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Your questions answered

A30, A40 ELECTRIC

Volvo Construction Equipment

A30, A40 ELECTRIC

The Volvo A30 and A40 Electric are fully electric articulated haulers designed to deliver the same power and performance as their diesel counterparts, but with zero emissions and reduced noise levels. Incorporating the latest features and advancements from the newly launched new generation haulers, these machines offer fast charging capabilities (20%-80% in approximately one hour with a 350 kW charger) and an energy recovery system that enhances efficiency. With a runtime of 4 to 4.5 hours in most applications, they are well-suited for various operations, including quarries and underground work. A limited volume of A30 and A40 Electric Haulers will be available in Europe for selected customers from 2026, with increased production for 2027 and a full commercial launch in 2028.

01 What are the main features and benefits of the A30/A40 Electric?

- **Zero Emissions** – Supporting sustainability goals with a fully electric machine that eliminates exhaust fumes.
- **Same Power, Less Noise** – Enjoy the same performance as conventional models with significantly reduced noise levels.
- **Energy Recovery System** – The electric retarder function optimizes energy use, extending runtime and efficiency.
- **Fast charging** – Recharge from 20% to 80% in approximately one hour using a 350 kW DC charger.
- **Seamless Integration** – Built on the new generation hauler platform, featuring the latest advancements, shared design solutions, and advanced fleet management capabilities.
- With 4 to 4.5 hours of runtime in most applications, the A30 and A40 Electric are ideal for quarrying, tunneling, and other demanding operations where reduced emissions and lower maintenance costs provide a clear advantage.

02 What is the runtime of the A30 and A40 Electric on a full charge?

- **A30 Electric:** Operates for 4 to 4.5 hours in most applications, covering approximately 70% of customer operations, equivalent to a diesel consumption of up to 16 liters per hour (average over a full work shift, including idling). The operating range will be increased when leveraging energy recuperation in downhill operation.
- **A40 Electric:** Operates for 4 to 4.5 hours in most applications, covering approximately 60% of customer operations, equivalent to a diesel consumption of up to 19 liters per hour (average over a full work shift, including idling).

03 How long does it take to charge the A30 and A40 Electric?

- **A30 Electric:** Using a 350 kW DC charger (the maximum power for the CCS interface), the battery can be charged from 20% to 80% in approximately 1 hour.
- **A40 Electric:** Using a 350 kW DC charger, the battery can also be charged from 20% to 80% in approximately 1 hour.

04 How do you charge the A30 and A40 Electric, and where is the charging port located?

The charging port is located in the overrider at the front left of the machine.

Charging process:

- Open the standard CCS2/CCS1 charging port.
- Insert the charging gun into the inlet.
- The machine activates and charging begins (charging status is indicated by a light).
- To stop charging, press the release button next to the charging inlet and remove the charging gun.

05 What charging solutions are available for the A30 and A40 Electric?

- **Fast charging:** CCS1 and CCS2 interface, supporting up to 350 kW DC charging.
- **Scheduled charging during operation:** 350 kW DC charger for quick top-ups.
- **Overnight charging:** Low-power DC charger (AC charging is not available).

More information on the range of charging solutions available can be found here: <https://www.volvoce.com/europe/en/electric-construction/charging-large-construction-equipment/>

06 When will the A30 and A40 Electric be available, and in which markets?

A limited number of A30 and A40 Electric haulers will be available in Europe for selected customers starting in 2026. Full commercial launch and increased production are planned in Europe for 2027, with global market expansion expected from 2028.

07 Do the A30 and A40 Electric have the same design as the newly launched new Generation haulers?

Yes, the A30 and A40 Electric share the same design as the newly launched new generation models, except for elements specific to the electric versions.

08 What features and benefits from the New Generation haulers are included in the A30 and A40 Electric?

Volvo's latest New Generation haulers include advancements in safety, uptime, and efficiency, many of which are also integrated into the A30 and A40 Electric.

I. Safety Enhancements

- Advanced Operator Support Systems to reduce accident risk.
- Improved visibility for safer operation.

II. Uptime Improvements

- Simplified servicing for quicker and easier maintenance.

III. Additional Benefits of Electric Models

- Zero emissions, making them ideal for environmentally regulated sites.
- Lower noise levels, improving working conditions in noise-sensitive environments.
- Reduced energy and maintenance costs, with fewer moving parts and no engine-related consumables.

Note I: Body-heating is out-of-scope for electric haulers.

Note II: At Start of Production (SoP), the electric haulers will have a minimal viable product scope, which will be updated in 2026.

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How does the performance of the A30 and A40 Electric compare to the diesel versions?

The electric models deliver the same performance as their diesel counterparts.

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What type of batteries are used in the A30 and A40 Electric?

The A30 Electric uses 5 x lithium-ion batteries.
The A40 Electric used 6 x lithium-ion batteries.

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How does the noise level of the A30 and A40 Electric compare to the diesel versions?

While exact figures are not yet available, the electric haulers operate at lower noise levels than their diesel counterparts.

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What are the optimal applications for the A30 and A40 Electric?

The A30 and A40 Electric are designed for most applications, though high-energy jobs may require more frequent recharging. Careful charge planning allows for uninterrupted site operations.

Ideal applications include:

- Downhill load carrying and uphill empty runs, where energy recuperation maximizes efficiency.
- Tunnel work, where charging can take place during blasting or drilling.
- Quarries and underground operations, where emissions reduction is critical.

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What options are available for the A30 and A40 Electric?

The electric models include most of the same options as the diesel versions, except for body heating and other diesel related options (such as engine heat, fast fueling etc.), which are not available.

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What is the estimated annual CO₂ savings for an A30 and A40 Electric v's diesel equivalents from cradle to grave*?

For the A30 Electric Carbon reduction is estimated to be:

- 50% when using EU Grid mix (290 g/kWh)
- 84% when using renewable electricity (20 g/kWh)

For the A40 Electric Carbon reduction is estimated to be:

- 55% when using EU Grid mix (290 g/kWh)
 - 90% when using renewable electricity (20 g/kWh)
- * «cradle to grave» refers to the entire lifecycle of a machine, from manufacturing to operation, maintenance, and eventual disposal or recycling.

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What are the differences between the A30 Electric and A40 Electric?

Both models share similar design and performance characteristics, with the primary differences being payload; which is 29 tonnes and 39 tonnes for A30 Electric and A40 Electric respectively. See below for more details:

	A30J ICE	A30 Electric	A40J ICE	A40 Electric
Payload, tonnes	29	29	39	39
Range, h*	24	4.6	24	4.6
Top speed, km/h	53	53	57	57
Net weight, kg	24 700	26 500	31 400	33 500
24 volt budget, kW	-	~ 20	-	~ 20
Power propulsion continuous, kW	265	265	350	350
Power recuperation continuous, kW	0	Up to 265	0	Up to 350
Number of batteries (Cube)	0	5	0	6
Usable SOC, %	-	60	-	60
Usable energy kWh	-	270	-	324
Installed energy kWh	-	450	-	540
Charging performance, kW	-	350	-	350
Charging interface	-	CCS2/CCS1	-	CCS2/CCS1
Charging time after 4 hour shift, h*	-	~1	-	~1
Battery technology	-	600 V Lithium-Ion	-	600 V Lithium-Ion
Has on-board charger	-	DC charging only	-	DC charging only
Placement of charging port	-	Front left	-	Front left
Applications	-	All	-	All

*Standard cycle (EEH2) which covers around 70% (A30) and 60% (A40) of the machine population in a 4-4.5 hours shift.

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

The A30/A40 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:

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

More information can be found here: <https://www.volvoce.com/europe/en/volvo-services/uptime-services/my-equipment/>

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