



SHAKTI SOLAR ROOFTOP 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



Front



Back

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

Sunshakti Inverter

Made for Bharat

Innovation powered by next-gen 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.



*Features are available based on customer requirements

*For technical specifications, please refer to the back page

Unstoppable, uninterrupted power



Dust & Water Proof Design

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



Advanced Digital Control

Smart control technology maximizes energy harvest and maintains smooth, uninterrupted power flow.



User-Friendly Display

LCD interface simplifies system monitoring and control for users of all levels.



Remote Connectivity

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



Easy Installation

Plug-and-play setup with shockproof connections speeds up installation and improves safety.



Transformer-Less Design

High-performance configuration improves efficiency and saves space, supporting sleek system integration.



Robust Protection Mechanism

Built-in features like surge protection and reverse polarity detection safeguard the system and enhance longevity.



Eco-Friendly Power Management

Capability to feed surplus energy back to the grid promotes sustainability and cost savings.

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. 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



Robust & Aesthetic Design

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



Lightweight Yet Strong Materials

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



Corrosion Resistance

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



Easy Installation & Maintenance

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



Maximum Space Utilization

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



Seasonal Tracking Compatibility

Design supports seasonal adjustments, increasing overall solar energy output.



High Wind Resistance

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



Avail subsidy on Solar Rooftop

Under the aegis of PM Surya Ghar Muft Bijli Yojana, any residential consumer can avail applicable subsidy on Solar Rooftop Systems. Visit <https://pmsuryaghar.gov.in/> and follow the simple steps to register yourself.



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 Solar Rooftop Solutions, it aims to be the numero uno in the household power generation space.

Get the Shakti edge



A legacy of excellence

Proven Brand Legacy of Shakti Pumps

BIS-Certified Products

Heavy 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 India



- 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
INPUT PV DATA				
Maximum PV Power	1200 W	2400 W	3300 W	3600W
Maximum PV Voltage		510 VDC		
PV Startup Voltage		80 VDC		
Max. PV Current		16 A		
Max PV Isc Current		18 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
Max. Output Power	1100 W	2200 W	3300 W	3300 W
Rated Grid Voltage		230 V 1L/N/PE		
Rated Grid Frequency		50/60 Hz		
Rated Grid Current	4.5 A	9 A	13.5 A	14.5 A
Max. Grid Current	5.5 A	11 A	15 A	15 A
Power Factor		0.9 leading ~ 0.9 lagging		
Total Harmonic Distortion		< 5% (at nominal power)		
EFFICIENCY				
Max. Efficiency	≥ 93%	≥ 93%	≥ 95%	≥ 95%
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		
Gross Wt.		Approx 9.6 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		Natural Convection		
Standards		IS 16221(Part-2), IEC60529, IEC62109, IEC62116, IS16169		

SHAKTI ENERGY SOLUTIONS LIMITED

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