GOODWE

BH Series

3-6kW I Single phase
AC-coupled retrofit inverter (HV)

The GoodWe BH Series inverter is a single-phase, AC-coupled retrofit inverter compatible with a wide range of high voltage batteries from 85V to 460V. It is designed to maximize self-consumption with a UPS-level switching backup function. The pre-wired communication cables and AC connectors Plug & Play simplify installation, operation, and maintenance.



Smart Control & Monitoring

- <10ms UPS-level switching
- Smart home integration with multi-protocol communications

Friendly & Thoughtful Design

- Fanless cooling for quiet operation
- Elegant and compact design

Superb Safety & Reliability

- IP65 ingress protection
- Quality and robust components

Flexible & Adaptable Applications

- Strong backup power supply
- Wide battery voltage range 85~460V

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Technical Data	GW3k-BH	GW3600-BH	GW5000-BH	GW6000-BH
Battery Input Data				
Battery Type	Li-Ion			
Nominal Battery Voltage (V)	350			
Battery Voltage Range (V)	85 ~ 400	85 ~ 460	85 ~ 460	85 ~ 460
Start-up Voltage (V)	85			
Number of Battery Input	1			
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
AC Output Data (On-grid)				
Nominal Output Power (W)	3000	3600	5000	6000
Nominal Apparent Power Output to Utility Grid (VA)*1	3000	3600	5000	6000
Max. Apparent Power Output to Utility Grid(VA)*1	3000	3600	5000	6000
Max. Apparent Power from Utility Grid (VA)	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			
Output Voltage Range (V)	0 ~ 300			
Nominal AC Grid Frequency (Hz)	50 / 60			
AC Grid Frequency Range (Hz)	45 ~ 65			
Max. AC Current Output to Utility Grid (A)	13.1	16.0	21.7	26.1
Max. AC Current From Utility Grid (A)	26.2	32.0	43.4	52.2
Power Factor	Adjustable from 0.8 leading to 0.8 lagging			
Max. Total Harmonic Distortion	<3%			
AC Output Data (Back-up)				
Back-up Nominal Apparent Power (VA)	3000	3600	5000	6000
Max. Output Apparent Power without Grid (VA)	3000 (3600@60sec)	3600 (4320@60sec)	5000 (6000@60sec)	6000 (7200@60sec)
Max. Output Apparent Power with Grid (VA)	3000	3600	5000	6000
Max. Output Current (A)	13.1	15.7	21.7	26.1
Nominal Output Voltage (V)	230 (±2%)			
Nominal Output Frequency (Hz)	50 / 60 (±0.2%)			
Output THDv (@Linear Load)	<3%			
Efficiency				
Max. Efficiency	96.6%			
European Efficiency	96.0%			
Max. Battery to AC Efficiency	96.6%			
Protection				
PV Insulation Resistance Detection	Integrated			
Residual Current Monitoring	Integrated			
Battery Reverse Polarity Protection	Integrated			
Anti-islanding Protection	Integrated			
AC Overcurrent Protection	Integrated			
AC Short Circuit Protection	Integrated			
AC Overvoltage Protection	Integrated			
General Data				
Operating Temperature Range (°C)	-25 ~ +60			
Relative Humidity	0 ~ 95%			
Max. Operating Altitude (m)	3000*3			
Cooling Method	Natural Convection			
User Interface	LED, APP			
Communication with BMS	CAN			
Communication with Meter	RS485			
Communication with Portal	WiFi / Ethernet (Optional)			
Weight (kg)	15.5			
Dimension (W × H × D mm)	354 × 433 × 147			
Noise Emission (dB)	<35			
Topology	Non-isolated			
Self-consumption at Night (W)*2	<10			
Ingress Protection Rating	IP65			
Mounting Method	Wall Mounted			

*1: For GW5000-BH and GW6000-BH, the grid feed in power for VDE-AR-N 4105 and NRS097-2-1 is limited 4600VA.
*2: No Back-up Output.
*3: 2000m for Australia.
*: Please visit GoodWe website for the latest certificates.

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