

GH3600TL/GH4600TL/GH5000TL

On-grid/Off-grid Hybrid Energy Storage PV Inverter

Specifications



Features



Multiple operating modes, on-grid, off-grid and UPS, MPPT charger built in.



Controlled by built-in DSP and adopt advanced SPWM technology.



Integrated smart APP, can remotely diagnose and update.



Droop control, Max 6pcs in parallel.



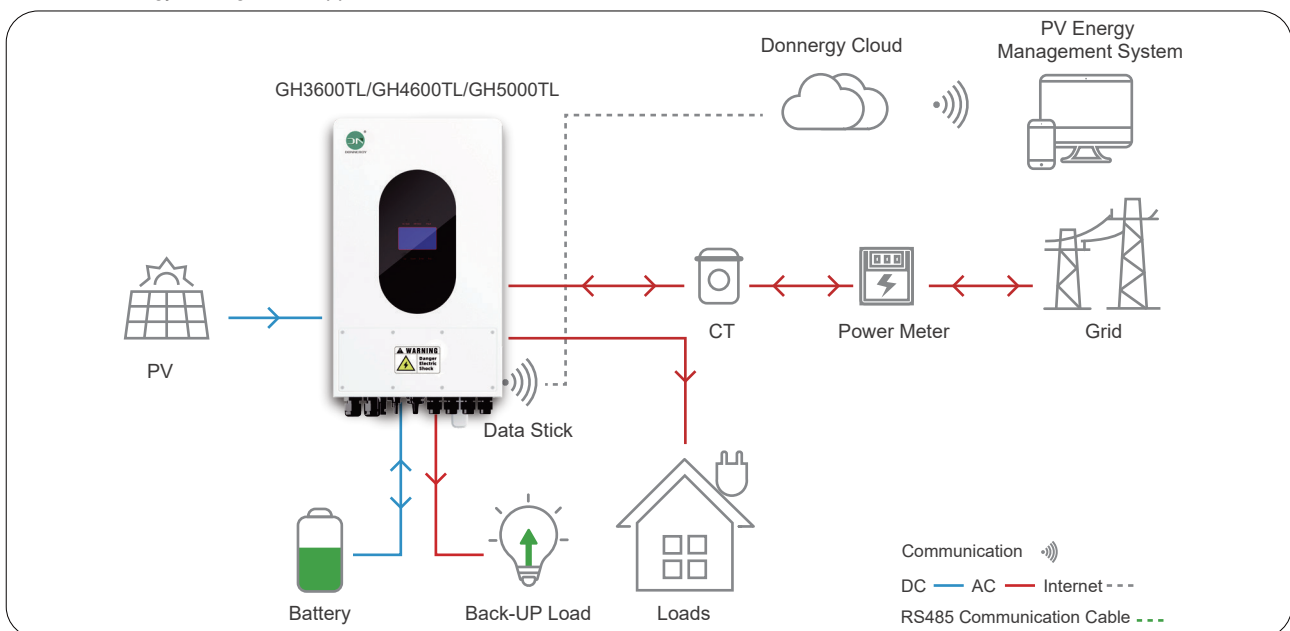
Suitable for customizing various PV Energy Storage System.



Compatible with almost all 48V LiFePO4 battery pack.

This On-grid/Off-grid Hybrid PV Inverter has both Grid-tied/Off-grid and Energy Storage Function:

- Power generated by the PV array or from the Utility Grid can be stored in a battery or to be used to power your loads.
- Power generated by the PV array or stored inside the battery can be sold to the Utility Grid or to be used to power your loads.
- Featured with UPS function, ensure that the load is not powered off.
- Cloud energy management App for data collection and remote control.



Model	GH3600TL	GH4600TL	GH5000TL
Battery Data			
Battery Type	Lithium / Lead-Acid	Lithium / Lead-Acid	Li-Ion / Lead-Acid
Nominal Battery Voltage (V)	51.2	51.2	51.2
Battery Voltage Range (V)	41.6 ~ 58.5	41.6 ~ 58.5	41.6 ~ 58.5
Max. Continuous Charging Current (A)	80	95	95
Max. Continuous Discharging Current (A)	85	100	100
Max. Charge Power (W)	3600	4600	5000
Max. Discharge Power (W)	3600	4600	5000
PV String Input Data			
Max. Input Power (W)	5200	6600	7000
Max. Input Voltage (V)	500	500	500
MPPT Operating Voltage Range (V)	120 - 430	120 - 430	120 - 430
Start-up Voltage (V)	150	150	150
Nominal Input Voltage (V)	360	360	360
Max. Input Current per MPPT (A)	15	15	15
Max. Short Circuit Current per MPPT (A)	18.9	18.9	18.9
Number of MPP Trackers	2	2	2
Number of Strings per MPPT	1	1	1
AC Output Data (On-grid)			
Rated Power Output to Utility Grid (W)	3600	4600	5000
Max. Apparent Power Output to Utility Grid (VA)	3960	5000	5500
Max. Apparent Power from Utility Grid (VA)	3960	5000	5500
Nominal Output Voltage (V)	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240
Nominal AC Grid Frequency (Hz)	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz
Max. AC Current Output to Utility Grid (A)	17.2	20.0	23.9
Max. AC Current From Utility Grid (A)	17.2	22.0	23.9
Max. Total Harmonic Distortion	<3%	<3%	<3%
Power Factor (cos ϕ)	~0.99 (Adjustable from 0.8 leading to 0.8 lagging)		
Switch Time	<10 ms	<10 ms	<10 ms
AC Output Data (Back-up)			
Back-up Rated Power (W)	3600	4500	4500
Max. Output Apparent Power (VA)	3600	4500	4500
Max. Output Current (A)	15.6	20	20
Nominal Output Voltage (V)	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240
Nominal Output Frequency (Hz)	50 / 60	50 / 60	50 / 60
Output THDv (@Linear Load)	<3%	<3%	<3%
Conversion Efficiency			
Max. Efficiency	97.8%	97.8%	97.8%
EU Efficiency	97%	97%	97%
Max. Battery to AC Efficiency	95%	95%	95%
MPPT Efficiency	99.9%	99.9%	99.9%
Protection			
Residual Current Monitoring	Integrated	Integrated	Integrated
Anti-islanding Protection	Integrated	Integrated	Integrated
Remote Shutdown	Integrated	Integrated	Integrated
Protection Level	IP65	IP65	IP65
Environmental / Ambient Conditions			
Operating Temperature Range (°C)	-25 ~ +60	-25 ~ +60	-25 ~ +60
Relative Humidity	0 to 95 % , non-condensing		
Installation Altitude above Sea Level	up to 2000 m above sea level		
Cooling Method	Natural Cooling	Natural Cooling	Natural Cooling
Monitoring Settings	Integrated data logger		
Other Data			
Dimensions (W × H × D mm)	350 x 580 x 230	350 x 580 x 230	350 x 580 x 230
Weight (kg)	25±0.5	25±0.5	25±0.5
Installation Type	Wall Installation with Wall Bracket		
Communication	CAN / RS485 / WiFi	CAN / RS485 / WiFi	CAN / RS485 / WiFi
Manufacturer's Warranty	5 Years	5 Years	5 Years

Model	GH3600TL	GH4600TL	GH5000TL
Product certification	VDE 0126-1-1: 2013 + VFR: 2019 VDE-AR-N 4105: 2018-11 + Correction 1:2020-1 EN IEC 61000-6-1: 2019 EN IEC 61000-6-3: 2021 EN 62109-1:2010 EN 62109-2:2011 EN 50549-1: 2019(1) IEC 62321-3-1:2013 IEC 62321-4:2013+A1:2017 IEC 62321-5: 2013 IEC 62321-7-1:2015 IEC 62321-7-2:2017 IEC 62321-6:2015 IEC 62321-8:2017 IEC 62116 ENA Engineering Recommendation G98 Issue 1 Amendment 6 September 2021 ENA Engineering Recommendation G99 Issue 1 Amendment 8, 01 September 2021 RD 647/2020 RD 413/2014 RD 1699/2011 UTE C15-712-1 (JULET 2013) DOC-030221-GAP (EC) No. 1907/2006 UNE-EN SO/IEC 17065 DIN VDEV 0124-100(VDE V0124-10):2020-06 CEI-021:2019 CEI 0-21:2022-03+V1:2022-11 NRS-097 EMC(IEC61000-2-2&CISPR11)		
Test Standards			