

Overview

UPower-Hi series, an upgrade hybrid inverter charger that supports utility charging, oil generator charging, solar charging, utility output, inverter output, and energy management. To maximize solar energy utilization, users can choose energy sources according to actual needs and flexibly take the utility as a supplement in the hybrid system. This inverter charger provides high-quality, high-stability, and high-reliability electric energy to the users by improving the solar system's power supply efficiency.



Features

- Supports the battery mode or non-battery mode.
- Non-battery mode: charging with solar (Main) and utility (Assist) simultaneously.
- Surge 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 achieves a high power factor of AC to DC charging and reduces grid capacity usage.
- Advanced SPWM technology and pure sine wave output.
- Customized charging current and discharging limited current.
- SOC with the self-learning feature is visible on LCD.
- 4.2 inch LCD to monitor and modify system parameters.
- Optional WiFi or GPRS Remote control by the RS485 isolated communication port.
- Optional BMS-Link port, which takes the charging and discharging control from BMS.



Item	UP3000-HM10022	UP3000-HM5042	UP5000-HM8042
Nominal battery voltage	24VDC		48VDC
Battery input voltage range	21.6 ~ 32VDC		43.2~64VDC
Max. battery charging current	100A	50A	80A
Inverter output			
Continuous output power	3000W@30°C	3000W@30°C	5000W@30°C
Max. surge power	6000W	6000W	8000W
Output voltage range	220VAC(-6%~+3%), 230VAC(-10%~+3%)		
Output frequency range	50/60Hz±0.2%		
Output wave	Pure Sine Wave		
Load power factor	0.2-1 (VA ≤ continuous output power)		
Distortion THD	THD≤3% (Resistive load)		
80% rated output efficiency	92%	92%	92%
Max. Rated output efficiency	91%	90%	91%
Max. output efficiency	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 range	176VAC~264VAC (Default) 90VAC~280VAC (Programmable)		
Utility input frequency range	40~65Hz		
Max. utility charge current	80A	40A	60A
Solar charging			
Max. PV open circuit voltage	450V(At minimum operating environment temperature) 395V(25°C)		500V(At minimum operating environment temperature) 440V(25°C)
MPPT voltage range	80~350V	80~350V	120~400V
Max. PV input power	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	2875W	2875W	4000W
Max. PV charging current	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%		
Temperature compensate coefficient	-3mV/°C/2V (Default)		
General			
Surge current	60A	56A	95A
Zero load consumption	<1.6A(without PV and utility connection, turn on the load output)	<1.2A(without PV and utility connection, turn on the load output)	
Standby current	<1.0A(without PV and utility connection, turn off the load output)	<0.7A(without PV and utility connection, turn off the load output)	
Enclosure	IP30		
Relative humidity	< 95%(N.C.)		
Working environment temperature	-20 °C~50°C (When the working temperature reaches 30°C or above, the load power will be reduced appropriately; full load working is not supported)		
Storage environment	-25°C~60°C		
Mechanical Parameters			
Dimension(H x W x D)	642.5x381.6x149mm	607.5x381.6x149mm	642.5x381.6x149mm
Net Weight	19kg	18kg	19kg