

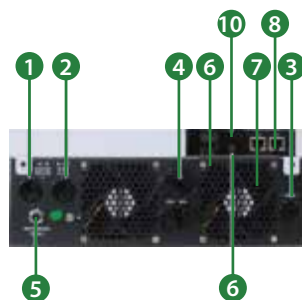
ORION Series Off-Grid Inverters

ORION 4kW

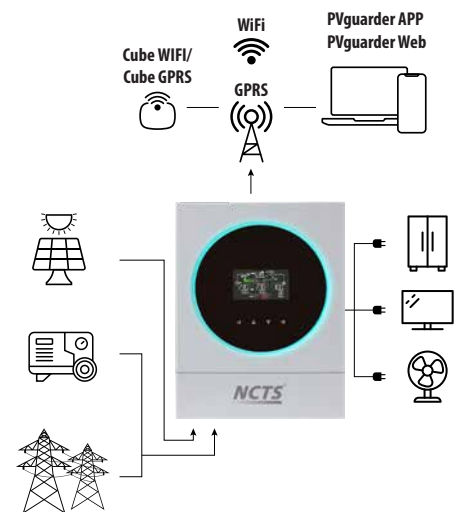
Product Features

- Pure sine wave inverter
- Customizable status LED ring with RGB lights
- Touchable button with 4.3" colored LCD
- Built-in Wi-Fi for mobile monitoring (APP is required)
- Supports USB On-the-Go function
- Built-in anti-dusk kit
- Reserved communication ports for BMS (RS485, CAN-BUS, Rs232)
- Configurable input voltage ranges for home appliances and personal computers via LCD control panel
- Configurable output usage timer and prioritization
- Configurable charger source priority via LCD control panel
- Configurable battery charging current based on applications via LCD control panel
- Compatible to utility mains or generator power

- | | |
|-------------------|-----------------|
| 1 AC input | 2 AC output |
| 3 PV input | 4 Battery input |
| 5 Circuit breaker | 6 Dry Contact |
| 6 COM | 5 BMS |
| 7 USB | 5 Built-in WiFi |



System Connections



ORION 4kW

Off-Grid Inverters

Technical Specifications

Model: NCTS-ORION 4KW

Rated Output Power	4000VA/4000W
Input Voltage Waveform	Pure Sine wave
Nominal Input Voltage	230VAC
Low Loss Voltage	170Vac±7V (UPS) 90V ac ± 7V (Appliances)
Low Loss Return Voltage	180Vac±7V (UPS) 100 Vac±7V (Appliances)
High Loss Voltage	280Vac±7V
High Loss Return Voltage	270Vac±7V
Max AC Input Voltage	300Vac
Nominal Input Frequency	50Hz/60Hz (Auto detection)
Low Loss Frequency	40 ±1 Hz
Low Loss Return Frequency	42 ±1 Hz
High Loss Frequency	65 ±1 Hz
High Loss Return Frequency	63 ±1 Hz
Output Short Circuit Protection	Circuit Breaker
Efficiency (Line Mode)	>95%(Rated R load, battery full charged)
Transfer Time	10ms typical (UPS); 20ms typical (Appliances)
Inverter Mode Specifications	
Output Voltage Waveform	Pure Sine wave
Output Voltage Regulation	230Vac± 5%
Output Frequency	50Hz
Peak Efficiency	0.93
Overload Protection	5s@=110% load; 1Os@105% -110% load
Surge Capacity	2* rated power for 5 seconds
Nominal DC Input Voltage	24Vdc
Cold Start Voltage	23Vdc
Low DC Warning Voltage	
@load < 50%	23.5Vdc
@load ≥ 50%	23.0Vdc
Low DC Warning Return Voltage	
@load < 50%	21.5Vdc
@load ≥ 50%	21.0Vdc
High DC Recovery Voltage	32Vdc
High DC Cut off Voltage	33Vdc
No Load Power Consumption	<40W
Charging Mode Specifications	
Charging Algorithm	3-Step
Charging Current (UPS) @Nominal Input Voltage	100Amp(@VI/P=230Vac)
Bulk Charging Voltage	
Flooded Battery	29.2Vdc
AGM/GEL BATTERY	28.2Vdc
Floating Charging Voltage	27Vdc
MPPT Solar Charging Mode	
Max PV Array Power	5000W
Max PV Current	27A
Nominal PV Voltage	320Vdc
PV Array MPPT voltage Range	60Vdc~450Vdc
Max PV Array Open Circuit Voltage	500 Vdc
Max Charging Current (AC charger plus solar charger)	120Amp
Operating Temperature Range	-10°C~+60°C
Storage Temperature	-15°C~+60°C
Dimension (D*W*H), mm	119X313.6X457.5
Net Weight, kg	10