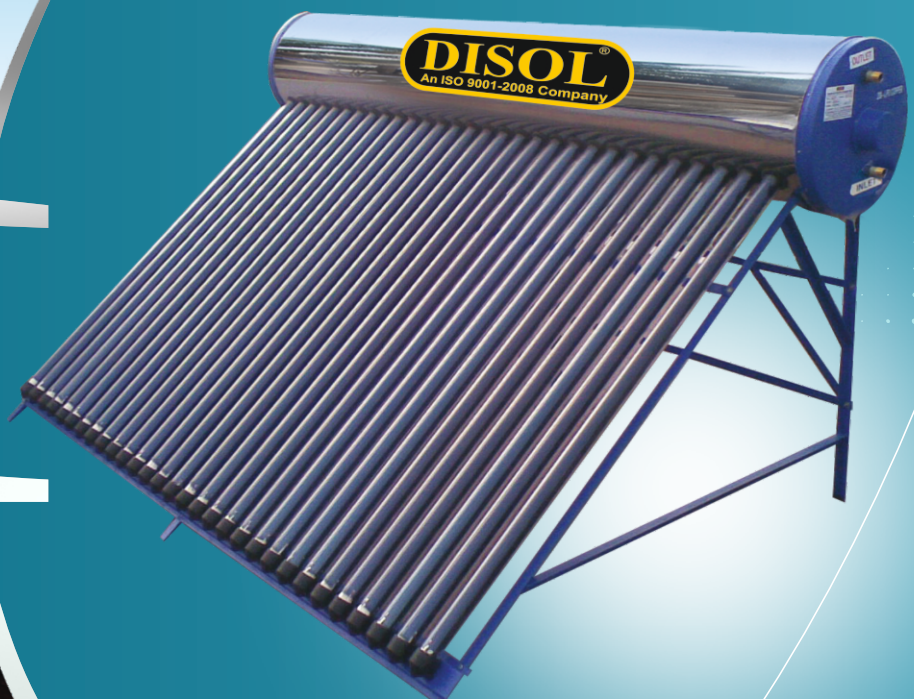




DISOL SOLAR SYSTEMS PVT. LTD.



Disol Solar Systems Pvt. Ltd., is one of the leading manufacturers of FPC & ETC Solar Water Heating Systems in Karnataka in the brand name of 'DISOL'. Since 1996 we have a experienced dedicated Technical Team to design the equipments by Quality, Reliability and Hi-Efficiency suitable to the customer's requirements. Our products are approved by Ministry of New and Renewable Energy (MNRE) and Indian Renewable Energy Development Agency (IREDA), Government of India. Our company has ISO 9001-2008 Certification. Our Products are manufacturing as per customers requirements.

We are the channel partner of Ministry of New and Renewable Energy (MNRE) Government of India and also we are authorised manufactureres to the MSIL (Mysore Sales International Limited, Bangalore.

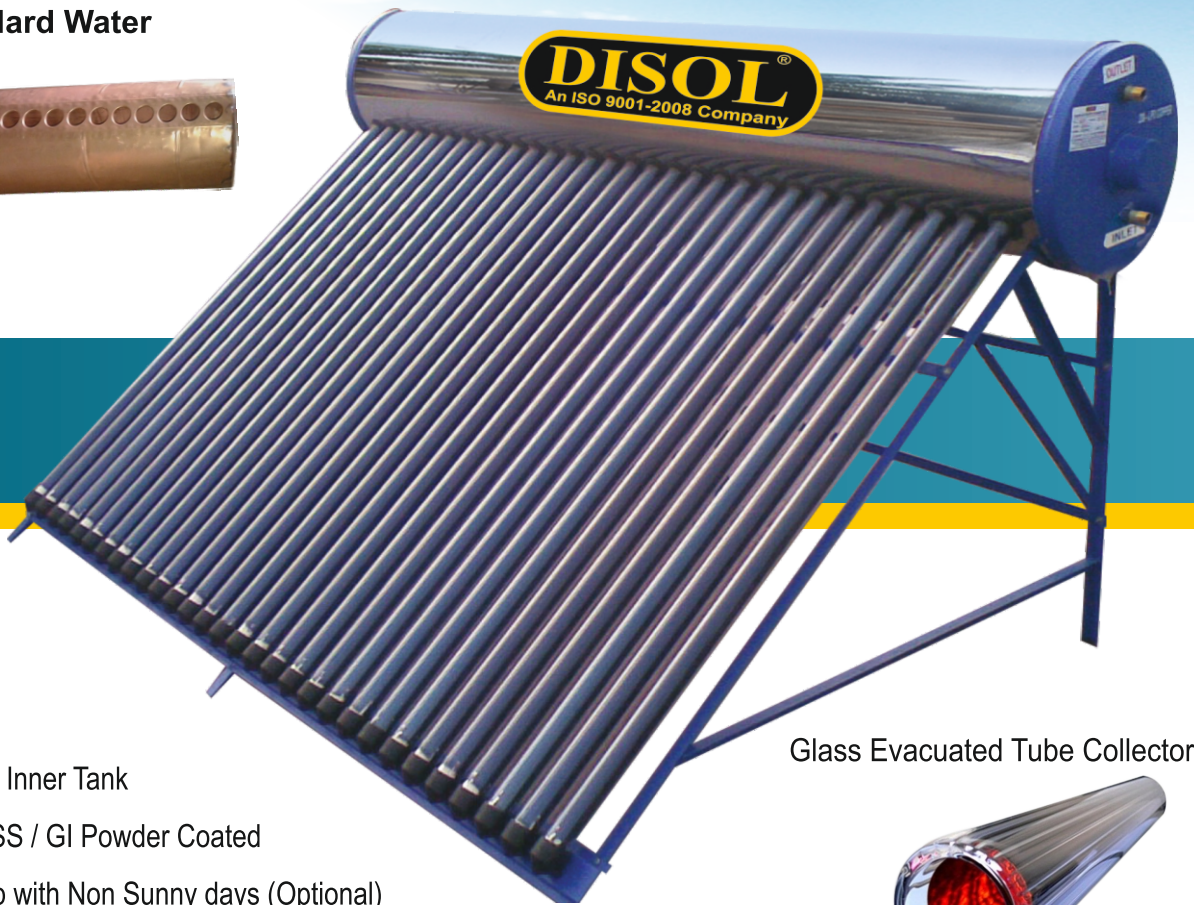
- ▶ More than 1,50,000 Satisfied Customers.
- ▶ Innovated Products to Suite Geographical Conditions.
- ▶ More than 5000 Industrial and Institutional Installations.
- ▶ Pioneers in Developing Systems for Hard Water.
- ▶ Channel Partner to the Ministry of
New & Renewable Energy (MNRE), Government of India
- ▶ Indeginised Process Control to achieve Quality.
- ▶ Solar Hybrid Systems.
- ▶ Strong and Long term Customer Relationship.
- ▶ Copper Tank for ETC & FPC Solar Water Heaters.

Adding Value to
Life



EVACUATED TUBE COLLECTOR SYSTEM (ETC)

Available Copper Inner Tank for Hard Water



Glass Evacuated Tube Collector



- ◆ SS 304, Copper Inner Tank
- ◆ Outer Cladding SS / GI Powder Coated
- ◆ Electrical Backup with Non Sunny days (Optional)
- ◆ Absorption per day 95% auto Sun Tracking Collection
- ◆ PUF Insulated Storage Tank
- ◆ Better performance in Winter & Cloudy Days
- ◆ Excellent heat absorption and minimum heat reflection
- ◆ No Scale formation & No pipe blockage will occur by using Salt & Hard water on Copper Tank

Technical Specification :

Type of Collector	ETC
Tube Specifications	47 - 1500 mm / 58 - 1800 mm
Structural Frame	27 degree
Inner Tank Material	Copper / SS 304 / MS (Mild Steel)
Insulation	High density PUFF Material
Outer Tank	Stainless Steel
Tank Volume	100 ltr., to asper customer requirement



FLAT PLATE COLLECTOR SYSTEM (FPC)



Copper Tank Inside

Technical Specification of Solar Flat Plate Collector

Absorber Sheet	Copper 34 SWG/0.1 mm thick Selectively Coated Laser Welded Chrome coated (E.T.P. Quality)
Riser Tube	Copper 12.5mm 24 SWG (+ 0.5 mm)
Header Tube	Copper 25 mm 22 SEG (+ 0.5 mm)
No. of Riser Tube	9 Fins
Bonding between Riser & Absorber	High temperature Ultrasonic Seam/Laser Welding
Absorber Coating	Selective coating Absorptivity 0.95+ 0.02 Emissivity = 0.10 +0.02
Front Glazing	50 mm thick Rock wool slab density of 48 Kg/M3 with Aluminum foil
Back Insulation	Toughen Glass 4 mm thickness Transparency 87% and above
Gasket	EPDM Rubber Grommets and Glass Beading
Collector Box	Jindal/ Indalco Aluminum, extruded channel backed by a sheet of 22 SWG
Header Inlet & outlet jacket	Brass flanges 62 mm dia
Collector stands and legs	M.S. "L" Angle with enamel coated
Support top glazing	Glass retaining aluminum beading 1.6 mm
Collector Box	Riveted
Insulation	Rock Wool
Fasteners	S.S. / GI Screws and Bolt Nuts
Collector Sealant	Silicon base

- ❖ High Efficiency Selectively coated copper absorbers.
- ❖ Sturdy, Pure polyester powder coated collector box.
- ❖ Inner tanks made in SS 304, MS tank with Epoxy Coated and Electrical grade Copper sheet.
- ❖ Electroplate the black chrome coated improves energy absorption, long service life, enduring high temperature.
- ❖ In case water quality is not good the TDS and PPM so high, we prefer copper tank.



6000 LTR SWH at Sri Adhi Chunchunagiri Mutt (Vijayanagar Bangalore).



Available
Copper Inner Tank
for Hard Water

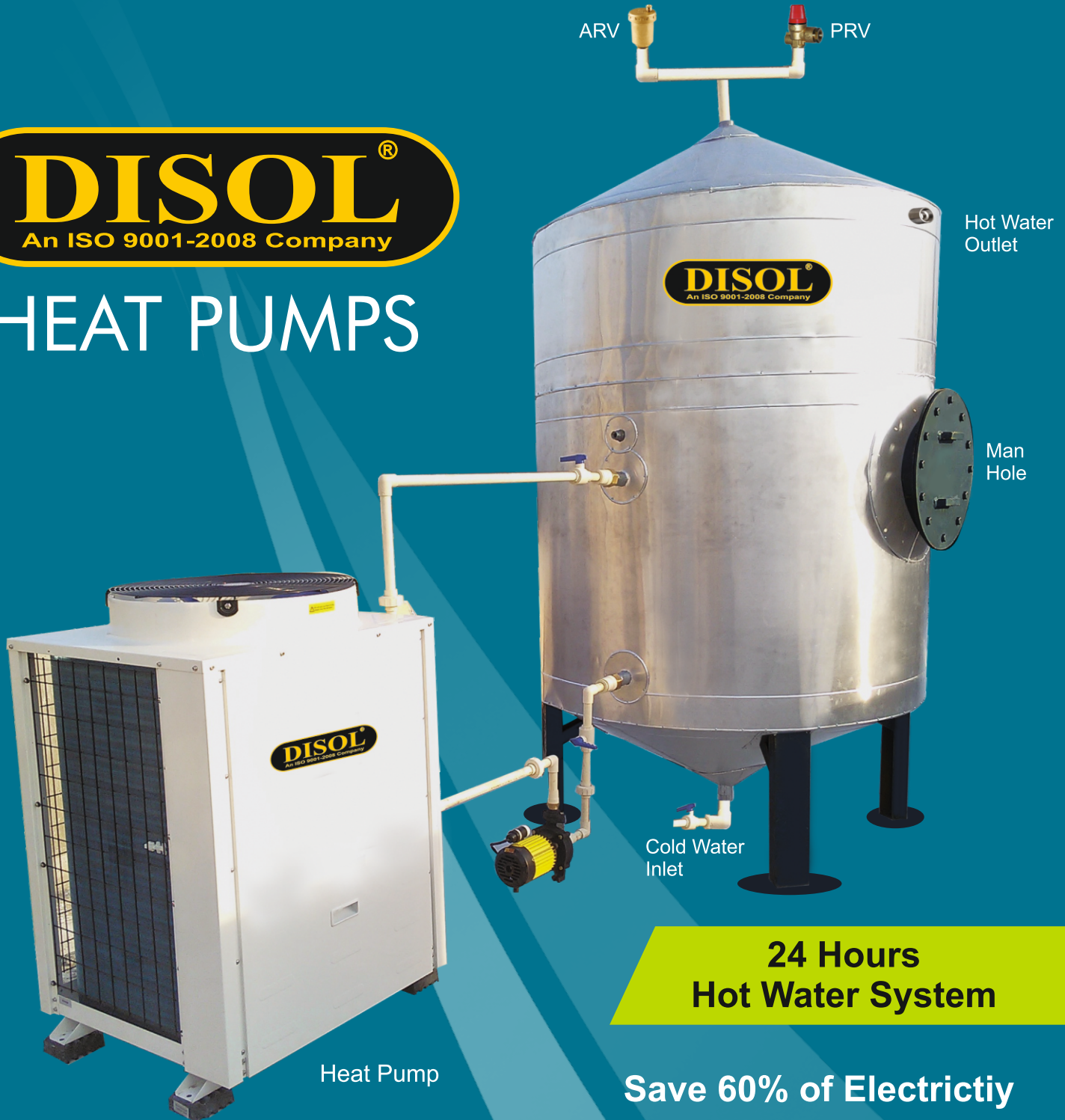
BIO-MASS BOILER

- ◆ Heavy gauge metals and latest technology is used for longer durability
- ◆ Low Investment, No Maintenance and Less Fuel Cost
- ◆ Easy to Install & easy shift
- ◆ Electrical Power, Gas, Conventional Power is not required
- ◆ Energy Efficient, Low Smoke, Eco Friendly
- ◆ Boilers for heating waters for Domestic & Non Domestic Applications.
- ◆ Designed and manufacturing the Boilers as per the customers requirements and site conditions.





HEAT PUMPS



Save 60% of Electricity

LOW MAINTENANCE | INCREASED EFFICIENCY | ECO FRIENDLY



DOMESTIC HEAT PUMP

- Appartments
- Villas
- Individual Houses
- Bungalows
- Kitchens / Caterers



COMMERCIAL HEAT PUMP

- Housing Societies
- Hotels / Resorts / Restaurants
- Swimming Pool
- Commercial Laundry
- Hospitals
- Food Courts



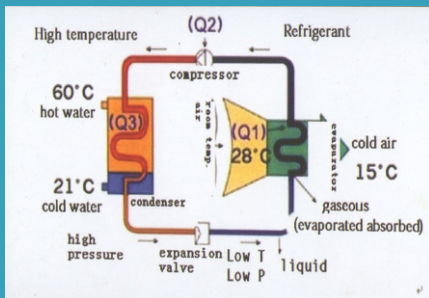
INDUSTRIAL HEAT PUMP

- Automobile / Engineering
- Pharma / Bulk Drugs
- FMCG
- Plastic Moulding
- Breweries and Beverages
- Process Industries

AIR SOURCED HEAT PUMPS

Heating Capacity	6.8 kw	12.8 kw, 13.2 kw	16.6 kw	19.3, 20.1 kw	41 kw
					
Input Power	1.73 kw	4.25 kw, 3.32/Kw	4.25 kw	4.5 kw, 5.13 kw	10.75 kw
Refrigerant	R407C	R407C	R407C	R407C	R407C
Power Supply	Single Ph (220-240V)	3 Ph (380-415V)	3 Ph (380-415V)	3 Ph (380-415V)	3 Ph (380-415V)
Hot Water Per Hour (30° C Increase)	195 Litres	373 Litres	476 Litres	575 Litres	1175 Litres
Max Temp	60 deg C	60 deg C	60 deg C	60 deg C	60 deg C
Built in Cir Pump	Yes	Yes	No	No	No

HOW IT WORKS



The figure shows the schematic presentation of the working principle of a Air Source Heat Pump Water Heater. The important parts of a heat pump are Exoparator, Heat Exchanger and a Compressor.

The low temperature, low pressure refrigerent in the liquid state is made to pass through the evaporator where it absorbs heat from the ambient air and vapourises. This gaseous refrigerant is passed through a compressor where it is compressed to very high pressure. Since temperature is directly proportional to pressure the temperature of the refrigerant also increases, this high temperature, high pressure refrigerant is passed through a heat exchanger where water will be flowing in the counter directions, hence the water absorbs the refrigerant's temperature and the water is heated. The refrigerant is passed through a expansion valve to reduce its pressure as well and the cycle continues.

Air Source Heat Pump Water Heater : Disol takes pride in presenting you the fourth generation water heaters, The Air Source Heat pump water heater. The Air Source Heat Pump Water Heaters are Energy Saving, Compact, Eco-friendly and very easy on your pocket too. Conventional water Heaters - be it diesel or gas, they use non renewable fast-depleting, fossil fuels and they don't just burn a hole in your pocket, they also adversely impact the environment. Air Source heat pump water heater uses ambient temperature to heat water with out harming the environment in any way. Make a Green Shift and switch to Disol to save 70% of your operating cost on water heating.

SOLAR & HEAT PUMP HYBRID SYSTEM



10,000 Ltrs. Capacity Hybrid System
Installed : Sparsh Super Speciality Hospital, Bangalore



Solar Concentrator (Steam Generator)



- 25° and 45° Acceptance Angles
- 2.5mm and 5.0mm Exit Diameters
- Ideal for Concentrating Solar Energy

Compound Parabolic Concentrators (CPCs) are designed to efficiently collect and concentrate distant light sources. With acceptance angle options of 25° and 45°, our CPCs are able to accommodate a variety of light sources and configurations. Compound Parabolic Concentrators are critical components in solar energy collection, wireless communication, biomedical and defense research, or for any applications requiring condensing of a divergent light source. For custom coatings on the entrance and exit faces or for custom sizes and configurations,

Applications : Hotels, Hospitals, Community Cooking, Hostel

Our Prestigious Customers

	Capacity in LPD		Capacity in LPD
Mandya Institute of Medical Science College	18,000	Group of Bapuji Institutions, Davangere	92,000
Prasara Bharati All India Radio, Bangalore	24,000	Taralabalu Institutions, Chitradurga, Davangere & Renebennur	45,000
Indian Air Force, Jalahalli, Bangalore	20,000	Art of Living, Bangalore	60,000
Victoria Hospital, Bangalore	24,000	Basaveshwara Medical College, Bagalkot	15,000
Manipal Hospital, Bangalore	28,000	Adichunchanagiri Group of Institutions	60,000
Sparsh Multi-speciality Hospital, Bangalore	10,000	Department of Social Welfare, Govt. of Karnataka	90,000
Tayota Kirloskar Motors, Bangalore	22,000	Raj Bhavan, Bangalore	18,000
SSIMC Medical College Hostel, Davangere	15,000	Karnataka Milk Federation (KMF)	30,000
PES Group of Institutions Mandya & Bangalore	35,000	Sainaik School, Karnataka	21,000
Administrative Training Institute (ATI), Mysore	15,000	Oxford Girls Hostel, Bangalore	5,000
Apollo Hospital, Mysore & Bangalore	35,000	SSSIHMS, Puttaparthi	6000



SOLAR PANEL



A solar panel is a device which is an arrangement of multiple solar cells, which are connected in parallel or series alignment to observe sunlight and then generate direct current (DC). It is also known as Photovoltaic (PV) module, There are seven main components of a solar panel which are combined to make a single PV module. Photovoltaic has two words in it, in Latin language 'photo' means 'light' and 'voltaic' means 'electricity', which defines electricity generated from light.

HOW MANY TYPES OF SOLAR PANELS ARE AVAILABLE IN INDIA?

There are generally three types of solar panels, 'Polycrystalline solar panels, Monocrystalline solar panels, and Bifacial solar panels' that are available in the Indian solar market.

The similarity between Poly, Mono, Bifacial solar panels is to generate DC power during the day time with all having the same working system, on the other hand, the main difference between these solar panels is the size comparison and power generation capacity in minimum space.

MONOCRYSTALLINE SOLAR PANEL : Made of pure Silicon cells, that generate higher power, Made of Mono Perk cells with size 156 mm and 156 mm, it looks blackish in color. The advancement of solar panels is growing with the growth of solar sector. In the earlier stage, Polycrystalline solar panels were used, but in current times, Monocrystalline solar panels are used. With the installation of Monocrystalline solar panels, power generation becomes more efficient from and within the compact spaces. Monocrystalline solar panels are available in 50W, 75W, 125W, 200W, 445W and 550W. The price range of these available Monocrystalline solar panels is higher than Polycrystalline solar panels.

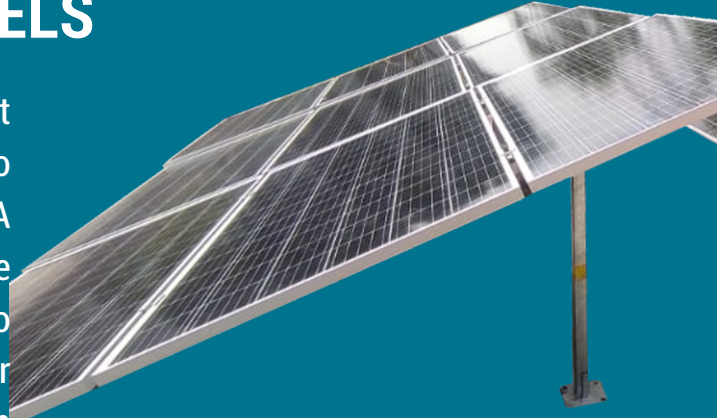
POLYCRYSTALLINE SOLAR PANEL: A traditional solar panel that is commonly used, less expensive, and Lowers power generation.

BIFACIAL SOLAR PANELS : are the latest technology solar panel which generate electricity from both side of panels – front & back side.

DCR SOLAR PANELS : The DCR solar panel is comprised of components such as solar cell, etc that are all made in India. On installing the solar panels, the India governments provides subsidy of up to 40%. Loom Solar is an Indian origin solar company, which introduced 520W Mono perc, 10 Bus Bar Half cut technology solar panel in India, which can generate more power from compact space. This solar panel is only installed with on grid solar system for which the Indian government has provided national rooftop solar portal.

MAINTENANCE OF SOLAR PANELS

Solar panels are low maintenance products; however, it is important to clean solar panels on a regular basis to clear off the dust particles that get accumulated on it. A Cleaner solar panel might generate up to 25% more power. The cost of maintaining solar panels is near to zero (0) or a few hundred rupees a year. Most solar panels have silicon cells laminated and framed which ensures long life and less maintenance. Cleaning and washing solar panels are a must for longevity and retaining efficiency.



- **Keep Solar panels out of the shade**
- **The best way to clean the solar panel is by using soft cloths, shampoo, or detergent**
- **Clean in a way that it may not scratch the glass**



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