

OPTONICA



SKU: 9462/SDM630 Modbus / Mbus / MT / Std / Pulse/2T
THREE PHASE MULTI-FUNCTION ENERGY METER

- 100A direct load
- Work with 3P4W / 3P3W / 1P2W
- 4 Module 72mm wide
- Multi-measurement:kWh,kVarh,W,Var,VA,PF,Hz,dmd,V,A,THD,etc.
- Bi-directional measurement
- 2 Pulse outputs
- RS485 Modbus or M-bus communication
- Multi-tariffs available(RTC)
- 2 Tariffs available(dual power source)



Introduction

The SDM630 100A series are three phase multifunction DIN rail meters. They can measure and display the characteristics of 1p2w, 3p3w and 3p4w supplies, including voltage, current, power, active and reactive energy imported or exported. Energy is measured in terms of kWh, kVarh. Max demand current can be measured over preset periods of up to 60 minutes. The SDM630 100A series have wonderful industrial design, big size LCD and touch buttons. All electronic parameters can be set with the button and the configuration is password protected. It can directly connect to Max. 100A, saving the cost to install external CT. Built-in interfaces provides pulse and RS485 Modbus RTU outputs.

SDM630 Series have been assessed and certified as meeting the requirements of EU Directive 2014/32/EU. The instrument traceable number is 0120/SGS0151.



SDM630 — M — 4 — 1 — C

- MB: Multi-parameters, 2 Pulse outputs + M-bus
Std: kWh/kVarh, Pulse output + RS485 Modbus RTU
- M: Multi-parameters, 2 Pulse outputs + RS485 Modbus RTU
- MB: Multi-parameters, 2 Pulse outputs + M-bus
- 1: Single tariff
- 2: 2 Tariffs
- 4: 4 Tariffs
- 1: MID
- 2: Non-MID
- B: Class 1
- C: Class 0.5s
- D: Class 0.2s

Specification	
Nominal voltage(Un)	3x230/400V 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
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
Max reading	999999.99 kWh/kVarh

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 / IEC 62053-22 / EN50470-1/3
Accuracy class	Class1/Class0.5S/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

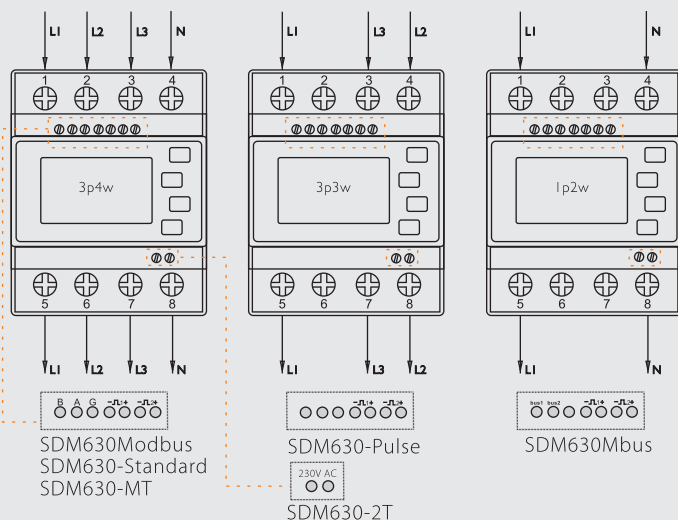
Accuracy	
Voltage, Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1/Class0.5s

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

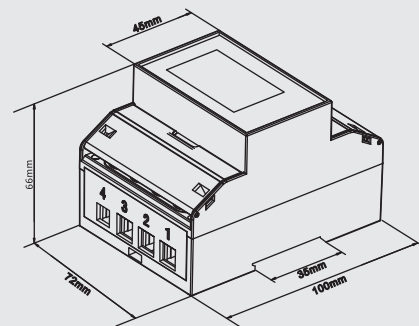
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00000001 to 99999999

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

Wiring diagram



Dimensions



Height 100mm
Width 72mm
Depth 66mm