RUIDONG

# SCREW TYPE WATER SOURCE HEAT PUMP


RUIDONG GROUP

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**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.

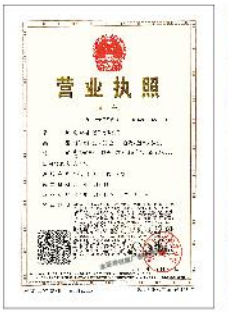
The R & D team composed of high-tech talents will continue to introduce new products, advanced production equipment and adopt the international ISO9001 quality management system as a strong guarantee for product quality. Precision testing equipment and rigorous testing methods are the fundamental insurance 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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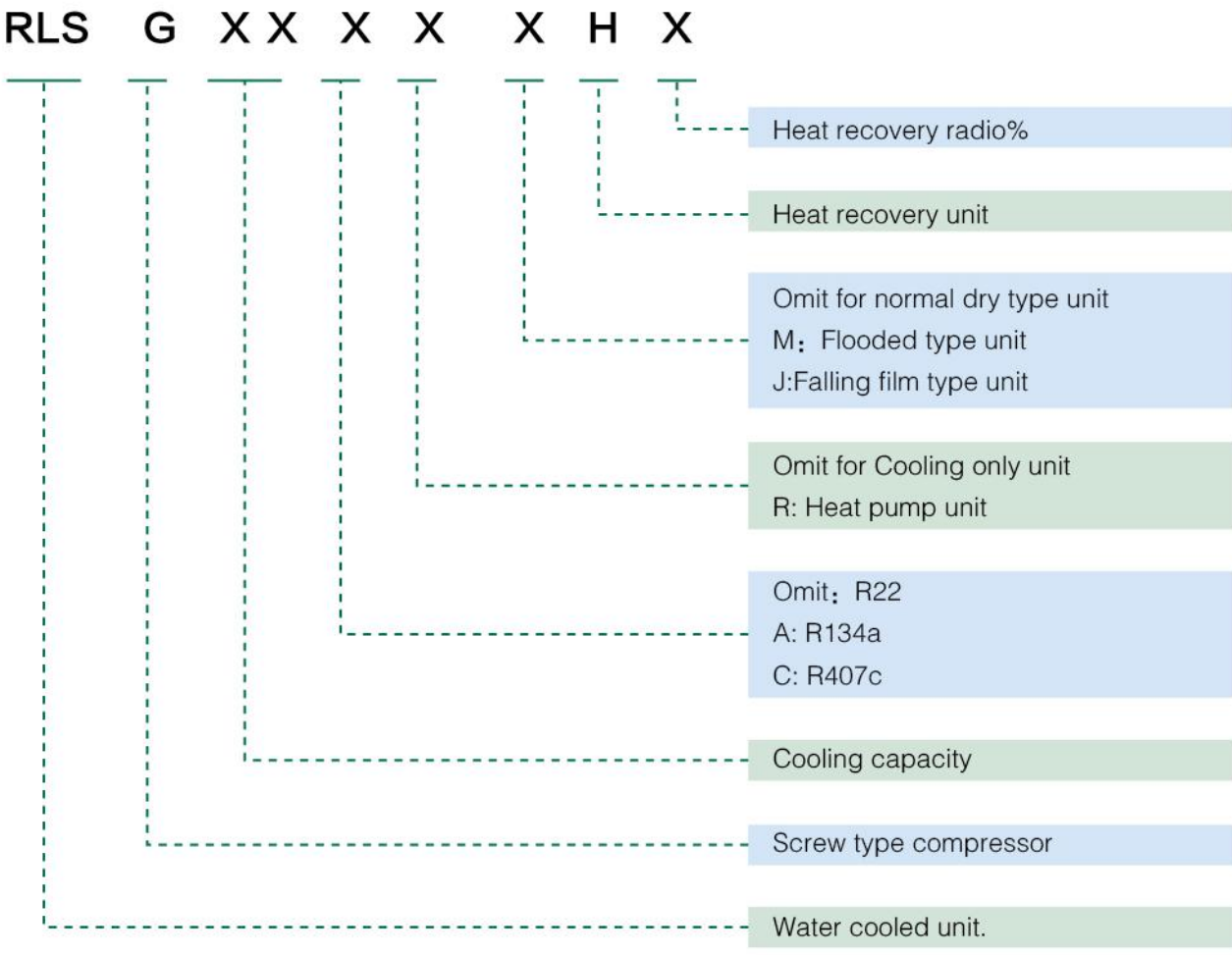
# 1. NAMING SCHEME




# 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.

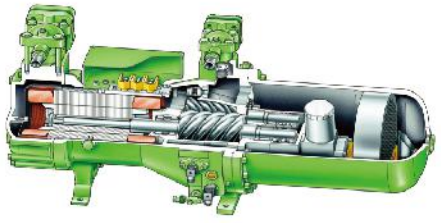
## Compressor

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 andimproving 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

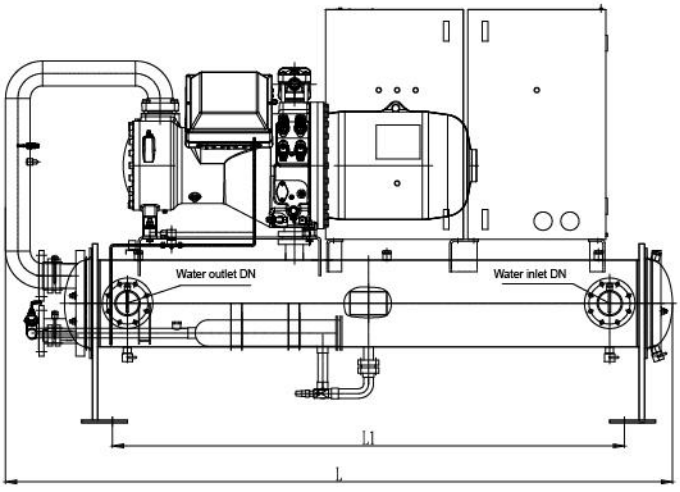
It can realize the functions of mobile phone to remotely control the start and stop of the unit, parameter setting, status inquiry, fault inquiry, monitoring operation data and so on.

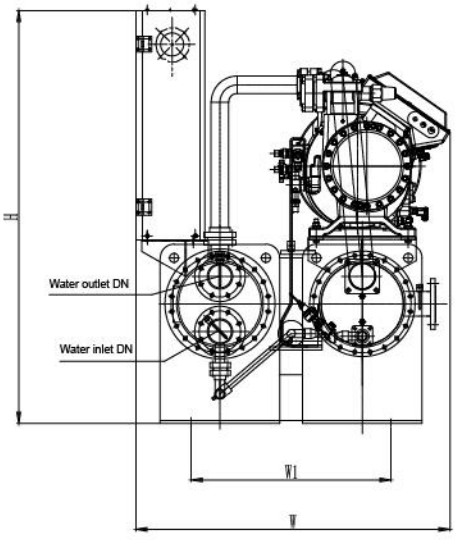
## Safety equipment

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.

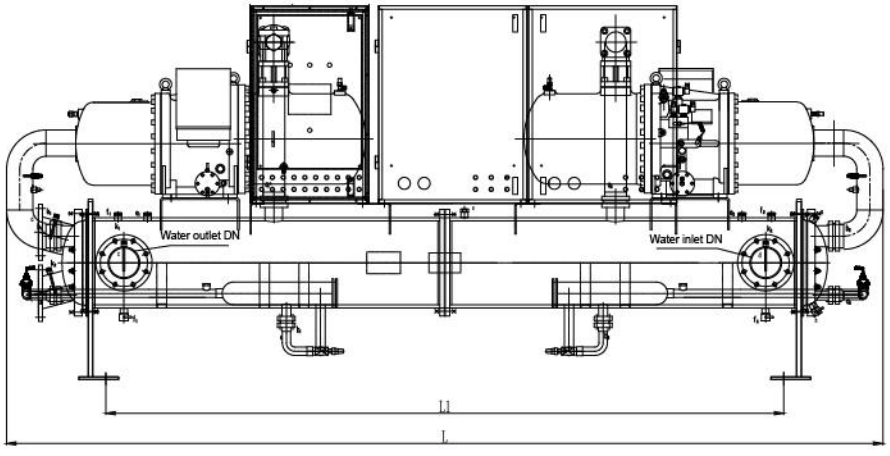
# 3. STRUCTURE DIAGRAM

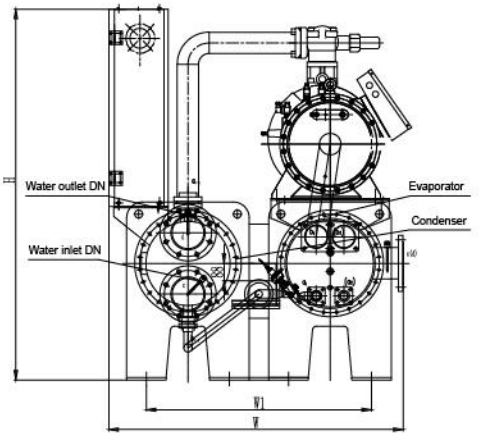
## With single compressor



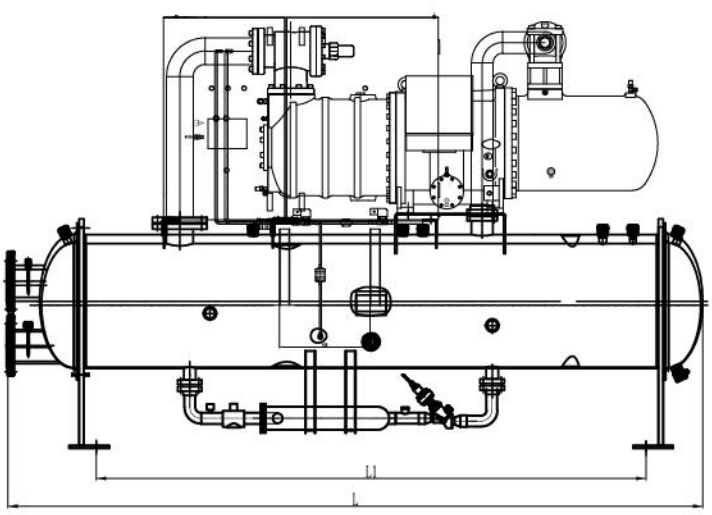



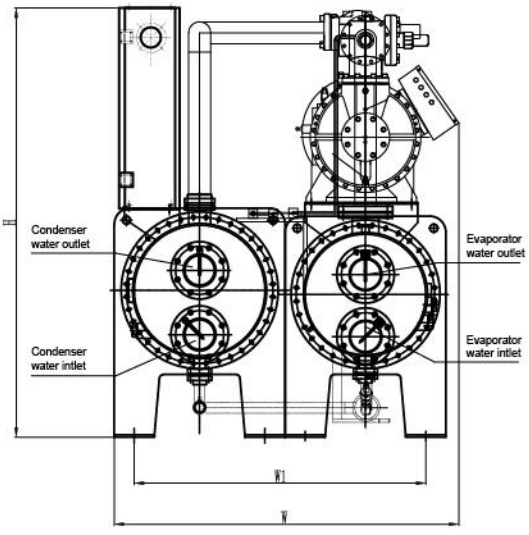

## With double compressor



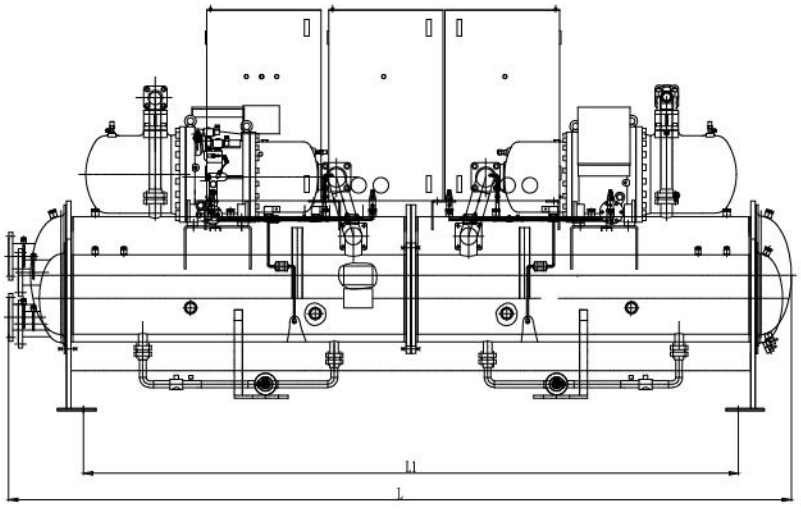



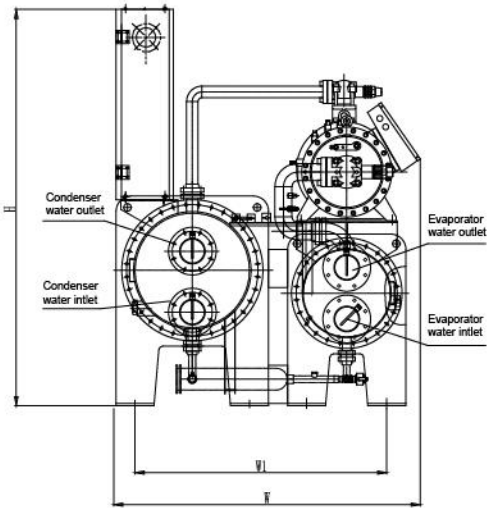
## Flooded screw type with single compressor






## Flooded screw type with double compressors





# 4. SPECIFICATION

## R22 dry type water source heat pump(1)

| Unit model | | RLSG-R | 200 | 260 | 280 | 320 | 380 | 420 | 460 | 540 | 580 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 210 | 256 | 279 | 328 | 389 | 420 | 458 | 554 | 580 |
| Input power | | kW | 38.2 | 45.5 | 50 | 56.7 | 65.8 | 71.4 | 78.7 | 94.2 | 96.4 |
| Nominal heating capacity | | kW | 230 | 284 | 310 | 356 | 416 | 454 | 499 | 598 | 612 |
| Running current | | kW | 50.3 | 60.2 | 65.6 | 74.6 | 86.5 | 93.9 | 103.5 | 123.9 | 126.7 |
| Max.running current | | A | 107.9 | 130.1 | 141.8 | 160.9 | 186.6 | 203.4 | 222.7 | 266.7 | 272.3 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 3*35+2*16 | 3*50+2*25 | 3*70+2*35 | 3*70+2*35 | 3*95+2*50 | 3*95+2*50 | 3*120+2*50 | 3*150+2*70 | 3*150+2*70 |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | | |
| Refrigerant | | | R22 | | | | | | | | |
| Refrigerant charge | | | 42 | 51 | 56 | 63 | 75 | 83 | 92 | 111 | 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 | 100 | 125 | 125 |
| | Chilled water | m³/h | 36 | 44 | 48 | 56 | 67 | 72 | 79 | 100 | 98 |
| | well water | m³/h | 22 | 26 | 29 | 34 | 40 | 43 | 47 | 60 | 59 |
| Condenser type | Type | | Shell & tube type | | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | | |
| | Water pipe Dia | DN | 80 | 80 | 100 | 100 | 100 | 100 | 100 | 125 | 125 |
| | Hot water | m³/h | 36 | 44 | 48 | 56 | 67 | 72 | 79 | 100 | 98 |
| | well water | m³/h | 22 | 26 | 29 | 34 | 40 | 43 | 47 | 60 | 59 |
| 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 | 1300 | 1300 | 1300 | 1350 | 1350 | 1350 | 1350 | 1450 | 1450 |
| | | H | 1650 | 1650 | 1650 | 1650 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Install dimension (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 | 1700 | 1900 | 2300 | 2400 | 2600 |
| Running weight | | kg | 1900 | 2000 | 2100 | 2300 | 2450 | 2550 | 2850 | 2950 | 3200 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

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| Unit model | | RLSG-R | 640 | 720 | 820 | 960 | 1100 | 1260 | 1400R | 1600 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 642 | 720 | 826 | 978 | 1109 | 1260 | 1430 | 1620 |
| Input power | | kW | 108.5 | 121.4 | 138.4 | 163 | 184.2 | 206.7 | 229.9 | 256.9 |
| Nominal heating capacity | | kW | 691 | 776 | 892 | 1050 | 1190 | 1340 | 1522 | 1706 |
| Running current | | kW | 142.6 | 159.6 | 182 | 214.4 | 242.2 | 271.8 | 302.3 | 337.7 |
| Max.running current | | A | 306.8 | 343.6 | 390.6 | 460.5 | 520.3 | 588.8 | 654.5 | 714.1 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 3*185+2*95 | 3*185+2*95 | 3*240+2*120 | 3*240+2*120 | 2*(3*150+2*70) | 2*(3*150+2*70) | 2*(3*185+2*95) | 2*(3*185+2*95) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | |
| Refrigerant | | | R22 | | | | | | | |
| Refrigerant charge | | | 128 | 144 | 165 | 196 | 222 | 252 | 282 | 320 |
| 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 |
| | Chilled water | $m^3/h$ | 110 | 124 | 142 | 168 | 191 | 217 | 246 | 279 |
| | well water | $m^3/h$ | 66 | 74 | 85 | 101 | 114 | 130 | 147 | 167 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 150 | 150 | 150 | 150 | 150 | 200 | 200 | 200 |
| | Hot water | $m^3/h$ | 110 | 124 | 142 | 168 | 191 | 217 | 246 | 279 |
| | well water | $m^3/h$ | 66 | 74 | 85 | 101 | 114 | 130 | 147 | 167 |
| Noise | | dB(A) | 86.3 | 86.6 | 87.1 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 | 1450 | 1500 | 1500 | 1600 | 1600 | 1640 | 1640 | 1700 |
| | | H | 1850 | 1850 | 1850 | 1950 | 1950 | 1900 | 1900 | 1900 |
| Install dimension (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 | 3400 | 3800 | 4600 | 5200 | 5600 | 6000 | 6500 | 6900 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

## R22 dry type water source heat pump(2)

| Unit model | | RLSG-R | 400 | 480 | 560 | 640 | 760 | 800 | 920 | 1000 | 1160 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 420 | 512 | 558 | 656 | 778 | 840 | 916 | 1108 | 1160 |
| Input power | | kW | 76.4 | 91 | 100 | 113.4 | 131.6 | 142.8 | 157.4 | 188.4 | 192.8 |
| Nominal heating capacity | | kW | 460 | 568 | 620 | 712 | 832 | 908 | 998 | 1196 | 1224 |
| Running current | | kW | 100.6 | 120.4 | 131.2 | 149.2 | 173 | 187.8 | 207 | 247.8 | 253.4 |
| Max.running current | | A | 215.8 | 260.2 | 283.6 | 321.8 | 373.2 | 406.8 | 445.4 | 533.4 | 544.6 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 2*(3*35+2*16) | 2*(3*50+2*25) | 2*(3*70+2*35) | 2*(3*70+2*35) | 2*(3*95+2*50) | 2*(3*95+2*50) | 2*(3*120+2*50) | 2*(3*150+2*70) | 2*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | | |
| Refrigerant | | | R22 | | | | | | | | |
| Refrigerant charge | | | 84 | 102 | 113 | 127 | 150 | 166 | 183 | 222 | 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 |
| | Chilled water | $m^3/h$ | 72 | 88 | 96 | 113 | 134 | 144 | 158 | 191 | 200 |
| | well water | $m^3/h$ | 43 | 53 | 57 | 68 | 80 | 87 | 94 | 114 | 119 |
| 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 |
| | Hot water | $m^3/h$ | 72 | 88 | 96 | 113 | 134 | 144 | 158 | 191 | 200 |
| | well water | $m^3/h$ | 43 | 53 | 57 | 68 | 80 | 87 | 94 | 114 | 119 |
| 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 |
| Install dimension (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 | 3150 | 3400 | 3700 | 4000 | 4750 | 5000 | 5300 | 5800 | 6200 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

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| Unit model | | RLSG-R | 1280 | 1440 | 1640 | 1880 | 2200 | 2400 | 2800 | 3200 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 1284 | 1440 | 1652 | 1956 | 2218 | 2520 | 2860 | 3240 |
| Input power | | kW | 217 | 242.8 | 276.8 | 326 | 368.4 | 413.4 | 459.8 | 513.8 |
| Nominal heating capacity | | kW | 1382 | 1552 | 1784 | 2100 | 2380 | 2680 | 3044 | 3412 |
| Running current | | kW | 285.2 | 319.2 | 364 | 428.8 | 484.4 | 543.6 | 604.6 | 675.4 |
| Max.running current | | A | 613.6 | 687.2 | 781.2 | 921.0 | 1040.6 | 1177.6 | 1309.0 | 1428.2 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 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) | 4*(3*150+2*70) | 4*(3*185+2*95) | 4*(3*185+2*95) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | |
| Refrigerant | | | R22 | | | | | | | |
| Refrigerant charge | | | 257 | 288 | 330 | 391 | 444 | 504 | 563 | 640 |
| 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 |
| | Chilled water | m³/h | 221 | 248 | 284 | 336 | 381 | 433 | 492 | 557 |
| | well water | m³/h | 132 | 148 | 170 | 201 | 228 | 260 | 295 | 334 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 200 | 200 | 200 | 200 | 200 | 250 | 250 | 250 |
| | Hot water | m³/h | 221 | 248 | 284 | 336 | 381 | 433 | 484 | 551 |
| | well water | m³/h | 132 | 148 | 170 | 201 | 228 | 260 | 295 | 334 |
| Noise | | dB(A) | 86.3 | 86.6 | 87.1 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 6500 | 7100 | 7500 | 7700 | 8400 | 9200 | 9700 | 10300 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

# R22 flooded type water source heat pump(1)

| Unit model | | | RLSG-RM | 220 | 280 | 300 | 360 | 420 | 460 | 500 | 620 | 660 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | | kW | 230 | 282 | 312 | 360 | 431 | 465 | 513 | 619 | 648 |
| Input power | | | kW | 38.3 | 45.9 | 50.1 | 56.9 | 66 | 71.6 | 78.9 | 94.4 | 96.6 |
| Nominal heating capacity | | | kW | 249 | 310 | 335 | 386 | 445 | 482 | 530 | 626 | 658 |
| Running current | | | kW | 50.6 | 60.6 | 66.1 | 75 | 87 | 94.4 | 104 | 124.6 | 127.5 |
| Max.running current | | | A | 107.9 | 130.1 | 141.8 | 160.9 | 186.6 | 203.4 | 222.7 | 266.7 | 272.3 |
| Cable diameter (copper wire distance ≤ 20 meters) | | | mm² | 3*35+2*16 | 3*50+2*25 | 3*70+2*35 | 3*70+2*35 | 3*95+2*50 | 3*95+2*50 | 3*120+2*50 | 3*150+2*70 | 3*150+2*70 |
| Power voltage | | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | | Y-△ | | | | | | | | |
| Refrigerant | | | | R22 | | | | | | | | |
| Refrigerant charge | | | | 83 | 102 | 112 | 128 | 149 | 160 | 177 | 211 | 222 |
| Refrigerant control device | | | | | | | | | | | | |
| 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 |
| | Chilled water | | m³/h | 40 | 49 | 54 | 62 | 74 | 80 | 88 | 106 | 111 |
| | well water | | m³/h | 24 | 29 | 32 | 37 | 44 | 48 | 53 | 64 | 67 |
| 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 |
| | Hot water | | m³/h | 40 | 49 | 54 | 62 | 74 | 80 | 88 | 106 | 111 |
| | well water | | m³/h | 24 | 29 | 32 | 37 | 44 | 48 | 53 | 64 | 67 |
| 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 |
| Install dimension (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 | 2350 | 2550 | 2650 | 2750 | 3200 | 3500 | 4000 | 4100 | 4200 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

RUIDONG

| Unit model | | RLSG-RM | 700 | 800 | 940 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 716 | 806 | 938 | 1010 | 1107 | 1240 | 1398 | 1595 | 1790 |
| Input power | | kW | 108.7 | 121.7 | 138.7 | 149.6 | 163.4 | 184.6 | 207.2 | 230.4 | 257.4 |
| Nominal heating capacity | | kW | 738 | 828 | 952 | 1030 | 1160 | 1300 | 1468 | 1632 | 1868 |
| Running current | | kW | 143.4 | 160.5 | 183 | 197.4 | 215.6 | 243.6 | 273.3 | 304 | 339.6 |
| Max.running current | | A | 306.8 | 343.6 | 390.6 | 421.4 | 460.5 | 520.3 | 588.8 | 654.5 | 714.1 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 3*185+2*95 | 3*185+2*95 | 3*240+2*120 | 3*240+2*120 | 3*240+2*120 | 2*(3*150+2*70) | 2*(3*150+2*70) | 2*(3*185+2*95) | 2*(3*185+2*95) |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | | |
| Refrigerant | | | R22 | | | | | | | | |
| Refrigerant charge | | | 251 | 280 | 320 | 355 | 395 | 446 | 503 | 573 | 644 |
| Refrigerant control device | | | | | | | | | | | |
| 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 |
| | Chilled water | $m^3/h$ | 123 | 139 | 161 | 174 | 190 | 213 | 240 | 274 | 308 |
| | well water | $m^3/h$ | 74 | 83 | 97 | 104 | 114 | 128 | 144 | 164 | 184 |
| 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 |
| | Hot water | $m^3/h$ | 123 | 139 | 161 | 174 | 190 | 213 | 240 | 274 | 308 |
| | well water | $m^3/h$ | 74 | 83 | 97 | 104 | 114 | 128 | 144 | 164 | 184 |
| Noise | | dB(A) | 86.3 | 86.6 | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 4600 | 5050 | 5100 | 5550 | 5750 | 6300 | 6700 | 7300 | 7600 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

# R22 flooded type water source heat pump(2)

| Unit model | | | RLSG-RM | 440 | 540 | 600 | 720 | 840 | 920 | 1000 | 1240 | 1320 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | | kW | 460 | 564 | 624 | 720 | 862 | 930 | 1026 | 1238 | 1296 |
| Input power | | | kW | 76.6 | 91.8 | 100.2 | 113.8 | 132 | 143.2 | 157.8 | 188.8 | 193.2 |
| Nominal heating capacity | | | kW | 498 | 620 | 670 | 772 | 890 | 964 | 1060 | 1252 | 1316 |
| Running current | | | kW | 101.2 | 121.2 | 132.2 | 150 | 174 | 188.8 | 208 | 249.2 | 255 |
| Max.running current | | | A | 215.8 | 260.2 | 283.6 | 321.8 | 373.2 | 406.8 | 445.4 | 533.4 | 544.6 |
| Cable diameter (copper wire distance ≤ 20 meters) | | | $mm^2$ | 2*(3*35+2*16) | 2*(3*50+2*25) | 2*(3*70+2*35) | 2*(3*70+2*35) | 2*(3*95+2*50) | 2*(3*95+2*50) | 2*(3*120+2*50) | 2*(3*150+2*70) | 2*(3*150+2*70) |
| Power voltage | | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | | Y-△ | | | | | | | | |
| Refrigerant | | | | R22 | | | | | | | | |
| Refrigerant charge | | | | 166 | 203 | 225 | 256 | 297 | 320 | 354 | 423 | 445 |
| Refrigerant control device | | | | | | | | | | | | |
| 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 | 125 | 125 | 150 | 150 | 200 |
| | Chilled water | $m^3/h$ | | 79 | 97 | 107 | 124 | 148 | 160 | 176 | 213 | 223 |
| | well water | $m^3/h$ | | 47 | 58 | 64 | 74 | 89 | 96 | 106 | 128 | 133 |
| Condenser type | Type | | | Shell & tube type | | | | | | | | |
| | Water pressure drop | kPa | | 70-90 | | | | | | | | |
| | Water pipe Dia | DN | | 100 | 125 | 125 | 125 | 125 | 125 | 150 | 150 | 200 |
| | Hot water | $m^3/h$ | | 79 | 97 | 107 | 124 | 148 | 160 | 176 | 213 | 223 |
| | well water | $m^3/h$ | | 47 | 58 | 64 | 74 | 89 | 96 | 106 | 128 | 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 | | 4100 | 4100 | 4100 | 4150 | 4150 | 4200 | 4200 | 4300 | 4400 |
| | | W | | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1680 | 1680 | 1750 |
| | | H | | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2150 | 2150 | 2150 |
| Install dimension (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 | 4300 | 4600 | 4900 | 5200 | 5600 | 6100 | 6400 | 7000 | 7400 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

RUIDONG

| Unit model | | RLSG-RM | 1400 | 1600 | 1880 | 2020 | 2200 | 2400 | 2800 | 3200 | 3600 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 1432 | 1612 | 1876 | 2020 | 2214 | 2480 | 2796 | 3190 | 3580 |
| Input power | | kW | 217.4 | 243.4 | 277.4 | 299.2 | 326.8 | 369.2 | 414.4 | 460.8 | 514.8 |
| Nominal heating capacity | | kW | 1476 | 1656 | 1904 | 2060 | 2320 | 2600 | 2936 | 3264 | 3736 |
| Running current | | kW | 286.8 | 321 | 366 | 394.8 | 431.2 | 487.2 | 546.6 | 608 | 679.2 |
| Max.running current | | A | 613.6 | 687.2 | 781.2 | 824.4 | 921.0 | 1040.6 | 1177.6 | 1309.0 | 1428.2 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 2*(3*185+2*95) | 2*(3*185+2*95) | 2*(3*240+2*120) | 2*(3*240+2*120) | 2*(3*240+2*120) | 4*(3*150+2*70) | 4*(3*150+2*70) | 4*(3*185+2*95) | 4*(3*185+2*95) |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-Δ | | | | | | | | |
| Refrigerant | | | R22 | | | | | | | | |
| Refrigerant charge | | | 501 | 560 | 639 | 711 | 790 | 891 | 1005 | 1147 | 1287 |
| Refrigerant control device | | | | | | | | | | | |
| Compressor | Type | | Semi-hermetic screw | | | | | | | | |
| | Qty | | 2 | | | | | | | | |
| Evaporator | Type | | Shell & tube type | | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | | |
| | Water pipe Dia | DN | 200 | 200 | | 250 | 250 | 250 | 250 | 250 | 250 |
| | Chilled water | m³/h | 246 | 277 | 323 | 347 | 381 | 427 | 481 | 549 | 616 |
| | well water | m³/h | 147 | 166 | 193 | 208 | 228 | 255 | 288 | 329 | 369 |
| Condenser type | Type | | Shell & tube type | | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | | |
| | Water pipe Dia | DN | 200 | 200 | | 250 | 250 | 250 | 250 | 250 | 250 |
| | Hot water | m³/h | 246 | 277 | 323 | 347 | 381 | 427 | 481 | 549 | 616 |
| | well water | m³/h | 147 | 166 | 193 | 208 | 228 | 255 | 288 | 329 | 369 |
| Noise | | dB(A) | 86.3 | 86.6 | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 7600 | 7900 | 8300 | 8600 | 8900 | 9200 | 10300 | 10900 | 12300 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

## R22 falling film type water source heat pump(1)

| Unit model | | RLSG-RJ | 220 | 280 | 300 | 360 | 420 | 460 | 500 | 620 | 660 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 230 | 282 | 312 | 360 | 431 | 465 | 513 | 619 | 648 |
| Input power | | kW | 38.3 | 45.9 | 50.1 | 56.9 | 66 | 71.6 | 78.9 | 94.4 | 96.6 |
| Nominal heating capacity | | kW | 249 | 310 | 335 | 386 | 445 | 482 | 530 | 626 | 658 |
| Running current | | kW | 50.6 | 60.6 | 66.1 | 75 | 87 | 94.4 | 104 | 124.6 | 127.5 |
| Max.running current | | A | 107.9 | 130.1 | 141.8 | 160.9 | 186.6 | 203.4 | 222.7 | 266.7 | 272.3 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 3*35+2*16 | 3*50+2*25 | 3*70+2*35 | 3*70+2*35 | 3*95+2*50 | 3*95+2*50 | 3*120+2*50 | 3*150+2*70 | 3*150+2*70 |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | | |
| Refrigerant | | | R22 | | | | | | | | |
| Refrigerant charge | | | 83 | 102 | 112 | 128 | 149 | 160 | 177 | 211 | 222 |
| Refrigerant control device | | | | | | | | | | | |
| 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 |
| | Chilled water | m³/h | 40 | 49 | 54 | 62 | 74 | 80 | 88 | 106 | 111 |
| | well water | m³/h | 24 | 29 | 32 | 37 | 44 | 48 | 53 | 64 | 67 |
| 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 |
| | Hot water | m³/h | 40 | 49 | 54 | 62 | 74 | 80 | 88 | 106 | 111 |
| | well water | m³/h | 24 | 29 | 32 | 37 | 44 | 48 | 53 | 64 | 67 |
| 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 |
| Install dimension (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 | 2350 | 2550 | 2650 | 2750 | 3200 | 3500 | 4000 | 4100 | 4200 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

RUIDONG

| Unit model | | RLSG-RJ | 700 | 800 | 940 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 716 | 806 | 938 | 1010 | 1107 | 1240 | 1398 | 1595 | 1790 |
| Input power | | kW | 108.7 | 121.7 | 138.7 | 149.6 | 163.4 | 184.6 | 207.2 | 230.4 | 257.4 |
| Nominal heating capacity | | kW | 738 | 828 | 952 | 1030 | 1160 | 1300 | 1468 | 1632 | 1868 |
| Running current | | kW | 143.4 | 160.5 | 183 | 197.4 | 215.6 | 243.6 | 273.3 | 304 | 339.6 |
| Max.running current | | A | 306.8 | 343.6 | 390.6 | 421.4 | 460.5 | 520.3 | 588.8 | 654.5 | 714.1 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 3*185+2*95 | 3*185+2*95 | 3*240+2*120 | 3*240+2*120 | 3*240+2*120 | 2*(3*150+2*70) | 2*(3*150+2*70) | 2*(3*185+2*95) | 2*(3*185+2*95) |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | | |
| Refrigerant | | | R22 | | | | | | | | |
| Refrigerant charge | | | 251 | 280 | 320 | 355 | 395 | 446 | 503 | 573 | 644 |
| Refrigerant control device | | | | | | | | | | | |
| 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 |
| | Chilled water | m³/h | 123 | 139 | 161 | 174 | 190 | 213 | 240 | 274 | 308 |
| | well water | m³/h | 74 | 83 | 97 | 104 | 114 | 128 | 144 | 164 | 184 |
| 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 |
| | Hot water | m³/h | 123 | 139 | 161 | 174 | 190 | 213 | 240 | 274 | 308 |
| | well water | m³/h | 74 | 83 | 97 | 104 | 114 | 128 | 144 | 164 | 184 |
| Noise | | dB(A) | 86.3 | 86.6 | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 4600 | 5050 | 5100 | 5550 | 5750 | 6300 | 6700 | 7300 | 7600 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

# R22 falling film type water source heat pump(2)

| Unit model | | RLSG-RJ | 440 | 540 | 600 | 720 | 840 | 920 | 1000 | 1240 | 1320 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 460 | 564 | 624 | 720 | 862 | 930 | 1026 | 1238 | 1296 |
| Input power | | kW | 76.6 | 91.8 | 100.2 | 113.8 | 132 | 143.2 | 157.8 | 188.8 | 193.2 |
| Nominal heating capacity | | kW | 498 | 620 | 670 | 772 | 890 | 964 | 1060 | 1252 | 1316 |
| Running current | | kW | 101.2 | 121.2 | 132.2 | 150 | 174 | 188.8 | 208 | 249.2 | 255 |
| Max.running current | | A | 215.8 | 260.2 | 283.6 | 321.8 | 373.2 | 406.8 | 445.4 | 533.4 | 544.6 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 2*(3*35+2*16) | 2*(3*50+2*25) | 2*(3*70+2*35) | 2*(3*70+2*35) | 2*(3*95+2*50) | 2*(3*95+2*50) | 2*(3*120+2*50) | 2*(3*150+2*70) | 2*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-Δ | | | | | | | | |
| Refrigerant | | | R22 | | | | | | | | |
| Refrigerant charge | | | 166 | 203 | 225 | 256 | 297 | 320 | 354 | 423 | 445 |
| Refrigerant control device | | | | | | | | | | | |
| 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 | 125 | 125 | 150 | 150 | 200 |
| | Chilled water | $m^3/h$ | 79 | 97 | 107 | 124 | 148 | 160 | 176 | 213 | 223 |
| | well water | $m^3/h$ | 47 | 58 | 64 | 74 | 89 | 96 | 106 | 128 | 133 |
| Condenser type | Type | | Shell & tube type | | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | | |
| | Water pipe Dia | DN | 100 | 125 | 125 | 125 | 125 | 125 | 150 | 150 | 200 |
| | Hot water | $m^3/h$ | 79 | 97 | 107 | 124 | 148 | 160 | 176 | 213 | 223 |
| | well water | $m^3/h$ | 47 | 58 | 64 | 74 | 89 | 96 | 106 | 128 | 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 | 4100 | 4100 | 4100 | 4150 | 4150 | 4200 | 4200 | 4300 | 4400 |
| | | W | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1680 | 1680 | 1750 |
| | | H | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2150 | 2150 | 2150 |
| Install dimension (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 | 4300 | 4600 | 4900 | 5200 | 5600 | 6100 | 6400 | 7000 | 7400 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

RUIDONG

| Unit model | | R-RJ | 1400 | 1600 | 1880 | 2000 | 2200 | 2400 | 2800 | 3200 | 3600 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 1432 | 1612 | 1876 | 2020 | 2214 | 2480 | 2796 | 3190 | 3580 |
| Input power | | kW | 217.4 | 243.4 | 277.4 | 299.2 | 326.8 | 369.2 | 414.4 | 460.8 | 514.8 |
| Nominal heating capacity | | kW | 1476 | 1656 | 1904 | 2060 | 2320 | 2600 | 2936 | 3264 | 3736 |
| Running current | | kW | 286.8 | 321 | 366 | 394.8 | 431.2 | 487.2 | 546.6 | 608 | 679.2 |
| Max.running current | | A | 613.6 | 687.2 | 781.2 | 824.4 | 921.0 | 1040.6 | 1177.6 | 1309.0 | 1428.2 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 2*(3*185+2*95) | 2*(3*185+2*95) | 2*(3*240+2*120) | 2*(3*240+2*120) | 2*(3*240+2*120) | 4*(3*150+2*70) | 4*(3*150+2*70) | 4*(3*185+2*95) | 4*(3*185+2*95) |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | | |
| Refrigerant | | | R22 | | | | | | | | |
| Refrigerant charge | | | 501 | 560 | 639 | 711 | 790 | 891 | 1005 | 1147 | 1287 |
| Refrigerant control device | | | | | | | | | | | |
| Compressor | Type | | Semi-hermetic screw | | | | | | | | |
| | Qty | | 2 | | | | | | | | |
| Evaporator | Type | | Shell & tube type | | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | | |
| | Water pipe Dia | DN | 200 | 200 | | 250 | 250 | 250 | 250 | 250 | 250 |
| | Chilled water | m³/h | 246 | 277 | 323 | 347 | 381 | 427 | 481 | 549 | 616 |
| | well water | m³/h | 147 | 166 | 193 | 208 | 228 | 255 | 288 | 329 | 369 |
| Condenser type | Type | | Shell & tube type | | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | | |
| | Water pipe Dia | DN | 200 | 200 | 0 | 250 | 250 | 250 | 250 | 250 | 250 |
| | Hot water | m³/h | 246 | 277 | 323 | 347 | 381 | 427 | 481 | 549 | 616 |
| | well water | m³/h | 147 | 166 | 193 | 208 | 228 | 255 | 288 | 329 | 369 |
| Noise | | dB(A) | 86.3 | 86.6 | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 7600 | 7900 | 8300 | 8600 | 8900 | 9200 | 10300 | 10900 | 12300 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

## R134a dry type water source heat pump(1)

| Unit model | | RLSG-AR | 220 | 240 | 280 | 300 | 340 | 360 | 400 | 460 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 216 | 248 | 280 | 304 | 347 | 376 | 411 | 461 |
| Input power | | kW | 36.4 | 41.8 | 45.2 | 50.5 | 57 | 61.6 | 66.5 | 74.1 |
| Nominal heating capacity | | kW | 228 | 267 | 289 | 328 | 371 | 400 | 437 | 484 |
| Running current | | kW | 49.3 | 56.7 | 61.2 | 68.4 | 77.2 | 83.4 | 90 | 100.4 |
| Max.running current | | A | 122.9 | 141.2 | 151.7 | 168.4 | 190.1 | 205.9 | 221.8 | 247.2 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 3*50+2*25 | 3*70+2*35 | 3*70+2*35 | 3*95+2*50 | 3*95+2*50 | 3*95+2*50 | 3*120+2*50 | 3*150+2*70 |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-Δ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 40 | 47 | 52 | 58 | 66 | 72 | 77 | 87 |
| Refrigerant control device | | | | | | | | | | |
| 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 | 100 |
| | Chilled water | $m^3/h$ | 37 | 43 | 48 | 52 | 60 | 65 | 71 | 79 |
| | well water | $m^3/h$ | 22 | 26 | 29 | 31 | 36 | 39 | 42 | 47 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Hot water | $m^3/h$ | 37 | 43 | 48 | 52 | 60 | 65 | 71 | 79 |
| | well water | $m^3/h$ | 22 | 26 | 29 | 31 | 36 | 39 | 42 | 47 |
| 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 |
| Install dimension (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 | 1900 | 2100 | 2250 | 2450 |
| Running weight | | kg | 2150 | 2350 | 2500 | 2700 | 2800 | 3050 | 3300 | 3700 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

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| Unit model | | RLSG-AR | 520 | 580 | 640 | 740 | 860 | 940 | 1200 |
|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 529 | 590 | 632 | 738 | 850 | 930 | 1080 |
| Input power | | kW | 84.9 | 92.8 | 100.8 | 114.8 | 133 | 144.9 | 164.9 |
| Nominal heating capacity | | kW | 550 | 616 | 668 | 770 | 901 | 996 | 1146 |
| Running current | | kW | 115 | 125.7 | 136.5 | 155.6 | 180.2 | 196.3 | 223.5 |
| Max.running current | | A | 280.3 | 306.1 | 332.5 | 378.8 | 451.8 | 490.0 | 548.4 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 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) | 2*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | |
| Starting mode | | | Y-△ | | | | | | |
| Refrigerant | | | R134a | | | | | | |
| Refrigerant charge | | | 102 | 110 | 119 | 140 | 160 | 174 | 201 |
| Refrigerant control device | | | | | | | | | |
| 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 |
| | Chilled water | $m^3/h$ | 91 | 101 | 109 | 127 | 146 | 160 | 186 |
| | well water | $m^3/h$ | 54 | 61 | 65 | 76 | 88 | 96 | 111 |
| Condenser type | Type | | Shell & tube type | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | |
| | Water pipe Dia | DN | 125 | 125 | 125 | 150 | 150 | | |
| | Hot water | $m^3/h$ | 91 | 101 | 109 | 127 | 146 | 160 | 186 |
| | well water | $m^3/h$ | 54 | 61 | 65 | 76 | 88 | 96 | 111 |
| Noise | | dB(A) | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 3950 | 4250 | 4350 | 4600 | 4900 | 5300 | 5900 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

# R134a dry type water source heat pump(2)

| Unit model | | RLSG-AR | 440 | 480 | 560 | 600 | 680 | 720 | 800 | 920 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 432 | 496 | 560 | 608 | 694 | 752 | 822 | 922 |
| Input power | | kW | 72.8 | 83.6 | 90.4 | 101 | 114 | 123.2 | 133 | 148.2 |
| Nominal heating capacity | | kW | 456 | 534 | 578 | 656 | 742 | 800 | 874 | 968 |
| Running current | | kW | 98.6 | 113.4 | 122.4 | 136.8 | 154.4 | 166.8 | 180 | 200.8 |
| Max.running current | | A | 245.8 | 282.4 | 303.4 | 336.8 | 380.2 | 411.8 | 443.6 | 494.4 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 2*(3*50+2*25) | 2*(3*70+2*35) | 2*(3*70+2*35) | 2*(3*95+2*50) | 2*(3*95+2*50) | 2*(3*95+2*50) | 2*(3*120+2*50) | 2*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 80 | 94 | 103 | 115 | 132 | 143 | 155 | 174 |
| Refrigerant control device | | | | | | | | | | |
| 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 |
| | Chilled water | $m^3/h$ | 74 | 85 | 96 | 105 | 119 | 129 | 141 | 159 |
| | well water | $m^3/h$ | 44 | 51 | 58 | 63 | 71 | 77 | 85 | 95 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 100 | 125 | 125 | 125 | 150 | 150 | 150 | 150 |
| | Hot water | $m^3/h$ | 74 | 85 | 96 | 105 | 119 | 129 | 141 | 159 |
| | well water | $m^3/h$ | 44 | 51 | 58 | 63 | 71 | 77 | 85 | 95 |
| 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 |
| Install dimension (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 | 4250 | 5050 | 5300 | 5600 | 5800 | 6200 | 6600 | 7200 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

RUIDONG

| Unit model | | RLSG-AR | 1040 | 1160 | 1280 | 1480 | 1720 | 1880 | 2400 |
|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 1058 | 1180 | 1264 | 1476 | 1700 | 1860 | 2160 |
| Input power | | kW | 169.8 | 185.6 | 201.6 | 229.6 | 266 | 289.8 | 329.8 |
| Nominal heating capacity | | kW | 1100 | 1232 | 1336 | 1540 | 1802 | 1992 | 2292 |
| Running current | | kW | 230 | 251.4 | 273 | 311.2 | 360.4 | 392.6 | 447 |
| Max.running current | | A | 560.6 | 612.2 | 665.0 | 757.6 | 903.6 | 980.0 | 1096.8 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 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) | 4*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | |
| Starting mode | | | Y-△ | | | | | | |
| Refrigerant | | | R134a | | | | | | |
| Refrigerant charge | | | 203 | 219 | 238 | 279 | 319 | 348 | 402 |
| Refrigerant control device | | | | | | | | | |
| 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 |
| | Chilled water | $m^3/h$ | 182 | 203 | 217 | 254 | 292 | 320 | 372 |
| | well water | $m^3/h$ | 109 | 122 | 130 | 152 | 175 | 192 | 222 |
| Condenser type | Type | | Shell & tube type | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | |
| | Water pipe Dia | DN | 150 | 150 | 200 | 200 | 200 | 200 | 250 |
| | Hot water | $m^3/h$ | 182 | 203 | 217 | 254 | 292 | 320 | 372 |
| | well water | $m^3/h$ | 109 | 122 | 130 | 152 | 175 | 192 | 222 |
| Noise | | dB(A) | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 7500 | 7800 | 8300 | 8700 | 9100 | 9700 | 10500 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

# R134a flooded type water source heat pump(1)

| Unit model | | RLSG-ARM | 240 | 260 | 280 | 300 | 340 | 380 | 400 | 440 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 238 | 260 | 282 | 313 | 336 | 380 | 419 | 460 |
| Input power | | kW | 37.4 | 39.4 | 43.8 | 47.1 | 51 | 57.1 | 62.9 | 67.4 |
| Nominal heating capacity | | kW | 242 | 255 | 279 | 301 | 340 | 382 | 408 | 446 |
| Running current | | kW | 49.3 | 52 | 56.6 | 61.1 | 69 | 77.3 | 82.5 | 90 |
| Max.running current | | A | 122.9 | 130.3 | 141.2 | 151.7 | 168.4 | 190.1 | 205.9 | 221.8 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 3*50+2*25 | 3*50+2*25 | 3*70+2*35 | 3*70+2*35 | 3*95+2*50 | 3*95+2*50 | 3*95+2*50 | 3*120+2*50 |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 84 | 89 | 96 | 104 | 117 | 132 | 140 | 153 |
| Refrigerant control device | | | | | | | | | | |
| 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 | 100 |
| | Chilled water | m³/h | 41 | 45 | 49 | 54 | 58 | 65 | 72 | 79 |
| | well water | m³/h | 25 | 27 | 29 | 32 | 35 | 39 | 43 | 47 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Hot water | m³/h | 40 | 42 | 46 | 50 | 56 | 63 | 67 | 73 |
| | well water | m³/h | 24 | 25 | 28 | 30 | 34 | 38 | 40 | 44 |
| Noise | | dB(A) | 79.6 | 79.9 | 80.4 | 81.5 | 83.1 | 84.2 | 85.2 | 86.3 |
| 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 |
| Install dimension (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 | 2050 | 2250 | 2400 | 2600 | 2850 | 3150 | 3500 | 3800 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

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| Unit model | | RLSG-ARM | 550 | 600 | 660 | 720 | 840 | 940 | 1000 | 1200 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 519 | 595 | 660 | 709 | 832 | 949 | 1048 | 1208 |
| Input power | | kW | 76.1 | 87 | 97.7 | 104.2 | 120.8 | 137.9 | 153.8 | 175.9 |
| Nominal heating capacity | | kW | 496 | 563 | 628 | 698 | 808 | 936 | 1023 | 1206 |
| Running current | | kW | 100.3 | 113.8 | 125.6 | 134.4 | 155.5 | 180 | 193.1 | 223.3 |
| Max.running current | | A | 247.2 | 280.3 | 306.1 | 332.5 | 378.8 | 451.8 | 490.0 | 548.4 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 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) | 2*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 171 | 194 | 213 | 239 | 277 | 320 | 349 | 398 |
| Refrigerant control device | | | | | | | | | | |
| 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 |
| | Chilled water | $m^3/h$ | 89 | 102 | 114 | 122 | 143 | 163 | 180 | 208 |
| | well water | $m^3/h$ | 53 | 61 | 68 | 73 | 86 | 98 | 108 | 124 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 100 | 125 | 125 | 125 | 150 | 150 | 150 | 150 |
| | Hot water | $m^3/h$ | 82 | 93 | 102 | 114 | 132 | 153 | 167 | 190 |
| | well water | $m^3/h$ | 49 | 55 | 61 | 68 | 79 | 92 | 100 | 114 |
| Noise | | dB(A) | 86.9 | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 4100 | 4500 | 5100 | 5550 | 5750 | 6100 | 6400 | 6700 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

# R134a flooded type water source heat pump(2)

| Unit model | | RLSG-ARM | 480 | 520 | 560 | 600 | 680 | 760 | 800 | 880 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 476 | 520 | 564 | 626 | 672 | 760 | 838 | 920 |
| Input power | | kW | 74.8 | 78.8 | 87.6 | 94.2 | 102 | 114.2 | 125.8 | 134.8 |
| Nominal heating capacity | | kW | 484 | 510 | 558 | 602 | 680 | 764 | 816 | 892 |
| Running current | | kW | 98.6 | 104 | 113.2 | 122.2 | 138 | 154.6 | 165 | 180 |
| Max.running current | | A | 245.8 | 260.6 | 282.4 | 303.4 | 336.8 | 380.2 | 411.8 | 443.6 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 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*95+2*50) | 2*(3*95+2*50) | 2*(3*120+2*50) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-Δ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 167 | 177 | 193 | 208 | 235 | 264 | 281 | 306 |
| Refrigerant control device | | | | | | | | | | |
| 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 |
| | Chilled water | m³/h | 82 | 89 | 97 | 108 | 119 | 131 | 144 | 158 |
| | well water | m³/h | 49 | 54 | 58 | 64 | 69 | 78 | 86 | 95 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 100 | 100 | 125 | 125 | 125 | 150 | 150 | 150 |
| | Hot water | m³/h | 82 | 89 | 97 | 108 | 116 | 131 | 144 | 158 |
| | well water | m³/h | 49 | 54 | 58 | 64 | 69 | 78 | 86 | 95 |
| Noise | | dB(A) | 79.6 | 79.9 | 80.4 | 81.5 | 83.1 | 84.2 | 85.2 | 86.3 |
| 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 |
| Install dimension (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 | 5500 |
| Running weight | | kg | 4300 | 4500 | 5650 | 5750 | 5900 | 6500 | 7000 | 7300 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

RUIDONG

| Unit model | | RLSG-ARM | 1000 | 1200 | 1320 | 1440 | 1680 | 1880 | 2000 | 2400 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 1038 | 1190 | 1320 | 1418 | 1664 | 1898 | 2096 | 2416 |
| Input power | | kW | 152.2 | 174 | 195.4 | 208.4 | 241.6 | 275.8 | 307.6 | 351.8 |
| Nominal heating capacity | | kW | 992 | 1126 | 1256 | 1396 | 1616 | 1872 | 2046 | 2412 |
| Running current | | kW | 200.6 | 227.6 | 251.2 | 268.8 | 311 | 360 | 386.2 | 446.6 |
| Max.running current | | A | 494.4 | 560.6 | 612.2 | 665.0 | 757.6 | 903.6 | 980.0 | 1096.8 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 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) | 4*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-Δ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 341 | 387 | 427 | 478 | 554 | 641 | 698 | 796 |
| Refrigerant control device | | | | | | | | | | |
| 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 | 200 |
| | Chilled water | m³/h | 179 | 205 | 227 | 244 | 286 | 326 | 361 | 416 |
| | well water | m³/h | 107 | 123 | 136 | 146 | 171 | 195 | 216 | 249 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 150 | 150 | 200 | 200 | 200 | 200 | 200 | 200 |
| | Hot water | m³/h | 179 | 205 | 227 | 244 | 286 | 326 | 361 | 416 |
| | well water | m³/h | 107 | 123 | 136 | 146 | 171 | 195 | 216 | 249 |
| Noise | | dB(A) | 86.9 | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 7500 | 7700 | 7900 | 8100 | 8800 | 10100 | 10600 | 11700 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

# R134a falling film type water source heat pump(1)

| Unit model | | RLSG-ARJ | 240 | 260 | 280 | 320 | 340 | 380 | 400 | 460 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 238 | 260 | 282 | 313 | 336 | 380 | 419 | 460 |
| Input power | | kW | 37.4 | 39.4 | 43.8 | 47.1 | 51 | 57.1 | 62.9 | 67.4 |
| Nominal heating capacity | | kW | 242 | 255 | 279 | 301 | 340 | 382 | 408 | 446 |
| Running current | | kW | 49.3 | 52 | 56.6 | 61.1 | 69 | 77.3 | 82.5 | 90 |
| Max.running current | | A | 122.9 | 130.3 | 141.2 | 151.7 | 168.4 | 190.1 | 205.9 | 221.8 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 3*50+2*25 | 3*50+2*25 | 3*70+2*35 | 3*70+2*35 | 3*95+2*50 | 3*95+2*50 | 3*95+2*50 | 3*120+2*50 |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 84 | 89 | 96 | 104 | 117 | 132 | 140 | 153 |
| Refrigerant control device | | | | | | | | | | |
| 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 | 100 |
| | Chilled water | $m^3/h$ | 41 | 45 | 49 | 54 | 58 | 65 | 72 | 79 |
| | well water | $m^3/h$ | 25 | 27 | 29 | 32 | 35 | 39 | 43 | 47 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Hot water | $m^3/h$ | 41 | 45 | 49 | 54 | 58 | 65 | 72 | 79 |
| | well water | $m^3/h$ | 25 | 27 | 29 | 32 | 35 | 39 | 43 | 47 |
| Noise | | dB(A) | 79.6 | 79.9 | 80.4 | 81.5 | 83.1 | 84.2 | 85.2 | 86.3 |
| 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 |
| Install dimension (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 | 2050 | 2250 | 2400 | 2600 | 2850 | 3150 | 3500 | 3800 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

RUIDONG

| Unit model | | RLSG-ARJ | 500 | 600 | 660 | 720 | 840 | 940 | 1100 | 1200 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 519 | 595 | 660 | 709 | 832 | 949 | 1048 | 1208 |
| Input power | | kW | 76.1 | 87 | 97.7 | 104.2 | 120.8 | 137.9 | 153.8 | 175.9 |
| Nominal heating capacity | | kW | 496 | 563 | 628 | 698 | 808 | 936 | 1023 | 1206 |
| Running current | | kW | 100.3 | 113.8 | 125.6 | 134.4 | 155.5 | 180 | 193.1 | 223.3 |
| Max.running current | | A | 247.2 | 280.3 | 306.1 | 332.5 | 378.8 | 451.8 | 490.0 | 548.4 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 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) | 2*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 171 | 194 | 213 | 239 | 277 | 320 | 349 | 398 |
| Refrigerant control device | | | | | | | | | | |
| 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 |
| | Chilled water | $m^3/h$ | 89 | 102 | 114 | 122 | 143 | 163 | 180 | 208 |
| | well water | $m^3/h$ | 53 | 61 | 68 | 73 | 86 | 98 | 108 | 124 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 100 | 125 | 125 | 125 | 150 | 150 | 150 | 150 |
| | Hot water | $m^3/h$ | 89 | 102 | 114 | 122 | 143 | 163 | 180 | 208 |
| | well water | $m^3/h$ | 53 | 61 | 68 | 73 | 86 | 98 | 108 | 124 |
| Noise | | dB(A) | 86.9 | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 4100 | 4500 | 5100 | 5550 | 5750 | 6100 | 6400 | 6700 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

## R134a falling film type water source heat pump(2)

| Unit model | | RLSG-ARJ | 480 | 520 | 560 | 640 | 680 | 760 | 800 | 920 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 476 | 520 | 564 | 626 | 672 | 760 | 838 | 920 |
| Input power | | kW | 74.8 | 78.8 | 87.6 | 94.2 | 102 | 114.2 | 125.8 | 134.8 |
| Nominal heating capacity | | kW | 484 | 510 | 558 | 602 | 680 | 764 | 816 | 892 |
| Running current | | kW | 98.6 | 104 | 113.2 | 122.2 | 138 | 154.6 | 165 | 180 |
| Max.running current | | A | 245.8 | 260.6 | 282.4 | 303.4 | 336.8 | 380.2 | 411.8 | 443.6 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 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*95+2*50) | 2*(3*95+2*50) | 2*(3*120+2*50) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-Δ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 167 | 177 | 193 | 208 | 235 | 264 | 281 | 306 |
| Refrigerant control device | | | | | | | | | | |
| 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 |
| | Chilled water | $m^3/h$ | 82 | 89 | 97 | 108 | 116 | 131 | 144 | 158 |
| | well water | $m^3/h$ | 49 | 54 | 58 | 64 | 69 | 78 | 86 | 95 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 100 | 100 | 125 | 125 | 125 | 150 | 150 | 150 |
| | Hot water | $m^3/h$ | 82 | 89 | 97 | 108 | 116 | 131 | 144 | 158 |
| | well water | $m^3/h$ | 49 | 54 | 58 | 64 | 69 | 78 | 86 | 95 |
| Noise | | dB(A) | 79.6 | 79.9 | 80.4 | 81.5 | 83.1 | 84.2 | 85.2 | 86.3 |
| 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 |
| Install dimension (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 | 5500 |
| Running weight | | kg | 4300 | 4500 | 5650 | 5750 | 5900 | 6500 | 7000 | 7300 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

RUIDONG

| Unit model | | RLSG-ARJ | 1000 | 1200 | 1320 | 1440 | 1680 | 1880 | 2000 | 2400 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 1038 | 1190 | 1320 | 1418 | 1664 | 1898 | 2096 | 2416 |
| Input power | | kW | 152.2 | 174 | 195.4 | 208.4 | 241.6 | 275.8 | 307.6 | 351.8 |
| Nominal heating capacity | | kW | 992 | 1126 | 1256 | 1396 | 1616 | 1872 | 2046 | 2412 |
| Running current | | kW | 200.6 | 227.6 | 251.2 | 268.8 | 311 | 360 | 386.2 | 446.6 |
| Max.running current | | A | 494.4 | 560.6 | 612.2 | 665.0 | 757.6 | 903.6 | 980.0 | 1096.8 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 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) | 4*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | |
| Refrigerant | | | R134a | | | | | | | |
| Refrigerant charge | | | 341 | 387 | 427 | 478 | 554 | 641 | 698 | 796 |
| Refrigerant control device | | | | | | | | | | |
| 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 | 200 |
| | Chilled water | m³/h | 179 | 205 | 227 | 244 | 286 | 326 | 361 | 416 |
| | well water | m³/h | 107 | 123 | 136 | 146 | 171 | 195 | 216 | 249 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 150 | 150 | 200 | 200 | 200 | 200 | 200 | 200 |
| | Hot water | m³/h | 179 | 205 | 227 | 244 | 286 | 326 | 361 | 416 |
| | well water | m³/h | 107 | 123 | 136 | 146 | 171 | 195 | 216 | 249 |
| Noise | | dB(A) | 86.9 | 87.1 | 87.3 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 | | 2200 |
| | H | | 2150 | 2150 | 2250 | 2250 | 2410 | 2530 | 2600 | 2800 |
| Install dimension (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 | 7500 | 7700 | 7900 | 8100 | 8800 | 10100 | 10600 | 11700 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

## R407c dry type water source heat pump(1)

| Unit model | | LSG-CR | 200 | 260 | 280 | 320 | 380 | 420 | 460 | 540 | 580 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 205 | 253 | 278 | 308 | 365 | 406 | 448 | 523 | 554 |
| Input power | | kW | 37.2 | 44.9 | 49.3 | 54.9 | 64.1 | 70.1 | 76.8 | 89 | 94 |
| Nominal heating capacity | | kW | 228 | 284 | 313 | 352 | 414 | 454 | 498 | 577 | 610 |
| Running current | | kW | 50 | 60.4 | 67.2 | 73.8 | 86.1 | 94.2 | 103.2 | 119.6 | 126.2 |
| Max.running current | | A | 109.5 | 133 | 145.9 | 162.5 | 189.8 | 208.7 | 226.8 | 262.7 | 276.9 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 3*35+2*16 | 3*50+2*25 | 3*70+2*35 | 3*70+2*35 | 3*95+2*50 | 3*95+2*50 | 3*120+2*50 | 3*150+2*70 | 3*150+2*70 |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | | |
| Refrigerant | | | R407c | | | | | | | | |
| Refrigerant charge | | | 41 | 51 | 56 | 62 | 73 | 81 | 90 | 105 | 111 |
| Refrigerant control device | | | | | | | | | | | |
| 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 |
| | Chilled water | m³/h | 35 | 44 | 48 | 53 | 63 | 70 | 77 | 90 | 95 |
| | well water | m³/h | 21 | 26 | 29 | 32 | 38 | 42 | 46 | 54 | 57 |
| 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 |
| | Hot water | m³/h | 35 | 44 | 48 | 53 | 63 | 70 | 77 | 90 | 95 |
| | well water | m³/h | 21 | 26 | 29 | 32 | 38 | 42 | 46 | 54 | 57 |
| 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 |
| Install dimension (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 | 1900 | 2000 | 2100 | 2300 | 2450 | 2550 | 2850 | 2950 | 3200 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

RUIDONG

| Unit model | | | LSG-CR | 640 | 720 | 820 | 960 | 1100 | 1260 | 1400 | 1600 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | | kW | 618 | 692 | 802 | 944 | 1056 | 1224 | 1330 | 1610 |
| Input power | | | kW | 104.5 | 116.7 | 134.4 | 157.3 | 175.4 | 200.8 | 217.2 | 259 |
| Nominal heating capacity | | | kW | 680 | 762 | 885 | 1035 | 1158 | 1330 | 1517 | 1758 |
| Running current | | | kW | 140.4 | 156.8 | 180.6 | 211.3 | 235.7 | 269.8 | 291.8 | 348 |
| Max.running current | | | A | 308.3 | 344.6 | 395.9 | 463.5 | 516.6 | 596.5 | 645 | 751.8 |
| Cable diameter (copper wire distance ≤ 20 meters) | | | mm² | 3*185+2*95 | 3*185+2*95 | 3*240+2*120 | 3*240+2*120 | 2*(3*150+2*70) | 2*(3*150+2*70) | 2*(3*185+2*95) | 2*(3*185+2*95) |
| Power voltage | | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | | Y-△ | | | | | | | |
| Refrigerant | | | | R407c | | | | | | | |
| Refrigerant charge | | | | 124 | 138 | 160 | 189 | 211 | 245 | 266 | 322 |
| Refrigerant control device | | | | | | | | | | | |
| 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 |
| | Chilled water | | m³/h | 106 | 119 | 138 | 162 | 182 | 211 | 229 | 277 |
| | well water | | m³/h | 64 | 71 | 83 | 97 | 109 | 126 | 137 | 166 |
| Condenser type | Type | | | Shell & tube type | | | | | | | |
| | Water pressure drop | | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | | DN | 150 | 150 | 150 | 150 | 150 | 200 | 200 | 200 |
| | Hot water | | m³/h | 106 | 119 | 138 | 162 | 182 | 211 | 229 | 277 |
| | well water | | m³/h | 64 | 71 | 83 | 97 | 109 | 126 | 137 | 166 |
| Noise | | | dB(A) | 86.3 | 86.6 | 87.1 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 3400 | 3800 | 4600 | 5200 | 5600 | 6000 | 6500 | 6900 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

## R407c dry type water source heat pump(2)

| Unit model | | LSG-CR | 400 | 480 | 560 | 640 | 760 | 800 | 920 | 1000 | 1160 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 410 | 506 | 556 | 616 | 730 | 812 | 896 | 1046 | 1108 |
| Input power | | kW | 74.4 | 89.8 | 98.6 | 109.8 | 128.2 | 140.2 | 153.6 | 178 | 188 |
| Nominal heating capacity | | kW | 456 | 568 | 626 | 704 | 828 | 908 | 996 | 1154 | 1220 |
| Running current | | kW | 100 | 120.8 | 134.4 | 147.6 | 172.2 | 188.4 | 206.4 | 239.2 | 252.4 |
| Max.running current | | A | 219 | 266 | 291.8 | 325 | 379.6 | 417.4 | 453.6 | 525.4 | 553.8 |
| Cable diameter (copper wire distance ≤ 20 meters) | | mm² | 2*(3*35+2*16) | 2*(3*50+2*25) | 2*(3*70+2*35) | 2*(3*70+2*35) | 2*(3*95+2*50) | 2*(3*95+2*50) | 2*(3*120+2*50) | 2*(3*150+2*70) | 2*(3*150+2*70) |
| Power voltage | | | 3-380V-50Hz | | | | | | | | |
| Starting mode | | | Y-Δ | | | | | | | | |
| Refrigerant | | | R407c | | | | | | | | |
| Refrigerant charge | | | 82 | 101 | 111 | 123 | 146 | 162 | 179 | 209 | 222 |
| Refrigerant control device | | | | | | | | | | | |
| 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 |
| | Chilled water | m³/h | 71 | 87 | 96 | 106 | 126 | 140 | 154 | 180 | 191 |
| | well water | m³/h | 42 | 52 | 57 | 63 | 75 | 84 | 92 | 108 | 114 |
| 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 |
| | Hot water | m³/h | 71 | 87 | 96 | 106 | 126 | 140 | 154 | 180 | 191 |
| | well water | m³/h | 42 | 52 | 57 | 63 | 75 | 84 | 92 | 108 | 114 |
| 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 |
| Install dimension (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 | 3150 | 3400 | 3700 | 4000 | 4750 | 5000 | 5300 | 5800 | 6200 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

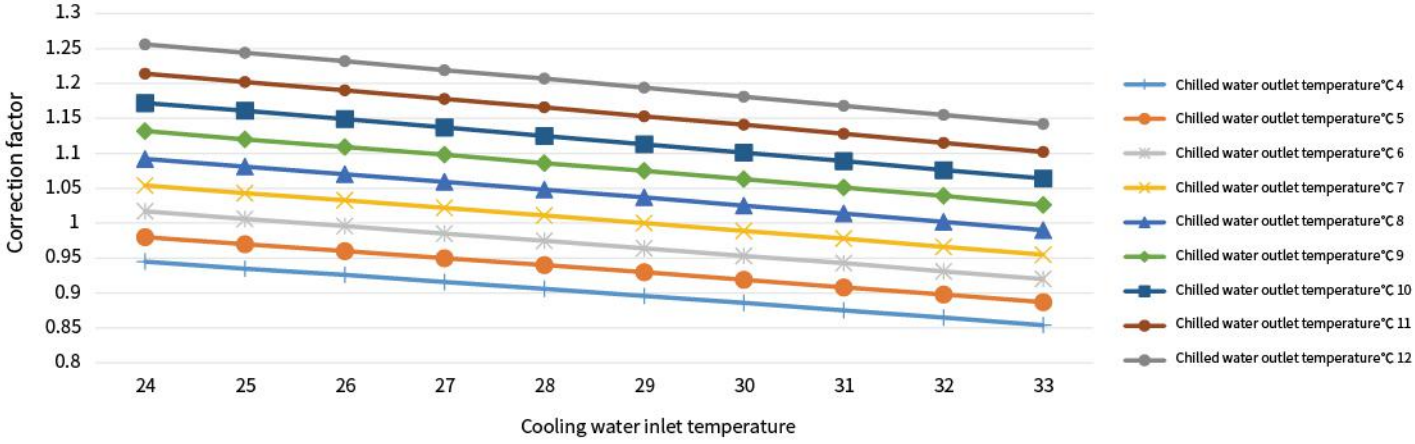
RUIDONG

| Unit model | | LSG-CR | 1280 | 1440 | 1640 | 1880 | 2200 | 2400 | 2800 | 3200 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal cooling capacity | | kW | 1236 | 1384 | 1604 | 1888 | 2112 | 2448 | 2660 | 3220 |
| Input power | | kW | 209 | 233.4 | 268.8 | 314.6 | 350.8 | 401.6 | 434.4 | 518 |
| Nominal heating capacity | | kW | 1360 | 1524 | 1770 | 2070 | 2316 | 2660 | 3034 | 3516 |
| Running current | | kW | 280.8 | 313.6 | 361.2 | 422.6 | 471.4 | 539.6 | 583.6 | 696 |
| Max.running current | | A | 616.6 | 689.2 | 791.8 | 927 | 1033.2 | 1193 | 1290 | 1503.6 |
| Cable diameter (copper wire distance ≤ 20 meters) | | $mm^2$ | 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) | 4*(3*150+2*70) | 4*(3*185+2*95) | 4*(3*185+2*95) |
| Power voltage | | | 3-380V-50Hz | | | | | | | |
| Starting mode | | | Y-△ | | | | | | | |
| Refrigerant | | | R407c | | | | | | | |
| Refrigerant charge | | | 247 | 277 | 321 | 378 | 422 | 490 | 532 | 644 |
| Refrigerant control device | | | | | | | | | | |
| 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 |
| | Chilled water | $m^3/h$ | 213 | 238 | 276 | 325 | 363 | 421 | 458 | 554 |
| | well water | $m^3/h$ | 127 | 143 | 165 | 194 | 218 | 252 | 274 | 332 |
| Condenser type | Type | | Shell & tube type | | | | | | | |
| | Water pressure drop | kPa | 70-90 | | | | | | | |
| | Water pipe Dia | DN | 200 | 200 | 200 | 200 | 200 | 250 | 250 | 250 |
| | Hot water | $m^3/h$ | 213 | 238 | 276 | 325 | 363 | 421 | 458 | 554 |
| | well water | $m^3/h$ | 127 | 143 | 165 | 194 | 218 | 252 | 274 | 332 |
| Noise | | dB(A) | 86.3 | 86.6 | 87.1 | 87.6 | 88.4 | 89.2 | 90 | 91 |
| 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 |
| Install dimension (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 | 6500 | 7100 | 7500 | 7700 | 8400 | 9200 | 9700 | 10300 |

**Remarks:** Cooling conditions: user side inlet/outlet temperature is 12℃/7℃, well water inlet/outlet temperature is 18℃/29℃.
Heating conditions: user side inlet/outlet temperature is 40℃/--℃, well water inlet/outlet temperature is 15℃/--℃.

# 5.CORRECTION FACTOR

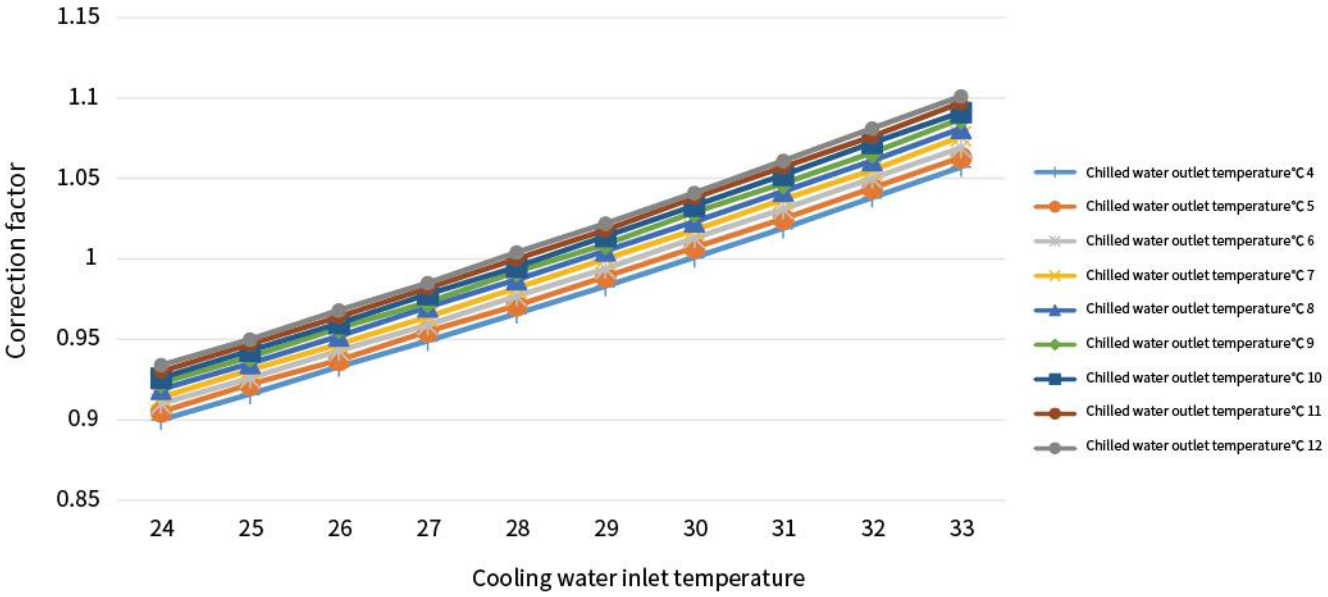
## Correction factor curve of dry type water source heat pump cooling capacity–R22




## Correction factor

| | | Cooling water inlet temperature | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| hilled water outlet temperature | 4 | 0.945 | 0.935 | 0.926 | 0.916 | 0.906 | 0.896 | 0.886 | 0.875 | 0.865 | 0.854 |
| | 5 | 0.980 | 0.970 | 0.960 | 0.950 | 0.940 | 0.930 | 0.919 | 0.908 | 0.898 | 0.887 |
| | 6 | 1.017 | 1.006 | 0.996 | 0.985 | 0.975 | 0.964 | 0.953 | 0.943 | 0.931 | 0.920 |
| | 7 | 1.054 | 1.043 | 1.033 | 1.022 | 1.011 | 1.000 | 0.989 | 0.978 | 0.966 | 0.955 |
| | 8 | 1.092 | 1.081 | 1.070 | 1.059 | 1.048 | 1.037 | 1.025 | 1.014 | 1.002 | 0.990 |
| | 9 | 1.132 | 1.120 | 1.109 | 1.098 | 1.086 | 1.075 | 1.063 | 1.051 | 1.039 | 1.026 |
| | 10 | 1.172 | 1.161 | 1.149 | 1.137 | 1.125 | 1.113 | 1.101 | 1.089 | 1.076 | 1.064 |
| | 11 | 1.214 | 1.202 | 1.190 | 1.178 | 1.166 | 1.153 | 1.141 | 1.128 | 1.115 | 1.102 |
| | 12 | 1.256 | 1.244 | 1.232 | 1.219 | 1.207 | 1.194 | 1.181 | 1.168 | 1.155 | 1.142 |

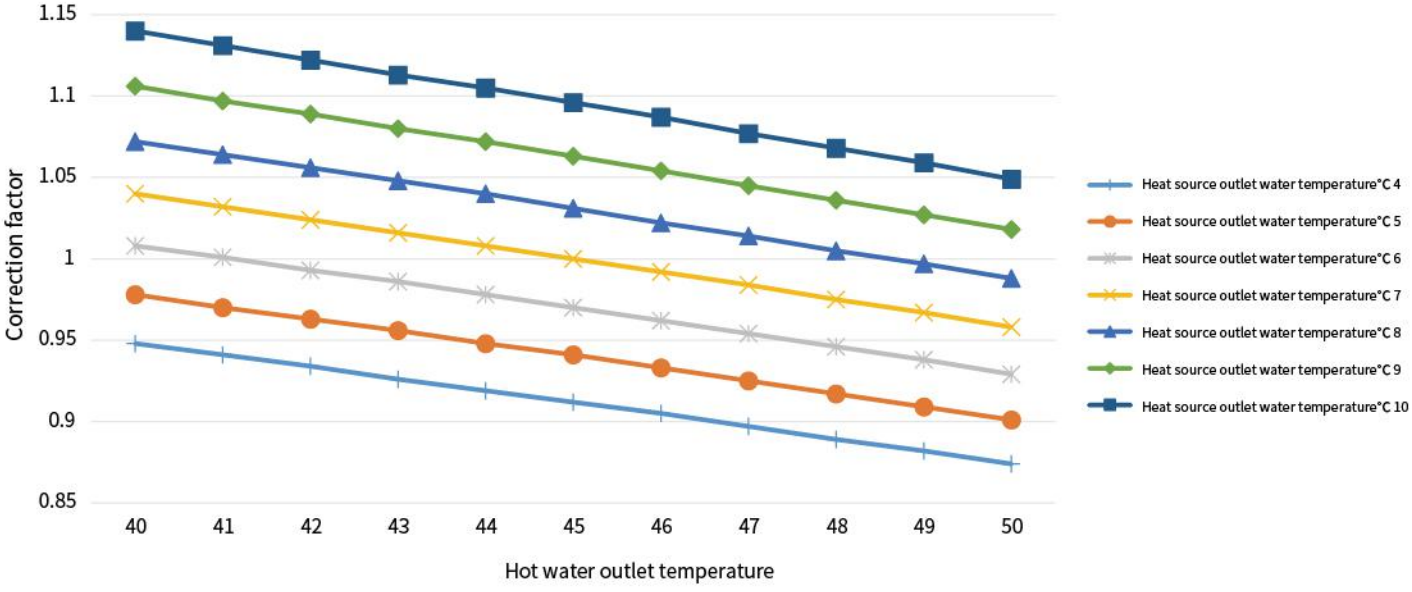
## Correction factor curve of dry type water source heat pump cooling input power–R22




## Correction factor

| | | Cooling water inlet temperature | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| hilled water outlet temperature | 4 | 0.900 | 0.916 | 0.933 | 0.949 | 0.966 | 0.983 | 1.001 | 1.019 | 1.038 | 1.057 |
| | 5 | 0.905 | 0.922 | 0.937 | 0.955 | 0.971 | 0.989 | 1.007 | 1.025 | 1.044 | 1.063 |
| | 6 | 0.910 | 0.926 | 0.943 | 0.959 | 0.977 | 0.994 | 1.013 | 1.031 | 1.050 | 1.069 |
| | 7 | 0.914 | 0.931 | 0.947 | 0.964 | 0.982 | 1.000 | 1.018 | 1.037 | 1.055 | 1.076 |
| | 8 | 0.919 | 0.935 | 0.952 | 0.970 | 0.987 | 1.005 | 1.023 | 1.042 | 1.061 | 1.081 |
| | 9 | 0.923 | 0.939 | 0.957 | 0.973 | 0.992 | 1.009 | 1.029 | 1.047 | 1.066 | 1.087 |
| | 10 | 0.926 | 0.943 | 0.960 | 0.978 | 0.995 | 1.014 | 1.033 | 1.052 | 1.072 | 1.091 |
| | 11 | 0.930 | 0.947 | 0.964 | 0.982 | 1.000 | 1.018 | 1.038 | 1.057 | 1.076 | 1.097 |
| | 12 | 0.934 | 0.950 | 0.968 | 0.985 | 1.004 | 1.022 | 1.041 | 1.061 | 1.081 | 1.101 |

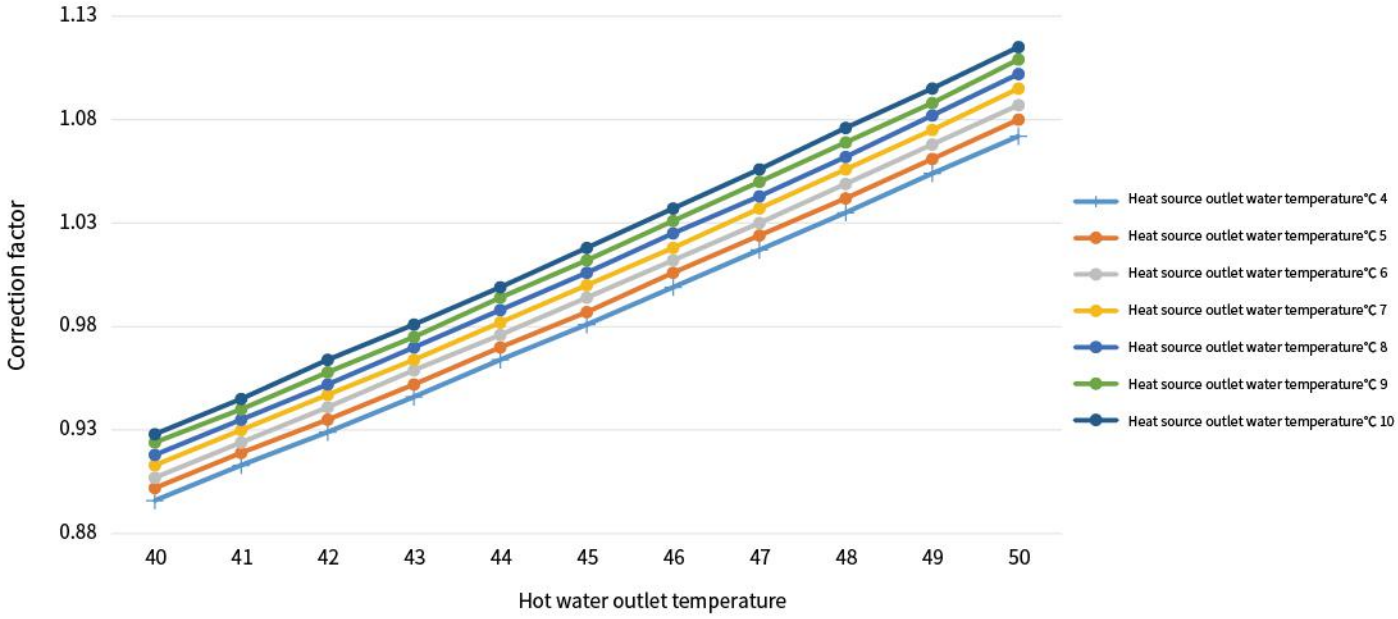
## Correction factor curve of dry type water source heat pump heating capacity–R22




## Correction factor

| | | Hot water outlet temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Heat source outlet water temperature | 4 | 0.948 | 0.941 | 0.934 | 0.926 | 0.919 | 0.912 | 0.905 | 0.897 | 0.889 | 0.882 | 0.874 |
| | 5 | 0.978 | 0.970 | 0.963 | 0.956 | 0.948 | 0.941 | 0.933 | 0.925 | 0.917 | 0.909 | 0.901 |
| | 6 | 1.008 | 1.001 | 0.993 | 0.986 | 0.978 | 0.970 | 0.962 | 0.954 | 0.946 | 0.938 | 0.929 |
| | 7 | 1.040 | 1.032 | 1.024 | 1.016 | 1.008 | 1.000 | 0.992 | 0.984 | 0.975 | 0.967 | 0.958 |
| | 8 | 1.072 | 1.064 | 1.056 | 1.048 | 1.040 | 1.031 | 1.022 | 1.014 | 1.005 | 0.997 | 0.988 |
| | 9 | 1.106 | 1.097 | 1.089 | 1.080 | 1.072 | 1.063 | 1.054 | 1.045 | 1.036 | 1.027 | 1.018 |
| | 10 | 1.140 | 1.131 | 1.122 | 1.113 | 1.105 | 1.096 | 1.087 | 1.077 | 1.068 | 1.059 | 1.049 |

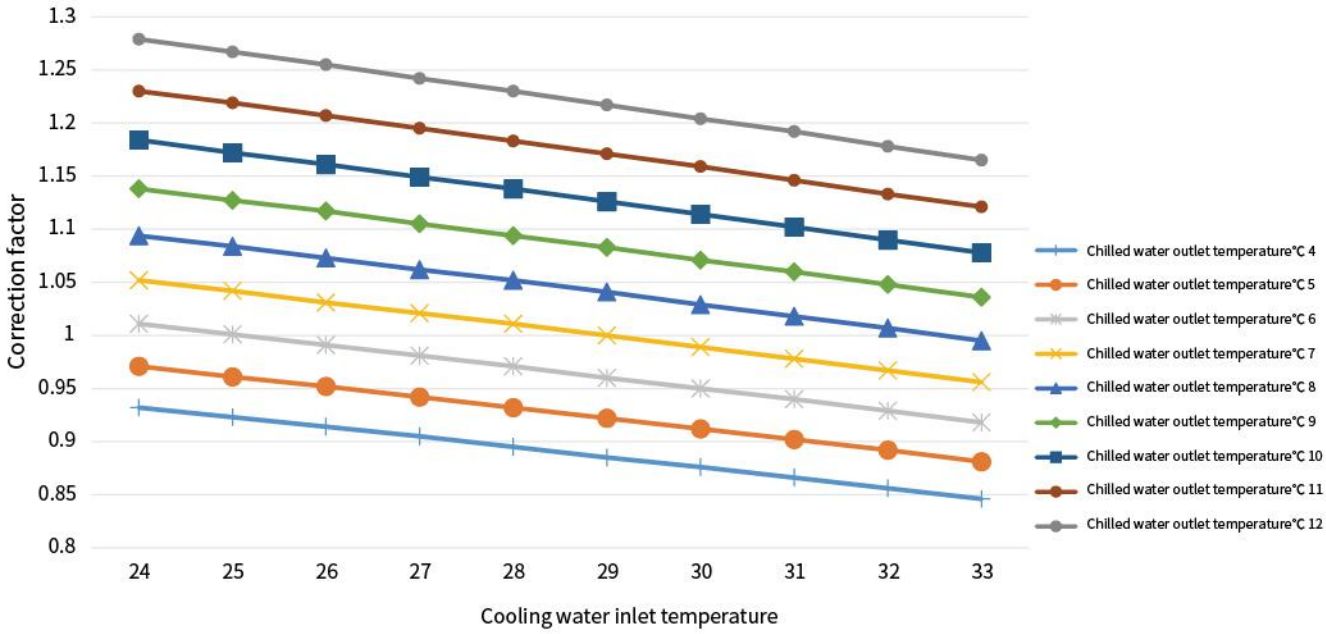
## Correction factor curve of dry type water source heat pump heating input power–R22




## Correction factor

| | | Hot water outlet temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Heat source outlet water temperature | 4 | 0.896 | 0.913 | 0.929 | 0.946 | 0.964 | 0.981 | 0.999 | 1.017 | 1.035 | 1.054 | 1.072 |
| | 5 | 0.902 | 0.919 | 0.935 | 0.952 | 0.970 | 0.987 | 1.006 | 1.024 | 1.042 | 1.061 | 1.080 |
| | 6 | 0.907 | 0.924 | 0.941 | 0.959 | 0.976 | 0.994 | 1.012 | 1.030 | 1.049 | 1.068 | 1.087 |
| | 7 | 0.913 | 0.930 | 0.947 | 0.964 | 0.982 | 1.000 | 1.018 | 1.037 | 1.056 | 1.075 | 1.095 |
| | 8 | 0.918 | 0.935 | 0.952 | 0.970 | 0.988 | 1.006 | 1.025 | 1.043 | 1.062 | 1.082 | 1.102 |
| | 9 | 0.924 | 0.940 | 0.958 | 0.975 | 0.994 | 1.012 | 1.031 | 1.050 | 1.069 | 1.088 | 1.109 |
| | 10 | 0.928 | 0.945 | 0.964 | 0.981 | 0.999 | 1.018 | 1.037 | 1.056 | 1.076 | 1.095 | 1.115 |

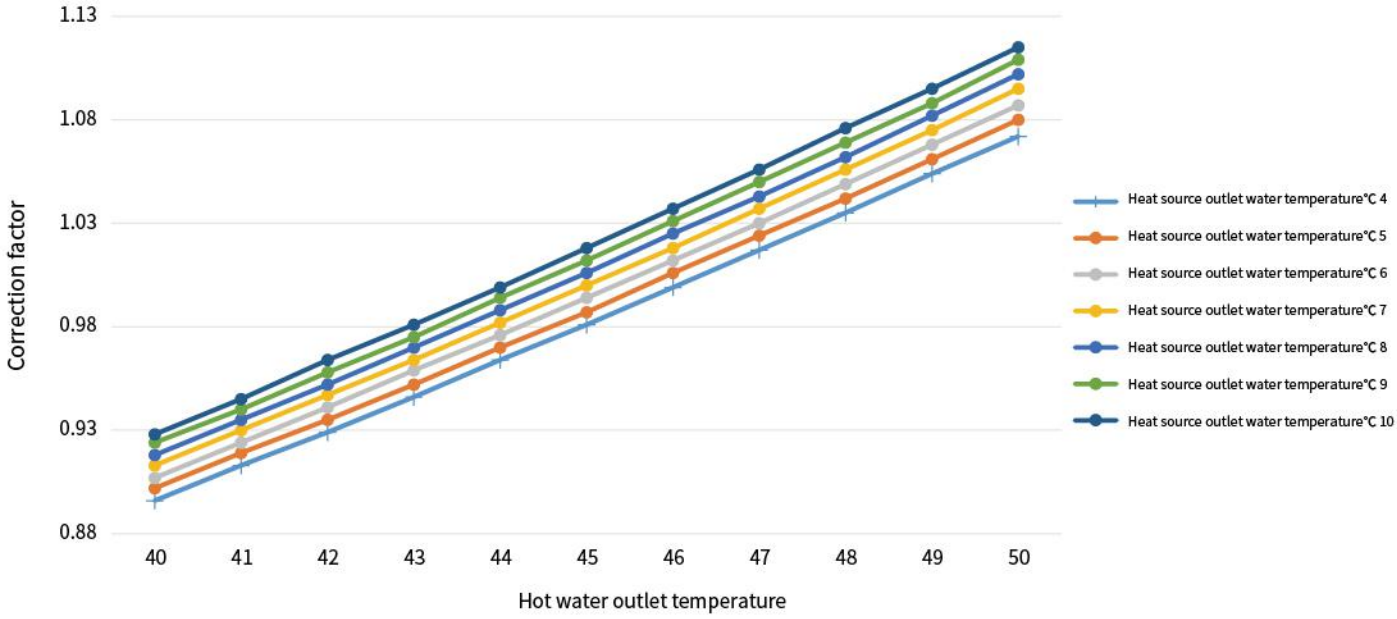
## Correction factor curve of dry type water source heat pump cooling capacity-R134a




## Correction factor

| | | Cooling water inlet temperature | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| Chilled water outlet temperature | 4 | 0.932 | 0.923 | 0.914 | 0.905 | 0.895 | 0.885 | 0.876 | 0.866 | 0.856 | 0.846 |
| | 5 | 0.971 | 0.961 | 0.952 | 0.942 | 0.932 | 0.922 | 0.912 | 0.902 | 0.892 | 0.881 |
| | 6 | 1.011 | 1.001 | 0.991 | 0.981 | 0.971 | 0.960 | 0.950 | 0.940 | 0.929 | 0.918 |
| | 7 | 1.052 | 1.042 | 1.031 | 1.021 | 1.011 | 1.000 | 0.989 | 0.978 | 0.967 | 0.956 |
| | 8 | 1.094 | 1.084 | 1.073 | 1.062 | 1.052 | 1.041 | 1.029 | 1.018 | 1.007 | 0.995 |
| | 9 | 1.138 | 1.127 | 1.117 | 1.105 | 1.094 | 1.083 | 1.071 | 1.060 | 1.048 | 1.036 |
| | 10 | 1.184 | 1.172 | 1.161 | 1.149 | 1.138 | 1.126 | 1.114 | 1.102 | 1.090 | 1.078 |
| | 11 | 1.230 | 1.219 | 1.207 | 1.195 | 1.183 | 1.171 | 1.159 | 1.146 | 1.133 | 1.121 |
| | 12 | 1.279 | 1.267 | 1.255 | 1.242 | 1.230 | 1.217 | 1.204 | 1.192 | 1.178 | 1.165 |

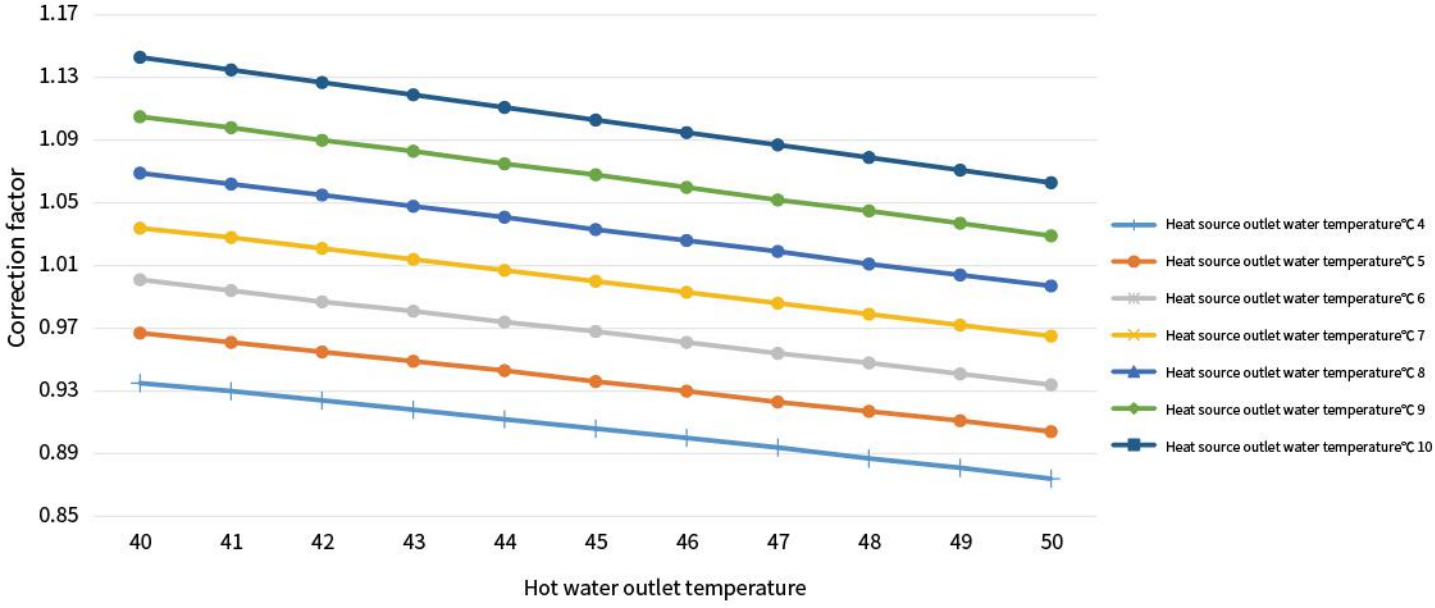
## Correction factor curve of dry type water source heat pump heating input power–R22




## Correction factor

| | | Hot water outlet temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Heat source outlet water temperature | 4 | 0.896 | 0.913 | 0.929 | 0.946 | 0.964 | 0.981 | 0.999 | 1.017 | 1.035 | 1.054 | 1.072 |
| | 5 | 0.902 | 0.919 | 0.935 | 0.952 | 0.970 | 0.987 | 1.006 | 1.024 | 1.042 | 1.061 | 1.080 |
| | 6 | 0.907 | 0.924 | 0.941 | 0.959 | 0.976 | 0.994 | 1.012 | 1.030 | 1.049 | 1.068 | 1.087 |
| | 7 | 0.913 | 0.930 | 0.947 | 0.964 | 0.982 | 1.000 | 1.018 | 1.037 | 1.056 | 1.075 | 1.095 |
| | 8 | 0.918 | 0.935 | 0.952 | 0.970 | 0.988 | 1.006 | 1.025 | 1.043 | 1.062 | 1.082 | 1.102 |
| | 9 | 0.924 | 0.940 | 0.958 | 0.975 | 0.994 | 1.012 | 1.031 | 1.050 | 1.069 | 1.088 | 1.109 |
| | 10 | 0.928 | 0.945 | 0.964 | 0.981 | 0.999 | 1.018 | 1.037 | 1.056 | 1.076 | 1.095 | 1.115 |

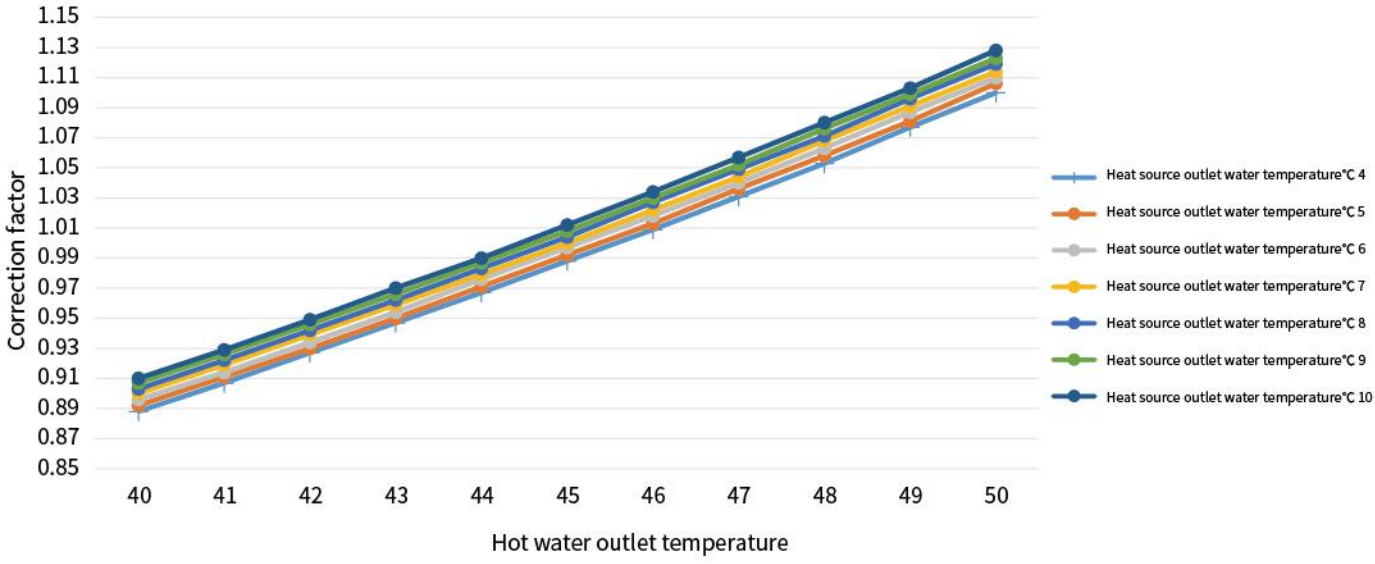
## Correction factor curve of dry type water source heat pump heating capacity-R134a




## Correction factor

| | | Hot water outlet temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Heat source outlet water temperature | 4 | 0.935 | 0.930 | 0.924 | 0.918 | 0.912 | 0.906 | 0.900 | 0.894 | 0.887 | 0.881 | 0.874 |
| | 5 | 0.967 | 0.961 | 0.955 | 0.949 | 0.943 | 0.936 | 0.930 | 0.923 | 0.917 | 0.911 | 0.904 |
| | 6 | 1.001 | 0.994 | 0.987 | 0.981 | 0.974 | 0.968 | 0.961 | 0.954 | 0.948 | 0.941 | 0.934 |
| | 7 | 1.034 | 1.028 | 1.021 | 1.014 | 1.007 | 1.000 | 0.993 | 0.986 | 0.979 | 0.972 | 0.965 |
| | 8 | 1.069 | 1.062 | 1.055 | 1.048 | 1.041 | 1.033 | 1.026 | 1.019 | 1.011 | 1.004 | 0.997 |
| | 9 | 1.105 | 1.098 | 1.090 | 1.083 | 1.075 | 1.068 | 1.060 | 1.052 | 1.045 | 1.037 | 1.029 |
| | 10 | 1.143 | 1.135 | 1.127 | 1.119 | 1.111 | 1.103 | 1.095 | 1.087 | 1.079 | 1.071 | 1.063 |

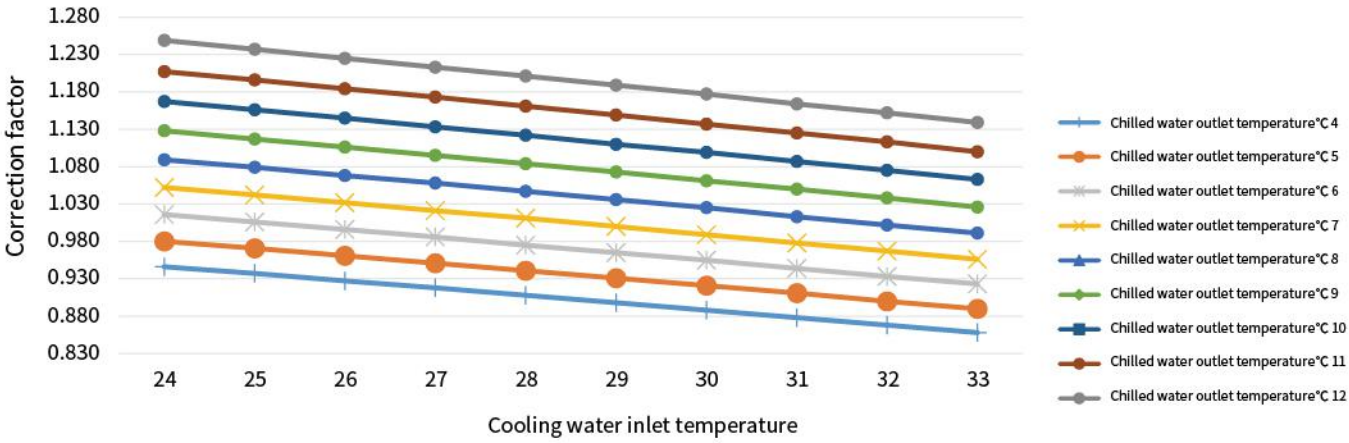
## Correction factor curve of dry type water source heat pump heating input power–R134a




## Correction factor

| | | Hot water outlet temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Heat source outlet water temperature | 4 | 0.888 | 0.907 | 0.927 | 0.947 | 0.967 | 0.988 | 1.009 | 1.031 | 1.053 | 1.077 | 1.100 |
| | 5 | 0.892 | 0.911 | 0.930 | 0.950 | 0.971 | 0.992 | 1.013 | 1.036 | 1.058 | 1.081 | 1.106 |
| | 6 | 0.896 | 0.914 | 0.934 | 0.954 | 0.976 | 0.997 | 1.018 | 1.040 | 1.063 | 1.087 | 1.110 |
| | 7 | 0.900 | 0.919 | 0.939 | 0.959 | 0.979 | 1.000 | 1.022 | 1.044 | 1.068 | 1.091 | 1.114 |
| | 8 | 0.903 | 0.922 | 0.942 | 0.962 | 0.983 | 1.004 | 1.027 | 1.049 | 1.071 | 1.096 | 1.119 |
| | 9 | 0.907 | 0.926 | 0.946 | 0.966 | 0.987 | 1.008 | 1.030 | 1.052 | 1.076 | 1.099 | 1.123 |
| | 10 | 0.910 | 0.929 | 0.949 | 0.970 | 0.990 | 1.012 | 1.034 | 1.057 | 1.080 | 1.103 | 1.128 |

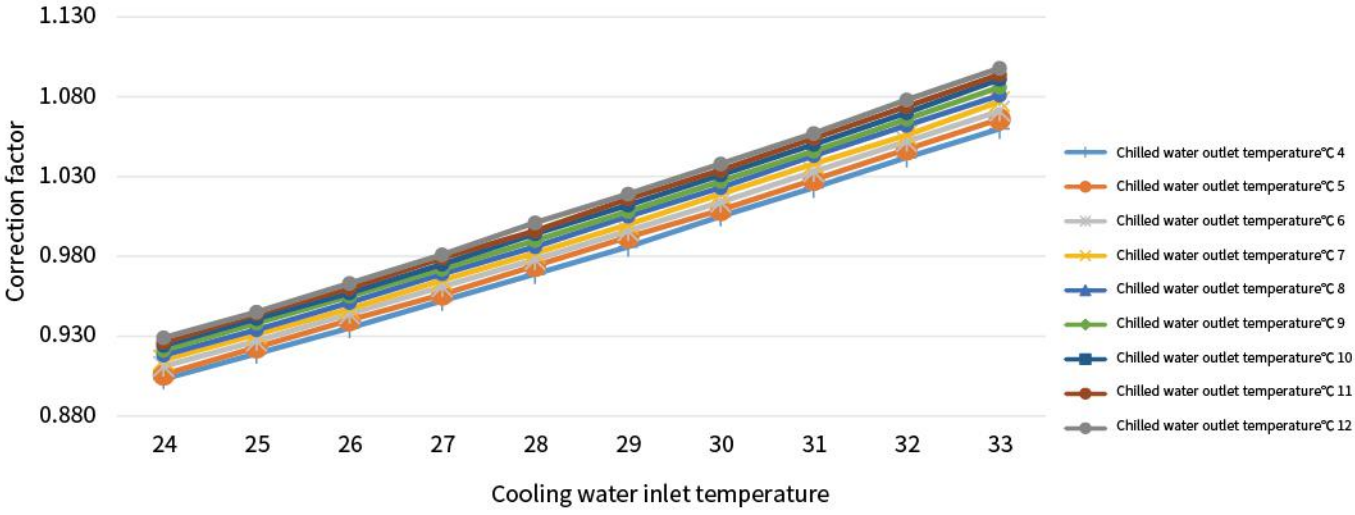
## Correction factor curve of flooded type water source heat pump cooling capacity–R22




## Correction factor

| | | Cooling water inlet temperature | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| hilled water outlet temperature | 4 | 0.946 | 0.937 | 0.927 | 0.918 | 0.908 | 0.898 | 0.888 | 0.878 | 0.868 | 0.858 |
| | 5 | 0.980 | 0.971 | 0.961 | 0.951 | 0.941 | 0.931 | 0.921 | 0.911 | 0.900 | 0.890 |
| | 6 | 1.016 | 1.006 | 0.996 | 0.986 | 0.975 | 0.965 | 0.955 | 0.944 | 0.933 | 0.923 |
| | 7 | 1.052 | 1.042 | 1.032 | 1.021 | 1.011 | 1.000 | 0.989 | 0.978 | 0.967 | 0.956 |
| | 8 | 1.089 | 1.079 | 1.068 | 1.058 | 1.047 | 1.036 | 1.025 | 1.013 | 1.002 | 0.991 |
| | 9 | 1.128 | 1.117 | 1.106 | 1.095 | 1.084 | 1.073 | 1.061 | 1.050 | 1.038 | 1.026 |
| | 10 | 1.167 | 1.156 | 1.145 | 1.133 | 1.122 | 1.110 | 1.099 | 1.087 | 1.075 | 1.063 |
| | 11 | 1.207 | 1.196 | 1.184 | 1.173 | 1.161 | 1.149 | 1.137 | 1.125 | 1.113 | 1.100 |
| | 12 | 1.249 | 1.237 | 1.225 | 1.213 | 1.201 | 1.189 | 1.177 | 1.164 | 1.152 | 1.139 |

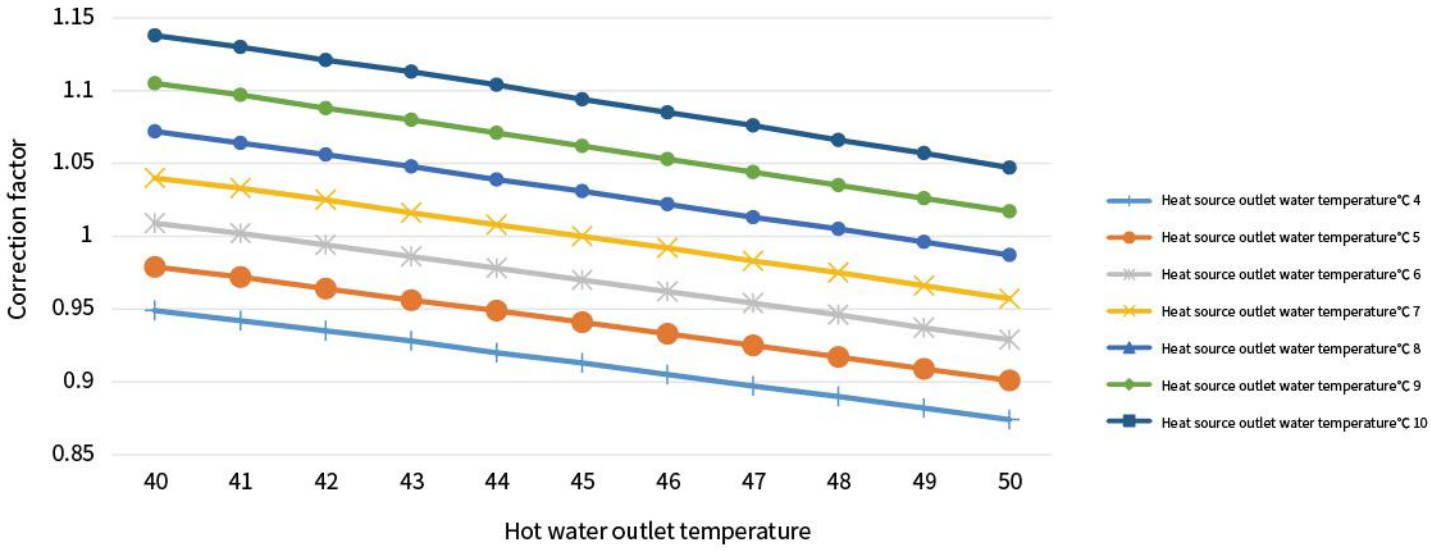
## Correction factor curve of flooded type water source heat pump cooling input power–R22




## Correction factor

| | | Cooling water inlet temperature | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| hilled water outlet temperature | 4 | 0.903 | 0.919 | 0.935 | 0.952 | 0.969 | 0.986 | 1.005 | 1.023 | 1.042 | 1.060 |
| | 5 | 0.906 | 0.923 | 0.940 | 0.956 | 0.974 | 0.992 | 1.009 | 1.028 | 1.047 | 1.066 |
| | 6 | 0.911 | 0.927 | 0.944 | 0.961 | 0.978 | 0.996 | 1.014 | 1.033 | 1.052 | 1.071 |
| | 7 | 0.915 | 0.931 | 0.947 | 0.965 | 0.982 | 1.000 | 1.019 | 1.038 | 1.056 | 1.077 |
| | 8 | 0.918 | 0.934 | 0.951 | 0.969 | 0.986 | 1.005 | 1.023 | 1.043 | 1.062 | 1.081 |
| | 9 | 0.921 | 0.938 | 0.955 | 0.972 | 0.990 | 1.008 | 1.027 | 1.046 | 1.066 | 1.086 |
| | 10 | 0.924 | 0.941 | 0.957 | 0.975 | 0.994 | 1.012 | 1.031 | 1.050 | 1.070 | 1.091 |
| | 11 | 0.926 | 0.944 | 0.960 | 0.979 | 0.996 | 1.016 | 1.034 | 1.054 | 1.074 | 1.094 |
| | 12 | 0.929 | 0.945 | 0.963 | 0.981 | 1.001 | 1.019 | 1.038 | 1.057 | 1.078 | 1.098 |

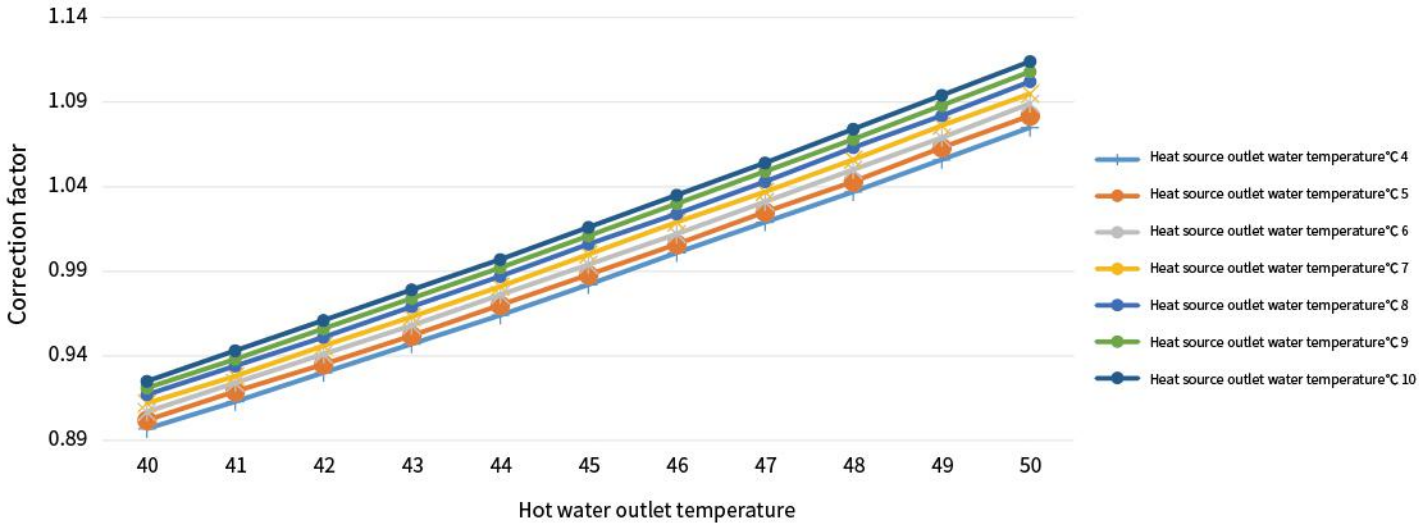
## Correction factor curve of flooded type water source heat pump heating capacity–R22




## Correction factor

| | | Hot water outlet temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Heat source outlet water temperature | 4 | 0.949 | 0.942 | 0.935 | 0.928 | 0.920 | 0.913 | 0.905 | 0.897 | 0.890 | 0.882 | 0.874 |
| | 5 | 0.979 | 0.972 | 0.964 | 0.956 | 0.949 | 0.941 | 0.933 | 0.925 | 0.917 | 0.909 | 0.901 |
| | 6 | 1.009 | 1.002 | 0.994 | 0.986 | 0.978 | 0.970 | 0.962 | 0.954 | 0.946 | 0.937 | 0.929 |
| | 7 | 1.040 | 1.033 | 1.025 | 1.016 | 1.008 | 1.000 | 0.992 | 0.983 | 0.975 | 0.966 | 0.957 |
| | 8 | 1.072 | 1.064 | 1.056 | 1.048 | 1.039 | 1.031 | 1.022 | 1.013 | 1.005 | 0.996 | 0.987 |
| | 9 | 1.105 | 1.097 | 1.088 | 1.080 | 1.071 | 1.062 | 1.053 | 1.044 | 1.035 | 1.026 | 1.017 |
| | 10 | 1.138 | 1.130 | 1.121 | 1.113 | 1.104 | 1.094 | 1.085 | 1.076 | 1.066 | 1.057 | 1.047 |

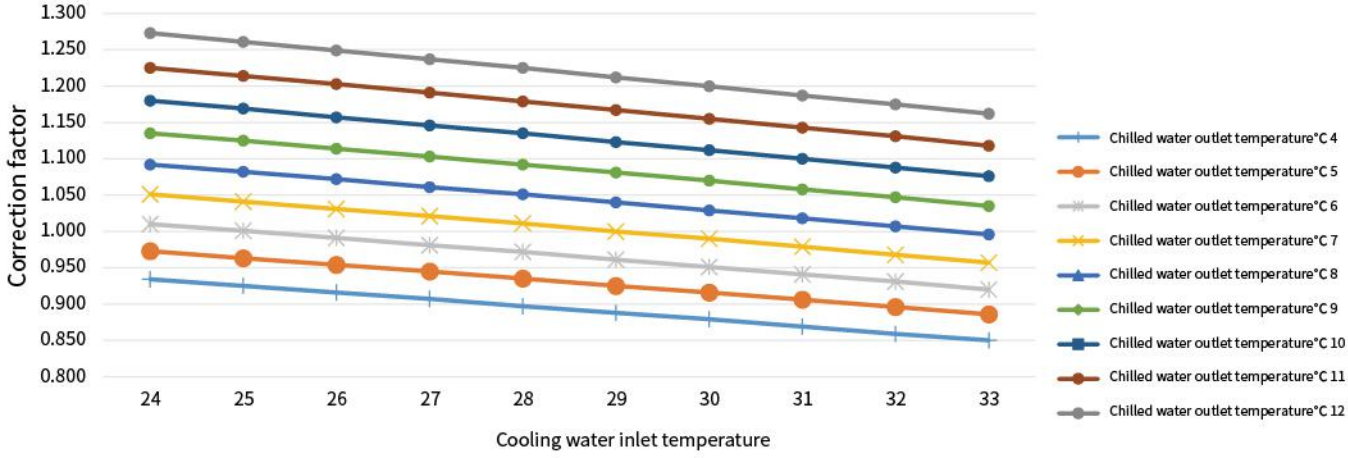
## Correction factor curve of flooded type water source heat pump heating input power–R22




## Correction factor

| | | Hot water outlet temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Heat source outlet water temperature | 4 | 0.897 | 0.913 | 0.930 | 0.947 | 0.964 | 0.982 | 1.001 | 1.019 | 1.037 | 1.056 | 1.075 |
| | 5 | 0.902 | 0.919 | 0.935 | 0.952 | 0.970 | 0.988 | 1.006 | 1.025 | 1.043 | 1.063 | 1.082 |
| | 6 | 0.907 | 0.924 | 0.941 | 0.958 | 0.976 | 0.994 | 1.012 | 1.031 | 1.050 | 1.069 | 1.089 |
| | 7 | 0.912 | 0.928 | 0.946 | 0.963 | 0.981 | 1.000 | 1.019 | 1.037 | 1.056 | 1.076 | 1.095 |
| | 8 | 0.917 | 0.934 | 0.951 | 0.969 | 0.987 | 1.006 | 1.024 | 1.043 | 1.063 | 1.082 | 1.102 |
| | 9 | 0.921 | 0.938 | 0.956 | 0.974 | 0.992 | 1.011 | 1.030 | 1.049 | 1.068 | 1.088 | 1.108 |
| | 10 | 0.925 | 0.943 | 0.961 | 0.979 | 0.997 | 1.016 | 1.035 | 1.054 | 1.074 | 1.094 | 1.114 |

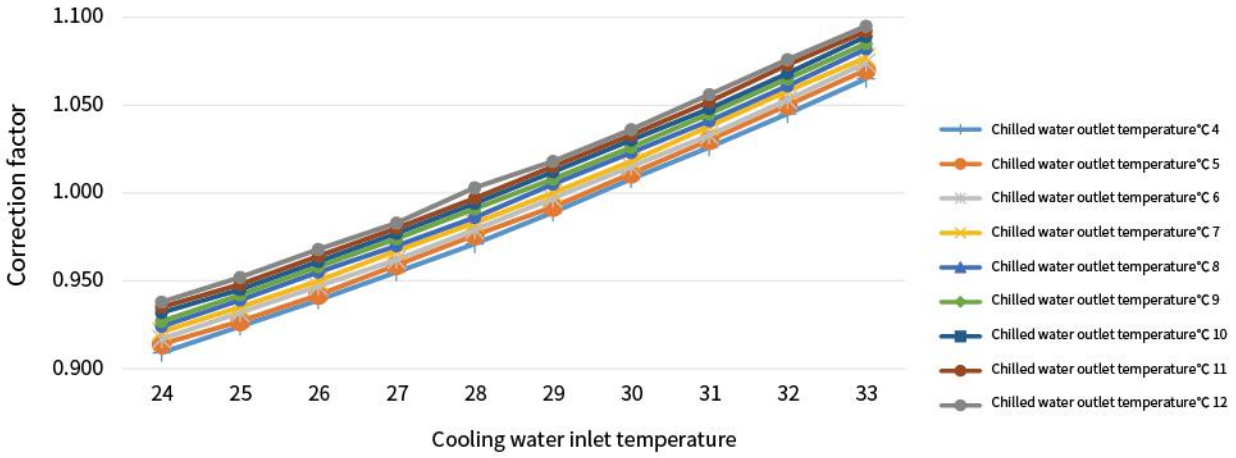
## Correction factor curve of flooded type water source heat pump cooling capacity–R134a




## Correction factor

| | | Cooling water inlet temperature | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| Chilled water outlet temperature | 4 | 0.934 | 0.925 | 0.916 | 0.907 | 0.897 | 0.888 | 0.879 | 0.869 | 0.859 | 0.850 |
| | 5 | 0.973 | 0.963 | 0.954 | 0.945 | 0.935 | 0.925 | 0.916 | 0.906 | 0.896 | 0.886 |
| | 6 | 1.010 | 1.001 | 0.991 | 0.981 | 0.972 | 0.961 | 0.951 | 0.941 | 0.931 | 0.920 |
| | 7 | 1.051 | 1.041 | 1.031 | 1.021 | 1.011 | 1.000 | 0.990 | 0.979 | 0.968 | 0.957 |
| | 8 | 1.092 | 1.082 | 1.072 | 1.061 | 1.051 | 1.040 | 1.029 | 1.018 | 1.007 | 0.996 |
| | 9 | 1.135 | 1.125 | 1.114 | 1.103 | 1.092 | 1.081 | 1.070 | 1.058 | 1.047 | 1.035 |
| | 10 | 1.180 | 1.169 | 1.157 | 1.146 | 1.135 | 1.123 | 1.112 | 1.100 | 1.088 | 1.076 |
| | 11 | 1.225 | 1.214 | 1.203 | 1.191 | 1.179 | 1.167 | 1.155 | 1.143 | 1.131 | 1.118 |
| | 12 | 1.273 | 1.261 | 1.249 | 1.237 | 1.225 | 1.212 | 1.200 | 1.187 | 1.175 | 1.162 |

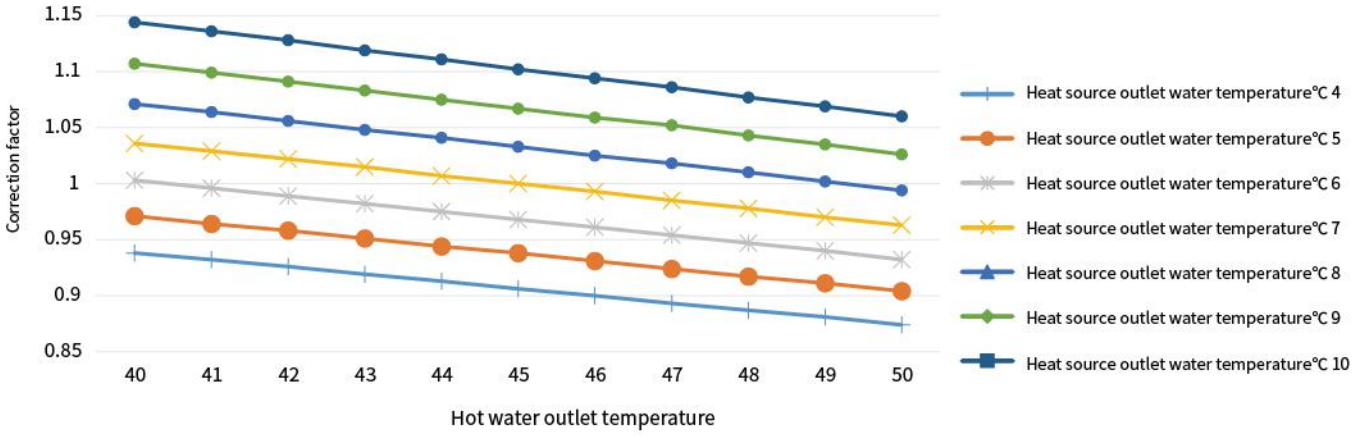
## Correction factor curve of flooded type water source heat pump cooling input power–R134




## Correction factor

| | | Cooling water inlet temperature | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| Chilled water outlet temperature | 4 | 0.909 | 0.924 | 0.939 | 0.955 | 0.971 | 0.989 | 1.008 | 1.026 | 1.045 | 1.065 |
| | 5 | 0.914 | 0.927 | 0.942 | 0.959 | 0.976 | 0.992 | 1.011 | 1.030 | 1.050 | 1.070 |
| | 6 | 0.917 | 0.932 | 0.947 | 0.962 | 0.979 | 0.997 | 1.015 | 1.033 | 1.053 | 1.074 |
| | 7 | 0.921 | 0.935 | 0.950 | 0.967 | 0.983 | 1.000 | 1.018 | 1.038 | 1.058 | 1.077 |
| | 8 | 0.924 | 0.939 | 0.955 | 0.970 | 0.986 | 1.005 | 1.023 | 1.041 | 1.061 | 1.082 |
| | 9 | 0.927 | 0.942 | 0.958 | 0.974 | 0.991 | 1.008 | 1.026 | 1.045 | 1.065 | 1.085 |
| | 10 | 0.932 | 0.945 | 0.961 | 0.977 | 0.994 | 1.012 | 1.030 | 1.048 | 1.068 | 1.089 |
| | 11 | 0.935 | 0.948 | 0.964 | 0.980 | 0.997 | 1.015 | 1.033 | 1.052 | 1.073 | 1.092 |
| | 12 | 0.938 | 0.952 | 0.968 | 0.983 | 1.003 | 1.018 | 1.036 | 1.056 | 1.076 | 1.095 |

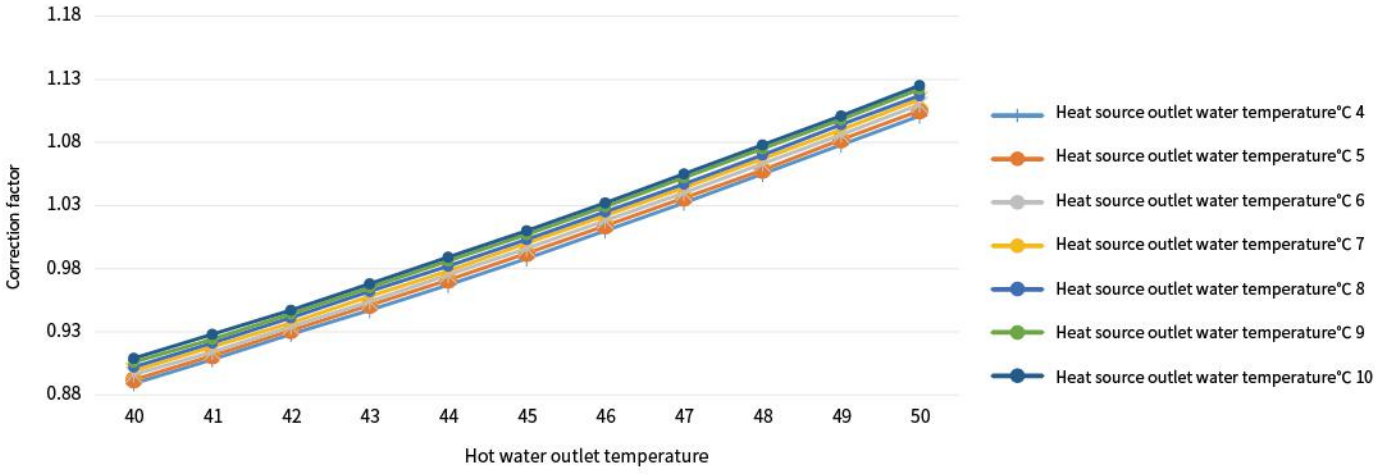
## Correction factor curve of flooded type water source heat pump heating capacity-R134a




## Correction factor

| | | Hot water outlet temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Heat source outlet water temperature | 4 | 0.938 | 0.932 | 0.926 | 0.919 | 0.913 | 0.906 | 0.900 | 0.893 | 0.887 | 0.881 | 0.874 |
| | 5 | 0.971 | 0.964 | 0.958 | 0.951 | 0.944 | 0.938 | 0.931 | 0.924 | 0.917 | 0.911 | 0.904 |
| | 6 | 1.003 | 0.996 | 0.989 | 0.982 | 0.975 | 0.968 | 0.961 | 0.954 | 0.947 | 0.940 | 0.932 |
| | 7 | 1.036 | 1.029 | 1.022 | 1.015 | 1.007 | 1.000 | 0.993 | 0.985 | 0.978 | 0.970 | 0.963 |
| | 8 | 1.071 | 1.064 | 1.056 | 1.048 | 1.041 | 1.033 | 1.025 | 1.018 | 1.010 | 1.002 | 0.994 |
| | 9 | 1.107 | 1.099 | 1.091 | 1.083 | 1.075 | 1.067 | 1.059 | 1.052 | 1.043 | 1.035 | 1.026 |
| | 10 | 1.144 | 1.136 | 1.128 | 1.119 | 1.111 | 1.102 | 1.094 | 1.086 | 1.077 | 1.069 | 1.060 |

# Correction factor curve of flooded type water source heat pump heating input power–R134a




## Correction factor

| | | Hot water outlet temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Heat source outlet water temperature | 4 | 0.889 | 0.908 | 0.928 | 0.947 | 0.967 | 0.988 | 1.010 | 1.032 | 1.055 | 1.078 | 1.101 |
| | 5 | 0.892 | 0.911 | 0.931 | 0.951 | 0.971 | 0.992 | 1.014 | 1.036 | 1.058 | 1.082 | 1.105 |
| | 6 | 0.896 | 0.914 | 0.934 | 0.954 | 0.975 | 0.996 | 1.018 | 1.040 | 1.063 | 1.086 | 1.110 |
| | 7 | 0.899 | 0.918 | 0.937 | 0.958 | 0.978 | 1.000 | 1.022 | 1.044 | 1.067 | 1.090 | 1.114 |
| | 8 | 0.902 | 0.921 | 0.941 | 0.962 | 0.982 | 1.003 | 1.025 | 1.047 | 1.070 | 1.094 | 1.117 |
| | 9 | 0.906 | 0.924 | 0.944 | 0.965 | 0.986 | 1.007 | 1.029 | 1.052 | 1.075 | 1.098 | 1.122 |
| | 10 | 0.909 | 0.928 | 0.947 | 0.968 | 0.989 | 1.010 | 1.032 | 1.055 | 1.078 | 1.101 | 1.125 |

# 6.INSTALLATION

## 6.1、Precautions before installation

### 6.1.1 General requirements

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

### 6.1.2 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.

### 6.1.3 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.

### 6.1.4 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.

### 6.1.5 Anti-vibration

● Foundation of the unit must be solid to minimize vibration transmission.

● nit should be equipped with shock absorbers when necessary to prevent noise and vibration from spreading to the building.

### 6.1.6 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.

### 6.1.7 Water proof

● 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.

## 6.2、Goods receiving and handling

### 6.2.1 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.

### 6.2.2 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.

## 6.3、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 shockproof 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.

## 6.4、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.

## 6.5、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.

● After the wiring is completed, add a mark for easy maintenance.

## 6.6、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.

# 7.ATTACHED TABLE

## 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 6mm², and the maximum cross-sectional area is 10mm².

When the operating current is 160A, the minimum cross-sectional area of the wire is 50mm², and the maximum cross-sectional area is 95mm². 70mm² 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,purifyiing 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

Shanxi Dingxiang County People 's Court


Shanxi Yuncheng odd Star Technology Co., Ltd

Beijing Grand Oriental Hotel


Shanxi Linfen High Speed Rail Station

Beijing Sihui building materials city

Shanxi Tongmei Group Zhangze Power Puzhou Power Generation Branch

RUIDONG

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

**Export Office Add: No.129,Yingxiongshan Road,Jinan,Shandong,China**
**Factory Add: No.6555 Tianqu East Road,Economic Development Zone,Dezhou,Shandong,China**
Tel: 0086-531-83199577 Mobile: 0086-15505347651 Mail: sales@ruidonggroup.com

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