

SALES OFFICES:

Gurgaon

Emerson Climate Technologies (India) Pvt. Ltd.
8th Floor, Towers B&C,
DLF Cyber Terraces, DLF Building No. 5,
DLF Cyber City, Phase -III,
Gurgaon-122002
Tel: (91-124) 4894 500

Mumbai

Emerson Climate Technologies (India) Pvt. Ltd.
Delphi B-Wing, 601-602,
6th Floor, Central Avenue,
Hiranandani Business Park, Powai,
Mumbai- 400076
Tel: (91-22) 6662 0566

Secunderabad

Emerson Climate Technologies (India) Pvt. Ltd.
2nd Floor, Survey No. 240, 242, 243,
Chinna Thokata, New Bowenpally,
Secunderabad-500011
Tel: (91-40) 3315 4018

WAREHOUSES:

Ahmedabad

Emerson Climate Technologies (India) Pvt. Ltd.
54, Shivam Estate, S. G. Highway, Sarkhej,
Ahmedabad-382 210
Tel: (91-79) 69431993

Bengaluru

Emerson Climate Technologies (India) Pvt. Ltd.
C/o Agility Logistics Pvt. Ltd.,
Shed No. 8 Survey No. 31,
18KM Old Madras Road,
Virgonagar, Bengaluru-560049
Tel: (91-80) 3221 0509/501

Chandigarh

Emerson Climate Technologies (India) Pvt. Ltd.
177, Industrial Area, Phase - II,
Chandigarh-160002
Tel: (91-172) 2653987

Chennai

Emerson Climate Technology (India) Pvt. Ltd.
C/o. Agility Logistics Pvt Ltd.,
Kanishk Warehouse, Sr. No. 204,
Vijayanallur Village Road, Nallur Village,
Cholovaram Po, Ponneri Tk, Chennai-600067.
Tel: (91-44) 4325 7796

Faridabad

Emerson Climate Technologies (India) Pvt. Ltd.
3B-3B.P., NIT,
Faridabad-120 001
Tel : (91-129) 2431037

Kolkata

Emerson Climate Technologies (India) Pvt. Ltd.
35/7, Tollygunje Circular Road,
P.S.New Alipore,
Kolkata-700 053
Tel: (91-33) 2400 2779/2400 2781

Lucknow

Emerson Climate Technologies (India) Pvt. Ltd.
A-5, Sector-B, Aliganj, Near CMS School,
Lucknow-226 024
Tel: (91-522) 2337812

Mumbai

Emerson Climate Technologies (India) Pvt. Ltd.
Unit No. 59, Ground Floor, 'AA' Wing,
Building No.1, at Kailas Industrial complex,
CTS No. 1/7 & 1/11, Veer Savarkar Marg,
Near Hiranandani Park,
Vikhroli (West), Mumbai-400 079
Tel: (91-22) 4270 8001

New Delhi

Emerson Climate Technologies (India) Pvt. Ltd.
56, Rama Road Industrial Area,
Nr. Mahindra Showroom,
New Delhi-110 015
Tel: (91-11) 45751000

Secunderabad

Emerson Climate Technologies (India) Pvt. Ltd.
C/o: Agility Logistics Pvt. Ltd, # 8-122, Devaryamjal Road,
Kompally, Shameerpet Mandal, Ranga Reddy Dist.,
Secunderabad-500014,
Tel: (91) 9247000174/9000649871

REGISTERED HEAD OFFICE

Emerson Climate Technologies (India) Pvt. Ltd.
Plot No. 23, Rajiv Gandhi Infotech Park, Phase - II, Hinjewadi, Pune-411 057
Tel: (91-20) 4200 2000, Fax: (91-20) 4200 2099

PLANT

Atit Pali Road, Atit - 415 519, Maharashtra.
Tel: (91-2162) 224200, Fax: (91-2162) 262069

COLD CHAIN & DISTRIBUTION CENTER

Emerson Climate Technologies (India) Pvt. Ltd.
Plot No. G-8/3, Block M.I.D.C. Chakan Industrial Area, Phase - III,
Taluka : Khed, Dist : Pune-410 501
Tel: (91- 2135) 653550

☎ 1800-209-1700 ✉ ClimateIndia@Emerson.com

www.EmersonClimate.com/India



Emerson Copeland™ Integrated Cold Chain Solutions

Delivering Intelligent, Energy Efficient And Reliable Products



Copeland™
brand products



EMERSON. CONSIDER IT SOLVED.™

Emerson Climate Technologies

Emerson is a global company that brings together technology and engineering to provide innovative solutions for our customers in a wide range of industrial, commercial and consumer markets. Our priority is to design, produce and deliver products, systems and solutions that make people's lives better.

Emerson Climate Technologies is the world's leading provider of heating ventilation, air conditioning and refrigeration solutions, for both residential and commercial applications. The company is synonymous with innovation, reliability, energy efficiency and commitment towards a safe and green environment.

Emerson's advanced compressors, condensing units, refrigeration components, control systems and electronic controls protect food quality while enabling operators to maximize equipment uptime and increase energy efficiency. Its integrated cold chain solutions assist retailers in food freshness preservation, transportation, refrigeration and marketing, making them the most preferred cold chain operations around the world.

Core Offerings



Residential Heating & Air Conditioning

Technologies that deliver indoor comfort and reduce energy costs



Commercial Heating & Air Conditioning

High-quality, reliable and energy efficient HVAC solutions for every type of work space



Commercial & Industrial Refrigeration

Proven refrigeration solutions to protect and safeguard food and the environment



Market Solutions & Services

Facility design, commissioning and energy management, including 24/7 energy monitoring



Driving India's Cold Chain Industry Into The Future

A strong cold chain infrastructure is vital to make the step change required to reduce the amount of food being wasted in India. There is a growing need for adoption of energy efficient technologies to offset power shortages and raising awareness levels across the food chain on the value of leveraging technology, to scale up the Cold Chain Infrastructure in the country.

In an effort to instill best practices and promote the usage of green energy efficient technologies in the cold chain sector, Emerson has developed a state-of-the-art, 25,000-square-meter Cold Chain Centre of Excellence at Chakan, Pune which has rapidly risen to be recognized as the hub of cold chain solutions in India.

Emerson Cold Chain & Distribution Center

360 degree Offerings For India Cold Chain Industry

The 'Emerson Cold Chain & Distribution Center', Emerson Climate has created a new benchmark with its 360 degree offerings in the cold chain industry. It showcases the wide range of technology and service solutions for the industry available from Emerson, including custom-built products like condensing units and racks suited for Indian conditions and market, as well as value added services like project design & educational services for cold chain.

Objectives

- Locally Designed & Manufactured Factory Built Energy Efficient Products For The India Market
- Project Design Support To Various Stakeholders In Cold Chain Ensuring That Projects Are Optimally Designed And The Right Refrigeration Equipment Is Selected.
- Educating India Cold Chain Industry On Best Design & Operating Practices, Leveraging Energy Efficient Technologies, System Operating Guidelines
- Deliver World-Class Service And Technical After Sales Support To Partners In The Refrigeration Industry
- Leading The Industry In Development Of Standards For Cold Chain & Transportation

Project Design Services

Refrigeration Solutions For Optimal Design Of Cold Storages



Building a world class refrigerated cold storage requires a solid understanding of the technical principles, thorough refrigeration system design knowledge and storage practices based on the commodity stored. An inefficient or improper design can lead to escalation of investment, operation costs & impact the quality of the produce stored in the cold storage.

That's where the Emerson Project Design Team comes in. Emerson Project Design Team is a highly specialized and experienced team of design engineers who will assist contractors, dealers and end-users, ensuring that cold chain projects are optimally designed and the right refrigeration equipment is selected.

Emerson Provides -

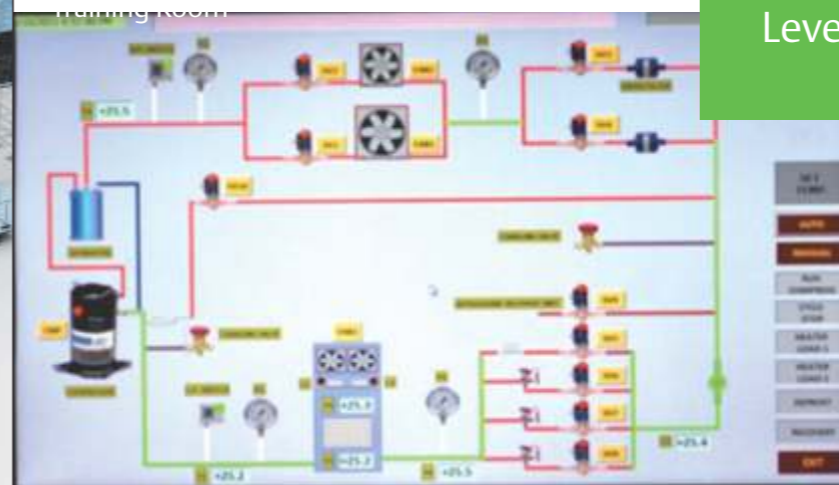
- Detailed Heat Load Calculation based on type of commodity stored & cold storage operation
- Full selection of Refrigeration Equipment to achieve Optimal Design & Improved Energy Efficiency
- Advanced Solutions with Networking, Communications & Monitoring Integrated Solutions for CA Cold Rooms, Humidity Controlled Cold Rooms, Ripening Chambers.

With our vast experience & knowledge of the cold chain industry, Emerson Project Design Team provides intelligent & energy efficient solutions that you can expect from a leader in the industry. We provide design solutions for a host of applications like Blast Freezers, Cold Storages, Ripening Chamber, Precooling Facilities, Food Retail, Process Chilling, Packhouses, CA Chambers and Milk Cooling.



Training and Education

Promoting Energy Efficient Technologies, Best Practices & Increasing Awareness Levels Across Cold Chain



A sound understanding of refrigeration basics, storage conditions for various commodities, Cold Storage Design, Equipment Selection & Operating Guidelines can help in reduction of Food Waste and result in improved Food Handling & Quality in the Cold Chain. In an effort to instill best practices and promote the usage of green energy efficient technologies in the cold chain sector, we have launched the 'Educational Services Program' which is 'Free Of Cost'. We have a world class 'Cold Chain Training Facility' featuring:

- Dedicated Training Classroom with Live Equipment & Products In Action
- Training Modules covering wide range of topics from Refrigeration Fundamentals, System Troubleshooting to advanced topics Like Cold Room Design based on Customer Requirements
- Live Freezer and Chiller Cold Rooms running on our Best-in-class efficiency Scroll Condensing Units

- Demonstrating Capacity Modulation through Emerson Digital Technology
- Demonstrating Advanced Refrigeration Controls and Remote Monitoring Systems to Optimize Systems & Reduce Maintenance Costs
- 'Live Refrigeration System Training Simulator' for Hands-on Training to Technicians and users in Refrigeration System Design, Installation and Commissioning Techniques.

From hands-on seminars to online tools, Emerson provides the training you need, in our Cold Chain Training Facility, Pune at a time that fits your schedule. All our training sessions are conducted by Emerson certified instructors who have an in-depth understanding of refrigeration principles, technology and extensive hands-on experience in the cold chain industry.



Condensing Unit Assembly & Distribution Center

Manufacturing World Class Products, Quick Delivery & Excellent Service



Driven by the high demand for locally built, branded, quality products and a growing trend towards larger Cold Storages, Emerson has set up a Full Fledged Assembly Line at the new facility in Chakan. The layout and the performance of the Condensing Units is optimized using CAE facilities. The components are sourced internationally and have been subjected to stringent Qualification Standards of Emerson Climate Technologies. The performance of Condensing Units is validated by testing in a suitable appliance at an ambient of 46°C. The highlights are:

- World class assembly line for the entire range of condensing units that can be built using scroll, reciprocating and semi-hermetic technology & multi-compressor rack systems

- Reduced delivery time and improved local after-sales support
- Dedicated Distribution Center for cold chain to stock the entire range of products ranging from compressors, flow controls to electronic controllers
- Local availability of spare parts to facilitate better support & Reduced lead times

Emerson Condensing Units are well received in the Indian market and have proven themselves with their robust and reliable design. These Units have already been successfully adopted in the Indian market and enjoy proven success. They are designed for varied cooling applications Like Cold Rooms, Banana Ripening, Fruits / Vegetables, Pharmaceutical, Industrial Chillers in Plastic / Rubber Industry etc.



Semi-Hermetic Service & Scroll Tear Down Analysis Center

End-To-End Repair & Test Facility, Local Spare Part Availability



With our global expertise in the field of semi-hermetic & scroll technology, we have set up best-in-class processes and testing facilities to ensure the quality and reliability in compressor servicing. Built on global standards, the semi-hermetic repair center assists customers with in-depth equipment testing, complete overhaul of electrical and mechanical components and functional testing. The Scroll TDA center has the capability of providing root cause analysis for 2-30 horsepower models. Customers can avail:

- Complete Analysis set up for the entire range of semi-hermetic / Scroll models
- Complete overhaul of electrical and mechanical components and functional testing
- Local availability of Genuine Copeland Parts, engineered for long-term service and maximum performance.

Emerson Service Centers have extensive product knowledge and provide prompt, professional, guaranteed repair service.

We are the only manufacturer with a full-fledged test facility for semi-hermetic compressors in India. Our Service Center is equipped with state-of-the-art test equipment to ensure flawless operation of semi-hermetic compressors after the repair process. The test results are evaluated against Emerson standards to ensure that the compressor passes all the standard qualification criteria for re-use. The compressor undergoes various tests like:

- Leakage Check for Compressors
- Vacuum Dehydration for Air / Moisture Removal
- Test Board to check for electrical / oil pump performance, pressure build-up, leakages

Emerson Offers The Widest Range Of Products & Technologies From 1 To 250 HP For Cold Chain



Water-cooled Semi-Hermetic CDU
0.7-50 HP



Multi-Compressor Pack
10-250 HP



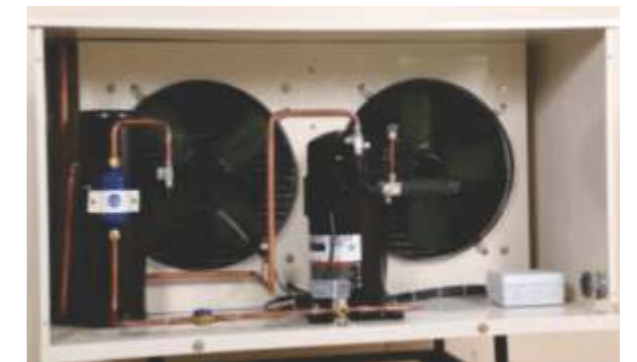
2-Stage Semi-Hermetic CDU
15-30 HP



Air-cooled Semi-Hermetic CDU
1-40 HP



Emerson Cold Chain & Distribution Center



Scroll Indoor/Outdoor CDU
2-15 HP



Reciprocating Outdoor CDU
1-6 HP



Air-cooled Scroll CDU
2-7.5 HP



Water-cooled Scroll CDU
2-6 HP

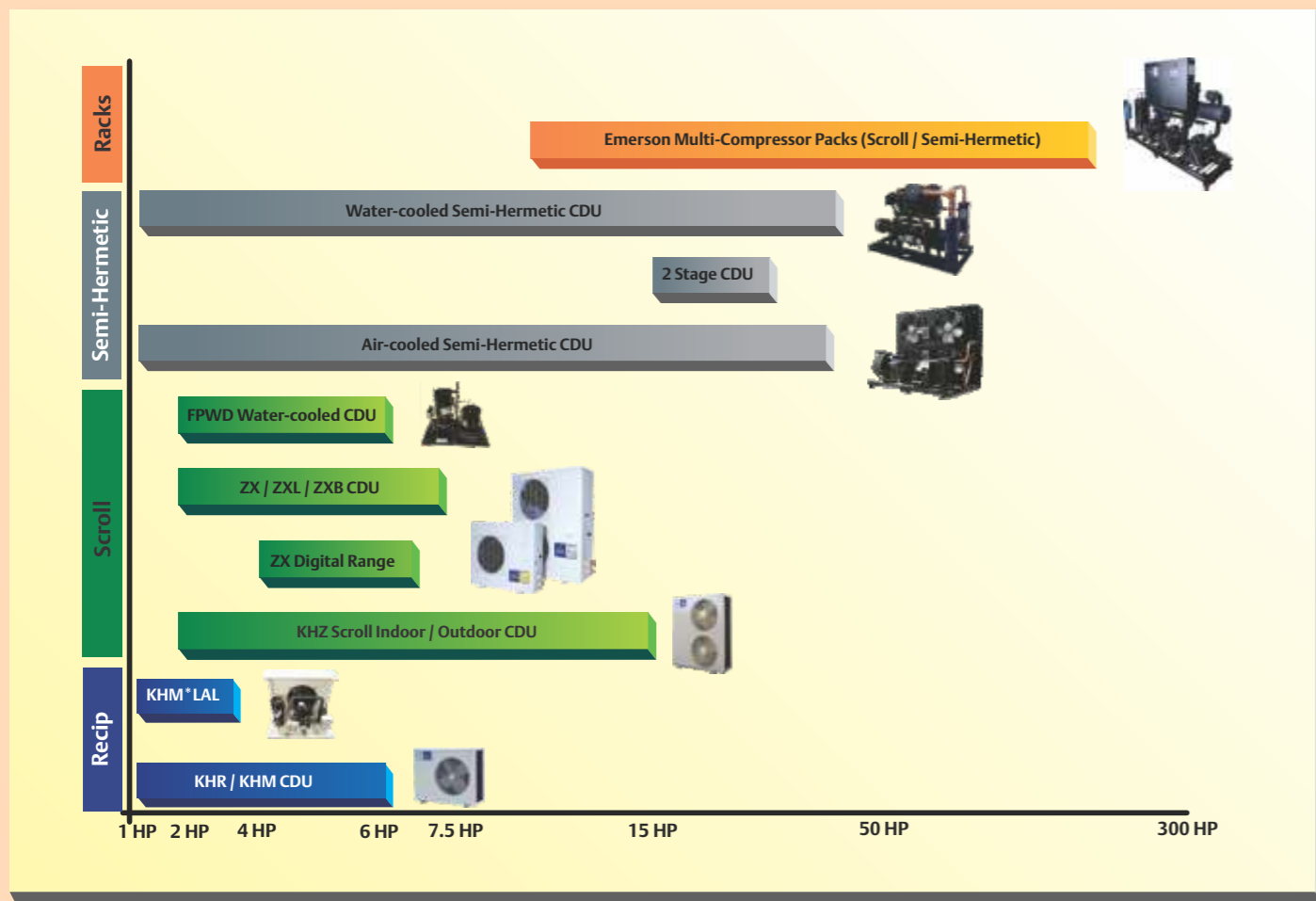


Condensing Units

Condensing Unit & Multi-Compressor Packs Range

Emerson Climate Technologies offers the broadest, most reliable condensing unit product line possible. Leveraging the latest in compressor technology, each platform provides you the option to select the refrigerant, capacity, and application temperature combinations that meet your requirements. A huge variety of Copeland™ indoor and outdoor condensing units offer the right solution for applications in food retail, food service and industrial refrigeration.

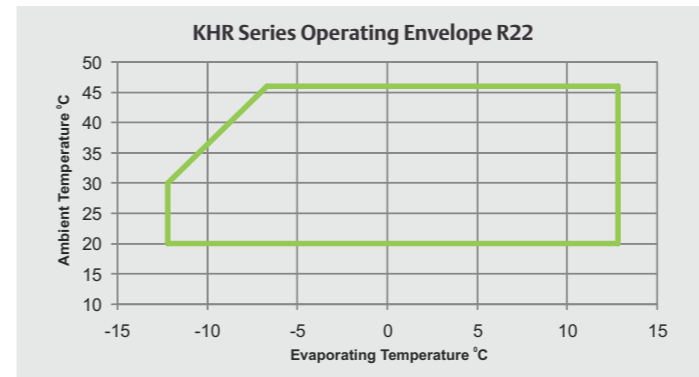
- ▶ Scroll Condensing Units
- ▶ Reciprocating Condensing Units
- ▶ Semi-Hermetic Condensing Units
- ▶ Multi-Compressor Pack



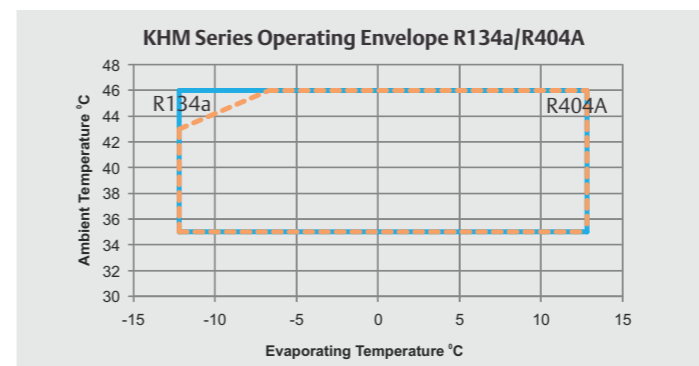
Outdoor Reciprocating Condensing Units Medium Temperature 1 to 6 HP

Features & Benefits

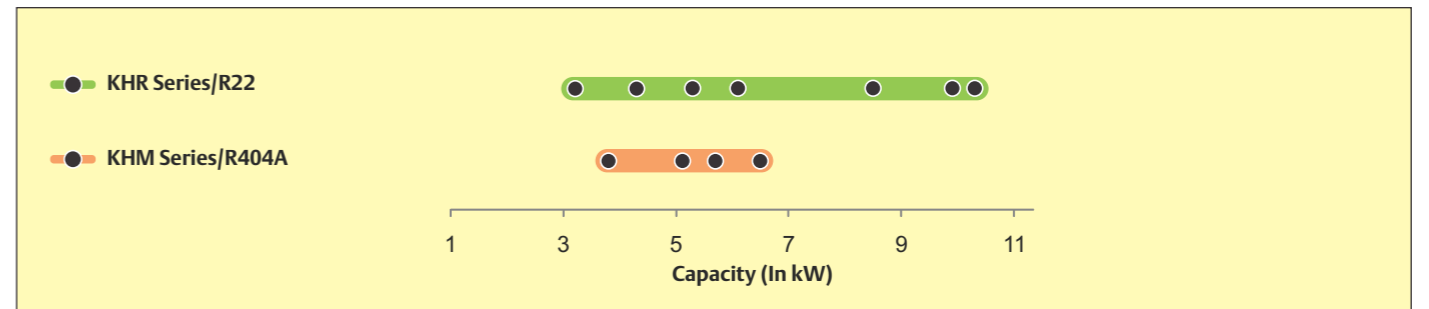
- Available from 1 to 6 HP with R22, R134a with outdoor platform
- Tropicalized design
 - Large condenser face area & higher CFM for elevated ambient conditions
 - Designed to operate at maximum ambient of 46°C
- Leading on energy efficiency
 - High efficiency Reciprocating (CR) Compressors
- Compact & sleek
 - Aesthetically designed & powder coated body to give it a sleek look.
 - Compact with 30% lesser footprint
- Customized for market
 - Factory installed components according to the market requirement
- Complete protection against rain & dust
 - Standard weather proof housing to withstand extreme climate
- Silent in operation
 - Low noise fan for quiet operation
- **Standard equipment:** Outdoor Unit With Condenser Fan Motor Assembly, Fixed Auto & Manual HP/LP Switches, Services Valves For Unit, Accumulator, Electrical Connectors
- **Optional equipment:** Receiver, Accumulator, Liquid Line Filter Drier, Moisture Indicator, Electrical Box



Note: Envelope in region, max return gas temperature of 18.3°C. For custom conditions, please use Product Selection Software



Note: Envelope in region, max return gas temperature of 18.3°C. For custom conditions, please use Product Selection Software



Note: The above capacity data are at the following condition. For MT - Ambient Temp.= +35°C, Evaporating Temp.= - 6.7°C, Return Gas Temp.= +18.3°C

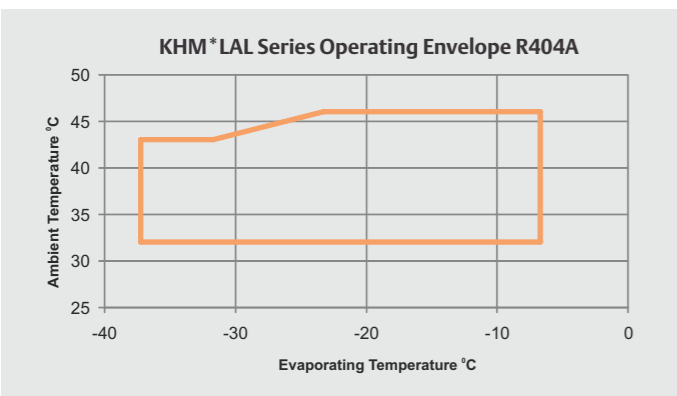


Outdoor Reciprocating Condensing Units

Low Temperature 1.5 & 3 HP

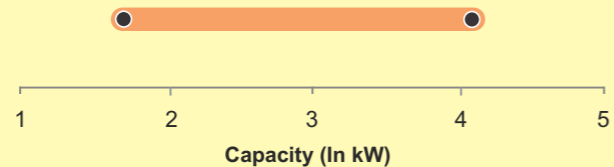
Features & Benefits

- Available in 1.5, 3 HP with R404A
- Designed for low temperature applications with envelope up to -37°C
- Optimized & tested in Copeland Labs for performance & reliability at max ambient of 46°C
- IP 65 grade pre-wired electrical junction box for safety
- **Standard Equipment:** Condenser Unit with Fan Motor Assembly, Receiver, Moisture Indicator, Dual HP / LP Switches, Solenoid Valve, Crankcase Heater, Accumulator, Electrical Junction Box



Note: Envelope in region, max return gas temperature of 32.2°C. For custom conditions, please use Product Selection Software

● KHM* LAL / R404A



Note: The above capacity data are at the following condition. For LT - Ambient Temp.= +35°C, Evaporating Temp.= - 23.3°C, Return Gas Temp.= +32.2°C

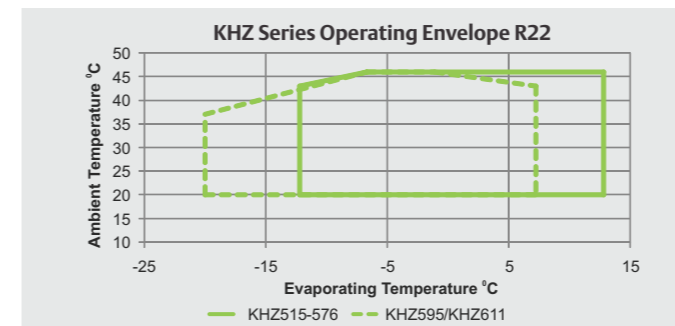


Indoor / Outdoor Air-cooled Scroll Condensing Units

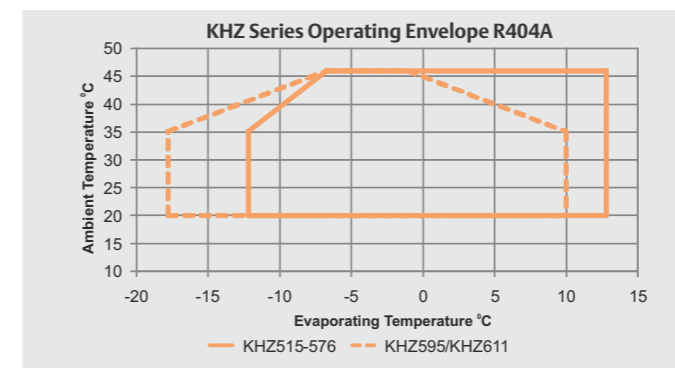
Medium Temperature 2 To 15 HP
Outdoor: 2 To 10 HP
Indoor: 12 To 15 HP

Features & Benefits

- Available from 2 to 6.5 HP in outdoor range; 6.5 to 12 HP in indoor range
- Suitable for R22, R404A, R134a; Cold room & process chilling applications
- Large Condenser Face Area & Higher CFM for elevated ambient conditions
- Layout of components, tubing and electrical connections done to facilitate easy serviceability in field
- Comes with a robust & silent fan suited for high ambient conditions
- **Standard equipment:** Condenser with Fan Motor Assembly, Fixed Auto & Manual HP / LP, Service Valves, Electrical Connectors
- **Optional equipment:** Accumulator, Receiver, Liquid Line Filter Drier, Moisture Indicator, Electrical Box



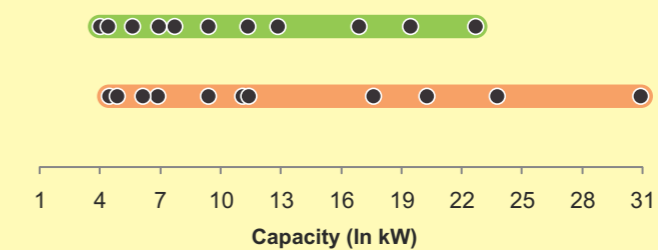
Note: Envelope in region, max return gas temperature of 18.3°C. For custom conditions, please use Product Selection Software



Note: Envelope in region, max return gas temperature of 18.3°C. For custom conditions, please use Product Selection Software

● R22

● R404A



Note: The above capacity data are at the following condition. For MT - Ambient Temp.= +35°C, Evaporating Temp.= - 6.7°C, Return Gas Temp.= +18.3°C

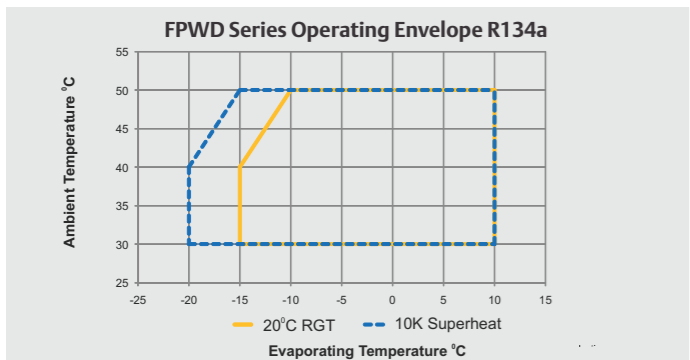


Water-cooled Scroll Condensing Units

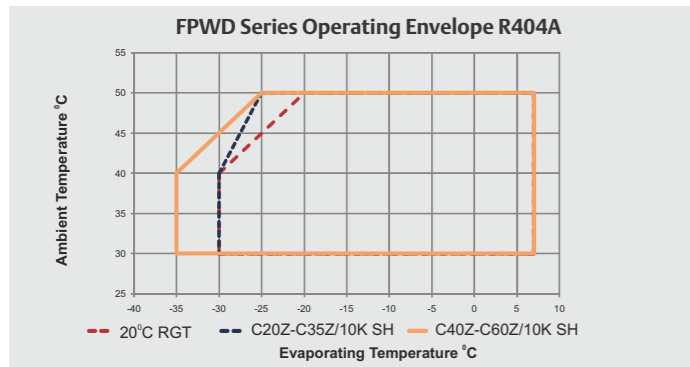
Medium / Low Temperature 2 To 6 HP

Features & Benefits

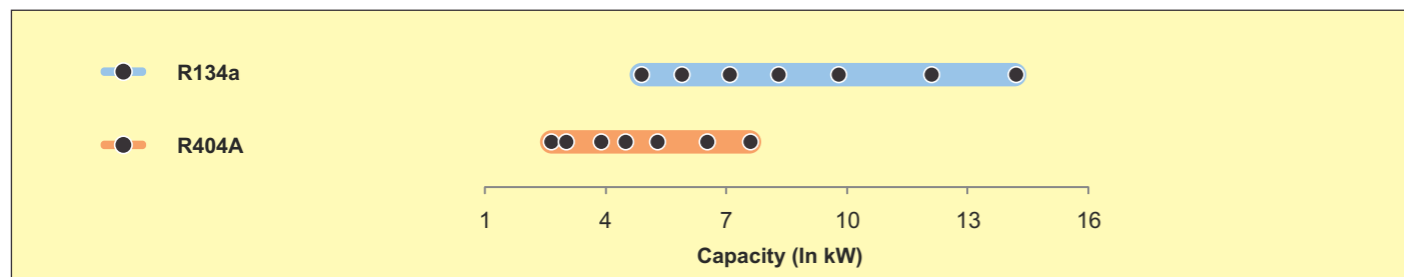
- 2 to 6 HP range for hotels and hospitality industry for Cold Chain
 - Chiller application: 2 to 6 HP; R134a / R404A
 - Freezer application: 2 to 6 HP; R404A
- Dual application models with both chiller & freezer application
- **Standard equipment:** Compact Unit with Co-Axial Heat Exchanger, ZB Compressor, Crankcase Heater, HP / LP Controls
- **Optional equipment:** Electrical Box, Water Valve



Note: Envelope in region, max return gas temperature of 20°C. For custom conditions, please use Product Selection Software



Note: Envelope in region, max return gas temperature of 20°C. For custom conditions, please use Product Selection Software



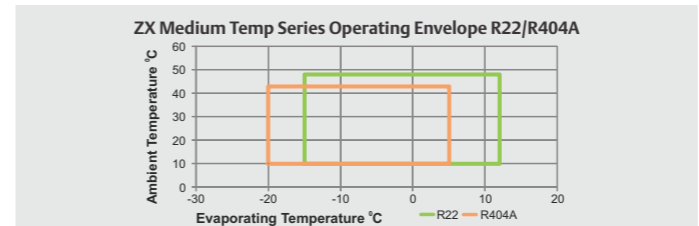
Note: The above capacity data are at the following condition. For MT – Condensing Temp.= +50°C, Evaporating Temp.= -5°C, Return Gas Temp.= +20°C, Subcooling = 5K. For LT – Condensing Temp.= +50°C, Evaporating Temp.= -25°C, Return Gas Temp.= +20°C, Subcooling = 5K

ZX Advanced Scroll Outdoor Condensing Units

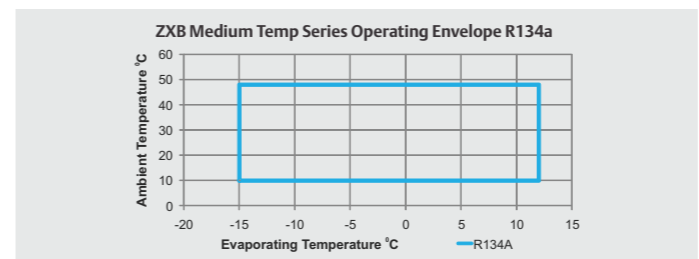
Medium / Low Temperature 2 To 7.5 HP

Features & Benefits

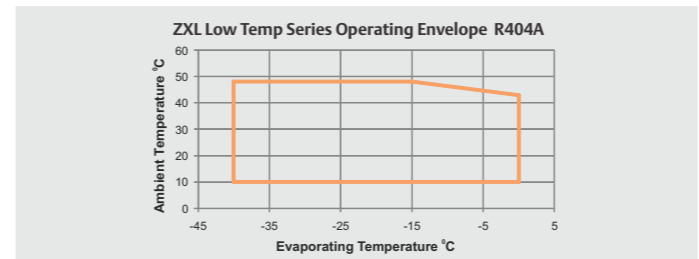
- 2 to 7.5 HP complete range for Cold rooms
 - Medium temperature ZX CDU : 2 to 7.6 HP (4-14KW)
 - Low temperature ZXL CDU : 2 to 7.5 HP (2-7KW)
- Qualified to use with R22, R404A, R407F, R134a
- Advanced diagnostic capabilities with In-built algorithms for system error prediction & increased system life
- ZXL range with vapor injection technology for higher efficiency
- Slim profile, lighter weight and optional wall mount capability
- **Standard Equipment:** Copeland Scroll™ Compressor, E2 Controller with Diagnostics Module, Fans with Speed Control, Liquid Receiver, Adjustable LP Safety Switches, Liquid Line Filter Drier / Sight Glass, Intelligent Store Solution Module
- **Optional Equipment:** Suction Accumulator, Oil Separator, Fixed LP Switch, Defrost Module



Note: Envelope in region, max return gas temperature of 20°C. For custom conditions, please use Product Selection Software For model ZX0750 (R22) Max Amb: 43°C, Max Evap: 5°C



Note: Envelope in region, max return gas temperature of 20°C. For custom conditions, please use Product Selection Software



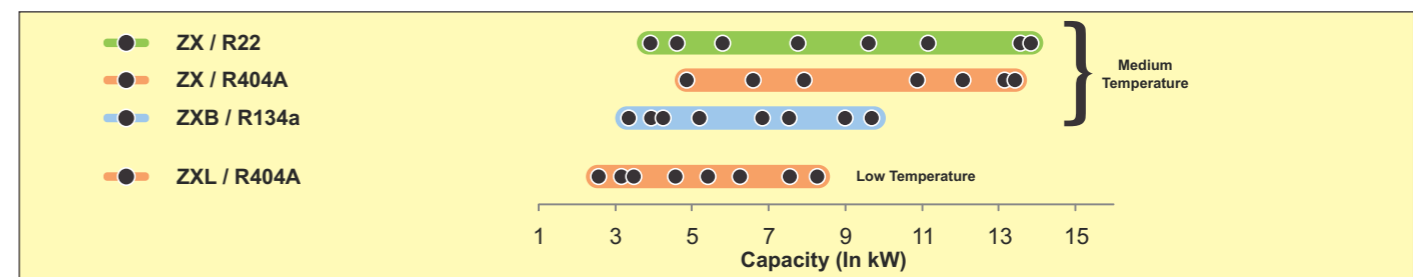
Note: Envelope in region, max return gas temperature of 20°C. For custom conditions, please Use Product Selection Software



System Diagnostics



Vapor Injection



Note: The above capacity data are at the following condition. For MT - Ambient Temp.= +35°C, Evaporating Temp.= -5°C, Return Gas Temp.= +18.3°C For LT - Ambient Temp.= +35°C, Evaporating Temp.= -25°C, Return Gas Temp.= +5°C

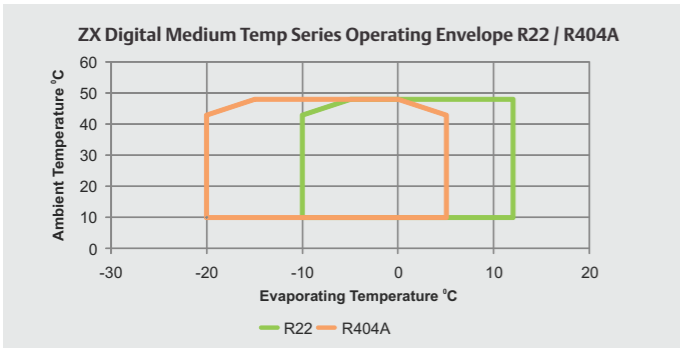


ZX Digital Platform Scroll Condensing Units

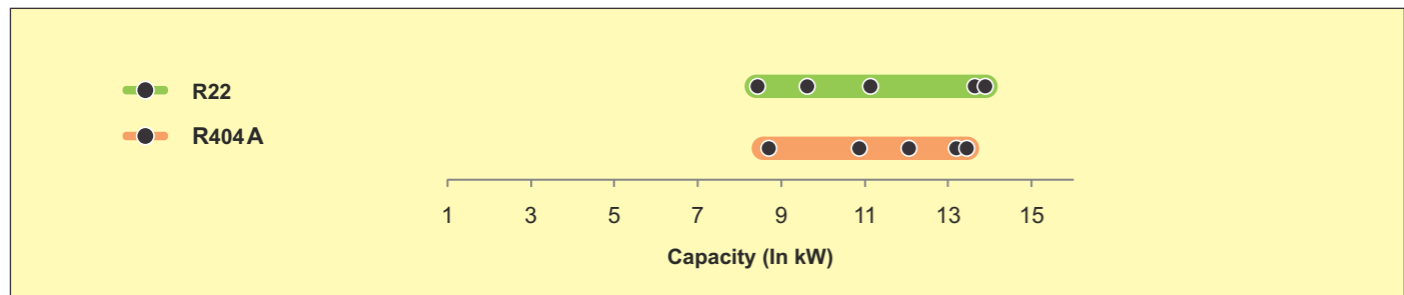
Medium Temperature 4 To 7.6 HP

Features & Benefits

- Digital ZXD CDU: 4 to 7.6 HP
- Qualified to use with R22, R404A, R407F
- ZXD Range with continuous modulation from 10% to 100% ensuring a perfect match of capacity and power to the desired load
- Control precise room temperature and humidity & maintain food quality
- Less complicated compared to variable speed technologies; requires simple electronics
- -No inverter loss & motor switching loss (15-20%)
- -No EMC / EMI issues
- More reliable compared to other modulation technologies due to elimination of oil return issues
- Advanced diagnostic capabilities with in-built algorithms for system error prediction & increased system life
- **Standard equipment:** Copeland Scroll™ Compressor, Digital Scroll Controller, Oil Separator, Fixed LP safety Switches, Liquid Line Filter Drier / Sight Glass
- **Optional equipment:** Fan Speed Controller



Note: Envelope in region, max return gas temperature of 20°C for R404A, 10K superheat for R22. For custom conditions, please use Product Selection Software. For model ZXD0750 (R22) Max Amb: 43°C, Max Evap: 5°C



Note: The above capacity data are at the following condition. For MT - Ambient Temp.= +35°C, Evaporating Temp.= - 5°C, Return Gas Temp.= +18.3°C

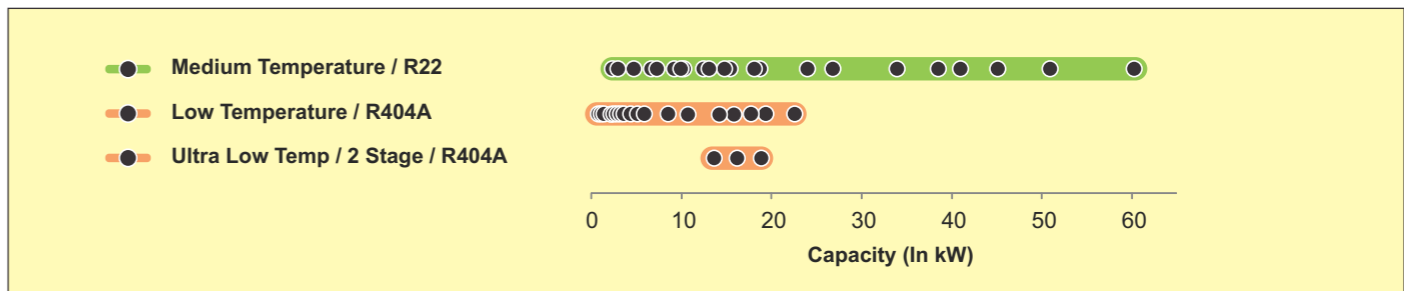


Air-cooled Semi-Hermetic Condensing Units

Medium / Low Temperature 1 To 40 HP

Features & Benefits

- Available in 3 options: Stream compressors with CoreSense™, Standard compressors & 2 stage units
- Stream Compressors with Unique Discus Valve Technology for 10-15% Higher Efficiency available
- Designed for high Ambient conditions, generously sized Condensers to Lower the Condensing Pressures & Increase Energy Savings
- Multi Refrigerant capability with R404A, R134a, R407A, R407C, R407F and R22.
- **Standard equipment:** Air-cooled condensing unit with Copeland semi-hermetic reciprocating compressor, Condenser Fan Motor, HP / LP Switches With Automatic Reset, Discharge Line Vibration Eliminator, Receiver With Sight Glass, Shut Off Valve & Relief Valve Connection, Crankcase Heater
- **Optional equipment:** Electrical Box for Fans (Twin Fan Models), CoreSense™ Diagnostics (Only for Stream Compressors)



Note: The above capacity data are at ARI MT & ARI LT condition. For ARI MT - Ambient Temp.= +35°C, Evaporating Temp.= - 6.7°C, Return Gas Temp.= +4.4°C. For ARI LT - Ambient Temp.= +32°C, Evaporating Temp.= - 23.3°C, Return Gas Temp.= +4.4°C. For 2 Stage Low Temp- Ambient Temp.= +35°C, Evaporating Temp.= - 40°C, Return Gas Temp.= +20°C



Water-cooled Semi-Hermetic CDU

Low / Medium Temperature 0.7 To 50 HP

Features & Benefits

- High efficiency water-cooled shell & tube heat exchanger
 - Designed with low fouling tubes to suit Indian water conditions
 - 2 pass & 4 pass versions available for optimized water velocity
 - Safety Connections & Service Sockets provided on shell
 - Easy to open for maintenance & inspection
- Copeland standard / stream semi-hermetic compressors from 0.7 to 50 HP
 - Crankcase heater
 - Service valves
 - Oil sight glass
- HP / LP mounted
 - OPS2 oil differential pressure switch
- Optional accessories: Capacity regulator kit, Condenser with liquid level sight glass
- Liquid Line Filter Drier

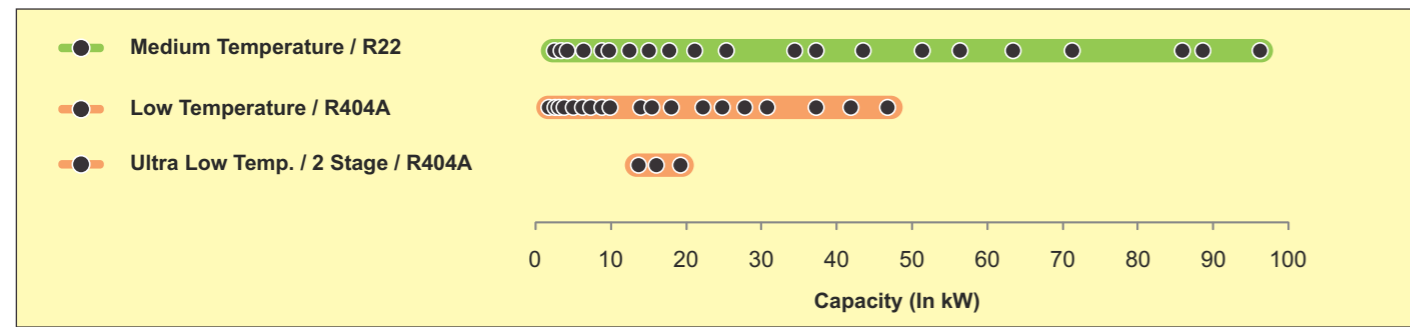


Emerson Multi-compressor Scroll / Semi-Hermetic Pack

Low / Medium Temperature 10 To 250 HP

Features & Benefits

- High efficiency Copeland semi-hermetic & Scroll compressors
- Robustly designed & engineered for high reliability
- Comprehensive range of 20-300 HP for low, medium & high temperature applications.
- Multi refrigerant available in R404A, R22, R134a, R407 options
- Efficient active oil management system
- Choice of technology: Semi-Hermetic & Scroll packs
- Factory assembled; locally designed & manufactured; shorter lead times
- Flexible & saves on energy
 - High efficiency Copeland semi-hermetic & Scroll compressors
 - Rack algorithms to optimize rack performance
 - Option of VFD & Digital for capacity modulation
- Economical
 - India factory built units: competitive first cost and low running cost
 - Compact in relation to capacity
- Sophisticated but simple
 - Can be monitored and controlled remotely
- Secure & easy serviceability
 - Electronics & Coresense™ diagnostics for fault analysis & troubleshooting
 - Factory installed system protectors to ensure safe operation
- Emerson wide service network



Note: The above capacity data are at the following conditions. For MT - Condensing Temp.= +40°C, Evaporating Temp.= - 5°C, Return Gas Temp.= 20°C. For LT - Condensing Temp.= +40°C, Evaporating Temp.= - 25°C, Return Gas Temp.= 20°C. For 2 Stage LT- Condensing Temp.= +40°C, Evaporating Temp.= - 40°C, Return Gas Temp.= 20°C



Compressors



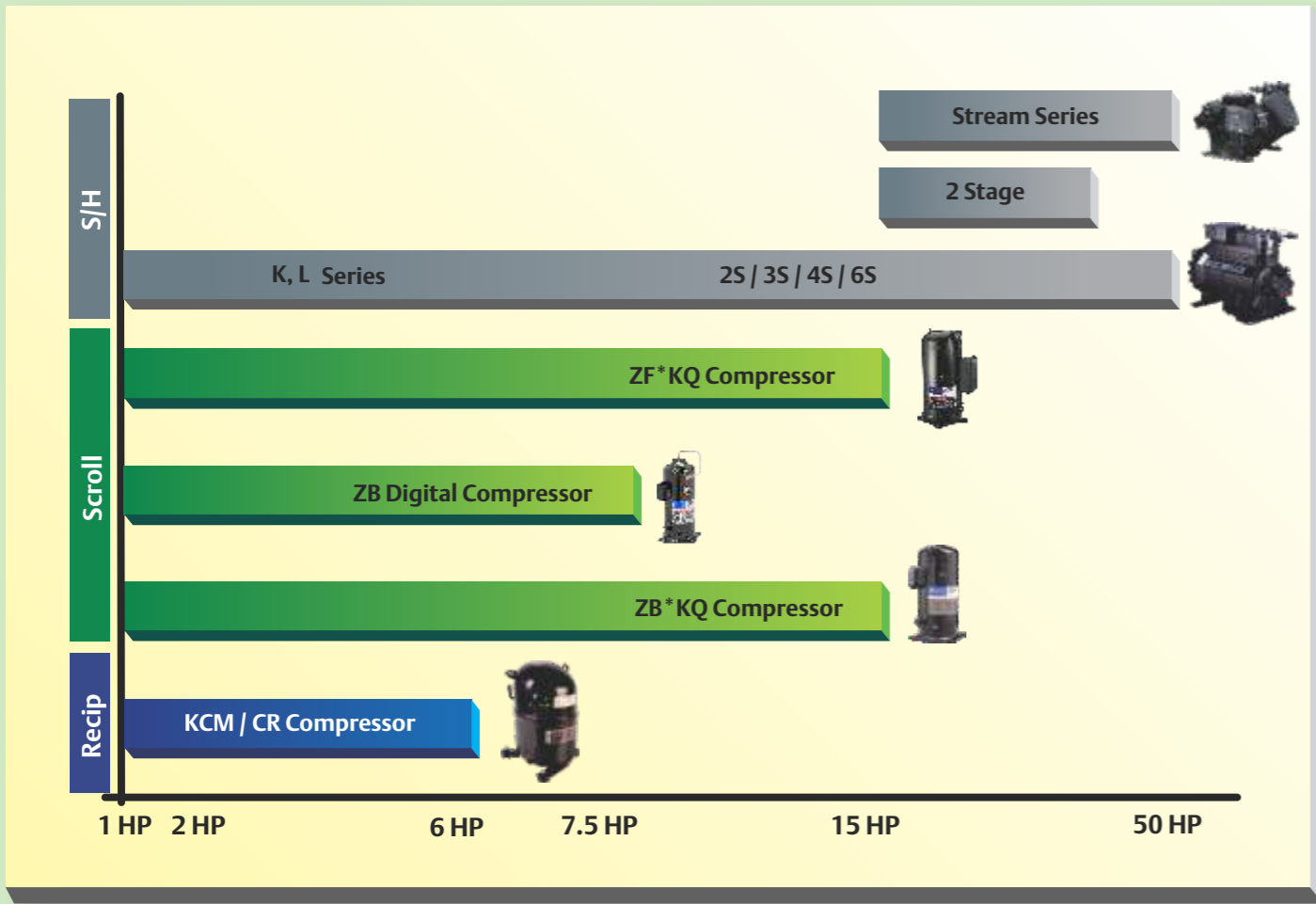
Compressor Range

Copeland™ compressors are engineered for higher efficiency, lower sound levels, superior durability and unsurpassed reliability. They allow the integration of new and environmentally friendly refrigerants into systems, while seamlessly improving efficiency and performance levels.

Scroll – 2 to 15 HP Scroll Compressors for every application including commercial and industrial refrigeration, and refrigerated transport. Copeland Scroll™ compressors deliver unmatched performance and comfort for refrigerated facility owners and end-users alike. With over 100 million units manufactured worldwide, Copeland Scroll™ compressors have earned a reputation for reliability and lower energy costs.

Semi-Hermetic – 1 to 60 HP Reciprocating Compressors provide premium alternatives for systems requiring full temperature performance including low temperature evaporating conditions to -40°C.

Hermetic Reciprocating – 1 to 5 HP Hermetic Reciprocating Compressors provide cost-effective solutions to systems requiring a wide range of evaporating capability.

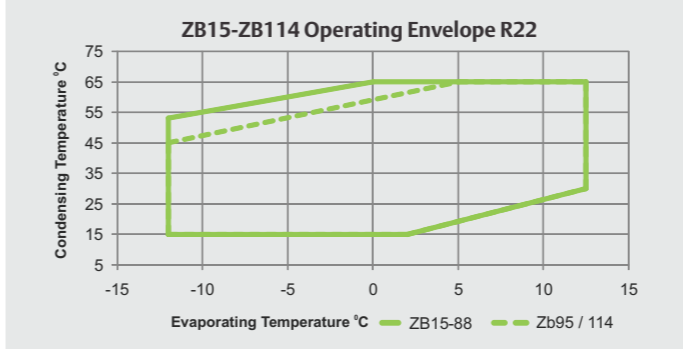


ZB Scroll Compressor

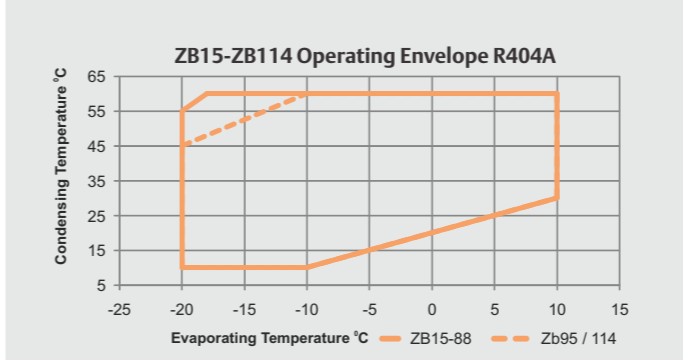
Medium Temperature 2 To 15 HP

Features & Benefits

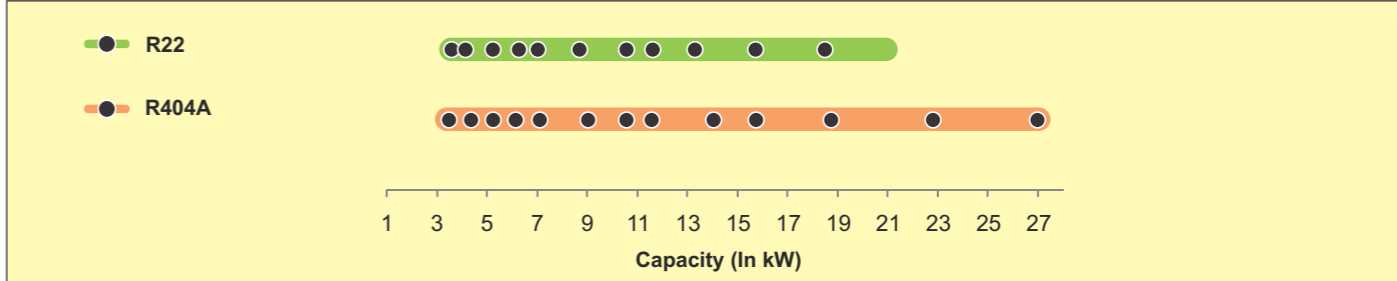
- Copeland Scroll™ axial and radial compliance for superior reliability and efficiency
- Wide operating envelope with 10°C condensing limit and fast pull-down capabilities
- High seasonal efficiencies as scrolls are designed at the condition where equipment runs most of the time
- Light weight and compact, half the weight of equivalent semi-hermetic compressors
- Available with R22, R404A, R134a & R407C
- Suitable for medium temperature chiller rooms
- Reliable refrigeration scrolls (COMPLIANT SCROLL®)
- Proven reliability and satisfied end users
- Full refrigeration features- Sight Glass, Rotalock Fitting
- High EER & low sound



Note: Envelope in region, max return gas temp. of 18.3°C. For custom conditions, please use Product Selection Software



Note: Envelope in region, max return gas temp. of 18.3°C. For custom conditions, please use Product Selection Software



Note: The above capacity data are at ARI MT. For ARI MT Condensing Temp.= +48.89°C, Evaporating Temp.= - 6.67°C, Return Gas Temp.= 18.33°C, Subcooling = 0K

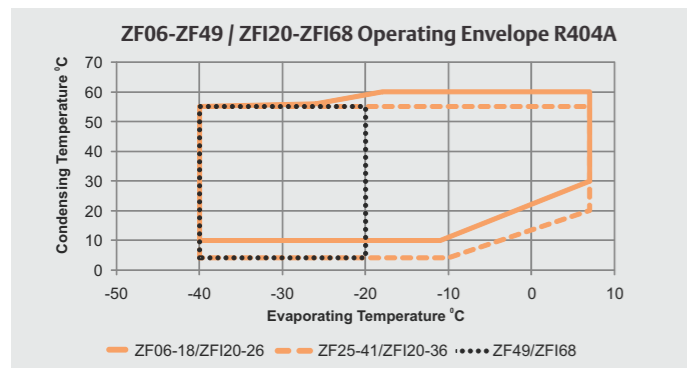


ZF*KQ Liquid Injection Scroll ZFI*KQ Vapor Injection Scroll

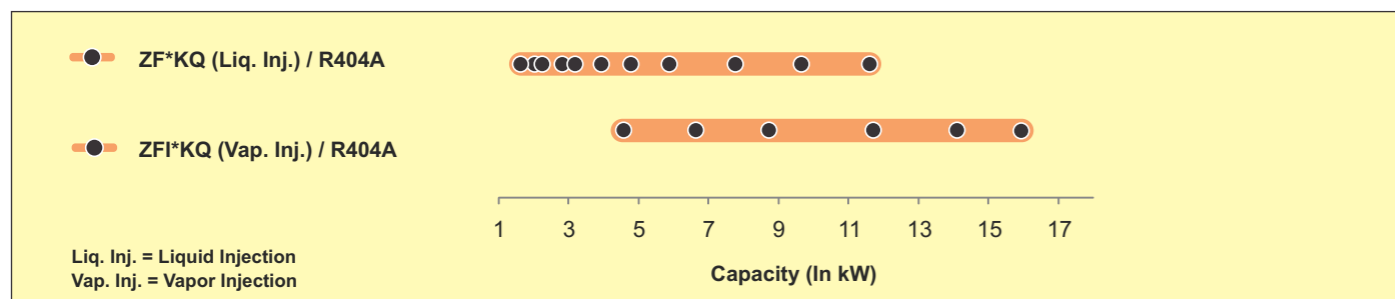
Low Temperature 2 To 15 HP

Features & Benefits

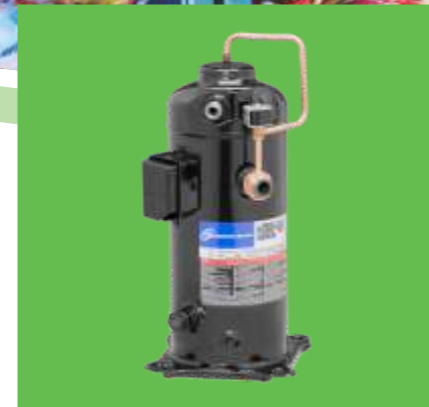
- ZF*KQ models with liquid injection
 - Easy, efficient and reliable liquid injection to control discharge temperature & increase envelope via Discharge Temperature Control Valve (DTC)
- ZFI*KQ models with enhanced vapor injection
 - Improved system capacity and efficiency by 40% and 25% respectively, making them the most efficient compressors on the market.
 - Possibility to reduce the equipment and component sizes by using smaller compressors
- Available with R404A, R407A/F
- Wide application envelope from -40°C to 7°C evaporating temperature
- Comes with standard accessories:
 - ZF liquid injection compressor with DTC Valve, Suction / Discharge Valve Kits, Discharge Line Thermostat, Crankcase Heater
 - ZF vapor Injection Compressor With Suction / Discharge Valve Kits, Discharge Line Thermostat, Crankcase Heater, Plate Heat Exchanger, Solenoid Valve & TXV
- Light weight & smaller footprint enabling compact system Design



Note: Envelope in region, max return gas temperature of 20°C. For custom conditions, please use Product Selection Software



Note: The above capacity data are at ARI LT condition. For ARI LT – Condensing Temp.= +40.56°C, Evaporating Temp.= - 31.67°C, Return Gas Temp.= 18.33°C, Subcooling = 0K

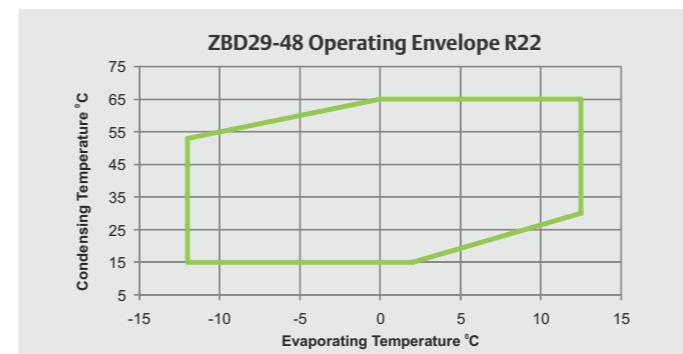


ZBD, Digital Scroll

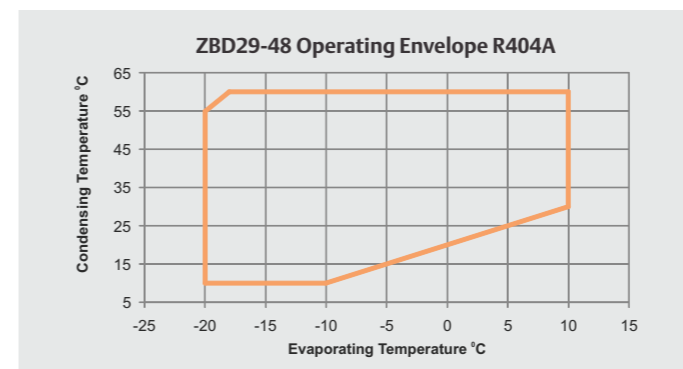
Medium Temperature 4 To 7 HP

Features & Benefits

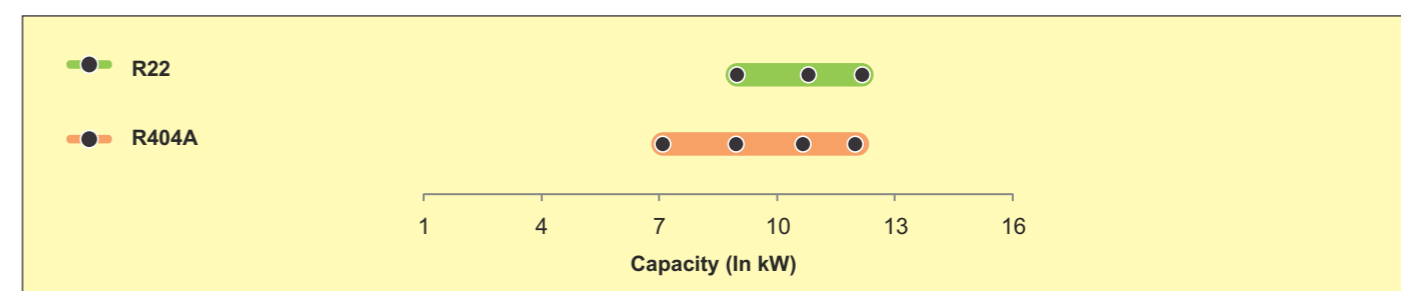
- Digital Scroll Technology provides higher efficiency compared to hot gas bypass systems or compressor cycling
- Continuous step-less modulation from 10% to 100% ensuring a perfect match of capacity and power to the desired load
- Proven scroll technology paired with mechanical unloading system provides greater reliability and efficiency
- Less complicated compared to variable speed technologies; requires simple electronics
- More reliable compared to other modulation technologies due to elimination of oil return issues
- Precise suction pressure control with associated energy savings
- Food quality is maintained by stable evaporating temperatures in the refrigerated areas
- Suitable for rack systems due to its varying load requirements
- Available with R22, R404A



Note: Envelope in region, max return gas temp. of 18.3°C. For custom conditions, please use Product Selection Software



Note: Envelope in region, max return gas temperature of 18.3°C. For custom conditions, please use Product Selection Software



Note: The above capacity data are at ARI MT & ARI LT condition. For ARI MT Condensing Temp.= +48.89°C, Evaporating Temp.= - 6.67°C, Return Gas Temp.= 18.33°C, Subcooling = 0K

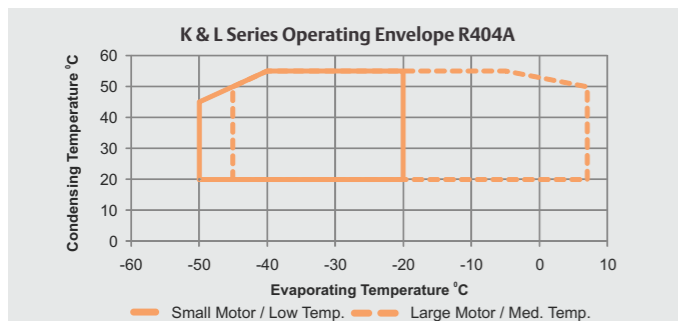


K, L & S Semi-Hermetic Compressors

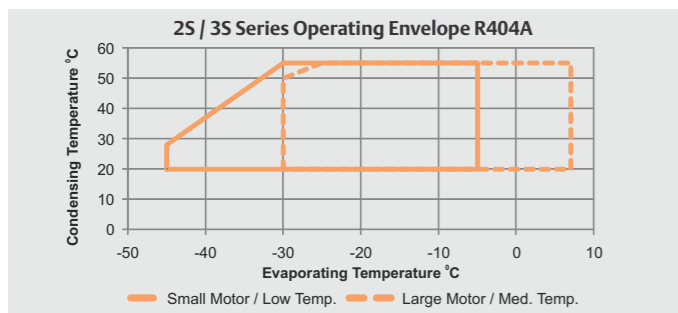
Medium / Low Temperature 0.5 To 60 HP

Features & Benefits

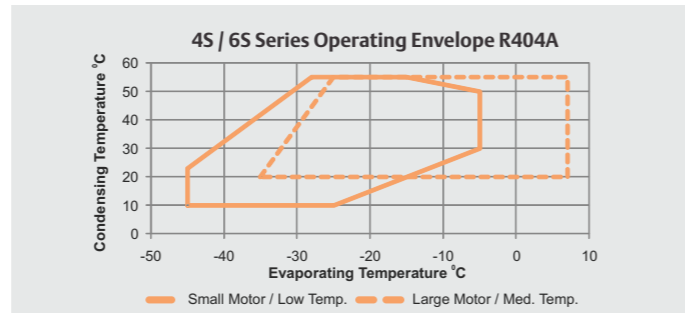
- Small 2, 3, 4, 6 and 8 cylinder compressors
- The K-series ranges : 0.5 to 2 HP, L-series : 2 to 4 HP, S-series : 4 to 60 HP
- One model for multi-refrigerants R404A, R134a, R407C and R22
- Integrated Oil Pump for maximum reliability
- Low condensing limits



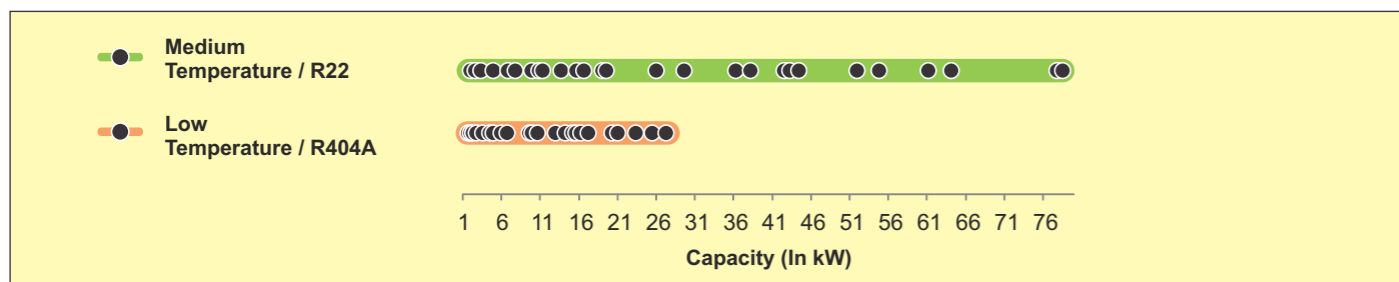
Note: Envelope in region, max return gas temperature of 20°C for R404A, the above envelope covers the major models in the series. For some specific models, the envelope will differ. Please use the Product Selection Software for detailed envelope



Note: Envelope in region, max return gas temperature of 20°C for R404A, the above envelope covers the major models in the series. For some specific models and refrigerants, the envelope will differ. Please use the Product Selection Software for detailed envelope



Note: Envelope in region, max return gas temperature of 20°C for R404A, the above envelope covers the major models in the series. For some specific models and refrigerants, the envelope will differ. Please use the Product Selection Software for detailed envelope



Note: The above capacity data are at ARI MT & ARI LT condition. For ARI MT Condensing Temp.= +48.89°C, Evaporating Temp.= - 6.67°C, Return Gas Temp.= 18.33°C, Subcooling = 0K, For ARI LT – Condensing Temp.= +40.56°C, Evaporating Temp.= - 31.67°C, Return Gas Temp.= 18.33°C, Subcooling = 0K

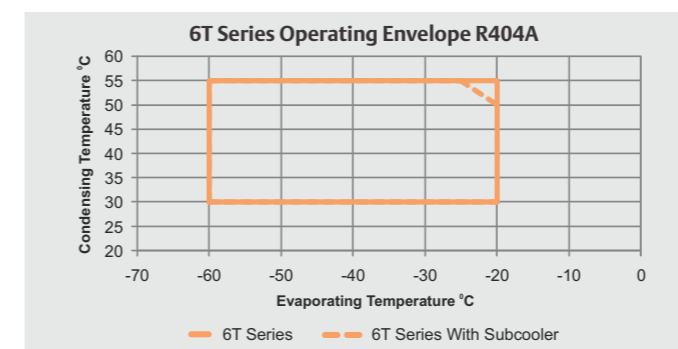


2- Stage Semi-Hermetic Compressors

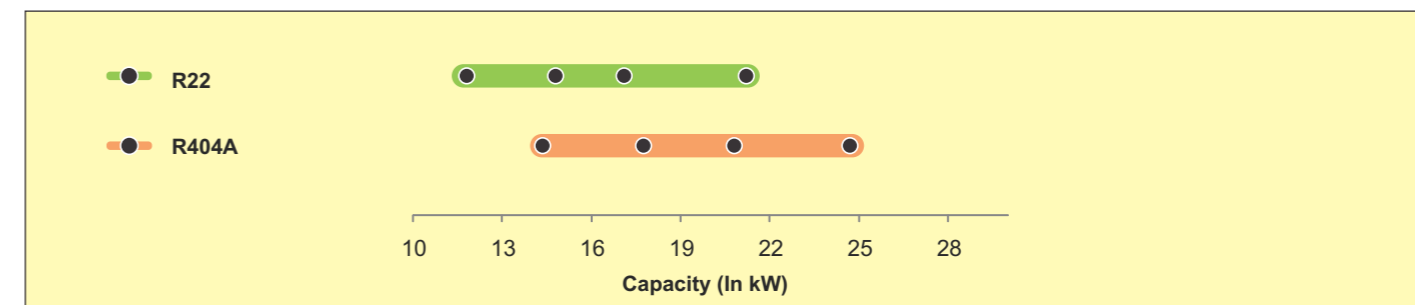
Ultra Low Temperature 15 To 30 HP

Features & Benefits

- 6T series available from 15 to 30 HP
- Designed for applications requiring extremely low evaporation temperatures
- R-22 / R-404A refrigerants
- Ultra low evaporating temperature till -60°C
- Liquid Sub-cooler to improve cooling capacity & energy efficiency



Note: Envelope in region, max return gas temperature of 20°C. For custom conditions, please use Product Selection Software



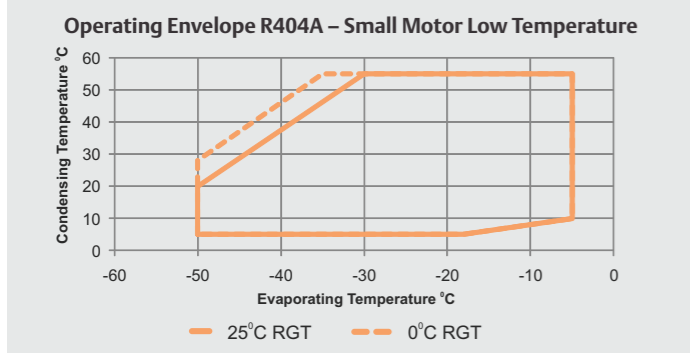
For 2 Stage LT- Condensing Temp.= +54°C, Evaporating Temp.= - 40°C, Return Gas Temp.= 20°C, Subcooling = 0K



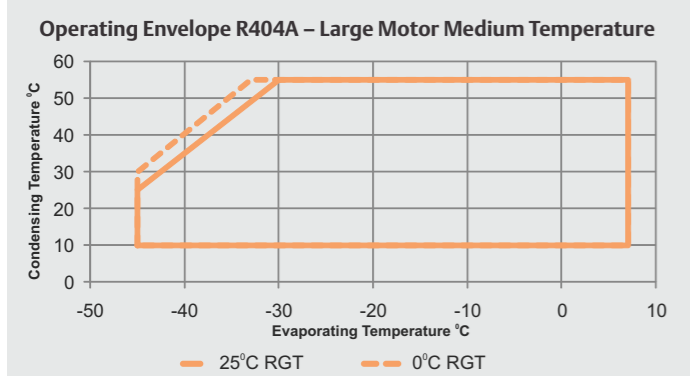
Stream Semi-Hermetic Compressor

Medium / Low Temperature 13 To 50 HP

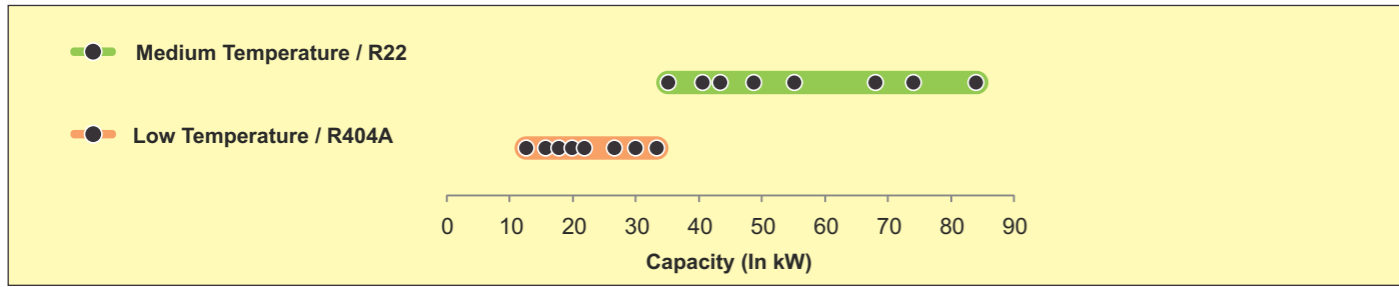
- Features & Benefits**
- New 4 & 6 Cylinders Range**
 - Best-in-class performance - 10% more efficient than next best with unique Discus valve technology
 - Multi-Refrigerant compressor for R404A, R407A / C / F, R134a
 - CoreSense™ Diagnostics**
 - Advanced protection & diagnostics module with communication
 - Ensures increased equipment life time
 - Digital And VFD**
 - Energy efficiency
 - Simple continuous step-less capacity modulation
 - Stream Sound Shell**
 - Sound critical applications
 - Makes stream the quietest compressor
 - New Range For CO2 Transcritical (MT)**
 - Best-in-class performance (efficiency & sound)
 - Inverter release 30 to 70Hz



Note: For envelopes with R134a, R407C, R22 refer to Product Selection Software



Note: For envelopes with R134a, R407C, R22 refer to Product Selection Software



Note: The above capacity data are at ARI MT & ARI LT condition. For ARI MT Condensing Temp.= +48.89°C, Evaporating Temp.= - 6.67°C, Return Gas Temp.= 18.33°C, Subcooling = 0K. For ARI LT – Condensing Temp.= +40.56°C, Evaporating Temp.= - 31.67°C, Return Gas Temp.= 18.33°C, Subcooling = 0K

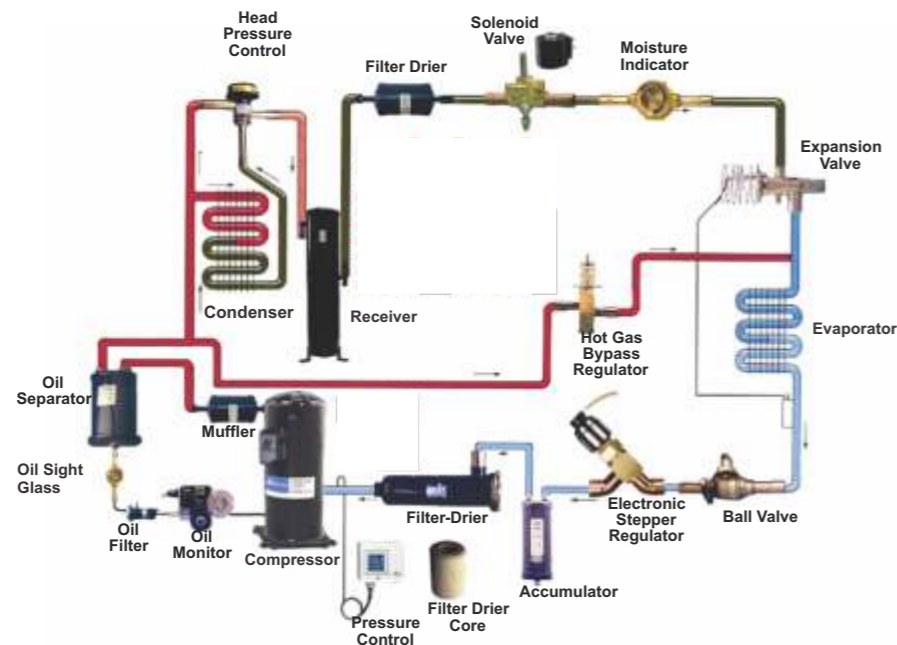
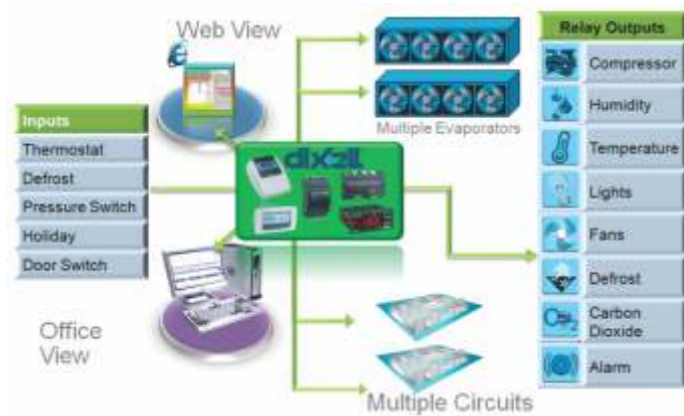
System Controls

System Solutions

Emerson Climate Technologies offers system solutions for residential, commercial and industrial applications. Emerson's hardware and software control solutions are designed to improve system performance and save energy, while lowering downtime and maintenance costs.

Electronics - monitoring and maintenance in one complete solution.

Flow Controls - Emerson Climate Technologies manufactures a wide variety of products designed to protect and control HVAC/R systems.



ELECTRONICS

Emerson Dixell™ Controllers For Cold Room

Parametric Controllers

- Hot Key for quick and easy Parameter Programming
- Instant visibility of machine status via Display Icons
- Innovative Suction Pressure Management of Rack Compressors
- Management of Anti - Sweat Heaters
- TTL or RS485 serial connection for Monitoring Systems
- Standard Communication Protocol ModBUS-RTU
- Dynamic setpoint - supermarket applications

Programmable Controllers

- Complete communication integrated solution, with WEB Server, ModBUS, and BACNET MS / TP & TCP-IP
- 80MB Memory for Alarm Management
- LINUX Operating System with ISaGRAF internal website
- UL approved

XWEB A Web Based Server With Linux OS - Supervisor & Monitoring System

- Better commissioning with Real Time Data Graphs
- Faster HACCP printout reports with a few clicks
- Up to 1 year temperature recording
- Possibility to modify the parameters of the connected devices remotely
- CRO for Compressor Rack Optimization





Flow Controls

Emerson Valves, Controls & System Protectors

- Thermal and electronic expansion valves
- Pressure transmitters and controls
- Rack, display case, condensing unit and fan-speed controllers
- Superheat and cold room controllers
- Oil management devices
- Suction accumulators
- System protectors and moisture indicators

Features & Benefits

- Best-in-class mechanical and electronic controls
- Application includes HFC, HCFC, CFC and CO2
- Wide operating range
- Hermetic and field serviceable options



Cool Tools & Solutions

Emerson has developed software tools to facilitate precise calculation of heat load and energy for every project as well as recommendations of optimal systems for every application intended.

The tools are designed to help you analyse and define the performance of the electrical and mechanical data of your Copeland products swiftly and precisely.

KOLDPRO™

The KoldPro tool is specially customized for India and is comprehensive and simple to use. It ensures quick & detailed load estimation for the Cold Room. This unique tool has a host of features that make it a must have for anyone associated with Cold Rooms. The features include -

- Weather data of 50+ cities
- Wide variety of food products with English-Hindi names
- Total equipment selection



Mobile Apps

Emerson Climate Technologies has a handy set of tools for compressor and condensing unit users. Ideal for engineers and technicians on the go.

You have on-the-go access to pressure, temperature conversions and superheat calculations amongst a host of other features. These include -

- Troubleshoot using the diagnostic information from the compressor's CoreSense™ module
- Cross-reference database for Emerson's valves, controls and system protectors
- Individual compressor / condensing unit selection & performance at user conditions



Product Selection Software

This is an extremely handy software tool that allows you easy compressor / condensing unit model selection. Product Selection Software helps you ascertain -

- Performance parameters at user defined condition
- Technical data / envelope
- Refrigerant properties
- Annual running cost of select cities



Emerson Climate India - Key Projects Undertaken

We have successfully provided Refrigeration Systems For 2500+ Cold Storage Facilities Covering A Wide Range Of Applications Like Large Distribution Centers, Cold Storages & Packhouses, Ripening Chambers, Industrial Chillers, Pharma Cold Rooms, Fruits &

Vegetables Storage, Food Retail, Food Processing, Ice Cream Processing & Storage, Bulk Milk Chilling, Dairy Cold Rooms, Packhouses & For Many Other Applications.

HyperCITY Retail India Ltd.

Application :
Retail

Product :
Multi Compressor Semi-Hermetic Rack

- Application: Retail Freezer, Chiller Cases & Cold Rooms Used In Retail
- 3 Nos * 4ML-15X Rack For LT Freezer System
- 3 Nos * 3SSH-150E Rack For MT Chiller System
- Evaporating Temperature:
 - -35 deg C For Freezer LT
 - -10 deg C For Chiller MT
- Refrigerant: R404A
- Location: Thane



Kamrej Vibhag Cooperative Fruit And Vegetable Growers Society

Application :
Cold Storage

Product :
Stream Semi-Hermetic Compressors

- Application: Freezer room used for storing frozen Peas, Lemon & Mango at -25 deg C
- 2 Nos * 4ML-15X For LT System
- Evaporating Temperature: -25 deg C
- Refrigerant : R404A
- Location: Surat



Creamson India Pvt. Ltd.

Application :
Ice Candy Manufacturing

Product :
Stream Semi-Hermetic Compressors

- Application: Ice candy machine with a capacity of 2000 candies/hr Using Brine Chiller
- 1 Nos * 4MM1- 20X For LT System With Water Cooled Condenser
- Evaporating Temperature: -30 deg C
- Refrigerant: R404A
- Location: Boisar, Mumbai



Adyar Anand Bhavan

Application :
Blast Freezer

Product :
Stream Condensing Units

- Application: Ice Cream Hardening & Blast Freezer Application
- 1 Nos * V6-4ML-15X-AWM
- Evaporating Temperature: -40 deg C SST
- Refrigerant: R404A
- Location: Chennai



Essel World

Application : Snow Park
Product : Water Cooled Stream Condensing Units



- Application: Snow Park Chamber
- Model: Water Cooled CDU With 6MK-50X * 4Nos
- Room Temp.: -10 deg C
- Refrigerant: R404A
- Location: Essel World, Seasons Mall, Magarpatta, Pune

Amul Dairy

Application : Dairy
Product : Air Cooled Stream Condensing Unit



- Application: Blast chiller – Curd Processing
- Stream S/H Model: Air Cooled CDU 4MK-35X * 2Nos
- Room Temp.: -5 deg C
- Refrigerant: R404A
- Job Location: Tarapur, Mumbai

Aavin Dairy

Application : Dairy
Product : Air Cooled Stream Condensing Units



- Application: Cold Room For Dairy Product Storage
- 4 Nos (W9-3SS-150X)
- Evaporating Temperature: 4 deg C
- Refrigerant: R404A
- Location: Chennai

Aavin Dairy

Application : Dairy
Product : Air Cooled Semi-Hermetic Condensing Units



- Application: Cold Room For Dairy Product Storage
- 4 Nos (W9-3SS-150X)
- Evaporating Temperature: 4 deg C
- Refrigerant: R404A
- Location: Trichy

Caris Pure Processing Pvt. Ltd.

Application : Meat Processing
Product : Stream Compressors



- Application: Freezer Room For Meat Storage
- 1 Nos * 6MI-40X Condensing Unit
- Room Temperature: -25 deg C
- Refrigerant: R404A
- Location: Kalpakkam

Dairy, Dindigul

Application : Dairy
Product : Stream Compressors



- Application: Freezer Rooms
- 3 Nos (6MI-40X) Condensing Units
- Room Temperature: -25 deg C
- Refrigerant: R404A
- Location: Dindigul

Aavin Dairy

Application : Ice Candy Manufacturing
Product : L Series Semi-Hermetic Compressors



- Application: Ice Candy Machine For Dairies
- 1 No (LA50-40E) Air Cooled CDU
- Evaporating Temperature: -23 deg C
- Refrigerant: R404A
- Location: Vellore, Tamil Nadu

Leaders Farms

Application : Banana Ripening
Product : HLR Mini Rack Units With Digital Technology



- Application: Banana Ripening Application
- Model: 2 Pcs Of Horizontal Liquid Receiver Units (HLR31-ZBD90)
- Room Temperature: 10-12 deg C
- Refrigerant: R404A
- Location: Chinnamannur, Theni, Tamil Nadu

Container Corporation Of India Ltd

Application :
Banana Ripening

Product :
Air Cooled Semi-Hermetic
Condensing Units



- Application: Banana Ripening, Cold Storage
- Stream S/H Model: S9-2SC-65X-EWL * 4Nos Air-cooled CDU
- Room Temp.: 10 deg C
- Refrigerant: R22
- Job Location: Azadpur, Delhi

Canal Bagaitdar Sangh

Application :
Grape Pre Cooling

Product :
Air Cooled Semi-Hermetic
Condensing Units



- Application: Pre-Cooling/Cold Room Operation
- Model: Air Cooled Semi-Hermetic CDU
- W9-3SS-150X AWM (2 NOS)
- Z9-4MJ-33X-AWM (4 NOS)
- Room Temp.: 2 to 4 deg C
- Refrigerant: R22
- Location: Nashik

Seven Star Fruits Pvt. Ltd.

Application :
Grape Pre Cooling

Product :
Air Cooled Stream
Condensing Units



- Application: Grape Precooling Application
- Stream S/H Model: Z9-4MH-25X * 3 Pcs
- Room Temp.: 0 deg C
- Refrigerant: R407C
- Location: Nashik

Aligned Industries Gamma Irradiation Cold Storage Facility

Application :
Multi-Commodity
Cold Storage &
Packhouse

Product :
Stream Compressors



- Application: Gamma Irradiation Based Packhouse For Export Of Vegetables
- Stream S/H Model: 4MF-13X * 6 Pcs
- Room Temp.: -20 deg C
- Refrigerant: R404A
- Location: Dharuhera, Haryana

Madhya Pradesh Government Cold Storage Facility

Application :
Multi-Commodity
Cold Storage

Product :
Air Cooled Scroll & Semi Hermetic
Condensing Units



- Applications: Ripening Chambers, Cold Storage & Precooling Chambers
- Models: KHZ529PQB * 8 Nos
KHZ611PAL * 6 Nos
KHZ611PAL * 2 No.
- Evaporating Temperature:
-2 Deg.C (Pre-Cooler & Cold Rooms)
10 Deg.C (Ripening Chambers)
- Refrigerant: R404A (Pre-Cooler & Cold Room)
R407C (Ripening Chamber)
- Job Location: Baruphata, Madhya Pradesh

CM Envirosystems Pvt. Ltd.

Application :
Environmental
Chambers

Product :
Stream Compressors



- Application: Cascade System
- Room Temp.: -70 deg C
- Stream S/H Model: 6MM-30X * 2Nos
- Type Of CDU: Air-cooled CDU
- Type Of System: DX Type With R404A
- Location: Bangalore

Pawan Cold Storage

Application :
Multi-Commodity
Cold

Product :
Air Cooled Scroll
Condensing Units



- Application: Fruits & Vegetables Cold Storage
- Room Temp.: 2-4 deg C
- Stream S/H Model: KHZ548PQE * 25Nos
- Type Of CDU: Air-cooled CDU
- Location: Kaithal, Haryana

Big Bazaar

Application :
Retail

Product :
Multicompressor
Semi-Hermetic Racks



- Application: Super Market Display Cases & Multi deck Chiller
- Compressor Rack Model: EMP 33SE-030L (Low Temp)
EMP 33S-030M (Medium Temp)
- Evaporating Temperature/ Refrigerant: R404A - For Low Temperature application (-22 to -18 Deg. C)
R 22 – For Medium Temperature application (2 to 4 Deg. C)
- Location: Noida, New Delhi

Vasundhara Dairy

Application :
Dairy

Product :
Air Cooled Semi-Hermetic
CDUs

- Application: Cold Room For Medium Temp Application (+2 Deg. C)
- Type Of CDU: Air-cooled CDU (2 Units for One Cold Room) With Stream Compressor 4MK-35X
- Room Temperature: +2 Deg C
- Refrigerant:R404A
- Location: Boisar



Signode India Ltd.

Application :
Water Chiller

Product :
Stream Compressor

- Application: Water Chilling For Medium Temp Application
- Stream S/H Model: Air Cooled CDU With 6MK 1-50X AWM /D-D
- Temperature: +10 deg C Water Temperatue
- Refrigerant : R407C
- Location: Silvassa



Leo Chill

Application :
Glycol Chilling

Product :
ZF Scroll

- Application: Glycol Chilling Low Temp for Soap moulding Industry
- Scroll Compressor Model: ZF25KQE-TFD- 551; Air Cooled CDU
- Product operating Temp: -25 to -20 Deg.C
- Refrigerant : R404A
- Location: Vasai, Mumbai



Aavin Dairy

Application :
Dairy

Product :
Semi-Hermetic & Scroll
Condensing Units

- Application: Dairy Cold Rooms For Paneer & Other Products, Ice Cream Hardening & Deep Freeze Rooms
- Model: 6 Nos * V6-4ML-15X Semi-Hermetic CDU (Ice Cream Deep Freeze)
- 2 Nos * Z9-6TJ-250X 2-Stage CDU (Ice Cream Hardening)
- 3 Nos * KHZ529PQE (Anterooms)
- 2 Nos * KHZ548PQL (Paneer & Other Products)
- Evaporating Temp: -32 Deg.C (Ice Cream Deep Freeze)
- -36 Deg.C (Ice Cream Hardening)
- -5 Deg.C (Paneer Storage)
- Refrigerant: R404A
- Location: Ambattur, Chennai



PDDP Dairy

Application :
Ice Candy
Machines

Product :
Water Cooled 2 Stage
Semi-Hermetic Condensing Units

- End User : M/s PDDP Dairy (Kochi-Kerala)
- Application: Low Temp Application for Ice cream Candy Machine
- Stream S/H Model: 6 THW-200E SUB (2 Nos.) With Water Cooled Condenser
- Evaporating Temperature: -43 Deg.C
- Refrigerant: R404A
- Location: Kochi, Kerala



Transtech India

Application :
Water Chiller

Product :
Stream Compressors

- Application: Water chilling For Medium Temp; Anodizing Process
- Stream S/H Model: 6MJ- 45X AWM/D-D (2 No)
- Operating Condition: 12 deg C Water Temperature
- Refrigerant: R 22
- Location: Nagpur



Disclaimer

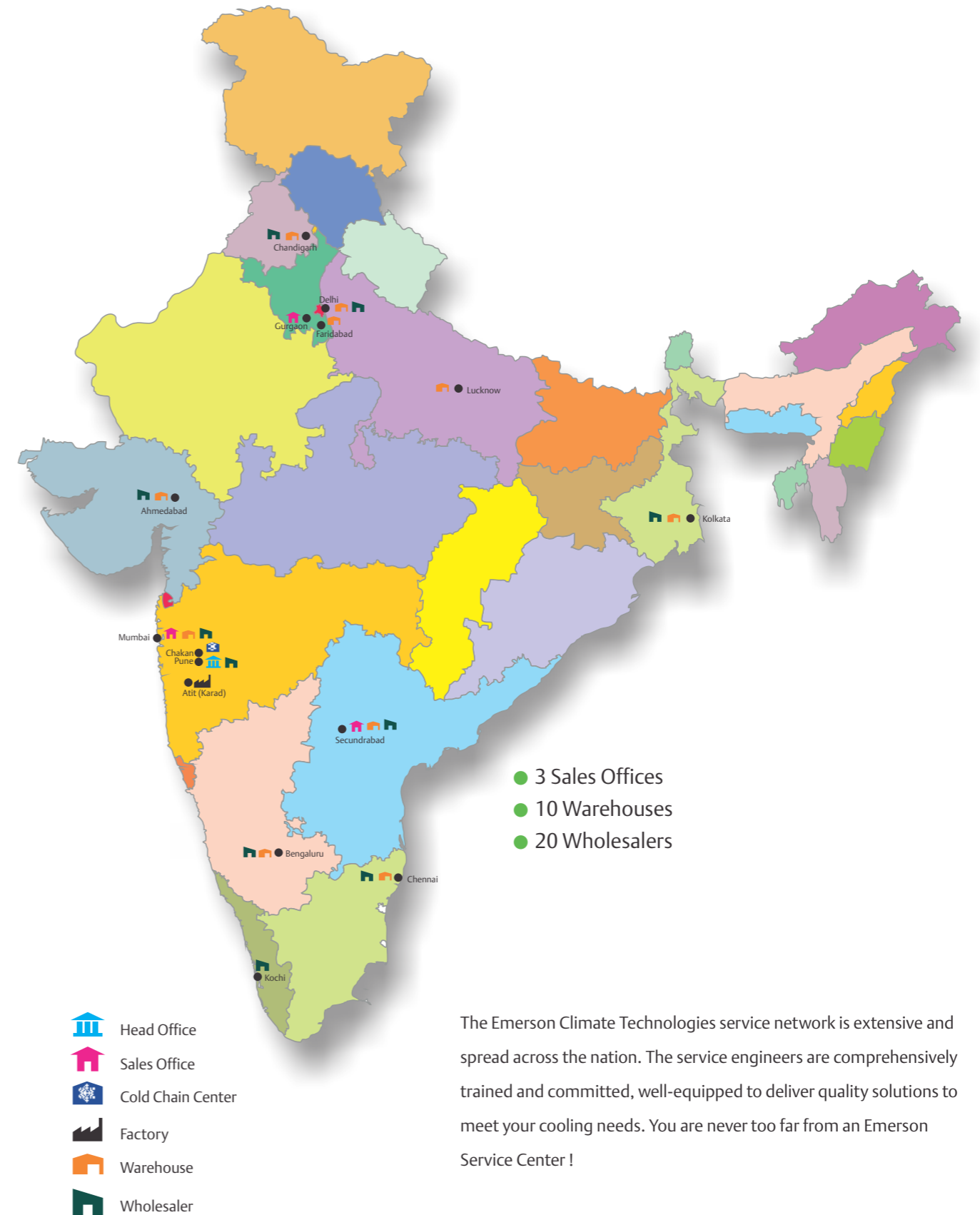
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Cold Chain Footprint Across The Nation



Notes

Notes
