

Opportunity Charging for E-Bus and Battery Trains

E-bus systems, such as our all-in-one charging station, ensure quiet, energy-efficient and environmentally friendly public road transport.

But the charging technology from Furrer+Frey AG can also be found on the railways.



Also well positioned for the future expansion strategy: RVBW's AC/DC charging station in front of the bus garage.

From DC Systems...

Experts agree that it will be necessary, not only today but also in the next ten years, to recharge battery-equipped electric buses that travel 300 to 350 km per day on the route. This is done with so-called occasional charging within a few minutes, preferably at terminal stops..

The All-In-One charging station (AIO®) from Furrer+Frey is characterised by its simple design:

All components are elegantly integrated in the charging station. The often difficult construction of a separate container for the power electronics becomes unnecessary. Likewise, the AIO® is extremely robustly built, as required for infrastructure buildings. For this reason, the AIO® is not only finding its way into e-bus systems throughout Europe, but also into railway projects with direct current technology.



Running from 2021: VLR (very light railway) at the National Innovation Centre in Dudley, England.

From 2021, the VLR (Very Light Railway) will run in England at the National Innovation Centre in Dudley. By 2025, standard-gauge VLRs are to run on four new-build lines in Coventry.

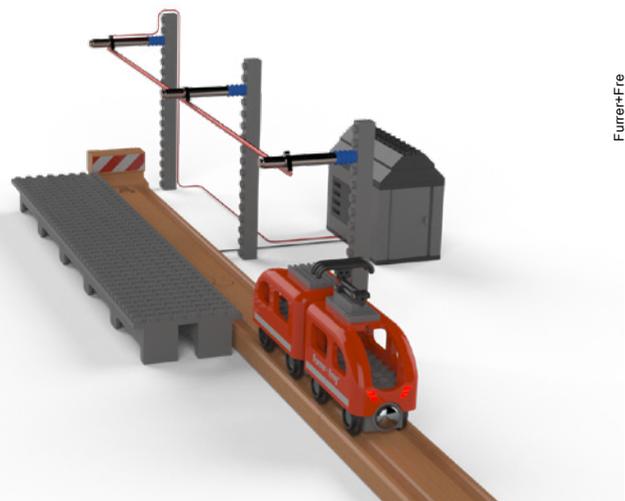
...to AC Systems

Battery trains are to replace the diesel railcars that mainly run in rural areas. When such vehicles are on an already electrified section of track, they behave like ordinary electric traction units.

The energy is supplied via the pantograph. When the battery train, often referred to as BEMU (Battery Multiple Electrical Unit), leaves the electrified section, it uses the energy stored in the traction accumulator for its further progress. With a range of 80 to 100 km, non-electrified branch lines of up to around 50 km can still be served without any problems, even after a certain ageing process of the accumulator.

The AC/AC charging station developed and built by Furrer+Frey AG in cooperation with the Tübingen public utility company is capable of supplying two BEMUs with a power of up to 1.2 MW each at a voltage of either 15 or 25 kV and the customary national frequency of 50 Hz. The charging station can thus be installed as a rail network-independent island on the line or at the end of the branch line in the rail network.

Felix Dschung
Beat Winterlood



AC/AC charging stations for battery trains are becoming trendy in rural areas across Europe.

Furrer+Frey AG

The family-run company, founded in 1923 and based in Bern, Switzerland, has been active in the electrification of public transport on rail and road ever since. Customers worldwide benefit from its know-how as an engineering office and manufacturer of systems for public transport.

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