

### Datasheet

- Three phase 5A/100mV current transformer operated
- Accuracy class 1 (Active Energy)
- Active energy and power measurement
- Bi-directional measurement for kW and kWh
- Configurable pulse output
- RS485 Modbus RTU
- Multi-parameter measurement

The SDM72CT-M Series is a entry level three phase energy monitoring solution with configurable pulse output and RS485 RTU Modbus port. SDM72CT-M series will also measure and display multi-parameters like total active energy( kWh), import and export power (watts) / energy (kWh) , current, voltage, frequency, power factor, etc. Housed for DIN rail mounting, IP51 protection and 5A/100mV current transformer operated. The required current inputs are obtained via current transformers. This meter can be configurable to work with a wide range of CTs, giving the unit a wide range of operation.



## 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
Basic current (Ib)	5A
Maximum rated current (Imax)	6A
Operational current range	0.4% Ib-Imax
Over current withstand	20 Imax for 0.01s
Operational frequency range	50/60Hz
Power consumption per phase	≤ 2W/10VA
Pulse output	1000imp/kWh
Display	LCD
Max reading	999999.9 kWh

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

Performance criteria	
Operating humidity	≤ 90%, no condensing
Storage humidity	≤ 95%, no condensing
Operating temperature	-25°C - +55°C/-40°C - +70°C(optional)
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
Altitude	up to 2000m
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

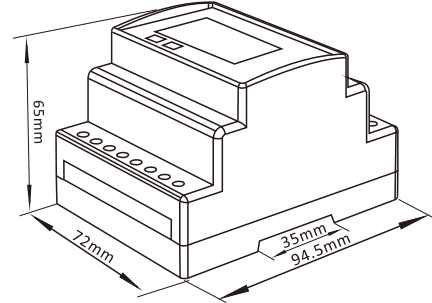
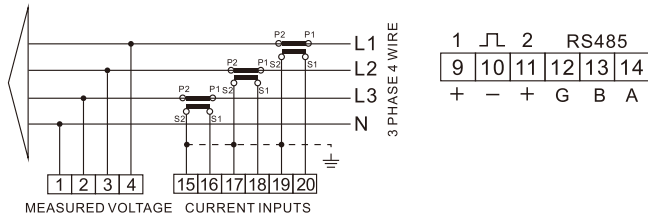
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### Wiring Configuration

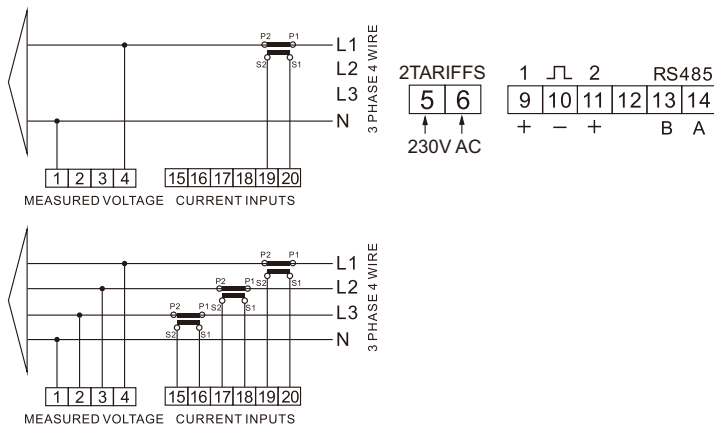
### Dimension Drawing

#### SDM72CT-M/MV



Height 94.5mm  
Width 72mm  
Depth 65mm

#### SDM72CT-M-2T



### Ordering Options

Meter Type	Description of Meter
<b>SDM72CT-M</b>	3P4W 3x230(400)V, 5A CT input, 50/60Hz, Active energy (kWh), Current / Voltage / Power per phase, Total Power, IMP & EXP energy, Pulse output and RS485 Modbus RTU, Accuracy better than 1, 72mm 4 module width, Din rail mounting.
<b>SDM72CT-MV</b>	3P4W 3x230(400)V, 100mV CT input, 50/60Hz, Active energy (kWh), Current / Voltage / Power per phase, Total Power, IMP & EXP energy, Pulse output and RS485 Modbus RTU, Accuracy better than 1, 72mm 4 module width, Din rail mounting.
<b>SDM72CT-M-2T</b>	1P2W, 3P4W 3x230(400)V, 5A CT input, 50/60Hz, 2 Tariffs, Active energy (kWh), Current / Voltage / Power per phase, Total Power, IMP & EXP energy, Pulse output and RS485 Modbus RTU, Accuracy better than 1, 72mm 4 module width, Din rail mounting.

### Conformity References

**Electromagnetic Compatibility:** EN 61326-1:2013 & EN 61326-2-3:2013

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

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