

SDM120CT Series

Din Rail Mounted / Single Phase



Din Rail Mounted / Single Phase (CT) SDM120 Series

Datasheet

- **Single Phase 5A Current Transformer operated**
- **MID B+D Certified**
- **Accuracy Class 1 (Active Energy)**
- **Bi-directional Measurement for kW and kWh**
- **Configurable Pulsed output (Import/ Export / Nett kWh)**
- **Modbus (SDM120CTModbus) or Mbus (SDM120CTMbus)**
- **Multi Parameter measurement**
- **Free Configuration Software**

The SDM120 Series is an advanced multifunction single phase energy monitoring solution with optional outputs such as Pulsed, RS485 RTU Modbus and Mbus. Equipped with scroll display button for ease of navigation through the various parameters. Housed for DIN rail mounting, IP51 protection and current transformer operated 1/5A. Selectable measurement modes using our free configurations software for kWh display, Total kWh (Import + Export), Import kWh and Net kWh (Export - Import) Certified in the UK according to EU Directive 2014/32/EU. MID Certificate number 0120 / SGS0141.



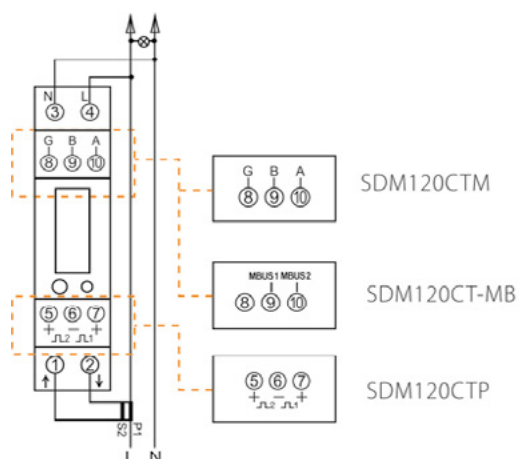
Specification table

Specification		Accuracy	
Nominal voltage(Un)	120V or 230V ac	Voltage, Current	0-5%
Operational voltage	80%~120% of Un	Frequency	0-2% of mid-frequency
Insulation capabilities		Power factor	1% of unity (0.01)
- AC voltage withstand	4KV for 1 minute	Active power , Apparent power	±1% of range maximum
- Impulse voltage withstand	6KV-1.2μs	Reactive power	±1% of range maximum
Primary current	5~9999A	Reactive energy(Varh)	Class 2
Secondary input	1/5A AC Input	Active energy (Wh)	Class 1
Over current withstand	20 Imax for 0.01s		
Operational frequency range	50 or 60Hz	Modbus	
Internal power consumption	≤ 2W/10VA	Bus type	RS485(semi-duplex)
Pulse output 1	configurable	Protocol	Modbus RTU
Pulse output 2	1000imp/kWh	Baud rate	1200/2400/4800/9600bps
Display	LCD with backlight	Address range	1-247
Max reading	999999 kWh	Max. Bus loading	64pcs
		Communication distance	1000M
		Parity	EVEN/ODD/NONE
		Data bit	8
		Stop bit	1
Performance criteria		M-bus	
Operating humidity	≤ 90%	Bus type	M-bus
Storage humidity	≤ 95%	Protocol	EN13757-3
Operating temperature	-25°C - +55°C	Baud rate	300/600/1200/2400/4800/9600
Storage temperature	-40°C - +70°C	Parity	NONE/EVEN/ODD
Reference temperature	23°C± 2°C	Stop bits	1 or 2
International standard	IEC 62053-21 / EN50470-1/3	Primary Address	1 to 250
Accuracy class	Class1/Class B	Secondary Address	00 00 00 01 to 99 99 99 99
Installation category	CAT II		
Mechanical environment	M1	Pulse output	
Electromagnetic environment	E2	Bus type	M-bus
Degree of pollution	2	Protocol	EN13757-3
Protection against penetration of dust and water	IP51(indoor)	Baud rate	300/600/1200/2400/4800/9600
Insulating encased meter of protective class	II	Parity	NONE/EVEN/ODD
Altitude	up to 2000m	Stop bits	1 or 2
Electrostatic discharges	8kV contact / 15kV air gap	Primary Address	1 to 250
Electromagnetic HF fields	IEC 61000-4-3	Secondary Address	00 00 00 01 to 99 99 99 99
Electrical fast transients	4kV		
Surge	4kV		
Radiated & conducted emissions	EN 55022		

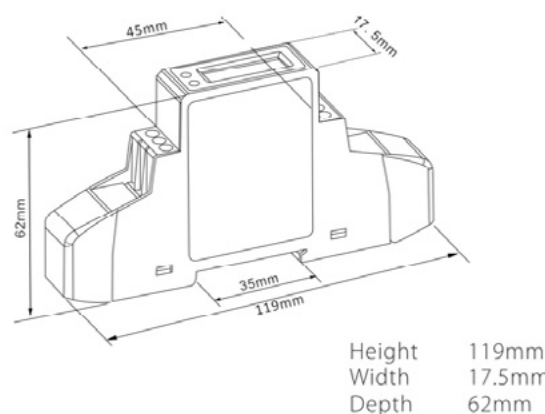
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Wiring Configuration



Dimension Drawing



Ordering options

Meter Type	Description of Meter
SDM120CT-Modbus	Single phase 2 wire, 120V or 230V AC, 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-Mbus	Single phase 2 wire, 120V or 230V AC, CT operated, 50/60Hz.Backlighted LCD display, 2 Pulse outputs, M-bus EN13757-3 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-Pulse	Single phase 2 wire, 120V or 230V AC, CT operated, 50/60Hz.Backlighted LCD display, 2 Pulse outputs. 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: EN61326-1:2013 & EN61326-2-3:2013

Low Voltage Directive: EN61010-1-2010 & EN61010-2-30-2010

MID DIRECTIVE: 2014/32/EU