

**SIEMENS**

# S70 Streetcar

Atlanta, Georgia

Rail Systems



For the first time since 1949, Atlanta has revitalized their streetcar project with a 2.62 mile system running along the streets of the downtown area. Atlanta's streetcar system marks the inauguration of Siemens' first US built S70 Streetcar based on the service proven 70% low floor S70 light rail vehicle platform. The Atlanta Streetcar with a base fleet of four vehicles are complementary elements of the City's Connect Atlanta Plan to increase urban mobility, sustainable development and livability of the city of Atlanta.

A steel carbody construction; fully bi-directional; double articulated; 70% low floor vehicle, ideal for street-level operation and built in the USA. Each six-axle S70

Streetcar is equipped with two power trucks (one under each end) and a non-powered center truck.

The interior of this S70 streetcar has been designed to maximize passenger space, incorporating a predominately knee-to-back seating arrangement. Each S70 Streetcar is equipped with eight wide opening sliding plug doors all located in the low floor area, with four to each side of the vehicle. The door spacing has been optimized to

allow for greater passenger flow entering and exiting the vehicle, which ultimately decreases the station dwell times.

In addition to the maximized passenger space and wide doorways the vehicle is also equipped with four designated wheelchair spaces allowing for priority seating to disabled passengers and hydraulic height control system to permit level boarding and exiting of the vehicle.

## Performance and Capacity

Maximum operational speed	35 mph	56 km/h
Service acceleration and deceleration	3.0 mph/s	1.34 m/s <sup>2</sup>
Emergency braking rate	4.8 mph/s	2.25 m/s <sup>2</sup>
Passenger capacity	60 seats	Approx. 195 total passengers @ 6 p/m <sup>2</sup>
		4 wheelchair spaces
Maximum operational gradient	7%	
Motor power rating	174 hp x 4	130 kW x 4
Catenary supply voltage	750 Vdc	

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

The S70 Streetcar 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 and exterior surveillance system for increased passenger safety.

The S70 Streetcar is electrically powered from an overhead wire system (catenary) and for Atlanta operates at speeds up to 35 mph while carrying close to 200 passengers in each vehicle with the ability to operate in multiple vehicle consists up to four. The S70 Streetcar removes automobiles off the road in turn helping cities decrease their CO<sub>2</sub> emissions.

In 2013 Americans took 10.7 billion trips on public transportation, which is the highest annual public transit ridership number in 57 years, according to a report released by America Public Transportation (APTA) in March 2014.

### Vehicle Dimensions and Weight

Length over anticlimbers	79.1 ft	24110 mm
Width	8.7 ft	2654 mm
Height with pantograph (locked down)	12.6 ft	3840 mm
Maximum pantograph height	up to 23 ft	7000 mm
Vehicle empty weight	96500 lbs (AWO)	43700 kg
High-floor section above TOR	3.2 ft	985 mm
Low-floor section above TOR	1.2 ft	356 mm
Minimum turning radius (standard)	82 ft	25 m
Minimum turning radius (option)	59 ft	18 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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