# **Rimac Technology Powers the Bugatti Tourbillon with Cutting-Edge Battery and Powertrain Tech**

June 12, 2025

**Zagreb, Croatia, 12 June 2025: Rimac Technology, a Tier 1 technology supplier to the automotive industry, engineered, designed and seamlessly integrated the cutting-edge battery system, e-axles and electronic control units for the Bugatti Tourbillon hyper sports cars.**

The Tourbillon represents the culmination of Rimac Technology's expertise in developing advanced electric powertrains, battery systems, and electronic control units. Working in close collaboration with Bugatti Rimac's engineering teams, Rimac Technology designed a sophisticated 800V hybrid system that seamlessly integrates with the Tourbillon's naturally aspirated 8.3-liter V16 engine, delivering an incomparable driving experience – the raw emotive power of a large capacity naturally aspirated engine with the instant power of electric motors.

At the heart of this technological masterpiece lies Rimac Technology's advanced electric powertrain, featuring three high-performance electric motors – two mounted at the front axle and one at the rear. These motors collectively produce 800 horsepower and can spin up to 24,000 rpm, powering an e-axle that boasts one of the highest power densities in the industry. The electric powertrain also features Rimac's Silicon Carbide inverter technology with accompanying proprietary software ensuring not only high performance but also exceptional efficiency and operational safety. Despite its three motors, battery pack and V16 engine the Tourbillon is both shorter and lighter than its predecessor, which was solely powered by a quad-turbo W16 engine.

The entire hybrid system is powered by Rimac Technology's state-of-the-art 25 kWh battery pack, featuring an innovative T-shaped design that serves as both an energy storage system and a structural component of the vehicle. This 800V battery system incorporates Rimac's advanced oil-cooling technology and over 1,500 individual cells immersed in oil, managed by the company's fifth-generation Battery Management System (BMS). The BMS, developed in accordance with ASPICE Level 2 standards and supporting the highest automotive safety standard (ASIL D), ensures optimal performance, longevity, and safety throughout the battery's lifecycle.

*"The Bugatti Tourbillon project represents a perfect showcase of Rimac Technology's capabilities as a full-system integrator and technology provider. We've leveraged our decade of experience in developing high-performance electric powertrains to create a hybrid system that not only delivers extraordinary performance but also demonstrates remarkable efficiency and packaging innovation. The fact that the Tourbillon, despite its complex hybrid architecture, weighs less than its predecessor is a testament to our commitment to pushing the envelope of possibility in every project.”*

**Mate Rimac**
Founder and President of the Rimac Group, CEO Bugatti Rimac and Rimac Technology

The complete rear powertrain assembly – including the V16 engine, eight-speed dual-clutch transmission, torque-vectoring differential, and the 250-kilowatt rear electric motor – weighs just 430 kilograms, matching the weight of the Chiron's engine alone. The front electric axle, housing two independent motors and dual inverters, adds minimal weight while providing instantaneous torque and enabling sophisticated and precise torque control capabilities.

The electric motors serve multiple functions beyond propulsion, acting as starter motors, generators, and performance enhancers. This multifunctional approach eliminates the need for traditional 12-volt starting systems and belt-driven accessories, contributing to the Tourbillon’s exceptional power-to-weight ratio. The system enables over 60 kilometers of pure electric driving range, while also providing seamless torque fill to complement the naturally aspirated V16's power delivery characteristics.

Rimac Technology's contribution extends beyond the core powertrain components. The backbone of Tourbillon’s electrical architecture consists of three powerful domain electronic control units, with both hardware and software fully designed, developed and produced by Rimac Technology, following the highest quality and functional safety standards. Similarly, the company's expertise in thermal management has been crucial in developing the sophisticated cooling systems required to maintain optimal performance across all operating conditions. The integrated approach to thermal management ensures that both the battery pack and electric motors maintain peak efficiency, even under the extreme performance demands of a 445 km/h hypercar.

*"This is exactly what we've always been exceptional at, extremely bespoke, high-performance, low-volume applications that are engineered without compromise. Projects like this will always serve as a showcase of our ultimate capabilities and what's possible when there are no constraints. But as well as these showcase projects, we also produce hundreds of thousands of battery and powertrain units annually, working with the likes of Porsche, BMW, CEER Motors and many others. It’s our aim to provide the same engineering excellence and innovation we bring to projects like the Tourbillon to hundreds of thousands of other vehicles each year, helping established OEMs to bridge the gap to electrified vehicles.”*

**Nurdin Pitarević**
COO, Rimac Technology

The Bugatti Tourbillon, featuring Rimac Technology's revolutionary hybrid system, will begin deliveries in 2026, with production limited to 250 units.