

## Double Deck coaches in Belgium

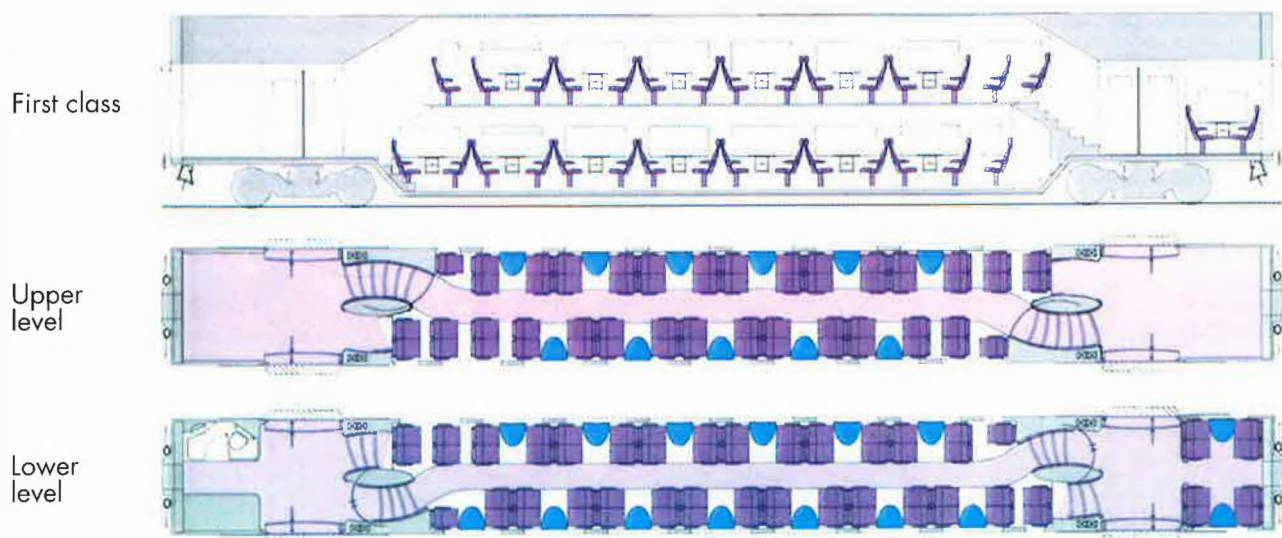


In July 1999, the Belgian National Railways (SNCB / NMBS) ordered 35 sets of 6 double-deck passenger cars from a consortium composed of ALSTOM and Bombardier. The trains can also be configured in pairs to form 12-car locomotive-drawn trains. They will boost the existing intercity services in and out of Brussels, and will have a maximum speed of 160 kph. The double-deck configuration allows high passenger carrying demand to

be optimised with train reliability, safety and comfort. ALSTOM is the world leader in the design and manufacture of double-deck cars and trainsets.

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## Schematics



## Technical features

|             |                               |                                                                                                                            |
|-------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Carbody     | Carbody material              | Carbon steel                                                                                                               |
|             | Capacity per car              | 124 seats (1st class)<br>140 seats (standard class)                                                                        |
|             | Trainset modularity           | Push-pull for 6 to 12 trailer cars, 1st class, standard class and flexible car                                             |
|             | Dimensions                    | Height: 4.574 m - Width: 2.830 m - Length: 26.8 m - UIC 501                                                                |
| Bogie       | Access height                 | 1 190 mm                                                                                                                   |
|             | Axle load                     | 18 t                                                                                                                       |
|             | Gauge                         | 1 435 mm                                                                                                                   |
|             | Concept                       | Fabricated bogie                                                                                                           |
|             | Suspension                    | Pneumatic                                                                                                                  |
|             | Brake                         | Shoes, axle mounted discs and magnetic track brakes                                                                        |
|             | Minimum curve radius          | 80 m                                                                                                                       |
| Auxiliaries | Speed                         | 160 kph                                                                                                                    |
|             | Power supply                  | 3 000 Vdc and 1 500 Vac                                                                                                    |
|             | Auxiliary power               | 220 / 380 V – 50 Hz and 24 Vdc                                                                                             |
| Comfort     | Type                          | Intercity level                                                                                                            |
|             | Door number                   | 2 per side                                                                                                                 |
|             | Doors                         | Free passage: 1 880 mm                                                                                                     |
|             | Seat pitch                    | 1 990 mm (1st class) - 1 740 mm (standard class)                                                                           |
|             | Communicating gangway         | UIC communicating gangway at 600 mm free passage                                                                           |
|             | Temperature control           | Full air-conditioning with 2 distinct air duct systems for operation in summer and winter                                  |
|             | Passenger Information Systems | LED interior and exterior destination signs                                                                                |
|             | Amenities                     | Toilets (mobility impaired), wheel chair access, overhead storage compartments, flexible space, internal compartment doors |

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