







SINGLE PHASE LOW VOLTAGE HYBRID INVERTER



DN1H-L Series (8-12KTL)

-  Compatible with 600W+PV modules
-  Remote firmware upgrade
-  IP65 outdoor design
-  <10ms backup power switching
-  Support storing energy from diesel generator
-  Support up to 6 units parallel connections

Single Phase Low Voltage Hybrid Inverter

Model	DN1H-8KTL-L2	DN1H-10KTL-L2	DN1H-12KTL-L2
	PV Input		
Max. Recommended PV Power [Wp]	11000	11000	13200
Max. PV Power for Single MPPT [Wp]	5500	5500	6600
Max. PV Input Voltage [V]	500		
Rated PV Input Voltage [V]	300		
Start-Up Voltage [V]	125		
No. of MPP Trackers	2		
No. of Input Strings per Tracker	1/1		
MPPT Voltage Range [V]	125 ~ 425		
Max. Input Current per MPPT [A]	22 / 22		
Max. Short-Circuit Current per MPPT [A]	37 / 37		
	AC Output (On-Grid)		
Rated AC Power [W]	8800	10000	12000
Max. Apparent Power [VA]	8800	10000	12000
Rated AC Current [A]	38.2	43.5	52.2
Max. AC Current [A]	38.2	43.5	52.2
Rated AC Voltage [V]	220 / 230		
Grid Frequency [Hz]	50 / 60		
Output THDi [@Rated Output]	< 3%		
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging		
	AC Input		
Rated AC Voltage [V]	220 / 230		
Input Voltage Range [V]	90 ~ 280		
Bypass Overload Current [A]	63		
Grid Frequency [Hz]	50 / 60		
	AC Output (Off-Grid)		
Rated AC Power [W]	8000	10000	12000
Rated Current [A]	38.2	43.7	52.1
Rated Output Voltage [V]	230		
Rated Frequency [Hz]	50 / 60		
Load Capacity of Motors	5HP	6HP	6HP
Automatic Switch Time [ms]	10		
Output THDi [@Rated Output]	< 3%		
Peak Apparent Power, Duration [VA, s]	13200, 5	15000, 5	18000, 5
	Battery		
Battery Type	Lithium-ion & Lead-acid		
Rated Battery Voltage [V]	48 (Min. start-up voltage 44V)		
Battery Voltage Range [V]	40 ~ 60		
Max. Charging / Discharging Current [A]	200		
	Efficiency		
Max. Efficiency	97.5%	97.5%	97.5%
European Efficiency	99.9%	99.9%	99.9%
MPPT Efficiency	97.0%	97.0%	97.0%
	Protection		
DC Insulation Monitoring	Yes		
DC Reverse Polarity Protection	Yes		
Anti-island Protection	Yes		
Residual Current Monitoring	Yes		
Over-Heat Protection	Yes		
AC Overcurrent Protection	Yes		
AC Short-circuit Protection	Yes		
Surge Protection	DC Type II / AC Type II		
Over Voltage Category	DC Type II / AC Type III		
DC Switch	Yes		
	General Data		
Dimension [W * H * D] [mm]	670 * 440 * 240		
Weight [kg]	37		
Operating Temperature [°C]	-25 ~ +60 (Above 45°C Derating)		
Relative Humidity	0 ~ 100%		
Operating Altitude [m]	< 2000		
Topology	Transformerless		
Cooling	Fan		
Noise [dB]	< 60		
Degree of Protection	IP65		
Display	LED + OLED		
Standby Self-consumption [W]	< 100		
Communication	RS485 / CAN / USB / Dry contact (Optional) / WiFi / GPRS		
No. of Parallel [units]	1 ~ 6		
	Certifications & Standards		
Grid Connection Standards	EN50549-1, G99		
Safety Regulation	IEC 62109-1, IEC 62109-2		
EMC	EN 61000-6-1, EN 61000-6-3		