



DENVER, COLORADO

SD160 High-Floor Light Rail Vehicle

The Mile High City brought rail transit back to the region in 1994 when Denver opened its very own light rail system with a base fleet of eight Siemens Mobility vehicles. The success of that initial order and the increase in overall ridership over the years has prompted Denver to expand their system to include 59 miles of track and operate in excess of 170 Siemens Mobility light rail vehicles (LRV). Whether it's a ride to retail hot spots or perhaps a ride to the big game; Siemens Mobility LRV's are a fully-accessible friendly transportation for all.

A steel carbody construction; fully bi-directional; single articulated; high-floor vehicle with stepwell bridge plates, ideal for mini-high platform operation and built in North America. The added advantage of incorporating stepwells at each doorway is to allow for street-level boarding. Each six-axle SD160 light rail vehicle is equipped with two power trucks (one under each cab end) and on non-powered center truck.

The interior of this next generation SD160 LRV has been designed to maximize passenger space, incorporating wide doorways and a predominately knee-to-back seating arrangement.

Each LRV is equipped with eight wide opening sliding plug doors, with four to each side of the vehicle. The door spacing has been optimized to allow for greater

Performance and Capacity

Maximum operational speed	55 mph	88.5 km/h
Maximum allowable speed	65 mph	105 km/h
Service acceleration and deceleration	3.0 mph/s	1.34 m/s ²
Emergency braking rate	6.16 mph/s	2.75 m/s ²
Passenger capacity	56 seats Approx. 186 total passengers @ 6 p/m ² 4 ADA compliant wheelchair spaces	
Maximum operational gradient	6%	
Motor power rating	194 hp x 4	145 kW x 4
Catenary supply voltage	750 Vdc nominal	

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passenger flow entering and exiting the vehicle, which ultimately decreases the station dwell times. An added advantage of the Denver SD160 is the incorporation of step-wells at each doorway for street-level boarding.

The vehicle is also equipped with four designated wheelchair spaces allowing for priority seating to disabled passengers and doorway ramps to assist in the boarding and exiting of disabled passengers.

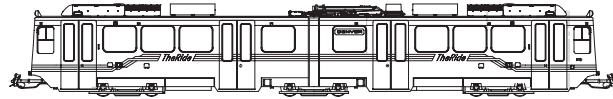
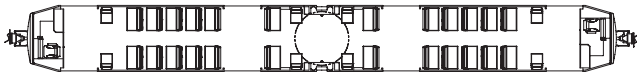
To maximize passenger comfort, each vehicle is also equipped with two roof-mounted HVAC units per LRV.

Also, to combat the extreme winter conditions in Denver, this vehicle features sidewall heaters in the passenger area, dual pane insulated windows and increased thermal insulation throughout the vehicle.

The SD160 utilizes a passenger information system consisting of operator and automated announcements, passenger-operator intercoms and interior and exterior electronic destination signs, as well as interior surveillance system for increased passenger safety.



Each LRV is electrically powered from an overhead catenary system (OCS) and for Denver operates at speeds up to 55 mph, carrying close to 185 passengers in each vehicle with the ability to operate in multiple vehicle consists (up to four) as the maximum operational length. These light rail vehicles remove automobiles off the road, in turn helping cities decrease their CO2 emissions.



Vehicle Dimensions and Weight

Length over coupler	81.4 ft	24820 mm
Width	8.7 ft	2654 mm
Height with pantograph (locked down)	12.4 ft	3786 mm
Maximum pantograph height	up to 23 ft	7010 mm
Vehicle empty weight	93,513 lbs (AW0)	42417 kg
High-floor section above TOR	3.2 ft	985 mm
Low-floor section above TOR	n/a	n/a
Minimum turning radius	82 ft	25 m
Vertical curve, crest	820 ft	250 m
Vertical curve, sag	1,150 ft	350 m
Track gauge	4.7 ft	1435 mm
Wheel base	5.9 ft	1800 mm



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