DAH Solar
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DHN-LVEH3P8~12K-G1

Three-phase Hybrid Energy Storage Inverter

The DHN-LVEH3P 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 retroft existing solar system
- 100% three-phase unbalanced output, 50% maximum output of rated power/phase
- 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
- 240A charge and discharge current
- 97.6% maximum conversion efficiency & 93% maximum charging efficiency

Technical Data

Model	DHN-LVEH3P8K-EU-G1	DHN-LVEH3P10K-EU-G1	DHN-LVEH3P12K-EU-G1
Battery Input Data			
Battery Type	Lead-acid/Li-ion		
Battery Voltage Range (V)	40-60		
Max. Charging Current (A)	190	210	240
Max. Discharging Current (A)	190	210	240
Charging Strategy for Li-ion Battery	Self-adaption to BMS		
Number of Battery Input	1		
PV String Input Data			
Max. PV Input Power (W)	12800	16000	19200
Max. PV Input Voltage (V)	800		
Start-up Voltage (V)	150		
MPPT Voltage Range (V)	200-650		
Max. Operating PV Input Current (A)	16+16	26+16	26+16
Max. Input Short-Circuit Current (A)	20+20	34+20	34+20
No. of MPP Trackers/No. of Strings MPP Tracker	2/2+1		
AC Input/Output Data			
Rated AC Input/Output Active Power (W)	8000	10000	12000
Max. AC Input/Output Apparent Power (VA)	8800	11000	13200
Rated AC Input/Output Current (A)	12.1/11.6	15.2/14.5	18.2/17.4
Max. AC Input/Output Current (A)	13.3/12.8	16.7/15.9	20/19.1
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)	220/380, 230/400 0.85Un-1.1Un		
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65		
Grid Connection Form	3L+N+PE		
Total Current Harmonic Distortion THDi	<2% (of nominal power)		
DC Injection Current	0.5% In		
Efficiency			
Max. Efficiency	97.57%		
Euro Efficiency	96.85%		
MPPT Efficiency	>99.99%		
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 leve		
Surge Protection Level	TYPE II (DC), TYPE II (AC)		
Interface			
Communication Interface	RS485/CAN		
Monitor Mode	WIFI/Bluetooth		
General Data			
Operating Temperature Range (℃)	-40 to +60		
Permissible Ambient Humidity	0-100%		
Permissible Altitude (m)	2000		
Ingress Protection(IP) Rating	IP 65		
Inverter Topology	Non-Isolated		
Over Voltage Category	OVC II (DC), OVC III (AC)		
Cabinet Size (WxHxD mm)	450*677*255		
Weight (kg)	36.2		
Type of Cooling	Intelligent Air Cooling		
Warranty	5 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy		
Grid Regulation	Ordinance No.140 / Ordinance No.515		
Safety / EMC Standard	IEC/EN 61000-6-1:2019, IEC/EN 61000-6-3:2021,IEC/EN 62109-1:2010,		
	IEC/EN 62109-2:2011，IEC 63027:2023		

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