



Go Eco - Save The Environment



ECOWIN SYSTEMS & SERVICES PVT. LTD



ECOWIN SYSTEMS & SERVICES Pvt. Ltd.

Ecwin Systems & Services Pvt Ltd is owned and managed by a team of Engineers having rich individual experience of over 30 years in the field of Electrical, Mechanical & Electronics Engineering in defence and private sectors. Ecwin is focussed to provide services in the field of renewable energy produced through solar as well as wind, energy efficient electrical equipments such as solar water heater, ceiling fan, inverter, battery, street lights and LED lights. It also provides good quality aluminium structures for easy and cost effective installation of solar panels for roof top and ground models. Ecwin is having business association with renowned companies such as Luminous, Hykon India Pvt Ltd, Solgen Energy Pvt Ltd, Atomberg Technologies (P) Ltd and Rajamane Teletric (P) Ltd to name a few.

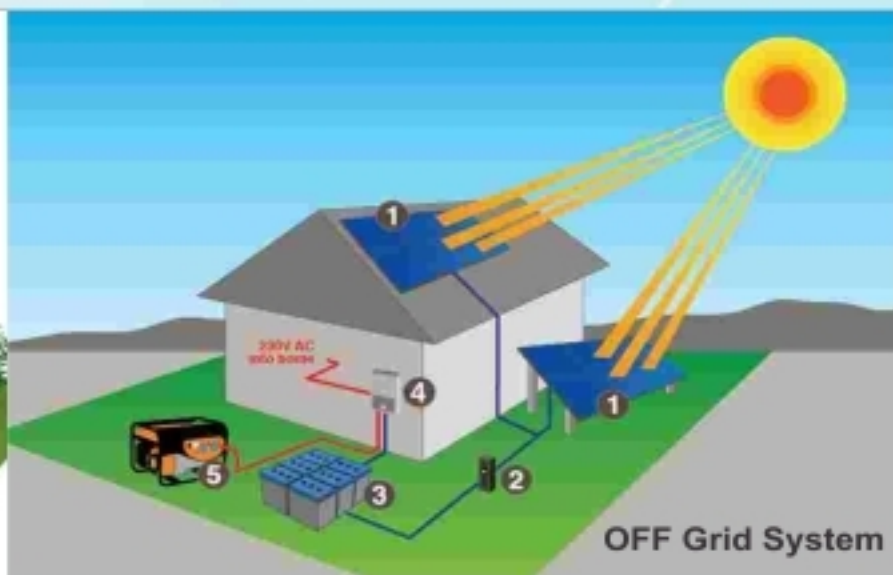
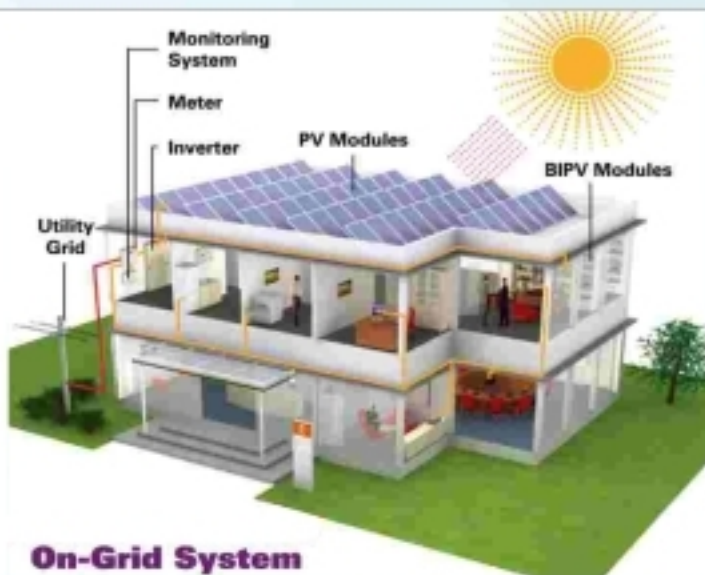
Products and Services

Solar Power Systems

Rooftop Solutions.

GRID TIE SYSTEM: - In this model the energy produced by the system is directly connected to the utility grid. Using the net metering, the energy produced by the solar system is transferred to the grid and the energy utilised from the grid is worked out to derive the net energy consumed to calculate the energy bill. This system will be automatically shutdown when the grid goes off and hence suitable for locations not experiencing frequent power failures and voltage fluctuations.

Capacity 2Kw-100Kw Key components: Grid Tie Inverter, PV Panels.



OFF GRID SYSTEM: - In this model the energy produced by the PV panels is used to charge the battery to provide power in the absence of grid power and also to minimise the energy usage from the utility grid. This system is ideal for locations which experience frequent power failure and need autonomy. Capacity 1-5 Kw. Key Components: OFF grid Inverter, PV Panels, Batteries.

Grid Tie Inverter

Converts direct current (DC) from PV panels to alternating current (AC) with an ability to synchronise with the grid. Designed to disconnect from the grid if the utility grid shutdown.

FEATURES & BENEFITS

- Transformer less inverter - No transformer loss so Efficiency is >97%
- Inbuilt dual MPPT charge controller - Complete utilisation of PV arrays even in partial shading
- Wide MPPT voltage range - Extends the day thus harnessing maximum power from sun
- IP 65 enclosure - Completely dust and water proof ideal for outside installation
- Modbus Comms - For efficient remote monitoring
- String inverter - Stackable up to MW level.

Range

Single phase- 1.5 Kw, 2 Kw, 3 KW, 3.6Kw, 4Kw, & 5 Kw

Three Phase- 6Kw, 10 Kw, 15Kw, 20Kw, 25Kw, 30Kw.

Power Conditioning Unit

Comes with inbuilt MPPT charge controller which is specially designed for solar applications. These 1-phase & 3 phase PCUs are having high conversion features. The DC power generated from PV array is used to charge connected battery bank and also used to cater load through these PCUs. These PCUs being Bi-directional have a special feature to charge batteries through grid and solar with priority to solar energy.

Range

Single phase 1Kw- 10Kw

Three Phase, 10Kw to 100Kw

FEATURES

- MPPT based PCU
- Inbuilt O/P isolation transformer
- Bi-directional PCU
- Source priority selection
- 32 bit DSP Controller
- MOSFET/IGBT switching element
- MCB at battery & O/P
- Compliance to IEC standards

BENEFITS

- Maximum utilisation of solar power
- Protection from internal surges and noise
- Features for battery charging through grid also
- Choose source priority between solar, battery & grid
- Ability to handle multiple algorithm efficiently
- High current handling capacity, preventing thermal loss
- Switch off the electrical circuit during abnormal condition
- Safe, reliable and good quality



Solar Charge Controller- PWM/MPPT

PWM charge controllers have option of USB charging & dusk to dawn features with electronic & software controlled protections. Maintenance free-USB Mobile Charger Output- Option of SMF & Lead Acid Battery selection.

Range

12 V- 6Amp, 12/24V- 10 Amp & 20 Amp.

FEATURES

- Automatic selection of 12 v/24v battery
- Aesthetic & compact design
- 98% efficiency
- Fuse less electronic & software controlled protection
- USB port
- Option of SMF & Lead Acid Battery selection
- Load controller with LVD & dusk to dawn features

BENEFITS

- No Manual operation
- 20% extra power handling capacity
- Maximum utilisation of solar power
- Maintenance free
- USB Mobile charger O/P
- Flexibility in choice of battery per usage
- Saves battery from deep discharge which increases life.



MPPT Charge Controllers

An MPPT (Maximum Power Point Tracking) is a technology in which there is Dc to Dc conversion that optimises the match between the solar array (PV Panels), and battery bank or utility grid. To put it simple, It converts a higher voltage DC output from solar panels down to the lower voltage need to charge batteries without loss of power.

Range

20 Amp, 40 Amp & 60 Amp.

FEATURES

- Smart tracking algorithm
- Four stage battery charging-Bulk absorption-Float & Equalize
- Automatic selection of battery voltage
- Higher input voltages from PV module
- Easy Upgradation

BENEFITS

- Increase in solar power extraction by up to 30%
- Ability to have higher input voltage than battery bank
- Safe charging to increase life of battery
- No manual operation
- Great flexibility for system growth



Solar Battery

C10 rating deep cycle batteries specially designed for longer back up - Batteries of rating starting from 20 Ah to 200 Ah in 3 years & 5 years warranty - Can handle extreme weather conditions - Over charging sustainability and Ah efficiency 90% and wh efficiency of 80%.

Solar Home Lamp 20Wp & 10Wp

- Three/Two light system with excellent battery back up
- 5 step light intensity regulation
- Handy model with a torch at the front
- Mobile charging output with Multi Pin connector
- Can run 12 V DC lamp, DC fan, Dc TV & other DC loads
- Light weight and easy to carry



Solar Panels

Monocrystalline cell/Polycrystalline Cell IEC certified PV modules with performance warranty of up to 25 years.

Range- 3 Wp to 300 Wp

FEATURES

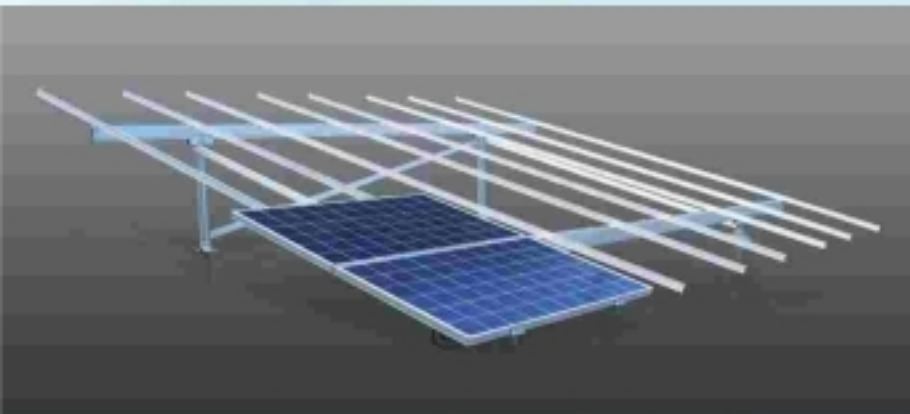
- Best in class conversion efficiency
- Antireflective coating and back surface field
- Advance EVA encapsulation
- Strong lightweight aluminium frame design
- Compliance to IEC standards

MNRE Approved

BENEFITS

- Higher cell efficiency for optimum output
- More light absorption
- Multilayer encapsulation providing better module protection
- Offers high torsion resistance against wind & snow load
- Safe, reliable and good quality





Aluminium Structure.

Made of good quality aluminium (Anodised A16005-T5) and stainless steel (SS 202) for roof top as well as ground mount systems. this is suitable for residential and commercial applications.

BENEFITS

- Easy installation- Saves cost
- Flexible & Compatible- Usable for different types of roofs
- Safety & Reliability- Corrosion free and load carrying capacity.

Models available

FIXED AND ADJUSTABLE TILT MOUNT

FEATURES

- Enables simple, fast and cost effective installation
- A16005-T5 High class anodised Aluminium
- Water proof rubber integrated
- Fasteners and rail nut: Completely configured to save extra parts purchasing

Solar Home UPS

Hybrid UPS available in the range of 500VA, 850VA & 1500 VA with inbuilt charge controllers with wide choice of PV modules from 500Wp to 1100 Wp, with unique feature of ISOT it saves 1.5 to 3 units per day.

FEATURES

- Intelligent logic control (Simultaneous charging solar mains with priority to solar)
- Pure sin wave inverter with 85% efficiency
- ISOT-Intelligent solar optimization technique
- Inbuilt charge controller with 98% efficiency
- Intelligent battery monitoring
- Battery charging commences at 110 Volts mains voltage
- Equipped with battery type selection
- O/P for both AC as well as DC



BENEFITS

- Very safe for sensitive products like TV, PC, Laptop, and Refrigerator etc.
- 25 to 30% saving on electricity bill & reduces charging time
- Power saving of 1.5 units to 3 units per day
- Fast charging of batteries from solar
- Protects battery from overcharging and hence longer life
- Charges battery during low voltage
- Flexibility to use with all types of batteries
- Run both DC and AC appliances

TRIANGLE BRACKET PORTRAIT/LANDSCAPE FEATURES

- Ideal for flat roof top
- Main material: Anodised Al 6005-T5
- Fasten material SS202
- Variable angle of inclination
- Foundation options: Direct bolting/weight plate

ROOF HOOK MOUNT FEATURES

- Suitable for metal/polymer sheets
- There is no need to pierce the sheet
- Main Material: Anodised Aluminium
- Fasten material: SS 202

GROUND MOUNT FEATURES

- Fast and easy installation
- Long serviceability and high recyclable value.



Solar Street Lights

Range- 6W to 40W

Auto dusk to dawn (12 hrs.)

60% brightness after 11 pm., Autonomy- 3 days

Pole Height- 4.5 meters

Light Output	Backup Time	Battery	Solar Panel
10 watt	5 full & 7 Hrs Eco Mode	14.8v/8.8AH	60 watt
10 watt	12 Hrs full brightness	14.8v/11AH	60 watt
20 watt	5 full & 7 Hrs Eco Mode	14.8v/15.4AH	80 watt
20 watt	12 Hrs full brightness	14.8v/17.6AH	120 watt
30 watt	5 full & 7 Hrs Eco Mode	29.6v/11AH	180 watt
30 watt	12 Hrs full brightness	29.6v/15.4AH	180 watt
40 watt	5 full & 7 Hrs Eco Mode	29.6v/13.2AH	180 watt
40 watt	12 Hrs full brightness	29.6v/17.6AH	240 watt
60 watt	5 full & 7 Hrs Eco Mode	29.6v/19.8AH	360 watt
60 watt	12 Hrs full brightness	29.6v/28.6AH	360 watt



LITHIUM ION LED SOLAR STREET LIGHT SYSTEM

Latest Li-Ion Battery technology (First time in India)



- Light Weight & Small Size
- Long Life
- Quick Charge
- Theft Proof
- Cost Effective
- Maintenance Free
- Auto ON / OFF
- IP-65 Enclosure
- Auto Dimming (Optional)
- Quick Installation
- Modular Plug & Play design

Solar LED Lantern

Solar LED Lantern is an emergency light which gives light equal to an 8W CFL bulb. It is portable, light weight, sturdy and looks like a traditional lantern.

FEATURES

- Using latest Li-ion battery technology
- Over charge and deep discharge protection provided
- Charging and battery low indication provided
- Long life of 10 years battery life is minimum 3 years
- Unbreakable body
- Up to 18 hours of backup time
- 4 stage dimming

Backup time:

- 1 watt - 8 hours
- 2 watt - 4 hours
- 3 watt - 4 to 18 hours

Models available

- 1 watt, 2 watt & 3 watt



Solar Water Heater

- 100 LPD/150 LPD/200 LPD/250 LPD
- Safe water for cooking
- Evacuated tube with 3 layer
- High thermal efficiency
- Stainless steel inner & outer tank
- Aluminium stand parts
- Ideal for hard water (Ceramica Model)



**MNRE Approved
Warranty- 5 yrs.**

Annual Saving on Electricity Bill

Electricity consumed for heating 100 ltrs of water in a 25 ltr electric water heater= 4.65 units/day
 For 300 sunny days electricity consumed = 4.65x 300=1395 units
 Electricity cost @ Rs.6.5/ unit= 1395x6.5= Rs- 9068. /-

Energy Efficient Ceiling Fan- Gorilla

Manufactured by Atomberg Technologies (P) Ltd.

FEATURES

- Super energy efficient BLDC Motor
- Highest service value (Air delivery/watt)
- Runs 3 times longer on inverter resulting longer battery run time
- No humming Noise
- No heating of fan even after long hours of runtime resulting in extra-long life
- Consistent performance even at low voltage and power fluctuations
- Easy speed control using smart remote
- TIME feature to auto switch off
- Sleep mode that reduces the speed after set hours and save energy
- ISO 6001:2008 & ISO 14001:2004 CERTIFIED
- Compliant with requirements of IS 374:1979

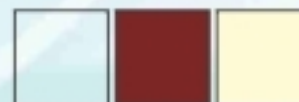
Technical Details

Parameter Detail

Span (mm/inch) 1200/48- 1400/ 56
 Service value/Air Delivery >7
 Input Voltage (V) 140-285
 Power consumption (W) 28
 Frequency (Hz) 48-52
 Air Delivery (CMM) 220
 Power factor 0.95
 No.of Blades 3
 Bearing (Double) Deep groove double sided steel shielding
 Remote Control (12 Keys) Speed control, Timer and Sleep Mode
 Warranty 3 Years



Colours Available



White Brown Ivory

Comparison

Atomberg Energy Efficient Fan
 Watt 28 Watt
 Energy use per year 134.4 units
 Electricity cost per year Rs-806

Ordinary Ceiling Fan
 75 Watt
 360 units
 Rs- 2160.

Assumption- Usage of 16 hours a day & 300 days a year.



Harness the Power of Sun

- | Solar Power Systems
- | Grid - Tie Inverter
- | Power Conditioning Unit
- | Solar Home UPS
- | Solar Battery
- | Solar Lantern
- | Solar Street Light
- | Solar Panels
- | Energy Efficient Ceiling Fan
- | Solar Water Heater
- | Aluminium Structure



ECOWIN SYSTEMS & SERVICES PVT. LTD

Corporate Office: Room No. 5/352-16 & 17, St John's Arcade, East Fort, Thrissur- 5, Kerala

Phone: +91 9539821111, 9539831111, info@ecowinsystems.org, www.ecowinsystems.org

Registered Office: Room No: 27/1665/1(B/1136 - D/5) Opposite Shiva Temple, College Road - Kuttanellur, Thrissur- 680014

OUR BUSINESS ASSOCIATES

