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.

**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.

**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.

- **High pressure capable electronic water valve for flexible connection to open or closed water loop**
- **Coaxial condenser with proven manufacturability and high tolerance for various water quality**
- **Expansion module for future enhancements**
- **Low profile scroll compressor, variable speed (displacements 021, 029, 046cc), customized piping and blanket (not shown) for low sound and vibration**
- **Liquid line filter drier for added protection against debris**
- **Sight glass for serviceability and subcooling adjustment**
- **Programmable controller for seamless integration into Emerson facility control – remote upgradeable and visible from cloud canned controller applications specific to design**
- **Variable speed drive with compressor operating map embedded**
- **Poka-yoke connections, disconnect and power plug for ease of installation**
- **Electronic expansion valve, suction pressure transducer, temperature sensors and other accessories, sized and tested to the application**

**Dimensions**

- **24.9 in.**
- **29.4 in.**
- **11.0 in.**

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.

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

* 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.

**Performance**

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

**Sound**

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

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.

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.

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.