

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 Mode	1,2 or 3 phase (Neutral required) CT Fundamental only/all harmonics
Measurement accuracy	Current and voltage Power Frequency Power factor Active energy Reactive energy	0.5% of reading Real power: 1% of reading from pf 0.8 leading to 0.5 lagging; Reactive power: 2% below 0.5 lagging 200ppm 2% from 0.8 leading to 0.5 lagging Class 1 as defined by IEC 62053-21 Class 2 as defined by IEC 62053-23
Input-voltage characteristics	Measured voltage Permissible overload	50 to 280 V AC 1.15Un
Input-current characteristics	Standard CT ratings Internal burden Turns ratio Permissible overload	60A(10mm) 400A(25mm) 600A(35mm) 2.7 ohm Adjusted to suit CT; field updateable 300 mA continuous
Internal power	CT Connections	0.6 W Single Phase (P1) Not isolated (neutral referenced)

Mechanical Characteristics

Weight	0.3 kg
IP degree of protection	IP50 (front display) (higher in cabinet)
Dimensions	35 x 90 x 66 (mm) (2 pole)
Connection	Voltage Current: 3 meter version
	6 positions / 4 connections 5.08 mm pitch FCI part 20020007-H061B01LF 6-way 3.81 mm 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	Pentaband
Antenna	External SMA
SIM	Internal (accredited partners)

All data and communications provided by Solar Analytics

Servers

Hosting	2 hosting services
Management	dms.19510927.com
Data volume (5 sec reports)	64MB/month(all data)
Data volume (30 sec reports)	20/MB/month(all data)

Power Quality

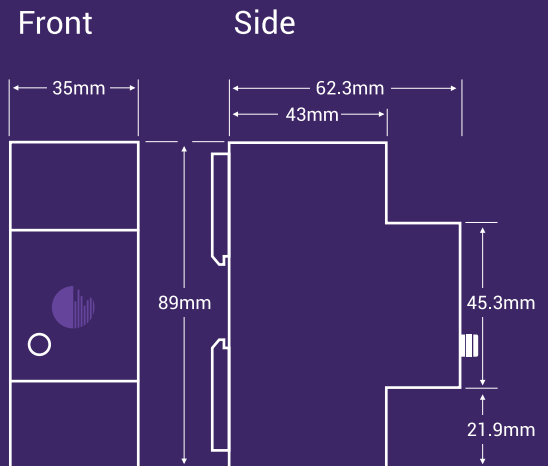
Frequency measurement	45 to 65 Hz, 0.01 Hz
Voltage	50-300V, 0.1V

Compliance Certificates

A-TICK	pending
Safety	AS/NZ60950.1:2011
Conducted Emissions	AS/NZS CISPR 22:2009 ClassB
Radiated Spurious Emissions	AS/NZS 4268:2008 +A1:2010 C 8.2 & 9.1

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

Dimensions



Current Transformers

Must use provided current transformers (CTs). 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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