



# NitroX<sup>®</sup>

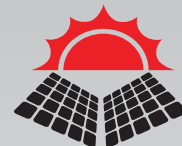
## 12KW-48V 3P-HYBRID

### PV INVERTER WITH ENERGY STORAGE

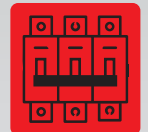
- |                                      |                                     |                                      |
|--------------------------------------|-------------------------------------|--------------------------------------|
| <b>Max. Efficiency 99%</b>           | <b>IP65 Ingress Protection</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>           |

### 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.



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



**BUILT-IN AC BREAKER**



Smart PV Monitoring Platform



Stick Logger



**Solarman Smart For enduser**



**Solarman Business For installers and EPC**

## 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%  |
| Tranfer 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, VDEN4105, G99, NBT32004, CEIO-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)   |