

**250V  
PV INPUT**

# 6500W HYBRID OFF-GRID INVERTER

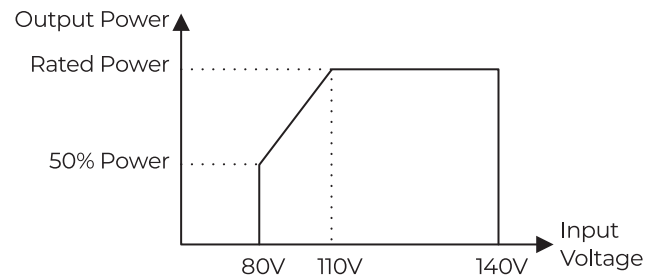


## FEATURES

- Pure sine wave inverter
- Configurable color with the built-in RGB LED bar
- Built-in Wi-Fi for mobile monitoring (APP is required)
- Supports USB On-the-Go function
- Built-in anti-dusk kit
- Detachable LCD control module with multiple communication ports for BMS (RS485, CAN-BUS, RS232)
- Configurable input voltage ranges for home appliances and personal computers via LCD control panel
- Configurable AC/PV output usage timer and prioritization
- Configurable AC/Solar charger priority via LCD control panel
- Configurable battery charging current based on applications via LCD control panel
- Compatible to utility mains or generator power
- Auto restart while AC is recovering
- Overload / Over temperature / short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function

**Table 1: Line Mode Specifications**

MODEL	RS-H6548
Input Voltage Waveform	Sinusoidal (utility or generator)
Nominal Input Voltage	120VAC
Low Loss Voltage	90VAC±7V (UPS); 80VAC±7V (Appliances)
Low Loss Return Voltage	100VAC±7V (UPS); 90VAC±7V (Appliances)
High Loss Voltage	140VAC±7V
High Loss Return Voltage	135VAC±7V
Max AC Input Voltage	150VAC
Max AC Input Current	60A
Nominal Input Frequency	50Hz / 60Hz (Auto detection)
Low Loss Frequency	40±1Hz
Low Loss Return Frequency	42±1Hz
High Loss Frequency	65±1Hz
High Loss Return Frequency	63±1Hz
Output Short Circuit Protection	Line mode: Circuit Breaker (70A) Battery mode: Electronic Circuits
Efficiency (Line Mode)	>95% ( Rated R load, battery full charged )
Transfer Time	10ms typical (UPS); 20ms typical (Appliances)
Power Limitation	



**Table 2: Inverter Mode Specifications**

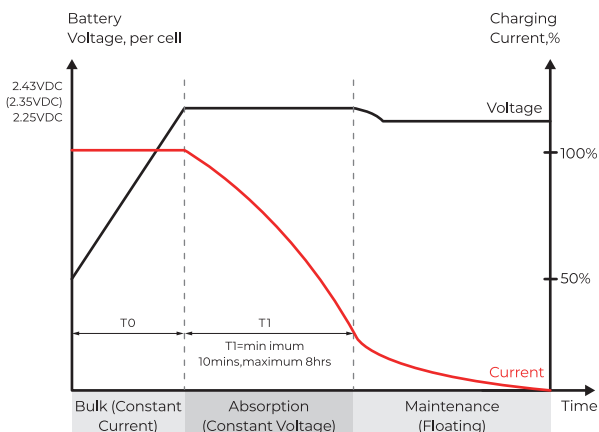
MODEL	RS-H6548
Rated Output Power	6500W
Output Voltage Waveform	Pure Sine Wave
Output Voltage Regulation	120VAC±5%
Output Frequency	60Hz or 50Hz
Peak Efficiency	91%
Overload Protection	100ms@≥205% load;5s@≥150% load; 10s@110%~150% load
Surge Capacity	2* rated power for 5 seconds
Nominal DC Input Voltage	48VDC
Cold Start Voltage	46.0VDC

<b>Low DC Warning Voltage</b>	
@ load < 20%	46.0VDC
@ 20% ≤ load < 50%	42.8VDC
@ load ≥ 50%	40.4VDC
<b>Low DC Warning Return Voltage</b>	
@ load < 20%	48.0VDC
@ 20% ≤ load < 50%	44.8VDC
@ load ≥ 50%	42.4VDC
<b>Low DC Cut-off Voltage</b>	
@ load < 20%	44.0VDC
@ 20% ≤ load < 50%	40.8VDC
@ load ≥ 50%	38.4VDC
<b>High DC Recovery Voltage</b>	62VDC
<b>High DC Cut-off Voltage</b>	63VDC
<b>DC Voltage Accuracy</b>	+/-0.3V@ no load
<b>THDV</b>	<5% for linear load, <10% for non-linear load @ nominal voltage
<b>DC Offset</b>	≤100mV

### Table 3: Charge Mode Specifications

<b>Utility Charging Mode</b>	
MODEL	RS-H6548
Charging Current (UPS) @ Nominal Input Voltage	120A
<b>Bulk Charging Voltage</b>	
Flooded Battery	58.4VDC
AGM / Gel Battery	56.4VDC
Floating Charging Voltage	54VDC
Overcharge Protection	66VDC
Charging Algorithm	3-Step

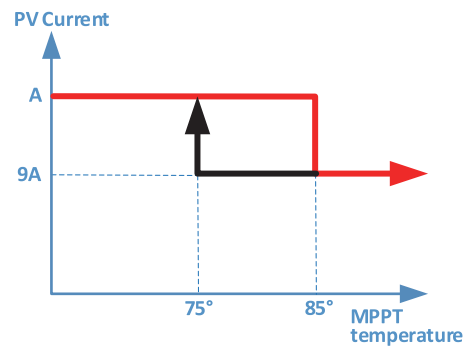
#### Charging Curve



#### Solar Input

MODEL	RS-H6548
Rated Power	8000W
Max. PV Array Open Circuit Voltage	250VDC
PV Array MPPT Voltage Range	90VDC~ 230VDC
Max. Input Current	18A x 2
Start-up Voltage	80V +/- 5VDC

#### Power Limitation



### Table 4: General Specifications

MODEL	RS-H6548
Safety Certification	UL 1741 by TUV
Operating Temperature Range	-10°C to 40°C
Storage temperature	-15°C~ 60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)
Dimension (mm)	147.4 x 432.5 x 575.6 (620.6) (with extension box)
Net Weight (kg)	18.4

### Table 5: Parallel Specifications (Parallel model only)

Max parallel numbers	6
Circulation Current under No Load Condition	Max 2A
Power Unbalance Ratio	<5% @ 100% Load
Parallel communication	CAN
Transfer time in parallel mode	Max 50ms
Parallel Kit	YES

Note: Parallel feature will be disabled when only PV power is available