



## **PRESS RELEASE**

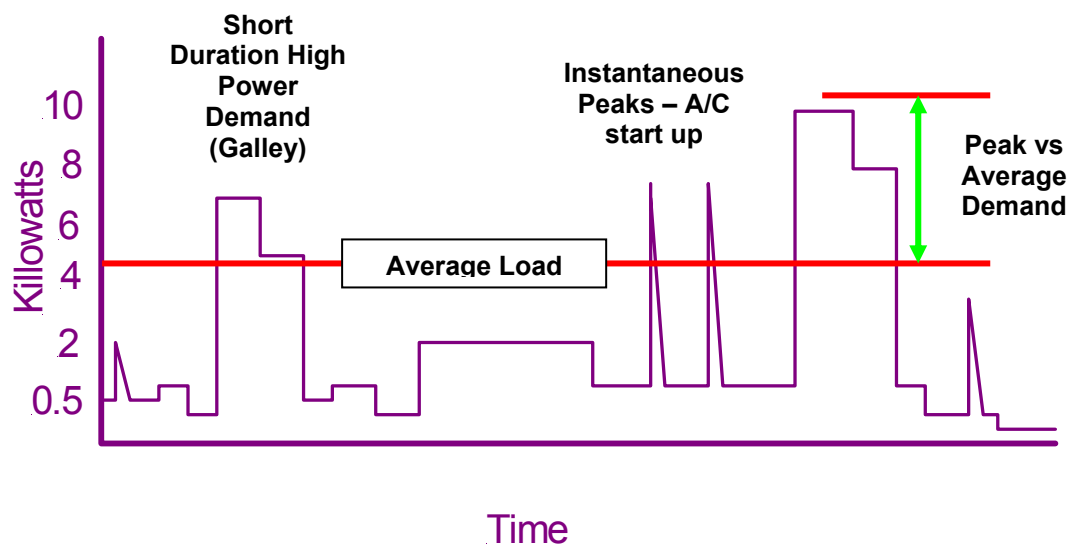
**Date: March 2007. For Immediate Release**

### **Advanced Generator Technology from Fischer Panda**

Fischer Panda have pioneered the technology behind DC generators for over 15 years. By the application of patented permanent magnet alternators and fresh water cooled rectifier assemblies, they are able to deliver soundproof diesel generators with any DC voltage required, in a range of generator outputs from 4 kW (typically at 12, 24 or 48V) up to 150kW. (Typically 96V.)

The onset of smart inverter-chargers enables a DC generator to be offered as a sensible solution for any power generation system. The Victron Multi-Plus inverter/charger enables all AC consumers on board to be run from the batteries. They operate automatically as a charger when shore or AC generator power is available and as an inverter when mains power is not available. The AC power available from the Multi-Plus is limitless due to their paralleling capability. The Royal Huisman 155' sailing boat Hyperion has 40 x 3kW units for completely silent and unobtrusive AC power on board.

High-efficiency battery charging with a variable-speed diesel generator is advantageous to the vessel designer and operator in a number of ways. The generator output in kVA is not selected to cope with peak demand. It is selected based on an average demand. This means in real terms that instead of having say, an 80kW AC generator on a large yacht, a 50kW DC set can be used.



**Typical Power Consumption Profile over 24Hrs – (Small Domestic Usage)**

It can be seen from the above load profile that an AC generator selected with an output of say, 12kW would be grossly over-rated and would run at full load condition for probably less than 5% of the day and at very much part load for the remaining 95%.

### **Engineered Solutions for an Independent Lifestyle**

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A 6kW DC generator set to operate on automatic battery sensing mode, would run only when the domestic battery bank voltage drops to a preset lower level, nominally 11.2 Volts for a 12 V system, and run until the higher charge level is reached, this is nominally 13.8V for a 12V system. The power consumption and the power generation are thus effectively divorced from one another, the battery bank in these cases acting as a "reservoir" of power.

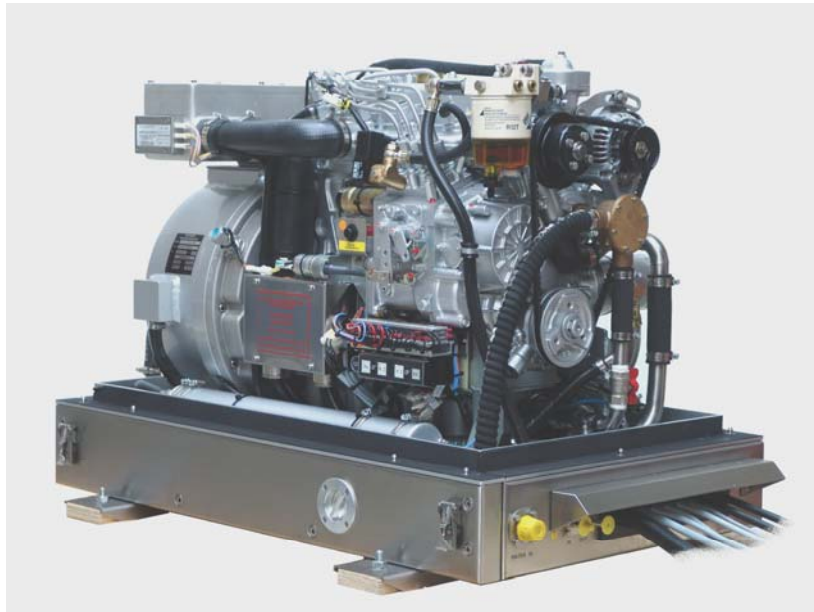
The obvious benefits for a DC power generation system are:

- Smaller generators
- The generator only runs in a loaded condition
- No need for load banks
- Lower generator running hours
- Less fuel used
- Less maintenance costs
- Lower environmental impact

As with all Fischer Panda generators, the ergonomic, stainless steel soundproof, capsule is designed for easy access to all major components with traditional refinements such as external oil drain and a secondary anti-vibration mounting system.

All Fischer Panda generators use fresh water cooled Kubota diesel engines. The generators are configured to run between 2000 and 2800 rpm producing nominal power outputs between 4.0kW and 150kW. An auto-start Panda iControl panel with graphic display of all operating pressures, temperatures and fault diagnosis comes with each generator.

Fischer Panda are fully represented in all major yachting areas of the world.



**Panda AGT 16000-48 PMS 16kW 48V DC Marine Generator  
(840mm L x 505mm W x 660mm H. 258kg)**

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**Fischer Panda UK** are distributors of Fischer Panda diesel generators for mobile applications including the marine and specialist vehicle industries. They also distribute HRO/Sea Recovery desalinators, Climma marine air-conditioning equipment and Victron power products.

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