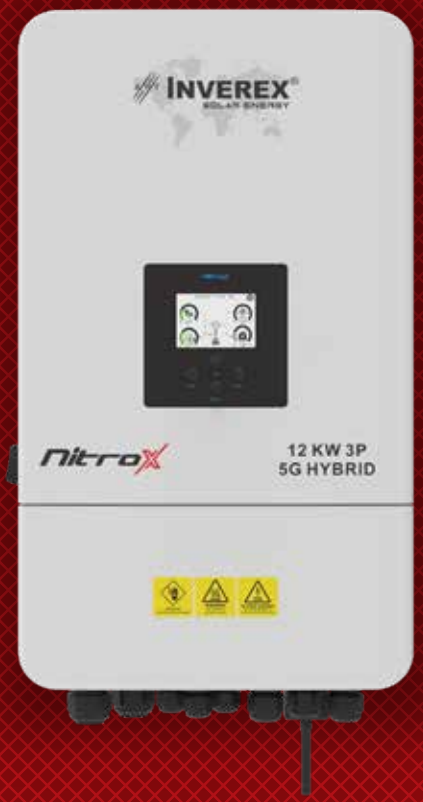
APT INVEREX® SOLAR ENERGY



NitroX®
12KW 3P 5G-HYBRID

- **100** 100% unbalanced output, each phase; Max. output up to 50% rated power
- AC couple to retrofit existing solar system
- **10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- **240** Max. charging/discharging current of 240A
- **48** 48V low voltage battery, transformer isolation design
- **6** 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

5 YEARS WARRANTY
Terms & Conditions Apply

15600 WATTS
DUAL MPPT
SUPPORTS UPTO 600 WATTS SOLAR PANEL

240 AMP Solar Charger

IP65

Smart PV Monitoring Platform
(Inverex Cloud)

Logger Stick

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APT INVEREX® SOLAR ENERGY

NitroX® 12KW 3P 5G-HYBRID

Model	Nitrox 12KW 3P 5G-HYBRID
Battery Input Data	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range (V)	40-60
Max. Charging Current (A)	240
Max. Discharging Current (A)	240
Charging Strategy for Li-ion Battery	Self-adaption to BMS
Number of Battery Input	1
PV String Input Data	
Max. DC Input Power (W)	15600
Max. DC Input Voltage (V)	800
Start-up Voltage (V)	160
MPPT Voltage Range (V)	200-650
Rated DC Input Voltage (V)	550
Max. Operating PV Input Current (A)	20+20
Max. Input Short-Circuit Current (A)	30+30
No. of MPP Trackers/ No. of Strings per MPP Tracker	2/1+1
AC Input/Output Data	
Rated AC Input/Output Active Power(W)	12000
Max. AC Input/Output Apparent Power(VA)	13200
Rated AC Input/Output Current(A)	18.2/17.4
Max. AC Input/Output Current (A)	20/19.2
Max. Three-phase Unbalanced Output Current (A)	27.3/26.1
Max. Continuous AC Passthrough (grid to load) (A)	45
Peak Power (off-grid) (W)	2 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	97.6%
Euro Efficiency	97.0%
MPPT Efficiency	>99%
Equipment Protection	
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Overvoltage Load Drop Protection, Residual Current Detection (RCD), Surge protection level
Surge Protection Level	TYPE II(DC), TYPE II(AC)
Interface	
Communication Interface	WIFI, RS485, CAN
General Data	
Operating Temperature Range (℃)	-40 to +60°C , >45°C Derating
Permissible Ambient Humidity	0-100%
Permissible Altitude	3000m
Noise (dB)	≤55
Ingress Protection (IP) Rating	IP 65
Inverter Topology	Non-Isolated
Over Voltage Category	OVC II(DC), OVC III(AC)
Cabinet Size (WxHxD mm)	386×660×253 (Excluding Connectors and Brackets)
Weight (kg)	35.2
Type of Cooling	Intelligent Air Cooling
Warranty	5 Years
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

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