frequency.

Its top wired design, high accuracy, remote communication and ease of installation makes the MID certified meter the perfect meter in residential environments such as tenant metering, apartments, campuses, hotels and motels with loads up to 100A.

Onscreen setup simplifies the installation process. All device configurations can be password protected in setup mode.

SPECIFICATIONS

Nominal voltage(Un)	> 120V or 230V ac	Display	> LCD with backlight
Operational voltage	> 80%~120% of Un	Basic current (Ib)	> 5A
Insulation capabilities	> AC voltage withstand > 4KV for 1 minute	Maximum rated current (Imax)	> 100A
	> Impulse voltage withstand > 6KV-1.2μS	Operational current range	> 0.4% Ib-Imax
Operational frequency range	> 50 / 60Hz	Over current withstand	> 30 Imax for 0.01s
Internal power consumption	> ≤ 2W / 10VA	Max reading	> 99999.99 kWh

PERFORMANCE CRITERIA

Operating humidity	> ≤ 90%	Degree of pollution	> 2
Storage humidity	> ≤ 95%	Installation category	> CAT II
Operating temperature	> -25°C - +55°C	Mechanical environment	> M1
Storage temperature	> -40°C - +70°C	Electromagnetic environment	> E2
Reference temperature	> 23°C± 2°C	Accuracy class	> Class1/Class B
International standard	> IEC 62053-21 / EN50470-1/3	Protection against penetration of dust and water	> IP51(indoor)
Insulating encased meter of protective class	> II		

ACCURACY

Voltage, Current	> 0.5%
Frequency	> 0.2% of mid-frequency
Power factor	> 1% of unity (0.01)
Active power, Apparent power	> ±1% of range maximum
Reactive power	> ±1% of range maximum
Reactive energy (Varh)	> Class 2
Active energy (Wh)	> Class 1

MODBUS

Bus type	> RS485 (half-duplex, 2 wire)
Protocol	> Modbus RTU
Baud rate	> 1200/2400/4800/9600bps
Address range	> 1-247
Max. Bus loading	> 64pcs
Communication distance	> 1000M
Parity	> EVEN/ODD/NONE

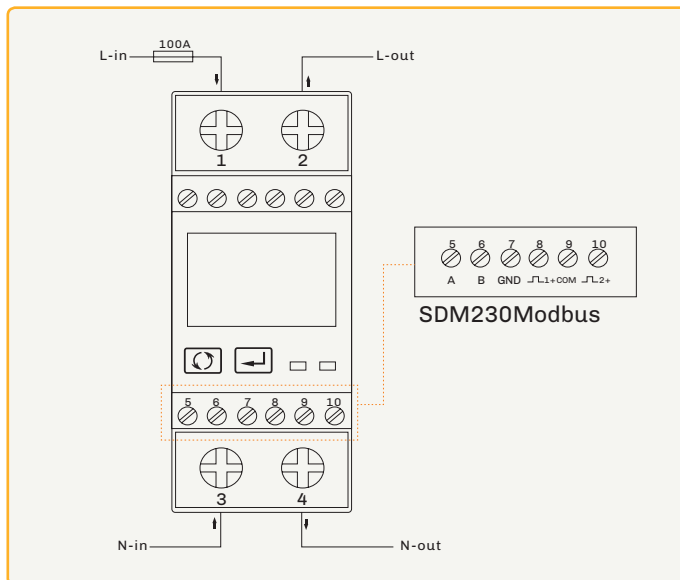
PULSE OUTPUTS

Pulse outputs	> 2
Pulse output type	> Passive
Pulse output 1	> Configurable
Pulse width	> 200/100(default)/60ms
Pulse output 2	> 1000imp/kWh

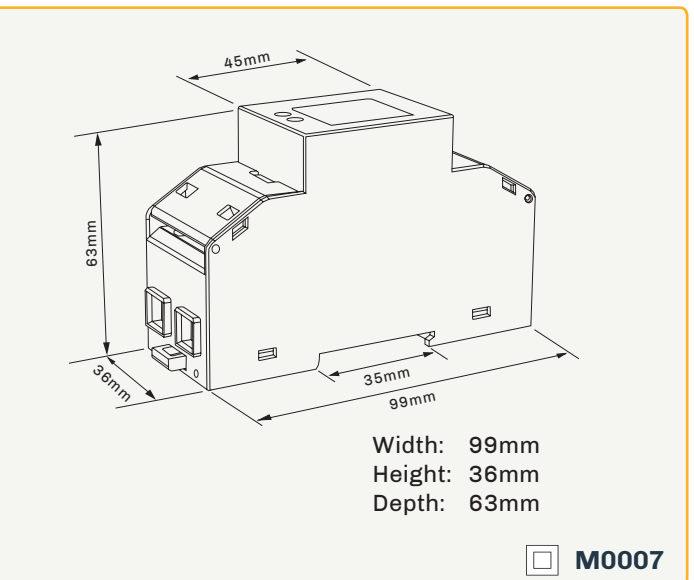
MULTI-TARIFF

Time clock accuracy	> <1s/day
Tariff	> 4
Time segments	> 10

WIRING DIAGRAM



DIMENSIONS



M0007