Vibracoustic

Press Release

Vibracoustic introduces modular, lightweight mounting solutions for electric motors

Darmstadt, 29 November 2022 | Vibracoustic, a leading global automotive NVH (noise, vibration, harshness) expert, presents innovative solutions for electric motors of battery electric vehicles (BEV). The compact polymer beam structure and the integrated thermoplastic elastomer bushings allow full integration, weight reduction and simplification of assembly while also meeting requirements for stiffness and isolation performance. The solutions are offered with different levels of integration, ranging from bushings to a more sophisticated beam mount.

Focused on meeting new OEM requirements for EDU (electric drive unit) mounting, Vibracoustic's engineers have developed a modular motor mount bracket and a highly-integrated beam mounting structure for BEVs. The motor mount bracket is a modular and lightweight solution that uses a thermoplastic elastomer (TPE) bushing with double isolation for improved efficiency, with the entire part acting as a damper. This mount offers cost savings through dual injection production technique and can be tailored to the desired stiffness by changing the part's geometry. The use of TPE in NVH applications is an innovative alternative to natural rubber.

Compact beam structure with integrated bushings

The second technology is a patented, lightweight, compact composite or polymer 'beam' structure. This integrated solution uses the same TPE bushings and double isolation technology while further optimizing NVH management. It provides significant weight savings of up to 25%, is smaller than comparable alternatives and simplifies assembly which leads to reduced cost. The engineering team was also able to integrate a TPE damper mass into the beam's construction, further optimizing NVH without compromising packaging.

About Vibracoustic

Vibracoustic is a leading global automotive NVH expert, providing customized solutions adding comfort and supporting efficiency, safety and durability. Its expertise along the entire product life cycle and all vehicle systems as well as its broad product range enable Vibracoustic to solve current and future NVH challenges across all automotive segments. With around 10,000 employees at 41 production and engineering locations across 18 countries, Vibracoustic serves all major automotive manufacturers. In 2021 Vibracoustic recorded total sales of 2.0 billion €. For more information, see www.vibracoustic.com

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