

Press Release

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TESTING FOR E-DRIVES RETHOUGHT

Müller-BBM VibroAkustik Systeme and DEWETRON enhance the testing for e-motor development and quality assurance

Munich, Germany and Grambach, Austria. The electrification of drivetrains is changing the testing requirements for components and assemblies.

To provide customized tools for e-motor development, DEWETRON and Müller-BBM VibroAkustik Systeme now enable an integrated testing solution for e-NVH and e-power.

Power analyzers from DEWETRON (e.g. DEWE3-PA8 or DEWE3-PA8-RM), which precisely acquire currents and voltages with 10 MS/s sampling rate can now be connected to the data stream of NVH systems via the PAK device cloud, the live IO hub of Müller-BBM VibroAkustik Systeme. The measurement data is time synchronous. In this way, electrical quantities, such as power and efficiency values, of electric motors can be directly correlated with NVH data, such as housing vibrations and emitted sound. This allows to view these correlated phenomena in an extended context and to tune the control of the e-motor on the test bench directly.

“Our PAK device cloud offers an open architecture that combines data streams from different data sources and manufacturers”, says Andreas Ansorge, Managing Director of Müller-BBM VibroAkustik Systeme GmbH, explaining the technology. “The entire data stream is provided to a variety of applications, like our PAK software – a powerful NVH suite – or to other participating partner products. Users benefit from a very flexible platform enabling customized environments with tailored tools.”

DEWETRON’s power analyzers are configured by the in-house software OXYGEN which easily computes over 30 e-motor related performance parameters, such as active, apparent, and reactive power. OXYGEN sends both the raw voltage/current data and the calculated e-power quantities to the PAK device cloud which combines it with the NVH data. Evaluations are done online in PAK.

Thanks to this cooperation, engineers can now study different motor control settings on the test bench directly, relating the control strategies to their effects on the motor’s electric and NVH performance simultaneously.

“For our customers, this means a real progress in testing, as interdisciplinary engineering is now possible at the test bench directly”, says Klaus Quint, Managing Director of DEWETRON GmbH. “By coupling our power analyzers with the NVH measurement and analysis system

PAK, a wide range of testing tasks in the field of electromobility can thus be addressed much more efficiently.”

Andreas Ansoerge adds, “the integration of the power analyzer into the NVH data stream is just the first step for networked testing. Further data source integrations are already in process.”

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About Müller-BBM VibroAkustik Systeme

Müller-BBM VibroAkustik Systeme is a global solution provider for the acquisition and analysis of physical data and the measurement data management. The PAK family software is used industry wide. Our credo is openness, which we actively master by continuously integrating standards, such as ASAM ODS, CAN, EtherCAT®, IENA, iDDS or openMDM®, and collaborating with innovative technology partners. This openness is the foundation of our open platform architecture enabling ecosystems to emerge around physical data – through the tailored integration of analog and digital data sources as well as smart applications.

About DEWETRON

DEWETRON is the manufacturer of highly intuitive, end-to-end test & measurement systems designed to make the world more predictable, efficient, and safe. DEWETRON systems are modular in design allowing us to deliver reliable measurement data and provide flexible, needs-based data acquisition capability for aerospace & defense, the automotive industry, the power & energy sector as well as industrial & manufacturing companies.