Urban Transport

Bombardier FLEXITY Swift

London-Croydon, United Kingdom





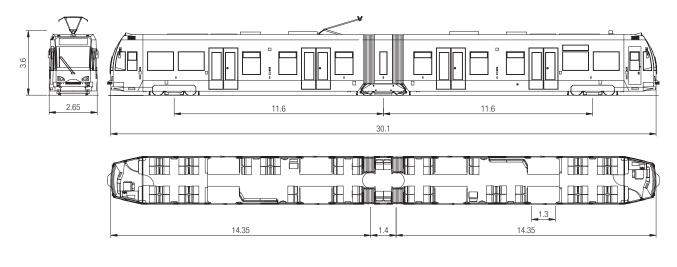
The London-Croydon Tramlink System operates 24 *Bombardier* FLEXITY** Swift light rail vehicles, which run between Croydon, Wimbledon, New Addington, Elmers End and Beckenham in the South of London. Bombardier also carries out the maintenance of the fleet.

The 28-kilometer network is the first of its kind under the Government's Private Finance Initiative (PFI), and in November 1996, London Transport awarded Tramtrack Croydon the right to design, build, operate, maintain and finance the system independently. These cars are based on the *FLEXITY* Swift light rail vehicles in operation in Cologne featuring level entrances, modern interiors and a high passenger capacity. The Croydon vehicles are in successful revenue service since spring 2000.





Bombardier FLEXITY Swift



TECHNICAL CHARACTERISTICS

GENERAL DATA

Contract award	November 1996	 Nominal current supply: 750 V= 	
Type of vehicle	Bombardier FLEXITY Swift	Energy recuperation	
Model	bi-directional vehicle	 Low voltage: 24 V= 	
Owner	Croydon Tramlink	 Four 3-phase asynchronous motors 	
Quantity	24	120 kW Motor power	
Train consist	3 modules	Air-cooled motor	
		 Two powered bogies / one trailer bogie 	
		Rubber/metal primary suspension	
DIMENSIONS AND WEIGHT		Coil spring secondary suspension	
Length of vehicle	30.1 m	8 sanders	
Height	3.6 m	Anti slip, anti skid system	
Width	2.65 m	 Electrical service brake: regenerating motor 	
Floor height above TOR		 Mechanical service brake: disc-brakes 	
- low-floor entrance	350 mm	 Parking brake: disc-brakes 	
- low-floor area	400 mm	 Magnetic brake: 6 x 66 kN 	
- above powered bogie	580 mm		
Percentage of low-floor area	76 %		
Doors		PERFORMANCE AND CAPACITY	
Electric double-sliding doors	4 per side	Maximum speed	80 km/h
 door clearance height 	2,061 mm	Medium acceleration (2/3 load)	1.2 m/s ²
 door clearance width 	1,300 mm	Deceleration	
Aisle width	600 mm	 maximum deceleration (service brake) (3/3 load) 	1.3 m/s ²
Wheel diameter (new / worn)	630 / 550 mm	 emergency braking rate 	2.73 m/s ²
Bogie center distance	10,850 mm	Maximum gradient	80 ‰
Gauge	1,435 mm	Seated passengers	70
Minimum horizontal curve radius	20 m	Standing passengers (4 pass./m ²)	138
Minimum vertical curve radius, crest	275 m	Bicycle, pram and wheelchair locations	2
Minimum vertical curve radius, sag	400 m		
Car weight (empty)	36.3 t		
Car weight (loaded) (4 pass./m ²)	50.8 t		

Bombardier Transportation Donaufelder Straße 73-79, A-1211 Vienna, Austria Telephone (43-1) 25 110-760

BOMBARDIER

104 kN

600 kN

Maximum axle load

Buffer load