



ELECTRIC LOW-FLOOR MULTIPLE UNIT FLIRT – TRAVERSO

Südostbahn (SOB), Switzerland

Südostbahn (SOB) ordered 11 new trains from Stadler in 2016. When the timetable changes in December 2019, six 8-car and five 4-car vehicles will be ready for service to replace the existing SOB consists. The Traverso has been given the Intercity front design for intercity travel. The new Traverso trains offer all the advantages typical of the FLIRT: Stepless entrances, a generous, clear interior design, spacious multifunctional zones in the entrance areas and lightweight aluminium car bodies, which significantly reduce energy consumption and thus considerably reduce energy costs. Particular focus was placed on innovative running gear technology to ensure minimal wear as the trains travel along the winding routes of the SOB. The design of the ceiling elements in combination with the lighting concept lends the interior a high-quality appearance. The trains have been designed to meet the requirements of the different passenger groups: Commuters can find space in which to work in peace and quiet, tourists and weekend travellers can enjoy the fantastic views from the panoramic windows, skiers and cyclists can store their equipment and have something to eat and drink in the catering zones, and families can sit together in the specially designed family area.

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Technical features

Technology

- Automatic coupler
- Multiple unit train control with three trains
- Car body made of extruded aluminium profiles
- Motor and trailer bogies with pneumatic suspension
- Modern vehicle control system 2020

Comfort

- Bright, passenger-friendly interior with scope for individual design
- Full access throughout the passenger compartment
- Large low-floor area
- Spacious multifunctional area
- Eight or four entrance doors on each side for 8-car or 4-car vehicles, respectively, for rapid passenger boarding and alighting
- Air conditioning for passenger compartments and driver's cab
- Panoramic window
- Vacuum toilet system with wheelchair access

Personnel

- Ergonomically designed driver's cab

Reliability/Availability/Maintainability/Safety

- Redundant drive equipment with water-cooled IGBT power converters
- Ergonomic Train Diagnostic System with remote reading option to support status-based maintenance
- Modern passenger information system and video surveillance
- ETCS automatic train control (TSI, CCS)
- Complies with TSI LOC&PAS, TSI Noise, TSI SRT and TSI PRM

Vehicle data

	8-car	4-car
Customer	Südostbahn (SOB), Switzerland	
Lines serviced	St.Gallen– Lucerne, Switzerland	St.Gallen– Rapperswil, Switzerland
Gauge	1435 mm	1435 mm
Designation	Voralpen-Express	S-Bahn (rapid suburban rail)
Supply voltage	15 kV AC, 16.7 Hz	15 kV AC, 16.7 Hz
Axle arrangement	Bo'2'2'2Bo' + Bo'2'2'2 Bo'	Bo'2'2'2 Bo'
Number of vehicles	6	5
Commissioning	2019	2019
Seats	359	197
Tip-up seats	21	10
Standing capacity (4 pers./m²)	485	225
Floor height		
Low-floor in entrance	600 mm	600 mm
High-floor	1145 mm	1145 mm
Entrance width	1300 mm	1300 mm
Axial thrust	1500 kN	1500 kN
Length over coupling	150 200 mm	77 100 mm
Vehicle width	2820 mm	2820 mm
Vehicle height	4120 mm	4120 mm
Bogie wheelbase		
Motor bogie	2700 mm	2700 mm
Trailer bogie	2700 mm	2700 mm
Driving wheel diameter, new	870 mm	870 mm
Carrying wheel diameter, new	760 mm	760 mm
Continuous output at wheel	4000 kW	2000 kW
Max. output at wheel	5200 kW	2600 kW
Starting tractive effort (up to 47 km/h)	400 kN	200 kN
Starting acceleration, gross	1.1 m/s ²	1.1 m/s ²
Maximum speed	160 km/h	160 km/h