

THREE PHASE HYBRID INVERTER

DN3H Series (25–50KTL)

-  100A high charge/discharge current support 1C solution
-  Low operating noise <50dB
-  Support 100% unbalanced loads
-  Low start-up voltage 135V for more generation time
-  Max. 120% back-up output overloading @60s
-  Support diesel generators for diverse energy sourcing



Three Phase Hybrid Inverter



Model	DN3H 25KTL-H2	DN3H 30KTL-H2	DN3H 36KTL	DN3H 40KTL	DN3H 50KTL
PV Input					
Max. Recommended PV Power [Wp]	37500	45000	54000	60000	75000
Max. PV Input Voltage [V] ^[1]	1000	1000	1000	1000	1000
Rated PV Input Voltage [V]	620	620	620	620	620
Start-Up Voltage [V]	135	136	137	135	135
No. of MPP Trackers	4	4	4	4	4
No. of Input Strings per Tracker	2	2	2	2	2
MPPT Voltage Range [V] ^[1]	200-850	200-850	200-850	200-850	200-850
Max. Input Current per MPPT [A]	30	30	30	30	30
Max. Short-Circuit Current per MPPT [A]	40	40	40	40	40
AC Input / Output (On-Grid)					
Rated AC Power [W]	25000	30000	36000	40000	50000
Max. Output Apparent Power [VA]	27500	33000	39600	44000	55000
Max. Input Apparent Power [VA] ^[2]	30000	36000	43500	48000	60000
Max. AC Current [A]	42	50	60	66	83
Rated AC Voltage [V]	3L / N / PE; 220 / 380; 230 / 400				
Rated Frequency [Hz]	50 / 60				
Output THDi [@Rated Output]	< 3%				
Adjustable Power Factor [cos φ]	0.8 leading ... 0.8 lagging				
DCI	< 0.5%In				
AC Output (Off-Grid)					
Rated AC Power [W]	25000	30000	36000	40000	50000
Max. Output Apparent Power [VA]	27500	33000	39600	44000	55000
Max. Output Current [A]	42	50	60	66	83
Rated AC Voltage [V]	3L / N / PE; 220 / 380; 230 / 400				
Rated Frequency [Hz]	50 / 60				
Automatic Switch Time [ms]	< 20				
Output THDv	< 3%@Linear Load				
Generator Input					
Max. Input Apparent Power [VA] ^[2]	30000	36000	43500	48000	60000
Max. Charging Power of Battery [W]	25000	30000	36000	40000	50000
Rated AC Voltage [V]	3L / N / PE; 220 / 380; 230 / 400				
Rated AC Frequency [Hz]	50 / 60				
Max. Input Current [A]	43.5	52.2	63	69.6	87.0
Battery					
Battery Type	Lithium (with BMS)				
Battery Voltage Range [V]	135 – 750				
Max. Charging / Discharging Current [A]	100 / 100				
Efficiency					
Max. Efficiency	98.8%				
European Efficiency	98.3%				
Protection					
DC Reverse Polarity Protection	Yes				
Battery Input Reverse Connection Protection	Yes				
Insulation Resistance Protection	Yes				
Surge Protection	Yes				
Over-Temperature Protection	Yes				
Residual Current Protection	Yes				
Anti-Islanding Protection	Yes				
AC Over-Voltage Protection	Yes				
Overload Protection	Yes				
AC Short-Circuit Protection	Yes				
General Data					
Dimension [W * H * D] [mm]	800 * 620 * 300				
Weight [kg]	72				
Over Voltage Category	PV: II Main: III				
Operating Temperature [°C]	-30 ~ 60				
Operating Altitude [m]	3000 ^[3]				
Relative Humidity [%]	0 ~ 100				
Topology	Transformerless				
Cooling	Fan				
Degree of Protection	IP65				
Standby Self-Consumption [W]	< 15				
Noise Level [dB] ^[1]	< 50				
Display	OLED & LED				
Communication	CAN, RS485, WiFi / LAN (Optional)				
Certifications & Standards					
Grid Connection Standards	EN IEC 61000, EN IEC 62109, EN 50549-1, CEI-021				

[1] PV Max. Input voltage is 850V, otherwise inverter will be waiting;

[2] Max. apparent power from the grid refers to the highest power imported from the utility grid, utilized for supporting backup loads and charging the battery;

[3] The system will be derated when the altitude is above 3000m.