

Let's go electric now!

Advanced e-mobility drivelines



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01 E-mobility driveline solutions for heavy working machinery.

We have seen many promising e-mobility machine prototypes in recent years. The target now is to take the new e-mobility machines to high volume production. Some challenges to succeed are technical complexity, safety aspects, reliability and capability to produce high volumes for electrical drivelines.

For climate reasons, it is urgent to accelerate the manufacturing of emission-free heavy working machines. ABB can produce complete e-mobility driveline solutions, that are safe, easy to use and with high reliability, in high volumes.

It is easy to install our e-mobility drivelines in new electrified machines, and to convert existing engine platforms to electric drive – thus minimizing development cost and effort for OEMs.

We have refined driveline technology by developing complete system solutions, based on well proven building blocks – integrating motor, drive and digitalized monitoring systems – which are optimized for individual machines and working cycles.

We can do this in power of our vast experience of motor and drive innovation, paired with unmatched skills to combine the two into optimized solutions.

ABB offers complete electric drivelines for heavy working machinery – for example in mining, construction and material handling – optimized for each machine's actual working cycle. Our drivelines are designed for reliability and energy efficiency, reducing total cost of ownership while supporting productivity. An important step towards a sustainable future.

ABB's driveline solutions are already in commercial operation, for example, in the mining industry, where we have developed optimized driveline solutions in close cooperation with heavy machine OEMs.

Key features and benefits

- Optimized driveline solutions for your application
- Well proven technologies for high reliability
- Rugged design with high vibration and shock tolerance
- Coolant temperature, -40 to +65°C
- Ambient temperature, -40 to +85°C
- IP rating designed for demanding working machine applications
- Extensive manufacturing and service footprint ensures production capacity as well as local support
- Collaborative design and convenient installation

Collaborative design process

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

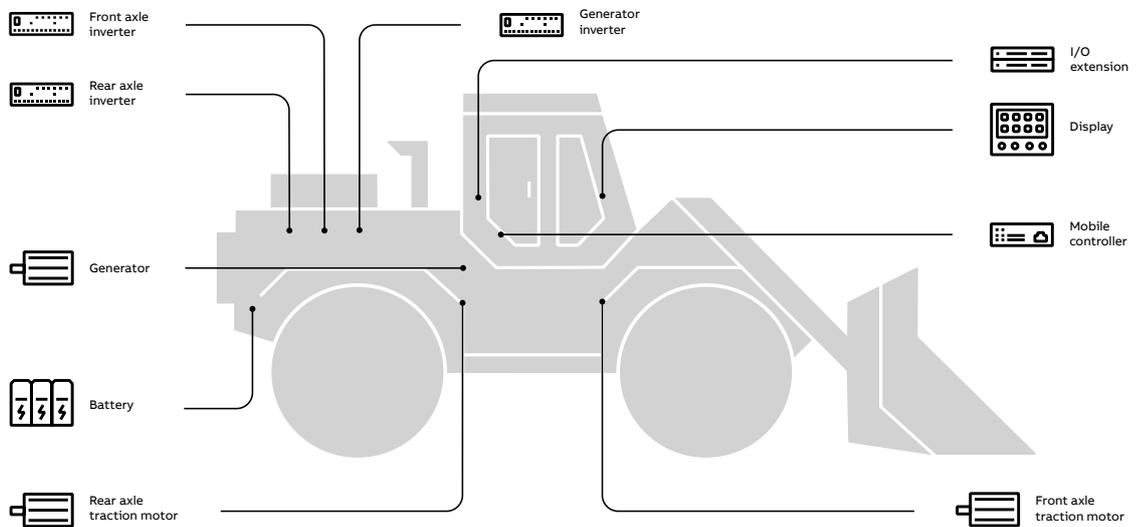
Using advanced calculation tools, we can optimize each driveline based on your needs. Should the driveline be optimized for efficiency, performance or low weight? Or, for lowest environmental impact – free of rare-earth minerals?

Backed by the global ABB organization and well proven building blocks, these drivelines can be rapidly mass produced, commercialized and integrated into new and existing machine designs – offering customers a fast lane to tomorrow’s climate-smart heavy e-machines.



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 heavy working machines.



03 The ABB e-drivetrain, including e-mobility motors and HES880 drives, in use by Epiroc, for the global mining group’s second-generation battery powered vehicles.



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