



## EUROLIGHT DUAL LOCOMOTIVE

Trenitalia, Italy

In February 2023, Stadler and Trenitalia signed a framework agreement for the supply of up to 50 EUROLIGHT DUAL locomotives with a first call-off order for 13 units and the maintenance of the vehicles over ten years, extendable to a further 5 + 5 years. The new bi-mode locomotives will be deployed all over the Italian railway network for train rescue and passenger push-pull operations. They reach a maximum speed of 160 km/h and are based on EUROLIGHT 4-axle locomotive platform. The locomotives share with the rest of the platform, the compact design and lightweight monocoque structure, as well as the latest bogie technology. They are fitted with ETCS B3R2/ SCMT / SSC safety systems and combine diesel and electric traction. Characterized by high performance and reduced axle-load not exceeding 20 tonnes/axle, Trenitalia will be able to use them on both main and secondary lines.

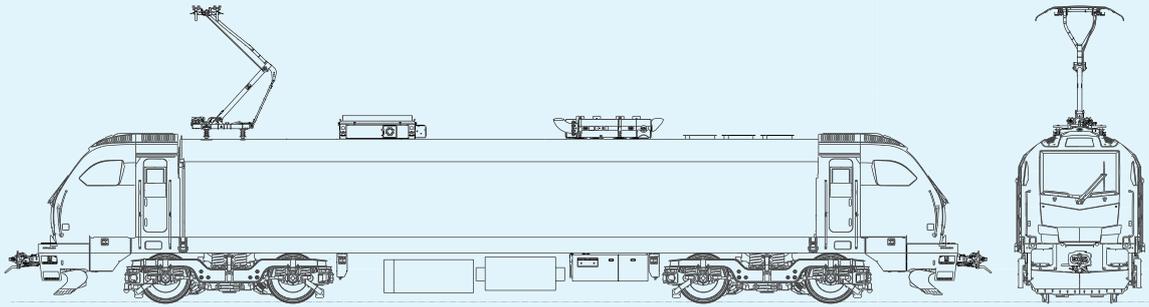
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## Technical features

### Technology

- Applications: train rescue and passenger push-pull operations
- Efficient AC traction system with IGBT, one inverter per axle
- Disc brakes
- High-performance electric brake with energy recovery to the catenary
- Lightweight monocoque structure made of high-strength stainless steel
- State-of-the-art adhesion control system
- ETCS B3R2/ SCMT / SSC safety systems
- Multiple unit: 2 locomotives + push-pull w. UIC Z1A car
- Train energy supply (HEP)
- Door control for passenger push-pull operations

### Comfort / Personnel

- Two driver's cab with independent HVAC systems and acoustic and thermal insulation
- Central driver's desk ergonomically designed
- High levels of comfort, safety and visibility in the cab

### Reliability / Availability / Maintainability / Safety

- Based on subsystems and components from proven models such as EURO/UKLIGHT locomotives
- Reduced energy consumption and environmental footprint
- EC 26/2004 Stage V complaint
- TSI compliant
- Modular design with removable roofs to facilitate maintenance work
- Coupler cameras and rear view cameras

## Vehicle data

<b>Customer</b>	Trenitalia
<b>Operation area</b>	Italy
<b>Number of vehicles</b>	Up to 50
<b>Locomotive type</b>	Bi-mode: electric / diesel-electric
<b>Track gauge</b>	1,435 mm
<b>Axle arrangement</b>	Bo'Bo'
<b>Transmission system</b>	AC/AC
<b>Electric energy supply</b>	3 kV DC
<b>Electric power at wheel rim</b>	3,000 kW
<b>Diesel engine power</b>	1,800 kW
<b>Starting tractive effort</b>	330 kN
<b>Continuous tractive effort</b>	280 kN
<b>Axle-load</b>	20 ton/axle
<b>Fuel tank</b>	2,000 l
<b>Urea tank</b>	200 l
<b>Coupler</b>	V1, UIC coupler + buffers V2, automatic Type 10
<b>Maximum speed</b>	160 km/h
<b>Wheel diameter (new)</b>	1,100 mm
<b>Brake system</b>	Mechanic: pneumatic Dynamic: rheostatic / regenerative catenary
<b>Suspension system</b>	Primary: helical springs Secondary: helical springs + tilting pads