



DHN-LVEH1P3~6K-G1

Single-phase Hybrid Energy Storage Inverter

The DHN-LVEH1P series hybrid inverter can simultaneously meet the requirements of both photovoltaic and energy storage systems. It integrates on-grid and off-grid functionalities, bidirectional power control, and intelligent management, enabling autonomous energy dispatch. Its modern design aligns with the concept of smart homes, making it an ideal choice for residential applications. This series is compatible with various batteries and pairs seamlessly with the DHN-LVWES battery series, offering multiple charging and discharging power options to ensure safe and reliable power supply for households.



Safety

- Intelligent AI - DC Arc fault protection
- Supports 2 times overload in short-time
- IP65 protection degree



Flexible

- Compatible with diesel generators
- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on&off-grid operation, support multiple batteries parallel



Smart

- 4ms backup power switching
- Colored LCD touchscreen for intuitive setup & real-time monitoring
- Supports the setting of 6 time periods for battery charging/discharging



High Efficiency

- Supports 1.6 times DC overloading
- 135A charge and discharge current
- 97.6% maximum conversion efficiency & 95% maximum charging efficiency

Technical Data

Model	DHN-LVEH1P3K-EU-G1	DHN-LVEH1P3.6K-EU-G1	DHN-LVEH1P5K-EU-G1	DHN-LVEH1P6K-EU-G1
Battery Input Data				
Battery Type	Lead-acid/Li-Ion			
Battery Voltage Range (V)	40~60			
Max. Charging Current (A)	70	80	112	135
Max. Discharging Current (A)	70	80	112	135
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	1			
PV String Input Data				
Max. PV Input Power (W)	4800	5760	8000	9600
Max. PV Input Voltage (V)	500			
Start-up Voltage (V)	120			
MPPT Voltage Range (V)	120~425			
Max. Operating PV Input Current (A)	18			
Max. Input Short-Circuit Current (A)	23			
No. of MPP Trackers/No. of Strings MPP Tracker	1/1	1/1	2/1	2/1
AC Input/Output Data				
Rated AC Input/Output Active Power (W)	3000	3600	5000	6000
Max. AC Input/Output Apparent Power (VA)	3300	3960	5500	6600
Rated AC Input/Output Current (A)	13.6/13	16.4/15.7	22.8/21.8	27.3/26.1
Max. AC Input/Output Current (A)	15/14.3	18/17.3	25/24	30/28.7
Max. Continuous AC Passthrough (grid to load)(A)	21	25	32	40
Peak Power (off-grid) (W)	2 times of rated power			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Rated Input/Output Voltage/Range (V)	220/230 0.85Un~1.1Un			
Rated Input/Output Grid Frequency/Range(Hz)	50/45~55, 60/55~65			
Grid Connection Form	L+N+PE			
Total Current Harmonic Distortion THDi	<2% (of nominal power)			
DC Injection Current	<0.5% In			
Efficiency				
Max. Efficiency	97.60%			
Euro Efficiency	96.50%			
MPPT Efficiency	99%			
Equipment Protection				
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level			
Surge Protection Level	TYPE III(DC), TYPE II(AC)			
Interface				
Communication Interface	RS485/CAN			
Monitor Mode	WIFI/Bluetooth			
General Data				
Operating Temperature Range (C)	-40 to +60			
Permissible Ambient Humidity	0~100%			
Permissible Altitude	3000			
Ingress Protection(IP) Rating	IP65			
Inverter Topology	Non-Isolated			
Over Voltage Category	OVC II(DC), OVC III(AC)			
Cabinet Size (WxHxD mm)	370*595*223			
Weight (kg)	24			
Type of Cooling	Intelligent Air Cooling			
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy			