

# Combined Inverter Chargers

**Pure Sine Wave.** Simulates domestic and shore power wave purity enabling any appliance to run from it. By stripping away all unnecessary functions the Combis are simple and provide a cost effective solution that meets the need of 90%+ of the consumer base.

**30A automatic crossover switch:** If shore power is connected to the combi the switch allows you to run your appliances from the shore power. However, when shore power is disconnected, the switch moves over to take current from the batteries. Switching time is 20ms.

12V and 24V models  
**2500W**  
**3500W**

Battery Charger sizes  
40A - 100A (at 12V)

8 Battery type selectors.  
All with their own 4 stage  
charging profiles.

**Charger only select** option  
(on pure sine wave only).  
Allows unit to be set so in  
event of shore power failure  
the inverter does not engage.

**Online Current consumption**  
as low as **1.4A**. Now fitted with  
new TX transformer results in  
50% less quiescent current.

**Earth - Neutral bonding** link  
when on inverter mode to  
comply with latest regulations.  
This allows RCD breakers to  
work.

Power Factor Corrected  
(PFC)

European use  
230V 50Hz



Features a power saver function.



North America  
110V 60Hz

Pro Combi S Pure Sine Wave 230V 50Hz Euro Standard			
DC Voltage	Power (W)	Charger (A)	SKU
12	2500	80	PCS122500
12	3500	100	PCS123500
24	2500	35	PCS242500
24	3500	50	PCS243500

Remote Control with 10m cable  
switches unit on / off  
select / deselect power saver mode  
(standard with both Pure / Quasi)

Pro Combi S pure Sine Wave 110V 60 Hz USA Standard			
DC Voltage	Power (W)	Charger (A)	SKU
12	2500	80	UPCS122500
12	3500	100	UPCS123500
24	2500	35	UPCS242500
24	3500	50	UPCS243500



**Quasi Sine Wave:** Partially simulating  
domestic and shore power wave purity  
- enabling majority of appliances to run  
from it (~95%) - the exceptions are  
thyristor controlled appliances  
(washing machines) and very accurate  
apparatus (medical). If in doubt,  
ALWAYS go for a **Pure Sine Wave**.

12V and 24V models:  
**1600W**  
**2500W**

**Standards (Pure/Quasi)**  
EN61000-3-2  
EN61000-3-3  
EN50081-1  
EN60335-2-29

Features similar to that of  
the **Pure Sine Wave**.

European use  
230V 50Hz



North America  
110V 60Hz

Pro Combi Q Quasi Sine Wave 230V 50 Hz Euro Standard			
DC Voltage	Power (W)	Charger (A)	SKU
12	1600	40	PCQ121600
12	2500	55	PCQ122500
24	1600	20	PCQ241600
24	2500	25	PCQ242500

Pro Combi Q Quasi Sine Wave 110V 60 Hz USA Standard			
DC voltage	Power (W)	Charger (A)	SKU
12	1600	40	UPCQ121600
12	2500	55	UPCQ122500
24	1600	20	UPCQ241600
24	2500	25	UPCQ242500

# Detailed Specification Sheet

General specification	Pro Combi Q	Pro Combi S
Input Wave form:	Pure sine wave	Pure sine wave
Nominal Voltage:	Input 230V AC 110V USA	Input 230V AC 110V USA
Low voltage trip:	184V +/- 4% Euro 92V USA	184V +/- 4% Euro 95V USA
Minimum engage voltage:	voltage 194V +/- 4% 97V USA	voltage 194V +/- 4% 97V 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 AC voltage:	270V rms 135V USA	270V rms 135V USA
Nominal input frequency:	50 Hz or 60 Hz auto detect	50hz or 60hz auto detect
Low freq trip:	47 Hz for 50 hz, 58 Hz for 60 Hz	48 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 :	30A	30A
Efficiency on line transfer mode:	96%+	95%+
Line transfer time :	20 ms	20 ms
Bypass without battery connected :	yes	yes
Max bypass current :	30A	30A
Bypass over load current :	35A Alarm	35A Alarm
<b>Inverter Specification / output</b>		
Output wave form:	Quasi / Modified Sine Wave	Pure / True Sine Wave
Output continuous power watts	1600W 2500W	2500W 3500W
Output continuous power VA	2000VA 2800VA	2800VA 3900VA
Power factor:	0.9- 1.1	0.9- 1.0
Nominal output voltage rms :	230V 110V USA	230V 110V USA
Max voltage rms :	260V 130V USA	260V 130V USA
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%	>85%
Surge ratings :	1500W = 4500VA 2500W = 7200VA	2500W = 3200VA 3500W = 4200VA
Online current consumption 12V / 24V	12V 1.2A 24V 1A with new TX transformer	12V 1.2A 24V 1A with new TX
Power saver mode current consumption	12V 0.4A 24V 0.2A	12V 0.4A 24V 0.2A
Short circuit protection:	yes, less than 3 cycles	yes, less than 3 cycles
<b>Inverter Specification / input</b>		
Nominal input voltage :	12V or 24V depending on model	12V or 24V depending on model
Minimum start voltage :	10V or 20V depending on model	10V or 20V depending on model
Low battery alarm:	10.5V for 12V model 21V for 24V	10.5V for 12V model 21V for 24V
Low battery trip:	10V for 12V model 20V for 24V	10V for 12V model 20V for 24V
High voltage alarm:	15.5V for 12V model 30V for 24V	15.5V for 12V model 30V for 24V
Power saver threshold:	below 20W when enabled	below 20W when enabled
Power saver :	Can be switched with remote	Can be switched with remote
<b>Charger Mode specification</b>		
Input voltage range:	196-245V AC 96-130V AC (USA)	196-245V AC 96-130V AC (USA)
Output voltage:	Battery type dependent	Battery type dependent
Output current 12V model:	1600W- 40A 2500W- 55A	2500W - 80A 3500W - 100A
Output current 24V model:	1600W- 20A 2500W- 25A	2500W - 35A 3500W - 50A
Battery initial voltage for start up:	0-15V for 12V x 2 /24V	0-15V for 12V x 2 /24V
Over charge protection shutdown:	15.7V 12V x 2 for 24V	15.7V 12V x 2 for 24V

**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 upgrade your quasi-sine unit for pure sine wave with the only cost being the difference between the 2 products (unit must be sent direct to Sterling and in good condition and postage paid for by customer). Offer applies dealing direct to the Sterling factory only.