

# Home Appliances and Air-conditioning Systems

May 28, 2026

Smart Life Ecofriendly Systems

## 1. Development of a Scroll-type Condensing Unit that Uses R474B Green Refrigerant

If carbon neutrality is to be achieved by 2050, there is an urgent need to develop a new generation of refrigeration equipment and coolants that can be used in place of existing chlorofluorocarbon (CFC) substitutes. Having been commissioned to undertake the work as part of a project that has funding from the New Energy and Industrial Technology Development Organization (NEDO), Hitachi Global Life Solutions, Inc. is working on the development of a compact refrigeration condensing unit that uses a green refrigerant called R474B. Whereas the refrigerant in current use, R448A, has a global warming potential (GWP)<sup>\*1</sup> of 1,390, the GWP of R474B is zero<sup>\*2</sup>.

A made-to-order Hitachi condensing unit that uses this R474B green refrigerant was selected for installation at the Seven-Eleven Japan Co., Ltd. convenience store at Expo 2025 Osaka, Kansai<sup>\*</sup>. With a view to 2027 launch dates, work is now underway on the development of outdoor installation, integrated air cooling, and refrigeration products that will have the same dimensions and rated cooling capacity as existing models that use the R448A refrigerant.

(Hitachi Global Life Solutions, Inc.)

\* See the list of “Trademarks.” [↗](#)

- \*1. A numeric indicator of how much a substance contributes to global warming. The higher the value, the more warming it causes.
- \*2. From Public Notice No. 3, 2023 by the Ministry of Economy, Trade and Industry and the Ministry of the Environment



[1] Made-to-order Hitachi Condensing Unit that Uses R474B Green Refrigerant