

Datasheet

- **45A Max. direct load**
- **1 module wide**
- **Active energy measured**
- **Pulse output**
- **Din rail mounted**

The SDM120 series is a range of 1 module , single phase energy meters consisting of 3 different types, each with their specific characteristics.They are all of a high accuracy Class 1/B. It can be widely used to measure single phase like residential, utility application. The meter measures active energy (kWh) with a pulse output. Certified in the UK according to EU Directive 2014/32/EU. MID certificate number 0120/SGS0141.



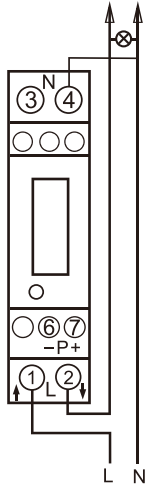
Specification Table

specifications		Performance criteria	
Model	SDM120A/120D/120DB	Operating humidity	≤ 90%, no condensing
	SDM120A electromechanical register	Storage humidity	≤ 95%, no condensing
Display	SDM120D LCD	Operating temperature	-25°C - +55°C
	SDM120DB LCD with backlit	Storage temperature	-40°C - +70°C
Nominal voltage (Un)	120V or 230V AC	Reference temperature	23°C± 2°C
Operational voltage	80% - 120% of Un	International standard	IEC 62053-21 / EN50470-1/3
Insulation capabilities		Accuracy class	Class1/Class B
- AC voltage withstand	4KV for 1 minute	Installation category	CAT III
- Impulse voltage withstand	6KV-1.2μS	Mechanical environment	M1
Basic current (Ib)	5A	Electromagnetic environment	E2
Maximum rated current (Imax)	45A	Degree of pollution	2
Operational current range	0.4Ib-Imax	Protection against penetration of dust and water	IP51(indoor)
Over current withstand	30 Imax for 0.01s	Insulating encased meter of protective class	II
Operational frequency range	50Hz/60Hz	Electrostatic discharges	8kV contact / 15kV air gap
Internal power consumption	≤ 2W/10VA	Electromagnetic HF fields	IEC 61000-4-3
Pulse output	1000imp/kWh	Electrical fast transients	4kV
Max reading	99999.9 kWh	Surge	4kV
		Radiated & conducted emissions	EN55022

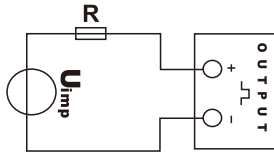
For more information on these products, please contact our sales team on 86 0573 83698881 or email sales@eastrongroup.com

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Wiring Configuration

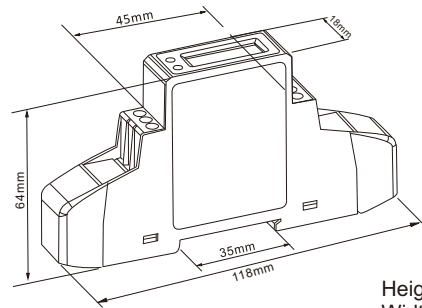


Pulse output



ATTENTION: Pulse output must be fed as shown in the wiring diagram above. Scrupulously respect polarities and the connection mode. Opto-coupler with potential-free SPST-NO Contact.
Contact range: 5~27V DC
Max. Current Input: 27mA DC.

Dimension Drawing



Height 118mm
Width 18mm
Depth 64mm

Ordering Options

Meter Type	Description of Meter
SDM120A	Single Phase two wires, 230V AC, 0.25~5(45)A , 50/60Hz, Analog display, 1 pulse output, measures total active energy
SDM120D	Single Phase two wires, 230V AC, 0.25~5(45)A , 50/60Hz, LCD display, 1 pulse output, measures total active energy
SDM120DB	Single Phase two wires, 230V AC, 0.25~5(45)A , 50/60Hz, Backlighted LCD display, 1 pulse output, measures total active energy

Safety and EMC

Measurement category: IEC 61010-1 CAT III

Current input: Direct connect

Over-voltage category: CAT III

Dielectric withstand: IEC 61010-1 double insulated

Protective class: II

EMC: IEC 61326-1:2013 ; IEC 61326- 2-3:2013