

GS-CPLI Series Solar & Grid Hybrid Controller with built in LED Driver



The GS-CPLI series solar & grid hybrid controller is a new type of waterproof controller for LED lamp integrating constant current controllers for grid, solar and LED light sources. It can charge the battery through the solar/grid with the solar charging having the priority. It can maximize the utilization of solar and offer high power supply guarantee rate and high reliability.

Product models

GS110560CPLI	12VDC
GS111060CPLI	12VDC
GS1205120CPLI	24VDC
GS2210150CPLI	24VDC

Product Features

- Solar energy and grid complementary, function of grid charging
- Specially designed for LED light source, built-in boost LED driver
- High power supply guarantee rate and high reliability, ensure the load stable output long term
- Lithium battery self-activating function
- Apply to lead-acid battery and lithium battery
- Without any button, parameter setting via Mobile APP, PC software with IR function.

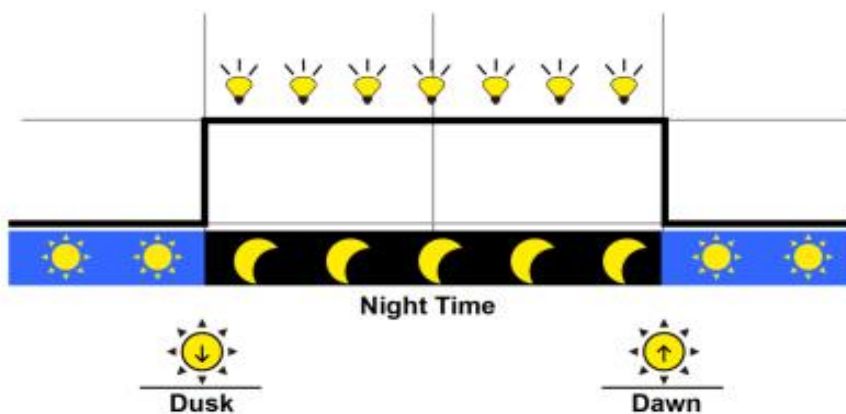
- Digital precision constant current control and the control accuracy are less than $\pm 2\%$
- Maximum output efficiency of 96%
- Dimming function
- Multiple load control modes
- Discharging power calculation and real-time energy statistics recording function
- Battery temperature compensation function.
- Extensive Electronic protection
- Fully encapsulated PCB, IP68 protection
- Aluminum housing for better cooling

Protection

- Grid input under voltage
- Grid input over voltage
- PV Reverse Polarity
- Battery Reverse Polarity
- Battery Over Voltage
- Battery Over Discharge
- Battery Overheating
- Load Short Circuit
- TVS High Voltage Transients
- Damaged Local Temperature Sensor

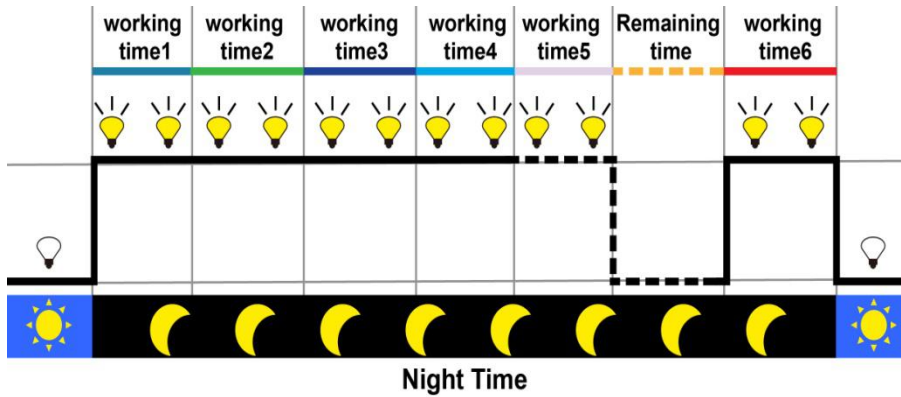
Setting Operation

- 1) [Manual](#) Mode
- 2) Light ON/OFF(Default)

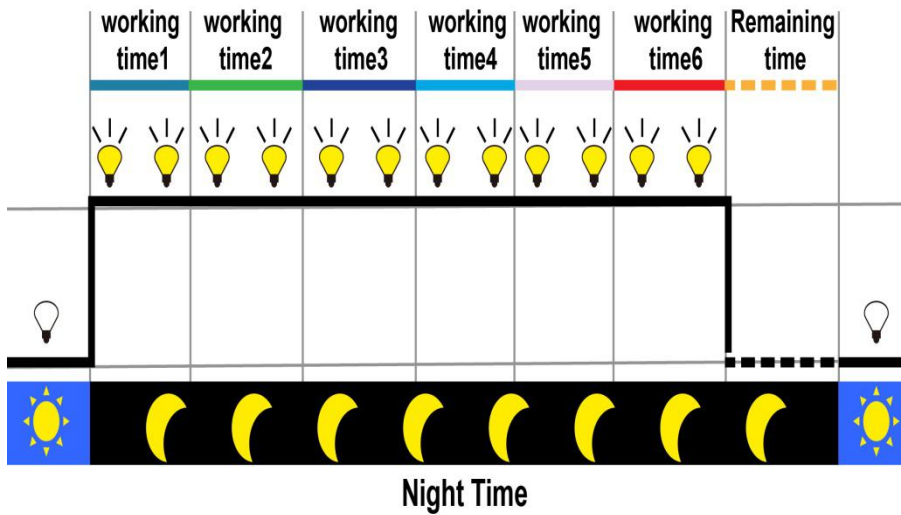


3) Light + ON Timer

Light + ON Timer1 (Default)



Light ON + Timer2



4) Real-time Control

Control the load ON/OFF time through setting real-time clock.

5) Battery under voltage control

When the battery under voltage, the controller will reduce the LED rated current percentage for charging automatically. Return to normal mode when recovery from under voltage.

Technical specifications

Models		GS110560CP LI	GS111060CPLI	GS1205120C PLI	GS2210150C PLI
Item					
Nominal system voltage		12Vdc	12Vdc	24Vdc	24VDC
Battery input voltage range		9V~17V	9V~17V	18V~32V	18V~32V
Max. PV open circuit voltage		25V	25V	50V	50V
Max. PV charging current		10A	10A	10A	20A
Grid input range		220Vac±20%;50/60Hz			
Max. grid charging current		5A	10A	5A	10A
Grid charging voltage		Default 13.3V (adjustable range10.8~14.8V)		Default 26.6V (adjustable range21.6~29.6V)	
Grid charging mode		Battery mode(Default); Without battery mode			
Max. output power		60W/12Vdc	60W/12Vdc	120W/24Vdc	150W/24Vdc
Max. output Current		4A	4A	4A	5A
Output voltage range		(Max. battery voltage+2V)~60V			
Load open circuit voltage		60V			
Maximum output efficiency		96%			
Output current control accuracy		≤30mA			
Communication		IR			
Battery Type		Lead-acid battery: Sealed(default)/Gel/Flooded/User Lithium battery: LiFePO4/Li-NiCoMn/User			
Lead-acid	Equalization Voltage	Sealed:14.6V; Flooded:14.8V; User: 9-17V		Sealed:29.2V; Flooded:29.6V; User:18-34V	
	Boost Voltage	Sealed:14.4V; Gel:14.2V; Flooded:14.6V; User: 9-17V		Sealed:28.8V; Gel:28.4V; Flooded:29.2V; User:18-34V	
	Float Voltage	Sealed/Gel/Flooded: 13.8V; User: 9-17V		Sealed/Gel/Flooded: 27.6V; User: 18-34V	
	Under voltage warning	Sealed/Gel/Flooded: 12.0V; User: 9-17V		Sealed/Gel/Flooded: 24.0V; User: 18-34V	
	Low Voltage Reconnect Voltage	Sealed/Gel/Flooded: 12.6V; User: 9-17V		Sealed/Gel/Flooded: 25.2V; User: 18-34V	
	Low Voltage Disconnect Voltage	Sealed/Gel/Flooded: 11.1V; User: 9-17V		Sealed/Gel/Flooded: 22.2V; User: 18-34V	
Lithium	Boost Voltage	LiFePO4(8S): 14.5V; Li-NiCoMn(6S):12.5V; User: 9-17V		LiFePO4(8S): 29.0V; Li-NiCoMn(6S):25.0V; User:18-34V	
	Under voltage warning	LiFePO4(8S): 12.0V; Li-NiCoMn(6S):10.5V; User: 9-17V		LiFePO4(8S): 24.0V; Li-NiCoMn(6S):21.0V; User:18-34V	
	Low Voltage Reconnect Voltage	LiFePO4(8S): 12.8V; Li-NiCoMn(6S):10.5V; User: 9-17V		LiFePO4(8S): 25.6V; Li-NiCoMn(6S):21.0V; User:18-34V	
	Low Voltage Disconnect Voltage	LiFePO4(8S): 11.1V; Li-NiCoMn(6S):9.3V; User: 9-17V		LiFePO4(8S): 22.2V; Li-NiCoMn(6S):18.6V; User:18-34V	

Self-consumption	≤3W	
PV charge circuit voltage drop	≤0.25V	
Temperature compensation coefficient	-3mV/°C/2V	
Working environment temperature	-25°C~+50°C	
Enclosure	IP68(1.5m,72h)	
Overall dimension	270×81×48.7mm	310×81×48.7mm
Mounting dimension	260×36mm	300×36mm
Mounting hole size	Φ4.2mm	Φ4.2mm
Power cable	PV/BATT:12AWG(4.0mm ²) Load/Grid:16AWG(1.5mm ²)	PV/BATT:12AWG(4.0mm ²) Load/Grid:16AWG(1.5mm ²)
Net weight	1.8kg	1.9kg

KF SOLAR TECH GROUP CORP.

Add: 168 SOFTWARE AVENUE, YUHUATAI

DISCTRICT, NANJING, JIANGSU, CHINA

Tel: +86 25 66018007 / +86 13951630217

E-mail: info@kfsolar.com

Website: www.kfsolar.com