

## 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.

### Ground Source Heat Pump (Geothermal Heat Pumps) with 45~65°C Hot Water Output



# Ground Source Heat Pump (Geothermal Heat Pumps) with 45~65°C Hot Water Output

## — Product Description —

Withair® Ground Source Heat Pump with 45~65°C Hot Water Output is widely used in plastic industry, electroplating industry, food processing, chemical industry and other process cooling applications of modern manufacturing industries which needs a lot of high temperature hot water. It is the mature products which are equipped with newly-developed semi-hermetic screw compressors and use dry type or flooded type evaporator, which result in lower noise and lower vibration, reliable long period operation, and installation feasibility on any floor of the building. The units are composed of a compressor(s), a condenser(s), a direct-expansion water cooler, a electronic expansion valve(s), and auxiliary and control equipment. Optimized system design and enhanced heat exchange efficiency makes the unit working best under both full load and partial load. Stepless capacities can be customized. The units can be operated with the utmost simplicity.

## — The Key Advantages Include —

- Uses environmentally-friendly R134a refrigerant

- Capable of heating water range: 45 ~ 65 ° C

- Using for advanced semi-enclosed screw type compressor

The international advanced double-screw semi-enclosed compressor, through slide valve achieve multiple-stage or sectionless of adjustment, to adapt to changes in load of smooth and compressor built-in efficient oil separator, the rate can reach 99.7%, using differential injection, no pump, oil, safe and reliable guarantee mechanism for the safe and stable operation, long service life.

- Energy-saving

- \* Unit adopts PLC control technology, according to user load demand changes through intelligent control, multilevel energy regulation in full or part of the unit that can reach the best energy efficiency, reduce the operating cost.

- \* Provide multilevel (0-25% to 50% & 75% - 100%) and the energy level adjustment methods for your choice.

- Intellectualized control, simple operation

- \* Unit adopts PLC control technology, "a key start" and automatic operation.

- \* In the man-machine interface screen English display, touch screen/LCD text interface for your option.

- \* Units with remote control functions: turbine control system with built-in WEB browser, users can pass on any computer through internet in the remote monitoring and control unit can operation conditions and parameters of the work unit, the query of the unit.

- Protection function origin

- \* Units provided the refrigeration system, electrical system and the water system of the complete protection function, ensure its safe operation.

- \* Unit Settings: unit of power of inverse phase), (high/low refrigeration system protection, oil is too low to high temperature, vent protection system to protect and water flow protection, antifreeze protection safety protection function, guarantee the safe and stable operation of the mechanism.

- Heat recovery function

- \* Units can be based on user needs, increase the heat recovery function, at the same time in refrigeration heat side will recycle waste heat utilization, and use side and heat side, improved the two-way unit running condition, improve the efficiency of the unit, the unit greatly reduce the operation cost.

- \* Partial heat recovery and total heat recovery.

- Advanced design, superior performance of high-efficiency heat exchanger

- \* Shell and tube evaporator within the evaporator using the latest threaded efficient heat exchange tube and tube with high heat efficiency, combined with poor casing baffle slabs of chilled water flow and circuitous increased turbulence effect, make the evaporator heat transfer coefficient has been greatly improved, and the latest flame retardant, use shell heat preservation material, energy loss and ensure the good performance of refrigeration unit.

# — Technical Data —

## Ground Source Heat Pump with 45°C Hot Water Output

### Single compressor system

Model W01R2			110S1M	150S1M	200S1M	240S1M	300S1M	330S1M	360S1M	410S1M	480S1M	530S1M	560S1M	640S1M
Cooling condition	nominal cooling capacity	kW	127.6	174.4	232.4	278.4	348.2	382.8	417.6	475.6	556.8	614.8	649.6	742.4
	nominal cooling capacity	TR	36.3	49.6	66.1	79.2	99.0	108.8	118.7	135.2	158.3	174.8	184.7	211.1
	input power(kW)	kW	22.5	30.1	39.6	46.8	58.9	64.8	69.9	77.6	89.4	99.1	103.4	115.4
	chilled water flow	m3/h	22	30.1	40.1	48.2	60.2	65.9	71.9	81.9	95.9	106.4	112	128
	chilled water pressure drop	kPa	50	53	55	58	60	61	62	63	63	64	65	65
	cooling water flow	m3/h	11.8	16.3	21.4	25.6	32.6	35.1	38.2	43.4	50.7	56	59.1	67.2
	cooling water pressure drop	kPa	35	37	38	39	40	40	42	42	44	44	45	45
Heating condition	nominal heating capacity	kW	136.2	184.4	241.5	287.2	361.4	392.7	426.1	484.3	572.9	631.5	663.4	752.6
	nominal heating capacity	TR	38.7	52.4	68.7	81.7	102.8	111.7	121.2	137.7	162.9	179.6	188.6	214.0
	input power	kW	29.3	39.2	51.6	61	76.7	84.4	91.1	101	116.4	139.1	134.6	150.1
	chilled water flow	m3/h	11.8	16.3	21.4	25.6	32.6	35.1	38.2	43.4	50.7	56	59.1	67.2
	chilled water pressure drop	kPa	22	24	25	26	27	28	30	32	34	36	38	40
	hot water flow	m3/h	22	30.1	40.1	48.2	60.2	65.9	71.9	81.9	95.9	106.4	112	128
	hot water pressure drop	kPa	38	41	42	43	43	44	44	45	46	47	47	49
Power supply	V/Ph/Hz	380/3/50												
Starting mode		Y-△												
Energy control %		0-25-50-75-100												
Condensor	type	Shell and tube heat exchanger												
	pipe diameter	DN65	DN65	DN80	DN80	DN100	DN100	DN125	DN125	DN125	DN125	DN125	DN125	DN150
Evaporator	type	Dry expansion evaporator												
	pipe diameter	DN65	DN65	DN80	DN80	DN100	DN100	DN125	DN125	DN125	DN125	DN125	DN125	DN150
Compressor		Screw type												
Refrigerant		R134A												
Throttle mode		Thermal expansion valve												
Dimension	length	mm	2950	3000	3000	3030	3050	3050	3100	3100	3150	3350	3350	3400
	width	mm	550	650	750	840	900	1000	1050	1100	1150	1200	1250	1320
	height	mm	1550	1650	1750	1750	1850	1950	2090	2150	2220	2330	2370	2440
Unit weight	kg	1200	1500	1850	2160	2550	2740	2900	3150	3350	3500	3550	3700	
Working weight	kg	1300	1620	2080	2350	2770	2990	3150	3420	3640	3800	3900	4080	

#### Notes:

1. These parameter were tested according to pure water,not include anti-freezing liquid and water pump power.
- 2.The unit do not provide water pump,and disposed by project demand.
- 3.All models, sizes, dimensions, and specifications are subject to change without prior notice, please refer to nameplates for the most accurate specifications

## Twin compressors system

Model W01R2			220S2M	300S2M	400S2M	480S2M	600S2M	660S2M	720S2M	820S2M	960S2M	1060S2M	1120S2M	1280S2M
Cooling condition	nominal cooling capacity	kW	255.2	348.8	464.8	556.8	696.4	765.6	835.2	951.2	1113.6	1229.6	1299.2	1484.8
	nominal cooling capacity	TR	72.6	99.2	132.2	158.3	198.0	217.7	237.5	270.5	316.6	349.6	369.4	422.2
	input power(kW)	kW	45	60.2	79.2	93.6	117.8	129.6	139.8	155.2	178.8	198.2	206.8	230.8
	chilled water flow	m3/h	44	60.2	80.2	96.4	120.4	131.8	143.8	163.8	191.8	212.8	224	256
	chilled water pressure drop	kPa	55	58	60	62	64	64	66	66	67	67	68	70
	cooling water flow	m3/h	23.6	32.6	42.8	51.2	65.2	70.2	76.4	86.8	101.4	112	118.2	134.4
	cooling water pressure drop	kPa	38	40	42	43	44	44	45	46	48	48	49	49
Heating condition	nominal heating capacity	kW	272.4	368.8	483	574.4	722.8	785.4	852.2	968.6	1145.8	1263	1326.8	1505.2
	nominal heating capacity	TR	77.5	104.9	137.3	163.3	205.5	223.3	242.3	275.4	325.8	359.1	377.3	428.0
	input power	kW	58.6	78.4	103.2	122	153.4	168.8	182.2	202	232.8	258.2	269.2	300.2
	chilled water flow	m3/h	23.6	32.6	42.8	51.2	65.2	70.2	76.4	86.8	101.4	112	118.2	134.4
	chilled water pressure drop	kPa	25	26	28	30	33	34	36	38	40	42	44	46
	hot water flow	m3/h	44	60.2	80.2	96.4	120.4	131.8	143.8	163.8	191.8	212.8	224	256
	hot water pressure drop	kPa	40	41	42	44	45	45	46	46	47	48	50	51
Power supply	V/Ph/Hz	380/3/50												
Starting mode		Y-△												
Energy control %		0-25-50-75-100												
Condensor	type	Shell and tube heat exchanger												
	pipe diameter		2*DN65	2*DN65	2*DN80	2*DN80	2*DN100	2*DN100	2*DN125	2*DN125	2*DN125	2*DN125	2*DN125	2*DN150
Evaporator	type	Dry expansion evaporator												
	pipe diameter		DN80	DN100	DN125	DN125	DN150	DN150	DN150	DN150	DN200	DN200	DN200	DN200
Compressor		Screw type												
Refrigerant		R134A												
Throttle mode		Thermal expansion valve												
Dimension	length	mm	3300	3320	3450	3580	3600	3700	3800	3960	4060	4150	4200	4200
	width	mm	1180	1200	1260	1320	1380	1420	1500	1500	1540	1570	1600	1600
	height	mm	1600	1690	1800	1940	2050	2070	2150	2200	2380	2460	2500	2500
Unit weight	kg	2650	2850	3500	3900	4600	4900	5100	5600	6080	6500	7000	7700	
Working weight	kg	2780	3060	3850	4300	5050	5400	5650	6200	6800	7300	7900	8700	

### Notes:

1. These parameter were tested according to pure water,not include anti-freezing liquid and water pump power.
- 2.The unit do not provide water pump,and disposed by project demand.
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## Fourfold compressors system

Model W01R2			960S4M	1200S4M	1320S4M	1440S4M	1640S4M	1920S4M	2120S4M	2240S4M	2560S4M
Cooling condition	nominal cooling capacity	kW	1113.6	1392.8	1531.2	1670.4	1902.4	2227.2	2459.2	2598.4	2969.6
	nominal cooling capacity	TR	316.6	396.0	435.4	475.0	540.9	633.3	699.2	738.8	844.4
	input power(kW)	kW	187.2	235.6	259.2	279.6	310.4	357.6	396.4	413.6	461.6
	chilled water flow	m3/h	192.8	240.8	263.6	287.6	327.6	383.6	425.6	448	512
	chilled water pressure drop	kPa	65	69	69	70	72	73	73	75	80
	cooling water flow	m3/h	102.4	130.4	140.4	152.8	173.6	202.8	224	236	268.8
	cooling water pressure drop	kPa	45	46	48	49	49	50	50	52	52
Heating condition	nominal heating capacity	kW	1148.8	1445.6	1570.8	1704.4	1937.2	2291.6	2526	2653.6	3010.4
	nominal heating capacity	TR	326.6	411.0	446.6	484.6	550.8	651.6	718.2	754.5	856.0
	input power	kW	244	306.6	337.6	364.4	404	465.6	516.4	538.4	600.4
	chilled water flow	m3/h	102.4	130.4	140.4	152.8	173.6	202.8	224	236.4	268.8
	chilled water pressure drop	kPa	40	42	44	46	48	50	52	55	58
	hot water flow	m3/h	192.8	240.8	263.6	287.6	327.6	383.6	425.6	448	512
	hot water pressure drop	kPa	50	51	51	52	53	54	54	55	56
Power supply	V/Ph/Hz	380/3/50									
Starting mode		Y-△									
Energy control %		0-25-50-75-100									
Condensor	type	Shell and tube heat exchanger									
	pipe diameter		2*DN125	2*DN150	2*DN150	2*DN150	2*DN150	2*DN200	2*DN200	2*DN200	2*DN200
Evaporator	type	Dry expansion evaporator									
	pipe diameter		2*DN125	2*DN150	2*DN150	2*DN150	2*DN150	2*DN200	2*DN200	2*DN200	2*DN200
Compressor		Screw type									
Refrigerant		R134A									
Throttle mode		Thermal expansion valve									
Dimension	length	mm	4800	4900	5000	5000	5050	5050	5100	5100	5100
	width	mm	1870	1900	1930	1970	2000	2060	2100	2100	2200
	height	mm	2070	2090	2190	2230	2300	2400	2500	2520	2600
Unit weight	kg	8700	9100	9430	9600	10000	10500	11000	11700	12800	
Working weight	kg	9300	9650	10020	10200	10700	11300	11800	12500	13700	

### Notes:

1. These parameter were tested according to pure water,not include anti-freezing liquid and water pump power.
- 2.The unit do not provide water pump,and disposed by project demand.
- 3.All models, sizes, dimensions, and specifications are subject to change without prior notice, please refer to nameplates for the most accurate specifications



# Ground Source Heat Pump with 65°C Hot Water Output

## Single compressor system

Model W01R2			110S1H	150S1H	200S1H	240S1H	300S1H	330S1H	360S1H	410S1H	480S1H	530S1H	560S1H	640S1H
Cooling condition	nominal cooling capacity	kW	127.6	174.4	232.4	278.4	348.2	382.8	417.6	475.6	556.8	614.8	649.6	742.4
	nominal cooling capacity	TR	36.3	49.6	66.1	79.2	99.0	108.8	118.7	135.2	158.3	174.8	184.7	211.1
	input power(kW)	kW	22.5	30.1	39.6	46.8	58.9	64.8	69.9	77.6	89.4	99.1	103.4	115.4
	chilled water flow	m3/h	22	30.1	40.1	48.2	60.2	65.9	71.9	81.9	95.9	106.4	112	128
	chilled water pressure drop	kPa	50	53	55	58	60	61	62	63	63	64	65	65
	cooling water flow	m3/h	11.8	16.3	21.4	25.6	32.6	35.1	38.2	43.4	50.7	56	59.1	67.2
	cooling water pressure drop	kPa	35	37	38	39	40	40	42	42	44	44	45	45
Heating condition	nominal heating capacity	kW	124.8	169.2	223	267	335.2	370.3	401.8	453.8	530.2	585.4	618.6	704.6
	nominal heating capacity	TR	35.5	48.1	63.4	75.9	95.3	105.3	114.2	129.0	150.8	166.4	175.9	200.3
	input power	kW	41.8	56.1	73.7	87.1	109.6	120.6	130.1	144.3	166.3	184.5	192.4	214.4
	chilled water flow	m3/h	11.8	16.3	21.4	25.6	32.6	35.1	38.2	43.4	50.7	56	59.1	67.2
	chilled water pressure drop	kPa	22	24	25	26	27	28	30	32	34	36	38	40
	hot water flow	m3/h	22	30.1	40.1	48.2	60.2	65.9	71.9	81.9	95.9	106.4	112	128
	hot water pressure drop	kPa	38	41	42	43	43	44	44	45	46	47	47	49
Power supply	V/Ph/Hz	380/3/50												
Starting mode		Y-△												
Energy control %		0-25-50-75-100												
Condensor	type	Shell and tube heat exchanger												
	pipe diameter	DN65	DN65	DN80	DN80	DN100	DN100	DN125	DN125	DN125	DN125	DN125	DN125	DN150
Evaporator	type	Dry expansion evaporator												
	pipe diameter	DN65	DN65	DN80	DN80	DN100	DN100	DN125	DN125	DN125	DN125	DN125	DN125	DN150
Compressor		Screw type												
Refrigerant		R134A												
Throttle mode		Thermal expansion valve												
Dimension	length	mm	2950	3000	3000	3030	3050	3050	3100	3100	3150	3350	3350	3400
	width	mm	550	650	750	840	900	1000	1050	1100	1150	1200	1250	1320
	height	mm	1550	1650	1750	1750	1850	1950	2090	2150	2220	2330	2370	2440
Unit weight	kg	1200	1500	1850	2160	2550	2740	2900	3150	3350	3500	3550	3700	
Working weight	kg	1300	1620	2080	2350	2770	2990	3150	3420	3640	3800	3900	4080	

Notes:

1. These parameter were tested according to pure water,not include anti-freezing liquid and water pump power.
- 2.The unit do not provide water pump,and disposed by project demand.
- 3.All models, sizes, dimensions, and specifications are subject to change without prior notice, please refer to nameplates for the most accurate specifications

## Twin compressors system

Model W01R2			220S2H	300S2H	400S2H	480S2H	600S2H	660S2H	720S2H	820S2H	960S2H	1060S2H	1120S2H	1280S2H
Cooling condition	nominal cooling capacity	kW	255.2	348.8	464.8	556.8	696.4	765.6	835.2	951.2	1113.6	1229.6	1299.2	1484.8
	nominal cooling capacity	TR	72.6	99.2	132.2	158.3	198.0	217.7	237.5	270.5	316.6	349.6	369.4	422.2
	input power(kW)	kW	45	60.2	79.2	93.6	117.8	129.6	139.8	155.2	178.8	198.2	206.8	230.8
	chilled water flow	m3/h	44	60.2	80.2	96.4	120.4	131.8	143.8	163.8	191.8	212.8	224	256
	chilled water pressure drop	kPa	55	58	60	62	64	64	66	66	67	67	68	70
	cooling water flow	m3/h	23.6	32.6	42.8	51.2	65.2	70.2	76.4	86.8	101.4	112	118.2	134.4
	cooling water pressure drop	kPa	38	40	42	43	44	44	45	46	48	48	49	49
Heating condition	nominal heating capacity	kW	249.6	338.4	446	535.8	670.4	740.6	803.6	907.6	1060.4	1170.8	1237.2	1409.2
	nominal heating capacity	TR	71.0	96.2	126.8	152.3	190.6	210.6	228.5	258.1	301.5	332.9	351.8	400.7
	input power	kW	83.6	112.2	147.4	174.2	219.2	241.2	260.2	288.6	332.6	369	384	428.8
	chilled water flow	m3/h	23.6	32.6	42.8	51.2	65.2	70.2	76.4	86.8	101.4	112	118.2	134.4
	chilled water pressure drop	kPa	25	26	28	30	33	34	36	38	40	42	44	46
	hot water flow	m3/h	44	60.2	80.2	96.4	120.4	131.8	143.8	163.8	191.8	212.8	224	256
	hot water pressure drop	kPa	40	41	42	44	45	45	46	46	47	48	50	51
Power supply	V/Ph/Hz	380/3/50												
Starting mode		Y-△												
Energy control %		0-25-50-75-100												
Condensor	type	Shell and tube heat exchanger												
	pipe diameter		2*DN65	2*DN65	2*DN80	2*DN80	2*DN100	2*DN100	2*DN125	2*DN125	2*DN125	2*DN125	2*DN125	2*DN150
Evaporator	type	Dry expansion evaporator												
	pipe diameter		DN80	DN100	DN125	DN125	DN150	DN150	DN150	DN150	DN200	DN200	DN200	DN200
Compressor		Screw type												
Refrigerant		R134A												
Throttle mode		Thermal expansion valve												
Dimension	length	mm	3300	3320	3450	3580	3600	3700	3800	3960	4060	4150	4200	4200
	width	mm	1180	1200	1260	1320	1380	1420	1500	1500	1540	1570	1600	1600
	height	mm	1600	1690	1800	1940	2050	2070	2150	2200	2380	2460	2500	2500
Unit weight	kg	2650	2850	3500	3900	4600	4900	5100	5600	6080	6500	7000	7700	
Working weight	kg	2780	3060	3850	4300	5050	5400	5650	6200	6800	7300	7900	8700	

### Notes:

1. These parameter were tested according to pure water,not include anti-freezing liquid and water pump power.
- 2.The unit do not provide water pump,and disposed by project demand.
- 3.All models, sizes, dimensions, and specifications are subject to change without prior notice, please refer to nameplates for the most accurate specifications

## Fourfold compressors system

Model W01R2			960S4H	1200S4H	1320S4H	1440S4H	1640S4H	1920S4H	2120S4H	2240S4H	2560S4H
Cooling condition	nominal cooling capacity	kW	1113.6	1392.8	1531.2	1670.4	1902.4	2227.2	2459.2	2598.4	2969.6
	nominal cooling capacity	TR	316.6	396.0	435.4	475.0	540.9	633.3	699.2	738.8	844.4
	input power(kW)	kW	187.2	235.6	259.2	279.6	310.4	357.6	396.4	413.6	461.6
	chilled water flow	m3/h	192.8	240.8	263.6	287.6	327.6	383.6	425.6	448	512
	chilled water pressure drop	kPa	65	69	69	70	72	73	73	75	80
	cooling water flow	m3/h	102.4	130.4	140.4	152.8	173.6	202.8	224	236	268.8
	cooling water pressure drop	kPa	45	46	48	49	49	50	50	52	52
Heating condition	nominal heating capacity	kW	1071.6	1340.8	1481.2	1607.2	1815.2	2120.8	2341.6	2474.4	2818.4
	nominal heating capacity	TR	304.7	381.2	421.2	457.0	516.1	603.0	665.8	703.6	801.4
	input power	kW	348.4	438.4	482.4	520.4	577.2	665.2	738	769.6	857.6
	chilled water flow	m3/h	102.4	130.4	140.4	152.8	173.6	202.8	224	236.4	268.8
	chilled water pressure drop	kPa	40	42	44	46	48	50	52	55	58
	hot water flow	m3/h	192.8	240.8	263.6	287.6	327.6	383.6	425.6	448	512
	hot water pressure drop	kPa	50	51	51	52	53	54	54	55	56
Power supply	V/Ph/Hz	380/3/50									
Starting mode		Y-△									
Energy control %		0-25-50-75-100									
Condensor	type	Shell and tube heat exchanger									
	pipe diameter		2*DN125	2*DN150	2*DN150	2*DN150	2*DN150	2*DN200	2*DN200	2*DN200	2*DN200
Evaporator	type	Dry expansion evaporator									
	pipe diameter		2*DN125	2*DN150	2*DN150	2*DN150	2*DN150	2*DN200	2*DN200	2*DN200	2*DN200
Compressor		Screw type									
Refrigerant		R134A									
Throttle mode		Thermal expansion valve									
Dimension	length	mm	4800	4900	5000	5000	5050	5050	5100	5100	5100
	width	mm	1870	1900	1930	1970	2000	2060	2100	2100	2200
	height	mm	2070	2090	2190	2230	2300	2400	2500	2520	2600
Unit weight	kg	8700	9100	9430	9600	10000	10500	11000	11700	12800	
Working weight	kg	9300	9650	10020	10200	10700	11300	11800	12500	13700	

### Notes:

1. These parameter were tested according to pure water,not include anti-freezing liquid and water pump power.
- 2.The unit do not provide water pump,and disposed by project demand.
- 3.All models, sizes, dimensions, and specifications are subject to change without prior notice, please refer to nameplates for the most accurate specifications

## **Working conditions for Ground Source Heat Pump with 45°C Hot Water Output as follows:**

### **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;

## **Working conditions for Ground Source Heat Pump with 65°C Hot Water Output as follows:**

### **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 —

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Heat Pump

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Air Handling Unit

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Fan Coil Unit

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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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**Withair Group (China) Limited**  
**Withair (Nanjing) Industries Co.,Ltd**  
No.200 Lushan Road,Jianye District,Nanjing,210019,China.  
Tel: +86 139 159 28183 - Fax: +86 25 86696286  
E-mail: [info@withairmall.com](mailto:info@withairmall.com)  
Website: [www.withairmall.com](http://www.withairmall.com)

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