



## Combi Inverter/Chargers

- **Pure Sinewave Output**
- **Powerful DC to AC Inverter, Battery Charger and Switching System in one compact box**
- **Pure Sinewave Inverter Output**
- **4 Stage, Programmable, Adaptive Battery Charger**
- **Compact & Lightweight**
- **Reduces system complexity**
- **Easy to install and use**
- **Built in Remote Panel**

The Merlin range of AbSo Combi Inverter/Chargers combines the benefits of a Sinewave Inverter and a 4 Stage Battery Charger. Fully automatic in operation, AbSo inverter/chargers are easier to use, install and are significantly more cost effective than inverter and charger 'separates'.

**Pure Sinewave Output** – ensures interference free operation with all electrical appliances.

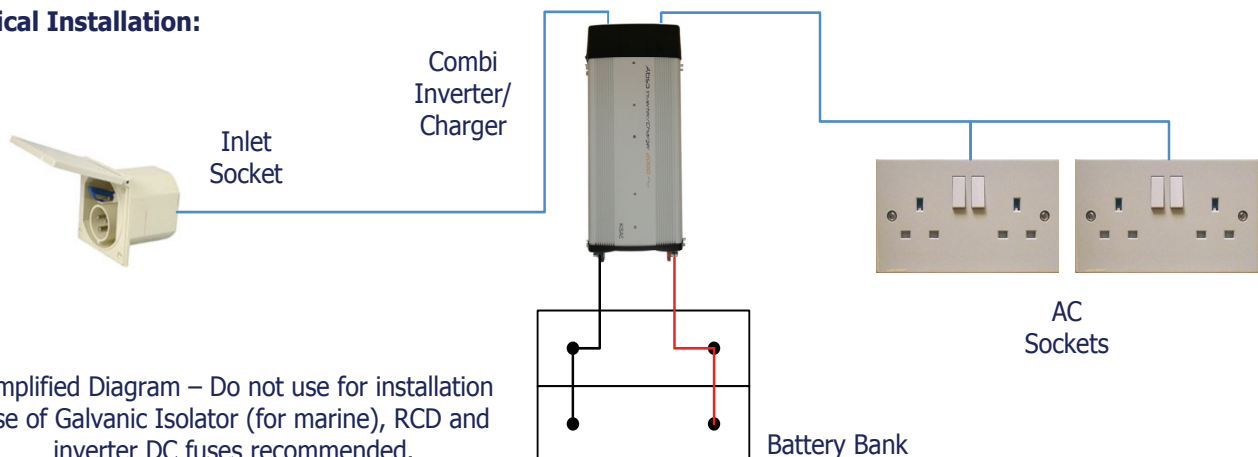
**4 Stage Smart Battery Charger** – By combining an inverter and a charger you are not compromising quality of battery charge. The charger within AbSo units is based on the same technology as the AbSo stand-alone units.

**Fast Transfer Switch** – switching between inverter and external AC power takes less than 30 milliseconds. This is fast enough to keep most PC's alive and clocks on microwaves or audio visual equipment operating. The transfer between external AC power and inverter power is automatic or can be controlled manually using the unit's front control panel. The transfer switch is rated for systems up to 30 amps AC (7kW).

**Built In Control Panel** – built in to the front of the unit to allow set up, monitoring and control. Displays battery voltage and output wattage when in use. The control panel is detachable so it may be mounted anywhere on board. Supplied with a 25' (7.5m) extension cable.

**Programmable Features** – Idle mode sends the inverter to sleep and automatically awakens it when a load is sensed to reduce zero load current draw. Programmable battery type and charging voltage settings (suitable for all lead/acid, gel and AGM cells). Settable over and under voltage alarms. Maximum shore power limit setting – limits the amount of power the battery charger will pull from external AC sources (useful for when plugged in to limited mains supplies).

### Typical Installation:



## Specifications

	<b>1000w Model</b>	<b>2000w Model</b>
<b>Part Number</b>	<b>03-1004</b>	<b>03-1005</b>
<b>Inverter</b>		
AC Output (Watts) Continuous	1000w	2000w
AC Output Current Amps	4.4A	8.7A
AC Peak Surge Power (Watts)	2000w	4000w
AC Output Voltage	230V AC (+/-5%), 50Hz (+/- 0.01Hz)	
AC Output Waveform	Pure Sinewave <3% THD	
Nominal DC Input Voltage	12V	12V
No Load Current Draw	<1500mA	<1500mA
DC Input Voltage Range	10-15.5V	10-15.5V
Under Voltage Alarm (Programmable)	11.0 - 12.1V	11.0 - 12.1V
Under Voltage Alarm Recovery (Programmable)	11.3 - 12.3V	11.3 - 12.3V
Under Voltage Shutdown (Programmable)	10.5-11.8V	10.5-11.8V
Under Voltage Recovery (Programmable)	12.0 - 12.6V	12.0 - 12.6V
Over Voltage Shut Down	15.5V	15.5V
<b>AC Transfer Switch</b>		
Transfer Time	<30ms	<30ms
Transfer Relay Rating	30A	30A
Programmable AC source current limiter	Yes	Yes
<b>Display</b>		
Included in package?	Yes	Yes
Extension Cable Included	Yes	Yes
Inverter Mode Display	Input Volts & Output Power (Watts)	
Charger Mode Display	Status & Battery Voltage	
Display Dimensions (LxWxH) in mm	58x58x20	58x58x20
<b>Charger</b>		
Weight	1.7Kg	2.7Kg
Charger Current (Max)	40A	55A
Charge Current Limits	5, 10, 20 40A	5, 15, 25, 55A
Battery Types	Gel, Flooded, AGM & Custom	
<b>Other Specificatoins</b>		
Conformity	CE, UL458, CSA C22.2, cET lus	
Operating Temperature	-20°C to 60°C	-20°C to 60°C
Humidity	5-90% non condensing	
Weight	5.7Kg	6.6Kg
Dimensions (LxWxH) mm	478x230x114	478x230x114

### Split Charging From An Inverter/Charger

Inverter/Chargers have one main input and output. Therefore, if you require battery charging of multiple battery banks you will need to consider split charging options. If you have a battery combiner system (Eg SmartBank, Merlin VSR or PowerBank), these will handle all charge sources (including the inverter/charger) – see page 24 for an explanation. However, if you do not have this style of charge management system, we recommend using a Slave Charger (call Merlin for details).

Multiple Battery Combiner Systems can be used so that your combi inverter/charger can work with any number of independent battery banks.