ABB launches automated fast charging system for electric buses at Busworld 2015

Industry standards based solution offers typical charging times of 4–6 minutes enabling 24/7 zero emission bus operation in cities

Zurich, Switzerland – October 15, 2015 – ABB, the leading power and automation technology group, announced today that it introduces an automated fast charging system which allows electric city buses to drive 24/7, thus enabling true zero emission bus transport in cities. With its automated rooftop connection and a typical charge time of 4–6 minutes, the system can easily be integrated in existing bus lines by installing fast chargers at end points, terminals, depots and/or intermediate stops. The modular design offering 150 kW, 300 kW or 450 kW of charging power provides any city bus with enough energy in only a few minutes to run its inner-city route continuously throughout the day.

With increasing air pollution levels and a stronger public commitment to clean transportation, electric city buses offer a large opportunity to improve life in cities, while also reducing operational costs. ABB’s automated fast charging system solves the key problems for large scale adoption of zero emission electric buses: long charging times and short driving range belong to the past.

A practical solution based on international industry standards
ABB’s automatic charging system is based on IEC 61851-23, the international standard for fast charging electric vehicles. This ensures the appropriate safety systems are in place, the electrical design is in accordance with regulations, and the systems architecture and working principle are supported by the wider automotive community in the future. The robust automated connection is based on a pantograph: a proven system used commonly on trains, trams and metros, but mounted in inverted position on a stylish infrastructure pole. When a bus arrives at the charging stop, wireless communication will be established between bus and charger and the pantograph will come down automatically. After all safety checks are performed the system will provide the bus with a powerful fast recharge.

Simple cost effective interface works with any electric bus
ABB’s automated solution can be used with any electric bus provided it has the correct rooftop interface. The inverted pantograph connection makes it possible to use a low-cost and low weight interface on the roof of the bus, consisting of 4 simple contact bars with a weight of around 10 kg. This allows manufacturers of electric buses to reduce the weight of their vehicle, improve the energy efficiency, and design a lower cost electric bus. The attractiveness of ABB’s charging solution is confirmed by manufacturers of electric buses. In July 2014 ABB announced that it signed a global cooperation with Volvo bus to jointly market fast chargers and buses. “We are very excited about this cooperation, as it clearly shows that the ABB automated fast charging solution helps cities and bus manufacturers to become successful in offering zero emission bus transport to the communities” said Urs Waelchli, General Manager of ABB’s product group Electric Vehicle Charging Infrastructure.

Connectivity and remote management
High uptime and fast service response are key for charging electric buses at high frequency bus lines. The automated fast charger will be offered together with ABB’s proven suite of connectivity features including remote diagnostics, remote management and over-the-air software upgradeability.
Press Release

With over 3000 web-connected DC fast chargers installed globally ABB has proven that its suite of connectivity features enable industry leading uptimes and fast service response, anywhere in the world.

Busworld 2015
ABB’s fast charging system will be shown to the public for the first time in Kortrijk, Belgium at the Busworld 2015 show, where ABB will showcase multiple innovative technologies for public transport. Taking place from October 16–21, 2015, the event is the oldest and most famous bus and coach exhibition.

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 140,000 people.

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