

Datasheet

- Bi-directional measurement IMP & EXP
- Ethernet Modbus TCP
- Multi-parameters measurement
- LCD with white backlit, adjustable backlit time
- 1A/5A Current Transformer inputs

The SDM630MCT-TCP 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 voltage, frequency, current, power, active and reactive energy, imported or exported. Energy is measured in terms of kWh, kVAh. Maximum demand current can be measured over preset periods of up to 60 minutes. In order to measure energy, the unit requires voltage and current inputs in addition to the supply required to power the product. The requisite current input(s) are obtained via current transformers(CT).

SDM630MCT series can be configured to work with a wide range of CTs with 1A/5A output, giving the unit a wide range of operation. Three types of communication port are available on the meter for remote data transmission:
The SDM630MCT-TCP measures Ethernet Modbus TCP.

This unit can be powered from a separate auxiliary AC power supply. Alternatively it can be powered from the monitored supply, where appropriate.



Specification table

Specification	
Voltage AC	(Un) 3*230/400VAC
Voltage range	100 - 276V a.c. (not for 3p3w supplies)
Voltage between phase	172 to 480V a.c (3p supplies only)
Current input	0.05-5(6)A
Over current withstand	20Imax for 0.5S
Frequency rating value	50/60Hz
Frequency range	45 - 65Hz
AC voltage withstand	4KV/1min
Impulse voltage withstand	6kV - 1.2μS waveform
Power consumption	≤ 2W/10VA
Display	LCD with white backlit
Max. reading	9999999.9 kWh/kVAh

Accuracy	
Voltage	0.5% of range maximum
Current	0.5% of normal
Frequency	0.2% of mid frequency
Power factor	1% of unity(0.01)
Active Power	±1% of range maximum
Reactive power	±1% of range maximum
Apparent power	±1% of range maximum
Active energy	Class1 IEC 62053-21/ Class 0.5S IEC62053-22/ Class B or C EN50470-3:2022
Reactive energy	Class2 IEC 62053-23

Communication	
Ethernet Modbus TCP For Ethernet Modbus TCP, the following communication parameters can be configured from the Set-up menu:	
Type	Ethernet
Protocol	Modbus-TCP
Modbus Address Range	1-247
IP	192.168.1.200 (default)
Port	502
Mask	255.255.255.0
Gateway	192.168.1.1
DHCP	OFF (default)

Performance criteria	
Operation humidity	≤90% non-condensing
Storage humidity	≤95% non-condensing
Operating temperature	-40°C~+70°C
Storage temperature	-40°C~+80°C
International standard	EN50470-3: 2022 and IEC/EN62053-11: 2021 +A11: 2022
Installation category	CAT III
Protection against penetration of dust and water	Front panel IP51 (indoor) Installed in an enclosure

Datasheet

Wiring Configuration

Current and Voltage Inputs

3P4W 3CTs

1P2W(L+N) 1CT

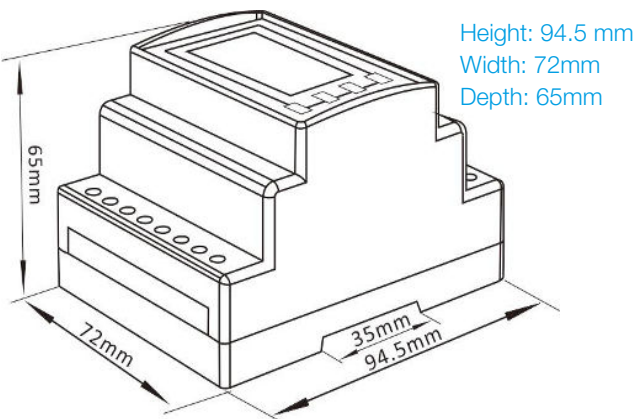
3P3W 2CTs

Definitions of Other Terminals

Wiring Guide

Terminal ① ② ③ ④ ⑤ ⑥ ⑦ ⑧	Measurement Connection	Screw Connection
	Strip Length	6-7mm
	Screw	M3
	Rigid/supple	0.5-2.5mm² (30 ~ 14AWG)
	Tightening torque	0.2 Nm
	Model	PZ0
Terminal ⑨ ~ ⑳	Measurement Connection	Screw Connection
	Strip Length	6-7mm
	Screw	M3
	Fixed/flexible (Wire Range)	0.5-2.5mm² (30 ~ 14AWG)
	Tightening torque	0.2 Nm
	Model	PZ0

Dimension Drawing



Installation

