Smartflower

The smart, simple & stunning solar system

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

SMARTFLOWER

SMARTFLOWER TECHNICAL DATA

Nominal output	2.5 kWp *
Output with 2-axis tracking	4,000-6,500 kWh / a**

SYSTEM

Panel Type	Glass / Backsheet
Panel Power Output Warranty	25 years
Panel Product Warranty	10 years
Cell type	Monocrystalline PERC
Inverter	Integrated with unit
System Weight	1,550 lb | 703 kg
System Warranty	2 years
System self-consumption per year	Approx. 400 kWh
Agency Approval	UL 3703, UL 1703, UL 1004, CEC, CSA, CE, FCC Class B * For EU see Table Above
Shipping Dimensions: Vertical Packaging Horizontal Packaging (Special Order)	 1650 x 1190 x 2680 2819 x 1168 x 1854

INSTALLATION

4 fastening points to foundation

Assembly with earth screws, concrete foundation or a pre-cast concrete pad

APPLICATION AREA

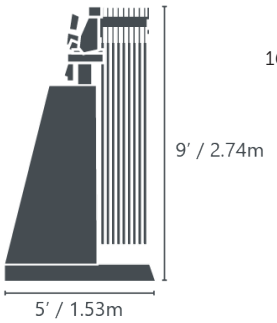
Temperature Range	See Table Above
Humidity	0 – 95% (non condensing)
Maximum altitude (Primo)	13,123 ft. | 4000 m
Maximum altitude (Symo)	7,874 ft | 2400 m

ELECTRICAL CONNECTIONS

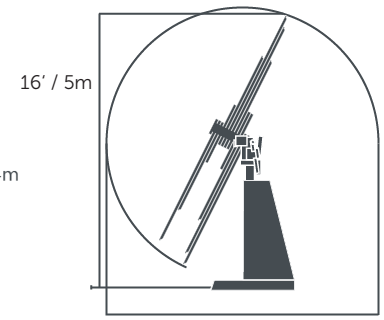
Up to 100 ft (Primo 3.8)	4 x 12 AWG (L1, L2, N, PE)
Up to 100 ft (Primo 3.0)	3 x 2.5-16mm (L1, N, PE)
Up to 100 ft (Symo 3.0)	5 x 2.5 -16mm (L1, L2, L3, N, PE)
From 100 ft onwards	Accommodate for voltage drop
The grid connection must be secured with 20A (16A for Primo 3.0 and 10A for Symo 3.0) circuit breaker.	Local standards must be followed
Wind guard incl. 32 ft / 9.75m cable length.	
Network / LAN cable recommended (CAT 6e or CAT7), RJ45 connector.	
*If using a 208 VAC connection, please contact Smartflower before installation	

DIMENSIONS

TRANSPORT POSITION

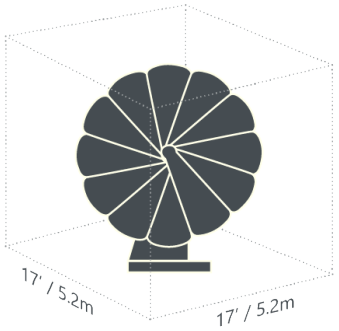


TRACKING, MAX. HEIGHT

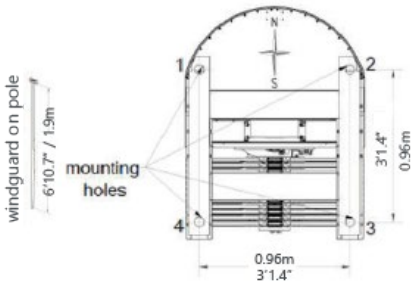


FIXING POINTS / ORIENTATION

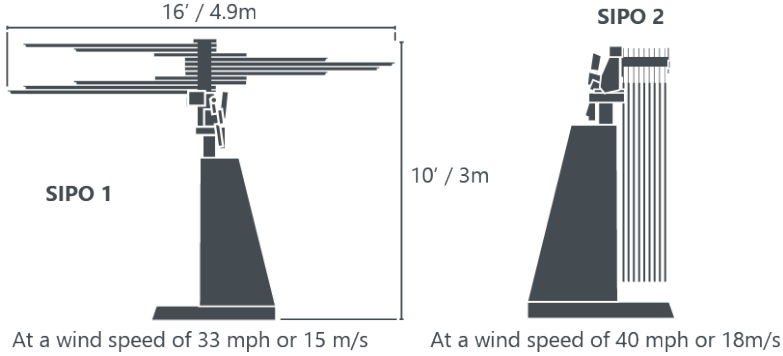
ACTIVE AREA



BOTTOM VIEW

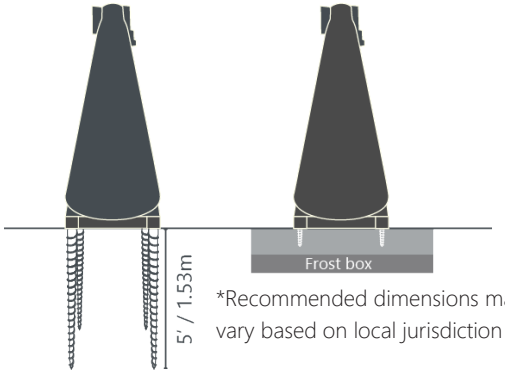


SAFETY POSITIONS



At a wind speed of 33 mph or 15 m/s

At a wind speed of 40 mph or 18m/s



*Recommended dimensions may vary based on local jurisdiction

INVERTER DATA

Inverter	Fronius Primo 3.8-1 (UL)	Fronius Primo 3.0-1 (CE)	Fronius Symo 3.0-3-S (CE)
Nominal Frequency	60 Hz	50 Hz	50 Hz
DC Input Data			
Max. DC voltage	600 V	1000 V	1000 V
MPPT voltage range	200-480 V	200-800 V	150-800 V
Max. DC work current	18 A	12 A	16 A
Number of inputs/Mpp trackers	2	2	1
AC Output Data			
Rated AC power	3800 VA	3000 VA	3000 VA
Max. AC current	15.8 A (240 V) 18.3 A (208 V)	13.7 A	4.3 A
Power factor (cos g)	0.85-1 ind. / cap.	0.85-1 ind. / cap.	0.85-1 ind. / cap.
AC connection	On-grid (240 V split-phase, L1, L2, N, PE), Single Phase	On-grid (230V L, N, PE), Single Phase	On-grid (230V L1, L2, L3, N, PE), 3 Phase (L1, L2, L3, N, PE)
Grid Frequency Range	50-66 Hz (240 V)	45-65 Hz	45-65 Hz
Feed-in phases			
Max. efficiency	96.7%	98.0%	98.0%
CEC efficiency	95.0%	96.1% (nEU)	96.5% (nEU)
Protective Devices			
DC reverse polarity protection	Yes	Yes	Yes
DC Insulation measurement	N/A	Yes	Yes
Anti-Islanding	Internal, in accordance with UL 1741 2016 09, IEEE 1547 2003 and NEC 2017	N/A	N/A
Over Temperature Protection	Output power derating/Active cooling	N/A	N/A
Overload behavior		Operating point shift. Power Limitation.	Operating point shift. Power Limitation.
AFCI	Yes	N/A	N/A
Rapid shutdown compliant	Per Sect. 690.12 of 2014 (of NEC 2017 prior to Jan 2019)	N/A	N/A
Ground Fault Protection with Isolation Monitor Interrupter	Yes	N/A	N/A
DC Disconnect	Yes	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	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
General Data			
Operating temperature range	-40° F to 131° F | -40° C to 55° C	-40° F to 131° F | -40° C to 55° C	-13° F to 140° F | -25° C to 60° C
Relative humidity	0 – 100%	0 – 100%	0 – 100%
Degree of protection	NEMA 4X	IP 65	IP 65
Topology	Transformerless	Transformerless	Transformerless
Inverter Warranty	10 years	5-7 years	5-7 years

For more information: www.fronius.com

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 to the sun. This makes **Smartflower** produce up to 40% more power than a conventional solar system and capable of producing 4,000-6,400 kWh/year, depending on your location.

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

Efficient.
Smart tracking helps **Smartflower** stay at the optimal angle to the sun throughout the day for 40% more power.

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