

SIEMENS

S200 High-Floor Light Rail Vehicle

Calgary, Alberta

Rail Systems



S200; a steel carbody construction, fully bidirectional, single articulated, high-floor vehicle – ideal for high platform operation and built in North America.

To provide operators a safe and comfortable work environment Siemens increased the cab size by 500 mm, allowing for larger side windows. The S200 features a wrap-around console for improved ergonomics and an operator's seat positioned on the

vehicle's centerline for increased visibility. A full-width glass partition provides over 310° of visibility for the operator and increased passenger safety.

Based on passenger feedback, Calgary Transit designed the interior of the S200 to maximize passenger space. Each S200 is equipped with transverse seating near the operator cab; longitudinal seating through the center of the car; glass paneled sliding plug doors and wide doorways to improve ambient light. Each car is equipped with two designated wheelchair

Siemens delivered the first light rail vehicle (LRV) to the City of Calgary in the late 1970's with a base fleet of 80 LRVs. The initial success and increased ridership over the years has prompted the city to expand their system with 45 km of track and more than 190 LRVs. Inspired by iconic images of the area and born from a tradition of reliability and innovative technologies, Siemens created the S200 specifically for the City of Calgary.

Our new carbody design modernizes the LRV's appearance while incorporating the most current safety standards. We capitalized on the previous platform of SD160's underframe strengths and integrated designs from other innovative LRV interiors and subsystems to create the

Performance and Capacity

Maximum operational speed	80 km/h	50 mph
Maximum allowable speed	80 km/h	50 mph
Service acceleration	0.95 m/s ²	2.13 mphps
Service deceleration	1.32 m/s ²	2.95 mphps
Emergency braking rate	2.75 m/s ²	6.15 mphps
Passenger capacity	60 seats	
	Approx. 247 total passengers @ 6 p/m ²	
	2 wheelchair spaces	
	2 multi-purpose spaces	
Maximum operational gradient	7%	
Motor power rating	145 kW x 4	194 hp x 4
Catenary supply voltage	600 Vdc	

spaces and two multi-purpose spaces that allow priority seating for disabled passengers, parents with strollers, or bicyclists.

The S200 has a number of features to combat the extreme weather in Calgary; heated flooring in the passenger area, triple-pane insulated windows; increased thermal insulation; two roof-mounted HVAC units per car; and independent HVACs for the operator's cab.

The S200 comes with an advanced passenger information system that includes operator and automated announcements; passenger-operator

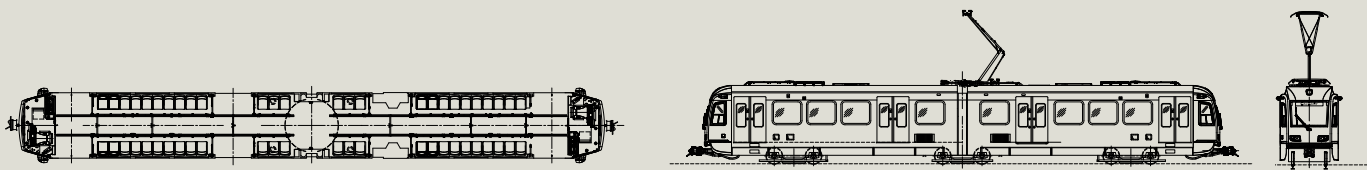
intercoms, electronic destination signs; and a surveillance system for improved passenger safety. We designed the Calgary S200 monitoring and diagnostics system (MDS) with the proven technology from our S70 vehicles used elsewhere in North America. An overhead wire (catenary) system provides electric power to the S200, operating at speeds up to 80 Km/h. Each LRV carries close to 250 passengers and can operate with up to five cars, helping cities reduce CO₂ emissions by removing hundreds of cars from public roadways year after year.

More than 20 million Canadians are served by public transit, more than at any time in the past. These passengers make an average of 78 transit trips each year, totaling more than 1.5 billion trips nationwide. More than 75% of urban Canadians rely on transit to meet their daily needs. In the country's largest metropolitan areas, about 15% of commuters (or 1.35 million people) take transit to work, which outnumbers the number of people walking, cycling, or driving to work – combined.

(Source, Canadian Urban Transportation Association)

Vehicle Dimensions and Weight

Length over coupler	24820 mm	81.4 ft
Width	2654 mm	8.7 ft
Height with pantograph (locked down)	3800 mm	12.5 ft
Maximum pantograph height	7010 mm	up to 23 ft
Vehicle empty weight	41500 kg	91500 lbs (AW0)
High floor section above TOR	985 mm	3.2 ft
Low floor section above TOR	n/a	n/a
Minimum turning radius	25 m	82 ft
Vertical curve, crest	250 m	820 ft
Vertical curve, sag	350 m	1150 ft
Track gauge	1435 mm	4.7 ft
Wheel base	1800 mm	5.9 ft
	1800 mm (center truck)	5.9 ft (center truck)



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