Smart Solar Charge Controller

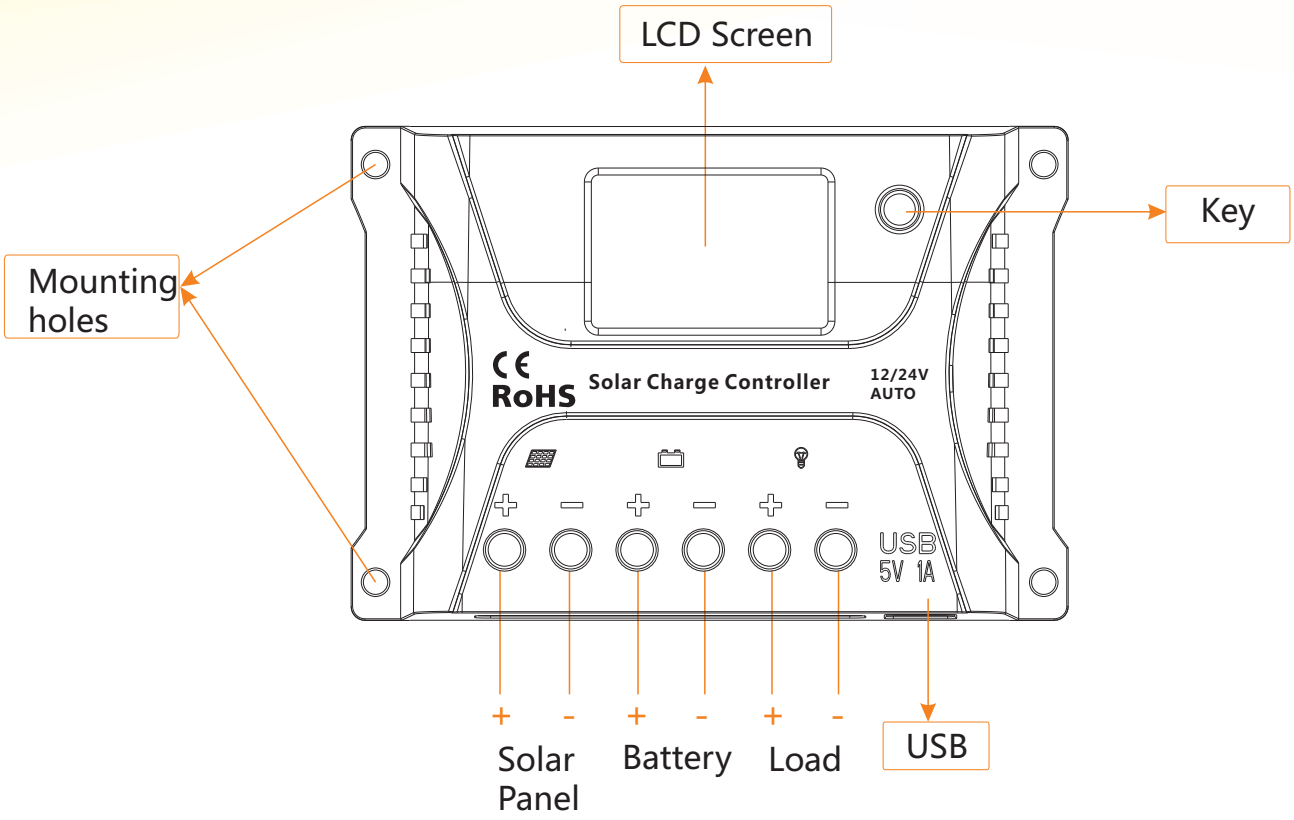




Product Features

1. 12V/ 24 V system voltages are automatically recognized.
2. An upgraded 3-stage PWM charging algorithm is adopted. Application of an equalizing charging to the battery periodically or when over discharged, can effectively prevent the battery from non-equalization and sulfuration, thus extending the battery's service life.
3. With temperature compensation employed, charging parameters can be automatically adjusted.
4. A wide range of load working modes facilitate the product's application to different types of load.
5. The product provides overcharge, over-discharge, overload protection, as well as short-circuit protection.
6. By virtue of an advanced load starting method, large-capacitance loads can be started smoothly.
7. The product provides a dot matrix graphic LCD screen and a human-machine interface with a key.
8. The user-friendly design of browser and dynamic interfaces ensure convenient and intuitive operations.
9. Boasting an industrial grade design, the product can function well in various tough conditions.
10. TVS lighting protection is adopted.

Panel Structure



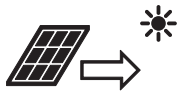
Product Detail





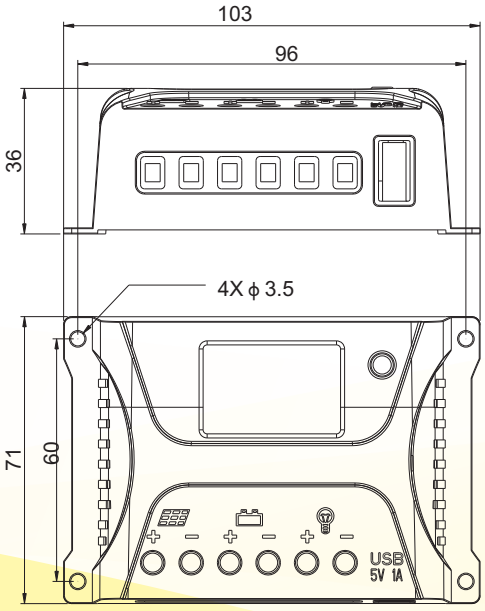


State Indicators

LCD Icon	Indicated Object	State
	Daytime or charging	Steady on
	Night recognition	Steady off
	Load short circuit or overload	Quick flashing
	Load switched on	Steady on
	Load switched off	Steady off
	Normal battery	All on
	Over discharge	Only the outline flashes
	Overvoltage	3 dashes flashing

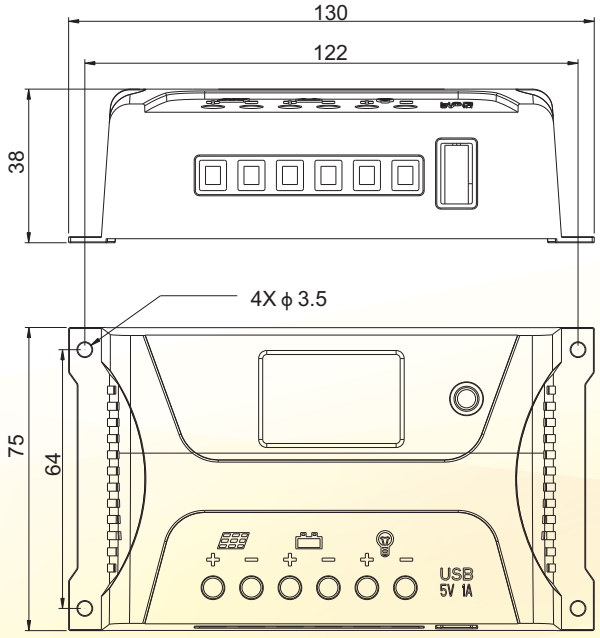
Installation Instructions and Precautions

HP2410 External dimensions: 103×71×36(mm)
Installation dimensions: 96×60 (mm)
Installation hole diameter: 3.5(mm)



HP2410

HP2420 External dimensions: 130×75×38 (mm)
Installation dimensions: 122×64(mm)
Installation hole diameter: 3.5(mm)



HP2420

Parameter Details

Model	HP2410	HP2420
Rated current	10A	20A
System voltage	Automatic recognition of 12 V/ 24 V	
No-load loss	< 5mA/12V；< 9mA/24V	
Max. Solar energy input voltage	<55V	
Max. voltage at the battery end	<35V	
Overvoltage protection	17.0V；×2/24V；	
Equalizing charging voltage	14.6V；×2/24V；	
Boost charging voltage	14.4V；×2/24V；	
Floating charging voltage	13.8V；×2/24V；	
Charging recovery voltage	13.2V；×2/24V；	
Over-discharge recovery voltage	12.6V；×2/24V；	
Over-discharge voltage	11.1V；×2/24V；	
Equalizing charging interval	7days	
Equalizing charging time	1H	
Boost charging time	2H	
Temperature compensation	-3.0mV/℃/2V	
Light control voltage	Light control on 5V, ×2/24V; light control off 6V, set value plus 1V	
Light control judgment time	1minute	
Operating temperature	-25℃ to +55℃；	
IP protection degree	IP30	
Net weight	100g	160g
Protection functions	Solar panel short circuit and reverse-connection protection	
	Over-temperature, overload and short circuit protection	
Dimensions	103×71×36(mm)	130×75×38(mm)