







SINGLE PHASE LOW VOLTAGE HYBRID INVERTER



DN1H-L1 Series (8-12KTL)

-  Fast 230A charging
-  Remote firmware upgrade
-  Compatible with lead-acid and lithium batteries
-  IP66 outdoor design
-  Low voltage wake-up (100V)
-  200% overload tolerance

DUNEXT

Single Phase Low Voltage Hybrid Inverter

Model	DN1H-8KTL-L1	DN1H-10KTL-L1	DN1H-12KTL-L1
	PV Input		
Max. Recommended PV Power [Wp]	12000	15000	18000
Max. PV Input Voltage [V]	500		
Rated PV Input Voltage [V]	370		
Start-Up Voltage [V]	100		
MPPT Voltage Range [V]	100 ~ 425		
No. of MPP Trackers	3		
No. of Input Strings per Tracker	2 / 1 / 1		
Max. Input Current per MPPT [A]	28 / 16 / 16		
Max. Short Circuit Current per MPPT [A]	44 / 25 / 25		
	AC Output (On-Grid)		
Rated AC Power [W]	8000	10000	12000
Rated AC Current [A]	34.8	43.5	52.2
Max. Apparent Power [VA]	8800	11000	13200
Max. AC Current [A]	40	50	60
Rated AC Voltage [V]	L / N / PE, 230		
Output THDi [@Rated Output]	< 3%		
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging		
	AC Input		
Grid Frequency [Hz]	50		
Max. Apparent AC Power [VA]	12000	15000	18000
Max. Input Current [A]	52.2	65.2	78.3
	AC Output (Off-Grid)		
Rated AC Power [W]	8000	10000	12000
Rated Current [A]	34.8	43.5	52.2
Rated Frequency [Hz]	50		
Overload Capability	110%, continuous; 200%, 10s		
Automatic Switch Time [ms]	≤ 10		
Output THDv [@Rated Output]	< 3%		
	Battery		
Battery Type	Lithium-ion & Lead-acid		
Rated Battery Voltage [V]	48		
Battery Voltage Range [V]	40-60		
Max. Charging / Discharging Current [A]	200/200		
Forced Wake-Up by PV	Yes		
	Efficiency		
Max. Efficiency	97.8%		
European Efficiency	96.5%		
MPPT Efficiency	99.9%		
	Protection		
Integrated	DC Reverse Polarity Protection, DC Insulation Monitoring, Ground Fault Monitoring, Over Current Protection, Over Voltage Protection		
Surge Protection	DC Type II / AC Type II		
Over Voltage Category	DC Type II / AC Type III		
AFCI	Optional		
	General Data		
Operating Temperature [°C]	-25 ~ +60		
Dimensions [W * H * D] [mm]	450 * 570 * 268		
Weight [kg]	39		
Topology	Transformerless		
Cooling	Fan		
Operating Altitude [m]	≤ 3000		
Protection Level	IP66		
Communication	RS485, WiFi / GPRS, CAN2.0		
Warranty	5 Years (Standard) / 10 Years (Optional)		
Max. No. of Parallel Units	6		
	Certifications & Standards		
Grid Connection Standards	VDE-AR-N 4105, VDE V 0126-1-1, CEI 0-21, G98/G99, EN 50438 / EN50549, NRS 097		
Safety Regulation	IEC / EN 62109-1, IEC/EN 62109-2		
EMC	EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021, EN 61000-3-12:2011, EN IEC 61000-3-11:2019		