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Press Release

Integrated systems for the self-sufficient energy supply of buildings

24 April 2024

TÜV SÜD certifies Hydrogen Power Cubes (HPC) from COSBER Technology

Munich / Shenzhen. TÜV SÜD has certified two Hydrogen Power Cubes (HPC) from the Chinese manufacturer COSBER Technology. HPCs are integrated systems for the self-sufficient energy supply of buildings. A total of three certificates confirm the general safety of the devices and their conformity with the European Pressure Equipment and EMC Directives.

COSBER Technology is one of the leading manufacturers of vehicle testing equipment. The company also develops innovative solutions for a sustainable and secure energy supply. With its Smart H₂ Energy Platform, COSBER is presenting an integrated solution for the self-sufficient energy supply of buildings based on hydrogen. The key components of the platform are the Hydrogen Power Cubes (HPC), which include a AEM electrolyser, a hydrogen storage unit, a fuel cell power generation system, a power inverter system and a heat exchange system. In combination with photovoltaic or wind energy systems, HPCs can cover the entire energy requirements of buildings with renewable energy and hydrogen.

"The certification of HPCs with their various components was a real challenge that we took on with an interdisciplinary team," says Dr Helge Knobbe, Head of Industry Service at TÜV SÜD Korea. The first step was to determine the relevant regulations and then to test the HPCs on the basis of these regulations. For the European market, these are the Machinery Directive 2023/1230, the Pressure Equipment Directive 2024/68/EU and the EMC Directive 2014/30/EU for electromagnetic compatibility. Following successful testing, TÜV SÜD recently handed over the Safety Risk Assessment Reports and the corresponding certificates for the HPC-1000 Plus and HPC-3000 Plus to COSBER.

Dr Helge Knobbe: "COSBER already took the regulatory requirements into account during the development of the H₂ Energy platform and the HPCs and prepared very specifically for certification in accordance with European standards. This made the complex certification process easier and accelerated the entire process."

TÜV SÜD has extensive experience and expertise in the field of hydrogen technologies and accompanies the entire H₂ value chain from production, storage and transport to application in a wide variety of areas (<https://www.tuvsud.com/hydrogen>).

Note: COSBER Technologies is represented with its Smart H₂ Energy Platform at the Hannover Messe, which takes place from 22 to 26 April 2024 (Hall 13, Stand C24).

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