

- Three phase 1/5A current transformer operated
- ETL, MID certified
- High accuracy, Class 1 / Class 0.5s
- Multi-parameters measurement
- Bi-directional measurement for kW and kWh
- Configurable pulsed output
- Built-in LoRaWAN communication
- Confirmations/ Offline detection available
- Support auto-upload mode for uploading data to back server actively.
- Support auto-resume mode for suddenly power off of the gateway when resume.
- Download/ Upload time interval can be set or adjusted.
- Wide range of LoRa frequency band (EU868/AS923/CN433/CN470/AU915/US902 MHz, etc.)



SDM630MCT-Lora is an advanced multi-function three phase energy monitoring solution with built-in LoraWAN module. It measures and displays the characteristics of single phase two wire(1p2w) , single phase three wire(1p3w), three phase three wire(3p3w,) and three phase four wire(3p4w) supplies, including kWh, kVAh, kW, kVA, PF, Frequency, Voltage, Current, dmd, THD etc. Energy is measured in terms of kWh, kVAh. Maximum demand current can be measured over preset periods of up to 60minutes.

The requisite current input(s) are obtained via current transformers (CT). This meter can be configured to work with a wide range of CTs, giving the unit a wide range of operation. Configuration is password protected.

The meter was ETL approved by intertek and MID approved by SGS.

Specification table

Electrical characteristics	
Type of measurement	RMS including harmonics on three phase AC system (3P, 3P+N)
Measurement accuracy	
- Active Energy	IEC 62053-21 Class 1
- Reactive Energy	IEC 62053-23 Class 2
- Frequency	± 0.2%
- Current	± 0.5%
- Voltage	± 0.5%
- Power	± 0.01
- Power Factor	± 0.01
Data Update Rate	1 second nominal
Input-Voltage	
- VT Primary	30 ~ 500000 Vac
- Un	230 V L-N
- Measured Voltage with Over-range	173 to 480 V AC L-L / 100 to 276 V AC L-N
- Impedance	1MΩ
- Frequency Range	45~65Hz
Input- Current	
- CT Ratings	
- Primary	1~9999A
- Secondary	1A / 5A
- Measured current with Over-range	6A
- Withstand	Continuous 120A for 0.5 Seconds
- Impedance	<1MΩ
- Frequency Range	45~65Hz
- Burden	<0.036VA at 6A
Auxiliary Power Supply	
- Operating Range	85~275V AC / 120~380V DC
- Power Consumption	< 7VA/3.5W
- Frequency	45 to 65 Hz
Max. reading	9999999.9 kWh/ kVAh

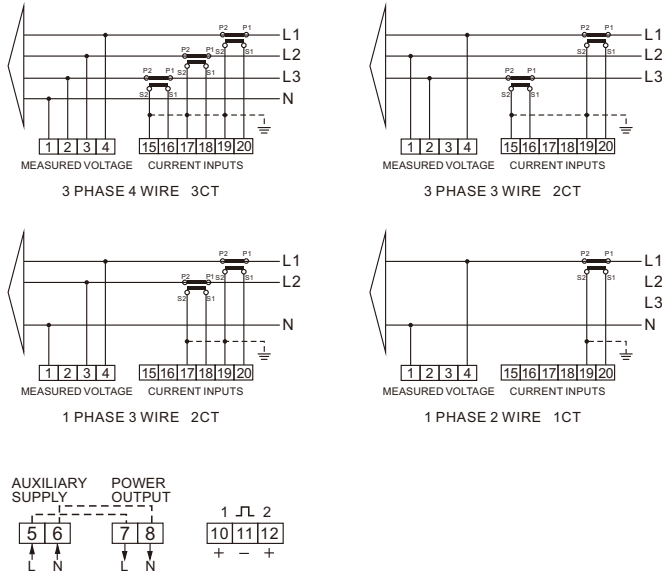
Mechanical Characteristics	
Weight	330g
IP Degree of Protection (IEC 60529)	IP51 (indoor)
Dimensions (WxHxD)	72x94.5x65mm
Mounting	Din rail (DIN 43880)
Material of meter case	Self-extinguishing UL 94 V-0
Mechanical environment	M1

Environmental Characteristics	
Operating Temperature	-25 to 55°C
Storage Temperature	-40 to 70°C
Humidity Rating	<95% RH at 50 °C (non-condensing)
Pollution Degree	2
Altitude	2000m
Vibration	10Hz to 50Hz, IEC 60068-2-6

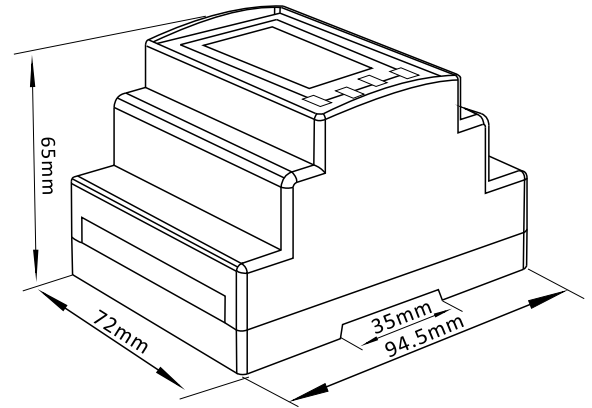
Safety	
Measurement Category	Per IEC61010-1 CAT III
Current Inputs	Require external Current Transformer for Insulation
Over voltage Category	CAT III
Dielectric Withstand	As per IEC 61010-1 Double Insulated front panel display
Protective Class	II

Communications	
Interface standard and protocol	LoRaWAN Specification 1.0.2
Frequency	EU868/AS923/AU915/ US902/CN470/CN433
LoRaWAN Classes	Class C
Auto-upload	Max. 30 parameters
Auto-upload Interval	Configurable
Activation Way	OTAA or ABP
Output Power	13dBm in transmission
Coding Format	ASCII
Communication Distance	1500M in an open area

Wiring Configuration



Dimension Drawing



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