ŠKODA DOPRAVNÍ TECHNIKA s.r.o.

2 Mt, 3 Mt, 4 Mt

ISO 9001 QUALITY
ŠKODA
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METRO CAR MODERNIZATION
(Mytishchi type 81-71)

2 Mt, 3 Mt, 4 Mt – METRO CAR MODERNIZATION *(Mytishchi type 81-71)*

ŠKODA DOPRAVNÍ TECHNIKA s.r.o. implements extensive modernization of metro trainsets, originally made in Russia by Metrovagonmash mytishchi. The main objective of this modernization is enhanced safety, longer service life and improved operational efficiency of the modernized trainsets to be fully comparable with presently built vehicles, primarily in terms of the electrical equipment efficiency, safety and reliability of the operations and the passengers and the driver comfort.

The concept of the vehicle interior is completely innovated and fully depends on the particular customers' wish with either the longitudinal or transversal seat arrangement to offer the comfort to both the standing and sitting passengers. For better passenger comfort the visual and acoustic digital passenger information system is used. Principal attention was paid to meeting the requirements of combustion resistance and the non-toxic characteristics of all internal lining and cables together with state-of-the-art fire warning system.

Regarding the bogie modernization, new wheelset guide made by well-proven center-pins signifies major modernization part. Together with the use of the KWD tooth clutch for torque transmission between traction motor and gearbox and a new gearbox suspension bracket of the gearbox suspension – all these improvements grants much better reliability of the bogies.

The modernization of pneumatic equipment features the use of screw rotary compressors driven by three-phase asynchronous motors, the installation of air dryers in pneumatic circuits and the application of electrically controlled brake valve of the automatic brake. Modern recuperative brake is assisted by a resistor brake in the case of inability of the net to accept recuperated energy. The resistor brake is completely independent on trolley voltage.

Auxiliary drives utilize asynchronous motors.

Important vehicle's electrical part modernization includes especially replacement of uneconomical contact resistance regulation by pulse control incorporating modern IGBT modules, decreasing overall energy consumption and total weight. Both the vehicle and the trainset are microprocessor controlled, together with traction drive, auxiliary drives inverters, communication and diagnostics. The trainset is controlled via two communication lines providing simple resolving of additional requirements.

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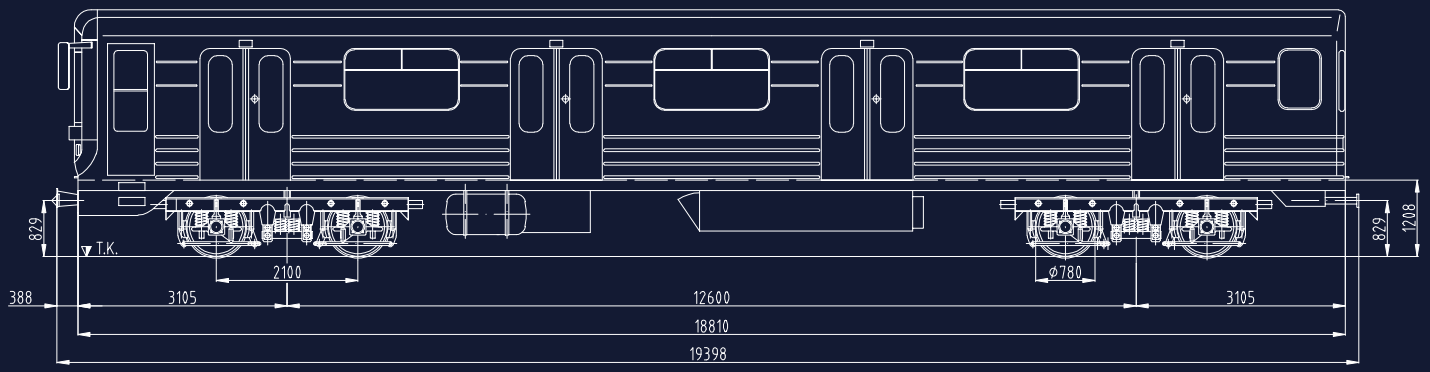
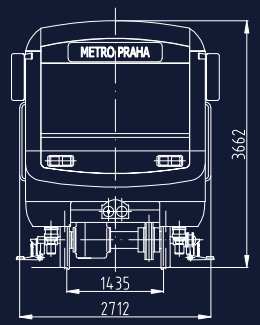
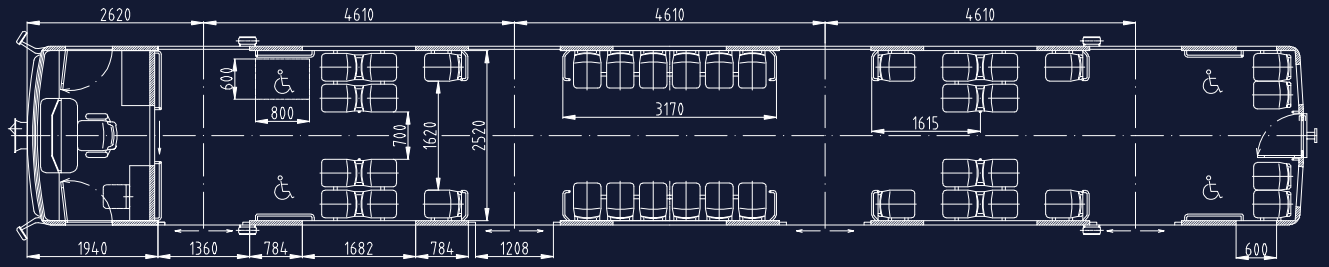
Basic technical specifications	Supply voltage	750 Vdc (+20%, –30%)
	Axle arrangement	Bo´Bo´
	Gauge	1 435 mm
	Maximum speed	80 km/h
	Operational speed	70 km/h
	Continuous power output (5 vehicles)	2 200 kW
	Electro-dynamic brake	regenerative
	Minimal track curve	75 m
	Weight	
	Empty train	157 t
	Fully occupied five-car train	248 t
Passenger occupancy	Seats	220 persons
	Normal passenger occupancy (4 passengers/m²)	763 persons
	Maximal passenger occupancy (8 passengers/m²)	1 360 persons







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