

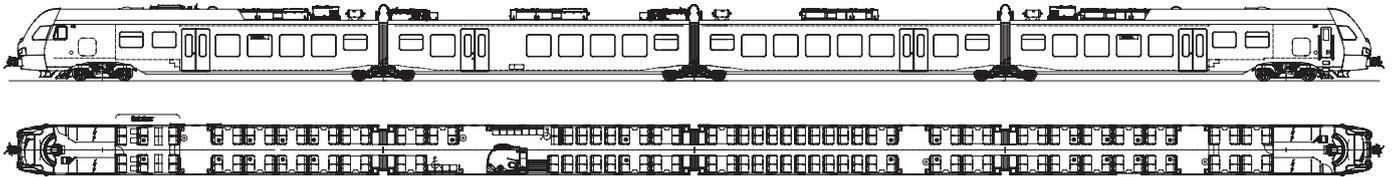


FLIRT electrical low-floor multiple-unit trains for Železnice Srbije – Serbia’s national railway company

Joint-stock company Železnice Srbije has ordered 21 four-carriage electrical FLIRT³ low-floor units to be used on the busiest suburban and regional routes in Serbia. The FLIRT³ (Fast Light Innovative Regional Train) sets the standards for suburban transport. The bright, friendly and walk-through passenger compartment provides optimum passenger comfort. The floor height of 600 millimetres has been optimised to allow passenger easy boarding and alighting from the existing platforms. There are electric sliding steps to ensure safe entry. With its 25 kV 50 Hz equipment, the FLIRT³ vehicle is the latest generation of the FLIRT family, which has already proved its worth throughout Europe.

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Technical features

- Bright, passenger-friendly interior
- Completely walk-through passenger compartment
- Low-floor portion > 75%
- Spacious multifunctional area
- 4 entrance doors per side
- Air conditioning for passenger compartments and driver's cab
- Vacuum toilet system with disabled-friendly design
- Ergonomically designed driver's cab
- Automatic coupler
- Vehicle body made of extruded aluminium profiles
- Motor and trailer bogies with pneumatic suspension
- Redundant drive equipment
- Vehicle control system with train bus and diagnostics computer (CAN open bus) and RDS system
- Multiple-unit train control for up to 3 vehicles

Vehicle data

Customer	Železnice Srbije, Serbia
Area of use	Suburban and regional lines
Track gauge	1,435 mm
Designation	ŽS 413/417-001/002– ŽS 413/417-041/042
Supply voltage	25 kV, 50 Hz
Axle arrangement	Bo' 2'2'2' Bo'
Number of vehicles	21
Commissioning	2014–2015
Seats 2nd class/1st class	212/12
Tip-up seats	11
Standing capacity (4 pers./m ²)	230
Floor height	
Low floor in entrance area	600 mm
High floor	1,200 mm
Entrance width	1,300 mm
Longitudinal force	1,500 kN
Length with couplings	77,100 mm
Vehicle width	2,820 mm
Vehicle height (with lowered pantograph)	4'315 mm
Service weight, unladen	127 t
Bogie axle width	
Motor bogie	2,500 mm
Trailer bogie	2,700 mm
Drive wheel diameter, new	920 mm
Running wheel diameter, new	760 mm
Continuous rating at wheel	2,000 kW
Maximum output at wheel	2,600 kW
Starting tractive effort (up to about 40 km/h)	200 kN
Starting acceleration	1,2 m/s ²
Maximum speed	160 km/h