

GOODWE

EH Series

3.6-6kW | Single Phase | 2 MPPTs
Battery Ready (HV)

The EH Series is an energy storage inverter that is compatible with high voltage Li-Ion batteries ranging from 85 to 460V to provide a highly flexible system design. Its "Battery Ready" design provides a future-proof solution for users who may want to add battery storage in the future, simply by purchasing an activation code. Designed as a highly adaptable and flexible option for residential PV systems, the inverter has its maximum DC input current reached 16A for each string and combines well with high-power PV modules. Featuring UPS-level switching (switching time <10ms) and peak shaving, EH Series ensures a stable and reliable power supply.



Smart Control for Smart Energy

- <10ms UPS-level switching
- Peak shaving



Friendly & Thoughtful Design

- Fanless cooling for quiet operation
- Pre-wired communication cables



Superb Safety & Reliability

- Built-in Type II SPD on DC side
- IP65 ingress protection



Flexible & Adaptable Applications

- Battery ready option
- Maximum 16A DC input current per string

Technical Data		GW3600-EH	GW5000-EH	GW6000-EH	GW3600N-EH	GW5000N-EH	GW6000N-EH
Battery Input Data							
Battery Type				Li-Ion			
Nominal Battery Voltage (V)				350			
Battery Voltage Range (V)				85 ~ 460			
Start-up Voltage (V)	-	-	-	85	85	85	85
Number of Battery Input	-	-	-	1	1	1	1
Max. Continuous Charging Current (A)				25			
Max. Continuous Discharging Current (A)				25			
Max. Charging Power (W)	3600	5000	6000	6000	6000	6000	6000
Max. Discharging Power (W)	3600	5000	6000	3600	5000	6000	6000
PV String Input Data							
Max. Input Power (W)	4800	6650	8000	7200	10000	12000	
Max. Input Voltage (V)				580			
MPPT Operating Voltage Range (V)**				100 ~ 550			
Start-up Voltage (V)				85			
Nominal Input Voltage (V)				380			
Max. Input Current per MPPT (A)	12.5 / 12.5	12.5 / 12.5	12.5 / 12.5	16.0	16.0	16.0	16.0
Max. Short Circuit Current per MPPT (A)	15.2 / 15.2	15.2 / 15.2	15.2 / 15.2	21.2	21.2	21.2	21.2
Number of MPP Trackers				2			
Number of Strings per MPPT				1			
AC Output Data (On-grid)							
Nominal Output Power (W)	-	-	-	3600	5000	6000	
Nominal Apparent Power Output to Utility Grid (VA) ²	-	-	-	3600	5000	6000	
Max. Apparent Power Output to Utility Grid (VA) ²	3600 / 3960 ¹	5000 / 5500 ¹	6000 / 6600 ¹	3600 / 3960 ¹	5000 / 5500 ¹	6000 / 6600 ¹	
Max. Apparent Power from Utility Grid (VA)	7200	10000	12000	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 / 220 ⁵			
Output Voltage Range (V)				0 ~ 300			
Nominal AC Grid Frequency (Hz)				50 / 60			
Max. AC Current Output to Utility Grid (A)	16.0 / 18.0 ¹	21.7 / 24.0 ¹	26.1 / 28.7 ¹ / 27.3 ⁶	16.0 / 18.0 ¹	21.7 / 24.0 ¹	26.1 / 28.7 ¹ / 27.3 ⁶	
Max. AC Current From Utility Grid (A)	32.0	43.4	52.2	32.0	43.4	52.2	
Nominal Output Current (A)	15.6	21.7	26.1	15.6	21.7	26.1	
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)	3600	5000	6000	3600	5000	6000	
Max. Output Apparent Power without Grid (VA)	3600 (4320@60sec)	5000 (6000@60sec)	6000 (7200@60sec)	3600 (4320@60sec)	5000 (6000@60sec)	6000 (7200@60sec)	
Max. Output Apparent Power with Grid (VA)	-	-	-	3600	5000	6000	
Max. Output Current (A)	15.7	21.7	26.1	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				97.6%			
European Efficiency				97.0%			
Max. Battery to AC Efficiency				96.6%			
MPPT Efficiency				99.9%			
Protection							
PV String Current Monitoring	-	-	-	Integrated	Integrated	Integrated	
PV Insulation Resistance Detection				Integrated			
Residual Current Monitoring				Integrated			
PV Reverse Polarity Protection	-	-	-	Integrated	Integrated	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	Integrated	Integrated	
DC Surge Protection	-	-	-	Type II	Type II	Type II	
AC Surge protection	-	-	-	Type III	Type III	Type III	
Remote Shutdown	-	-	-	Integrated	Integrated	Integrated	
General Data							
Operating Temperature Range (°C)				-25 ~ +60			
Relative Humidity				0 ~ 95%			
Max. Operating Altitude (m)	3000	3000	3000	2000	2000	2000	
Cooling Method	Natural Convection						
User Interface	LED, APP						
Communication with BMS ³	RS485, CAN						
Communication with Meter	RS485						
Communication with Portal	WiFi / Ethernet (Optional)						
Weight (kg)	17						
Dimension (W × H × D mm)	354 × 433 × 147						
Noise Emission (dB)	<35						
Topology	Non-isolated						
Self-consumption at Night (W) ⁴	<10						
Ingress Protection Rating	IP65						
Mounting Method	Wall Mounted						
Country of Manufacture	China						

*1: For CEI 0-21.

*2: The grid feed in power for VDE-AR-N 4105 and NRS097-2-1 is limited 4600VA.

*3: CAN communication is configured by default. If 485 communication is used, please replace the corresponding communication line.

*4: No Back-up Output.

*5: For Brazil, the voltage is 220V.

*6: For Brazil, the current is 27.3A.

*: Please visit GoodWe website for the latest certificates.

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