

# FREEDOM 458

## INVERTER/CHARGER

**xantrex**<sup>™</sup>  
Smart choice for power<sup>™</sup>

### Trusted solution in RV inverter/ chargers, economical and dependable

Available in:

2000 W  
100 A

2500 W  
130 A



Installed in RVs for almost two decades, this inverter/charger has proven itself, with filtered modified sine wave output, Freedom 458 inverter/chargers run 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!

#### 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
- » 30 month warranty
- » Approved to the UL 458 and CSA 22.21 regulatory standards

#### Protection Features

- » Power sharing prevents nuisance tripping of shore power breaker
- » Over voltage and under voltage protection
- » Over-temperature protection
- » Overload protection
- » Short circuit protection

#### Applications:



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Electrical specifications – inverter	20	25
Output power (continuous)	2000 W	2500 W
Surge power (AC amps)	50 A	62.5 A
Output frequency regulation	60 Hz	60 Hz
Inverter voltage regulation	120 V +/- 5% true RMS	120 V +/- 5% true RMS
Output wave form	Modified sine wave	Modified sine wave
Efficiency (full load)	85%	87%
Peak efficiency	92%	92%
No load current draw (idle mode)	0.12 A	0.12 A
AC output connections	Single*	Dual
AC input connections	Single	Dual
AC transfer switch	30 A	30 A

Electrical specifications – charger		
Charge rate	100 A DC	130 A DC
AC input voltage range	90 130 Vac	90 130 Vac
Battery voltage (nominal)	12 Vdc	12 Vdc
Battery voltage range	10.0 15.5 Vdc	10.0 15.5 Vdc
Low battery cut-out	10.0 Vdc	10.0 Vdc
AC input (max. charge mode)	21 A AC	26 A AC
Bulk charge voltage**	14.3 Vdc	14.3 Vdc
Float charge voltage**	13.4 Vdc	13.4 Vdc
Equalize charge voltage	16.3 Vdc	16.3 Vdc
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 sensitive charging	Yes	Yes

General specifications		
Optimal operating temperature range	32°F – 104°F (0°C – 40°C)*** derated below 0°C and above 40°C	
Optional remotes	Freedom Basic Remote	
Dimensions (H x W x L)	7.9 x 11.5 x 13.2" (201 x 292 x 335 mm)	
Weight	45 lb (20 kg)	50 lb (23 kg)
Warranty	30 months	30 months
<b>Part numbers</b>		
Single input, single output	81-2010-12	
Single input, dual output - 20/15 circuit breakers	81-2022-12	
Dual input, dual output		81-2530-12
<b>Accessories</b>		
Freedom Basic Remote	84-2056-01	84-2056-01
Thermal Sensor Assembly 15'	76-0022-00	76-0022-00

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

Specifications are subject to change without notice. \*For dual, see circuit breaker options below under "Part Numbers". \*\*Default value varies with battery type and temperature. \*\*\*Quartz regulated.