

# PWM Solar Charge Controller

HC2410/HC2420/HC2430



## Performance characteristics

- 32-bit high-speed master control chip.
- Large-screen LCD for display, charge and discharge parameters adjustable, Allow selection of multiple battery types, with a flexibility to set the load to work during the day or night.
- Complete multi-stage PWM charge management.
- Built-in reverse connection protection, open-circuit protection, high temperature protection, over-current/short-circuit protection (optional), which are all self-recovery type, with no damage to the controller.
- Double MOS anti-backflow circuit, ultra-low heat generation.
- Lithium battery activation available.
- Dual USB output, maximum current up to 2A, supporting high current charging of Iphone, Ipad and Android mobile phones and other devices.

## Parameters

Model	HC2410	HC2420	HC2430
System voltage		12V/24V	
Battery operating voltage range		0.06~0.36V	
Rated current	Charge	10A	20A
	Load	10A	20A
Maximum PV input voltage	50V, enable protection and stop charging. Below 45V, charge resumes.		
Charging mode	The default is PWM charging, b04/b07 can be set to intermittent charging.		
USB output	5V/2A		
Static power consumption	≤10mA		
Operating temperature	-35~+60°C		
Altitude	≤3000M		
IP rating	IP32		
Product size	120*75*34mm	134*85*36mm	159*100*39mm
Installation size	108.5*58.5mm	121*70mm	147*80mm
Weight	130g	180g	290g

# MPPT Solar Charge Controller

LC2430N10H



## Performance characteristics

- The newly developed PowerCatcher™ maximum power tracking technology enables tracking of the maximum power points of PV modules even in complex environments, providing faster response and higher tracking efficiency than traditional MPPT technology.
- MPPT tracking efficiency is up to 99.9%, significantly increasing energy utilization efficiency of the PV system, which is about 15% to 20% higher than traditional PWM charging.
- It provides charging with active voltage regulation. When the battery is open-circuited or the lithium battery BMS overcharge protection is activated, the battery terminal of the controller will output a rated charging voltage, which can effectively prevent excessive voltage from causing damage to the BMS system or the load.
- The controller has a constant voltage output for loads and the output voltage is optional in 12V/24V, making it ideal for voltage sensitive loads.

## Parameters

Model	LC2430N10H
System voltage	12V/24V
Static power consumption	0.3~0.5W
Battery voltage	9~35V
Maximum PV Open-Circuit Voltage	92V (25°C); 95V (Minimum Ambient Temperature)
Voltage Range at MPP (Maximum Power Point)	Accumulator Voltage + 2V ~ 72V
Rated charging current	30A
Maximum PV Input Power	400W/12V ; 800W/24V
Charging Conversion Efficiency	≥98%
MPPT Tracking Efficiency	> 99%
Load Constant Voltage Output Voltage	12V/24V (optional)
Load Rated Power	100W
Temperature compensation coefficient	-3mV/°C/2V(default)
Operating temperature	-35°C ~ +65°C
Protection grade	IP32
Weight	1200g
Communication mode	TTL Serial Communication, Isolated 485 Serial Communication
Altitude	≤3000m
Product Dimensions	183×122.5×67.5(mm)