

Press release

Stuttgart/Germany, February 18, 2021

Heating systems from MAHLE boost cruising range in winter

- MAHLE presents new generation of high voltage PTC heaters
- Improved safety, more compact format, lower costs, and greater efficiency thanks to intelligent electronics
- Increase in cruising range of up to 20 percent possible in combination with heat pump

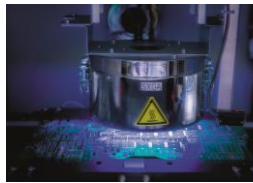
Heating is an energy drain—which is why keeping the cabin of an electric vehicle cozy and warm in the colder months quickly takes a considerable toll on its available cruising range. With a new generation of high voltage PTC (positive temperature coefficient) heating elements, MAHLE is now helping electric vehicles improve their performance during the winter. An innovative method of integrating the electronics makes these heating elements more compact, lighter, and cheaper. By using a heat pump, cruising ranges can even be extended by up to 20 percent and more when temperatures are around freezing.

“Our heating systems make electric vehicles more comfortable and help to extend their cruising range—an important issue, especially in winter,” says Dr. Jörg Stratmann, Chairman of the MAHLE Management Board and CEO. “By consistently pursuing the ongoing development of our portfolio aimed at temperature control in the cabin, MAHLE is making e-mobility more attractive.” Electric heaters are an indispensable heat source when it comes to heating the cabins of electric vehicles over long periods. MAHLE’s innovation does away with temperature sensors and instead uses an intelligent system of hardware and software, which incorporates the heating elements and integrates all of the functions. The built-in electronics continuously analyze the electrical resistance of the PTC elements in the heater and thus know and are able to adjust their temperature.

PTC heaters from MAHLE are already fitted in many vehicles worldwide today. With this further development, MAHLE is now specifically focusing on the growing fleet of electric vehicles. The company also offers complete systems, which, with the combination of a heat pump and an electric auxiliary heater, provide the maximum possible comfort together with a high cruising range.



The new PTC heater from MAHLE is compact, lightweight, and low-cost.



Manufacturing electronic components requires the highest level of precision.

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About MAHLE

MAHLE is a leading international development partner and supplier to the automotive industry. The technology group is committed to playing an active role in transforming the mobility of the future by further optimizing the combustion engine, driving forward the use of alternative fuels, and laying the foundation for the worldwide introduction of e-mobility and other alternative drives, such as fuel cells. The group's product portfolio addresses all the crucial aspects of the powertrain and air conditioning technology.

In 2019, MAHLE generated sales of approximately EUR 12.0 billion and is represented in over 30 countries with more than 77,000 employees in 160 production locations and 16 major research and development centers (last revised: 2019-12-31).