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# ELGINESOLAR ROOLEOP

Jointly Launched by

## ELGIN SYSTEM INC., CANADA ELGIN SYSTEM (INDIA) PRIVATE LIMITED



## ELGIN SOLAR ROOFTOP into Health & environment protection

## **Green energy saves Earth**



## Corporates Brief

**Elgin System Inc. (ESI)**, a Canada based technology R & D Corporation in the field of betterment of the pollution control, provides the tailored technical solutions for the emission control of SPM and the Solar Energy.

**Elgin System (India) Private (ESIPL),** an extended arm of ESI in India, serves the India market in the fields of emission control in Thermal Power sector and develops the Solar Power Projects.

**Elgin System (India) Private Limited (ESIPL)** has its registered office and full fledged team at Raipur in Chhattisgarh state of India to implement the projects and carry out the service after sales.



## Solar rooftop in India

The sun is an in-exhaustive , reliable , non polluting source of power. Globally more and more emphasis is being laid towards the use of renewable sources of energy because of climate change, local air pollution and resource scarcity, in this regard photovoltaic (PV) is best suited as an alternative source of energy in India where clear 300 Days of sunshine is available. Solar powered rooftop are ideal for supply electricity in the area in remote locations where electricity is unavailable or erratic. Even in urban areas these find great usage to reduce the dependency on conventional power and contribute towards green living.

The government of India gradually and steadily is encouraging the use of solar power through their various schemes.

We devote ourselves into the betterment of the performance of these solar rooftop systems through various system optimizations.

What we do is follow strict quality control procedures to maintain the quality standards of our solar rooftop systems to deliver the maximized and perfect performance.



## WHY SOLAR ?

India has 300 clear days of sunshine every year.

Established technology globally.

Power Generated at the point of consumption.

No cabling cost.

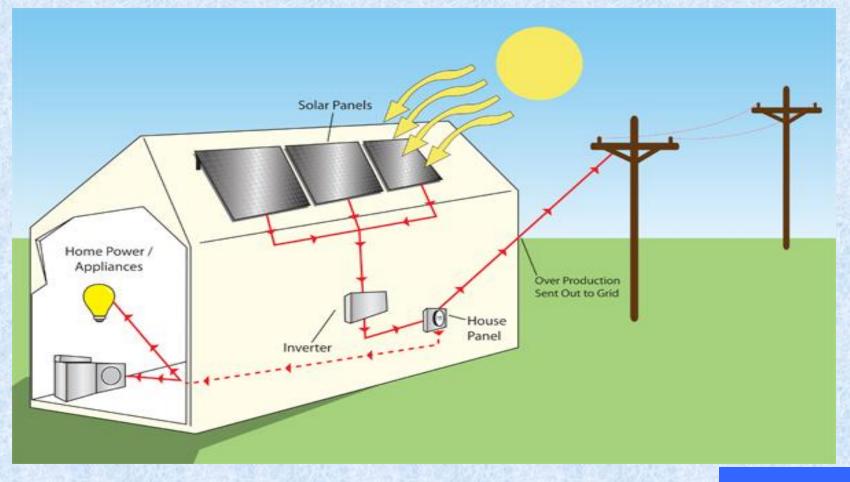
No cost of accessories (like transformers, distribution systems & switches Etc).

Negligible Maintenance.



## **TYPES OF ROOFTOP SYSTEM :**

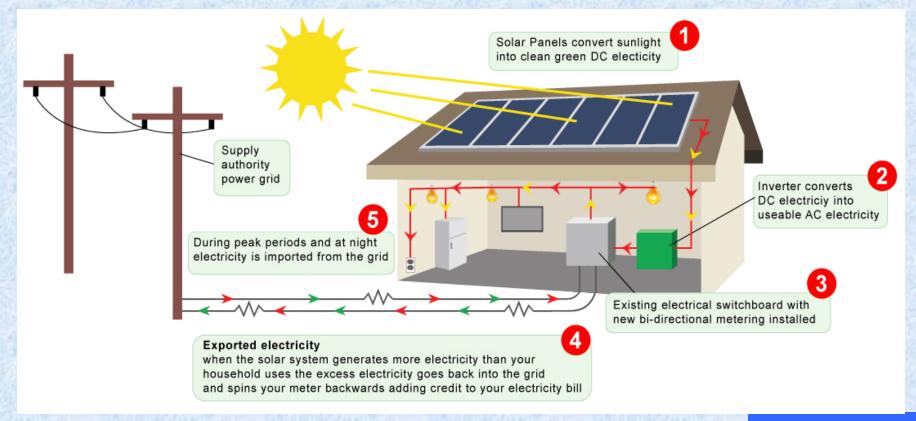
#### 1. ON-GRID ROOFTOP SYSTEM :





#### SYSTEM DESCRIPTION :

This is a battery-less system that consists of grid-tie inverter and solar panels. This system is maintenance-free and helps in saving money on electricity bills. It is also possible to sell surplus solar energy to state electricity board through net-metering arrangement .





SYSTEM IMPORTANT COMPONENTS:

1. Solar Panels

2. Inverters

3. ACDB (Alternating Current Distribution Board)

4. DCDB (Direct Current Distribution Board)



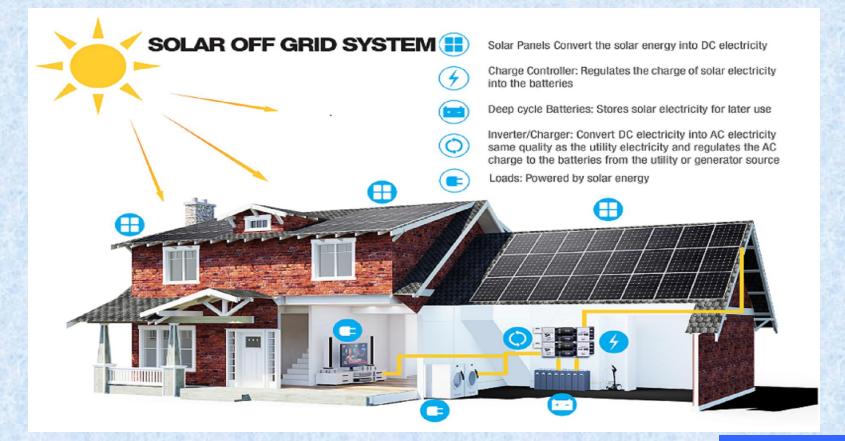
### 2. OFF-GRID ROOFTOP SYSTEM:





#### SYSTEM DESCRIPTION:

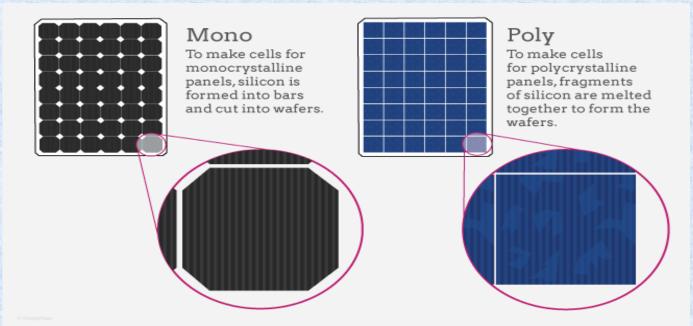
Off-the- grid is a system without the support electrical grid . It is stand-alone power system or mini-grids typically to provide a smaller community with electricity. This system is suitable in areas without electricity grid or power cuts of 7+ hours.





## SYSTEM COMPONENTS DETAILS :

## **SOLAR PANEL :**



We can use 2 types of solar panel : 1.Monocrystalline 2. Polycrystalline



#### **INVERTER** :



Size of Inverter depends on the Max. output power of system.



## Input (DC)

Max. Input Power	3300W
Number of MPPT/String per MPPT	1/1
Max. Input Voltage	500V
Stating Input Voltage	120V
Rated Input Voltage	360V
MPPT Voltage Range	100-500V
Full Load DC voltage Range	200-500V
Max. Input Current	15A



## **Output (AC)**

**Rated Power** Max. AC Power **Max. AC Output Current Nominal Grid Voltage Grid Voltage Range** (According to local standard) **Nominal Frequency Grid Frequency Range** (According to Local Standard) **THDi Power Factor Grid Connection** 

3100W 3100VA 13A 230V 180~270V

50/60 Hz 47~53/57~63Hz

<3% 1 (adjustable +/-0.8) Single Phase



## Input (DC)

Max. Input Voltage Stating Input Voltage Number of MPPT Number of DC inputs Operating Input Voltage range Max. input MPPT current Input short circuit current for each MPPT Input range with full power Operation with MPPT parallel 1000V 180V 2 1 for each MPPT 160-960V 11A 14A 290-850V



## **Output (AC)**

**Rated Power** Max. AC Power **Max. AC Output Current Rated AC Voltage Grid Voltage Range** (According to Local standard) **Nominal Frequency Grid Frequency Range** (According to Local Standard) THDi **Power Factor Grid Connection** 

6000W 6600W 9.6A 230V/400V 310~480V

50/60 Hz 44~55/54~66Hz

<3% 1 (adjustable +/-0.8) Three Phase



## Input (DC)

Max. Input Voltage Stating Input Voltage Number of MPPT Number of DC inputs Operating Input Voltage range Max. input MPPT current Input short circuit current for each MPPT Input range with full power Operation with MPPT parallel 1000V 180V 2 1 for each MPPT 160-960V 11A 14A 480-850V



## **Output (AC)**

**Rated Power** Max. AC Power **Max. AC Output Current Rated AC Voltage Grid Voltage Range** (According to Local standard) **Nominal Frequency Grid Frequency Range** (According to Local Standard) **THDi Power Factor Grid Connection** 

10000W 11000W 15.9A 230V/400V 310~480V

50/60 Hz 44~55/54~66Hz

<3% 1 (adjustable +/-0.8) Three Phase



## WARRANTY OFFERED

➤ This product is fully guaranteed against defective materials and manufacturing defaults Inclusive of parts and services .

The warranty period of 15 years shall apply once to the solar panel.

The warranty up to 5 years will be applied on complete rooftop system .



## Advantages of rooftop system :

- Rooftop solar is beneficial and helpful in dealing with climatic changes.
- It helps environment to be green.
- Roof top solar power plant can be installed quickly.
- Have zero emissions.
- Roof top solar power plant can be installed quickly.
- Reduction in Electricity Bills.
- It has very low noise.
- No need for costly transmission infrastructure.























## **ELGIN SOLAR ROOFTOP**

Quality controlled by

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