At the end of 2015, Trem do Corcovado ordered three Bhe 4/8 rack-and-pinion double multiple units in order to increase capacity and replace the existing 40-year-old multiple unit. They will start commercial operations in Autumn 2019 and will carry passengers from Rio de Janeiro to Corcovado mountain. This offers a fantastic view over the bay of Rio and is the location of the statue of Christ the Redeemer, one of the New Seven Wonders of the World. Thanks to faster driving speeds and greater capacity, the new trains offer a significant increase in productivity compared to the previous vehicles. Wheelchair spaces in all entrance areas and wide entrance doors provide a barrier-free experience for people with limited mobility – a totally new feature for Trem do Corcovado. Panoramic windows in the central section of the train offer an exceptional experience, immersing you in the surrounding nature during the journey through the rainforest of the Tijuca National Park. Sliding windows for all seats along the entire length of the carriages allow for unobstructed photography as soon as the breathtaking view of the beaches of Ipanema and Leblon appears shortly before the top station.
Technical features

Technology

- Four identical and exchangeable motor bogies, each with a drive cogwheel on the valley side, overcome the steep incline of 300 ‰.
- Modern traction equipment with three-phase drive technology allows braking energy to be recuperated on the downward journey, meaning large energy savings can be made.

Comfort

- An attractively designed passenger compartment.
- Wide entrance doors allow easy access to the train and there is a spacious section in each entrance area for wheelchair users.
- Large windows, as well as panoramic windows in the intermediate section, offer an excellent nature experience during the journey through the rain forest.
- Windows can be opened in all seating compartments to provide the ideal conditions for photography during the journey.

Reliability / Availability / Maintainability / Safety

- Three independent braking systems ensure maximum safety.

Vehicle data

Customer | Trem do Corcovado
---|---
Area serviced | Corcovado, Brazil
Track gauge | 1000 mm
Max. gradient | 300 ‰
Designation | Bhe 4/8
Supply voltage | 900 VAC
Axle arrangement | 1Az’ 1Az’ 1Az’ 1Az’
No. of vehicles | 3
Commissioning | 2019
Seats (2nd class only) | 122
Tip-up seats | 12
Standing capacity | 20
Floor height | 950 mm
Entrance width | 1300 mm
Axial thrust | 400 kN
Length over coupling | 26720 mm
Vehicle width | 2650 mm
Vehicle height | 3700 mm
Bogie wheelbase | 2200 mm
Cogwheel reference circle diameter | 637 mm
Carrying wheel diameter, new | 630 mm
Continuous output at wheel | 800 kW
Max. starting tractive effort | 200 kN
Top speed | 25 km/h