

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

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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 m/s 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

	Pro Combi Q	Pro Combi S
Input Wave form:	Pure sine wave	Pure sine wave
Nominal Voltage:	Input 230v a/c model: 110v model USA	Input 230v a/c model: 110v a/c model USA
Low voltage trip:	184v +/- 4% Euro 92v USA	184v +/- 4% 92v a/c USA
Minimum engage:	voltage 194v +/- 4% 97v USA	voltage 194v +/- 4% 95v USA
High voltage trip:	270v +/- 4% 128v USA	253v +/- 4% 126v USA
High voltage re engage:	253v +/- 4% 122v USA	243v +/- 4% 121v USA
Max input a/c voltage:	270 v rms 135v USA	270 v rms 135v USA
Nominal input frequency:	50hz or 60hz auto detect	50hz or 60hz auto detect
Low freq trip:	47 hz for 50 hz, 58 hz for 60 hz	47 hz for 50 hz, 58 hz for 60 hz
High freq trip:	53 hz for 50 hz, 62 hz for 60 hz	53 hz for 50 hz, 62 hz for 60 hz
Output wave form:	(on by pass mode) same as input	(on by pass mode) same as input
Overload protection :	Circuit breaker	Circuit breaker
Short circuit protection :	Circuit breaker	Circuit breaker
Transfer switch rating :	30 amp	1500-2500 w = 30 amp the 3500 w= 50 amp
Efficiency on line transfer mode:	96%+	95%+
Line transfer time :	20 ms	20 ms
Bypass without battery connected :	yes	yes
Max by pass current :	30 amps	30 amp
By pass over load current :	35 amps: Alarm	35 amps: Alarm
Inverter Specification / output		Inverter Specification / output
Output wave form:	Modified Sine Wave/ Quasi sine wave	Pure sine wave
Output continuous power watts	1600 2500	continuous 1500 / 2500 / 3500
Output continuous power VA	2400 3600	
Power factor:	0.9- 1.0	0.9-1.0
Nominal output voltage rms :	230vac 110v USA model	230vac 115v USA model
Max voltage rms :	260vac 110v USA model	260vac 130v USA model
Output voltage regulation:	+/- 10% rms	+/- 10% rms
Output frequency:	50hz +/- 0.3hz or 60hz +/- 0.3hz	50hz +/- 0.3hz or 60hz +/- 0.3hz
Transient response time:	<150ms; 0% to 100% RCD load	<150ms; 0% to 100% RCD load
Nominal efficiency :	>85%	>88%
Surge ratings :	1500model = 4500va 2500model = 7200va	PQS1500=4500va PQS2500=7200va
Online current consumption at 12 v/24	12 v 2a 24v 1 amp with new TX tran	12 v 2a 24v 1 amp with new TX transformer
Power saver mode current consumption	12 v 0.4 24v 0.2	12 v 0.4 24v 0.2
Short circuit protection:	yes, less than 3 cycles	yes, less than 3 cycles
Inverter Specification / input		Inverter Specification / input
Nominal input voltage :	12 or 24 v depending on model	12 or 24 v depending on model
Minimum start voltage :	10 v for 12 v model 20v for 24 v	10 v for 12 v model 20v for 24 v
Low battery alarm:	10.5v for 12 v model 21v for 24 v	10.5v for 12 v model 21v for 24 v
Low battery trip:	10 v for 12 v model 20v for 24 v	10 v for 12 v model 20v for 24 v
High voltage alarm:	15.5 for 12v model 30v for 24 v	15.5 for 12v model 30v for 24 v
Power saver :	below 20 watts when enabled	below 20 watts when enabled
Power saver :	can be switched on/off on remote control	Same switched on/off on remote
Charger Mode specification		Charger Mode specification
Input voltage range:	196-245 v ac 96-130 v ac USA model	196-245 v ac
Output voltage:	dependent on battery type selection	dependent on battery type
Output current 12 v model :	1600- 40A 2500 - 55A	1500 - 40A 2500 - 70A 3500 - 100A
Output current 24 v model :	1600- 20A 2500 - 25A	1500 - 20A 2500 - 35A 3500 - 50A
Battery initial voltage for start up:	0-15v for 12 v x 2 /24v	0-15v for 12 v x 2 /24v
Over charge protection shutdown:	15.7 12 v x 2 for 24 v	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

	Pro Combi S
Input Wave form:	Pure sine wave
Nominal Voltage:	Input 230v a/c model: 110v a/c model USA
Low voltage trip:	184v +/- 4% 92v a/c USA
Minimum engage:	voltage 194v +/- 4% 95v USA
High voltage trip:	253v +/- 4% 126v USA
High voltage re engage:	243v +/- 4% 121v 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 :	1500-2500 w = 30 amp the 3500 w= 50 amp
Efficiency on line transfer mode:	95%+
Line transfer time :	20 ms
Bypass without battery connected :	yes
Max by pass current :	30 amp
By pass over load current :	35 amps: Alarm
Inverter Specification / output	Inverter Specification / output
Output wave form:	Pure sine wave
Output continuous power watts	continuous 1500 / 2500 / 3500
Output continuous power VA	
Power factor:	0.9-1.0
Nominal output voltage rms :	230vac 115v USA model
Max voltage rms :	260vac 130v 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 :	>88%
Surge ratings :	PQS1500=4500va PQS2500=7200va
Online current consumption at 12 v/24	12 v 2a 24v 1 amp with new TX transformer
Power saver mode current consumption	12 v 0.4 24v 0.2
Short circuit protection:	yes, less than 3 cycles
Inverter Specification / input	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 :	Same switched on/off on remote
Charger Mode specification	Charger Mode specification
Input voltage range:	196-245 v ac
Output voltage:	dependent on battery type
Output current 12 v model :	1500 - 40A 2500 - 70A 3500 - 100A
Output current 24 v model :	1500 - 20A 2500 - 35A 3500 - 50A
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	
Same as Pro Combi Q	
same	
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