SIEMENS
Ingenuity for life

Desiro HC Elbe-Spree network

Electric multiple unit trains for Ostdeutsche Eisenbahn GmbH (ODEG)

Ostdeutsche Eisenbahn GmbH (ODEG) has ordered 29 Desiro® HC regional trains from Siemens Mobility for service in the Elbe-Spree network. Delivery of the 15 six-car and 14 four-car trains is scheduled to begin in summer of 2022.

The six-car and four-car Desiro multiple units are planned for use on the RE1 and RB17/18 regional railway lines in the new Elbe-Spree network and will connect Magdeburg with Cottbus via Berlin and Frankfurt (Oder).

Desiro HC Elbe-Spree network
Desiro HC is designed as a four-car and six-car electric multiple unit and has a combination of single-decker (driven) and double-decker cars for achieving higher passenger capacities. The arrangement of the major components on the roof of the single-decker cars facilitates maintenance while also helping create more usable space inside the cars. By making full use of the vehicle gauge profile (EN15273-2, line DE2), more head and shoulder room is provided for passengers in the upper deck. Spacious entry areas with wide access doors also enable rapid and safe boarding and exiting.

Interior design
The interior construction and attractive design, including the pleasant lighting and appealing, timeless color schemes, give the train a feeling of spaciousness, comfort, and safety.

Energy savings
The single-decker end cars save energy in operation, thanks to their low weight and optimized aerodynamics.

Traction system
Desiro HC has an efficient traction system with traction power of up to 4,000 kW. With eight driven wheelsets, this power can be transmitted even with a low friction coefficient, thus ensuring good dynamic performance.

Desiro HC 4-car

Desiro HC 6-car

Technical data	4-car	6-car
Wheel arrangement	Bo'Bo'+2'2'+2'2'+Bo'Bo'	Bo'Bo'+2'2'+2'2'+2'2' +2'2'+Bo'Bo'
Track gauge	1,435 mm	
Maximum speed	160 km/h	
Traction power	4,000 kW	
Starting acceleration	Up to 1.1 m/s²	Up to 0.91 m/s²
Power supply	15 kV AC / 16.7 Hz	
Seats	390 (25 1st class)	637 (50 1st class)
Length of train	105,252 mm	157,252 mm
Access height	610, 730 and 800 mm	
Width	2,820 mm	
Car length	26,226 mm (end car) and 25,200 mm (middle cars)	
Weight	205 t	290 t
Crashworthiness	TSI and EN 15227-compliant	
Operating temperature	–25° C to +45° C (class T3 as per EN 50125-1)	

Vehicle communication infrastructure
The vehicle's communication infrastructure systems, Train Control Network (TCN) and Train Operator Network (TON), are Ethernet-based and form the basis for a service-oriented architecture (SOA) and communication. Our customers benefit from the Ethernet-based vehicle infrastructure in the form of state-of-the-art technology. Operators and passengers can enjoy modern, innovative CCTV and infotainment systems.

Vehicle details
- High-quality, timelessly elegant atmosphere in the interior
- 25 (4-car) or 50 (6-car) comfortable, adjustable seats for first class, including fold-away tables and passenger seats
- WiFi and outlets throughout the train
- Double traction (4-car only)
- 4-car: 2 standard restrooms and 1 universal restroom
- 6-car: 4 standard restrooms and 2 universal restrooms
- Barrier-free access in a middle car for passengers with wheelchairs or strollers for platform heights of 610 mm and 730 mm.
- Space for up to 32 (4-car) or 65 (6-car) bicycles
- LED lighting throughout the vehicle
- Energy-optimized air-conditioning control based on passenger numbers
- Air suspended motor and trailer bogies from the SF 100 and SF 500 family
- Innovative infotainment system
- High-resolution CCTV cameras
- Additional passenger protection provided by integrated passenger safety system based on the use of a CCTV camera system with smart software
- Ethernet-based train control and train operator networks

Published by
Siemens Mobility GmbH

Otto-Hahn-Ring 6
81739 Munich
Germany

contact.mobility@siemens.com

Article No. MORS-B10034-00-7600
Printed in Germany
TH 166-200621 DA 0221