

Blackpool, United Kingdom

< FLEXITY 2 tram >



The City of Blackpool is the launch customer of the **BOMBARDIER* FLEXITY* 2** tram. In delivering these 16 trams, Bombardier Transportation is contributing to the revitalisation of Britain's most traditional tram system, enhancing the city's attractiveness while reducing energy consumption.

Based on the highly successful *FLEXITY* platform with a strong reputation for performance and reliability, the *FLEXITY 2* tram combines proven features and innovation in a single vehicle. It sets the highest standards in the areas of comfort, safety and environmental protection.

Blackpool's *FLEXITY 2* trams will be 32.2 m long and 2.65 m wide, with five sections and three bogies. The vehicle will be capable of carrying about 74 seated passengers, with additional wheelchair and pushchair space plus standing room.

Their technical advantages include an improved carbody concept, with better corrosion protection and an enhanced

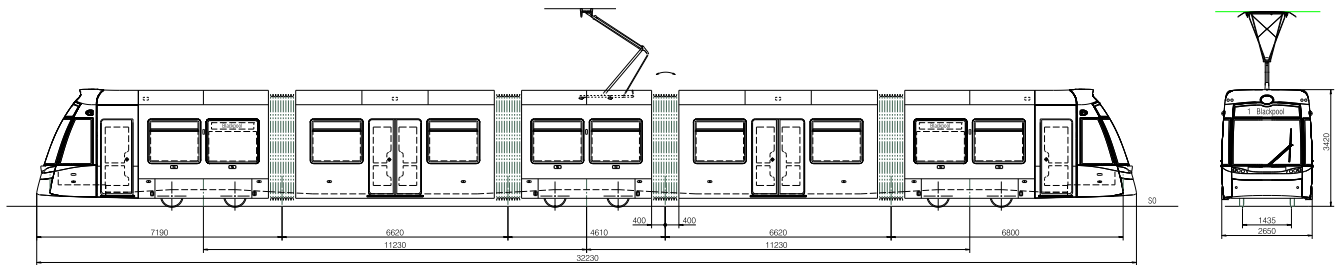


bogie design, the *BOMBARDIER FLEXX* Urban 3000*. The overall vehicle mass is reduced, and the *BOMBARDIER MITRAC** propulsion technology will result in significantly lower energy consumption.

The Blackpool & Fleetwood Tramway today carries nearly three million passengers a year, about 75% of them tourists.

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General Data

| | |
|-----------------|---------------------------------------|
| Contract award | July 2009 |
| Type of vehicle | BOMBARDIER FLEXITY 2 |
| Model | Bi-directional |
| Owner | Blackpool Council |
| Quantity | 16 |
| Train consist | 5 modules |

Dimensions and Weight

| | |
|---|---------------|
| Length of vehicle | 32.2 m |
| Height | 3.42 m |
| Width | 2.65 m |
| Entrance height above TOR | |
| - vehicle empty, new wheels | 320 mm |
| Percentage of low-floor area | 100 % |
| Doors | 8 |
| • Electric double-sliding doors | 2 per side |
| - door clearance height | 2,030 mm |
| - door clearance width | 1,300 mm |
| • Electric single-sliding doors | 2 per side |
| - door clearance height | 2,030 mm |
| - door clearance width | 800 mm |
| Wheel diameter (new / worn) | 600 mm/540 mm |
| Gauge | 1435 mm |
| Minimum horizontal curve radius (track/depot) | 25 m/20 m |
| Minimum vertical curve radius, (hog/sag) | 275 m/400 m |
| Car weight (empty) | 40.9 t |
| Car weight (loaded) (4 pass./m ²) | 56.7 t |
| Maximum axle load (4 pass./m ²) | 9.6 t |
| Buffer load | 400 kN |

Technical Characteristics

| |
|---|
| Nominal current supply: 600 VDC |
| Energy recuperation |
| Low voltage: 24 VDC |
| Four 3-phase asynchronous motors |
| Motor power 120 kW |
| Liquid-cooled motor |
| 2 powered bogies - 1 trailer bogie |
| Rubber-metal springs primary suspension |
| Elastomer secondary suspension |
| Slip and skid protection |
| Rescue coupling for emergency |
| Generative service brake |
| Electrohydraulic disk brake system |
| Magnetic brake: 6 x 81 kN |
| Air conditioned interior cab |
| Passenger information system |

Performance and Capacity

| | |
|---|-----------------------|
| Maximum speed | 70 km/h |
| Medium acceleration (2/3 load) from 0 ... 70 km/h | 0.5 m/s ² |
| Deceleration (2/3 load) | |
| • service brake | 1.2 m/s ² |
| • emergency brake | 2.73 m/s ² |
| Maximum gradient | 60 ‰ |
| Seated passengers (incl. tip up seats) | 74 |
| Standing passengers (4 pass./m ²) | 148 |
| Multipurpose areas | 2 |

Bombardier Transportation

Hermann Gebauer Straße 5
A-1220 Vienna, Austria

Tel +43 1 25 110 760

www.bombardier.com

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