GOODWE

EH Series

3.6-6kW I Single Phase
HV Hybrid Inverter

The GoodWe EH Series is a single-phase, on-grid inverter that includes a "Battery Ready" option for users who might wish to eventually acquire a full energy storage solution. By simply purchasing an activation code, the EH can easily be upgraded to a complete ESS solution. The EH is compatible with high voltage batteries (85-450V) and can automatically switch to back-up mode in less than 0.01s (UPS level), ensuring that critical loads experience no interruption. With a power deviation lower than 20W, this inverter is designed to maximize self-consumption. In addition, the fact that it takes less than 9 seconds to switch from grid to PV to supply power for heavy loads helps users to avoid expensive intakes from the grid. The communication cables come pre-wired, reducing installation time significantly. The Plug & Play AC connector also makes operation and maintenance much more convenient.

Large loads on back-up

UPS level automatic switch in <10ms

Maximize self-consumption

Wide battery voltage range 85~450V

Pre-wired communication cables

EH Series

Technical Data	GW3600-EH	GW5000-EH	GW6000-EH
Battery Input Data			
Battery Type	Li-Ion	Li-Ion	Li-Ion
Nominal Battery Voltage (V)	350	350	350
Battery Voltage Range (V)	85~460	85~460	85~460
Max. Continuous Charging Current (A)	25	25	25
Max. Continuous Discharging Current (A)	25	25	25
Max. Charging Power (W)	3600	5000	6000
Max. Discharging Power (W)	3600	5000	6000
PV String Input Data			
Max. Input Power (W)	4800	6650	8000
Max. Input Voltage (V)	580	580	580
MPPT Operating Voltage Range (V)	100~550	100~550	100~550
Start-up Voltage (V)	90	90	90
Nominal Input Voltage (V)	380	380	380
Max. Input Current per MPPT (A)	12.5/12.5	12.5/12.5	12.5/12.5
Max. Short Circuit Current per MPPT (A)	15.2/15.2	15.2/15.2	15.2/15.2
Number of MPPTs	2	2	2
Number of Strings per MPPT	1	1	1
AC Output Data (On-grid)			
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]
Max. Apparent Power from Utility Grid (VA)	7200	10000	12000
Nominal Output Voltage (V)	230/220[5]	230/220[5]	230/220[5]
Nominal AC Grid Frequency (Hz)	50/60	50/60	50/60
Max. AC Current Output to Utility Grid (A)	16/18[1]	21.7/24[1]	26.1/28.7*1/27.3[6]
Max. AC Current From Utility Grid (A)	32	43.4	52.2
Power Factor	Adjustable from 0.8 leading to 0.8 lagging		
Max. Total Harmonic Distortion	<3%	<3%	<3%
AC Output Data (Back-up)			
Back-up Nominal Apparent Power (VA)	3600	5000	6000
Max. Output Apparent Power (VA)	3600 (4320@60sec)	5000 (6000@60sec)	6000 (7200@60sec)
Max. Output Current (A)	15.7	21.7	26.1
Nominal Output Voltage (V)	230 (±2%)	230 (±2%)	230 (±2%)
Nominal Output Frequency (Hz)	50/60 (±0.2%)	50/60 (±0.2%)	50/60 (±0.2%)
Output THDv (@Linear Load)	<3%	<3%	<3%
Efficiency			
Max. Efficiency	97.6%	97.6%	97.6%
European Efficiency	97.0%	97.0%	97.0%
Max. Battery to AC Efficiency	96.6%	96.6%	96.6%
MPPT Efficiency	99.9%	99.9%	99.9%
Protection			
PV Insulation Resistance Detection	Integrated	Integrated	Integrated
Residual Current Monitoring	Integrated	Integrated	Integrated
Battery Reverse Polarity Protection	Integrated	Integrated	Integrated
Anti-islanding Protection	Integrated	Integrated	Integrated
AC Overcurrent Protection	Integrated	Integrated	Integrated
AC Short Circuit Protection	Integrated	Integrated	Integrated
AC Overvoltage Protection	Integrated	Integrated	Integrated
General Data			
Operating Temperature Range (°C)	-35~60	-35~60	-35~60
Relative Humidity	0~95%	0~95%	0~95%
Max. Operating Altitude (m)	4000[7]	4000[7]	4000[7]
Cooling Method	Nature Convection	Nature Convection	Nature Convection
Display	LED & APP	LED & APP	LED & APP
Communication with BMS[3]	RS485; CAN	RS485; CAN	RS485; CAN
Communication with Meter	RS485	RS485	RS485
Communication with Portal	Wi-Fi/Ethernet(Optional)	Wi-Fi/Ethernet(Optional)	Wi-Fi/Ethernet(Optional)
Weight (kg)	17	17	17
Dimension W×H×D (mm)	354 × 433 × 147	354 × 433 × 147	354 × 433 × 147
Noise Emission (dB)	<35	<35	<35
Topology	Non-isolated	Non-isolated	Non-isolated
Self-consumption at Night (W)[4]	<10	<10	<10
Ingress Protection Rating	IP65	IP65	IP65
Mounting Method	Wall Bracket	Wall Bracket	Wall Bracket

[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.
[7]: 2000m for Australia.
*: When there is no battery connected, inverter starts feeding in only if string voltage is higher than 200V.
*: AFDPF: Active Frequency Drift with Positive Feedback, AQDPF: Active Q Drift with Positive Feedback..
*: Please visit GoodWe website for the latest certificates