

## RHT-LFPR SERIES

### PERFORMANCE PARAMETERS

| Model No.  | RHT-LFPR24V-100AH   | RHT-LFPR24V-200AH                            | RHT-LFPR48V-100AH | RHT-LFPR48V-200AH                         | RHT-LFPR51.2V-100AH | RHT-LFPR51.2V-200AH                         |
|--|---|--|-------------------|---|---------------------|---|
| <b>Electrical Characteristic</b>                 |   |  |                   |   |                     |   |
| Nominal Voltage(V)                               | 25.6V   |  | 48V               |   | 51.2V               |   |
| Nominal Capacity                                 | 100AH   | 200AH  | 100AH             | 200AH                                     | 100AH               | 200AH                                       |
| Battery Energy                                   | 2.56KWH   | 5.12KWH                                      | 4.8KWH            | 9.6KWH                                    | 5.12KWH             | 10.24KWH                                    |
| Working Voltage Range                            | 21.6~29.2V  |  | 40.5~54.75V       |   | 43.2~58.4V          |   |
| Internal Resistance                              | ≅ 50mΩ  |  |                   |   |                     |   |
| Max Output Power                                 | 2.56KW  | 2.56 KW as default(3.84 KW/5.12KWH optional) | 4.8KW             | 4.8 KW as default(7.2 KW/9.6 KW optional) | 5.12KW              | 5.12KW as default(7.68KW/10.24 KW optional) |
| Self discharge rate                              | ≅ 3% per month @25°C  |  |                   |   |                     |   |
| Max Connection                                   | 16 pcs in parallel  |  |                   |   |                     |   |
| Cycle Life                                       | > 6000cycles @0.5C@80%DOD@25°C  |  |                   |   |                     |   |
| Working Temperature                              | -20°C~60°C/-4°F~140°F   |  |                   |   |                     |   |
| Storage Temperature                              | -20°C~45°C/-4°F~113°F   |  |                   |   |                     |   |
| <b>Charging &amp; Discharging Characteristic</b> |   |  |                   |   |                     |   |
| Standard Charging Current                        | 50A   | 50A(default)                                 | 50A               | 50A(default)                              | 50A                 | 50A(default)                                |
| Max Charging Current                             | 100A  | 100A(default)                                | 100A              | 100A(default)                             | 100A                | 100A(default)                               |
| Charge Method                                    | CC-CV   |  |                   |   |                     |   |
| Charge cut-off Voltage                           | 28.8V   |  | 54V               |   | 57.6V               |   |
| Standard Discharging Current                     | 50A   | 50A(default)                                 | 50A               | 50A(default)                              | 50A                 | 50A(default)                                |
| Max Discharging Current                          | 100A  | 100A(default)                                | 100A              | 100A(default)                             | 100A                | 100A(default)                               |
| Discharge cut-off Voltage                        | 23.2V   |  | 43.5V             |   | 46.4V               |   |
| <b>BMS Characteristic</b>                        |   |  |                   |   |                     |   |
| Continuous Discharge Current                     | 100A Default, 150A/200A optional for 200AH model)   |  |                   |   |                     |   |
| Short Current Protection                         | Support, recover when re-charge   |  |                   |   |                     |   |
| BMS Pre-charge Function                          | Support, 2000 ms  |  |                   |   |                     |   |
| Over current Protection                          | 110A(Default)   |  |                   |   |                     |   |
| Over Current Reaction Time                       | 30ms  |  |                   |   |                     |   |
| Overcharge Protection                            | 29.2V   |  | 54.75V            |   | 58.4V               |   |
| Over discharge Protection                        | 21.6V   |  | 40.5V             |   | 43.2V               |   |
| Communication Function                           | CANBUS/RS485  |  |                   |   |                     |   |
| Working Temperature                              | -20°C~70°C/-4°F~158°F   |  |                   |   |                     |   |
| <b>Mechanical Characteristic</b>                 |   |  |                   |   |                     |   |
| Battery Cell Type                                | Prismatic battery cell  |  |                   |   |                     |   |
| Battery Cell Material                            | LiFePO4   |  |                   |   |                     |   |
| Battery Cell Layout                              | 8S1P  |  | 15S1P             |   | 16S1P               |   |
| Dimension  | 510*505*187mm   | 510*505*187mm                                | 605*405*200mm     | 620*520*256mm                             | 605*405*200mm       | 620*520*256mm                               |
| Net Weight                                       | 27KG/59.52LBS   | 46KG/ 101.41LBS                              | 42KG/92.59LBS     | 78KG/ 171.96LBS                           | 44KGS/ 97.00LBS     | 82KGS/ 180.78LBS                            |
| Shell Material                                   | Iron  |  |                   |   |                     |   |
| Protection Level                                 | IP54  |  |                   |   |                     |   |
| Warranty   | 5 years   |  |                   |   |                     |   |
| Accessory  | 1.2m 4AWG positive&negative wire *2 pcs<br>1m RJ45 wire *1 pc<br>User manual *1 pc  |  |                   |   |                     |   |
| Interface  | Quick connect terminal*4 ( positive*2 / Negative*2 )<br>RS485 terminal*2<br>CANBUS terminal*1<br>Address dial*1<br>SOC indicator*1<br>LCD display dashboard*1 |  |                   |   |                     |   |
| Packing  | Wooden box (Heavy carton box optional)  |  |                   |   |                     |   |

BMS



LiFePO4 Cell Package



Battery Pack



## KEY FEATURES

- ▶ Small size, light weight
- ▶ No maintenance
- ▶ Environmental protection and pollution-free material, no heavy metals, green environmental protection
- ▶ More than 6000 times standard cycle life
- ▶ Accurately estimate the charged state of the battery string, that is, the remaining battery capacity, to ensure that the battery capacity is within a reasonable range
- ▶ Built-in BMS management system, with comprehensive protection and monitoring control functions



## PRODUCT INTRODUCTION

This product is composed of high quality lithium iron phosphate cell (series and parallel) and advanced battery management system(BMS). It can be used as an independent DC power supply, or as a "basic unit" to form a variety of specifications of energy storage lithium battery power system, with high reliability and long life. It can be used as backup power supply of communication base station, backup power supply of digital center, home energy storage power supply, industrial energy storage power supply, etc.

## Cautions:

- ▶ Do NOT expose the battery to water;
- ▶ Do NOT expose the battery to fire & high temperature;
- ▶ Do NOT short circuit, crush or disassemble;
- ▶ Make sure the inverter's setting matches with the battery's charge & discharge characteristic;
- ▶ Store at 50% capacity, and recharge the battery every 3 months;
- ▶ The storage area should be clean, cool, dry and ventilated;
- ▶ Disconnect the battery from the inverter and shut down the BMS when the battery is in storage status;
- ▶ Maximum connection in 16 parallel, no series connection supported.

## LIST OF INVERTERS SUPPORTED

| Brand     | Communication Protocol   | Method |
|-----------|--|--------|
| GOODWE    | Goodwe communication agreement-V1.5                              | CAN    |
| PYLONTECH | CAN-Bus-protocal-PYLON-V1.3                                      | CAN    |
| GROWATT   | Growatt BMS CAN-Bus-protocal_x005f low-voltage-V1.05 -EN version | CAN    |
| VICTRON   | canbus_bms_protocol  | CAN    |
| LXP       | Luxpowertek Battery CAN Protocol                                 | CAN    |
| SOFAR     | CAN-Bus-protocol REV5  | CAN    |
| DEYE      | CAN-Bus-protocal-PYLON-V1.3                                      | CAN    |
| FOXESS    | CAN-Bus-protocal-PYLON-V1.3                                      | CAN    |
| RENAC     | CAN-Bus-protocal-PYLON-V1.3                                      | CAN    |
| SERMATEC  | CAN-Bus-protocal-PYLON-V1.3                                      | CAN    |
| TBB       | CAN-Bus-protocal-PYLON-V1.3                                      | CAN    |
| SOLIS     | Goodwe communication agreement                                   | CAN    |
| SMA       | SMA-BMZ-Protocol-en- 10  | CAN    |

## TEST RESOLUTIONS

