

# FREEDOM XC SINE WAVE INVERTER/CHARGER

**xantrex™**  
Smart choice for power™



**Robust. Durable. Flexible.**



Available in:

**1000W/50A**

**2000W/80A**

The Freedom XC inverter/charger offers premium performance in a lightweight compact package. It cranks out full output in invert or charge mode from -4°F - 104°F for operation in all climate temperatures. The extended surge rating of the Freedom XC makes it ideal to start difficult loads including fridge and microwave. The quick connect terminals at AC IN/OUT make installation a breeze.



Easy access AC & DC wiring compartment for quick installation



Hardwire or plug directly into the optional 20A GFCI receptacle



View AC & battery current, % status bar for inverter output on the onboard display

## Inverter Key Features

- » **Extended Surge Rating**  
Surges to 2X continuous power for 2 seconds for motor loads
- » **True Sine Wave AC Power**  
For operation of sensitive and motor loads
- » **Ignition Control**  
Feature to turn inverter on/off via a 12 VDC signal and to minimize battery drain by switching the inverter off when the ignition key is turned off
- » **Wide 10-18 VDC Input Range**  
Ensures inverter operation on high voltage alternators found on many new vehicle chassis
- » **Programmable AC Under-Voltage (85-110VAC) Shutdown**  
Feature ideal to operate under weak shore power or generator input
- » **Built-in 30A AC Transfer Relay**  
Senses when outside AC Power is present and transfers the load from the inverter to the source of incoming power

## Built-in Charger Features

- » **Power Factor Corrected Multi-Stage Charging**  
Utilizes less shorepower when charging batteries. This frees up more usable AC power for running electrical devices and appliances and reduces the likelihood of tripping shorepower breakers
- » **Programmable**  
Configurable 3 stage temperature compensated battery charge algorithm for optimal charging of almost any battery type up to 18V
- » **Battery Equalization**  
Maximizes flooded battery life
- » **Dead Battery Charging Down to 0 Vdc**
- » **Power Share**  
Prioritizes AC loads by reducing the charge current and maintaining the total input current to less than the breaker setting

## Applications:



Recreational Vehicles



Heavy Duty Trucks



Work Vehicles



Specialty Vehicles



Marine



ETL listed to CSA Standard C22.2 No. 107.1 and UL 458\* with Marine supplement

\*For marine supplement compliance drip shield in specific mounting orientation is required. See installation guide



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# FREEDOM XC **SINE WAVE**

## INVERTER/CHARGER



Electrical Specifications - Inverter	FREEDOM XC 1000	FREEDOM XC 2000
AC Output Operating Voltage Options	120, 110, 108 Vac	120, 110, 108 Vac
Continuous Output Power	Continuous Power 1000 W @40°C True sine wave (TSW)	Continuous Power 2000 W @40°C True sine wave (TSW)
Continuous AC Output Current	8.4 A	16.7 A
Surge Power	2000 W	4000 W
Frequency (Configurable)	60 (or 50) Hz	60 (or 50) Hz
Peak Efficiency	91%	91%
Full Load Efficiency	≥ 87.3%	≥ 87.5%
Operating Input AC Pass-Through Voltage Range	85-140 Vac	85-140 Vac
Safe Non-Operating Input AC Voltage Range	Up to 240 Vac	Up to 240 Vac
Power Factor at Full Charge Rate	> 98%	> 98%

Electrical Specifications - Battery Charger	FREEDOM XC 1000	FREEDOM XC 2000
Min Battery Voltage for Charging	0.0 Vdc	0.0 Vdc
Max DC Output Voltage	18.0 Vdc (custom battery type)	18.0 Vdc (custom battery type)
Selectable DC Output Current	User Selectable: 5 - 50 A	User Selectable: 5 - 80 A
Full Load Max AC Input Current	7 A	11 A

General Specifications	FREEDOM XC 1000	FREEDOM XC 2000
Operating Temperature Range	-4 to 140 °F (-20 to 60 °C), with output derated above 104 °F (40 °C)	-4 to 140 °F (-20 to 60 °C), with output derated above 104 °F (40 °C)
Storage Temperature Range	-40 to 158 °F (-40 to 70 °C)	-40 to 158 °F (-40 to 70 °C)
Operating Humidity Range	5 to 95% RH, non-condensing	5 to 95% RH, non-condensing
Transfer Relay AC Current Rating	30 A	30 A
DC Input Operating voltage range	LBCO voltage - 18.0 VDC	LBCO voltage - 18.0 VDC
DC Input Max Non-Operating Voltage	24.0 Vdc	24.0 Vdc
DC Input/ Output Nominal Voltage (Inverting/ Charging)	12.0 Vdc	12.0 Vdc
DC Nominal Current at Full Load	100 Adc	192 Adc
Part Number	817-1050	817-2080
L x W x H	14.2"(360 mm) x 10.6"(270 mm) x 3.7"(95 mm)	15.4"(390 mm) x 10.8"(275 mm) x 4.0"(102 mm)
Net Weight	13.4 lbs (6.1 kgs)	16.3 lbs (7.4 kgs)

Accessories	FREEDOM XC 1000	FREEDOM XC 2000
Remote Panel	808-0817-01	808-0817-01
GFCI Option	808-9817	808-9817
Remote Panel Cable	31-6257-00 (25 ft) 31-6262-00 (50 ft)	31-6257-00 (25 ft) 31-6262-00 (50 ft)

Regulatory Approvals	FREEDOM XC 1000	FREEDOM XC 2000
Safety	ETL listed to CSA 107.1 UL458 and UL458 Marine Supplement (drip shield with product number 808-1050 required) ABYC E-11, A-31, A-32	
EMC	CFR 47, FCC, PART 15, Subpart B, Class B and CAN ICES-3 (B) / NMB-3 (B)	

Actual product may differ slightly in appearance to images shown. Specifications are subject to change without notice.