



NitroX[®]

50KW 3P-HYBRID
DC-HIGH VOLTAGE



- 100** 100% unbalanced output, each phase
-  AC couple to retrofit existing solar system
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 100** Max. charging/discharging current of 100A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator



Model		NITROX HYBRID 50 KW 3P-5G
Battery Input Data		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	160-800	
Max. Charging Current (A)	50+50	
Max. Discharging Current (A)	50+50	
Charging Strategy for Li-ion Battery	Self-adaption to BMS	
Number of Battery Input	2	
PV String Input Data		
Max. PV Input Power (W)	80000	
Max. PV Input Voltage (V)	1000	
Start-up Voltage (V)	180	
MPPT Voltage Range (V)	150-850	
Rated PV Input Voltage (V)	600	
Max. Operating PV Input Current (A)	36+36+36+36	
Max. Input Short-Circuit Current (A)	55+55+55+55	
No. of MPP Trackers/ No. of Strings MPP Tracker	4/2+2+2+2	
AC Input/Output Data		
Rated AC Input/Output Active Power (W)	50000	
Max. AC Input/Output Apparent Power (VA)	55000	
Rated AC Input/Output Current (A)	75.8/72.5	
Max. AC Input/Output Current (A)	83.4/79.8	
Max. Continuous AC Passthrough (grid to load) (A)	200	
Peak Power (off-grid) (W)	1.5 times of rated power, 10s	
Power Factor Adjustment Range	0.8 leading to 0.8 lagging	
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un	
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65	
Grid Connection Form	3L+N+PE	
Total Current Harmonic Distortion THDi	<3% (of nominal power)	
DC Injection Current	<0.5% In	
Efficiency		
Max. Efficiency	97.60%	
Euro Efficiency	97.0%	
MPPT Efficiency	>99%	
Equipment Protection		
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level	
Surge Protection Level	TYPE II(DC), TYPE II(AC)	
Interface		
Communication Interface	RS485/RS232/CAN	
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)	
General Data		
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating	
Permissible Ambient Humidity	0-100%	
Permissible Altitude	2000m	
Noise (dB)	≤65	
Ingress Protection(IP) Rating	IP 65	
Inverter Topology	Non-Isolated	
Over Voltage Category	OVC II(DC), OVC III(AC)	
Cabinet Size (WxHxD mm)	527×894×294 (Excluding Connectors and Brackets)	
Weight (kg)	80	
Type of Cooling	Intelligent Air Cooling	
Warranty	5 Years the Warranty Period Depends on the Final Installation Site of the Inverter, More Info Please Refer to Warranty Policy	
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105	
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	

