



## Evaporative Condensing Water Cooled Chiller

### CUWD-V Series

Inverter



*Low-carbon Green*

*Energy-efficient*

*Flexible Application*

*Stable & Reliable*

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



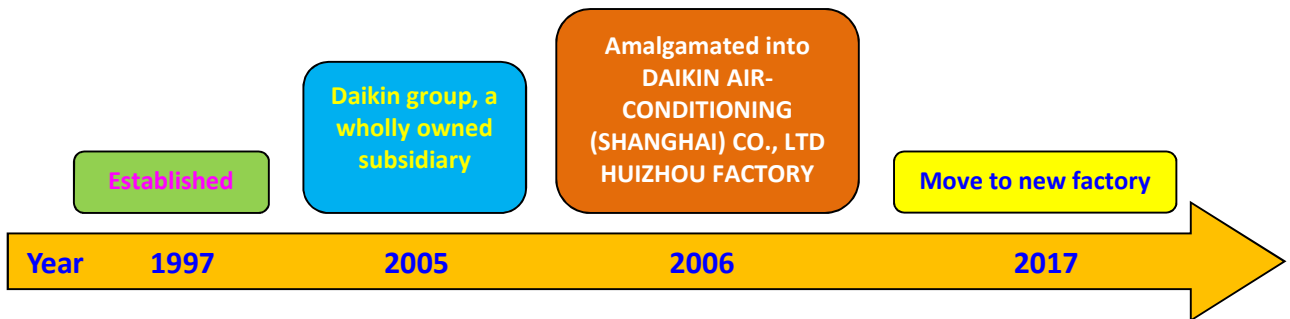
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## Daikin Huizhou Factory Profile



**DAIKIN AIR-CONDITIONING (SHANGHAI)CO.,LTD HUIZHOU FACTORY —**  
*The manufacture base of central air-conditioner in China*



Production area about 45,000 M<sup>2</sup>

Production capacity 3,000 units per year

Production on sales prospects

Delivery cycle 30 days

*Believe in Professionality*

*Believe in DAIKIN*

## DAIKIN Chiller Fulfills Customer Needs

### 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 70,000 units in the world. High-performance products together with the targeted and professional proposing-style sales method make Daikin central air conditioners widely applied in various fields including special ones such as hospitals, wine brewing, etc.

### Excellent Technology

Through nearly 100 years of experience 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 and R&D capacities of chiller and its key components. Thus promising better quality assurance.

### Reliable Service

The central air conditioning after-sales service center working closely with sales offices and factories can dispatch the service personnel to the job site within 24 hours, thus ensuring various problems can be solved timely. And the center has a large number of elite after-sales service talents adhering to the quality principle of "Keep Improving", who can provide more professional service.

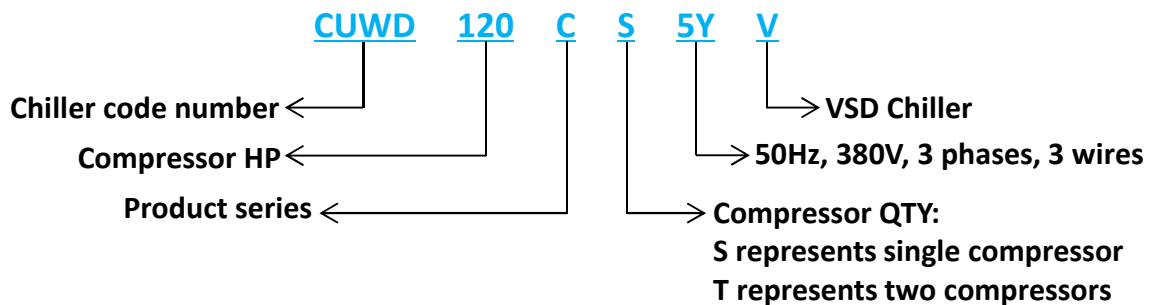
## Product Profile

### Brief Introduction

Daikin Air-conditioning has been devoted to the research of air conditioning field, owning the world's leading air conditioning technology and combining with the needs of users, launching more safe, reliable, stable, environmentally friendly and energy-saving products to provide more comfortable air conditioning environment for customers.

Nowadays the energy is in shortage state, in order to conform to the high-energy requirements of the global market, Daikin launch CUWD-V series dx-type VSD chiller with high efficiency. The IPLV is 7.5 which is energy-saving.

### Model Naming Instructions



### Application Place

The unit is widely used in large shopping malls, hotels, government office buildings, rail transit station, gymnasiums, opera houses, hospitals, high-rise buildings, entertainment centers and other air-conditioning places as cold sources. It can also be used as the cold source mainframe of textile, chemical, food, electronics, scientific research and other kinds of factories.

Important user instances. We sold more than 300 units from 2015.



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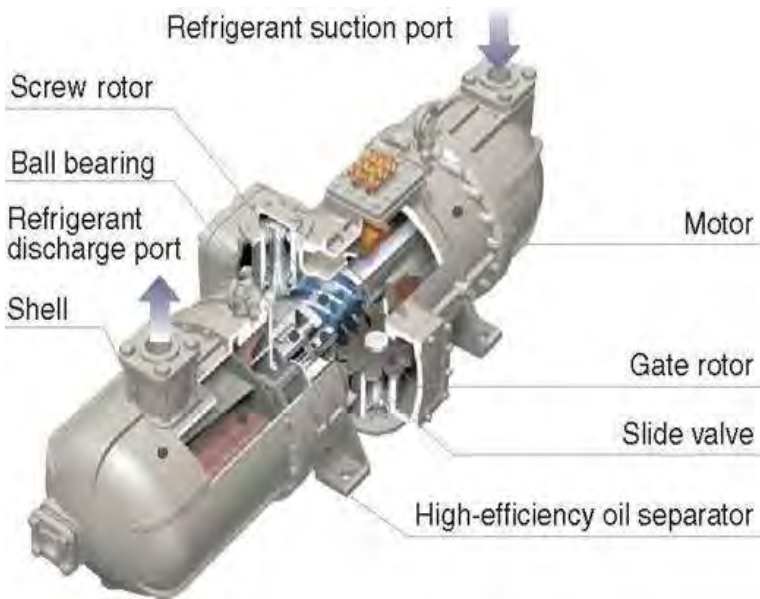


水中贵族 景田百岁山

## Reliability

**[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 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 air 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.



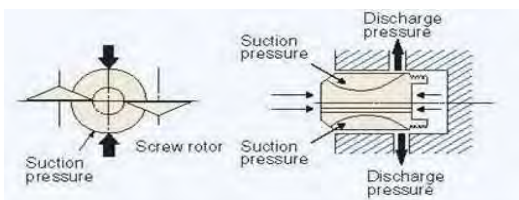
##### (3) Discharge

The pressure in the compression space reaches the discharge level. Compressed gas is discharged from upper unload 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.

## 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.



## 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.
- The condenser and evaporator are both designed, manufactured and tested in accordance with related national standards on pressure vessels(NB/T47012-2010 and TSG 21-2016).Each pressure vessel has been inspected and approved by the related national quality department.

## Inverter

- Precise driving algorithm, ensure high efficiency drive induction motor.
- As per load and temperature adjustment, make compressor operate in the best efficiency.
- Good soft starter function, reduce motor start current and current impact on power grid to protect the motor.
- Sensitive fault detection and diagnosis function, to ensure the reliability of the motor running.
- Use long life parts like electric fan, capacitance and relay etc. , realize the design life of more than 15 years.



## Adopt World-famous Electronic Components



## Brand-new Product Perfectly meet customers' needs

- 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 20% 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 units operation parameters.
- Abundant expansion and option functions .
  - Unit reserve diversified control extension functions, RS485 interface, Modbus, Bacnet, Lonworks protocol.

## Diversified Protection Functions and Powerful Control Systems

### Diversified Control System Functions

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

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

■ Various automatic protection devices ensure safety of unit operation. (When protection devices trip, malfunction causes and abnormal operation parameters will be displayed directly on 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
- ☆ 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

■ Large size color LCD touch screen showing the operation parameters of the unit in a comprehensive manner.

- ☆ 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.

■ Abnormality-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  
Used for unit start-up or stop, check basic parameters, detailed parameters, input/output and temperature curve of unit operation.
- ☆ Temperature setting - Setting the control water temperature and mode operation.
- ☆ Log-in and Exit – Used for user password login/exit and password change.
- ☆ System information - Used for viewing supplier and related unit information.
- ☆ Abnormal records - Use for checking the details and history record of unit abnormal condition.
- ☆ Operation setting - Setting system information of unit operation mode, parameters and other related control setting.





## Specification

Model		CUWD40CS5YV	CUWD50CS5YV	CUWD60CS5YV	CUWD80CS5YV
Cooling Capacity	USRT	38.4	46.9	58.3	76.8
	kW	135	165	205	270
	kcal/h	116,100	141,900	176,300	232,200
Power Consumption	kW	26.9	32.8	40.8	53.9
COP	kW/kW	5.02	5.03	5.02	5.01
IPLV		7.43	7.43	7.51	7.56
Chiller Color		Ivory White(5Y7.5/1)			
Chilled Water Flow	m <sup>3</sup> /h	23.2	28.4	35.3	46.4
Condenser Water Flow	m <sup>3</sup> /h	29.0	35.5	44.1	58.1
Dimension(LxWxH)	mm	2,950×645×1,675			3,500×1,080×1,910
Compressor	Specification		Semi-hermetically Sealed Single Screw Type		
	Starting Method		Virable Frequency Starting		
	Power Control	%	20 ~ 100% Continous Capacity Control		
Condenser	Specification		Water Cooled Fin Tube & Shell Type		
	Qty×Model	CF3225-CC40	CF3225-CC50	CF3225-CC60	CF4530-CC80
Evaporator	Specification		Dx-Type Expansion Tube & Shell Type		
	Qty×Model	DHD3525-CC40A	DHD3525-CC50A	DHD3525-CC60A	DHD4030-CC80A
Refrigerant	Type		R134a		
	Circuit Qty		1		
	Control Method		Electronic Expansion Valve		
	Filling Volume	kg	33		75
Refrigerant Oil		FVC68D			
Refrigerant Oil Filling Volume	L	12	18	19	
Electric Control System		MICRO TECH III Program Controller,7 inch LCD Touch Screen			
Safety Device		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 Connection	Chilled Water Inlet/Outlet	DN100 Flange(connectΦ114pipe)		DN150 Flange(connect159pipe) /DN125 Flange(connectΦ140pipe)	
	Condensor Water Inlet/Outlet	DN100 Flange(connectΦ114pipe)		DN125 Flange(connectΦ140pipe)	
Insulation Material		Polyethelene Foam			
Chiller Weight	kg	1,325	1,380	1,510	2,210
Opertion Weight	kg	1,405	1,510	1,630	2,340

**Remark:**
**1.Cooling capacity is based on the following conditions:**

 Chilled water outlet temperature: 7°C, Chilled water flow rate 0.172m<sup>3</sup>/(h · kW)

 Condenser water inlet temperature: 30°C, Condenser water flow rate 0.215m<sup>3</sup>/(h · kW)

**2.Evaporator side fouling factor 0.018m<sup>2</sup>·°C/kW, Condenser side fouling factor 0.044m<sup>2</sup>·°C/kW.**
**3.Power supply: 3 Phase 3Wire 380V~480V,50Hz/60Hz.**
**4.Standard chiller: CUWD240CT5YV,CUWD250\300\350\400CS5YV are certified by AHRI. Other chillers are not within the range of AHRI but performance is reviewed as per AHRI standard.**
**5.CUWD40CS5YV and CUWD50CS5YV chiller is without safety valve.**


## Specification

Model		CUWD100CS5YV	CUWD120CS5YV	CUWD150CS5YV	CUWD160CT5YV
Cooling Capacity	USRT	93.9	116.6	150.7	153.6
	kW	330	410.0	530.0	540
	kcal/h	283,800	352,600	455,800	464,400
Power Consumption	kW	65.5	81.5	103.9	107.8
COP	kw/kw	5.04	5.03	5.10	5.01
IPLV		7.53	7.55	7.65	7.64
Chiller Color		Ivory White(5Y7.5/1)			
Chilled Water Flow	m <sup>3</sup> /h	56.8	70.5	91.2	92.9
Condenser Water Flow	m <sup>3</sup> /h	71.0	88.2	114.0	116.1
Dimension(L×W×H)	mm	3,500×1,080×1,910		3,845×1,405×1,935	3,520×1,470×1,915
Compressor	Specification	Semi-hermetically Sealed Single Screw Type			
	Starting Method	Variable Frequency Starting			
	Power Control	%	20 ~ 100% Continuous Capacity Control		
Condenser	Specification	Water Cooled Fin Tube & Shell Type			
	Qty×Model	CF4530-CC100	CF4530-CC120	CF3933-CC150C	2×CF4530-CC80
Evaporator	Specification	Dx-Type Expansion Tube & Shell Type			
	Qty×Model	DHD4030-CC100A	DHD4030-CC120A	DHD3933-CC150V	2×DHD4030-CC80A
Refrigerant	Type	R134a			
	Circuit Qty	1			2
	Control Method	Electronic Expansion Valve			
	Filling Volume	kg	78	130	2×75
Refrigerant Oil		FVC68D			
Refrigerant Oil Filling Volume	l	22	12	2×19	
Electric Control System		MICRO TECH III Program Controller, 7 inch LCD Touch Screen			
Safety Device		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 Connection	Chilled water in/out	DN150flange(connectΦ159pipe) DN125flange(connectΦ140pipe)		DN150flange(connectΦ168pipe)	DN125 flange(connectΦ140 pipe)
	Condenser water in/out	DN125flange(connectΦ140pipe)		DN125flange(connectΦ140pipe)	DN125 flange(connectΦ140 pipe)
Insulation Material		Polyethylene Foam			
Chiller Weight	kg	2515	2555	3150	4420
Operation Weight	kg	2645	2745	3350	4680

**Remark:**

1. Cooling capacity is based on the following conditions:

Chilled water outlet temperature: 7°C, Chilled water flow rate 0.172m<sup>3</sup>/(h · kW)

Condenser water inlet temperature: 30°C, Condenser water flow rate 0.215m<sup>3</sup>/(h · kW)

2. Evaporator side fouling factor 0.018m<sup>2</sup>·°C/kW, Condenser side fouling factor 0.044m<sup>2</sup>·°C/kW.

3. Power supply: 3 Phase 3Wire 380V~480V, 50Hz/60Hz.

4. Standard chiller: CUWD240CT5YV, CUWD250\300\350\400CS5YV are certified by AHRI. Other chillers are not within the range of AHRI but performance is reviewed as per AHRI standard.



## Specification

Model		CUWD200CT5YV	CUWD200CS5YV	CUWD230CS5YV	CUWD240CT5YV
Cooling Capacity	USRT	187.7	204.8	220.1	233.2
	kW	660	720	774	820
	kcal/h	567,600	619,200	665,640	705,200
Power Consumption	kW	131.0	141.2	153.0	163.0
COP	kW/kW	5.04	5.10	5.06	5.03
IPLV		7.60	7.65	7.66	7.62
Chiller Color		Ivory White(5Y7.5/1)			
Chilled Water Flow	m <sup>3</sup> /h	113.5	123.8	133.1	141.0
Condenser Water Flow	m <sup>3</sup> /h	141.9	154.8	166.4	176.3
Dimension(L×W×H)	mm	3520×1470×1915	3840×1610×1990		3520×1470×1915
Compressor	Specification	Semi-hermetically Sealed Single Screw Type			
	Starting Method	Virable Frequency Starting			
	Power Control	20 ~ 100% Continuous Capacity Control			
Condenser	Specification	Water Cooled Fin Tube & Shell Type			
	Qty×Model	2×CF4530-CC100	CF4433-CC200C	CF4433-CC230C	2×CF4530-CC120
Evaporator	Specification	Dx-Type Expansion Tube & Shell Type			
	Qty×Model	2×DHD4030-CC100A	DHD5033-CC200A	DHD5033-CC230A	2×DHD4030-CC120A
Refrigerant	Type	R134a			
	Circuit Qty	2	1		2
	Control Method	Electronic Expansion Valve			
	Filling Volume	2×78	160		2×78
Refrigerant Oil		FVC68D			
Refrigerant Oil Filling Volume	L	2×22	13		2×22
Electric Control System		MICRO TECH III Program Controller,7 inch LCD Touch Screen			
Safety Device		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 Connection	Chilled Water Inlet/Outlet	DN125 (Φ140)	DN200 flange(connectΦ219pipe)		DN125 (Φ140)
	Condensor Water Inlet/Outlet	DN125 (Φ140)	DN150 flange(connectΦ168 pipe)		DN125 (Φ140)
Insulation Material		Polyethelene Foam			
Chiller Weight	kg	5030	4225	4290	5110
Opertion Weight	kg	5290	4625	4690	5490

**Remark:**

1.Cooling capacity is based on the following conditions:

Chilled water outlet temperature: 7°C, Chilled water flow rate 0.172m<sup>3</sup>/(h · kW)

Condenser water inlet temperature: 30°C, Condenser water flow rate 0.215m<sup>3</sup>/(h · kW)

2.Evaporator side fouling factor 0.018m<sup>2</sup>·°C/kW, Condenser side fouling factor 0.044m<sup>2</sup>·°C/kW.

3.Power supply: 3 Phase 3Wire 380V~480V,50Hz/60Hz.

4.Standard chiller: CUWD240CT5YV,CUWD250\300\350\400CS5YV are certified by AHRI. Other chillers are not within the range of AHRI but performance is reviewed as per AHRI standard.



## Specification

Model		CUWD250CS5YV	CUWD300CS5YV	CUWD350CS5YV	CUWD400CS5YV
Cooling Capacity	USRT	253.1	302.9	348.4	403.8
	kW	890	1065	1225	1420
	kcal/h	765,400	915,900	1,053,500	1,221,200
Power Consumption	kW	176.3	203.6	233.3	272.0
COP	kW/kW	5.05	5.23	5.25	5.22
IPLV		7.69	7.69	7.69	7.68
Chiller Color		Ivory White(5Y7.5/1)			
Chilled Water Flow	m <sup>3</sup> /h	153.1	183.2	210.7	244.2
Condenser Water Flow	m <sup>3</sup> /h	191.4	229.0	263.4	305.3
Dimension(L×W×H)	mm	3,840×1,610×1,990	4,015×1,755×2,120		4,015×2,035×2,390
Compressor	Specification	Semi-hermetically Sealed Single Screw Type			
	Starting Method	Virable Frequency Starting			
	Power Control	%	20 ~ 100% Continous Capacity Control		
Condenser	Specification	Water Cooled Fin Tube & Shell Type			
	Qty×Model	CF4433-CC250B	CF5433-CC300B	CF5433-CC350B	CF6433-CC400B
Evaporator	Specification	Dx-Type Expansion Tube & Shell Type			
	Qty×Model	DHD5033-CC250B	DHD5433-CC300A	DHD5433-CC300A	DHD6433-CC390
Refrigerant	Type	R134a			
	Circuit Qty	1			
	Control Method	Electronic Expansion Valve			
	Filling Volume	kg	160	230	320
Refrigerant Oil		FVC68D			
Refrigerant Oil Filling Volume	L	13	37	30	
Electric Control System		MICRO TECH III Program Controller,7 inch LCD Touch Screen			
Safety Device		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 Connection	Chilled Water Inlet/Outlet	DN200 flange(connectΦ219pipe)	DN250 flange(connectΦ273pipe)		
	Condensor Water Inlet/Outlet	DN150 flange(connectΦ168 pipe)	DN200flange(connectΦ219pipe)		
Insulation Material		Polyethelene Foam			
Chiller Weight	kg	4,375	5,800	5,970	8,150
Opertion Weight	kg	4,775	6,200	6,370	8,550

**Remark:**

1. Cooling capacity is based on the following conditions:

Chilled water outlet temperature: 7°C, Chilled water flow rate 0.172m<sup>3</sup>/(h · kW)

Condenser water inlet temperature: 30°C, Condenser water flow rate 0.215m<sup>3</sup>/(h · kW)

2. Evaporator side fouling factor 0.018m<sup>2</sup>·°C/kW, Condenser side fouling factor 0.044m<sup>2</sup>·°C/kW.

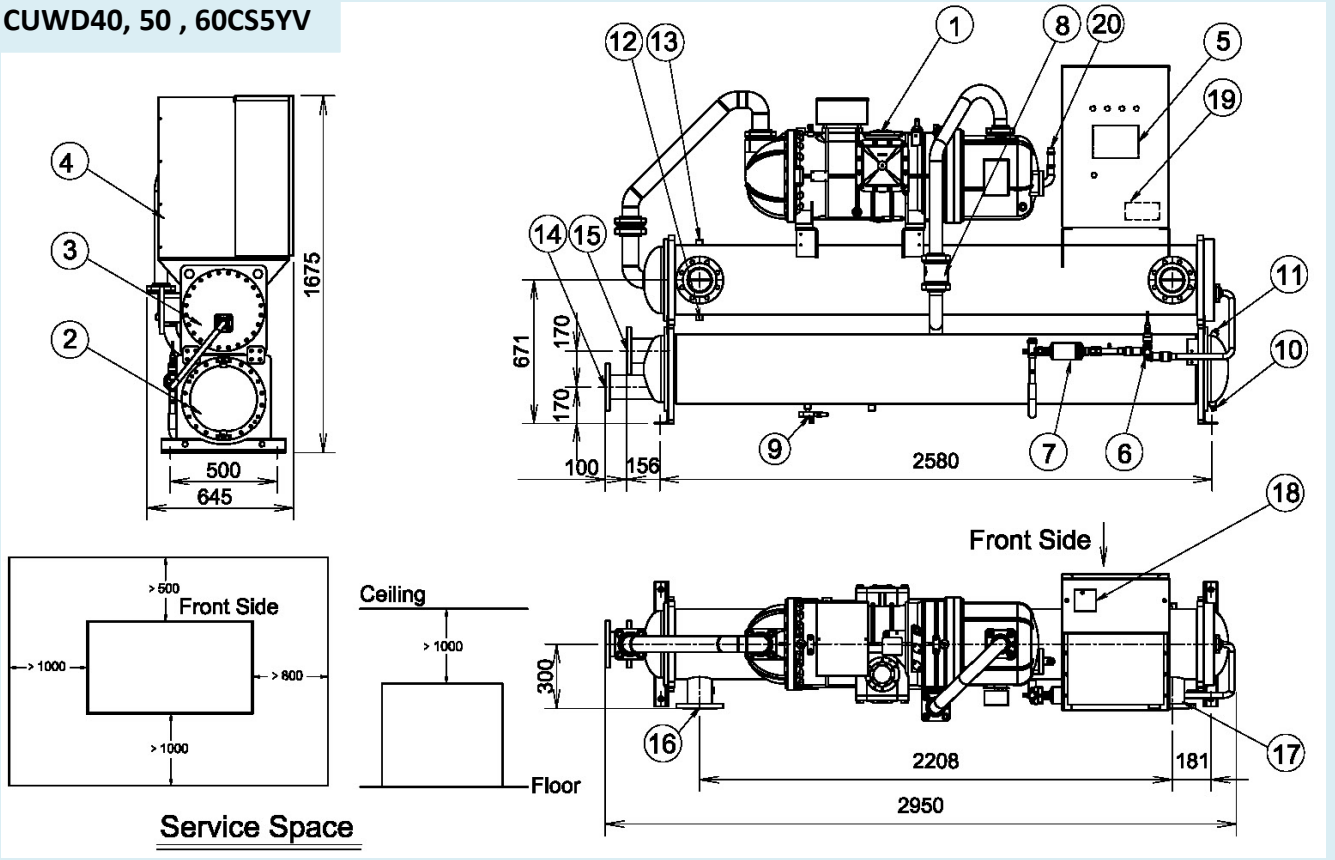
3. Power supply: 3 Phase 3Wire 380V~480V,50Hz/60Hz.

4. Standard chiller: CUWD240CT5YV,CUWD250\300\350\400CS5YV are certified by AHRI. Other chillers are not within the range of AHRI but performance is reviewed as per AHRI standard.



**Dimension**

**CUWD40, 50, 60CS5YV**



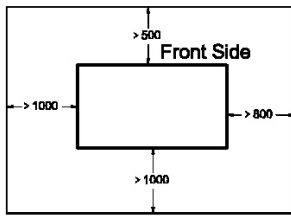
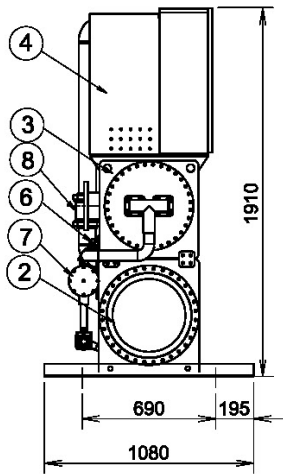
NO.	Spare Parts Name	Remark
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control box	
5	Control Panel	
6	Electronical Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant charge valve	
10	Condenser Water Drain Outlet	NPT1/2"
11	Condenser Water Air Outlet	NPT1/2"
12	Chilled Water Drain Outlet	NPT1/2"
13	Chilled Water Air Outlet	NPT1/2"
14	Condenser Water Inlet	

NO.	Spare Parts Name	Remark
15	Condenser Water Outlet	
16	Chilled Water Inlet	
17	Chilled Water Outlet	
18	Power Supply Connector	
19	Chiller Name Plate	
20	Safety Valve(40、50HP without it)	

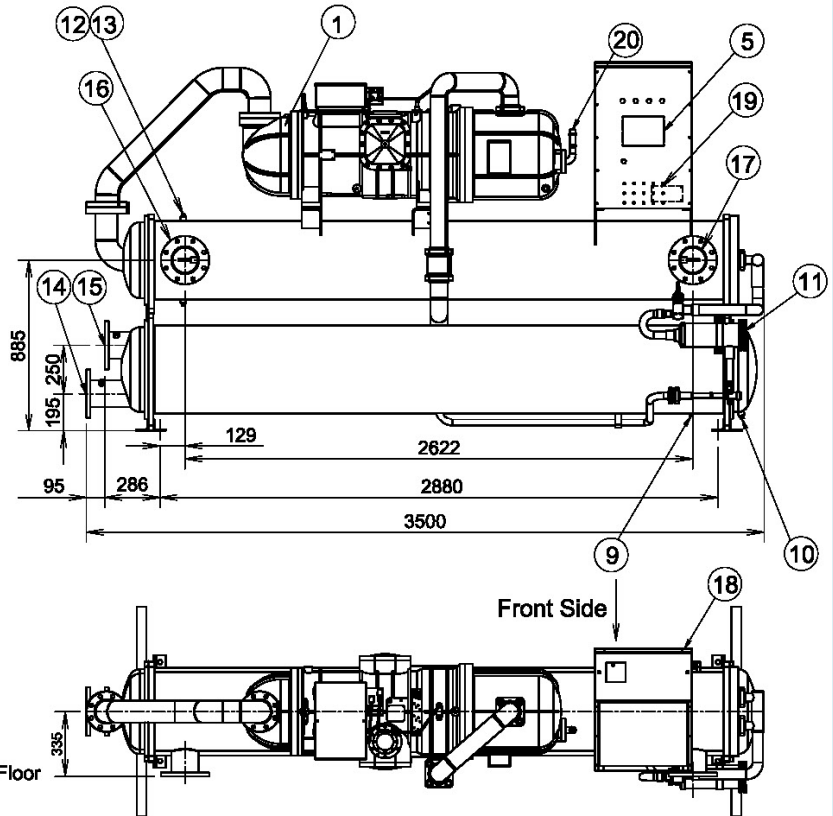
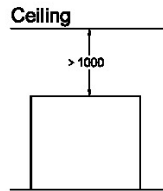
**Note:**  
 Flange cooling water and chilled water  
 ( Refrigerant) nozzle is self-prepared by users.  
 Flange size is based on HG20592.

**Dimension**

**CUWD80, 100, 120CS5YV**



Service Space



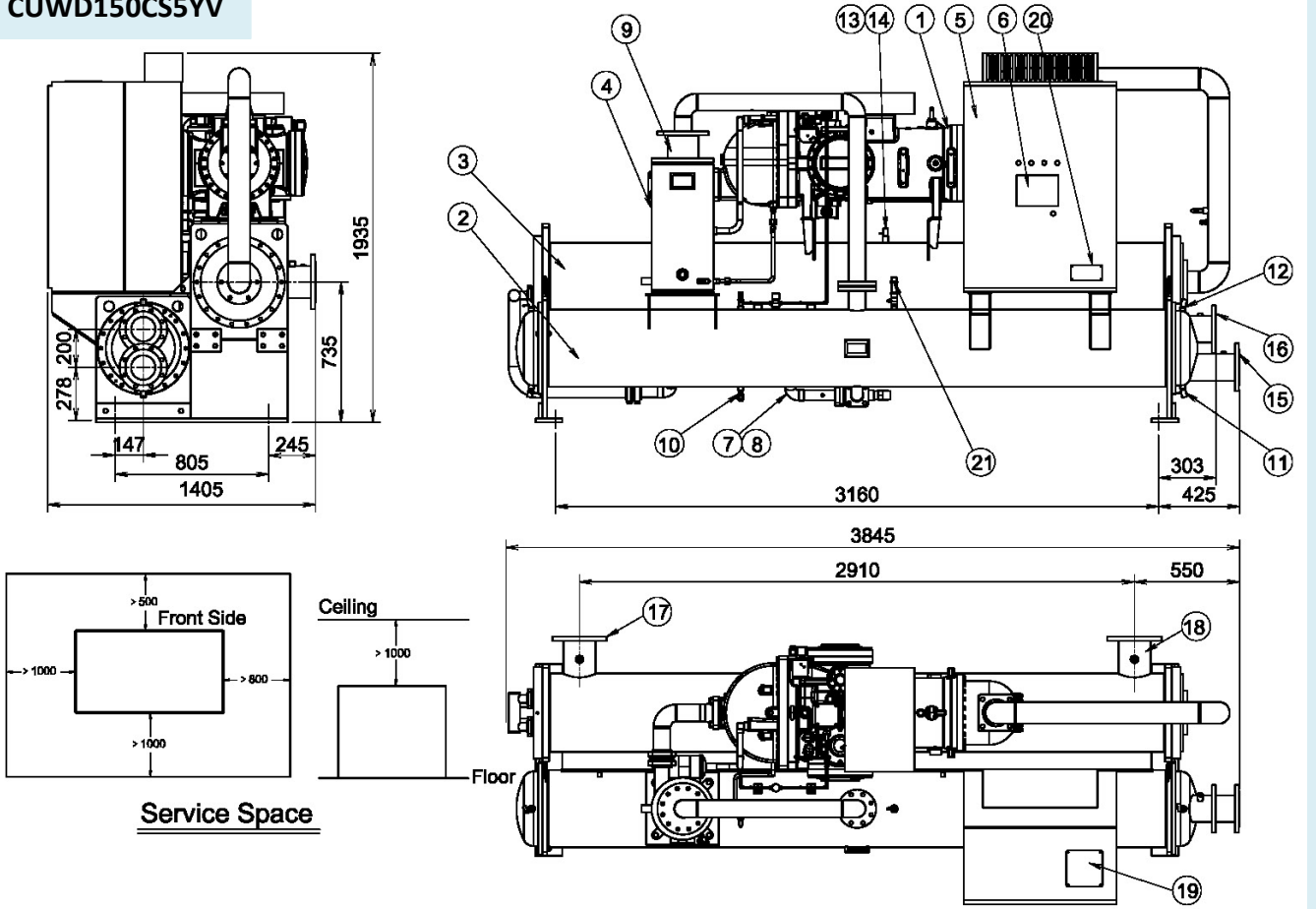
NO.	Spare Parts Name	Remark
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control box	
5	Control Panel	
6	Electronical Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant charge valve	
10	Condenser Water Drain Outlet	NPT1/2"
11	Condenser Water Air Outlet	NPT1/2"
12	Chilled Water Drain Outlet	NPT1/2"
13	Chilled Water Air Outlet	NPT1/2"
14	Condenser Water Inlet	

NO.	Spare Parts Name	Remark
15	Condenser Water Outlet	
16	Chilled Water Inlet	
17	Chilled Water Outlet	
18	Power Supply Connector	
19	Chiller Name Plate	
20	Safety Valve	

**Note:**  
 Flange cooling water and chilled water  
 ( Refrigerant) nozzle is self-prepared by users.  
 Flange size is based on HG20592.

**Dimension**

**CUWD150CS5YV**



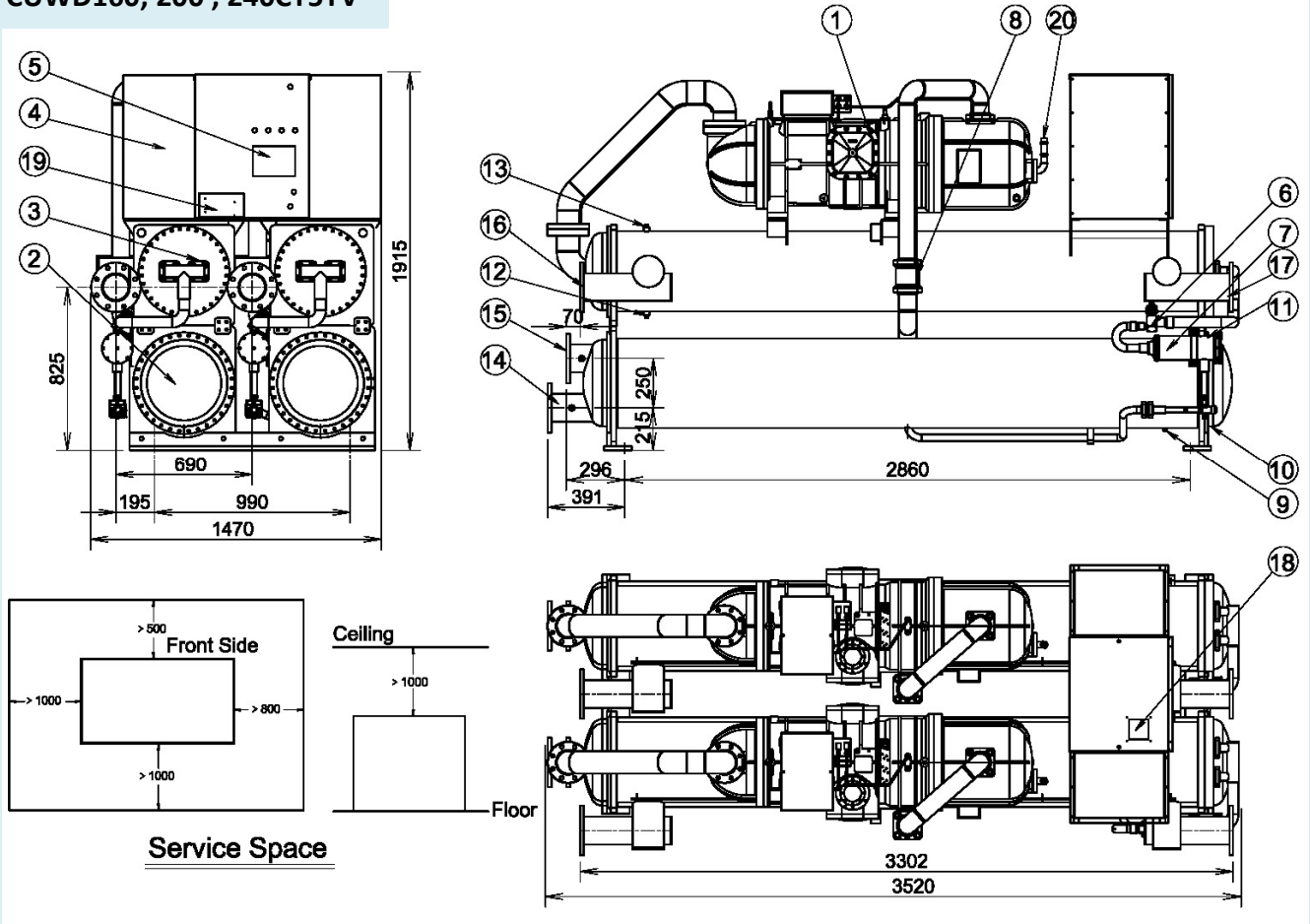
NO.	Spare Parts Name	Remark
1	Compressor	
2	Condenser	
3	Evaporator	
4	Oil Separator	
5	Control box	
6	Control Panel	
7	Electronical Expansion Valve	
8	Dry Filter	
9	Reflex Valve	
10	Refrigerant charge valve	
11	Condenser Water Drain Outlet	NPT1/2"
12	Condenser Water Air Outlet	NPT1/2"
13	Chilled Water Drain Outlet	NPT1/2"
14	Chilled Water Air Outlet	NPT1/2"

NO.	Spare Parts Name	Remark
15	Condenser Water Inlet	
16	Condenser Water Outlet	
17	Chilled Water Inlet	
18	Chilled Water Outlet	
19	Power Supply Connector	
20	Chiller Name Plate	
21	Safety Valve	

**Note:**  
 Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users. Flange size is based on HG20592.

**Dimension**

**CUWD160, 200 , 240CT5YV**



NO.	Spare Parts Name	Remark
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control box	
5	Control Panel	
6	Electronical Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant charge valve	
10	Condenser Water Drain Outlet	NPT1/2"
11	Condenser Water Air Outlet	NPT1/2"
12	Chilled Water Drain Outlet	NPT1/2"
13	Chilled Water Air Outlet	NPT1/2"
14	Condenser Water Inlet	

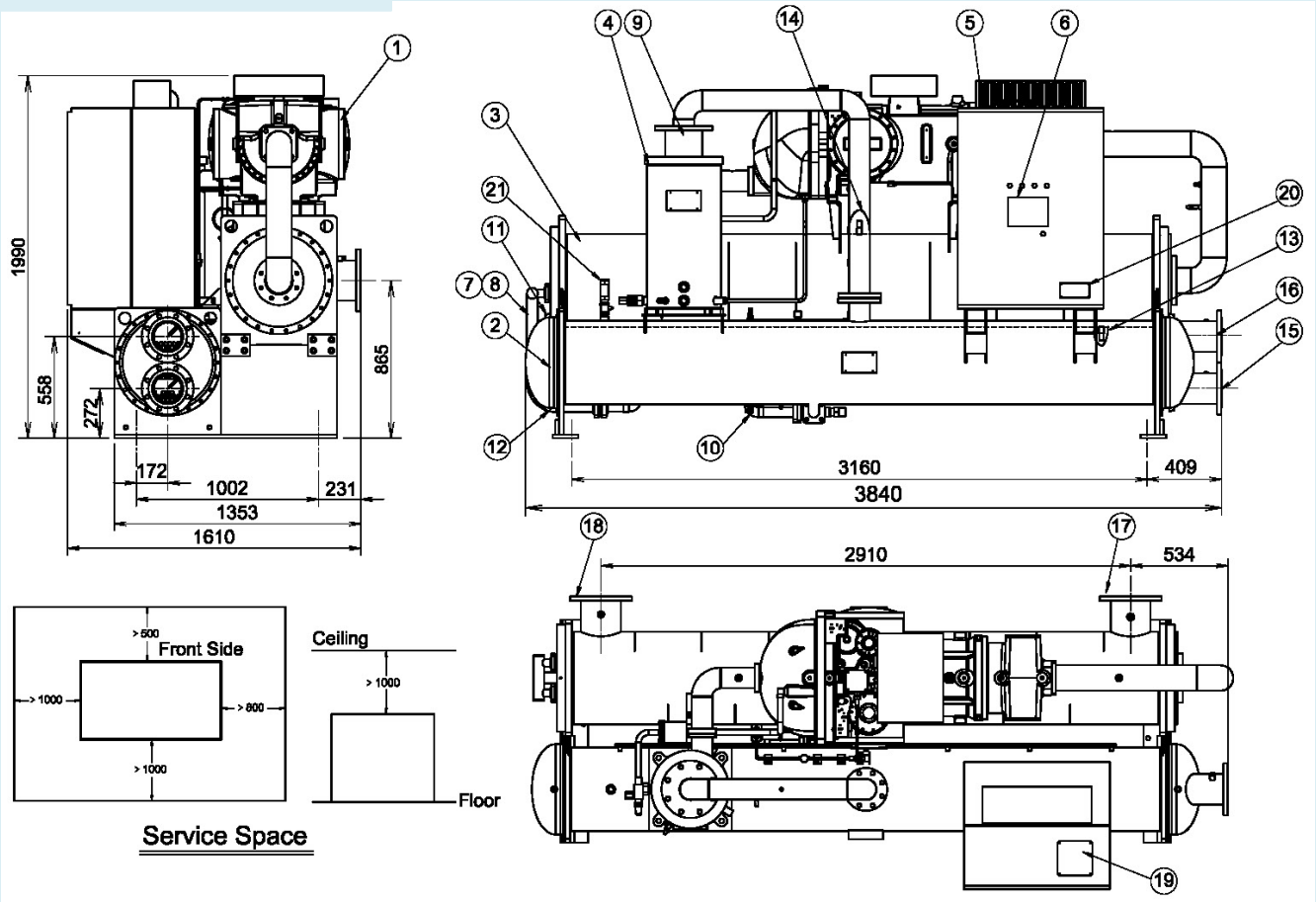
NO.	Spare Parts Name	Remark
15	Condenser Water Outlet	
16	Chilled Water Inlet	
17	Chilled Water Outlet	
18	Power Supply Connector	
19	Chiller Name Plate	
20	Safety Valve	

**Note:**  
 Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users. Flange size is based on HG20592.



**Dimension**

**CUWD200, 230 , 250CS5YV**



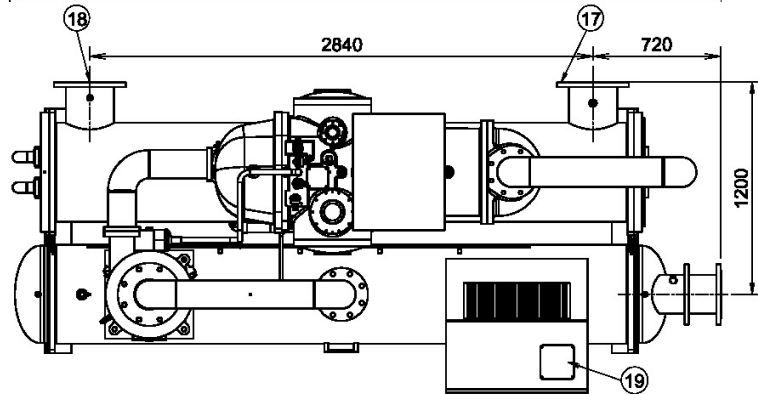
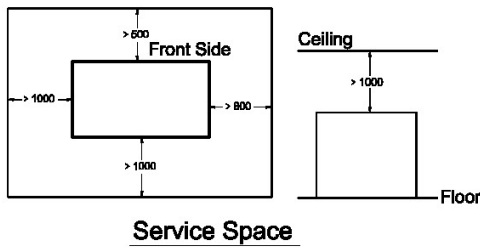
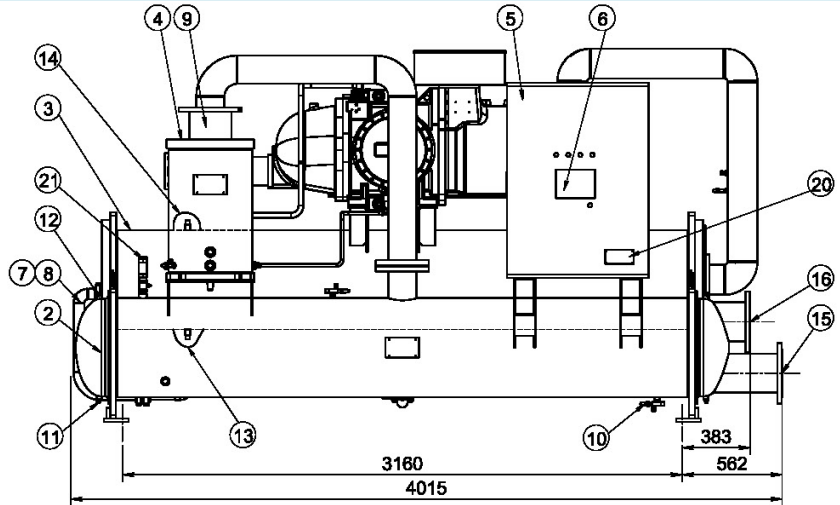
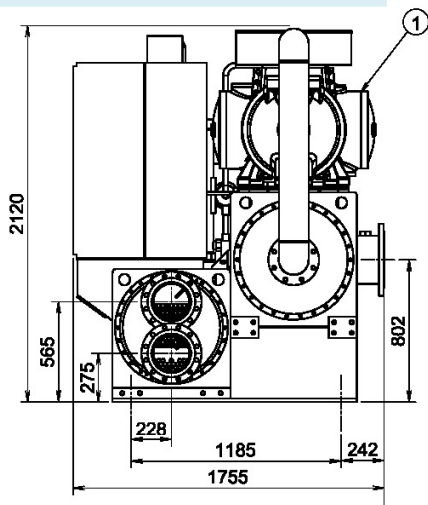
NO.	Spare Parts Name	Remark
1	Compressor	
2	Condenser	
3	Evaporator	
4	Oil Separator	
5	Control box	
6	Control Panel	
7	Electrical Expansion Valve	
8	Dry Filter	
9	Reflex Valve	
10	Refrigerant charge valve	
11	Condenser Water Drain Outlet	NPT1/2"
12	Condenser Water Air Outlet	NPT1/2"
13	Chilled Water Drain Outlet	NPT1/2"
14	Chilled Water Air Outlet	NPT1/2"

NO.	Spare Parts Name	Remark
15	Condenser Water Inlet	
16	Condenser Water Outlet	
17	Chilled Water Inlet	
18	Chilled Water Outlet	
19	Power Supply Connector	
20	Chiller Name Plate	
21	Safety Valve	

**Note:**  
 Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users. Flange size is based on HG20592.

**Dimension**

**CUWD300, 350CS5YV**



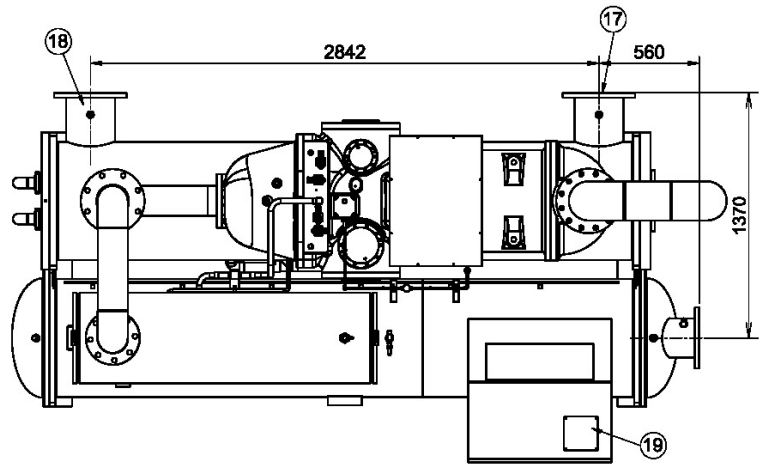
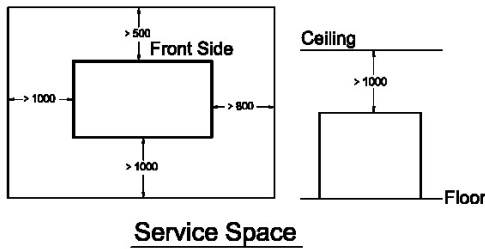
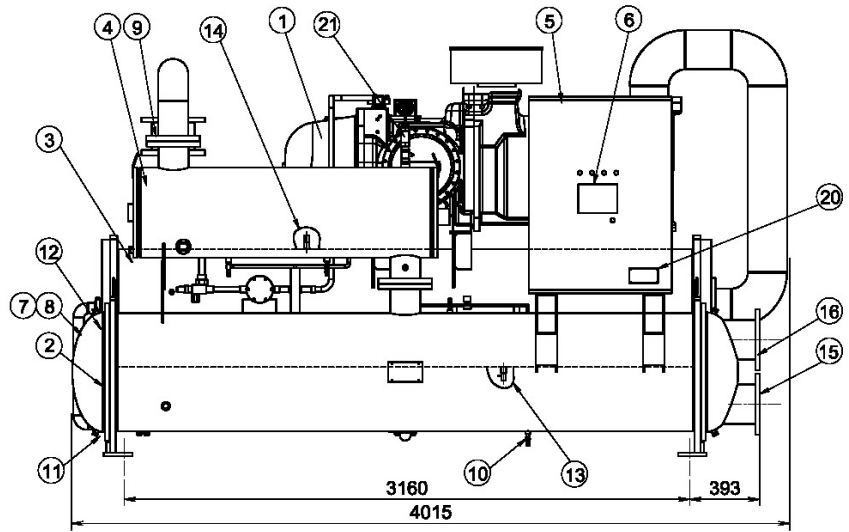
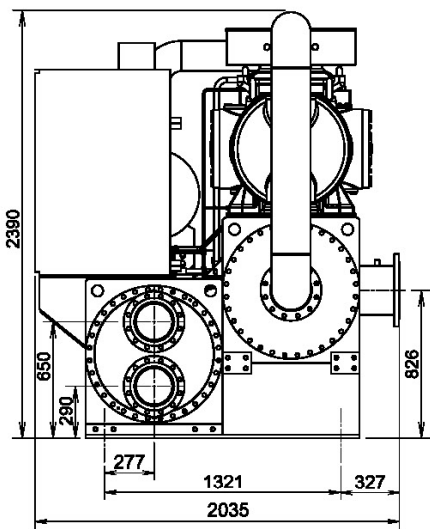
NO.	Spare Parts Name	Remark
1	Compressor	
2	Condenser	
3	Evaporator	
4	Oil Separator	
5	Control box	
6	Control Panel	
7	Electrical Expansion Valve	
8	Dry Filter	
9	Reflex Valve	
10	Refrigerant charge valve	
11	Condenser Water Drain Outlet	NPT1/2"
12	Condenser Water Air Outlet	NPT1/2"
13	Chilled Water Drain Outlet	NPT1/2"
14	Chilled Water Air Outlet	NPT1/2"

NO.	Spare Parts Name	Remark
15	Condenser Water Inlet	
16	Condenser Water Outlet	
17	Chilled Water Inlet	
18	Chilled Water Outlet	
19	Power Supply Connector	
20	Chiller Name Plate	
21	Safety Valve	

**Note:**  
 Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users. Flange size is based on HG20592.

**Dimension**

**CUWD400CS5YV**



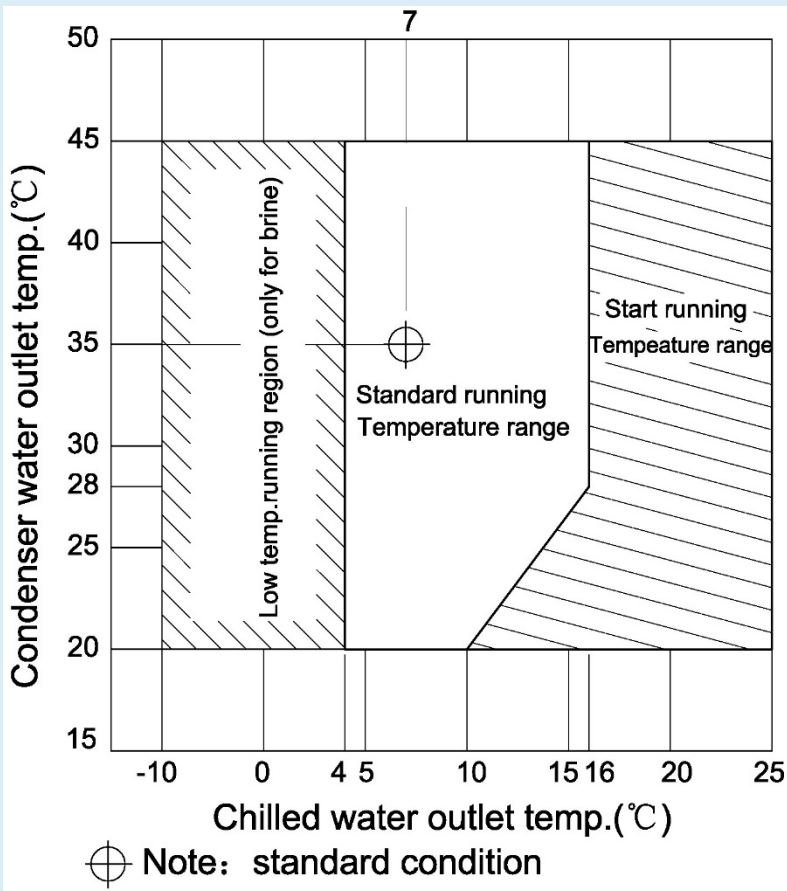
NO.	Spare Parts Name	Remark
1	Compressor	
2	Condenser	
3	Evaporator	
4	Oil Separator	
5	Control box	
6	Control Panel	
7	Electronical Expansion Valve	
8	Dry Filter	
9	Reflex Valve	
10	Refrigerant charge valve	
11	Condenser Water Drain Outlet	NPT1/2"
12	Condenser Water Air Outlet	NPT1/2"
13	Chilled Water Drain Outlet	NPT1/2"
14	Chilled Water Air Outlet	NPT1/2"

NO.	Spare Parts Name	Remark
15	Condenser Water Inlet	
16	Condenser Water Outlet	
17	Chilled Water Inlet	
18	Chilled Water Outlet	
19	Power Supply Connector	
20	Chiller Name Plate	
21	Safety Valve	

**Note:**  
 Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users. Flange size is based on HG20592.

## Operation Limits

### 1. Temperature Range



☆The minimum water flow of the system changes with the temperature control difference as follows:

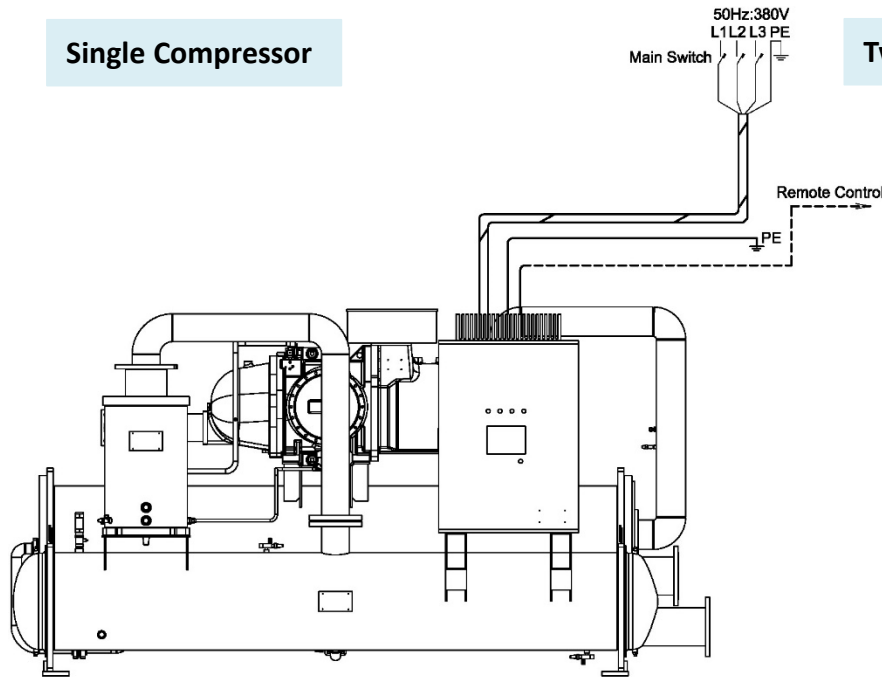
Water Temp. Accuracy	Minimum Water Volume of Internal System
1°C	200%
2°C (Factory Setting)	100%
4°C	50%

### 2. Min. & max. water volume, System Min. water volume

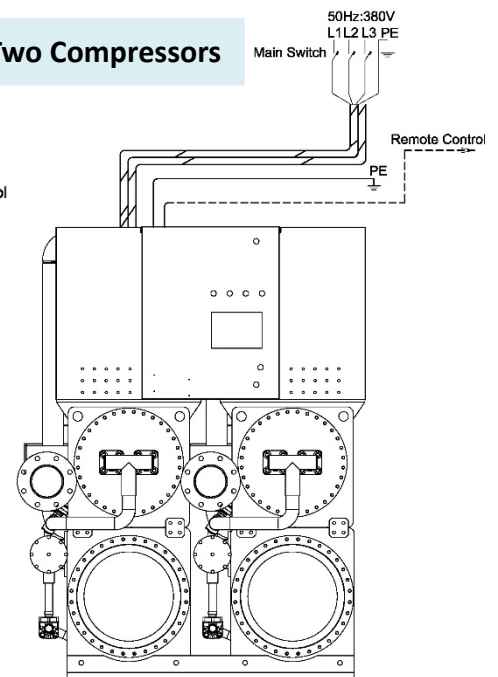
Chiller Model	Water Flow Rate (L/Min)				System Min. water volume
	Evaporator		Condenser		
	Min.	Max.	Min.	Max.	
CUWD40CS5YV	130	550	150	940	1,418
CUWD50CS5YV	160	670	180	1,140	1,733
CUWD60CS5YV	200	830	220	1,420	2,153
CUWD80CS5YV	265	1,090	290	1,870	2,835
CUWD100CS5YV	330	1,340	350	2,290	3,465
CUWD120CS5YV	410	1,660	440	2,840	4,305
CUWD150CS5YV	520	2,141	562	3,667	5,565
CUWD160CT5YV	530	2,180	580	3,740	5,670
CUWD200CT5YV	650	2,600	700	4,600	6,930
CUWD240CT5YV	810	3,320	870	5,680	8,610
CUWD200CS5YV	706	2,909	763	4,982	7,560
CUWD230CS5YV	759	2,909	763	4,982	7,560
CUWD250CS5YV	872	3,956	943	6,159	9,345
CUWD300CS5YV	1,044	4,303	1,129	7,370	11,183
CUWD350CS5YV	1,201	4,949	1,299	8,477	12,863
CUWD400CS5YV	1,392	5,737	1,505	9,826	14,910

## External Power Supply Wiring Diagram

### Single Compressor



### Two Compressors



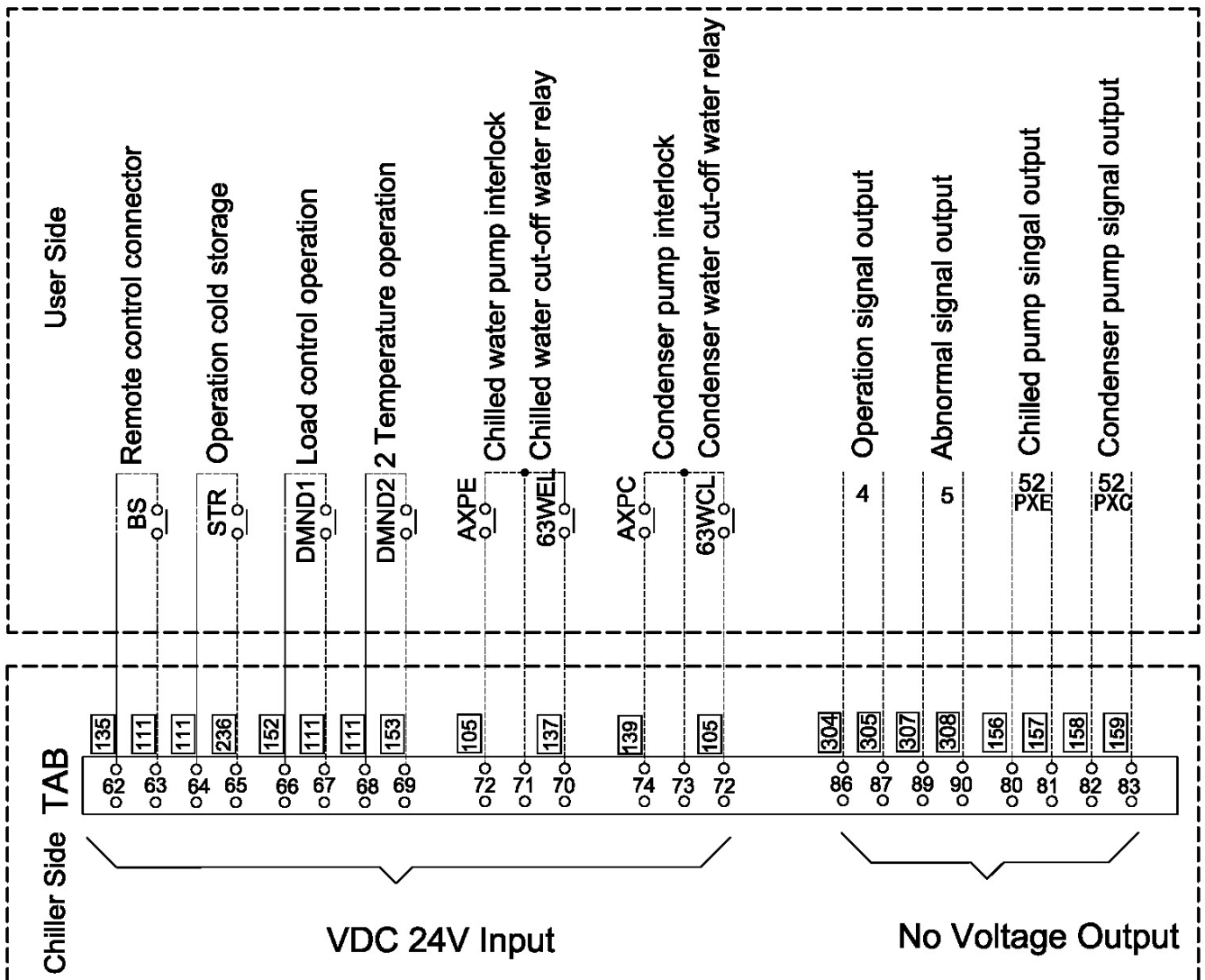
Model (Single Compressor)	Power line (L1,L2,L3) Cable Specification (mm <sup>2</sup> )	Grounding line(PE) Cable Specification (mm <sup>2</sup> )
CUWD40CS5YV	3 × 25	16
CUWD50CS5YV	3 × 25	16
CUWD60CS5YV	3 × 50	25
CUWD80CS5YV	3 × 50	25
CUWD100CS5YV	3 × 95	50
CUWD120CS5YV	3 × 95	50
CUWD150CS5YV	3 × 120	70
CUWD200CS5YV	3 × 185	95
CUWD230CS5YV	3 × 185	95
CUWD250CS5YV	3 × 240	120
CUWD300CS5YV	3 × 300	150
CUWD350CS5YV	3 × 400	185
CUWD400CS5YV	(3×185) x 2	185

Model (Two Compressors)	Power line (L1,L2,L3) Cable Specification (mm <sup>2</sup> )	Grounding line(PE) Cable Specification (mm <sup>2</sup> )
CUWD160CT5YV	3 × 120	70
CUWD200CT5YV	3 × 240	120
CUWD240CT5YV	3 × 240	120

#### Note:

- 1.The cable parameters listed above are for reference only. Due to various factors such as cable settings, cable type selection, users should calculate the wiring according to the actual situation of the project and relevant electrical standards.
- 2.When the distribution voltage fluctuates greatly (more than  $\pm 2\%$ ), the wiring specifications should be increased appropriately.
3. Grounding can be done on site or wiring with fire line from machining room.

### Internal Control Wiring Diagram



☆Important note

Please do wiring in accordance with above power supply strictly, circuit board may be burned due to excessive current.

☆About the remote control wiring

When you are using a remote control, please well connect BS line, at the same time, set "T setting - Ctrl sel." item to "Remote" on touch screen.

☆About the load control

When you adopt load control operation to control, please well connect DMND1 contact line, at the same time, set "setting - common set - Load control " item to "DMND(out)".

☆About 2 temperature control

Connect DMND2 contact line, at the same time, set "T Setting - Model Set" item to "2 Temperature".

☆Operation output signal

Stop condition: normally open contacts (304, 305) disconnect  
Running condition: normally open contacts (304, 305) closed.

☆About cold storage control

Connect STR contact line, at the same time, set "T Setting- Model Set" item to "STR(out)".

☆About water pump/ water cut-off relay interlock connection

Must connect AXPE/63WEL and AXPC/63WCL line. Chiller cannot be start if interlock line are not connected.

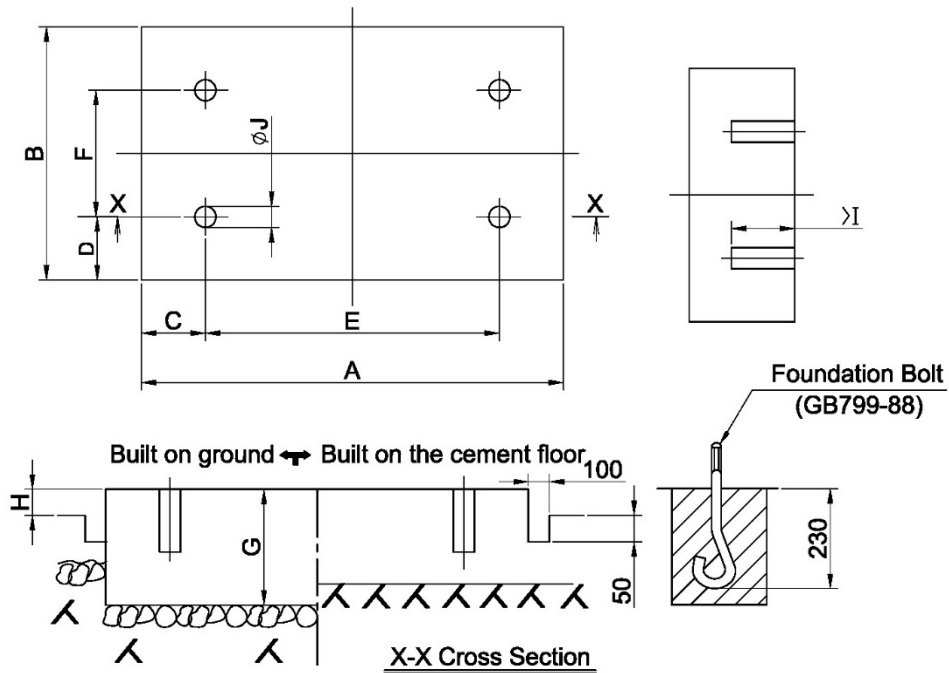
☆About the operating power supply

1. Input DC24V on unit side, We require user to enter the passive switch signal to the unit.
2. All output signals, passive dry contact provided by control box of unit. When user connects control wire, the wire capacity follow the below configuration:  
Maximum AC250V, 5A; Minimum DC5V, 100mA.

☆Fault output signal

Stop condition: disconnect  
Normal operation: disconnect  
Abnormal operation: closed

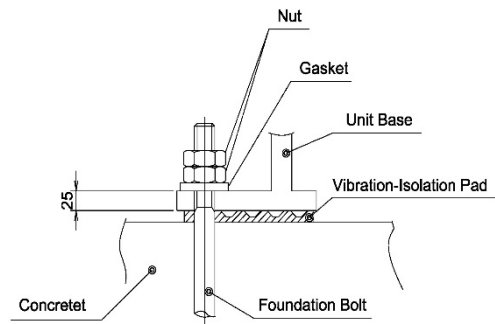
### Foundation



Model No.	A	B	C	D	E	F	G	H	I	J	K	L	Foundation Bolt	
													Size	Qty
CUWD40/50/60CS5YV	3,100	755	330	160	2,580	500	400	100	350	150	95	190	M20x300	4
CUWD80/100/120CS5YV	3,650	1,230	455	270	2,880	690	400	100	350	150	270	315	M20x300	4
CUWD150CS5YV	4,060	1,585	550	380	3,160	805	400	100	350	150	400	350	M20x300	4
CUWD160/200/240CT5YV	3,760	1,640	500	450	2,860	990	400	100	350	150	200	400	M20x300	4
CUWD200/230/250CS5YV	4,110	1,852	550	400	3,160	1,002	400	100	350	150	450	400	M20x300	4
CUWD300/350CS5YV	4,310	2,035	700	400	3,160	1,185	400	100	350	150	450	450	M20x300	4
CUWD400CS5YV	4,210	2,221	600	450	3,160	1,321	400	100	350	150	450	450	M20x300	4

**Notes:**

1. The data shown below is assumed foundation which is built on the ground or thin concrete floor. If the foundation built on solid concrete floor, then foundation should include the thickness of the concrete floor.
2. Besides 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  $\phi 10$  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  $3\mu\text{m}$ , so that it could be considered not to use vibration when installation( the picture on the right is an example).



## Warning

- 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.



**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 organization as having an appropriate program of environmental protection procedures and activities to meet the requirements of ISO 14001.

### Manufacturer

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