



GEH 5-10kW

Single-phase Hybrid | Up to 4 MPPTs

GEH5.0-1U-10

GEH8.6-1U-10

GEH10-1U-10



Incessant Power Supply

- Full backup capacity up to 10kW
- UPS-level switching



High Power Generation

- Up to 4 MPPTs
- Up to 150% DC oversizing



Maximum Safety

- AC bypass switch
- AFCI & RSD for system safety*

The GEH series is a unique single-phase hybrid inverter that offers up to four MPPTs, is compatible with high voltage (80-495V) batteries and has a power capacity ranging from 5kW to 10kW. Homeowners can now experience the ultimate solution for maximising generation and self-consumption in comfort and security. Intelligent mechanisms are timely activated to ensure power supply to critical loads when most needed. With up to 4 MPPTs, this inverter seamlessly adapts to complex rooftops on large residential properties. It is equipped with rapid battery charge and is perfectly capable of powering large loads in back-up mode. This champion of energy independence integrates intelligent safety features that are second to none. When the grid is compromised, UPS-level switching allows the inverter to switch to back-up mode in less than 10ms. Loads connected to the back-up stay powered on and ensure the safety of your electrical appliances. AFCI (Arc-fault current interrupter) and rapid shutdown options likewise ensure the safety of the whole PV system, offering freedom and security all in one.



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Up to 4 MPPTs | Single-phase Hybrid

Technical Data	GEH5.0-1U-10	GEH8.6-1U-10	GEH10-1U-10 ^{*6}
Battery Input Data			
Battery Type	Li-Ion (BYD HVM & HVS, LG RESU 10H-Type R, GOODWE LX S-H)		
Nominal Battery Voltage (V)	350	350	350
Battery Voltage Range (V) ^{*1}	80 ~ 495	80 ~ 495	80 ~ 495
Max. Continuous Charging Current (A)	50	50	50
Max. Continuous Discharging Current (A)	50	50	50
Max. Charge Power (W)	5000	8600	9600
Max. Discharge Power (W)	5250	9030	10080
PV String Input Data			
Max. Input Power (W)	7500	12900	15000
Max. Input Voltage (V) ^{*2}	600	600	600
MPPT Operating Voltage Range (V) ^{*3}	80 ~ 550	80 ~ 550	80 ~ 550
Start-up Voltage (V)	95	95	95
Nominal Input Voltage (V)	380	380	380
Max. Input Current per MPPT (A)	13	13	13
Max. Short Circuit Current per MPPT (A) ^{*7}	16.3	16.3	16.3
Number of MPP Trackers	3	4	4
Number of Strings per MPPT	1	1	1
AC Output Data (On-grid)			
Nominal Apparent Power Output to Utility Grid (VA)	5000	8600	9500@220Vac / 10000@230Vac
Max. Apparent Power Output to Utility Grid (VA) ^{*4}	5000	8600	9500@220Vac / 10000@230Vac
Max. Apparent Power from Utility Grid (VA)	6000	10000	10000
Nominal Output Voltage (V)	220 / 230	220 / 230	220 / 230
Nominal AC Grid Frequency (Hz)	50 / 60	50 / 60	50 / 60
Max. AC Current Output to Utility Grid (A)	23.0	39.0	43.5
Max. AC Current from Utility Grid (A)	27.0	45.5	45.5
Power Factor	~1 (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)	5000	8600	9500@220Vac / 10000@230Vac
Max. Output Apparent Power (VA) ^{*4}	5000 (6000@60sec)	8600 (10320@60sec)	9500@220Vac / 10000@230Vac (12000@60sec)
Max. Output Current (A)	23.0	39.0	43.5
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	96.5%	96.5%	96.5%
MPPT Efficiency	99.9%	99.9%	99.9%
Protection			
PV Insulation Resistance Detection	Integrated	Integrated	Integrated
Residual Current Monitoring	Integrated	Integrated	Integrated
PV Reverse Polarity Protection	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
DC Switch	Integrated	Integrated	Integrated
AC Switch	Integrated	Integrated	Integrated
DC Surge Protection	Type II	Type II	Type II
AC Surge Protection	Type II	Type II	Type II
AFCI	Optional	Optional	Optional
Rapid Shutdown	Optional	Optional	Optional
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	4000	4000
Cooling Method	Smart Fan Cooling	Smart Fan Cooling	Smart Fan Cooling
User Interface	LED, WLAN + APP	LED, WLAN + APP	LED, WLAN + APP
Communication with BMS	RS485, CAN	RS485, CAN	RS485, CAN
Communication with Meter	RS485	RS485	RS485
Communication with Portal	WiFi	WiFi	WiFi
Weight (kg)	28.8	32.3	32.3
Dimension (W × H × D mm)	415 × 791 × 175	415 × 791 × 175	415 × 791 × 175
Noise Emission (dB)	<50	<50	<50
Topology	Non-isolated	Non-isolated	Non-isolated
Self-consumption at Night (W) ^{*5}	<20	<20	<20
Ingress Protection Rating	IP65	IP65	IP65
DC Connector	MC4	MC4	MC4
AC Connector	MC4	MC4	MC4
Mounting Method	Wall Mounted	Wall Mounted	Wall Mounted
Country of Manufacture	China	China	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: No Back-up Output.

*6: The model name does not represent the rated power, please refer to the marked parameters for details.

*7: For Australia Max. Short Circuit Current per MPPT (A) please refer to 'Manufacturer declaration: short circuit current'.

*: Optional functions are purchased separately.

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