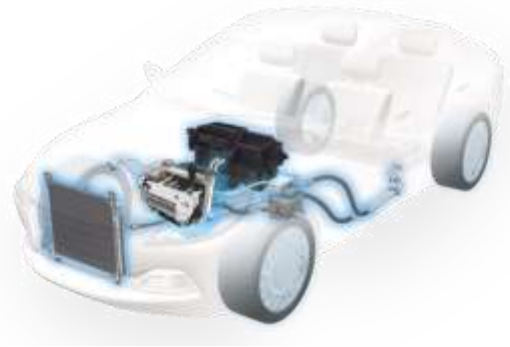


## **NEDO Promotion Programs to Achieve a Decarbonized Society – The innovative and original "New Compressor" was selected. –**

Sanden Corporation applied for the "Program for Promotion of R&D and Social Implementation of Energy-saving Technologies Toward Realization of a Decarbonized Society" in 2024, for which New Energy and Industrial Technology Development Organization (NEDO) publicly invited applications, and "Development of a refrigerant compressor for electric vehicle thermal management systems that achieves energy savings and low NVH by expanding the rotational speed range with high operating efficiency" was selected.

Currently, electric vehicles with low CO<sub>2</sub> emissions are becoming increasingly popular around the world to achieve decarbonization. Since temperature management of electronic components such as batteries and motors affects the durability and efficiency of electric vehicles, heat management in each component is becoming more and more important. Superior thermal management also significantly impacts a vehicle's value, especially the compressor, which consumes tremendous amounts of power compared to other components, and thus has a significant impact on driving range.



Product Concept

We have been developing our business while continuing to research and improve the scroll compressor, which was the world's first at the time. However, NVH (noise, vibration, and discomfort), which has not been noticeable due to the engines installed in conventional internal combustion vehicles, has become apparent in electric vehicles. Therefore, compressors with lower NVH are now in demand. In addition, the widespread use of electrically powered vehicles, which are relatively expensive, also requires lower costs.

Therefore, by adopting the world's first innovative and original compression and electric technologies for automotive refrigerant compressors, as opposed to the conventional electric scroll structure, we will achieve the following performance.

- ① High Efficiency.....Greatly improves both compression efficiency and motor efficiency.
- ② Low Noise.....Reduces noise with high rotation speed and structure with excellent quietness.
- ③ Low Cost.....Reduce production costs by reducing the number of components and developing unique production methods.

We plan to develop this technology between 2024 and 2025, with mass production planned for 2029. We will actively promote energy conservation in the production of compressors to realize a decarbonized society.

NEDO's program aims to support the development of innovative energy-saving technologies and their implementation in society to strengthen Japan's industrial competitiveness while realizing a decarbonized society. The program seamlessly supports the development of energy-saving technologies that are expected to have high energy-saving effects, mainly in the "key technologies" listed in the "Energy Conservation Technology Strategy," up to commercialization.

\* \* \* \* \*  
Contact: SANDEN CORPORATION  
PR, Global Section, Administration Division  
sdhd.prcsr.jp@g-sanden.com  
\* \* \* \* \*