



The future of urban transportation.

No range limit. No pollution. No batteries.



Chariot e-Bus Belgrade, Serbia



Chariot e-Bus Graz, Austria



How Chariot Motors brings the future in urban transportation...

Chariot Motors has designed and developed the Chariot e-bus: an environmentally friendly electric bus that can be seen on the streets of the European cities and Israel today.

Our unique advantage is that Chariot e-bus, powered by the ultracapacitors technology created by the leading innovation company Aowei, has solved the main disadvantages of the existing bus energy storage systems – the batteries:

- the limitation on the daily mileage;
- the limitation on passengers carrying due to the large weight of the batteries;
- the relatively short lifespan of batteries and their high maintenance cost;
- the safety issues related to the fire susceptibility of the batteries.

In over 11 years, our ultracapacitor technology has been field tested on more than 12 million kilometres of roadway. In doing so, it has proven itself in delivering reliable service under harsh commercial conditions and is unsurpassed by any other contemporary power-storage solution on the market.

Apart from its zero tailpipe emissions, this innovative technology offers unrivalled dependability, safety, and energy efficiency. Chariot e-buses are bringing the future of urban transportation to the market today.

Chariot Motors e-Buses' key features

Chariot Motors electric buses satisfy a wide swath of technical parameters that meet the needs of leading transport operators. These include among others:

- a pleasant and welcoming passenger environment;
- a stainless steel and composite body, eliminating corrosion risks;
- key systems produced by leading European suppliers, which result in high dependability and convenient servicing;
- an Aowei ultracapacitor system, ensuring an unsurpassed number of charging cycles and unbeatable recuperation rates;
- high energy efficiency that results from the significant recuperation capacity of the Aowei ultracapacitor;
- a 10C charging rate, enabling charging times of 2 to 5 minutes at terminal stations, enabling a bus range of up to 30 km on a single charge;
- a payload as good as those of a diesel bus;
- an operational temperature range of the energy storage from -40°C to 70°C and no heating;
- low maintenance costs due to the fact that there isn't need to construct heavy infrastructure (overhead power line);
- no environmentally hazardous materials in the power storage and no disposal costs;
- no explosion or fire risk for the power storage unit;
- low-entry kneeling floor and wheel-chair ramp, free WiFi connection.

An example of Chariot e-bus top performance are the results achieved during the commercial operation in Belgrade, Serbia for a period of 1 calendar year:

- operational schedule from 5:30 o'clock until 23:00 o'clock, 7days per week;
- operation in the temperature range from -14°C in the winter time up to 40°C during the summer;
- high reliability of the UC e-buses; realization of planned transport is 97% (availability);
- the vehicles annual mileage is 62000 km per year per vehicle;
- the average electrical energy consumption of the electric buses running on line EKO 1 in Belgrade is around 1.1 KWh/Km;



Chariot e-Bus Sofia, Bulgaria



Chariot e-Bus Tel Aviv, Israel



AOWEI advanced UC technology

The characteristics of the Aowei ultracapacitor technology used in the Chariot e-bus make it ideally suited to its task. This results from a number of aspects, and more notably:

- it has been in use for over 11 years and has been tested on over 12 million km of roadway, making it amongst the best tested and most mature energy storage technology currently used in electric transport commercial vehicles;
- it is a lightweight and small energy storage unit, which enables a range of up to 30 km on a single charge. This allows for the Chariot e-bus to have a low curb weight and a high passenger capacity with a spacious passenger cabin;
- the expected lifespan of the ultracapacitor pack is higher than the expected lifespan of the vehicle, eliminating the need to replace the ultracapacitor pack;
- an intelligent on-board and remote Ultracapacitor Management System allows for quick and efficient diagnostic and maintenance procedures;
- low operational and maintenance costs of the ultracapacitor system over its life-span, resulting from its high reliability;
- since the ultracapacitor is mounted in a safety container, any risks associated with potential accidents are avoided.

Charging infrastructure

Charging stations

- Designed to create a controllable charging cycle with DC current for the ultracapacitor, integrated into the Chariot eBuses.
- Regulative power system consists of a conventional frequency inverter (FI), a rectifier unit (AC/DC converter) and a programmable logic controller (PLC) to guide the ultracapacitor charging process with current and voltage feedbacks.
- Integrated commutation equipment to serve the power part of the equipment.
- Touchscreen humane machine interface (HMI) visualizes charging law set parameters, currently measured process parameters, graphical log archive of recorded parameters and alarm list archive.
- Build in teleservice module (TSM) for internet connection, which enables remote connection with the charging station for monitoring and control by a remote desktop PC, tablet or smart phone.
- Safety relay is integrated in the system, which detects when the doors of the cabinet are open or when the emergency switch button is pressed. Charging station works in automatic mode and after power interruption is self-restoring.



top-down pantograph

CM e-buses on the map



La Spezia, Italy



Graz, Austria



Romania



Sofia, Bulgaria



Poland



Belgrade, Serbia



Tel Aviv, Israel



Contact us:



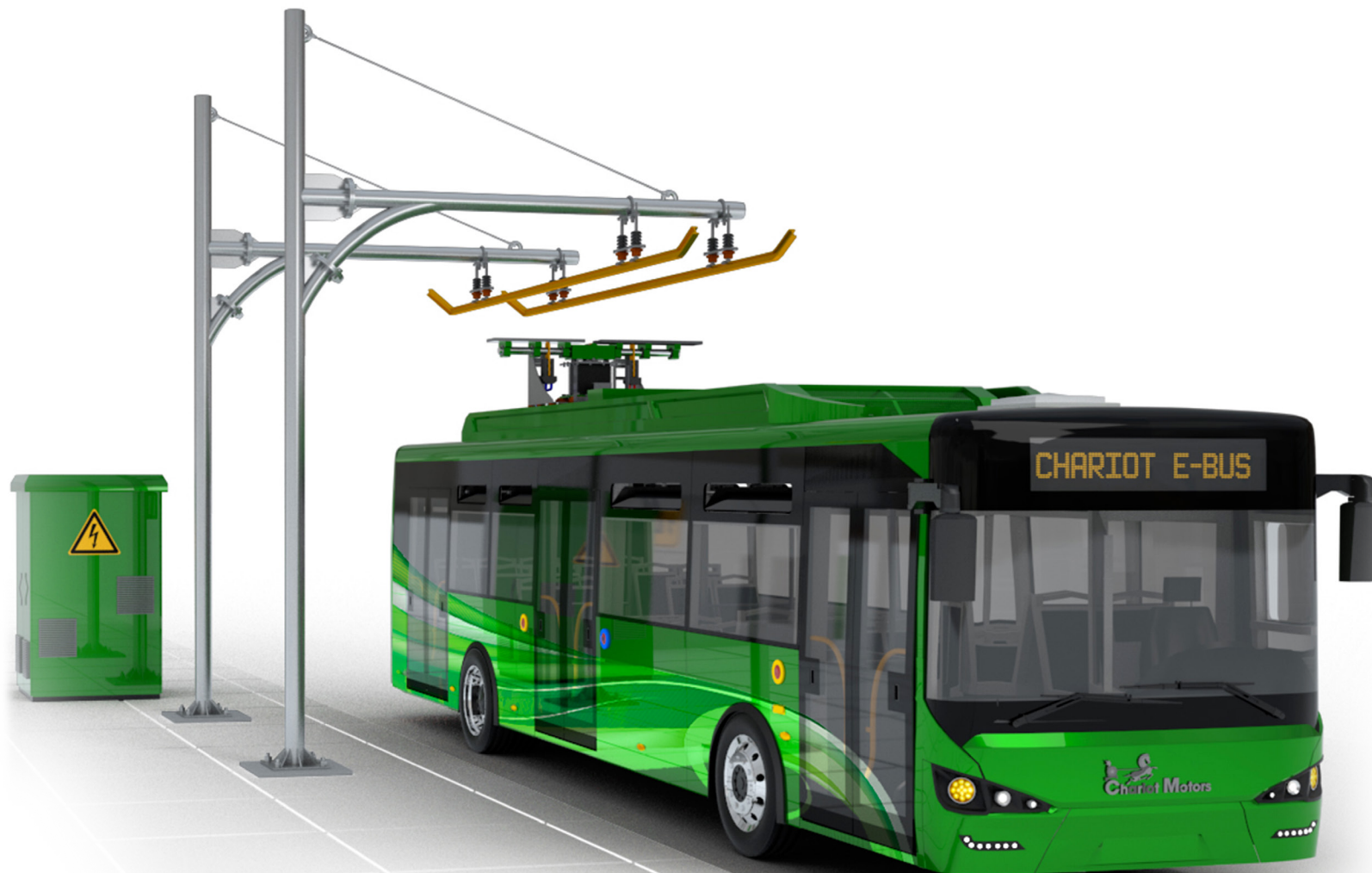
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 Chariot **e**bus