GEH 5-9.6kW

Split-phase Hybrid | Up to 4 MPPTs

GEH5.0-1U-US10	GEH6.0-1U-US10	GEH7.0-1U-US10
GEH7.6-1U-US10	GEH8.6-1U-US10	GEH9.6-1U-US10

High Power Generation

- 4 MPPTs
- Up to 150% DC oversizing

Maximum Safety and Security

- AFCI for DC side & RSD ensuring system safety
- Full backup capacity up to 9.6 kW

Tailored for US Market Needs

- 120/240 VAC output
- Compatible with diesel generators

Discover this unique split-phase hybrid inverter that offers up to four MPPTs, is compatible with high voltage (80-495 V) batteries and has a power capacity ranging from 5 kW to 9.6 kW. Homeowners can now experience the ultimate solution for maximizing generation and self-consumption in comfort and security. Our Intelligent mechanisms safely ensure power to essential loads when most needed. This champion of energy independence integrates intelligent safety features that are second to none. AFCI (Arc-fault current interrupter) for both PV and battery and rapid shutdown likewise ensure the safety of the whole PV system, offering freedom and security all in one. Additionally, this inverter can connect to a diesel generator and is equipped with an external auto-transformer for 120 VAC output.

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Up to 4 MPPTs | Split-phase Hybrid

Technical Data	GEH5.0-1U-US10	GEH6.0-1U-US10	GEH7.0-1U-US10	GEH7.6-1U-US10	GEH8.6-1U-US10	GEH9.6-1U-US10
Battery Input Data						
Battery Type	Li-Ion	Li-Ion	Li-Ion	Li-Ion	Li-Ion	Li-Ion
Nominal Battery Voltage (V)	300	300	300	300	300	300
Battery Voltage Range (V)[*1]	80 ~ 495	80 ~ 495	80 ~ 495	80 ~ 495	80 ~ 495	80 ~ 495
Max. Continuous Charging Current (A)	50	50	50	50	50	50
Max. Continuous Discharging Current (A)	50	50	50	50	50	50
Max. Charge Power (W)	5000	6000	7000	7600	8600	9600
Max. Discharge Power (W)	5000	6000	7000	7600	8600	9600
PV String Input Data						
Max. Input Power (W)	7500	9000	10500	11400	12900	15000
Max. Input Voltage (V)[*2]	600	600	600	600	600	600
MPPT Operating Voltage Range (V)[*3]	80 ~ 550	80 ~ 550	80 ~ 550	80 ~ 550	80 ~ 550	80 ~ 550
Start-up Voltage (V)	95	95	95	95	95	95
Nominal Input Voltage (V)	380	380	380	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 MPP Trackers	2	2	4	4	4	4
Number of Strings per MPPT	1	1	1	1	1	1
AC Output Data (On-grid)						
Nominal Apparent Power Output to Utility Grid (VA)	5000	6000	7000	7600	8600	9600
Max. Apparent Power Output to Utility Grid (VA)	5000	6000	7000	7600	8600	9600
Max. Apparent Power from Utility Grid (VA)	6000	7200	8400	9120	9600	9600
Nominal Output Voltage (V)	120 / 240	120 / 240	120 / 240	120 / 240	120 / 240	120 / 240
Nominal AC Grid Frequency (Hz)	60	60	60	60	60	60
Max. AC Current Output to Utility Grid (A)	20.8	25.0	29.2	31.7	35.8	40.0
Max. AC Current From Utility Grid (A)	25.0	30.0	35.0	38.0	40.0	40.0
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)					
Max. Total Harmonic Distortion	<3%	<3%	<3%	<3%	<3%	<3%
AC Output Data (Back-up)						
Back-up Nominal Apparent Power (VA)	5000	6000	7000	7600	8600	9600
Max. Output Apparent Power (VA)[*4]	5000 (6000@60sec)	6000 (7200@60sec)	7000 (8400@60sec)	7600 (9120@60sec)	8600 (10320@60sec)	9600 (11520@60sec)
Max. Output Current (A)	20.8	25	29.2	31.7	35.8	40.0
Nominal Output Voltage (V)	120 / 240	120 / 240	120 / 240	120 / 240	120 / 240	120 / 240
Nominal Output Frequency (Hz)	60	60	60	60	60	60
Output THDv (@Linear Load)	<3%	<3%	<3%	<3%	<3%	<3%
Efficiency						
Max. Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%
CEC Efficiency	97.3%	97.4%	97.1%	97.1%	97.1%	97.1%
Max. Battery to AC Efficiency	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%
Protection						
PV String Current Monitoring	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
PV Insulation Resistance Detection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
PV Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Anti-islanding Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
AC Overcurrent Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
AC Short Circuit Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
AC Overvoltage Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
DC Switch	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
DC Surge Protection	Type III	Type III	Type III	Type III	Type III	Type III
AC Surge Protection	Type III	Type III	Type III	Type III	Type III	Type III
AFCI	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Rapid Shutdown	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
General Data						
Operating Temperature Range (°F)	-31 ~ +140 (>113 derating)					
Relative Humidity	0 ~ 95%	0 ~ 95%	0 ~ 95%	0 ~ 95%	0 ~ 95%	0 ~ 95%
Max. Operating Altitude (ft)	13124 (>9843 derating)					
Cooling Method	Smart Fan Cooling					
User Interface	LED, WiFi + APP					
Communication with BMS	RS485, CAN					
Communication with Meter	RS485	RS485	RS485	RS485	RS485	RS485
Communication with Portal	WiFi	WiFi	WiFi	WiFi	WiFi	WiFi
Weight (lb)	62.9	62.9	70.6	70.6	70.6	70.6
Dimension (W × H × D in)	16.3 × 33.1 × 6.9					
Noise Emission (dB)	<45	<45	<45	<45	<45	<45
Topology	Non-isolated	Non-isolated	Non-isolated	Non-isolated	Non-isolated	Non-isolated
Self-consumption at Night (W)[*5]	<20	<20	<20	<20	<20	<20
Ingress Protection Rating	Type 4X	Type 4X	Type 4X	Type 4X	Type 4X	Type 4X
DC Connector	MC32 *1.5	MC32 *1.5	MC32 *1.5	MC32 *1.5	MC32 *1.5	MC32 *1.5
AC Connector	MC32 *1.5	MC32 *1.5	MC32 *1.5	MC32 *1.5	MC32 *1.5	MC32 *1.5
Mounting Method	Wall Mounted	Wall Mounted	Wall Mounted	Wall Mounted	Wall Mounted	Wall Mounted

*1: Battery discharge/charge power limited by voltage.
*2: Inverter will not work when PV input voltage ≥585V.
*3: Can be reached only if battery is connected, otherwise the PV start voltage must be greater than 200V.
*4: Can be reached only if PV and battery power is enough.
*5: No Back-up Output.