







SINGLE PHASE LOW VOLTAGE HYBRID INVERTER



DN1H-L Series (4-6KTL)

-  Compatible with 600W+PV modules
-  Remote firmware upgrade
-  Support storing energy from diesel generator
-  <10ms backup power switching
-  150% DC input oversizing
-  Support up to 6 units parallel connections

Single Phase Low Voltage Hybrid Inverter



Model	DN1H-4KTL-L2	DN1H-4.6KTL-L2	DN1H-5KTL-L2	DN1H-6KTL-L2
PV Input				
Max. Recommended PV Power [Wp]	6000	7000	7500	9000
Max. PV Power for Single MPPT [Wp]	3000	3500	3750	4500
Max. PV Input Voltage [V]	500			
Rated PV Input Voltage [V]	300			
Start-Up Voltage [V]	120			
No. of MPP Trackers	2			
No. of Input Strings per Tracker	1/1			
MPPT Voltage Range [V]	120 ~ 450			
Max. Input Current per MPPT [A]	16 / 16			
Max. Short-Circuit Current per MPPT [A]	27 / 27			
AC Output (On-Grid)				
Rated AC Power [W]	4000	4600	5000	6000
Max. Apparent Power [VA]	4000	4600	5000	6000
Rated AC Current [A]	17.4	20	21.7	26
Max. AC Current [A]	17.4	20	21.7	26
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]	40			
Grid Frequency [Hz]	50 / 60			
AC Output (Off-Grid)				
Rated AC Power [W]	4000	4600	5000	6000
Rated Current [A]	17.4	20	21.7	26
Rated Output Voltage [V]	230			
Rated Frequency [Hz]	50 / 60			
Load Capacity of Motors	3HP	3HP	3HP	4HP
Automatic Switch Time [ms]	10			
Output THDi [@Rated Output]	< 3%			
Peak Apparent Power, Duration [VA, s]	8000, 5	9200, 5	10000, 5	12000, 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]	100			
Efficiency				
Max. Efficiency	97.5%	97.5%	97.5%	97.5%
European Efficiency	97.0%	97.0%	97.0%	97.0%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%
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			
General Data				
Dimension [W * H * D] [mm]	556 * 345 * 182			
Weight [kg]	22.1			
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 + LCD			
Standby Self-consumption [W]	< 100			
Communication	RS485 / CAN / USB / Dry contact (Optional) / WiFi / GPRS			
Certifications & Standards				
Grid Connection Standards	EN50549-1, G99, CEI 0-21			
Safety Regulation	IEC 62109-1, IEC 62109-2			
EMC	EN 61000-6-1, EN 61000-6-3			