DIN Rail Mounted / Three Phase/ (100A) SDM630 Series

Datasheet

- **Three Phase 100A Direct Fed**
- **MID B+D Certified**
- **UL Registered**
- **Accuracy Class 0.5 (Active Energy)**
- **Bi-directional Measurement for kW and kWh**
- **Configurable Pulsed output (Import/ Export / Nett kWh)**
- **Modbus (SDM630Modbus) or Mbus (SDM630Mbus)**
- **Multi Parameter measurement**
- **Multi-Tariff**
- **Free Configuration software**



The SDM630 series is an advanced multifunction three-phase energy monitoring solution with optional outputs such as Pulsed, 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. Selectable measurement modes using our free configurations software for kWh display, Total kWh (Import + Export), Import kWh and Net kWh (Export - Import) Certified in the UK according to EU Directive 2014/32/EU. MID Certificate number 0120 / SGS0151

Specification table

Specification	
Nominal voltage(Un)	3x230/400 V ac
Operational voltage	80%~120% of Un
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2μS
Basic current (Ib)	10A
Maximum rated current (Imax)	100A as per page 11
Operational current range	0.4% Ib-Imax
Over current withstand	30 Imax for 0.01s
Operational frequency range	50 or 60Hz
Power consumption per phase	≤ 2W/10VA
Display	LCD

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
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-tariff	
time clock accuracy	<1s/day
Tariff	4
Time segments	10

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	2400/4800/9600/19200/38400bps
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	300/600/1200/2400/4800/9600
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

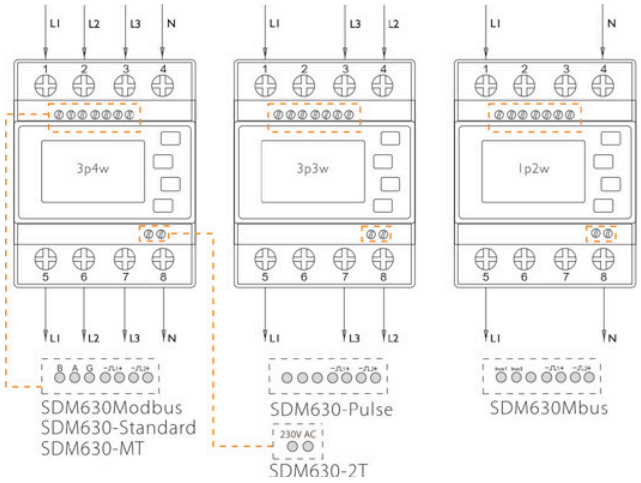
Pulse output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	400imp/kWh

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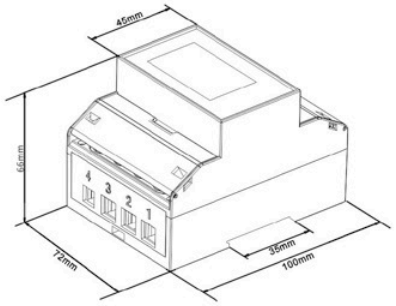
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Wiring Configuration



Dimension Drawing



Height 100mm
Width 72mm
Depth 66mm

Ordering options

Meter Type	Description of Meter
SDM630-Modbus	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(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-Mbus	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(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, 0.5~10(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-Std	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU. Measures kWh, kVarh, Imp_kWh, Exp_kWh etc.
SDM630-Pulse	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(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.

Conformity References

Electromagnetic Compatibility: EN61326-1:2013 & EN61326-2-3:2013

Low Voltage Directive: EN61010-1-2010 & EN61010-2-30-2010

MID DIRECTIVE: 2014/32/EU