



ELECTRIC LOW-FLOOR MULTIPLE UNIT FLIRT

Alpha Trains, Germany

For the operation on the Emsland line, i.e. Münster–Rheine–Emden, Alpha Trains has ordered 15 FLIRT electrical low-floor motor units. The line is operated by WestfalenBahn GmbH. Since December 2015, the 4-part vehicles will be used partly in double-traction on the line in Lower Saxony. The FLIRT is characterised by high drive power and a maximum speed of 160 km/h. The bright and friendly passenger compartment is air-conditioned and can be designed individually. For example the multi-purpose area will have up to 42 bicycle spaces on the Emsland line in the summerstyle.

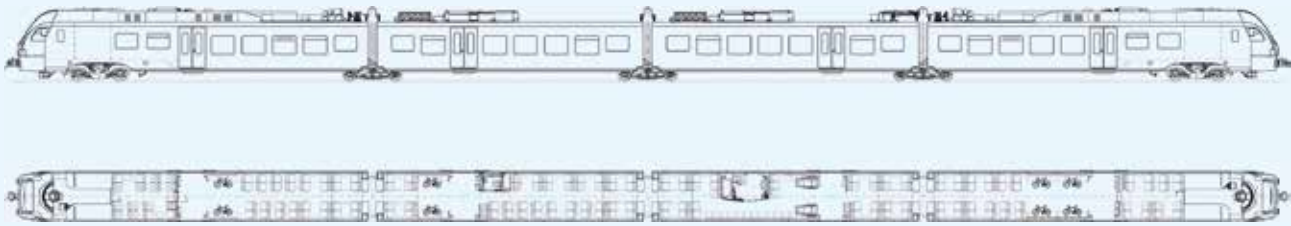
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winterstyle

Technical features

Technology

- Operated mostly in double-traction in the specified area of operation.
- Automatic central buffer coupler
- Aluminium light-weight construction
- Redundant traction equipment consisting of two power trains with one transformer each, IGBT current converters and two asynchronous traction motors
- Car body designed for a longitudinal compressive force of 1,500 kN
- Air-suspended bogies ensure necessary smooth running
- Bi-directional car designed for one-man operation
- Door height 780 mm
- Compliant to TSI PRM and TSI Noise

Comfort

- 24 bicycle spaces, expansion to 42 during summertime possible
- Bright and friendly passenger compartments with great low-floor section
- Air-conditioned passenger compartment and driver's cab
- 2 closed-circuit WC systems
- One WC complying with TSI PRM – for people with reduced mobility
- 4 double-winged swing-plug doors
- Modern passenger information system

Staff

- Ergonomically designed driver workplace

Reliability / Availability / Maintainability / Safety

- Compliant to crash standard EN 15227

Vehicle data

Customer	Alpha Trains
Operator	WestfalenBahn GmbH
Operated lines	Munster–Rheine–Emden
Number of vehicles	15
Start of operations	December 2015
Gauge	1,435 mm
Length over coupler	74,700 mm
Vehicle width	2,880 mm
Vehicle height	4,120 mm
Floor height	
Low floor	780 mm (above TOR)
High floor	1,200 mm (above TOR)
Door width	1,300 mm
Door height	780 mm
Seats	215
1st class	15
2nd class	200, Fold up seats 50
Standing capacity (4 pers./m²)	243
WCs	2
Axle arrangement	Bo'222Bo'
Traction	
nominal power	4 × 500 kW = 2,000 kW
maximum power	4 × 680 kW = 2,720 kW
Maximum speed	160 km/h