



## EURO6000 ELECTRICAL LOCOMOTIVE

Renfe Mercancías, Spain

In 2021, Stadler and Renfe Mercancías assigned a contract for the procurement of 12 three-voltage electric locomotives of the EURO6000 family to run freight services on the entire Spanish electrified Iberian gauge (1,668 mm) rail network at speeds of up to 120 km/h. In 2023, Renfe Mercancías awarded Stadler 12 new EURO6000 locomotives, this time in standard gauge (1,435 mm). The powerful EURO6000 locomotives are characterised by their efficiency and high performance, making it possible to transport longer and heavier trains with a single locomotive, increasing the competitiveness of transport operations. The purchase of this more efficient and less polluting rolling stock is an important contribution to the Iberian Peninsula's railway sector and is in line with the European decarbonisation strategy. They feature a compact design, lightweight monocoque structure, alternating transmission system, six powered axles as well as a state-of-the-art adhesion control system. Their design is based on components and subsystems proven in commercial service and a high degree of redundancy, which increases their reliability. In addition, they offer excellent comfort, safety and visibility for train drivers. The EURO6000 is a state-of-the-art locomotive that efficiently meets all needs, offering railway operators numerous economic and ecological benefits.

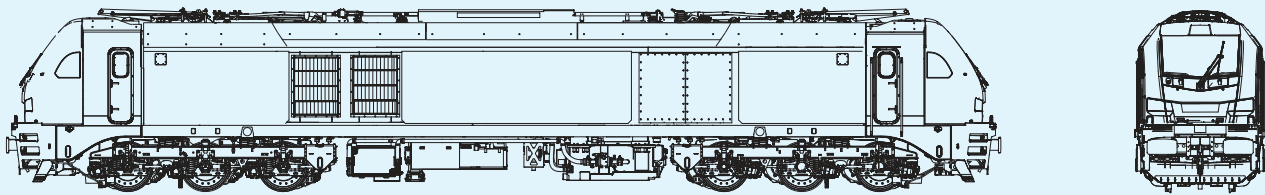
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Technical features

Technology Comfort / Personnel

- Applications: Freight transport
- High starting and continuous tractive effort
- High-efficiency alternating drive system with IGBTs, one inverter per axle for improved grip
- High-performance electric brake with energy recovery
- Innovative three-axle bogie: increased adhesion and reduced track forces
- Lightweight carbon steel, high-strength steel monocoque structure

Comfort / Personnel

- Two air-conditioned driver’s cabs with universal central desk designed according to safety and ergonomic criteria
- High comfort, safety and visibility in the cab, beyond TSI requirements
- Total cab insulation, acoustic and thermal insulation

Reliability / Availability / Maintainability / Safety

- Reduced operating costs and environmental footprint
- Reliable operations: design based on subsystems proven in commercial service. High degree of redundancy
- Designed to minimise maintenance downtime and costs
- State-of-the-art vehicle control system including remote diagnostic systems
- TSI compliance
- LED lighting

Vehicle data

Customer	Renfe Mercancías	
Operation area	Spain	
Number of vehicles	12	12
Commissioning	2023	2026
Track gauge	1,668 mm	1,435 mm
Axle arrangement	Co'Co'	
Locomotive type	Electric Tri-tension	
Power supply	25 KV CA + 1,5 kV CC + 3kV CC	
Power at wheel rim	Up to 6,170 kW	
Transmission	AC/AC	
Starting tractive effort	500 KN	
Continuous tractive effort	430 KN	
Maximum speed	120 km/h (designed for up to 160km/h)	
Brake system	Mechanic: pneumatics Dynamic: regenerative/ rheostatic 2 distributors, one per bogie	
Suspension system	Primary: coil springs Secondary: rubber-metal springs Vertical and horizontal dampers	