

MEET YOUR STORE SUSTAINABILITY GOALS WITHOUT DISRUPTING YOUR OPERATIONS

Achieve more with lower-GWP and energy-efficient Solstice® L40X and Solstice® 454C refrigerants

As carbon emission regulations become more stringent on the use of high-GWP HFC (hydrofluorocarbon) refrigerants, more grocery and convenience stores are opting to replace their legacy refrigerants with lower-GWP solutions like Honeywell Solstice® L40X (R-455A) and Solstice® 454C (R-454C).

Compared to CO₂ and propane, Solstice® refrigerants deliver*:



Better Performance



Lower CAPEX



Improved Operating Efficiencies



Part of the proven Solstice® Technology

For years, customers have chosen Honeywell Solstice® refrigerants when considering factors such as reliability, safety, sustainability, performance, efficiency and total cost of ownership. Solstice® refrigerants help food retailers, convenience stores and drug stores meet environmental regulations and their sustainability goals — **without impacting their balance sheets.**



RELIABILITY



SAFETY



SUSTAINABILITY



PERFORMANCE



EFFICIENCY



LOWER COST

Solstice® L40X and Solstice® 454C are mildly flammable (A2L), <150 GWP refrigerants that provide energy efficiency improvement over CO₂, helping supermarkets reduce overall CO₂ footprint (Scope 1 and Scope 2 emissions).

Designed for new refrigeration systems in low- and medium-temperature applications, Solstice refrigerants are easy to install and maintain. In contrast to CO₂ based systems, which demand specialized skills and capabilities, Solstice® L40X and Solstice® 454C systems follow standard installation and maintenance practices, requiring no elite skillset and experience.

Unlike CO₂ refrigeration systems, Solstice® refrigerants have a lower CAPEX requirement. Being a high-pressure refrigerant, CO₂ systems need entirely new equipment and costly components to withstand high pressure conditions.



With the transition to <150 GWP refrigerants, Solstice® L40X and Solstice® R-454C are gaining traction as cost-effective, easier-to-use refrigerants.



Because mildly flammable A2L refrigerants are subject to safety regulations and some charge limitations, Honeywell's team of experts will collaborate closely with you throughout the installation to make the transition seamless.

Choose Solstice® refrigerants with confidence and start your journey to a lower carbon future.

CUSTOMER SUCCESS STORIES



Edeka — Erxleben, Germany

Installed Solstice® L40X in November 2020

- **30% savings** on electricity and heating costs compared to central refrigeration systems
- **40% lower energy consumption** than plug-in refrigeration units without heat recovery
- **35% lower investment costs** than a comparable CO₂ system



MD Discount — Persiceto, Italy

Installed Solstice® L40X in January 2023

- **25% lower lifetime emissions** projected compared to CO₂ systems
- **Projected savings of €260,000 in lifetime cost** compared to CO₂ systems



* Based on ORNL report - Technology Options for Low Environmental Impact Air-Conditioning and Refrigeration Systems, for efficiency evaluated at typical design condition (95°F). The COP for Solstice 454C, Solstice L40X, R-290 and CO₂ are 1.99, 2.05, 1.62 and 1.17 respectively at ambient temperature of 95°F. The report also provides LCCP analysis for Atlanta (Emission Factor = 0.497 kgCO₂/kWhr) for Solstice 454C, Solstice L40X, R-290 and CO₂, which are 7269901 kgCO₂e, 7158019 kgCO₂e, 8444764 kgCO₂e and 8853301 kgCO₂e respectively as total emissions which is the sum of direct and indirect emissions. For details, please visit OSTI.GOV. Unlike CO₂ refrigeration systems, Solstice® refrigerants have a lower CAPEX requirement. Being a high-pressure refrigerant, CO₂ systems need entirely new equipment and costly components to withstand high pressure conditions.