

Eastron SDM Electric Meters

Eastron SDM electric meters with Modbus communication. Models SDM120, SDM72D and SDM630 for precise energy consumption measurement in single and three-phase networks.



Quick Facts

Dimensions	72 x 100 x 67 mm
Operating temperature	-40 ... 70 °C
IP rating	IP51

Energy meter with Modbus communication. Single-phase or three-phase, with bidirectional kW and kWh measurement; 4-quadrant, suitable for photovoltaics.

Product Variants

Order Code	Eastron	EAN
EASTRON-SDM120-MODBUS	Eastron SDM120	 8586022934261
EASTRON-SDM630-MODBUS-V3	Eastron SDM630M V3	 8586022934247
EASTRON-SDM72D-MODBUS-V2	Eastron SDM72D	 8586022934254

Technical Specifications

ELECTRICAL	
Max. current	100 A
Input voltage	230 VAC (single-phase)
INTERFACE	
Protocol	Modbus RTU (RS-485)
MEASUREMENT	
Measurement accuracy	Class B (MID)

Eastron SDM630 V3, SDM72D, and SDM120 meters

All offered meters can measure and display various electrical parameters, including current, voltage, power, frequency, power factor, energy, harmonic distortion, and more. They support bidirectional energy measurement—into the grid and from the grid (4-quadrant measurement).

Option to connect up to 30 Modbus RTU devices on one bus (provided they share the same Modbus communication parameters and each has a unique Slave ID set).

MID B+D certified

Key Differences

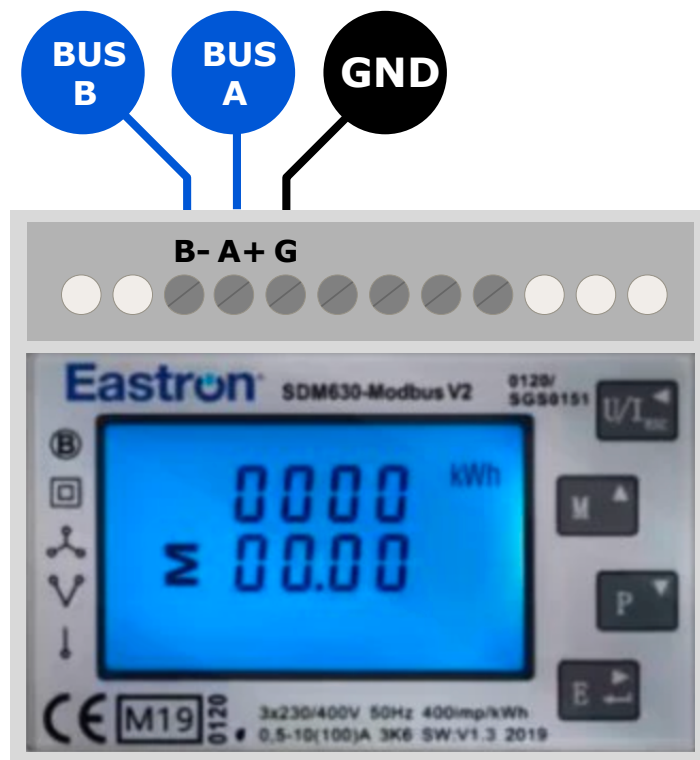
- **SDM630 V3:** 3 phases; higher accuracy Class 0.5 / Class C
- **SDM72D:** 3 phases; lower accuracy Class 1 / Class B
- **SDM120:** 1 phase; Accuracy — Voltage, Current: 0.5%; Reactive energy (varh) Class 2; Active energy (Wh) Class 1

Eastron SDM630 V3

- Nominal voltage (Un): 3x230/400 V AC
- Voltage range: 85–276 V AC (Max. 276 V)
- Current input: 0.3–10(100) A (Max. 100 A)
- AC voltage withstand: 4 kV for 1 minute
- Impulse voltage withstand: 6 kV–1.2 μ s
- Basic current (Ib): 10 A
- Maximum rated current (Imax): 100 A
- Operational current range: 0.4% Ib–Imax
- Over current withstand: 30 Imax for 0.01 s
- Operational frequency range: 50 or 60 Hz
- Power consumption per phase: ≤ 2 W / 10 VA
- Operating humidity: $\leq 90\%$, no condensing
- Operating temperature: -40 °C to $+70$ °C
- International standard: IEN IEC 62052-11:2021/A11:2022 / EN50470-3:2022
- Accuracy class: Class 0.5 / Class C



- Installation category: CAT III
- Mechanical environment: M1
- Electromagnetic environment: E2
- Protection against penetration of dust and water: IP51 (indoor)
- Insulating encased meter of protective class: II
- Electrostatic discharges: 8 kV contact / 15 kV air gap
- Electromagnetic HF fields: IEC 61000-4-3
- Electrical fast transients: 4 kV

Connection to Modbus RTU



When connecting multiple devices to 1 bus, do not forget to change each of them in the module's service settings its Slave ID (to a unique number (1 to 247)).

Slave ID setting

Use the  and  buttons to go to the "Set Addr" menu.



Confirm with the E  button.

Use the  and  buttons to set the new Slave ID address.

Confirm the new address with the E ↵ button.

V TapHome when adding Eastron SDM630 from the template (or in the module settings) do not forget to use the same Slave ID address.

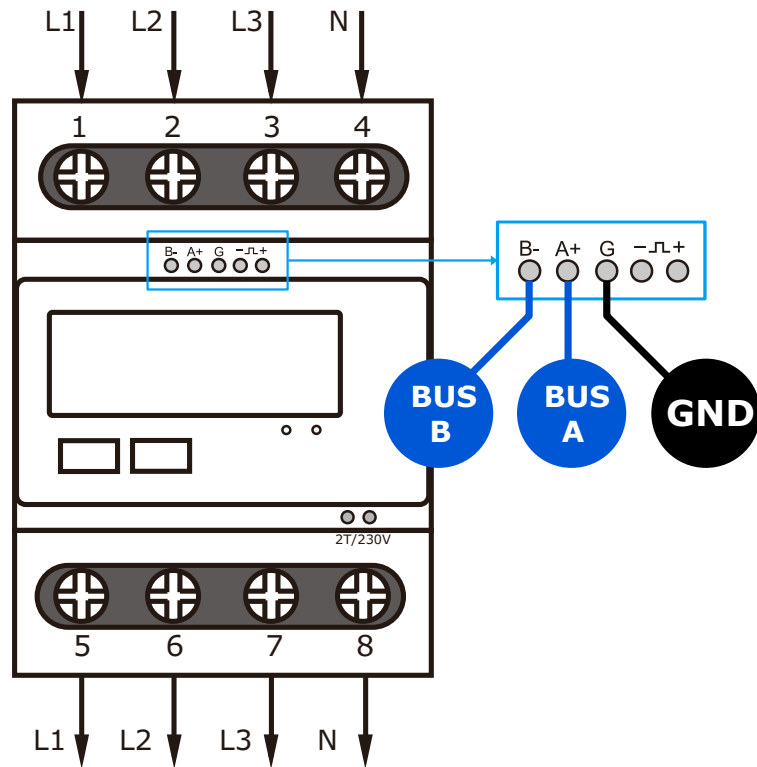
Safety and certificates

The electricity meter has a MID certificate according to the European Directive for Measuring Instruments 2004/22 / EC. The electricity meter has a certificate for protection against moisture and dust IP51. The meter has reinforced additional insulation (protection class II) and meets the requirements of the international standard IEC 62053-21 for electricity meters.


Eastron SDM72D

- Nominal voltage (Un): 3x230/400 V AC
- Operational voltage: 80%–120% of Un
- AC voltage withstand: 4 kV for 1 minute
- Impulse voltage withstand: 6 kV, 1.2 μs
- Basic current (Ib): 10 A
- Maximum rated current (Imax): 100 A
- Operational current range: 0.4% Ib–Imax
- Over current withstand: 30 Imax for 0.01 s
- Operational frequency range: 50 Hz for MID; 50/60 Hz for non-MID
- Power consumption per phase: ≤ 2 W / 10 VA
- Pulse output: Configurable (default: 1000 imp/kWh)
- Operating humidity: ≤ 90%, no condensing
- Storage humidity: ≤ 95%, no condensing
- Operating temperature: -25 °C to +55 °C
- International standard: IEC 62053-21 / EN 50470-1/3
- Accuracy class: Class 1 / Class B
- Installation category: CAT III
- Mechanical environment: M1
- Electromagnetic environment: E2
- Protection against penetration of dust and water: IP51 (indoor)
- Insulating encased meter of protective class: II
- Electrostatic discharges: 8 kV contact / 15 kV air gap
- Electromagnetic HF fields: IEC 61000-4-3
- Electrical fast transients: 4 kV
- Surge: 4 kV
- Radiated & conducted emissions: EN 55022

Connection to Modbus RTU



Changing Slave ID

Get into Set-up Mode by pressing the “Enter”  button for 3 seconds.

Set Address parameter, so that each device on the same bus has unique number from 001 to 247. Default Address is set to 001.

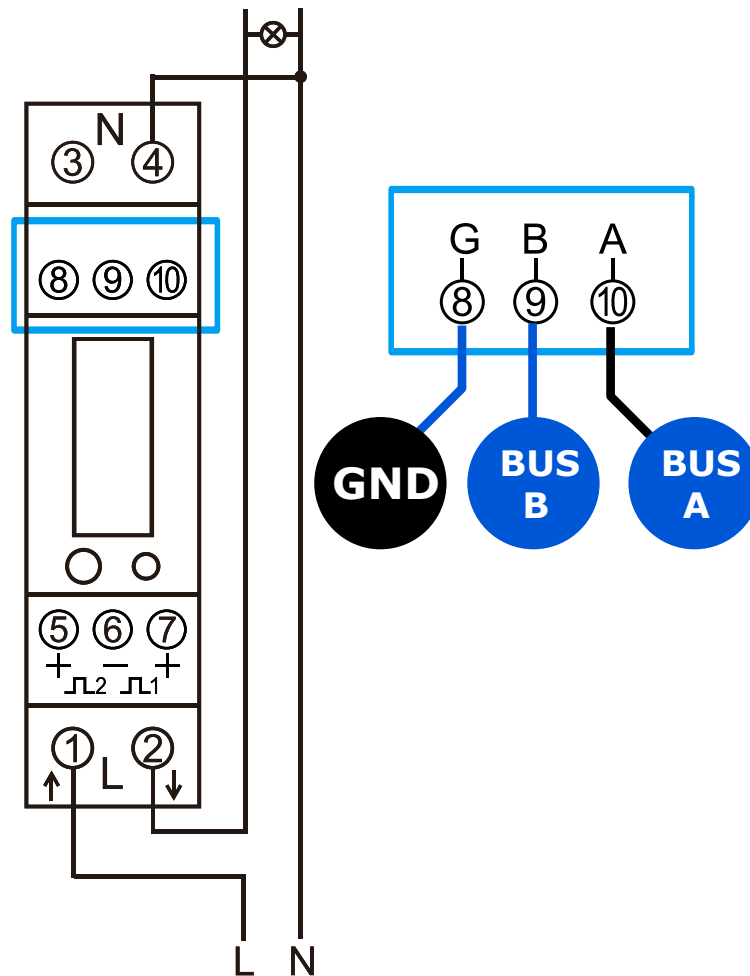
Easton SDM72D address

Easton SDM120

- Nominal voltage (U_n): 120 V or 230 V AC
- Operational voltage: 80%–120% of U_n
- AC voltage withstand: 4 kV for 1 minute
- Impulse voltage withstand: 6 kV–1.2 μ s
- Basic current (I_b): 5 A
- Maximum rated current (I_{max}): 45 A
- Operational current range: 0.4% I_b – I_{max}
- Over current withstand: 30 I_{max} for 0.01 s
- Operational frequency range: 50 / 60 Hz
- Internal power consumption: ≤ 2 W / 10 VA
- Pulse output: 1000 imp/kWh
- Operating humidity: $\leq 90\%$, no condensing
- Operating temperature: -25 °C to $+55$ °C
- International standard: IEC 62053-21 / EN 50470-1/3

- Accuracy class: Class 1 / Class B
- Installation category: CAT III
- Mechanical environment: M1
- Electromagnetic environment: E2
- Protection against penetration of dust and water: IP51 (indoor)
- Insulating encased meter of protective class: II
- Electrostatic discharges: 8 kV contact / 15 kV air gap
- Electromagnetic HF fields: IEC 61000-4-3
- Electrical fast transients: 4 kV
- Surge: 4 kV
- Radiated & conducted emissions: EN 55022
- Voltage, Current: 0.5%
- Frequency: 0.2% of mid-frequency
- Power factor: 1% of unity (0.01)
- Active power, Apparent power: $\pm 1\%$ of range maximum
- Reactive power: $\pm 1\%$ of range maximum
- Reactive energy (Varh): Class 2
- Active energy (Wh): Class 1

Connection to Modbus RTU



Changing Slave ID

Get into Set-up Mode by pressing the  button for 3 seconds.

Set Address parameter, so that each device on the same bus has unique number from 001 to 247. Default Address is set to 001.

Easton SDM120 address



Product page

<https://hardware.taphome.com/electric-meter/>

