

Sterling-Power-USA

Sterling Power Combination Inverter Chargers

Sometimes it pays to keep things simple! The Sterling Power ProCombi-Q and ProCombi-S range of Combination Inverter Battery Chargers are straightforward, powerful & available in a variety of power configurations to meet the power demands placed on your Boat, RV, Camper or Utility Vehicle. With the three functions of Inverter, Battery Charger and 30amp automatic crossover switch in one unit, the **ProCombi-Q** and **ProCombi-S** are the perfect alternative to separate components where space, simplicity and ease of installation are key considerations.

The ProCombi models are available in either Quasi-sinewave (**ProCombi-Q**) or True Sine-wave (**ProCombi-S**) models. The battery charger found inside this unit is an advanced Power Factor Corrected, Marine grade, multi-step battery charger designed to provide max charging output while drawing the least amount of input current!



Voted "best buy" In 'Sailing Today' Combi Test, March 2008 Issue. Compared to Mastervolt, Victron, Studer & Powermaster.



- ✓ Provide your boat or motor-home 120VAC from your battery bank while you are mobile.
- ✓ Charge your batteries & convert battery power into household 120VAC with the same unit.
- ✓ Can charge GEL, AGM, FLA & Calcium batteries with a user adjustable battery profile selector switch.
- ✓ Modified (**ProCombi-Q**) or Pure Sine-wave (**ProCombi-S**) models from **1,600 to 2,500 watts**.
- ✓ **12 volt** and **24 volt** models available.
- ✓ Power Factor Corrected (PFC) Multi-Stage Battery Charger provides extremely efficient battery charging.
- ✓ **60 hz 120 volt** and **50hz 230 volt** AC output available.
- ✓ Automatic 30 amp crossover "Pass-Through" relay.
- ✓ Removable control panel for remote mounting, 10 meter cable included.
- ✓ Very low no-load and operating energy consumption.
- ✓ Comprehensive status and alarm LED display.
- ✓ Compliant w/ CE and UL standards

Model	Input voltage	Inverter Power (watts)	Output Voltage	Charger Amps	Part number
ProCombi-Q (Quasi or Modified Sine Wave)	12 volts DC	1600w	120 vac	40A	UPCQ121600
ProCombi-Q (Quasi or Modified Sine Wave)	12 volts DC	2500w	120 vac	55A	UPCQ122500
ProCombi-Q (Quasi or Modified Sine Wave)	24 volts DC	1600w	120 vac	20A	UPCQ241600
ProCombi-Q (Quasi or Modified Sine Wave)	24 volts DC	2500w	120 vac	25A	UPCQ242500
ProCombi-Q (Quasi or Modified Sine Wave)	12 volts DC	1600w	230 vac	40A	PCQ 121600
ProCombi-Q (Quasi or Modified Sine Wave)	12 volts DC	2500w	230 vac	55A	PCQ 122500
ProCombi-Q (Quasi or Modified Sine Wave)	24 volts DC	2500w	230 vac	25A	PCQ 242500
ProCombi-S (Pure Sine Wave)	12 volts DC	2500w	120 vac	55A	UPCS122500
ProCombi-S (Pure Sine Wave)	24 volts DC	2500w	120 vac	30A	UPCS242500
ProCombi-S (Pure Sine Wave)	12 volts DC	2500w	230 vac	55A	PCS 122500

Sterling-Power-USA

What does the Pro Combi range offer?

On the battery charger side

- 1) 4 step constant current battery charging
- 2) 8 preset battery type selector plus de-sulphation
- 3) powerful charge rate
- 4) **will charge even with totally flat batteries**
- 5) **PFC**, draws about 30% less power than conventional units

On the crossover side

- 1) 20 ms crossover time, will not lose any equipment due to power loss
- 2) 30A through current ability on all models
- 3) twin 30A / single 50A on the 3500W models

On the inverter side

- 1) high overload ability
- 2) high temperature rating
- 3) low quiescent current
- 5) power saver mode to automatically reduce power
- 6) allows through power even with no batteries connected
- 7) neutral earth link to enable RCD breakers to work

On the remote control

- 1) ability to switch the unit on/off
- 2) ability to select or de select power saver mode

General specification

Input Wave form:	Pure sine wave	
Nominal Voltage:	Input 230v a/c model:	110v model USA
Low voltage trip:	184v +/- 4% Euro	92v USA
Minimum engage:	voltage 194v +/- 4%	97v USA
High voltage trip:	270v +/- 4%	128v USA
High voltage re engage:	253v +/- 4%	122v USA
Max input a/c voltage:	270 v rms	135v USA
Nominal input frequency:	50hz or 60hz auto detect	
Low freq trip:	47 hz for 50 hz, 58 hz for 60 hz	
High freq trip:	53 hz for 50 hz, 62 hz for 60 hz	
Output wave form:	(on by pass mode) same as input	
Overload protection :	Circuit breaker	
Short circuit protection :	Circuit breaker	
Transfer switch rating :	30 amp	
Efficiency on line transfer mode:	96%+	
Line transfer time :	20 ms	
Bypass without battery connected :	yes	
Max by pass current :	30 amps	
By pass over load current :	35 amps: Alarm	
Inverter Specification / output		
Output wave form:	Modified Sine Wave/ Quasi sine wave	
Output continuous power watts	1600	2500
Output continuous power VA	2400	3600
Power factor:	0.9- 1.0	
Nominal output voltage rms :	230vac	110v USA model
Max voltage rms :	260vac	110v USA model
Output voltage regulation:	+/- 10% rms	
Output frequency:	50hz +/-0.3hz or 60hz +/-0.3hz	
Transient response time:	<150ms;0% to 100% RCD load	
Nominal efficiency :	>85%	
Surge ratings :	1500model =4500va 2500model = 7200va	
Online current consumption at 12 v/24	12 v 2a 24v 1 amp with new TX tran	
Power saver mode current consumption	12 v 0.4 24v 0.2	
Short circuit protection:	yes, less than 3 cycles	
Inverter Specification / input		
Nominal input voltage :	12 or 24 v depending on model	
Minimum start voltage :	10 v for 12 v model 20v for 24 v	
Low battery alarm:	10.5v for 12 v model 21v for 24 v	
Low battery trip:	10 v for 12 v model 20v for 24 v	
High voltage alarm:	15.5 for 12v model 30v for 24 v	
Power saver :	below 20 watts when enabled	
Power saver :	can be switched on/off on remote control	
Charger Mode specification		
Input voltage range:	196-245 v ac 96-130 v ac USA model	
Output voltage:	dependent on battery type selection	
Output current 12 v model :	1600- 40A 2500 - 55A	
Output current 24 v model :	1600- 20A 2500 - 25A	
Battery initial voltage for start up:	0-15v for 12 v x 2 /24v	
Over charge protection shutdown:	15.7 12 v x 2 for 24 v	

Charger curves (4 stage constant current)Battery types 4 step digital controlled progressive charge

Battery type	charge V	float V	x 2 for 24 V
Gel U.S.A	14.0	13.7	
A.G.M. 1	14.1	13.4	
A.G.M. 2	14.6	13.7	
Sealed Lead Acid	14.4	13.6	
Gel Euro	14.4	13.8	
Open Lead acid	14.8	13.3	
Calcium	15.1	13.6	
De-sulphation	15.5 for 4 hrs		
Battery bank size: auto detected / auto program adjusted			
General Features.			
Remote control. Front control panel removable as remote			
Size: in mm	185W 180H 430L (1600, 2500)		
Weight:	1600w 40lbs	2500w 44lbs	

In General

- 1) removable local panel to give remote control with warning and function LED
 - 2) remote on/off plus remote power saver on/off
 - 4)10 metres remote cable
 - 5) almost 20 alarms / warnings / information
- There are 2 main models the **Pro Combi Q** (for **quasi-sine wave**) and the **Pro Combi S** (for **pure-sine wave**)

So the simple question is, what best suits your needs?

Pro Combi Q, (quasi-sine model) suitable for most installations, where you would use a microwave, fridge, hair dryer, vacuum cleaner, kettle, computer, etc
The vast majority of products will run on quasi-sine wave. Hi Fi could have a buzz on the speakers and older non flat screen TVs may have a line on the screen. It is not possible for us to say what item may have a problem, if any.
Pro Combi S (pure sine wave model) where all the above plus washing machines, bread makers, thyristor controlled equipment are used - then sine wave is required.

To make the choice even simpler we have 6 months exchange/upgrade policy. If you purchase a Pro Combi Q and find there is some equipment that you cannot run due to the Quasi Sine wave and require Pure Sine wave, Sterling are happy to up-grade your quasi-sine unit for Sine wave with the only cost being the difference between the 2 products (unit must be sent direct to Sterling and in good condition). Offer applies dealing direct to the factory only.

Pro Combi S

Input Wave form:	Pure sine wave	
Input 230v a/c model:	110v a/c model USA	
184v +/- 4%	92v a/c USA	
voltage 194v +/- 4%	95v USA	
253v +/- 4%	126v USA	
243v +/- 4%	121v USA	
270 v rms	135v USA	
50hz or 60hz auto detect		
47 hz for 50 hz, 58 hz for 60 hz		
53 hz for 50 hz, 62 hz for 60 hz		
(on by pass mode) same as input		
Circuit breaker		
Circuit breaker		
1500-2500 w = 30 amp the 3500 w= 50 amp		
95%+		
20 ms		
yes		
30 amp		
35 amps: Alarm		
Inverter Specification / output		
Pure sine wave		
continuous 1500 / 2500 / 3500		
0.9-1.0		
230vac	115v USA model	
260vac	130v USA model	
+/- 10% rms		
50hz +/-0.3hz or 60hz +/-0.3hz		
<150ms;0% to 100% RCD load		
>88%		
PQS1500=4500va PQS2500=7200va		
12 v 2a 24v 1 amp with new TX transformer		
12 v 0.4 24v 0.2		
yes, less than 3 cycles		
Inverter Specification / input		
12 or 24 v depending on model		
10 v for 12 v model 20v for 24 v		
10.5v for 12 v model 21v for 24 v		
10 v for 12 v model 20v for 24 v		
15.5 for 12v model 30v for 24 v		
below 20 watts when enabled		
Same switched on/off on remote		
Charger Mode specification		
196-245 v ac		
dependent on battery type		
1500 - 40A 2500 - 70A 3500 - 100A		
1500 - 20A 2500 - 35A 3500 - 50A		
0-15v for 12 v x 2 /24v		
15.7 12 v x 2 for 24 v		
Charger curves		
Same as Pro Combi Q		
same		
same		
same		
same		
same		
same		
same		
same		
General Features.		
Front control panel removable as remote		
Size: 185W 180H 430L (1600, 2500)	227W 180H 512L (3500)	
Weight: 1500w 44lbs	2500w 44lbs	3500w 53lbs