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 Combs are simple and provide a cost effective solution that meets the need of 90%+ of the consumer base.

12V and 24V models
2500W
3500W

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

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

8 Battery type selectors.

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

Power Factor Corrected (PFC)

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

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.

European use
230V 50Hz

European use
230V 50Hz

North America
110V 60Hz

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.

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.

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

12V and 24V models: 1600W
2500W

Features similar to that of the Pure Sine Wave.

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

Features a power saver function.

North America
110V 60Hz

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

<table>
<thead>
<tr>
<th>DC (V)</th>
<th>Power (W)</th>
<th>Charger (A)</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>12V</td>
<td>2500W</td>
<td>80A</td>
<td>PCS122500</td>
</tr>
<tr>
<td>12V</td>
<td>3500W</td>
<td>100A</td>
<td>PCS123500</td>
</tr>
<tr>
<td>24V</td>
<td>2500W</td>
<td>35A</td>
<td>PCS242500</td>
</tr>
<tr>
<td>24V</td>
<td>3500W</td>
<td>50A</td>
<td>PCS243500</td>
</tr>
</tbody>
</table>

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

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<tr>
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<th>Power (W)</th>
<th>Charger (A)</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>12V</td>
<td>2500W</td>
<td>80A</td>
<td>UPCS122500</td>
</tr>
<tr>
<td>12V</td>
<td>3500W</td>
<td>100A</td>
<td>UPCS123500</td>
</tr>
<tr>
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<td>24V</td>
<td>3500W</td>
<td>50A</td>
<td>UPCS243500</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
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<th>Power (W)</th>
<th>Charger (A)</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>12V</td>
<td>1600W</td>
<td>40A</td>
<td>PCQ121600</td>
</tr>
<tr>
<td>12V</td>
<td>2500W</td>
<td>55A</td>
<td>PCQ122500</td>
</tr>
<tr>
<td>24V</td>
<td>1600W</td>
<td>20A</td>
<td>PCQ241600</td>
</tr>
<tr>
<td>24V</td>
<td>2500W</td>
<td>25A</td>
<td>PCQ242500</td>
</tr>
</tbody>
</table>
General Specification

**Input Wave form:**
- Pro Combi Q: Pure sine wave
- Pro Combi S: Pure sine wave

**Nominal Voltage:**
- Input 230V AC 110V USA
- Input 230V AC 110V USA

**Low voltage trip:**
- Pro Combi Q: 184V +/- 4% Euro 97V USA
- Pro Combi S: 184V +/- 4% Euro 95V USA

**Minimum engage voltage:**
- Pro Combi Q: 194V +/- 4% 97V USA
- Pro Combi S: 194V +/- 4% 97V USA

**High voltage trip:**
- Pro Combi Q: 270V +/- 4% 128V USA
- Pro Combi S: 270V +/- 4% 126V USA

**High voltage re engage:**
- Pro Combi Q: 253V +/- 4% 122V USA
- Pro Combi S: 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

**Bypass without battery connected:**
- 35A Alarm / 30A
- 35A Alarm / 30 A

**Output wave form:**
- Quasi / Modified Sine Wave
- Pure / True Sine Wave

**Output continuous power watts:**
- 20 degC: 1600W 1200W model 2500W 2200W model
- 40 degC: 2500W 2200W model 3500W 3100W

**Output continuous power VA:**
- 2000VA 2800VA
- 2800VA 3900VA

**Power 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

**Surge ratings:**
- 1500W = 4500VA 2500W = 7200VA
- 1500W = 4500VA 2500W = 7200VA

**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

**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

**Power saver threshold:**
- below 20W when enabled
- below 20W when enabled

**Power saver:**
- Can be switched with remote
- Can be switched with 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
- 1600W-40A 2500W-55A

**Output current 24V model:**
- 1600W-20A 2500W-25A
- 1600W-20A 2500W-25A

**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

**Weight in Kg:**
- 12V 1600W 18 Kg, 24V 1600W 19 Kg
- 12V 2500W 19 Kg, 24V 2500W 20 Kg

**Size:**
- 1600 & 2500 in mm
- 12V 2500W 19 Kg, 24V 2500W 20 Kg

**Weight in Kg:**
- 12V 3500W 27.5 Kg, 24V 3500W 27 Kg

**Remote control. Front control panel removable as remote**

**Size:**
- 3500 in mm
- 600L inc terminal covers 230W 190H

**Weight in Kg:**
- 12V 3500W 27.5 Kg, 24V 3500W 27 Kg