

Why an MPPT Solar Charge Controller

The MPPT (Maximum Power Point Tracking) Controller is used to convert excess voltage into ampere. Converting this excess voltage into Amps, the charge voltage can be kept at an optimal level while the time required to charge the battery is reduced.

Su-Kam's Solar DC System is fitted with an inbuilt 12V 10A MPPT Solar Charge Controller that charges the battery with the help of solar power from the panel by operating the panel at maximum power point voltage.

Advantages of MPPT

- **Delivers more solar power** – Delivers 30% more solar power from solar panels compared to Pulse Width Modulation (PWM) technology
- **Reduces cost** – Reduces solar panel cost by 30%
- **More effective power generation** – More effective solar energy generation, even during cloudy days

Applications



Over 35 thousand systems are being supplied to UP government under the project "UPNEDA Lohiya Avas 12-13". Each system runs 1 fan, 3 LED lights and gives provision for mobile charging.



Builder homes



Housing societies



Can be used as a low cost solution for household (small rural house) lighting, especially for areas where the mains availability is low or almost zero.



SMEs



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Su-Kam®

Su-Kam Power Systems Limited

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R&D Centre, Gurgaon (Haryana)



Battery Plant, Katha (Himachal Pradesh)



Battery Plant, Baddi (Himachal Pradesh)



Inverter Plant, Baddi (Himachal Pradesh)



Solar Panel Plant, Baddi (Himachal Pradesh)



Solar Electronics & Accessories Plant, Gurgaon

The Su-Kam Experience

Su-Kam offers excellent service to its current and prospective clients. It has a vast, pan-India, company-owned service network. It also runs fully-equipped service vans to provide doorstep service.

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Note: Indicative values only, actual calculation depends on manufacturer's specification.
* CFL - 15W, Ceiling Fan - 3 blades (48mm 100 - 1200 mm sweep), TV - 19-21 inch, Tube light - 40W.
Applications : Computer, Televisions, Printer, CFL / Bulbs, Tube Light, Fans, Room Cooler, Mixer Grinder etc.

Su-Kam

Ek nayi soch

www.su-kam.com

From power-less to
power-packed
with *Ek nayi soch*

What is life without light? Power has the power to keep life on the move and bring happiness to homes and lives.

Even after 60 years of independence, various parts of our country suffer from severe power shortage and long and frequent power-cuts. In such a scenario, Su-Kam brings a solution...

MPPT
TECHNOLOGY

SOLAR DC SYSTEM 120

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State-of-the-art manufacturing facilities

Su-Kam's expertise in manufacturing innovative power back-up systems with its focus on R&D, to continuously manufacturing new products, has resulted in manufacture of a wide range of products like inverters, batteries, solar products etc.

Su-Kam has 7 state-of-the-art manufacturing facilities in Baddi, Himachal Pradesh, Nepal and Gurgaon:



Battery Manufacturing Facility at Katha, Baddi



Tubular Battery Manufacturing Facility at Baddi

Advanced Research & Development Unit

Su-Kam was the first in the industry to invest in and institute an exclusive R&D unit, at par with international standards, with a team of industry experts.



Dedication to superior quality

Su-Kam has remained uncompromising on the high quality of its products. With stringent quality parameters and testing, it is at par with international standards.

The company has implemented Total Quality Management (TQM) practices

Most of our products have received Test Certifications from reputed laboratories like ERTL (A Government of India organisation).



Su-Kam brings a revolution in the power backup industry with Solar DC System – a unique product that promises power to areas with frequent cuts and even places where no home has ever been lit-up by power due to the absence of power grids.

The revolution called Solar DC System

The Su-Kam Solar DC System is an innovative, environment-friendly, complete home lighting solar solution that has the power to remove darkness from millions of lives.

A standard package can light up to one 12V 25W DC (BLDC) fan, two 3W LED along with USB mobile charger point. DC light, DC fan, DC TV and other DC appliances up to 120W can be run very easily with this system.



SOLAR DC SYSTEM 120



Uniqueness that sets Solar DC System apart

Extracts maximum available power

The inbuilt 12V 10A MPPT Solar Charge Controller operates the solar panel at maximum power point voltage.



Overload and short circuit protection

It provides intelligent overload and short circuit protection to the system.

Easy system monitoring through LCD and LED display

- The LCD shows parameters like PV voltage current, battery and load parameters and fault & warning messages.
- LED gives low battery, Mains Charging On and Solar Charging On indications.

Provision for mobile charging

It can charge mobile phones with the USB connector provided.



Designed for easy installation

Its compact and rugged design allows it to be kept on a surface or be hung on a wall for installation.

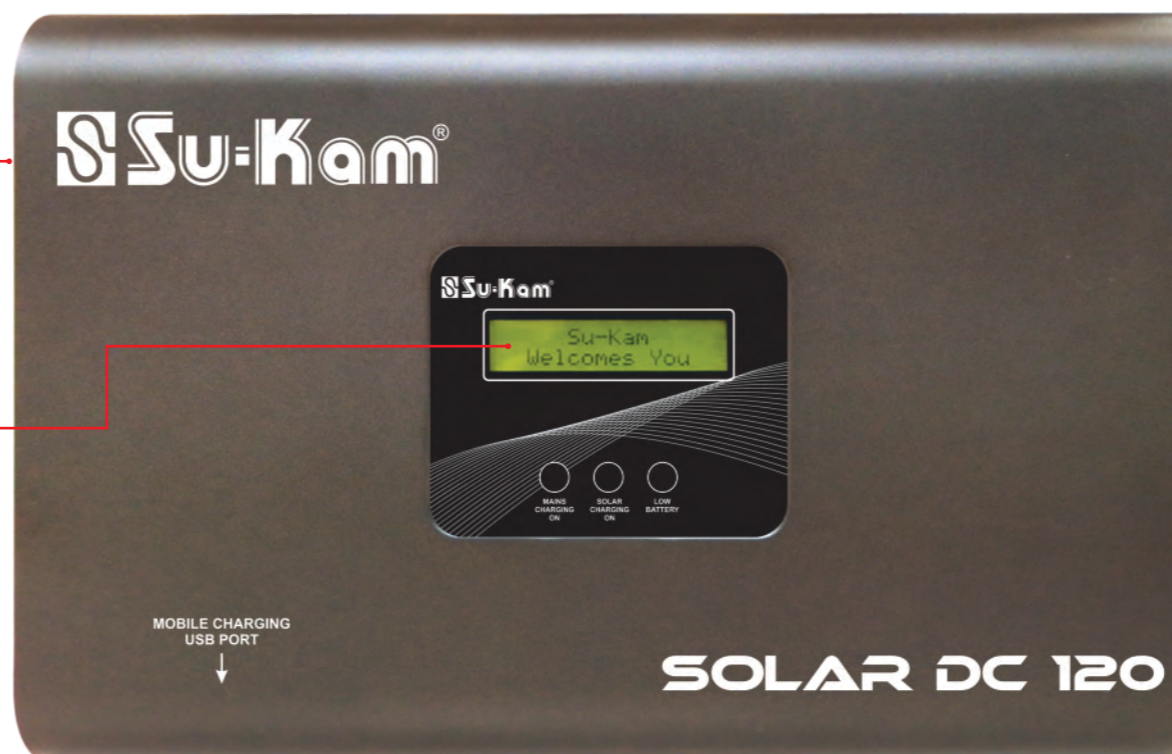


Low & high battery protection

It also provides protection from low battery and high battery conditions.

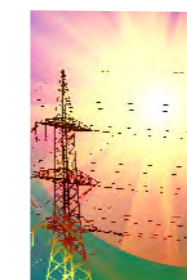
Easy recyclability of the product

This is an electronic product so, in case of any component failure, the failed component can be removed and replaced to use it again.



Solar & grid charging options available

- It includes 12V 10A grid charger that can charge the battery with grid power when available.
- The solar power pack automatically gives priority to solar power over grid power.
- Grid power is used only when the batteries are discharged below a certain threshold.



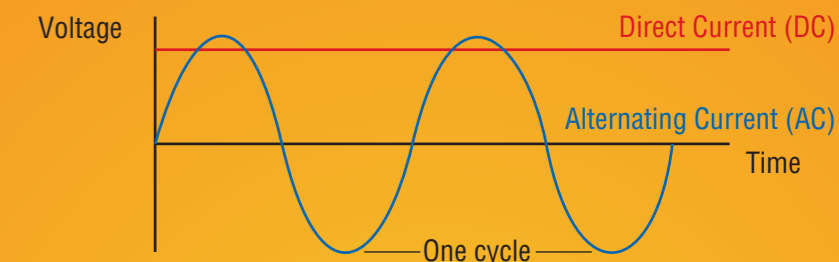
Low idle current

The system draws only minimum current from the battery in case of battery low state or off mode.

Direct Current (DC) vs. Alternating Current (AC)

In the current scenario, most of the gadgets and digital electronics are built using DC. However, most homes are wired for AC. Which is why, despite some useful properties of AC, when connected to DC products, a lot of power is lost. Among other disadvantages, this results in higher electricity bills.

Su-Kam's Solar DC System helps curb these power losses, thereby reducing electricity bills.



SAY GOODBYE TO HIGH ELECTRICITY BILLS

Advantages of Solar DC System

- Saves power** – 70% power-saving on DC LED lights and fans as compared to AC CFL lights and fans
- Minimises energy loss** – Minimises energy conversion loss by 20% - 30%
- Gives long backup** – The connected battery is charged from solar power in the day time and then the battery backup is used in the night to light-up the LED lamps
- Most reliable** – The continuous supply of solar power makes it one of the most reliable systems



PATENT

The MPPT Solar Charge Controller technology is **patent applied for** under the application no. 940/DEL/2008.