

# FREEDOM 458 INVERTER/CHARGER DATASHEET



AVAILABLE IN: 2000W/100A 2500W/130A

# TRUSTED SOLUTION IN RV INVERTER/CHARGERS, ECONOMICAL AND DEPENDABLE

Installed in RVs for almost two decades, this inverter/charger has proven itself, with filtered modified sine wave output, the Freedom 458 inverter/charger runs most loads, from office equipment to household appliances and electronics.

Temperature controlled multi-stage charging ensures that your batteries are recharged quickly when electricity supplied by your RV's generator or campground hookup. Automatic low/high DC voltage shutdown and other safety features help to protect your expensive deep-cycle batteries from excessive depletion. Twin AC output breaker variant also available.



Automatic 3-stage Battery Charger



Programmable front panel and LED indicators



Built-in 30A transfer switch transfers between inverter and incoming AC power



Dual Input and Output for Easy Installation

APPLICATIONS:







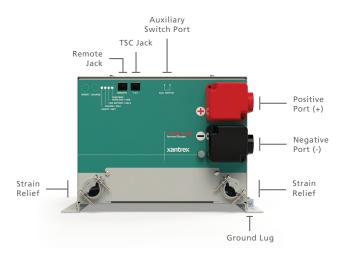




2.5 YEAR WARRANTY

www.xantrex.com
CUSTOMER CARE: 1.800.670.0707





TOP VIEW BOTTOM VIEW

# **PRODUCT FEATURES**

- Three-stage battery charger recharges batteries quickly while protecting your battery bank
- Programmable front panel and LED indicators
- Temperature sensitive charging for of all types of deep cycle batteries
- Built-in 30 amp transfer switch automatically transfers between inverter power and incoming AC power
- Customized settings can be programmed with the Xantrex Freedom Basic Remote Panel
- Option of dual input and dual output connections for easy installation
- Approved to the UL 458 and CSA 22.21 regulatory standards

## **PROTECTION FEATURES**

- Power sharing prevents nuisance tripping of short power breaker
- Over voltage and under voltage protection
- Over-temperature protection

- Overload protection
- Short circuit protection

## RECOMMENDED ACCESSORIES

PERFECT ADDITIONS TO YOUR INVERTER/CHARGER



Freedom Basic Controller (84-2056-01)



Thermal Sensor Assembly 15' (76-0022-00)

### **ELECTRICAL SPECIFICATIONS – INVERTER**

	20	25
Output Power (continuous)	2000W	2500W
Surge Power (AC amps)	50A	62.5A
Output Frequency Regulation	60Hz	60Hz
Invertert Voltage Regulation	120V ±5% True RMS	120V ±5% True RMS
Output Waveform	Modified Sine Wave	Modified Sine Wave
Efficiency (full load)	85%	87%
Peak Efficiency	92%	92%
No Load Current Draw (idle mode)	0.12A	0.12A
AC Output Connections	Single*	Dual
AC Input Connections	Single	Dual
AC Transfer Switch	30A	30A

### **ELECTRICAL SPECIFICATIONS – CHARGER**

	20	25
Charge Rate	100A DC	130A DC
AC Input Voltage Range	90–130Vac	90–130Vac
Battery Voltage (nominal)	12Vdc	12Vdc
Battery Voltage Range	10.0–15.5Vdc	10.0–15.5Vdc
Low Battery Cut-out	10.0Vdc	10.0Vdc
AC input (maximum charge mode)	21A AC	26A AC
Bulk Charge Voltage**	14.3Vdc	14.3Vdc
Float Charge Voltage**	13.4Vdc	13.4Vdc
Equalize Charge Voltage	16.3Vdc	16.3Vdc
Charge Control	3-stage	3-stage
Battery Type Settings	Wet / Gel 1 / Gel 2 / AGM	Wet / Gel 1 / Gel 2 / AGM
Equalization	Yes	Yes
Temperature Sensitivity Charging	Yes	Yes

### **GENERAL SPECIFICATIONS**

	20	25	
Optimal Operating Temperature Range	32°F – 104°F (0°C – 40°C)**	32°F – 104°F (0°C – 40°C)*** derated below 0°C and above 40°C	
Optional Remotes	Freedom Basic Remote	Freedom Basic Remote	
Dimensions (H x W x L)	7.9" x 11.5 x 13.2" (201 x 2	7.9" x 11.5 x 13.2" (201 x 292 x 335mm)	
Weight	45lb (20kg)	50lb (23kg)	
Part Numbers			
Single Input, Single Output	801-2010-12	N/A	
Single Input, Dual Output - 20/15 Circuit Breakers	801-2022-12	N/A	
Dual Input, Dual Output	N/A	81-2530-12	

#### **REGULATORY APPROVALS**

UL and cUL listed to UL 458 and CSA C22.2 No. 107.1 / 107.2 standards

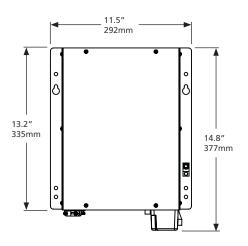
Specifications are subject to change without notice.

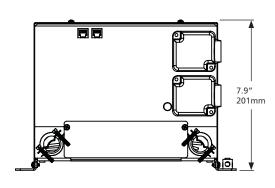
<sup>\*\*</sup>Default value varies with battery type and temperature.

<sup>\*</sup>For dual, see circuit breaker options below under "Part Numbers".

<sup>\*\*\*</sup>Quartz regulated.

#### FREEDOM 458 INVERTER/CHARGER DIMENSIONS





#### **ACCESSORIES**

Mfg Part #	Description	
84-2056-01	Freedom Basic Remote	
76-0022-00	Thermal Sensor Assembly 15'	

NOTE: Contact Xantrex or your dealer to order these accessories.

**CONTACT** 

**CUSTOMER SERVICE** 

1.800.670.0707 customerservice@xantrex.com Hours of operation: 6:30am - 4:30pm PST, Monday to Friday



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