DIN Rail Mounted / Single Phase / (100A) SDM230 Wifi

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PRECISION INSTRUMENTATION

Datasheet



- **Multi-measurement: kWh,W, V, A, PF, Hz, dmd,etc.**
- **LCD with backlit**
- **2 Pulse Output + WIFI communication**
- **Bi-directional Measurement**
- **Max. 100A Direct Load**
- **2 Module 36mm Width**
- **MID approved**

The SDM230-WIFI is designed for single-phase residential, utility and industrial applications. The device displays various important electrical parameters on a LED backlit LCD display. Bi-directional energy measurement makes the SDM230 an excellent choice for solar PV energy metering. An Energy app is available to view real time measurements and usage over time in graphs. 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/SGS0206.

Specification Table

Specification	
Nominal voltage(Un)	120V or 230V 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)	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 or 60Hz
Internal power consumption	<2W/10VA
Pulse output 1	1000imp/kWh
Pulse output 2	1000imp/kWh(only for SDM230DR/Bi)
Pulse output 2	999999.9 kWh

Environment	
Operating humidity	≤90%
Storage humidity	≤95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
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
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
Active energy (Wh)	Class 1

Pulse output	
Pulse outputs	2
Pulse output type	Passive
Pulse output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	400imp/kWh

Wifi communication	
Wi-Fi support	2.4Ghz b/g/n
Wi-Fi data freq.	Every second

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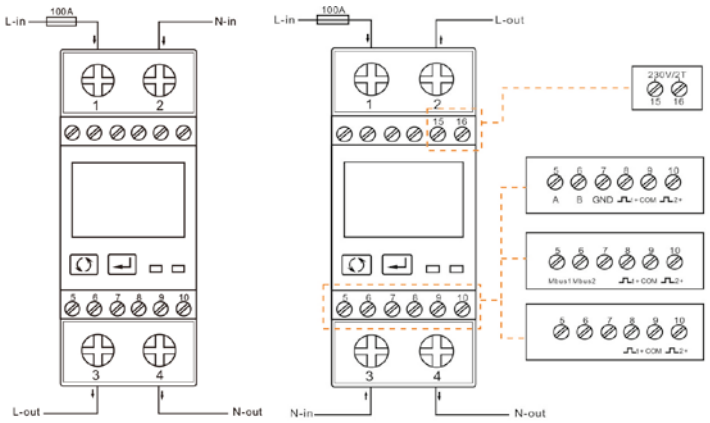
Sifam Tinsley Instrumentation Ltd
1 Warner Drive
Springwood Industrial Estate
Braintree, Essex CM7 2YW

Tel: +44 (0) 1376 335271
Email: sales@sifamtinsley.com
www.sifamtinsley.co.uk

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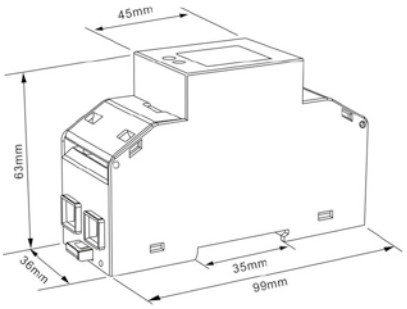
Datasheet

Wiring Configuration



SDM230 WIFI

Dimension Drawing



Height	99mm
Width	36mm
Depth	63mm

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

Sifam Tinsley Instrumentation Ltd
1 Warner Drive
Springwood Industrial Estate
Braintree, Essex CM7 2YW

Tel: +44 (0) 1376 335271
Email: sales@sifamtinsley.com
www.sifamtinsley.co.uk