# Air-Cooled Chillers -

## A full portfolio of solutions for comfort and process applications




As buildings continue to evolve in size and function, their cooling systems must meet increasingly rigorous demands in an efficient and sustainable way. But often, what works for one project may not work for another, even with similar specifications. Location, utility rates and architectural features all introduce challenging variables that must be accounted for.

That's why Withair® has developed a robust portfolio of air-cooled chillers with intentional overlap in capacity, efficiency and sound performance. Our large selection gives customers the ability to make targeted equipment customizations with the opportunity to reduce energy intensity and lessen environmental impact.

The result is numerous system designs and chiller configurations with a variety of possible efficiency levels. So, whether our customers are calculating energy efficiency to meet local code requirements, selecting an HVAC system with the lowest operating costs, there's a Withair® solution for you.

No matter which one you choose, you can rest easy knowing that every Withair® product is backed by the proven reliability and performance. It's how we help customers make the easy decision to choose Withair® — and how we continue to go beyond.

Read on to see which Withair® air-cooled chiller model is right for your project.

**No matter your application, there's a Withair® air-cooled chiller that's right for you !**

# Air-Cooled (Mini) Chillers

| Capacity | Model & Description |
|---|---|

**8.2 to 52.4 kW**
**2 to 15 tons**



**Model W02C1-1 series**
**Refrigerant: R**-410A, R-454B
**Compressor:** DC Inverter Hermetic Scroll
**Power supply:** 50 and 60 Hz
**Ideal applications:** Comfort and process cooling; Heat recovery sites.
**Unique features:** DC Inverter scroll compressor(10~120Hz); 60Hz~330Hz inverter controller; Advanced microcomputer automatic control system; Brazed plate heat-exchanger; BAS communications; Self-diagnosis; Easy serviceability; Great flexibility; Robust reliability; Easy layout; Unique compressor anti-vibration technology.
**Factory-installed options:** VSD hydronic pump kit; ECM fans; Extreme low-ambient kit to -35℃ (-31℉); High ambient kit to 55℃ (131℉); Heat recovery capability; Double-pipe heat-exchanger; Flow switch; Metallic filter; Expansion tank; Anti-corrosion and Sound-reduction packages, etc.

**Overview**

Withair® Air Cooled Inverter (Mini) Chiller is a very intelligent chiller system with flexible capacity output. It could adjust cooling capacity output automatically according to requirements. It is much more energy-saving with a long lifespan. and provides energy-efficient room cooling for residential and small commercial application. Using free renewable energy from the air, the units are highly efficient with low running costs, low carbon emission.

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**72 to 140 kW**
**20 to 40 tons**



**Model W02C1-YRC series**
**Refrigerant: R**-410A, R-454B
**Compressor:** Hermetic Scroll
**Power supply:** 50 and 60 Hz
**Unique features:** Shell & tube heat-exchanger; Intelligent Defrosting Technology; BAS communications(RS485); In house engineered microprocessor control; Easy serviceability; Great flexibility; Robust reliability; Service isolation valves; Intelligent energy management technology; Intelligent air volume management; Multiple protection functions; Saw-shaped condenser fan blades; High precision electronic expansion valve; Compact design and smaller footprint.
**Factory-installed options:** Hydronic pump kit; ECM fans; Heat Pump; Heat recovery capability; Flow switch; Metallic filter; Expansion tank; Anti-corrosion; Sound-reduction packages, etc.

**Overview**

Withair's next-generation of Year-round Cooling Modular Unit is applicable for industrial applications, and requirements on energy saving and environment protection. It can operate for refrigerant at the ambient temperature of -15℃~48℃ all the year round, fully meeting the requirements of various industry applications for chilled water throughout the year.

# Modular Air-Cooled Scroll Chillers

| Capacity | Model & Description |
|---|---|

**72 to 565 kW**
**20 to 160 tons**



**Model W02C1 series**
**Refrigerant: R**-410A, R-454B
**Compressor:** Hermetic Scroll
**Power supply:** 50 and 60 Hz

Free cooling economizer as option

**Ideal applications:** Comfort and process cooling; Glycol chilling; Heat pumps; Heat recovery sites; Industrial cooling.
**Unique features:** Shell & tube heat-exchanger; Smart control; BAS communications; Easy serviceability; Great flexibility; Robust reliability; Service isolation valves; Ease of installation; Easy layout.
**Factory-installed options:** Hydronic pump kit; Extreme low-ambient kit to -35℃ (-31℉); High ambient kit to 55℃ (131℉); Heat recovery capability; Brazed plate heat-exchanger; Flow switch; Metallic filter; Expansion tank; Anti-corrosion and Sound-reduction packages, etc.

**Overview**

Withair® Modular Air-Cooled Scroll Chiller offers the perfect combination of flexibility, efficiency and low noise. Available in sizes ranging from 20 to 160 tons with a compact footprint. There are multiple levels of efficiency to choose from to comply with your local code requirements.

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**72 to 565 kW**
**20 to 160 tons**



**Model W02C1-I series**
**Refrigerant: R**-410A, R-454B
**Compressor:** Inverter Hermetic Scroll
**Power supply:** 50 and 60 Hz

Free cooling economizer as option

**Ideal applications:** Comfort and process cooling; Glycol chilling; Heat pumps; Heat recovery sites; Industrial cooling;
**Unique features:** Inverter scroll compressor(10~120Hz); Easy layout; 60Hz~330Hz inverter controller; BAS communications; High precision of temperature control; Shell & tube heat-exchanger; Fast cooling; Superior performance.
**Factory-installed options:** VSD hydronic pump kit; Extreme low-ambient kit to -35℃ (-31℉); High ambient kit to 55℃ (131℉); VSD/EC fans; Heat recovery capability; Brazed plate heat-exchanger; Flow switch; Metallic filter; Expansion tank; Anti-corrosion and Sound-reduction packages, etc.

**Overview**

In an effort to reduce the energy consumed by cooling & heating, Withair® has developed the W02C1-I series Modular Inverter Scroll Heat Pump & chiller by leveraging the latest DC inverter compressor technology, Variable Speed Drive (VSD), offering the right balance of energy efficiency and quiet operation. Its exceptional efficiency at both full load and part load set new benchmarks for the industry, making the new inverter chiller stand out as the premium solution for small-to-medium size commercial and industrial applications, making them ideal for buildings with a large amount of off-peak operation.

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# 4-Pipes Air-Cooled Scroll Chillers

| Capacity | Model & Description |
|---|---|

**72 to 565 kW**
**20 to 160 tons**



**Model W02C1 series**
**Refrigerant: R**-410A, R-454B
**Compressor:** Hermetic Scroll
**Power supply:** 50 and 60 Hz

Free cooling economizer as option

**Ideal applications:** Comfort and process cooling; Glycol chilling; Heat pumps; Heat recovery sites; Industrial cooling.
**Unique features:** Shell & tube heat-exchanger; Smart control; BAS communications; Easy serviceability; Great flexibility; Robust reliability; Service isolation valves; Ease of installation; Easy layout.
**Factory-installed options:** Hydronic pump kit; Extreme low-ambient kit to -35℃ (-31℉); High ambient kit to 55℃ (131℉); Heat recovery capability; Brazed plate heat-exchanger; Flow switch; Metallic filter; Expansion tank; Anti-corrosion and Sound-reduction packages, etc.

**Overview**

Withair® Modular Air-Cooled Scroll Chiller offers the perfect combination of flexibility, efficiency and low noise. Available in sizes ranging from 20 to 160 tons with a compact footprint. There are multiple levels of efficiency to choose from to comply with your local code requirements.

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**72 to 565 kW**
**20 to 160 tons**



**Model W02C1-I series**
**Refrigerant: R**-410A, R-454B
**Compressor:** Inverter Hermetic Scroll
**Power supply:** 50 and 60 Hz

Free cooling economizer as option

**Ideal applications:** Comfort and process cooling; Glycol chilling; Heat pumps; Heat recovery sites; Industrial cooling;
**Unique features:** Inverter scroll compressor(10~120Hz); Easy layout; 60Hz~330Hz inverter controller; BAS communications; High precision of temperature control; Shell & tube heat-exchanger; Fast cooling; Superior performance.
**Factory-installed options:** VSD hydronic pump kit; Extreme low-ambient kit to -35℃ (-31℉); High ambient kit to 55℃ (131℉); VSD/EC fans; Heat recovery capability; Brazed plate heat-exchanger; Flow switch; Metallic filter; Expansion tank; Anti-corrosion and Sound-reduction packages, etc.

**Overview**

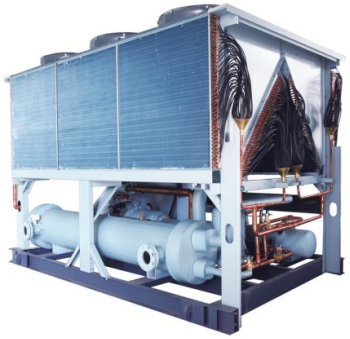
In an effort to reduce the energy consumed by cooling & heating, Withair® has developed the W02C1-I series Modular Inverter Scroll Heat Pump & chiller by leveraging the latest DC inverter compressor technology, Variable Speed Drive (VSD), offering the right balance of energy efficiency and quiet operation. Its exceptional efficiency at both full load and part load set new benchmarks for the industry, making the new inverter chiller stand out as the premium solution for small-to-medium size commercial and industrial applications, making them ideal for buildings with a large amount of off-peak operation.

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# Air-Cooled Screw Compressor Chillers

| Capacity | Model & Description |
|---|---|

**200 to 1,516 kW**
**60 to 460 tons**



**Model W02C1-S series**
**Refrigerant:** R-134a, R-513A, R-1234ze
**Compressor:** Semi-hermetic Screw
**Power supply:** 50 and 60 Hz
**Ideal applications:** Comfort and process cooling; Glycol chilling; Heat pumps; Heat recovery sites; Industrial cooling;
**Unique features:** BAS communications; Shell and tube condenser; DX evaporator; Capacity turndown to 10 percent load; Operation from -17℃ (0°F) to 125℃ (51°F) ambient; Microprocessor control center touch-screen; Easy serviceability; Great flexibility; Robust reliability.
**Factory-installed options:** Hydronic pump kit; Extreme low-ambient kit to -35℃ (-31°F); High ambient kit to 55℃ (131°F); Quick start; Heat recovery capability; Electrostatic coating; Flow switch; Metallic filter; Expansion tank; Anti-corrosion; Sound-reduction packages, etc.

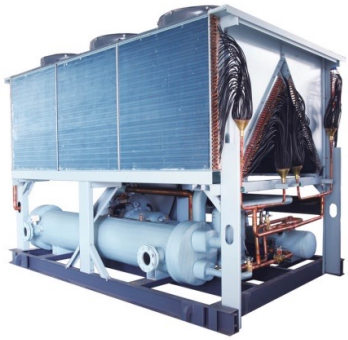
Free cooling economizer as option

**Overview**

The W02C1-S series Withair® Air-Cooled Screw Chiller is designed to meet current and future requirements in terms of reliability, energy efficiency and intelligent control. we adopt touchable screen display and Siemens PLC controls, twin-rotor screw compressors, low operating noise benefit from low-noise, low-vibration fans and double-wall structure screw compressor.

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**200 to 1,516 kW**
**60 to 460 tons**



**Model W02C1-SV series**
**Refrigerant:** R-134a, R-513A, R-1234ze
**Compressor:** VSD Semi-hermetic Screw
**Power supply:** 50 and 60 Hz
**Ideal applications:** Comfort and process cooling; Glycol chilling; Heat pumps; Heat recovery sites; Industrial cooling;
**Unique features:** Variable speed drive; Shell and tube condenser; DX evaporator; Siemens PLC control system; BAS communications; Operation from -29℃ (-20°F) to 55℃ (131°F) ambient; High precision of temperature control; Superior performance; Variable flow rates.
**Factory-installed options:** VSD hydronic pump kit; VSD/EC fans; Hybrid falling film evaporator; Vibration Isolators; Economizer; Strainer; Heat recovery capability; Quick start; Electrostatic coating; Flow switch; Expansion tank; Anti-corrosion, Sound-reduction packages, etc.

Free cooling economizer as option

**Overview**

The W02C1-SV series Air-Cooled, Variable-Speed Drive (VSD) screw chiller from Withair® is designed to improve reliability and performance through proven technology and a customizable, highly optimized design. Installed across the globe, the chiller offers a tailored solution for a broad range of applications. variable volume rates improves part-load efficiency makes the chiller a great choice in a variety of applications. With optional Quick Start technology, the Withair® Air-Cooled Screw Chiller is the more reliable, lower maintenance solution for high-efficiency cooling.

# Benefits At A Glance

Withair's wide range of air-cooled chiller models features intentional overlap in capacity, efficiency and sound performance. This large selection gives customers the ability to make targeted customizations to their equipment to meet their specific application requirements.

**For Building Owners and Managers**
- Quiet operation
- Easy to maintain
- Reliable operation
- Reduces operating expenses
- Environmentally sound refrigerant
- Building automation system compatible

**For Consulting Engineers**
- HFC refrigerants
- High-efficiency optimization
- Ideal for replacement projects
- Compliant local code requirements
- Quick response technical support services

**For Contractors**
- Compact footprint
- Diagnostic controls
- Easy to break down
- Ideal for replacement
- Reliable performance
- Reduces installation expenses

Premium manufacturer in HVACR products
for Heating,Cooling and Indoor Air Quality.

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## About Withair ®

Withair® is the premium manufacturer in sustainable energy solutions supplying HVACR products & services for heating, cooling, hot water, indoor air quality, industrial refrigeration, and heat recovery that reflect today's demand for sustainable construction, comfortable indoor climate and industrial cooling & heating process application.

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