Solar Smart Monitor SC-23 DATASHEET

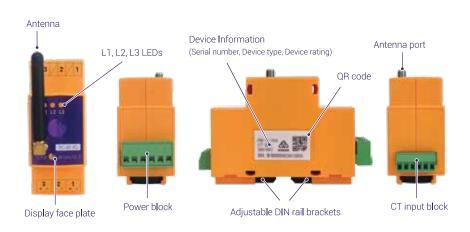






Features

- ✓ Complete installation in less than 15 min
- ✓ 5 second to 5 minute measurement and reporting on each of three circuits
- √ 1% revenue grade accuracy
- √ 5 year warranty
- ✓ Small 28mm wide (2 pole)
 DIN rail enclosure
- Suitable for three phase or single phase
- Compatible with all solar PV systems and inverters
- Solar PV and/or AC load consumption data
- Uses Current Transformers (CTs) with a voltage reference
- Contains no components that require replacement (such as batteries)



Typical Configuration

Single Phase Configuration:



For a typical single phase application the SC-23 will monitor the solar PV plus two household circuits, e.g. hot water and total demand.

Three Phase Configuration:



For a typical three phase application one SC-23 will monitor all three incoming phases of the solar PV system. Additional SC-23 devices can be installed to monitor additional 3 phase load circuits.

Installation

- Plug and play installation
- Install in less than 15 minutes
- Comes with a pre-wired easy fit power block terminal (for 1 or 3 phase)
- Easy line wiring diagrams provided with each kit
- Online Interactive Set-Up guide available for each unique installation
- Business hours live support available from Solar Analytics

Hardware Specifications

Electrical Characteristics

Measurement configuration

Voltage Current 1,2 or 3 phase (Neutral required)

0.5% of reading

Mode Fundamental only/all harmonics

Measurement accuracy

Current and voltage

Power

Frequency

Real power: 1% of reading from pf 0.8 leading to 0.5 lagging: Reactive power: 2% below 0.5 lagging

Power factor 2% from 0.8 leading to 0.5 lagging Active energy Class 1 as defined by IEC 62053-21 Class 2 as defined by IEC 62053-23

Reactive energy

Input-voltage characteristics Measured voltage Permissible overload 50 to 280 V AC 1.15Un

Input-current characteristics Standard CT ratings Internal burden

60A(10mm) 400A(25mm) 600A(35mm)

2.7 ohm

Turns ratio Permissible

Adjusted to suit CT; field updateable

300 mA continuous

Internal power

CT Connections

overload

0.6 W Single Phase (P1) Not isolated (neutral referenced)

Mechanical Characteristics

Weight

IP degree of protection

IP50 (front display) (higher in cabinet)

Dimensions

35 x 90 x 66 (mm) (2 pole)

Connection

6 positions / 4 connections 5.08 mm pitch Voltage

FCI part 20020007-H061B01LF

Current: 3 meter version

6-way 3.81mm pitch

FCI part 20020004-D061B01LF

Environmental Conditions

Operating temperature

-5 °C to +55 °C

Installation / pollution category

III/2

Electromagnetic immunity

Electrostatic discharge Immunity to radiated fields Immunity to fast transients Immunity to impulse waves Level III (IEC 61000-4-2) Level III (IEC 61000-4-3) Level IV (IEC 61000-4-4) Level IV (IEC 61000-4-5)

Communication

3G Antenna Pentaband External SMA

Internal (accredited partners)

All data and communications provided by Solar Analytics

Servers

Hosting Management Data volume (5 sec reports) 2 hosting services dms.19510927.com 64MB/month(all data) 20/MB/month(all data)

Power Quality

Frequency measurement Voltage

Data volume (30 sec reports)

45 to 65 Hz, 0.01 Hz 50-300V. 0.1V

Compliance Certificates

A-TICK Safety

pending

Conducted Emissions Radiated Spurious Emissions AS/NZ60950.1:2011

AS/NZS CISPR 22:2009 ClassB

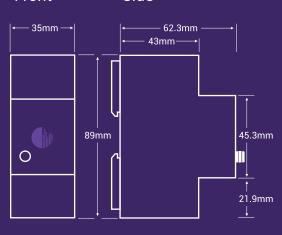
AS/NZS 4268:2008 +A1:2010 C 8.2 & 9.1

NOTE: All specifications are preliminary only and my be subject to change.

Dimensions

Front

Side



Current Transformers

Interchanging CTs requires Solar Analytics support

SC-23 60A

Standard device. Comes with 3 CT's, each 60A, 10mm diameter.



SC-23 400A

For larger systems. Comes with 3 CTs, each 400A, 25mm diameter.



SC-23 R 1000A*

For very large systems. Comes with 3 CTs, each 1000A, 90mm diameter.



^{*}Also available in 2000A Rogowski coil

Installed Unit



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