

# BH Series (AC-Coupled)

## Single Phase AC Retrofit Inverter (HV Battery)



| Technical Data                              |   | GW1000-BH  | GW2000-BH | GW3000-BH       | GW3K-BH  | GW3600-BH                                       | GW5000-BH                              | GW6000-BH                                   |      |
|---|---|--|-----------|-----------------|--|---|--|---|------|
| <b>Battery Input Data</b>                   | Battery Type                                      | Li-Ion   |           |                 | Li-Ion   |   |  |   |      |
|   | Battery Voltage Range (V)                         | 80~400   |           |                 | 85~400   | 85~450  |  |   |      |
|   | Start-up Voltage (V)                              | 80   |           |                 | 90   |   |  |   |      |
|   | Max. Charging/Discharging Current (A)             | 13   | 15        | 15              | 32/32  | 25/25   |  |   |      |
|   | Charging /Discharging Strategy for Li-Ion Battery | Self-adaption to BMS   |           |                 | NA   |   |  |   |      |
| <b>AC Output Data /Input Data (On-grid)</b> | Nominal Power Output to Utility Grid (W)          | 1000   | 2000      | 3000            | 3000   | 3600  | 4600/5000* <sup>1</sup>                | 4600/5000/6000* <sup>2</sup>                |      |
|   | Max. Apparent Power Output to Utility Grid (VA)   | 1000   | 2000      | 3000            | 3000   | 3600/3960* <sup>3</sup>                         | 4600/5000/5500* <sup>4</sup>           | 4600/5000/6000/6600* <sup>5</sup>           |      |
|   | Max. Apparent Power from Utility Grid (VA)        | NA   |           |                 | 6000(Charging 3kw, backup output 3kw)  | 7200(Charging 3.6kw, backup output 3.6kw)       | 10000(Charging 5kw, backup output 5kw) | 12000(Charging 6kw, backup output 6kw)      |      |
|   | Nominal Output Voltage (V)                        | 230  |           |                 | 230  |   |  |   |      |
|   | Nominal Output Frequency (Hz)                     | 50/60  |           |                 | 50/60  |   |  |   |      |
|   | Max. AC Current Output to Utility Grid (A)        | 5  | 10        | 13.5            | 13.1   | 16/18* <sup>6</sup>                             | 21.7/24* <sup>7</sup>                  | 21.7* <sup>8</sup> /26.1/28.7* <sup>9</sup> |      |
|   | Max. AC Current From Utility Grid (A)             | NA   |           |                 | 27   | 32  | 43.4                                   | 52.2  |      |
|   | Output Power Factor                               | ~1 (Adjustable from 0.8 leading to 0.8 lagging)  |           |                 |  | ~1 (Adjustable from 0.8 leading to 0.8 lagging) |  |   |      |
|   | Output THDi (@Nominal Output)                     | <3%  |           |                 | <3%  |   |  |   |      |
|   | <b>Back-up Output Data (Back-up)</b>              | Max. Output Apparent Power (VA)  | NA        |                 |  | 3000  | 3600                                   | 5000  | 6000 |
| Peak Output Apparent Power (VA)             |   | NA   |           |                 | 3600, 60SEC  | 4320, 60SEC                                     | 6000, 60SEC                            | 7200, 60SEC                                 |      |
| Max. Output Current (A)                     |   | NA   |           |                 | 13.1   | 16  | 21.7                                   | 26.1  |      |
| Automatic Switch Time (ms)                  |   | NA   |           |                 | <10  |   |  |   |      |
| Nominal Output Voltage (V)                  |   | NA   |           |                 | 230 (±2%)  |   |  |   |      |
| Nominal Output Frequency (Hz)               |   | NA   |           |                 | 50/60 (±0.2%)  |   |  |   |      |
| Output THDv (@Linear Load)                  |   | NA   |           |                 | <3%  |   |  |   |      |
| <b>Efficiency</b>                           | Max. Efficiency                                   | 96.0%  | 96.5%     | 96.5%           | 96.6%  |   |  |   |      |
| <b>Protection</b>                           | Anti-Islanding Protection                         | Integrated   |           |                 | Integrated   |   |  |   |      |
|   | Battery Input Reverse Polarity Protection         | Integrated   |           |                 | Integrated   |   |  |   |      |
|   | Insulation Resistor Detection                     | Integrated   |           |                 | Integrated   |   |  |   |      |
|   | Residual Current Monitoring Unit                  | Integrated   |           |                 | Integrated   |   |  |   |      |
|   | Output Over Current Protection                    | Integrated   |           |                 | Integrated   |   |  |   |      |
|   | Output Short Protection                           | Integrated   |           |                 | Integrated   |   |  |   |      |
|   | Output Over Voltage Protection                    | Integrated   |           |                 | Integrated   |   |  |   |      |
| <b>General Data</b>                         | Operating Temperature Range (°C)                  | -25~60   |           |                 | -35~60   |   |  |   |      |
|   | Relative Humidity                                 | 0~95%  |           |                 | 0~95%  |   |  |   |      |
|   | Operating Altitude (m)                            | ≤4000  |           |                 | 4000   |   |  |   |      |
|   | Cooling   | Natural Convection   |           |                 | Natural Convection   |   |  |   |      |
|   | Noise (dB)  | <25  |           |                 | <35  |   |  |   |      |
|   | User Interface                                    | LED & APP  |           |                 | LED & APP  |   |  |   |      |
|   | Communication with BMS                            | CAN  |           |                 | CAN  |   |  |   |      |
|   | Communication with Meter                          | RS485  |           |                 | RS485  |   |  |   |      |
|   | Communication with Portal                         | Wi-Fi/Ethernet   |           |                 | Wi-Fi/Ethernet(Optional)   |   |  |   |      |
|   | Weight (kg)                                       | 8.5  |           |                 | 15.5   |   |  |   |      |
|   | Size (Width*Height*Depth mm)                      | 344*274.5*128  |           |                 | 354*433*147  |   |  |   |      |
|   | Mounting  | Wall Bracket   |           |                 | Wall Bracket   |   |  |   |      |
|   | Protection Degree                                 | IP65   |           |                 | IP65   |   |  |   |      |
| Standby Self-Consumption (W)* <sup>10</sup> | <15   |  |           | <10             |  |   |  |   |      |
| Topology                                    | Transformerless                                   |  |           | Transformerless |  |   |  |   |      |
| <b>Certifications &amp; Standards</b>       | Grid Regulation                                   | G98  |           |                 | AS/NZS 4777.2:2015   | AS/NZS 4777.2:2015; G99; CEI 0-21; VDE4105-AR-N |  |   |      |
|   | Safety Regulation                                 | IEC/EN62109-1&-2, IEC62040-1   |           |                 | IEC/EN 62477-1, AS 62040.1.1   |   |  |   |      |
|   | EMC   | EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29 |           |                 | EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29 |   |  |   |      |

\*<sup>1</sup>4600 for VDE-AR-N 4105, 4950 for AS/NZS 4777.2, 5000 for other country.

\*<sup>2</sup>4600 for VDE-AR-N 4105, 4950 for AS/NZS 4777.2 feed in power limit, selfuse can reach 6000, 6000 for other country.

\*<sup>3</sup>3960 for CEI 0-21, 3600 for other countries.

\*<sup>4</sup>4600 for VDE-AR-N 4105, 4950 for AS/NZS 4777.2, 5500 for CEI 0-21, 5000 for other country.

\*<sup>5</sup>4600 for VDE-AR-N 4105, 4950 for AS/NZS 4777.2, 6600 for CEI 0-21, 6000 for other country.

\*<sup>6</sup>, \*<sup>7</sup>, \*<sup>9</sup> for CEI 0-21.

\*<sup>8</sup> 21.7 for AS/NZS 4777.2 feed in power limit, selfuse can reach 26.1.

\*<sup>10</sup> No Back-up Output