

# Smartflower

The smart, simple  
& stunning solar system

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**Smartflower** is a revolutionary solar energy system that follows the sun from sunrise to sunset. Beneath its elegant design is a remarkably intelligent system; fully integrated with smart features that produces up to 40% more power. There's no better way to showcase your commitment to sustainability than with a **Smartflower**.



# SMARTFLOWER TECHNICAL DATA - 60Hz



## SYSTEM POWER OUTPUT

Nominal power output	2.5 kWp
Annual output with 2-axis tracking	4,000–6,500 kWh *

## SOLAR MODULE

Panel type	Glass / Backsheet
Panel power output warranty (80%)	25 years
Panel product warranty	10 years
Cell type	166mm Half Cut Monocrystalline PERC

## SOLAR ARRAY DATA

Array configuration	12 module, single string **
Array maximum power (Pmax)	2677 W
MPP voltage (Vmpp)	528 V
MPP current (Impp)	5.0 A
Open circuit voltage (Voc, ± 5%)	618 V
Short circuit current (Isc, ± 5%)	5.2 A

## SYSTEM GENERAL DATA

Inverter	Integrated with unit
System weight	1,550 lb   703 kg
System self-consumption per year	Approx. 400 kWh
Shipping dimensions (in   mm):	
Vertical packaging	65 x 47 x 106   1651 x 1194 x 2692
Horizontal packaging (special order)	111 x 46 x 73   2819 x 1168 x 1854
Total shipping weight	1,950 lbs   885 kg
System warranty	2 years parts and labor

## NORMATIVE REFERENCES

Certificate and compliance with standards	UL 3703, UL 1703, UL 1004, CEC, CSA, FCC Class B
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## OPERATIONAL CONDITIONS

Operational temperature range	-20°C to 55°C   -4°F to 131°F
Humidity	0–95% (non condensing)
Maximum altitude (Primo Inverter)	13,123 ft   4000 m
Maximum altitude (Sunny Boy Inverter)	9,843 ft   3000 m

## ELECTRICAL CONNECTIONS

Up to 100 ft	4 x 12 AWG (L1, L2, N, PE)
From 100 ft onwards	Accommodate for voltage drop
Grid connection (circuit breaker)	20 A ***
Wind guard	32 ft   9.75 m cable included

## REMOTE MONITORING

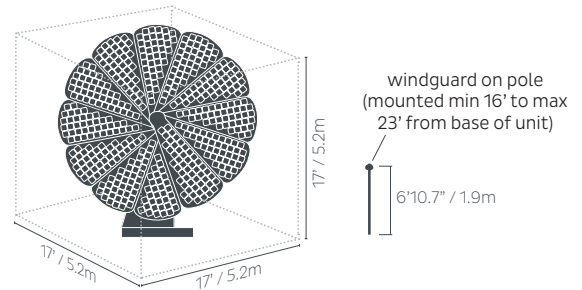
Network / LAN cable	CAT 6e or CAT7 with RJ45 Connector
Wireless	Wi-Fi enabled kit (optional)
Off-grid / remote location	Cell network enabled kit (optional)

## INSTALLATION

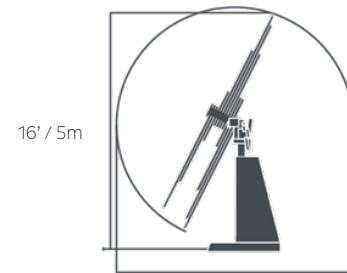
Mounting	4 fastening points to foundation
Assembly	Earth screws, concrete foundation, or a pre-cast concrete pad ****

## DIMENSIONS

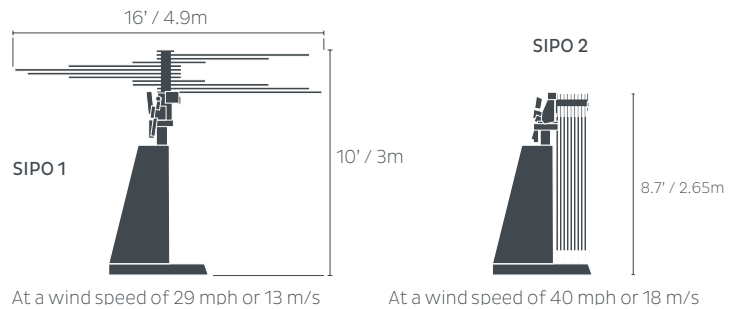
### ACTIVE AREA



### TRACKING, MAX. HEIGHT



### SAFETY POSITIONS



\* Dependent on geographical location and weather

\*\* Two string array for compatibility with SMA inverter. Contact Smartflower for two string MPPT values.

\*\*\* Local standards must be followed

\*\*\*\* Recommendations may vary based on local jurisdiction and soil conditions

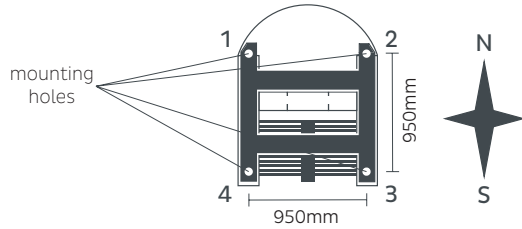
For more information, contact [info@smartflowersolar.com](mailto:info@smartflowersolar.com)

The product images shown are for illustration purposes only and may not be an exact representation of the product.

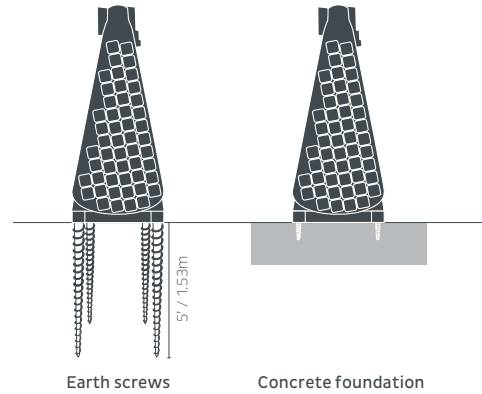


## INSTALLATION DRAWINGS

BOTTOM VIEW



FOUNDATION



### INVERTER DATA

Inverter	Fronius Primo 3.8-1	SMA Sunny Boy 3.8
Nominal frequency	50 Hz / 60 Hz	50 Hz / 60 Hz

### DC INPUT DATA

Max. DC voltage	1000 V	600 V
MPPT voltage range	200–480 V	100–550 V
Max. DC working current	18 A	10 A
Number of inputs / MPP trackers	2	2

### AC OUTPUT DATA

Rated AC power	3800 VA	3840 VA
Max. AC current	15.8A (240V)	16.0 A
Power factor	0.85–1 ind. / cap.	1
AC connection	On-grid (240 V split-phase, L1, L2, N, PE), Single Phase	On-grid (240 V split-phase, L1, L2, N, PE), Single Phase
Grid frequency range	45–66 Hz (240 V)	59.3–60.5 Hz

### INVERTER EFFICIENCIES

Max. efficiency	96.7%	97.6%
CEC efficiency	95.0%	96.5%

### PROTECTIVE DEVICES

DC reverse polarity protection	Yes	Yes
Anti-Islanding	Internal, in accordance with UL 1741 2016 09, IEEE 1547 2003 and NEC 2017	Internal, in accordance with UL 1741 2016, CA Rule 21, HECO_OHM Rule 14H SRD 1.1, NE-ISO
Over temperature protection	Output power derating/Active cooling	Convection cooling
AFCI	Yes	Yes
Rapid shutdown compliant	Yes	Yes
Ground fault protection monitor	Yes	Yes
DC disconnect	Yes	Yes

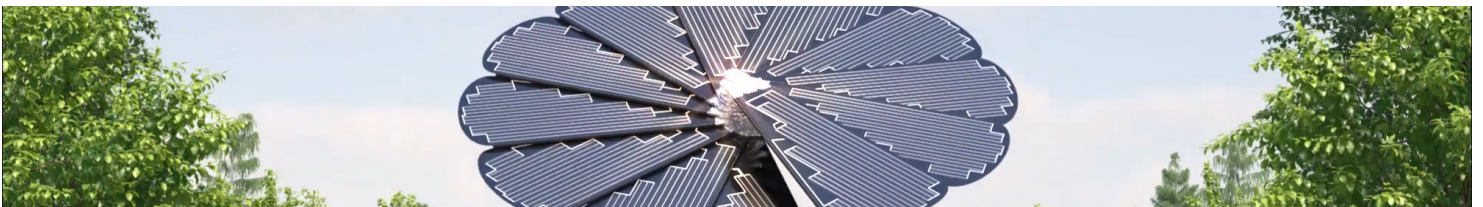
### NORMATIVE REFERENCES

Certificate and compliance with standards	UL 1741-2010 Second Edition (incl. UL1741 Supplement SA 2016-09 for California Rule 21 and Hawaiian Electric Code Rule 14H), UL1998 (for functions: AFCI, RCMU and isolation monitoring), IEEE 1547-2003, IEEE 1547.1-2003, ANSI/IEEE C62.41, FCC Part 15 A & B, NEC 2017 Article 690, C22. 2 No. 107.1-16, UL1699B Issue 2 -2013, CSA TIL M-07 Issue 1 - 2013	UL 1741, UL 1741 SA incl. CA Rule 21 RSD, UL 1998, UL 1699B Ed. 1, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA V22.2 107.1-1, HECO Rule 14H, PV Rapid Shutdown System Equipment
CA Rule 21 compliant	No	Yes

### GENERAL DATA

Degree of protection	NEMA 4X	NEMA 3R
Topology	Transformerless	Transformerless
Inverter warranty	10 years	10 years

**NOTE:** For additional inverter details, see manufacturer's literature.



# The world's most intelligent solar system



## Catch every last ray of sunlight.

The smart tracking system is the core of **Smartflower's** brilliance. Every morning at sunrise, **Smartflower** automatically unfolds. The dual-axis system allows **Smartflower's** solar panels to follow the sun across the sky throughout the day, always maintaining the optimal 90° angle. This makes **Smartflower** produce up to 40% more power than a conventional solar system and capable of producing up to 6,500 kWh/year, depending on your location.



### Simple.

Control your Smartflower and monitor your energy production from the comfort of your phone with our remote monitoring app.



### Efficient.

Our certified Smartflower technicians can set it up in just a few hours, providing you with immediate energy independence.



### Independent.

Self-cleaning and convection cooling keep **Smartflower** running at maximum efficiency.



### Elegant.

Unique and powerful features packaged in an award-winning design.



## EV Compatible.

**Smartflower** can be used to charge electric vehicles thanks to easy integration with an external EV charging station. For organizations and companies, EV charging capacity is your “green business card” and is perfect for public spaces, shopping centers, hotels, restaurants, small businesses, and more.



## Smartflower +Plus.

With an integrated battery storage system, **Smartflower +Plus** lets you store clean solar energy for when you need it most. That means that even during peak demand times, or when the power is out, your **Smartflower +Plus** will continue to provide you with clean and reliable energy whether you're on or off the grid.

Recipient of the Red Dot Design Award, the SEA Sustainable Entrepreneurship Award, the Green Good Design Award, the Verbund-E-Novations Award, and the Austria Born Global Champions Award