

## 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





















| Item                           | UP2000-HM 6022  | UP3000-HM10022                          | UP3000-HM5042                            | UP5000-HM8042                  |
|--------------------------------|---|---|--|--------------------------------|
| Rated battery voltage          |   | /DC                                     |  | VDC                            |
| Battery input voltage          | 21.6~32VDC  |   | 43.2~64VDC                               |                                |
| Max. battery charging current  | 60A   | 100A                                    | 50A                                      | 80A                            |
| Inverter output                |   |   |  |                                |
| Continuous output pow er       | 2000W   | 3000W                                   | 3000W                                    | 5000W                          |
| Max. surge pow er(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 pow er 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%                            |
| Sw itch time                   | 10ms(Sw itch from the utility output to the inverter output), 15ms(Sw itch from the inverter output to the utility output)                              |   |  |                                |
| Utility charging               | Tono(en item item   | rate daily datput to the involver datpu | i, romb (en item mem ane anverter eache  | it to the utility output,      |
| Utility input voltage          | 176VAC~264VAC (Default), 90VAC~280VAC(Programmable)   |   |  |                                |
| Utility input frequency        | 40~65Hz   |   |  |                                |
| Othicy input frequency         | 60A(When the Utility input voltage is 80A(When the Utility input voltage is 40A(When the Utility input voltage is 60A(When the Utility input voltage is |   |  |                                |
| Max. utility charge current    | 90VAC~180VAC, the Max. utility  | 90VAC~180VAC, the Max. utility          | 90VAC~180VAC, the Max. utility           | 90VAC~180VAC, the Max. utility |
|                                | charge current is 30A)  | charge current is 40A)                  | charge current is 20A)                   | charge current is 30A)         |
| Solar charging                 | charge current is 50A)  | charge current is 40A)                  | charge current is 20A)                   | charge current is 30A          |
| Solar Charging                 |   |   |  | 500V (At minimum operating     |
| Max. PV open circuit voltage   | 450V(At minimum operating environment temperature) 395V(At 25℃ environment temperature)   |   | environment temperature)                 |                                |
|                                |   |   | 440V(At 25°C environment                 |                                |
|                                | 555. (Tit 25 C SITH SITH SITE COMPOSITION   |   |  | temperature)                   |
| MPPT voltage range             | 80~350V   |   | 120~400V                                 |                                |
| IVIFFT VOILAGE FAITIGE         | 2500W   | 4000W                                   | 4000W                                    | 4000W                          |
| Max. PV input pow er           |   |   | n-circuit voltage, see chapter 3.4 Opera |                                |
| Max. PV charging pow er        | 1725W   | 2875W                                   | 2875W                                    | 4000W                          |
| Max. PV charging current       | 60A   | 100A                                    | 50A                                      | 80A                            |
| Equalize charging voltage      |   |   |  |                                |
| Boost charging voltage         | 29.2V(AGM default)<br>28.8V(AGM default)  |   | 58.4V(AGM default)<br>57.6V(AGM default) |                                |
| Float charging voltage         | 27.6V(AGM default)  |   | 55.2V(AGM default)                       |                                |
| Low voltage disconnect voltage | , ,   |   | ,  | ,                              |
| Tracking efficiency            | 21.6V(AGM default) 43.2V(AGM default) ≥99.5%  |   |  |                                |
|                                | -3mV/°C/2V(Default)   |   |  |                                |
| Temp. compensate coefficient   |   | -3IIIV/ C                               | /2V(Derauit)                             |                                |
| General                        | 504   | 204                                     | 504                                      | 054                            |
| 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)   |   |  | ).7A                           |
| Mechanical Parameters          |   | (without i v and dulity collin          | isonon, tann on the load output          |                                |
| 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             | Ф10mm   | Ф10mm                                   | Ф10mm                                    | Ф10mm                          |
| Net Weight                     | 15kg  | 19kg                                    | 18kg                                     | 19kg                           |
| Enclosure                      | IP30  |   |  |                                |
| Relative humidity              | < 95% (N.C.)  |   |  |                                |
| Environment temperature        | -20°C~50°C  |   |  |                                |
| Divisoriment temperature       | -20 00 0  |   |  |                                |

