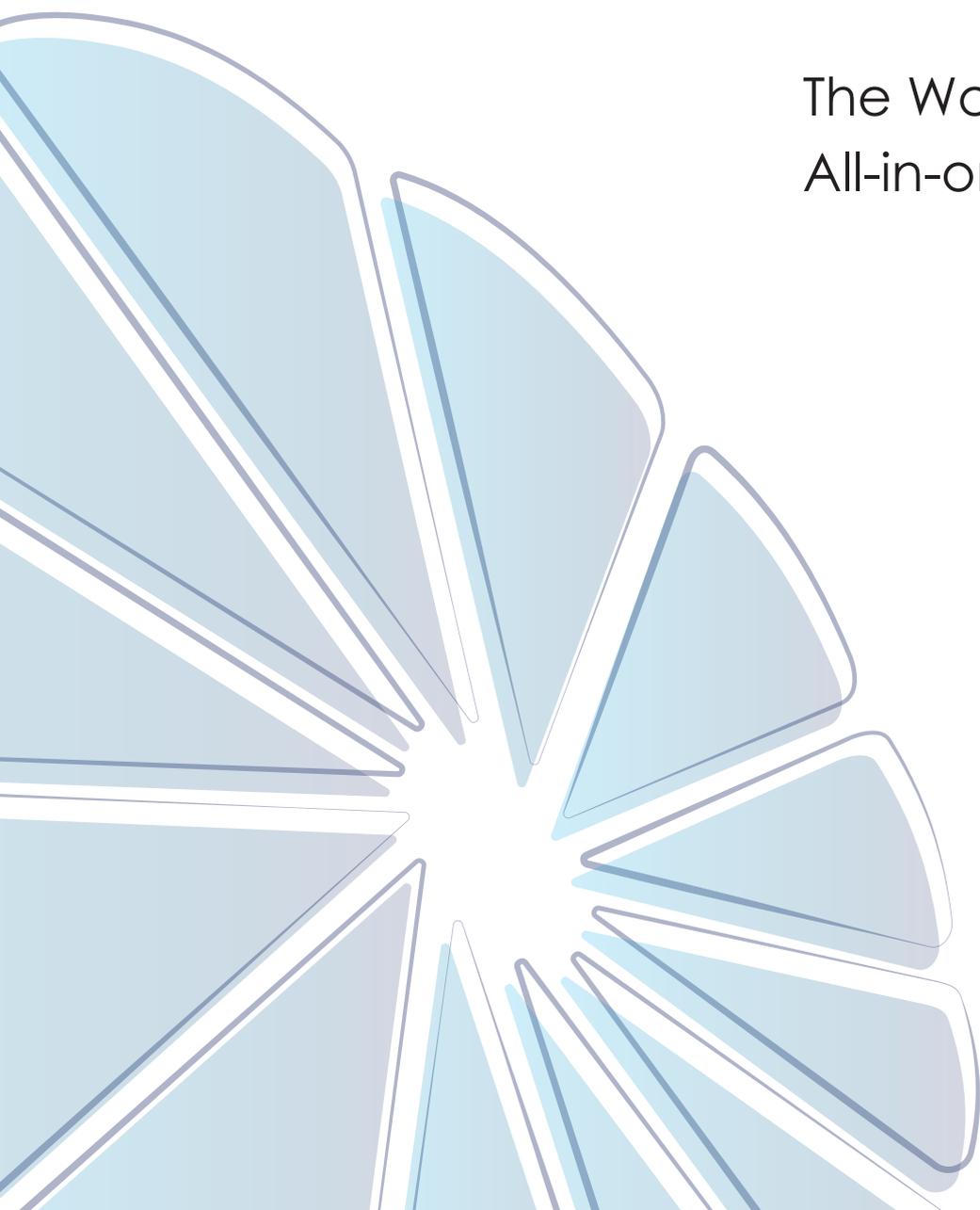


# SMARTFLOWER

The World's First  
All-in-one Solar System



Official Execution Partner - India



**TRUE BUILD**  
TECHNOLOGIES

WE BUILD VALUE FOR TOMORROW



# SmartFlower Technology

SmartFlower Solar LLC was founded in 2016 and is located in Boston, MA

Product was invented almost 10 years ago in Austria – still produced there

Parent company has over 35 years of biomass, cogeneration, combined cycle and energy power generation experience

Smartflower Solar GmbH was founded in 2018 and is located in Austria

Extensive global sales and service network

Smartflower was designed to be aesthetically pleasing and is the first intelligent all-in one solar system in the world



## Smart Flower Grid Connected Solution

- Flagship Product
- Dual-Axis tracking
- Premium mono crystalline silicon PERC modules
- Factory pre-assembled inverter and control system
- Harmonized for 50Hz and 60Hz applications

Build a better tomorrow

True Build Technologies Pvt Ltd (TBT) is founded by a group of Infrastructure experts and thought leaders from the construction industry with an ambition to develop the company of the 21st century, True Build Technologies aims to provide high quality and cost effective innovative building solutions with State of the Art Technologies.

With an inherent desire to build customer relationships based on honesty, trust and integrity; coupled with the commitment to give back to the communities, we at True Build Technologies build innovation with the hands on approach to every aspect of a project from pre-construction through completion. Helping clients to build a better tomorrow, makes us a world class organization today.



# Current Worldwide Installations



**37** Total Countries

**1600** Approx SmartFlower units installed worldwide



# 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.

### Independent

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

### 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

### Efficient

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

### Elegant

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

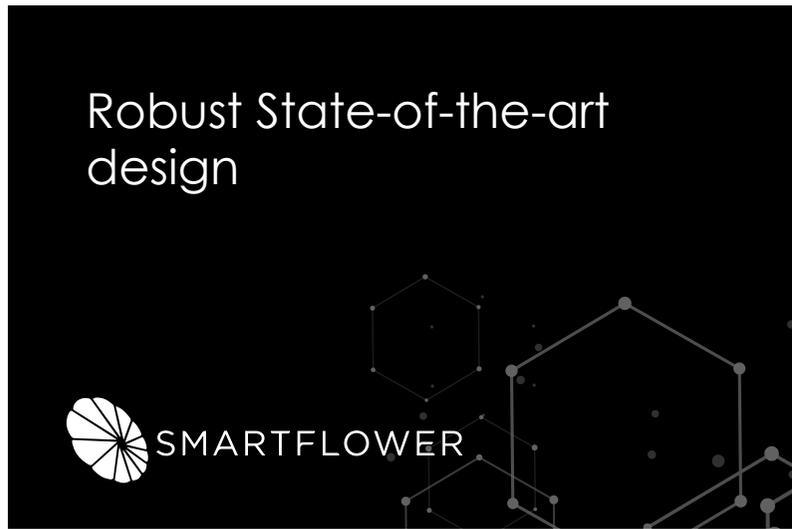
### Smartflower +Plus

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





Enhanced efficiency and innovative technology



Robust State-of-the-art design



Smartflower  
The smart, simple & stunning solar system



# Unique Product Features

## Smart Cleaning

System self cleans the panels automatically twice per day when opening and closing

Brushes on the underside of each panel clean the solar panels twice daily, removing dust, sand and snow

Automatic cleaning feature improves productivity by 1-2%

## Smart Tracking

Astronomically controlled, Dual-axis sun tracking

Tracks the sun from dawn to dusk ensuring that its solar panels are always at an optimal 90 degree angle to the sun with no reflections

Precise tracking can increase productivity by as much as 40% over fixed tilt and single axis systems

## Intelligent Software

Intuitive system with IoT remote monitoring

## Green Calling Card

Unique aesthetically pleasing design conveys a message of Sustainability

## Dual-Axis Tracking

Up to 40% more production vs. fixed array

## Smart Safety

Wind > 30 mph: fully automatic shifting into horizontal security position

Wind > 40 mph: fully automatic folding into security position

Emergency-battery included for power outages  
Very slow moving tracking speed (<0.5 mph)

Local E-Stop and main power disconnect can be locked for safety

Designed with Equipment and Personal safety in mind  
- UL, TUV & IEC Certified

## Premium Modules

Advanced mono crystalline PERC modules and tracking

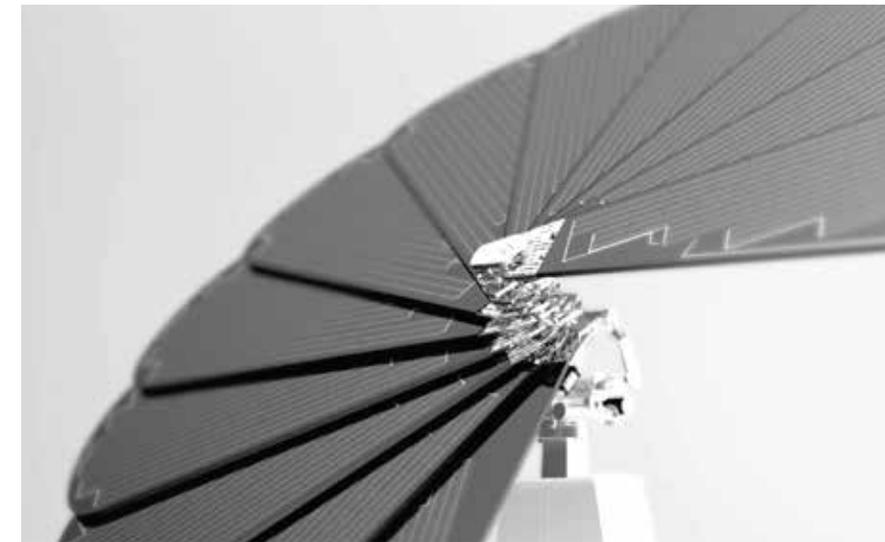
## Smart Cooling

PV Modules are naturally rear-ventilated.  
Hot air does not accumulate beneath panels, reducing losses

Optimizes kw production with lower thermal losses

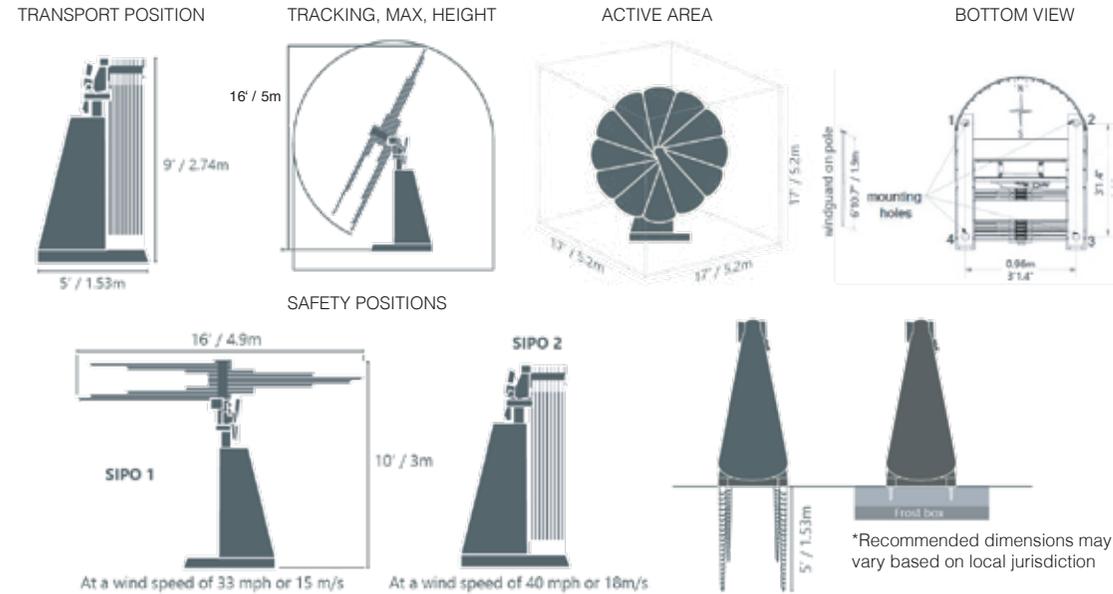
## Floral Design

Robust state-of-the-Art design that opens and closes daily



## DIMENSIONS

## FIXING POINTS / ORIENTATION



### SMARTFLOWER TECHNICAL DATA

Nominal output	2.5 kWp *	4 fastening points to foundation
Output with 2-axis tracking	4,000-6500 kWh / a**	Assembly with earth screws, concrete foundation or a pre-casted concrete pad
<b>SYSTEM</b>		
Panel Type	Glass / Backsheet	Operational Temperature Range -20°C to 55°C
		Humidity 0-95% (non condensing)
Panel Product Warranty	2 years	Automatic wind protection system See "Safety Positions" **
Cell type	Monocrystalline PERC	< 47 kph Sun tracking
Inverter	Integrated with unit	47 to 63 kph SIPO1 > 63 kph SIPO2
System Weight	1,540 lbs   700 kg	<b>COMMUNICATION CABLES</b>
System Warranty	2 years Parts and Labor	Network / LAN cable recommended (CAT 6e or CAT7), RJ45 connector.
System self consumption per year	Approx. 400 kWh	
Agency Approval	UL 3703, CE,	

Shipping Dimensions:	
Vertical Packaging	1650 x 1190 x 2680
Horizontal Packaging (Special order)	2800 x 1160 x 1850

## INVERTER DATA

Inverter	Fronius Primo 3.8-1 (UL)	Fronius Primo 3.0-1 (CE)	Fronius Symo 3.0-3-S-(CE)
Nominal Free uenc	60 Hz	50 Hz	50 Hz
<b>DC Input Data</b>			
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
<b>AC Output Data</b>			
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
<b>Feed-in Phases</b>			
Max. efficiency	96.7%	98.0%	98.0%
CEC efficiency	95.0%	96.1% (nEU)	96.5% (nEU)
<b>Protective Devices</b>			
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
<b>Normative References</b>			
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)	OVE / ONORM 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
<b>General Data</b>			
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](http://www.fronius.com)



LET'S DEVELOP A NEW PATH FORWARD...

**Official Execution Partner - India**



301, Magna Lake view, Adjacent to cyber convention,  
Shilpa hills, Kondapur, Telangana 500084

**Tel : 040 - 2970 8808 | Email : [smartflower@truebuildtechnologies.com](mailto:smartflower@truebuildtechnologies.com)**

**Mobile : +91 7075196111 | WhatsApp Us : +91 7207568777**