



DC/DC Converter Powers Energy Recovery System for the automotive industry

June 2010 – Martek Power, a world leader in the design and manufacture of power converters and power supplies, is pleased to announce the presentation of the first Hybrid Truck that took place in France. Martek Power designs and manufactures a bi-directional 5 kW DC/DC converter which is part of the first hybrid truck developed by Renault Truck, part of Volvo Truck AB. The name of this multi-companies project is called GEODE.

The use of trucks contributes to the greenhouse effect and global warming. According to the European Commission, 26% of carbon emissions are attributable to transport in Europe with 85% due to road transport of which a quarter is generated by trucks. Emissions from diesel engines in cities contribute to the degradation of air quality with NOx and particles that cause real problems for health. Trucks with low CO² and NOx are a major commercial real advantage in Europe. Noise emissions are one of the main challenges the truck industry must address, especially in residential areas. Therefore, there is a potential market for an urban medium size truck. As part of the environmental improvement of urban vehicles, Renault Trucks, SAFT (battery system), Market Power (electrical DC/DC converter) and INRETS have decided to focus efforts on energy efficiency of the truck and the study of new power trains, aiming to ensure the best possible performance for end users given their specific needs (refuse trucks, refrigerated trucks, product distribution ...).

The hybrid transmissions are particularly suitable for vehicles with frequent stops. Thanks to the Martek Power bi-directional DC/DC converter, they can recover the energy lost in downhill or slowing down. This recovered energy can ensure the movement of the truck but also be transmitted to equipment mounted on body in order to reduce fuel consumption, noise and pollutants. "The green truck" is a major technological step in the protection of our planet.

Objectives:

- Reducing fuel consumption up to 30%
- Reduction of carbon emissions, NOx and particulate (- 30%)
- Reducing noise

About Martek Power

Martek Power is a world leader in the design and manufacture of standard, modified-standard, custom power supplies and converters (both linear power supplies and switching power supplies). With power supply design and manufacturing centers in Europe, North America, North

Africa, and Asia, Martek Power is uniquely qualified to satisfy customers in worldwide markets with local technical and customer service support. The company has over 45 years' experience in making power supplies for medical, networking, telecom, data storage, transportation, computing, aerospace & military, instrumentation, and other industrial applications. It also owns two major global providers of test and measurement equipment and calibration and maintenance services - Sefelec in Germany and Semelec in France. Please visit martekpower.com for more information.