

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.

Screw Compressor Water Cooled Chillers with Duplex Status (A/C & Ice Storage)



Screw Compressor Water Cooled Chillers with Duplex Status (A/C & Ice Storage)

— Product Description —

Withair® Duplex Status Water Cooled Screw Chiller is 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 provide cooling capacity by air conditioning working condition and ice-storage working condition during day and night. Optimized system design and enhanced heat exchange efficiency makes the unit working best under both full load and partial load. Every chiller is fully factory tested and gas charged in the factory before dispatch. It' s good choice for hotel, shopping mall, hospital, factory, cinema and other civil architecture air conditioning system. Besides, it 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 chilled water. Stepless capacities can be customized. The units can be operated with the utmost simplicity.

— The Key Advantages Include —

● 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.

● Ice storage function

* Units can produce ice for industrial use.

● 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 —

Single compressor system

Model W02C2			100S1D	150S1D	200S1D	250S1D	320S1D	380S1D	420S1D	450S1D	510S1D	560S1D	700S1D
Working condition of air conditioning	nominal cooling capacity	kW	116.3	174.5	232.4	290.5	371.9	443.1	488.1	523	592.6	653.8	813.2
	nominal cooling capacity	TR	33.1	49.6	66.1	82.6	105.7	126.0	138.8	148.7	168.5	185.9	231.2
	input power	kW	25.7	38.5	51.3	63.9	81.9	97.4	108.4	114.7	130.4	142.4	176.4
Working condition of ice-storage	nominal cooling capacity	kW	76.7	115.2	154.3	193.2	247.7	295.5	325.6	348.8	395.8	436.7	544.8
	nominal cooling capacity	TR	21.8	32.8	43.9	54.9	70.4	84.0	92.6	99.2	112.5	124.2	154.9
	input power	kW	21.4	31.8	42.4	52.4	67.1	79.2	88.1	93.2	105.2	115.8	142.3
Power supply	V/Ph/Hz	380/3/50											
Starting mode		Y-△											
Energy control %		0-25-50-75-100											
Condensor	type		shell and tube										
	cooling water flow	m ³ /h	24.8	37.4	49.6	62.7	79.6	94.5	105.6	112.3	127.4	139.8	173.1
	cooling water pressure	kPa	55	55	60	60	65	65	65	70	70	75	80
	water pipe diameter	DN	80	80	80	100	100	125	125	125	125	150	150
Evaporator	type		dry type evaporator										
	chilled water flow	m ³ /h	20.1	30.1	40.2	50.1	64.2	76.3	84.2	90.1	102.2	112.5	140.2
	chilled water pressure	kPa	50	50	55	55	60	60	60	65	65	70	80
	water pipe diameter	DN	80	80	80	100	100	125	125	125	125	150	150
Compressor		Screw type											
Throttle mode		thermal expansion valve											
Dimension	length	mm	2500	2850	2850	2880	3150	3150	3200	3250	3350	3350	3550
	width	mm	710	710	710	870	870	950	950	950	1120	1120	1120
	height	mm	1520	1520	1520	1820	1820	1820	1940	1940	2100	2300	2300
Unit weight	kg	1150	1370	1620	1880	1880	2460	2710	2850	3040	3250	3540	
Working weight	kg	1250	1480	1790	2010	2270	2650	2930	3070	3290	3550	3930	

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°C/7°C; Condenser Water Inlet/Outlet Temperature 30°C/35°C; Ice storage working condition: chilled water inlet temperature -2°C, outlet water temperature -5.3°C;cooling water inlet temperature 30°C,outlet water temperature 35°C.
3. PLC control system and touch-screen user interface simplifies operation.
4. 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 W02C2			200S2D	300S2D	400S2D	500S2D	640S2D	760S2D	840S2D	900S2D	1020S2D	1120S2D	1400S2D
Working condition of air conditioning	nominal cooling capacity	kW	232.6	349	464.8	581	743.8	886.2	976.2	1046	1185.2	1307.6	1626.4
	nominal cooling capacity	TR	66.1	99.2	132.2	165.2	211.5	252.0	277.6	297.4	337.0	371.8	462.4
	input power	kW	51.4	77	102.6	127.8	163.8	194.8	216.8	229.4	260.8	282.8	352.8
Working condition of ice-storage	nominal cooling capacity	kW	153.4	230.4	308.6	386.4	495.4	591	651.2	697.6	791.6	873.4	1089.6
	nominal cooling capacity	TR	43.6	65.5	87.7	109.9	140.9	168.0	185.2	198.4	225.1	248.3	309.8
	input power	kW	42.8	63.6	84.8	104.8	134.2	158.4	176.2	186.4	210.4	231.6	284.6
Power supply	V/Ph/Hz	380/3/50											
Starting mode		Y-△											
Energy control %		0-12.5-25-37.5-50-62.5-75--87.5-100											
Condensor	type		shell and tube										
	cooling water flow	m3/h	49.6	74.8	99.2	125.4	159.2	189	211.2	224.6	254.8	279.6	346.2
	cooling water pressure	kPa	55	55	60	60	65	65	65	70	70	75	80
	water pipe diameter	DN	80	80	80	100	100	125	125	125	150	150	150
Evaporator	type		dry type evaporator										
	chilled water flow	m3/h	40.2	60.2	80.2	100.2	128.4	152.6	168.4	180.2	204.4	225	280.4
	chilled water pressure	kPa	50	50	55	55	60	60	60	65	65	70	80
	water pipe diameter	DN	80	80	80	100	100	125	125	125	150	150	150
Compressor		Screw type											
Throttle mode		thermal expansion valve											
Dimension	length	mm	3300	3400	3600	3800	4010	4010	4150	4250	4250	4250	4650
	width	mm	1100	1100	1100	1310	1310	1350	1350	1350	1500	1500	1500
	height	mm	1630	1630	1630	2010	2010	2200	2200	2200	2200	2300	2450
Unit weight	kg	2330	2650	2950	3400	3880	4170	4480	4730	5240	5850	6580	
Working weight	kg	2470	2780	3160	3720	4320	4580	5010	5320	5820	6600	7570	

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℃; Ice storage working condition: chilled water inlet temperature -2℃, outlet water temperature -5.3℃;cooling water inlet temperature 30℃,outlet water temperature 35℃.
3. PLC control system and touch-screen user interface simplifies operation.
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 demand.

— You May Like —



Water Chiller

+



Cooling Tower

+



Air Handling Unit

+



Fan Coil Unit

+



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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