

GOODWE

EHB Series

5-10kW | Single Phase | 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



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

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)				
Nominal Apparent Power (VA)	5000	8600	9990	
Max. Output Apparent Power (VA) ^{*4}	5250	9030	10500	
Max. Output Apparent Power with Grid (VA) ^{*8}	5750	11500	11500	
Nominal Output Current (A)	21.7	37.4	43.4	
Max. Output Current (A)	22.8	39.3	45.7	
Max. Output Current with Grid (A) ^{*8}	25	50	50	
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			
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 x H x D mm)	415 x 791 x 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 $\geq 585V$.

*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.

*8: "With grid" means backup output under bypass application.

*: Please visit GoodWe website for the latest certificates.

** : Please refer to the user manual for the MPPT Voltage Range at Nominal Power.