

Solar Charge Controller

PWM Range



RS 232 interface Software for power management.



PWM Range - 30A/120V

Su-Kam's Solar Charger Controller is a system with advanced MOSFET based PWM Technology. The term "charge controller" refers to a device that charge the battery from solar panel.

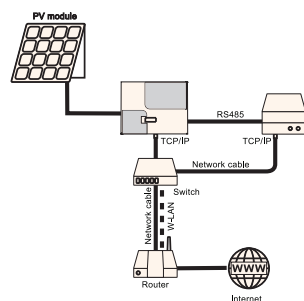
Working Principle

The controller is for off-grid solar systems. This protects the battery from getting over charged using the solar module and over discharged by the loads. The charging process has been optimized for long battery life and improved system performance.

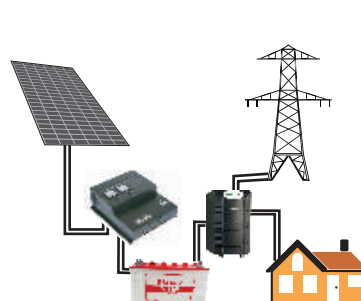
The comprehensive self-diagnostics and electronic protection functions prevent damage from installation mistakes or system faults.

Features

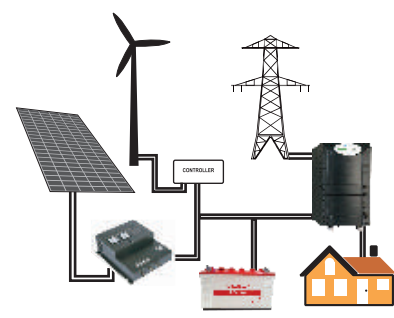
- Excellent EMC design
- Nominal system voltage automatic recognition
- High efficient Series PWM charging, increases battery life and improves the solar system performance
- Use MOSFET as an electronic switch, without any mechanical switch
- Widely used, automatically recognizes day/night
- Humanized design of browser interface, for convenience of operation
- Full control parameters setting and modification, diversified load control mode
- Gel, Sealed and Flooded battery type options
- Adopt temperature compensation, correction algorithm for charging and discharging parameters
- Automatically and improve battery life
- Electronic protection from overheating, overcharging, over discharging, over load, and short circuit.
- Reverse protection: any combination of solar module and battery



Solar Net Monitoring System for Charge Controller



For Household Application



Customization for Household Application

Solar Charge Controller

PWM Range

Electronic Protection Updates

- Over Current
- Battery Over charge Protection
- PV/Battery Reverse Polarity
- Reverse Current Flow
- High Temperature

Indicators

- Low Battery Indication
- Low Battery Reconnect Indication
- Battery High Charging Cutoff
- Charging cutoff reconnect
- Over current Shutdown

Operations/ Options

- Maximum Charging Current: 10-45A
- Single and Dual Solar Array
- Start time: 25 Sec± 5 Sec
- Maximum PV I/P Voltage : 25V per 36Cell Solar Module
- Adjustable Bulk Voltage
- Equalization through Auto/Manual Mode

Applications

- Standalone DC system
- Home Lighting System
- Street Light System
- Stand Alone Solar System
- Off-grid and Micro grid
- Telecom Grid Solar System

Convenience

- Installation with ease
- Increases the battery life
- Protects the battery from Overcharging
- Compatible with any HUPS/Inverter

Certifications & Approvals

- IEC 62093
- IP 20 Rating
- Approved by MNRE, Govt.Of India
- Approved by Solar Energy Center, Govt of India.

TECHNICAL SPECIFICATIONS

MODELS	
Charging Current I _{max} .	120V
Type	30A
Maximum I/P PV Voltage	Series Regulator Common Positive
Solar Array	25V Per 36cell Solar module
Charge Controller Start Time	Single Array
Bulk Voltage	25 Sec. ± 5 Sec.
Adjustable Bulk Voltage	141V ± 1V
Transition from float to bulk	132V-150V
Float Voltage	Below float level for a cumulative period of 1 hour
Equalization	135V ± 1V
Low Battery Indication Reconnect	110V ± 1 V
Battery High Charging Cut off	122V ± 1 V
Battery High Charging Cut off	144V ± 1V
Reconnect	135V ± 1V
PROTECTION	
Automatic Charger Restart Time after High Current	Over Current, Battery over Charge Protection, PV/Battery Reverse Polarity, Reverse Current Flow, High Temp. 3.5 Minutes
Over Current Shutdown	≥ 110%
High Temperature Charger Comp.	> 75°C ± 5°C
High Temperature Charger Reconnect	< 60°C ± 5°C
Reconnect	≥ 50°C
Cooling fan ON	≥ 45°C
Cooling fan OFF	
ENVIRONMENTAL	
Operating Temp.(in-house type test)	0°C to + 40°C
Storage Temp.(in-house type test)	0°C to + 55°C
Relative Humidity	0-95% Non-Condensing
IP Rating	IP-20
Design Serviceuse	Indoor
ENCLOSURE	
Mounting Type	Suitable for wall mounting
Size (WxDxH) ± 10mm	400x475x151
Weight (approx.) (Kg) ± 400gm	9.75Kg.