

Cologne Public Transport Authority commissions Alstom and Kiepe Electric to supply 64 trams

The Cologne Public Transport Authority (*Kölner Verkehrs-Betriebe AG, KVB*) has signed a contract with the manufacturer consortium Alstom and Kiepe Electric for the supply of 64 low-floor trams. The order for the new Citadis type trams with special adaptations for the German market is worth 363 million euros. Alstom's share amounts to 60% of the total value of the contract.



This is what the tramways for the Cologne Public Transport Authority could look like in the future (source: Alstom)

Salzgitter/Düsseldorf, November 25, 2020.

Alstom, one of the leading manufacturers of railway technology in Germany, is leading a consortium with partner Kiepe Electric, a subsidiary of Knorr-Bremse AG, the global market leader for braking and other systems for rail and commercial vehicles, that will build the new trams for Cologne's Public Transport Authority. The first pre-series vehicles will be delivered to the Cologne Public Transport Authority from end of 2023. The series vehicles will follow one year later at the end of 2024. The contract also includes some options for a total of 47 additional vehicle units.

"Following the contract with VGF in Frankfurt, this order is a further proof of the worldwide

success of our flagship tram Citadis," says Dr. Jörg Nikutta, Managing Director for Alstom in Germany and Austria. "Our trams will provide the passengers of the Cologne Public Transport Authority with the highest level of passenger comfort and will support the *Cologne Public Transport Authority* in successfully meeting the challenges of urban transport."

Dr. Jürgen Wilder, Member of the Executive Board of Knorr-Bremse AG and responsible for the Rail Vehicle Systems division comments: "This is the largest single order in the history of Kiepe Electric. We are proud and at the same time forward-looking that a joint technical concept from companies of the Knorr-Bremse Group was convincing in the tender. We will justify the trust placed in us by our partner Alstom and the Cologne Public Transport Authority with future-proof technology and strong service."

Alstom, as consortium leader, will produce 62 modern low-floor vehicles (60-meter long trains) and two low-floor vehicles with a length of around 30 meters at its Barcelona plant. The electrical components of the trams will be supplied by Kiepe Electric's Düsseldorf plant and will also be installed in the trams in Barcelona. The bogies for the Citadis trams will come from Alstom's Le Creusot plant in France.

The Citadis trams will operate throughout the entire urban area of Cologne and make a decisive contribution to inner-city mobility. They impress with large windows, LEDs for pleasant soft lighting, large individual seats and travel information on large screens. The equipment also includes innovations such as driver assistance systems, automatic dipped beam and rain sensors. The trams each consist of two 30-metre low-floor vehicle units and thus have a total length of 60 metres, offering space for 195 passengers. 10 double doors on each side ensure an improved passenger flow into the tram way. Especially for the German market, the trams will receive six rotating bogies for maximum vehicle flexibility and steel car bodies.

With drive-, on-board- and control technology as well as traction converters from Kiepe Electric, the trams will have reliable and modern electrical technology. The latest control technology will ensure safe, efficient and thus customer-friendly fleet traffic. The pioneering vehicle concept is highly available, efficiently maintainable and includes a modern driver's workplace. As a contribution to traffic safety in the metropolis of Cologne, the new railways will be equipped with a collision warning system.

Other leading technology from the Knorr-Bremse Group will also be supplied to the trams with hydraulic braking systems from Knorr-Bremse, Munich, boarding systems from IFE, Kematen, and innovative air-conditioning technology from MERAK, Vienna. This meets the high sustainability requirements of the KVB. On the one hand, with the use of a CO₂-based refrigerant, and on the other hand, the concept of using waste engine heat to warm the passenger compartment is exemplary.

Citadis trams and light rail vehicles have been operating in the urban centres of major cities around the world for more than 15 years. Each new generation benefits from technological advances, Alstom's expertise and the experience of public authorities and public transport operators.

Alstom: Leading the way to greener and smarter mobility worldwide, Alstom develops and markets integrated systems that provide the sustainable foundations for the future of transportation. Alstom offers a complete range of equipment and services, from high-speed trains, metros, trams and e-buses to integrated systems, customised services, infrastructure, signalling and digital mobility solutions. Alstom recorded sales of €8.2 billion and booked orders of €9.9 billion in the 2019/20 fiscal year. Headquartered in France, Alstom is present in over 60 countries and employs 38,900 people.

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Knorr-Bremse (ISIN: DE000KBX1006, Ticker symbol: KBX) is the global market leader for braking systems and a leading supplier of other rail and commercial vehicle systems. Knorr-Bremse's products make a decisive contribution to greater safety and energy efficiency on rail tracks and roads around the world. About 29,000 employees at over 100 sites in more than 30 countries use their competence and motivation to satisfy customers worldwide with products and services. In 2019, Knorr-Bremse's two divisions together generated revenues of EUR 6.9 billion (IFRS). For more than 115 years the company has been the industry innovator, driving innovation in mobility and transportation technologies with an edge in connected system solutions. Knorr-Bremse subsidiary Kiepe Electric, based in Düsseldorf, Germany, is a globally active supplier of electrical systems to the leading rail vehicle and bus manufacturers. The company offers efficient solutions and ecologically sustainable concepts for low-emission public transportation with eco-friendly electrical equipment for light rail vehicles, metros and regional rail networks as well as for battery, trolley and In Motion Charging (IMC) buses.

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