

**The Energy Solutions of
Withair Absorption 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

Absorption Chillers

— Variety of Absorption Chillers —



— The Key Advantages Include —

- Cooling capacity: from 18Ton and above.
- Fuel: Natural gas or diesel oil or bios.
- Refrigeration: Water.
- Absorber: Lithium bromide solution.
- Inhibitor: Lithium chromate or Lithium molybdate.
- Working pressure: 0.1 or 0.4 or 0.6 or 0.8MPa.

— Technical Data —

Absorption Chiller

Model W02C3-			1.5A	3A	4.5A	9A	15A
Cooling capacity		kW	5.3	10.6	15.8	31.7	52.4
		Ton	1.5	3	4.5	9	14.9
		10 ³ kcal	4.5	9.1	13.6	27.2	45.1
		Btu/h	18,000	36,000	54,000	108,000	178,800
Hot water	Flow rate	m ³ /h	2.5	4.9	7.4	14.7	24.5
	Inlet/outlet Temp.	°C	90/85				
	Inlet/outlet pipe	DN	25	40	50	50	65
	Pressure drop	kPa	80				
Chilled water	Flow rate	m ³ /h	0.9	1.7	2.6	5.2	8.6
	Inlet/outlet Temp.	°C	12/7				
	Inlet/outlet pipe	DN	15	20	25	32	40
	Pressure drop	kPa	50	50	50	60	60
Cooling water	Flow rate	m ³ /h	3.3	6.6	10	20.7	34.5
	Inlet/outlet Temp.	°C	30/35				
	Inlet/outlet pipe	DN	25	40	50	50	65
	Pressure drop	kPa	80	80	80	100	100
Power consumption		kW	0.75	0.75	0.75	1.1	1.5
Dimension	Length	mm	1,800	2,400	2,400	2,500	2,800
	Width	mm	600	600	700	1,500	1,900
	Height	mm	1,600	1,800	1,800	2,200	2,500
Weight	Net weight	kg	720	1,100	1,600	2,800	4,600
	Gross weight	kg	750	1,200	1,800	3,100	5,000

The data in the above table test as following:

1. The lowset working temperature of hot water:60°C;
2. Optional parts:cooling water tower, chilled water pump, cooling water pump, hot water adjusting valve, filter of chilled & cooling water, vacuum
3. Fouling factor for chilled water :0.085m²·h·°C/kW(0.0001m²·h·°C/kcal);
4. The standard gague pressure limit for chilled/cooling water chamber ≤0.8Mpa;
5. The data in this table are for reference only, please following the nameplate parameter of this product.

Steam-operated Double Effect Absorption Chiller
0.6MPa Steam-operated Double Effect Absorption chiller

Model W02C3-			105ST	139ST	174ST	210ST	278ST	344ST	433ST	523ST	687ST
Cooling capacity		kW	369.3	488.9	612.0	738.6	977.7	1213.4	1522.9	1839.4	2416.2
		Ton	105.0	139.0	174.0	210.0	278.0	345.0	433.0	523.0	687.0
		10 ³ kcal	317.5	420.3	526.2	635.1	840.7	1043.3	1309.4	1581.6	2077.5
Working steam	Steam consumption	kg/h	390	520	650	780	1040	1300	1560	1950	2600
	Steam pressure	kPa	600								
	Inlet pipe diameter	mm	50	50	65	65	65	80	100	100	100
	Outlet pipe diameter	mm	25	25	25	25	32	50	50	50	50
Chilled water	Flow rate	m ³ /h	60	80	100	120	160	200	240	300	400
	Inlet/outlet Temp.	°C	12/7								
	Pipe diameter	DN	100	100	125	125	150	150	150	200	250
	Pressure drop	kPa	70	70	80	80	80	80	80	80	80
Cooling water	Flow rate	m ³ /h	90	120	150	180	240	300	360	450	600
	Inlet/outlet Temp.	°C	30/35								
	Pipe diameter	DN	125	125	150	150	200	200	250	250	300
	Pressure drop	kPa	70	70	70	80	80	80	80	80	80
Power consumption		kW	1.1	1.1	1.5	1.7	3.2	6.3	7.4	7.4	8.9
Dimension	Length	mm	3,150	2,960	3,760	4,590	5,500	4,810	4,620	5,637	7,165
	Width	mm	1,700	1,900	1,900	1,900	1,900	2,100	2,150	2,150	2,150
	Height	mm	2,350	2,430	2,430	2,430	2,430	2,775	2,985	2,985	2,985
Weight	Net weight	kg	5,100	6,400	7,600	9,100	10,300	12,100	14,000	16,500	19,000
	Gross weight	kg	7,500	9,000	10,500	12,100	14,600	17,600	19,000	21,300	27,300

The data in the above table test as following:

1. The lowset working temperature of hot water:60°C;
2. Optional parts:cooling water tower, chilled water pump, cooling water pump, hot water adjusting valve, filter of chilled & cooling water, vacuum pump;
3. Fouling factor for chilled water :0.086m²°C/kW;
4. The standard gague pressure limit for chilled/cooling water chamber ≤0.6Mpa;
5. The data in this table are for reference only, please following the nameplate parameter of this product.

0.8MPa Steam-operated Double Effect Absorption chiller

Model W02C3-			105S	139S	174S	210S	278S	344S	433S	523S	687S
Cooling capacity		kW	350.0	465.0	580.0	700.0	930.0	1150.0	1450.0	1750.0	2300.0
		Ton	105.0	139.0	174.0	210.0	278.0	344.0	433.0	523.0	687.0
		10 ³ kcal	300.9	399.8	498.7	601.9	799.7	988.8	1246.8	1504.7	1977.6
Working steam	Steam consumption	kg/h	375	500	625	750	1000	1250	1500	1875	2500
	Steam pressure	kPa	800								
	Inlet pipe diameter	mm	50	50	65	65	65	80	100	100	100
	Outlet pipe diameter	mm	25	25	25	25	32	50	50	50	50
Chilled water	Flow rate	m ³ /h	60	80	100	120	160	200	240	300	400
	Inlet/outlet Temp.	°C	12/7								
	Pipe diameter	DN	100	100	125	125	150	150	150	200	250
	Pressure drop	kPa	70	70	80	80	80	80	80	80	80
Cooling water	Flow rate	m ³ /h	90	120	150	180	240	300	360	450	600
	Inlet/outlet Temp.	°C	30/35								
	Pipe diameter	DN	125	125	150	150	200	200	250	250	300
	Pressure drop	kPa	70	70	70	80	80	80	80	80	80
Power consumption		kW	1.1	1.1	1.5	1.7	3.2	6.3	7.4	7.4	8.9
Dimension	Length	mm	3,150	2,960	3,760	4,590	5,500	4,810	4,620	5,637	7,165
	Width	mm	1,700	1,900	1,900	1,900	1,900	2,100	2,150	2,150	2,150
	Height	mm	2,350	2,430	2,430	2,430	2,430	2,775	2,985	2,985	2,985
Weight	Net weight	kg	5,000	6,200	7,400	8,900	9,700	12,800	13,500	15,800	18,000
	Gross weight	kg	7,200	8,800	10,300	11,900	13,800	16,600	18,000	19,300	25,300

The data in the above table test as following:

1. The lowset working temperature of hot water:60°C;
2. Optional parts:cooling water tower, chilled water pump, cooling water pump, hot water adjusting valve, filter of chilled & cooling water, vacuum pump;
3. Fouling factor for chilled water :0.086m²C/kW;
4. The standard gague pressure limit for chilled/cooling water chamber ≤0.6Mpa;
5. The data in this table are for reference only, please following the nameplate parameter of this product.

Flue-fired LiBr Absorption Chiller

Model W02C3-			18FL	35FL	69FL	105FL	135FL	174FL	284FL	345FL	433FL	523FL	687FL
Cooling capacity		kW	63.3	123.1	242.7	369.3	474.8	612.0	998.8	1213.4	1522.9	1839.4	2416.2
		Ton	18.0	35.0	69.0	105.0	135.0	174.0	284.0	345.0	433.0	523.0	687.0
		10 ³ kcal	54.4	105.8	208.7	317.5	408.3	526.2	858.8	1043.3	1309.4	1581.6	2077.5
Flue gas	Flow rate	kg/h	450	870	1698	2547	3396	4245	7692	8490	10188	12735	16980
	Inlet/outlet Temp.	°C	500/180										
	Pipe diameter	DN	120*250	180*250	250*400	350*550	350*600	350*700	350*700	350*700	380*700	400*880	500*900
Chilled water	Flow rate	m ³ /h	10	20	40	60	80	100	160	200	240	300	400
	Inlet/outlet Temp.	°C	12/7										
	Pipe diameter	DN	50	65	80	100	125	125	150	150	150	200	200
	Pressure drop	kPa	40	50	60	70	70	70	80	80	80	90	90
Cooling water	Flow rate	m ³ /h	17.5	35	70	105	140	175	280	350	420	525	700
	Inlet/outlet Temperature	°C	30/35										
	Pipe diameter	DN	50	65	100	125	150	150	200	200	250	250	300
	Pressure drop	kPa	50	50	60	80	80	90	90	90	100	100	100
Power	Voltage	V/P/Hz	380/3/50										
	Consumption	kW	0.5	0.9	1.1	2.2	2.2	2.2	3.7	6.5	9.2	9.2	11
Dimension	Length	mm	1,450	1,850	2,700	2,305	3,150	3,150	4,700	4,700	5,500	5,700	6,880
	Width	mm	1,150	1,600	2,100	2,305	2,305	2,400	2,400	2,800	2,800	3,150	3,550
	Height	mm	1,700	1,900	2,000	2,280	2,280	2,400	2,400	2,600	2,600	2,920	3,210
Weight	Net weight	kg	1,900	2,700	4,500	6,400	8,200	10,000	15,500	19,200	21,000	24,500	33,200
	Gross weight	kg	2,000	2,900	4,700	6,700	8,500	10,400	16,000	20,000	22,000	25,700	35,000

The data in the above table test as following:

1. Rated heating W. Inlet/outlet temp: 55-60°C.
2. Rated hot living W. Inlet/outlet temp: 40-60°C.
3. Fouling factor for chilled W., hot W., cooling W.: 0.086m²k/kw(0.0001m²h° C/Kcal).
4. Pressure limit for chilled W., cooling W.: 0.8MPa.
5. Oil consumption is calculated by low heating value: 10300Kcal/Kg
6. The data in this table are for reference only, please following the nameplate parameter of this product.

Notes:

Coal gas is calculated by high heating value: 3560Kcal/Nm³

Natural gas is calculated by high heating value: 8650Kcal/Nm³

Direct Fired Absorption Chiller

Model W02C3-			280D	350D	438D	525D	612D	700D	875D	1050D	1225D	1400D	1575D
Cooling capacity		kW	984.8	1,231.00	1,540.40	1,846.40	2,152.40	2,461.90	3,077.40	3,692.90	4,308.30	4,923.80	5,539.30
		US RT	280	350	438	525	612	700	875	1,050	1,225	1,400	1,575
Heating capacity		kW	823	1,034.00	1,294.30	1,551.00	1,811.30	2,068.00	2,585.00	2,954.30	3,619.00	4,136.00	4,653.00
		US RT	234	294	368	441	515	588	735	840	1,029.00	1,176.00	1,323.00
Chilled water	Flow rate	m ³ /h	160	200	250	300	350	400	500	600	700	800	900
	Pressure drop	kPa	70	80	100	100	100	40	40	60	80	100	100
	Pipe diameter	DN	150	150	200	200	250	250	250	300	300	350	350
Cooling water	Flow rate	m ³ /h	228	286	358	430	500	571	715	856	1000	1145	1288
	Pressure drop	kPa	70	90	90	80	80	90	90	100	90	100	110
	Pipe diameter	DN	200	200	250	250	300	300	300	350	350	400	400
Hot water	Flow rate	m ³ /h	40	50	62	75	87	100	125	150	175	200	225
	Pressure drop	kPa	50	50	50	50	50	50	50	50	50	50	50
	Pipe diameter	DN	100	125	125	125	125	125	150	150	150	200	200
Gas consumption	Oil cooling	kg/h	57.6	72	90	108	126.5	144	180	216	252	287.5	323.5
	Oil heating	kg/h	67	83.8	104.8	125.7	146.7	167.6	209.5	251.4	293.3	335.2	377.1
	Pipe size	IN	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1	1	1
	Coal gas cooling	Nm ³ /h	166.5	208	260	312	364	416.5	520	624	728	831.5	935.5
	Coal gas heating	Nm ³ /h	193.5	241.9	302.4	362.9	423.4	483.8	604.8	725.7	846.7	967.6	1,088.60
	Pipe size	mm	65	65	80	80	100	100	100	125	125	125	125
	Natural gas cooling	Nm ³ /h	68.5	85.5	106.5	128.2	150	171	213.5	256	299	341.5	384
	Natural gas heating	Nm ³ /h	79.7	99.6	124.5	149.3	174.2	199.1	248.9	298.7	348.4	398.2	478
	Pipe size	mm	65	65	80	80	80	80	100	100	100	100	100
Power	Supply	V/P/Hz	380/3/50										
	Consumption	kW	10.7	10.7	10.7	15.8	15.8	18.3	20.8	25.3	25.3	28.3	28.3
Discharge smoke	Temperature	°C	≤180										
	Pipe size	mm	250*350	250*450	300*400	300*500	350*550	400*600	400*600	400*700	400*700	500*700	500*700
Dimension	Length	mm	4,650	4,680	4,737	5,670	6,200	6,880	6,880	7,400	7,400	8,300	8,300
	Width	mm	2,450	2,791	2,532	3,128	3,000	3,533	3,533	3,780	3,780	3,930	3,930
	Height	mm	2,440	2,587	2,495	2,919	3,170	3,210	3,210	3,590	3,590	3,850	3,850
Weight	kg	12,000	14,500	16,500	18,500	22,000	26,000	30,000	34,000	41,000	48,000	55,000	

The data in the above table test as following:

1. The burning calorific value of gas is 10kmh/m³, suitable for natural gas, town gas,liquefied petroleum gas,diesel;
2. Optional parts:cooling water tower, chilled water pump, cooling water pump, hot water adjusting valve, filter of chilled & cooling water, vacuum pump;
3. Fouling factor for chilled water,cooling water and hot water :0.086m²·h·°C/kW(0.0001m²·h·°C/kcal);
4. The standard gague pressure limit for chilled water,cooling water and hot water lower than 0.8Mpa;
5. The data in this table are for reference only, please following the nameplate parameter of this product.

Hot Water Absorption Chiller

Model W02C3-			4HA	7HA	11HA	18HA	35HA	53HA	69HA	87HA	105HA
Cooling capacity		kW	12.3	24.6	36.9	63	123.1	186.4	242.7	306	369.3
		Ton	3.5	7	10.5	17.9	35	53	69	87	105
		10 ³ kcal	10.6	21.2	31.8	54.1	105.8	160.3	208.7	263.1	317.5
Hot water	Flow rate	m ³ /h	2.9	5.8	8.6	14.3	28.5	42.8	57	71	85.3
	Inlet/outlet Temp.	°C	90/85								
	Inlet/outlet pipe	DN	25	40	40	50	65	80	100	100	125
	Pressure drop	kPa	80	40	40	50	50	50	60	60	60
Chilled water	Flow rate	m ³ /h	2	4	6	10	20	30	40	50	60
	Inlet/outlet Temp.	°C	15/10 (12/7)								
	Inlet/outlet pipe	DN	25	32	32	50	65	65	80	80	100
	Pressure drop	kPa	60	30	30	40	50	50	50	50	50
Cooling water	Flow rate	m ³ /h	5	10	15	25	50	75	100	125	150
	Inlet Temperature	°C	30								
	Inlet/outlet pipe	DN	32	40	50	65	80	100	125	125	150
	Pressure drop	kPa	50	40	40	50	50	50	60	60	60
Power consumption		kW	0.2	0.3	0.3	0.3	0.4	0.9	1.1	1.1	1.1
Dimension	Length	mm	1,010	1,010	1,410	1,800	2,755	2,305	3,105	2,800	3,700
	Width	mm	785	785	785	920	970	1,160	1,160	1,600	1,600
	Height	mm	1,622	1,622	1,622	1,820	1,990	2,280	2,280	2,400	2,400
Weight	Net weight	kg	710	710	1,050	1,500	2,500	3,500	4,500	5,500	6,200
	Gross weight	kg	730	730	1,100	1,600	2,600	3,700	4,700	5,800	6,500

The data in the above table test as following:

1. The lowset working temperature of hot water:75°C;
2. Optional parts:cooling water tower, chilled water pump, cooling water pump, hot water adjusting valve, filter of chilled & cooling water, vacuum pump;
3. Fouling factor for chilled water :0.085m²·h·°C/kW(0.0001m²·h·°C/kcal);
4. The standard gague pressure limit for chilled/cooling water chamber ≤0.8Mpa;
5. The data in this table are for reference only, please following the nameplate parameter of this product.

— Delivery & Packaging —

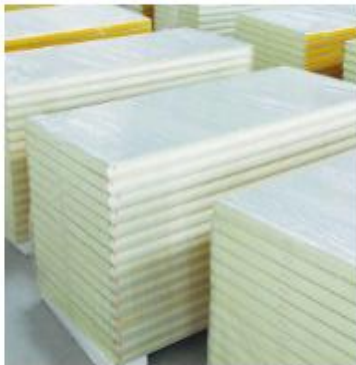
- 100% test before delivering products.
- Products catalogue, installation & operation manual will be sent together.
- Tracking number will be sent to customer as soon as we ship the products.
- Item shipped in 25 working days against payment depends on the quantity.
- Four steps of packages, plastic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

— You May Like —



Condensing Unit

+



Cold Storage Panel

+



Cold Storage Door

+



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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