



# NitroX<sup>®</sup>

12KW-48V 3P-HYBRID

**PV INVERTER WITH ENERGY STORAGE**

- |                                      |                                     |                                      |
|--------------------------------------|-------------------------------------|--------------------------------------|
| <b>Max. Efficiency 99%</b>           | <b>IP65 Ingress Protection</b>      | <b>Dual MPPT</b>                     |
| <b>Support Multiple Parallel</b>     | <b>Support Generator Connection</b> | <b>Internal SPD</b>                  |
| <b>Zero Export</b>                   | <b>High Surge Endurance</b>         | <b>Six Time of Use Setting</b>       |
| <b>Dual 3Phase Output</b>            | <b>RS485 / CAN</b>                  | <b>High Power Factor</b>             |
| <b>Safe</b>                          | <b>Premium Efficiency</b>           | <b>Colorful Touch Screen Display</b> |
| <b>High DC Voltage Range 140-800</b> | <b>Three Phase Hybrid Operation</b> | <b>GRID FEEDING OPTION</b>           |

**15600 WATTS**  
DUAL MPPT  
SUPPORTS UPTO 600 WATTS SOLAR PANEL

**BUILT-IN AC BREAKER**

**240 AMP Solar Charger**



Smart PV Monitoring Platform



Stick Logger

## Remote Monitoring Features

- Compatible With Inverex Power Cube
- External light indicator, logging status at a glance.
- Plug & play, pick power within inverter, no external power needed, easy to install.
- IP65 water-proof design, resistant to bad weather, enhance stability.
- External design, easier to replace faulty equipment.
- End-user can monitor yields at any time with SOLARMAN APP.



## Technical Data

Model	NITROX HYBRID 12 KW 3P-48V
<b>Battery Input Data</b>	
Battery Type	Lead-acid or Li-Ion
Battery Voltage Range (V)	40~60
Max. Charging Current (A)	240
Max. Discharging Current (A)	240
External Temperature Sensor	yes
Charging Curve	3 Stages / Equalization
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
<b>PV String Input Data</b>	
Max. DC Input Power (W)	15600W
Rated PV Input Voltage (V)	550 (160~800)
Start-up Voltage (V)	160
MPPT Voltage Range (V)	200-650
PV Input Current (A)	26+13A
Max. PV ISC (A)	34+17A
Number of MPPT / Strings per MPPT	2/2+1
<b>AC Output Data</b>	
Rated AC Output and UPS Power (W)	12000
Max. AC Output Power (W)	13200
AC Output Rated Current (A)	18.2/17.4A
Max. AC Current (A)	27.3/26.1A
Max. Continuous AC Passthrough (A)	50
Peak Power (off grid)	2 time of rated power, 10 S
Power Factor	0.8 leading to 0.8 lagging
Output Frequency and Voltage	50/60Hz; 380/400Vac (Three phase)
Grid Type	Three Phase
DC injection current (mA)	THD<3% (Linear load<1.5%)
<b>Efficiency</b>	
Max. Efficiency	97.60%
Euro Efficiency	97.00%
MPPT Efficiency	>99%
Transfer time	4ms
<b>Protection</b>	
Integrated	PV Arc Fault Detection, PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection
<b>Certifications and Standards</b>	
Grid Regulation	EN50549, AS4777.2, VDE0126, IEC61727, VDE N4105, G99, NBT32004, CEI0-21, NRS097, NBR16149/16150, RD1699
Safety EMC / Standard	IEC62109-1/-2, EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4
<b>General Data</b>	
Operating Temperature Range (°C)	-45~60°C, >45°C derating
Cooling	Smart cooling
Noise (dB)	≤45 dB(A)
Communication with BMS	RS485; CAN
Weight (kg)	33.6
Size (mm)	422W×699.3H×279D
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 years (T&C)

