UPower-Hi Series
Inverter/Charger

Overview

UPower-Hi series is an inverter charger that supports diversified energy management modes on solar/utility/generator charging, and utility/inverter power supply to the AC loads. To maximize solar energy utilization, users can choose energy sources according to actual needs and flexibly take the utility as a supplement. This inverter charger can raise the system's power supply guarantee rate, which is suitable for solar energy, utility/oil generator hybrid systems. It aims to provide users with high-quality, high-stability, and high-reliability electrical energy.

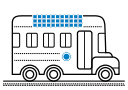
Features

- Supports the battery mode or non-battery mode
- Surge current and reverse connection protections to support the lithium battery system perfectly
- Three charging modes: Solar only, Solar priority, Utility & Solar
- Two AC output modes: Utility priority and Inverter priority
- High tracking efficiency of MPPT no less than 99.5%
- PFC technology which achieves a high power factor of AC to DC charging and reduces the usage of power grid capacity
- Advanced SPWM technology and pure sine wave output
- Configurable battery charging current and discharging current
- Configurable grid charging current
- Self-learning SOC function
- 4.2 inch LCD to monitor and modify system parameters
- Optional WiFi or GPRS Remote control via the RS485 isolated communication port
- BMS-Link port and optional BMS-Link communication protocol module









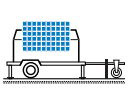
Solar Car



Solar Home



Solar Boat



Solar Power Generator

Technical Specifications

Item	UP2000-HM6022	UP3000-HM10022	UP3000-HM5042	UP5000-HM8042
Rated battery voltage	24VDC		48VDC	
Battery input voltage	21.6~32VDC		43.2~64VDC	
Max. battery charging current	60A	100A	50A	80A
Inverter output				
Continuous output power	2000W	3000W	3000W	5000W
Max. surge power(3S)	4000W	6000W	6000W	8000W
Output voltage range	220VAC(-6%~+3%), 230VAC(-10%~+3%)			
Output frequency	50/60±0.2%			
Output wave	Pure Sine Wave			
Load power factor	0.2-1(Load power ≤ Continuous output power)			
Distortion THD	THD≤3%(Resistive load)			
80% rated output efficiency	92%	92%	92%	92%
Max. Rated output efficiency	91%	91%	90%	91%
Max. output efficiency	93%	93%	93%	93%
Switch time	10ms(Switch from the utility output to the inverter output), 15ms(Switch from the inverter output to the utility output)			
Utility charging				
Utility input voltage	176VAC~264VAC (Default), 90VAC~280VAC(Programmable)			
Utility input frequency	40~65Hz			
Max. utility charge current	60A(When the Utility input voltage is 90VAC~180VAC, the Max. utility charge current is 30A）	80A(When the Utility input voltage is 90VAC~180VAC, the Max. utility charge current is 40A）	40A(When the Utility input voltage is 90VAC~180VAC, the Max. utility charge current is 20A）	60A(When the Utility input voltage is 90VAC~180VAC, the Max. utility charge current is 30A）
Solar charging				
Max. PV open circuit voltage	450V(At minimum operating environment temperature) 395V(At 25℃ environment temperature)			500V(At minimum operating environment temperature) 440V(At 25℃ environment temperature)
MPPT voltage range	80~350V			120~400V
Max. PV input power	2500W	4000W	4000W	4000W
	(Note: For the curve of Max. PV input power Vs. PV open-circuit voltage, see chapter 3.4 Operating mode for details.)			
Max. PV charging power	1725W	2875W	2875W	4000W
Max. PV charging current	60A	100A	50A	80A
Equalize charging voltage	29.2V(AGM default)		58.4V(AGM default)	
Boost charging voltage	28.8V(AGM default)		57.6V(AGM default)	
Float charging voltage	27.6V(AGM default)		55.2V(AGM default)	
Low voltage disconnect voltage	21.6V(AGM default)		43.2V(AGM default)	
Tracking efficiency	≥99.5%			
Temp. compensate coefficient	-3mV/℃/2V(Default)			
General				
Surge current	50A	60A	56A	95A
Zero load consumption	<1.8A		<1.2A	
	(without PV and utility connection, turn on the load output)			
Standby current	<1.2A		<0.7A	
	(without PV and utility connection, turn off the load output)			
Mechanical Parameters				
Dimension(H x W x D)	607.5x381.6x127mm	642.5x381.6x149mm	607.5x381.6x149mm	642.5x381.6x149mm
Mounting size	585*300mm	620*300mm	585*300mm	620*300mm
Mounting hole size	Φ10mm	Φ10mm	Φ10mm	Φ10mm
Net Weight	15kg	19kg	18kg	19kg
Enclosure	IP30			
Relative humidity	< 95% (N.C.)			
Environment temperature	-20℃~50℃			

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