# SOLAR POWER SYSTEMS

Solahart
ENERGY Free FROM THE SUN®

## GOODWE

### SINGLE - PHASE (HV) HYBRID INVERTER

EH SERIES | 5KW & 6KW | 2 MPPTS

SOLAHART 10 YEAR AUSTRALIAN WARRANTY

The EH Series is an energy storage inverter that is compatible with high voltage Li-Ion batteries ranging from 85 to 460V.

The EH inverter is designed as a highly adaptable and flexible option for residential PV systems. EH inverters Feature UPS-level switching (switching time <10ms) and peak shaving.

## How you benefit:

### HIGH EFFICIENCY

97.6% max. Efficiency.

### FLEXIBLE DESIGN

Ease of installation and maintenance.

### SAFE OPERATION

IP65 ingress protection.

### INNOVATIVE

Easily add on Solahart Home Energy Management System (HEMS) to control and optimise more appliances such as pool pumps, AC units, etc.

### SOLAHART WARRANTY

Enjoy a 10-year warranty, for peace of mind.

# TECHNICAL DATA

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| Model | GW5000N-EH | GW6000N-EH |
|---|---|---|
| **Battery Input Data** | | |
| Battery Type | Li-Ion | Li-Ion |
| Nominal Battery Voltage (V) | 350 | 350 |
| Battery Voltage Range (V) | 85 ~ 460 | 85 ~ 460 |
| Max. Continuous Charging Current (A) | 25 | 25 |
| Max. Continuous Discharging Current (A) | 25 | 25 |
| Max. Charge Power (W) | 6000 | 6000 |
| Max. Discharge Power (W) | 5000 | 6000 |
| **PV String Input Data** | | |
| Max. Input Power (W) | 7500 | 9000 |
| Max. Input Voltage (V) | 580 | 580 |
| MPPT Operating Voltage Range (V) | 100 ~ 550 | 100 ~ 550 |
| Start-up Voltage (V) | 90 | 90 |
| Nominal Input Voltage (V) | 380 | 380 |
| Max. Input Current per MPPT (A) | 16 | 16 |
| Max. Short Circuit Current per MPPT (A) | 21.2 | 21.2 |
| Number of MPP Trackers | 2 | 2 |
| Number of Strings per MPPT | 1 | 1 |
| **AC Output Data (On-grid)** | | |
| Nominal Apparent Power Output to Utility Grid (VA)*2 | 5000 | 6000 |
| Max. Apparent Power Output to Utility Grid (VA)*2 | 5000 / 5500*1 | 6000 / 6600*1 |
| Max. Apparent Power from Utility Grid (VA) | 10000 (Charging 5kW, Backup Output 5kW) | 12000 (Charging 6kW, Backup Output 6kW) |
| Nominal Output Voltage (V) | 230 / 220*6 | 230 / 220*6 |
| Output Voltage Range (V) | 0 ~ 300 | 0 ~ 300 |
| Nominal AC Grid Frequency (Hz) | 50 / 60 | 50 / 60 |
| Max. AC Current Output to Utility Grid (A) | 21.7 / 24*1 | 26.1 / 28.7*1 / 27.3*7 |
| Max. AC Current From Utility Grid (A) | 43.4 | 52.2 |
| Nominal Output Current (A) | 21.7 | 26.1 |
| Power Factor | Adjustable from 0.8 leading to 0.8 lagging | Adjustable from 0.8 leading to 0.8 lagging |
| Max. Total Harmonic Distortion | <3% | <3% |
| **AC Output Data (Back-up)** | | |
| Back-up Nominal Apparent Power (VA) | 5000 | 6000 |
| Max. Output Apparent Power (VA) | 5000 (6000@60sec) | 6000 (7200@60sec) |
| Max. Output Current (A) | 21.7 | 26.1 |
| Nominal Output Voltage (V) | 230 (±2%) | 230 (±2%) |
| Nominal Output Frequency (Hz) | 50 / 60 (±0.2%) | 50 / 60 (±0.2%) |
| Output THDv (@Linear Load) | <3% | <3% |
| **Efficiency** | | |
| Max. Efficiency | 97.6% | 97.6% |
| European Efficiency | 97.0% | 97.0% |
| Max. Battery to AC Efficiency | 96.6% | 96.6% |
| MPPT Efficiency | 99.9% | 99.9% |
| **Protection** | | |
| PV Insulation Resistance Detection | Integrated | Integrated |
| Residual Current Monitoring | Integrated | Integrated |
| Battery Reverse Polarity Protection | Integrated | Integrated |
| Anti-islanding Protection | Integrated | Integrated |
| AC Overcurrent Protection | Integrated | Integrated |
| AC Short Circuit Protection | Integrated | Integrated |
| AC Overvoltage Protection | Integrated | Integrated |
| DC Surge Protection | Type II | Type II |
| **General Data** | | |
| Operating Temperature Range (°C) | -25 ~ +60 | -25 ~ +60 |
| Relative Humidity | 0 ~ 95% | 0 ~ 95% |
| Max. Operating Altitude (m) | 2000 | 2000 |
| Cooling Method | Natural Convection | Natural Convection |
| User Interface | LED, APP | LED, APP |
| Communication with BMS*3 | RS485, CAN | RS485, CAN |
| Communication with Meter | RS485 | RS485 |
| Communication with Portal | WiFi / Ethernet (Optional) | WiFi / Ethernet (Optional) |
| Weight (kg) | 17 | 17 |
| Dimension (W × H × D mm) | 354 × 433 × 147 | 354 × 433 × 147 |
| Noise Emission (dB) | <35 | <35 |
| Topology | Non-isolated | Non-isolated |
| Self-consumption at Night (W)*4 | <10 | <10 |
| Ingress Protection Rating | IP65 | IP65 |
| Mounting Method | Wall Mounted | Wall Mounted |
| Country of Manufacture | China | 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: Not all certifications & standards listed, check the official website for details.
*6: For Brazil, the voltage is 220V.
*7: For Brazil, the current is 27.3A.
*: Please visit GoodWe website for the latest certificates.

Specifications and designs included in this data sheet are subject to change without notice.