

# 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 - 50Hz



## SYSTEM POWER OUTPUT

Nominal power output	2.5 kWp
Annual output with 2-axis tracking	4,500–6,500 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 voltage (Isc, ± 5%)	5.2 V

## SYSTEM GENERAL DATA

Inverter	Integrated with unit
System weight	703 kg   1,550 lb
System self-consumption per year	Approx. 400 kWh

## Shipping dimensions (mm | in):

Vertical packaging	1651 x 1194 x 2692   65 x 47 x 106
Horizontal packaging (special order)	2819 x 1168 x 1854   111 x 46 x 73
Total shipping weight	885 kg   1,950 lbs

System warranty 2 years parts and labor

## NORMATIVE REFERENCES

Certificate and compliance with standards CE

## OPERATIONAL CONDITIONS

Operational temperature range	-20°C to 55°C   -4°F to 131°F
Humidity	0–95% (non condensing)
Maximum altitude (Primo Inverter)	4000 m   13,123 ft
Maximum altitude (Symo Inverter)	2400 m   7,874 ft

## ELECTRICAL CONNECTIONS

Up to 100 ft (Primo 3.0)	3 x 2.5–16mm (L1, N, PE)
Up to 100 ft (Symo 3.0)	5 x 2.5–16mm (L1, L2, L3, N, PE)
From 100 ft onwards	Accommodate for voltage drop
Grid connection (circuit breaker)	
Primo 3.0	16 A **
Symo 3.0	10 A **
Wind guard	9.75 m   32 ft cable included

## REMOTE MONITORING

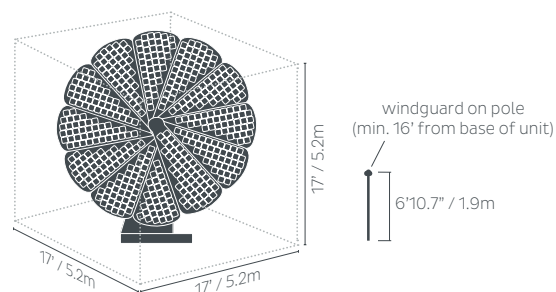
Network / LAN cable	CAT 6e or CAT7 with RJ45 connector
Wireless	Wi-Fi enabled kit (optional)
Off-grid / remote location	Cell network enabled kit (optional)

## INSTALLATION

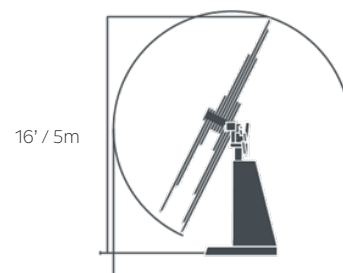
Mounting	4 fastening points to foundation
Assembly	Earth screws, concrete foundation, or a pre-cast concrete pad ***

## DIMENSIONS

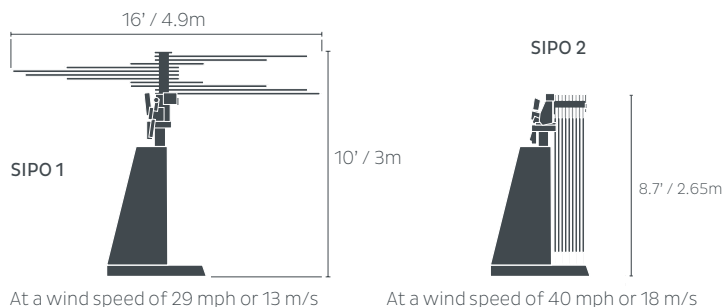
### ACTIVE AREA



### TRACKING, MAX. HEIGHT



### SAFETY POSITIONS



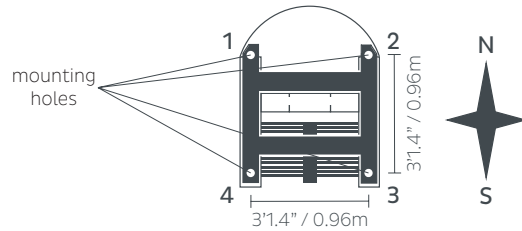
\* Dependent on geographical location and weather  
 \*\* Local standards must be followed  
 \*\*\* Recommendations may vary based on local jurisdiction and soil conditions

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

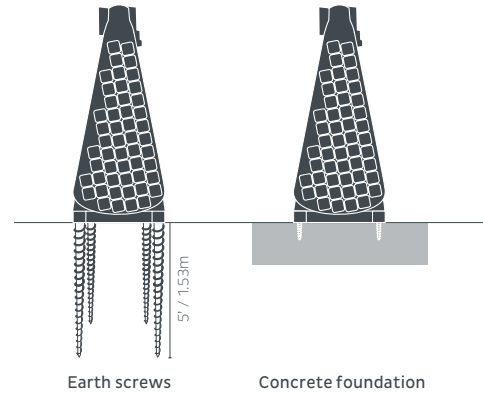


## INSTALLATION DRAWINGS

### BOTTOM VIEW



### FOUNDATION



### INVERTER DATA

Inverter	Fronius Primo 3.0-1	Fronius Symo 3.0-3-S
Nominal frequency	50 Hz / 60 Hz	50 Hz / 60 Hz

### DC INPUT DATA

Max. DC voltage	1000 V	1000 V
MPPT voltage range	200–800 V	150–800 V
Max. DC work current	12 A	16 A
Number of inputs / MPP trackers	2	1

### AC OUTPUT DATA

Rated AC power	3000 VA	3000 VA
Nominal AC current	13 A	4.3 A
Power factor	0.85–1 ind. / cap.	0.7–1 ind. / cap.
AC connection	On-grid (230 V L, N, PE), Single Phase	On-grid (230 V L1, L2, L3, N, PE), 3 Phase
Grid frequency range	45–65 Hz	45–65 Hz

### INVERTER EFFICIENCIES

Max. efficiency	98.0%	98.0%
CEC efficiency	96.1% (nEU)	96.2% (nEU)

### PROTECTIVE DEVICES

DC reverse polarity protection	Yes	Yes
DC insulation measurement	Yes	Yes
Overload behavior	Operating point shift. Power limitation.	Operating point shift. Power limitation.
DC disconnect	Yes	Yes

### NORMATIVE REFERENCES

Certificate and compliance with standards	DIN V VDE 0126-1-1/A1, IEC 62109-1/-2, IEC 62116, IEC 61727, AS 4777-2, AS 4777-3, G83/2, G59/3, CEI 0-21, VDE AR N 4105 2)	ÖVE / ÖNORM E 8001-4-712, DIN V VDE 0126-1-1/A1, VDE AR N 4105, IEC 62109-1/-2, IEC 62116, IEC 61727, AS 3100, AS 4777-2, AS 4777-3, CER 06-190, G83/2, UNE 206007-1, SI 4777, CEI 0-21, NRS 097
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### GENERAL DATA

Degree of protection	IP 65	IP 65
Topology	Transformerless	Transformerless
Inverter warranty	2 years (7 years with user registration)	2 years (7 years with user registration)

**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