

RUIDONG

AIR COOLED SCROLL TYPE
WATER CHILLER AND HEAT PUMP



RUIDONG GROUP

www.ruidonggroup.com



Ruidong Group Co., Ltd is one modern large-scale enterprise integrating design, production, sales and installation of central air-conditioning products.

Ruidong is located in Dezhou City, Shandong Province. The Beijing-Shanghai High-speed Railway and Beijing-Shanghai Expressway passing through the city, make Dezhou become a key coordinate of the national economic artery. The registered capital of the group is one hundred fifty five and a half million yuan, covering an area of 300,000 square meters and construction area of 180,000 square meters.

Main business coverage:

1. Host series:

- Water cooled series: centrifugal cold (hot) water unit, screw type cold water unit, screw type water (ground) source cooling and heating unit, scroll type water (ground) source cooling and heating unit.
- Air cooled series: screw type cold (hot) water unit, modular type cold (hot) water unit, mini type cold (hot) water unit, VRV series unit.
- Packaged Unitary unit: constant temperature and humidity unit, air (water) cooled unitary unit, dehumidification unit.

2. Direct expansion series: Rooftop packaged unit, ducted split unit.

3. Terminal series: Purification air handling unit, combined air handling unit, fresh air unit, fan coil unit series.



ENTERPRISE PROFILE

4. **Ventilation series:** Fire exhaust fan, roof fan, axial fan, diagonal fan, centrifugal fan, etc.
5. **Engine room equipment:** cyclone sand remover, water separator (separator), decontamination device, demineralized water device, plate heat exchange unit, constant pressure equipment, etc.
6. **Air conditioning accessories:** All kinds of fire valves, regulating valves, tuyere series.
7. **Other products:** Low-temperature industrial chillers, air-conditioning equipment for planting and breeding industries.

The R & D team composed of high-tech talents will continue to introduce new products, advanced production equipment and adopt the international ISO9001 quality management system as a strong guarantee for product quality. Precision testing equipment and rigorous testing methods are the fundamental insurance of quality and are timely and thoughtful. After-sales service solves the problems that may arise in use for you.

The company has established a complete sales and service system. Set up offices in 18 cities including Beijing, Tianjin, Shanghai, Xi'an, Shenyang, Chengdu and other cities to provide users with timely, efficient and high-quality pre-sales, sales and after-sales services.

Ruidong Air Conditioning wishes you: Cooling air for propitious summer, spring returns with warm air from Ruidong.

CERTIFICATIONS

Ruidong group always takes "create first-class quality, offer sincere service" as the quality concept, builds customer-oriented quality management system, focuses on teamwork and insists on continuous innovation.

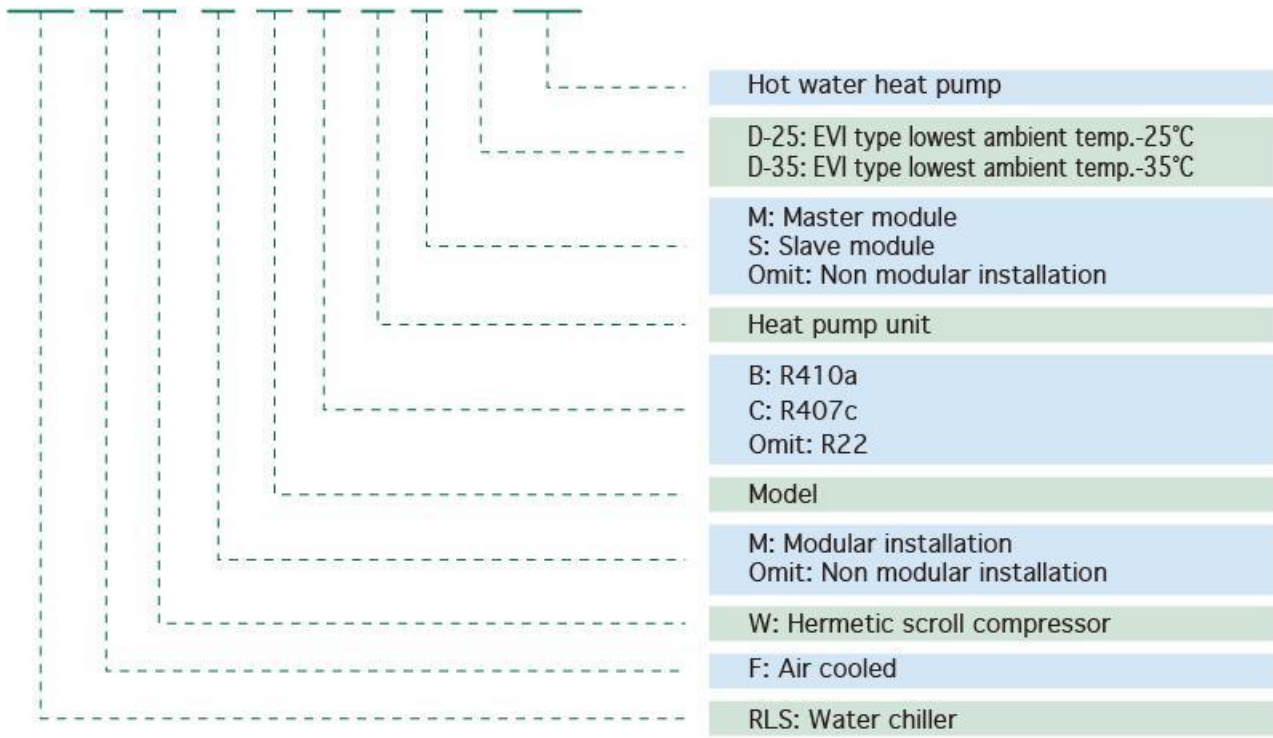


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1. NOMENCLATURE

RLS F W X XXX R X D HR



2. BRIEF INTRODUCTION

1. Scroll Type Air Cooled Water Chiller And Heat pump

Applicable places:

Suitable for new construction and renovation projects. It can be installed on the roof or outdoor courtyard. It does not allow special computer rooms and cooling towers. It is widely used in hotels, hospitals, theaters, gymnasiums, entertainment centers, commercial buildings, office buildings, and working conditions.

Features:

a. Easy to install and save space: no need for auxiliary equipment such as cooling water pumps and cooling towers, which can save a lot of materials and engineering installation costs. The freezer room can save investors valuable building space.

b. One machine for two purposes: heating and cooling can be achieved, and heating and cooling can be achieved through a set of systems.



c. Modular system design for option: make each refrigeration system independent and spare each other. An abnormal situation in any refrigeration loop will not affect the normal operation of other loops; the unit is produced and transported with standard modular units, and assembled into a complete unit at the installation site. The standard modular unit is light in weight and small in size, which can save transportation. And the cost of hoisting; free combination between modules can be carried out according to user requirements and the size of the air-conditioning area; when the unit is started, the computer-controlled compressors are started in sequence, reducing the impact on the grid current.

d. Excellent performance, safe and reliable.

Configuration



2. Heat Recovery Type Modular Type Air Cooled Water Chiller (non-standard unit, please indicate when ordering)

a> Heat recovery unit is one unit that integrates two or three functions of refrigeration, heating and making domestic hot water. There are two types of heat recovery: 30% recovery and 100% recovery.

b> The cooling only unit can recover the originally discarded condensing heat while cooling in summer, and can also be cooled separately.

c> The comprehensive performance coefficient of the heat recovery unit is as high as 3.5 ~ 3.9. The addition of the heat recovery unit is equivalent to increasing the heat exchange area of the unit and enhancing the heat exchange effect, thereby reducing the energy consumption of the unit.

3. EVI type for application in low ambient temperature (non-standard unit, please specify when ordering)

Adopting EVI scroll compressor and economizer, the unit can be used normally in low temperature environment, and greatly improve the heating operation efficiency of the unit in winter.

a> The compressor has added one gas filling port, the suction air of the unit is increased, the circulation flow is increased, the heat exchange heat of the unit on the condensing side is greatly increased, the heating capacity of the unit is increased by more than 30%, and the performance coefficient Also greatly improved.

b> By optimizing the matching of products, the amount of refrigerant evaporated in the evaporator at low ambient temperature is increased, which can effectively avoid the failure of the refrigerant to completely evaporate due to the poor evaporation effect and the return of the compressor.

c> Increase the enthalpy of the compressor by supplementing the air, increasing the displacement of the compressor, ensuring that the product still runs stably at low ambient temperature, the compressor will not exceed the compression ratio of the compressor, ensuring the safe performance of the compressor Reduce the compressor discharge temperature and extend the life of the compressor.

3. SPECIFICATION

Air cooled water chiller (heat pump)- Standard type- 1

Model		RLSFW20(R)	RLSFW25(R)	RLSFW30(R)	RLSFW40(R)	RLSFW45(R)	
Nominal cooling capacity	kW	21.5	23.1	27	32	43	
Cooling input power	kW	7.5	7.9	9	10.4	13.3	
EER		2.87	2.92	3.00	3.08	3.23	
Running current	A	13.3	14	16	18.4	23.5	
Nominal heating capacity	kW	24.4	26.3	30	38.2	46.2	
Heating input power	kW	7.4	7.9	9	10.3	13.2	
COP		3.30	3.33	3.33	3.71	3.50	
Running current	A	13.1	14.0	16.0	18.2	23.3	
Max. running current	A	20.6	21.5	24	27	35	
Cable diameter (copper wire distance ≤ 20 meters)	mm ²	3*6+2*4	3*6+2*4	3*6+2*4	3*6+2*4	3*10+2*6	
Power voltage		380V / 3PH / 50HZ					
Compressor	Type	Hermetic scroll type					
	Quantity	1	1	1	1	1	
	Start mode	Direct Start					
	Refrigerant	Type	R410A / R407C				
		Charge (kg)	4.5	5	6.5	8.5	10.5
	Control	Electronic expansion valve (EXV)					
Evaporator	Type	Stainless steel plate type					
	Water pressure drop	kPa	70-90	70-90	70-90	70-90	70-90
	Water pipe dia.Dn		DN32	DN32	DN40	DN40	DN40
	Water flow	m ³ /h	3.4	3.6	4.3	5.0	6.7
Condenser type		Internally threaded copper tube & hydrophilic aluminum fins					
Condenser fan	Fan type		Axial	Axial	Axial	Axial	Axial
	Fan qty.		1	1	1	1	1
	Power	kW	0.55	0.55	0.55	0.75	1.1
	Air flow	m ³ /h	8000	10000	10000	12000	16000
Location of air discharge		Side or top	Side or top	Side or top	Side or top	Top	
Dimension (side/top)	L	mm	1180	1180	1180	1180	1180
	W	mm	730(1080)	730(1080)	730(1080)	730(1080)	1080
	H	mm	1870(1870)	1870(1870)	1870(1870)	1870(1960)	2055
Net weight	kg	320	350	380	380	420	
Operation weight	kg	360	380	420	420	690	
Noise	dB(A)	69	69	70	71	74	
Remarks:		1.Cooling standard working conditions: ambient temperature 35°CDB/24°CWB; cold water inlet temperature 12°C, outlet temperature 7°C 2.Heating standard working conditions I: ambient temperature 7°CDB/6°CWB; cold water inlet temperature 40°C, outlet temperature 45°C					
Main protection measures		1.High & low voltage protection; 2.Anti-freezing protection; 3.Temperature control; 4.Owe anti-phase protection; 5.High & low pressure protection; 6.High pressure exhaust temperature protection; 7.Built-in motor overheating protection; 8.Over-current protection; 9. Safe valve; 10.Check valve					
Additional options		Internal water pump and expansion tank, RS485 module, Round-year cooling function, WIFI controller, Spring shock absorber, Rubber shock pad, etc..					

Air cooled water chiller (heat pump)- Standard type- 2

Model		RLSFW60(R)	RLSFW68(R)	RLSFW75(R)	RLSFW90(R)	RLSFW120(R)	RLSFW136(R)	
Nominal cooling capacity	kW	56	68	71	86	116	136	
Cooling input power	kW	16.3	21.1	20.6	27.8	35.8	42.2	
EER		3.44	3.22	3.45	3.09	3.24	3.22	
Running current	A	28.8	41.2	44	45.2	54.2	80.4	
Nominal heating capacity	kW	59.4	70	72	92.4	124	140	
Heating input power	kW	16.1	22.1	20.3	27.2	35.1	44.1	
COP		3.69	3.17	3.55	3.40	3.53	3.17	
Running current	A	28.5	39.5	43	41.3	53.3	76.4	
Max. running current	A	41	48.2	61.2	71	86	96.4	
Cable diameter (copper wire distance ≤ 20 meters)	mm ²	3*16+2*10	3*16+2*10	3*25+2*16	3*25+2*16	3*35+2*16	3*35+2*16	
Compressor	Type	Hermetic scroll type						
	Quantity	2	2	1	2	2	4	
	Power voltage	380V / 3PH / 50HZ						
	Start mode	Direct Start						
	Refrigerant	Type	R410A / R407C					
		Charge (kg)	6*2	6.5*2	13.5	8*2	12*2	6.5*4
	Control	Electronic expansion valve (EXV)						
Evaporator	Type	Shell-tube type						
	Water pressure drop	kPa	70	70	70	70	70	
	Water pipe dia.Dn		50	50	50	65	65	
	Water flow	m ³ /h	9.6	11.7	12.2	14.8	20.0	23.4
Condenser type		Internally threaded copper tube & hydrophilic aluminum fins						
Condenser fan	Fan type	Axial	Axial	Axial	Axial	Axial	Axial	
	Fan qty.	2	2	2	2	2	4	
	Power	kW	0.55*2	0.75*2	0.75*2	1.1*2	1.5*2	0.75*4
	Air flow	m ³ /h	20000	25000	25000	32000	40000	50000
Dimension	L	mm	2110	2110	2110	2110	2280	2120
	W	mm	1080	1080	1080	1080	1200	2160
	H	mm	1870	1870	2070	2070	2080	1890
Net weight	kg	700	700	660	900	920	1360	
Operation weight	kg	760	760	690	980	1120	1480	
Noise	dB(A)	73	73	74	73	76	73	
Remarks:	1.Cooling standard working conditions:ambient temperature 35°CDB/24°CWB; cold water inlet temperature 12°C, outlettemperature 7°C 2.Heating standard working conditions :ambient temperature 7°CDB/6°CWB; cold water inlet temperature 40°C, outlettemperature 45°C							
Main protection measures	1.High & low voltage protection; 2.Anti-freezing protection; 3.Temperature control; 4.Owe anti-phase protection; 5.High & low pressure protection; 6.High pressure exhaust temperature protection; 7.Built-in motor overheating protection; 8.Over-current protection; 9. Safe valve; 10.Check valve							
Additional options	Internal water pump and expansion tank, RS485 module, Round-year cooling function, WIFI controller, Spring shock absorber,Rubber shock pad, etc..							

Air cooled water chiller (heat pump)- Standard type- 3

Model		RLSFW150(R)	RLSFW180(R)	RLSFW240(R)	RLSFW360(R)	RLSFW480(R)
Nominal cooling capacity	kW	142	172	232	352	464
Cooling input power	kW	41.2	55.6	71.6	110	143.2
EER		3.45	3.09	3.24	3.20	3.24
Running current	A	88	90.4	108.4	192	215.4
Nominal heating capacity	kW	144	184.8	248	366	496
Heating input power	kW	40.5	54.4	70.2	106.6	140.4
COP		3.56	3.40	3.53	3.43	3.53
Running current	A	86	82.6	106.7	190.8	213.3
Max. running current	A	122.4	142	172	244	345
Cable diameter (copper wire distance ≤20 meters)	mm ²	3*50+2*25	(3*25+2*16)*2	(3*35+2*16)*2	3*150+2*70	3*185+2*95
Compressor	Type	Hermetic scroll type				
	Quantity	2	4	4	4	4
	Power voltage	380V / 3PH / 50HZ				
	Start mode	Direct Start				
	Refrigerant	Type	R410A / R407C			
Charge (kg)		13.5*2	8*4	12*4	16*4	24*4
	Control	Electronic expansion valve (EXV)				
Evaporator	Type	Shell-tube type				
	Water pressure drop	kPa	70	70	70	70
	Water pipe dia.Dn		65	65	80	100
	Water flow	m ³ /h	24.4	29.6	40.0	60.5
Condenser type		Internally threaded copper tube & hydrophilic aluminum fins				
Condenser fan	Fan type	Axial				
	Fan qty.	2	4	4	8	10
	Power	kW	1.8*2	1.1*4	1.5*4	1.1*8
	Air flow	m ³ /h	44000	64000	80000	128000
Dimension	L	mm	2280	2330	2330	4100
	W	mm	1200	2217	2217	2250
	H	mm	2330	2080	2080	2440
Net weight	kg	980	1800	2100	3800	4500
Operation weight	kg	1180	1960	2240	4180	4980
Noise	dB(A)	78	78	78	80	80
Remarks:	1.Cooling standard working conditions:ambient temperature 35°CDB/24°CWB; cold water inlet temperature12°C, outlet temperature 7°C 2.Heating standard working conditions :ambient temperature 7°CDB/6°CWB; cold water inlet temperature40°C, outlet temperature 45°C					
Main protection measures	1.High & low voltage protection; 2.Anti-freezing protection; 3.Temperature control; 4.Owe anti-phase protection; 5.High & low pressure protection; 6. High pressure exhaust temperature protection; 7.Built-in motor overheating protection; 8.Over-current protection; 9. Safe valve; 10.Check valve					
Additional options	Internal water pump and expansion tank, RS485 module, Round-year cooling function, WIFI controller, Springshock absorber, Rubber shock pad , etc..					

Air cooled water chiller and heat pump- EVI type- 1

Model		RLSFW20RD	RLSFW25RD	RLSFW30RD	RLSFW40RD	RLSFW45RD	
Nominal cooling capacity	kW	21.5	23.1	27	32	43	
Cooling input power	kW	7.5	7.9	9	10.4	13.3	
EER		2.87	2.92	3.00	3.08	3.23	
Running current	A	11.4	12	13.7	15.8	20.2	
Nominal heating capacity i	kW	24.4	26.3	30	38.2	46.2	
Heating input power I	kW	7.4	7.9	9	10.3	13.2	
COP I		3.30	3.33	3.33	3.71	3.50	
Running current	A	11.2	12.0	13.7	15.6	20.1	
Nominal heating capacity ii	kW	17.8	19.2	21.9	27.9	33.8	
Heating input power II	kW	7.5	8.0	9.1	10.4	13.3	
COP II		2.39	2.41	2.41	2.69	2.54	
Running current	A	11.3	12.1	13.8	15.8	20.2	
Max. running current	A	20.6	21.5	24	27	35	
Cable diameter (copper wire distance ≤ 20 meters)	mm ²	3*6+2*4	3*6+2*4	3*6+2*4	3*6+2*4	3*10+2*6	
Power voltage		380V / 3PH / 50HZ					
Compressor	Type	Hermetic scroll type					
	Quantity	1	1	1	1	1	
	Start mode	Direct Start					
	Refrigerant	Type	R410A / R407C				
		Charge (kg)	8.5	10	10.5	11.5	12
	Control	Electronic expansion valve (EXV)					
Evaporator	Type	Stainless steel plate type					
	Water pressure drop	kPa	70-90	70-90	70-90	70-90	70-90
	Water pipe dia. Dn		DN32	DN32	DN40	DN40	DN50
	Water flow	m ³ /h	3.4	3.6	4.3	5.0	6.7
Condenser type		Internally threaded copper tube & hydrophilic aluminum fins					
Condenser fan	Fan type		Axial	Axial	Axial	Axial	Axial
	Fan qty.		1	1	1	1	1
	Power	kW	0.55	0.55	0.75	0.75	1.1
	Air flow	m ³ /h	8000	10000	12000	14000	16000
Location of air discharge		Side or top	Side or top	Side or top	Side or top	Top	
Dimension (side/top)	L	mm	1180	1180	1180	1180	1180
	W	mm	730(1080)	730(1080)	730(1080)	730(1080)	1080
	H	mm	1870(1870)	1870(1870)	1870(1870)	1870(1960)	2055
Net weight	kg	320	350	380	380	420	
Operation weight	kg	360	380	420	420	490	
Noise	dB(A)	69	69	70	71	78	
Remarks:		1.Cooling standard working conditions:ambient temperature 35°CDB/24°CWB; cold water inlet temperature 12°C, outlet temperature 7°C 2.Heating standard working conditions I: ambient temperature 7°CDB/6°CWB; hot water inlet temperature 40°C, outlet temperature 45°C 3.Heating standard working conditions II: ambient temperature -12°CDB/-13.5°CWB; outlet temperature 41°C					
Main protection measures		1.High & low voltage protection; 2.Anti-freezing protection; 3.Temperature control; 4.Owe anti-phase protection; 5.High & low pressure protection; 6.High pressure exhaust temperature protection; 7.Built-in motor overheating protection; 8.Over-current protection; 9. Safe valve; 10. Check valve					
Additional options		Internal water pump and expansion tank, RS485 module, Round-year cooling function, WIFI controller, Springshock absorber, Rubber shock pad, etc..					

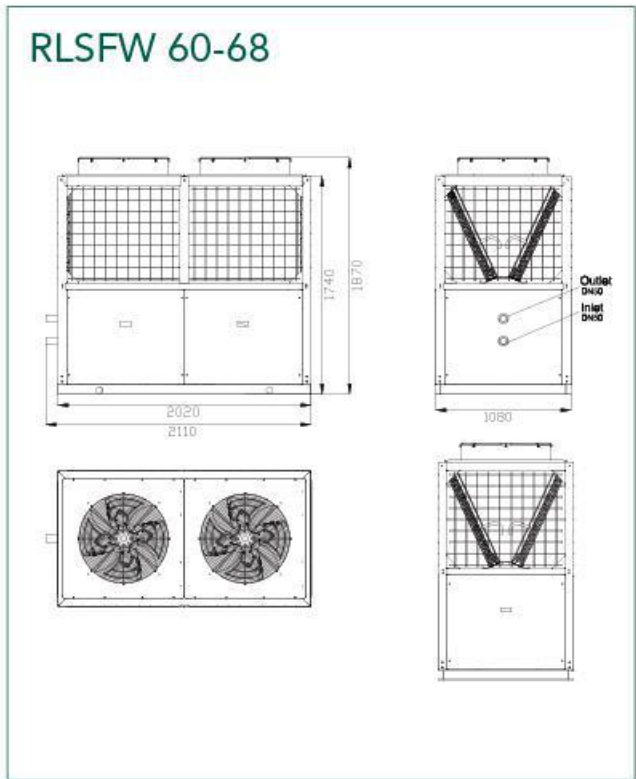
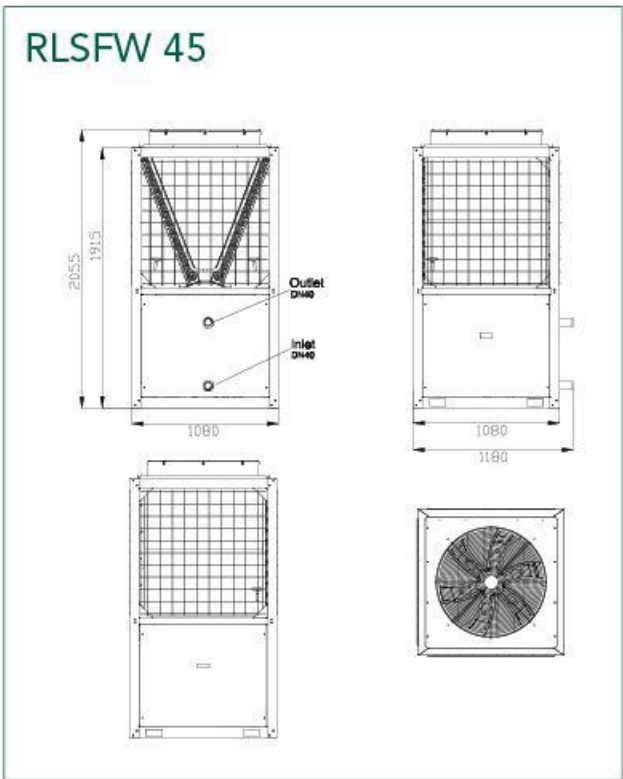
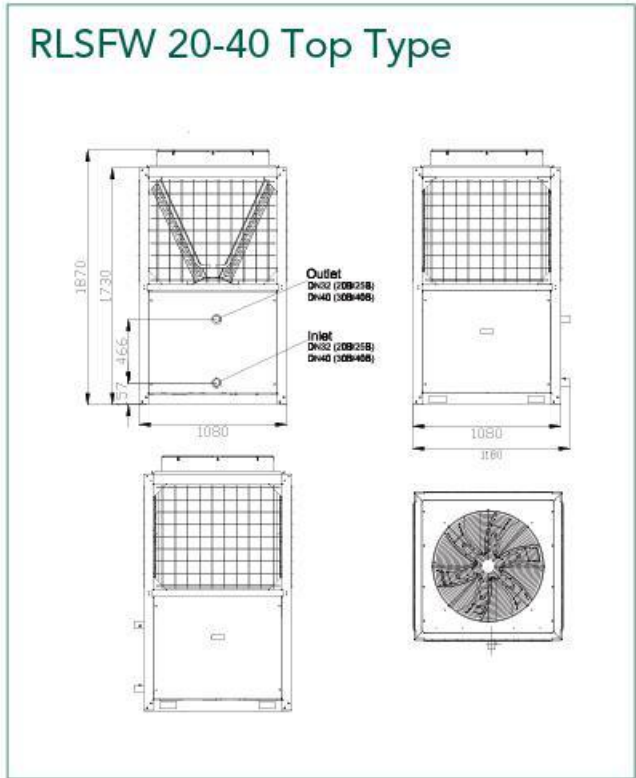
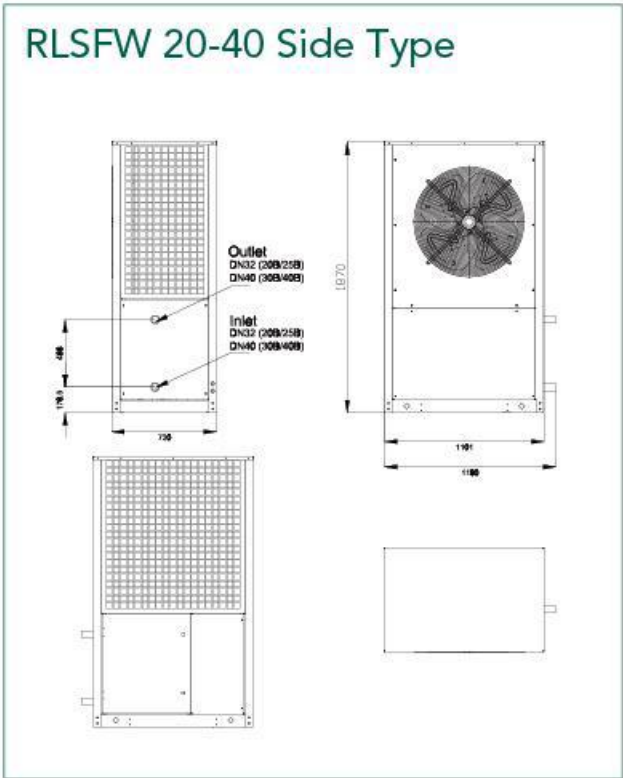
Air cooled water chiller and heat pump- EVI type- 2

Model		RLSFW60RD	RLSFW68RD	RLSFW75RD	RLSFW90RD	RLSFW120RD	RLSFW136RD	
Nominal cooling capacity	kW	56	68	70	86	116	136	
Cooling input power	kW	16.3	21.1	22.8	27.8	35.8	42.2	
EER		3.44	3.22	3.07	3.09	3.24	3.22	
Running current	A	24.8	41.2	44	42.4	54.4	82.4	
Nominal heating capacity i	kW	59.4	78	85	92.4	124	156	
Heating input power I	kW	16.1	22.3	22.5	27.2	35.1	44.7	
COP I		3.69	3.50	3.78	3.40	3.53	3.49	
Running current	A	24.5	41.6	43	41.3	53.3	80.4	
Nominal heating capacity ii	kW	43.4	57	62	67.5	90.6	114	
Heating input power II	kW	16.2	21.3	24.8	29.6	35.4	42.6	
COP II		2.68	2.68	2.50	2.28	2.56	2.68	
Running current	A	24.7	41.6	47.8	45	53.8	83.2	
Max. running current	A	41	50.4	61.2	71	86	96.4	
Cable diameter (copper wire distance ≤20 meters)	mm ²	3*16+2*10	3*16+2*10	3*16+2*10	3*25+2*16	3*35+2*16	3*35+2*16	
Compressor	Type	Hermetic scroll type						
	Quantity	2	2	1	2	1	4	
	Power voltage	380V / 3PH / 50HZ						
	Start mode	Direct Start						
	Refrigerant	Type	R410A / R407C					
Charge (kg)		6*2	6.5*2	13.5	8*2	12*2	6.5*4	
Control		Electronic expansion valve (EXV)						
Evaporator	Type	Shell-tube type						
	Water pressure drop	kPa	70	70	70	70	70	
	Water pipe dia.Dn		50	50	50	50	65	
	Water flow	m ³ /h	8.7	10.66	12.0	13.4	18.1	23.39
Condenser type	Internally threaded copper tube & hydrophilic aluminum fins							
Condenser fan	Fan type	Axial	Axial	Axial	Axial	Axial	Axial	
	Fan qty.	2	2	2	2	2	4	
	Power	kW	0.55*2	0.75*2	0.75*2	1.1*2	1.5*2	0.75*4
	Air flow	m ³ /h	20000	25000	25000	32000	40000	50000
Dimension	L	mm	2110	2110	2110	2110	2280	2110
	W	mm	1080	1080	1080	1080	1200	2160
	H	mm	1870	1870	2070	2070	2080	1870
Net weight	kg	700	700	660	900	920	1360	
Operation weight	kg	760	760	690	980	1120	1480	
Noise	dB(A)	73	73	74	73	76	73	
Remarks:	1.Cooling standard working conditions:ambient temperature 35°CDB/24°CWB; cold water inlet temperature 12°C, outlettemperature 7°C 2.Heating standard working conditions I:ambient temperature 7°CDB/6°CWB; hot water inlet temperature 40°C, outlettemperature 45°C 3.Heating standard working conditions II:ambient temperature -12°CDB/-13.5°CWB; outlet temperature 41°C							
Main protection measures	1.High & low voltage protection; 2.Anti-freezing protection; 3.Temperature control; 4.Owe anti-phase protection; 5.High & low pressure protection; 6.High pressure exhaust temperature protection; 7.Built-in motor overheating protection; 8.Over-current protection; 9. Safe valve; 10.Check valve							
Additional options	Internal water pump and expansion tank, RS485 module, Round-year cooling function, WIFI controller, Spring shock absorber,Rubber shock pad, etc..							

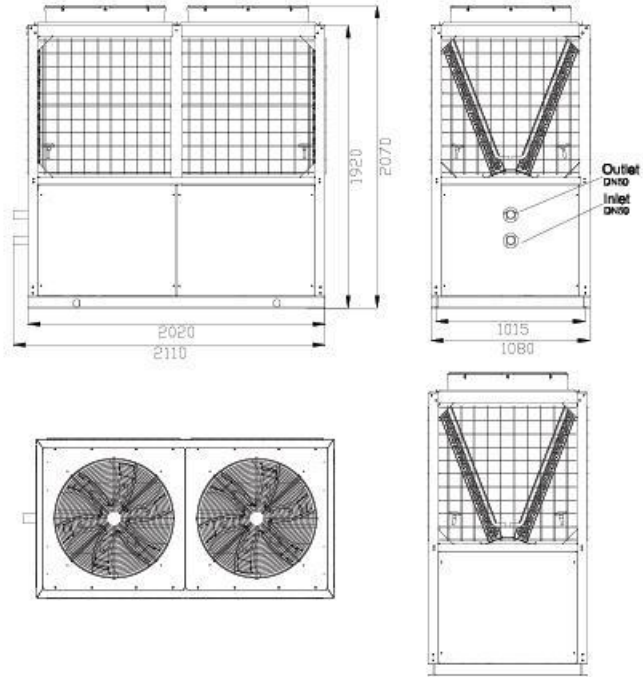
Air cooled water chiller and heat pump- EVI type- 3

Model		RLSFW150RD	RLSFW180RD	RLSFW240RD	RLSFW360RD	RLSFW480RD	
Nominal cooling capacity	KW	140	172	232	352	464	
Cooling input power	KW	45.6	55.6	71.6	110	143.2	
Eer		3.07	3.09	3.24	3.20	3.24	
Running current	A	88	84.8	108.8	192	217.6	
Nominal heating capacity i	KW	170	184.8	248	366	496	
Heating input power i	KW	45	54.4	70.2	106.6	140.4	
Cop i		3.78	3.40	3.53	3.43	3.53	
Running current	A	86	82.6	106.7	190.8	213.3	
Nominal heating capacity ii	KW	124	135	181.3	267.37	362.6	
Heating input power ii	KW	49.6	59.2	70.8	116.01	141.7	
Cop ii		2.50	2.28	2.56	2.30	2.56	
Running current	A	95.6	90	107.6	207.89	215.2	
Max. Running current	A	122.4	142	172	244	345	
Cable diameter (copper wire distance ≤ 20 meters)	mm ²	3*50+2*25	(3*25+2*16)*2	(3*35+2*16)*2	3*150+2*70	3*185+2*95	
Compressor	Type	Hermetic scroll type					
	Quantity	2	4	4	4	4	
	Power voltage	380V / 3PH / 50HZ					
	Start mode	Direct Start					
	Refrigerant	Type	R410A / R407C				
Charge (kg)		13.5*2	8*4	12*4	16*4	24*4	
Control		Electronic expansion valve (EXV)					
Evaporator	Type	Shell-tube type					
	Water pressure drop	Kpa	70	70	70	70	
	Water pipe dia.Dn		65	65	80	100	
	Water flow	m ³ /h	24.08	26.8	36.1	60.5	72.2
Condenser type		Intemally threaded copper tube & hydrophilic aluminum fins					
Condenser fan	Fan type	Axial	Axial	Axial	Axial	Axial	
	Fan qty.	2	4	4	8	10	
	Power	KW	1.8*2	1.1*4	1.5*4	1.1*8	1.1*10
	Air flow	m ³ /h	44000	64000	80000	128000	160000
Dimension	L	mm	2280	2330	2330	4100	5100
	W	mm	1200	2220	2220	2250	2250
	H	mm	2330	2080	2080	2440	2440
Net weight	Kg	980	1800	2100	3800	4500	
Operation weight	Kg	1180	1960	2240	4180	4980	
Noise	dB(A)	78	78	78	80	80	
Remarks:		1.Cooling standard working conditions:ambient temperature 35°CDB/24°CWB; cold water inlet temperature 12°C, outlettemperature 7°C 2.Heating standard working conditions I:ambient temperature 7°CDB/6°CWB; hot water inlet temperature 40°C, outlettemperature 45°C 3.Heating standard working conditions II:ambient temperature -12°CDB/-13.5°CWB; outlet temperature 41°C					
Main protection measures		1. High & low voltage protection; 2.Anti-freezing protection; 3.temperature control; 4.Owe anti-phase protection; 5.High & low pressure protection; 6.High pressure exhaust temperature protection; 7.Built-in motor overheating protection; 8.Over-current protection; 9. Safe valve; 10.Check valve					
Additional options		Internal water pump and expansion tank, RS485 module, Round-year cooling function, WIFI controller, Spring shock absorber,Rubber shock pad, etc..					

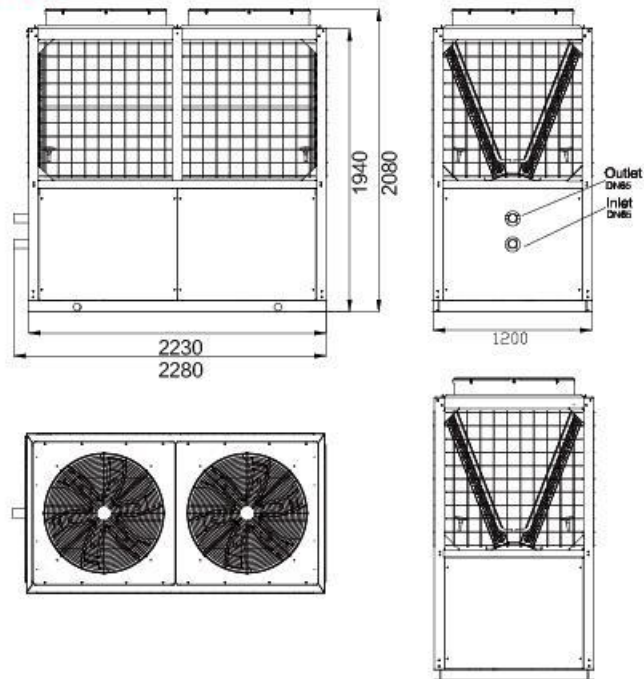
4. DIMENSION DIAGRAM



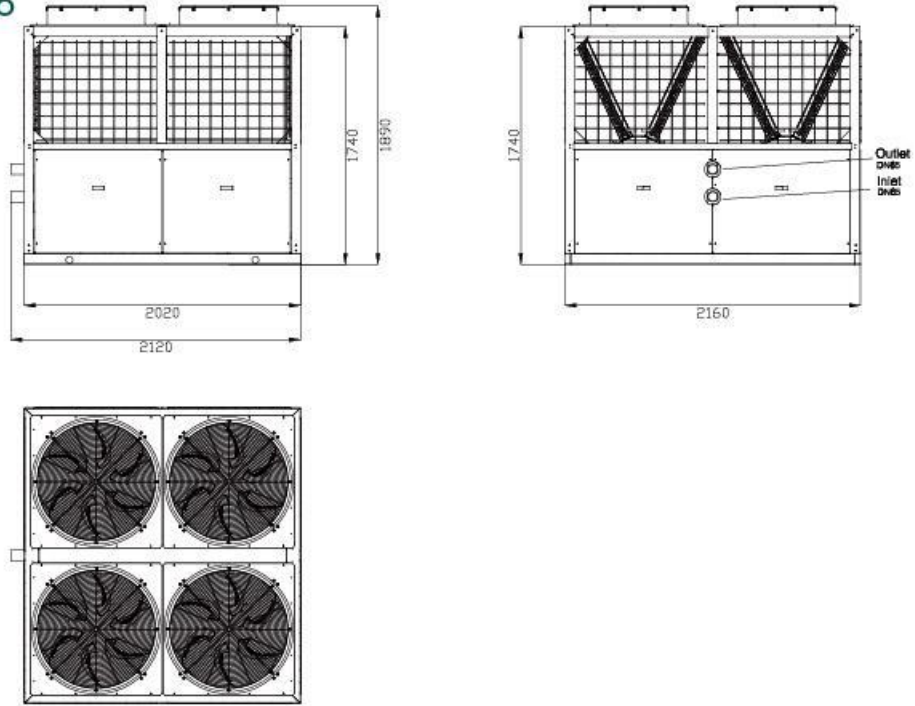
RLSFW 75-90



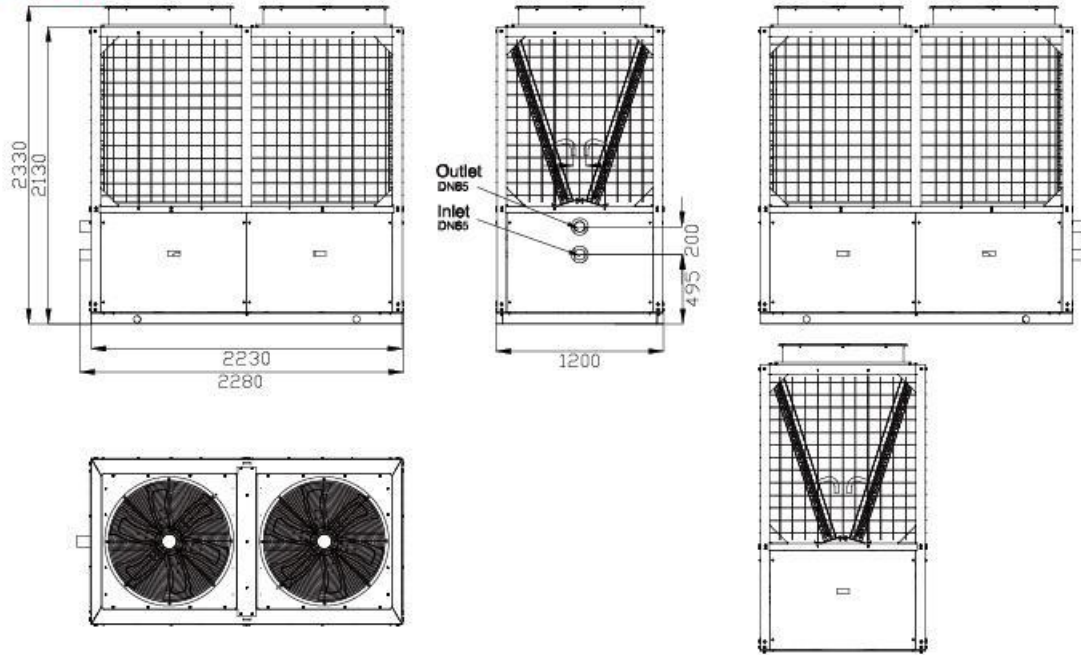
RLSFW 120 Customization



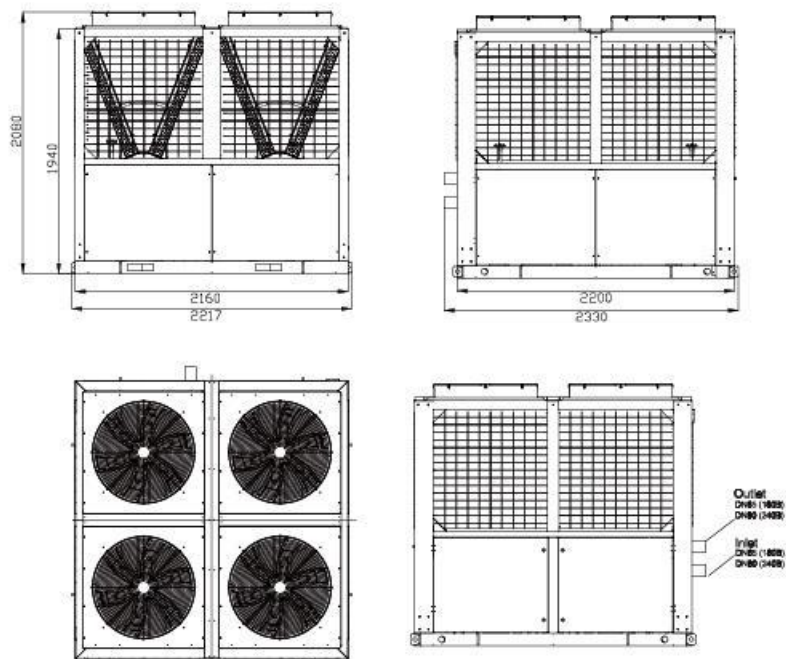
RLSFW 136



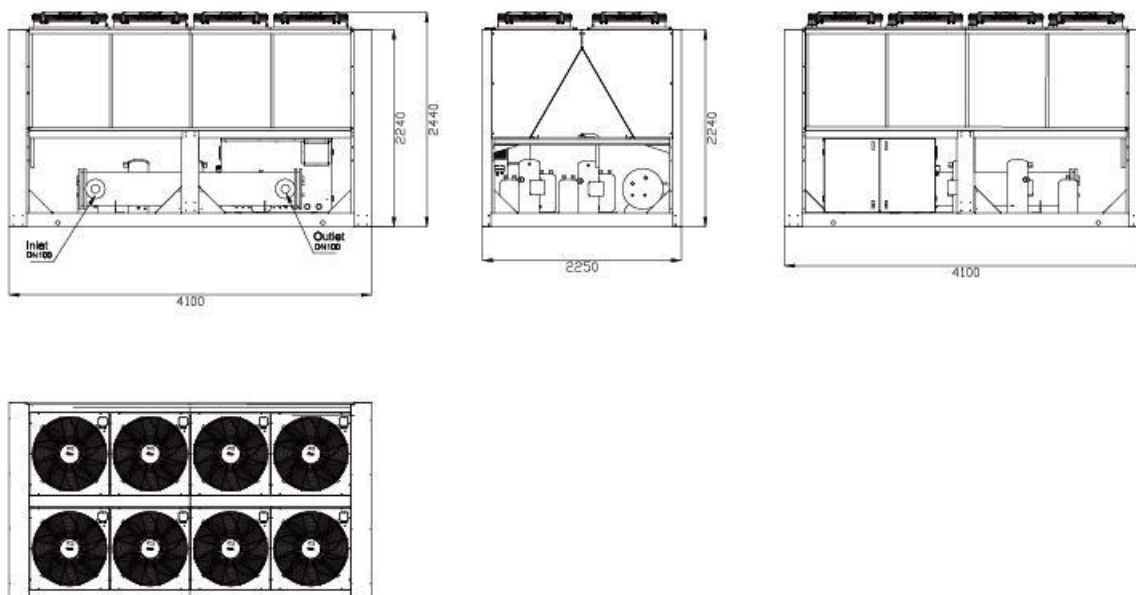
RLSFW 150



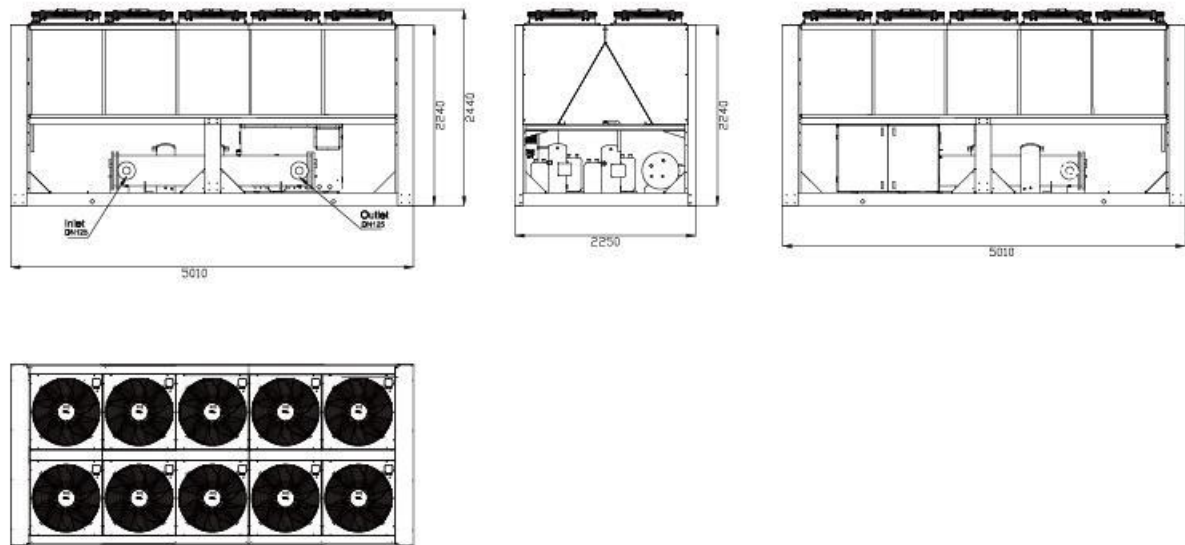
RLSFW 180-240



RLSFW 360

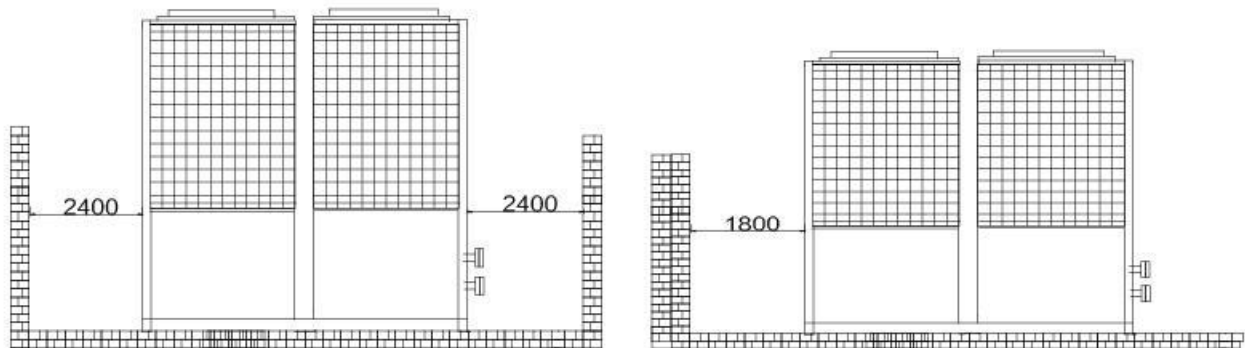


RLSFW 480



5.INSTALLATION

(1)Installation space requirements

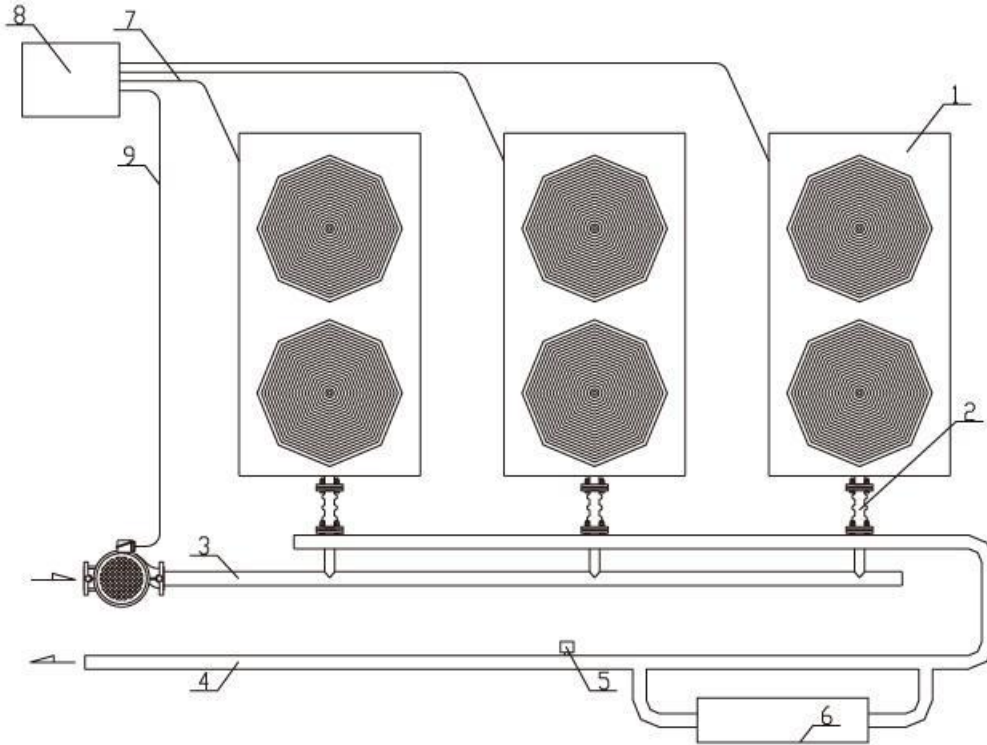


More than 2.0m~2.5m space should be reserved between the unit and the wall to ensure good ventilation.

More than 1.5m~2.0m space should be reserved between the unit and the single-sided wall to ensure good ventilation.

(2) Typical wiring & piping connections

Combining RLSFWM series units as basic module (Take RLSFWM204 as an example)



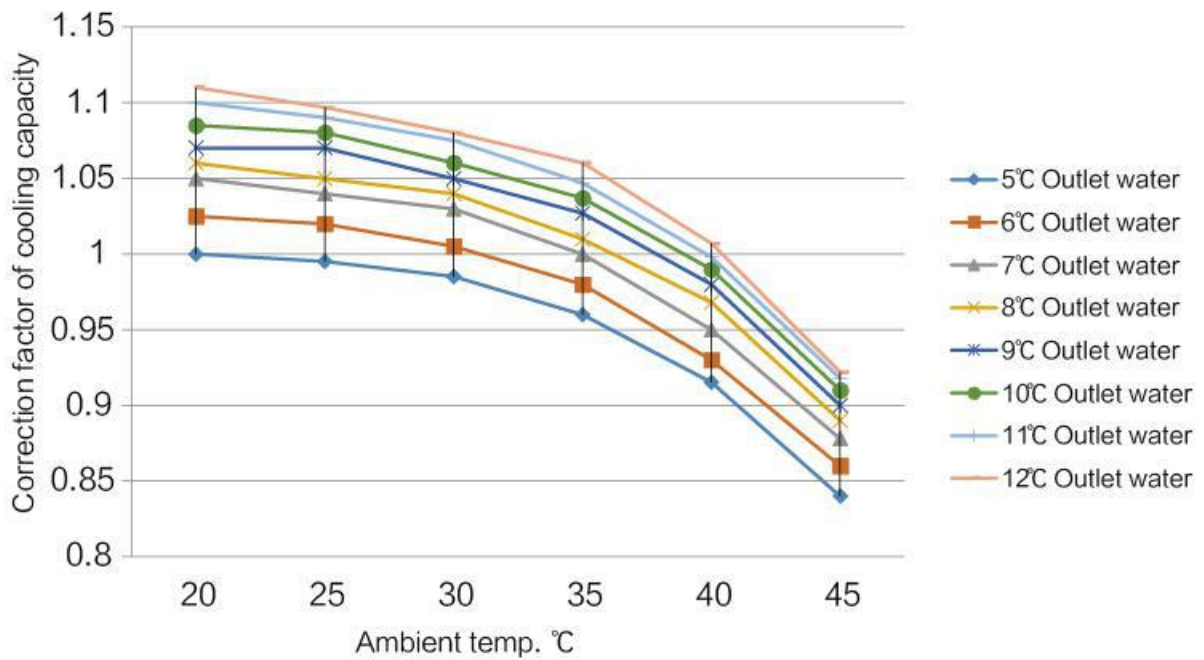
No.	Name	Specification
1	Unit	RLSFWM068R
2	Flexible connection	DN50
3	Inlet water pipe	DN80
4	Outlet water pipe	DN80
5	Water flow switch	LKB-01
6	Auxiliary electric heater	Install as required
7	Unit cable	3 × 10+2 × 6 total 3 groups
8	Distribution box	According to system requirements
9	Water pump cable	According to the pump power

Remarks

1. The foundation can be a concrete structure (150-300mm above the ground) or a steel support, and the surface of the foundation should be flat;
2. 10-20mm rubber shock absorbers should be added between the chiller and the foundation;
3. The shortest distance between chillers is 600mm;
4. The foundation bearing capacity is designed based on the operating weight of the chillers.

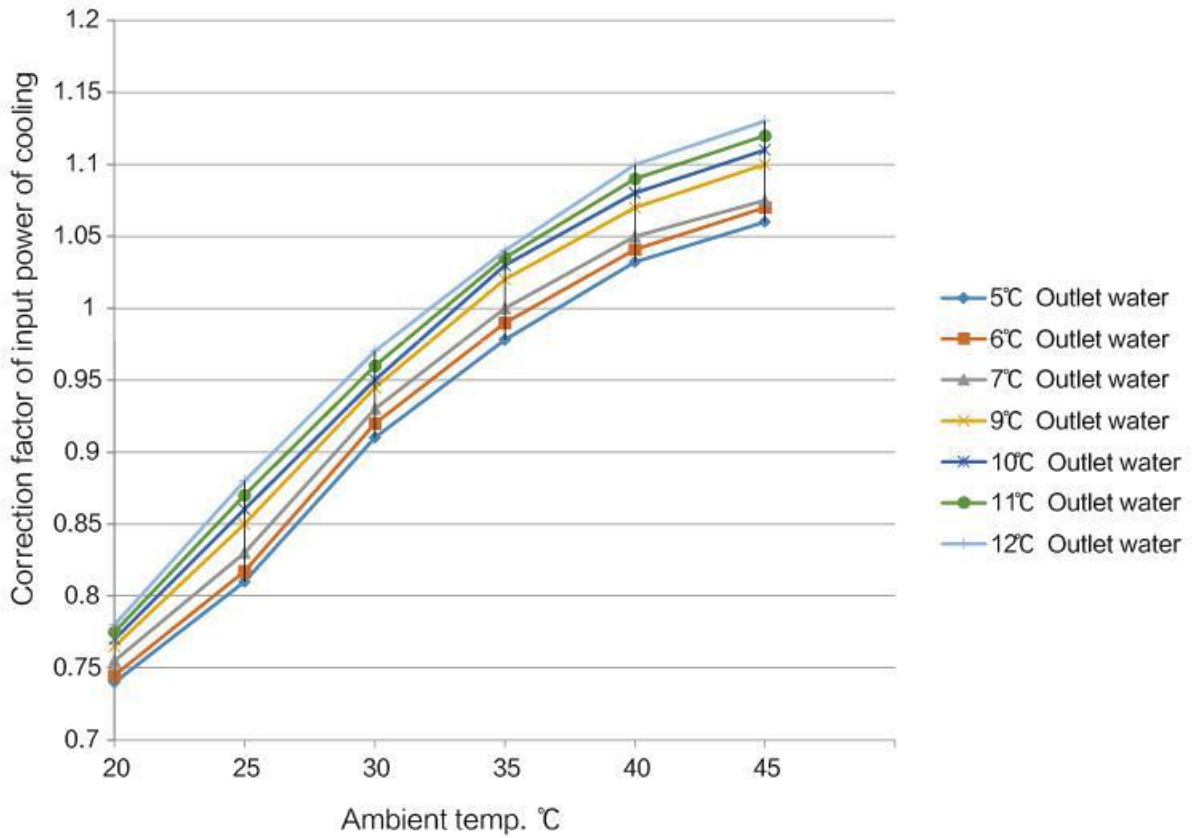
6. CORRECTION FACTOR

Correction factor curve of cooling capacity



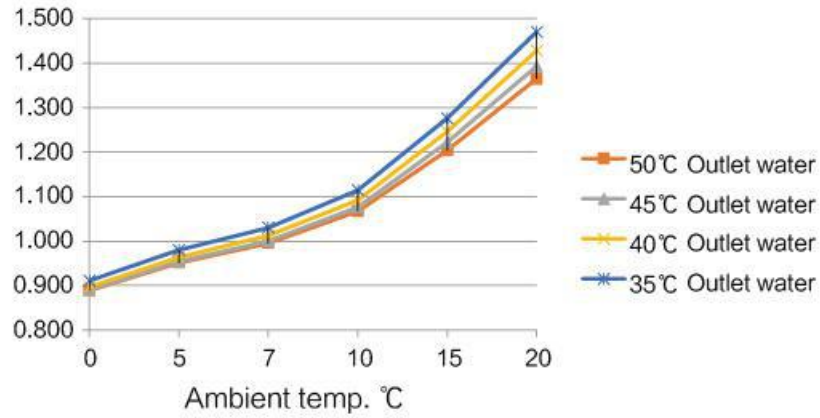
Outlet water temp \ Ambient temp	Ambient temp					
	20°C	25°C	30°C	35°C	40°C	45°C
5°C Outlet water	1.000	0.995	0.985	0.960	0.915	0.840
6°C Outlet water	1.025	1.020	1.005	0.980	0.930	0.860
7°C Outlet water	1.050	1.040	1.030	1.000	0.950	0.878
8°C Outlet water	1.060	1.050	1.040	1.010	0.968	0.890
9°C Outlet water	1.070	1.070	1.050	1.027	0.980	0.900
10°C Outlet water	1.085	1.080	1.060	1.037	0.990	0.910
11°C Outlet water	1.100	1.090	1.075	1.047	0.998	0.918
12°C Outlet water	1.110	1.097	1.080	1.060	1.007	0.922

Correction factor curve of input power of cooling



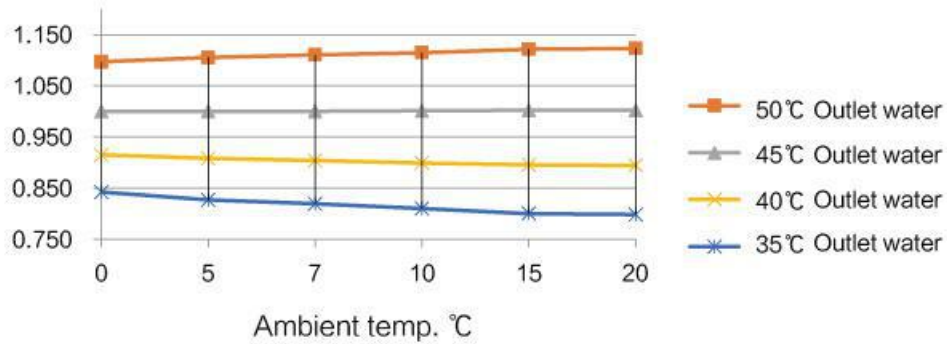
Outlet water temp \ Ambient temp	Ambient temp					
	20°C	25°C	30°C	35°C	40°C	45°C
5°C Outlet water	0.740	0.810	0.910	0.978	1.032	1.060
6°C Outlet water	0.745	0.817	0.920	0.990	1.041	1.070
7°C Outlet water	0.755	0.830	0.930	1.000	1.050	1.075
8°C Outlet water	0.760	0.840	0.940	1.010	1.060	1.082
9°C Outlet water	0.765	0.850	0.945	1.020	1.070	1.100
10°C Outlet water	0.770	0.860	0.950	1.030	1.080	1.110
11°C Outlet water	0.775	0.870	0.960	1.035	1.090	1.120
12°C Outlet water	0.780	0.880	0.970	1.040	1.100	1.130

Correction factor curve of heating capacity



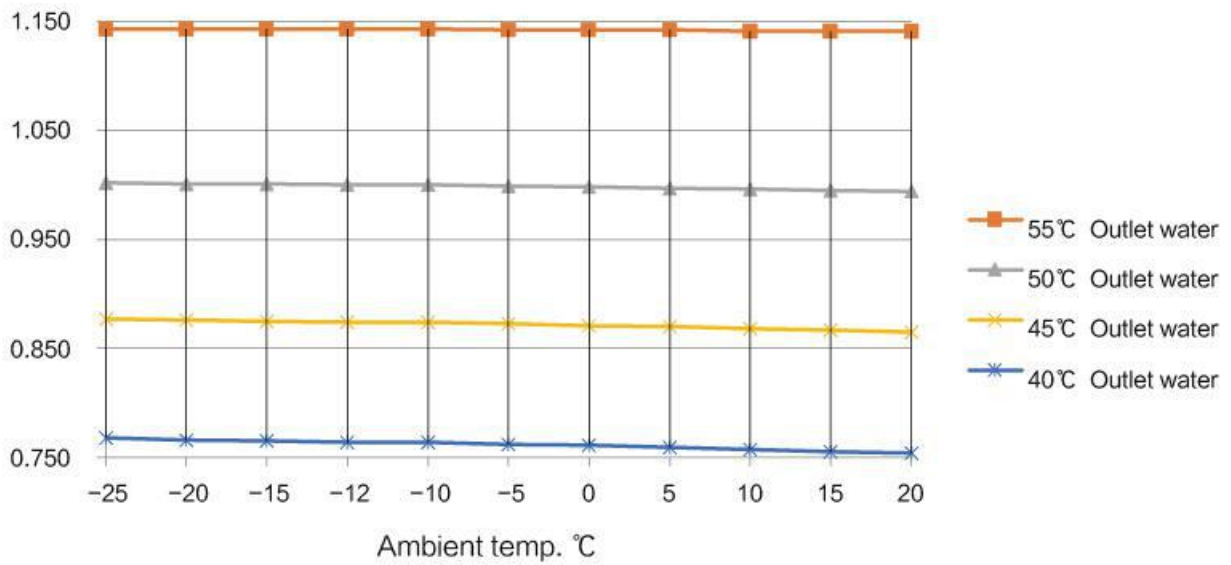
Ambient temp. / Outlet water temp.	0°C	5°C	7°C	10°C	15°C	20°C
50°C Outlet water	0.889	0.951	0.995	1.067	1.204	1.365
45°C Outlet water	0.890	0.954	1.000	1.076	1.222	1.393
40°C Outlet water	0.897	0.963	1.012	1.092	1.246	1.428
35°C Outlet water	0.911	0.980	1.030	1.114	1.276	1.470

Correction factor curve of input power of heating



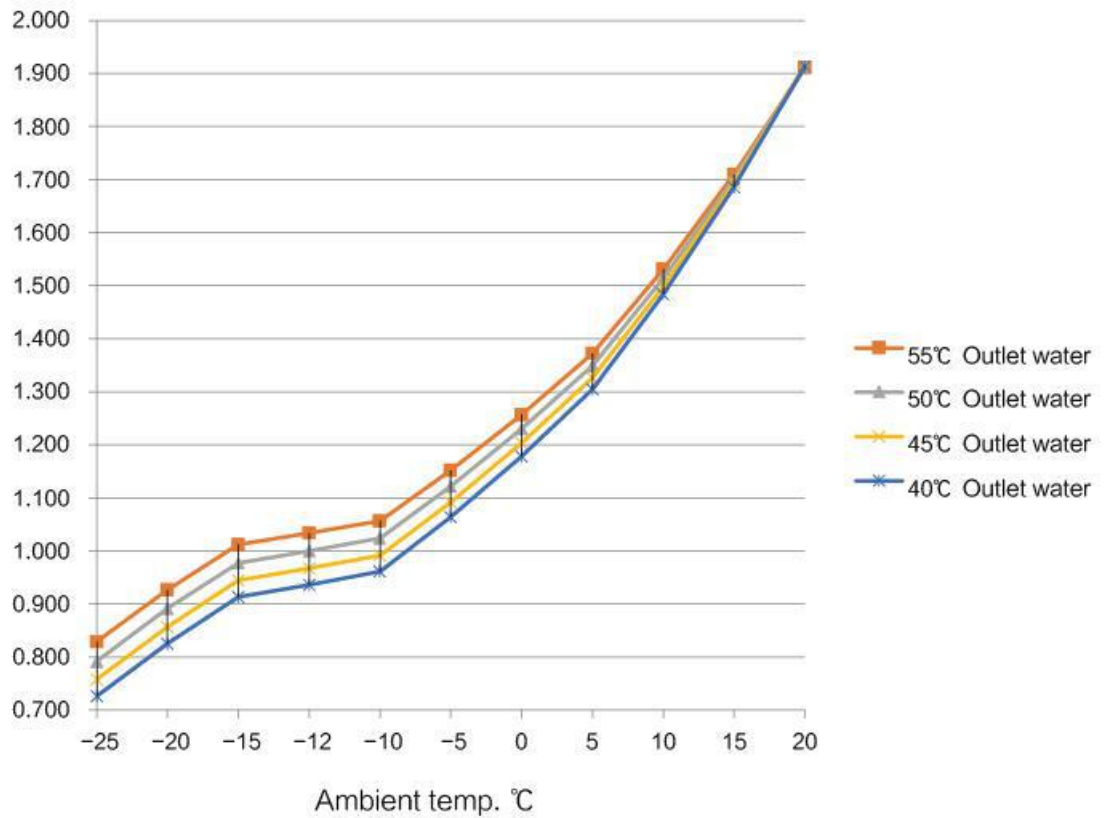
Ambient temp. / Outlet water temp.	0°C	5°C	7°C	10°C	15°C	20°C
50°C Outlet water	1.097	1.105	1.110	1.115	1.121	1.123
45°C Outlet water	1.000	1.000	1.000	1.001	1.002	1.002
40°C Outlet water	0.915	0.908	0.904	0.899	0.895	0.894
35°C Outlet water	0.842	0.827	0.819	0.810	0.800	0.798

Correction factor curve of input power of heating (EVI type)



Ambient temp. / Outlet water temp.	-25°C	-20°C	-15°C	-12°C	-10°C	-5°C	0°C	5°C	10°C	15°C	20°C
55°C Outlet water	1.143	1.143	1.143	1.143	1.143	1.142	1.142	1.142	1.141	1.141	1.141
50°C Outlet water	1.002	1.001	1.001	1.000	1.000	0.999	0.998	0.997	0.996	0.995	0.994
45°C Outlet water	0.877	0.876	0.875	0.874	0.874	0.873	0.871	0.870	0.868	0.867	0.865
40°C Outlet water	0.768	0.766	0.765	0.764	0.764	0.762	0.761	0.759	0.757	0.755	0.754

Correction factor curve of heating capacity (EVI type)



Ambient temp. \ Outlet water temp.	-25°C	-20°C	-15°C	-12°C	-10°C	-5°C	0°C	5°C	10°C	15°C	20°C
55°C Outlet water	0.829	0.927	1.012	1.034	1.057	1.152	1.257	1.372	1.531	1.710	1.911
50°C Outlet water	0.792	0.891	0.977	1.000	1.024	1.122	1.230	1.349	1.515	1.702	1.912
45°C Outlet water	0.758	0.857	0.944	0.968	0.991	1.092	1.204	1.327	1.499	1.694	1.913
40°C Outlet water	0.726	0.825	0.913	0.936	0.961	1.064	1.178	1.305	1.484	1.686	1.914

TESTING CENTER



Testing center covers an area of 6500 square meters; total investment of 50 million RMB, is the largest and most complete detection device in the north of China , the testing range is from household air conditioner to the centrifuge chillers.

Testing center adopt internationally renowned brand measuring instruments, including the United States Agilent data acquisition, Japan Yokogawa power meter, Saibi Ling platinum thermal resistance, to ensure the test accuracy.

Testing center can test multi-unit, air-cooled unit, fan coil unit, ceiling air handling unit, modular air handling unit, purifying air conditioning unit, water loop heat unit, air-cooled module chiller and air-cooled screw chiller.

MAIN PROJECTS



High school building in Brazil



Presidential palace of Kazakhstan



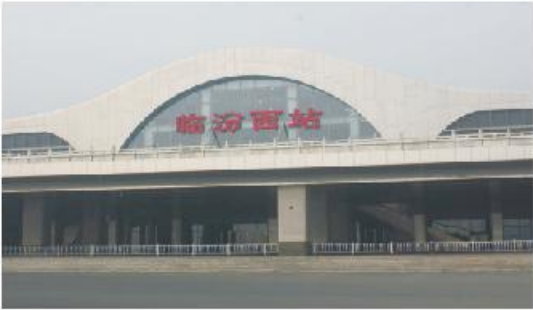
Stadium in Tel Aviv



Planting base is in Beijing



Office building in America



Shanxi Linfen High Speed Rail Station



Hotel in Iraq



Shanxi Tongmei Group Zhangze Power Puzhou Power Generation Branch



For more information, please visit our website www.ruidonggroup.com.

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Version number: 2023.06

The contents will be changed due to product updates without prior notice, please refer to the actual product.

This document has been proofread many times, but there may still be errors or omissions, please understand.