

The Energy Solutions of Withair Heat Pumps 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

Ground/Water Source Heat Pumps - Each Withair® system installed, one more step towards a greener tomorrow

As we know, only two metres below the surface, the ground temperature remains a steady 10-12°C throughout the year. By installing a ground source heat pump, you could utilise this natural geothermal energy to provide a reliable and renewable cooling, heating and hot water system for your building. When the sun shines, the heat pump's borehole/ ground source heating coil gets a chance to recover and replenish. This also increases the heat pump's service life because it can rest during much of the year.

By installing Withair® a Geothermal Heat Pump, you could utilise this natural heat energy to provide a reliable and renewable heating and hot water system for your home, you can reduce costs by up to 80 % compared to direct electricity, depending on where you live, the living area, the choice of heat pump and whether you use a cooling function or not. All this while keeping noise levels exceptionally low.

Withair® the W01R series heat pumps involve a range of 282 models, with heating and cooling capacity among 2.6kW and 3,200kW, which allow to create "customized" solution, matching the different installations requests.

Modular Scroll Compressor Water to Water Heat Pumps



Modular Scroll Compressor Water to Water Heat Pumps

— Product Description —

Withair® Modular Water to Water Source Heat Pumps shall consist of high-efficiency scroll compressors and shall have dual independent refrigeration circuits are available as heating only, cooling only, heating and cooling or heating and cooling with domestic hot water units, making them ideal for a variety of applications including geothermal and boiler. These units provide high efficiencies with precise metering of refrigerant flow under all expected operating conditions, and offer efficient, standard design features as well as additional value options to suit a building owner's needs.

Withair® Modular Water to Water Source Heat Pumps can take low temperature heat and upgrade it to a higher, more useful temperature. If this heat comes from an ambient source, for example outside air or the ground, the use of a heat pump can result in savings in fossil fuel consumption and thus a reduction in the emission of greenhouse gases and other pollutants.

Withair® Modular Water to Water Source Heat Pumps adopts the modularizing and combining of the newest advanced technology, the unit is suitable for various places, such as office, hotels, hospitals, factories, houses, etc. It is a more fashion, adhering to the "efficient, reliable, energy saving, environmental protection," the design concept, become available to users of the newer and more economical outstanding products.

— The Key Advantages Include —

- ECO friendly refrigerant R410a, R407c.
- 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, each unit can be individually ON/OFF, so, 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(Building Management System) 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			W01R2-75M	W01R2-110M	W01R2-150M
Cooling Condition	Rated cooling capacity	kW	75	110	149
	Input power	kW	14.1	21.2	28.2
	Chilled water flow	m ³ /h	12.5	18.8	25.1
	Chilled water pressure drop	kPa	42	43	43
	Cooling water flow	m ³ /h	15	22.4	29.9
	Cooling water pressure drop	kPa	45	46	46
Heating Condition	Rated heating capacity	kW	79	116	155
	Input power	kW	19.1	28.7	38.2
	Chilled water flow	m ³ /h	15	22.4	29.9
	Chilled water pressure drop	kPa	42	25	25
	Cooling water flow	m ³ /h	12.5	18.8	25.1
	Cooling water pressure drop	kPa	45	50	50
Compressor	Type		Scroll		
	Brand		Copeland		
Refrigerant	Type		R410A		
	Charging rate	kg	15.5	23	31
	Controlling type		thermostatic expansion valve		
Power supply	V/Ph/Hz	380/3/50			
Energy control	%	0,50,100	0,33,66,100	0,25,50,75,100	
Safe protection device		High-low pressure protection , safe valve ,overload protection, Inverse/lack phase protection, water-lack, anti-freeze protector, overheat,and so on.			
Condenser	Heat exchanger	type	Shell and tube		
	Inlet/outlet diameter		DN65	DN65	DN65
Evaporator	Heat exchanger	type	Shell and tube		
	Inlet/outlet diameter		DN65	DN65	DN65
Noise	dB(A)	66	66	67	
Dimension	Length	mm	2150	2350	2900
	Width	mm	720	760	760
	Height	mm	1440	1440	1440
Unit weight	kg	355	459	658	

Notes:

1. These parameter were tested according to pure water,not include anti-freezing liquid and water pump power.
- 2.Units can realize 1~24 unit's modular connection and control energy-regulation automatically.
- 3.All models, sizes, dimensions, and specifications are subject to change without prior notice, please refer to nameplates for the most accurate specifications

Ground Loop Working Condition:

1. Cooling standard working condition: User side inlet/outlet water temperature 12°C/7°C; Source side inlet/outlet water temperature 25°C/30°C;
2. Heating standard working condition: User side inlet/outlet water temperature 40°C/45°C; Source side inlet water temperature 10°C;

Ground Water Working Condition:

1. Cooling standard working condition: User side inlet/outlet water temperature 12°C/7°C; Source side inlet/outlet water temperature 18°C/29°C;
2. Heating standard working condition: User side inlet/outlet water temperature 40°C/45°C; Source side inlet water temperature 15°C;

Water Loop Working Condition:

1. Cooling standard working condition: User side inlet/outlet water temperature 12°C/7°C; Source side inlet/outlet water temperature 30°C/35°C;
2. Heating standard working condition: User side inlet/outlet water temperature 40°C/45°C; Source side inlet water temperature 20°C;

— 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 demand.

— You May Like —



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:

Lined area for notes, consisting of multiple horizontal lines.

Withair, your perfect partner for successful projects.



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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