



## ***Electric Low-floor Multiple-unit FLIRT***

### ***for the Swiss Federal Railways (SBB) Stadtbahn Zug, Switzerland***

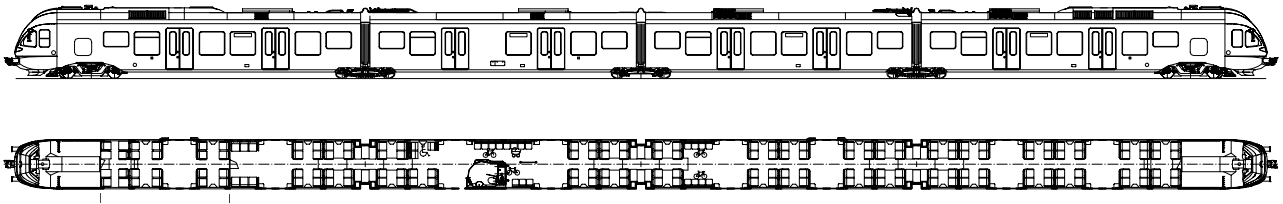
The SBB has ordered 12 low-floor commuter trains for the Stadtbahn Zug. The new FLIRTs form the backbone of Zug's public transportation system. 6 vehicles went into operation punctually with the schedule change on 12.12.2004.

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	SBB AG
	Swiss Federal Railways, Switzerland
Lines operated	Stadtbahn Zug
Gauge	1'435 mm
Designation	RABe 523 001 – 012
Catenary supply voltage	15 kVAC, 16.7 Hz
Axle arrangement	Bo' 2'2'2' Bo'
Number of vehicles	12
Service start-up	2004
Seating capacity 1 <sup>st</sup> + 2 <sup>nd</sup> class	20 + 138
Fold up seats	11
Standing capacity (4 pers./m2)	301
Floor height	
Low floor	570 mm
High floor	1'120 mm
Door width	1'300 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 bogie	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

