VOLVO 7900 HYBRID
Better business for greener cities
The Volvo 7900 Hybrid range takes green efficiency to the next level, far beyond Euro 6 legislation. It's the most fuel-efficient and reliable hybrid bus on the market, delivering fuel savings of up to 39%.

Positioned No. 1 hybrid in uptime and on par with leading diesel buses. With the addition of the new high capacity articulated model, our hybrid range is a solid foundation for your city fleet renewal.

Sleek design, low noise, low fuel consumption, low emissions. Now available in an articulated version, giving you even higher passenger capacity than with an articulated diesel bus.
Saves fuel, money and the environment

**Flexibility in operation**
From dense city to commuter traffic, Volvo 7900 Hybrid technology saves large amounts of fuel in all types of operation. Furthermore, it has all the power needed for safe operation in any climate.

**Silent comfort**
The Volvo 7900 Hybrid is an extremely silent and comfortable experience – on-board, at the bus stop and for nearby residents – thanks to unique hybrid technology and electrically powered systems.

**Increased driver performance**
The new driver’s environment is one of the best available, with world-class ergonomics, new Volvo dashboard and a range of possibilities for individual adjustments.

**Environmental performance**
The Volvo 7900 Hybrid leads the way when it comes to providing environmental performance with a clear business upside. Reducing energy use and CO₂ by up to 39% and hazardous emissions by close to 50%.

**Business in partnership**
Our promise is to be your best business partner. We offer a range of services to maximise uptime, reduce life cycle cost and facilitate the management of your fleet.

**No. 1 in uptime**
Positioned No. 1 hybrid in uptime and on par with leading diesel buses, giving it a top ranking by operators and PTAs throughout Europe.

**Fuel efficiency**
- save up to 39%
The Volvo 7900 Hybrid is the most fuel-efficient bus on the market. In addition, we offer a range of services that reduce fuel consumption even further.

**Extended capacity**
In the new articulated version, passenger capacity is increased to 154 passengers, taking fuel-efficient transport and productivity to a completely new level.
The Volvo 7900 Hybrid’s uptime results are better than for any other hybrid bus. In fact, it’s even on par with the best diesel bus. Perhaps no surprise it’s top ranked by demanding operators and PTAs in major European cities. To date, more than 40 Volvo hybrid customers in more than 25 countries have millions and millions of kilometres of experience in commercial operation. Reassuring figures demonstrate the outstanding reliability and efficiency of Volvo’s unique parallel hybrid system.

The new articulated version features the same proven driveline, with increased battery capacity.

Electric doors increase uptime
The Volvo 7900 Hybrid features new robust electrically powered doors, providing outstanding reliability compared to conventional pneumatic systems. And the need for service and maintenance is minimised.

Innovative Volvo battery technology
The new Volvo I-Start system features two battery sets for increased uptime and extended battery life. One set is reserved solely for engine start-up to ensure a fully charged battery every time; the other set is reserved for the other electrical systems.

Vehicle uptime services
With our Service Contracts you get maximum vehicle availability at a fixed monthly cost. In addition, we can tailor an individual maintenance plan completely optimised for your Volvo 7900 Hybrid fleet. High workshop efficiency, unique diagnostic tools and Parts Supply help boost uptime even further.
Save up to

39%

of your fuel cost

**Our most recent hybrid bus** is the most fuel-efficient on the market – widely proven in years of commercial operation. In fact, we have received reports from operators who have saved more than 39%. How? The answer is Volvo’s unique parallel hybrid system. And with our advanced fuel-saving services, that figure can be raised by a further 5–6%. With the Volvo 7900 Hybrid the future suddenly seems very present.

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**Less weight – reduced fuel consumption**
Our body concept combines both aluminium and steel, giving you a perfect balance of strength and low weight. The result is not only an extremely durable, corrosion resistant body, the saved kilos also lower fuel consumption.

**Fuel-saving electric auxiliaries**
The doors, air conditioning, power steering and brakes are examples of features that are electrically powered in a Volvo 7900 Hybrid. This not only helps save fuel, it also means the bus is fully operational even when the diesel engine is switched off.

**Fuel-saving services**
With our Fleet Management you get detailed reports that allow you to trace the cause of variations in fuel consumption and take action. For example with Driver Training, helping you improve the skills of your drivers and save fuel.
Green efficiency pays off

The Volvo 7900 Hybrid leads the way when it comes to providing environmental performance with a clear business upside. We call it Green Efficiency, and it allows you to drive a better business with less harmful impact. Watch the Euro 6 legislation comfortably in the rear-view mirror.

The best way to reduce emissions is to reduce fuel consumption – and that’s exactly what the Volvo 7900 Hybrid offers. Big time. With our unique parallel hybrid technology CO₂ is reduced by up to 39%. If you include NOx and particulates, emissions are reduced by close to 50%. Volvo hybrids are simply the best way to reduce the environmental impact caused by public transport, while at the same time increasing profitability in your entire city fleet.

Detailed emissions reports
With our Fleet Management you get detailed emissions reports. This allows you to manage, track and optimise the performance of every bus in your fleet, with detailed documentation.

Less weight – more recyclable
The body structure and roof are made of aluminium, which is 90% recyclable. This concept reduces the weight of the bus, thus contributing to lower fuel consumption and emissions.

Low noise emission
Volvo’s unique parallel hybrid technology contributes to reduced noise – both for passengers and in the city environment. No engine idling at the bus stop, silent take off in electric mode and battery-powered auxiliaries reduce disturbing noise to a minimum.
A new level of comfort

AND CONTROL

The new driver’s environment in the Volvo 7900 Hybrid is probably one of the best available, with world-class ergonomics and superior visibility. The new adjustable dashboard features easy to read instruments and controls located within convenient reach. The new instrument cluster is designed to display only relevant information, minimising distraction and helping the driver stay focused and alert. Add to that more space and the possibility of rotating the driver’s seat and the setting is clear – the Volvo 7900 Hybrid is designed around the driver.

I-Coaching assists the driver to drive more safely, fuel efficiently and comfortably. It gives instant feedback on parameters such as over-revving, excessive idling, over-speed and harsh curving, helping the driver improve performance.

With Driver Training, even your best drivers can enhance their skills and learn how to exploit the full potential of the bus. Fine-tuning driving safety and economy for maximum productivity and passenger satisfaction.

New and more spacious driver’s environment. Fully adjustable steering wheel, dashboard and seat make it easy to find an ideal driving position, regardless of height, body constitution or preference. More space enables seat rotation and more storage for personal belongings. Low noise level and separate climate control enhance driving comfort even further.
A quiet revolution

The Volvo 7900 Hybrid might stand out from the crowd, but it doesn't make a lot of noise about it. On the contrary. The unique hybrid technology and range of electrically powered features contribute to an extremely silent and comfortable experience, both on-board, at the bus stop and for nearby residents.

Picture this: The bus arrives at the bus stop and the diesel engine switches off. No idling engine, no emissions. The electric doors open for silent boarding. The bus takes off in electric mode, quietly up to 20 km/h before the diesel engine takes over. The climate system, brakes and other auxiliaries are electrically powered, reducing noise during the ride. Honestly, it's quite the experience.
Superior passenger capacity

The passenger capacity of a Volvo 7900 Hybrid is on par with a diesel bus, thanks to intelligent design and superior weight distribution. In the new Volvo 7900 Hybrid Articulated passenger capacity is 154 passengers, which is four more than our previous articulated diesel model, and the highest capacity of any hybrid vehicle available.

What's more, this means 15% lower fuel consumption per passenger compared with the 2-axle version. This extends your transport efficiency and productivity to a completely new level.

Swift passenger flow. Three double doors (four on the articulated model), low floor and kneeling function ensure quick and efficient boarding and exiting. The optional electrically operated boarding ramp is a convenient solution that further benefits passengers with mobility disabilities.

A bright interior. The space-efficient interior layout combines smooth passenger flow with high comfort. Bright colours, large windows, ergonomic seats and a controlled interior climate with low noise level ensure a pleasant passenger experience.
It’s worth leaving THE CITY

It's no surprise that the Volvo 7900 Hybrid is a true fuel-saver in city traffic. But the whole truth is that Volvo's hybrid technology saves large amounts of fuel in all types of operation – from dense city traffic to commuter traffic. In fact, the Volvo 7900 Hybrid has delivered impressive performance in the suburbs and even on some regional routes. We have customers who have confirmed savings of around 25% in environments where hybrids normally don't operate. This gives you enhanced opportunities and flexibility when managing your fleet.

At home in every climate

Hot or cold, the Volvo 7900 Hybrid has the electric power needed for safe operation in any climate. The batteries are temperature-controlled – cooled or heated depending on the ambient temperature – to ensure uptime and reliability. The interior climate is secured by a robust air-conditioning and heating system.

The articulated version features a powerful air-conditioning system, providing a perfect climate throughout. Of course with a separate climate zone for the driver.
Your business partner

FOR UPTIME

When you build a fleet entirely or partly with Volvo 7900 Hybrid buses, you build a solid operation. And with our experience, knowledge and business understanding, we promise to be your best business partner. With your operation in mind, we can propose a combination of reliable services completely designed to optimise your operation, at a well-defined cost. Ultimately helping you to maximise uptime, reduce life cycle cost and facilitate the management of your fleet. And not least, helping you secure productivity and long-term profitability.

Vehicle uptime services
With our range of services we can take part or complete responsibility for your vehicles, ensuring a trouble-free operation. Vehicle Management, Service Contracts and Fleet Management are just a few examples of services that help you stay in control of the cost and performance of your fleet.

Parts Supply
With our Parts Supply you can rely on superior availability of Genuine Volvo Parts, helping to secure uptime. In addition, the Volvo 7900 Hybrid shares a great deal of parts and structural similarities with the Volvo 8900. This brings a lot of advantages if you run a fleet containing both models, such as simplified maintenance routines and workshop procedures.

Hybrid Battery Contract
Our Hybrid Battery Contract is optimised to secure uptime, avoid unexpected costs and facilitate the operation of your hybrid bus fleet. What you get is a contract and quality assurance that secures an always-performing hybrid battery, throughout the whole contract period. Simply put: you drive, we take care of the rest.
# Facts and Figures

## Dimensions and weights

<table>
<thead>
<tr>
<th>Model</th>
<th>2-axle</th>
<th>Articulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length [m]</td>
<td>10.6 / 12.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Width [m]</td>
<td>2.55</td>
<td></td>
</tr>
<tr>
<td>Height [m]</td>
<td>3.28</td>
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</tr>
<tr>
<td>Permitted GVW [kg]</td>
<td>19 000</td>
<td>29 000</td>
</tr>
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</table>

## Powertrain - parallel hybrid system

### Configuration
- Emission standard: Euro 6
- Diesel engine: Volvo D5K 240, 4-cylinder, in-line diesel engine with common rail injection
- Output [hp]: 240
- Torque [Nm]: 918
- Electric motor: Volvo I-SAM
- Power output, max [kW]: 120 / 150
- Torque, max [Nm]: 800 / 1200
- Energy storage system: Lithium-Ion battery
- Transmission: Volvo I-Shift automated gear-changing system

### Brakes
- Volvo electronically controlled disc brakes (EBS)
- Brake Blending function (all). The electric motor functions as a retarder and recovers braking energy.

### Exhaust system
- One box muffler design.
- Automatic regeneration of DPF without driver involvement under normal conditions.

### Axles, suspension and steering
- Front axle: Volvo RFS-Low beam axle
- Rear axle: Portal, double reduction axle, with optimised ratios
- Suspension: Electronically controlled air suspension with kneeling function available on all variants
- Power steering: Electrically powered hydraulic steering
- Tyres: 275/70R 22.5"
- Rims: Steel rims available

### Passenger capacity

<table>
<thead>
<tr>
<th>Model</th>
<th>2-axle</th>
<th>Articulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of passengers</td>
<td>90</td>
<td>102</td>
</tr>
<tr>
<td>No. of seats, max</td>
<td>27+1</td>
<td>32+1</td>
</tr>
<tr>
<td>Type of seats</td>
<td>Volvo City bus seats available in several variants, optimised for easy cleaning and maintenance.</td>
<td></td>
</tr>
</tbody>
</table>

### Doors and door system
- Door system: Electric or pneumatic
- Door layout: 2+2+0 / 2+2+2 / 2+2+2+2

### Climate system
- Zones: Separate climate zones for driver and passengers
- Ventilation and heating: Powerful ventilation, roof heating units
- AC max [kW]: 28 or 38

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### The main components of the Volvo hybrid system
1. Diesel engine
2. Electric motor/generator (I-SAM)
3. Transmission
4. Electronic control unit
5. Energy converter DC/DC 600V/24V
6. Batteries
7. Electrified auxiliaries

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Discover more on www.volvobuses.com