Case Study

Fischer Panda UK and Mastervolt Deliver Clean Energy for Spotless Mobile Fleet

Forward-thinking project to customise and install integrated power system for zero-emission EV vans helped cleaning company achieve carbon neutral operation



With congestion and low emission zones expanding in the UK's cities and towns, companies require reliable and efficient solutions that enable their vehicles to enter and work in these areas and avoid charges. Carbon neutral operation is the ambition for a growing number of businesses as they improve their green credentials, while preparing and optimising their services for future years.

Cleaning Company Spotless Mobile knew a clean energy solution for its new EV vans had to be exceptional, especially after some disappointing experiences previously. After a meticulous search, the company selected Fischer Panda UK, a Mastervolt distributor and leading complete system supplier for the vehicle industry, and Mastervolt to design, supply and install the onboard auxiliary power system for the fleet of zero-emission electric vehicles. The resulting Mastervolt integrated power system "exceeded expectations" for Spotless Mobile at every stage of the process.

"Following an extensive search of the market for a power solution for our new EV vans and having bad experiences in the past, Spotless Mobile chose Fischer Panda UK and Mastervolt to create our power solution. From the design stage detailing our needs to the install we were very impressed, and the concept system has exceeded our expectations."

Tim Morris, Chairman, Spotless Mobile





Providing complete system solutions for the marine, vehicle and defence sectors. Fischer Panda generators and systems; HRO, Village Marine and Sea Recovery watermakers; Dometic air-conditioning; Mastervolt power electronics; CZone digital switching







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The new fleet of EV vans were to operate initially in London before a planned expansion into other UK cities and pollution hotspots. Spotless Mobile purchased the fleet to strengthen its already prominent market position in the service, valet and management of the growing car sharing club and rental market by also offering a true zero-emission service to the rapidly expanding EV sector.

System components

Each new EV van was fitted with a zero-emission 230 V power system, to run pressure washers, vacuums and general cleaning equipment operated throughout the working day. After careful evaluation of the power demands of the company's more conventional diesel vehicles, which used the alternator to power an inverter, together with its engineers' daily work cycles, a Mastervolt integrated power system was developed. The system is based on the proven MLI Ultra battery bank, a CombiMaster inverter/charger, a DC Distribution smart fuse distribution block and a user-friendly MasterView Easy touch screen, to keep the operator informed of power available and time remaining before a recharge is needed.

The Mastervolt system was designed so as not to impact on the vehicles' range, or indeed the manufacturer's warranty, and is charged via a discrete independent waterproof 230 V input socket mounted in the front grille, close to the standard EV charging port, so it can be charged overnight at the same time as the vehicle, via the adapted charging lead kit.

Weight, space and reliability were the main points on which Mastervolt and Fischer Panda secured the contract. A real tangible asset is, that even with the 230 V onboard power supply, this vehicle can still enter and work in London's low emission zones and operate congestion charge free.





"We're now rolling the solution out in all our new EV vans, which has resulted in Spotless Mobile becoming carbon neutral. This is a huge USP to our Car Club clients as their vehicles are usually located in cities and towns with congestion zones."

Tim Morris, Spotless Mobile



Power wherever where

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