

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.

Pure sine wave

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)

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.

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

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

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

Power Factor Corrected (PFC)

Features a power saver function.

European use
230V 50Hz



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



North America
110V 60Hz

Pro Combi S Pure Sine Wave 230V 50Hz Euro Standard

DC (V)	Power (W)	Charger (A)	Code
12V	2500W	80A	PCS122500
12V	3500W	100A	PCS123500
24V	2500W	35A	PCS242500
24V	3500W	50A	PCS243500



Pro Combi S Pure Sine Wave 110V 60Hz USA Standard

DC (V)	Power (W)	Charger (A)	Code
12V	2500W	80A	UPCS122500
12V	3500W	100A	UPCS123500
24V	2500W	35A	UPCS242500
24V	3500W	50A	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). some laptop chargers, phone chargers, and some TVs. If in doubt, ALWAYS go for a **Pure Sine Wave**.

Quasi 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 S Pure Sine Wave 230V 50Hz Euro Standard

DC (V)	Power (W)	Charger (A)	Code
12V	1600W	40A	PCQ121600
12V	2500W	55A	PCQ122500
24V	1600W	20A	PCQ241600
24V	2500W	25A	PCQ242500

Pro Combi S Pure Sine Wave 230V 50Hz Euro Standard

DC (V)	Power (W)	Charger (A)	Code
12V	1600W	40A	UPCQ121600
12V	2500W	55A	UPCQ122500
24V	1600W	20A	UPCQ241600
24V	2500W	25A	UPCQ242500

Detailed Specification Sheet

General specification	Pro Combi S	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 sw itch rating :	30A	30A
Line transfer time / Efficiency on line tranfer mode	20 ms / 96%+	20 ms / 95%+
Bypass without battery connected :	yes	yes
Bypass over load current / Max bypass current	35A Alarm / 30A	35A Alarm / 30 A
Inverter Specification / output		
Output wave form:	Quasi / Modified Sine Wave	Pure / True Sine Wave
Output continuos pow er w atts 20 degC 40 degC ambient	1600W 1200W model 2500W 2200W model	2500W 2200W model 3500W 3100W
Output continuos pow er VA	2000VA 2800VA	2800VA 3900VA
Pow er factor / Nominal efficiency	0.9- 1.1 / >85%	0.9- 1.0 / >85%
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
Surge ratings :	1500W = 4500VA 2500W = 7200VA	2500W = 7200VA 3500W = 8200VA
Online current consumption 12V / 24V	12V 1.2A 24V 1A with new TX transformer	12V 1.2A 24V 1A with new TX
Pow er 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
Inverter Specification / input		
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
Pow er saver threshold:	below 20W w hen enabled	below 20W w hen enabled
Pow er saver :	Can be sw itched w ith remote	Can be sw itched w ith remote
Charger Mode specification		
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 n:	15.7V 12V x 2 for 24V	15.7V 12V x 2 for 24V
General Features.		
Remote control. Front control panel removable as remote		
Size: 1600 & 2500 in mm	450L inc terminal covers 220W 190H	380L 220W 190H
Weight in Kg	12V 1600W 18 Kg, 24V 1600W 19 Kg	12V 2500W 19 Kg, 24V 2500W 18.5 Kg
	12V 2500W 19 Kg, 24V 2500W 20 Kg	
Size: 3500 in mm		600L inc terminal covers 230W 190H
Weight in Kg		12V 3500W 27.5 Kg, 24V 3500W 27 Kg