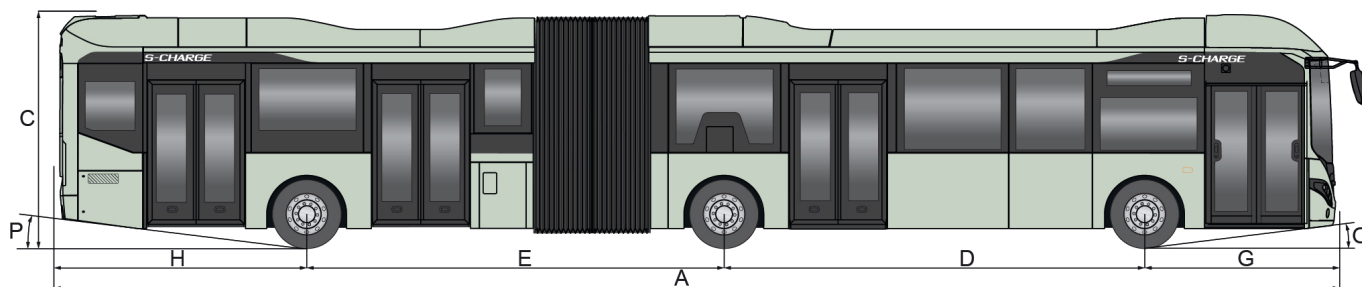




Volvo Buses. Driving quality of life

# VOLVO 7900 S-CHARGE ARTICULATED



Model	Articulated, 18.0 m	Articulated, 18.7 m
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Overall dimensions		
A Overall length (mm)	18,031	18,739
Overall width (mm)	2,550	2,550
C Overall height (mm)	3,280	3,280
D Front wheelbase (mm)	5,945	5,945
E Rear wheelbase (mm)	5,887 (4,027 + 1,860)	6,605 (4,745 + 1,860)
Max horizontal/vertical turning angle of articulated joint (°)	52/10	52/10
G Front overhang (mm)	2,704	2,704
H Rear overhang (mm)	3,485	3,485
O Approach angle (°)	6.1	6.1
P Departure angle (°)	6.0	6.0
Turning radius (outer front corner) (mm)	12,305	12,305
Turning radius (outer front wheel) (mm)	10,140	10,140
Overall height, approach and departure angles with tyres	275/70 R22.5	275/70 R22.5

Weights		
Permitted front axle load (kg)	7,500	7,500
Permitted drive axle load (kg)	12,500	12,500
Permitted middle axle load (kg)	10,000	10,000
Permitted GVW (kg)	29,000	29,000

Engine	D5K240	D5K240
Emission standard	Euro 6	Euro 6
Engine system	EGR, Common Rail	EGR, Common Rail
Displacement (dm <sup>3</sup> )	5.1	5.1
Cylinders/arrangement	4/in-line	4/in-line
Output (hp) (± 0–4%)	240	240
Output ISO 1585 (kW) (± 0–4%)	177	177
Torque ISO 1585 (Nm)	918	918
at engine speed (rpm)	1,200–1,600	1,200–1,600

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Electrical motor		
Output, max (kW)	130	130
Torque ISO 1585, max (Nm)	1,200	1,200
Output, continuous (kW)	70	70
Torque ISO 1585, continuous (Nm)	400	400
Max brake torque (Nm)	1,200	1,200
Continuous brake torque (Nm)	400	400

Fuel tanks		
Diesel (L)	260	260
AdBlue (L)	48	48
Adblue tank side (RHS/LHS)	RHS	RHS

Transmission and axles		
Gearbox	Volvo I-Shift AT2412F	Volvo I-Shift AT2412F
Front axle	Volvo RFS-L	Volvo RFS-L
Rear axle	ZF AV133	ZF AV133
Differential lock	No	No

Steering and suspension		
Steering wheel side	LHD	LHD
Power steering	Electric driven hydraulic steering	Electric driven hydraulic steering
Kneeling	Optional	Optional

## Energy storage system

- Lithium-ion battery
- Water cooled
- Ramp heating with 230 V

## Voltage

600 V

## Capacity

8.9 kWh

## Exhaust system

- One box muffler design
- Diesel Oxidation Catalyst (DOC)
- Diesel Particulate Filter (DPF)
- Selective Catalytic Reduction (SCR)
- Ammonia Slip Catalyst (ASC)
- Automatic regeneration of DPF without driver involvement under normal conditions
- On Board Diagnostic (OBD) for emissions, according to step C of emission regulations
- Engine certified hydrotreated vegetable oil (HVO, standard EN 15940)
- Biodiesel available for D8K320

## Cooling system

- Roof-mounted radiator gives lower engine compartment temperature
- Charge air cooler separately installed from radiator gives improved airflow, better control of fan speed and lower fuel consumption
- Electrically driven fans with improved speed control
- Remote filling of coolant
- No coolant filter
- Coolant level warning in instrument cluster
- Higher allowed coolant temperature for better cooling performance and lower fuel consumption

## Tyres and rims

Steel rims available

Rims	Tyres
7.5 x 22.5"	275/70 R22.5

## Air and brake system

- Volvo disc brakes
- Electronic Braking System (EBS 5)
- Anti-lock Braking System (ABS)
- Acceleration Slip Regulation (ASR)
- Brake blending
- Dual retarder control
- Drag torque control
- Hill Start Aid
- Brake temperature warning
- Poor brake performance warning
- Door brake
- Brake Assistant
- Lining wear sensing and analysis
- Automatic calibration after brake pad change
- Compressed air system, easily filled from external circuit
- Electric air compressor replace hydraulic air compressor to increase fuel efficiency

# VOLVO 7900 S-CHARGE ARTICULATED

## Exterior and structure

- Volvo's patented lightweight aluminium body concept
- Front and rear wall in composite material and ABS elements
- Front and rear structure in anti-corrosion steel
- Single or double tinted glazing with hopper and sliding window options
- Multilayer exterior paint finish
- Easy repair of minor damages
- Parts commonality between city and intercity buses to lower maintenance cost
- Anti-corrosion treatment of underbody with conservation sealing and silencing agents
- Xenon and halogen headlamps
- LED daytime running lights
- LED headlights
- Auxiliary lights, cornering lights and fog lights as options
- Electrically adjustable and heated external mirrors
- Central greasing system for articulated joint

## Doors and door system

- Electric door system
- Inward gliding and outward sliding doors available
- Double glazing in all doors
- Electric sensitive edge for increased passenger safety

## Climate system

- Roof heating units
- Pipe convectors and air blowers
- Air blowers at doors
- Defroster with AC
- Driver convector or blower
- Auxiliary diesel heater
- Separate climate zones for driver and passengers
  - For optimal climate and energy efficiency, the passenger temperature is controlled by a pre-set temperature curve
  - The temperature in the driver's area is manually controlled

### AC unit:

Cooling capacity max (35/40/47%)

31 kW

Heating capacity at Q80

56 kW

### Roof heating unit (when not specified with AC):

Heating capacity at Q80

50 kW

### Convectors:

Heating capacity at Q100

918 W/m

### Defroster:

Heating capacity at Q80

18 kW

Cooling capacity max

5.5 kW

Airflow max at dP 0

880 m<sup>3</sup>/h

Available with/without AC

### Driver AC:

Electrical roof-mounted driver AC, connected to defroster

### Auxiliary heater:

Heating capacity

30 kW

Fuel: Diesel/HVO/Biodiesel

## Interior

- Spacious and bright
- Comfortable
- Separate passenger and driver climate zones
- Integrated position for passenger information displays
- Interior LED lights
- Low noise level

## Passenger seats

Volvo city seats featuring:

- Optimised city bus seat
- Easy maintenance
- Available in a wide range of specifications to meet the demands of individual customers

## Driver's seat and station

- Volvo dashboard
- Dashboard moves with the steering column in height and tilt
- Available in Standard (fulfilling ISO16121) and VDV version. The VDV version with multistalk for wiper and direction indicator on left side of the steering wheel
- Instrument cluster:
  - speedometer
  - rev counter
  - 6.5" display
  - fuel gauge
  - coolant temperature
  - brakes
  - turbo and oil pressure
  - indicators
  - warning lamps
- Tachograph
- Data logging
- Volvo Alcolock
- External temperature meter
- Fuel economy meter
- Radio/phone switches in steering wheel
- Engine controls in engine compartment to enable engine operation from the rear of the vehicle
- ISRI driver's seat
- Assault screen (option)

# VOLVO 7900 S-CHARGE ARTICULATED

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## Electrical system

- I-Start:
  - dual battery system which separates batteries into two circuits
  - optimised start batteries to increase engine start capability
  - optimised consumer batteries for longer lifetime
- Automatic shut off of main switch at low voltage level

### Number of batteries

2 x 12 V consumer batteries

2 x 12 V start batteries

### Battery capacity

Consumer batteries

2 x 105 Ah

Start batteries

2 x 35 Ah

## Audio system

- Stereo radio with DAB
- Foot controlled public address system
- Amplifier adapted to city bus

**VOLVO**

Volvo Bus Corporation

[volvobuses.com](http://volvobuses.com)