





## PWM Range - 12V/20A, 24V/20A

Su-Kam's SolarCon hybrid Solar Charge Controller is an intelligent device with inbuilt intelligent technology for utilization of solar power optimally. It can be connected with any existing HUPS/Inverter so that your system gets converted into a solar powered system. SolarCon controls the mains supply to the inverter. When the battery is fully charged and still solar power is available to charge the battery, it automatically disconnects the mains from the inverter and the inverter starts working in backup mode, now the power is supplied from battery and solar both. This helps in utilizing the generated solar power optimally. When the battery is discharged below the pre-defined user settable limit and mains is present, it is connected to the inverter so that the load is bypassed to mains and the battery charging can take place.

## Features

- High efficient Series PWM charging, increases battery life and improves the solar system performance.
- Widely used, automatically recognizes day/night.
- Graphics dot-matrix LCD screen & HMI (human-machine interface) with 4 buttons, integrated menu display & operation.
- 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 -SMF/TT/LA batteries.
- Adopt temperature compensation, correction algorithm

for charging and discharging parameters automatically and improve battery life.

• Reverse protection: any combination of solar module and battery.

## **Electronic Protection Updates**

- Short Circuit through Fuse.
- Reverse Battery Mode with LED Indication.
- Reverse PV array with LED Indication.
- Surges/ Spikes protection with MOV.
- No mechanical switch, uses MOSFET as an electronic switch.
- Prevent overheating, overcharging, over discharging, over load, and short circuit.



|   | TECHNICAL SPECIFICATIONS OF SOLARCON   |  |
|---|--|--|
| Nominal Battery Voltage                     | 12 V (Single Battery)  | 24 V (Double Battery)                      |
| Recommended Home UPS / Inverter Range       | Upto 1000VA  | Upto 2000VA                                |
| Minimum Recommended Battery                 | 135Ah with 260Wp (Solar PV Module) /   | 135Ah with 520Wp (Solar PV Module) /       |
| Ah capacity w.r.t PV module capacity        | 120Ah with 200Wp / 75Ah with   | 120Ah with 400Wp / 75Ah with               |
|   | 160Wp/40Ah with 100Wp  | 320Wp / 40Ah with 200Wp                    |
| Maximum PV panel rating                     | 36 cell Polycrystalline/monocrystalline  | 60/72 cell Polycrystalline/monocrystalline |
|   | Typical: 250 Wp  | Typical: 500 Wp                            |
|   | Maximum: 260Wp   | Maximum: 520Wp                             |
| Float voltage                               | 13.7V±2% at charger's o/p terminal   | 27.2 V ± 2% at charger's o/p terminal      |
| Equalization Voltage                        | Bulk Voltage + 1V  | Bulk Voltage + 2V                          |
| Automatic Temperature compensation in       | Provided   |  |
| Auto Restart after PV High Current          | 3.5 minutes. ± 20 sec  |  |
| Input Range                                 | 90V-300V ± 20V   |  |
| Automatic Changeover Solar / Grid / Battery | Grid power connects to inverter when battery voltage $\leq 11.4/11.8/12.2/13.0V \pm 2\%$ |  |
|   | per battery (As per setting of selection Switch) if grid is within the specified range.  |  |
| Short Ckt. (Mains Mode)                     | Yes (through Fuse)   |  |
| Reverse Battery                             | Yes with LED indication  |  |
| Reverse PV array                            | Yes with LED indication  |  |
| Surge/spike protection                      | Yes through MOV  |  |
| Backup Mode & Mains Mode                    | Battery Voltage / Solar Status / Rupees Saving / Mains Low / Mains High /                |  |
|   | Battery Low / Battery High   |  |
| Operating Temperature Range                 | 0ºC to + 55ºC  |  |
| Dimensions (WxDxH) in mm                    | 215mm X 156mm X 68mm   |  |
| Weight (±) 100 gm.                          | 1.3 Kg   |  |

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