29 FOUR-CAR 100% LOW-FLOOR TRAMS

Avenio Copenhagen, Denmark

Siemens Mobility is one of the world's leading suppliers of integrated mobility solutions for urban areas and of vehicles for local, regional, and main-line transportation.

In February 2018, Hovedstadens Letbane (The Greater Copenhagen Light Rail) ordered 29 (27 of the Basis, 2 of the Options) four-car trams of the Avenio type from Siemens Mobility. The contract includes options for up to 30 vehicles. These new low-floor streetcars will serve one of three complete new light rails in Denmark.

Start of Passenger Operation is scheduled for 2025. In addition to the trams, the Siemens scope of supply includes railway electrification, signaling and communication technology as well as workshop equipment and the complete Project Management and System Integration. Furthermore, Siemens will carry out maintenance over a period of 15 years.

The double-track line is located between the towns of Lyngby in the north and Ishøj in the south of Copenhagen, having a length of 28 kilometres and includes 29 stops. The route runs along the Motorring 3 motorway and is planned to replace a bus route. The tramway is a building block on Copenhagen's path to becoming the world's first CO_2-neutral capital by 2025.

Technical Data

Vehicle type/platform	100% low-floor single-articulated tram vehicle Avenio
Configuration	4-car tram, two directional vehicle
Wheel arrangement	Bo' 2' Bo' Bo'
Car body material	Steel
Length	36.9 m
Width	2.65 m
Entrance height above top of rail	350 mm
Floor height above top of rai	375 mm
Motor power rating	traction power: 6 x 100 kW
Power supply	Voltage system according to EN 50163: 750 V DC (+20% / -33%)
Maximum speed	70 km/h
Track gauge	1,435 mm
Capacity (4 pers./m²)	258 including 64 seats
Tare weight	48,6 t

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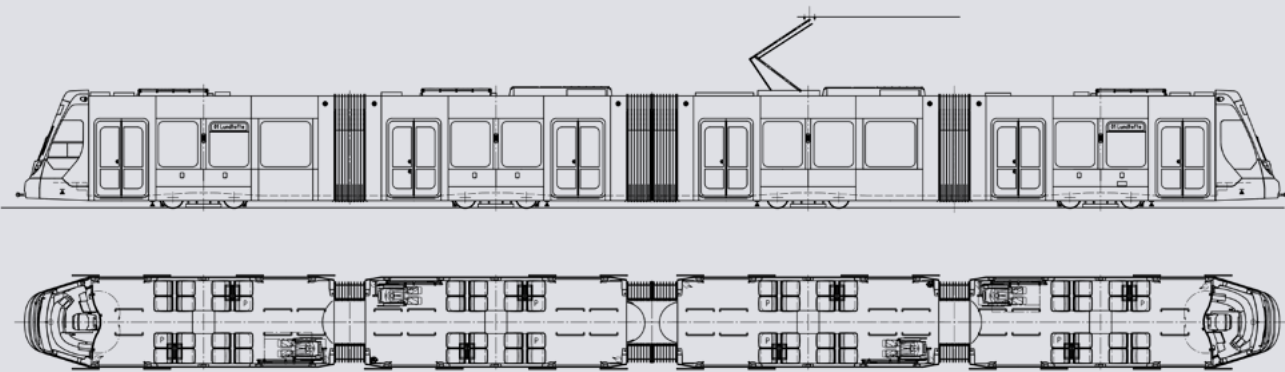
Technical features/highlights

- A high-performance air conditioning system and ceiling light design enhance the passenger experience.

- Modern energy-saving LCD passenger information screens allow passengers to access up to date information.

- Excellent traction, acceleration and braking values supported by a fully aligned wheel/rail interface design towards the track profiles of the Network.

- Electro-dynamic brakes enable recuperation and provide smooth and comfortable stopping to standstill.

- Excellent running characteristics and low wheel-rail wear thanks to longitudinally installed drives in the bogies with mechanical coupling of the wheels in the longitudinal direction, small unsprung masses, and proven bogie connection to the car body.

- The interior and exterior design reflecting Hovedstadens Letbane green modern corporate design in a multitude of details, combining the company's strategy towards an ecofriendly future.

- Spacious boarding areas and wide passageways improve passenger flow.

- Four multifunctional areas, which are all designed as full wheelchair spaces, ensure optimal demand-oriented space utilization.

- A unique seat design to increase passenger comfort.

- An Inductive Hearing Loop System to assist the hearing impaired.

- Compliant with the latest security standards (including IT security, fire protection).

- Excellent Acoustic Performance regarding both interior and exterior noise levels.

Modern and Ergonomic Design of the driver's cab

Bright interior design and unique seat design

Spacious boarding areas

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