

NEW

12 v



FREEDOM SW INVERTER/CHARGERS

POWERFUL. CONFIGURABLE. VERSATILE...

The NEW GENERATION Freedom SW series represents highly sophisticated and advanced inverter/chargers available in 3000 W with 150 A charger and 2000 W with 100 A charger models. The second generation 2000 watt model has been completely redesigned to include many of the same great features found in its high power counterpart. A key feature enhancement is 'Generator Support Mode' which enables the Freedom SW to supplement a generator¹ when AC loads exceed the generator's capacity. The new generation models also feature improved AC transfer/AC input detection time, providing the ability to transfer AC loads to batteries in less than 10 milliseconds when the incoming grid or generator power is lost. Connected loads are almost unable to feel the power transition due to this quick transfer time. Both models are approved to UL458 with marine supplement, CSA, ABYC and FCC, Class B requirements.

Parallel and Series Stacking - NEW FEATURE

- ▶ Parallel stacking enables the Freedom SW inverter/chargers to double the AC output in inverter mode
- ▶ Series stacking enables the Freedom SW inverter/chargers to generate 120/240 V split phase output²

Application

- ▶ Designed for a variety of mobile applications such as commercial, emergency and recreational vehicles, marine vessels, construction and military equipment.

Product Features

- ▶ Pure 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
- ▶ Power factor corrected multi-stage charger for fast, efficient charging
- ▶ Temperature compensated charging for most climate conditions
- ▶ Ignition lockout feature helps to minimize unnecessary battery drain³
- ▶ Full inverter output up to 40°C (104°F) for 3000W model; 30°C (86°F) for 2000W model
- ▶ Conformal coated circuit boards for humid environments
- ▶ Dual input / Dual output AC interface for 3000 W model only
- ▶ 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

¹ Compatible with most generator brands, ² AC source must be split phase, requires Stacking Cable (part# 808-9005)

³ When used with On/Off Remote Panel sold separately

**2000
Watts**

**3000
Watts**



Certified to
CSA Standard
C22.2 No. 107.1
UL 458 with marine
supplement
FCC Class B



This product has undergone rigorous testing under extreme thermal & mechanical conditions

FREEDOM SW Inverter/Chargers

Electrical Specifications - Inverter	Freedom SW 2012 (815-2012)	Freedom SW 3012 (815-3012)
Output power (continuous at 40°C)	2000 W	3000 W
Surge rating (5 seconds)	4000 W	6000 W
Peak output current	55 A	80 A
Output frequency	60 Hz +/- 0.2 Hz	60 Hz +/- 0.2 Hz
Output voltage	120 Vac	120 Vac
Output wave form	Pure sine wave	Pure sine wave
Optimal efficiency	90%	90%
No-load power draw (inverting)	3 Adc	3 Adc
Input DC voltage range	10 - 16 Vdc	10 - 16 Vdc
AC connections	Single phase in/out	Split phase in / dual out, Dual in / dual out
Electrical Specifications - Charger		
Output current (continuous at 25°C)	100 A	150 A
Output voltage	12 Vdc	12 Vdc
Output voltage range	3 - 16 Vdc	3 - 16 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	0.98 typical
Input current (for maximum charging)	16 A rms nominal	24 A rms nominal
Input AC voltage	120 Vac	120 Vac
Input AC voltage range	85 - 140 Vac	85 - 140 Vac
Dead battery charge	> 3 Vdc	> 3 Vdc
General Specifications		
Compatible battery types	Flooded / gel / AGM	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 140°F (- 20°C to 60°C)	- 4°F to 140°F (- 20°C to 60°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)
Unit dimensions (H x W x L)	7.75 x 13.5 x 15.25" (19.7 x 34.3 x 38.7 cm)	7.75 x 13.5 x 15.25" (19.7 x 34.3 x 38.7 cm)
Unit weight	27.5 kg (60.5 lbs)	33.5 kg (73.7 lbs)
Warranty	2 years	2 years
Master carton quantity	1	1
Master carton dimensions (H x W x L)	11.8 x 17.1 x 20.5" (30 x 43.5 x 52.2 cm)	11.8 x 17.1 x 20.5" (30 x 43.5 x 52.2 cm)
Master carton weight	30 kg (66 lbs)	35 kg (77 lbs)
Part Number	815-2012	815-3012
Accessories		
Battery temperature sensor	Part# 809-0946 - INCLUDED	
Freedom SW On/Off Remote Panel	Part# 808-9002 - SOLD SEPARATELY	
Automatic Generator Start (AGS)	Part# 809-0915 - SOLD SEPARATELY	
System control panel (SCP)	Part# 809-0921 - SOLD SEPARATELY	
25' network cable for system control panel	Part# 809-0940 - SOLD SEPARATELY	
75' network cable for system control panel	Part# 809-0942 - SOLD SEPARATELY	
Drip shield	Part# 808-9004 - SOLD SEPARATELY	
GFCI option	Part# 808-9003 - SOLD SEPARATELY	
Stacking cable for series stacking	Part# 808-9005 - SOLD SEPARATELY	
Regulatory & Environmental Compliance		
ETL certified to CSA 107.1, UL458 with marine supplement**, FCC Part 15, Class B		

**When used with the Drip Shield. Drip Shield sold separately. Note: Specifications subject to change without notice