






SINGLE PHASE LOW VOLTAGE HYBRID INVERTER



DN1H-L1 Series(3-6KTL)

-  Natural cooling
-  Remote firmware upgrade
-  Low voltage wake-up(100V)
-  IP66 outdoor design
-  Compatible with 48VDC lead-acid and lithium batteries

Single Phase Low Voltage Hybrid Inverter

Model	DN1H 3KTL-L1	DN1H 3.6KTL-L1	DN1H 4KTL-L1	DN1H 4.6KTL-L1	DN1H 5KTL-L1	DN1H 6KTL-L1
PV Input						
Max. Recommended PV Power [Wp]	4500	4800	6000	6900	7500	9000
Max. PV Input Voltage [V]	550					
Rated PV Input Voltage [V]	400					
Start-Up Voltage [V]	100					
No. of MPP Trackers	2					
No. of Input Strings per Tracker	1					
MPPT Voltage Range [V]	100 ~ 530					
Max. Input Current per MPPT [A]	15 / 15					
Max. Short-Circuit Current per MPPT [A]	20 / 20					
AC Output (On-Grid)						
Rated AC Power [W]	3000	3600	4000	4600	5000	6000
Rated AC Current [A]	13.6	16.4	18.2	20.9	22.7	27.3
Max. Apparent Power [VA]	3000	3600	4000	4600	5000	6000
Max. AC Current [A]	13.6	16.4	18.2	20.9	22.7	27.3
Rated AC Voltage [V]	L / N / PE, 220 / 230					
Output THDi [@Rated Output]	< 3%					
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging					
AC Input						
Grid Frequency [Hz]	50 / 60					
Max. Apparent AC Power [VA]	3000	3600	4000	4600	5000	6000
Max. Input Current [A]	13.6	16.4	18.2	20.9	22.7	27.3
AC Output (Off-Grid)						
Rated AC Power [W]	3000	3600	4000	4600	5000	5000
Rated Current [A]	13.6	16.4	18.2	20.9	22.7	22.7
Rated Frequency [Hz]	50 / 60					
Overload Capability	110%, 60s					
Automatic Switch Time [ms]	≤ 20					
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]	100 / 100					
Forced Wake-Up by PV	Yes					
Efficiency						
Max. Efficiency	97.5%	97.5%	97.5%	97.8%	97.8%	97.8%
European Efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%
MPPT Efficiency	99.9%					
Protection						
DC Insulation Monitoring	Yes					
DC Reverse Polarity Protection	Yes					
Ground Fault Monitoring	Yes					
Overcurrent Protection	Yes					
Overvoltage Protection	Yes					
Surge Protection	DC Type II / AC Type II					
Over Voltage Category	DC Type II / AC Type III					
General Data						
Dimension [W * H * D] [mm]	510 * 460 * 200					
Weight [kg]	26					
Operating Temperature [°C]	-25 ~ +60 (Above 45°C Derating)					
Operating Altitude [m]	≤ 3000					
Topology	Transformerless					
Cooling	Natural					
Degree of Protection	IP66					
Communication	RS485, WiFi, CAN2.0					
Certifications & Standards						
Grid Connection Standards	VDE-AR-N 4105, VDE V 0126-1-1, CEI 0-21, G98 / G99, EN 50438 / EN50549					
Safety Regulation	IEC / EN 62109-1, IEC / EN 62109-2					
EMC	EN IEC 61000-6-1:2019, EN IEC 61000-6-3:202, EN 61000-3-12:2011, EN IEC 61000-3-11:2019					