

Suspension Railway

WUPPERTAL, GERMANY



The GTW 2014 suspension railway is a famous Wuppertal landmark due to its unique design and lightweight construction.

As the general contractor, KIEPE delivered 31 new vehicles to the operator, WSWmobil GmbH.

Project characteristics

The Wuppertal suspension railway is a 13 km long suspended monorail that connects the Wuppertal districts of Oberbarmen and Vohwinkel via Barmen and Elberfeld.

KIEPE delivered all of the electrical equipment for these vehicles, including the propulsion systems, HVAC for the driver and passenger compartments, as well as the doors and brake systems.

All vehicles have been equipped with an

automatic train protection system to ensure two minute service intervals can be safely provided.

The control system and software for these vehicles have been developed to meet CENELEC standards.

The vehicles are designed to operate on a line voltage of DC 750V and the three-phase drive technology installed allows regenerative brake energy to be fed back into the overhead power supply grid.

- KIEPE was the general contractor for the complete vehicle
 - Modern displays in the driver's cab
 - Environmentally-friendly, state-of-the-art drive system technology
- Compact, state-of-the-art traction converter
 - Video surveillance system
 - Class 4 fire protection in accordance with DIN 5510
 - A/C in driver and passenger areas

Vehicle data

Vehicle length	24 m	Standing room	128
Vehicle width	2.20 m	Wheel diameter (new / worn)	800 mm / 784 mm
Vehicle height	2.75 m	Contact wire voltage	DC 750V
Operational useful load	9.40 t	Drive	4 x 75 kW
Maximum load	14.10 t	Maximum speed	65 km/h
Tare weight	25.60 t	Average acceleration	1.3 m/s
Axle arrangement	B'B'+ B'B' (two wheels per bogie)	Homologation	Special-purpose vehicle acc. to BOStrab
Seats	42 + 3 folding seats		

Subject to change without notice

Technical drawings



