GOODWE

EHB Series

5-10kW I Single Phase I Hybrid Inverter

The EHB Series is a single-phase hybrid inverter designed to address the growing energy storage needs of the residential sector. Its plug-and-play, and lightweight design makes installation quick and easy. It also offers an integrated bypass feature for added reliability. The backup function is ideal for both new installations and retrofit projects, and can even be integrated into a micro-grid system, ensuring the normal operation of on-grid systems during blackouts.

High Power Generation

- 200% PV input oversizing
- 4 MPPTs, Max. 16A DC input per string

Superb Safety & Reliability

- In-built Type II SPD on both DC&AC sides
- IP65 ingress protection
- Optional AFCI[1]

Smart Control for Smart Energy

- Smart home integration with multi-protocol communications
- GoodWe smart meter supplied (in the box) with every model
- <10ms UPS-level switching

Friendly & Thoughtful Design

- Plug and play installation
- Elegant and compact design

1: Optional functions or devices are purchased separately.

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Technical Data	GW5K-EHB-AU-G11	GW8.6K-EHB-AU-G11	GW9.99K-EHB-AU-G11[*5]
Battery Input Data			
Battery Type	Li-Ion (BYD HVM & HVS, LG RESU 10H-Type R & Prime, GOODWE LX F & LX F G2)		
Nominal Battery Voltage (V)	350		
Battery Voltage Range (V)[*1*7]	80 ~ 495		
Number of Battery Input	1		
Max. Continuous Charging Current (A)	50		
Max. Continuous Discharging Current (A)	50		
Max. Charging Power (W)	5000	8600	10000
Max. Discharging Power (W)	5250	9030	10500
PV String Input Data			
Max. Input Power (W)[*6]	10000	17200	20000
Max. Input Voltage (V)[*2]	600		
MPPT Operating Voltage Range (V)[*3]	80 ~ 550		
Start-up Voltage (V)	95		
Nominal Input Voltage (V)	380		
Max. Input Current per MPPT (A)	16		
Max. Short Circuit Current per MPPT (A)	24		
Number of MPP Trackers	3	4	4
Number of Strings per MPPT	1		
AC Output Data (On-grid)			
Nominal Output Power (W)	5000	8600	9990
Nominal Apparent Power Output to Utility Grid (VA)	5000	8600	9990
Max. Apparent Power Output to Utility Grid (VA)[*4]	5000	8600	9990
Max. Apparent Power from Utility Grid (VA)	5750	11500	11500
Nominal Output Voltage (V)	230		
Output Voltage Range (V)	0 ~ 300		
Nominal AC Grid Frequency (Hz)	50		
AC Grid Frequency Range (Hz)	45 ~ 55		
Max. AC Current Output to Utility Grid (A)	21.7	37.4	43.4
Max. AC Current From Utility Grid (A)	25	50	50
Power Factor	~1 (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)	5000	8600	9990
Max. Output Apparent Power (VA)[*4]	5250 (7000@10sec)	9030 (14000@10sec)	10500 (14000@10sec)
Max. Output Apparent Power with Grid (VA)	5750	11500	11500
Max. Output Current (A)	22.8	39.3	45.7
Nominal Output Voltage (V)	230 (±2%)		
Nominal Output Frequency (Hz)	50 (±0.2%)		
Output THDv (@Linear Load)	<3%		
Efficiency			
Max. Efficiency	97.6%		
European Efficiency	97.0%		
Max. Battery to AC Efficiency	96.5%		
MPPT Efficiency	99.9%		
Protection			
PV Insulation Resistance Detection	Integrated		
Residual Current Monitoring	Integrated		
PV Reverse Polarity Protection	Integrated		
Battery Reverse Polarity Protection	Integrated		
Anti-islanding Protection	Integrated		
AC Overcurrent Protection	Integrated		
AC Short Circuit Protection	Integrated		
AC Overvoltage Protection	Integrated		
DC Switch	Integrated		
AC Switch	Integrated		
DC Surge Protection	Type II		
AC Surge Protection	Type II		
AFCI	Optional		
Rapid Shutdown	Optional		
General Data			
Operating Temperature Range (°C)	-35 ~ +60		
Relative Humidity	0 ~ 95%		
Max. Operating Altitude (m)	4000		
Cooling Method	Smart Fan Cooling		
User Interface	LED, WLAN + APP		
Communication with BMS	RS485, CAN		
Communication with Meter	RS485		
Communication with Portal	WiFi, LAN, 4G		
Weight (kg)	29.5	33.0	33.0
Dimension (W × H × D mm)	415 × 791 × 180		
Topology	Non-isolated		
Ingress Protection Rating	IP65		
Mounting Method	Wall Mounted		
Country of Manufacture	China		

*1: Battery discharge/charge power limited by voltage.
*2: Inverter will not work when PV input voltage ≥585V.
*3: When there is no battery connected, inverter starts feeding in only if string voltage is higher than 200V.
*4: Can be reached only if PV and battery power is enough.
*5: The model name does not represent the rated power, please refer to the marked parameters for details.
*6: The system will fully use total 150% PV energy to charge battery and turn to AC.
*7: When EH is in microgrid application, the maximum battery voltage is 405V.
*: Please visit GoodWe website for the latest certificates.

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