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. With up to 4 MPPTs, this inverter seamlessly adapts to complex rooftops on large residential properties. It also offers enhanced off-grid overload capabilities and 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.

COMING SOON

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
- <10ms UPS-level switching

Flexible & Adaptable Applications

- Whole home backup availability
- Capable of forming a microgrid during blackouts

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.
*: As a part of our policy of continuous improvement, we reserve the right to alter design and specifications without further notice.