

# Complete Power Systems with integrated ECU

Complete Systems Individual Solutions Designed for Military Tasks



#### Fischer Panda Complete Power Systems

Fischer Panda complete power systems combine electrical generator and ECU / Air Con into a single unit. They provide efficient, reliable power and environmental control under harsh and extreme conditions. They have been specifically designed for military mobile applications requiring a simultaneous supply of power for equipment and ECU within a container / tactical shelter.

- Complete Systems combining generator and power for ECU (heating and cooling) / aircon to ensure optimal operating environment for mission-critical equipment
- Complete Environmental Control air conditioning, heating elements, blowers and NBC options.
- Individual Solutions with facilities for custom-made products which meet application requirements (mounting, modular systems)
- Scaleable and Powerful variable speed generators for varying AC loads and peak power demands, parallel operation, load-sharing capabilities, grid connection.
- Designed for Military Tasks meets MIL-STD 461 E , MIL-STD 810 specifications with an extremely low IR signature.
- Super silent, lightweight and highly efficient water-cooling for engine and generator, enclosed in a sound insulated cover.

#### Combined Generator / Aircon Systems - for Lightweight Roles

- Combined Generator / Aircon
- Tunnel Mounted on Slides
- Lightweight Combi Systems

Fischer Panda "Combined Units" provide the perfect solution for commanders who are deploying sophisticated and powerful electronics in vehicle mounted systems. Fischer Panda Generators bring a powerful generating set and ECU (for air-conditioning and heating) into a single unit for shelter-based systems such as those mounted on HMMWV. The generator is mounted inside the dedicated shelter "tunnel" on slides. The lightweight, compact and modular design of these "combination" generators have been successfully deployed, supplying a diverse range of applications. The generators can also be extended to most light and medium-wheeled systems.

Panda 12 PSC EU Combo 12 kW . / 7kW + 5kW cooling

Generate





THULL I

## Scaleable System Solutions with Full Load Sharing

The next generation of Fischer Panda SST (Super Silent Tactical) generators for AC power supply. Ideal for varying AC loads and peak power demands. Several generators can be linked together to synchronise total power output and provide multiple levels of power according to demand.

Perfectly matched to the SST Generators, the ECU 6000 with 75.000 BTU capacity has been specifically designed by Fischer Panda for military use optimal operating temperature for mission-critical equipment can be ensured. An efficient compressor allows up to 42% energy savings with light loads





Parallel operation with load sharing

Variable speed technology

Operate ECU / air conditioners

Panda SST 25 / 24 kW

### Complete System Solution for Container-Based Applications

This highly sophisticated "all-in-one" solution from Fischer Panda is for container-based applications requiring electrical power, advanced ECU heating and air-conditioning capabilities. The system is designed for command units maintaining a heightened "battle readiness" which are connected to a mains power grid where disruption or total loss is imminent or expected. The complete unit makes efficient use of co-generation coupling the generator cooling system with the ECU system.

#### Heat can be supplied from three different sources:

- Heat as "by product" from the generator cooling system
- Diesel heating
- Heat from electrical heating.

The container's electrical systems are supplied by a 24kW generator via multiple electrical outlets with isolation transformer protection. Upon loss of the power grid and mains supply, the generator is automatically started and the supply switched over to the generator. This can also be done manually. An integrated fuel tank allows the system to operate at full load for 12 hours. An automatic refuelling unit can be connected to an external fuel source.

- Economic up to 30% fuel savings reduces logistic effort for fuel storage and re-supply
- Reduces the environmental impact
- Lowers the independence on local energy sources.

All major assemblies are mounted in two stackable frames which assemble to the container to form a complete unit. The lower frame houses generator, fuel tank and electrical distribution.

The upper frame houses ECU (air conditioning and heating) with NBC filters. Electrical and water-cooling hoses make use of quick release connectors to allow the frames to be separated in less than a minute. The modular construction allows individual assemblies to be easily exchanged. The unit is built to meet MIL-STD specifications 461 and 810. A filter system for NBC, which fits into the ECU's main mounting frame is available as an option.



- Co-generation / Grid Connection
- 24 kW Electrical Generator
- Operate ECU / Air Conditioners





Computer controlled split-system air conditioning





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#### Disclaimer:

The information contained here is to the best of our knowledge accurate at the date of publication. Please note that the data in this publication reflects the technical state at time of print. Dimensions apply for the sound insulation capsule only and do not include latches, fittings etc. Additional room will need to be calculated for installation to include hoses, cables and capsule mountings. Additional components or alternators may also affect capsule dimensions. Due to our policy of continual product development, we reserve the right to alter technical specifications without notice. All performance data relates to air and water temperatures of 20°C. Performance reduction (approx. 1% per 100 m height and approx 2% per 5°C air temperature and approx. 1% per 1°C water temperature above 20°C) MIIPower enV2.indd Stand: 04-08-2010

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