

Datasheet

- Overall system accuracy class B (1%)
- Phase sequence indication
- Built in Modbus-TCP output
- Total harmonic Distortion up to 31st level
- Single load option 3 phase 4 wires or 3x1 phase circuits (SDM630MCT-ML-1-TCP)
- Dual load option 2x3 phase 4 wires or 6x1 phase circuits (SDM630MCT-ML-2-TCP)
- Tri load option 3x3 phase 4 wires or 9x1 phase circuits (SDM630MCT-ML-3-TCP)
- Up to 124x3 phase 4 wires channels or 372x1 phase channels on one bus network

SDM630MCT-ML-TCP is a new multi-function energy meter designed by EASTRON for multi-channels measurements. The meter can work with 1p2w, 1p3w, 3p3w and 3p4w electricity grid, and it provides all important electrical parameters: voltage, current, power, PF, THD, frequency, demand, energy etc. By using plugin connectors, the meter provides an easy click solution saving 80% installation time and avoiding wiring mistakes. The SDM630MCT-ML-TCP is compactly designed. It can be used as 4x three phase energy meters or 12x single phase energy meters. 100mA (100mV optional) secondary external CT is required to work with the meter. The meter SDM630MCT-ML-TCP is equipped with a Ethernet communication port and MODBUS-TCP protocol is adopted for remote reading and programming.



Specification Table

Specification	
Nominal voltage(Un)	3x230/400 V ac
Operational voltage	80% - 120% of Un
Aux.power supply	85~276V AC or 120~380V DC
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2pS
Rated current (Imax)	100mA/100mV CT input
Operational current range	0.4% Ib-Imax
Over current withstand	20 Imax for 0.5s
Operational frequency range	50 or 60Hz
Power consumption per phase	≤ 2W/10VA
Pulse output indicator	LED
Pulse output rate	3200 imp/kWh
Display	LCD
Max reading	99999999 kWh/kVarh

Ethernet Communication	
Interface Standard and Protocol	Ethernet Modbus TCP
Communication Address	1~247
IP Address Assignment	DHCP Factory default address: 192.168.1.200
Data Type	Floating Point
Transmission Speed	> 100MB
Response Time	< 100mS

Performance criteria	
Operating humidity	≤ 90%, no condensing
Storage humidity	≤ 95%, no condensing
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/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
Radiated & conducted emissions	EN 55022

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

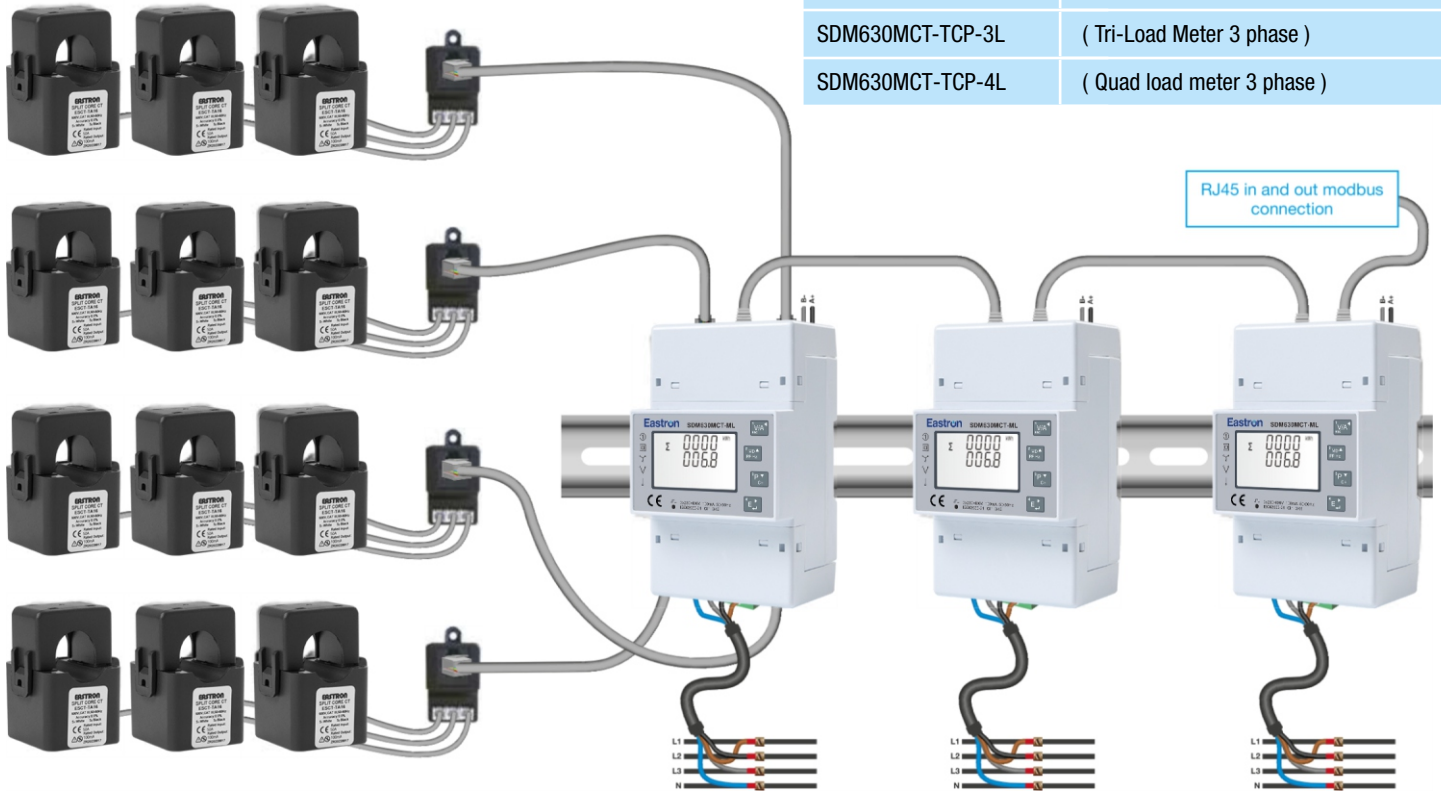
Enclosure	
Mounting	DIN rail(DIN3880)
Dimesion	71x122.5x66mm(WxHxD)
Protecting rating	IP51(indoor)
Material	UL94V-0
Weight	330g

For more information on these products, please contact our sales team on 86 0573 83698881 or email sales@eastrongroup.com

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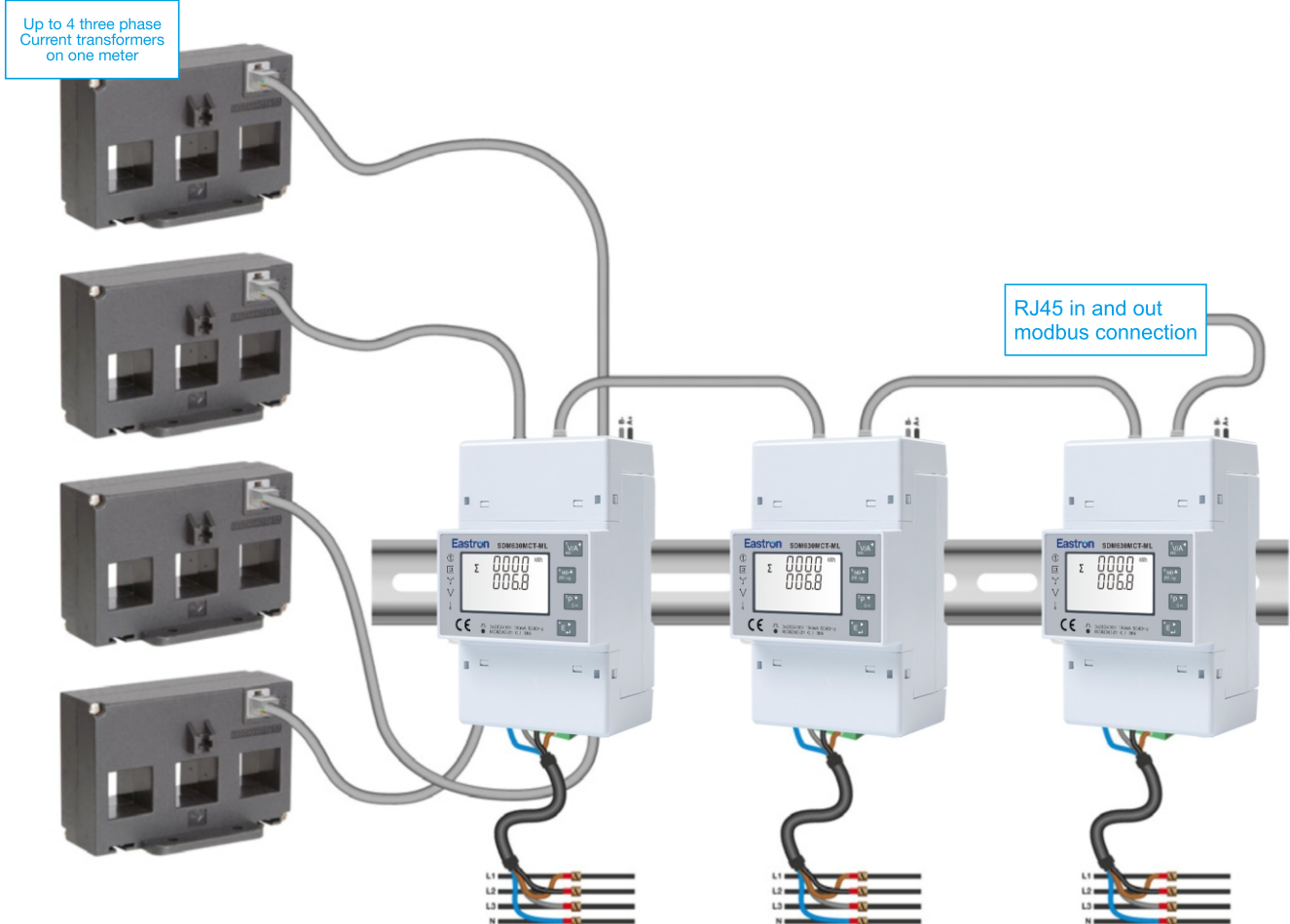
Example of 1 phase installation

Up to 12 one phase current transforms on one meter(SDM630MCT-TCP-4L)

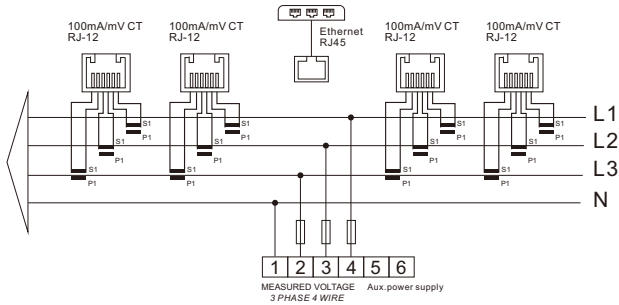


Meter Type	Description of Meter
SDM630MCT-TCP-1L	(Single Load Meter 3 phase)
SDM630MCT-TCP-2L	(Dual Load Meter 3 phase)
SDM630MCT-TCP-3L	(Tri-Load Meter 3 phase)
SDM630MCT-TCP-4L	(Quad load meter 3 phase)

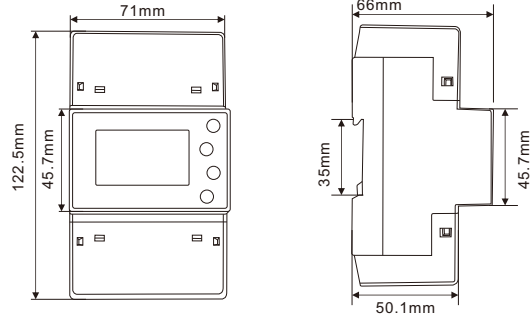
Example of 3 phase installation



Wiring Configuration



Dimension Drawing



Height 122.5mm
Width 71mm
Depth 66mm

Features

- 1 V/A ESC**
Ph to Ph Volts / Ph to N Volts / Voltage THD % / Current THD %
- 2 MD PF Hz**
Frequency and Power Factor total / Power Factor per Phase / Maximum Power Demand / Maximum Current Demand
- 3 P CH**
Active Power per Phase / Reactive Power per Phase / Apparent Power per Phase / Total Active Power / Total Reactive Power / Total Active Power / Channel Selection
- 4 E**
Total kWh / Total kVAh / Imported kWh / Imported kVAh / Exported kWh / Exported kVAh

Conformity References

Electromagnetic Compatibility: IEC/EN61326-1, IEC/EN55011 Class A, IEC/EN61000-4-2, -3-4-5-6-8-11 IEC/EN50470-1/3

Accuracy: IEC/EN50470-1/3, IEC/EN62053-21, IEC/EN62053-23

Safety: IEC/EN61010, IEC/EN50470-1

Low Voltage Directive: EN 61010_1:2010+A1:2019 & EN 61010-2-30-2010