

GOODWE

BH Series

3-6kW | 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 connector's 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

Technical Data	GW3k-BH	GW3600-BH	GW5000-BH	GW6000-BH
Battery Input Data				
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 ~ 460	85 ~ 460	85 ~ 460
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 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	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	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%	<3%	<3%	<3%
AC Output Data (Back-up)				
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%
Efficiency				
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%
Protection				
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
General Data				
Operating Temperature Range (°C)	-25 ~ +60	-25 ~ +60	-25 ~ +60	-25 ~ +60
Relative Humidity	0 ~ 95%	0 ~ 95%	0 ~ 95%	0 ~ 95%
Max. Operating Altitude (m)	3000 ³	3000 ³	3000 ³	3000 ³
Cooling Method	Natural Convection	Natural Convection	Natural Convection	Natural Convection
User Interface	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	WiFi / Ethernet (Optional)			
Weight (kg)	15.5	15.5	15.5	15.5
Dimension (W x H x D mm)	354 x 433 x 147	354 x 433 x 147	354 x 433 x 147	354 x 433 x 147
Noise Emission (dB)	<35	<35	<35	<35
Topology	Non-isolated	Non-isolated	Non-isolated	Non-isolated
Self-consumption at Night (W) ²	<10	<10	<10	<10
Ingress Protection Rating	IP65	IP65	IP65	IP65
Mounting Method	Wall Mounted	Wall Mounted	Wall Mounted	Wall Mounted

*1: 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.