

# Solo 6.5kW Inverter

## SPLIT / SINGLE-PHASE SOLAR STORAGE INVERTER

### OVERVIEW

#### Reliable, Flexible Power for Non-Export Applications

The Fortress Power Solo 6.5kW is a versatile 6.5kW split/single-phase inverter designed for backup power, off-grid and grid-tied applications. With support for both grid and generator input, a built-in 140A solar charge controller, and intelligent switching, it delivers reliable performance in any environment. Time-of-use scheduling, optional CTs for added safety, and parallel support for up to six units (39kW) make it ideal for off-grid homes, microgrids, and hybrid solar systems.

### FEATURES

#### That Maximize Performance, Flexibility, and Control

##### High-Capacity Solar Charging

The built-in solar charge controller supports up to 140A, maximizing solar input for faster, more efficient battery charging—ideal for large off-grid systems or high-usage households.

##### Dual Power Source Compatibility

Supports grid and generator input with intelligent switching, giving you seamless power management and uninterrupted operation during outages or low solar production.

##### Time-of-Use Optimization

Advanced time-sharing functionality allows users to schedule charge and discharge cycles, optimizing energy usage and reducing reliance on expensive utility rates.

##### Safe & Stable Operation with Optional CT

Optional current transformers (CTs) enhance system safety and reliability by monitoring current flow and enabling precise load control and protection.

##### Scalable Up to 39kW

Parallel up to six units for a total output of 39kW, making it a powerful choice for homes and off-grid or grid-tied applications.

##### Versatile Application Support

Designed for a range of energy scenarios including Backup Power, Off-Grid Living, Smart Load Control, and Microgrid Installations—all in one rugged and intelligent package.



### Applications

Backup	Off-Grid
Grid-Tied	Microgrid
Self-Consumption	Generator

### Specifications

- Rated Output Power: 6,500W
- Max. Output Power: 13,000W
- Rated Output Voltage: 120/240 Vac (single/split-phase)
- Frequency: 50/60Hz
- Rated Battery Voltage: 48V
- Max. Input Short Circuit Current: 18A+18A
- No. of MPPT: 1+1

# TECHNICAL DATA

Precision-Engineered Specifications for Optimal Performance

## GENERAL DATA

Weight	47.84 lbs (21.7 kg)
Operating Temperature	14 °F - 131 °F (-10 °C - 55 °C), >45 °C derating
Protection Level	IP20 (for indoor use only)
Noise	<60db
Dimensions (H x W x D)	27 x 16.1 x 5.5 in (686 x 410 x 140 mm)
Cooling Mode	Fan

## INVERTER OUTPUT

Rated Output Power	6,500W
Maximum Peak Power	13,000 VA
Rated Output Voltage	120/240 VAC (Single/Split-Phase)*
Rated Frequency	50/60Hz*
Output Wave	Pure Sine Wave
Switching Time	10 ms (typical value)
Parallel Number	6

## BATTERY PARAMETERS

Compatible Battery Type	Lithium-ion battery / lead-acid battery / user-defined battery*
Rated Battery Voltage	48 Vdc
Voltage Range	40 Vdc-60 Vdc*
Maximum Grid/Generator Charge Power	TBD
Maximum Battery Charge Power (with PV)	140 A DC*

## PV INPUT

MPPT Channel Number	2
Maximum Input Power	5,000W+5,000W
Maximum Input Short Circuit Current	18 / 18 A
Maximum Open Circuit Voltage	550 Vdc / 550Vdc
MPPT Operating Voltage Range	150 Vdc-450 Vdc

## GRID / GENERATOR INPUT

Input Phase Voltage Range	65 VAC - 140 VAC
Grid Frequency Range	50/60 Hz
Bypass Overload Current	40A

## COMMUNICATION

Built-in Interface	RS485 / CAN / USB / dry contact*
External Module (Optional)	Wi-Fi / GPRS*

## STANDARDS & CERTIFICATIONS


Safety Standards	IEC62109-1, IEC62109-2, and UL1741
EMC	EN61000-6-1, EN61000-6-3, and FCC 15 class B
RoHS	Yes


## EFFICIENCY


\* Adjustable

MPPT Tracking Efficiency	99.9%
Maximum Efficiency of Battery Inverter	93%



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