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# MEDIUM-LOW SPEED MAGLEV TRAIN

An optimal solution for safe, reliable, low noise transport



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## OVERVIEW

CRRC's medium-low speed maglev train uses electromagnetic levitation and short stator linear motor traction technology. Its many features, including a minimal turning radius, strong climbing ability, high safety performance, low noise, low vibration, good climate adaptability and enhanced passenger comfort, make it an ideal choice for complex terrains and medium passenger capacity requirements.





## KEY TECHNICAL PARAMETERS

Train marshalling	3-car formation	6-car formation
Car body	All-welded aluminum alloy V structure	All-welded aluminum alloy drum structure
Power collection type	Current from side rail	Current from side rail
Rated power supply voltage (VDC)	1 500	1 500
Gauge (mm)	1,860	2,000
Maximum width of the train (mm)	2,800	3,000
Car body length	MC car (mm)	15,500
Car body length	M car (mm)	15,000
Vehicle height (ToR to vehicle top) (mm)	3,700	3,700
Height of vehicle floor to ToR (mm)	880	950
Net height of passenger compartment (mm)	2100	2100
Distance between centers of two suspension frame modules (mm)	2800	2740
Lateral distance between centers of two suspension frame (mm)	8400	8120
Number of suspension frame modules per car	5	5
Rated suspension height (mm)	8	8
Maximum operating speed (m/h)	100	100



## MAIN FEATURES

Our maglev trains incorporate various technologies including electromagnetic levitation, linear motor traction and pneumatic braking. Combined with our top-down, modular approach to system integration, this results in a vehicle with a high safety performance, low noise, minimal turning radius, strong climbing ability and a low lifecycle cost (LCC).

### ▶ HIGH SAFETY PERFORMANCE

Maglev trains offers a much safer transportation solution. Using levitation and guidance coil technology means the train body does not touch the tracks; there is no risk of derailment, turning over, truck hunting, worn wheels or wheel slides.

### ▶ LOW NOISE

Our maglev trains have low noise and vibration levels thanks to the lack of frictional vibration that results from traditional wheelset contact. Trains operating at speeds of 80km/h have an internal noise of 66db (A), making for a much more pleasant and comfortable passenger journey.

### ▶ LOW LIFE CYCLE COST (LCC)

CRRC's maglev trains benefit from a low life cycle cost. Maintenance is facilitated in part by flexible suspension frame modules, which replace traditional bogie frames, and the lack of gear boxes and wheels. A large number of other, independently developed components such as xxx additionallyalso help to reduce LCC.

### ▶ MINIMAL TURNING RADIUS AND STRONG CLIMBING ABILITY

Our maglev trains employ a 5-module suspension frame and linear motor technology, which allows for a minimum turning radius of 50m and a maximum climbing ability of up to 70%. This compares favourably with the 150m turning radius and 35% climbing capability of more traditional wheelset trains. Our maglev trains are therefore better suited to harder terrains and provide greater choice for urban rail transportation.

## APPLICATIONS OF CRRC'S MAGLEV TRAINS

Five 3-car, medium-low speed maglev trains are currently operating on the Changsha South Railway Station—Huanghua Airport Line in China. The line runs across 18.55km, making it the longest maglev track in the world. CRRC not only manufactures the vehicles, but also provides the majority of related equipment for the line including power supply systems, signalling and BEL locomotives.



Another ten 6-car maglev trains will soon be put into revenue service on Beijing Metro's S1 Line in xxx.