

Press release

Stuttgart, 23 November 2023

MAHLE sets the global standard for wireless charging

- SAE International chooses the MAHLE positioning system as the global standard solution for the wireless charging of electric vehicles
- Key technology closes the crucial gap in standardization
- Cross-manufacturer solution enables a comprehensive and rapid market launch
- MAHLE CEO Arnd Franz: “A strong impetus for e-mobility.”

Inductive – i.e. wireless – charging of electric vehicles is much more convenient as there is no need to fiddle with cables or search for a charging station with a suitable plug. MAHLE has developed a positioning system that allows an electric vehicle to be simply, reliably and precisely aligned above the charging coil in the floor. SAE International has now chosen the MAHLE positioning system as the global standard solution for wireless charging. The internationally renowned non-profit association for the progress of mobility technologies, based in the USA, thus closes the last gap in standardization of inductive charging that has been unfilled for ten years. The cross-manufacturer solution from MAHLE now paves the way for the comprehensive and rapid market launch of this attractive alternative to wired charging for batteries and electric and hybrid vehicles. “MAHLE is setting standards. The renowned SAE’s decision in favor of our technology confirms the systems expertise of MAHLE in electrification as well. This will be a strong impetus for e-mobility,” said Arnd Franz, Chairman of the MAHLE Management Board and CEO.



The MAHLE positioning system becomes the global standard.

The MAHLE positioning system DIPS (Differential Inductive Positioning System) represents a paradigm shift in the field of e-mobility. It is based on a magnetic field and automatically establishes a connection with the controlled charging point as the electric vehicle approaches. A special navigation system in the vehicle display supports the driver, and the car is soon in the ideal

position. The charging process begins automatically. This also works with an autonomous parking vehicle, where the parking system receives the necessary positioning instructions instead of the driver. Thanks to the unique MAHLE positioning system, the parking process can be carried out very easily and reproducibly in one go. And this also applies to unfavorable environmental conditions such as snow cover or wet leaves on the bottom plate.

For the wireless charging of electric vehicles, all components relating to both the infrastructure and the vehicle side must be standardized. Only then can both the vehicle manufacturers and the infrastructure providers bring a solution to market that ensures compatibility regardless of the manufacturer. MAHLE will make its solution accessible to the entire industry via a license model under FRAND (fair, reasonable, and non-discriminatory) conditions.

The broad applicability of the system will also enable mobile applications in the future, such as charging via induction coils while driving. MAHLE has also formulated the standard for this together with Electreon Wireless.

In terms of charging infrastructure, MAHLE has long relied on wireless charging, which is a convenient and promising alternative for electric vehicles. "Siemens and Witricity are two strong partners at our side with whom we are jointly advancing the complete system of charging infrastructure and automotive engineering," said Dr. Harald Straky, Head of Corporate Research and Advanced Engineering at MAHLE.

More than 128,000 engineers and technology experts from the aerospace, automotive and commercial vehicle industries are organized in SAE International. SAE develops global technology standards, including the standardization of the vehicle identification number.

Note: The press release is also available with a photo here:

<https://newsroom.mahle.com/press/de/>.

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About MAHLE

MAHLE is a leading international development partner and supplier to the automotive industry with customers in both passenger car and commercial vehicle sectors. Founded in 1920, the technology group is working on the climate-neutral mobility of tomorrow, with a focus on the strategic areas of e-mobility and thermal management as well as further technology fields to reduce CO2 emissions, such as fuel cells or highly efficient, clean combustion engines that also run on synthetic fuels or hydrogen. Today, one in every two vehicles globally is equipped with MAHLE components.

MAHLE generated sales of more than EUR 12 billion in 2022. The company is represented with around 72,000 employees at 152 production locations and 12 major research and development centers in 30 countries. (Last revised: 12.31.2022)

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