

## **The Energy Solutions of Withair Chillers Catalogue 2017**



**Take Control of Your Energy Future !**

**Withair offers a wide range of clean energy products and solutions to meet the needs of your projects.**



**Ongoing innovation with cutting-edge products**



**Over 20 years of experience**



**Production 100% Made in China**



**Guaranteed support and spare parts**



**Support in design**



**Documentation for incentives**



**Two-year guarantee**



**Free training course**

## About Withair

Withair® is one leading manufacturer in sustainable energy solutions supplying HVACR products & services for cooling, heating, hot water, ventilation, industrial refrigeration and heat recovery that reflect today's demand for sustainable construction, comfortable indoor climate and industrial cooling process application. and specialize in heating & cooling system, air quality system and new energy development and utilization, now it has three factories, manufacturing different kinds of products, and committed to providing the first-class products & system solutions for customers.

At Withair®, our aim is to support the growth, profit, and sustainability goals of our clients by delivering innovative solutions with n x value. we gain a deep understanding of our client's needs and business objectives first and foremost by gaining and leveraging our technical knowledge, innovative thinking, and vast equipment resources. from heating & cooling solutions and air quality management, to energy performance and efficiency determination, Withair® delivers the results.

Withair® operates in a strongly impacting sector in the energy field, and its primary objectives include committing resources to continuous technological research and improvement of production processes, with the aim of streamlining products and raise users' awareness on the actual soundness of ensuing energy savings.

Withair® products & solutions combine utmost efficiency with minimum energy consumption and strict respect of the environment, the idea proved to be a winning one in just a few years, Withair® became the leader in the sector !



**Low energy consumption systems**

**Use of clean energy**

**Use of environmentally-friendly cooling gases**

**ZERO direct CO2 emissions in the environment**

## Water-Cooled Chillers - Cut energy consumption and emissions by Withair® Chilled Water Systems

Withair® chillers were developed based on decades of knowledge and rich experience, includes air-cooled chillers and water-cooled chillers, ranging in capacities from 2 to 1,000+ tons. Withair® chillers are relied upon for both comfort and special process cooling applications in every corner of the world.

Withair® chiller plays a critical role in creating the right environment to ensure the health, comfort and industrial production. Withair® chillers not only serve HVACR systems and industry-type process cooling at factories that deliver the right temperature for the space, but they also help minimize operating costs with superior energy efficiency levels, low sound levels and with minimal environmental impact.

Withair® offers complete, factory-assembled screw and scroll compressor water cooled chiller that offer ease of installation with wiring and microprocessor controllers providing maximum operating efficiency.

Withair® compact chillers install easily and quickly into most building layouts, making them ideal choices for retrofit or new building designs.

### Water-Cooled Mini Chiller



# Water-Cooled Mini Chiller

## — Product Description —

Withair® is proud to offer an extensive line of water-cooled mini chillers ranging from 2 to 40+ tons. The water-cooled mini chillers feature a variety of models and options engineered to fit a wide range of applications. Withair® water-cooled mini chillers are ideal for customers who are focused on high energy efficiency, superior reliability and long equipment life. Withair® products within the unique portfolio are designed to help lower environmental impact with next-generation, low global warming potential refrigerants and high-efficiency operation.

Withair® Water Cooled Mini Water Chiller is special designed to be small and medium size for central air conditioning system, It can also provide domestic hot water, industrial cooled water and hypothermal water for the technical manufacture. and is widely appropriate for separate management buildings, small and medium size office, factory workshop, restaurant and villa, etc, it also can be customized to equip with multi compressors and more energy saving and durable than split air conditioners. Every modular unit has its own independent refrigerant system and control and protection system, applies step by step system to meet the loading capacity. The unit applies efficient hermetic type scroll compressor, low noise, small vibration, high EER and Microcomputer control. Besides, we manufacture R134a, R407C, R404A, R410a environmental friendly refrigerants, products with seawater source and non-standard power supply. The unit is suitable for installing in the outdoor, i.e. roof; balcony and porch, which could save the boiler room and the special room; decrease the investment of building project and easy to install, manage and maintain.

## — The Key Advantages Include —

- ECO friendly refrigerant R410a, R407c.
- Flexible configurations with top or side piping and front or side control box.
- Large panels for accessibility to compressor and controls sections
- Plate type, coaxial tube-in-tube or shell and tube heat exchanger for high performance, reliability, and resistance to freezing.
- Multi-function: provide cooling only, cooling with hot water, heating only and heating with hot water, hot water, total and partial heat recovery for domestic hot water heating.
- Unit choose efficient rotary or scroll compressor, the use of high efficient heat exchanger technology processing, condensation temperature greatly reduced, the COP is more 4.6 and higher 70% than air cooled heat pump.
- When multiple units were combined into a system, because each unit can be individually ON/OFF; wide range of system energy regulation and running costs fell by more 40%.
- Unique compressor anti-vibration technology (patent ZL 2020 2 0246589.1) and sound attenuation material ensure ultra-quiet performance.
- Multi-system design and wear-and-tear management technology reduces electric impulse and extend service life.
- Modular network function: unit control system is equipped with the network communication, the user can control operating units quantity according to the actual use load, make user side water system utilities, to realize the automatic device management automation and energy management.
- Smart microchip control and large LCD user interface, capable of one-key startup.
- Automatic intelligent reset. Unit shall automatically restart 5 minutes after shutdown if the fault has cleared. Should a fault occur 3 times sequentially, then lockout will occur.
- Humanized design, widened application scope: the unit's temperature settings for room, hot water, water intake/outlet, freeze protection, and compressor exhaust can be adjusted on-site according to environmental conditions.
- Communication adapter connection the unit to BMS is an optional accessory, please get in touch with us or our distributor if required.
- Unit with multi-protection to guarantee the unit running stability and security, such as: high/low voltage, low oil level protection, exhaust temperature, antifreeze, power lack/reverse phase, water system cut off. operating condition with small change range stable operation, safe, reliable and long service life.
- Easy installation, simple water piping system configuration, you can make design partition and divide second installation

## Technical Data

Model			W02C2-8P	W02C2-10P	W02C2-12P	W02C2-15P	W02C2-20P	W02C2-25P	W02C2-30P	W02C2-40P	W02C2-50P	W02C2-60P	W02C2-80P	W02C2-130P
Rated cooling capacity		kW	7.9	9.8	11.7	14.6	19.5	24.5	29.2	39.1	49.3	59.2	79.2	131.5
Rated cooling input power		kW	1.9	2.25	2.64	3.27	3.83	5.28	6.4	7.88	11.2	11.76	15.86	31.1
Power supply		V/Ph/Hz	220/1/50	380/3/50					380/3/50					
Rated cooling input current		A	8.6	4.4	5	6.1	6.9	10	12.4	13.8	19.8	20.7	27.6	39.2
Compressor	type		Rotary	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	quantity		1	2	2	1	1	2	2	2	2	2	2	2
Refrigerant type			R410A											
Dimension	Length	mm	650	650	650	650	650	650	650	650	800	800	800	1600
	Width	mm	705	705	705	705	705	705	705	705	950	950	950	900
	Height	mm	1180	1180	1180	1180	1180	1180	1180	1180	1280	1280	1280	1450
Source side	heat exchanger		plate type						plate type					
	water resistance	kPa	28	28	31	34	34	45	46	47	50	52	55	60
	pipe size		R1-1/4DN32						R1-1/4(DN32)		R2(DN50)			
	water flow	m³/h	1.6	2.1	2.6	3.1	3.9	5.2	6.2	7.8	10.5	11.4	15.4	10.6
User side	heat exchanger		plate type						plate type					
	water resistance	kPa	26	27	29	33	33	33	34	35	38	40	45	50
	pipe size		R1-1/4DN32						R1-1/4(DN32)		R2(DN50)			
	water flow	m³/h	1.4	1.7	2.1	2.6	3.2	4.2	5.1	6.4	8.5	9.4	12.7	19.6
Noise		dB(A)	41	42	43	45	47	50	50	52	55	57	60	65
Unit weight		kg	110	150	155	165	175	215	225	235	345	355	400	680

Notes:

1. These parameter were tested according to pure water,not include anti-freezing liquid and water pump power.
2. The nominal cooling capacities are based on the GB/T18430.1: Chilled Water Inlet/Outlet Temperature 12℃/7℃; Condenser Water Inlet/Outlet Temperature 30℃/35℃;
3. Units can realize 1~24 unit's modular connection and control energy-regulation automatically.
4. All models, sizes, dimensions, and specifications are subject to change without prior notice, please refer to nameplates for the most accurate specifications

## —— Delivery & Packaging ——

- 100% test before delivering products.
- Products catalogue, installation & operation manual will be sent together.
- Tracking number will be sent to customer as soon as we ship the products.
- Item shipped in 25 working days against payment depends on the quantity.
- Four steps of packages, plastic film, foam, carton and plywood for stable transportation.
- Ocean shipping, railway shipment and air transportation are acceptable according to customer

## —— You May Like ——

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Water to Water Heat Pump

+



Fan Coil Unit

+



Hydraulic Module

+



Hydraulic balance distributor

+



Insulation pipe

+



Thermostat

Feel free to contact us to receive further information about our products and energy solutions.

Notes:

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**Withair, your perfect partner for successful projects.**



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01/2017 - The technical data in this document are not binding.

Withair reserves the right to introduce at any time whatever modifications deemed necessary for improving the product.

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