TOSHIBA

Hybrid locomotives and propulsion systems

Solutions for Modern Freight Transportation

Advanced Rail Technologies
Our Modular Solution, Your Energy Efficiency, Everybody’s Green Future.

Toshiba is your competent partner for hybrid freight locomotives and electrical propulsion systems. Discover our modular concepts for your new build or refurbishment projects - Toshiba is providing you with customized solutions.

High Efficiency
- Energy savings and emission free operation
- Toshiba combines its experience in railway systems with its innovative technology. In designing next generation products we promote a more safe, reliable and sustainable railway system.

High Comfort
- Provided by larger driver's cabin

Our Goal
- improve life cycle cost
- reduce maintenance effort
- improve operational reliability

Hybrid System
The hybrid system combines Toshiba's long experience in propulsion systems and its innovative SCIB™ battery technology (SIL 4 compliant). Choose the perfect type of hybrid system adjusted to your demand.

Hybrid Drive
Optimization is achieved using one or a combination of the following power sources: catenary, engine, battery.

Battery Drive
Ideal for shunting and low speed operation.

Regenerative Braking
When braking, regenerative power can be transferred into the catenary or stored in the battery.
Toshiba’s advanced railway and locomotive technologies situated at the “Heart of Europe”

**Toshiba Railway Europe GmbH**

- **Site Kiel**
  - Locomotives & Mechanical Engineering
  - Address: Bunsenstrasse 29, 24145 Kiel

- **Site Duesseldorf**
  - Propulsion Systems & Electrical Engineering
  - Address: Marienstrasse 8, 40212 Duesseldorf

**Contact:** sales@toshiba-trg.eu

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**Working together with a global network**

Toshiba Railway Europe GmbH is a part of an expansive global network with operations in Japan, China, India, Taiwan, Singapore, Australia, South Africa and the United States.

- Main global offices of the Toshiba Group cooperation for Railway System Business

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**Find out more on** [http://toshiba-railway.com](http://toshiba-railway.com)

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**Toshiba Infrastructure Systems & Solutions Corporation**

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