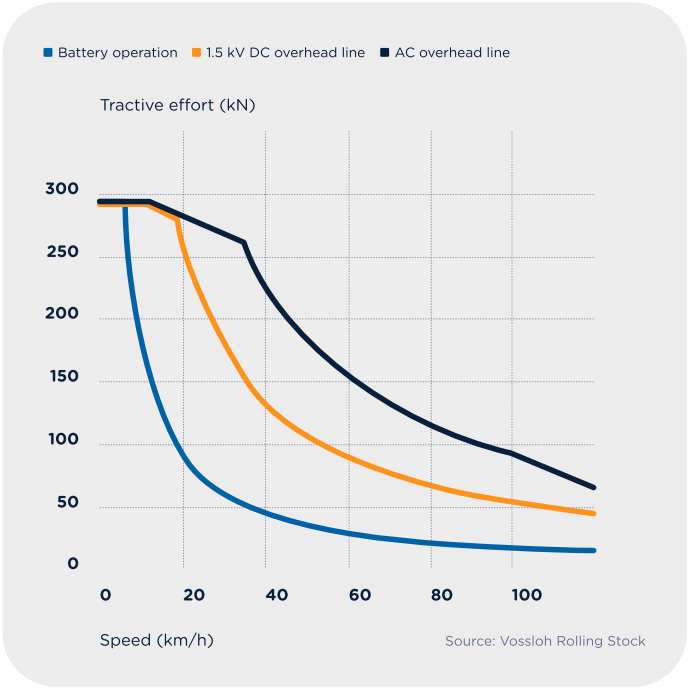
Modula EBB

The zero-emission Modula EBB hybrid locomotive combines an electric drive with two powerful batteries. It is suitable for shunting and freight operations in Germany and the Netherlands.

The powerful four-axle **Modula EBB** from Vossloh Rolling Stock and CRRC ZELC was developed in collaboration with Northrail and is designed for operation in Germany and the Netherlands. Thanks to ETCS, the hybrid locomotive enables seamless cross-border operation. As a battery-electric locomotive, the Modula EBB enables CO_2-free operation in shunting and freight transport. It draws electrical energy either from overhead lines or from two large battery units, allowing it to also operate on non-electrified sections of track – for example, in ports or on industrial sites.

During dynamic braking, the Modula EBB can recover energy and feed it back into the battery or overhead line. With its robust centre-cab design, excellent shunting capabilities and wide range of applications, it enables low-emission, economical and future-proof rail operations.

Manufacturer	Vossloh Rolling Stock
Locomotive type	Electric locomotive with multicurrent system and traction battery
Traction power at wheel	2,500 kW (15 kV or 25 kV overhead line AC) 1,500 kW (1.5 kV overhead line DC) 500 kW (battery operation), battery capacity: 350 kWh
Starting tractive effort	300 kN
Operating speed	100 km/h
Tare weight	90 t
Length over buffers	18,700 mm
Minimum curve radius	75 m
Train Control System	ETCS Baseline 3.6, PZB and ATB
Miscellaneous	GSM-R, radio remote control, air conditioning, multiple-unit operation with 3 locomotives
Homologation	DE, NL



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