

Datasheet

- Accuracy class 1 (Active Energy)
- Bi-directional measurement for kW and kWh
- Configurable pulsed output (Import / Export)
- Modbus communication
- Multi-parameter measurement
- Free configuration software

The SDM120CT 100mA / 40mA / 100mV is an advanced multifunction single phase energy monitoring solution with optional outputs such as pulses, RS485 RTU Modbus. Equipped with scroll display button for ease of navigation through the various parameters. Housed for DIN rail mounting, IP51 protection and current transformer operated.



Specification Table

Specification	
Nominal voltage(Un)	230V
Voltage range	176~276V AC (Max. 276V)
AC voltage withstand	4KV for 1 minute
Impulse voltage withstand	6KV-1.2μs
Primary current	1~9999A
Secondary input	100mA / 40mA / 100mV CT Input
Over current withstand	20 Imax for 0.5s
Operational frequency range	50 / 60Hz
Internal power consumption	≤ 2W/10VA
Pulse output 1	Configurable
Pulse output 2	1000imp/kWh
Display	LCD with backlight
Max reading	999999 kWh

Performance criteria	
Operating humidity	≤ 90%, no condensing
Storage humidity	≤ 95%, no condensing
Operating temperature	-40°C - +70°C
Storage temperature	-40°C - +80°C
Reference temperature	23°C±2°C
International standard	IEC62053-21
Accuracy class	Class 1
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

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 IEC 62053-23
Active energy (Wh)	Class 1

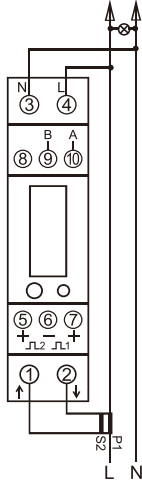
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000m
Parity	NONE/EVEN/ODD
Data bit	8
Stop bit	1 or 2

Pulse output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	1000imp/kWh

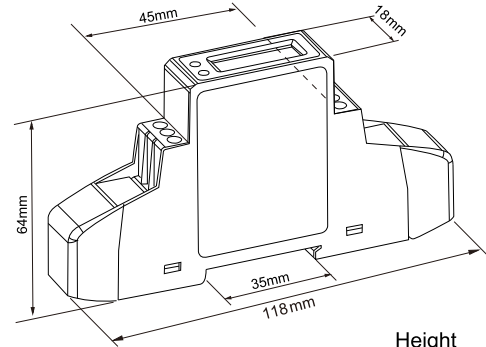
For more information on these products, please contact our sales team on 86 0573 83698881 or email sales@eastrongroup.com

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Wiring Configuration



Dimension Drawing



Height 118mm
Width 18mm
Depth 64mm

Ordering Options

Meter Type	Description of Meter
SDM120CT 100mA	Single phase two wires, 120V or 230V AC, 100mA CT operated, 50/60Hz. Backlighted LCD display, 2 pulse outputs, RS485 Modbus communication, Measures active energy (kWh), reactive energy (kVarh), active power (W), reactive power (Var), apparent power (VA), voltage (V), current (A), power factor, demand and frequency etc.
SDM120CT 40mA	Single phase two wires, 120V or 230V AC, 40mA CT operated, 50/60Hz. Backlighted LCD display, 2 pulse outputs, RS485 Modbus communication, Measures active energy (kWh), reactive energy (kVarh), active power (W), reactive power (Var), apparent power (VA), voltage(V), current(A), power factor, demand and frequency etc.
SDM120CT 100mV	Single phase two wires, 120V or 230V AC, 100mV CT operated, 50/60Hz. Backlighted LCD display, 2 pulse outputs, RS485 Modbus communication, Measures active energy (kWh), reactive energy (kVarh), active power (W), reactive power (Var), apparent power (VA), voltage(V), current(A), power factor, demand and frequency etc.

Conformity References

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

Low Voltage Directive: EN50470-3: 2022 ; IEC/EN62053-11: 2021 +A11: 2022