

ELECTRIC FIREFIGHTING TRUCK

Providing 200-kWh battery capacity

Rosenbauer (Austria) presented the worldwide first fully-electric firefighting vehicle on a serial chassis. The add-on equipment is interconnected via a CAN-based system.



The Rosenbauer logistics vehicle integrates four batteries with the charging process lasting less than 1 h (fast) or 6,5 h (normal) (Source: Rosenbauer)

The 16-t Volvo FL Electric was used primarily for local delivery rounds. Since last year, the chassis has been available with an electric drive, and Rosenbauer built an emergency vehicle on it as the first firefighting equipment supplier.

The power train of the vehicle consists of an electric motor and a two-speed gearbox. The first gear allows starting with maximum torque (425 Nm) even on a steep terrain. The power of the electric motor is 165 kW (continuous) and reaches up to 200 kW (peak). The motor acts as a generator converting the braking energy into electrical energy and feeding it back to the batteries. Up to six 600-V batteries (50 kWh each) can be installed in the chassis. This enables a cruising range of ca. 300 km. Batteries are charged via the on-board alternating-current chargers, or via external direct-current charging stations. The charging process lasts 1,5 h (fast) or 10,5 h (normal) for six batteries.

The Rosenbauer logistics vehicle has four batteries on board. This is sufficient for an average logistics operation including arrival and departure, operational site lighting (flashing lights, scene lighting, LED interior lighting), and the electrical supply for radios, laptops, hand lights, chargers, etc. The firefighting equipment is interconnected via Rosenbauer's CAN-based system. The lighting, the reversing camera, and the rear microphone can be switched via a 10-inch display installed in the center console of the cab. Sockets are installed in the driver's cab and at several points in the body.

The superstructure for the firefighting equipment consists of three parts, a workshop area with work surface, two equipment compartments, and a loading area. Two shelves are installed in the loading area and four standard roll-on/roll-off containers are available. Loading and unloading is carried out via a tail-lift with a load capacity of 1500 kg. The vehicle can be also produced with a different interior layout and equipment.

[of](#)