

Datasheet

- Single phase 100A direct fed
- Accuracy class 1 (Active Energy)
- Fixed pulse output (1000imp/kWh)
- Active energy measurement

The SDM230A/D is an entry level single-phase energy monitoring solution with a fixed pulse output. It measures and displays total active energy. A pulse output is equipped for remote energy collection.



Specification Table

Specification	
Display	SDM230A: analog display SDM230D: LCD display
Nominal voltage(Un)	230V ac
Operational voltage	80%~120% of Un
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2 / 50μS waveform
Current input	0.5-10(100)A
Basic current (Ib)	10A
Maximum rated current (Imax)	100A
Operational current range	0.4% Ib-Imax
Over current withstand	30 Imax for 0.01s
Operational frequency range	50/60Hz
Internal power consumption	≤ 2W/10VA
Pulse output	1000imp/kWh
Pulse width	100mS
Max reading	99999.9 kWh

Accuracy	
Voltage, Current	0.5%
Frequency	0.2%
Power factor	±0.01
Active power, Apparent power	±1%
Reactive power	±1%
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1

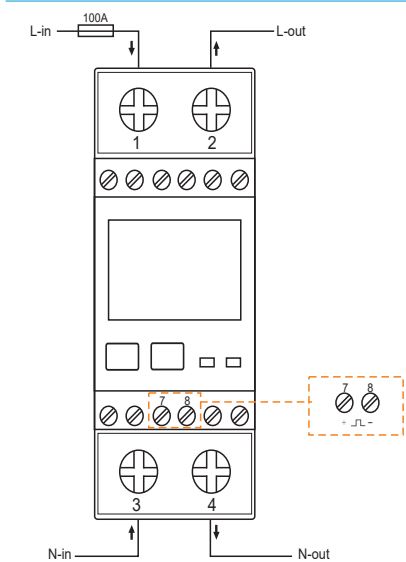
Performance criteria	
Operating humidity	≤ 90%, no condensing
Storage humidity	≤ 95%, no condensing
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C±2°C
International standard	IEC 62053-21
Accuracy class	Class1
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51 front panel; IP20 whole meter
Insulating encased meter of protective class	II
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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For more information on these products, please contact our sales team on 86 0573 83698881 or email sales@eastrongroup.com

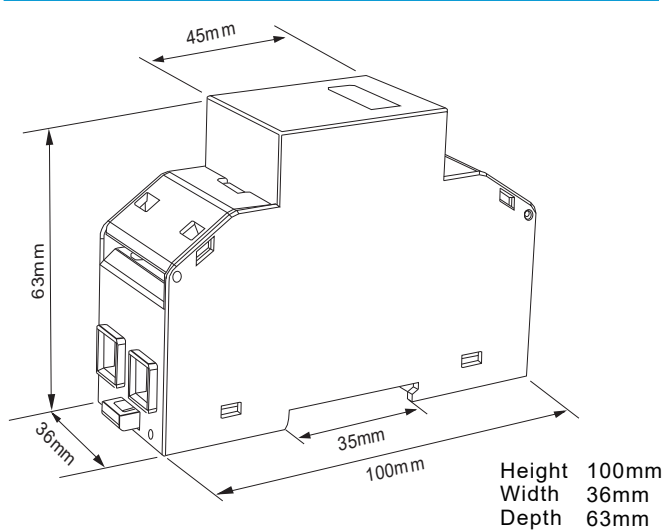
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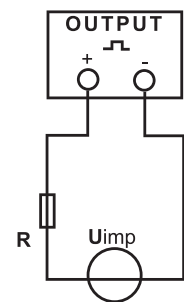
Wiring Configuration



Dimension Drawing



Pulse Output



ATTENTION: Pulse output must be fed as shown in the wiring diagram on the left. Scrupulously respect polarities and the connection mode. Opto-coupler with potential-free SPST-NO Contact.

Contact range: 5~27VDC
Max. current Input: 27mA DC

Ordering Options

Meter Type	Description of Meter
SDM230A	Single phase two wires, 230V AC, 0.5~10(100)A, 50/60Hz, Analog display, Pulse output, measures and displays active energy
SDM230D	Single phase two wires, 230V AC, 0.5~10(100)A, 50/60Hz, LCD display, Pulse output, measures and displays active energy

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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