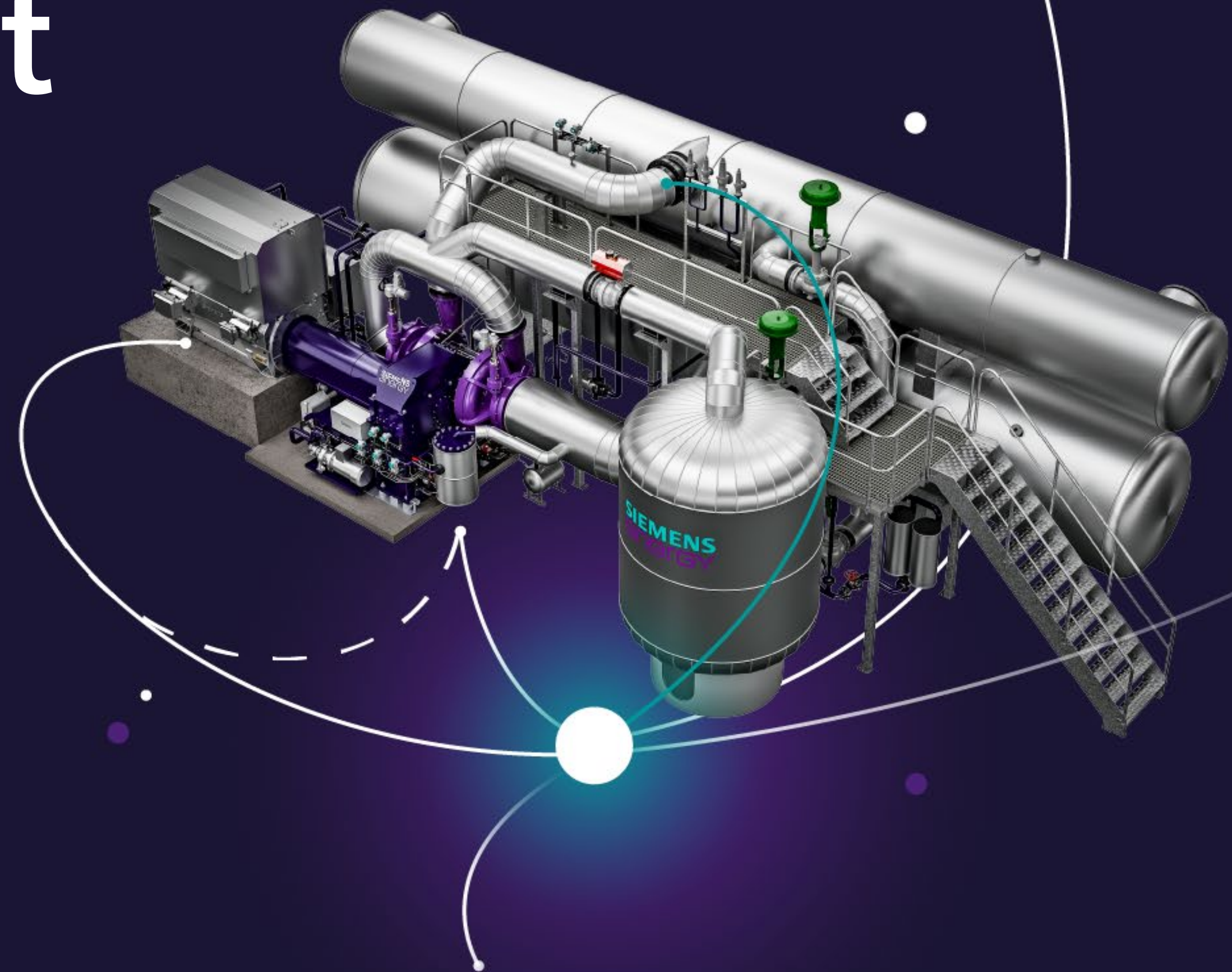


Large-scale Industrial Heat Pumps

Proven high and low temperature heat pumps for up to 150°C and 70 MWth



For best viewing experience, please open this interactive PDF in the Acrobat PDF Viewer 10.0 or higher.

Visit our website: [siemens-energy.com/heatpumps](https://www.siemens-energy.com/heatpumps)

Large-scale Industrial Heat Pumps

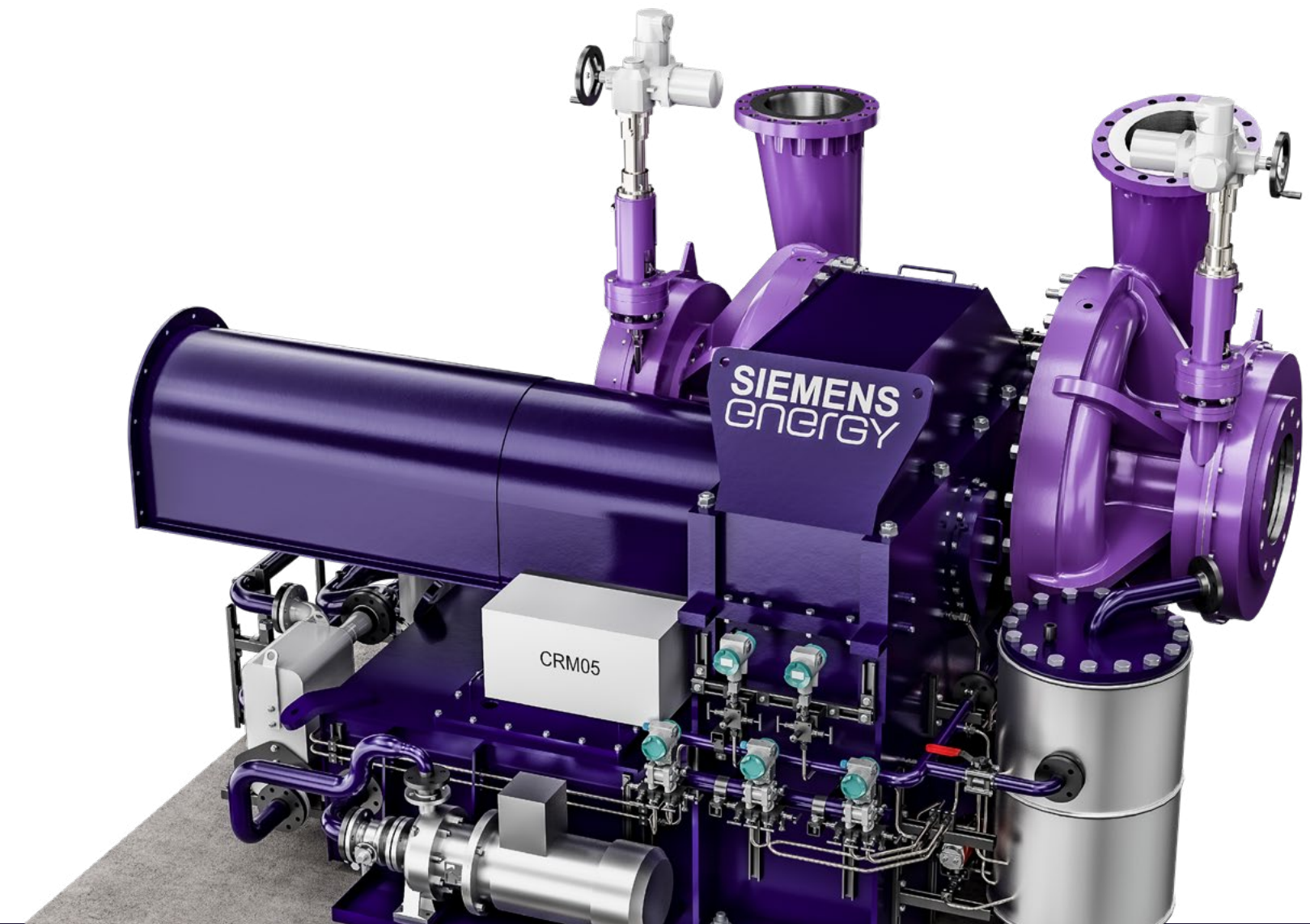
As a pioneer of large heat pumps, we are committed to the benefits of this technology as an integral part of the energy mix. This spirit of intelligent innovation has resulted in more than 50 heat pump installations since the 1980s. Heat pumps are an efficient and cost-effective solution for heating and cooling. They raise the temperature by absorbing thermal energy from an existing low-temperature heat source and releasing it to a warmer space.

Low-temperature heat pump

For up to 100°C feed temperature and 45 MW_{th}

Our low-temperature heat pumps use a geared two-stage centrifugal compressor.

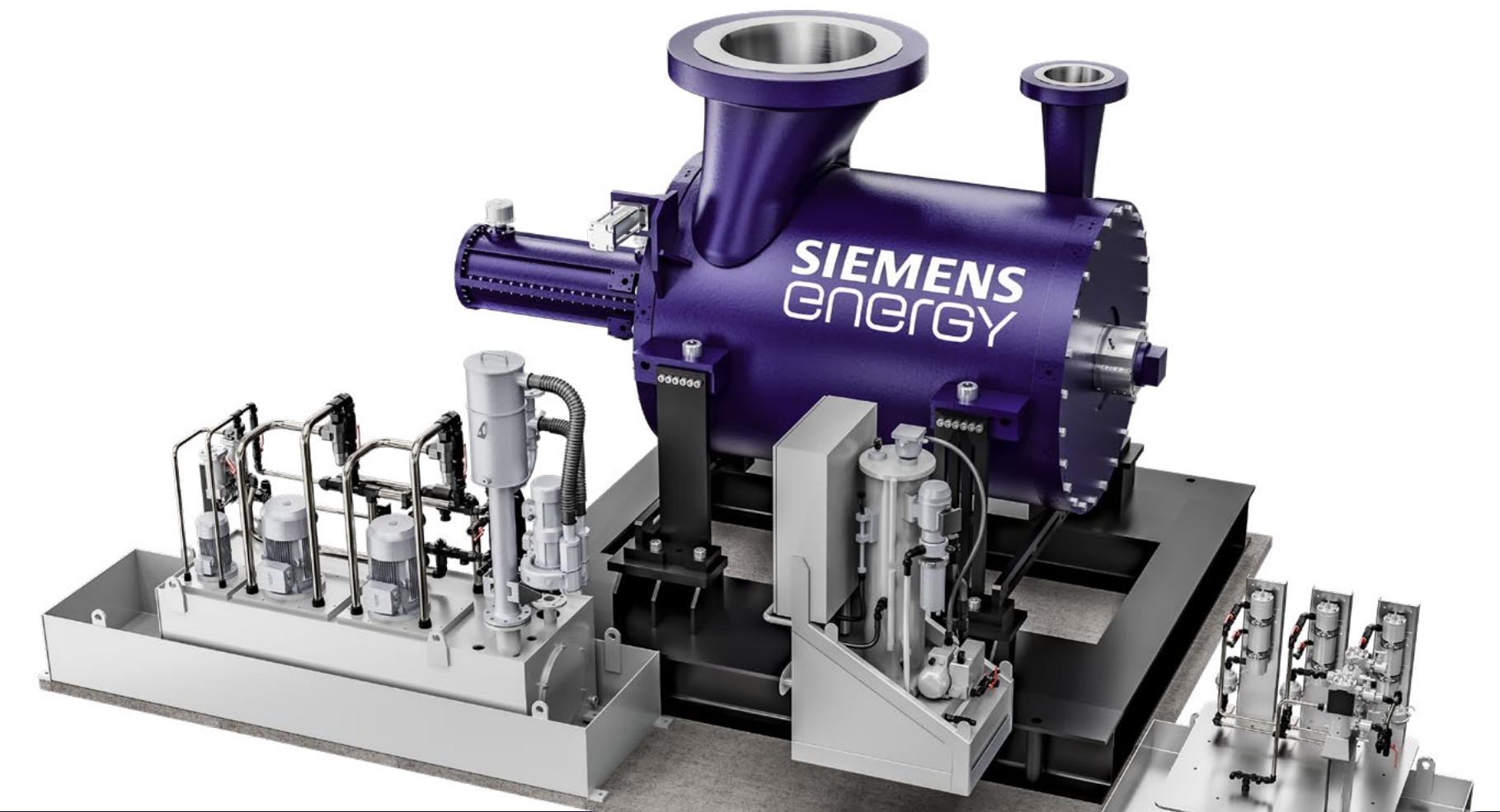
The heat pump design was proven in more than 50 deliveries, with more than 6 million accumulated operating hours. It is optimized for dynamic operations with fast ramp rates and can operate down to 30% load.



High-temperature heat pump

For up to 150°C feed temperature and 70 MW_{th}

Our high-temperature heat pumps use single-shaft or geared-type compressors. The heat pumps can provide heat at temperatures of up to 150°C. For applications for instance in process industries, high-temperature heat pumps can be combined with steam compressors for steam supply up to 55 bara and 270°C.

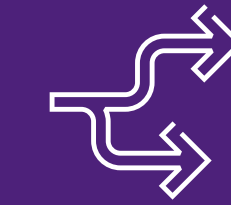


References

The ruggedness of our heavy-duty industrial heat pumps has been truly proven over decades, with 50 units delivered in the mid-1980s and more than 6 million cumulative hours of operation.



Outstanding performance



High flexibility



Proven technology based on > 2.100 compressors delivered since 1948

Published by and copyright © 2023:

Siemens Energy Global GmbH & Co. KG
Otto-Hahn-Ring 6
81739 Munich, Germany

For more information, please visit our website:
[siemens-energy.com/global/en/offerings/power-generation/heat-pumps.html](https://www.siemens-energy.com/global/en/offerings/power-generation/heat-pumps.html)

E-mail: gs.sales@siemens-energy.com

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

Siemens Energy is a trademark licensed by Siemens AG.

