



- 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/ Of line 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.)



SDM 630 MCT- 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(1 p 2 w) , single phase three wire(1 p 3 w), three phase three wire(3 p 3 w,) 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.

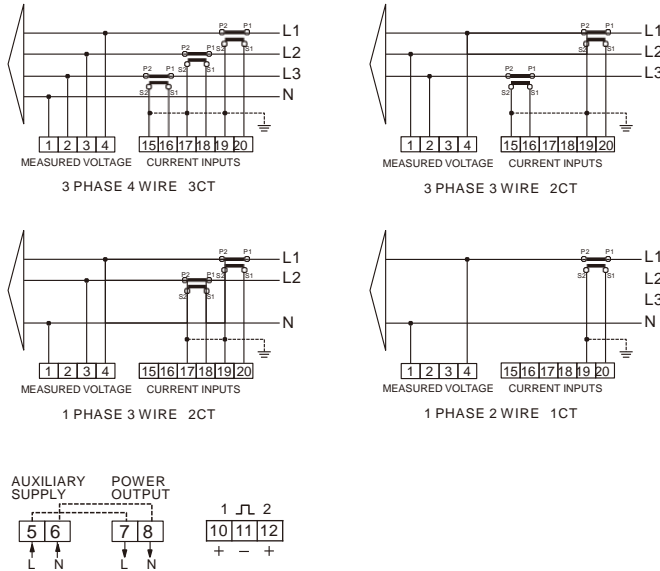
The meter was ETL approved by intertek and MID approved by SGS.

Specification table

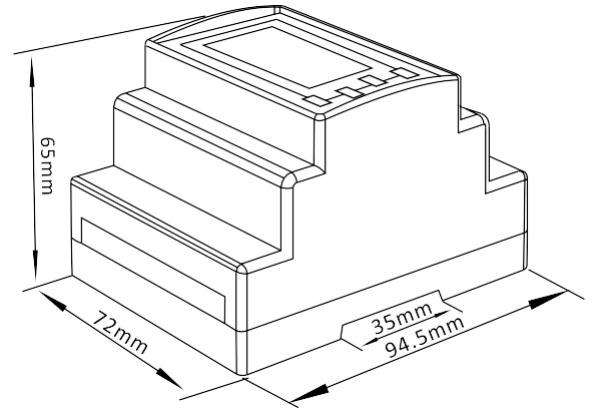
Electrical characteristics		Mechanical Characteristics	
Type of measurement	RMS including harmonics on three phase AC system (3P, 3P+N)	Weight	330g
Measurement accuracy		IP Degree of Protection (IEC 60529)	IP51 (indoor)
- Active Energy	IEC 62053-21 Class 1	Dimensions (WxHxD)	72x94.5x65mm
- Reactive Energy	IEC 62053-23 Class 2	Mounting	Din rail (DIN 43880)
- Frequency	± 0.2%	Material of meter case	Self-extinguishing UL 94 V-0
- Current	± 0.5%	Mechanical environment	M1
- Voltage	± 0.5%		
- Power	± 0.01	Environmental Characteristics	
- Power Factor	± 0.01	Operating Temperature	-25 to 55 °C
Data Update Rate	1 second nominal	Storage Temperature	-40 to 70 °C
Input-Voltage		Humidity Rating	<95% RH at 50 °C (non-condensing)
- VT Primary	30 - 500000 Vac	Pollution Degree	2
- Un	230 V L-N	Altitude	2000m
- Measured Voltage with Over-range	173 to 480 V AC L-L / 100 to 276 V AC L-N	Vibration	10Hz to 50Hz, IEC 60068-2-6
- Impedance	1MΩ	Safety	
- Frequency Range	45-65Hz	Measurement Category	Per IEC61010-1 CAT III
Input- Current		Current Inputs	Require external Current Transformer for Insulation
- CT Ratings		Over voltage Category	CAT III
- Primary	1-9999A	Dielectric Withstand	As per IEC 61010-1 Double Insulated front panel display
- Secondary	1A / 5A	Protective Class	II
- Measured current with Over-range	6A	Communications	
- Withstand	Continuous 120A for 0.5 Seconds	Interface standard and protocol	LoRaWAN Specification 1.0.2
- Impedance	<1MΩ	Frequency	EU868/ AS923/ AU915/ US902/ CN470/ CN433
- Frequency Range	45-65Hz	LoRaWAN Classes	Class C
- Burden	<0.036VA at 6A	Auto-upload	Max. 30 parameters
Auxiliary Power Supply		Auto-upload Interval	Configurable
- Operating Range	85-275V AC / 120-380V DC	Activation Way	OTAA or ABP
- Power Consumption	< 7VA/ 3.5W	Output Power	13dBm in transmission
- Frequency	45 to 65 Hz	Coding Format	ASCII
Max. reading	9999999.9 kWh/ kVAh	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

General & Total Parameters

Parameter	Unit	Register
Frequency	Hz	06
Total Current	A	0A
Neutral Current	A	0B
Total Power Factor	None	0F
Total Active Power	W	13
Total Reactive Power	var	17
Total apparent Power	VA	1B
System Phase Angle	Degrees	1F
Maximum Total System Power Demand	W	20
Maximum Total System Reactive Power Demand	var	21
Maximum Total System Apparent Power Demand	VA	22
Maximum Neutral Current Demand	A	26
Import Active Energy	kWh	2D
Export Active Energy	kWh	2E
Total kWh	kWh	2F
Import Reactive Energy	kvarh	30
Export Reactive Energy	kvarh	31
Total kVarh	kVArh	32
Total kVAh	kVAh	33
Active Energy by Algebraic Sum Method	kWh	46
Reactive Energy by Algebraic Sum Method	kVArh	47
Resettable Total Active Energy	kWh	48
Resettable Total Reactive Energy	kvarh	49
Resettable Import Active Energy	kWh	4A
Resettable Export Active Energy	kWh	4B
Resettable Import Reactive	kVArh	4C
Resettable Export Reactive Energy	kVArh	4D

For more information on these products, please contact our sales team on 01268 773 422 or email enquiry@smartprocess.co.uk
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Phase 1 (L1) Parameters

Parameter	Unit	Register
L1-N Voltage	V	00
L1-2 Voltage	V	03
L1 Current	A	07
L1 Power Factor	-	0C
L1 Active Power	W	10
L1 Reactive Power	var	14
L1 Apparent Power	VA	18
L1 Phase Angle	Degrees	1C
Maximum L1 Current Demand	A	23
Phase 1 L/N Volts THD	%	27
Phase 1 Current THD	%	2A
L1 Import kWh	kWh	34
L1 Export kWh	kWh	37
L1 Total kWh	kWh	3A
L1 Import kVArh	kVArh	3D
L1 Export kVArh	kVArh	40
L1 Total kVArh	kVArh	43

Phase 2 (L2) Parameters

Parameter	Unit	Register
L2-N Voltage	V	01
L2-3 Voltage	V	04
L2 Current	A	08
L2 Power Factor	-	0D
L2 Active Power	W	11
L2 Reactive Power	var	15
L2 Apparent Power	VA	19
L2 Phase Angle	Degrees	1D
Maximum L2 Current Demand	A	24
Phase 2 L/N Volts THD	%	28
Phase 2 Current THD	%	2B
L2 Import kWh	kWh	35
L2 Export kWh	kWh	38
L2 Total kWh	kWh	3B
L2 Import kVArh	kVArh	3E
L2 Export kVArh	kVArh	41
L2 Total kVArh	kVArh	44

Phase 3 (L3) Parameters

Parameter	Unit	Register
L3-N Voltage	V	02
L3-1 Voltage	V	05
L3 Current	A	09
L3 Power Factor	-	0E
L3 Active Power	W	12
L3 Reactive Power	var	16
L3 Apparent Power	VA	1A
L3 Phase Angle	Degrees	1E
Maximum L3 Current Demand	A	25
Phase 3 L/N Volts THD	%	29
Phase 3 Current THD	%	2C
L3 Import kWh	kWh	36
L3 Export kWh	kWh	39
L3 Total kWh	kWh	3C
L3 Import kVArh	kVArh	3F
L3 Export kVArh	kVArh	42
L3 Total kVArh	kVArh	45

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