

# Copeland™ Indoor Modular Solution

All-in-one, modular solution raises the standard of cold chain integration and automation for stores with distributed architectures



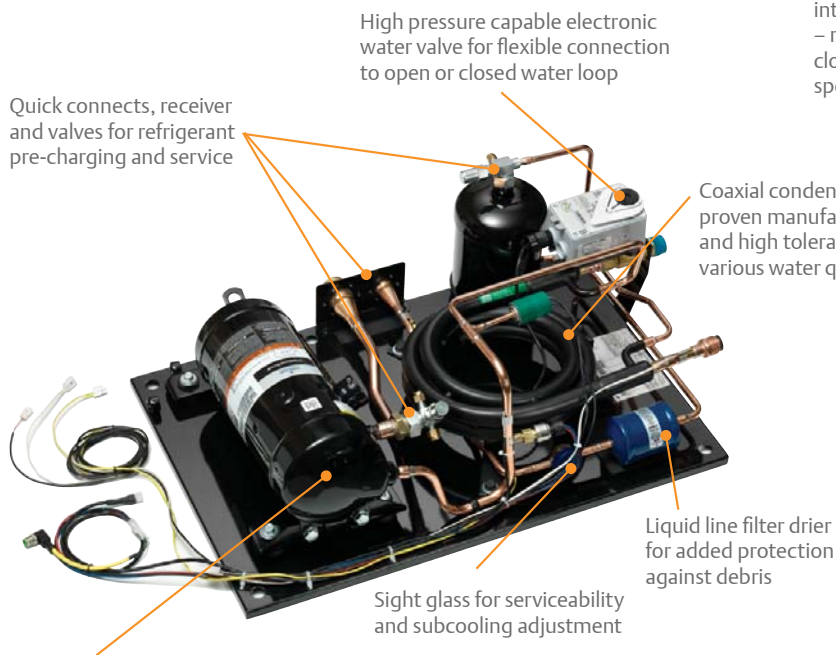
The Copeland™ Indoor Modular Solution helps original equipment manufacturers, contractors and end-users successfully deploy food retail stores with distributed architectures providing an end-to-end solution with hardware, software, and services.



- Modules
- Facility Controls
- Project Services
- Enterprise Services
- Aftermarket

### Low-Profile Condensing Unit

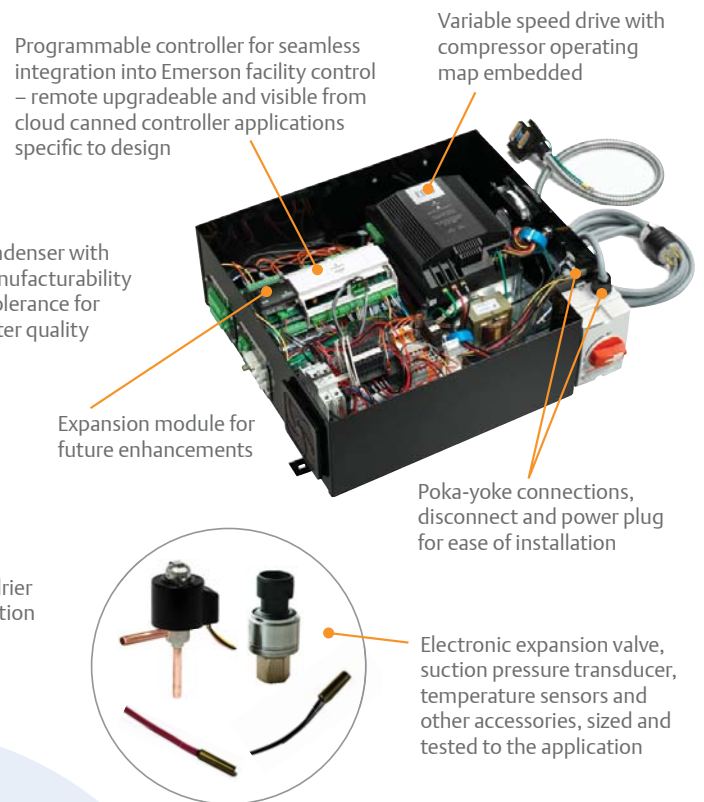
The low-profile condensing unit features the Copeland Scroll™ variable speed compressor designed for small spaces, high efficiency, multiple cooling loads, quiet operation, extended operating envelope and superior reliability. It includes certified brazing, quick-connects, sight glass, coaxial condenser, liquid line filter drier and electronic water valve.



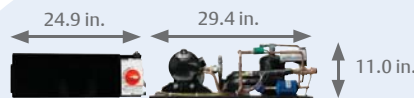
Low profile scroll compressor, variable speed (displacements 021, 029, 046cc), customized piping and blanket (not shown) for low sound and vibration

### Electronic Control Module

The control module is equipped with a programmable electronic controller and variable-speed drive, loaded with software to simplify integration into facility controls. It is factory-certified with poka-yoke connections for easy installation.



### Dimensions



The low profile modules can be mounted on the top of display cases or installed remotely.

## Capacity

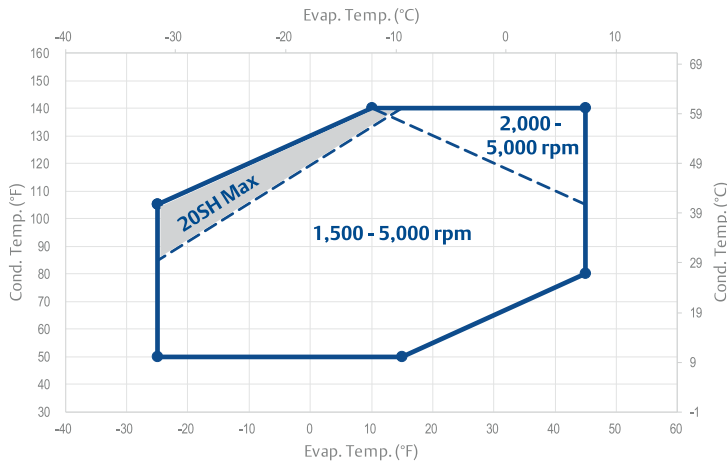
Offered in different capacities to cover a wide variety of equipment sizes, cooling types, and refrigerants, the package includes the low-profile condensing unit, the electronic control box and the essential equipment components.

Modules	Compressor	Condition	2,000 Btu / hour	15,000	32,000
HFWPC021V	ZSVH021	R-448A*** 25F Evaporator	4,440 to 13,700		
HFWPC029V	ZSVH029	85F Water** 1,500-5,00RPM	5,980 to 19,900		
HFWPC046V*	ZSVH046	1Φ, 230V	9,690 to 32,300		
HFWPC021V	ZSVH021	R-448A*** -10F Evaporator	2,010 to 6,700		
HFWPC029V	ZSVH029	85F Water** 1,500-5,00RPM	2,620 to 8,730		
HFWPC046V*	ZSVH046	1Φ, 230V	4,250 to 14,200		

- \* HFWPC046V modules under development
- \*\* Air-cooled condensing unit available on request
- \*\*\* R-290 available on request, A2L refrigerants are under investigation

## Operating Envelope

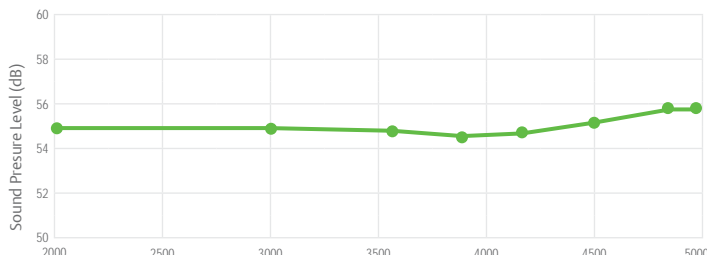
The Copeland Scroll compressor and the high caliber electronic expansion valve (inlet water temperatures 40-105F and pressure up to 400PSI) allow a wide range of conditions to run reliably and efficiently.



Operating envelope Copeland Scroll ZSVH021/029, max 65°F return gas

## Sound

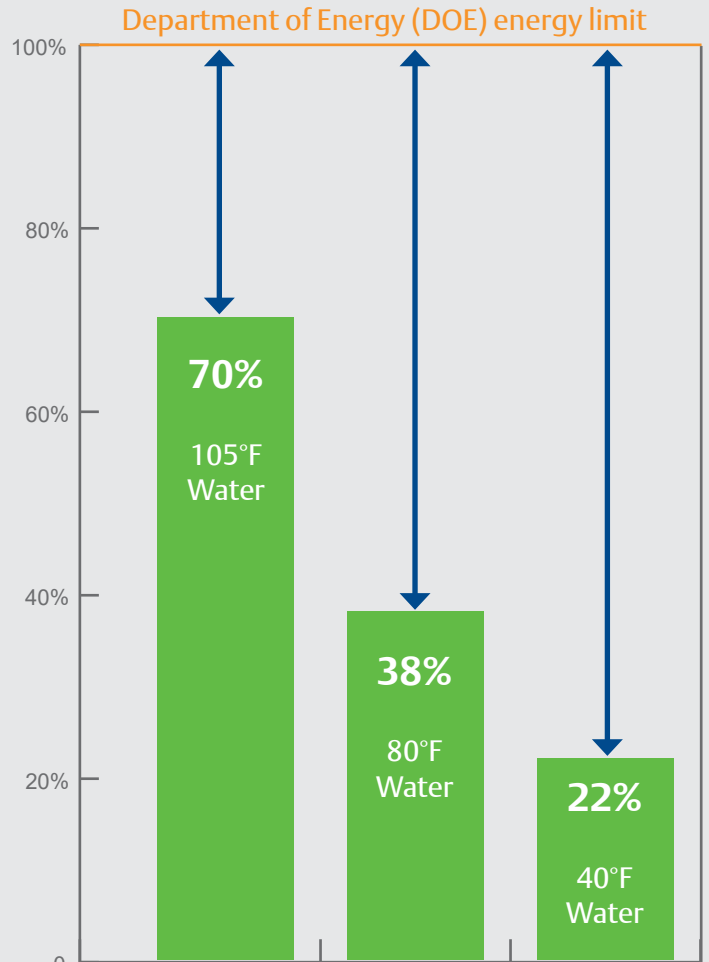
Quiet operation across different cooling capacities supported by low sound variable speed technology along with unit customized piping and mounting.



Measurement 1m away, 1.5m high, in front of a supermarket display case

## Performance

Highly efficient, the modules offer food retail application with significant performance over the DOE energy consumption target for commercial refrigeration equipment.



Testing with a 6-foot open dairy display case

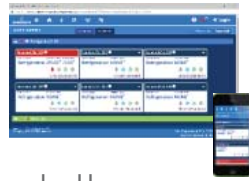
\*Results may vary with different equipment.

Seamless integration of refrigeration equipment with facility controls for retailers seeking to roll out and maintain stores efficiently while unlocking the full potential of data.

### Facility Controls

The Indoor Modular Solution benefits are maximized when Emerson facility controls are part of the package.

Retailers can easily integrate systems and access critical data for HVACR and lighting control. It includes access via standard browser, automated alerts via SMS/e-mail, data logs and equipment information, and easy-to-use user interface.



### Enterprise Services

Connectivity, software and service to offer retailers food quality reports, alarm management, set point management to respond quickly to issues that may impact food quality/safety and customer experience.



### Project Services

Emerson makes store projects simple from design to implementation. Multidisciplinary teams bolster retailers' ability to get stores launched with full scope, on time and on budget while providing technical educational services for customers about Emerson technologies.



1 POINT OF CONTACT



20+ NATIONWIDE FULLY TRAINED CONTRACTORS



160+ YEARS

YEARS OF COMBINED EXPERIENCE



1,800+ PROJECTS PER YEAR

### Aftermarket

A new or remodel store to include the indoor modules triggers the set up of the aftermarket channel immediately. Emerson's wholesaler network include 850+ authorized locations, 540+ technical specialists, 24/7/365 emergency product locator, special stocking programs and Copeland Mobile capabilities to ensure the store up time is maximized.

## Demonstrated value for all stakeholders

When you select the Copeland Indoor Modular Solution, you gain more than a data-driven answer to some of the industry's most pressing challenges. You also partner with our experts in cold chain technologies, facility optimization and energy management.

**Equipment manufacturers** benefit from the configurability of Copeland products:

- The design enables OEMs to shrink their equipment footprint by offering a low-profile condensing unit.
- The Copeland Scroll's variable capacity covers multiple equipment sizes.
- Our plug-in module approach accelerates time to market, reducing the burdens of refrigeration system design, testing and certification.

**Store owners and operators** benefit from using all-Emerson integrated refrigeration assets:

- Variable-capacity compressors help lower operating costs and provide precise refrigeration loads.
- Quiet operation ensures optimal in-store experiences.
- The low-profile design maximizes merchandising space.
- Food quality reports and alarm and setpoint management help operators to prevent food loss.

**Enterprise managers** can rest assured that stores are built with project certainty, delivered on time and budget:

- Easy-to-deploy, standard refrigeration modules minimize startup complexities and enable scalability for new stores.
- Enterprise visibility provides key insights into store performance, historic trends and outliers.
- The architecture promises to remain economically and environmentally sustainable for the foreseeable future.

Contact us to learn more about the Copeland Indoor Modular Solution.

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