

# GOODWE

## BH Series

3-6kW | Single Phase | AC Retrofit  
High Voltage Battery

The GoodWe BH Series inverter is a single-phase, AC-coupled retrofit inverter compatible with a wide range of high voltage batteries from 85 to 450V. It is designed to maximize self-consumption with UPS-level switching backup function. The pre-wired communication cables and AC connector's 'Plug & Play' simplify installation, operation and maintenance.



Maximize self-consumption



Wide battery voltage range 85~450V



Pre-wired, Plug & Play

| Technical Data  | GW3k-BH                                    | GW3600-BH                | GW5000-BH                | GW6000-BH                |
|---|--|--------------------------|--------------------------|--------------------------|
| <b>Battery Input Data</b>                                       |  |                          |                          |                          |
| Battery Type  | Li-Ion                                     | Li-Ion                   | Li-Ion                   | Li-Ion                   |
| Nominal Battery Voltage (V)                                     | 350  | 350                      | 350                      | 350                      |
| Battery Voltage Range (V)                                       | 85~400                                     | 85~400                   | 85~400                   | 85~400                   |
| Max. Continuous Charging Current (A)                            | 32   | 25                       | 25                       | 25                       |
| Max. Continuous Discharging Current (A)                         | 32   | 25                       | 25                       | 25                       |
| Max. Charging Power (W)   | 3000                                       | 3600                     | 5000                     | 6000                     |
| Max. Discharging Power (W)                                      | 3300                                       | 4000                     | 5500                     | 6600                     |
| <b>AC Output Data (On-grid)</b>                                 |  |                          |                          |                          |
| Nominal Apparent Power Output to Utility Grid (VA) <sup>2</sup> | 3000                                       | 3600                     | 5000                     | 6000                     |
| Max. Apparent Power Output to Utility Grid(VA) <sup>2</sup>     | 3000/3300 <sup>1</sup>                     | 3600/3960 <sup>1</sup>   | 5000/5500 <sup>1</sup>   | 6000/6600 <sup>1</sup>   |
| Max. Apparent Power from Utility Grid (VA)                      | 6000                                       | 7200                     | 10000                    | 12000                    |
| Nominal Output Voltage (V)                                      | 230  | 230                      | 230                      | 230                      |
| Nominal AC Grid Frequency (Hz)                                  | 50/60                                      | 50/60                    | 50/60                    | 50/60                    |
| Max. AC Current Output to Utility Grid (A)                      | 13.1/14.3 <sup>1</sup>                     | 16/18 <sup>1</sup>       | 21.7/24 <sup>1</sup>     | 26.1/28.7 <sup>1</sup>   |
| Max. AC Current From Utility Grid (A)                           | 26.2                                       | 32                       | 43.4                     | 52.2                     |
| Power Factor  | Adjustable from 0.8 leading to 0.8 lagging |                          |                          |                          |
| Max. Total Harmonic Distortion                                  | <3%  | <3%                      | <3%                      | <3%                      |
| <b>AC Output Data (Back-up)</b>                                 |  |                          |                          |                          |
| Back-up Nominal Apparent Power (VA)                             | 3000                                       | 3600                     | 5000                     | 6000                     |
| Max. Output Apparent Power (VA)                                 | 3000 (3600@60sec)                          | 3600 (4320@60sec)        | 5000 (6000@60sec)        | 6000 (7200@60sec)        |
| Max. Output Current (A)   | 13.1                                       | 15.7                     | 21.7                     | 26.1                     |
| Nominal Output Voltage (V)                                      | 230 (±2%)                                  | 230 (±2%)                | 230 (±2%)                | 230 (±2%)                |
| Nominal Output Frequency (Hz)                                   | 50/60 (±0.2%)                              | 50/60 (±0.2%)            | 50/60 (±0.2%)            | 50/60 (±0.2%)            |
| Output THDv (@Linear Load)                                      | <3%  | <3%                      | <3%                      | <3%                      |
| <b>Efficiency</b>   |  |                          |                          |                          |
| Max. Efficiency   | 96.6%                                      | 96.6%                    | 96.6%                    | 96.6%                    |
| European Efficiency   | 96.0%                                      | 96.0%                    | 96.0%                    | 96.0%                    |
| Max. Battery to AC Efficiency                                   | 96.6%                                      | 96.6%                    | 96.6%                    | 96.6%                    |
| <b>Protection</b>   |  |                          |                          |                          |
| PV Insulation Resistance Detection                              | Integrated                                 | Integrated               | Integrated               | Integrated               |
| Residual Current Monitoring                                     | Integrated                                 | Integrated               | Integrated               | Integrated               |
| Battery Reverse Polarity Protection                             | Integrated                                 | Integrated               | Integrated               | Integrated               |
| Anti-islanding Protection                                       | Integrated                                 | Integrated               | Integrated               | Integrated               |
| AC Overcurrent Protection                                       | Integrated                                 | Integrated               | Integrated               | Integrated               |
| AC Short Circuit Protection                                     | Integrated                                 | Integrated               | Integrated               | Integrated               |
| AC Overvoltage Protection                                       | Integrated                                 | Integrated               | Integrated               | Integrated               |
| <b>General Data</b>   |  |                          |                          |                          |
| Operating Temperature Range (°C)                                | -35~60                                     | -35~60                   | -35~60                   | -35~60                   |
| Relative Humidity   | 0~95%                                      | 0~95%                    | 0~95%                    | 0~95%                    |
| Max. Operating Altitude (m)                                     | 4000 <sup>4</sup>                          | 4000 <sup>4</sup>        | 4000 <sup>4</sup>        | 4000 <sup>4</sup>        |
| Cooling Method  | Nature Convection                          | Nature Convection        | Nature Convection        | Nature Convection        |
| Display   | LED & APP                                  | LED & APP                | LED & APP                | LED & APP                |
| Communication with BMS  | CAN  | CAN                      | CAN                      | CAN                      |
| Communication with Meter  | RS485                                      | RS485                    | RS485                    | RS485                    |
| Communication with Portal                                       | Wi-Fi/Ethernet(Optional)                   | Wi-Fi/Ethernet(Optional) | Wi-Fi/Ethernet(Optional) | Wi-Fi/Ethernet(Optional) |
| Weight (kg)   | 15.5                                       | 15.5                     | 15.5                     | 15.5                     |
| Dimension WxHxD (mm)  | 354*433*147                                | 354*433*147              | 354*433*147              | 354*433*147              |
| Noise Emission (dB)   | <35  | <35                      | <35                      | <35                      |
| Topology  | Non-isolated                               | Non-isolated             | Non-isolated             | Non-isolated             |
| Self-consumption at Night (W) <sup>3</sup>                      | <10  | <10                      | <10                      | <10                      |
| Ingress Protection Rating                                       | IP65                                       | IP65                     | IP65                     | IP65                     |
| Mounting Method   | Wall Bracket                               | Wall Bracket             | Wall Bracket             | Wall Bracket             |

\*1: For CEI 0-21.

\*2: The grid feed in power for VDE-AR-N 4105 and NRS097-2-1 is limited 4600VA.

\*3: No Back-up Output.

\*4: 2000m for Australia.

\*: AFDPF: Active Frequency Drift with Positive Feedback, AQDPF: Active Q Drift with Positive Feedback.

\*: Please visit GoodWe website for the latest certificates