

## FPT INDUSTRIAL'S eBM 5, ITS LATEST BMS TECHNOLOGY, HAS ACHIEVED THE TOP LEVEL OF INDUSTRY STANDARD CERTIFICATION, NOW PROVIDING EVEN GREATER SAFETY GUARANTEES FOR CUSTOMERS

Turin, Italy, 31st March 2025

**FPT Industrial, alongside its brand Potenza Technology**, is reaffirming its strong commitment to technological innovation as a means of continuously improving the products it offers to customers. This relentless effort has resulted in another important milestone for the company: the eBM 5 Battery Management System for high voltage batteries, designed entirely in-house, has achieved ISO 26262 ASIL C certification as a stand-alone system from TÜV SÜD.



This result highlights the qualities of the fifth-generation battery management system, designed and developed entirely in-house by the integrated FPT Industrial and Potenza Technology team, from the circuitry right through to the software base and application layers. This state-of-the-art system is defined by **flexibility** and **scalability**. With a **highly modular design** at its core, it is compatible with 400- or 800-volt battery systems, which can be configured at an application level to optimize vehicle efficiency and performance. This enables OEMs to maximize the system's effectiveness for each use case, right across the mobility spectrum – from commercial vehicles through to hypercars – including multi-pack management (which is not in scope of the



certification) without an additional controller. The eBM 5 is currently in volume production for the IVECO eDaily MY24, as well as for numerous other customers.

**Pierpaolo Biffali, Vice President Product Engineering at FPT Industrial**, commented: "This is an important step forwards in consolidating our electrification roadmap to accelerate decarbonization of the commercial vehicles segment. Each technological innovation we make always translates into tangible value for our customers, and the eBM 5 represents a solid way to ensure the efficient and safe operation of their battery electric vehicles."

**Neeta Khare, Battery and Fuel Cell Director at FPT Industrial**, commented: "Throughout the development phase, the team was driven by the principle of making our product robust, reliable, and safe. As a result, we implemented significant improvements across various areas, including processes, testing infrastructure, design documentation, and traceability – from requirements to testing. This enhanced approach has led to the TÜV SÜD ASIL C certification and has also further strengthened our confidence in the reliability and safety of our BMS product."

**Richard Devenport, General Manager & Head of Battery Development at Potenza Technology**, an FPT Industrial brand, stated: "This is a true achievement that has been years in the making. The goal was always to produce an OEM standard Battery Management System suitable for a wide range of vehicles. While other BMS suppliers often use the 'self-certification' process, where their work products are reviewed within their own company to confirm compliance to the standard, we aimed to have ours assessed by an external body, to guarantee a level of quality and completeness that few others can boast. We backed up that claim by going the extra mile to obtain certification from TÜV SÜD, one of the world's leading experts on functional safety and a founding participant in the establishment of the ISO 26262 standard."

**ISO 26262** is an international standard for functional safety in the automotive industry, applied to electrical and electronic systems that consist of hardware and software components in vehicles. This standard defines the requirements for both the safety-relevant functions of the system and the development process, ensuring that an adequate level of safety is maintained throughout the vehicle lifecycle. The standard is based on ASIL (*Automotive Safety Integrity Level*), a risk classification system that analyzes potential hazards by considering the severity, frequency, and controllability of the vehicle's operational scenarios.



## eBM 5 – Technical Specifications



High Voltage range: 400 V and 800 V systems Low Voltage range: 6 to 32 V Operating Temperature (C°): -40 to 85 Software - Multipack Support: Yes (not in scope of the certification) ASIL System: ASIL C Algorithm (SOX): inbuilt

Complete specifications are available on FPT Industrial's website.

Founded in 1999, **Potenza Technology** was created to focus on low-/zero-emissions technology. In 2020 became the UK electric vehicle battery R&D center for FPT Industrial, part of the lveco Group, a world leading manufacturer of commercial vehicles. Our focus has traditionally been automotive, supporting niche vehicle manufacturers through to major vehicle manufacturers and their supply chain with the development and implementation of new technology. This includes, notably, safety engineering, initially along the principles of IEC61508 and more recently ISO26262. Based in Coventry in the UK, we are a dynamic team of engineers working on a range of projects for global customers and launching our own products to support key areas we have identified from our experience in the development of electric vehicles and notably battery systems. The Potenza Technology team are experts in the design, build and integration of high-voltage systems, software and batteries, safety competences across a range of industry sectors including automotive, marine and aerospace.

**FPT Industrial** is a brand of Iveco Group N.V. (EXM: IVG), dedicated to the design, production, and sale of powertrains and solutions for on- and off-road vehicles, as well as marine and power generation applications. Over 8,000 people across ten production sites and ten R&D centers work for FPT Industrial all around the world. Active in nearly 100 different countries, its global sales and its Customer Service department supports all Brand customers. The extensive product offering includes six engine ranges with power outputs from 30 hp to over 1,000 hp, transmissions with torque up to 500 Nm, and front and rear axles from 2.45 to 32 tonne GAW (Gross Axle Weight). FPT Industrial offers the most complete line-up of natural gas engines for industrial applications on the market, with power outputs ranging from 50 to 520 hp. A dedicated ePowertrain division is accelerating the path towards net zero-emissions mobility, with electric drivelines, battery packs, and battery management systems.



This extensive offering, and its strong focus on R&D, makes FPT Industrial a world leader in industrial powertrains and solutions. For more information, visit <u>www.fptindustrial.com</u>.

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