

## Datasheet

- Single phase or three phase installation
- Multi-parameter measurement
- Direct connection up to 100A
- Supports communication with AMR and SCADA systems
- Bi-directional energy metering IMP & EXP
- Wi-Fi Communication
- Supports communication via Tuya "Smart Life" APP
- Din rail mounted 35mm
- Adjustable backlit LCD display



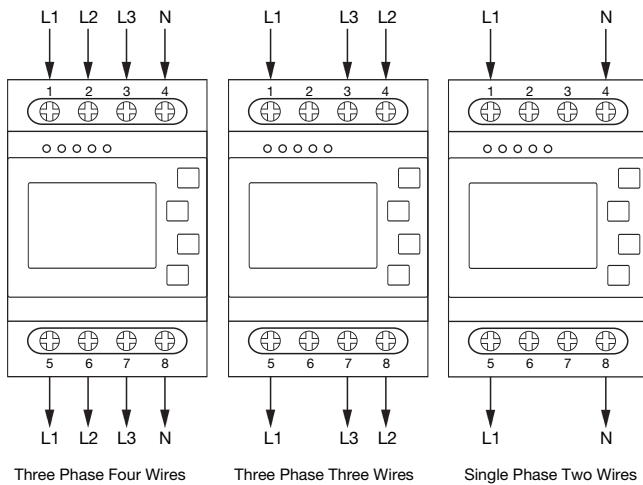
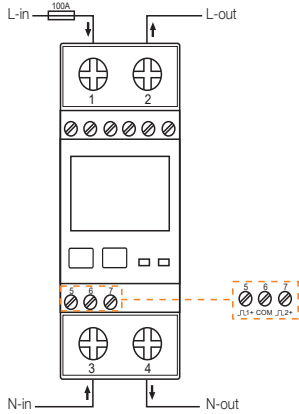
The Eastron Tuya solution has two models available, SDM630-WIFI and SDM230-WIFI. It measures and displays voltage, frequency, current, power, active/reactive energy, imported/exported energy, and total harmonic distortion. Energy units: kWh, kVAh. These meters each support max 100A direct connection. Featuring Wi-Fi connectivity, they communicate to Tuya's "Smart Life" APP. Each model is equipped with 2 configurable pulse output channels (pulse constant, width, type), parameter setup is accessible via the panel buttons.

## Specification Table

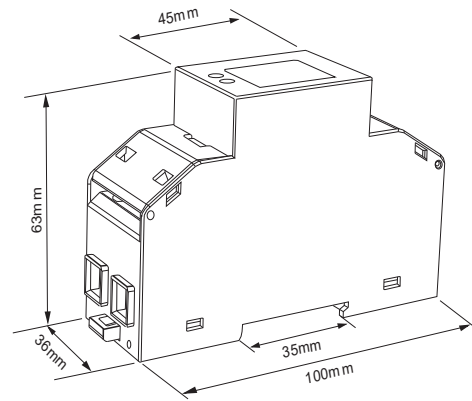
Specification	SDM230-WIFI	SDM630-WIFI
Voltage AC (Un)	230V AC	3*230V(L-N) / 400V(L-L)
Voltage Range	100-277V	100-277 V AC (L-N) / 100-480 V AC (L-L)
Frequency	50/60Hz	50/60Hz
Current Input	10A	10A
Maximum Current	100A	100A
Minimum Current	0.15A	0.3A
Starting Current (Ist)	0.04A	0.04A
Transition Current (Itr)	1A	1A
Over Current Withstand	30Imax for 0.01S	30Imax for 0.01S
AC Voltage Withstand	4KV/1min	4KV/1min
Impulse Voltage Withstand	6kV - 1.2/50µs waveform	6kV - 1.2/50µs waveform
Voltage Circuit Power Consumption	≤ 2W/10VA	≤ 2W/10VA
Current Circuit Power Consumption	≤ 0.05VA	≤ 0.05VA
Display	LCD with white backlit	LCD with white backlit
Max. reading	99999.99 kWh/kVAh	99999.99 kWh/kVAh
<b>Accuracy</b>		
Voltage	± 0.2%	± 0.2%
Current	± 0.2%	± 0.2%
Frequency	± 0.05%	± 0.05%
Power Factor	± 0.005	± 0.005
Active Power	± 0.5% (10%Ib-I <sub>max</sub> )	± 0.5% (10%Ib-I <sub>max</sub> )
Reactive Power	± 1% (10%Ib-I <sub>max</sub> )	± 1% (10%Ib-I <sub>max</sub> )
Apparent Power	± 0.5% (10%Ib-I <sub>max</sub> )	± 0.5% (10%Ib-I <sub>max</sub> )
Active Energy	Class 0.5 IEC62053-21 Class C EN50470-3:2022	Class 0.5 IEC62053-21 Class C EN50470-3:2022
Reactive Energy	Class 2 IEC 62053-23	Class 2 IEC 62053-23
<b>Environmental</b>		
Operating Temperature	-40°C ~ +70°C	-40°C ~ +70°C
Storage Temperature	-40°C ~ +80°C	-40°C ~ +80°C
Operation humidity	≤90%, Non-condensing	≤90%, Non-condensing
Storage humidity	≤95%, Non-condensing	≤95%, Non-condensing
Pollution Degree	II	II
Altitude	≤ 2000m	≤ 2000m
Vibration	10Hz ~ 50Hz, IEC 60068-2-6	10Hz ~ 50Hz, IEC 60068-2-6

Communications	SDM230-WIFI	SDM630-WIFI
Interface	Wi-Fi 2.4G	Wi-Fi 2.4G
RF Band	2.412-2.484GHz	2.412-2.484GHz
Max. RF Power	< 17 dBm	< 17 dBm
Wi-Fi Protocol	802.11 b/g/n	802.11 b/g/n
Wi-Fi Range	Up to 30m / 100ft indoors and 50m / 160ft outdoors (Depends on local conditions)	Up to 30m / 100ft indoors and 50m / 160ft outdoors (Depends on local conditions)
<b>Pulse Output</b>		
Pulse Output 1	Configurable	Configurable
Pulse Type	Import Active Energy, Total Active Energy, Export Active Energy, Import Reactive Energy, Total Reactive Energy, Export Reactive Energy(default).	Import Active Energy, Total Active Energy, Import Reactive Energy, Total Reactive Energy, Export Reactive Energy(default).
Pulse Constant	0.01, 0.1, 1, 10, 100, 400 (default) Imp/kWh	0.01, 0.1, 1, 10, 100, 400 (default) Imp/kWh
Pulse Width	200, 100(default), 60mS	200, 100(default), 60mS
Pulse Output 2	non-configurable	non-configurable
Pulse Type	Total Active Energy	Total Active Energy
Pulse Constant	400Imp/kWh	400Imp/kWh
Pulse Width	100mS	100mS
<b>Enclosure</b>		
Weight	≈160.5g	≈322g
IP Degree of Protection (IEC 60529)	IP20 (IP51 when installed in electrical rated cabinet)	IP20 (IP51 when installed in electrical rated cabinet)
Dimensions (DxHxW)	100*36*63mm	100*72*66mm
Mounting	DIN Rail 35mm	DIN Rail 35mm
Material of Meter Case	Self-extinguishing UL 94 V-0	Self-extinguishing UL 94 V-0
Mechanical Environment	M1	M1
<b>Safety</b>		
Measurement Category	Per IEC61010-1 CAT III	Per IEC61010-1 CAT III
Installation Category	CAT III	CAT III
Over-voltage Category	CAT III	CAT III
Protective Class	II	II

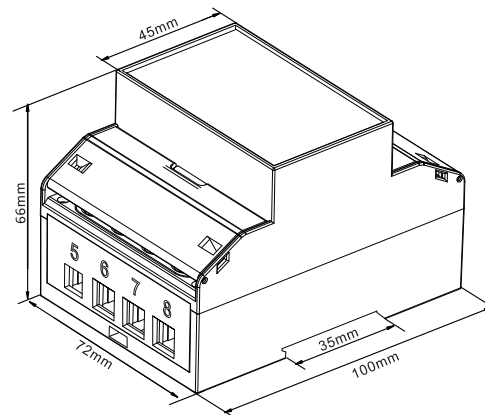
## Wiring Configuration



## Dimension Drawing



Height 100mm  
Width 36mm  
Depth 63mm



Height 100mm  
Width 72mm  
Depth 66mm

## 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