CASE STUDY

Global convenience store chain in Taiwan achieves savings and peace of mind

The Copeland ZXV condensing unit solution installation strengthened the convenience store chains by increasing energy efficiency and reliability, enabling peace of mind with their daily operations.

Customer

A global convenience store chain in Taiwan planned to upgrade its store's aging refrigeration system. Customers expect the buying experience at any convenience store to be quick and optimized to help them get what they need and move on with their day. Each store should therefore have a assorted mix of products offered to customers, from cold drink beverages to ready-to-heat meals.

Challenge

The old refrigeration system was inefficient, leading to high energy bills, negatively affecting its operating profits. The varied products carried by each store required versatile refrigeration units for low- and medium-temperature applications. Each store had a limited floor space area for installation, which added to the complication of this system upgrade. Convenience stores by nature are located in highly urbanized areas and the global convenience store chain needed to minimize the noise pollution from operations.

Solution

The convenience store chain implemented a Copeland condensing unit solution, specifically ZXV065, for its store showcase, and bottle coolers and ZXLV030 for walk-in cooler application.





Result

Utilizing Copeland scroll compressor technology combined with variable fan speed motor and advanced control algorithms, Copeland ZXV condensing units enabled the store to achieve monthly energy savings of up to 30% compared to the previous refrigeration system. The advanced controller and diagnostics enhance reliability by providing information to help improve the speed and accuracy of system diagnostics during periodic maintenance, preventing costly system downtimes. The lightweight and compact design of condensing units allowed for a simple, plug-and-play installation. The low-noise operation of Copeland compressors substantially reduced noise pollution within the store's vicinity. The Copeland ZXV condensing unit solution installation strengthened the convenience store chains by increasing energy efficiency and reliability, enabling peace of mind with their daily operations.



Monthly energy savings versus the previous refrigeration system

