

# RUIDONG

## SCREW TYPE WATER COOLED WATER CHILLER



# RUIDONG GROUP

[www.ruidonggroup.com](http://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.



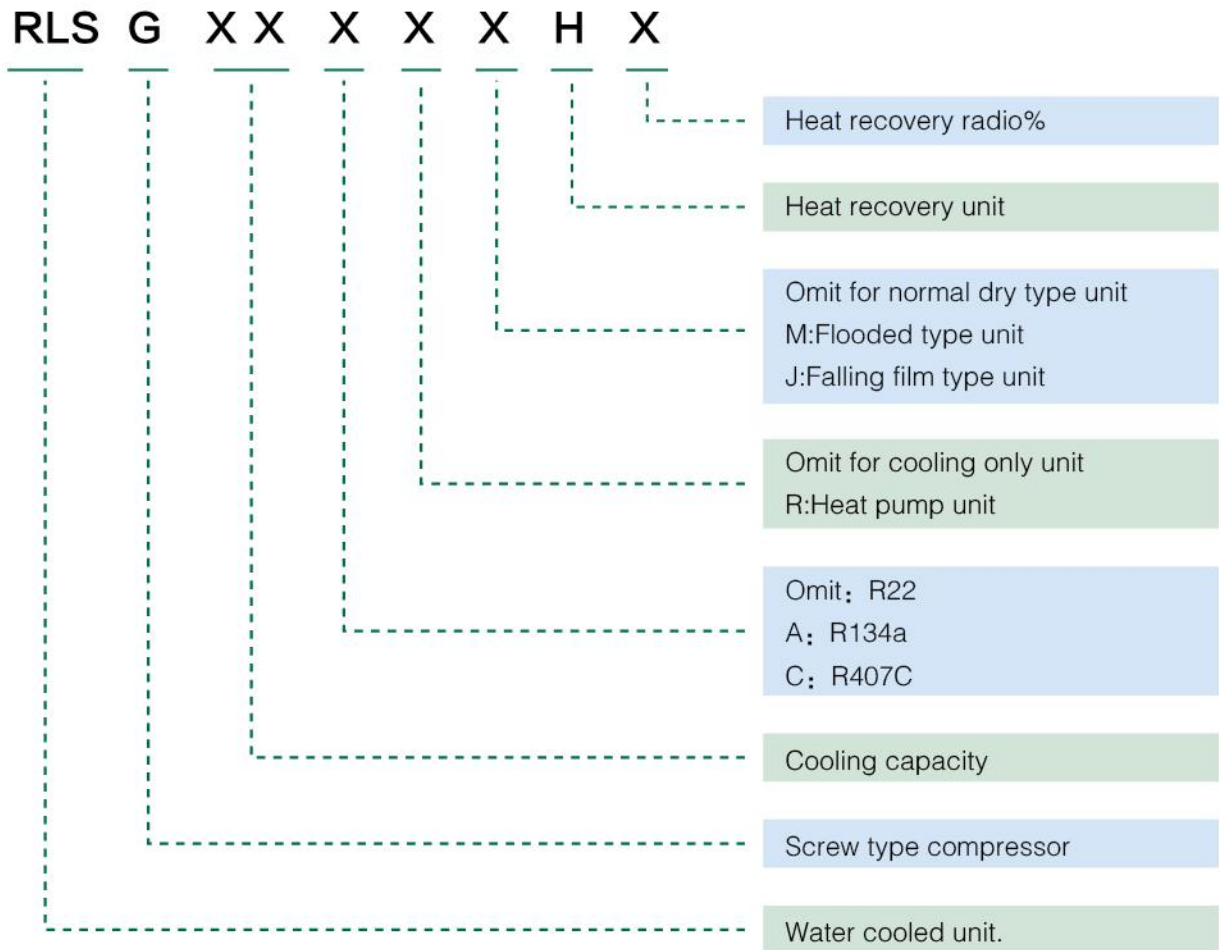
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## 1.NAMING SCHEME



## 2.BRIEF INTRODUCTION

Adopts high-efficiency semi-hermetic twin-screw compressor with high efficiency, low noise and long life. Scope of application of the unit: shopping malls, office buildings, commercial buildings, factory workshops, hotels, hospitals and other commercial and civil construction facilities.

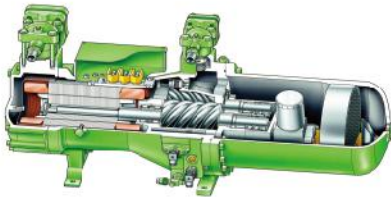


## Compressor

The semi-closed double-screw design compressor, the compression part is composed of two mutually meshing spiral rotors, the female rotor is driven by the male rotor, and the double torsion positive displacement constitutes a pure rotation action, so that the vibration is very small and the operating range is wide. The process from editing to exhaust has the characteristics of high efficiency and smooth air flow. The compressor uses differential pressure oil supply for lubrication and air tightness without the need for a lubricating oil pump.

The capacity control system can facilitate partial load operation, and the compressor can achieve 25%-100% segmented adjustment. Stepless energy adjustment can also be used to fully match the building load.

Semi-hermetic screw compressors have the following advantages: less moving parts are only 1/4 of piston compressors, simple structure, fewer wearing parts, high reliability and long life. The suction and exhaust are uniform and continuous, without pulsation, the exhaust temperature is low, the running vibration is small, it is not sensitive to wet compression, and the ability to resist liquid shock is strong.



## Shell and tube evaporator

Shell: Special high-quality steel plate for pressure vessel, made and tested in compliance with the requirements of JBT47012-2010 "Pressure Vessel for Refrigeration Equipment". The outer surface is made of flame-retardant and waterproof thermal insulation materials. The evaporator baffle is made of PVC engineering plastic, which has strong corrosion resistance and tight sealing. The chilled water moves up and down along the baffle to flow back, increasing the turbulence effect and improving the heat exchange capacity of the evaporator. The refrigerant inlet is specially equipped with a flow-equalizing device to make the refrigerant evenly distributed in each heat exchange copper tube and improve the heat exchange efficiency of the entire unit.

Copper tube: High-efficiency DAC corrugated internally threaded heat exchange copper tube, which greatly strengthens the heat exchange capacity of the refrigerant side and improves the heat transfer coefficient to ensure good cooling and heating effects of the unit.

## Shell and tube condenser

High-efficiency DAC corrugated internally threaded heat exchange copper tube, which greatly strengthens the heat exchange capacity of the refrigerant side and improves the heat transfer coefficient to ensure good cooling and heating effects of the unit.



## Expansion valve

The electronic expansion valve control system has a control accuracy of up to 2600 steps. According to the suction superheat and saturation pressure, the electronic control system can accurately control the refrigerant flow, so that the unit will always be kept in the best operating state and maximize the capacity of the unit.



## Microcomputer controller

- Cold water temperature setting and display.
- Automatic energy control and start-stop function touch screen operation mode.
- Display current (optional) and its set value, operating status, reporting status, compressor operating hours.
- Accept remote start and stop signals.
- If an external line fails and the power is cut off, the unit can automatically resume operation after the power supply is restored.
- With password setting protection function.

## Mobile phone APP function

It can realize the functions of mobile phone to remotely control the start and stop of the unit, parameter setting, status inquiry, fault inquiry, monitoring operation data and so on.

## Safety equipment

High and low pressure switch, antifreeze temperature control, oil heater, high pressure exhaust gas check valve, replaceable filter drier, pressure gauge, emergency stop switch, overload protector, power protector, refrigerant injection device.

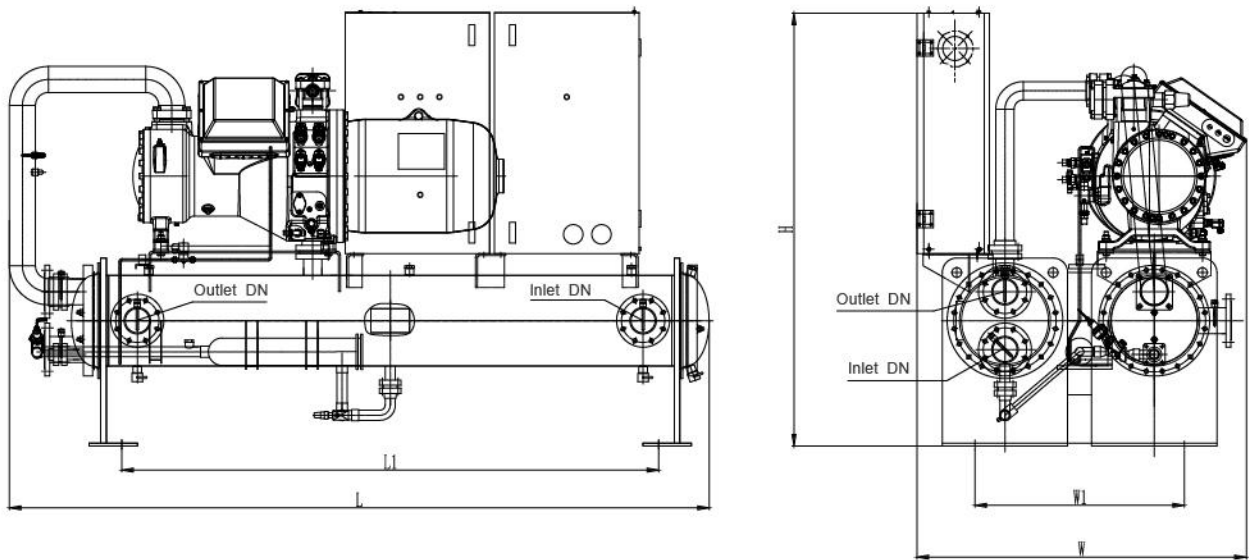
## Special Purpose

The water-cooled screw chiller can be used for ice storage. For details, please contact our company.

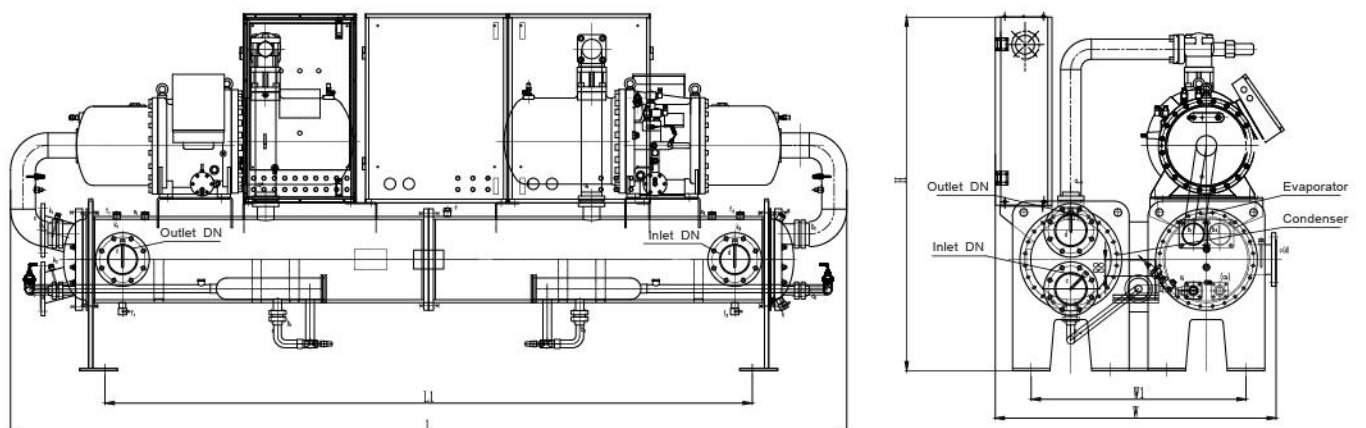


### 3.STRUCTURE DIAGRAM

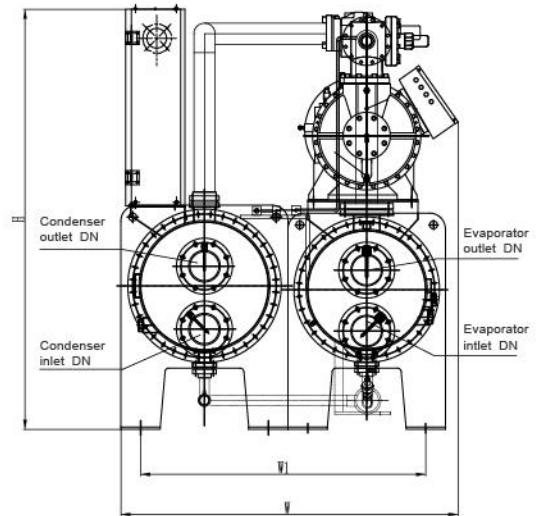
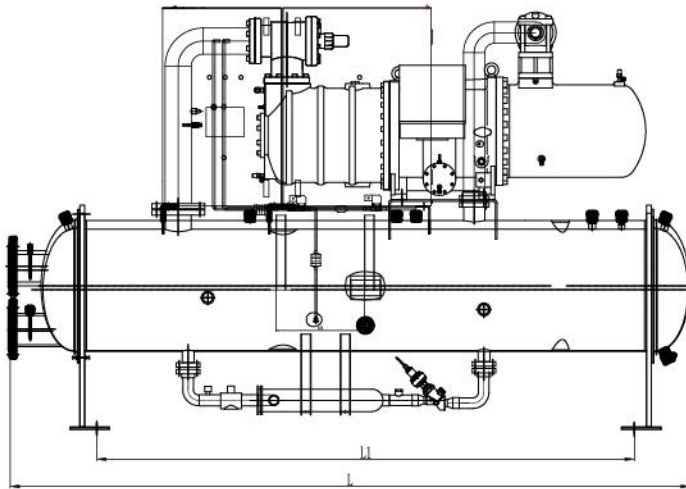
#### Water cooled water chiller with single compressor



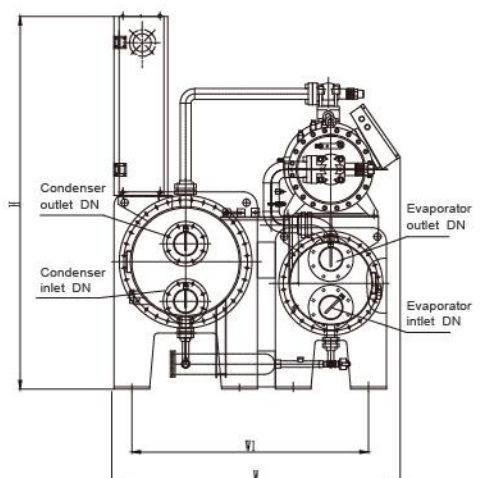
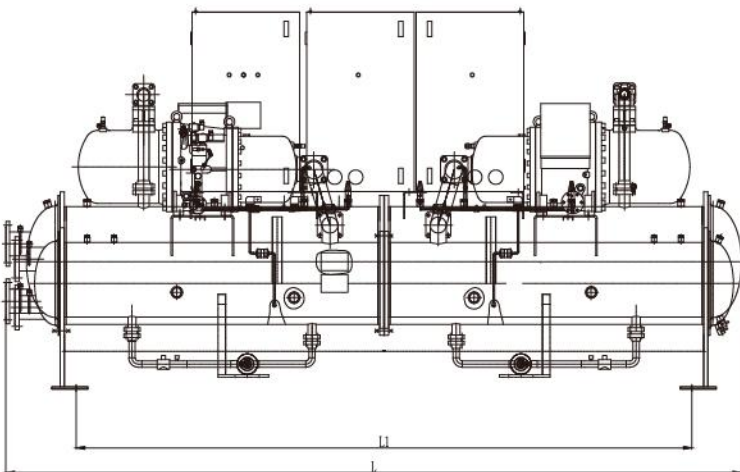
#### Water cooled water chiller with double compressors



## Flooded screw type water cooled water chiller with single compressor



## Flooded screw type water cooled water chiller with double compressors



## 4.SPECIFICATION

### R22 screw type water cooled water chiller(1)

Unit model		RLSG200	RLSG240	RLSG270	RLSG320	RLSG360	RLSG400	RLSG440	RLSG500	RLSG580	
Nominal cooling capacity	kW	198	246	269	313	368	399	440	525	569	
Input power	kW	41.9	50.2	54.8	62.1	72.1	78.2	86.2	103.2	105.6	
Running current	A	72.8	88.1	95.1	107.4	124.4	134.0	145.8	174.5	180.0	
Max.running current	A	89.9	108.9	118.2	133.7	155.0	167.8	184.1	220.5	225.7	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*35+2*16	3*35+2*16	3*50+2*25	3*50+2*25	3*70+2*35	3*70+2*35	3*95+2*50	3*120+2*50	3*120+2*50	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		40	49	54	63	74	80	88	105	114	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	1									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	80	80	100	100	100	100	125	125	125
	Water flow	m <sup>3</sup> /h	34	42	46	54	63	69	76	90	98
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	80	80	100	100	100	100	125	125	125
	Water flow	m <sup>3</sup> /h	43	53	58	67	79	86	95	113	122
Noise	dB(A)	78.4	79	79.2	79.6	80.4	81.5	83.1	84.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	3000	3000	3000	3000	3000	3000	3000	3400	3400	
	W	1250	1350	1300	1350	1350	1350	1350	1450	1450	
	H	1650	1800	1650	1650	1800	1800	1800	1800	1800	
Installation dimensions(mm)	L1	2230	2230	2230	2230	2230	2230	2230	2735	2735	
	W1	790	790	790	790	880	880	880	880	880	
Net weight	kg	1600	1650	1700	1800	1900	2100	2300	2400	2600	
Running weight	kg	1950	2050	2150	2350	2500	2600	2900	3000	3250	

**Remarks**

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG620	RLSG700	RLSG820	RLSG940	RLSG1100	RLSG1200	RLSG1400	RLSG1500	
Nominal cooling capacity	kW	618	692	812	944	1070	1200	1360	1510	
Input power	kW	118.8	133	151.6	178.6	201.8	226.4	251.8	281.3	
Running current	A	201.1	224.9	254.4	299.4	338.2	393.2	433.8	479.1	
Max.running current	A	253.8	284.1	320.8	378.0	427.1	490.7	543.7	595.7	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*150+2*70	3*150+2*70	3*185+2*95	3*185+2*95	3*240+2*120	2*(3*150+2*70) 3*300+2*150	2*(3*150+2*70) 3*300+2*15	2*(3*185+2*95)	
Power voltage	3-380V-50Hz									
Starting mode	Y-Δ									
Refrigerant	R22									
Refrigerant charge		124	138	162	189	214	240	272	302	
Refrigerant control device	Electronic expansion valve(EXV)									
Compressor	Type	Semi-hermetic screw								
	Qty	1								
Evaporator	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	150	150	150	150	150	200	200	200
	Water flow	m <sup>3</sup> /h	106	119	140	162	184	206	234	260
Condenser type	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	150	150	150	150	150	200	200	200
	Water flow	m <sup>3</sup> /h	133	149	175	203	230	258	292	325
Noise	dB(A)	86.3	86.9	87.1	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve									
Unit structure	Horizontal type									
Dimensions (mm)	L	3500	3500	3500	3600	3600	4200	4200	4200	
	W	1500	1500	1500	1600	1600	1640	1640	1700	
	H	2000	1850	1850	1950	1950	1900	1900	1900	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	3435	3435	3435	
	W1	1300	1300	1300	1300	1300	1350	1350	1350	
Net weight	kg	2800	3100	3400	3700	4000	4300	4600	5200	
Running weight	kg	3450	3900	4700	5300	5700	6100	6600	7000	

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

## R22 screw type water cooled water chiller(2)

Unit model		RLSG400	RLSG480	RLSG560	RLSG640	RLSG720	RLSG800	RLSG880	RLSG1000	RLSG1160	
Nominal cooling capacity	kW	396	492	538	626	736	798	880	1050	1138	
Input power	kW	83.8	100.4	109.6	124.2	144.2	156.4	172.4	206.4	211.2	
Running current	A	145.6	176.2	190.2	214.8	248.8	268.0	291.6	349.0	360.0	
Max.running current	A	179.8	217.8	236.4	267.4	310.0	335.6	368.2	441.0	451.4	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*35+2*16)	2*(3*35+2*16)	2*(3*50+2*25)	2*(3*50+2*25)	2*(3*70+2*35)	2*(3*70+2*35)	2*(3*95+2*50)	2*(3*120+2*50)	2*(3*120+2*50)	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		79	98	108	125	147	160	176	210	228	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	2									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	100	125	125	150	150	150	150	150	150
	Water flow	m <sup>3</sup> /h	68	85	93	108	127	137	151	181	196
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	100	125	125	150	150	150	150	150	150
	Water flow	m <sup>3</sup> /h	85	106	116	135	158	172	189	226	245
Noise	dB(A)	78.4	79	79.2	79.6	80.4	81.5	83.1	84.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	3650	3650	3650	3650	3750	4400	4400	4500	4500	
	W	1400	1400	1400	1500	1500	1500	1500	1700	1500	
	H	1600	1600	1600	1800	1900	1900	1900	2050	2050	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	3435	3435	3435	3435	
	W1	1000	1000	1000	1035	1140	1140	1140	1140	1140	
Net weight	kg	2600	2800	3000	3100	3750	4000	4200	4400	4800	
Running weight	kg	3200	3500	3800	4100	4850	5100	5400	5900	6300	

### Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG1240	RLSG1400	RLSG1640	RLSG1880	RLSG2200	RLSG2400	RLSG2800	RLSG3000	
Nominal cooling capacity	kW	1236	1384	1624	1888	2140	2400	2720	3020	
Input power	kW	237.6	266	303.2	357.2	403.6	452.8	503.6	562.6	
Running current	A	402.2	449.8	508.8	598.8	676.4	786.4	867.6	958.2	
Max.running current	A	507.6	568.2	641.6	756.0	854.2	981.4	1087.4	1191.4	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*150+2*70)	2*(3*150+2*70)	2*(3*185+2*95)	2*(3*185+2*95)	2*(3*240+2*120)	4*(3*150+2*70) 2*(3*300+2*150)	4*(3*150+270) 2*(3*300+2*150)	4*(3*185+2*95)	
Power voltage	3-380V-50Hz									
Starting mode	Y-Δ									
Refrigerant	R22									
Refrigerant charge		247	277	325	378	428	480	544	604	
Refrigerant control device	Electronic expansion valve(EXV)									
Compressor	Type	Semi-hermetic screw								
	Qty	2								
Evaporator	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	200	200	200	200	200	250	250	250
	Water flow	m <sup>3</sup> /h	213	238	279	325	368	413	468	519
Condenser type	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	200	200	200	200	200	250	250	250
	Water flow	m <sup>3</sup> /h	266	298	349	406	460	516	585	649
Noise	dB(A)	86.3	86.9	87.1	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve									
Unit structure	Horizontal type									
Dimensions (mm)	L	4500	4500	4500	4550	4550	4550	4550	4550	
	W	1700	1700	1700	1920	1920	1920	1920	1920	
	H	2050	2050	2050	2000	2000	2000	2000	2000	
Installation dimensions(mm)	L1	3435	3435	3435	3435	3435	3435	3435	3435	
	W1	1350	1350	1350	1350	1750	1780	1780	1780	
Net weight	kg	5000	5500	5900	6200	6800	7400	8000	8500	
Running weight	kg	6600	7200	7600	7800	8600	9400	9900	10500	

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

## R22 Flooded screw water cooled water chiller (1)

Unit model		RLSG220M	RLSG270M	RLSG300M	RLSG360M	RLSG400M	RLSG440M	RLSG480M	RLSG580M	RLSG620M	
Nominal cooling capacity	kW	226	271	295	359	408	441	480	598	619	
Input power	kW	42.5	51	55.6	67.1	73.2	79.4	87.5	104.8	108.6	
Running current	A	73.7	89.3	96.5	115.2	126.1	135.9	148.0	177.1	182.6	
Max. running current	A	89.9	108.9	118.2	141.9	155.0	167.8	184.1	220.5	225.7	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*35+2*16	3*35+2*16	3*50+2*25	3*70+2*35	3*70+2*35	3*70+2*35	3*95+2*50	3*120+2*50	3*120+2*50	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		72	87	94	115	131	141	154	191	198	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	1									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	80	100	100	100	100	100	100	125	125
	Water flow	m <sup>3</sup> /h	39	47	51	62	70	76	83	103	106
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	80	100	100	100	100	100	100	125	125
	Water flow	m <sup>3</sup> /h	49	58	63	77	88	95	103	129	133
Noise	dB(A)	78.4	79	79.2	79.6	80.4	81.5	83.1	84.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	3400	3400	3400	3400	3400	3400	3400	3400	3400	
	W	1450	1460	1460	1460	1500	1500	1600	1600	1600	
	H	2100	2100	2100	2100	2100	2100	2100	2100	2100	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	2735	2735	2735	2735	
	W1	1150	1150	1150	1150	1300	1300	1300	1300	1300	
Net weight	kg	2000	2200	2300	2400	2600	2900	3200	3300	3400	
Running weight	kg	2400	2600	2700	2800	3250	3550	4100	4200	4300	

### Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG700M	RLSG760M	RLSG880M	RLSG940M	RLSG1100M	RLSG1200M	RLSG1400M	RLSG1600M	RLSG1700M	
Nominal cooling capacity	kW	688	770	880	948	1054	1250	1402	1560	1746	
Input power	kW	120.7	135	154	166.1	181.4	204.9	229.9	255.7	285.7	
Running current	A	204.1	228.2	258.1	278.3	303.7	343.1	398.8	440.1	485.9	
Max.running current	A	253.8	284.1	320.8	346.0	378.0	427.1	490.7	543.7	595.7	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*150+2*70	3*150+2*70	3*185+2*95	3*185+2*95	3*240+2*120	3*240+2*120	2*(3*150+2*70) 3*300+2*15	2*(3*150+2*70) 3*300+2*150	2*(3*185+2*95)	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		220	246	282	303	337	400	449	499	559	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	1									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	125	150	150	150	150	200	200	200	200
	Water flow	m <sup>3</sup> /h	118	132	151	163	181	215	241	268	300
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	125	150	150	150	150	200	200	200	200
	Water flow	m <sup>3</sup> /h	148	166	189	204	227	269	301	335	375
Noise	dB(A)	86.3	86.9	87.1	87.3	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	3400	3500	3500	3500	3500	3500	3500	3500	3500	
	W	1610	1700	1700	1720	1720	1770	1810	1920	1950	
	H	2100	2150	2150	2150	2150	2200	2250	2250	2900	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	2735	2735	2735	2735	
	W1	1300	1400	1400	1400	1450	1450	1500	1500	1500	
Net weight	kg	3500	3550	3600	4000	4200	4500	4800	5000	5700	
Running weight	kg	4700	5150	5200	5650	5850	6400	6800	7500	7700	

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.



## R22 Flooded screw type water cooled water chiller (2)

Unit model		RLSG440M	RLSG540M	RLSG600M	RLSG720M	RLSG800M	RLSG880M	RLSG960M	RLSG1160M	RLSG1340M	
Nominal cooling capacity	kW	452	542	590	718	816	882	960	1196	1238	
Input power	kW	85	102	111.2	124.2	146.4	158.8	175	209.6	217.2	
Running current	A	147.4	178.6	193.0	230.4	252.2	271.8	296.0	354.2	365.2	
Max.running current	A	179.8	217.8	236.4	283.8	310.0	335.6	368.2	441.0	451.4	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*35+2*16)	2*(3*35+2*16)	2*(3*50+2*25)	2*(3*70+2*35)	2*(3*70+2*35)	2*(3*70+2*35)	2*(3*95+2*50)	2*(3*120+2*50)	2*(3*120+2*50)	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		145	173	189	230	261	282	307	383	396	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	2									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150	200
	Water flow	m <sup>3</sup> /h	78	93	101	123	140	152	165	206	213
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150	200
	Water flow	m <sup>3</sup> /h	97	117	127	154	175	190	206	257	266
Noise	dB(A)	78.4	79	79.2	79.6	80.4	81.5	83.1	84.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	4100	4100	4100	4150	4150	4200	4200	4300	4400	
	W	1600	1600	1600	1600	1550	1600	1600	1680	1750	
	H	2100	2100	2100	2100	2100	2100	2150	2150	2150	
Installation dimensions(mm)	L1	3435	3435	3435	3435	3435	3435	3435	3435	3435	
	W1	1300	1300	1320	1300	1350	1350	1350	1380	1450	
Net weight	kg	3400	3700	4000	4200	4500	4800	5000	5200	5500	
Running weight	kg	4400	4700	5000	5300	5700	6200	6500	7100	7500	

### Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG1400M	RLSG1520M	RLSG1760M	RLSG1880M	RLSG2200M	RLSG2400M	RLSG2800M	RLSG3200M	RLSG3400M	
Nominal cooling capacity	kW	1376	1540	1760	1896	2108	2500	2804	3120	3492	
Input power	kW	241.4	270	308	332.2	362.8	409.8	459.8	511.4	571.4	
Running current	A	408.2	456.4	516.2	556.6	607.4	686.2	797.6	880.2	971.8	
Max.running current	A	507.6	568.2	641.6	692.0	756.0	854.2	981.4	1087.4	1191.4	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*150+2*70)	2*(3*150+2*70)	2*(3*185+2*95)	2*(3*185+2*95)	2*(3*240+2*120)	2*(3*240+2*120)	4*(3*150+2*70) 2*(3*300+2)	4*(3*150+2*70) 2*(3*300+2*1)	4*(3*185+2*95)	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		440	493	563	607	675	800	897	998	1117	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	2									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	200	200	200	200	250	250	250	250	250
	Water flow	m <sup>3</sup> /h	237	265	303	326	363	430	482	537	601
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	200	200	200	200	250	250	250	250	250
	Water flow	m <sup>3</sup> /h	296	331	378	408	453	538	603	671	751
Noise	dB(A)	86.3	86.9	87.1	87.3	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	4500	4500	5000	5000	5000	5000	5300	5300	5800	
	W	1750	1750	1750	1870	1930	2000	2400	2400	2400	
	H	2150	2200	2150	2300	2300	2410	2530	2530	2750	
Installation dimensions(mm)	L1	3435	3435	3435	3435	3435	3435	3435	3435	3435	
	W1	1450	1550	1550	1700	1700	1700	1700	1700	1700	
Net weight	kg	5700	6000	6300	6500	6900	7100	8400	8600	10000	
Running weight	kg	7700	8000	8400	8700	9000	9300	10400	11000	12500	

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

## R22 Falling film type water cooled water chiller (1)

Unit model		RLSG220J	RLSG270J	RLSG300J	RLSG360J	RLSG400J	RLSG440J	RLSG480J	RLSG580J	RLSG620J	
Nominal cooling capacity	kW	226	271	295	359	408	441	480	598	619	
Input power	kW	42.5	51	55.6	62.1	73.2	79.4	87.5	104.8	105.6	
Running current	A	73.7	89.3	96.5	115.2	126.1	135.9	148.0	177.1	182.6	
Max.running current	A	89.9	108.9	118.2	141.9	155.0	167.8	184.1	220.5	225.7	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*35+2*16	3*35+2*16	3*50+2*25	3*70+2*35	3*70+2*35	3*70+2*35	3*95+2*50	3*120+2*50	3*120+2*50	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		72	87	94	115	131	141	154	191	198	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	1									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	80	100	100	100	100	100	125	125	125
	Water flow	m <sup>3</sup> /h	39	47	51	62	70	76	83	103	106
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	80	100	100	100	100	100	125	125	125
	Water flow	m <sup>3</sup> /h	49	58	63	77	88	95	103	129	133
Noise	dB(A)	78.4	79	79.2	79.6	80.4	81.5	83.1	84.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	3400	3400	3400	3400	3400	3400	3400	3400	3400	
	W	1450	1460	1460	1460	1500	1500	1600	1600	1600	
	H	2100	2100	2100	2100	2100	2100	2100	2100	2100	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	2735	2735	2735	2735	
	W1	1150	1150	1150	1150	1300	1300	1300	1300	1300	
Net weight	kg	2000	2200	2300	2400	2600	2900	3200	3300	3400	
Running weight	kg	2400	2600	2700	2800	3250	3550	4100	4200	4300	

### Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG700J	RLSG760J	RLSG880J	RLSG940J	RLSG1100J	RLSG1200J	RLSG1400J	RLSG1600J	RLSG1680J	
Nominal cooling capacity	kW	688	770	880	948	1054	1250	1402	1560	1746	
Input power	kW	120.7	135	154	166.1	181.4	204.9	229.9	255.7	285.7	
Running current	A	204.1	228.2	258.1	278.3	303.7	343.1	398.8	440.1	485.9	
Max.running current	A	253.8	284.1	320.8	346.0	378.0	427.1	490.7	543.7	595.7	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*150+2*70	3*150+2*70	3*185+2*95	3*185+2*95	3*240+2*120	3*240+2*120	2*(3*150+2*70) 3*300+2*15	2*(3*150+2*70) 3*300+2*150	2*(3*185+2*95)	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		220	246	282	303	337	400	449	499	559	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	1									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	150	150	150	150	150	150	200	200	200
	Water flow	m <sup>3</sup> /h	118	132	151	163	181	215	241	268	300
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	150	150	150	150	150	150	200	200	200
	Water flow	m <sup>3</sup> /h	148	166	189	204	227	269	301	335	375
Noise	dB(A)	86.3	86.9	87.1	87.3	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	3400	3500	3500	3500	3500	3500	3500	3500	3500	
	W	1610	1700	1700	1720	1720	1770	1810	1920	1950	
	H	2100	2150	2150	2150	2150	2200	2250	2250	2900	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	2735	2735	2735	2735	
	W1	1300	1400	1400	1400	1450	1450	1500	1500	1500	
Net weight	kg	3500	3550	3600	4000	4200	4500	4800	5000	5600	
Running weight	kg	4700	5150	5200	5650	5850	6500	7000	7500	7900	

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

## R22 Falling film type water cooled water chiller (2)

Unit model		RLSG440J	RLSG540J	RLSG600J	RLSG720J	RLSG800J	RLSG880J	RLSG960J	RLSG1160J	RLSG1340J	
Nominal cooling capacity	kW	452	542	590	718	816	882	960	1196	1238	
Input power	kW	85	102	111.2	124.2	146.4	158.8	175	209.6	211.2	
Running current	A	147.4	178.6	193.0	230.4	252.2	271.8	296.0	354.2	365.2	
Max.running current	A	179.8	217.8	236.4	283.8	310.0	335.6	368.2	441.0	451.4	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*35+2*16)	2*(3*35+2*16)	2*(3*50+2*25)	2*(3*70+2*35)	2*(3*70+2*35)	2*(3*70+2*35)	2*(3*95+2*50)	2*(3*120+2*50)	2*(3*120+2*50)	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		145	173	189	230	261	282	307	383	396	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	2									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	100	125	125	150	150	125	150	150	200
	Water flow	m <sup>3</sup> /h	78	93	101	123	140	152	165	206	213
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	100	125	125	150	150	125	150	150	200
	Water flow	m <sup>3</sup> /h	97	117	127	154	175	190	206	257	266
Noise	dB(A)	78.4	79	79.2	79.6	80.4	81.5	83.1	84.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	4100	4100	4100	4150	4150	4200	4200	4300	4400	
	W	1600	1600	1600	1600	1550	1600	1600	1680	1750	
	H	2100	2100	2100	2100	2100	2100	2150	2150	2150	
Installation dimensions(mm)	L1	3435	3435	3435	3435	3435	3435	3435	3435	3435	
	W1	1300	1300	1320	1300	1350	1350	1350	1380	1450	
Net weight	kg	3400	3700	4000	4200	4500	4800	5000	5200	5500	
Running weight	kg	4400	4700	5000	5300	5700	6200	6500	7100	7500	

### Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG1400J	RLSG1520J	RLSG1760J	RLSG1880J	RLSG2200J	RLSG2400J	RLSG2800J	RLSG3200J	RLSG3360J	
Nominal cooling capacity	kW	1376	1540	1760	1896	2108	2500	2804	3120	3492	
Input power	kW	241.4	270	308	332.2	362.8	409.8	459.8	511.4	571.4	
Running current	A	408.2	456.4	516.2	556.6	607.4	686.2	797.6	880.2	971.8	
Max.running current	A	507.6	568.2	641.6	692.0	756.0	854.2	981.4	1087.4	1191.4	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*150+2*70)	2*(3*150+2*70)	2*(3*185+2*95)	2*(3*185+2*95)	2*(3*240+2*120)	2*(3*240+2*120)	4*(3*150+2*70) 2*(3*300+2)	4*(3*150+2*70) 2*(3*300+2*1)	4*(3*185+2*95)	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R22										
Refrigerant charge		440	493	563	607	675	800	897	998	1117	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	2									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	200	200	200	200	200	250	250	250	250
	Water flow	m <sup>3</sup> /h	237	265	303	326	363	430	482	537	601
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	200	200	200	200	200	250	250	250	250
	Water flow	m <sup>3</sup> /h	296	331	378	408	453	538	603	671	751
Noise	dB(A)	86.3	86.9	87.1	87.3	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	4500	4500	5000	5000	5000	5000	5300	5300	5800	
	W	1750	1750	1750	1870	1930	2000	2400	2400	2400	
	H	2150	2200	2150	2300	2300	2410	2530	2530	2750	
Installation dimensions(mm)	L1	3435	3435	3435	3435	3435	3435	3435	3435	3435	
	W1	1450	1550	1550	1700	1700	1700	1700	1700	1700	
Net weight	kg	5700	6000	6300	6500	6900	7100	8400	8600	10000	
Running weight	kg	7700	8000	8400	8700	9000	9300	10400	11000	125000	

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

## R134a screw type water cooled water chiller(1)

Unit model		RLSG200A	RLSG240A	RLSG260A	RLSG300A	RLSG330A	RLSG360A	RLSG400A	RLSG440A
Nominal cooling capacity	kW	204	236	256	295	329	364	389	441
Input power	kW	40	46	49.7	55.5	62.7	67.8	73.1	81.5
Running current	A	74.3	85.1	90.4	98.8	112.7	124.8	132.0	146.4
Max.running current	A	99.3	114.0	122.0	134.1	151.8	165.5	177.3	197.3
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*35+2*16	3*35+2*16	3*50+2*25	3*50+2*25	3*70+2*35	3*70+2*35	3*95+2*50	3*120+2*50
Power voltage	3-380V-50Hz								
Starting mode	Y-Δ								
Refrigerant	R134a								
Refrigerant charge		41	47	51	57	66	71	78	86
Refrigerant control device	Electronic expansion valve(EXV)								
Compressor	Type	Semi-hermetic screw							
	Qty	1							
Evaporator	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	100	100	100	100	100	100	100
	Water flow	m <sup>3</sup> /h	35	41	44	51	57	63	67
Condenser type	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	100	100	100	100	100	100	100
	Water flow	m <sup>3</sup> /h	44	51	55	63	71	78	84
Noise	dB(A)	79.6	80.4	81.5	83.1	84.2	85.2	86.3	86.9
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve								
Unit structure	Horizontal type								
Dimensions (mm)	L	3000	3000	3000	3000	3000	3000	3000	3000
	W	1350	1350	1350	1350	1450	1450	1450	1450
	H	1600	1600	1650	1650	1650	1800	1800	1800
Installation dimensions(mm)	L1	2230	2230	2230	2230	2230	2230	2230	2230
	W1	790	790	790	790	880	880	880	880
Net weight	kg	1700	1800	1850	1950	1950	2100	2250	2450
Running weight	kg	2200	2400	2550	2750	2850	3100	3350	3750

Unit model		RLSG500A	RLSG580A	RLSG600A	RLSG700A	RLSG800A	RLSG900A	RLSG1000A	
Nominal cooling capacity	kW	505	574	596	700	813	888	1020	
Input power	kW	93.4	102.1	110.9	126.3	146.3	159.4	181.5	
Running current	A	171.2	186.1	201.9	229.4	272.7	291.2	330.1	
Max.running current	A	225.7	246.1	267.1	304.0	364.0	393.2	443.0	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*120+2*50	3*150+2*70	3*150+2*70	3*185+2*95	3*185+2*95	3*240+2*120	3*240+2*120	
Power voltage	3-380V-50Hz								
Starting mode	Y-Δ								
Refrigerant	R134a								
Refrigerant charge		100	109	119	136	160	178	203	
Refrigerant control device	Electronic expansion valve(EXV)								
Compressor	Type	Semi-hermetic screw							
	Qty	1							
Evaporator	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	125	125	125	150	150	150	150
	Water flow	m <sup>3</sup> /h	87	99	103	120	140	153	175
Condenser type	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	125	125	125	150	150	150	150
	Water flow	m <sup>3</sup> /h	109	123	128	151	175	191	219
Noise	dB(A)	87.1	87.3	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve								
Unit structure	Horizontal type								
Dimensions (mm)	L	3400	3400	3500	3500	3500	3500	3500	
	W	1450	1600	1600	1600	1600	1600	1600	
	H	1800	1800	1850	1850	1850	1950	1950	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	2735	2735	
	W1	880	1300	1300	1300	1300	1300	1300	
Net weight	kg	2650	2850	3100	3300	3500	3700	4300	
Running weight	kg	4050	4350	4450	4700	5000	5400	6000	



## R134a screw type water cooled water chiller(2)

Unit model		RLSG400A	RLSG480A	RLSG520A	RLSG600A	RLSG660A	RLSG720A	RLSG800A	RLSG880A	
Nominal cooling capacity	kW	408	472	512	590	658	728	778	882	
Input power	kW	80	92	99.4	111	125.4	135.6	146.2	163	
Running current	A	148.6	170.2	180.8	197.6	225.4	249.6	264.0	292.8	
Max.running current	A	198.6	228.0	244.0	268.2	303.6	331.0	354.6	394.6	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*35+2*16)	2*(3*35+2*16)	2*(3*50+2*25)	2*(3*50+2*25)	2*(3*70+2*35)	2*(3*70+2*35)	2*(3*95+2*50)	2*(3*120+2*50)	
Power voltage	3-380V-50Hz									
Starting mode	Y-Δ									
Refrigerant	R134a									
Refrigerant charge		82	94	102	114	132	142	156	173	
Refrigerant control device	Electronic expansion valve(EXV)									
Compressor	Type	Semi-hermetic screw								
	Qty	2								
Evaporator	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150
	Water flow	m <sup>3</sup> /h	70	81	88	101	113	125	134	152
Condenser type	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150
	Water flow	m <sup>3</sup> /h	88	101	110	127	141	157	167	190
Noise	dB(A)	79.6	80.4	81.5	83.1	84.2	85.2	86.3	86.9	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve									
Unit structure	Horizontal type									
Dimensions (mm)	L	3650	3750	4400	4400	4500	4500	4500	4500	
	W	1500	1500	1500	1500	1700	1700	1700	1700	
	H	1800	1900	1900	1900	2050	2050	2050	2050	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	3435	3435	3435	
	W1	1140	1140	1140	1140	1350	1350	1350	1350	
Net weight	kg	3100	3750	4000	4200	4400	4800	5000	5500	
Running weight	kg	4350	5050	5400	5700	5900	6300	6700	7300	

Unit model		RLSG1000A	RLSG1160A	RLSG1200A	RLSG1400A	RLSG1600A	RLSG1800A	RLSG2000A	
Nominal cooling capacity	kW	1010	1148	1192	1400	1626	1776	2040	
Input power	kW	186.8	204.2	221.8	252.6	292.6	318.8	363	
Running current	A	342.4	372.2	403.8	458.8	545.4	582.4	660.2	
Max.running current	A	451.4	492.2	534.2	608.0	728.0	786.4	886.0	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*120+2*50)	2*(3*150+2*70)	2*(3*150+2*70)	2*(3*185+2*95)	2*(3*185+2*95)	2*(3*240+2*120)	2*(3*240+2*120)	
Power voltage	3-380V-50Hz								
Starting mode	Y-Δ								
Refrigerant	R134a								
Refrigerant charge		200	218	238	273	319	355	406	
Refrigerant control device	Electronic expansion valve(EXV)								
Compressor	Type	Semi-hermetic screw							
	Qty	2							
Evaporator	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	150	150	200	200	200	200	250
	Water flow	m <sup>3</sup> /h	174	197	205	241	280	305	351
Condenser type	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	150	150	200	200	200	200	250
	Water flow	m <sup>3</sup> /h	217	247	256	301	350	382	439
Noise	dB(A)	87.1	87.3	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve								
Unit structure	Horizontal type								
Dimensions (mm)	L	4500	4750	4750	4750	4750	4750	4750	
	W	1700	1900	1900	1900	1900	1900	1900	
	H	2050	2000	2000	2000	2000	2000	2000	
Installation dimensions(mm)	L1	3435	3435	3435	3435	3435	3435	3435	
	W1	1350	1350	1350	1350	1350	1350	1350	
Net weight	kg	5900	6200	6600	7000	7400	8000	8700	
Running weight	kg	7600	7900	8400	8800	9200	9800	10700	

## R134a Flooded screw type water cooled water chiller (1)

Unit model		RLSG200AM	RLSG240AM	RLSG260AM	RLSG300AM	RLSG330AM	RLSG360AM	RLSG400AM	RLSG440AM
Nominal cooling capacity	kW	189	249	270	302	327	376	400	440
Input power	kW	35.4	43.1	46.6	50.3	56.2	63.4	68.5	74.0
Running current	A	66.3	78.8	85.9	91.2	99.7	113.7	125.8	133.1
Max.running current	A	87.4	105.0	114.0	122.0	134.1	151.8	165.5	177.3
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*25+2*16	3*35+2*16	3*35+2*16	3*50+2*25	3*50+2*25	3*70+2*35	3*70+2*35	3*95+2*50
Power voltage	3-380V-50Hz								
Starting mode	Y-Δ								
Refrigerant	R134a								
Refrigerant charge		60	74	83	91	101	114	126	134
Refrigerant control device	Electronic expansion valve(EXV)								
Compressor	Type	Semi-hermetic screw							
	Qty	1							
Evaporator	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	100	100	100	100	100	100	100
	Water flow	m <sup>3</sup> /h	33	43	46	52	56	65	69
Condenser type	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	100	100	100	100	100	100	100
	Water flow	m <sup>3</sup> /h	54	58	65	70	81	86	95
Noise	dB(A)	79.2	79.9	80.4	81.5	83.1	84.2	85.2	85.2
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve								
Unit structure	Horizontal type								
Dimensions (mm)	L	3000	3000	3000	3000	3000	3000	3000	3000
	W	1350	1350	1350	1350	1450	1450	1450	1450
	H	1600	1600	1650	1650	1650	1800	1800	1800
Installation dimensions(mm)	L1	2230	2230	2230	2230	2230	2230	2230	2230
	W1	1155	1155	1155	1155	1310	1310	1310	1310
Net weight	kg	1700	1800	1850	1950	2100	2400	2700	2900
Running weight	kg	2100	2300	2450	2650	2900	3200	3600	3900

Unit model		RLSG500AM	RLSG560AM	RLSG630AM	RLSG680AM	RLSG800AM	RLSG900AM	RLSG1000AM	RLSG1200AM	
Nominal cooling capacity	kW	492	566	626	678	792	900	992	1120	
Input power	kW	82.5	94.5	103.2	112.1	127.8	148	161.2	183.6	
Running current	A	147.7	172.6	187.6	203.6	231.3	275.1	293.9	333.1	
Max.running current	A	197.3	225.7	246.1	267.1	304.0	364.0	393.2	443.0	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*120+2*50	3*120+2*50	3*150+2*70	3*150+2*70	3*185+2*95	3*185+2*95	3*240+2*120	3*240+2*120	
Power voltage	3-380V-50Hz									
Starting mode	Y-Δ									
Refrigerant	R134a									
Refrigerant charge		152	179	195	218	248	287	314	358	
Refrigerant control device	Electronic expansion valve(EXV)									
Compressor	Type	Semi-hermetic screw								
	Qty	1								
Evaporator	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150
	Water flow	m <sup>3</sup> /h	85	97	108	117	136	155	171	193
Condenser type	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150
	Water flow	m <sup>3</sup> /h	106	122	135	146	170	194	213	241
Noise	dB(A)	86.9	87.1	87.3	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve									
Unit structure	Horizontal type									
Dimensions (mm)	L	3400	3400	3500	3500	3500	3500	3500	3500	
	W	1450	1600	1600	1600	1600	1600	1600	1810	
	H	1800	1800	1850	1850	1850	1950	1950	2250	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	2735	2735	2735	
	W1	1310	1400	1400	1400	1400	1400	1400	1600	
Net weight	kg	3200	3600	3900	4100	4300	4600	4800	5200	
Running weight	kg	4200	4600	5200	5650	5850	6200	6500	6900	

## R134a Flooded screw type water cooled water chiller (2)

Unit model		RLSG400AM	RLSG480AM	RLSG520AM	RLSG600AM	RLSG660AM	RLSG720AM	RLSG800AM	RLSG880AM	
Nominal cooling capacity	kW	398	492	540	604	654	752	800	880	
Input power	kW	70.8	86.2	93.2	100.6	112.4	126.8	146.2	146.2	
Running current	A	132.6	157.6	171.8	182.4	199.4	227.4	251.6	266.2	
Max.running current	A	174.8	210.0	228.0	244.0	268.2	303.6	331.0	354.6	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*25+2*16)	2*(3*35+2*16)	2*(3*35+2*16)	2*(3*50+2*25)	2*(3*50+2*25)	2*(3*70+2*35)	2*(3*70+2*35)	2*(3*95+2*50)	
Power voltage	3-380V-50Hz									
Starting mode	Y-Δ									
Refrigerant	R134a									
Refrigerant charge		143	166	186	204	228	256	284	301	
Refrigerant control device	Electronic expansion valve(EXV)									
Compressor	Type	Semi-hermetic screw								
	Qty	2								
Evaporator	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	100	125	125	125	150	150	150
	Water flow	m <sup>3</sup> /h	68	85	93	104	112	129	138	151
Condenser type	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	100	125	125	125	150	150	150
	Water flow	m <sup>3</sup> /h	86	106	116	130	141	162	172	189
Noise	dB(A)	79.2	79.9	80.4	81.5	83.1	84.2	85.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve									
Unit structure	Horizontal type									
Dimensions (mm)	L	4100	4150	4150	4200	4200	4300	4400	4400	
	W	1600	1600	1600	1600	1600	1600	1680	1680	
	H	2100	2100	2100	2100	2100	2100	2100	2150	
Installation dimensions(mm)	L1	3435	3435	3435	3435	3435	3435	3435	3435	
	W1	1130	1130	1130	1130	1130	1130	1400	1400	
Net weight	kg	3500	3700	4200	4500	4700	5300	5500	5700	
Running weight	kg	4400	4600	5750	5850	6000	6600	7100	7400	

Unit model		RLSG1000AM	RLSG1120AM	RLSG1260AM	RLSG1360AM	RLSG1600AM	RLSG1800AM	RLSG2000AM	RLSG2400AM
Nominal cooling capacity	kW	984	1132	1252	1356	1584	1800	1984	2240
Input power	kW	165	189	206.4	224.2	255.6	296	322.4	367.2
Running current	A	295.4	345.2	375.2	407.2	462.6	550.2	587.8	666.2
Max.running current	A	394.6	451.4	492.2	534.2	608.0	728.0	786.4	886.0
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*120+2*50)	2*(3*120+2*50)	2*(3*150+2*70)	2*(3*150+2*70)	2*(3*185+2*95)	2*(3*185+2*95)	2*(3*240+2*120)	2*(3*240+2*120)
Power voltage	3-380V-50Hz								
Starting mode	Y-Δ								
Refrigerant	R134a								
Refrigerant charge		343	403	438	490	557	645	706	806
Refrigerant control device	Electronic expansion valve(EXV)								
Compressor	Type	Semi-hermetic screw							
	Qty	2							
Evaporator	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	150	150	200	200	200	200	200
	Water flow	m <sup>3</sup> /h	169	195	215	233	272	310	341
Condenser type	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	150	150	200	200	200	200	200
	Water flow	m <sup>3</sup> /h	212	243	269	292	341	387	427
Noise	dB(A)	86.9	87.1	87.3	87.6	88.4	90.1	90.5	90.8
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve								
Unit structure	Horizontal type								
Dimensions (mm)	L	4500	5000	5000	5000	5000	5300	5300	5800
	W	1680	1750	2000	2000	2000	2000	2000	2200
	H	2150	2150	2250	2250	2410	2530	2600	2800
Installation dimensions(mm)	L1	3435	4235	4235	4235	4235	4235	4235	4235
	W1	1400	1400	1500	1500	1500	1700	1700	1700
Net weight	kg	5800	6000	6200	6400	7100	8400	9000	10000
Running weight	kg	7600	7800	8000	8200	8900	10200	10800	12000

## R134a Falling film type water cooled water chiller (1)

Unit model		RLSG200AJ	RLSG240AJ	RLSG260AJ	RLSG300AJ	RLSG330AJ	RLSG360AJ	RLSG400AJ	RLSG440AJ
Nominal cooling capacity	kW	189	249	270	302	327	376	400	440
Input power	kW	35.4	43.1	46.6	50.3	56.2	63.4	73.1	73.1
Running current	A	66.3	78.8	85.9	91.2	99.7	113.7	125.8	133.1
Max.running current	A	87.4	105.0	114.0	122.0	134.1	151.8	165.5	177.3
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*25+2*16	3*35+2*16	3*35+2*16	3*50+2*25	3*50+2*25	3*70+2*35	3*70+2*35	3*95+2*50
Power voltage	3-380V-50Hz								
Starting mode	Y-Δ								
Refrigerant	R134a								
Refrigerant charge		38	46	52	57	63	71	79	84
Refrigerant control device	Electronic expansion valve(EXV)								
Compressor	Type	Semi-hermetic screw							
	Qty	1							
Evaporator	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	100	100	100	100	100	100	100
	Water flow	m <sup>3</sup> /h	33	43	46	52	56	65	69
Condenser type	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	100	100	100	100	100	100	100
	Water flow	m <sup>3</sup> /h	41	54	58	65	70	81	86
Noise	dB(A)	79.2	79.9	80.4	81.5	83.1	84.2	85.2	85.2
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve								
Unit structure	Horizontal type								
Dimensions (mm)	L	3000	3000	3000	3000	3000	3000	3000	3000
	W	1350	1350	1350	1350	1450	1450	1450	1450
	H	1600	1600	1650	1650	1650	1800	1800	1800
Installation dimensions(mm)	L1	2230	2230	2230	2230	2230	2230	2230	2230
	W1	1155	1155	1155	1155	1310	1310	1310	1310
Net weight	kg	1700	1800	1850	1950	1900	2100	2250	2450
Running weight	kg	2100	2300	2450	2650	2900	3200	3600	3900

### Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG500AJ	RLSG560AJ	RLSG630AJ	RLSG680AJ	RLSG800AJ	RLSG900AJ	RLSG1000AJ	RLSG1200AJ	
Nominal cooling capacity	kW	492	566	626	678	792	900	992	1120	
Input power	kW	82.5	94.5	103.2	112.1	127.8	148	161.2	183.6	
Running current	A	147.7	172.6	187.6	203.6	231.3	275.1	293.9	333.1	
Max.running current	A	197.3	225.7	246.1	267.1	304.0	364.0	393.2	443.0	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*120+2*50	3*120+2*50	3*150+2*70	3*150+2*70	3*185+2*95	3*185+2*95	3*240+2*120	3*240+2*120	
Power voltage	3-380V-50Hz									
Starting mode	Y-Δ									
Refrigerant	R134a									
Refrigerant charge		95	112	122	136	155	179	196	224	
Refrigerant control device	Electronic expansion valve(EXV)									
Compressor	Type	Semi-hermetic screw								
	Qty	1								
Evaporator	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150
	Water flow	m <sup>3</sup> /h	85	97	108	117	136	155	171	193
Condenser type	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150
	Water flow	m <sup>3</sup> /h	106	122	135	146	170	194	213	241
Noise	dB(A)	86.9	87.1	87.3	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve									
Unit structure	Horizontal type									
Dimensions (mm)	L	3000	3400	3400	3500	3500	3500	3500	3500	
	W	1450	1450	1600	1600	1600	1600	1600	1600	
	H	1800	1800	1800	1850	1850	1850	1950	1950	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	2735	2735	2735	
	W1	1310	1400	1400	1400	1400	1400	1400	1600	
Net weight	kg	2450	2650	2850	3100	3300	3500	3700	4000	
Running weight	kg	4200	4600	5200	5650	5850	6200	6500	6900	

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.



## R134a Falling film type water cooled water chiller (2)

Unit model		RLSG400AJ	RLSG480AJ	RLSG520AJ	RLSG600AJ	RLSG660AJ	RLSG720AJ	RLSG800AJ	RLSG880AJ	
Nominal cooling capacity	kW	398	492	540	604	654	752	800	880	
Input power	kW	70.8	86.2	93.2	100.6	112.4	126.8	146.2	146.2	
Running current	A	132.6	157.6	171.8	182.4	199.4	227.4	251.6	266.2	
Max.running current	A	174.8	210.0	228.0	244.0	268.2	303.6	331.0	354.6	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*25+2*16)	2*(3*35+2*16)	2*(3*35+2*16)	2*(3*50+2*25)	2*(3*50+2*25)	2*(3*70+2*35)	2*(3*70+2*35)	2*(3*95+2*50)	
Power voltage	3-380V-50Hz									
Starting mode	Y-Δ									
Refrigerant	R134a									
Refrigerant charge		80	92	103	113	127	142	158	167	
Refrigerant control device	Electronic expansion valve(EXV)									
Compressor	Type	Semi-hermetic screw								
	Qty	2								
Evaporator	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	100	125	125	125	150	150	150
	Water flow	m <sup>3</sup> /h	68	85	93	104	112	129	138	151
Condenser type	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	100	100	125	125	125	150	150	150
	Water flow	m <sup>3</sup> /h	86	106	116	130	141	162	172	189
Noise	dB(A)	79.2	79.9	80.4	81.5	83.1	84.2	85.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve									
Unit structure	Horizontal type									
Dimensions (mm)	L	3650	3750	4400	4400	4500	4500	4500	4500	
	W	1500	1500	1500	1500	1700	1700	1700	1700	
	H	1800	1900	1900	1900	2050	2050	2050	2050	
Installation dimensions(mm)	L1	3435	3435	3435	3435	3435	3435	3435	3435	
	W1	1130	1130	1130	1130	1130	1130	1400	1400	
Net weight	kg	3100	3750	4000	4200	4400	4800	5000	5500	
Running weight	kg	4000	4600	5750	5850	6000	6600	7100	7400	

### Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG1000AJ	RLSG1120AJ	RLSG1260AJ	RLSG1360AJ	RLSG1600AJ	RLSG1800AJ	RLSG2000AJ	RLSG2400AJ
Nominal cooling capacity	kW	984	1132	1252	1356	1584	1800	1984	2240
Input power	kW	165	189	206.4	224.2	255.6	296	322.4	367.2
Running current	A	295.4	345.2	375.2	407.2	462.6	550.2	587.8	666.2
Max. running current	A	394.6	451.4	492.2	534.2	608.0	728.0	786.4	886.0
Cable diameter (copper wire distance $\leq$ 20 meters)	mm <sup>2</sup>	2*(3*120+2*50)	2*(3*120+2*50)	2*(3*150+2*70)	2*(3*150+2*70)	2*(3*185+2*95)	2*(3*185+2*95)	2*(3*240+2*120)	2*(3*240+2*120)
Power voltage	3-380V-50Hz								
Starting mode	Y- $\Delta$								
Refrigerant	R134a								
Refrigerant charge		190	224	243	272	310	358	392	448
Refrigerant control device	Electronic expansion valve(EXV)								
Compressor	Type	Semi-hermetic screw							
	Qty	2							
Evaporator	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	150	150	200	200	200	200	200
	Water flow	m <sup>3</sup> /h	169	195	215	233	272	310	341
Condenser type	Type	Shell & tube type							
	Water pressure drop	kPa	70-90						
	Water pipe Dia.	DN	150	150	200	200	200	200	200
	Water flow	m <sup>3</sup> /h	212	243	269	292	341	387	427
Noise	dB(A)	86.9	87.1	87.3	87.6	88.4	90.1	90.5	90.8
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve								
Unit structure	Horizontal type								
Dimensions (mm)	L	4500	4750	4750	4750	4750	4750	4750	4550
	W	1700	1900	1900	1900	1900	1900	1900	1920
	H	2050	2000	2000	2000	2000	2000	2000	2000
Installation dimensions(mm)	L1	3435	4235	4235	4235	4235	4235	4235	4235
	W1	1400	1400	1500	1500	1500	1700	1700	1700
Net weight	kg	5900	6200	6600	7000	7400	8000	8500	6800
Running weight	kg	7600	7800	8000	8200	8900	10200	10800	12000

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

## R407c screw type water cooled water chiller(1)

Unit model		RLSG200C	RLSG240C	RLSG270C	RLSG320C	RLSG360C	RLSG400C	RLSG460C	RLSG500C	RLSG580C	
Nominal cooling capacity	kW	193	242	266	306	360	394	438	498	558	
Input power	kW	41	49.5	54.3	60.5	70.6	77.2	84.6	98	103.5	
Running current	A	71.4	87.0	94.4	104.9	122.0	132.4	143.2	166.1	176.7	
Max.running current	A	91.4	111.6	121.8	135.5	157.9	172.4	188.2	218.1	230.4	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*35+2*16	3*35+2*16	3*50+2*25	3*50+2*25	3*70+2*35	3*70+2*35	3*95+2*50	3*120+2*50	3*120+2*50	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R407C										
Refrigerant charge		39	48	53	61	72	79	88	100	112	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	1									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	80	80	100	100	100	100	125	125	125
	Water flow	m <sup>3</sup> /h	33	42	46	53	62	68	75	86	96
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	80	80	100	100	100	100	125	125	125
	Water flow	m <sup>3</sup> /h	41	52	57	66	77	85	94	107	120
Noise	dB(A)	78.4	79	79.2	79.6	80.4	81.5	83.1	84.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	3000	3000	3000	3000	3000	3000	3000	3400	3400	
	W	1250	1250	1300	1350	1350	1350	1350	1450	1450	
	H	1650	1650	1650	1650	1800	1800	1800	1800	1800	
Installation dimensions(mm)	L1	2230	2230	2230	2230	2230	2230	2230	2735	2735	
	W1	790	790	790	790	880	880	880	880	880	
Net weight	kg	1600	1650	1700	1700	1900	2100	2300	2400	2600	
Running weight	kg	1950	2050	2150	2350	2500	2600	2900	3000	3250	

### Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG620C	RLSG700C	RLSG820C	RLSG940C	RLSG1100C	RLSG1200C	RLSG1400C	RLSG1500C	
Nominal cooling capacity	kW	599	669	794	918	1026	1176	1291	1510	
Input power	kW	115.1	128.5	148	173.2	193.2	221.1	239.2	285.2	
Running current	A	195.1	217.7	248.8	291.0	324.9	384.9	413.6	485.2	
Max.running current	A	256.0	286.0	326.3	382.0	425.8	498.8	538.0	627.1	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	3*150+2*70	3*150+2*70	3*185+2*95	3*185+2*95	3*240+2*120	2*(3*150+2*70) 3*300+2*150	2*(3*150+2*70) 3*300+2*150	2*(3*185+2*95)	
Power voltage	3-380V-50Hz									
Starting mode	Y-Δ									
Refrigerant	R407C									
Refrigerant charge		120	134	159	184	205	235	258	302	
Refrigerant control device	Electronic expansion valve(EXV)									
Compressor	Type	Semi-hermetic screw								
	Qty	1								
Evaporator	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	150	150	150	150	150	200	200	200
	Water flow	m <sup>3</sup> /h	103	115	137	158	176	202	222	260
Condenser type	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	150	150	150	150	150	200	200	200
	Water flow	m <sup>3</sup> /h	129	144	171	197	221	253	278	325
Noise	dB(A)	86.3	86.9	87.1	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve									
Unit structure	Horizontal type									
Dimensions (mm)	L	3500	3500	3500	3600	3600	4200	4200	4200	
	W	1500	1500	1500	1600	1600	1640	1640	1700	
	H	2000	1850	1850	1950	1950	1900	1900	1900	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	3435	3435	3435	
	W1	1300	1300	1300	1300	1300	1350	1350	1350	
Net weight	kg	2800	3100	3400	3700	4000	4300	4600	5200	
Running weight	kg	3450	3900	4700	5300	5700	6100	6600	7000	

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

## R407c screw type water cooled water chiller(2)

Unit model		RLSG400C	RLSG480C	RLSG560C	RLSG640C	RLSG760C	RLSG800C	RLSG920C	RLSG1000C	RLSG1160C	
Nominal cooling capacity	kW	386	484	532	612	720	788	876	996	1116	
Input power	kW	82	99	108.6	121	141.2	154.4	169.2	196	207	
Running current	A	142.8	174.0	188.8	209.8	244.0	264.8	286.4	332.2	353.4	
Max.running current	A	182.8	223.2	243.6	271.0	315.8	344.8	376.4	436.2	460.8	
Cable diameter (copper wire distance ≤ 20 meters)	mm <sup>2</sup>	2*(3*35+2*16)	2*(3*35+2*16)	2*(3*50+2*25)	2*(3*50+2*25)	2*(3*70+2*35)	2*(3*70+2*35)	2*(3*95+2*50)	2*(3*120+2*50)	2*(3*120+2*50)	
Power voltage	3-380V-50Hz										
Starting mode	Y-Δ										
Refrigerant	R407C										
Refrigerant charge		77	97	106	122	144	158	175	199	223	
Refrigerant control device	Electronic expansion valve(EXV)										
Compressor	Type	Semi-hermetic screw									
	Qty	2									
Evaporator	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150	150
	Water flow	m <sup>3</sup> /h	66	83	92	105	124	136	151	171	192
Condenser type	Type	Shell & tube type									
	Water pressure drop	kPa	70-90								
	Water pipe Dia.	DN	100	125	125	125	150	150	150	150	150
	Water flow	m <sup>3</sup> /h	83	104	114	132	155	169	188	214	240
Noise	dB(A)	78.4	79	79.2	79.6	80.4	81.5	83.1	84.2	85.2	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve										
Unit structure	Horizontal type										
Dimensions (mm)	L	3650	3650	3650	3650	3750	4400	4400	4500	4500	
	W	1400	1400	1400	1500	1500	1500	1500	1700	1700	
	H	1600	1600	1600	1800	1900	1900	1900	2050	2050	
Installation dimensions(mm)	L1	2735	2735	2735	2735	2735	3435	3435	3435	3435	
	W1	1000	1000	1000	1035	1140	1140	1140	1140	1140	
Net weight	kg	2600	2800	3000	3100	3750	4000	4200	4400	4800	
Running weight	kg	3200	3500	3800	4100	4850	5100	5400	5900	6300	

### Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

Unit model		RLSG1240C	RLSG1400C	RLSG1640C	RLSG1880C	RLSG2200C	RLSG2400C	RLSG2800C	RLSG3000C	
Nominal cooling capacity	kW	1198	1338	1588	1836	2052	2352	2582	3020	
Input power	kW	230.2	257	296	346.4	386.4	442.2	478.4	570.4	
Running current	A	390.2	435.4	497.6	582.0	649.8	769.8	827.2	970.4	
Max. running current	A	512.0	572.0	652.6	764.0	851.6	997.6	1076.0	1254.2	
Cable diameter (copper wire distance $\leq$ 20 meters)	mm <sup>2</sup>	2*(3*150+2*50)	2*(3*150+2*50)	2*(3*185+2*50)	2*(3*185+2*95)	2*(3*240+2*120)	4*(3*150+2*70) 2*(3*300+2*1)	4*(3*150+2*70) 2*(3*300+2*150)	4*(3*185+2*95)	
Power voltage	3-380V-50Hz									
Starting mode	Y- $\Delta$									
Refrigerant	R407C									
Refrigerant charge		240	268	318	367	410	470	516	604	
Refrigerant control device	Electronic expansion valve(EXV)									
Compressor	Type	Semi-hermetic screw								
	Qty	2								
Evaporator	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	200	200	200	200	200	250	250	250
	Water flow	m <sup>3</sup> /h	206	230	273	316	353	405	444	519
Condenser type	Type	Shell & tube type								
	Water pressure drop	kPa	70-90							
	Water pipe Dia.	DN	200	200	200	200	200	250	250	250
	Water flow	m <sup>3</sup> /h	258	288	341	395	441	506	555	649
Noise	dB(A)	86.3	86.9	87.1	87.6	88.4	90.1	90.5	90.8	
Protection device	High and low voltage protection, antifreeze protection, temperature control, reverse phase and phase loss protection, high and low voltage protection, high pressure exhaust temperature protection, built-in motor overheat protection, overcurrent protection, check valve, safety valve									
Unit structure	Horizontal type									
Dimensions (mm)	L	4500	4500	4500	4550	4550	4550	4550	4550	
	W	1700	1700	1700	1920	1920	1920	1920	1920	
	H	2050	2050	2050	2000	2000	2000	2000	2000	
Installation dimensions(mm)	L1	3435	3435	3435	3435	3435	3435	3435	3435	
	W1	1350	1350	1350	1350	1750	1780	1780	1780	
Net weight	kg	5000	5500	5900	6200	6800	7400	8000	8500	
Running weight	kg	6600	7200	7600	7800	8600	9400	9900	10500	

Remarks

Cooling conditions: chilled water inlet/outlet temperature 12°C/7°C, cooling water inlet/outlet temperature 30°C/35°C.

## 5. INSTALLATION

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### 5.1. Precautions before installation

#### 5.1.1 General requirements

- Installation site must be clean, dry, free of debris and well-lit to facilitate operation and maintenance.

#### 5.1.2 Space requirements

- Installation site should pay attention to whether there is enough space for the unit to enter and exit.
- Regardless of the type of machine, a maintenance space of at least 800-1000mm should be reserved on each side. In addition, it should be noted that there should be enough space at both ends of the unit to clean the condenser and evaporator copper pipes in the future.

#### 5.1.3 Ventilation

- Indoor machine room needs proper ventilation. Even if there are no relevant regulations in many areas, it is best to install ventilation equipment in poorly ventilated places, which is conducive to the safe operation and operation of machinery and equipment.

#### 5.1.4 Basics

- Foundation can be made of cement or steel plate, but it must be able to fully bear the operating weight of the unit, and the levelness must be within 3/1000.

#### 5.1.5 Anti-vibration

- Foundation of the unit must be solid to minimize vibration transmission.
- Unit should be equipped with shock absorbers when necessary to prevent noise and vibration from spreading to the building.

#### 5.1.6 Drainage

- When making the foundation, drainage ditch must be preset on the ground to discharge the water in the water pipes and equipment during the shutdown and maintenance.

5.1.7 The waterproof unit must not be installed under the condensation or water pipes, and where water may splash. Waterproofing is very important to the safety of electrical control equipment.

### 5.2. Goods receiving and handling

#### 5.2.1 Receiving

- After the equipment is delivered to the site, first check whether the goods are consistent with the order, whether the accessories are missing, and whether they are damaged during transportation. If there is any missing, damaged or inconsistent with the order, you should immediately contact the delivery person or our company.

#### 5.2.2 Moving

- Before installation, the less the unit is moved, the less chance it will be damaged. The accessories on the machine (such as electric control box, piping, pipe fittings, etc.) cannot be used to lift the machine or trample on it.
- When hoisting, the hoisting bar can be hoisted through the hoisting hole on the base of the unit. At the same time, pay attention to the electric control box, piping accessories and insulation materials, etc., not to be hurt. If it is a unit with a packing box, it should be lifted by the whole unit. When hoisting, it is necessary to avoid scratching or deformation of the unit's surface, and a protective pad should be placed on the contact surface of the steel cable and the body.
- When hoisting, the unit should be maintained in a vertical state, the inclination should be less than 300, collisions should be avoided, and sliding should be avoided. Personnel should not stand under or near the unit for safety.
- Pay attention to moving with care.

### 5.3. Water pipe piping of condenser and evaporator

- The water pipe can be assembled only after the unit has been leveled. An exhaust valve must be installed at the highest position of all pipelines. The water pipe piping of the evaporator should be insulated to prevent condensation. The water pipe piping of the condenser should be insulated according to local conditions and laws and regulations.
  - The inlet and outlet water pipe piping connecting the condenser and evaporator of the chiller should be installed according to the unit's mark and cannot be connected incorrectly.
  - In order to record the operation of the unit, thermometers and pressure gauges should be installed on the inlet and outlet pipes of the condenser and evaporator.
  - The inlet side of the water pipe piping of the cooling water and chilled water pumps needs to be equipped with a filter, because during the construction of the water pipe piping, there may be debris left in the water pipe and cannot be cleaned up. These debris may enter the water pump, The condenser and evaporator cause internal damage or block the heat transfer tube. After piping, the equipment can be operated in accordance with the requirements of the construction specification and the cleaning is completed.
  - The lowest point of the inlet and outlet water pipes of the condenser and evaporator must be equipped with a drain valve, so that the water in the condenser and evaporator can be removed during shutdown and maintenance.
  - The inlet and outlet water pipes of the condenser and evaporator must be equipped with flexible shock-proof hoses to reduce vibration transmission and prevent the unit from bearing the weight of the pipeline.
  - The inlet water pipe piping of the condenser should be equipped with a flow control valve to control the water volume, so that the condensing pressure of the unit can be maintained in a proper condition.
  - The outlet of the condenser and evaporator must be correctly equipped with a flow switch to ensure that the unit has the water volume that meets the operating requirements when the unit is running. If it is not installed, once the water flow is interrupted, it may cause serious damage to the unit.
- The circulating water pump should be installed at the inlet of the condenser and evaporator, or at the outlet side if space is limited.
- Before starting the chiller, please confirm that the air in the pipeline has been completely removed from the water pipeline to avoid damage caused by running without water.
  - When the unit is not used in cold areas in winter, all water in the condenser and evaporator must be drained to avoid damage to the internal copper pipes after the water freezes.

### 5.4 Principles and requirements of water system

- Water quality: clean water or water that has been treated and meets engineering requirements.
- Water temperature: The water temperature of the water source should be moderate.
- Water volume: The water volume should be able to meet the needs of the user's cooling load.

### 5.5 Power distribution

- Electric engineering must comply with relevant laws and regulations.
- Wire size, electromagnetic switch, non-fuse switch and other specifications must comply with relevant laws and regulations. The phase sequence of the power supply must match the direction of rotation of the compressor.
- All wiring terminals must be uniform and appropriate, and screws must be tightened.
- After the line is connected, mark it for later maintenance.

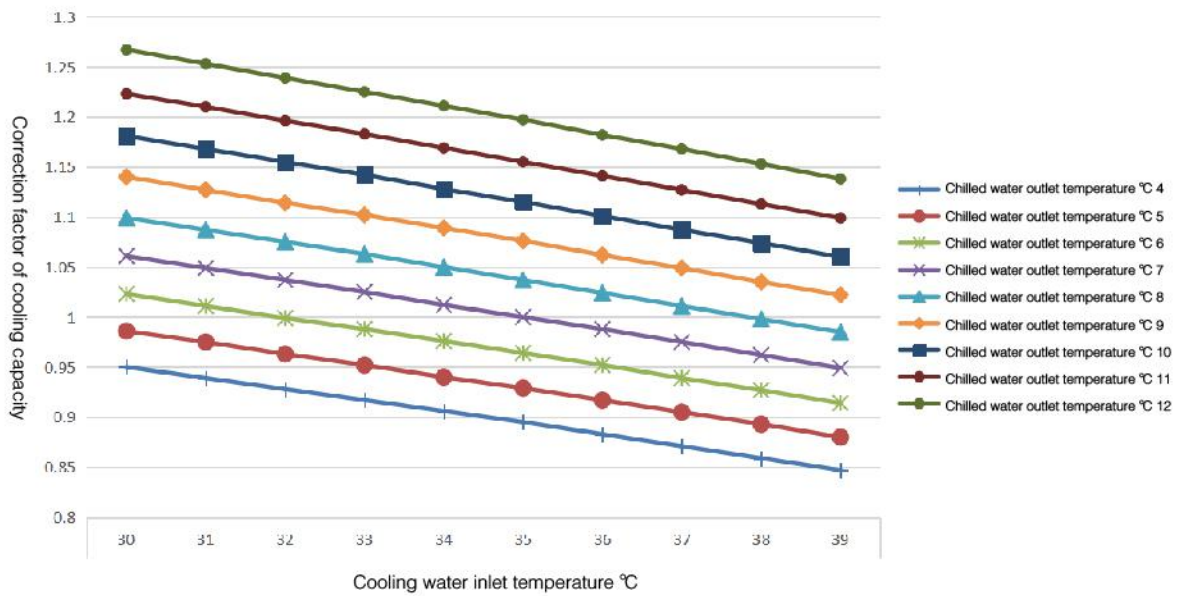
### 5.6 Control circuit

- The external interlock circuit in the control circuit should be connected properly to prevent the compressor from starting before the pump is still running.
- When the oil heater circuit is stopped, do not cut off the power. If the power is cut off, before restarting, make sure that the oil heater has been heated for 8 hours or the oil temperature is above 23C.



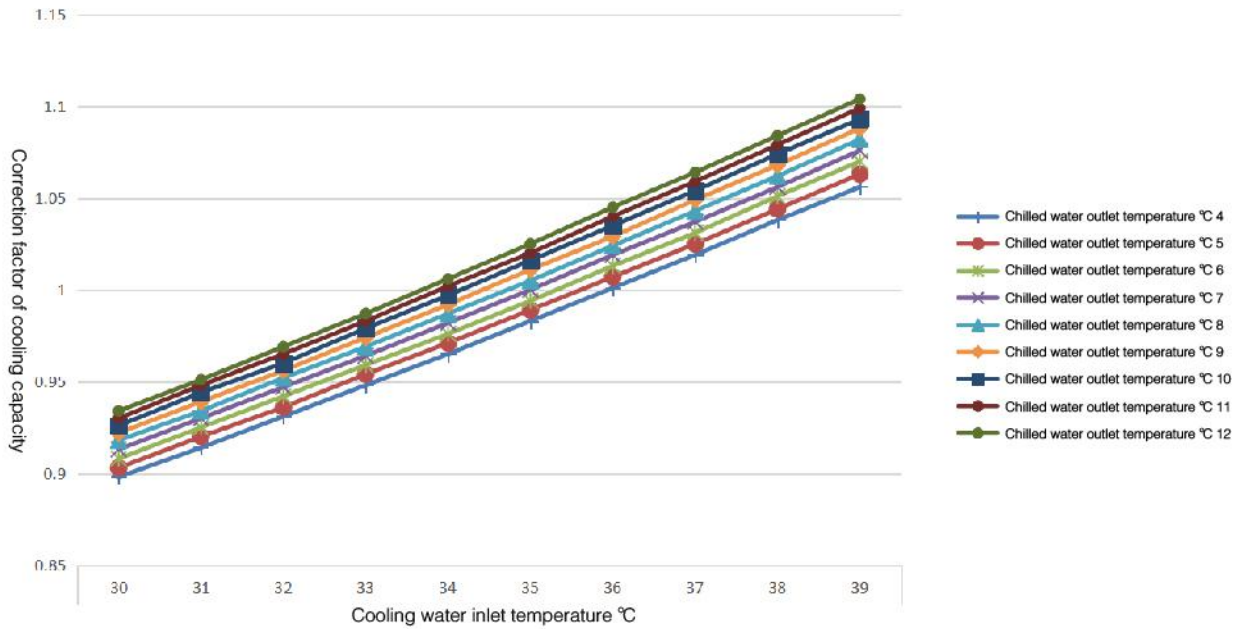
## 6. CORRECTION FACTOR

### Correction factor curve of dry type water cooled water chiller cooling capacity-R22



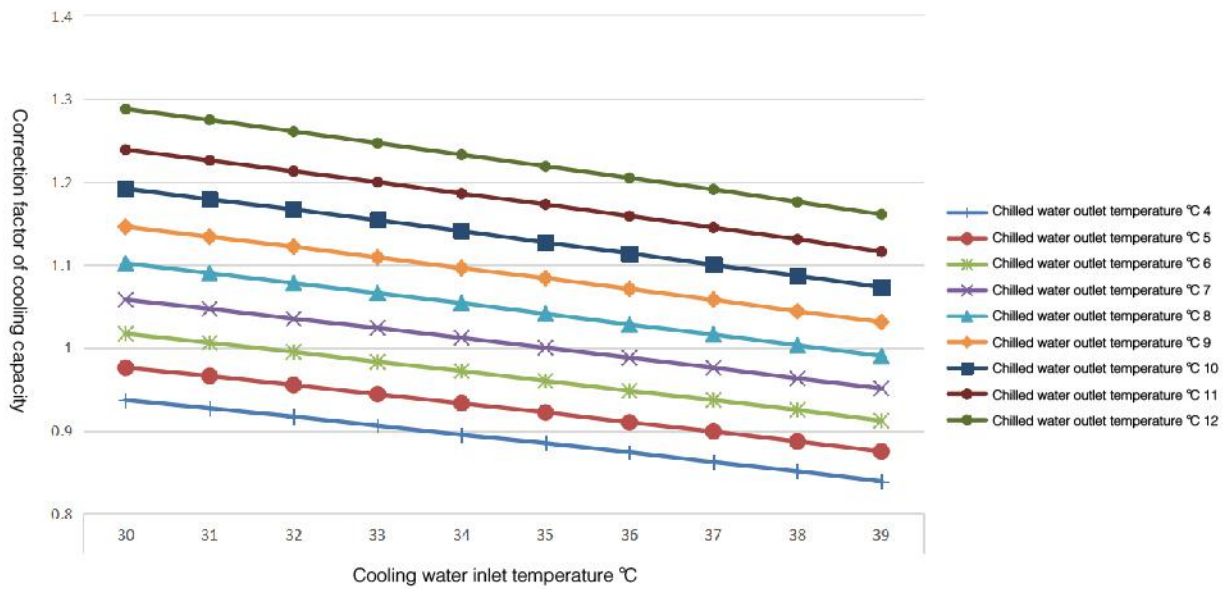
		Cooling water inlet temperature °C									
		30	31	32	33	34	35	36	37	38	39
Chilled water outlet temperature °C	4	0.950	0.939	0.928	0.917	0.906	0.895	0.883	0.871	0.859	0.847
	5	0.986	0.975	0.963	0.952	0.940	0.929	0.917	0.905	0.893	0.880
	6	1.023	1.011	0.999	0.988	0.976	0.964	0.952	0.939	0.927	0.914
	7	1.061	1.049	1.037	1.025	1.012	1.000	0.988	0.975	0.962	0.949
	8	1.099	1.087	1.075	1.063	1.050	1.037	1.024	1.011	0.998	0.985
	9	1.140	1.127	1.114	1.102	1.089	1.076	1.062	1.049	1.035	1.022
	10	1.181	1.168	1.155	1.142	1.128	1.115	1.101	1.087	1.074	1.060
	11	1.223	1.210	1.196	1.183	1.169	1.155	1.141	1.127	1.113	1.099
	12	1.267	1.253	1.239	1.225	1.211	1.197	1.182	1.168	1.153	1.138

## Correction factor curve of dry type water cooled water chiller input power-R22



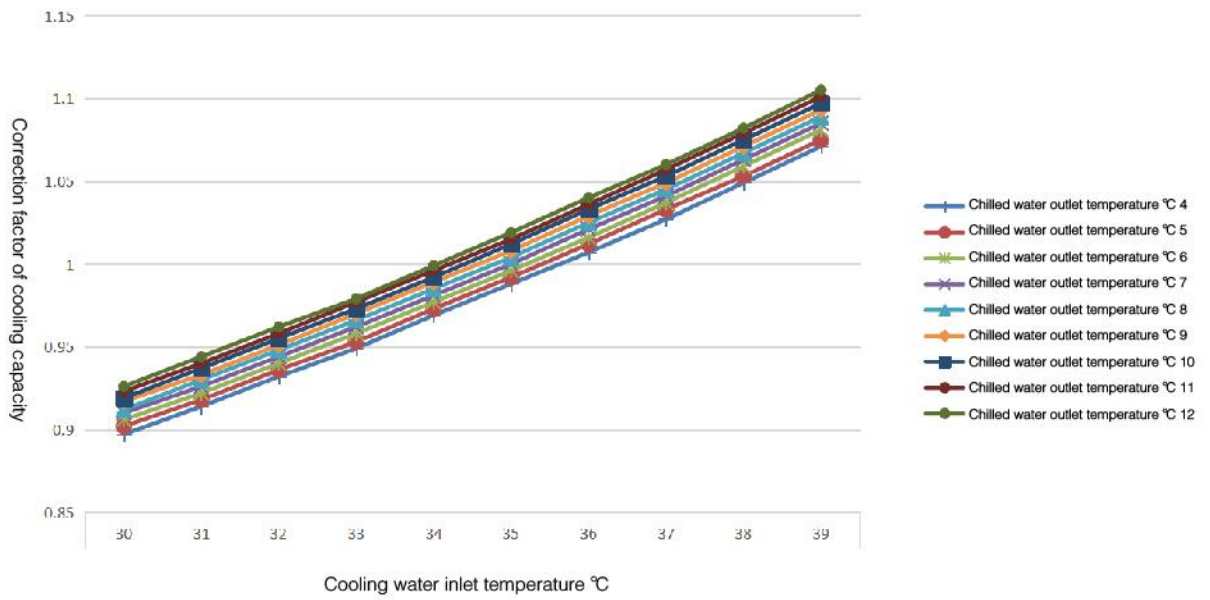
		Cooling water inlet temperature °C									
		30	31	32	33	34	35	36	37	38	39
Chilled water outlet temperature °C	4	0.898	0.914	0.931	0.948	0.965	0.983	1.001	1.019	1.038	1.056
	5	0.903	0.920	0.936	0.954	0.971	0.989	1.007	1.025	1.044	1.063
	6	0.908	0.925	0.942	0.959	0.976	0.994	1.013	1.031	1.051	1.070
	7	0.913	0.930	0.947	0.964	0.982	1.000	1.019	1.037	1.056	1.076
	8	0.918	0.934	0.952	0.969	0.987	1.005	1.024	1.043	1.062	1.082
	9	0.922	0.939	0.956	0.974	0.992	1.011	1.029	1.049	1.068	1.088
	10	0.926	0.944	0.960	0.979	0.997	1.016	1.035	1.054	1.074	1.093
	11	0.930	0.948	0.965	0.983	1.002	1.020	1.040	1.059	1.079	1.099
	12	0.934	0.951	0.969	0.987	1.006	1.025	1.045	1.064	1.084	1.104

## Correction factor curve of dry type water cooled water chiller cooling capacity-R134a



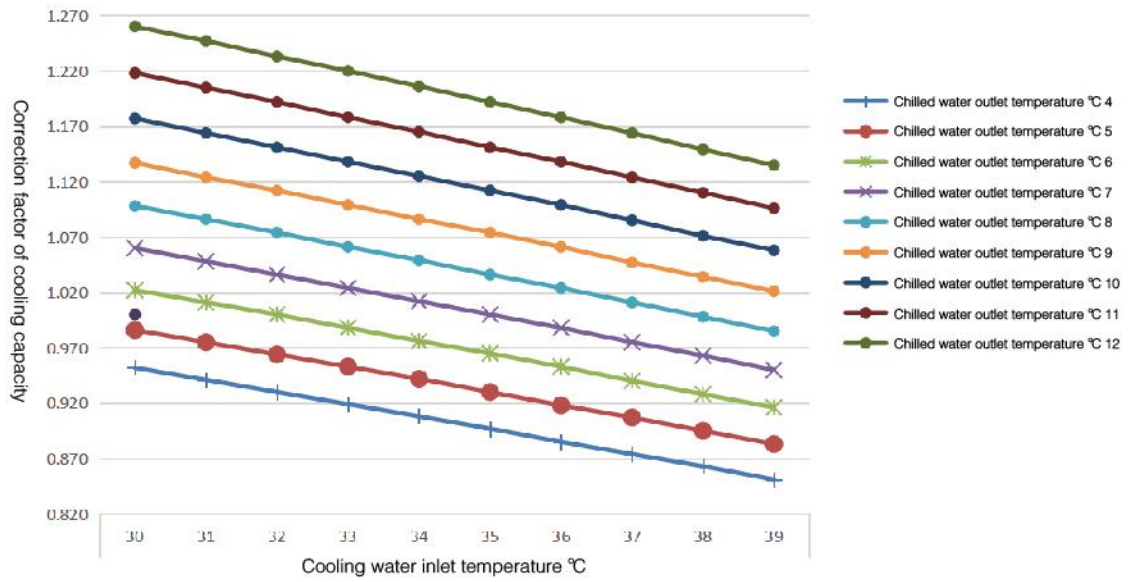
		Cooling water inlet temperature °C									
		30	31	32	33	34	35	36	37	38	39
Chilled water outlet temperature °C	4	0.937	0.927	0.917	0.906	0.895	0.885	0.874	0.862	0.851	0.839
	5	0.976	0.966	0.955	0.944	0.933	0.922	0.910	0.899	0.887	0.875
	6	1.017	1.006	0.995	0.983	0.972	0.960	0.948	0.937	0.925	0.912
	7	1.058	1.047	1.035	1.024	1.012	1.000	0.988	0.976	0.963	0.951
	8	1.102	1.090	1.078	1.066	1.054	1.041	1.028	1.016	1.003	0.990
	9	1.146	1.134	1.122	1.109	1.096	1.084	1.071	1.058	1.044	1.031
	10	1.192	1.179	1.167	1.154	1.141	1.127	1.114	1.100	1.087	1.073
	11	1.239	1.226	1.213	1.200	1.186	1.173	1.159	1.145	1.131	1.116
	12	1.288	1.275	1.261	1.247	1.233	1.219	1.205	1.191	1.176	1.161

## Correction factor curve of dry type water cooled water chiller input power-R134a



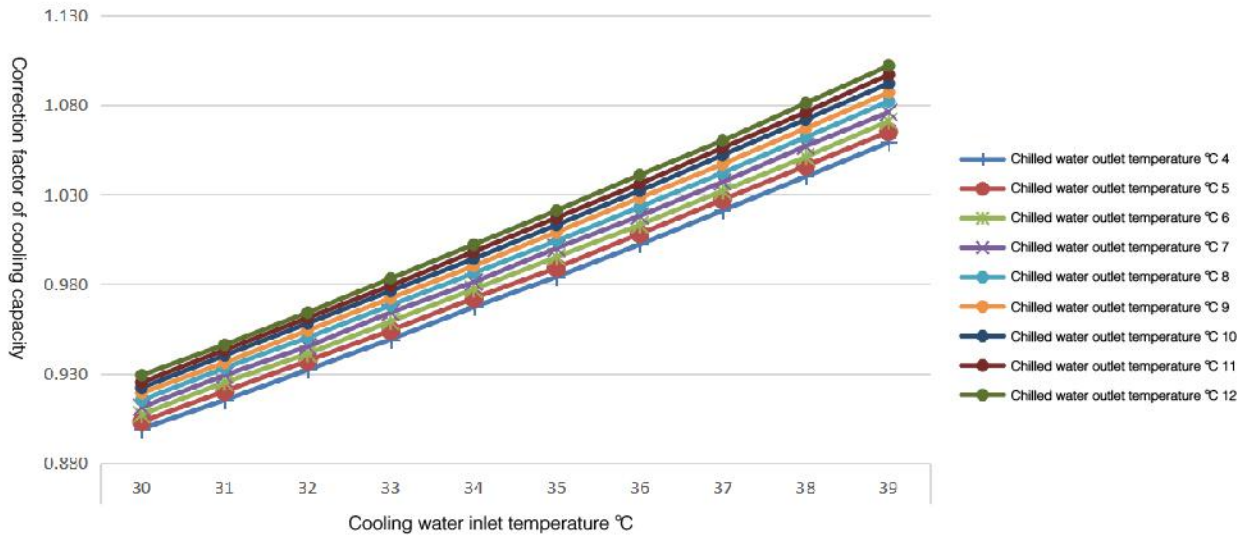
		Cooling water inlet temperature °C									
		30	31	32	33	34	35	36	37	38	39
Chilled water outlet temperature °C	4	0.897	0.914	0.932	0.949	0.969	0.988	1.007	1.027	1.049	1.071
	5	0.902	0.918	0.936	0.953	0.973	0.992	1.012	1.033	1.053	1.075
	6	0.906	0.922	0.940	0.958	0.977	0.996	1.016	1.037	1.059	1.081
	7	0.910	0.926	0.944	0.962	0.981	1.000	1.021	1.041	1.063	1.085
	8	0.912	0.930	0.948	0.966	0.985	1.004	1.025	1.045	1.067	1.089
	9	0.917	0.933	0.951	0.970	0.989	1.008	1.029	1.049	1.071	1.093
	10	0.919	0.937	0.955	0.973	0.992	1.012	1.033	1.053	1.075	1.097
	11	0.923	0.940	0.958	0.977	0.996	1.015	1.036	1.057	1.079	1.101
12	0.926	0.944	0.962	0.979	0.999	1.019	1.040	1.060	1.082	1.105	

## Correction factor curve of dry type water cooled water chiller input power-R134a



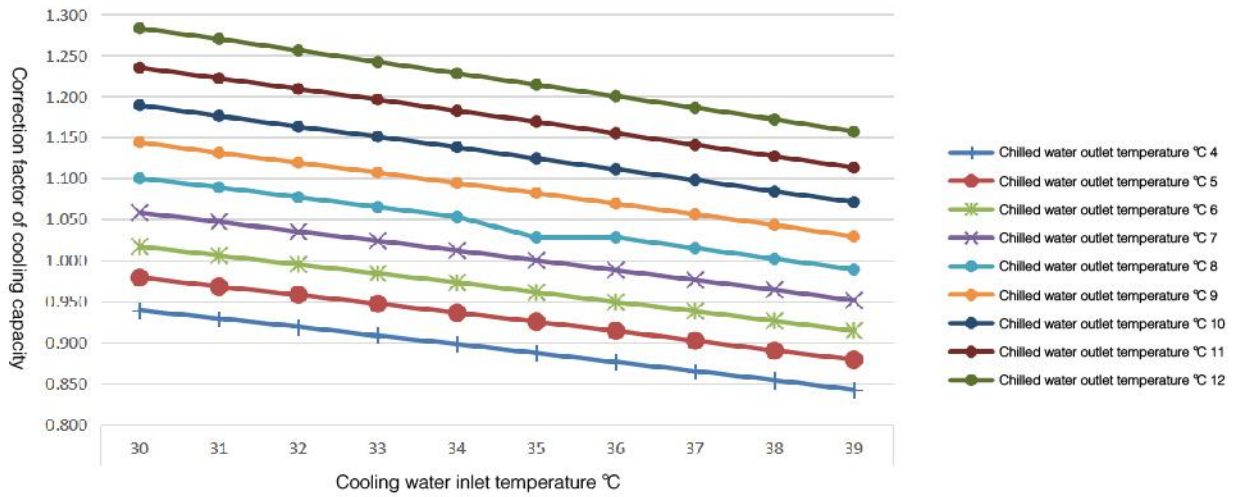
		Cooling water inlet temperature °C									
		30	31	32	33	34	35	36	37	38	39
Chilled water outlet temperature °C	4	0.952	0.941	0.930	0.919	0.908	0.897	0.885	0.874	0.863	0.851
	5	0.986	0.975	0.964	0.953	0.942	0.930	0.918	0.907	0.895	0.883
	6	1.022	1.011	1.000	0.988	0.976	0.965	0.953	0.940	0.928	0.916
	7	1.060	1.048	1.036	1.024	1.012	1.000	0.988	0.975	0.963	0.950
	8	1.098	1.086	1.074	1.061	1.049	1.036	1.024	1.011	0.998	0.985
	9	1.137	1.124	1.112	1.099	1.086	1.074	1.061	1.047	1.034	1.021
	10	1.177	1.164	1.151	1.138	1.125	1.112	1.099	1.085	1.071	1.058
	11	1.218	1.205	1.192	1.178	1.165	1.151	1.138	1.124	1.110	1.096
	12	1.260	1.247	1.233	1.220	1.206	1.192	1.178	1.164	1.149	1.135

## Correction factor curve of flooded type water cooled water chiller input power-R22



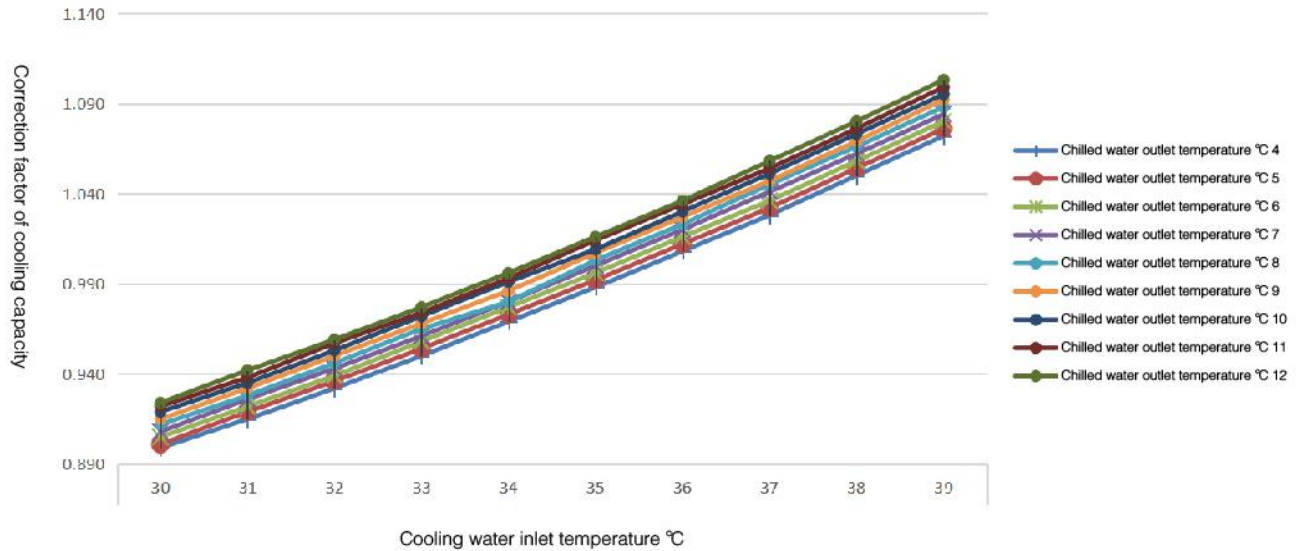
		Cooling water inlet temperature °C									
		30	31	32	33	34	35	36	37	38	39
Chilled water outlet temperature °C	4	0.899	0.915	0.932	0.949	0.967	0.984	1.002	1.021	1.040	1.059
	5	0.903	0.920	0.937	0.954	0.972	0.989	1.008	1.027	1.046	1.065
	6	0.907	0.925	0.941	0.959	0.977	0.995	1.013	1.032	1.051	1.071
	7	0.911	0.929	0.945	0.964	0.981	1.000	1.018	1.037	1.057	1.076
	8	0.915	0.933	0.950	0.968	0.986	1.004	1.023	1.042	1.062	1.082
	9	0.919	0.936	0.954	0.972	0.990	1.009	1.028	1.047	1.067	1.087
	10	0.922	0.940	0.958	0.976	0.994	1.013	1.032	1.052	1.072	1.092
	11	0.925	0.943	0.961	0.979	0.998	1.017	1.036	1.056	1.076	1.097
	12	0.929	0.946	0.964	0.983	1.002	1.021	1.041	1.060	1.081	1.102

## Correction factor curve of flooded type water cooled water chiller cooling capacity-R134a



		Cooling water inlet temperature °C									
		30	31	32	33	34	35	36	37	38	39
Chilled water outlet temperature °C	4	0.939	0.929	0.919	0.908	0.898	0.887	0.876	0.865	0.854	0.842
	5	0.979	0.968	0.958	0.947	0.936	0.925	0.914	0.902	0.890	0.879
	6	1.017	1.006	0.995	0.984	0.973	0.961	0.949	0.938	0.926	0.914
	7	1.058	1.047	1.035	1.024	1.012	1.000	0.988	0.976	0.964	0.951
	8	1.100	1.089	1.077	1.065	1.053	1.028	1.028	1.015	1.002	0.989
	9	1.144	1.131	1.119	1.107	1.094	1.082	1.069	1.056	1.043	1.029
	10	1.189	1.176	1.163	1.151	1.138	1.124	1.111	1.098	1.084	1.071
	11	1.235	1.222	1.209	1.196	1.182	1.169	1.155	1.141	1.127	1.113
	12	1.283	1.270	1.256	1.242	1.228	1.214	1.200	1.186	1.172	1.157

### Correction factor curve of flooded type water cooled water chiller input power-R134a



		Cooling water inlet temperature °C									
		30	31	32	33	34	35	36	37	38	39
Chilled water outlet temperature °C	4	0.899	0.915	0.932	0.950	0.969	0.988	1.008	1.028	1.050	1.072
	5	0.901	0.919	0.936	0.954	0.973	0.992	1.012	1.032	1.054	1.076
	6	0.905	0.922	0.939	0.958	0.977	0.996	1.016	1.036	1.058	1.080
	7	0.908	0.926	0.943	0.961	0.980	1.000	1.020	1.041	1.062	1.084
	8	0.912	0.928	0.946	0.965	0.980	1.003	1.023	1.045	1.066	1.088
	9	0.915	0.932	0.950	0.968	0.986	1.007	1.027	1.047	1.069	1.092
	10	0.919	0.935	0.953	0.972	0.991	1.009	1.030	1.051	1.073	1.095
	11	0.922	0.938	0.957	0.974	0.993	1.014	1.034	1.054	1.076	1.099
12	0.924	0.942	0.959	0.977	0.996	1.016	1.036	1.058	1.080	1.103	



## 7. CORRECTION FACTOR

**Relationship table between the cross-sectional area of the copper wire and the safe current**

Rated current		6	8	10	12	16	20	25	32	40	63	80	100	125	160	200	250	315
Wire area	Max.	1	1.5	1.5	1.5	2.5	2.5	4	6	10	10	16	25	35	50	75	95	120
	Min.	1.5	2.5	2.5	2.5	4	6	6	10	16	25	35	50	70	95	120	150	240

**Example:**

When the operating current is 32A, the minimum cross-sectional area of the wire is 6mm<sup>2</sup>, and the maximum cross-sectional area is 10mm<sup>2</sup>.

When the operating current is 160A, the minimum cross-sectional area of the wire is 50mm<sup>2</sup>, and the maximum cross-sectional area is 95mm<sup>2</sup>. 70mm<sup>2</sup> can also be selected in the middle.

**Note:**

The selection of the above conductor cross-sectional area is based on the copper conductor that meets the requirements of the national standard.

## 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.

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# MAIN PROJECTS

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Shanxi Dingxiang County People's Court



Shanxi Yuncheng odd Star Technology Co., Ltd



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Beijing Sihui building materials city



Shanxi Tongmei Group Zhangze Power Puzhou Power Generation Branch



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**Factory Add: No.6555 Tianqu East Road, Economic Development Zone, Dezhou, Shandong, China**

**Tel: 0086-531-83199577 Mobile: 0086-15505347651 Mail: [sales@ruidonggroup.com](mailto:sales@ruidonggroup.com)**

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