



38 THREE-CAR METRO TRAINS

Inspiro Sofia

In September 2015, the operator of Bulgaria's Sofia Metro, MEAD, awarded an order to Siemens to supply 20 three-car trains. The order included an option for additional ten trains, which was ordered in February 2019. All 30 trains have been in operation since 2020. Furthermore, 8 more trains have been ordered in 2023, which will be delivered in 2026.

The three-car trains are manufactured in collaboration with partner Newag SA and are intended for use on the new Line 3. They were put into service in August 2020.

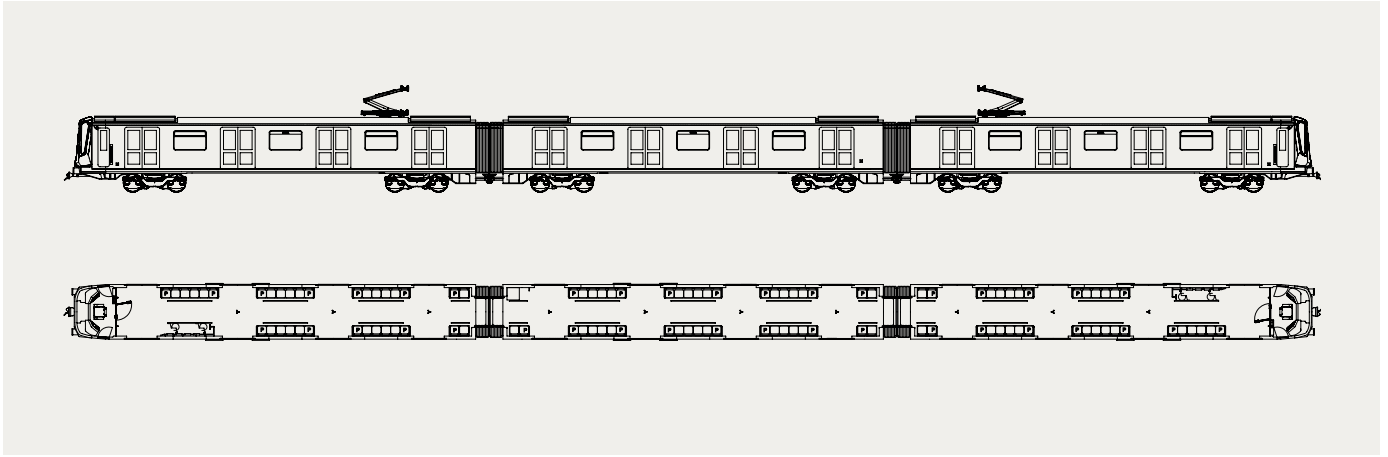
The vehicles are from the proven Inspiro family, which is already in operation in Warsaw. The Inspiro platform was developed with a special emphasis on low energy consumption, optimized maintenance, disabled friendliness, and environmental considerations. At the end of its service life, up to 95 percent of the rolling stock can be recycled.

The driver's cabin and passenger area are air-conditioned for maximum comfort.

The open and bright design of the interior area guarantees a pleasant ride. Logitudinal seats and four wide doors on each side of the car ensure maximum passenger capacity and rapid boarding and exiting at the stations.

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- Car bodies are made of welded aluminum profiles in a lightweight design.
- The rolling stock complies with stringent fire safety regulations per EN 45545 and is equipped with a fire alarm system in the passenger area and the equipment cabinets.
- The floor is a weight-saving, sound-absorbent composite cork-aluminum plate.
- Two compact air-conditioning units per car ensure comfortable air-conditioning in the passenger area. Separate air-conditioning systems are provided for both drivers' cabs.
- To ensure a high level of availability, the vehicles are equipped with a bogie-oriented traction system and mechanical brake system.
- The state-of-the-art traction system can provide electrodynamic braking almost down to standstill. This feature provides a non-wearing service brake under normal operating conditions and also improves stopping accuracy in the stations.
- Train control is assured by a reliable MVB bus based on the proven Sibas 32® system.
- Each train is equipped with an event recorder.

Technical data

Train configuration	Mc-T-Mc
Wheel arrangement	Bo'Bo'+ 2'2'+ Bo'Bo'
Car body material	Aluminum
Track gauge	1,435 mm
Length over couplers	60,008 mm
Width of car	2,650 mm
Floor height above top of rail	1,100 mm
Maximum axle load	Approx. 12 t
Train capacity (6 passengers/m ²)	617, including 110 seated
Passenger doors per car	2 x 4 sliding-plug doors
Door width	1,400 mm
Maximum operating speed	80 km/h
Power supply	1,500 V DC / pantograph

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