

# DH Series SR-DH120

## Intelligent Wireless Dimming LED Solar Charge Controller



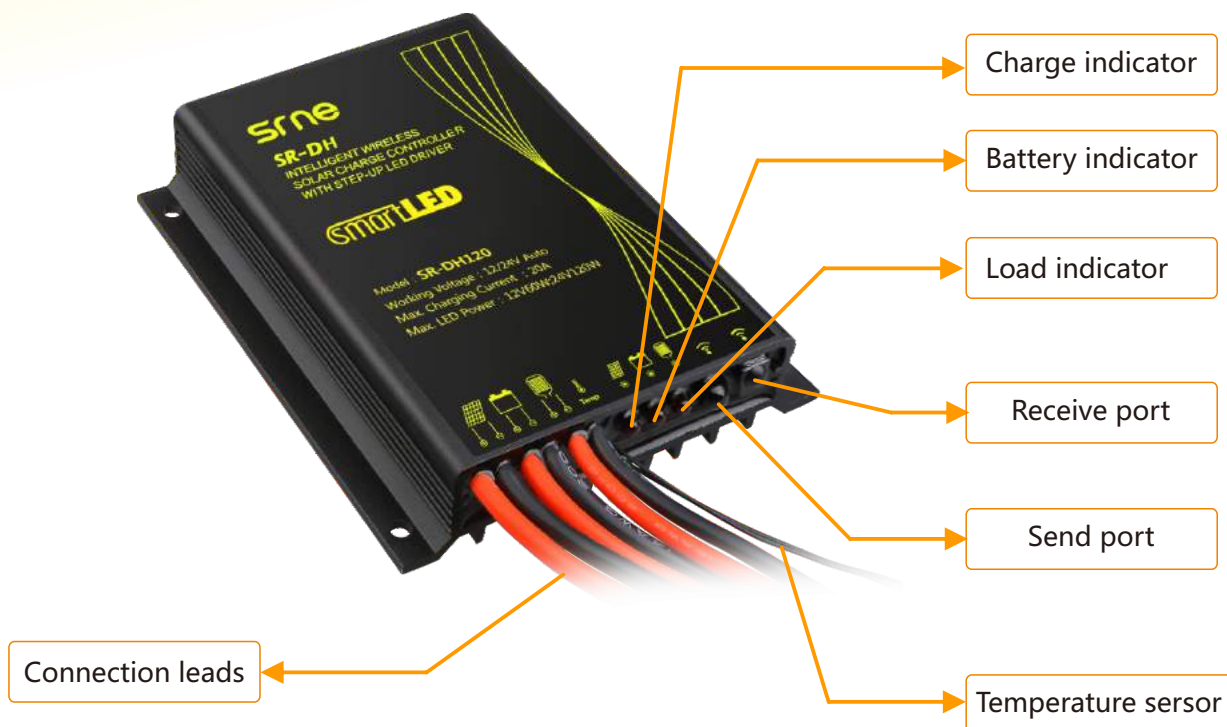
DH120



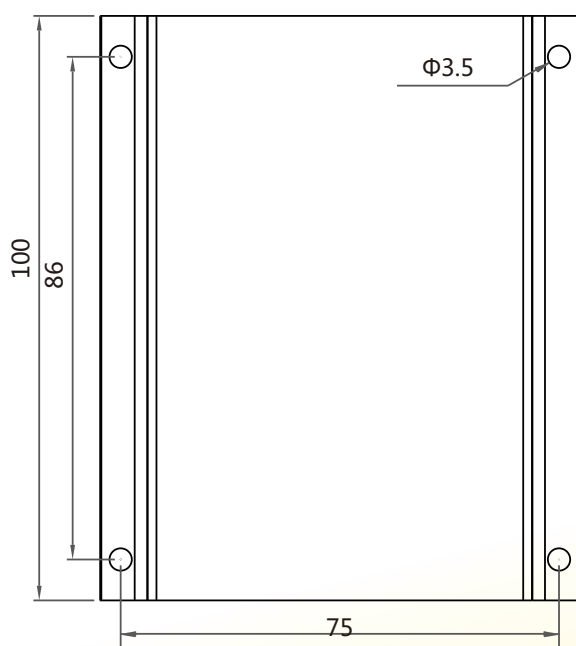
### Main Features

- 1.New design of wireless remote-control can modify the controller parameter and read the system message according to the handheld device.
- 2.Digital high precision constant-current control, the maximum efficiency can reach 96%.
- 3.The working current can be adjusted from 0.15A to 3.96A, the regulating precision is 30mA.
- 4.High dynamic performances of load insure current output stability even though the battery voltage and load sudden change.
- 5.3 section time frame dimming function design, work time can be set range from 0h to 15 hours, power can be set range from 0% to 100%.
- 6.Intelligent power mode, the load power can be adjust automatically according to the battery power, can extend the maximum working time of the battery.
- 7.Record the system status, can record at a max 7days and monitor the whole system.
- 8.The true constant current but not limited the current, insure the current output stability thus decrease LED light failure, increase the LED service life.
- 9.Metal case, IP68 waterproof degree, can suitable use in all kinds of bad conditions.
- 10.With modified calculation of charging, the charging efficiency is improved, which lengthen the using time of solar energy.
- 11.Overheat preventing function, above a certain temperature will decrease the load or close the load.
- 12.Varies system protection function. Including the battery reverse connection, LED short circuit, open circuit protection and so on.

# Installation and Wiring

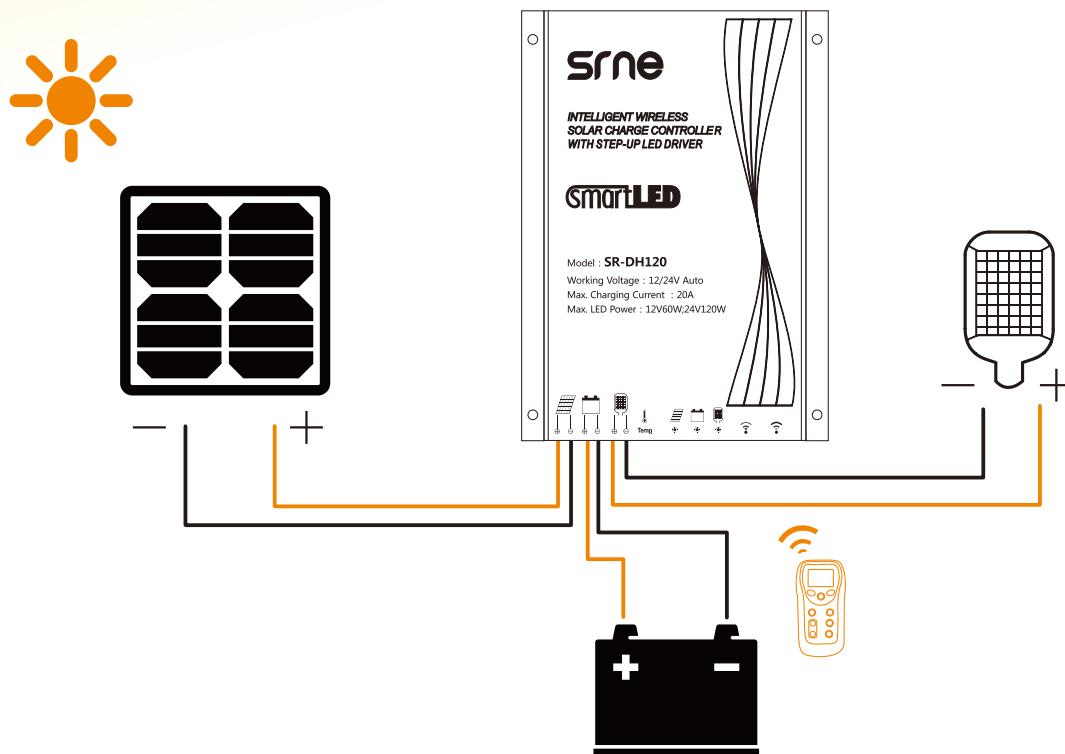


## Installation






1. The size of DH120 is as follows :  
Boundary dimension : 82×100×20(mm)  
Installation dimension : 86×75(mm)  
Installation aperture : 3.5(mm)

## Demension



## Status Indication

| LED light   | Indications         | Status         | Functions  |
|---|---------------------|----------------|--|
|  | Charging indication | Long-term On   | The solar panel voltage is higher than light control voltage |
|   |                     | Long-term Off  | The solar panel voltage is lower than light control voltage  |
|   |                     | Slow twinkling | charging   |
|   |                     | Fast twinkling | System over voltage  |
|  | Battery indication  | Long-term On   | battery works normally                                       |
|   |                     | Long-term Off  | battery unconnected  |
|   |                     | Fast twinkling | battery is excessively discharged                            |
|  | Load indication     | Long-term On   | Load is on   |
|   |                     | Slow twinkling | The load is open circuit.                                    |
|   |                     | Fast twinkling | The load is short circuit.                                   |
|   |                     | off            | Load is off  |

# The Parameters

| Parameter name                   | Parameter value                            |          |      | Adjust-able | Default value |
|----------------------------------|--|----------|------|-------------|---------------|
| Model                            | DH120                                      |          |      |             |               |
| System voltage                   | 12V/24V                                    |          |      |             |               |
| Output power                     | 60W/12V<br>120W/24V                        |          |      |             |               |
| Output current                   | 0.15A~3.96A                                |          |      | √           | 330mA         |
| No-load loss                     | 9mA/12V;12mA/24V                           |          |      |             |               |
| Charging current                 | 20A  |          |      |             |               |
| Solar input voltage              | <55V                                       |          |      |             |               |
| Efficiency of constant current   | 90%~96%                                    |          |      |             |               |
| Overvoltage protection           | 16.0V ; ×2/24V                             |          |      |             |               |
| Charging limits voltage          | 15.5V ; ×2/24V                             |          |      |             |               |
| Equal charging voltage           | 15.2V ; ×2/24V (25°C)                      |          |      |             |               |
| Equal charging interval          | 30days                                     |          |      |             |               |
| Ascending charging voltage       | 14.2V~15.0V ; ×2/24V (25°C)                |          |      | √           | 14.4V         |
| Float charging voltage           | 13.2V~14.0V ; ×2/24V (25°C)                |          |      | √           | 13.8V         |
| over-discharging recover voltage | 12.0V~13.0V ; ×2/24V                       |          |      | √           | 12.6V         |
| over-discharging voltage         | 9.8V~11.8V ; ×2/24V                        |          |      | √           | 11.0V         |
| Temperature compensation         | -4.0mv/°C/2V ;                             |          |      |             |               |
| Current precision                | ±3% (Load current> 300mA)                  |          |      |             |               |
| Load output voltage              | < 60V                                      |          |      |             |               |
| over-temperature protection      | ambient temperature:80°C (load drop power) |          |      |             |               |
| overheat protection              | internal temperature:120°C(Load off)       |          |      |             |               |
| light control voltage            | 5V~11V                                     |          |      | √           | 5V            |
| light control delay              | 1min~50min                                 |          |      | √           | 1min          |
| Working temperature              | -35°C~+65°C ;                              |          |      |             |               |
| Protection level                 | IP68                                       |          |      |             |               |
| Weight                           | 280g                                       | 170g     | 160g |             |               |
| Dimension (mm)                   | 100*82*20                                  | 58*82*20 |      |             |               |