

# DH series DH60/DH100/DH120(-R/-W ) Gen4

Intelligent wireless LED dimming type

All-in-one constant current solar street light controller



DH60-R/W



DH100-R/W



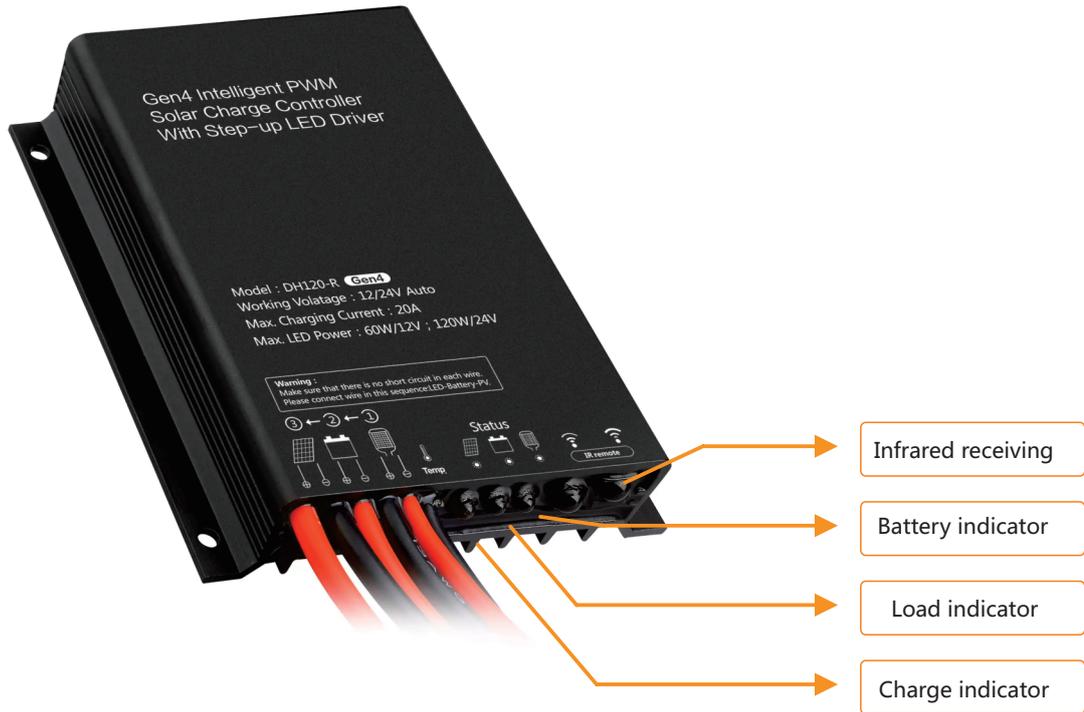
DH120-R/W



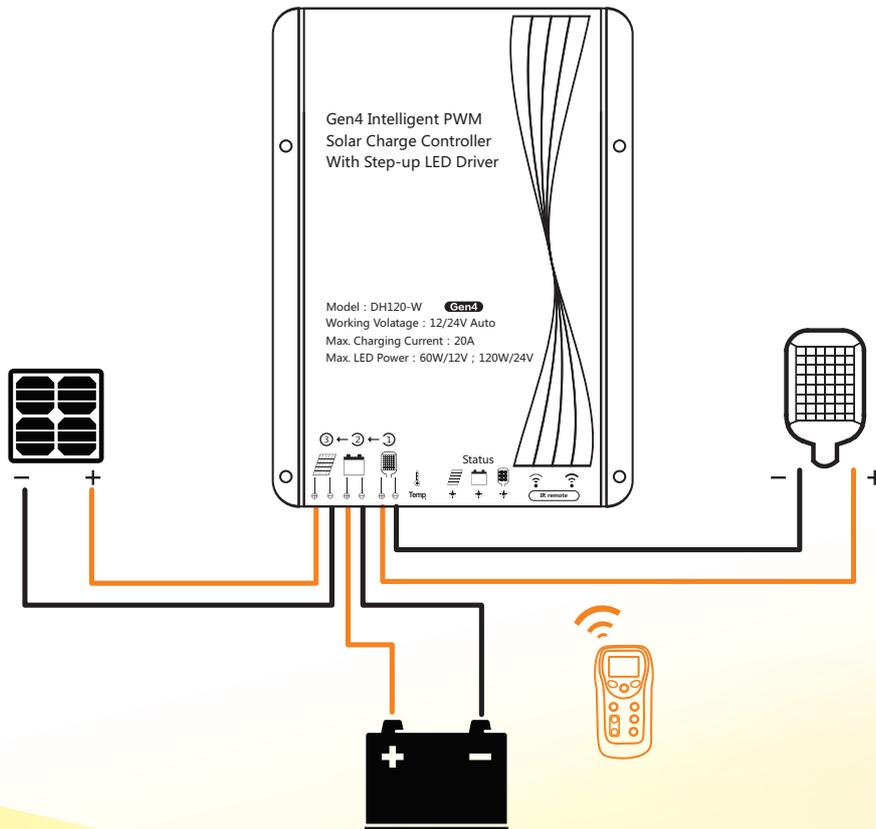
## Features

- 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.

# Exterior



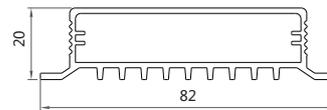
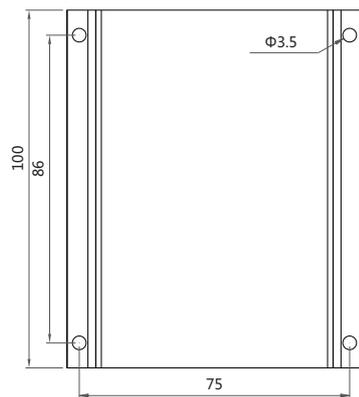
# Wiring Diagram



# State Indicators

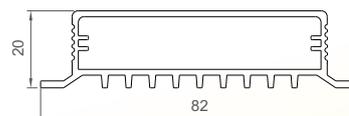
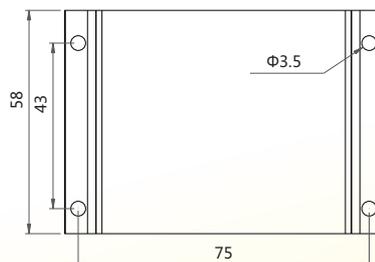
LED indicator	Indication content	Status	Function	Remote control system status
	Solar panel indication	Steady on	Solar panel voltage is higher than light control voltage	Idle
		Off	Solar panel voltage is lower than light control voltage	Idle
		Slow flash	In charging	Charging
		Double flash	Battery is 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



### DH120/100 dimensions:

Overall dimensions: 82\*100\*20mm  
 Mounting dimensions: 86\*75mm  
 Mounting hole diameter:  $\phi$ 3.5mm



### DH60 dimensions :

Overall dimensions: 82\*58\*20mm  
 Mounting dimensions: 43\*75mm  
 Mounting hole diameter:  $\phi$ 3.5mm

## Parameters

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/°C/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°C ~ +65°C				
IP rating	IP67				
Weight	150g	280g	280g		