

Electrical drivetrain solutions

Drivetrain for eBus applications



ABB e-mobility drivetrain platform solves challenges with emissions and noise from commercial vehicles in urban environments. With reliable and optimized drivetrain components we will provide faster return on investment, lower total cost of ownership, better system service and reduced maintenance for our customers.

Every day, millions of people worldwide utilize buses and other public urban transport systems. This is an effective measure for mitigating congestions, improving land use and providing environmental benefits in urban environments.

ABB is a pioneer in technologies for urban transportation and has already more than 100 years of proven state-of-the-art electric drivetrains for rail bound applications that optimizes efficiency, safety operations, vehicle complexity and life time operating costs. ABB offers the same drivetrain solutions building blocks for buses and coaches to further accelerate the transition of local zero emission urban transportation.

It is easy to install our e-mobility drivetrains in new electrical vehicles, thus minimizing development cost and effort.

We have refined drivetrain technology for complete system solutions – integrating motor, drive, batteries and digitalized monitoring systems – which are optimized for individual vehicles and working cycles. This enables ABB to provide top down energy consumption of the solution, supporting our customers in the selection of the right charging concept.

ABB is a strong electrification system partner for bus OEMs since we have a global service network and can design highly efficient components and a fit-for-purpose drivetrain allowing either the operating range of the vehicle to be increased or the battery size to be reduced, both of which produce significant cost savings.. We focus on providing the right solution not only for optimizing performance and reliability, but also for minimizing the total cost of ownership.

ABB's drivetrain solutions are already in commercial operation, for example, in buses and trucks, where we have developed optimized driveline solutions in close cooperation with the OEMs.

Key features and benefits

- Optimized drivetrain solutions for your application
- Full integration to reduce interfaces and complexity during installation
- Direct drive or gearbox installations available
- Coolant temperature, -40 to +70°C
- Ambient temperature, -40 to +85°C
- Global support organization

Collaborative design process

Collaboration is a key value for ABB. We invite OEMs to join us in developing customized drivetrains to fulfill the needs of their customers.

Using advanced calculation tools, we can optimize each driveline based on your needs. Should the driveline be optimized for efficiency, performance or low weight? Or, for lowest environmental impact – free of rare-earth minerals?

Backed by the global ABB organization and well proven building blocks, these drivetrains can be rapidly mass produced, commercialized and integrated into new and existing vehicle platforms – offering customers a fast lane to tomorrow's electric buses.



01 Collaborating closely with OEMs is key to designing drivelines that are optimized based on end-customer demands.

02 ABB offers a complete electrification portfolio for euses.

