NUOVOLT
FUTURE OF INTELLIGENT POWER

MPPT SMART INVERTER
datasheet

11kW 48V Dual 230Vac Output

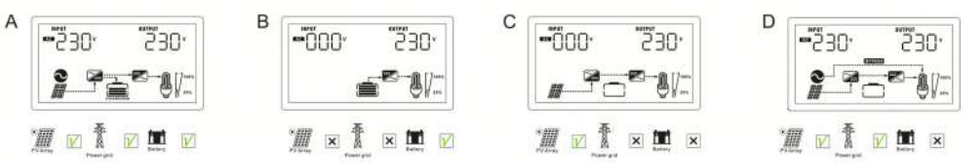
Features

* Lithium battery activation function via PV (solar) or grid
* Compatible operation with LiFePO4 batteries via RS485
* Pure sine wave output
* Power factor 1.0
* PV input voltage range: 60Vdc–500Vdc
* Built-in MPPT (60A / 100A / 120A)
* Battery-free operation capability
* Removable dust cover for harsh environments
* Wi-Fi remote monitoring (optional)
* Support for multiple output priorities: UTL, SOL, SBU, SUB
* EQ (equalization) function to optimize battery performance and extend lifespan



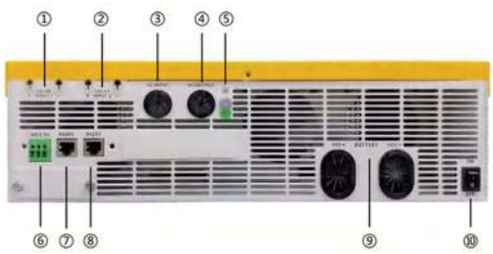


Operating Mode



MODEL	48V 11kW TWIN
Capacity	11kVA / 11kW
Parallel Operation	NO
Lithium Battery Activation	YES (Solar Panel or Grid)
Lithium Battery Communication	YES (RS485)
Built-in Wi-Fi	Optional
INPUT	
Nominal Voltage	230VAC
Acceptable Voltage Range	170–280VAC (for Personal Computers); 90–280VAC (for Household Appliances)
Frequency	50 / 60 Hz (Automatic Detection)
OUTPUT	
Nominal Voltage	220 / 230VAC ± 5%
Discharge / Derating Power (Instantaneous High-Load Capacity)	22.000VA
Frequency	50 / 60 Hz
Waveform	Pure Sine Wave
Transfer Time (Grid-to-Battery Transfer Speed)	10 ms (for Personal Computers); 20 ms (for Household Appliances)
Maximum Efficiency (PV to Inverter)	96%
Maximum Efficiency (Battery to Inverter)	93%
Overload Protection	5s @ ≥ 140% Load; 10s @ 110% ~ 140% Load
Crest Factor	3 : 1
Acceptable Power Factor	0.6 ~ 1 (Inductive or Capacitive)
BATTERY	
Battery Voltage	48Vdc
Float Charging Voltage	54Vdc
Overcharge Protection	63Vdc
Charging Method	CC / CV
SOLAR CHARGER & AC CHARGER	
Solar Charger Type	MPPT
Maximum PV Array Power	5.500W x 2
Maximum PV Array Open-Circuit Voltage (Voc)	500Vdc
PV Array MPPT Voltage Range	60VDC ~ 500VDC
Maximum Solar Input Current	18A x 2
Maximum Solar Charging Current	160A
Maximum AC (Grid) Charging Current	120A
Maximum Total Charging Current (Solar + Grid)	160A
PHYSICAL	
Dimensions (D × W × H) mm	544,5 x 414,5 x 122,5
Package Dimensions (D × W × H) mm	637 x 495 x 214
Net Weight (kg)	14,8
Gross Weight (kg)	16,05
Communication Port	RS232 + RS485 + Dry Contact Communication
ENVIRONMENTAL	
Operating Temperature	-10 °C to 55 °C
Storage Temperature	-15 °C to 60 °C
Humidity	5% to 95% Relative Humidity (Non-Condensing)
Protection Class	IP21

Bottom View



1. Solar input - 1
2. Solar input - 2
3. AC input (Grid input)
4. AC output
5. Grounding
6. Dry contact
7. RS485 communication port
8. RS232 communication port
9. Battery input
10. Power on/off switch

System Diagram



Product specifications are subject to change without prior notice.

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