

WHY MCLAREN APPLIED'S NEW 800-VOLT INVERTER IS THE NEXT STEP IN ELECTRIFICATION

- Higher frequency switching enabling faster charge times and longer range
- Overall system costs are reduced compared to a conventional 400V inverter
- Greater efficiency reduces thermal emissions and cooling demands
- Reduced time to market for new entrants

FUTURE-PROOF SOLUTION WITH BENEFITS FOR ESTABLISHED AND NEW ENTRANT OEM'S

Innovation in the fast-moving automotive space means meeting today's questions with tomorrow's answers.

McLaren Applied's 800V inverter responds to a current challenge with a future-proof solution for both established and new entrant OEMs.

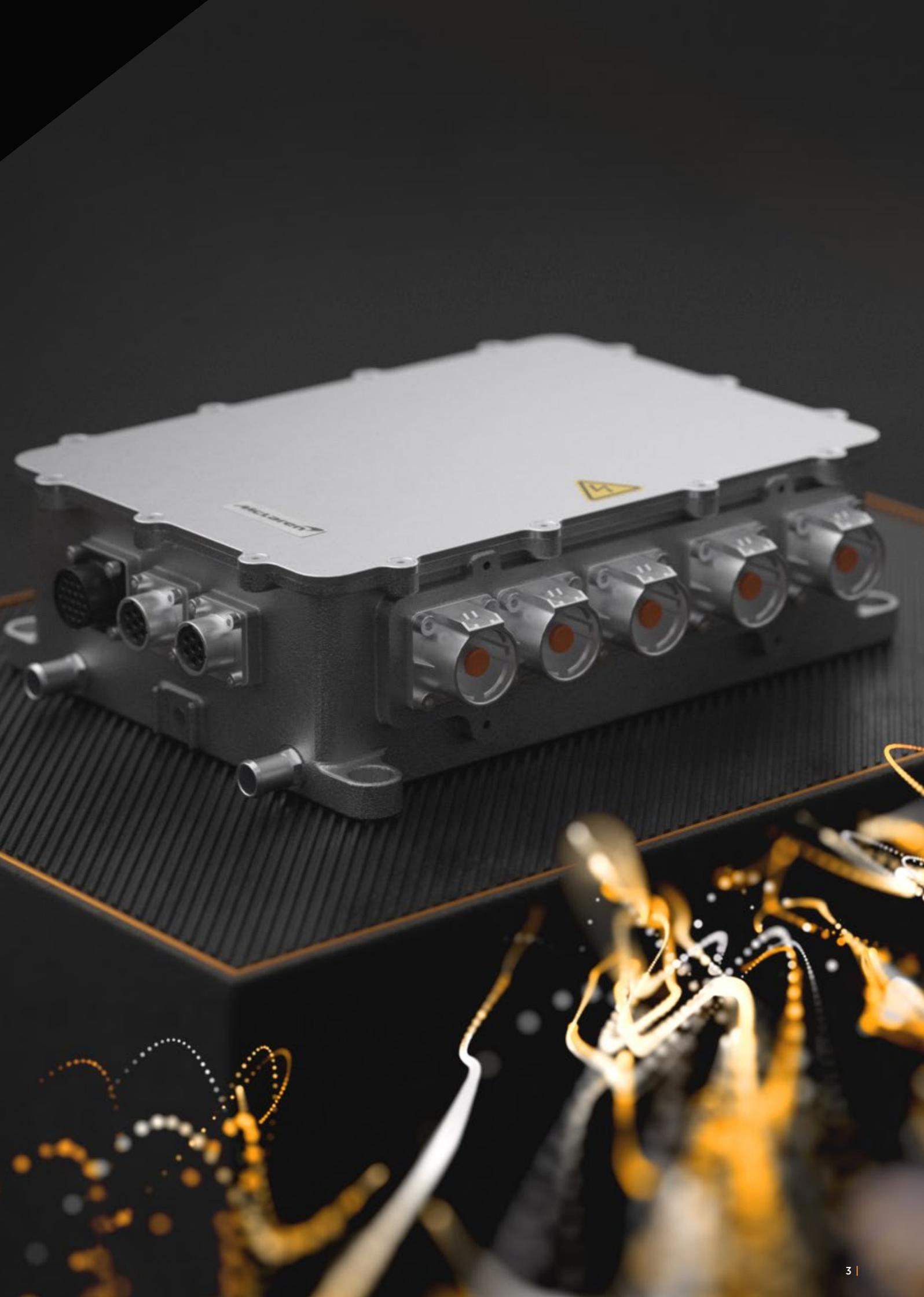
Our inverter has the highest frequency switching rate that is currently possible and is 800V compatible. This means faster power transfer and a lighter system compared to 400V inverters. This allows OEMs to develop vehicles with greater ranges, faster charging times and better acceleration, at a comparable cost.

Manufacturers are eager to respond to the ever-growing demand for an eco-friendly and economical method of travel but are also dealing with issues such as cost, weight, packaging, reliability range and thermal management.

McLaren Applied's new Silicon Carbide 800V inverter is the ideal solution for automotive OEMs who wish to create and deliver the next generation of electric vehicles. It provides a more efficient and lightweight drivetrain that delivers faster charging, higher speeds and longer range.

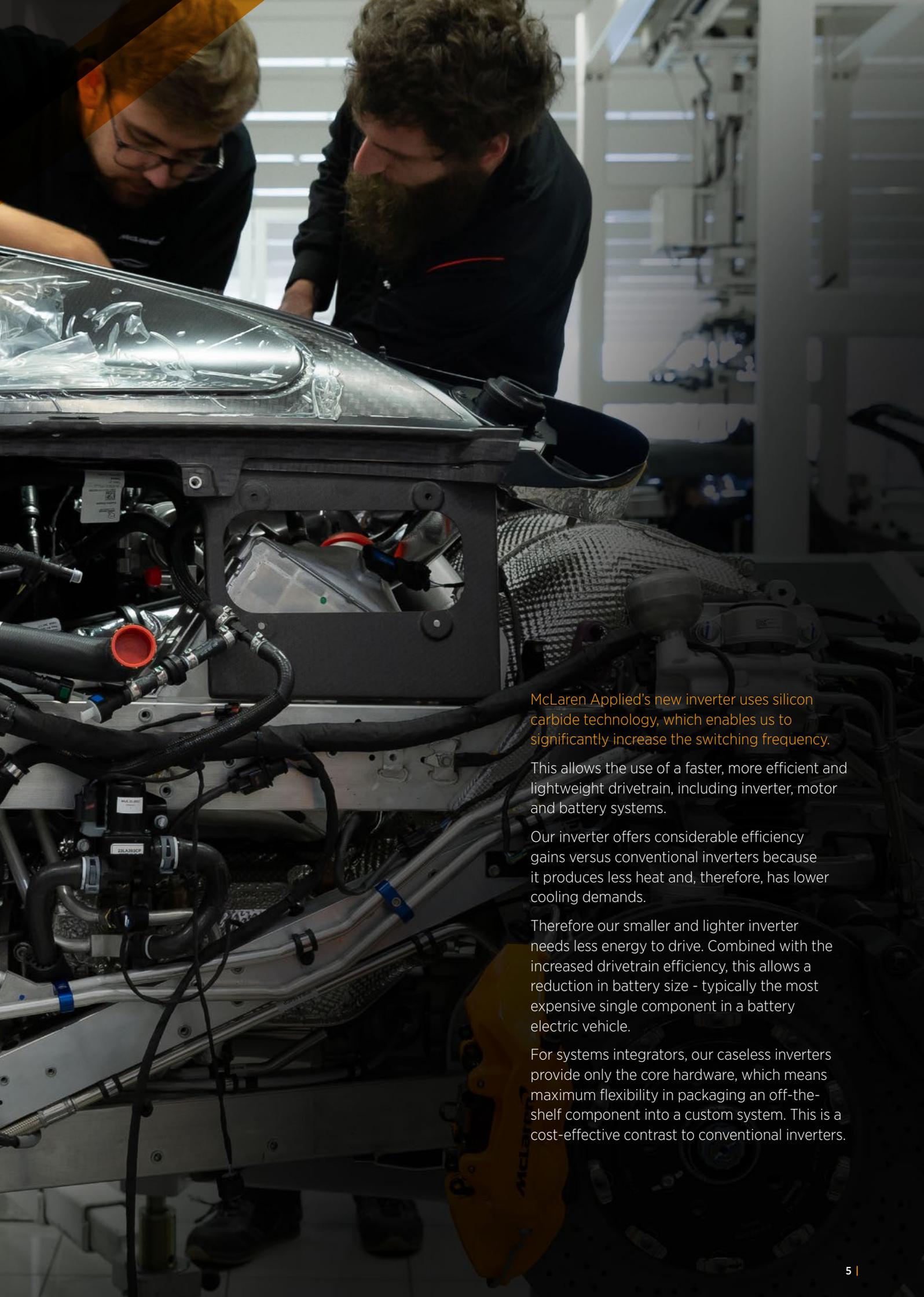
Key features

- Delivers the next generation of electric vehicles utilising 800V- lighter electrical cabling, fast charging capable
- Higher frequency switching that allows optimisation of battery systems with efficient energy transfer to smaller and higher speed motors, maximising range for a given battery capacity
- Clear upgrade path from 400V infrastructure to 800V to maximise existing investments and spread cost across a wider set of vehicles
- Greater efficiency reduces thermal emissions reducing cooling demands
- Unrivalled power density – compact design to fit many e-axle designs. Tight packaging combined with advanced cooling design to minimise integration challenges





SILICON CARBIDE TECHNOLOGY
SMALLER AND LIGHTER MEANS
GREATER EFFICIENCY



McLaren Applied's new inverter uses silicon carbide technology, which enables us to significantly increase the switching frequency.

This allows the use of a faster, more efficient and lightweight drivetrain, including inverter, motor and battery systems.

Our inverter offers considerable efficiency gains versus conventional inverters because it produces less heat and, therefore, has lower cooling demands.

Therefore our smaller and lighter inverter needs less energy to drive. Combined with the increased drivetrain efficiency, this allows a reduction in battery size - typically the most expensive single component in a battery electric vehicle.

For systems integrators, our caseless inverters provide only the core hardware, which means maximum flexibility in packaging an off-the-shelf component into a custom system. This is a cost-effective contrast to conventional inverters.





MCLAREN APPLIED: A TRUSTED PARTNER OF THE WORLD'S LARGEST AUTOMOTIVE COMPANIES

We have been supplying products and services to the automotive sector for more than a quarter of a century.

We have existing partnerships, and are developing new ones, with world-leading automotive companies. Our mission is to achieve breakthroughs in performance, and to pioneer a better future by uniquely applying data science, design and engineering.

As creators of meaningful change, we guide industries forward by developing world-class products and holistic, scalable solutions that harness our expertise in three tech pillars:

- 1) Electrification: Accelerating the drive to an electrified future
- 2) Telemetry, Control and Analysis: Sensing, connectivity, real-time control and compute systems
- 3) Virtual Product Development: Accelerating real-world product development and accuracy in the virtual space

We have our own advanced quality stage gate process, aligned with fast-paced, high-performance OEMs, to ensure critical deadlines are met with quality and consistency.

TALK TO US AND SEE HOW OUR 800V INVERTER CAN HELP YOU ACHIEVE POWERTRAIN EFFICIENCY



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