



# **EURODUAL LOCOMOTIVE**

Havelländische Eisenbahn (HVLE), Germany

Havelländische Eisenbahn (HVLE) has become the launch customer of the new generation of six-axle bi-mode locomotives developed by Stadler for the European market. The contract includes the supply of ten EURODUAL locomotives and a corresponding full service maintenance agreement.

The powerful locomotives are to be used in freight transport services in Germany with a speed up to 120 km/h combining both operating modes:electric and diesel. The versatile machines can run on electrified lines (25 kV 50 Hz and 15 kV 16.7 Hz), rated at 7,000 kW, but they are also powered by a CAT C175-16, IIIB engine rated at 2,800 kW to run on non-electrified lines. EURODUAL is more than just a "last mile" locomotive. It offers two solutions in one. A vehicle at the avant-garde of technology that covers every need in an efficient and reliable way, offering rail operators numerous economic and ecological benefits.

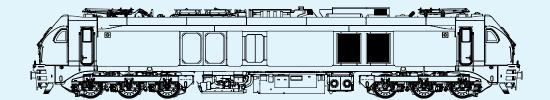
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# **Technical features**

# **Technology**

- Based on subsystems and components from proven models such the EURO4000 and EUROLIGHT
- Rail freight operations
- AC traction system with IGBT. 1 inverter per axle
- Decreased environmental footprint
- High starting tractive effort
- Extremely low track forces (best non-self steering bogie)
- Monocoque structure made of carbon steel, high strength steel and oxidation-resistant steel (copper steel)
- Equipped with ETCS BL3 and PZB

#### **Personnel**

- Two ergonomically designed driver's cabs with air conditioning
- High cab comfort and visibility beyond TSI requirements
- Full cab isolation

# Reliability / Availability / Maintainability / Safety

- Reduced operation costs
- EC 26/2004 Stage IIIB and TSI compliant
- State-of-the-art adhesion control system
- Equipped with TWC, remote control and cameras

# Vehicle data

Customer	HVLE
Region	Germany
Number of vehicles	10
Locomotive type	Dual-mode:
	Electric/Diesel-electric
Track gauge	1435 mm
Axle arrangement	Co'Co'
Supply voltage	25 kV 50 Hz and 15 kV 16.7 Hz
Diesel engine	CAT C175-16, IIIB
Power	Diesel: 2800 kW
	Electric: Up to 7000 kW
Starting tractive effort	500 kN
Fueltank	3.500 l fuel
Urea tank	400 l
Transmission	AC/AC
Maximum speed	120 km/h
Brake system	Mechanic: Pneumatic
	Dynamic: Regenerative/
	rheostatic
	2 distributors, one per bogie
	Bail off functionality
Suspension	Primary: Coil springs
	Secondary: Rubber metal
	Vertical and horizontal damper