

Connecting everything - smart, safe & secure

Hanau – The claim of electronica 2018 "Connecting everything - smart, safe & secure" fits perfectly with VACUUMSCHMELZE (VAC). The clear strategic focus on new electric vehicles and their charging options as well as solutions to energy-related problems are reflected in the numerous innovations at electronica 2018, such as a new series of highly permeable cores.



The highly permeable nanocrystalline toroidal and oval cores are offered in different dimensions and with different permeability levels. The permeability values for toroidal cores are $\mu = 30,000$ and $\mu = 100,000$, for oval cores $\mu = 30,000 / 70,000$. The cores made of VITROPERM are compact, lightweight and almost temperature-independent in a range of $-40\text{ }^{\circ}\text{C} - +150\text{ }^{\circ}\text{C}$. The high saturation levels make them suitable for a wide range of applications. Due to

the high saturation flux density, they are ideally suited for damping common mode interference. Further benefits include AECQ200 qualification and technical cleanliness in accordance with VDA Volume 19. Thus there are no tooling or qualification costs for the user when introducing these products.

Of course, the differential current sensor "benvac" established on the market will also be on display. Benvac is a joint development of Bender GmbH & Co. KG and VACUUMSCHMELZE. This sensor is utilized in the safety shut-off of the IC-CPD (In-cable Control and Protection Device), which is used when charging electric vehicles. All sensors detect fault currents according to IEC 62752 or UL 2231, the switching thresholds are 6 mA DC and 30 mA AC. The new sensor 4646-X903 complies with both, UL and IEC standards through a switching threshold linkage. Thus, benvac remains the preferred solution on the market.

The combination of rotor-stator systems made of cobalt-iron and VACOMAX 262 HR permanent magnet systems, which has already led to many world records and world championships in racing, also contributes to the wide range of products for automotive applications. The unique high-performance materials enable torque increases of typically up to 30 % as well as an associated weight reduction of the overall system. VACOMAX 262 HRP allows torque and acceleration to be

VACUUMSCHMELZE (VAC) is among the world's most highly innovative developers of magnetic materials, inductive components and other related products. With a global network of Sales and Field Application Engineers, VAC designs and manufactures tailor-made solutions for a wide variety of industries, comprising renewable energies, automotive, industrial automation installation technology, and aviation.

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maximized in the smallest and most reliable size at application temperatures exceeding 130°C. Due to the low temperature coefficient of remanence, this alloy offers higher flux values than any other NdFeB magnet available today.

"VAC is an established player in the automotive segment and has been a strong partner in electromobility from the very beginning. This is reflected not only in the latest innovations, but also in the strategic orientation of the company. As a consequence, we will be present this year for the first time at electronica in the Automotive Hall B4," says Norman Lemm, Director of Business Intelligence & Marketing at VAC.