

SOLAR CONNECT—22 DATASHEET

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FOR A QUOTE
TODAY!



Solar Connect-22 Features:

- ⇒ 5 second measurement and reporting intervals on each of three meters
- ⇒ 5 minute logging intervals
- ⇒ Packaged in a small 28mm wide DIN rail enclosure
- ⇒ Contains no components that require replacement (such as batteries).

SC-22 A: Standard Solar Connect device. Comes with 3 CT's, each 75A, 10mm diameter.

SC-22 B: For larger systems. Comes with 3 CTs, each 400A, 25mm diameter.

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SOLAR ANALYTICS

Solar Analytics ensures that your solar PV system is always performing at its best. Using patented algorithms, Solar Analytics analyses the expected versus actual electricity generation to assess how well the solar PV system is performing.

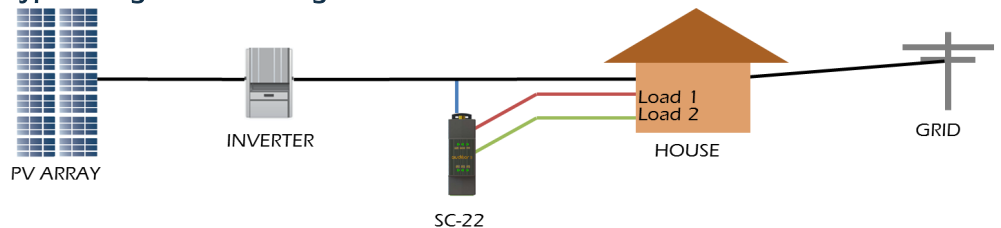
If the PV system is underperforming, the fault is diagnosed and alerts are sent out to the installer and PV system owner providing a detailed description of the fault and recommended remedial action.

The Solar Connect-22 monitoring hardware:

- Is compatible with all solar PV systems and inverters
- Provides Class 1 revenue grade monitoring of up to three circuits/phases
- Can provide AC load consumption data
- Uses Current Transformers (CTs) with a voltage reference
- Connects to the internet via WiFi to the customers network

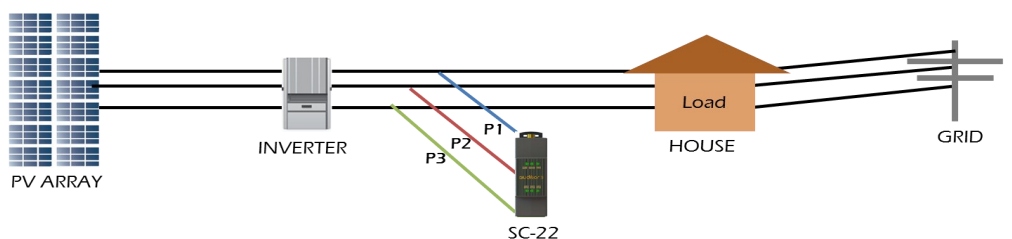
TYPICAL CONFIGURATION

Typical Single Phase Configuration



For a typical single phase application the Solar Connect-22 will monitor the solar PV plus two household circuits, e.g. hot water and total demand.

Typical Three Phase Configuration



For a typical three phase application one Solar Connect-22 will monitor all three incoming phases of the solar PV system. Additional Solar Connect-22 devices can be installed to monitor additional 3 phase load circuits.

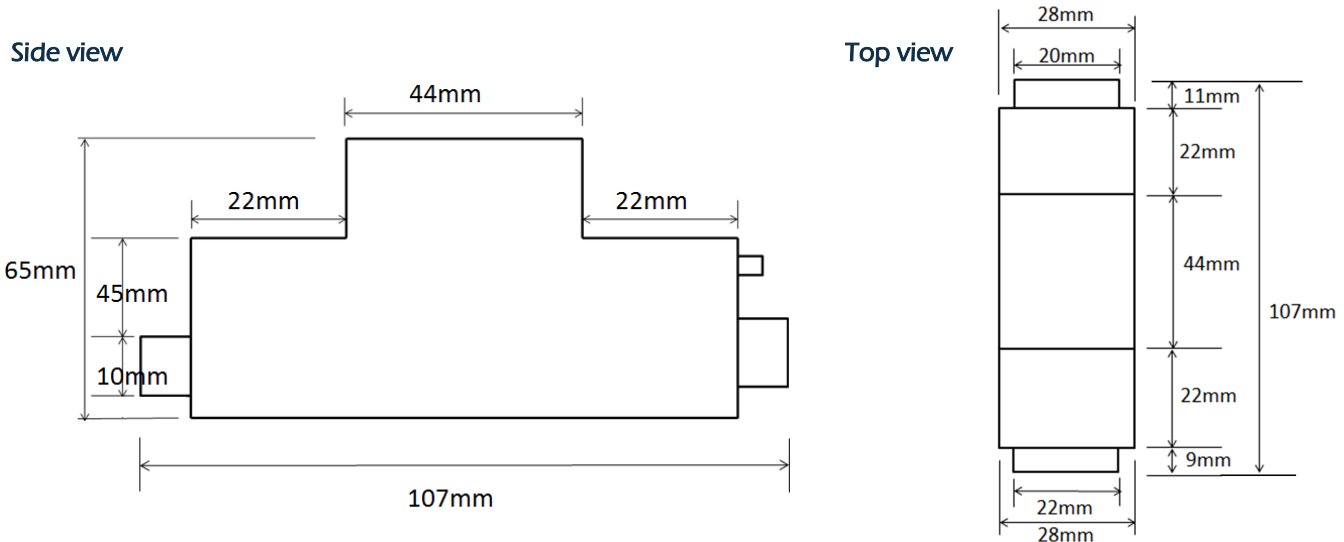
INSTALLATION

- Easy installation directly into the electrical switch board in less than 10 minutes
- DIN rail mounted, 1.5 circuits in width.
- Simple WiFi connection to host internet service.
- WiFi setup and configuration in 5-10 minutes using iPhone app.
- WiFi range can be extended with either an external antenna or WiFi Extender

SOLAR CONNECT–22

DATASHEET

DIMENSIONS



HARDWARE SPECIFICATIONS

Electrical Characteristics			
Measurement configuration	Voltage	Three-phase (Neutral required)	
	Current	CT	
	Mode	Fundamental only/all harmonics	
Measurement accuracy	Current and voltage	0.5% of reading	
	Power	Real power: 1% of reading from pf 0.8 leading to 0.5 lagging; Reactive power: 2% below 0.5 lagging	
		Frequency	200ppm
		Power factor	2% from 0.8 leading to 0.5 lagging
	Active energy	Class 1 as defined by IEC 62053-21	
	Reactive energy	Class 2 as defined by IEC 62053-23	
	Input-voltage characteristics	Measured voltage	190 to 300 V AC
Permissible overload		1.14Un	
Input-current characteristics	CT ratings	Adjustable from 5 to 10000 A	
	Standard CT/ internal burden	60A 3000:1 / 20mA / 3.9 ohms 400A 2000:1 / 200mA / 0.39 ohms	
	Permissible overload	300 mA continuous	
Internal Power		0.6 W Single Phase (P1)	
	CT Connections	Not isolated (neutral referenced)	
Mechanical Characteristics			
Weight		0.3 kg	
IP degree of protection		IP50 (front display) (higher in cabinet)	
Dimensions		29 x 90 x 66 (mm) (1-1/2 pole)	
Connection	Voltage	Five way 53.81 mm pitch FCI part 20020004-D051B01LF	
	Current transformer	6-way 3.81mm pitch FCI part 20020004-D061B01LF	

Environmental conditions		
Operating temperature		-5 °C to +55 °C
Pollution degree		2
Installation category		III for distribution systems up to 260/450 V
Electromagnetic immunity	Electrostatic discharge	Level III (IEC 61000-4-2)
	Immunity to radiated fields	Level III (IEC 61000-4-3)
	Immunity to fast transients	Level IV (IEC 61000-4-4)
	Immunity to impulse waves	Level IV (IEC 61000-4-5)
Safety Communication		AS60950
WiFi		802.11b/g, +18dB transmit power
Antenna		Internal; RP-SMA External (option)
External Antenna option		+5dB, 700mm cable with SMA-RP
Network		
WiFi	Security	WEP128, WPA/WPA2, AES
	Configuration channel	AUTO
	Data channel	Specific, or AUTO
Data repositories		
Servers		2
	LAN connected monitors	No restriction (data is broadcast)
Power Quality		
Frequency measurement		45 to 65 Hz, 0.01 Hz resolution
	Voltage	190-300V, 0.1V resolution