GOOD MEASURE

SINGLE-PHASE ENERGY METER

EASTRON SDM220

Single-phase smart DIN-rail energy meter

Item code **M0005/M0006**

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

FEATURES

Ideal meter for secondary networks

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

Multi-tariff option

- The SDM220 MID MT (M0006) has 4 programmable energy registers on top of being MID certified

MID certified

- The SDM220 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/SGS0172.

DESCRIPTION

The SDM220 is an advanced digital single-phase multifunction energy meter, which measures up to 100A direct load. It suits a wide range of direct connect sub-metering and remote monitoring scenarios with onscreen setup for easy installation.

Its small profile, high accuracy and market certification makes the SDM220-MID the perfect meter for customer owned / embedded networks, including tenant metering in apartments, campuses, hotels, motels and retirement villages.

The meter features an LCD screen for perfect reading and display of 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.

Bi-directional measurement makes this unit an ideal choice for Solar PV measurement. The meter includes a RS485 Modbus RTU port for remote communication. All device configurations can be password protected in setup mode.

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SPECIFICATIONS

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Nominal voltage(Un)	❱ 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 ❱ Impulse voltage withstand › 6KV-1.2μS	**Maximum rated current (Imax)**	❱ 100A
		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

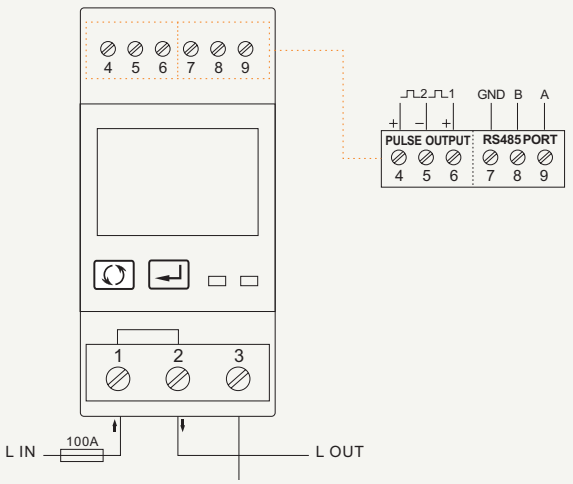
PULSE OUTPUTS

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

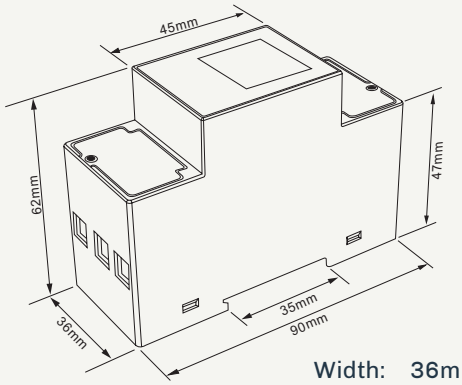
MULTI-TARIFF

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

WIRING DIAGRAM



DIMENSIONS



Width: 36mm
Height: 62mm
Depth: 90mm

☐ **M0005/M0006**

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