



# FREEDOM SW INVERTER/CHARGER DATASHEET



AVAILABLE IN:  
24V 

**2000W/50A**  
**3000W/75A**

## THE HEART OF YOUR POWER SYSTEM

FREEDOM SW series from Xantrex are the most advanced and capable inverter chargers in the mobile market. Available in 3000 W with 75 A charger and 2000 W with 50 A charger, these units are packed with features like "Generator Support Mode" which enables the FREEDOM SW to assist a generator when AC loads exceed the generator's capacity. They are also stackable for extra power and with the ComBox accessory, data logs and system control can be pushed to your tablet or phone! If you are looking for a unit for your air conditioning, this is the one! With a powerful long duration 2x surge and other industry leading features, the FREEDOM SW series will handle any demanding power requirement. Also available is 12 V.



Built-in hybrid functionality - combines shore and AC generator input to power loads



Designed to charge lithium ion batteries



Meets UL458 with marine supplement, CSA, ABYC and FCC Class B



Exceptional surge for extended time

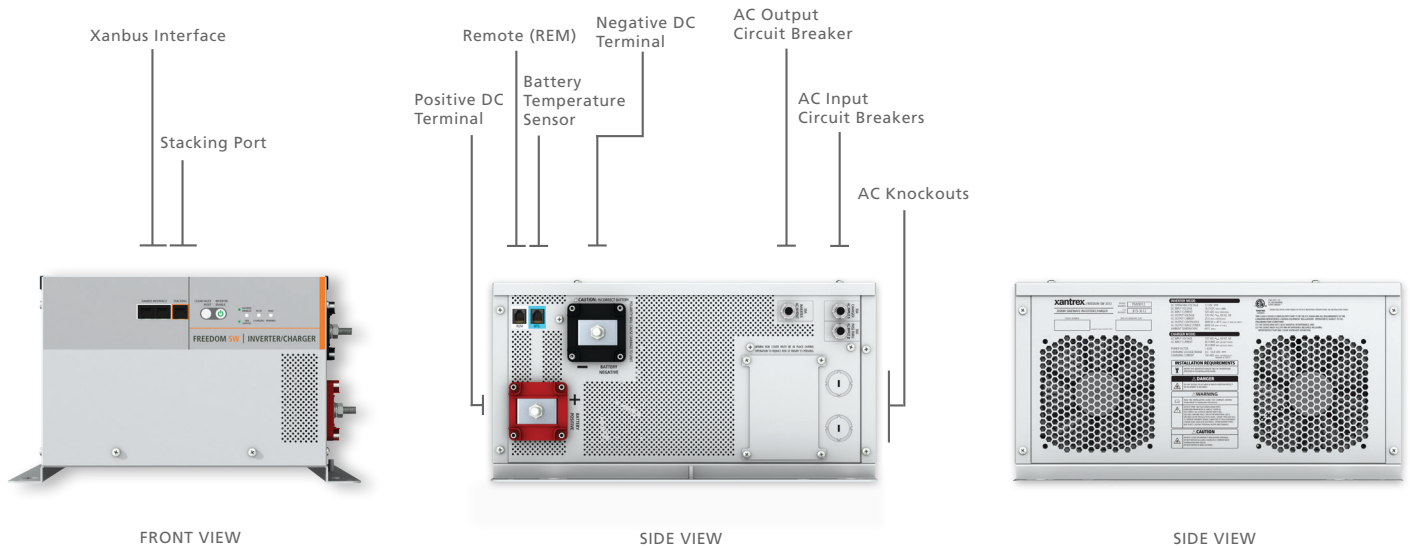
### APPLICATIONS:



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.





## PRODUCT FEATURES

- Parallel stacking enables the Freedom SW inverter/chargers to double the available AC output current in inverter mode
- Series stacking enables the Freedom SW inverter/chargers to generate 240 V split phase power\*
- Temperature compensated charging for varying climate conditions
- Available AutoGen Start accessory, ComBox accessory
- True sine wave output to operate sensitive electronics
- Advanced configuration options for customized applications
- Built-in transfer switch automatically transfers between inverter power and incoming AC power
- Ignition lockout feature helps to minimize unnecessary battery drain\*\*
- Full inverter output up to 40°C (104°F) for 3000W model; 30°C (86°F) for 2000W model
- Dual input / Dual output AC interface for 3000 W model only
- Conformal coated circuit boards for humid environments
- Battery over-voltage and under-voltage protection
- Power factor corrected multi-stage charger for fast, efficient charging
- Ability to charge batteries drained to extremely low voltage

## PROTECTION FEATURES

- Battery over-voltage and under-voltage protection
- Over-temperature shutdown
- Automatic overload protection
- Short-circuit protection
- Integrated, resettable AC breakers

\* AC source must be split-phase, requires Stacking Cable (#808-9005).  
 \*\*When used with On/Off Remote Panel sold separately

## RECOMMENDED ACCESSORIES



Available telephone to network cable adapter to avoid the need to replace cables when replacing and old inverter. (#808-9010 sold separately)



FREEDOM SW Conext Combox (809-0918)



DOWNLOAD ON



ONLY FOR TABLETS

- Control inverter
- Control generator
- Shore breaker size
- Data logging

## ELECTRICAL SPECS - INVERTER

FREEDOM SW (815-2024, 815-3024) DATASHEET

	FREEDOM SW 2024	FREEDOM SW 3024
Output power (continuous at 40°C)	2000 W	3000 W
Surge rating (5 seconds)	4000 W	6000 W
Peak output current	50 A	75 A
Output frequency	60 Hz +/- 0.2 Hz	60 Hz +/- 0.2 Hz
Output voltage	120 Vac	120 Vac
Output wave form	True sine wave	True sine wave
Optimal efficiency	94%	94%
No-load power draw (inverting)	<1.5 Adc	<1.5 Adc
Input DC voltage range	20 - 32 Vdc	20 - 32 Vdc
AC connections	Single phase in / out	Single phase in / out

## ELECTRICAL SPECS - BATTERY CHARGER

	FREEDOM SW 2024	FREEDOM SW 3024
Output current (continuous at 25°C)	50 A	75 A
Output voltage	24 Vdc	24 Vdc
Output voltage range	12 - 32 Vdc	12 - 32 Vdc
Charge control	3 stage with manual equalize	3 stage with manual equalize
Charge temperature compensation	Remote battery sensor (included)	Remote battery sensor (included)
Optimal Efficiency	> 85%	> 85%
AC input power factor (maximum charge)	0.98 typical	0.95 typical
Input current (for maximum charging)	15.8 A rms nominal	22 A rms nominal
Input AC voltage	120 Vac	120 Vac
Input AC voltage range	85 - 140 Vac	85 - 140 Vac
Dead battery charge	> 12 Vdc	> 12 Vdc

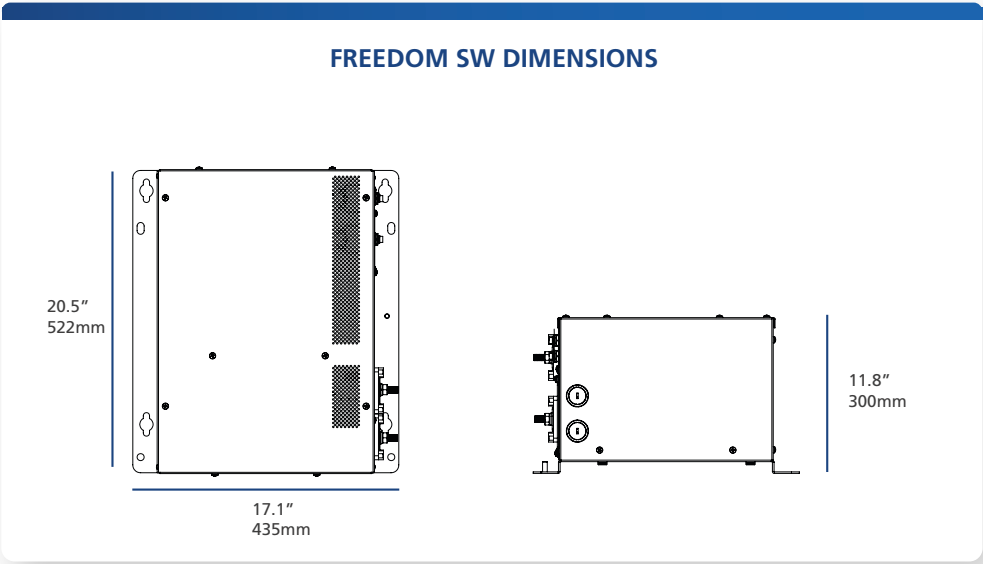
## GENERAL SPECS

	FREEDOM SW 2024	FREEDOM SW 3024
Compatible battery types	Custom / Flooded / Gel / AGM*	Custom / Flooded / Gel / AGM*
Transfer relay rating	1 leg of 30 A	2 legs at 30 A each
Transfer time (AC to inverter and inverter to AC)	< 20 ms	< 20 ms
Optimal operating temperature range	- 4°F to 86°F (- 20°C to 30°C)	- 4°F to 104°F (- 20°C to 40°C)
Storage ambient temperature range	- 40°F to 185°F (- 40°C to 85°C)	- 40°F to 185°F (- 40°C to 85°C)
Part Number	815-2024	815-3024
L x W x H	11.8 x 17.1 x 20.5" (300 x 435 x 522 mm)	11.8 x 17.1 x 20.5" (300 x 435 x 522 mm)
Net Weight	60.5 lbs (27.5 kg)	69.4 lbs (31.5 kg)

## REGULATORY APPROVALS

	FREEDOM SW 2024, FREEDOM SW 3024
Safety	ETL listed to CSA 107.1, UL458 and UL458 Marine Supplement (drip shield with product number 808-9004 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)

\*System Control Panel is required for configuring various battery types. LiFePO<sub>4</sub> can be selected using custom.



**ACCESSORIES**

Mfg Part #	Description
809-0946	Battery temperature sensor
808-9002	Freedom SW On/Off Remote Panel
809-0915	Automatic Generator Start (AGS)
809-0921	System control panel (SCP)
809-0940	25' network cable for system control panel
809-0941	50' network cable for system control panel
809-0942	75' network cable for system control panel
808-9004	Drip shield
808-9003	GFCI option
808-9005	Stacking cable for series stacking
809-0918	Freedom SW Combox
808-9010	Freedom SW telephone to network cable adapter

**MASTER CARTON INFO**

Master carton quantity	1
Master carton dimensions (H x W x L)	7.75 x 13.5 x 15.25" (197 x 343 x 387 mm)
Master carton weight	FREEDOM SW 2024 - 30 kg (66 lbs) / FREEDOM SW 3024 - 35 kg (77 lbs)