

## SR-SES Series    SES120/60/40/20 ( -WB/IR ) Gen4

# Human motion sensing wireless dimming type LED solar street light controller



SES20

SES40

SES60

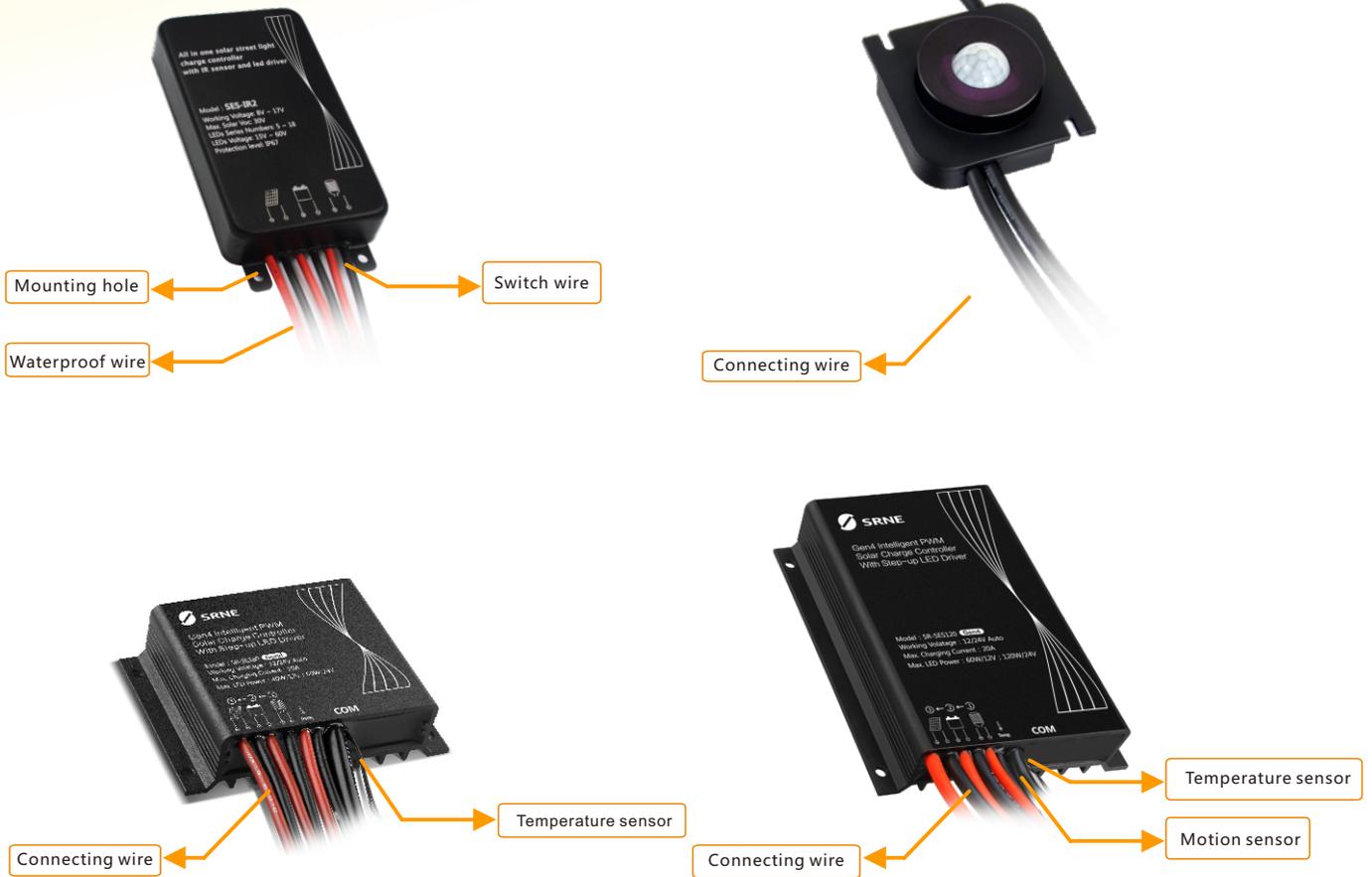
SES120



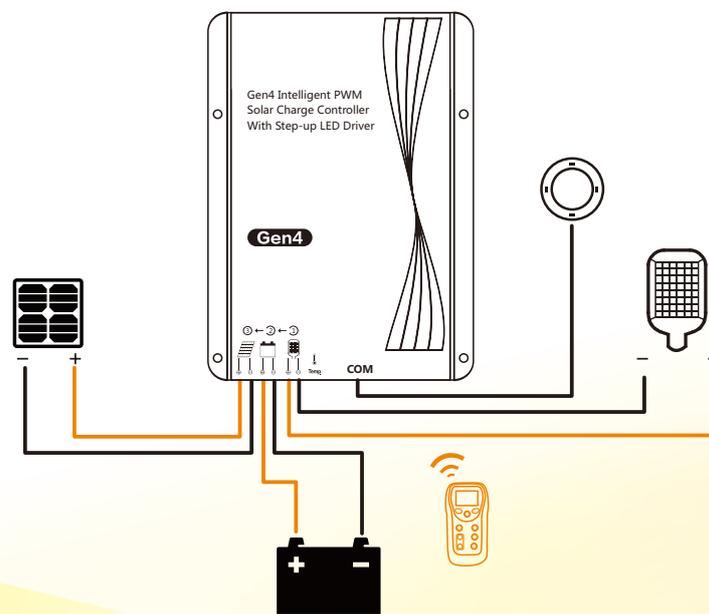
## Features

- Very low sleep current for long-distance transportation and storage.
- High accuracy and high efficiency PWM charge with constant voltage.
- 10-period programmable load power/time control.
- Human motion infrared/microwave sensing function, with sensing delay time settable.
- Lithium battery charge and discharge high and low temperature protection, with operating temperature settable.
- A variety of lithium battery intelligent power modes, with load power adjustable automatically according to the battery level.
- High precision digital step-up constant current control algorithm, ensuring high efficiency and high constant current accuracy.
- Infrared wireless communication, allowing for setting/reading parameters, reading status, etc.
- Multiple protections such as battery/PV reverse polarity protection, LED short-circuit/open-circuit/limited power protection, etc.

# Exterior



# Wiring Diagram



# State Indicators

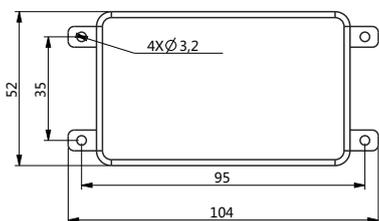
1、SES40 has two indicators, red and blue.

Color	Status	Description	Controller system status
Blue	Steady on	Load is turned on	Discharging
	Single flash	Battery works properly, in standby mode	Idle
	Slow flash	In charging	Charging
	Double flash	Lithium battery is fully charged	Fully charged
	Quick flash	Lithium battery bms overcharge protection	E-BMS
Color	Status	Description	Controller system status
Red	Slow flash	Load is open circuited	Open circuit
		Load is short circuited	Short circuit
		PV overvoltage	PV panel overvoltage
		BAT overvoltage	Battery overvoltage
		Over temperature	Over temperature
	Single flash (One flash per 10 seconds)	Overdischarge, sleep	/

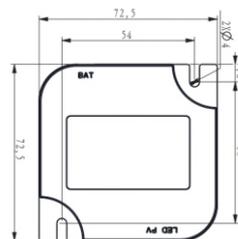
2、SES20/SES60/SES120 has one indicator, red.

Color	Status	Description	Controller system status
Red	Steady on	System is normal	Idle/discharging
	Slow flash	In charging	Charging
	Quick flash	System failure	Short circuit/open circuit/over discharge/ PV panel overvoltage/battery overvoltage /EBMS/over temperature
	Single flash (One flash per 10 seconds)	Overdischarge, sleep	/

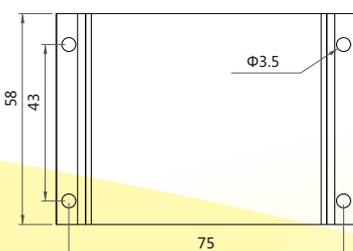
## Installation Dimensions



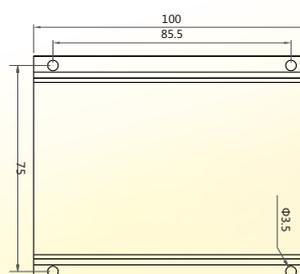
Model: SES20  
Overall dimensions: 104\*52\*20mm  
Mounting dimensions: 95\*35mm  
Mounting hole diameter:  $\phi$ 3.2



Model: SES40  
Overall dimensions: 72\*72\*26mm  
Mounting dimensions: 58\*54mm  
Mounting hole diameter:  $\phi$ 4.0



Model: SES60  
Overall dimensions: 82\*57.5\*20mm  
Mounting dimensions: 43\*75mm  
Mounting hole diameter:  $\phi$ 3.5



Model: SES120  
Overall dimensions: 82\*100\*20mm  
Mounting dimensions: 86\*75mm  
Mounting hole diameter:  $\phi$ 3.5

# Parameters

Items	Values				Adjustable	Default
Model	SES20	SES40	SES60	SES120		
Remote control type	Microwave sensing: -WB ; Infrared sensing: - IR					
Combined mode	Controller and sensor are integrated		Controller and sensor are split			
System voltage	12V		12V/24V			
Zero load loss	< 10mA/12V		<10mA/12V ; <15mA/24V			
Sleep loss	< 0.8mA/12V		<0.8mA/12V ; <8mA/24V			
Load current	50mA ~ 1000mA	50mA ~ 2000mA		50mA ~ 4000mA	√	330mA
Load voltage	15V ~ 45V		15V ~ 60V			
Maximum load power	20W/12V	40W/12V	40W/12V 60W/24V	60W/12V 120W/24V		
Load conversion efficiency	90% ~ 96%					
Load current accuracy	< 3%					
Maximum charge current	5A	10A		20A	√	Medium
Solar input voltage	≤ 25V		≤ 55V			
Over voltage	Charge voltage + 2V					
Charge voltage	9.00V ~ 17.00V, settable				√	12.45V
Charge return voltage	9.00V ~ 17.00V, settable				√	12.00V
Over discharge voltage	9.00V ~ 17.00V, settable				√	9.20V
Over discharge return voltage	9.00V ~ 17.00V, settable				√	10.20V
Light control voltage	3V ~ 11V				√	5V
Light control delay	5s ~ 60s/2min ~ 60min				√	10S
Operating temperature	-35°C ~ +65°C					
IP rating	IP67					
Weight	120g	150g	170g	300g		