



SHAKTI ON ROOF SOLUTION

Harness the power of the Sun, for a brighter future



Shakti Energy Solutions

Made in Bharat. Made for Bharat.

Shakti Energy Solutions Ltd. is at the forefront of transforming India's solar rooftop landscape for both homes and businesses. As a wholly owned subsidiary of **Shakti Pumps (India) Limited**, Shakti Energy Solutions is the only brand in the industry to offer all three critical components—**Solar Modules, Inverters, and Module Mounting Structures**—under one roof.

This integrated approach ensures unmatched quality, seamless system compatibility, and long-lasting performance. Our customers benefit from greater reliability, faster delivery timelines, improved efficiency, and overall cost-effectiveness—making Shakti Energy Solutions the trusted partner for sustainable energy solutions.



Solar PV Modules

The power of the Sun, at your command

Solar PV Modules are unmatched when it comes to high performance, durability, and reliability. These photovoltaic panels actively convert sunlight into electricity, offering an efficient and eco-friendly energy solution. Ideal for diverse power applications, their cutting edge technology and superior design is helping simplify solar adoption.

Mono PERC- BiFacial



TOPCon-BiFacial



Solar Modules Features



Maximum Savings*

Save up to 80% on electricity bills with returns in just 3-4 years



Minimal Maintenance

Durable panels with low upkeep requirements and quick service support



Enhanced Safety

In-built PV insulation protection ensures safe and reliable operations



BIS-certified & ALMM-listed

Featuring DCR cell based solar modules with adherence to Make In India initiative of the Govt. of India

*T&C- Performance subject to cleanliness/maintenance



*Maximum power is achieved with bifacial modules when installed on a white-painted surface

Swadeshi Sunshakti Inverter

Made in Bharat. Made for Bharat.

Innovation powered by A.I. Tech

A high performance, transformer-less, high switching frequency-based grid-tie Inverter with IP 65 ingress protection. The Inverter's digital control ensures maximum energy harvesting from the solar panel. This system can be controlled and monitored by Shakti RMS mobile app and is equipped with GSM/GPRS for remote communication.



*For technical specifications,
please refer to the back page



*Features are available
based on customer
requirements

Unstoppable, uninterrupted power



AI Powered

Uses advanced AI to automatically adapt variations in grid-side voltages. Thus, enhancing conversion efficiency and ensuring reliable power generation.



Class 1 Supplier

Compliant with MNRE guidelines. More than 50 % of the raw material used are locally sourced, in line with the nation's Make in India initiative.



Improved generation per kW

Specially designed heat sink improves cooling thereby improving generation upto 10%, also extending inverter life.



Remote connectivity

GPRS and Bluetooth integration allows real-time tracking and remote system access via the Shakti RMS app



Indian Cloud (RMS)

Indigenously developed cloud for detailed performance tracking, along with ensuring customer privacy and user convenience.



Engineered For Indian Weather

Built to handle heat, humidity, dust, and monsoon conditions for year-round reliability.



Robust Protection Mechanism

Multiple layers of safety against voltage spikes, surges and overloads thus protecting equipment and user investment.



Dust & Water Proof Design

IP65-rated enclosure ensures reliable outdoor performance in challenging weather conditions, reducing maintenance needs.



Active Islanding Detection

Quickly detects grid failures with high accuracy, ensuring safety and uninterrupted solar inverter performance.

Avail subsidy on Shakti On Roof

Under the PM Surya Ghar Muft Bijli Yojana, any residential consumer can avail applicable subsidy on Shakti On Roof Systems.

Visit <https://pmsuryaghar.gov.in/> and follow the simple steps to register yourself.



PM-सूर्य घर
मुफ्त बिजली योजना

Seasonal Tracking Module Mounting Structures

Built for strength, designed for efficiency

Shakti's Solar Module Mounting Structures are engineered to perfection, offering robust design, unmatched durability, and efficient space utilization with innovative seasonal tracking feature. From design to installation, our mounting solutions ensure your solar system stands strong against all environmental challenges while delivering maximum energy output.



Strength that endures



Seasonal Tracking Compatibility

Exclusive in-house design supports seasonal adjustments, increasing overall solar energy output.



ZAM Coated And Aluminum Material

Built with anodized & CED coated aluminium, specialized ZAM material and galvanized fasteners to withstand corrosive environments and extend product life.



High Wind Resistance

Engineered to sustain wind speeds up to 150 km/h, ensuring stability during storms and extreme weather.



Robust & Aesthetic Design

Sleek, zero-welding structure enhances rooftop aesthetics while offering reliability and durability.



Maximum Space Utilization

Elevated dual pole design (up to 6 ft clearance) allows optimal rooftop use and improved airflow.



Easy Installation & Maintenance

Simplified setup and easy-to-clean module surfaces save time and labour, keeping the system efficient with minimal effort.



Strength You Can Rely On

High strength-to-weight ratio materials reduce roof load, maintain structural integrity and ensure easy transportation.



Partner with us for a bright future

It's a win-win every step of the way

With the consciousness about being pro-planet and sustainability rising, there is great interest in alternate sources of energy, with solar energy leading the way. Shakti Energy Solutions remains dedicated to this vision, as part of a group recognized as a pioneer in the water pump industry. Now, with its On Roof Solutions, it aims to be the numero uno in the household power generation space.

Get the Shakti edge



**Hassle-free
installation**



**Pre-assembled kits
for quick setup**



**Faster deployment,
stronger support**



**Step-by-Step
guidance for dealers**



**Dedicated
after-sales service**



**Higher savings,
bigger profits**

A legacy of excellence

**Proven Brand Legacy of
Shakti Pumps**

BIS Quality Products

**Attractive Government
Subsidies & Incentives**

**Exporting to
120+ Countries**

**Portfolio of Patents
and Trademarks**

**Delivering Excellence
Since 1982**

Complete Solar Setup – Built for Maximum Output, Made for Bharat



Structure + Module



Inverter with RMS

- Proudly Made in India
- Seasonal tracking
- Durable specialized ZAM coated structure
- Compact inverter design
- Efficient solar solution

Sunshakti Inverter

Model Name	SSG2 1P 1kW	SSG2 1P 2kW	SSG2 1P 3kW	SSG2 1P 3.3 kW	SSG2 1P 4kW	SSG2 1P 5kW	SSG2 1P 6kW
INPUT PV DATA							
Maximum PV Power	1200 W	2400 W	3300 W	3600W	4800 W	5600 W	7000 W
Maximum PV Voltage	510 VDC						
PV Startup Voltage	80 VDC				100 VDC		
Max. PV Current	16 A				20 A		
Max PV Isc Current	20 A				24 A		
MPPT Range	110 - 415 VDC						
Nominal PV Voltage	400 VDC						
Peak MPPT Efficiency	> 99%						
Number of PV Inputs	1						
OUTPUT AC DATA							
Rated Output Power	1000 W	2000 W	3000 W	3300 W	4000 W	5000 W	6000 W
Max. Output Power	1000 W	2000 W	3300 W	3300 W	4560 W	5500 W	6600 W
Rated Grid Voltage	230 V 1L/N/PE						
Grid Voltage Range	180-290 V						
Rated Grid Frequency	50/60 Hz						
Rated Grid Current	4.5 A	9 A	13.5 A	14.5 A	17.4 A	21.7 A	26 A
Max. Grid Current	5.5 A	11 A	15 A	15 A	20 A	25 A	30 A
Power Factor	0.9 leading ~ 0.9 lagging						
Total Harmonic Distortion	< 5% (at nominal power)						
EFFICIENCY							
Max Efficiency	≥ 98%						
DISPLAY & COMMUNICATION							
Display Type	Graphical LCD						
Status Indicator	LEDs						
Serial Communication	RS232 / UART						
Remote Monitoring	Yes(Optional)						
WiFi	Yes(Optional)						
OTHER INFO							
L x W x H	265 X 336 X 167mm ³				382 X 318 X 180 mm ³		
Net Wt./Gross Wt.	8 kg / 10 kg				11.3 kg / 14.3 kg		
Topology	Transformer less 2 leg Inverter						
Pollution Degree	PD3						
Over Voltage Category	PV OVC II/Grid OVC III						
Protection Class	Class I						
Operating Temperature	-25 to 60 °C						
Relative Humidity	0~95% RH(Non-Condensing)						
Altitude	2000 m						
Environmental	Indoor & Outdoor Installation						
IP Degree of Protection	IP 65						
Cooling	Air Forced Cooling						
Standards	IS 16221(Part-2), IEC60529, IEC62109, IEC62116, IS16169						

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