



Bi-directional, six-axle, low floor articulated light rail vehicle constructed of low alloy high tensile (LAHT) steel and composite materials.

Low floor area comprises 70% of the interior and extends between the end trucks through the articulated center section.

Modern, spacious interior ensuring maximum visibility and safety. Enhanced interior air conditioning to accommodate local climatic conditions. Seating is primarily knee-to-back.

Eight sliding-plug passenger doors, four per side directly across from one another and located in the low floor area.

Equipped with a hydraulic height control system to permit level boarding and meet ADA requirements.

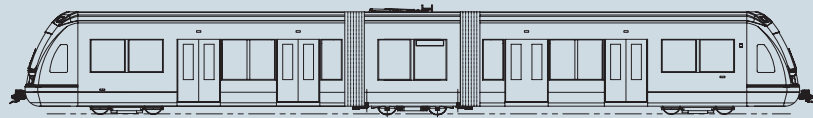
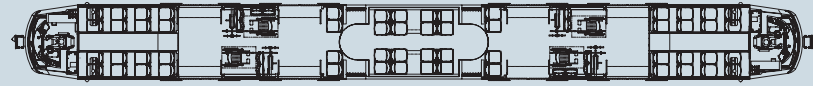
Modern passenger information system consisting of automated announcements, public address, passenger-operator intercom and electronic destination signs, as well as an interior and exterior vehicle surveillance system.

Propulsion is provided by a modern, state-of-the-art AC-IGBT system, with four motors per car, pulse controlled inverters and microprocessor vehicle control logic. Electro-hydraulic friction braking is provided with track brakes on all trucks.

Performance and Capacity		
Maximum operational speed:	66 mph	106 km/h
Maximum allowable speed:	71.5 mph	120 km/h
Service acceleration and deceleration:	3.0 mph/s	1.34 m/s <sup>2</sup>
Emergency braking rate:	4.9 mph/s	2.2 m/s <sup>2</sup>
Passenger capacity:	68 seats	
	Approx. 230 total passengers	
	4 wheelchair spaces and 2 bicycle racks	
Maximum operational gradient:	7%	
Motor power rating:	174 hp x 4	130 kW x 4
Catenary supply voltage:	750 Vdc	

# S70 Light Rail Vehicle

Charlotte, North Carolina



Vehicle Dimensions and Weight		
Length over coupler:	93.6 ft	28528 mm
Width:	8.7 ft	2650 mm
Height with pantograph (locked down):	12.7 ft	3870 mm
Maximum pantograph height:	up to 23 ft	7010 mm
Vehicle empty weight:	96800 lbs (AW0)	43908 kg
High floor section above TOR:	2.2 ft (with 1 step plus slight ramp)	669 mm
Low floor section above TOR:	1.2 ft (threshold)	356 mm (threshold)
	1.3 ft (center)	396 mm (center)
Minimum turning radius:	82 ft	25 m
Vertical curve, crest:	820 ft	250 m
Vertical curve, sag:	1150 ft	350 m
Track gauge:	4.7 ft	1435 mm
Wheel base:	6.2 ft (power trucks)	1900 mm (power trucks)
	5.9 ft (center truck)	1800 mm (center truck)

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