

# THREE-PHASE ENERGY METER

## EASTRON SDM630 100A-MID

### Three-phase smart DIN-rail energy meter

Item code **M0013**

- › 100A direct load
- › 2 Pulse outputs
- › 4 Modules wide
- › Bi-directional measurement
- › Work with 3P4W / 3P3W / 1P2W
- › RS485 Modbus communication
- › Measures kWh, kvarh, W, var, VA, PF, Hz, dmd, V, A and more



## FEATURES



### Perfect for submetering and remote monitoring MID certified

- › Ideal for both single and three-phase networks with loads up to 100A.
- › The SDM630-100A-MID (M0013) 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/SGS0151.

## DESCRIPTION

The SDM630-100A-MID is an advanced digital three-phase multifunction energy meter, which measures up to 100A direct load. The through connected meter features an LCD screen for perfect reading of a broad range of electrical parameters.

For single-phase two wire (1p2w), three-phase three wire (3p3w) and three-phase four wire (3p4w) supplies: 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 high accuracy, remote communication and ease of installation turns the certified 100A Modbus meter into the perfect meter in industrial environments with a higher power demand or increased usage, like shopping malls, office buildings, factories and infrastructure.

The multifunction 4 module wide DIN-rail meter is ideal for both single and three-phase networks with loads up to 100A. Password protected onscreen setup and button navigation simplifies the installation process.

# SPECIFICATIONS

Nominal voltage(Un)	› 3x230/400 V ac	Over current withstand	› 30 I <sub>max</sub> for 0.01s
Operational voltage	› 80%~120% of Un	Operational frequency range	› 50 or 60Hz
Insulation capabilities	› AC voltage withstand › 4KV for 1 minute › Impulse voltage withstand › 6KV-1.2μS	Power consumption per phase	› ≤ 2W/10VA
		Pulse output	› Configurable
Basic current (I <sub>b</sub> )	› 10A	Display	› LCD
Operational current range	› 0.4% I <sub>b</sub> -I <sub>max</sub>	Max reading	› 9999999.9 kWh/kVarh

# PERFORMANCE CRITERIA

Operating humidity	› ≤ 90%	Electromagnetic environment	› E2
Storage humidity	› ≤ 95%	Degree of pollution	› 2
Operating temperature	› -25°C - +55°C	Installation category	› CAT III
Storage temperature	› -40°C - +70°C	Mechanical environment	› M1
Reference temperature	› 23°C± 2°C	Electrostatic discharges	› 8kV contact / 15kV air gap
International standard	› IEC 62053-21 / EN50470-1/3	Electromagnetic HF fields	› IEC 61000-4-3
Accuracy class	› Class1/Class B	Electrical fast transients	› 4kV
Insulating encased meter of protective class	› II	Protection against penetration of dust and water	› IP51(indoor)

# 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(semi-duplex)
Protocol	› Modbus RTU
Baud rate	› 2400/4800/9600/19200/38400 bps
Address range	› 1-247
Max. Bus loading	› 64pcs
Communication distance	› 1000M
Parity	› EVEN/ODD/NONE

# PULSE OUTPUT

Pulse outputs	› 2
Pulse output type	› Passive
Pulse output 1	› C1 Configurable
Pulse output 2	› C2 Configurable
Pulse width	› 200/100(default)/60ms

# MULTI-TARIFF

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

# WIRING DIAGRAM

# DIMENSIONS

**SDM630Modbus**

Height: 100mm  
Width: 72mm  
Depth: 66mm

**M0013**