

## Three Phase Multifunctional Energy Meter

# Datasheet

- 65A direct load
- Multi-parameters measurement
- Plug-in solution
- LCD with white backlit, adjustable backlit time

SDM630-TCP is a new multi-function energy meter designed by EASTRON. The meter can work with 1p2w, 3p3w, 3p4w electricity grid. It provides all important electrical parameters: voltage, current, power, PF, THD, frequency, demand, energy etc. The meter supports max.65A direct connection, saving the cost and avoiding the trouble to connect external CTs, giving the unit a cost-effective and easy operation.

The meter SDM630-TCP is equipped with a Ethernet communication port and MODBUS-TCP protocol is adopted for remote reading and programming.

The meter has a big back-lighted LCD showing data and uses 4 touch keypads in front for data checking and programming.



## Specification table

Measurements	
Phase voltage	V1, V2, V3
Line voltage	V1-2, V2-3, V3-1
Current	I1, I2, I3
Active power	P1, P2, P3, P_total (total active power)
Reactive power	Q1, Q2, Q3, Q_total (total reactive power)
Apparent power	S1, S2, S3, S_Total (total apparent power)
Frequency	Hz
Power factor	PF
Active energy	Ep_imp (import active energy), Ep_exp (export active energy), Ep_total (total active energy)
Reactive energy	Eq_imp (import reactive energy), Eq_exp (export reactive energy), Eq_total (total reactive energy)
THD-I and THD-U	
Maximum demand:	MD
Setup	
Ethernet setup	
Demand Interval Time	
Backlit time	
Supply system 1p2w, 3p3w,3p4w	
Reset	
Password modification	
Application	
SDM630-TCP supports Modbus-TCP for easy integration with other I/O and SCADA system.	
Technical parameters	
Voltage AC (Un)	3*230/400VAC
Voltage range	100 - 276V a.c. ( not for 3p3w supplies )
Voltage between phase	173 to 480V a.c ( 3p supplies only)
Current input	
Basic current (Ib)	10A
Maximum current (Imax)	65A
Over current withstand	30Imax for 0.01s
Frequency	
Rated value	50/60Hz
Range	45 - 65Hz

Voltage withstand	
AC voltage withstand	4KW/1min
Impulse voltage withstand	6kV – 1.2μS waveform
Power consumption	≤ 2W/10VA
Display	LCD with white backlit
Max. reading	999999.99 kWh/kVarh

Accuracy	
Voltage	0.50%
Current	0.50%
Frequency	0.20%
Power factor	1%
Active power	1%
Reactive power	2%
Apparent power	1%
Active energy	Class1
Reactive energy	Class2

Ethernet communication	
Type	Ethernet
Protocol	Modbus-TCP
Modbus address range	1-247
IP	192.168.1.200 (default)
Port	50200%
MASK	255.255.255.0
Gateway	192.168.1.1
DHCP	Off (default)

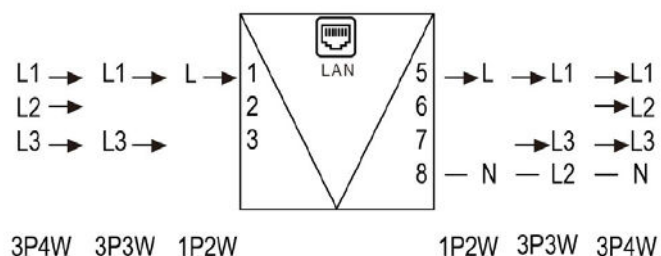
Performance criteria	
Operation humidity	≤90%
Storage humidity	≤95%
Operating temperature	-25°C~+55°C°
Storage temperature	-40°C~+70°C°
International standard	IEC62053-21
Accuracy class	Class 1
Installation category	CATIII
Protection against penetration of dust and water	IP51 (indoor)

# SDM630-TCP

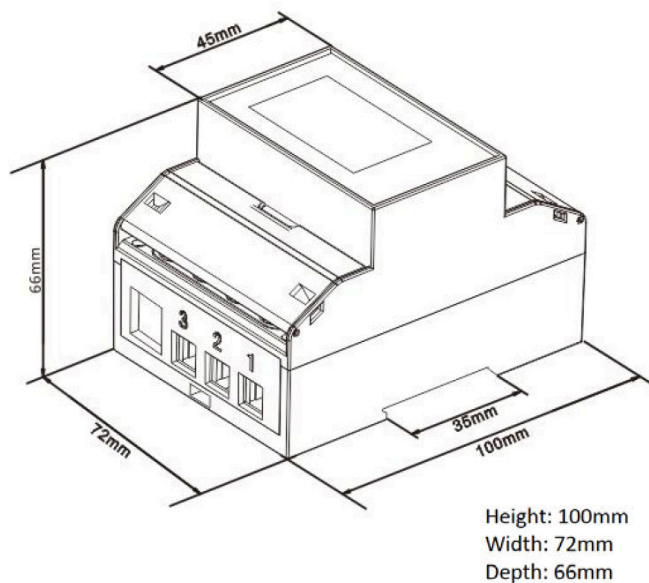
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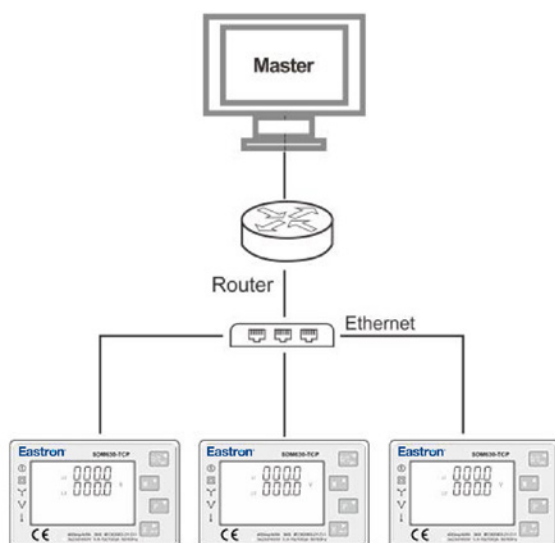
### Wiring Configuration



### Dimension Drawing



### Communication



### 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