



C-CUWD-C. DE. A-2016

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R134a

WATER CHILLERS WITH SINGLE SCREW COMPRESSOR

CUWD-C SERIES



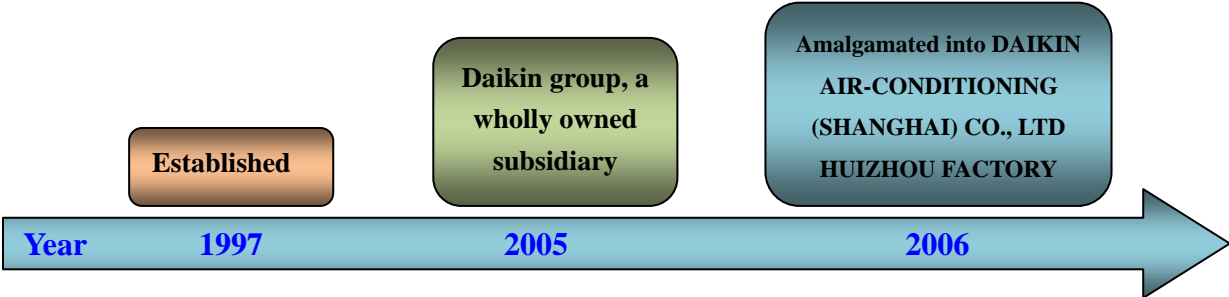
DAIKIN AIR-CONDITIONING (SHANGHAI) CO. , LTD HUIZHOU FACTORY

DAIKIN Huizhou Factory Profile



DAIKIN AIR-CONDITIONING (SHANGHAI)CO.,LTD HUIZHOU FACTORY —

The manufacture base of central air-conditioner in China



Production area about 17,000 M²

Delivery cycle 30 days

Production on sales prospects

Production capacity 2,000 units per year

Believe in Professionality

Believe in DAIKIN

Long History

Daikin Central Air Conditioning Co., Ltd., one of the water chiller developing pioneers in Japan, has nearly 100 years history. Developing the high-performance semi-hermetic single-screw compressor to begin with in 1978, Daikin has become a leading single-screw compressor manufacturer in the world with the aim to satisfy every user's need and try its best to create highly comfortable air conditioning environment.

Stable Growth

Daikin takes the lead in terms of market share of single-screw compressors in Japan which are sold more than 10,000 units in the world. High-performance products together with the targeted and professional proposing-style sales method make Daikin central air conditioners widely used in various fields, including special ones involving hospitals and wine brewing, etc.

Excellent Technology

Through nearly 100 years of experiences and reliable refrigerant technology with efficient single screw compressor by highly intelligent control. Daikin achieves efficient, reliable performance and longer service life. Daikin provides enough satisfaction to customers.

Solid Manufacturing

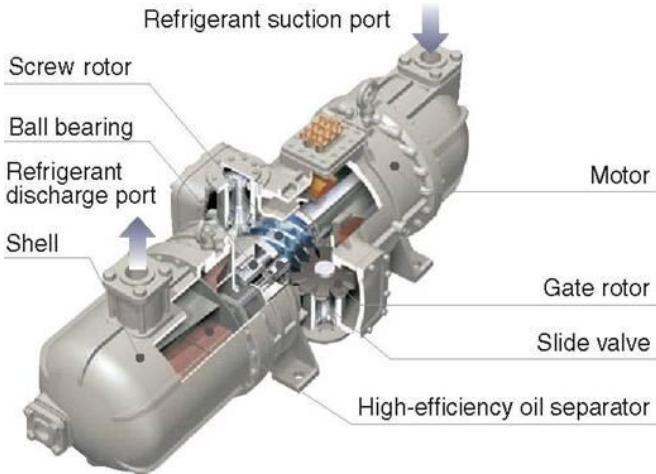
The overall unit manufacturing base (Daikin Central Air Conditioning Co., Ltd in Huizhou), is supported by the Suzhou compressor plant and Changshu Fluorine chemistry plant(both Daikin correlate), has powerful production capacity and R&D capacities of chiller and the capacity for manufacturing key components. Thus making product quality get more guarantee.

Reliable Service

The Central Air Conditioning After-Sales service Centre working closely with sales offices and factories can dispatch the service personnel to the work site within 24 hours, thus ensuring various problems can be solved timely. And the centre has a large number of after-sales service talents adhering to the quality principle of "Keep Improving", who can provide more professional service.

[Giving careful thought to important parts such as compressor, heat exchanger and expansion valve, our chiller acquires superb performance and reliability]

Semi-hermetic single-screw compressor



High accuracy and long service life

The upper part pressure and lower part pressure of the screw do eliminating eccentric effect and balancing the load.

The high-accuracy bearing used in the orthogonal screw structure, boasts a service life twice more than that of the bearing in a twin-screw compressor, effectively extending the maintenance interval of the chiller to 40,000 hours.



Working mechanism of a single-screw compressor

(1) Suction
Refrigerant is sucked into the screw rotor groove through the suction pipe, and when the screw rotor rotates, one tooth of the gate rotor engages with the groove, shutting the suction gas inlet.



(2) Compression
Compression strokes take place in the compression space formed by the screw rotor groove and gate rotor tooth. When the compression space decreases during the rotor rotation, the refrigerant inside is compressed and the pressure rises to the discharge level.

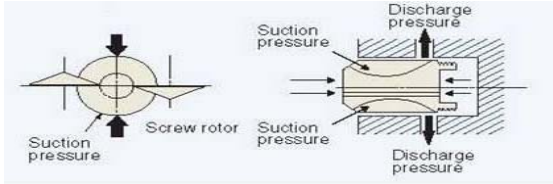


(3) Discharge
The pressure in the compression space reaches the discharge level. Compressed gas is discharged from upper discharge port.



Low noise and low vibration

The high-performance gate rotors mesh smoothly, minimizing shock and vibration, realizing stable running. Besides, two rotors are mounted symmetrically to make pressure balanced, thus significantly suppressing noise and vibration.



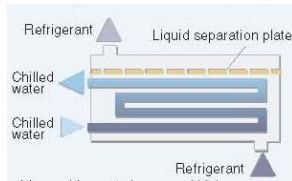
High-efficiency operation

Every rotation cycle consists of 12 compressions. Compared with traditional twin-screw compressors, almost no energy loss occurs to the semi-hermetic single-screw compressor, thanks to absence of gas mixing-up between the high pressure side and low pressure side. What's more, the gate rotor is made from high molecular material, reducing leakage loss by improving tightness, thus substantially enhancing the full-load and part-load efficiency.

Heat exchanger

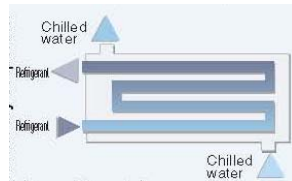
- The combination of a horizontal shell-tube condenser and a dry shell-tube evaporator features a concise structure and enables stable heat exchange, durable efficiency and easy maintenance.
- The condenser features a high-efficiency heat exchange tube with stable performance, further enhancing the heat exchange performance of heat exchanger and improving the chiller's COP.
- The all-counter-flow dry evaporator boasting the latest European environmental concept, while retaining the advantages of traditional dry evaporators, makes a qualitative leap in the heat exchange effect.

Flooded evaporator



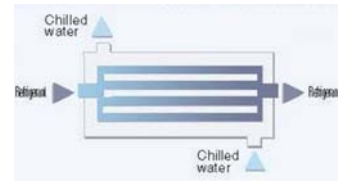
- More refrigerant charge and high maintenance cost
- Indispensable oil return circuit and complicated structure
- Saturated gas at the outlet, possibly causing, backflow
- Lubricating oil adhered to the copper tube surface reduces heat transfer efficiency

Traditional dry evaporator



- Less refrigerant charge and low maintenance cost
- Direct oil returning with refrigerant gas and simple structure
- Overheated gas at the outlet and no need to worry about backflow
- Heat exchange with complete evaporation brings a stable and reliable heat transfer efficiency

All-counter-flow dry evaporator



- Retains all advantages of traditional dry evaporators
- All-counter-flow method brings a qualitative leap in heat exchange effect

- The condenser and evaporator are both designed, manufactured and tested in accordance with related national standards on pressure vessels(GB150 and JB6917).Each pressure vessel has been inspected and approved by the related national quality department.

Electronic expansion valve

- The electronic expansion valve adjusts delicately according to change of compressor load, thus achieving high-efficiency operation status.
- Adopting electronic valve to control refrigerant, thus the chiller runs more smoothly and stably.
- Controlled by the electronic expansion valve, the dry evaporator makes oil returning more stably, thus ensuring the more reliable operation of chillers.

「Brand new product with good performance」

Brand-new product perfectly match to customers' demands

- The whole series adopts environmental refrigerant R134a featuring no harm to the ozone layer, which can actively respond to the environmental needs.
- Equipped with continuous capacity control compressor, the whole series can conduct continuative energy regulation within a range of 25% to 100%, thus achieving high-precision water temperature control.

Excellent control system

- New PLC controller (monitoring running parameter by digital color monitor)



- The special developed new type PLC controller is adopted to expand unit monitoring and control function.
 - Equipped with various digital sensors which can collect all the unit operation parameter.
- Abundant expansion and option functions .
- Unit reserve diversified control expansion functions, RS485 communication interface, Modbus, Bacnet, Lonworks protocol.
 - Unit adopt standard Y- Δ starting method, it is able to select soft starter or frequency transformer to achieve soft starter functions to perfectly match to customers' demands.

Diversified control system functions

- Various operation mode settings are available for meeting users' various needs.

- | | |
|--|--|
| · Operation system selection | · Cooling water pump interlock and forced operation selection |
| · Inlet/outlet water temperature control selection | · Chilled water pump interlock and forced operation selection |
| · Forced load operation setting | · Energy-saving operation mode setting |
| · Remote / Local control selection | · Cold accumulation/duo-temperature setting selection |
| | · Achieving time switch to control unit ,no need to watch over |

[Diversified protection functions and Powerful control systems]

■ Various automatic protection devices ensure safety of unit operation. (When protection devices trip, malfunction causes and abnormal operation parameters will be displayed directly in the control panel.)

- Protections of reverse phase, open phase and voltage imbalance for 3-phase power supply
- Protections of current imbalance and overcurrent
- Compressor motor overheat protection
- High/Low pressure protection
- Compressor positioner error protection
- Protections of compressor suction/discharge superheat degree abnormality
- Freeze-up protections of chilled water and freeze-up pressure protections of refrigerant system
- Protections of pump interlock and water flow switch abnormality
- Protections of temperature, pressure and current sensors abnormalities

■ LCD control panel displays operation parameters of unit.

- Cooling water and chilled water inlet/outlet temperature
- Suction/Discharge, condensing and evaporating temperatures of refrigerant system
- Condensing and evaporating pressures of refrigerant system
- Compressor load and electronic expansion valve opening
- 3-phase operating current value
- Current operation time and accumulated operating time of system, start frequency and start waiting time.

■ Abnormity-shunning operation functions

- Forced operation of water pump during unit stop for anti-freezing in winter .

■ Large size color LCD touch screen, so easy to operate

Operation monitoring

The unit operation basic parameters, detailed parameters, input/output and temperature curve

Temperature setting

Setting the unit operation control model and water temperature

Login/Exit

By user's password make login/exit to control panel.

System information

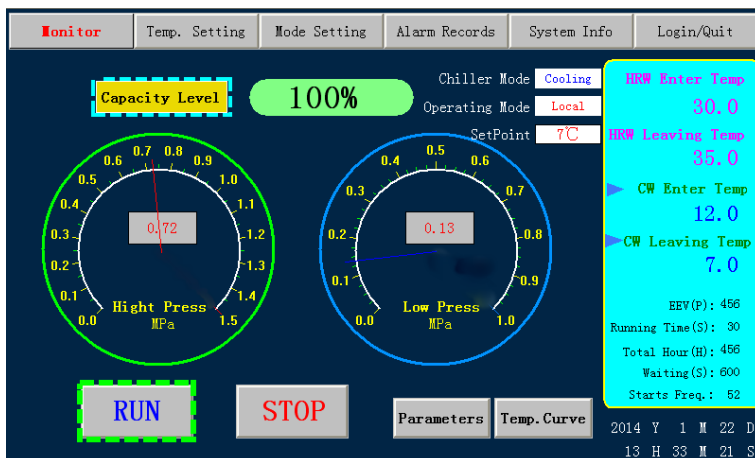
Use for seeing the supplier and related unit information

Record of alarm information

Use for checking the details and history record of unit abnormal condition

Operation setting

Setting the operation method, parameters and other related control setting



(Language is available in English, Chinese)

■ Specifications

MODEL		CUWD40CS5Y	CUWD50CS5Y	CUWD60CS5Y	CUWD80CS5Y	CUWD100CS5Y	CUWD120CS5Y	
Cooling Capacity (380/400/415V~3Ph~50Hz)(note 1)	USRT	38.4	46.9	58.3	76.8	93.9	116.6	
	kW	135	165	205	270	330	410	
	kcal/h	116,100	141,900	176,300	232,200	283,800	352,600	
Power Consumption	kW	26.6	32.6	40.2	53.1	64.7	80.4	
COP		5.07	5.06	5.10	5.08	5.10	5.10	
Casing/Color		Ivory White (5Y7.5/1)						
Chilled Water(50Hz)	m ³ /h	23.2	28.4	35.3	46.4	56.8	70.5	
	l/min	387	473	588	774	946	1175	
Condenser Water(50Hz)	m ³ /h	29.0	35.5	44.1	58.1	71.0	88.2	
	L/min	484	591	735	968	1183	1469	
Dimensions(L×W×H)	mm	2950×705×1655			3500×1080×1910			
Compressor	Type	Semi-hermetically Sealed Single Screw Type						
	Output Power	30×1	37×1	45×1	60×1	75×1	90×1	
	Starting Method	Star-delta Starting						
	Capacity Control	25-100% Continuous Capacity Control						
Condenser	Type	Water Cooled Fin Tube Shell Type						
	Quantity×Model	CF3125-CC40	CF3125-CC50	CF3125-CC60	CF4530-CC80	CF4530-CC100	CF4530-CC120	
Evaporator	Type	Dx-Type Expansion Tube Shell Type						
	Quantity×Model	DHD3525-CC40	DHD3525-CC50	DHD3525-CC60	DHD4530-CC80	DHD4530-CC100	DHD4030-CC120A	
Refrigerant	Refrigerant	R134a						
	NO.of Circuit	1						
	Control	Electronic Expansion Valve						
	Charge	kg	33		75	78		
Refrigerant Oil		FVC68D						
Refrigerant Oil Charge	L	7.5		10	14			
Electric Control System		MICRO TECH III Program Controller、7 inch LCD Display						
Safety Devices		Main Circuit Fuse, Phase Monitor, High/Low Pressure Protector, Over-Current-Sensor(Comp.), Overheat Protector(Comp.), Overheat Sensor for Discharge Gas, Operation Circuit Fuse, Safety Valve						
Pipe OD	Chilled Water Inlet/Outlet	Φ114			Φ168/Φ140			
	Condenser Water Inlet/Outlet	Φ114			Φ140			
Insulation Material		Polyethylene Foam						
Machine Weight	kg	1275	1320	1450	2145	2450	2455	
Operation Weight	kg	1355	1450	1570	2275	2580	2645	
Heat-Recovery Chiller (Note 3)	Heat Recovery	kW	17.6	21.5	26.7	35.1	42.9	53.3
	Hot Water Flow Rate	m ³ /h	0.6	0.7	0.9	1.2	1.5	1.8
	Hot Water Inlet/Outlet		R1.25"	R1.25"	R2"	R2"	R2"	R2"
	Chiller Weight	kg	1375	1430	1570	2275	2580	130
Brine Chiller Cooling Capacity (Note 4)	Capacity	USRT	22.5	27.3	33.8	45.2	55.7	68.8
		kW	79.0	96.0	119.0	159.0	196.0	242.0
		kcal/h	67,940	82,560	102,340	136,740	168,560	208,120
		Power Consumption	kW	26.4	31.9	38.7	50.8	64.3

NOTE)

1. Standard Running: Standard running is based on the following parameter

- a. Chilled water outlet temperature: 7°C ; Chilled water flow rate 0.172m³/(h · kW).
- b. Condenser water inlet temperature: 30°C ; Condenser water flow rate 0.215m³/(h · kW).
- c. Evaporator side fouling factor 0.018 m² · °C/kW; Condenser side fouling factor 0.044 m² · °C/kW.
- d. Power supply : 380V/3PH/50Hz; Standard starting method: Star-delta Starting .



2. Standard chiller model CUWD240~460CT5Y、CUWD230~300CS5Y are in the scope of AHRI and get AHRI certificate.

Other models are not in the scope of AHRI certificate, but the performance parameters are based on AHRI standard.

Brine chiller and heat-recovery chiller are not in the scope of AHRI certificate.

3. Waste heat recovery chiller :User can install the waste heat recovery device on the chiller according to customer's

hot water outlet temperature:30°C/55°C. Heat recovery chiller named after standard chiller with "-HR" suffix.

4. Low Temperature Running: Low temperature running standard parameter: chilled water outlet/inlet -2°C/-5°C, condenser

inlet/outlet 32°C/37°C. In this condition, chiller need to adopt 25% ethylene glycol as refrigerating medium .Low temperature chiller named after the standard chiller with "Z" suffix.

5. When the voltage is not 380/400V/415V 3PH 50Hz ,please change the chiller name to CUWD-CSY1 ,CUWD-CSY1Z, CUWD-CSY1-HR.

6. CUWD40C*, CUWD50C* is without safety valve.

■ Specifications

MODEL		CUWD140CS5Y	CUWD150CS5Y	CUWD175CS5Y	CUWD200CS5Y	CUWD230CS5Y	CUWD240CT5Y	
Cooling Capacity (380/400/415V~3Ph~50Hz)(note 1)	USRT	130.8	147.9	167.8	187.7	214.7	233.2	
	kW	460	520	590	660	755	820	
	kcal/h	395,600	447,200	507,400	567,600	649,300	705,200	
Power Consumption	kW	90.2	99.3	112.4	125.6	147.8	160.7	
COP		5.10	5.24	5.25	5.25	5.11	5.10	
Casing/Color		Ivory White(5Y7.5/1)						
Chilled Water(50Hz)	m ³ /h	79.1	89.4	101.5	113.5	129.9	141.0	
	l/min	1319	1491	1691	1892	2164	2351	
Condenser Water(50Hz)	m ³ /h	98.9	111.8	126.9	141.9	162.3	176.3	
	L/min	1648	1863	2114	2365	2705	2938	
Dimintions(L×W×H)	mm	3845×1143×	3050×1360×1900			3877×1351×	3519×1555×	
Compressor	Type	Semi-hermetically Sealed Single Screw Type						
	Output Power	105×1	115×1	130×1	150×1	175×1	90×2	
	Starting Method	Star-delta Starting						
	Capacity Control	%	25-100% Continuous Capacity Control					
Condenser	Type	Water Cooled Fin Tube Shell Type						
	Quantity×Model	CF3933-CC140	CF5525-CC150	CF5525-CC175	CF5525-CC200	CF4433-CC230	CF4530-CC120×2	
Evaporator	Type	Dx-Type Expansion Tube Shell Type						
	Quantity×Model	DHD3933-CC140A	DHD5025-CC150A	DHD5025-CC175A	DHD5025-CC200A	DHD5033-CC230A	DHD4030-CC120×2	
Refrigerant	Refrigerant	R134a						
	NO.of Circuit	1					2	
	Control	Electronic Expansion Valve						
	Charge	kg	150	80	90	100	160	78×2
Refrigerant Oil		FVC68D						
Refrigerant Oil Charge	L	12	15			13	14×2	
Electric Control System		MICRO TECH III Program Controller, 7 inch LCD Display						
Safety Devices		Main Circuit Fuse, Phase Monitor,High/Low Pressure Protector,Over-Current-Sensor(Comp.),Overheat Protector(Comp.), Overheat Sensor for Discharge Gas, Operation Circuit Fuse,Safety Valve						
Pipe OD	Chilled Water Inlet/Outlet	φ168	φ168			φ219	φ140	
	Condenser Water Inlet/Outlet	φ140	φ168			φ168	φ140	
Insulation Material		Polyethelene Foam						
Machine Weight	kg	2940	2960	3050	3120	4175	4900	
Operation Weight	kg	3250	3160	3330	3380	4435	5300	
Heat-Recovery Chiller (Note 3)	Heat Recovery	kW	59.8	67.6	76.7	85.8	98.2	106.6
	Hot Water Flow Rate	m ³ /h	2.1	2.3	2.6	3.0	3.4	3.7
	Hot Water Inlet/Outlet		G2 1/2"			R3"	G2 1/2"	R2"
	Chiller Weight	kg	3070	3100	3200	3290	4375	5160
Brine Chiller Cooling Capacity (Note 4)	Capacity	USRT	78.2	87.0	98.4	110.0	126.5	137.6
		kW	275.0	306.0	346.0	387.0	445.0	484.0
		kcal/h	236,500	263,160	297,560	332,820	382,700	416,240
		Power Consumption	kW	89.5	99.2	111.8	124.9	145.2

NOTE)

- Standard Running: Standard running is based on the following parameter
 - Chilled water outlet temperature: 7°C ; Chilled water flow rate 0.172m³/(h · kW).
 - Condenser water inlet temperature: 30°C ; Condenser water flow rate 0.215m³/(h · kW).
 - Evaporator side fouling factor 0.018 m² · °C/kW;Condenser side fouling factor 0.044 m² · °C/kW.
 - Power supply: 380V/3PH/50Hz; Standard starting method: Star-delta Starting .
- Standard chiller model CUWD240~460CT5Y、CUWD230~300CS5Y are in the scope of AHRI and get AHRI certificate. Other models are not in the scope of AHRI certificate, but the performance parameters are based on AHRI standard. Brine chiller and heat-recovery chiller are not in the scope of AHRI certificate.
- Waste heat recovery chiller :User can install the waste heat recovery device on the chiller according to customer's demands. hot water outlet temperature:30°C/55°C. Heat recovery chiller named after standard chiller with "-HR" suffix.
- Low Temperature Running: Low temperature running standard parameter: chilled water outlet/inlet -2°C/-5°C,condenser inlet/outlet 32°C/37°C. In this condition, chiller need to adopt 25% ethylene glycol as refrigerating medium .Low temperature chiller named after the standard chiller with "Z" suffix.
- When the voltage is not 380/400V/415V 3PH 50Hz ,please change the chiller name to CUWD-CSY1 ,CUWD-CSY1Z, CUWD-CSY1-HR.



■ Specifications

MODEL		CUWD250CS5Y	CUWD280CS5Y	CUWD300CS5Y	CUWD300CT5Y	CUWD325CT5Y	
Cooling Capacity (380/400/415V~3Ph~50Hz)(note 1)	USRT	253.1	281.5	301.4	295.7	318.5	
	kW	890	990	1060	1040	1120	
	kcal/h	765,400	851,400	911,600	894,400	963,200	
Power Consumption	kW	164.9	182.5	195.9	196.2	210.8	
COP		5.40	5.42	5.41	5.30	5.31	
Casing/Color		Ivory White(5Y7.5/1)					
Chilled Water(50Hz)	m ³ /h	153.1	170.3	182.3	178.9	192.6	
	l/min	2551	2838	3039	2981	3211	
Condenser Water(50Hz)	m ³ /h	191.4	212.9	227.9	223.6	240.8	
	L/min	3189	3548	3798	3727	4013	
Dimensions(L×W×H)	mm	4006×1530×2130			3831×1773×2291		
Compressor	Type	Semi-hermetically Sealed Single Screw Type					
	Output Power	190×1	210×1	225×1	115×2	130×1+115×1	
	Starting Method	Star-delta Starting					
	Capacity Control	25-100% Continuous Capacity Control					
Condenser	Type	Water Cooled Fin Tube Shell Type					
	Quantity×Model	CF5433-CC250	CF5433-CC280	CF5433-CC300	CF4533-CC150×2	CF4533-CC150 CF4533-CC175	
Evaporator	Type	Dx-Type Expansion Tube Shell Type					
	Quantity×Model	DHD5433-CC250A	DHD5433-CC280A	DHD5433-CC300A	DHD4533-CC150×2	DHD4533-CC150 DHD4533-CC175	
Refrigerant	Refrigerant	R134a					
	NO.of Circuit	1			2		
	Control	Electronic Expansion Valve					
	Charge	230			120×2		
Refrigerant Oil		FVC68D					
Refrigerant Oil Charge	L	24			15×2		
Electric Control System		MICRO TECH III Program Controller, 7 inch LCD Display					
Safety Devices		Main Circuit Fuse, Phase Monitor,High/Low Pressure Protector, Over-Current-Sensor(Comp.),Overheat Protector(Comp.), Overheat Sensor for Discharge Gas,Operation Circuit Fuse,Safety Valve					
Pipe OD	Chilled Water Inlet/Outlet	Φ273			Φ168		
	Condenser Water Inlet/Outlet	Φ219			Φ168		
Insulation Material		Polyethelene Foam					
Machine Weight	kg	5380	5500	5570	7040	7100	
Operation Weight	kg	6400	6500	6600	7570	7625	
Heat-Recovery Chiller (Note 3)	Heat Recovery	kW	115.7	128.7	137.8	135.2	145.6
	Hot Water Flow Rate	m ³ /h	4.0	4.4	4.7	4.7	5.0
	Hot Water Inlet/Outlet		G2 1/2"			R3"	
Chiller Weight	kg	5630	5760	5830	7300	7380	
Brine Chiller Cooling Capacity (Note 4)	Capacity	USRT	149.1	165.9	177.7	177.7	187.4
		kW	524.5	583.5	625.0	625.0	659.0
	Power Consumption	kcal/h	451,070	501,810	537,500	537,500	566,740
		kW	162.6	179.3	192.0	196.0	210.6

NOTE)

1.Standard Running: Standard running is based on the following parameter

- a.Chilled water outlet temperature: 7℃ ; Chilled water flow rate 0.172m³/(h · t
- b.Condenser water inlet temperature: 30℃ ; Condenser water flow rate 0.215m³/(h · kW).
- c.Evaporator side fouling factor 0.018 m² · ℃ /kW;Condenser side fouling factor 0.044 m² · ℃ /kW.
- d.Power supply: 380V/3PH/50Hz; Standard starting method: Star-delta Starting .



2.Standard chiller model CUWD240~460CT5Y、 CUWD230~300CS5Y are in the scope of AHRI and get AHRI certificate.

Other models are not in the scope of AHRI certificate, but the performance parameters are based on AHRI standard.

Brine chiller and heat-recovery chiller are not in the scope of AHRI certificate.

3.Waste heat recovery chiller :User can install the waste heat recovery device on the chiller according to customer's demands.

hot water outlet temperature:30℃/55℃.Heat recovery chiller named after standard chiller with "-HR" suffix.

4.Low Temperature Running: Low temperature running standard parameter: chilled water outlet/inlet -2℃/-5℃,condenser inlet/outlet 32℃/37℃.In this condition, chiller need to adopt 25% ethylene glycol as refrigerating medium .Low temperature of named after the standard chiller with "Z" suffix.

5.When the voltage is not 380/400V/415V 3PH 50Hz ,please change the chiller name to CUWD-CSY1 ,CUWD-CSY1Z, CUWL

■ Specifications

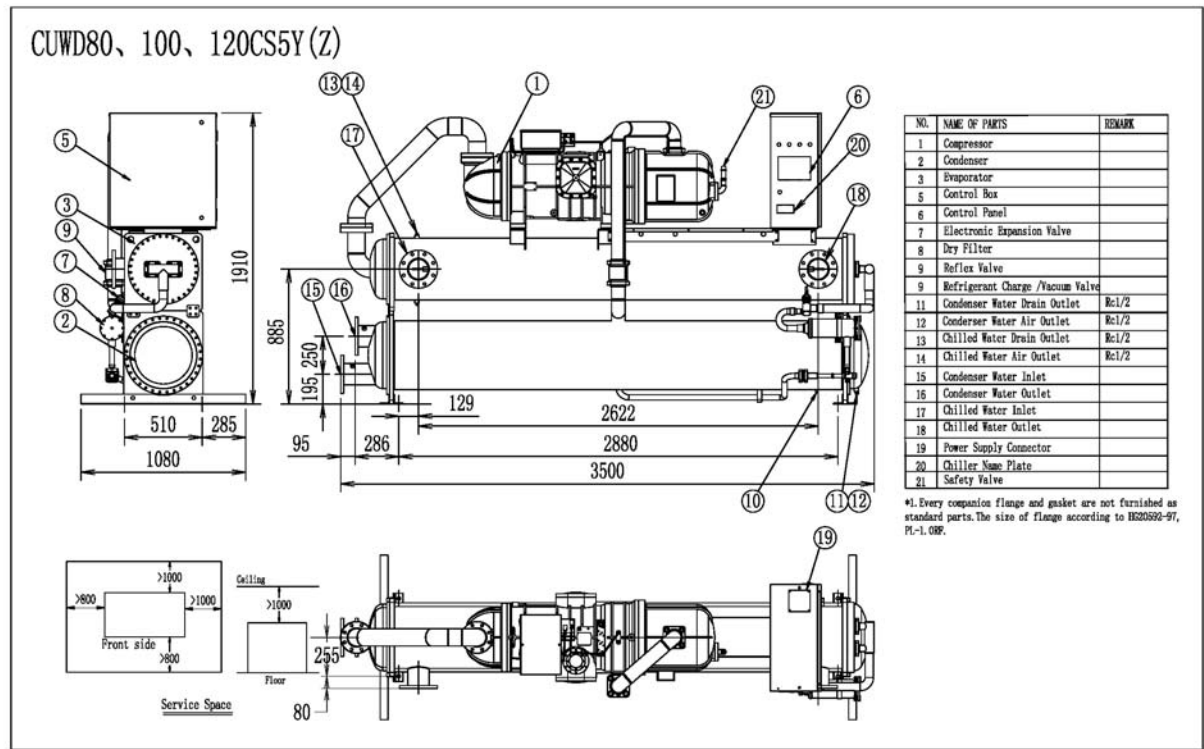
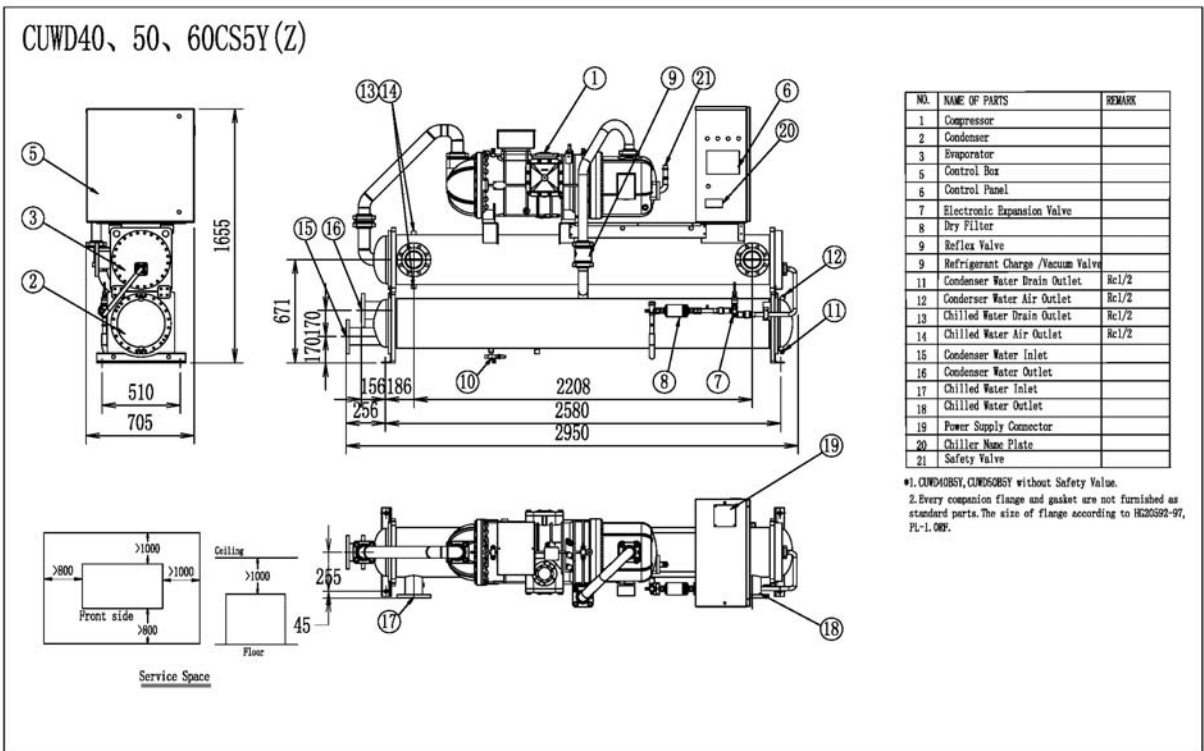
MODEL		CUWD350CT5Y	CUWD375CT5Y	CUWD400CT5Y	CUWD420CT5Y	CUWD440CT5Y	CUWD460CT5Y	
Cooling Capacity (380/400/415V~3Ph~50Hz)(note 1)	USRT	341.2	355.4	375.3	403.8	423.7	443.6	
	kW	1200	1250	1320	1420	1490	1560	
	kcal/h	1,032,000	1,075,000	1,135,200	1,221,200	1,281,400	1,341,600	
Power Consumption	kW	225.6	234.8	248.6	272.0	285.7	299.4	
COP		5.32	5.32	5.31	5.22	5.22	5.21	
Casing/Color		Ivory White(5Y7.5/1)						
Chilled Water(50Hz)	m ³ /h	206.4	215.0	227.0	244.2	256.3	268.3	
	l/min	3440	3583	3784	4071	4271	4472	
Condenser Water(50Hz)	m ³ /h	258.0	268.8	283.8	305.3	320.4	335.4	
	L/min	4300	4479	4730	5088	5339	5590	
Dimention(L×W×H)	mm	3831×1773×2291			4131×1830×2296			
Compressor	Type	Semi-hermetically Sealed Single Screw Type						
	Output Power	130×2	150×1+130×1	150×2	160×2	160×1+175×1	175×2	
	Starting Method	Star-delta Starting						
	Capacity Control	%	25-100% Continuous Capacity Control					
Condenser	Type	Water Cooled Fin Tube Shell Type						
	Quantity×Model	CF4533-CC175×2	CF4533-CC175 CF4533-CC200	CF4533-CC200×2	CF4436-CC210×2	CF4436-CC210 CF4436-CC230	CF4436-CC230×2	
Evaporator	Type	Dx-Type Expansion Tube Shell Type						
	Quantity×Model	DHD4533-CC175×2	DHD4533-CC175 DHD4533-CC200	DHD4533-CC200×2	DHD4436-CC210×2	DHD4436-CC210 DHD4436-CC230	DHD4436-CC230×2	
Refrigerant	Refrigerant	R134a						
	NO.of Circuit	2						
	Control	Electronic Expansion Valve						
	Charge	kg	130×2	140×2	155×2			
Refrigerant Oil		FVC68D						
Refrigerant Oil Charge	L	15×2			20×2			
Electric Control System		MICRO TECH III Program Controller , 7 inch LCD Display						
Safety Devices		Main Circuit Fuse, Phase Monitor,High/Low Pressure Protector,Over-Current-Sensor(Comp.),Overheat Protector(Comp.), Overheat Sensor for Discharge Gas, Operation Circuit Fuse,Safety Valve						
Pipe OD	Chilled Water Inlet/Outlet	Φ168						
	Condenser Water Inlet/Outlet	Φ168						
Insulation Material		Polyethelene Foam						
Machine Weight	kg	7160	7220	7280	7700	7850	8010	
Operation Weight	kg	7680	7730	7780	8230	8375	8540	
Heat-Recovery Chiller (Note 3)	Heat Recovery	kW	156.0	162.5	171.6	184.6	193.7	202.8
	Hot Water Flow Rate	m ³ /h	5.4	5.6	5.9	6.4	6.7	7.0
	Hot Water Inlet/Outlet		R3"			G2 1/2"		
	Chiller Weight	kg	7450	7530	7610	8000	8150	8330
Brine Chiller Cooling Capacity (Note 4)	Capacity	USRT	200.7	209.0	220.8	232.6	244.0	255.5
		kW	706.0	735.0	776.6	818.0	858.3	898.6
		kcal/h	607,160	632,100	667,876	703,480	738,138	772,796
		Power Consumption	kW	225.4	234.6	248.3	266.0	279.4

NOTE)

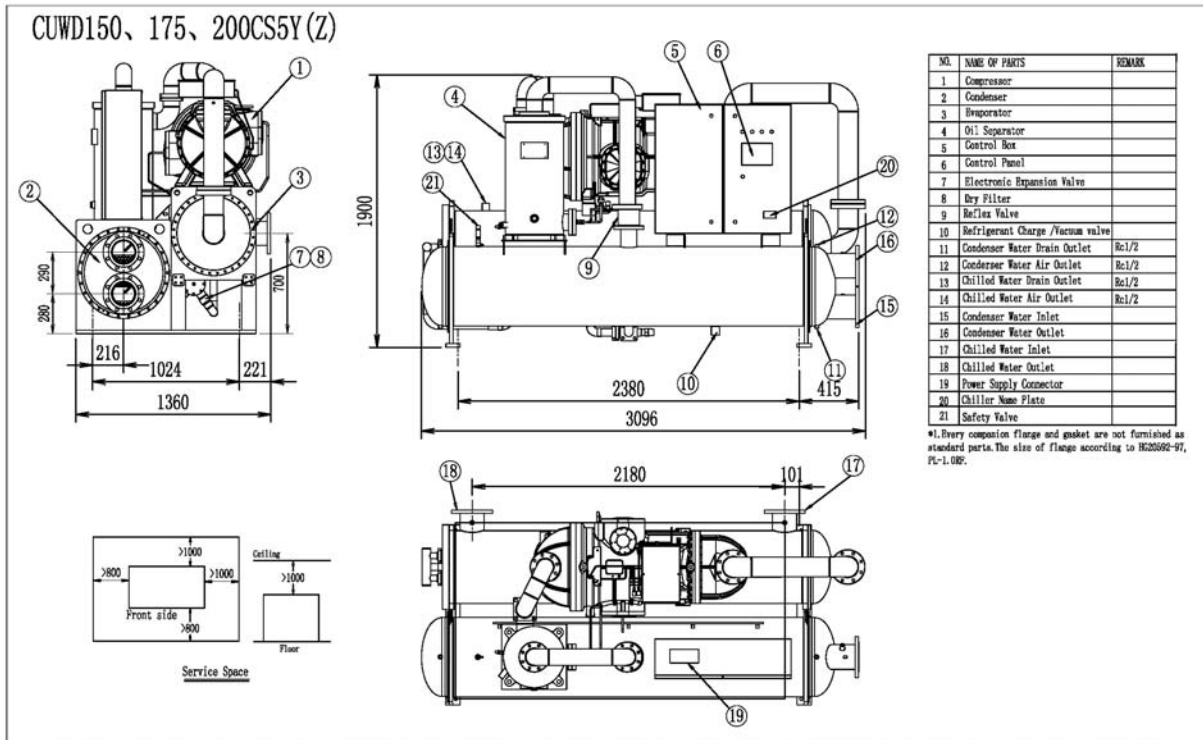
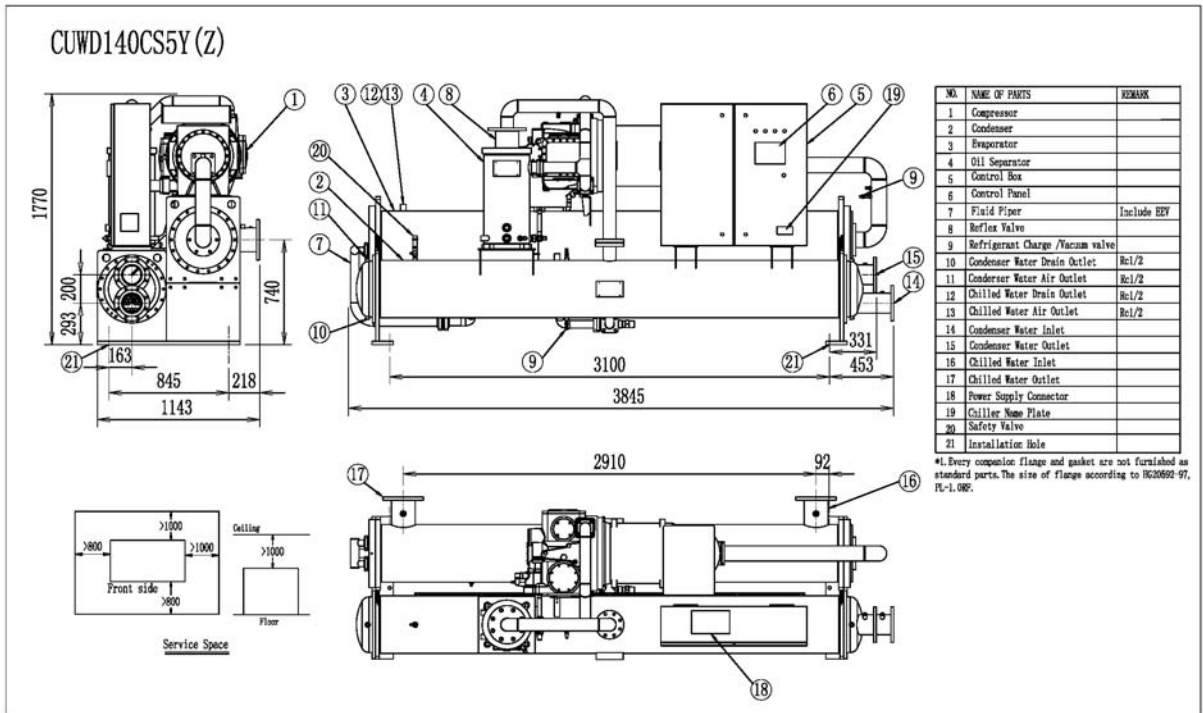
- Standard Running: Standard running is based on the following parameter
 - Chilled water outlet temperature: 7°C ; Chilled water flow rate 0.172m³/(h · kW).
 - Condenser water inlet temperature: 30°C ; Condenser water flow rate 0.215m³/(h · kW).
 - Evaporator side fouling factor 0.018 m² · °C/kW;Condenser side fouling factor 0.044 m² · °C/kW.
 - Power supply: 380V/3PH/50Hz; Standard starting method: Star-delta Starting.
- Standard chiller model CUWD240~460CT5Y, CUWD230~300CS5Y are in the scope of AHRI and get AHRI certificate. Other models are not in the scope of AHRI certificate, but the performance parameters are based on AHRI standard. Brine chiller and heat-recovery chiller are not in the scope of AHRI certificate.
- Waste heat recovery chiller :User can install the waste heat recovery device on the chiller according to customer's demands. hot water outlet temperature:30°C/55°C. Heat recovery chiller named after standard chiller with "-HR" suffix.
- Low Temperature Running: Low temperature running standard parameter: chilled water outlet/inlet -2°C/-5°C, condenser inlet/outlet 32°C/37°C. In this condition, chiller need to adopt 25% ethylene glycol as refrigerating medium .Low temperature chiller named after the standard chiller with "Z" suffix.
- When the voltage is not 380/400V/415V 3PH 50Hz ,please change the chiller name to CUWD-CSY1 ,CUWD-CSY1Z, CUWD-CSY1-HR.



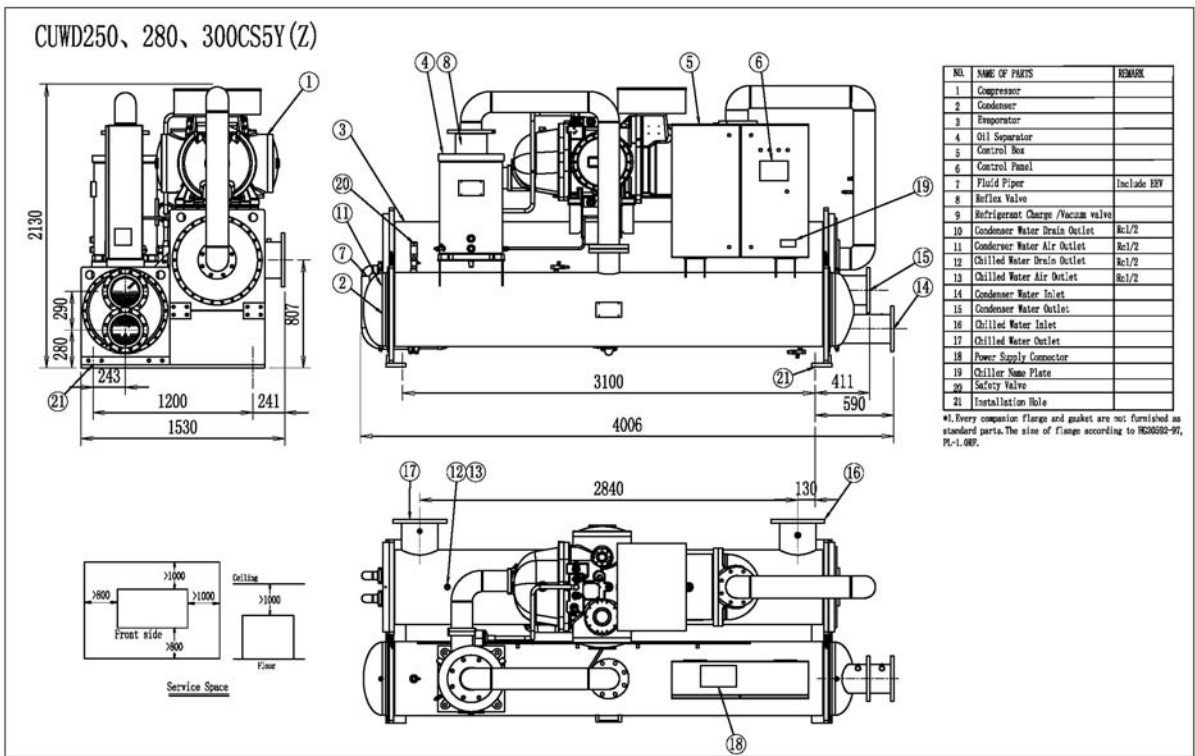
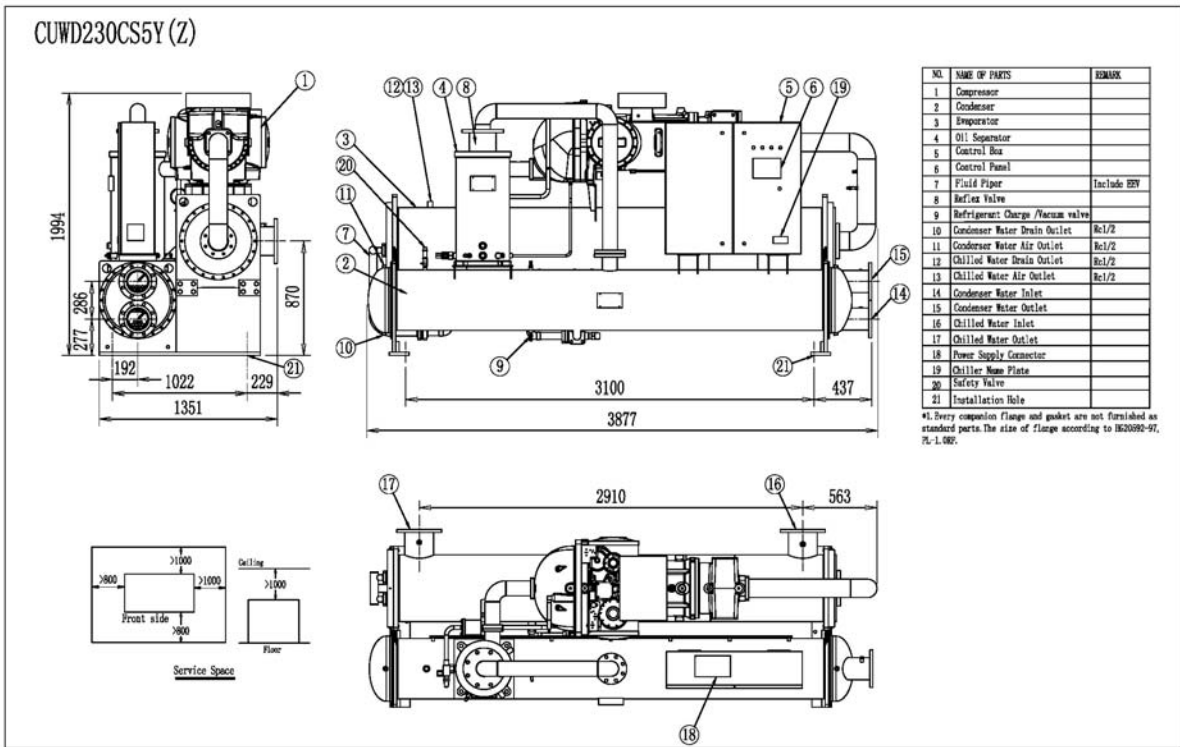
■ Dimensions



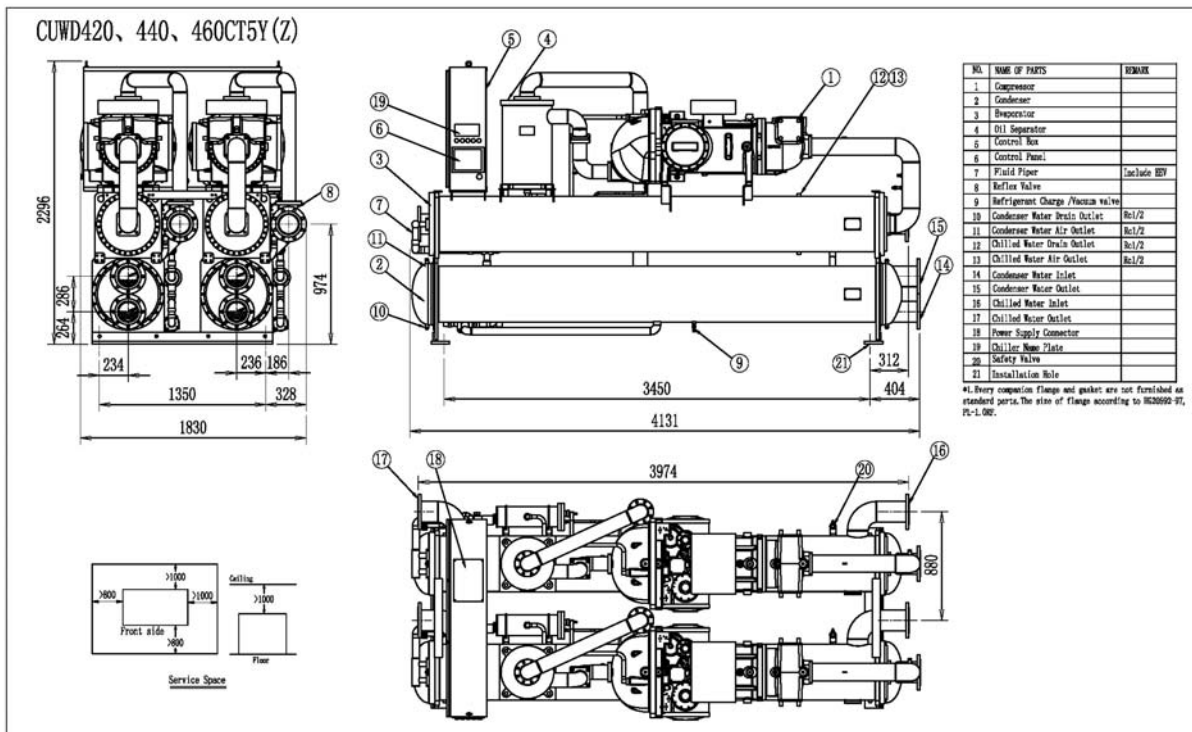
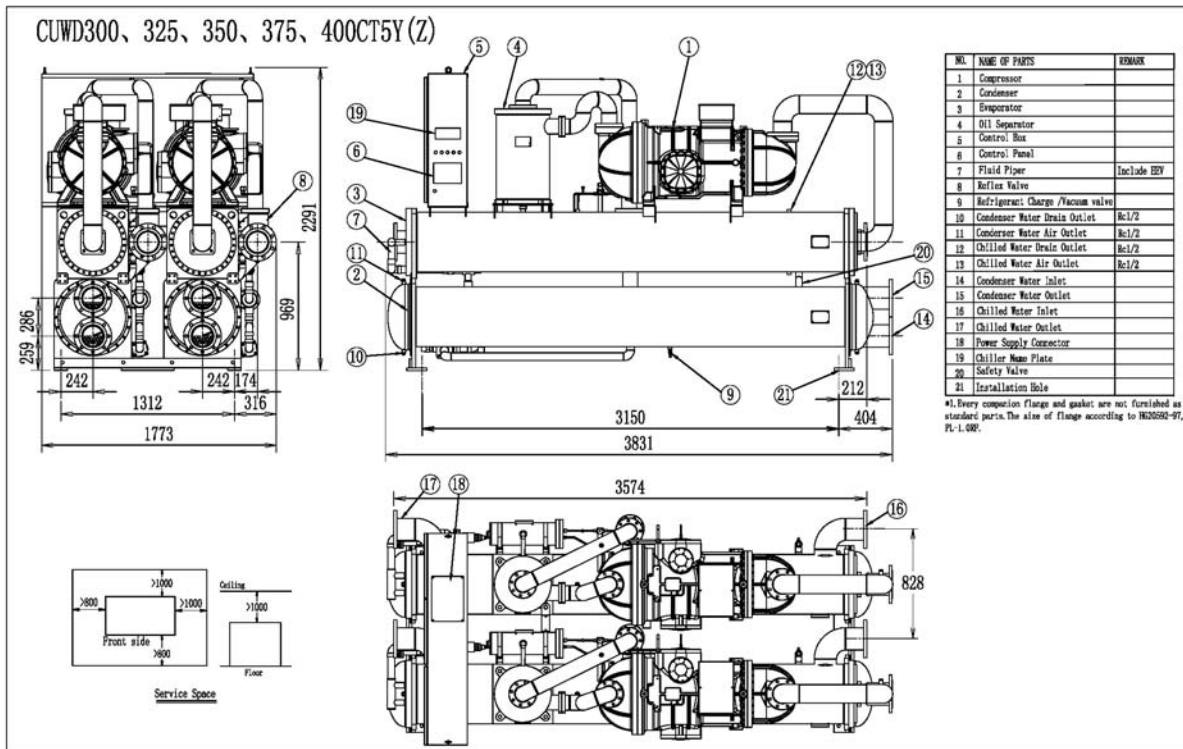
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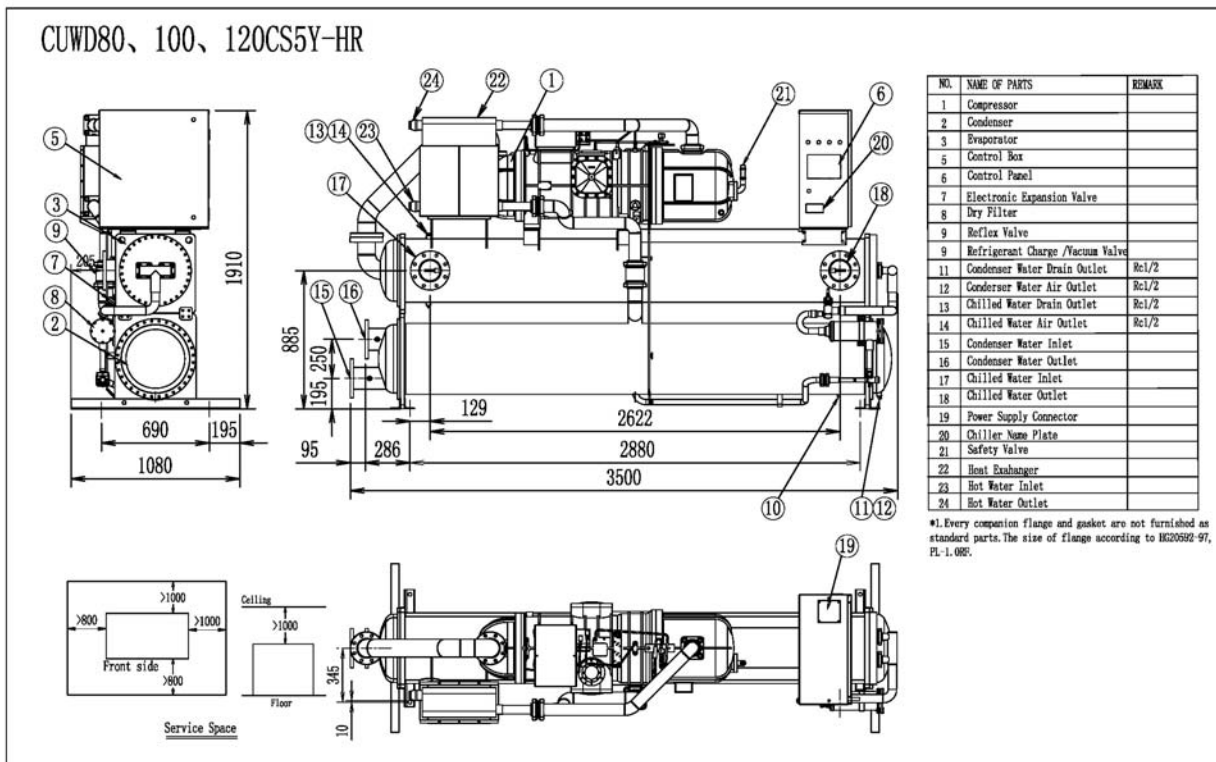
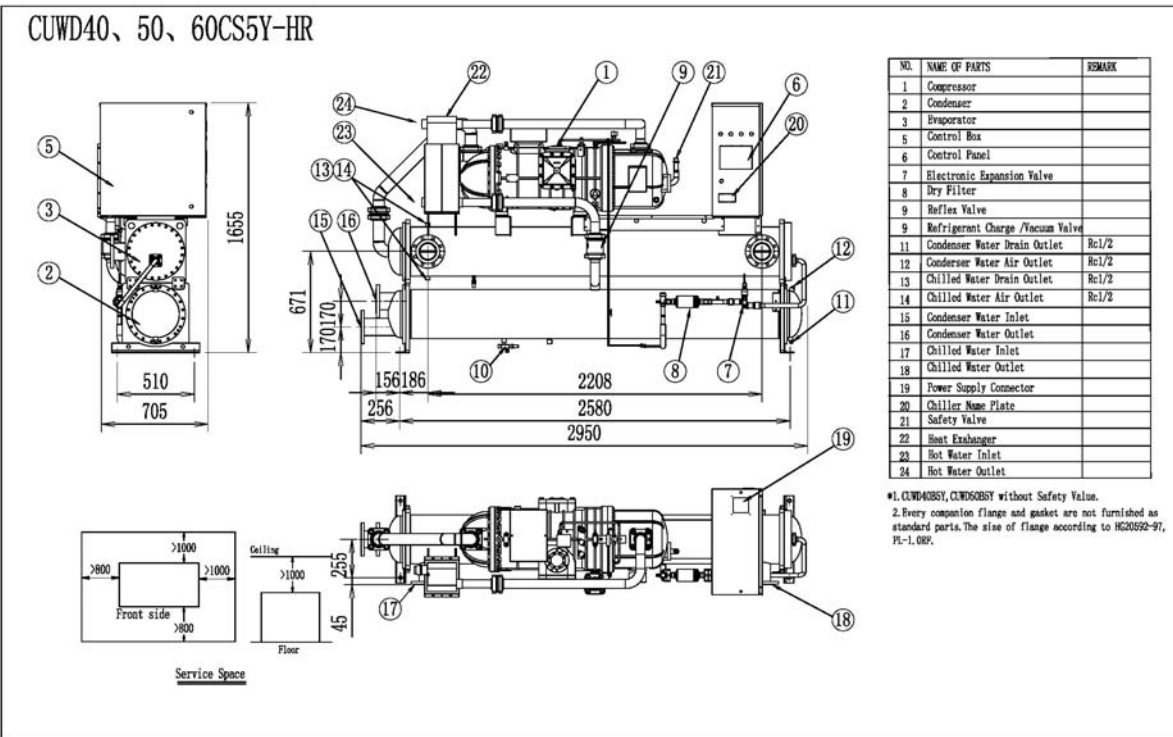
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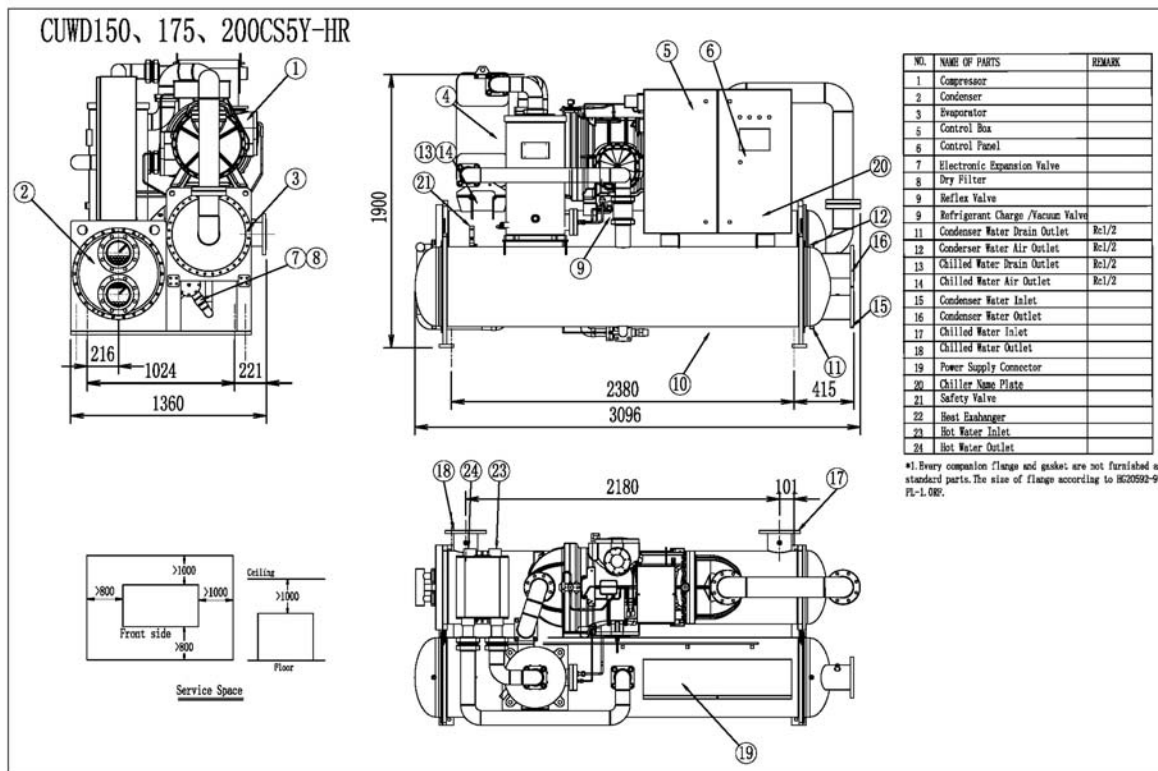
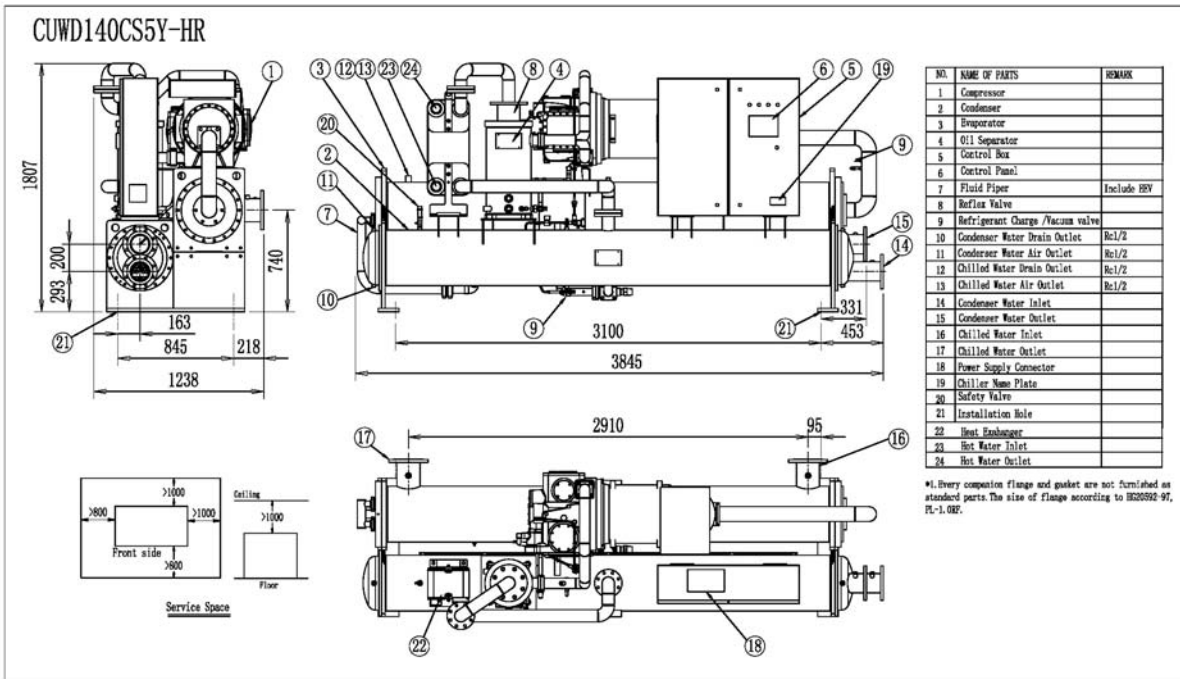
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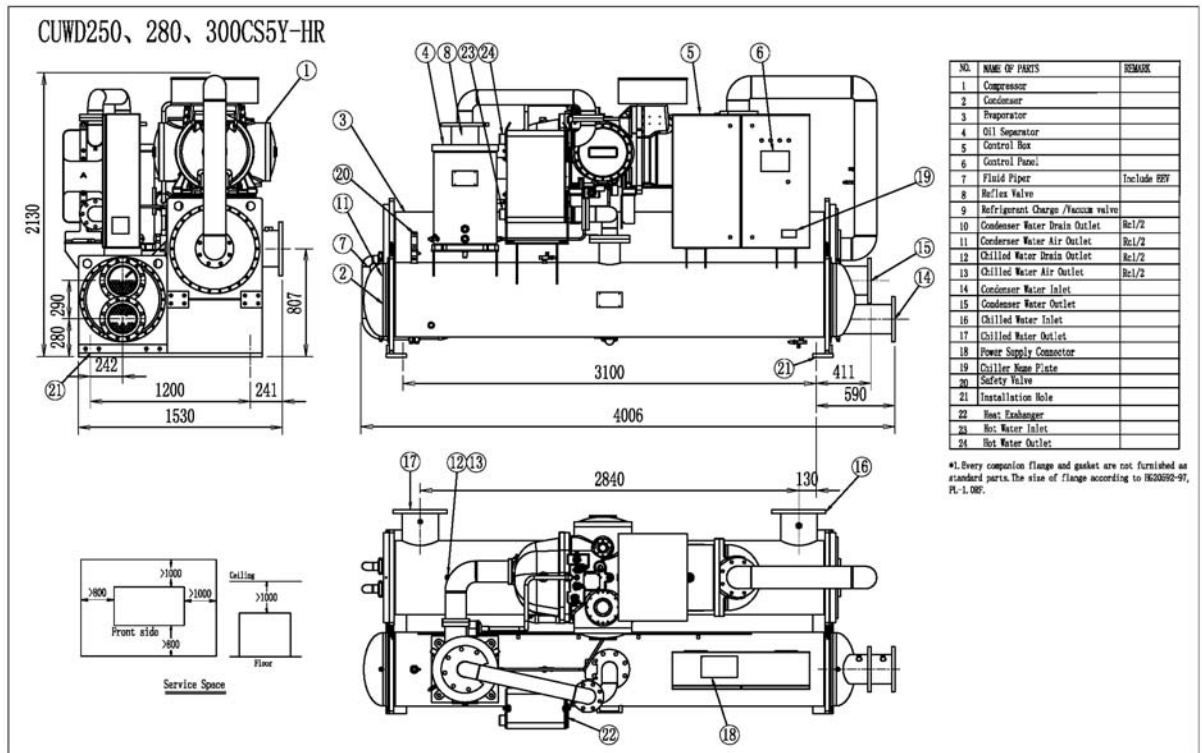
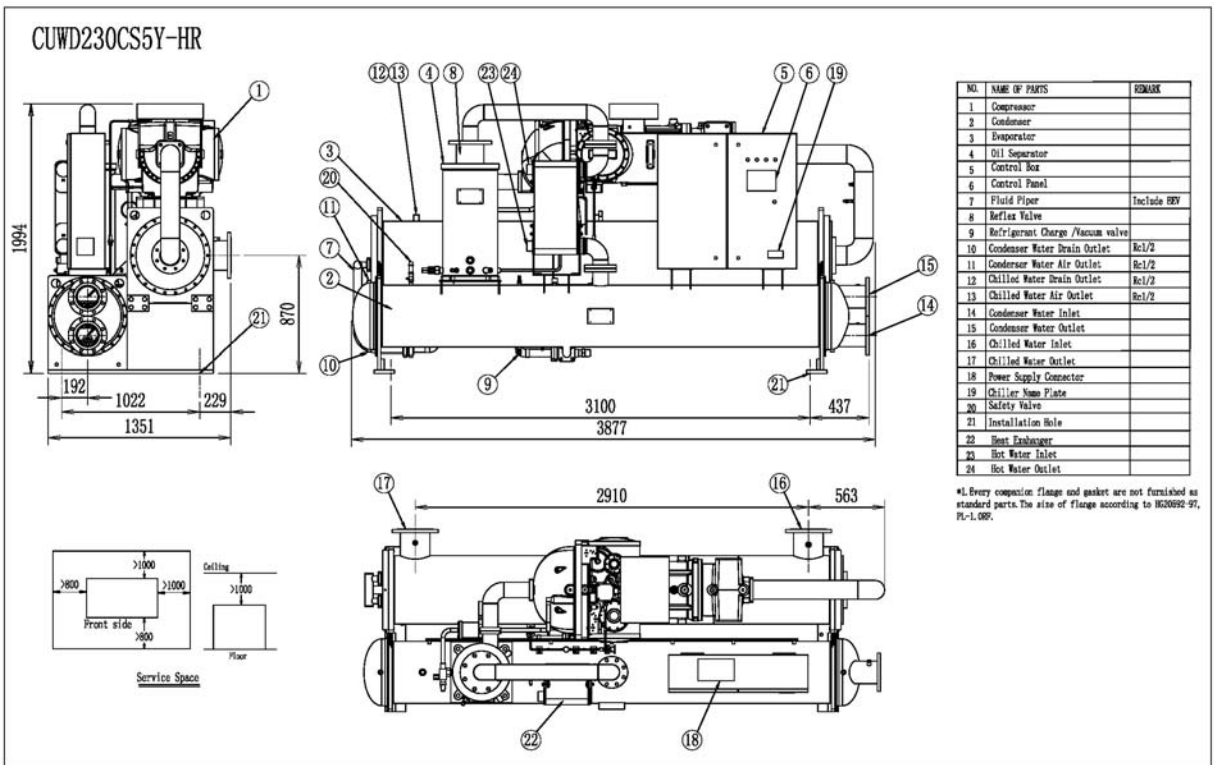
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■ Dimensions

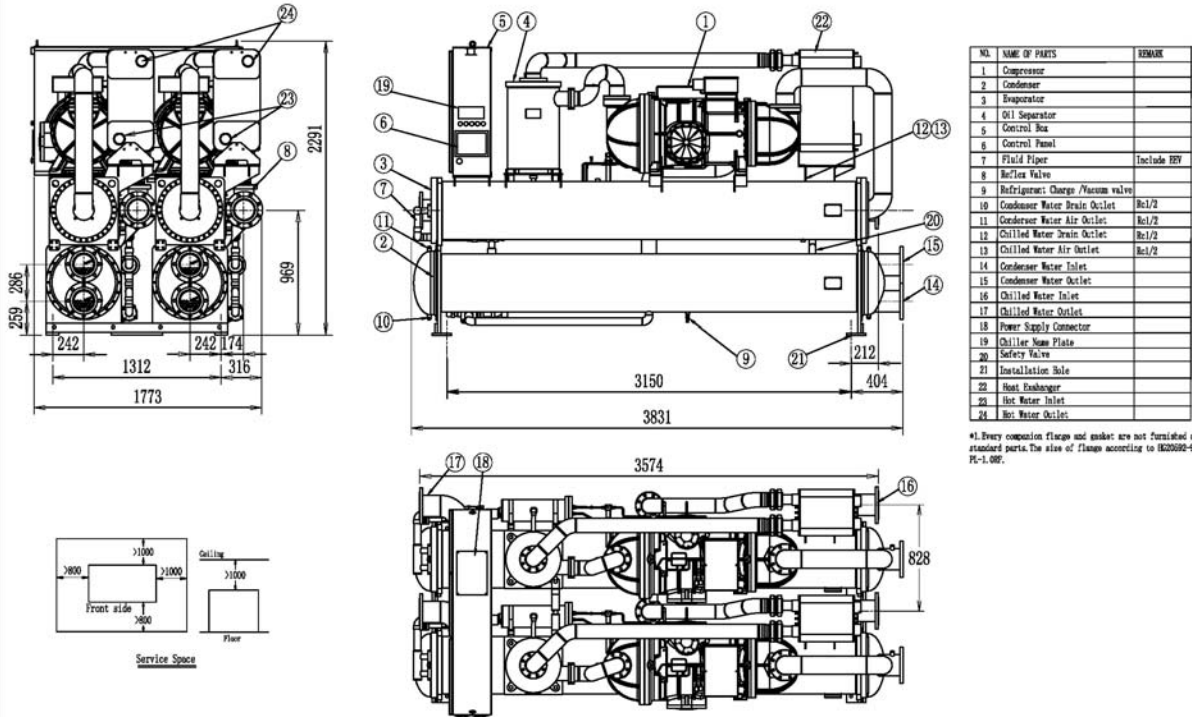


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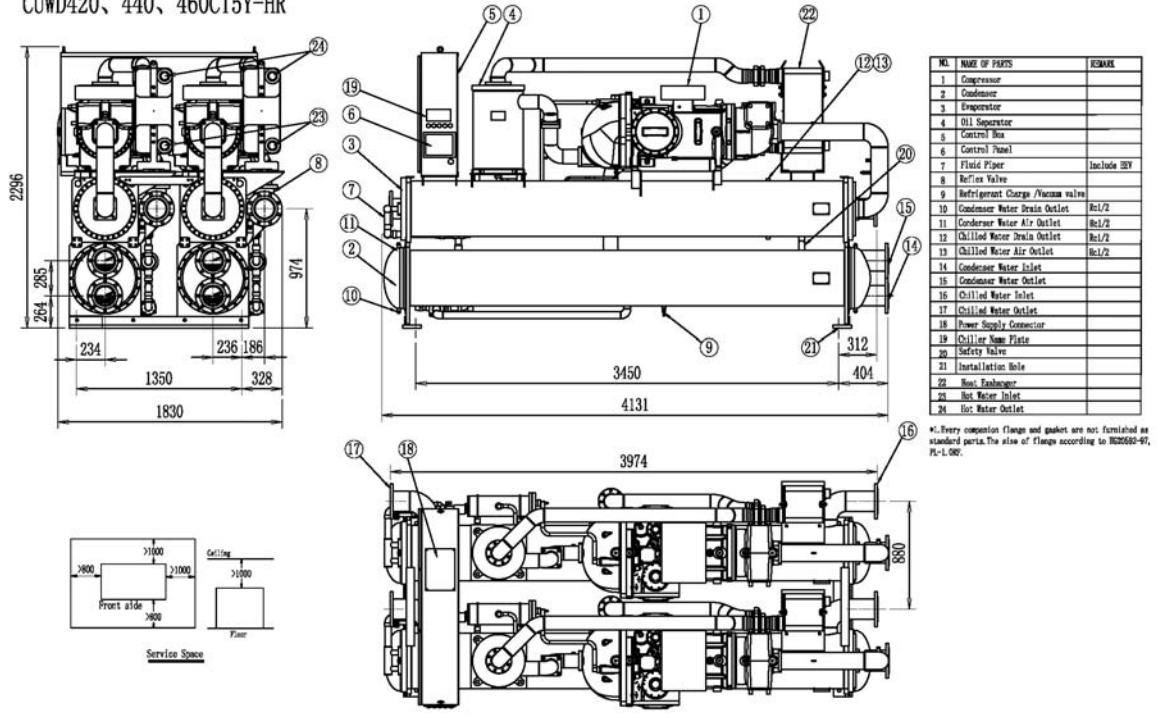


■ Dimensions

CUWD300, 325, 350, 375, 400CT5Y-HR

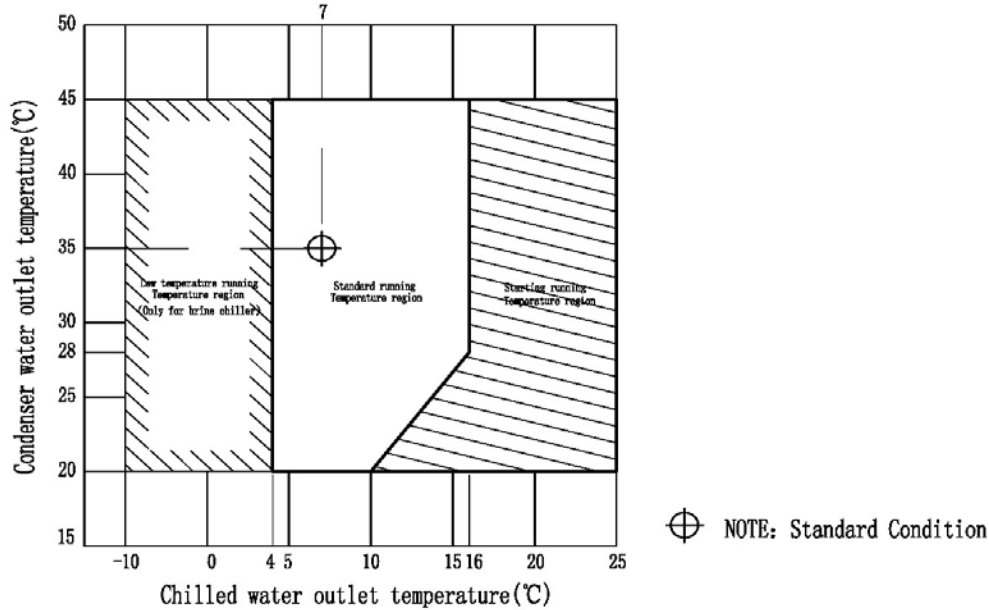


CUWD420, 440, 460CT5Y-HR



■ Operation Limits

1. Temperature Range



2. Minimum and Maximum water volume

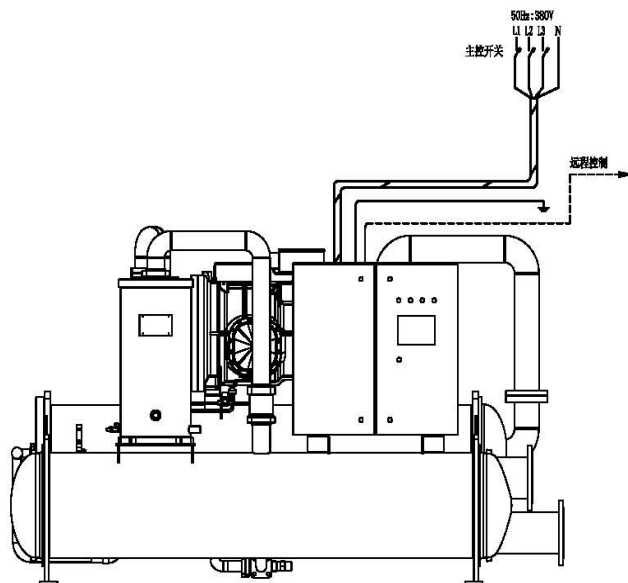
Chiller Model	Water Flow Rate (L/Min)				Minimum water volume of system (L)
	Evaporator		Condenser		
	Min.	Max.	Min.	Max.	
CUWD40CS5Y	130	550	150	940	440
CUWD50CS5Y	160	670	180	1140	540
CUWD60CS5Y	200	830	220	1420	670
CUWD80CS5Y	265	1090	290	1870	880
CUWD100CS5Y	330	1340	350	2290	1080
CUWD120CS5Y	410	1660	340	2840	1340
CUWD140CS5Y	451	1858	488	3183	1504
CUWD150CS5Y	520	2100	550	3600	1700
CUWD175CS5Y	540	2150	630	4000	1900
CUWD200CS5Y	650	2600	700	4600	2150
CUWD230CS5Y	740	3050	800	5225	2469
CUWD240CT5Y	810	3320	870	5680	2680
CUWD250CS5Y	872	3596	943	6159	2910
CUWD280CS5Y	970	4000	1049	6851	3237
CUWD300CS5Y	1029	4242	1113	7266	3434
CUWD300CT5Y	1040	4200	1100	7200	3400
CUWD325CT5Y	1030	4080	1190	7590	3660
CUWD350CT5Y	1100	4370	1280	8140	3920
CUWD375CT5Y	1230	4920	1330	8710	4100
CUWD400CT5Y	1320	5330	1400	9140	4320
CUWD420CT5Y	1392	5737	1505	9826	4643
CUWD440CT5Y	1436	5919	1553	10138	4791
CUWD460CT5Y	1480	6100	1601	10449	4938

Note: Minimum water volume is setted according to the standard temperature precision, if the water temperature precision changes, the minimum water volume will change accordingly.

3. Minimum system water volum will change along with water temperature precision as follows:

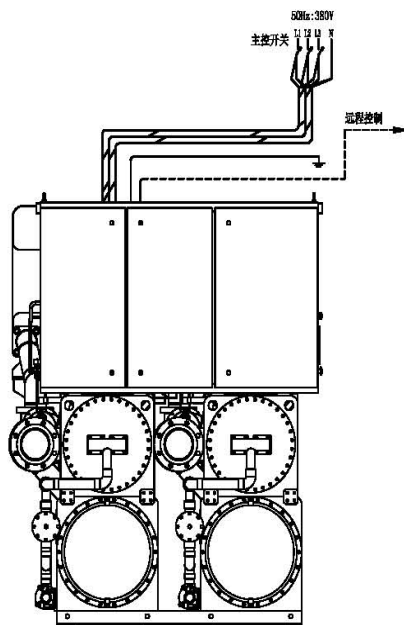
Water temperature precision	Minimum water volum of internal system
1°C	200%
2°C (Ex-factory setting)	100%
4°C	50%

External Power Supply Wiring Diagram



CUWD40~300CS*

Model	Cable Specification(mm)
CUWD40CS*	3×16+1×10
CUWD50CS*	3×25+1×16
CUWD60CS*	3×25+1×16
CUWD80CS*	3×50+1×25
CUWD100CS*	3×70+1×35
CUWD120CS*	3×95+1×50
CUWD140CS*	3×95+1×50
CUWD150CS*	3×150+1×70
CUWD175CS*	3×150+1×70
CUWD200CS*	3×185+1×95
CUWD230CS*	3×185+1×95
CUWD250CS*	3×185+1×95
CUWD280CS*	3×185+1×95
CUWD300CS*	(3×150+1×70)×2



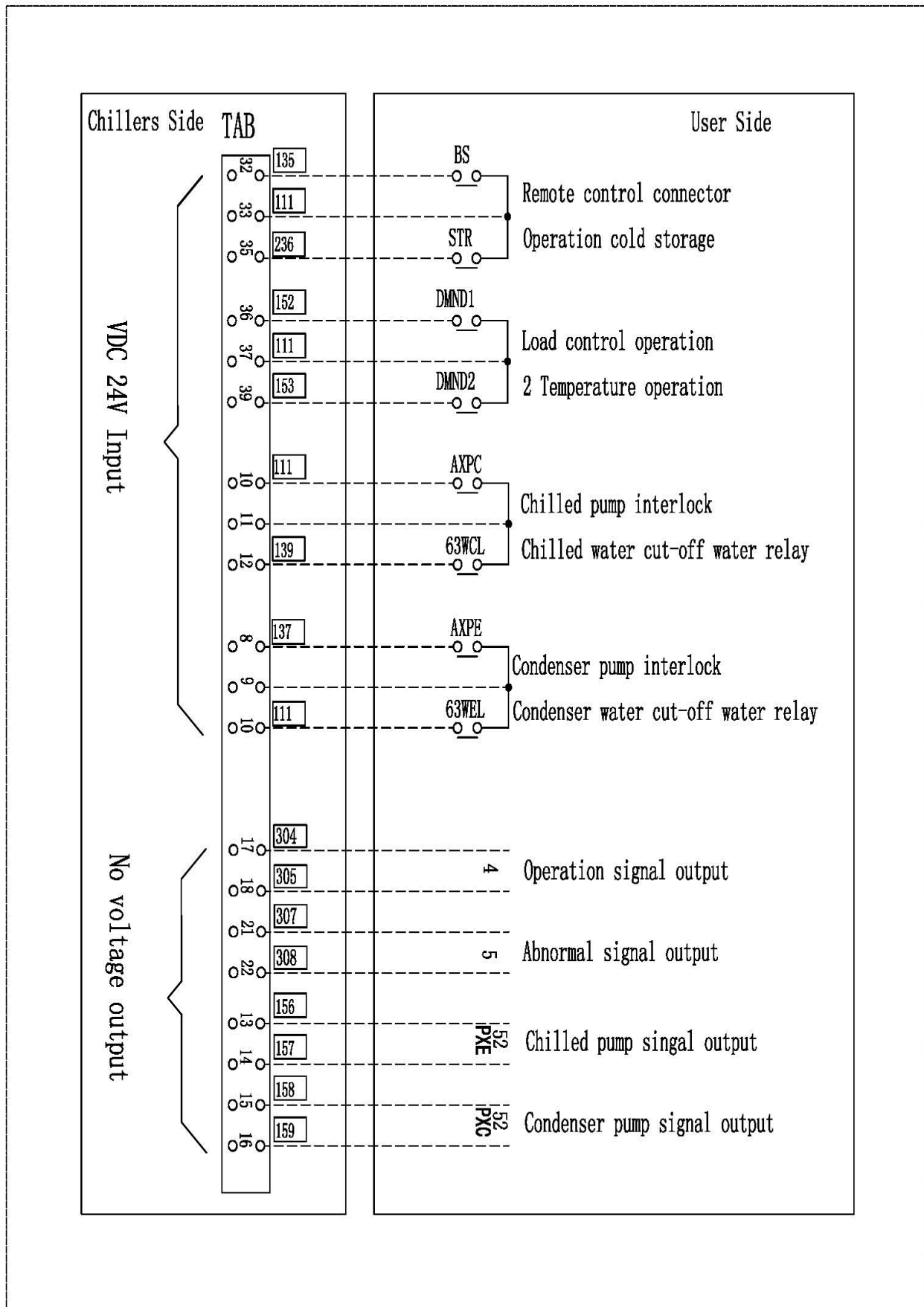
CUWD240~460CT*

Model	Cable Specification(mm)
CUWD240CT*	(3×95+1×50)×2
CUWD300CT*	(3×150+1×70)×2
CUWD325CT*	(3×150+1×70)×2
CUWD350CT*	(3×150+1×70)×2
CUWD375CT*	(3×150+1×70)×2
CUWD400CT*	(3×185+1×95)×2
CUWD420CT*	(3×185+1×95)×2
CUWD440CT*	(3×240+1×120)×2
CUWD460CT*	(3×300+1×150)×2

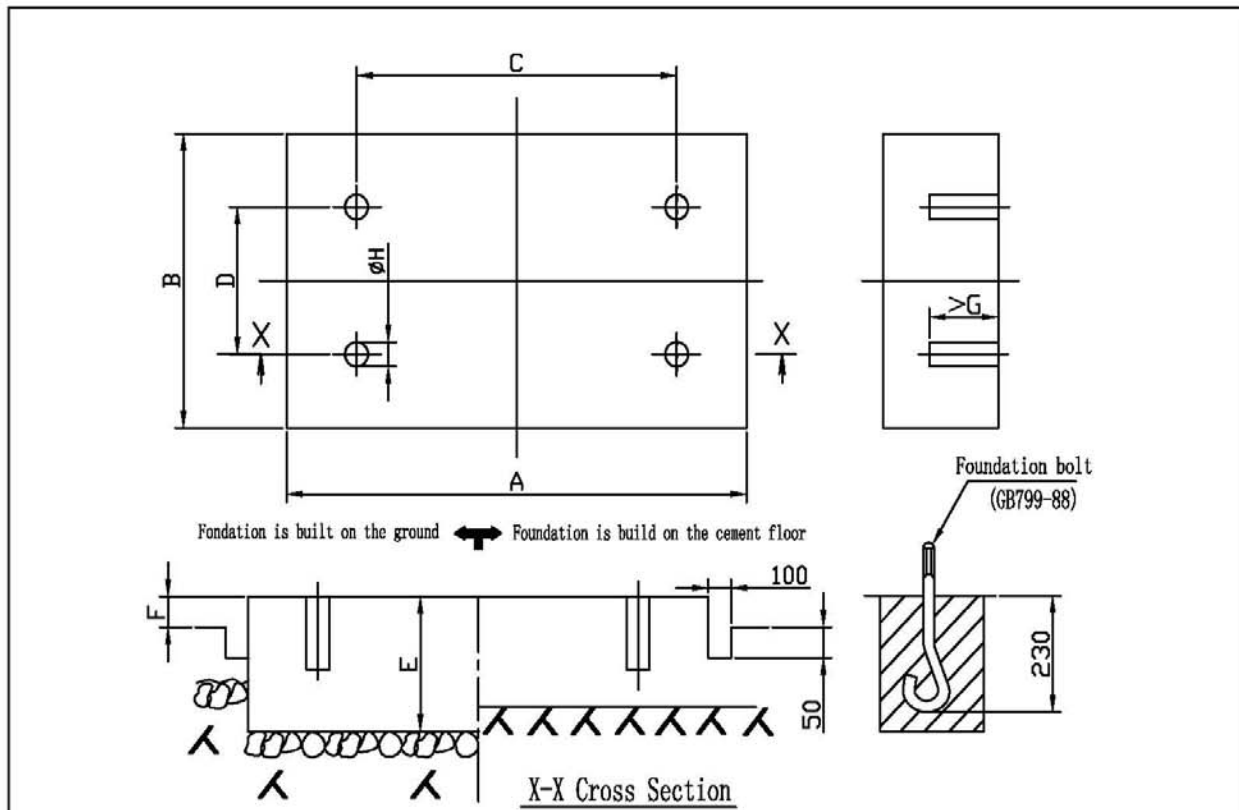
NOTE:

1. Above cable parameters are only for reference. As concern about the cable setting method, cable selection and the other factors, when the user field wiring, user should according to project actual situation and related electrical standard to count .
2. When the volatile of the distribution voltage is large ($> \pm 2$),

Internal Control Wiring Diagram



■ Foundation



MODEL	A	B	C	D	E	F	G	H	I	J	Foundation Bolt	
											Size	Quantity
CUWD40/50/60CS*	3100	755	330	160	2580	500	400	100	350	150	M20×300	4
CUWD80/100/120CS*	3650	1230	455	270	2880	690	400	100	350	150	M20×300	4
CUWD140CS*	4100	1250	350	250	3100	845	400	100	350	150	M20×300	4
CUWD150/175/200CS*	3400	1500	370	60	2380	1175	400	100	350	150	M20×300	4
CUWD230CS*	4100	1450	400	300	3100	1022	400	100	350	150	M20×300	4
CUWD240CT*	4150	1705	725	230	2850	1110	400	100	350	150	M20×300	4
CUWD250/280/300CS*	4200	1650	400	300	3100	1200	400	100	350	150	M20×300	4
CUWD300~400CT*	4050	1900	450	100	3150	1312	400	100	350	150	M20×300	4
CUWD420/440/460CT*	4350	2000	450	100	3450	1350	400	100	350	150	M20×300	4

*1. The data shown below is assumed foundation which is built on the ground or thin concrete floor. If the foundation built on the solid concrete floor, the foundation should include the thickness of the concrete floor.

2. Beside the base, it can consider to build a drain as shown above.

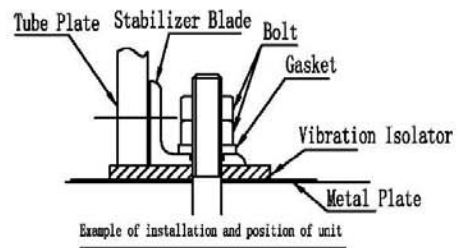
Whether the base is built on the ground or on the concrete, it is very important to have a good drainage.

3. Ingredient ratio of the concrete : cement:1, sand:2, gravel:4.

4. Insert an f10 rebar every 300mm.

5. The edges of the concrete base should be smooth.

6. The vibration of chiller is very small (actual measurement amplitude is only 3μm) so that it could be considered not to use vibration when installation. (The picture on the right is an example)



■ User Application Example

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- Daikin Air-Conditioning(Shanghai)CO.,LTD Huizhou Factory’s products are manufactured for export to numerous countries throughout the world. Daikin Huizhou Factory does not have control over which products are exported to and used in a particular country. Prior to purchase, please therefore confirm with your local authorized importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
 - Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
 - Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorized parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
 - Read the User’s Manual carefully before using this product. The User’s Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.
- If you have any enquires, please contact your local importer, distributor or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the unit close to the sea shore, contact your local distributor.



About ISO 9001
 ISO 9001 is a plant certification system defined by the International Organization for Standardization (ISO) relating to quality assurance. ISO 9001 certification covers quality assurance aspects related to the "design, development, manufacture, installation, and supplementary service" of products manufactured at the plant.



About ISO 14001
 ISO 14001 is the standard defined by the International Organization for Standardization (ISO) relating to environmental management systems. Our group has been acknowledged by an internationally accredited compliance organisation as having an appropriate programme of environmental protection procedures and activities to meet the requirements of ISO 14001.

Manufacturer

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