

## GTW 2/6 low-floor, articulated, diesel-electric multiple unit for DB AG



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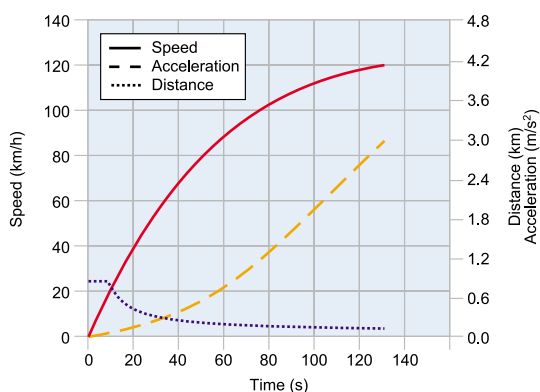
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A total of 30 GTW 2/6 vehicles were ordered by DB AG to provide passenger services on regional and commuter routes in the German State of Brandenburg. The order includes an option for further 22 vehicles. The vehicles have spacious, bright and air-conditioned 1st and 2nd class passenger areas with 2+2 seating. The installation of the drive equipment in a separate drive module located in the middle of the vehicle has reduced noise from the engines to a minimum. All the drive components are easily accessible for servicing by means of covers provided on both the inside and outside.



### Performance Diagram GTW 2/6 Diesel

max. Power at wheel rim: 420 kW Tare weight: 67 t  
 max. adhesion: 0,19 Gradient: 0 ‰



### Technical Features

- Separation of passenger modules and diesel-electric drive module
- Lightweight construction of end cars in aluminium
- Designed to withstand a longitudinal force of 1500 kN
- Concentration of power equipment in one drive module
- Sources of noise and vibration are completely isolated from the passenger modules
- Powerful propulsion system consisting of a diesel engine with three-phase generator, a rectifier, water-cooled IGBT power converters and two asynchronous traction motors
- Optimum acceleration by having drive equipment mounted directly on driven bogie
- Power bogies fitted with self-steering, radially-steering wheelsets and optimised distribution of the load on the axles
- Multiple-unit control by the use of the MITRAC vehicle control system, with coupling of up to three vehicle
- Bi-directional vehicle designed for one-man operation
- Platform level access with no steps and wide doors; low-floor content 70 %
- Air-conditioned passenger areas and driving cabs
- Concealed toilet system handicapped / disabled proof
- Destination displays and passenger information system
- Ergonomically designed driving cab
- Equipped with diagnostics computer and EBULA display
- Entire central module can be exchanged for maintenance purposes
- Expensive investment in workshop facilities is virtually unnecessary

### Vehicle Data

Customer	DB Regio
Designation	BR 646.0
No. of vehicles	30; Option 22
Service start	2000/2001
Route operated	Region Berlin/ Brandenburg; Options for Sachsen-Anhalt and Hessen
Gauge	1.435 mm
Overall length	38.660 mm
Vehicle width	3.000 mm
Vehicle height	3.850 mm
Floor height	
- Low floor	760 mm
- High floor	1.000 mm
Door width	1.300 mm
Longitudinal strength	1.500 kN
Seating capacity 1st Cl./ 2nd Cl.	15 / 93
Standing capacity (4 Pers./m²)	104
Tare weight	54 t
Axle arrangement	2' Bo 2'
Bogie wheelbase	
- Power bogie	2.000 mm
- Trailer bogie	2.000 mm
Powered wheel diameter, new	860 mm
Trailer wheel diameter, new	680 mm
Engine	Dieselmotor MTU 12V 183; 550 kW
Max. speed	120 km/h
Max. acceleration	0,85 m/s²
Max. power at wheel rim	420 kW
Starting effort	62 kN

The vehicle concept of the GTW was developed by Stadler, with the following manufacturing companies involved in the production for DB AG, the customer:

Electrical part	Adtranz, DaimlerChrysler Rail Systems (Switzerland) AG
Mechanical part	Bombardier Transportation, Bautzen Stadler Bussnang AG, Bussnang
Running gear	Adtranz, DaimlerChrysler Rail Systems (Switzerland) AG