

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.

Water to Water Heat Pumps(Geothermal Heat Pumps)



Water to Water Heat Pumps (Geothermal Heat Pumps)

— Product Description —

Withair® offer water-to-water heat pump from 2 to 40+ tons.

Withair® Water to Water Source Heat Pumps shall consist of high-efficiency rotary & scroll compressors and shall have dual independent refrigeration circuits and designed to operate, and contains a source-side water-to-refrigerant heat exchanger, and a load-side water-to-refrigerant heat exchanger. The source for the water-to-water heat pump is typically connected to a boiler/cooling tower, or a ground-source loop system. During the refrigeration cycle, heat is transferred from the source-side heat exchanger to the load-side heat exchanger, or vice versa. The load-side heat exchanger provides conditioned fluid (hot or cold) to a mechanical device such as radiant systems, hydronic fan coils or fresh air ventilation systems.

Withair® Water to Water Source Heat Pumps 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.

The water-to-water heat pump may be applied in a boiler/cooling tower setting, in a geothermal closed or open loop application, or in a hybrid application. All units accommodate service access to the controls, and other major components to contribute to greater serviceability and maintainability of the unit.

Each unit is verified for total unit performance before shipping to insure quality standards are inherent in every unit.

Withair® 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.

— The Key Advantages Include —

- ECO friendly refrigerant R410a, R407c.
- Heating only, cooling only or heating and cooling models.
- 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(Building Management System) is an optional accessory, please get in touch with us or our distributor if required.

— Technical Data —

Model		W01R2-8P	W01R2-10P	W01R2-12P	W01R2-15P	W01R2-20P	W01R2-25P	W01R2-30P	W01R2-40P	W01R2-50P	W01R2-60P	W01R2-80P	W01R2-130P	
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 heating capacity		kW	8.9	13.3	15.9	19.5	23	31.8	39	46	67.4	72.1	97.3	152.6
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
Rated heating input power		kW	2.1	2.8	3.21	4.14	4.87	6.42	8.28	9.74	12.61	13.8	19.4	30.7
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
Rated heating input current		A	9.5	5.3	6	7.3	8.5	12	14.6	17.1	22.6	24.4	33.8	52.4
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	m ³ /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	m ³ /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.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

— You May Like —



Water to Water Heat Pump



+ Fan Coil Unit



+ Hydraulic Module



+ Hydraulic balance distributor



+ Insulation pipe



+ Thermostat

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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