NUOVOLT
FUTURE OF INTELLIGENT POWER

MPPT SMART INVERTER
datasheet

11kW 48V Plus 230VAC Output

Features

* Dual AC output
* Built-in 2 MPPTs (Dual PV input management)
* Parallel operation capability for up to 6 units
* Lithium battery activation function via PV (Solar) or Grid
* Compatible with LiFePO4 batteries via RS485
* Pure Sine Wave output
* Power factor 1.0
* Maximum 500V DC PV input
* Built-in 140A/160A MPPT
* Battery-free operation capability
* Removable dust cover for harsh environments
* Wi-Fi remote monitoring (optional)
* Multiple output priority support: SUB, SBU, SUF
* EQ (equalization) function to optimize battery performance and extend lifespan



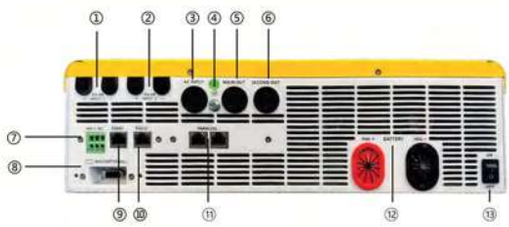
Dual MPPT
Dual Output
6 Units Paralleling
No Battery Mode
Built-in WiFi (Optional)
Color LCD
BMS Lithium Battery Activation
RGB LIGHTS RGB Lights

Operating Mode



MODEL	48V 11kW (PLUS)
Capacity	11KVA / 11KW
Maximum PV (Solar Panel) Input Power	11KW
Dual AC Output Function	YES
Maximum Main Output Power	11KVA / 11KW
Maximum Secondary Main Output Power	5.5KVA / 5.5KW
Maximum Total Output Power	11KVA / 11KW
Parallel Operation	YES (Max. 6 Units)
Lithium Battery Communication	YES (RS485)
Lithium Battery Activation	YES (Solar Panel or Grid)
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
Discharge / Derating Power (Instantaneous High-Load Capacity)	22.000VA
Frequency	50 / 60 Hz
Waveform	Pure Sine Wave
Transfer Time	10 ms (for Personal Computers); 20 ms (for Household Appliances)
Maximum Efficiency (PV to Inverter)	94%
Maximum Efficiency (Battery to Inverter)	93%
Overload Protection	5.5s @ ≥ 140% Load; 10.5s @ 110% ~ 140% Load
Crest Factor	3 : 1
Acceptable Power Factor	0.6 ~ 1 (Inductive or Capacitive)
BATTERY	
Battery Voltage	48Vdc
Maximum Discharge Current	220A
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	27A x 2
Maximum Solar Charging Current	160A
Maximum AC (Grid) Charging Current	120A
Maximum Charging Current	160A
PHYSICAL	
Dimensions (D × W × H) mm	544,5 x 414,5 x 123
Package Dimensions (D × W × H) mm	637 x 495 x 214
Net Weight (kg)	16,3
Gross Weight (kg)	18,4
Communication Port	Wi-Fi / RS485 / Dry Contact Communication
LCD	YES
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. Grounding
5. AC Main output
6. AC Second output
7. Dry contact
8. WiFi (Optional)
9. RS485 communication port
10. RS232 communication port
11. Parallel connection
12. Battery input
13. Power on/off switch

RGB Light Indicator



Green — Inverter Mode
Blue — AC Mode
Cyan — Standby Mode
Red — Fault Mode
Purple — Bypass Mode
Yellow — Charging Mode

Parallel Connection



Product specifications are subject to change without prior notice.

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