DAIKIN

Water Chillers With Single Screw Compressor
ZUW-B Flooded Series

Low-carbon Green

Energy-efficient

Flexible Application

Stable & Reliable



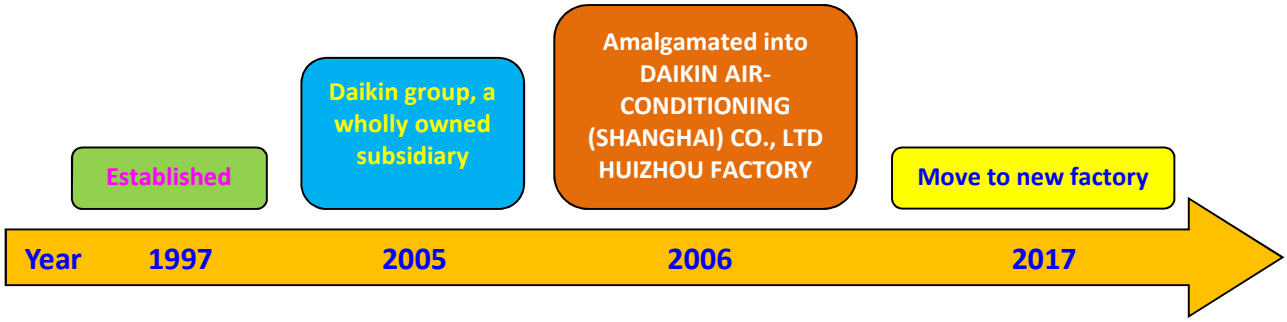

DAIKIN AIR-CONDITIONING(SHANGHAI)CO., LTD HUIZHOU FACTORY

Content

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 M²

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 ZUW-B series flooded type chiller with high efficiency shell and tube condenser and high performance flooded type evaporator. The highest COP is 6.15 which is energy-saving.

Model Naming Instructions

ZUW 150 B S 5Y (V)

- ZUW: Flooded type chiller code number
- 150: Compressor HP
- B: Product series
- S: Compressor QTY:
  S represents single compressor
  T represents two compressors
- 5Y: 50Hz, 380V, 3 phases, 4 wires
- (V): VSD Chiller

ZUW 150 B S Y1

- ZUW: Flooded type chiller code number
- 150: Compressor HP
- B: Product series
- S: Compressor QTY:
  S represents single compressor
  T represents two compressors
- Y1: 50Hz, 400V/415V, 3 phases

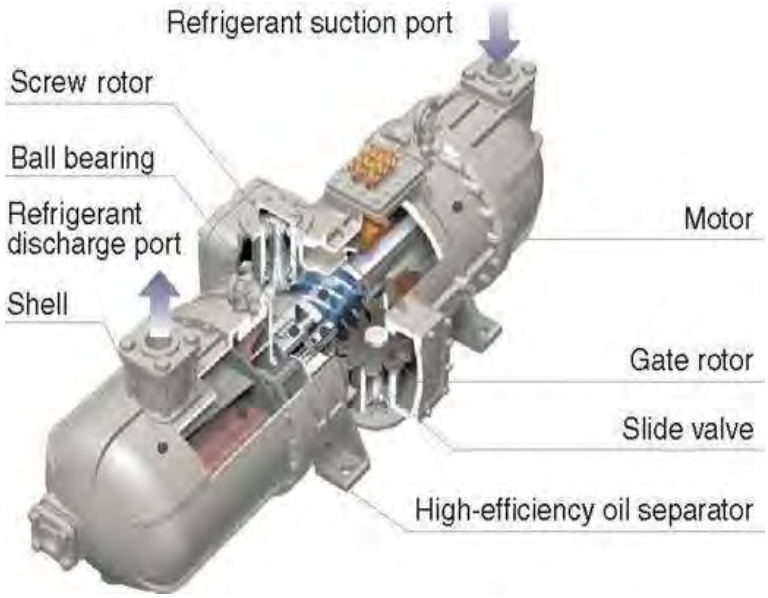
Application Place

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.

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

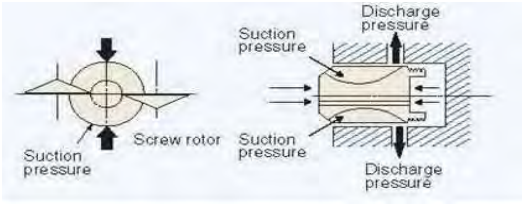
(1) Suction
Refrigerant is sucked into the screw rotor groove through the suction pipe, and when the screw rotor rotates, one tooth of the gate rotor engages with the groove, shutting the air inlet.

(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.

Heat Exchanger-Flooded Type Evaporator

- By calculating and analyzing refrigerant flow in the evaporator, redesigned the suction distributing plate , make the refrigerant flow control in a more appropriate level. At the same time , adopting the special shape heat exchange pipe which can enhance the refrigerant boiling. With these achieving high performance and minimum size successfully.

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 25% to 100%,thus achieving high-precision water temperature control.

Adopt Word-famous Electronic Components




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.
·Unit adopt standard Y-△ starting method. Soft starter or inverter starter can be selected to achieve soft starter functions to perfectly meet customers' needs.

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
☆Selection of remote transmission contacts
☆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
☆Timing switch unit control can be achieved, truly unattended

■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 abnormity
☆Freeze-up protections of chilled water and freeze-up pressure protections of refrigerant system
☆Protections of pump interlock and water flow switch abnormity
☆Protections of temperature, pressure and current sensors abnormities

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

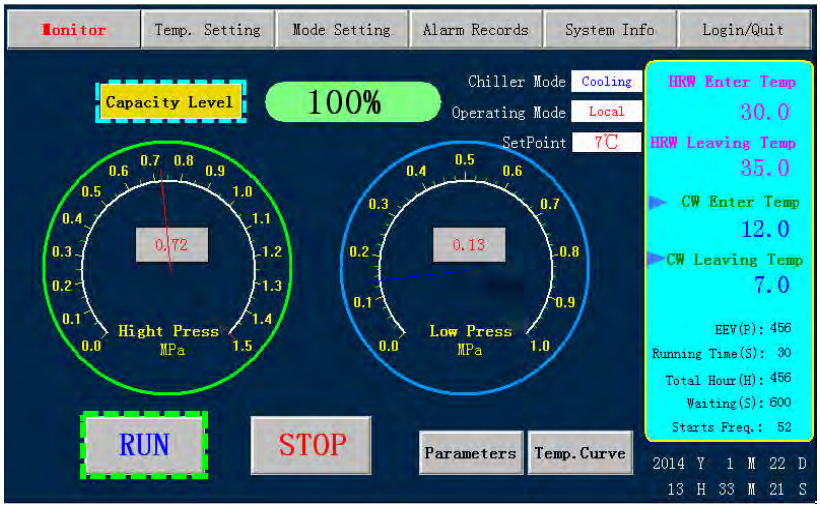
☆Cooling water and chilled water inlet/outlet temperature
☆Suction/Discharge, condensing and evaporating temperatures of refrigerant system
☆Condensing and evaporating pressures of refrigerant system
☆Compressor load and electronic expansion valve opening
☆3-phase operating current value
☆Current operation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

■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
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(Standard Model)

MODEL			ZUW100BS5Y	ZUW120BS5Y	ZUW145BS5Y	ZUW150BS5Y
Cooling Capacity (50Hz/380V)		USRT	103.8	129.1	149.6	156.4
		kW	365	454	526	550
Power Consumption		kW	66.2	82.5	98.3	95.2
COP		kW/kW	5.51	5.50	5.35	5.78
Chiller Color			Ivory White			
Chilled Water Flow		m^3/h	62.8	78.1	90.5	94.6
Condenser Water Flow		m^3/h	78.5	97.6	113.1	118.3
Dimentions(L×W×H)		mm	3,570×1,170×1,710		3,500×1,407×1,816	3,500×1,380×1,820
Compressor	Type		Semi-hermetically Sealed Single Screw			
	Starting Method		Star-delta Starter			
	Capacity Control	%	25～100% Continuous Capacity Control			
Condenser	Type		Shell and Tube			
	Quantity×Model		CF4530-B100×1	CF4530-B120×1	CF5030-B145×1	CF5030-B150×1
Evaporator	Type		Flooded			
	Quantity×Model		WF5030-B100×1	WF5030-B120×1	WF5530-B145×1	WF5530-B150×1
Refrigerant	Name		R134a			
	NO.of Circuit		1			
	Control Method		Electronic Expansion Valve			
	Charging Volume	kg	140	140	200	200
Refrigerating Oil Name			FVC68D			
Refrigerating Oil Charging Volume		L	16	16	27	35
Electric Control System			MICRO TECH Ⅲ Program Controller、LCD Touch Screen			
Safety Devices			Main Circuit Fuse, Phase Monitor, reverse-phase protection， High/Low Pressure Protector, Over-Current-Sensor(Comp.), Overheat Protector(Comp.),Freeze-up protector themostat, Overheat Sensor for Discharge Gas,Chilled water interrupt latency,Safety Valve			
Pipe OD	Chilled Water Inlet/Outlet		Φ140		Φ168	
	Condenser Water Inlet/Outlet		Φ140		Φ168	
Insulation Material			NBR/PVC Polyethelene Foam			
Machine Weight		kg	3,050	3,160	3,500	3,750
Operation Weight		kg	3,250	3,380	3,800	3,980

Remark：

1.Cooling capacity is based on the following conditions:
Chilled water outlet temperature: 7℃, Chilled water flow rate 0.172m³/(h · kW)
Condenser water inlet temperature: 30℃, Condenser water flow rate 0.215m³/(h · kW)

2.Evaporator side fouling factor 0.018m²·℃/kW, Condenser side fouling factor 0.044m²·℃/kW.

3.Power supply： 3 Phase 380V,50Hz.

4.Derivative type: Brine chiller's chilled water outlet temperature can reach the highest 4℃, the lowest - 8 ℃ running. In this condition, chiller need to adopt ethylene glycol solution as refrigerating medium, please contact manufacturer to select the low temperature condition parameters. Brine chiller named after the standard chiller name with "Z".

5.Standard chiller ZUW145/170/230/250/280/300/320/350/370/400BS5Y, ZUW240/280/300/350/400BT5Y is in the AHRI certification range and already certified. Standard ZUW100/120/150/175/200BS5Y, ZUW450/480/500BT5Y are not in range of AHRI certification but performance parameters were evaluated according to AHRI standard. Brine chiller is not in the AHRI certification range.

Specification(Standard Model)

MODEL			ZUW170BS5Y	ZUW175BS5Y	ZUW200BS5Y	ZUW230BS5Y
Cooling Capacity (50Hz/380V)		USRT	181.4	184.9	199.4	230.3
		kW	638	650	701	810
Power Consumption		kW	113.5	111.5	120.7	143.3
COP		kW/kW	5.62	5.83	5.81	5.65
Chiller Color			Ivory White			
Chilled Water Flow		m^3/h	109.7	111.8	120.6	139.3
Condenser Water Flow		m^3/h	137.2	139.8	150.7	174.2
Dimentions(L×W×H)		mm	3,595×1,440×1,860	3,500×1,380×1,820		3,595×1,440×1,860
Compressor	Type		Semi-hermetically Sealed Single Screw			
	Starting Method		Star-delta Starter			
	Capacity Control	%	25～100% Continuous Capacity Control			
Condenser	Type		Shell and Tube			
	Quantity×Model		CF5530-B170×1	CF5030-B175×1	CF5030-B200×1	CF5530-B230×1
Evaporator	Type		Flooded			
	Quantity×Model		WF6030-B170×1	WF5530-B175×1	WF5530-B200×1	WF6030-B230×1
Refrigerant	Name		R134a			
	NO.of Circuit		1			
	Control Method		Electronic Expansion Valve			
	Charging Volume	kg	200	200	220	250
Refrigerating Oil Name			FVC68D			
Refrigerating Oil Charging Volume		L	30	35	35	30
Electric Control System			MICRO TECH Ⅲ Program Controller、LCD Touch Screen			
Safety Devices			Main Circuit Fuse, Phase Monitor, reverse-phase protection， High/Low Pressure Protector, Over-Current-Sensor(Comp.), Overheat Protector(Comp.),Freeze-up protector themostat, Overheat Sensor for Discharge Gas,Chilled water interrupt latency,Safety Valve			
Pipe OD	Chilled Water Inlet/Outlet		Φ168			
	Condenser Water Inlet/Outlet		Φ168			
Insulation Material			NBR/PVC Polyethelene Foam			
Machine Weight		kg	4,170	4,000	4,230	4,600
Operation Weight		kg	4,570	4,280	4,530	5,000

Remark：

1.Cooling capacity is based on the following conditions:
Chilled water outlet temperature: 7℃, Chilled water flow rate 0.172m³/(h · kW)
Condenser water inlet temperature: 30℃, Condenser water flow rate 0.215m³/(h · kW)

2.Evaporator side fouling factor 0.018m²·℃/kW, Condenser side fouling factor 0.044m²·℃/kW.

3.Power supply： 3 Phase 380V,50Hz.

4.Derivative type: Brine chiller's chilled water outlet temperature can reach the highest 4℃, the lowest - 8 ℃ running. In this condition, chiller need to adopt ethylene glycol solution as refrigerating medium, please contact manufacturer to select the low temperature condition parameters. Brine chiller named after the standard chiller name with "Z".

5.Standard chiller ZUW145/170/230/250/280/300/320/350/370/400BS5Y, ZUW240/280/300/350/400BT5Y is in the AHRI certification range and already certified. Standard ZUW100/120/150/175/200BS5Y, ZUW450/480/500BT5Y are not in range of AHRI certification but performance parameters were evaluated according to AHRI standard. Brine chiller is not in the AHRI certification range.

Specification(Standard Model)

MODEL			ZUW250BS5Y	ZUW280BS5Y	ZUW300BS5Y	ZUW320BS5Y
Cooling Capacity (50Hz/380V)		USRT	255.9	287.2	305.7	321.9
		kW	900	1,010	1,075	1,132
Power Consumption		kW	148.7	165.6	178.7	187.5
COP		kW/kW	6.05	6.10	6.02	6.04
Chiller Color			Ivory White			
Chilled Water Flow		m^3/h	154.8	173.7	184.9	194.7
Condenser Water Flow		m^3/h	193.5	217.2	231.1	243.4
Dimentions(L×W×H)		mm	4,140×1,880×2,210			
Compressor	Type		Semi-hermetically Sealed Single Screw			
	Starting Method		Star-delta Starter			
	Capacity Control	%	25~100% Continuous Capacity Control			
Condenser	Type		Shell and Tube			
	Quantity×Model		CF6536-B250×1	CF6536-B280A×1	CF6536-B300A×1	CF6536-B320×1
Evaporator	Type		Flooded			
	Quantity×Model		WF6536-B250×1	WF6536-B280A×1	WF6536-B300A×1	WF6536-B320×1
Refrigerant	Name		R134a			
	NO.of Circuit		1			
	Control Method		Electronic Expansion Valve			
	Charging Volume	kg	310	350	360	370
Refrigerating Oil Name			FVC68D			
Refrigerating Oil Charging Volume		L	60	65	65	65
Electric Control System			MICRO TECH Ⅲ Program Controller、LCD Touch Screen			
Safety Devices			Main Circuit Fuse, Phase Monitor, reverse-phase protection, High/Low Pressure Protector, Over-Current-Sensor(Comp.), Overheat Protector(Comp.),Freeze-up protector themostat, Overheat Sensor for Discharge Gas,Chilled water interrupt latency,Safety Valve			
Pipe OD	Chilled Water Inlet/Outlet		Φ219			
	Condenser Water Inlet/Outlet		Φ219			
Insulation Material			NBR/PVC Polyethelene Foam			
Machine Weight		kg	6,100	6,200	6,400	6,500
Operation Weight		kg	6,550	6,700	6,900	7,100

Remark：

1.Cooling capacity is based on the following conditions:
Chilled water outlet temperature: 7℃, Chilled water flow rate 0.172m³/(h · kW)
Condenser water inlet temperature: 30℃, Condenser water flow rate 0.215m³/(h · kW)

2.Evaporator side fouling factor 0.018m²·℃/kW, Condenser side fouling factor 0.044m²·℃/kW.

3.Power supply： 3 Phase 380V,50Hz.

4.Derivative type: Brine chiller's chilled water outlet temperature can reach the highest 4℃, the lowest - 8 ℃ running. In this condition, chiller need to adopt ethylene glycol solution as refrigerating medium, please contact manufacturer to select the low temperature condition parameters. Brine chiller named after the standard chiller name with "Z".

5.Standard chiller ZUW145/170/230/250/280/300/320/350/370/400BS5Y, ZUW240/280/300/350/400BT5Y is in the AHRI certification range and already certified. Standard ZUW100/120/150/175/200BS5Y, ZUW450/480/500BT5Y are not in range of AHRI certification but performance parameters were evaluated according to AHRI standard. Brine chiller is not in the AHRI certification range.

Specification(Standard Model)

MODEL			ZUW350BS5Y	ZUW370BS5Y	ZUW400BS5Y
Cooling Capacity (50Hz/380V)		USRT	352.6	366.8	405.5
		kW	1,240	1,290	1,426
Power Consumption		kW	205.0	218.3	236.5
COP		kW/kW	6.05	5.91	6.03
Chiller Color			Ivory White		
Chilled Water Flow		m^3/h	213.3	221.9	245.3
Condenser Water Flow		m^3/h	266.6	277.4	306.6
Dimentions(L×W×H)		mm	4,140×1,860×2,380		
Compressor	Type		Semi-hermetically Sealed Single Screw		
	Starting Method		Star-delta Starter		
	Capacity Control	%	25～100% Continuous Capacity Control		
Condenser	Type		Shell and Tube		
	Quantity×Model		CF6536-B350A×1	CF6536-B370×1	CF6536-B400A×1
Evaporator	Type		Flooded		
	Quantity×Model		WF6536-B350A×1	WF6536-B370×1	WF6536-B400A×1
Refrigerant	Name		R134a		
	NO.of Circuit		1		
	Control Method		Electronic Expansion Valve		
	Charging Volume	kg	400	405	410
Refrigerating Oil Name			FVC68D		
Refrigerating Oil Charging Volume		L	70	70	70
Electric Control System			MICRO TECH Ⅲ Program Controller、LCD Touch Screen		
Safety Devices			Main Circuit Fuse, Phase Monitor, reverse-phase protection, High/Low Pressure Protector, Over-Current-Sensor(Comp.), Overheat Protector(Comp.),Freeze-up protector themostat, Overheat Sensor for Discharge Gas,Chilled water interrupt latency,Safety Valve		
Pipe OD	Chilled Water Inlet/Outlet		Φ219		
	Condenser Water Inlet/Outlet		Φ219		
Insulation Material			NBR/PVC Polyethelene Foam		
Machine Weight		kg	7,200	7,300	7,400
Operation Weight		kg	8,000	8,100	8,200

Remark：

1.Cooling capacity is based on the following conditions:
Chilled water outlet temperature: 7℃, Chilled water flow rate 0.172m³/(h・kW)
Condenser water inlet temperature: 30℃, Condenser water flow rate 0.215m³/(h・kW)

2.Evaporator side fouling factor 0.018m²·℃/kW, Condenser side fouling factor 0.044m²·℃/kW.

3.Power supply： 3 Phase 380V,50Hz.

4.Derivative type: Brine chiller's chilled water outlet temperature can reach the highest 4℃, the lowest - 8 ℃ running. In this condition, chiller need to adopt ethylene glycol solution as refrigerating medium, please contact manufacturer to select the low temperature condition parameters. Brine chiller named after the standard chiller name with "Z".

5.Standard chiller ZUW145/170/230/250/280/300/320/350/370/400BS5Y, ZUW240/280/300/350/400BT5Y is in the AHRI certification range and already certified. Standard ZUW100/120/150/175/200BS5Y, ZUW450/480/500BT5Y are not in range of AHRI certification but performance parameters were evaluated according to AHRI standard. Brine chiller is not in the AHRI certification range.

Specification(Standard Model)

MODEL			ZUW240BT5Y	ZUW280BT5Y	ZUW300BT5Y	ZUW350BT5Y
Cooling Capacity (50Hz/380V)		USRT	247.4	290.1	327.1	358.3
		kW	870	1,020	1,150	1,260
Power Consumption		kW	158.2	174.4	196.6	212.8
COP		kW/kW	5.50	5.85	5.85	5.92
Chiller Color			Ivory White			
Chilled Water Flow		m^3/h	149.6	175.4	197.8	216.7
Condenser Water Flow		m^3/h	187.1	219.3	247.3	270.9
Dimentions(L×W×H)		mm	3,850×1,400×1,860	4,140×1,820×2,230		
Compressor	Type		Semi-hermetically Sealed Single Screw			
	Starting Method		Star-delta Starter			
	Capacity Control	%	25 ~ 100% Continuous Capacity Control			
Condenser	Type		Shell and Tube			
	Quantity×Model		CF5530-B240×1	CF6536-B280×1	CF6536-B300×1	CF6536-B350×1
Evaporator	Type		Flooded			
	Quantity×Model		WF6030-B240×1	WF6536-B280×1	WF6536-B300×1	WF6536-B350×1
Refrigerant	Name		R134a			
	NO.of Circuit		1			
	Control Method		Electronic Expansion Valve			
	Charging Volume	kg	270	350	370	400
Refrigerating Oil Name			FVC68D			
Refrigerating Oil Charging Volume		L	32	32	60	70
Electric Control System			MICRO TECH Ⅲ Program Controller、LCD Touch Screen			
Safety Devices			Main Circuit Fuse, Phase Monitor, reverse-phase protection， High/Low Pressure Protector, Over-Current-Sensor(Comp.), Overheat Protector(Comp.),Freeze-up protector themostat, Overheat Sensor for Discharge Gas,Chilled water interrupt latency,Safety Valve			
Pipe OD	Chilled Water Inlet/Outlet		Φ168	Φ219		
	Condenser Water Inlet/Outlet		Φ168	Φ219		
Insulation Material			NBR/PVC Polyethelene Foam			
Machine Weight		kg	4,900	6,750	6,810	7,200
Operation Weight		kg	5,250	7,170	7,250	7,820

Remark：

1.Cooling capacity is based on the following conditions:
Chilled water outlet temperature: 7℃, Chilled water flow rate 0.172m³/(h · kW)
Condenser water inlet temperature: 30℃, Condenser water flow rate 0.215m³/(h · kW)

2.Evaporator side fouling factor 0.018m²·℃/kW, Condenser side fouling factor 0.044m²·℃/kW.

3.Power supply： 3 Phase 380V,50Hz.

4.Derivative type: Brine chiller's chilled water outlet temperature can reach the highest 4℃, the lowest - 8 ℃ running. In this condition, chiller need to adopt ethylene glycol solution as refrigerating medium, please contact manufacturer to select the low temperature condition parameters. Brine chiller named after the standard chiller name with "Z".

5.Standard chiller ZUW145/170/230/250/280/300/320/350/370/400BS5Y, ZUW240/280/300/350/400BT5Y is in the AHRI certification range and already certified. Standard ZUW100/120/150/175/200BS5Y, ZUW450/480/500BT5Y are not in range of AHRI certification but performance parameters were evaluated according to AHRI standard. Brine chiller is not in the AHRI certification range.

Specification(Standard Model)

MODEL			ZUW400BT5Y	ZUW450BT5Y	ZUW480BT5Y	ZUW500BT5Y
Cooling Capacity (50Hz/380V)		USRT	412.4	460.1	509.5	534.5
		kW	1,450	1,618	1,792	1,880
Power Consumption		kW	248.7	268.5	293.3	305.6
COP		kW/kW	5.83	6.03	6.11	6.15
Chiller Color			Ivory White			
Chilled Water Flow		m^3/h	249.4	278.3	308.2	323.4
Condenser Water Flow		m^3/h	311.8	347.9	385.3	404.2
Dimentions(L×W×H)		mm	4,140×1,820×2,230	4,412×2,010×2,142	4,828×1,960×2,248	
Compressor	Type		Semi-hermetically Sealed Single Screw			
	Starting Method		Star-delta Starter			
	Capacity Control	%	25～100% Continuous Capacity Control			
Condenser	Type		Shell and Tube			
	Quantity×Model		CF6536-B400×1	CF7036-B450×1	CF7036-B480×1	CF7036-B500×1
Evaporator	Type		Flooded			
	Quantity×Model		WF6536-B400×1	WF7036-B450×1	WF7036-B480×1	WF7036-B500×1
Refrigerant	Name		R134a			
	NO.of Circuit		1			
	Control Method		Electronic Expansion Valve			
	Charging Volume	kg	410	445	475	525
Refrigerating Oil Name			FVC68D			
Refrigerating Oil Charging Volume		L	70	60	65	65
Electric Control System			MICRO TECH Ⅲ Program Controller、LCD Touch Screen			
Safety Devices			Main Circuit Fuse, Phase Monitor, reverse-phase protection， High/Low Pressure Protector, Over-Current-Sensor(Comp.), Overheat Protector(Comp.),Freeze-up protector themostat, Overheat Sensor for Discharge Gas,Chilled water interrupt latency,Safety Valve			
Pipe OD	Chilled Water Inlet/Outlet		Φ219			
	Condenser Water Inlet/Outlet		Φ219			
Insulation Material			NBR/PVC Polyethelene Foam			
Machine Weight		kg	7,320	8,100	9,300	9,400
Operation Weight		kg	8,010	8,600	10,000	10,100

Remark：

1.Cooling capacity is based on the following conditions:
Chilled water outlet temperature: 7℃, Chilled water flow rate 0.172m³/(h · kW)
Condenser water inlet temperature: 30℃, Condenser water flow rate 0.215m³/(h · kW)

2.Evaporator side fouling factor 0.018m²·℃/kW, Condenser side fouling factor 0.044m²·℃/kW.

3.Power supply： 3 Phase 380V,50Hz.

4.Derivative type: Brine chiller's chilled water outlet temperature can reach the highest 4℃, the lowest - 8 ℃ running. In this condition, chiller need to adopt ethylene glycol solution as refrigerating medium, please contact manufacturer to select the low temperature condition parameters. Brine chiller named after the standard chiller name with "Z".

5.Standard chiller ZUW145/170/230/250/280/300/320/350/370/400BS5Y, ZUW240/280/300/350/400BT5Y is in the AHRI certification range and already certified. Standard ZUW100/120/150/175/200BS5Y, ZUW450/480/500BT5Y are not in range of AHRI certification but performance parameters were evaluated according to AHRI standard. Brine chiller is not in the AHRI certification range.

Specification(Inverter Model)

MODEL			ZUW150BS5YV	ZUW200BS5YV	ZUW250BS5YV	ZUW300BS5YV
Cooling Capacity (50Hz/380V)		USRT	150.7	201.0	255.9	305.7
		kW	530	707	900	1,075
Power Consumption		kW	92.0	121.5	160.5	184.7
COP		kW/kW	5.76	5.82	5.61	5.82
IPLV			8.35	8.20	8.05	8.64
Chiller Color			Ivory White			
Chilled Water Flow		m^3/h	91.2	121.6	154.8	184.9
Condenser Water Flow		m^3/h	114.0	152.0	193.5	231.1
Dimentions(L×W×H)		mm	3530×1635×2140	3600×1720×2175	3,595×1,720×2,175	4,135×2,010×2,245
Compressor	Type		Semi-hermetically Sealed Single Screw			
	Starting Method		Virable Speed Drive			
	Capacity Control	%	20～100% Continuous Capacity Control			
Condenser	Type		Shell and Tube			
	Quantity×Model		CF5030-B150V×1	CF5530-B200V×1	CF5530-B250B×1	CF6536-B300B×1
Evaporator	Type		Flooded			
	Quantity×Model		WF5530-B150V×1	WF6030-B200V×1	WF6030-B250×1	WF6536-B300A×1
Refrigerant	Name		R134a			
	NO.of Circuit		1			
	Control Method		Electronic Expansion Valve			
	Charging Volume	kg	200	220	290	360
Refrigerating Oil Name			FVC68D			
Refrigerating Oil Charging Volume		L	27	30	30	65
Electric Control System			MICRO TECH Ⅲ Program Controller、LCD Touch Screen			
Safety Devices			Main Circuit Fuse, Phase Monitor, reverse-phase protection， High/Low Pressure Protector， Over-Current-Sensor(Comp.), Overheat Protector(Comp.),Freeze-up protector themostat， Overheat Sensor for Discharge Gas,Chilled water interrupt latency, Safety Valve			
Pipe OD	Chilled Water Inlet/Outlet		Φ168			Φ219
	Condenser Water Inlet/Outlet		Φ168			Φ219
Insulation Material			NBR/PVC Polyethelene Foam			
Machine Weight		kg	3,620	4,560	5,740	6,720
Operation Weight		kg	3,850	4,860	6,520	7,600

Remark：

1.Cooling capacity is based on the following conditions:

Chilled water outlet temperature: 7℃, Chilled water flow rate 0.172m^3/(h · kW)

Condenser water inlet temperature: 30℃, Condenser water flow rate 0.215m^3/(h · kW)

2.Evaporator side fouling factor 0.018m^2·℃/kW, Condenser side fouling factor 0.044m^2·℃/kW.

3.Power supply： 3 Phase 380V,50Hz.

Specification(Inverter Model)

MODEL			ZUW350BS5YV	ZUW400BS5YV	ZUW450BT5YV	ZUW500BT5YV
Cooling Capacity (50Hz/380V)		USRT	354.3	412.3	449.8	502.1
		kW	1,246	1,450	1,582	1,766
Power Consumption		kW	214.0	249.5	272.3	303.9
COP		kW/kW	5.82	5.81	5.81	5.81
IPLV			8.64	8.71	8.55	8.20
Chiller Color			Ivory White			
Chilled Water Flow		m^3/h	214.3	249.4	272.1	303.8
Condenser Water Flow		m^3/h	267.9	311.8	340.1	379.7
Dimentions(L×W×H)		mm	4,135×2,010×2,245	4,135×1,995×2,380	4415×2135×2275	
Compressor	Type		Semi-hermetically Sealed Single Screw			
	Starting Method		Virable Speed Drive			
	Capacity Control	%	20～100% Continuous Capacity Control			
Condenser	Type		Shell and Tube			
	Quantity×Model		CF6536-B350B×1	CF6536-B400B×1	CF7036-B450V×1	CF7036-B500V×1
Evaporator	Type		Flooded			
	Quantity×Model		WF6536-B350B×1	WF6536-B400A×1	WF7036-B450×1	WF7036-B500V×1
Refrigerant	Name		R134a			
	NO.of Circuit		1			
	Control Method		Electronic Expansion Valve			
	Charging Volume	kg	400	410	445	475
Refrigerating Oil Name			FVC68D			
Refrigerating Oil Charging Volume		L	70	70	60	60
Electric Control System			MICRO TECH Ⅲ Program Controller、LCD Touch Screen			
Safety Devices			Main Circuit Fuse, Phase Monitor, reverse-phase protection， High/Low Pressure Protector, Over-Current-Sensor(Comp.), Overheat Protector(Comp.),Freeze-up protector themostat, Overheat Sensor for Discharge Gas,Chilled water interrupt latency, Safety Valve			
Pipe OD	Chilled Water Inlet/Outlet		Φ219			
	Condenser Water Inlet/Outlet		Φ220			
Insulation Material			NBR/PVC Polyethelene Foam			
Machine Weight		kg	7,050	7,890	8,080	8,210
Operation Weight		kg	8,060	8,970	8,795	8,971

Remark：

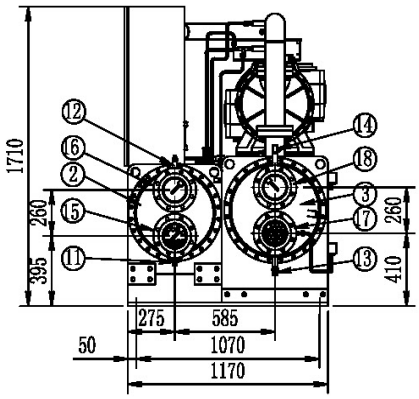
1.Cooling capacity is based on the following conditions:
Chilled water outlet temperature: 7℃, Chilled water flow rate 0.172m³/(h · kW)
Condenser water inlet temperature: 30℃, Condenser water flow rate 0.215m³/(h · kW)

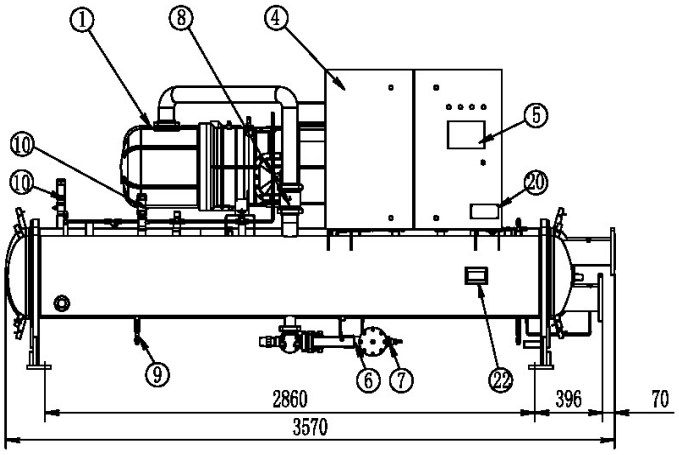
2.Evaporator side fouling factor 0.018m^2·℃/kW, Condenser side fouling factor 0.044m^2·℃/kW.

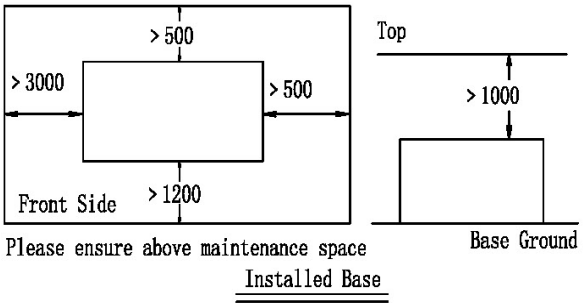
3.Power supply： 3 Phase 380V,50Hz.

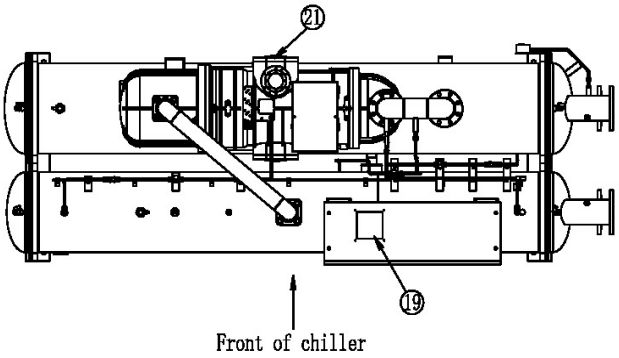
Dimension

ZUW100, 120BS5Y(Z)









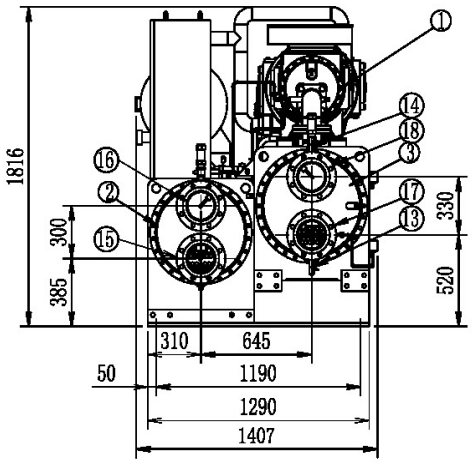
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

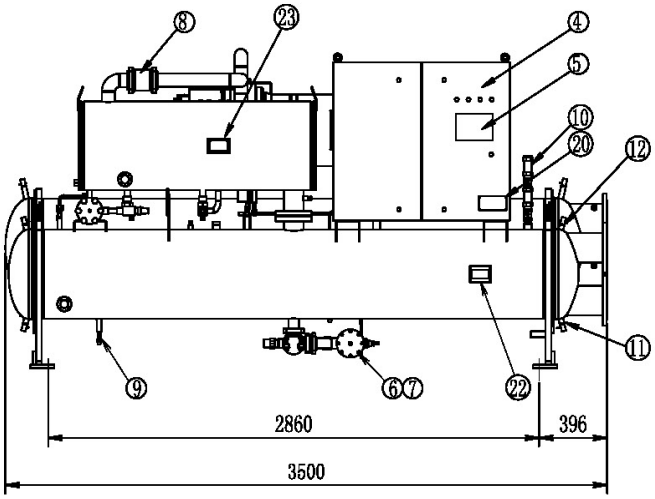
NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ 140
16	Condenser Water Outlet	Φ 140
17	Chilled Water Inlet	Φ 140
18	Chilled Water Outlet	Φ 140
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	

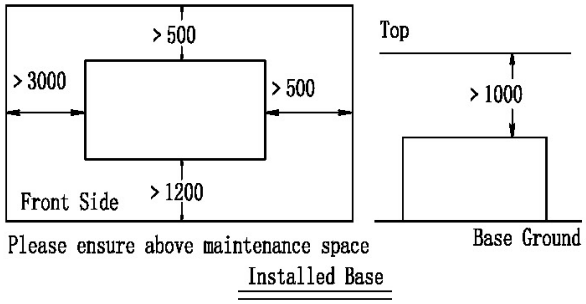
Note:
Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users. Flange size is based on HG20592.

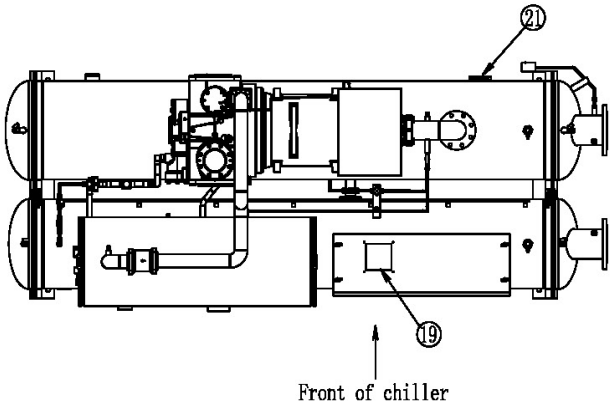
Dimension

ZUW145BS5Y(Z)









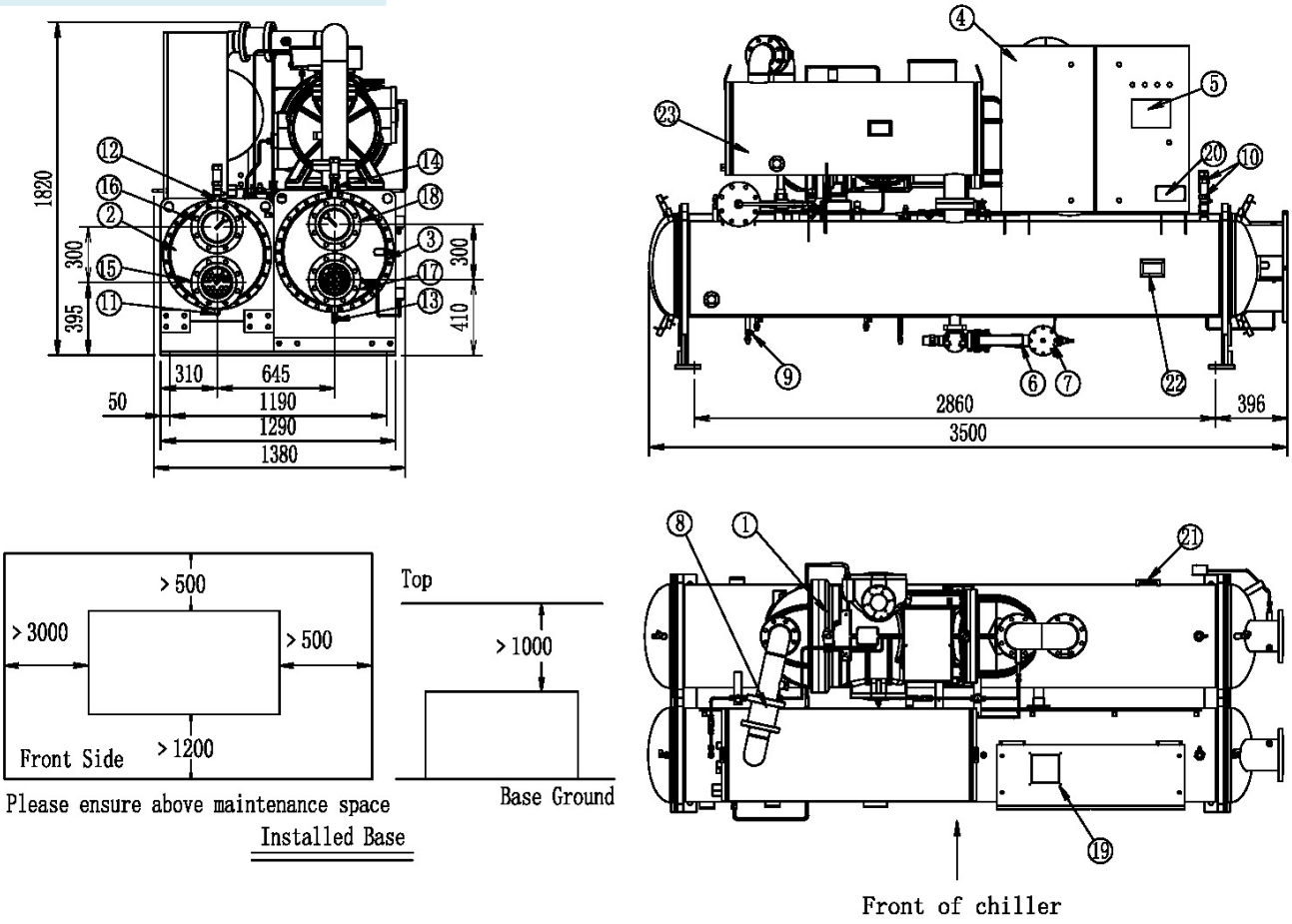
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ 168
16	Condenser Water Outlet	Φ 168
17	Chilled Water Inlet	Φ 168
18	Chilled Water Outlet	Φ 168
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

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

Dimension

ZUW150, 175, 200BS5Y(Z)



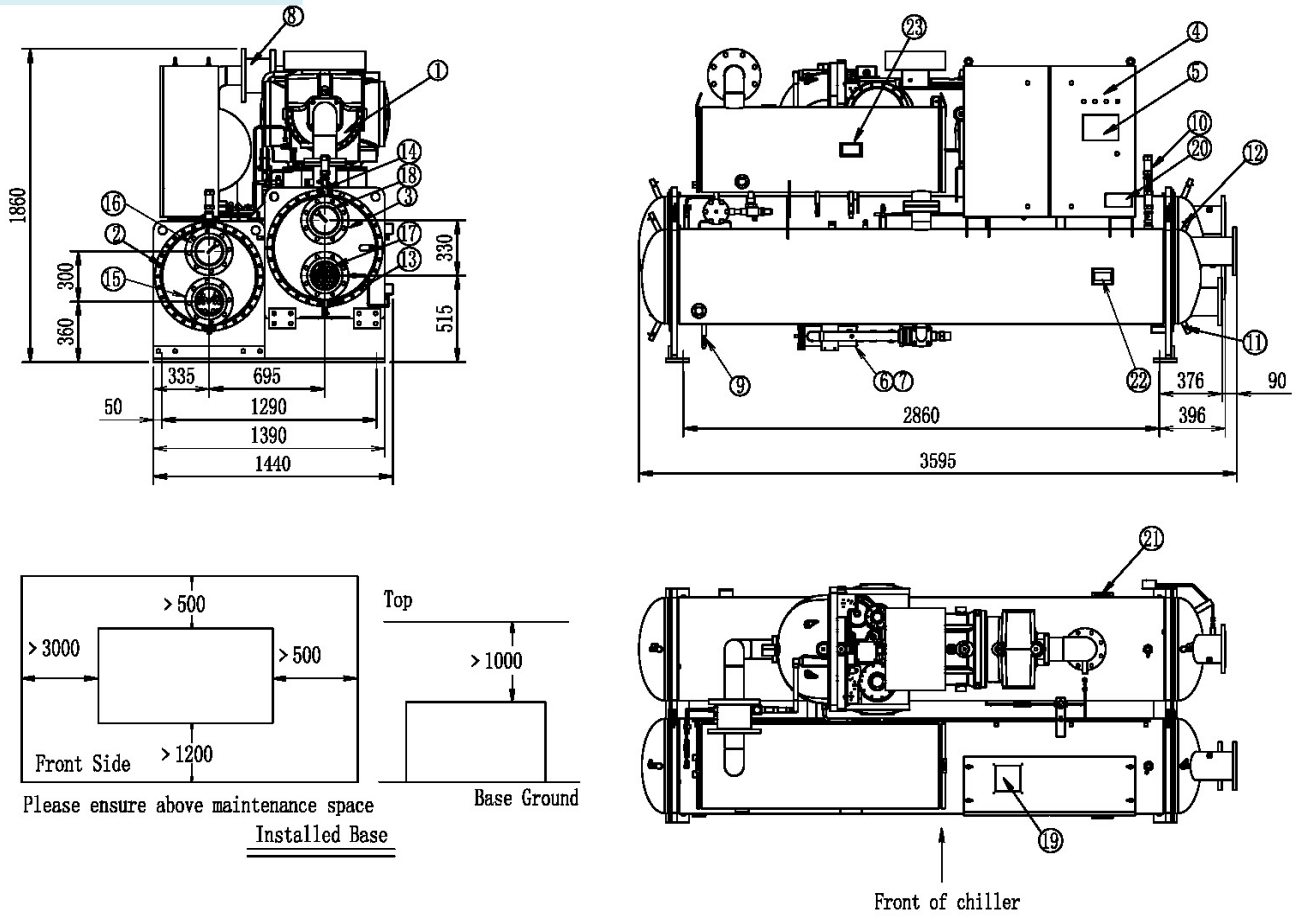
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ 168
16	Condenser Water Outlet	Φ 168
17	Chilled Water Inlet	Φ 168
18	Chilled Water Outlet	Φ 168
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

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

Dimension

ZUW170, 230BS5Y(Z)



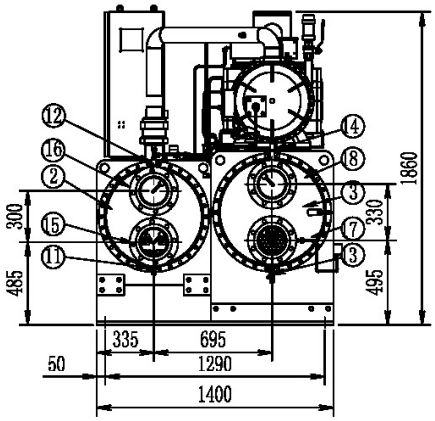
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

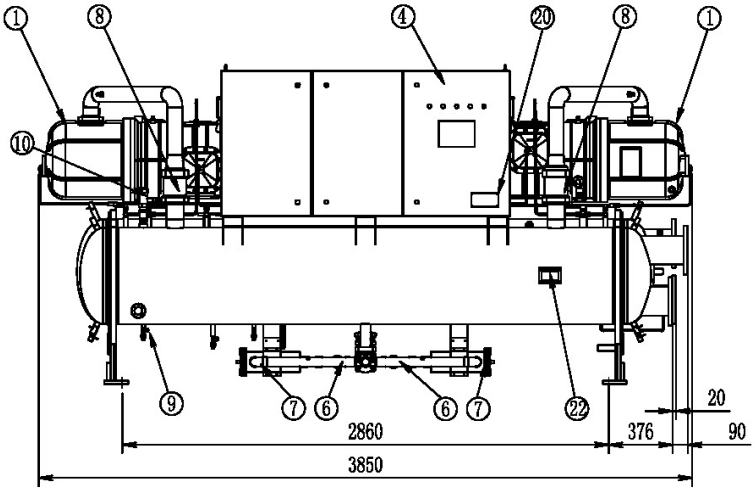
NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ 168
16	Condenser Water Outlet	Φ 168
17	Chilled Water Inlet	Φ 168
18	Chilled Water Outlet	Φ 168
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

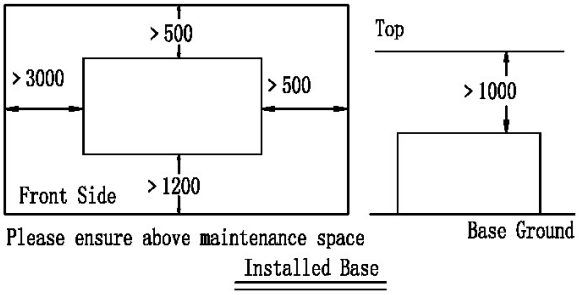
Note:
Flange cooling water and chilled water
(Refrigerant) nozzle is self-prepared by users.
Flange size is based on HG20592.

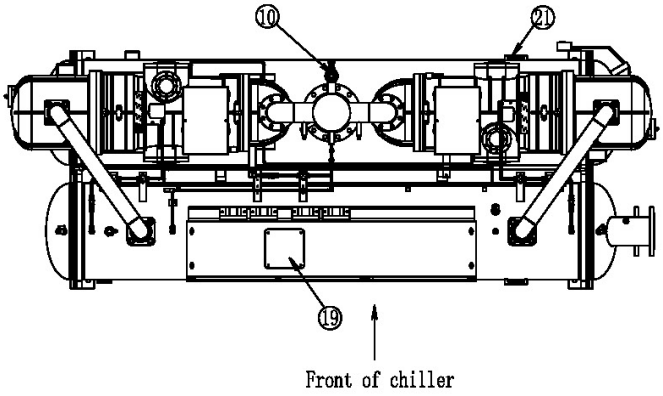
Dimension

ZUW240BT5Y(Z)









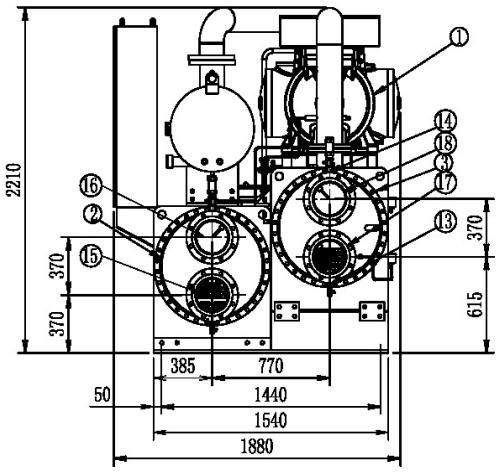
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

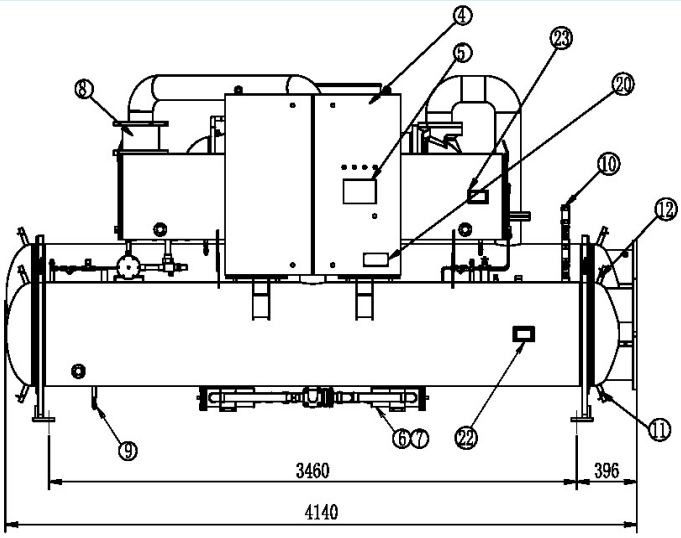
NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ 168
16	Condenser Water Outlet	Φ 168
17	Chilled Water Inlet	Φ 168
18	Chilled Water Outlet	Φ 168
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	

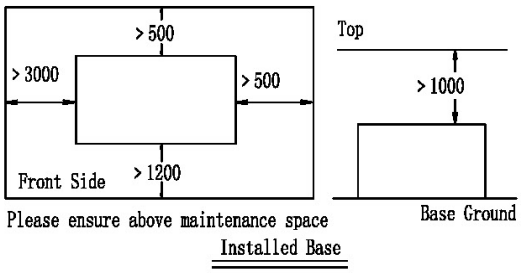
Note:
Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users. Flange size is based on HG20592.

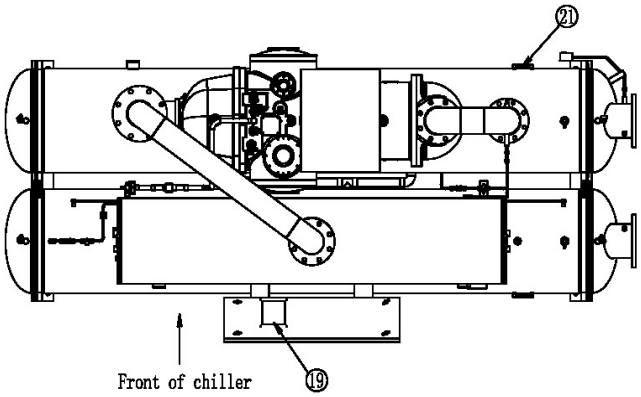
Dimension

ZUW250, 280, 300, 320BS5Y(Z)









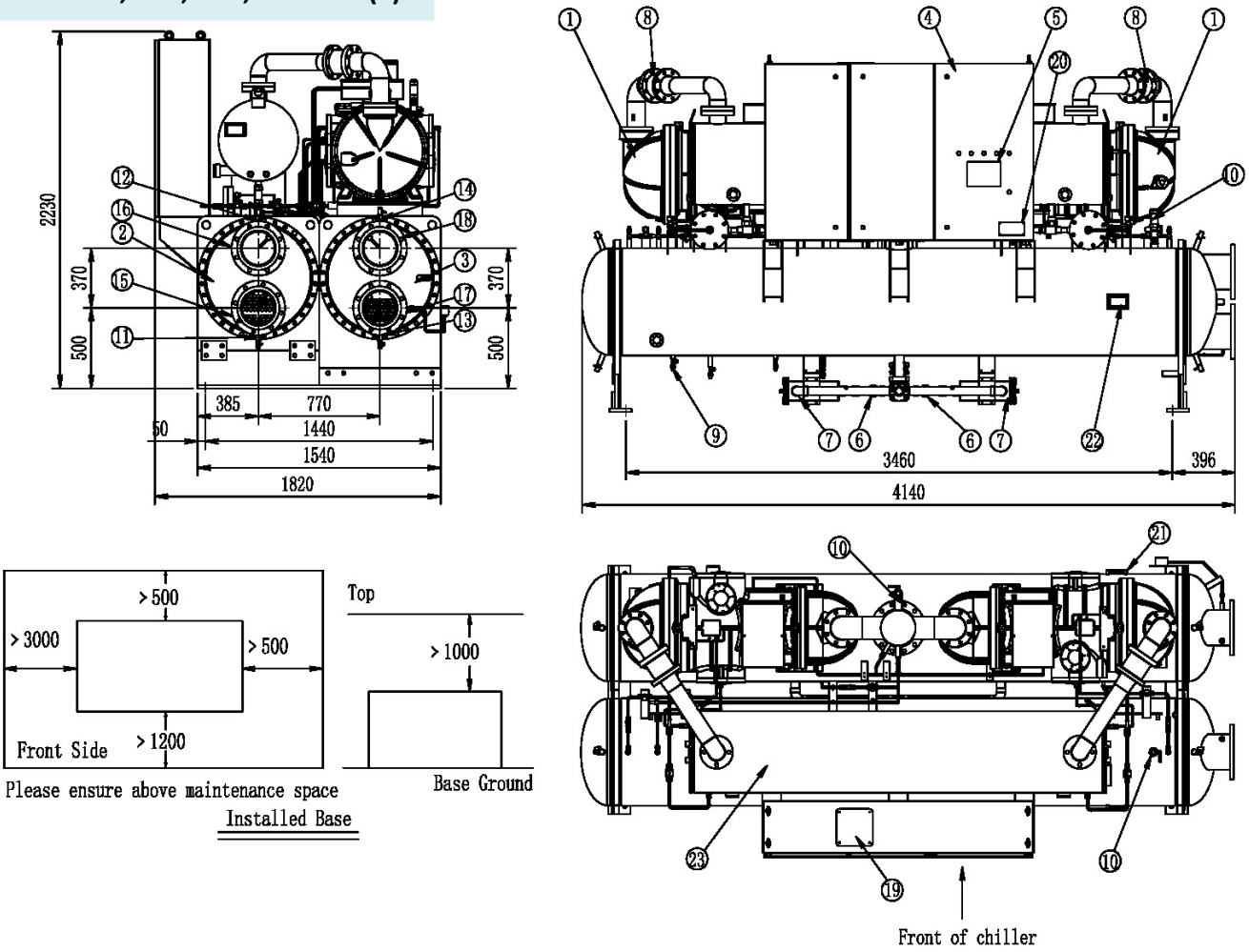
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ219
16	Condenser Water Outlet	Φ219
17	Chilled Water Inlet	Φ219
18	Chilled Water Outlet	Φ219
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

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

Dimension

ZUW280, 300, 350, 400BT5Y(Z)



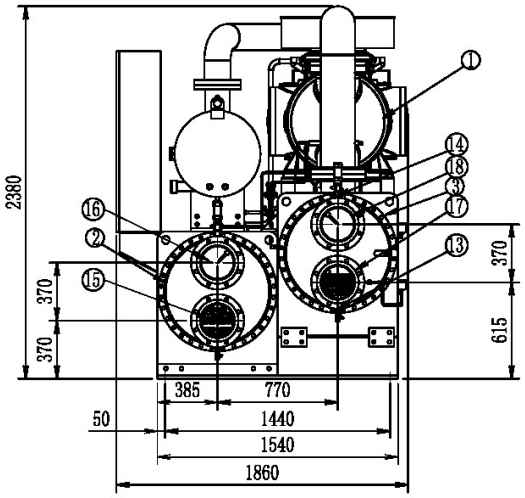
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

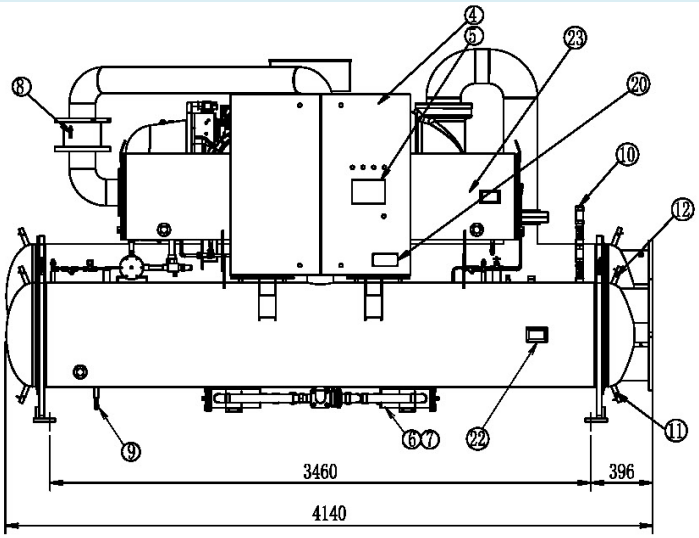
NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ219
16	Condenser Water Outlet	Φ219
17	Chilled Water Inlet	Φ219
18	Chilled Water Outlet	Φ219
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

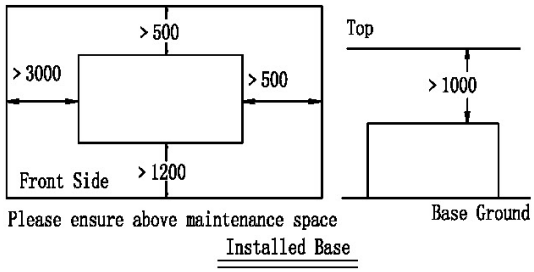
Note:
Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users. Flange size is based on HG20592.

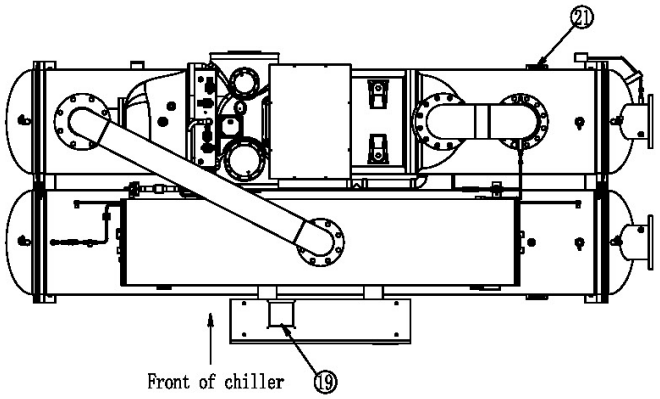
Dimension

ZUW350, 370, 400BS5Y(Z)









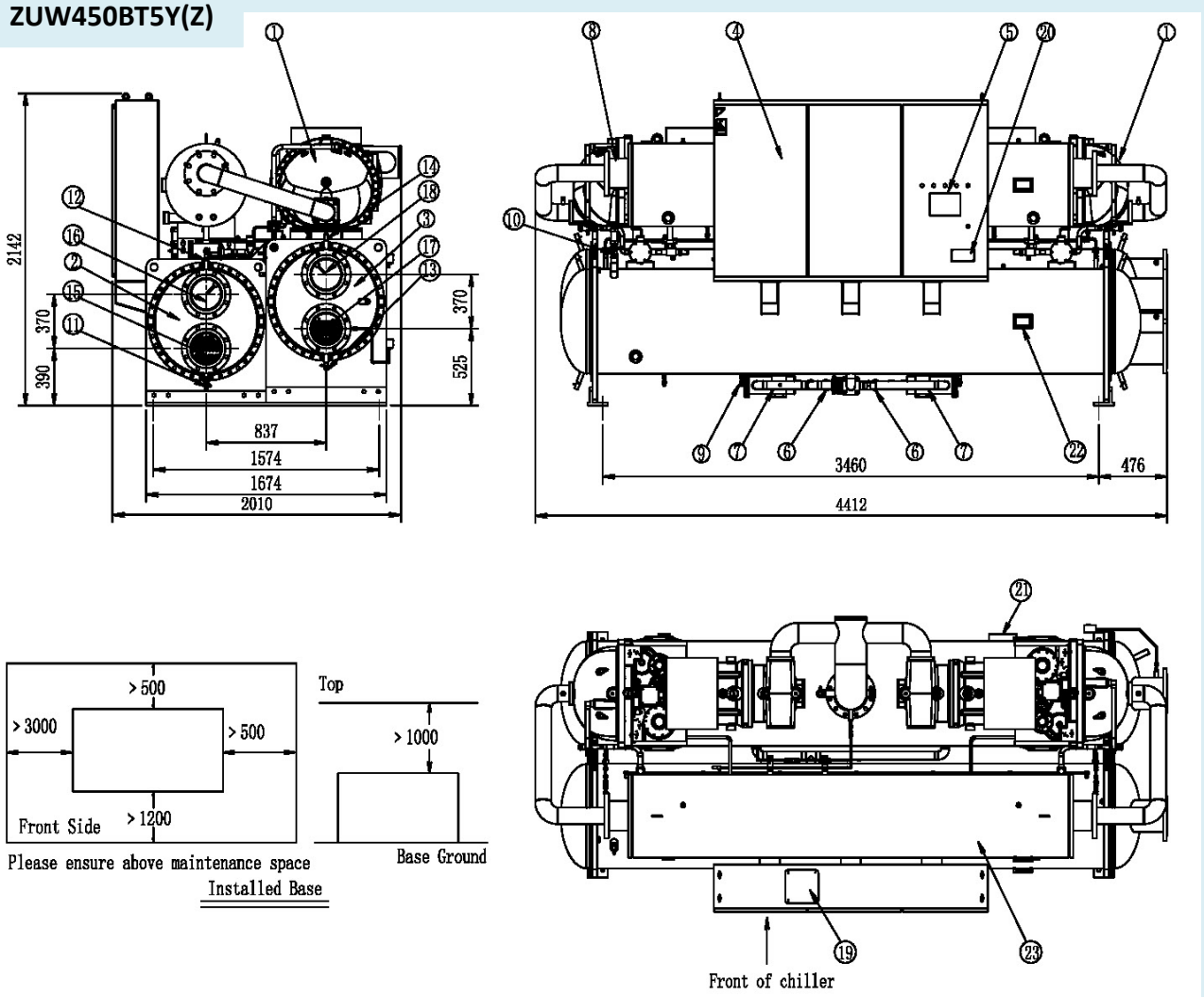
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ219
16	Condenser Water Outlet	Φ219
17	Chilled Water Inlet	Φ219
18	Chilled Water Outlet	Φ219
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

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

Dimension

ZUW450BT5Y(Z)



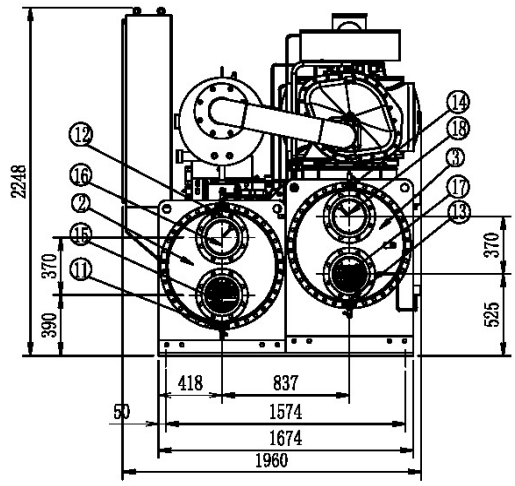
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

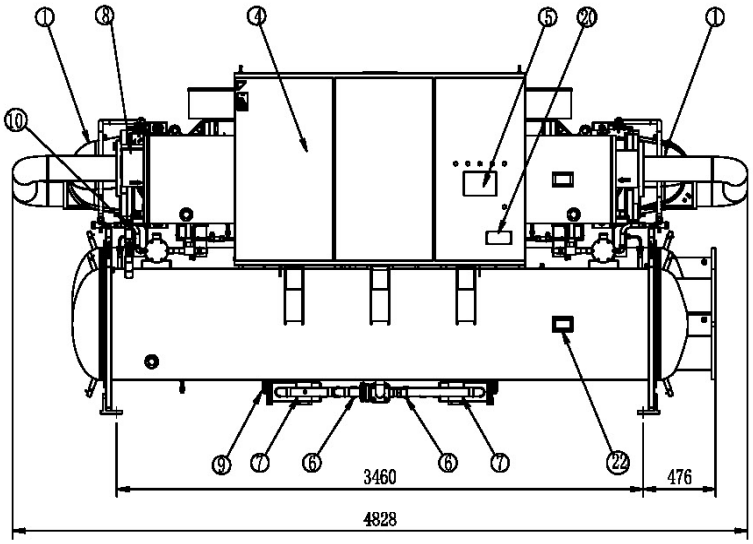
NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ219
16	Condenser Water Outlet	Φ219
17	Chilled Water Inlet	Φ219
18	Chilled Water Outlet	Φ219
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

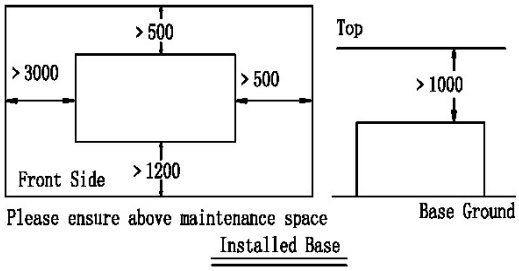
Note:
Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users.
Flange size is based on HG20592.

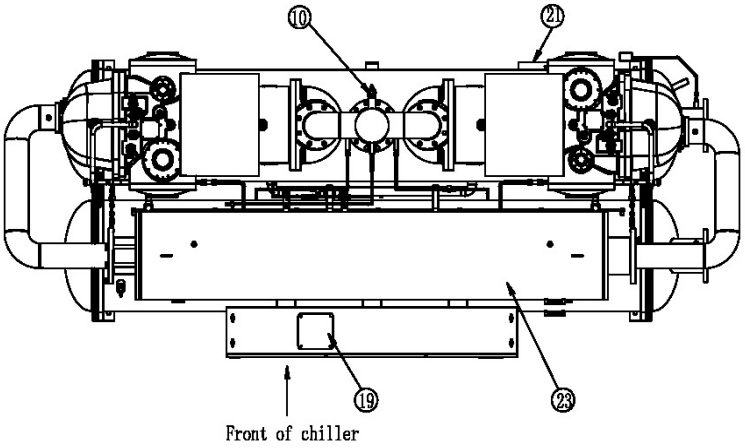
Dimension

ZUW480, 500BT5Y(Z)









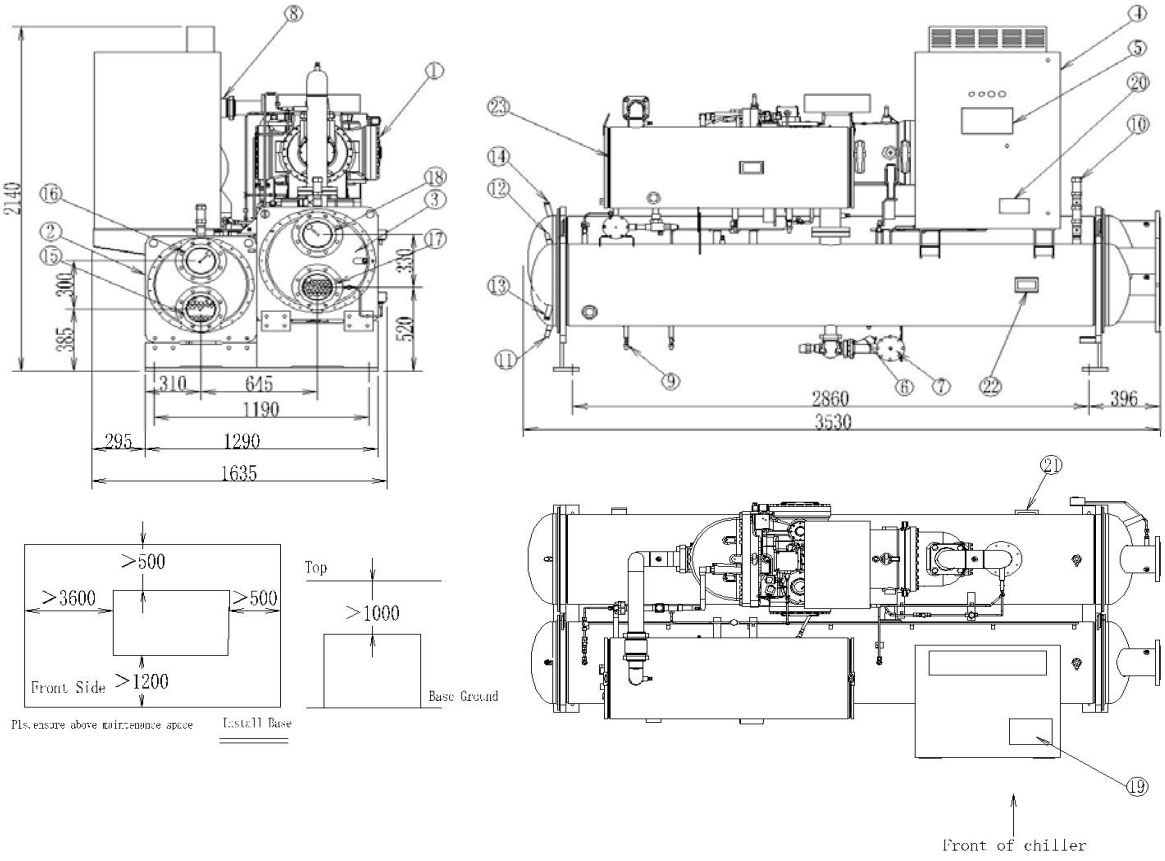
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ219
16	Condenser Water Outlet	Φ219
17	Chilled Water Inlet	Φ219
18	Chilled Water Outlet	Φ219
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

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

Dimension(Inverter Model)

ZUW150BS5YV



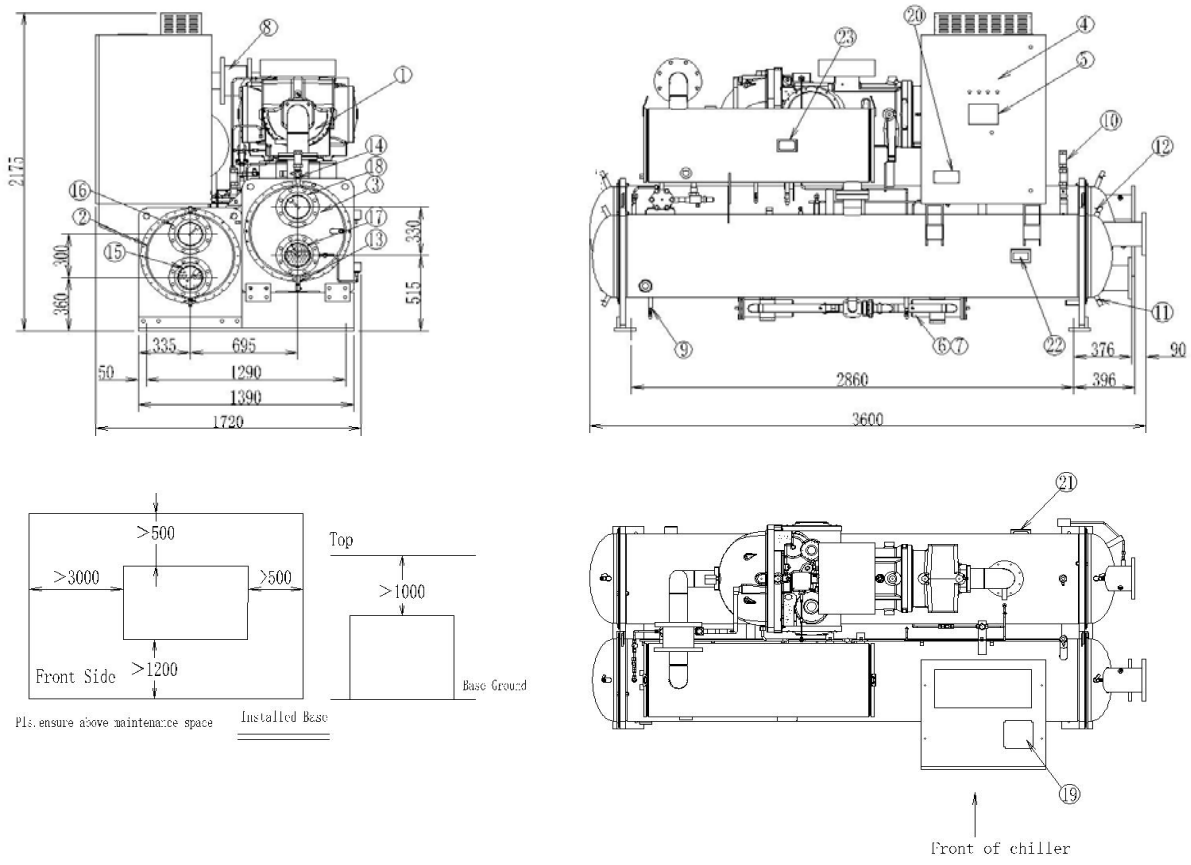
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Conderser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ 168
16	Condenser Water Outlet	Φ 168
17	Chilled Water Inlet	Φ 168
18	Chilled Water Outlet	Φ 168
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

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

Dimension(Inverter Model)

ZUW200BS5YV



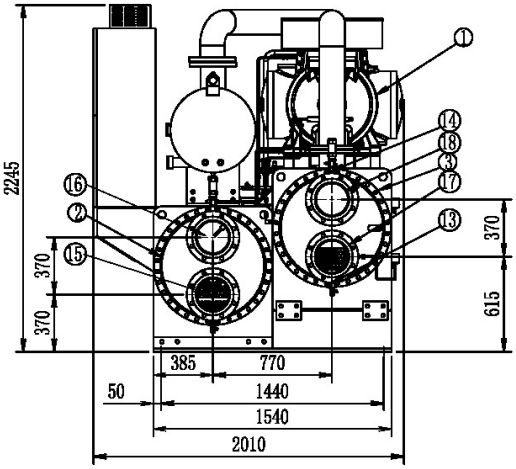
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Conderser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

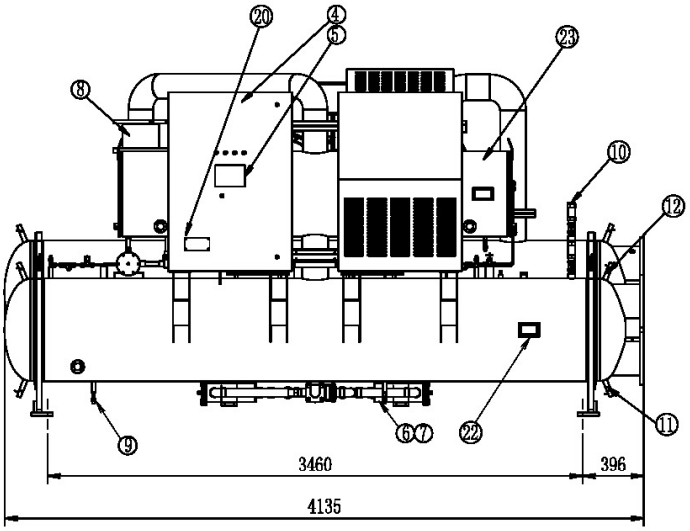
NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ 168
16	Condenser Water Outlet	Φ 168
17	Chilled Water Inlet	Φ 168
18	Chilled Water Outlet	Φ 168
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

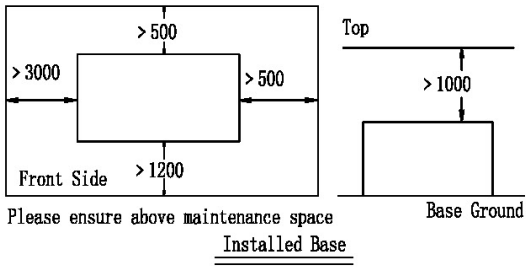
Note:
Flange cooling water and chilled water (Refrigerant) nozzle is self-prepared by users. Flange size is based on HG20592.

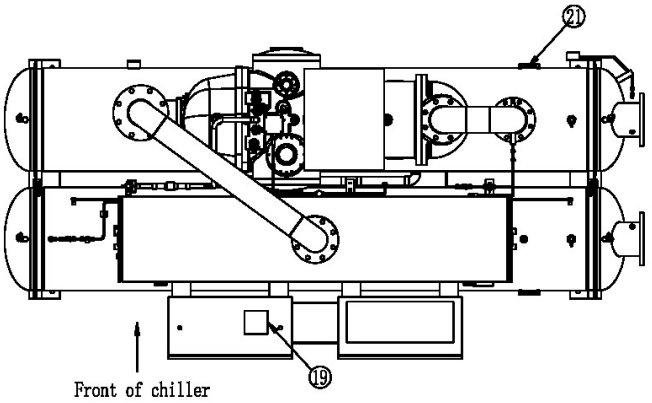
Dimension(Inverter Model)

ZUW250,300, 350BS5YV









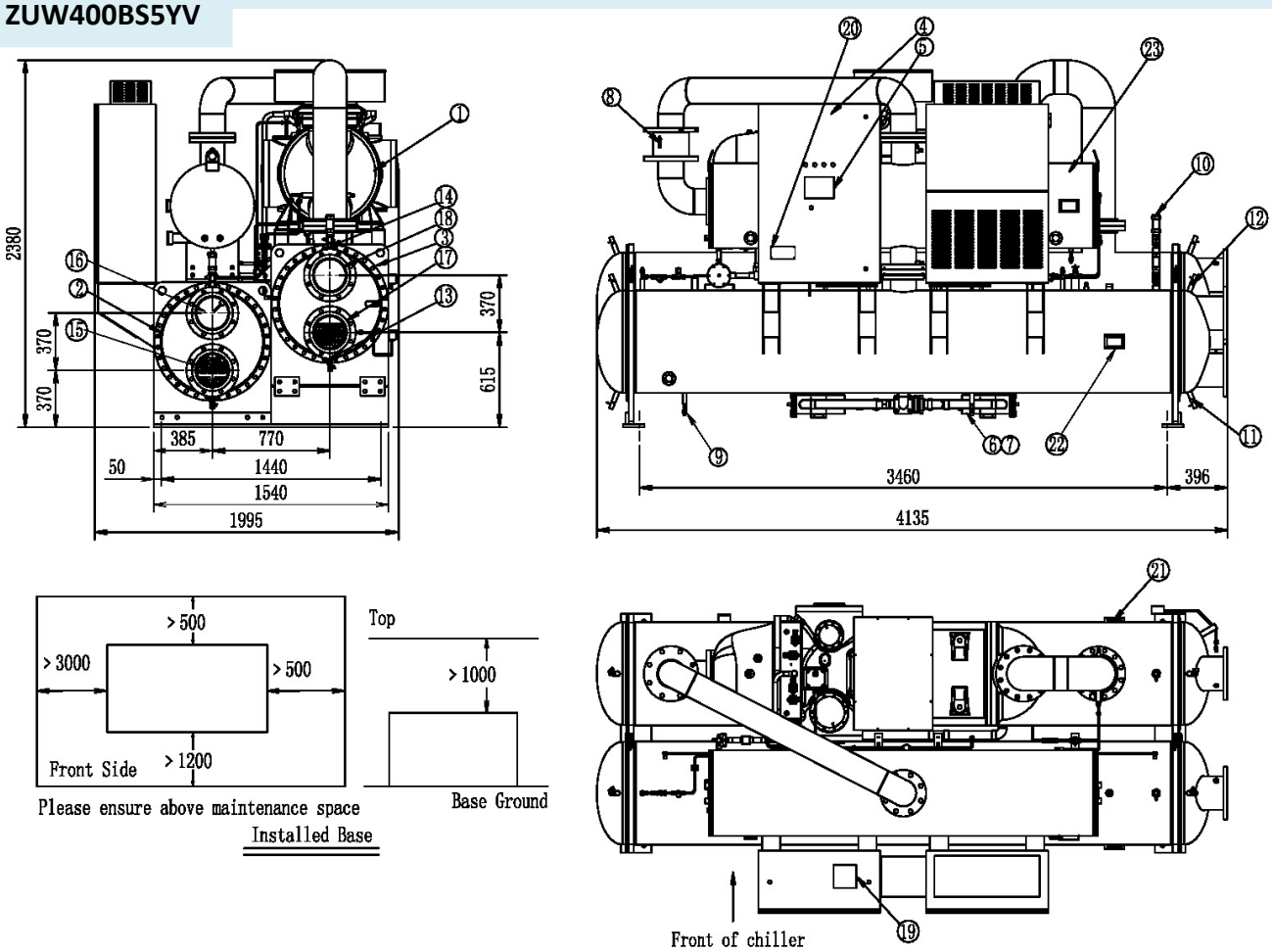
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ219
16	Condenser Water Outlet	Φ219
17	Chilled Water Inlet	Φ219
18	Chilled Water Outlet	Φ219
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

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

Dimension(Inverter Model)

ZUW400BS5YV



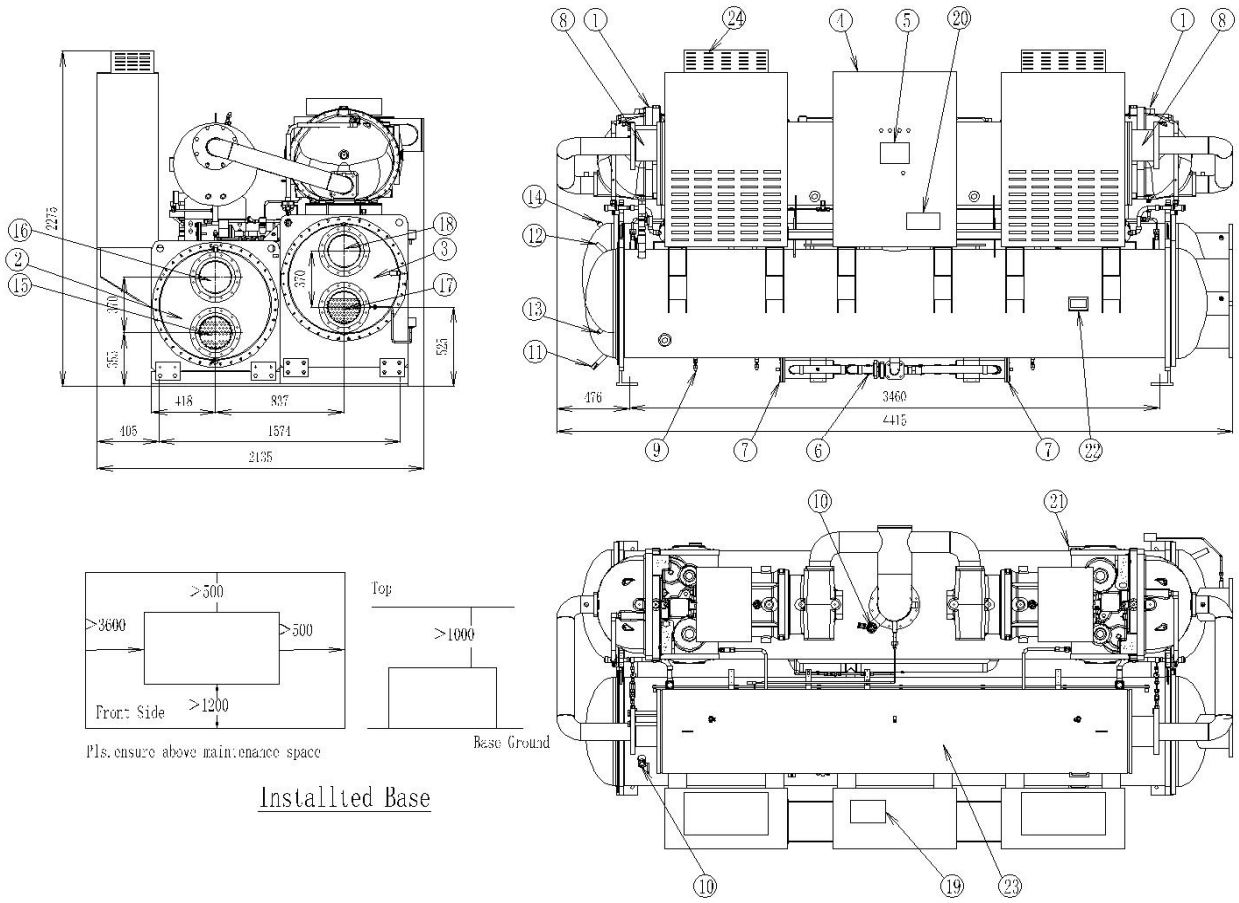
NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ219
16	Condenser Water Outlet	Φ219
17	Chilled Water Inlet	Φ219
18	Chilled Water Outlet	Φ219
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

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

Dimension(Inverter Model)

ZUW450、500BT5YV



NO.	NAME OF PARTS	REMARK
1	Compressor	
2	Condenser	
3	Evaporator	
4	Control Box	
5	LCD Control Panel	
6	Electronic Expansion Valve	
7	Dry Filter	
8	Reflex Valve	
9	Refrigerant Charge Valve	
10	Safety Valve	NPT 1
11	Condenser Water Drain Outlet	NPT 1/2
12	Condenser Water Air Outlet	NPT 1/2
13	Chilled Water Drain Outlet	NPT 1/2
14	Chilled Water Air Outlet	NPT 1/2

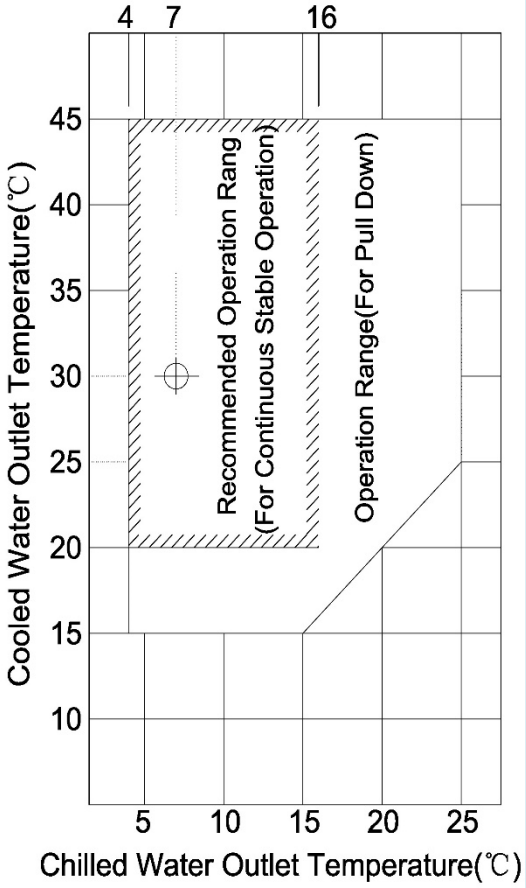
NO.	NAME OF PARTS	REMARK
15	Condenser Water Inlet	Φ219
16	Condenser Water Outlet	Φ219
17	Chilled Water Inlet	Φ219
18	Chilled Water Outlet	Φ219
19	Power Supply Connector	
20	Chiller Name Plate	
21	Evaporator Name Plate	
22	Condenser Name Plate	
23	Oil Separater	

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

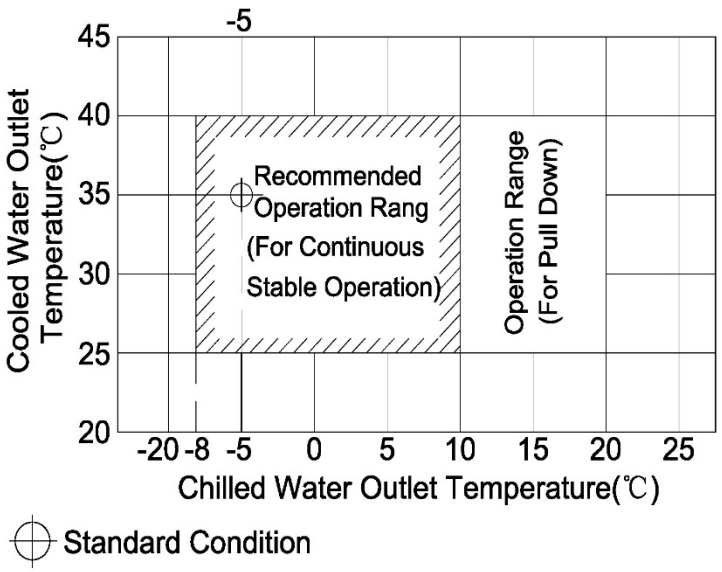
Operation Limits

1.Temperature Range

Standard Model and Inverter Model



Brine Chiller



1.The water flow of ZUW-B units should be stipulated in the following table. In the cooling water and chilled water system. It is necessary to make the unit operate under the condition of constant water flow.

2.The circulating water should be used in the chilled water and cooling water system.

3. Low temperature application: ethylene glycol(concentration 35%) refrigerant.

2.Minimum Retention Water

Standard type/ Brine type		
Model	Min. retention water(L)	Evap. Inner water volume(L)
ZUW100BS5Y(Z)	2616	88
ZUW120BS5Y(Z)	3254	92
ZUW145BS5Y(Z)	3770	101
ZUW150BS5Y(Z)	3942	101
ZUW170BS5Y(Z)	4572	136
ZUW175BS5Y(Z)	4658	126
ZUW200BS5Y(Z)	5024	136
ZUW230BS5Y(Z)	5805	148
ZUW240BT5Y(Z)	6235	148
ZUW250BS5Y(Z)	6450	182
ZUW280BS5Y(Z)	7238	207
ZUW280BT5Y(Z)	7310	171
ZUW300BS5Y(Z)	7704	217
ZUW300BT5Y(Z)	8242	188
ZUW320BS5Y(Z)	8113	228
ZUW350BS5Y(Z)	8887	253

Standard type/ Brine type		
Model	Min. retention water(L)	Evap. Inner water volume(L)
ZUW350BT5Y(Z)	9030	254
ZUW370BS5Y(Z)	9245	264
ZUW400BS5Y(Z)	10220	285
ZUW400BT5Y(Z)	10392	285
ZUW450BT5Y(Z)	11596	310
ZUW480BT5Y(Z)	12843	334
ZUW500BT5Y(Z)	13473	348

Inverter type		
Model no.	Min.retention water(L)	Evap. Inner water volume(L)
ZUW150BS5YV	3816	101
ZUW200BS5YV	5090	140
ZUW250BS5YV	6450	188
ZUW300BS5YV	7704	217
ZUW350BS5YV	8930	253
ZUW400BS5YV	10392	285
ZUW450BT5YV	11390	310
ZUW500BT5YV	12715	325

Operation Limits

3. Water Application Scope

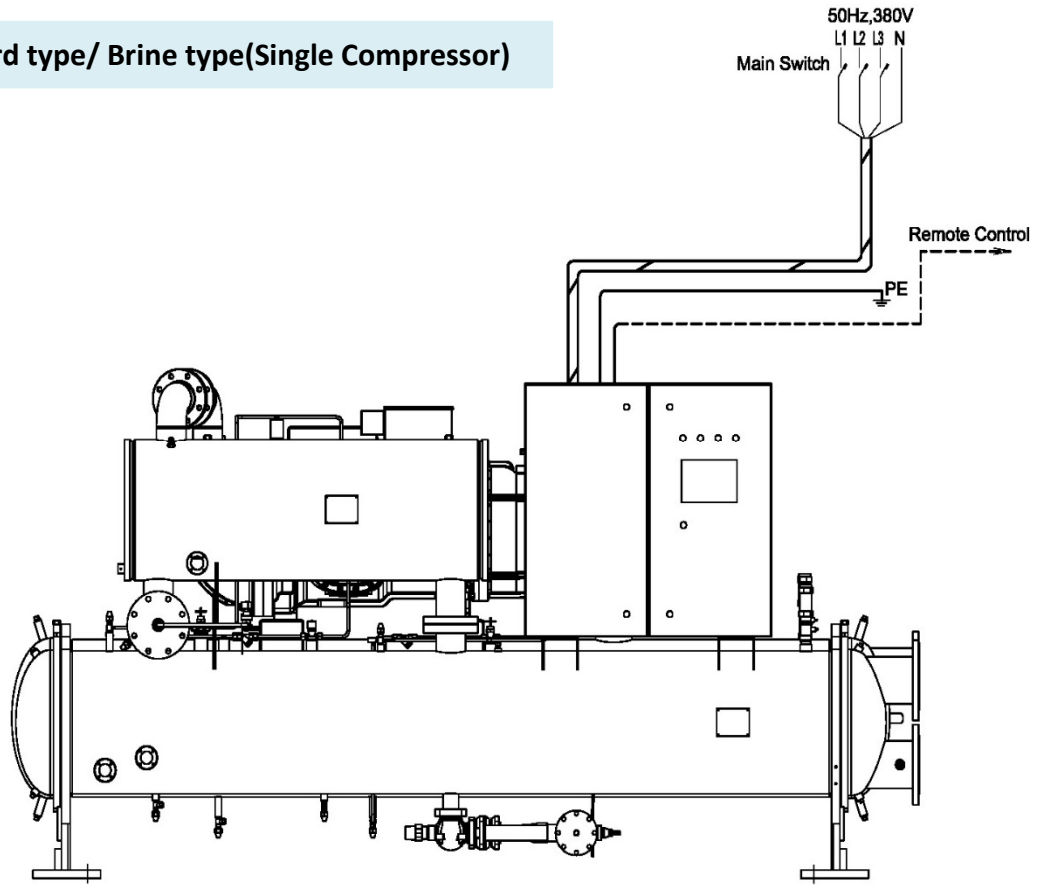
Standard type/ Brine type		
Model	Chilled water(L/min)	Condenser water(L/min)
ZUW100BS5Y(Z)	706～1962	701～1978
ZUW120BS5Y(Z)	878～2440	872～2460
ZUW145BS5Y(Z)	1018～2827	1010～2850
ZUW150BS5Y(Z)	1064～2956	1056～2980
ZUW170BS5Y(Z)	1235～3429	1225～3457
ZUW175BS5Y(Z)	1258～3494	1248～3522
ZUW200BS5Y(Z)	1356～3768	1346～3798
ZUW230BS5Y(Z)	1567～4354	1556～4389
ZUW240BT5Y(Z)	1683～4676	1671～4714
ZUW250BS5Y(Z)	1742～4838	1729～4876
ZUW280BS5Y(Z)	1954～5429	1940～5472
ZUW280BT5Y(Z)	1974～5483	1959～5526
ZUW300BS5Y(Z)	2080～5778	2065～5824
ZUW300BT5Y(Z)	2225～6181	2209～6231
ZUW320BS5Y(Z)	2190～6085	2174～6133
ZUW350BS5Y(Z)	2399～6665	2385～6718

Standard type/ Brine type		
Model	Chilled water(L/min)	Condenser water(L/min)
ZUW350BT5Y(Z)	2438～6773	2420～6827
ZUW370BS5Y(Z)	2496～6934	2478～6989
ZUW400BS5Y(Z)	2759～7665	2739～7726
ZUW400BT5Y(Z)	2806～7796	2785～7856
ZUW450BT5Y(Z)	3131～8697	3108～8766
ZUW480BT5Y(Z)	3468～9632	3442～9709
ZUW500BT5Y(Z)	3638～10105	3611～10186

Inverter type		
Model no.	Min.retention water(L)	Evap. Inner water volume(L)
ZUW150BS5YV	1026 ~ 2849	1018 ~ 2872
ZUW200BS5YV	1368 ~ 3800	1358 ~ 3831
ZUW250BS5YV	1742～4838	1729～4876
ZUW300BS5YV	2080～5778	2065～5824
ZUW350BS5YV	2411～6697	2393～6751
ZUW400BS5YV	2806～7794	2785～7856

External Power Supply Wiring Diagram

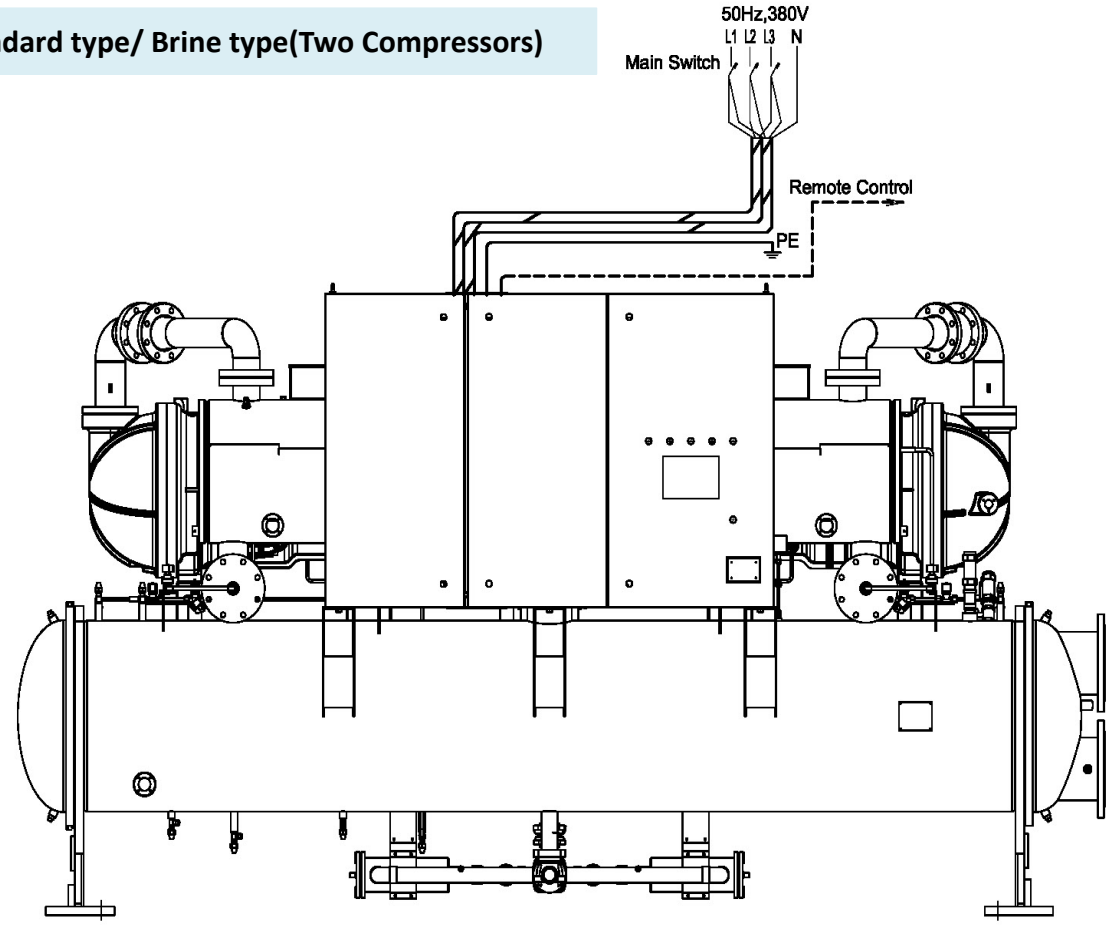
Standard type/ Brine type(Single Compressor)



Model	Power line (L1,L2,L3) Cable specification (㎟)	Zero line(N) Cable specification (㎟)	Grounding line(PE) Cable specification (㎟)
ZUW100BS5Y(Z)	3×70	4	35
ZUW120BS5Y(Z)	3×95	4	50
ZUW145BS5Y(Z)	3×95	4	50
ZUW150BS5Y(Z)	3×120	4	70
ZUW170BS5Y(Z)	3×120	4	70
ZUW175BS5Y(Z)	3×150	4	70
ZUW200BS5Y(Z)	3×150	4	70
ZUW230BS5Y(Z)	3×185	4	95
ZUW250BS5Y(Z)	3×240	4	120
ZUW280BS5Y(Z)	3×240	4	120
ZUW300BS5Y(Z)	3×300	4	150
ZUW320BS5Y(Z)	3×300	4	150
ZUW350BS5Y(Z)	3×300	4	150
ZUW370BS5Y(Z)	3×400	4	185
ZUW400BS5Y(Z)	3×400	4	185

External Power Supply Wiring Diagram

Standard type/ Brine type(Two Compressors)



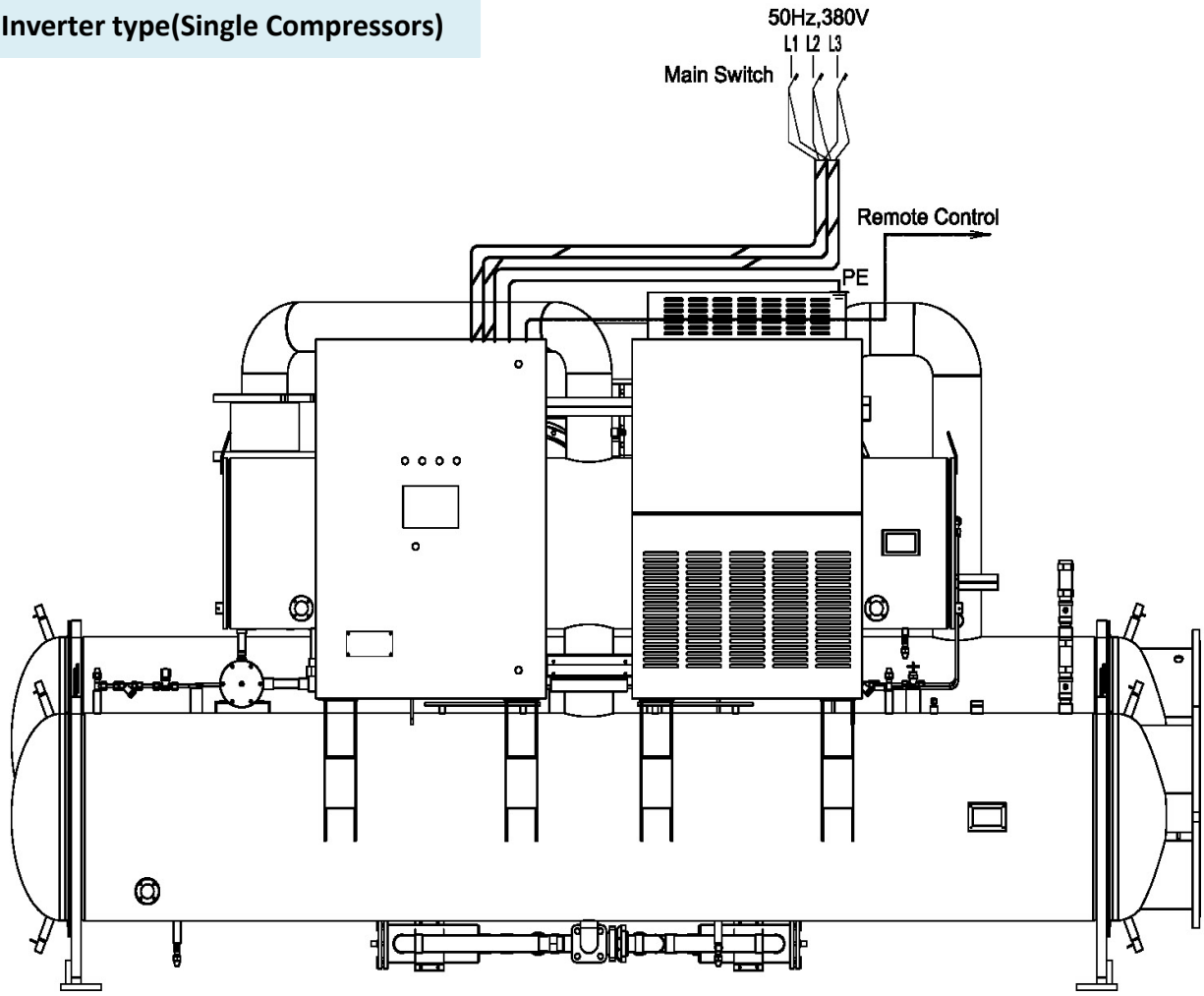
Model	Power line (L1,L2,L3) Cable specification (mm²)	Zero line(N) Cable specification (mm²)	Grounding line(PE) Cable specification (mm²)
ZUW240BT5Y(Z)	3×240	4	120
ZUW280BT5Y(Z)	3×300	4	150
ZUW300BT5Y(Z)	3×300	4	150
ZUW350BT5Y(Z)	3×400	4	185
ZUW400BT5Y(Z)	(3×150)×2	4	150
ZUW450BT5Y(Z)	(3×185)×2	4	185
ZUW480BT5Y(Z)	(3×185)×2	4	185
ZUW500BT5Y(Z)	(3×185)×2	4	185

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 ±2%), the wiring specifications should be increased appropriately.
3. Unit grounding should be grounded on site or connected to the unit from the distribution room together with the fire line.

External Power Supply Wiring Diagram

Inverter type(Single Compressors)



Model	Power line (L1,L2,L3) Cable specification (㎜²)	Grounding line(PE) Cable specification (㎜²)
ZUW150BS5YV	3×120	70
ZUW200BS5YV	3×185	95
ZUW250BS5YV	3×240	120
ZUW300BS5YV	3×300	150
ZUW350BS5YV	3×400	185
ZUW400BS5YV	(3×185)×2	185
ZUW450BT5YV	(3×185)×2	185
ZUW500BT5YV	(3×240)×2	240

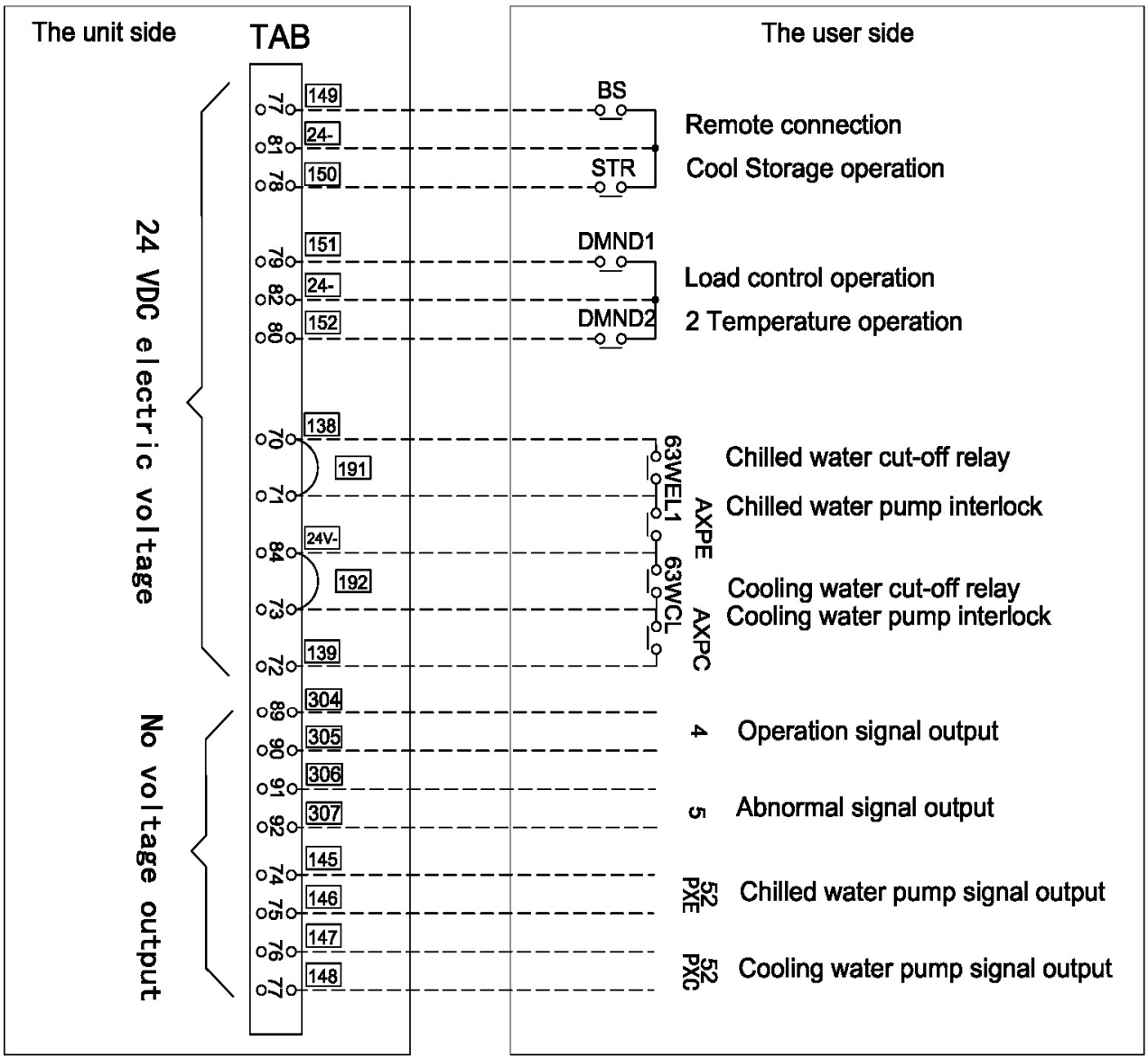
Note:

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±2%), the wiring specifications should be increased appropriately.

3.Unit grounding should be grounded on site or connected to the unit from the distribution room together with the fire line.

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 " itme 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)".

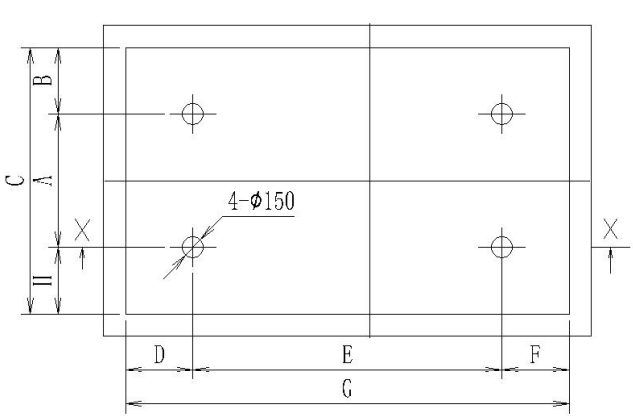
☆About Chilled water pump and cooling water pump interlock connection
Must connect AXPC and AXPE line, unit can't start if interlock connection not connected.

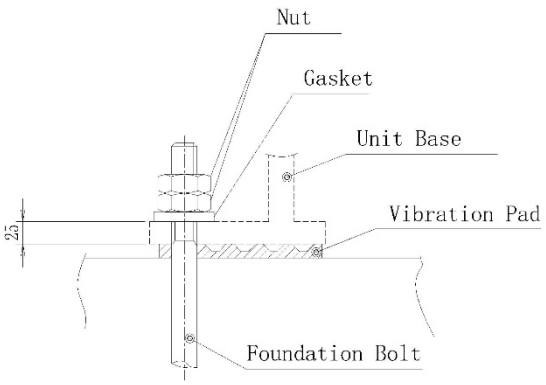
☆About Chilled water and cooling water out-of relay interlock connection
User need to tear down the line number 191 short wire when connect chilled water out-of relay 63WEL1.
User need to tear down the line number 192 short wire when connect cooling water out-of relay 63WCL.

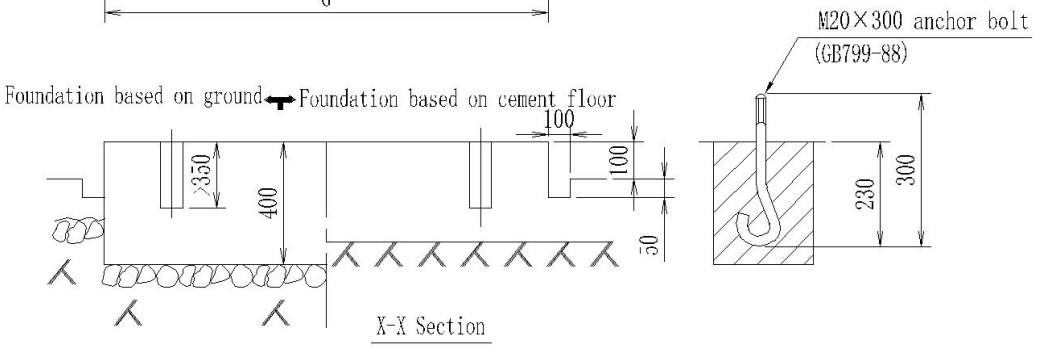
☆About the operating power supply
Input DC24V on unit side, We require user to enter the passive switch signal to the unit.
All output signals, passive dry contact provided by control box of unit. When user connects control wire, the wire capacity follow the below configuration:
Maximum AC250V, 5A; Minimum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

☆Fault output signal
Stop condition: disconnect
Normal operation: disconnect

Foundation







Standard type/ Brine type/Inverter type										
Model no.	A	B	C	D	E	F	G	H	Rubber pad	
									Size	Qty
ZUW100/120BS5Y(Z)	1070	300	1670	500	2860	500	3860	300	240×100×t20	6
ZUW145/150/200BS5Y(Z) ZUW150BS5YV	1190	300	1790	500	2860	500	3860	300	240×100×t20	6
ZUW170/230BS5Y(Z)/ZUW240BT5Y(Z) ZUW200BS5YV	1290	300	1890	900	2860	900	4660	300	240×100×t20	6
ZUW250～400BS5Y(Z) ZUW280/300/350/400BT5Y(Z) ZUW250/300/350/400BS5YV	1440	450	2340	600	3460	600	4660	450	240×100×t20	6
ZUW450/480/500BT5Y(Z) ZUW450/480/500BT5YV	1574	450	2524	600	3460	600	4660	500	240×100×t20	6

Notes:

1.Foundation must be capable of carrying the chiller operating weight.

2.The foundation surface should be finished horizontally and flatly.
(The levelness should be 2mm max./1000mm)

3.The drainage ditch should be provided around the foundation.

4.For machine maintenance, the floor should be applied with water-proofing treatment.

5.The foundation bolts and nuts are not supplied.(Outside the range of our supply.)
These parts should be arranged at customer's end with due consideration given to bolt pulling-out force, etc. by seismic force.

6.The vibration isolation works meeting the installation requirements should be conducted. Vibration may propagate from the installation part, thereby generating a sound from the floor and wall. The standard machine is isolated from vibration specifically by using the vibration isolation pads(accessories).

7.For standard vibration isolation, the vibration isolation pad should be attached near or around each foundation bolt and in the unit base center part. (Refer to above figure.)

8.Fixed bolt: J type, M24 buried deep 300, 4 pieces(the user should bring it by themselves).

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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