

NEW MPM-10 MÉTRO CARS

SEPTEMBER 2011

THE NEW MPM-10 MÉTRO TO BE BUILT BY BOMBARDIER-ALSTOM WILL CONSIST OF NINE OPEN-CONCEPT CARS ALLOWING FOR FULL CIRCULATION BETWEEN THEM. THE TRAIN'S SEVEN MOTOR CARS ARE FLANKED AT EACH END BY A TRAILER CAR HOUSING THE OPERATOR'S CAB.

THE NEW TRAIN RUNS ON A PNEUMATIC TIRE SYSTEM SIMILAR TO THE ONE CURRENTLY USED BY THE MONTRÉAL NETWORK.



BODY STRUCTURE

The wall panels are made of a welded stainless steel structure and its outer shell is aluminium sheeting. The roof is made of streamlined aluminium.

VENTILATION

With a maximum output of 13,000 m³/h, the forced ventilation in the passenger compartment offers more comfort compared to existing métro cars. The variable output is adjusted automatically according to temperature and the train car's passenger load.

INTER-CIRCULATION

An inter-circulation module provides a minimum 1,300 mm opening allowing passengers to move from one car to another, and its interior is finished with flexible panels.

PASSENGER DOORS

On either side of each car are three double sliding doors that open automatically at each station. Equipped with obstruction sensors, as well as audio and visual door-closing signals, the electric motor doors are 27% wider than the doors on current cars.

INSIDE LAYOUT

The trailer cars at each end are equipped with 22 fixed seats, two fold-up seats and two dedicated spaces for wheelchairs with lumbar supports. The motor cars in the middle each hold 28 fixed seats and four fold-up ones. The inside layout complies with universal accessibility requirements.

PROPULSION AND BRAKING SYSTEM

The motor cars feature a high energy-efficiency propulsion and braking system that maximizes the use of recuperative braking, while minimizing the use of mechanical brakes.

COMMUNICATIONS SYSTEM

Each car is equipped with four multi-functional screens inside the passenger compartment for displaying information, and two other screens indicating the name of the next station and any service delays. The cars are also equipped with three passenger interphones (five in each end car), an automated announcement system and four surveillance cameras.

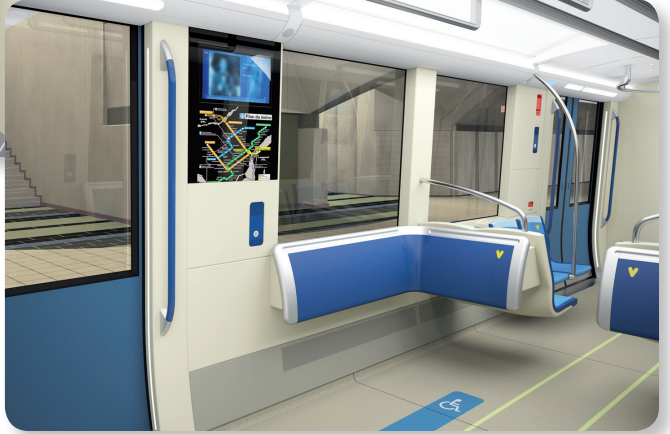
INTERIOR LIGHTING

The interior lighting is harmoniously integrated with the car's design. Ambient lighting is created by fluorescent tube fixtures providing indirect ceiling light, while LED accent lights are spread throughout the passenger compartment. A light signal made up of vertical bands of LED lights built into the door frames announces the doors' imminent closing.



A NUMBER OF IMPROVEMENTS THAT WILL BENEFIT OUR CLIENTS!

- «Boa» type train with full inter-circulation, allowing passengers to move between cars and ensuring smoother passenger flow when entering and exiting.
- Greater safety: easier evacuation, improved feeling of security, eliminated risk of falling between cars.
- Air suspension for smoother, more comfortable ride, while maintaining the car floor at a stable height next to the station platform.
- Larger windows featuring ergonomic supports.
- Universal accessibility: Reserved spaces for wheelchairs, fold-up seats for easier circulation and space for strollers, bicycles or other equipment.
- Significantly improved public address system.
- Communication with operator ensured by interphones and cameras.
- Information for passengers provided by four multi-functional ACL screens and two others displaying the next station and service delays.
- Forced ventilation system ensuring greater passenger comfort, with variable output adjusted automatically according to temperature and passenger load in each car.



NETWORK	
Maximum slope	6.5%
Traction power	750 Vcc
PERFORMANCE	
Maximum speed	72.4 km/h
MAIN DIMENSIONS	
Total length of a 9-car set	152,437 mm
Width of passenger doors	1,650 mm
Height of passenger doors	1,950 mm
Overall width	2,514 mm