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Press Release

TÜV SÜD at Chillventa in Nuremberg

September 24, 2026

Comprehensive testing concepts for heat pumps

Munich / Nuremberg. Modern heat pumps are becoming an integral part of interconnected energy systems. They communicate with energy management systems, building automation solutions, and cloud platforms. TÜV SÜD's Laboratory for Refrigeration, Air Conditioning, and Acoustics enables the combined evaluation of performance, acoustics, electrical safety, EMC, and cybersecurity as part of a holistic testing concept. (Chillventa, Hall 5, Booth 5-139)

In addition to efficiency and performance, factors such as noise emissions, electrical safety, electromagnetic compatibility (EMC), and cybersecurity are becoming increasingly important for heat pumps. While manufacturers must bring their products to market ever faster due to stiffer competition, regulatory requirements are increasing. These include, for example, provisions of the Machinery Regulation (MVO), the Radio Equipment Directive (RED), the EMC Directive, the Low Voltage Directive, and – for connected products – cybersecurity requirements. At the same time, proof of efficiency within the framework of certification programs and quality labels such as the EHPA seal of approval is not only an established standard but also a prerequisite in Germany for heat pumps to be eligible for subsidies.

Faster Time to Market



“The real challenge no longer lies in assessing individual performance characteristics, but in evaluating the heat pump as an overall system and understanding the interactions between its various functions,” says Igor Gagula, Head of the Laboratory for Refrigeration, Air Conditioning and Acoustics at TÜV SÜD Industrie Service GmbH. “With our holistic

testing concept, we enable the combined evaluation of performance, acoustics, electrical safety, EMC, and cybersecurity.” The focus here is on the heat pump as a networked system as a whole.

Manufacturers benefit from TÜV SÜD's holistic approach because combining various testing disciplines reduces the effort required for coordination and interface management and establishes a common basis for evaluation. Potentially problematic interactions between hardware and software can be identified early on, safety-critical electrical components and protection concepts can be better evaluated, and current and future regulatory requirements can be addressed and implemented in a more targeted manner. The integrated assessment of the entire system also helps make development processes more efficient and bring products to market faster.

Confidence in networked applications

Operators and investors also benefit from the holistic approach. They receive reliable evidence of the actual performance and efficiency of the entire system, as well as a clear and transparent assessment of the acoustic performance characteristics and the resulting environmental compatibility. The assessment of electrical safety and electromagnetic compatibility is essential for operational safety. Testing digital interfaces and remote access capabilities, along with a coordinated assessment of electrical safety, electromagnetic compatibility, and IT security, ensures the necessary confidence in networked applications.

"The combined testing of thermal performance, acoustics, electrical safety, EMC, and cybersecurity enables a robust overall technical assessment of modern heat pump systems," emphasizes Igor Gagula. TÜV SÜD's holistic testing concept supports manufacturers in meeting regulatory requirements and demonstrating the future viability of their systems, while providing operators, investors, and market regulatory authorities with a sound basis for assessing the performance and compliance of networked systems.

Further information on TÜV SÜD's services in this area will be available from October 13 to 15, 2026, at the TÜV SÜD booth at Chillventa (Hall 5, Booth 5-139) as well as online at tuvsud.com/hvacr.

Note for editorial staff: The press release and the high resolution photo of Igor Gagula are also available at tuvsud.com/newsroom

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