

## Datasheet

- Multi-parameter Measurement
- No need external integrator
- RS485 Modbus communication
- Bi-directional measurement for kW and kWh
- 3 selectable current scales
- PT operated
- Free configuration software
- Work with 1P2W, 3P3W, 3P4W
- Configurable pulsed output

The SDM630MCT-RC is an advanced multi-function three-phase energy monitoring solution with optional output such as pulses and RS485 RTU Modbus. Equipped with configuration and display buttons for ease of navigation through the various parameters and settings. Housed for DIN rail mounting, IP51 protection and directly connects with Rogowski coils for current measurement without integrator. The unit can also measure Maximum demand current and power, which is measured over preset periods of up to 60minutes.



## Specification Table

Specification	
Nominal voltage(Un)	3x230/400 V ac
Operational voltage	80% - 120% of Un
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2μS
Rated current (Ib)	85mV/kA Rogowski Coil input
Operational current range	0.4% Ib-I <sub>max</sub>
Over current withstand	20 I <sub>max</sub> for 0.01s
Operational frequency range	50 or 60Hz
Power consumption per phase	≤2W/10VA
Display	LCD
Max reading	9999999.9 kWh/kVarh

Performance criteria	
Operating humidity	≤ 90%, non-condensing
Storage humidity	≤ 95%, non-condensing
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21
Accuracy class	Class1
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% option available
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

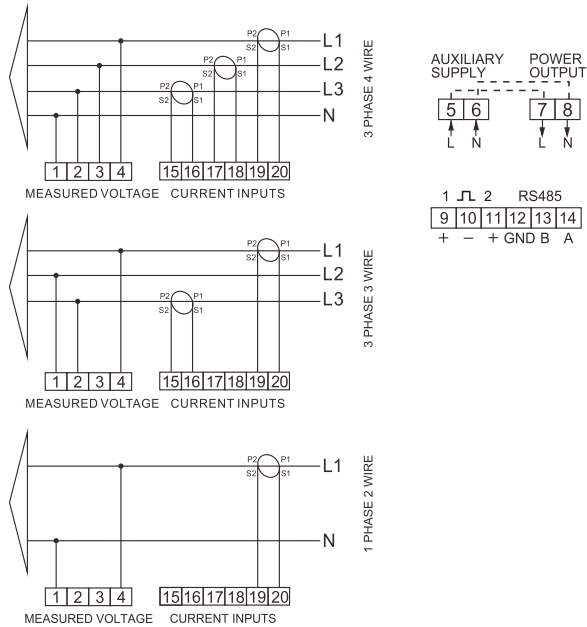
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	2400/4800/9600/19200/38400bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

Pulse output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200(default)/100/60ms
Pulse output 2	5000imp/kWh

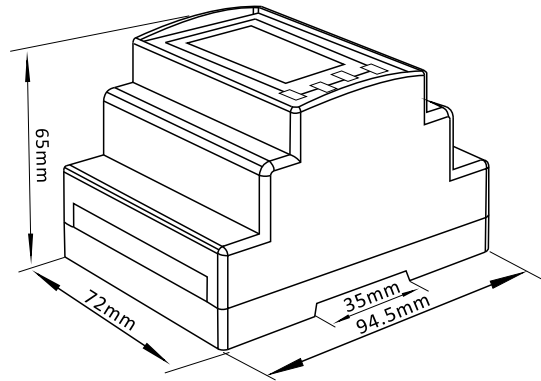
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### Wiring Configuration



### Dimension Drawing



Height 94.5mm  
Width 72mm  
Depth 65mm

### Ordering Option

Meter Type	Description of Meter
<b>SDM630MCT-RC</b>	Three phase four wires, one phase two wires, 3x230(400)V, 85mV/kA rogowski coil input, Class 1.0 50/60Hz, Backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU. Measures kWh, kVarh, W, Var, VA, V, A, PF, Hz, Max. DMD, Imp_kWh, Exp_kWh etc.

### Rogowski Coils



Coil Code	Reference Rated Current	Class	Window Size(mm)	Coil Length(mm)
ESCT-RC60	500A	0.5	50	200
ESCT-RC100	1000A	0.5	100	395
ESCT-RC150	5000A	0.5	150	525

### Conformity References

**Electromagnetic Compatibility:** EN61326-1:2013 & EN61326-2-3:2013

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

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