SR-DH series

DH60/DH100/DH120(-R/-W）Gen4

# Intelligent wireless LED dimming type



**All-in-one constant current solar street light controller**

SR-DH120-R SR-DH100-R SR-DH60-R

010 101

101 010

010 101

PWM

**Features**

**Power**

100%

10%

100% 30% **soc**

* Whole new 2.4G wireless/infrared remote control design allows manual modification of controller parameters and reading of system information.
* Full digital high precision constant current control, achieving the maximum efficiency of 96%.
* Human motion infrared/microwave sensing function, with sensing delay time settable.
* 9-Period light dimming and pre-dawn lighting design, working hours settable from 0 hours to 15 hours, power settable from 0% to 100%.
* Both lead-acid battery and lithium battery are applicable, operating parameters can be set by remote control.
* A variety of intelligent power modes are available for choice, with load power adjustable automatically according to the battery level.
* Very low sleep current for long-distance transportation and storage.
* System status recording allows recording of up to 7 days of system status, realizing full monitoring of the system.
* Metal shell, IP67 waterproof rating, applicable to a variety of harsh environments.
* High precision digital step-up constant current control algorithm provides high efficiency and high constant current accuracy, extending the service life of battery.
* Battery charge and discharge high and low temperature protections guarantee that when the temperature exceeds a certain temperature, the number of loads will be reduced or the load will be turned off.
* Battery reverse polarity protection, LED short circuit and open circuit protection, etc. are provided for full protection of the system.

[www.szshuori.com](http://www.szshuori.com/)

**Exterior**



Infrared receiving

Battery indicator

Load indicator

Charge indicator

**Wiring Diagram**



**IR remote**

Status

Model：SR-DH120-R

Working Volatage：12/24V Auto Max. Charging Current：20A

Max. LED Power：60W/12V；120W/24V

Gen4 Intelligent PWM Solar Charge Controller With Step-up LED Driver

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**State Indicators**



**DH120/100 dimensions:**

Overall dimensions: 82\*100\*20mm Mounting dimensions: 86\*75mm Mounting hole diameter: φ3.5mm

75

Φ3.5

82

**DH60 dimensions：**

Overall dimensions: 82\*58\*20mm Mounting dimensions: 43\*75mm Mounting hole diameter: φ3.5mm

75

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Φ3.5

58

43

20

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LED indicator** | **Indication**  **content** | **Status** | **Function** | **Remote control system status** |
|  | Solar panel indication | Steady on | Solar panel voltage is higher than light control voltage | Idle |
| Off | Solar panel voltage is lower than light control voltage | Idle |
| Slow flash | In charging | Charging |
| Double flash | Battery is fully charged | Fully charged |
| Quick flash | Lithium battery BMS protection Battery overvoltage;PV panel overvoltage Over temperature (ambient temperature) | E-BMS Battery overvoltage PV panel overvoltage Over temperature |
|  | Battery indication | Steady on | Battery works properly | Idle |
| Off | Battery is not connected or lithium battery protection  board overdischarge protection | / |
| Quick flash | Battery over-discharge | Over discharge |
| Single flash (One flash per 10 seconds) | Overdischarge, sleep | / |
|  | Load indication | Steady on | Load is turned on | Discharging |
| Off | Load is turned off | Idle |
| Slow flash | Load is open circuited | Open circuit |
| Quick flash | Load is short circuited | Short circuit |

**Installation Dimensions**

82

100

86

20



**Parameters**



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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Items** |  | **Values** | **Adjustable** | | **Default** |
| Model | DH60 | DH100 | DH120 |  |  |
| Remote control type | 2.4G wireless remote control: -W Infrared remote control: -R | | |  |  |
| System voltage | 12V/24V | | |  |  |
| Zero load loss | -R ：<10mA/12V；<15mA/24V  -W：<32mA/12V；<38mA/24V | | |  |  |
| Sleep loss | <0.8MA/12V；<8MA/24V | | |  |  |
| Maximum charge current | 10A | 15A | 20A |  |  |
| Solar input voltage | ≤ 55V | | |  |  |
| Typical efficiency of constant current source | 90% ～ 96% | | |  |  |
| Output power | 40W/12V  60W/24V | 50W/12V  100W/24V | 60W/12V  120W/24V |  |  |
| Output current | 50mA～2000mA | 50mA～3300mA | 50mA～4000mA | √ | 330mA |
| Over voltage | Lead-acid battery: 16V; lithium battery: charge voltage +2V | | |  |  |
| Equalizing charge voltage | Lead-acid battery: 14.6V; lithium battery: no equalizing charge | | |  |  |
| Equalizing charge  interval | 30 days | | |  |  |
| Boost charge voltage (lead-acid)  Charge voltage (lithium) | 9.00V ～17.00V, settable | | | √ | 12.45V |
| Floating charge voltage (lead-acid)  Charge return voltage (lithium) | 9.00V ～17.00V, settable | | | √ | 12.00V |
| Over discharge voltage | 9.00V ～17.00V, settable | | | √ | 09.20V |
| Over discharge return voltage | 9.00V ～17.00V, settable | | | √ | 10.20V |
| Temperature compensation | Lead-acid battery: -3.0mV/℃/2V; lithium battery: no compensation | | |  |  |
| Current accuracy | < 3% | | |  |  |
| Light control voltage | 3V ～ 11V | | | √ | 5V |
| Light control delay | 5s～60s/2min～60min | | | √ | 10s |
| Operating temperature | -35℃ ～ +65℃ | | |  |  |
| IP rating | IP67 | | |  |  |
| Weight | 150g | 280g | 280g |  |  |