



## **Electric low-floor multiple unit FLIRT for Swiss Federal Railways (SBB)**

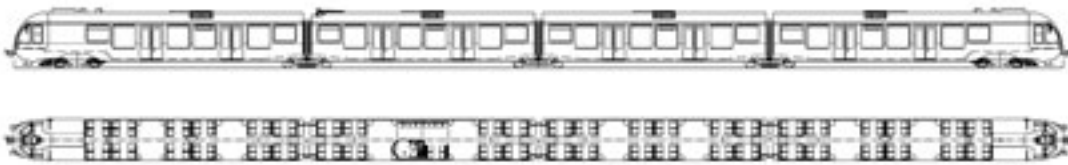
Swiss Federal Railways purchased a total of 42 emu's type FLIRT for the use on the rapid transit lines of Zug and Basel. The contract includes options for up to 100 additional trains of this type. The delivery of the 12 trains for the rapid transit of Zug will start in autumn 2004. The rapid transit of Basel will start the operation with the new trains on the Wiesental-line from June 2005.

The FLIRT (**F**ast **L**ight **I**nnovative **R**egional **T**rain) sets a new benchmark in suburban transport. A walk-through passenger compartment optimized for platform heights of 550 mm and rapid acceleration are two of the train's outstanding features.

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## Technical features

- Bright, passenger-friendly interior with customized design
- End-to-end walk-through passenger compartment, with no steps
- Low-floor section > 90%
- Spacious multipurpose area in entrance section
- 8 doors on each side for rapid passenger access
- Air-conditioned passenger and driver compartments
- Vacuum toilet system, also suitable for the disabled
- Ergonomically designed driver's cab
- Glass fibre reinforced front section with automatic coupling
- Welded extruded aluminium superstructure
- Air-suspended bogies
- Redundant traction chain with water-cooled IGBT power converters from ABB Schweiz AG
- SELECTRON vehicle control system with train bus and diagnostic computer
- Multiple-unit control for up to four vehicles



## Vehicle data

Customer	Swiss Federal Railways (SBB)
Lines operated	Rapid transit Zug and Basel
Gauge	1'435 mm
Catenary supply voltage	15 kVAC, 16.7 Hz
Designation	RABe 523 Zug RABe 521 Basel
Axle arrangement	Bo 2'2'2' Bo
Number of vehicles	42
Service startup	2004
Seating capacity 1st + 2nd class	20 + 161
Fold up seats	19
Standing capacity (4 pers./m <sup>2</sup> )	287
Floor height	
Low floor	570 mm
High floor	1'120 mm
Door width	1'350 mm
Longitudinal strength	1'500 kN
Overall length	74'078 mm
Vehicle width	2'880 mm
Vehicle height	4'150 mm
Tare weight	120 t
Bogie wheelbase	
Power bogie	2'700 mm
Trailer bogies	2'700 mm
Powered wheel diameter (new)	860 mm
Trailer wheel diameter (new)	750 mm
Continuous output at wheel	2'000 kW
Maximum output at wheel	2'600 kW
Starting tractive power (up to 47 km/h)	200 kN
Max. acceleration at gross weight	1.2 m/s <sup>2</sup>
Maximum speed	160 kph