

ABB E-MOBILITY

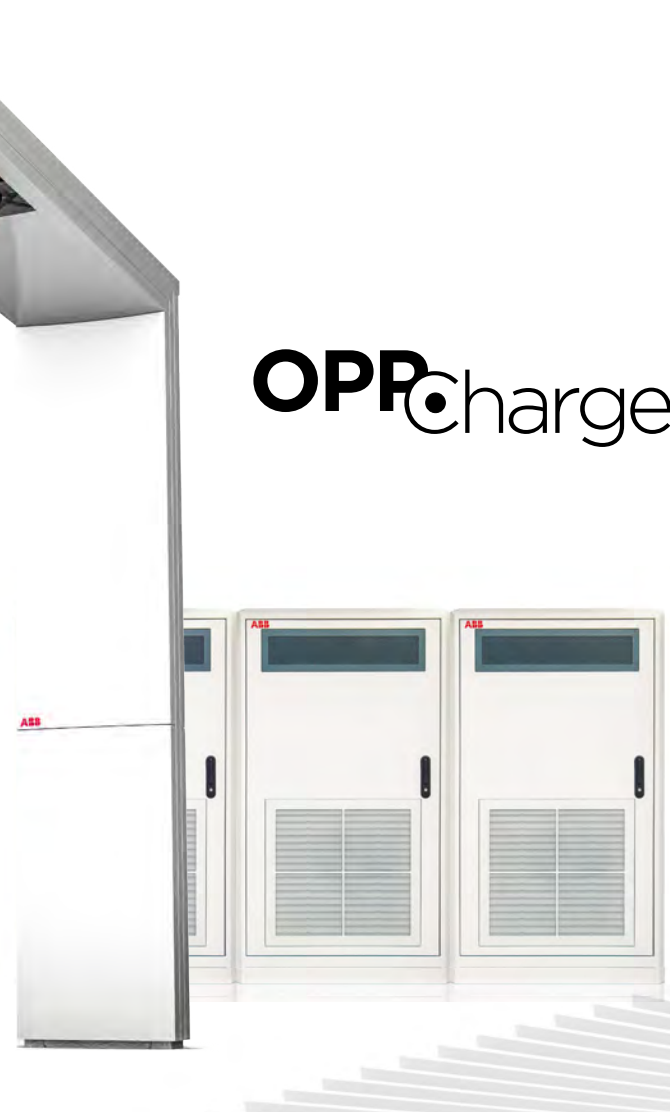
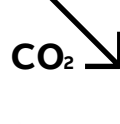
Bus Charging Infrastructure

Opportunity Charging

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.

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.



Transportation is changing

ABB's e-bus charging solutions are designed to scale electrification plans into existing transit ecosystems.

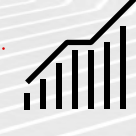
ABB's automated fast charging system

reduces onboard battery size for extra passenger space, as well as allows for the continuous operation of e-buses.

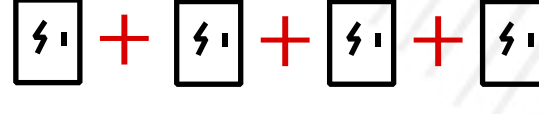


Inverted pantograph

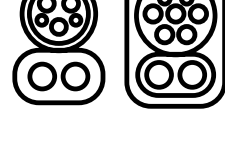
connects to a basic rail interface located on the roof of the bus; this reduces the vehicle's overall weight and cost, thereby improving its energy efficiency and increasing passenger capacity.



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.



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.

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.



Connectivity

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



Future-proof

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



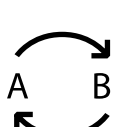
3-6 minutes fast charging time

Continuous bus operation with on-route charging allows for bus route schedule to be maintained.



Minimal infrastructure

Opportunity charging is deployed at bus terminal stops.

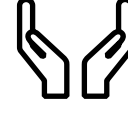


Easy to integrate

OppCharge infrastructure can be installed on actual bus lines. ABB chargers are designed for easy and cost effective installation.

Reliability and cost-efficiency are key for transit infrastructure

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 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.



Increased passenger comfort

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

ABB Charger Care

Service agreements ensure reliable operation throughout the entire charging system life cycle.



Environmentally friendly
60%
lower energy consumption
 than a corresponding diesel bus

