STADLER

EURO9000 LOCOMOTIVE

The most powerful locomotive to operate on European rail corridors

The EURO9000 is an electric multisystem locomotive that enables operations on AC and DC electrified lines. Its modular design can accommodate up to three different on-board propulsion systems - electric, diesel and/or batteries - to efficiently meet operational needs on electrified and non-electrified routes. The TSI-compliant locomotive has been designed to cover various country packages, including conventional automatic train protection systems, as well as ETCS. This versatility allows it to run heavy haul freight operations or, optionally, medium speed passenger services even on international routes with mixed traffic.
The EURO9000 is currently the most powerful locomotive in the European market. With an output range of up to 9 MW and an outstanding tractive effort of up to 500 kN, in many cases, the EURO9000 will allow single locomotive operations where two locomotives are needed today. It features two comfortable cabs, a lightweight monocoque structure, AC/AC transmission system and a high degree of redundancy of main traction components. The latest bogie technology results in lower wear and tear on the infrastructure and reduced track access costs. The Co'Co' locomotive is at the cutting edge of technology. It has been designed to meet every customers' need efficiently and reliably, offering rail operators numerous operational, economic and environmental benefits. The EURO9000 boots energy efficiency, performance and reliability resulting in an optimal Life-Cycle-Costing and therefore, long-term cost-effectiveness of the rail operations.

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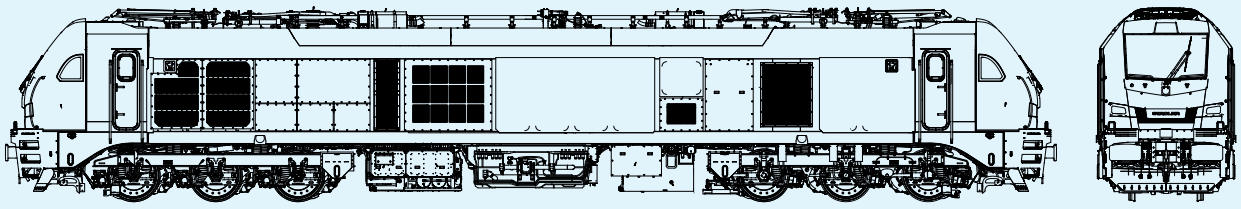

Technical features

Technology

- Applications: freight and optionally passenger transport
- Based on subsystems and components from proven models such as the EURODUAL family
- High-efficiency AC traction system with one inverter per axle for improved adhesion performance
- High starting and continuous tractive effort
- Latest 3-axle bogie technologie: high adhesion, low track forces
- High-performance electric brake with energy recovery
- Lightweight monocoque structure made of high-strength low-alloyed steel
- Cross-border operations. ETCS equipped with various country packages
- Ready for hybrid operations

Personnel

- Two driver's cabs with HVAC and universal central desk designed according to safety and ergonomic criteria.
- High cab comfort, safety and visibility, beyond TSI requirements
- Full cab insulation

Reliability / Availability / Maintainability / Safety

- TSI compliant
- Latest generation of vehicle control system including advanced remote diagnostic system and communication
- Reliable subsystems and a high level of in-built redundancy
- Designed to minimize downtimes during maintenance activities
- Reduced operating costs and environmental footprint
- Optional equipment available: train heating supply, low speed control, blended brake, EP brake, auxiliary driving controls, toilet, hybrid coupler, remote control...

Vehicle data

Locomotive type	Electric MS Hybrid: Diesel or Battery (*)
Operation area	DE, AT, CH, IT, BE, NL
Commissioning	2023
Track gauge	1 435 mm
Axle arrangement	Co'Co'
Electric power supply	25 kV AC 50 Hz+ 15 kV AC 16.7 Hz + 3 kV DC + 1,5 kV DC
Power at wheel rim	Up to 9 000 kW
Diesel engine power (*)	Up to 2 x 950 kW
Fuel tank (*)	Up to 1800 l
Traction battery (*)	Up to 2 x LTO
Starting tractive effort	500 kN
Continuous tractive effort	430 kN
Transmission	AC/AC
Maximum speed	120 km/h (able up to 160 km/h)
Brake system	Pneumatic brake Electric brake: regenerative / rheostatic Bail-off feature
Suspension system	Primary: coil springs Secondary: rubber metal Vertical and horizontal dampers
(*) Options	