



## CATERING COACH CONVERTER – INTERCITY / REGIONAL

### 5kW AC to AC Converter

#### Key Technical Features

- ✓ High frequency, IGBT based PWM Inverter
- ✓ Modular design: Single replaceable unit with separate transformer assembly
- ✓ Galvanic isolation on 240Vac output
- ✓ Variable frequency or fixed frequency operation to suit vehicle alternator power
- ✓ EMC compliant to BS/EN 50121-3-2
- ✓ Electronic equipment compliant to rolling stock standard BS/EN 50155
- ✓ Shock and vibration compliant to BS/EN 61373
- ✓ Ground fault detection and protection ( 300 mA) from internal ground faults
- ✓ Quality monitoring of output waveform
- ✓ Enclosure rated to IP66

#### Key Benefits to Operators and Fleet Owners

- ✓ High reliability
- ✓ Wide input supply range i.e. immune to supply fluctuations
- ✓ No routine maintenance required and hence reduced through life costs
- ✓ Natural convection cooled
- ✓ Small / compact underfloor space envelope
- ✓ Noise level is very low and its silent in operation
- ✓ Visual display panel for status information and its handy during diagnostics
- ✓ Designed to power difficult loads that require high starting currents or have poor form factors





Input Voltage	249 V ac to 448 Vac
Input AC frequency	30 Hz to 54 Hz
Number of phases	3-Phase
Output Voltage 3phase Inverter	240 Vac +5% line to line, single phase
Output frequency	50 Hz $\pm$ 0.5 Hz
Rated Power	5kW continuous
Output voltage THD	< 5% considering up to 25 <sup>th</sup> harmonic
Protection	Electronic overload protection
Isolation	2 kV rms, 50Hz for 1min between output and earth.
Efficiency	> 92% at full load
Environmental Protection	Magnetic and electronic enclosures rated at IP20 and IP66 respectively
Weight	Main electronics enclosure – 65Kgs Transformer enclosure – 55Kgs
Dimensions	Main electronics enclosure – 490mm (l) x 430mm (w) x 430mm (h) Transformer enclosure – 365mm (l) x 320mm (w) x 226mm (h)
Design Life	30 years
Operating temperature and Humidity	-25 <sup>o</sup> C to +40 <sup>o</sup> C and relative humidity at maximum of 100%
Cooling	Natural convection or naturally cooled
Fault diagnostics	Visual display

Vehicle mounted static catering converters provide single phase AC electrical supply for microwave ovens, refrigeration cabinets, refrigeration display cabinets, coffee machines and electronic point of sale (EPOS) equipment. They are fitted underneath the service vehicles to give power for 230/240 Vac equipment, essential for today's passenger service and refreshment needs. These converters offer the necessary regulated supply from unregulated alternator derived head end power.

The converters capabilities can run a fixed voltage and a variable voltage alternator, with either fixed frequency or variable frequency operation. Its design incorporates the latest high efficiency IGBT technology and offers 5kW power in a small under-floor mounted enclosure. Fault diagnostics operations are simplified by external visible display panels, which are used to convey status information to maintenance personnel. In addition these converters are compliant with BS EN EMC, shock / vibration specifications and are safety case approved to operate on UK rolling stock.

We will be happy to discuss your project or enquiries, please contact our marketing department at [marketing@turbopowersystems.com](mailto:marketing@turbopowersystems.com) to get in touch or ring us on +44 (0) 191 482 9288/9251/9278.



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