

Datasheet

- Three phase 100A direct fed
- MID B+D certified
- Accuracy Class B or C EN50470-3:2022
Accuracy Class 1 or 0.5 IEC62053-21
- Bi-directional measurement for kW and kWh
- Configurable pulsed output (Import/ Export/ Net kWh)
- Modbus or Mbus communication
- Multi-parameter measurement
- Multi-tariffs / 2 tariffs / single tariff optional
- Free configuration software
- 2 digital inputs available

The SDM630 series is an advanced multi-function three phase energy monitoring solution with optional outputs such as pulses, RS485 RTU Modbus and Mbus. Equipped with configuration and display buttons for ease of navigation through the various parameters and settings. Housed for DIN rail mounting, IP51 protection and direct connection up to 100A. Certified in the Netherlands according to EU directive 2014/32/EU. MID certificate number MID T12801.



Specification Table

Specification	
Nominal voltage(Un)	3x230/400 V ac
Voltage range	100-277V AC (L-N); 100-480V AC (L-L)
Current input	0.3-10(100)A
Basic current (Ib)	10A
Maximum rated current (Imax)	100A
Operational current range	0.4% Ib-Imax
Over current withstand	30 Imax for 0.01s
AC voltage withstand	4KV for 1 minute
Impulse voltage withstand	6KV-1.2 / 50μS waveform
Operational frequency range	50/60Hz
Power consumption per phase	≤ 2W/10VA
Display	LCD

Performance criteria	
Operating humidity	≤ 90%, no condensing
Storage humidity	≤ 95%, no condensing
Operating temperature	-40°C - + 70°C
Storage temperature	-40°C - +80°C
Reference temperature	23°C± 2°C
International standard	EN 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
Degree of pollution	2
Protection against penetration of dust and water	IP51 front panel; IP20 whole meter
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV

Multi-tariffs	
time clock accuracy	<1s/day
Tariff	4
Time segments	8

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	2400/4800/9600/19200/38400bps (SDM630-DI: up to 115200bps)
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

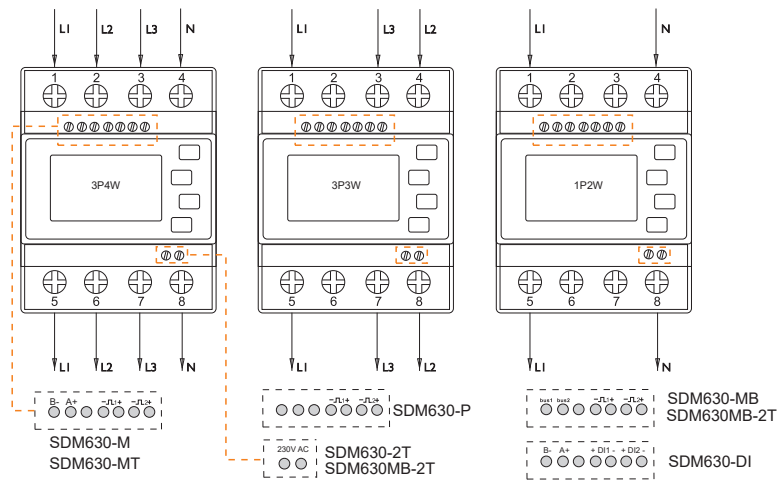
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

Pulse output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width 1	200/100/60ms(default 200mS)
Pulse output 2	400imp/kWh
Pulse width 2	100mS

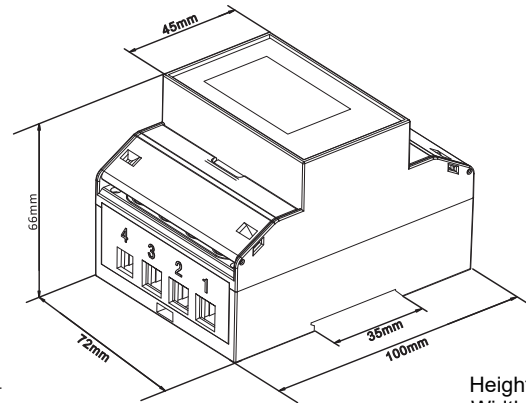
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Wiring Configuration



Dimension Drawing



Height 100mm
Width 72mm
Depth 66mm

Ordering Options

Meter Type	Description of Meter
SDM630-M	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.3~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630-MB	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.3~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, M-Bus EN13757-3 communication. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630-MT	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.3~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU, multi-tariffs. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630-MB-2T	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.3~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, M-Bus EN13757-3 communication. 2 Tariffs, Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630-P	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.3~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630-2T	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.3~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU, 2 Tariffs, Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630-DI	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.3~10(100)A, 50/60Hz, backlighted LCD display, RS485 Modbus RTU, 2 digital inputs. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.

Conformity References

Measurement category: IEC 61010-1 CAT III

Current input: Direct connect

Over-voltage category: CAT III

Dielectric withstand: IEC 61010-1 double insulated, IEC 62052-31:2015

Protective class: II

EMC: EN 61326-1:2021 & EN 61326-2-3:2021, EN IEC 62052-11:2021/A11:2022

Low Voltage Directive: EN 61010-1:2010+A1:2019 & EN IEC 61010-2-030:2021+A11:2021, IEC 62052-31:2015

MID Std: EN 50470-3:2022 and IEC / EN IEC 62052-11:2021/A11:2022, IEC 62052-31:2015

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