# **xantrex**

## FREEDOM SW INVERTER/CHARGER DATASHEET



**AVAILABLE IN:** 2500W/65A

3400W/90A

## THE HEART OF YOUR POWER SYSTEM

Just like its North American 120V \( \sigma\) counterpart, the Freedom SW 230 V \( \sigma\) inverter/charger offers true sine wave performance and efficient, multi-stage charging. The 2x continuous power surge rating provides necessary start-up power for demanding applications including inductive motor loads. Available in two 230 V / 50 Hz, 24 Vdc models, the Freedom SW offers parallel stacking capability to enable twice-the-rated current. Both models can operate in tandem with a generator to temporarily assist power loads with large start-up demands such as air conditioners, water pumps etc. A Xanbus AGS must be installed in the system in order for this feature work. Both are compatible with optional accessories such as the System Control Panel (SCP) and the Automatic Generator Start (AGS).

The Freedom SW inverter/charger provides utility grade AC power to operate commonly used AC-powered electronics such as LED television sets, microwaves, entertainment systems, computers, printers, power tools, refrigerators and much more.



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



Designed to charge lithium ion batteries



CE Marking and Regulation 10R E-Mark (Europe) and RCM (Australia / New Zealand) requirements



Exceptional surge for extended time

APPLICATIONS:









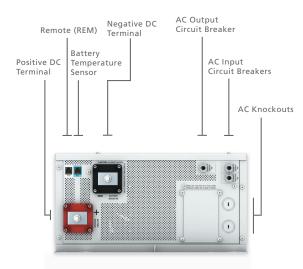






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FRONT VIEW SIDE VIEW SIDE VIEW SIDE VIEW

## **PRODUCT FEATURES**

- Parallel stacking enables the Freedom SW inverter/chargers to double the available AC output current in inverter mode
- Temperature compensated charging for varying climate conditions
- 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
- Wide operating temperature range: -20°C to 60°C
- Conformal coated circuit boards for humid environments
- Power factor corrected multi-stage charger for fast, efficient charging
- Meets CE and E-Mark (Europe), RCM (Australia/New Zealand)

## PROTECTION FEATURES

- Battery over-voltage and under-voltage protection
- Over-temperature shutdown
- Automatic overload protection

- Short-circuit protection
- Integrated, resettable AC breakers

## **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)





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



## **ELECTRICAL SPECS - INVERTER**

	FREEDOM SW 2524	FREEDOM SW 3524
Output power (continuous at 40°C)	2500 W	3400 W
Surge rating (5 seconds)	5000 W	6800 W
Output frequency	50 Hz +/- 0.2 Hz	50 Hz +/- 0.2 Hz
Output voltage	230 V∕∨	230 V∕√
Output wave form	True sine wave	True sine wave
Optimal efficiency	90%	90%
No-load power draw (inverting)	<1.9 Adc	<2.2 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 2524	FREEDOM SW 3524
Output current (continuous at 25°C)	65 A	90 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)
Optmial Efficiency	> 85%	> 85%
AC input power factor (maximum charge)	0.98 typical	0.98 typical
Input current (for maximum charging)	10.6 A rms nominal	14 A rms nominal
Input AC voltage	230 V∕√	230 V∕∨
Input AC voltage range	170-270 V∕∨	170-270 V∕ ∨
Dead battery charge	> 12 Vdc	> 12 Vdc

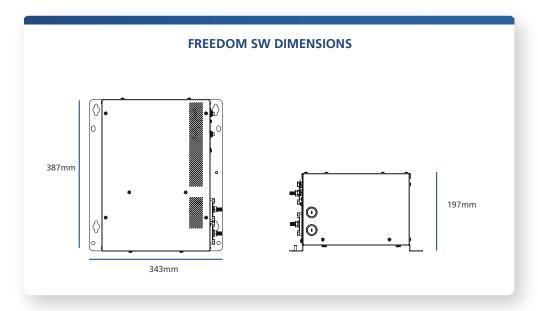
## **GENERAL SPECS**

	FREEDOM SW 2524	FREEDOM SW 3524
Compatible battery types	LiFePO <sub>4</sub> / Flooded / gel / AGM*	LiFePO4 / 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	- 20°C to 60°C	- 20°C to 60°C
Storage ambient temperature range	- 40°C to 85°C	- 40°C to 85°C
Part Number	815-2524-02	815-3524-02
LxWxH	197 x 343 x 387 mm	197 x 343 x 387 mm
Net Weight	21.4 kg	27.2 kg
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## **REGULATORY APPROVALS**

	FREEDOM SW 2524, FREEDOM SW 3524	
Safety	CE Marking, Low Voltage Directive Compliant (Marine installations, drip shield, 808-9004)	
EMC	CE Marking, EMC Directive and Automotive EMC - Regulation 10 R E-Mark Compliant	
Environmental	CE Marking, RoHS Directive Compliant	

<sup>\*</sup>System Control Panel is required for configuring various battery types



#### **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	
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)	30 x 43.5 x 52.2 cm
Master carton weight	FREEDOM SW 2524 - 23.9 kg / FREDOM SW 3524 - 30.7 kg

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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