



Your questions answered

L120 ELECTRIC

Volvo Construction Equipment

L120 ELECTRIC

The L120 Electric offers an autonomy of up to 9 hours, enabling the possibility to work a full day without the need to recharge. With a tipping load of 12,5 tons and a battery capacity of 282 kWh this versatile machine meets the performance of the equivalent diesel but offers emission free and near silent operation to support you in your sustainability ambitions.

01 What is the runtime of the L120 Electric last from fully charged?

The L120 Electric offers an autonomy of 5-9 hours depending on the application- meaning you can work a full day without the need to recharge.

02 How long does it take to fully charge the L120 Electric battery?

When fast recharging is required, DC power of up to 165 kW can be used to fully recharge the L120 Electric in about 2 hours.

03 Which charging solutions are available for L120 Electric?

Volvo currently offer the following charging solutions for the L120 Electric:

- 40 kW DC portable charger for overnight charging – charge from empty to full in 7 hours.
- DC Fast charger, providing 165 kW- charge from empty to full in 2 hours*.
- Power Unit, PU500 for power peak shaving: this solution allows fast charging of larger electric machines on sites with no or limited grid connection – charge from empty to full in 2 hours**.

Input is up to 65 kW AC (32A, 63A or 125A) and output is up to 240 kW DC.

Note: The L120 Electric does not come with an on-board charger. Overnight charging with the 40 kW DC charger is a suitable alternative for overnight charging.

*this solution requires installation by certified electrician

**L120 Electric is limited to 165 kW.

04 What are the main features and benefits of the L120 Electric?

- Being electric, the L120 Electric is emission free, and supports companies in their ambitions to implement fossil free operation.
- A zero-emission, quiet power source that positively affects operator comfort, and can work in low emission zones, indoors and in noise restricted areas.
- Has a tipping load of 12,5 tons similar to the conventional L120H.
- The L120 Electric has a total battery capacity of 282 kWh and offers an autonomy of 5-9 hours, depending on application. This enables the operation of a full work shift in light and medium duty applications.
- A variety of charging options are available and the L120 Electric can be fast charged from empty to full using DC charging power up to 165 kW in 2 hours.
- Offers two systems for thermal control:
 - Active cooling and heating of the battery pack.
 - Passive cooling of electric motors, transmission and hydraulic oil. This secures optimal efficiency, performance and maximizes the lifespan of components.
- Offers dedicated maintenance free electric motors for propulsion (2 motors) and hydraulics (1 motor) thus enabling full available power to both systems. This provides higher energy recuperation, smoother power output - making it easier to operate and enables operators to reach optimal performance faster.
- Energy recuperation function offers four settings 0, 1, 2, 3 and is dependent on the position of the accelerator pedal, resulting in longer running time, less brake wear and less need for axle cooling (oil).
- Same or better power and performance as conventional equivalent, providing a quicker response and shorter cycle times.

- Offers the unique Volvo TP Linkage, providing excellent parallel movement and even breakout force throughout the whole tilting motion and lifting range.
- El-hydraulic controls allow for smoother operation and functions such as automatic bucket levelling, to the automatic return of the bucket to level from both dump and curl positions.
- Co-Pilot 2nd generation including rear camera, radio, handsfree, and OBW (On-board Weighing).
- Access to services such as Caretrack and My Equipment.
- Utilizes same broad range of tailormade Volvo attachments as conventional machines.

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When will the L120 Electric be commercially available?

The L120 Electric will be available to selected customers in selected markets in 2024. The target markets in Europe are Sweden, Germany, France, Netherlands, UK, Norway; and in region international Australia, New Zealand, UAE, with preparations ongoing for launch in Turkey.

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Is there any difference in performance between these electric machines and the equivalent diesel models?

The L120 Electric offers the same or better performance as the equivalent diesel machine.

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What are the optimal applications for the L120 Electric?

The L120 Electric offers quiet operation, with reduced maintenance, making it a valuable asset across various industries. Consider the specific needs of your operation and choose applications where the L120 Electric can maximize efficiency and minimize environmental impact.

Optimal applications include:

Construction Sites:

The L120 Electric can handle tasks such as excavation, material handling, and loading/unloading on construction sites. Its zero emissions make it an environmentally friendly choice for urban construction projects.

Ports and Logistics Centers:

Use the L120 Electric for material handling, stacking cargo, and site cleanup at ports and logistics centers. Its quiet operation and emission-free performance are advantageous for indoor operations.

Waste Management and Recycling:

The L120 Electric is ideal for waste handling, recycling, and sorting. Its efficiency and low energy consumption contribute to sustainable waste management practices. Note: limited protection options are available at time of launch.

Urban Infrastructure Maintenance:

In urban development and maintenance projects, the L120 Electric can assist with road clearing, material transport, and infrastructure work. Its electric powertrain ensures minimal noise pollution in city environments.

Agriculture and Forestry:

The L120 Electric can handle tasks like stacking timber, loading agricultural products, and maintaining farmland. Its low operating costs and eco-friendly design align well with sustainable farming practices.

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What batteries are used in the L120 Electric?

The L120 Electric uses a lithium battery pack with a voltage of 600 V.

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Is the L120 Electric available in the digital calculators on volvoce.com/ Net Operating Tool Calculator (NOTC)?

The L120 Electric is not available at this time.

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What are the differences between the L90 and L120 Electric?

	L90 Electric	L120 Electric
Battery technology	2 water cooled lithium-ion batteries	8 water cooled lithium-ion batteries
Total battery capacity	180 kWh	282 kWh
Operating weight	14.5 – 17.3 tons	19-20 tons
Runtime (in medium-duty applications)	4-5 hours in medium duty applications	5-9 hours
Counterweight	Uses newly developed recyclable counterweight	Uses battery as counterweight
Has on-board charger	Yes	No
Placement of charging port	Entrance step on side of machine	At the rear of the machine
Applications	While applications are similar L90 Electric is more suited to industrial handling	While applications are similar L120 Electric is more suited to production/ bucket handling.

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What is the difference between the L120H Electric Conversion and the L120 Electric?

- Volvo CE launched the L120H Electric Conversion in Europe in February 2023. This solution was developed in conjunction with partners – Parker Hannifin and converted by Volvo Group's own CE Engineering Solutions – This 20-ton electric Conversion uses the market recognized conventional machine as the base, delivers the same performance as the conventional L120H and offers a runtime of 4-5 hours in medium duty applications. Since launch, the L120H Electric Conversion has been supporting customers in their decarbonization ambitions at various customer sites in Europe.
- The L120 Electric is a fully electric solution from factory and will be available in selected markets in Europe and International from Q4 2024. This machine offers autonomy of 5-9 hours in medium duty applications.

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How can I stay connected to my machine to check charging status etc.?

The L120 Electric offers the digital tool, My Equipment, developed to connect operators to their machines, whether on site or remotely. My Equipment offers the following features:

- o Check the charging status of electric machines.
- o Find relevant machine information such as machine hours, location and energy consumption.
- o Get notified if there is a disruption in charging.

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Where can I find more information on My Equipment?

More information can be found here:

<https://www.volvoce.com/europe/en/volvo-services/uptime-services/my-equipment/> * live from June 2024

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<https://www.volvoce.com/europe/en/products/electric-machines/l120-electric/> * live from June 2024.

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