Cities are looking to electrify their transit fleets to reduce emissions and noise pollution, as well as increase efficiency and lower energy and maintenance costs. Buses powered by internal combustion engines add to pollution and are costly to operate and maintain. Transit Authorities must adopt future-proof and easy to integrate solutions to modernize their fleets and infrastructure.

ABB’s automated fast charging system reduces onboard battery size for extra passenger space, as well as allows for the continuous operation of e-buses. ABB’s e-bus charging solutions are designed to scale electrification plans into existing transit ecosystems.

Inverted pantograph connects to a basic rail interface located on the roof of the bus: this reduces the vehicle’s overall weight and cost, thereby improving its energy efficiency and increasing passenger capacity.

Overnight charging allows e-buses to be connected and charged sequentially while parked at the bus depot. Chargers can be configured to offer 50 kW to 150 kW of high power fast charging.

Flexible solutions enable freedom of choice. ABB’s e-bus charging solutions are designed using an open-standard approach; thus giving transit authorities full control over their fleets.

Reliability and cost-efficiency are key for transit infrastructure. The future-proof charging system is based on IEC 61851-23, the International standard for EV fast charging. Interoperability with CCS and OppCharge ensures that every bus in a fleet can connect to every charging point on the network. ABB’s open-standard design approach ensures interoperability.

Life cycle costs and uptime are critical factors for the success of any transit operation. Optimal infrastructure solutions should include deep technical expertise and a proactive service portfolio to optimize all charging assets.

Increased passenger comfort: Less onboard infrastructure equals more passenger space; thereby increasing comfort and vehicle efficiency.

Increased safety: The automated connection of the inverted pantograph means there is no human interaction required.

Lower infrastructure and fleet maintenance costs: Lower maintenance cost due to electric powertrains with fewer moving parts offer significantly reduced maintenance costs and lengthen vehicle lifetimes.

3-6 minutes fast charging time: Continuous bus operation with on-route charging allows for bus route schedule to be maintained.

Increased passenger comfort: The automated connection of the inverted pantograph means there is no human interaction required.

Lower infrastructure and fleet maintenance costs: Lower maintenance cost due to electric powertrains with fewer moving parts offer significantly reduced maintenance costs and lengthen vehicle lifetimes.

Increased safety: The automated connection of the inverted pantograph means there is no human interaction required.

OPRcharge

Invertor pantograph

150 kW charging power per module

Modular design multiplies power options allows easy and cost-effective field upgrades from 150 kW up to 600 kW.

Connectivity

Increased uptime with ABB Ability™ connected services which enable remote monitoring and diagnostics as well as software upgrades.

Flexibility

Flexible solutions enable freedom of choice.

Future proof

Charging system is based on IEC 61851-23, the International standard for EV fast charging.

Interoperability with CCS and OppCharge

Every bus in a fleet should be able to connect to every charging point on the network. ABB’s open-standard design approach ensures interoperability.

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