

Volvo Cars partners with and invests in Breathe for next generation fast charging

Volvo Cars has partnered up with Breathe Battery Technologies (Breathe), becoming the first car company to get access to the latest version of its patented, algorithm-enabled charging software for use on our new generation fully electric cars.

By integrating Breathe's software in Volvo Cars in-house developed battery management platform to optimize and improve the performance of our charging technology, we can provide Volvo customers with even faster charging times and an enhanced overall driving and charging experience.

We will implement the new technology in our new generation fully electric cars, where we expect it will reduce the time it takes to charge your fully electric Volvo from 10 to 80 per cent charging state by as much as 30 per cent*, while maintaining the same energy density and range. Even better: the charging time improvements will last across the full battery life cycle without impacting its health status.

The collaboration with Breathe is the result of a sourcing agreement for its flagship product, Breathe Charge, and represents the latest investment by the Volvo Cars Tech Fund, our corporate venture capital arm. It reflects our ambition to lead the development of premium electric cars and become a fully electric car maker by 2030.

Sharing our passion for electric mobility and delightful driver experiences, Breathe is a London-based start-up that develops battery management software with the aim of contributing to faster, better and more sustainable electrification.

"The investment and commercial partnership with Breathe helps us address a familiar pain point for electric car customers and makes our charging performance even more competitive," says Ann-Sofie Ekberg, CEO of the Volvo Cars Tech Fund. "Faster charging times, in the range where customers typically fast charge, represent a major step in the right direction as we continue to boost electric mobility and make it available to more people."

Software-defined batteries

Unlike traditional stepped charging which relies on pre-determined rules, Breathe's software uses adaptive charging to dynamically control the battery in real-time, resulting in significantly shorter charging times.

Using algorithms, the software manages the charging process in line with the battery's health to deliver the best driver experience while avoiding the risk of lithium plating, which can harm the battery's performance and lifespan.

Our investment in Breathe helps position us for an all-electric future, but it also fits with our ambitions of reaching net zero greenhouse gas emissions and becoming a circular business by 2040. While reducing charging times for our cars, the technology achieves this without the need to change battery pack design or mine extra materials, without additional environmental impacts.

Also, since it is fully compatible with the hardware used in our new generation fully electric cars, scaling will be easy as we expect our electric sales to increase significantly in coming years.

"We're very pleased with this investment and sourcing agreement with Volvo Cars and support their exciting journey towards full electrification," says Dr Ian Campbell, CEO of Breathe Battery

Technologies. "Deploying our technology at scale on Volvo's next generation EV platform opens doors to innovative car designs and performance improvements. We share a profound passion for electric mobility, and convenient, fast charging is one of the cornerstone enablers for the future we strive towards."

The Volvo Cars Tech Fund was established in 2018 to invest in companies and technology areas that transform the automotive industry, such as electrification, AI, autonomous driving, sustainability, and digital commerce. The Tech Fund makes strategic investments to help start-ups thrive and jointly accelerate the transformation of the global mobility industry.

** Different battery packs will result in varying charging times. Testing indicated charge time improvements ranging from 15-30%.*

Volvo Cars in 2023

For the full year 2023, Volvo Car Group recorded a record-breaking core operating profit of SEK 25.6 billion. Revenue in 2023 amounted to an all-time high of SEK 399.3 billion, while global sales reached a record 708,716 cars.

About Volvo Car Group

Volvo Cars was founded in 1927. Today, it is one of the most well-known and respected car brands in the world with sales to customers in more than 100 countries. Volvo Cars is listed on the Nasdaq Stockholm exchange, where it is traded under the ticker "VOLCAR B".

"For life. To give people the freedom to move in a personal, sustainable and safe way." This purpose is reflected in Volvo Cars' ambition to become a fully electric car maker by 2030 and in its commitment to an ongoing reduction of its carbon footprint, with the ambition to achieve net-zero greenhouse gas emissions by 2040.

As of December 2023, Volvo Cars employed approximately 43,400 full-time employees. Volvo Cars' head office, product development, marketing and administration functions are mainly located in Gothenburg, Sweden. Volvo Cars' production plants are located in Gothenburg, Ghent (Belgium), South Carolina (US), Chengdu, Daqing and Taizhou (China). The company also has R&D and design centres in Gothenburg and Shanghai (China).

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