

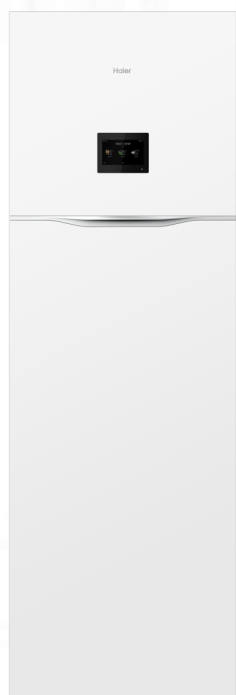
Haier

Engineering Data Book

R290 Super Aqua

Hydro Split GT

Hydro All in One GT



This manual was originally written in English. All other versions are translations of the original.

CONTENTS

1. Safety Precautions	1
1.1 General Guidelines.....	1
1.2 Meaning of Warnings and Symbols.....	1
1.3 Safety Measures for Workers.....	1
1.4 Safety Warnings for Users.....	3
2. Precautions for Using R290 Refrigerant.....	5
3. General Information.....	11
3.1 Nomenclature	11
3.2 Certificates and Regulations	13
3.3 Lineup.....	14
3.4 Matching Table	16
3.5 Features and Benefits	17
4. Specifications	18
4.1 Indoor Units - Hydro Split	18
4.2 Indoor Units - Hydro All in One.....	24
5. Dimensions	30
5.1 Outdoor Units.....	30
5.2 Indoor Units - Hydro Split	31
5.3 Indoor Units - Hydro All in One.....	33
6. Center of Gravity	35
6.1 Outdoor Units.....	35
6.2 Indoor Units - Hydro Split.....	36
6.3 Indoor Units - Hydro All in One	38
7. Piping Diagrams	39
7.1 Outdoor Unit - Cooling	39
7.2 Outdoor Unit - Heating	40
7.3 Indoor Unit - Hydro Split.....	42
7.4 Indoor Unit - Hydro All in One.....	45
8. Wiring Diagrams	47
8.1 Power Wring Figure	47
8.2 Outdoor Units	48
8.3 Indoor Units - Hydro Split	50
8.4 Indoor Units - Hydro All in One.....	51
9. Electric Characteristics	54
10. Capacity Tables.....	55
10.1 Cooling capacity	55
10.2 Heating capacity	56
11. Operation Limits Delivery-Leaving.....	60
11.1 Heating.....	60
11.2 DHW	61
11.3 Cooling	62
12. Water Pressure Drop	63

CONTENTS

13. Water Pump Characteristic Curve.....	64
14. Sound Level	65
15. PCB Photos	66
15.1 Outdoor Units	66
15.2 Indoor Units	68
16. Dip Switch Setting	70
16.1 Outdoor Units	70
16.2 Indoor Units	71
17. Sensor Resistance Table	72
18. Accessories.....	76
18.1 Outdoor Units	76
18.2 Indoor Units	77
19. Manual Updates Versions	78

1. Safety Precautions

1.1 General Guidelines

1. The precautions described in this document cover important safety topics. Please read them carefully.
2. Only licensed electricians and water system installers should carry out electrical and water installation work. In accordance with local regulations.
3. After completing the installation or repair work, ensure that the unit operates normally by carrying out a test run.
4. Instruct the customer on how to operate and maintain the unit, and explain the necessary precautions.
5. Keep this manual for future reference.

1.2 Meaning of Warnings and Symbols

	WARNING This indicates a situation that could result in death or serious injury.
	CAUTION This indicates a situation that could result in minor or moderate injury. It can also be used to highlight unsafe practices.
	This symbol on a white background indicates an item that must be PROHIBITED.
	This symbol, with a black background, indicates an item that must be carried out.

1.3 Safety Measures for Workers

WARNING	
	For electrical work, it is essential to follow the local regulations, wiring standards and installation manual.
	When installing water circuits, it is essential to adhere to the relevant European and national regulations, as well as the local plumbing and building regulations.
	Do not store the units near sources of fire, such as open flames, gas appliances, or electric heaters.
	The units must be shipped and stored in an upright position in a dry area.
	Disconnect the power cable from the socket before disassembling the equipment for repair to avoid electrical shocks. Never touch any electrically charged parts of the equipment if the power supply is necessary for repairs or circuit inspection.
	Do not come into contact with discharged refrigerant gas during repairs as it can cause frostbite.

WARNING

	Ensure that the refrigerant gas has been completely evacuated in a well-ventilated area before disconnecting the suction or discharge pipe of the compressor at the welded section. If gas remains inside the compressor, disconnecting the pipe can lead to the discharge of refrigerant gas or refrigerating machine oil, which could cause injury.
	Good ventilation must be ensured if refrigerant gas leaks during repair, as it may generate toxic gases when in contact with flames.
	The capacitor must be completely discharged prior to repair to avoid electrical shocks, as it supplies high-voltage electricity to the outdoor unit's electrical components.
	Do not use the power cable to turn the air conditioner on or off, as this could result in an electric shock or fire.
	A safety helmet, gloves and a safety belt must be worn to prevent falls when working at heights of more than 2 metres (6.5 feet).
	Only use pipes, flare nuts and tools that are specifically designed for R32, R410A and R290 refrigerant models. This will help to avoid serious accidents such as damage to the refrigerant cycle or equipment failure.
	To avoid excessively high pressure that could result in equipment damage and injury, do not mix air or any gas other than the specified refrigerant (R32, R410A or R290) in the refrigerant system.

CAUTION

	Do not repair electrical components with wet hands. This will help to avoid electrical shocks.
	Do not clean the units with water. This can cause electrical shocks.
	Proper grounding must be ensured when working in humid or wet conditions to avoid electrical shocks.
	The power must be switched off and the cable unplugged when cleaning the equipment. The internal fan rotates at high speed and could cause injury.
	Use the appropriate tools for repairs to avoid injury.
	Ensure that the refrigerating cycle section has cooled down sufficiently before carrying out any repairs to avoid burns.
	Welding work must be conducted in a well-ventilated place to avoid oxygen deficiency.

1.4 Safety Warnings for Users

WARNING	
	Do not store the units near sources of fire, such as open flames, gas appliances, or electric heaters.
	Only use the parts listed in the spare parts list for your specific model, and use the appropriate tools when performing repairs. Modifying the equipment is strictly prohibited, as this can lead to electric shocks or excessive heat or fire.
	Replace power cables and lead wires if they show signs of damage or deterioration, as this could result in electrical shocks, excessive heat or fire.
	Do not use a joined or extension power cable, or share the same power outlet as other electrical appliances. This can result in electric shocks, overheating or fire.
	Ensure that an exclusive power circuit is used for the equipment. When conducting electrical work, follow local technical standards, internal wiring regulations and the installation instruction manual. Improper electrical work or insufficient power circuit capacity can result in electric shocks or fires.
	The specified cable must be used for wiring between the indoor and outdoor units, and the connections must be secured and the cable routed properly to avoid any force pulling at the connection terminals. Improper connections can lead to overheating or fire.
	Ensure that the terminal cover does not lift or dismount due to the cable during wiring. If the cover isn't mounted correctly, this could result in electrical shocks, excessive heat or fire.
	Do not damage or modify the power cable, as this could result in electric shocks or fires. Do not place heavy items on the cable or subject it to heat or pulling.
	Only use the specified refrigerants (R32, R410A and R290) in the refrigeration system. If air enters the system, it can result in high pressure, which can cause damage to the equipment and result in injury.
	If there is a refrigerant gas leak, the leak must be located and repaired before recharging the refrigerant. Ensure there are no leaks after recharging. If the leak cannot be located and the repair work needs to be stopped, pump down and close the service valve to prevent refrigerant gas from leaking into the room. Although refrigerant gas is harmless, it can produce toxic gases when in contact with flames.
	When relocating the equipment, ensure that the new installation site can support its weight. If the installation is not carried out properly or if the site lacks sufficient strength, the equipment could fall and cause injury.
	Ensure that the power cable plug is clean and securely inserted into the power outlet. A dirty or loose plug can cause electrical shocks or fire. This can cause electric shocks or fires.
	Old batteries from the remote controller must be disposed of properly to prevent children from swallowing them. Seek immediate medical attention if a child swallows a battery.

CAUTION

	Depending on the installation site conditions, a leakage breaker may be required to prevent electrical shocks.
	Do not install the equipment in an area where combustible gas leaks may occur as this can cause a fire.
	You must confirm that the parts and wires are properly mounted and connected, and that the connections are secure. Soldered or crimped terminals must be secure. Improper installation or connections can cause excessive heat, fire or electrical shocks.
	It is essential to replace any corroded installation platforms or frames, as failure to do so could result in the unit falling and causing injury.
	Proper earthing/grounding must be ensured and repairs must be carried out if necessary. Improper earthing or grounding can cause electric shocks.
	The insulation resistance must be measured after the repair and must be 1 MΩ or above. Faulty insulation can cause an electrical shock. Insulation can cause electrical shocks.
	The drainage of the indoor unit must be checked after repair. Faulty drainage can result in water damage to furniture and flooring.
	Do not tilt the unit when removing it. Any water inside may spill and cause damage to furniture or flooring.

2. Precautions for Using R290 Refrigerant

Please pay attention to the following points:

WARNING	
	Do not mix any different refrigerants within a system.
	Well-trained and certified personnel are required to operate, maintain, repair and recover flammable refrigerants, as well as conduct operations, servicing and maintenance on a system or relevant parts of the units.
	Do not store any of the parts of the refrigeration circuit or pipes near sources of fire, such as open flames, gas appliances or electric heaters.
	Users or the authorised dealer must check the alarms, mechanical ventilation and detectors regularly, at least once a year, to ensure they are operating correctly, in accordance with national regulations.
	It is necessary to keep a logbook and record all outcomes of these checks.
	Ventilation in occupied areas must be checked to make sure there are no any obstructions.
	Before a new refrigeration system is put into operation, the person responsible for operating the system should ensure that the operating personnel are properly trained, certified, and familiarised with the construction, supervision, operation, maintenance, and safety precautions of the system, as well as the properties and handling of the refrigerant used.
	Trained and certified personnel must: 1. Have a thorough understanding of the legislation, regulations and standards relating to flammable refrigerants. 2. Demonstrate knowledge and skills in the management of flammable refrigerants and personal protective equipment. 3. Be familiar with preventing refrigerant leaks, handling cylinders, charging, leak detection, recovery and disposal. 4. Comprehend and apply national legislation, regulations and standards. 5. Maintain these skills through continuous, regular and additional training.
	Protect the protection devices, refrigeration circuits and fittings from environmental factors that could cause damage, such as the risk of water collecting and freezing in relief pipes, or dirt and debris building up.

CAUTION	
Installation	
	All relevant national gas regulations, state and municipal regulations, and laws must be followed, and the relevant authorities must be notified in accordance with all applicable rules.
	Maintenance must be able to access all mechanical connections.
	Ensure that all ventilation openings are clear. Make sure there are no obstructions.
	Always reach out to local authorities for proper guidance.

CAUTION**Servicing****● Service Personnel**

Any individual working on or breaking into a refrigerant circuit should be certified by an industry-recognised assessment authority, confirming their ability to handle refrigerants safely in accordance with industry specifications.

Servicing should only be carried out in accordance with the manufacturer's recommendations. Any maintenance or repairs requiring additional specialised personnel should be carried out under the supervision of someone who is competent in the use of flammable refrigerants.

Servicing should be performed only as recommended by the equipment manufacturer.

The system should be regularly inspected, monitored and maintained by a trained and certified service personnel, who are employed by the user or responsible party.

Ensure there are no leaks during the refrigerant charging process.

● Work

Safety checks must be conducted before starting work on systems containing flammable refrigerants to minimise the risk of ignition.

All related safety precautions must be followed before conducting work on the system. When repairing the refrigeration system, ensure that all related safety precautions are followed.

The work must be carried out in accordance with controlled procedures to minimise the risk of flammable gases or vapours being present.

Avoid working in enclosed spaces and ensure a safety distance of at least two metres from any sources. Alternatively, establish a free space zone with a radius of at least two metres.

The appropriate protective equipment must be used according to the situation.

Make sure you stay away from any flammable materials or items that produce heat.

● Confirming Refrigerant Existence

A suitable refrigerant detector should be used to check the area before and during work in order to identify potentially combustible environments.

The leak detection equipment should be non-sparking and adequately sealed or intrinsically safe.

If a leak or spill occurs, ventilate the area immediately. Stay upwind and avoid the spill/release.

In the event of a leak or spill, inform individuals downwind, isolate the immediate hazard area and restrict access to unauthorised personnel.

● Fire Extinguisher Availability

If any heat-related work is to be done on the cooling equipment or any related parts, relevant fire extinguishing equipment should be accessible.

Keep a dry powder or CO₂ fire extinguisher close to the charging area.

● Avoid Ignition Sources

Avoid using any ignition sources that could cause a fire or explosion when working on a cooling system.

Keep all potential ignition sources, including smoking, at a safe distance from the installation, repair and disposal site, where flammable refrigerant could be released. During the removal and disposal process, ensure that flammable refrigerant cannot be released.

Check the area around the equipment before starting work. Ensure that there are no flammable hazards or ignition risks.

"No Smoking" signs must be displayed.

● Ventilated Area

The area must be open or adequately ventilated before the system is opened or any heat-related work is conducted.

Ensure continuous ventilation throughout the work.

Any released refrigerant should be safely dispersed during ventilation, preferably expelled into the atmosphere outside.

CAUTION	
● Checking for Refrigerating Equipment	
	When changing electrical components, ensure that they are suitable and meet the correct specifications.
	Follow the manufacturer's guidelines. These cover maintenance and service.
	If there are any unsure points, you must reach out to the manufacturer's technical support team for help.
	When using flammable refrigerants during installation, please conduct the following checks:
	1.Ensure that ventilation equipment and outlets are not obstructed and are functioning properly.
	2.The secondary circuit must be checked for the presence of refrigerant if an indirect cooling circuit is being used.
	3.Ensure that all equipment markings are legible and visible, and correct any that are not.
	4.Refrigeration pipes or components should not be exposed to corrosive substances unless they are made of corrosion-resistant materials or are properly protected.
● Checking for Electrical Devices	
	Initial safety checks and component maintenance and repairs should be included. Inspection procedures should also be included.
	Initial safety checks should include, but not be limited to, the following:
	1.Safe discharge of capacitors is necessary to prevent sparking.
	2.No live electrical components or wiring should be exposed during system charging, recovery, or purging.
	3.Ensure continuity of earth bonding.
	Follow the manufacturer's guidelines. These cover maintenance and service.
	If there are any unsure points, you must reach out to the manufacturer's technical support.
	If a fault that could compromise safety is present, do not connect the electrical supply to the circuit until it is satisfactorily resolved.
	If the fault cannot be corrected immediately but the operation must continue, implement a suitable temporary fix.
	The equipment owner must be informed of any issues so that all parties are aware.
Repairs to Sealed Components	
	All electrical supplies must be disconnected from the equipment before any sealed covers are removed during repairs.
	If an electrical supply is necessary during servicing, a permanent form of leak detection must be located at the most critical point to warn of potential hazards.
	Special attention must be paid to ensure that working on electrical components does not change the casing in a way that impacts the level of protection. This includes preventing cable damage, excessive connections, terminals that are not made to the original specification, seal damage and the incorrect fitting of glands.
	The equipment must be securely mounted and fastened.
	It is essential to verify that the seals or sealing materials have not deteriorated to the extent that they are no longer able to prevent the entry of flammable atmospheres.
	Ensure that the replacement parts meet the manufacturer's specifications.
Note	Using silicone sealant may affect the performance of certain types of leak detection equipment. However, intrinsically safe components do not need to be isolated before work begins.

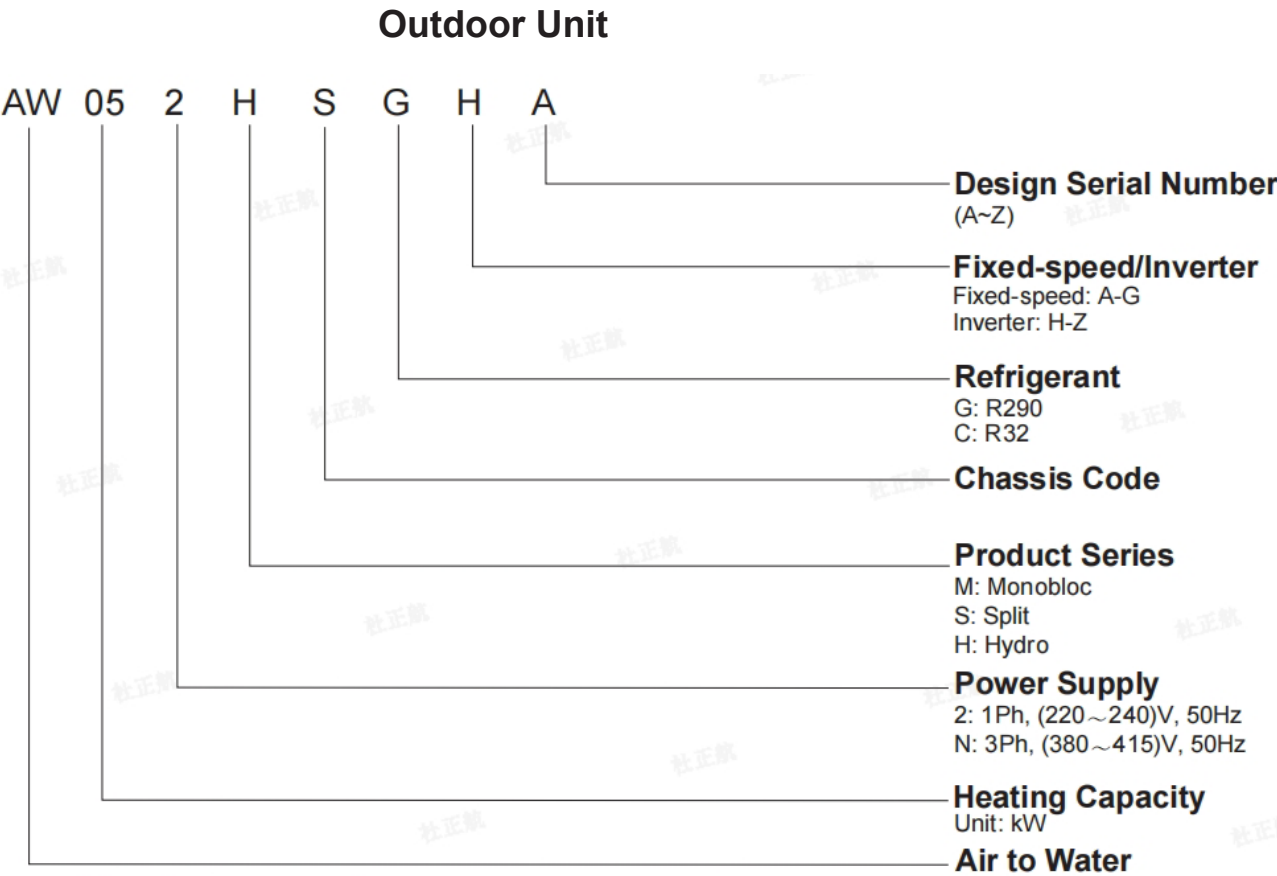
CAUTION	
Maintenance of Intrinsically Safe Components	
!	Do not add any permanent inductive or capacitive loads to the circuit without first verifying that these will not exceed the permitted voltage and current for the operating equipment.
	Only intrinsically safe components can be serviced while powered on in an environment with a potential for combustion.
	Ensure that the testing equipment is correctly rated.
	Only replace components with parts that are explicitly recommended by the manufacturer. Using non-specified parts could potentially cause refrigerant to ignite in the environment due to a leak.
	All components must be replaced with parts specified by the manufacturer. Using any parts not specified by the manufacturer could potentially lead to refrigerant igniting in the environment due to a leak.
Cabling	
!	Confirm that the cabling will not be exposed to wear, corrosion, extreme pressure, vibration, sharp edges or other damaging environmental conditions.
	Consider the impacts of aging and continuous vibration from compressors or fans during this check.
Detection of Combustible Refrigerants	
!	Never use of potential ignition sources when searching for or detecting refrigerant leaks.
	A halide torch (or any other detector that uses an open flame) should not be used.
Methods for Detecting Leaks	
!	The following methods for detecting leaks are considered suitable for all types of refrigerant systems:
	1. Leak detection should be conducted using equipment with a sensitivity of at least 5 grams of refrigerant per year under a pressure of at least 0.25 times the maximum allowable pressure (between 0.98 and 3.90 MPa). For example, a universal sniffer.
	2. Electronic leak detectors can be used for flammable refrigerants, but they may require recalibration to ensure adequate sensitivity.
	(The detector should be calibrated in an area that is free of refrigerant.)
	3. Ensure the detector does not pose a risk of ignition and is compatible with the refrigerant being used.
	4. The detector should be calibrated to the specific refrigerant in use and set to a percentage of its Lower Flammable Limit (LFL) that does not exceed 25%.
	5. Leak-detecting fluids, such as those using the bubble or fluorescent methods, can be used with most refrigerants. However, detergents containing chlorine should be avoided, as these can react with the refrigerant and corrode copper piping.
	6. If a leak is suspected, eliminate any potential ignition sources.
	7. If brazing is required to repair a leak, all refrigerant must first be recovered from the system. The relevant precautions must be followed to remove the refrigerant.
Removal and Evacuation	
!	Conventional procedures should be followed when accessing the refrigerant circuit for repairs or other purposes. The flammability factor must be taken into account and the following procedures must be followed:
	remove refrigerant ->purge the circuit with inert gas ->evacuate ->purge with inert gas ->open the circuit by cutting
	Brazing is prohibited.
	Recover the refrigerant charge into the appropriate recovery cylinders.
	Purge the system with Oxygen Free Nitrogen (OFN) to ensure safety.
	Repeat this process for several times as necessary.
	Compressed air or oxygen is prohibited for this task.

CAUTION	
	The purging process involves filling the system with OFN until the working pressure is reached, then venting to the atmosphere and pulling down to a vacuum. This process is repeated until no refrigerant remains in the system. This should be done until the concentration of purge gas is 0.25 LFL or less as measured by the leak detector. 0.25 LFL = 0.525 Vol%.
	After the final OFN charge, vent the system down to atmospheric pressure before starting any work.
	If brazing on the pipework is required, this process is of the utmost importance.
	Ensure that the vacuum pump outlet is located away from any potential ignition sources and in a well-ventilated area.
Charging procedures	
	In addition to the standard charging procedures, the following steps should be taken: 1. Take care to prevent different refrigerants from becoming contaminated when using charging equipment. 2. Use the shortest possible hoses or lines to minimise the amount of refrigerant they can hold. 3. Store cylinders in the correct position according to the instructions. 4. Ground the refrigerating system before charging it with refrigerant. 5. Label the system once charging is complete (if not already labelled). 6. Take care not to overcharge the refrigerating system.
	Before recharging the system, pressure test it with OFN (refer to "Removal and Evacuation").
	After charging, but before commissioning, perform a leak test on the system.
	Perform a follow-up leak test before leaving the site.
	Static electricity can build up during the charging and discharging of refrigerant, creating a hazardous situation. To prevent fires or explosions, ensure that containers and equipment are grounded and bonded before starting the process.
Decommissioning	
	Before beginning this process, the technician should be thoroughly familiar with the equipment and all its components.
	It is highly advised that all refrigerants should be safely collected.
	Do not reuse the collected refrigerant.
	Ensure that electricity is accessible before starting the task. 1. Learn how the equipment operates. 2. Cut off the system's electrical power. 3. Before starting the process, confirm that: If necessary, ensure that mechanical transport tools are ready for moving refrigerant cylinders. All necessary personal protective equipment and leak detectors are at hand and being used properly. The recovery process must be overseen by a qualified individual at all times.
	4) Recovery tools and cylinders meet the standard requirements. 4) Recovery tools and cylinders meet the standard requirements. Place the cylinder on the scales before recovery begins. 5. Operate the recovery machine by following the guidelines. 6. Avoid overfilling the cylinders. (Do not exceed 80% of the cylinder's volume.) 7. Ensure that you do not exceed the maximum operational pressure of the cylinder, even temporarily. 8. Once the cylinders have been correctly filled, ensure that they and all associated equipment are promptly removed from the location and that all equipment isolation valves are closed. and all associated equipment are promptly removed from the location, and that all equipment isolation valves are closed. Charging or discharging the refrigerant can lead to the accumulation of static electricity, which is hazardous. To prevent fire or explosion, neutralise any static electricity during transfer by grounding and connecting the containers and equipment before charging or discharging.

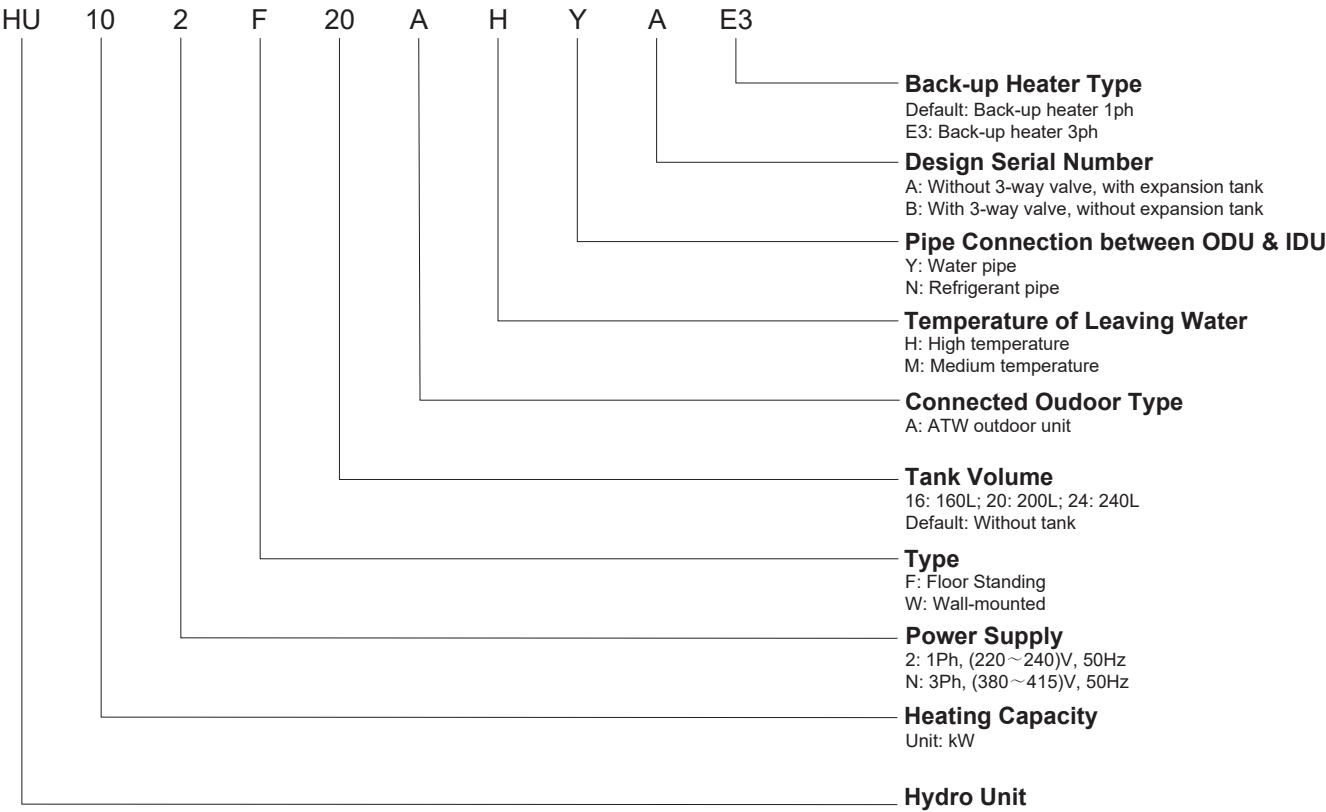
CAUTION	
Labelling	
	Label the equipment to indicate that it has been decommissioned and that it has been emptied of refrigerant.
	The label should include the date and signature.
	Ensure that the labels on the equipment clearly state that it contains flammable refrigerant.
Recovery	
	It is advised that all refrigerants are safely removed when removing refrigerant from a system, either for servicing or decommissioning.
	Ensure that suitable refrigerant recovery cylinders are used when transferring refrigerant into cylinders.
	Prepare the right amount of cylinders to contain the total system charge.
	All cylinders in use should be designated for recovered refrigerant and labelled accordingly. (i.e. dedicated cylinders for refrigerant recovery).
	Cylinders should have fully operational pressure relief valves and shut-off valves in good working condition.
	Recovery cylinders should be evacuated and, if possible, cooled before recovery.
	The recovery equipment should be operational, and a set of instructions about the device should be available. It should be appropriate for the recovery of flammable refrigerants.
	Ensure the recovery equipment does not create potential ignition risks and is compatible with the refrigerant being used.
	Prepare a set of calibrated weighing scales in good working condition.
	Hoses should have leak-free, disconnected couplings that are in good working condition.
	Before using the recovery machine, check that it is in good working order and that all electrical components are properly sealed to prevent ignition in the event of a refrigerant leak. If you have any uncertainties, contact the manufacturer.
	Return the recovered refrigerant to the refrigerant supplier in the correct recovery cylinder, and arrange the relevant Waste Transfer Note.
	Refrigerants should not be mixed in recovery units, and especially not in cylinders.
	If compressors or compressor oils need to be removed, they should be evacuated to ensure that no flammable refrigerant remains in the lubricant.
	The evacuation process should be completed before returning the compressor to the suppliers.
	Only electrical heating to the compressor body should be used to accelerate this process.
	When draining oil from a system, it should be done safely.

3. General Information

3.1 Nomenclature



Indoor Unit



3.2 Certificates and Regulations

EMC directive (2014/30/EU):

EN 55014-1:2021 +A11:2020

EN 55014-2:2021

EN 61000-3-2:2019

EN 61000-3-3:2013+A1:2019

Low-Voltage Directive (2014/35/EU):

EN60335-1:2023+A11:2023

EN60335-1:2012+A13:2017+A1:2019+A14:2019+A2:2019

EN 60335-2-40:2023

ENIEC60335-2-40:2023 +A11:2022

EN60335-2-40-2003/A13-2012

EN 62233:2008

Machinery Directive(2006/42/EC):

EN60335-1:2023+A11:2023

EN60335-1:2012+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021

EN 60335-2-40:2023

ENIEC60335-2-40:2023 +A11:2022

EN60335-2-40-2003/A13-2012

EN 62233:2008

Directive 2014/68/EU (PED)

EN 378-2:2020

EN 14276-2:2020+A1:2011

Directive 2011/65/EU (RoHS)

IEC 62321

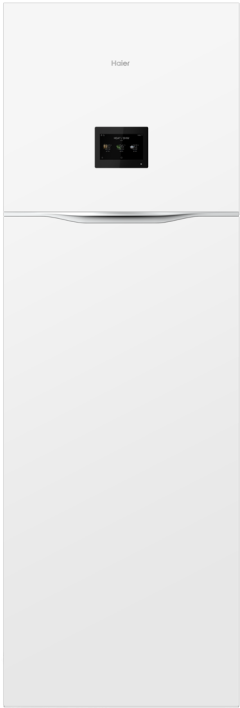
3.3 Lineup



Model	Dimension (H*W*D) (mm)	Power Supply (Ph/V/Hz)	Capacity	Compressor type	Heat exchanger	Refrigerant
AW032HSGHA	765*920*372	1/220~240/50	3.5kW	DC Inverter	Plate-heat exchanger	R290
AW052HSGHA		1/220~240/50	5kW			



Model	Power Supply (V/Ph/Hz)	Capacity	A/C mode	Hydraulic module
HU102WAHYA	220~240/1/50	10kW	Heat pump	Split
HU102WAHYB	220~240/1/50	10kW		



Model	Power Supply (V/Ph/Hz)	Capacity	A/C mode	Hydraulic module
HU102F16AHYA	220~240/1/50	10kW	Heat pump	All in one
HU102F20AHYA	220~240/1/50	10kW		
HU102F24AHYA	220~240/1/50	10kW		

3.4 Matching Table

Hydro Split

ODU	AW032HSGHA	AW052HSGHA
IDU1	HU102WAHYA	
IDU2	HU102WAHYB	
Note:		
•ODU1: A stands for the unit without three way valve, with expansion tank •ODU2: B stands for the unit with three way valve, without expansion tank		

Hydro All in one

ODU	AW032HSGHA	AW052HSGHA
IDU	HU102F16AHYA HU102F20AHYA HU102F24AHYA	
Note: R290 Hydro All in one ODU models are consistent with Hydro Split ODU.		

3.5 Features and Benefits

Environmental-friendly

- **Natural refrigerant R290**

High-efficiency

- **Max COP up to 5.50**

The GT series has excellent performance. Higher compression ratio and lower oil compressors and the efficient internal thread regenerator is used in the appliance to increase the suction temperature and improve the energy efficiency of the unit. The maximum value of COP can reach 5.50.

- **SCOP A+++/A+++ (35°C/55°C)**

The SCOP at 35°C and 55°C water temperature both reach the top class A+++.

- **Hot water ERP class A+**

DHW efficiency level reaches the top class A+.

Ultimate Comfort

- **High leaving water temperature**

The max leaving water temperature can reach 80°C, leading in the industry. It is the best solution to replace the boiler heating.

- **Low sound level**

With excellent design, the Haier Super Aqua GT series sound power level is as low as 55dB(A).

Super Convenience

- **Compact design**

All in one indoor unit covers an area of only 590*590mm, the smallest area in the industry, suitable for hidden installation of apartments.

- **Easy installation and easy maintenance**

From the convenience of installation and maintenance, the internal structure is optimized, the layout is more reasonable, and the components can be removed and assembled without interfering with each other.

High Reliability

- **Wide operating range**

The GT series can operate normally at -25°C, providing a guarantee for users to warm in cold weather.

- **Silver brazing technology**

To deal with the R290 refrigerant which is combustible, optimize the system design by reducing welding joints and adopting silver brazing welding technology to ensure stronger welding and avoid leakage.

- **Refrigerant separator**

Refrigerant separator can quickly discharge the refrigerant from the water system in case of leakage and prevent it from entering the water system and indoor space.

- **Sealed electric control box**

Explosion-proof electric control design, more safety for R290 product, is used to avoid potential fire hazards and provide strong protection for user safety.

Intelligence

- **Smart control**

With Haier Wi-Fi control you can check the running state of heat and allows you to have flexibility and control of your heat pump. It delivers a simply life for you.

- **Selection software**

The system is built on the Cloud and authorized users to operate by browser. Users can visit the system by mobile terminals and computers. It can support all the ATW heat pump models to select and design. The system can finally output the corresponding selected results and the overall project plan report.

4. Specifications

4.1 Indoor Units - Hydro Split

Indoor Unit		Unit	HU102WAHYA(B)
Leaving Water Temperature Range	Heating	°C	20~80
	Cooling	°C	5~25
Storage Temperature Range(Tank)	DHW	°C	25~75
Water Piping Connection	Inlet/Outlet	inch	R 1/R 1
Backup Electric Heater	Capacity	kW	1+2
Pressure Relief Valve Water Circuit		bar	Open: 3.5, Close: 2.5 and below
Flow Switch			Electronic Sensor
Expansion Vessel (Only for HU1*2WAHYA**)	Volume	L	8
	MWP	bar	10
Power Supply		Ph/V/Hz	1/220~240/50
Minimum Circuit Amps(MCA)		A	14.1
Maximum Fuse Amps(MFA)		A	20
Water Flow Rate	Standard	m³/h	0.690
	Minimum	m³/h	0.240
Sound Power Level		dB	40
Net Dimension	H*W*D	mm	850*480*310
Packing Dimension	H*W*D	mm	1020*580*460
Net / Gross Weight	HU1*2WAHYA**(2)	kg	35.5 / 49
	HU1*2WAHYB**(3)	kg	32.5/46

Outdoor Unit		Unit	AW032HSGHA
Heating (LWT 35°C / OAT 7°C)	Capacity	kW	3.80
	Power input	kW	0.72
	COP	W/W	5.30
Heating (LWT 55°C / OAT 7°C)	Capacity	kW	3.50
	Power input	kW	1.09
	COP	W/W	3.21
Space Heating Average Climate Water Outlet 35°C	SCOP	~	5.07
	η_s	%	200
	Energy class	-	A+++
Space Heating Average Climate Water Outlet 55°C	SCOP	-	3.85
	η_s	%	151
	Energy class	-	A+++
Cooling (LWT 18°C / OAT 35°C)	Capacity	kW	3.50
	Power input	kW	0.74
	EER	W/W	4.70
Cooling (LWT 7°C / OAT 35°C)	Capacity	kW	3.50
	Power input	kW	1.13
	EER	W/W	3.10
Outdoor operating temperature range	Heating	°C	-25 ~35
	Cooling	°C	10 ~ 48
	DHW	°C	-25 ~43

Outdoor Unit		Unit	AW032HSGHA
Leaving Water Temperature Range	Heating	°C	20~80
	Cooling	°C	5~25
Storage Temperature Range(Tank)	DHW	°C	25~75
Water Flow Rate	Standard	L/min	10.0
	Minimum	L/min	4.0
Water Piping Connection	Inlet/Outlet	inch	G1 / G1
Safety Devices			High pressure switch, Fan driver overload protector, Overcurrent fuse, Inverter overload protector, Refrigerant separator, Safety valve, Expansion vessel
Defrost Method			4WV reverse defrosting
Casing	Color		Slate Grey
	Material		Galvanized steel
Compressor	Brand		Shanghai Highly
	Type		DC Inverter Twin Rotary
	Compressor Quantity		1
	Rated Load Amps. (RLA)	A	5.80
	Crankcase Heater	W	27
		Quantity	1
	Compressor Oil Brand		Idemitsu Luoyi (Shanghai) Chemical Co., Ltd.
	Compressor Oil Type		RA46XA-H
	Compressor Oil Charge(Compressor + Gas-liquid Separator)	ml	500±20ml
Fan Motor	Brand		BROAD-OCEAN
	IP Class		IP44
	Type		DC
	Quantity		1
	Insulation Class		E
	Safe Class		I
	Max. Speed	rpm	900
	Output	W	160
Fan	Brand		Lang Di
	Type		Axial
	Diameter	mm	Ø570
Heat Exchanger	Number of Rows		2
	Tube Pitch	mm	21
	Row Pitch	mm	21.65
	Fin Spacing	mm	1.45
	Fin Type		Hydrophilic aluminum
	Fin Coating Type	Optional	Clear lacquer
	Salt Spray Test Duration	hour	168
	Tube(ID)	mm	φ6
	Tube Type		INNERGROOVE TUBE

Outdoor Unit		Unit	AW032HSGHA
Plate Heat Exchanger	Brand		Weyee
Water Pump	Head m	/	/
Electronic Expansion Valve	LEV _a	Brand	DUNAN
Four Way Valve		Brand	SANHUA
		Quantity	1
Pressure Sensor of Discharge	Brand		Sensata/SANHUA
Pressure Sensor of Suction	Brand		Sensata/SANHUA
Temp. Sensor	Temperature Sensor Type		Discharge
	Value of Resistance @20°C /Ω		50K
	Temperature Sensor Type		Suction/Outdoor Ambient/Defrost/ Liquid pipe/Gas pipe/Inlet water/ Outlet water
	Value of Resistance @20°C /Ω		10K
Cabinet Coating	Coating Type		Powder Coating
	Salt Spray Test Duration	hour	72
	Sheet Metal Material		Hot zinc plate
	Sheet Metal Thickness	mm	1
Electrical Control Box IP Class		Standard	IP24
Refrigerant	Type	-	R290
	Charge	kg	0.59
	CO ₂ Eq.	kg	1.77
Sound pressure level*(1)		dB(A)	42
Sound power level*(1)		dB	55
Net dimension	H*W*D	mm	765*920*372
Packing dimension	H*W*D	mm	875*1045*488
Net / Gross weight		kg	68/80
Power Supply		Ph/V/Hz	1/220~240/50
Minimum Circuit Amps(MCA)		A	13.5
Maximum Fuse Amps(MFA)		A	16
Minimum Power Supply Cable		mm ²	4
Accessory	Wired Controller	/	1
	Filter	/	1
	Sensor	/	5
Note: 1. According to EN14511, EN14825 (EU) and No 811/2013(EU). 2. LWT: Leaving water temperature; OAT: Outdoor air temperature. 3. Sound level values are measured at a semi-anechoic room. And the sound power level values are based on measurement of EN12102-1 under conditions of EN14825. 4. The above data may be changed without notice for future improvement on quality and performance.			

Indoor Unit		Unit	HU102WAHYA(B)
Leaving Water Temperature Range	Heating	°C	20~80
	Cooling	°C	5~25
Storage Temperature Range(Tank)	DHW	°C	25~75
Water Piping Connection	Inlet/Outlet	inch	R 1/R 1
Backup Electric Heater	Capacity	kW	1+2
Pressure Relief Valve Water Circuit		bar	Open: 3.5, Close: 2.5 and below
Flow Switch			Electronic Sensor
Expansion Vessel (Only for HU1*2WAHYA**)	Volume	L	8
	MWP	bar	10
Power Supply		Ph/V/Hz	1/220~240/50
Minimum Circuit Amps(MCA)		A	14.1
Maximum Fuse Amps(MFA)		A	20
Water Flow Rate	Standard	m³/h	1.032
	Minimum	m³/h	0.360
Sound Power Level		dB	40
Net Dimension	H*W*D	mm	850*480*310
Packing Dimension	H*W*D	mm	1020*580*460
Net / Gross Weight	HU1*2WAHYA**(2)	kg	35.5 / 49
	HU1*2WAHYB**(3)	kg	32.5/46

Outdoor Unit			AW052HSGHA
Heating (LWT 35°C / OAT 7°C)	Capacity	kW	5.10
	Power input	kW	0.99
	COP	W/W	5.16
Heating (LWT 55°C / OAT 7°C)	Capacity	kW	5.10
	Power input	kW	1.58
	COP	W/W	3.23
Space Heating Average Climate Water Outlet 35°C	SCOP	~	4.90
	η_s	%	193
	Energy class	-	A+++
Space Heating Average Climate Water Outlet 55°C	SCOP	-	3.85
	η_s	%	151
	Energy class	-	A+++
Cooling (LWT 18°C / OAT 35°C)	Capacity	kW	5.00
	Power input	kW	1.08
	EER	W/W	4.65
Cooling (LWT 7°C / OAT 35°C)	Capacity	kW	4.60
	Power input	kW	1.51
	EER	W/W	3.05
Outdoor operating temperature range	Heating	°C	-25 ~35
	Cooling	°C	10 ~ 48
	DHW	°C	-25 ~43

Outdoor Unit		Unit	AW052HSGHA
Leaving Water Temperature Range	Heating	°C	20~80
	Cooling	°C	5~25
Storage Temperature Range(Tank)	DHW	°C	25~75
Water Flow Rate	Standard	L/min	14.0
	Minimum	L/min	6.0
Water Piping Connection	Inlet/Outlet	inch	G1 / G1
Safety Devices			High pressure switch, Fan driver overload protector, Overcurrent fuse, Inverter overload protector, Refrigerant separator, Safety valve, Expansion vessel
Defrost Method			4WV reverse defrosting
Casing	Color		Slate Grey
	Material		Galvanized steel
Compressor	Brand		Shanghai Highly
	Type		DC Inverter Twin Rotary
	Compressor Quantity		1
	Rated Load Amps. (RLA)	A	5.80
	Crankcase Heater	W	27
		Quantity	1
	Compressor Oil Brand		Idemitsu Luoyi (Shanghai) Chemical Co., Ltd.IDEMITSUKOSAN CO.,LTD
	Compressor Oil Type		RA46XA-H
	Compressor Oil Charge(Compressor + Gas-liquid Separator)	ml	500±20ml
Fan Motor	Brand		BROAD-OCEAN
	IP Class		IP44
	Type		DC
	Quantity		1
	Insulation Class		E
	Safe Class		I
	Max. Speed	rpm	900
	Output	W	160
Fan	Brand		Lang Di
	Type		Axial
	Diameter	mm	Ø570
Heat Exchanger	Number of Rows		2
	Tube Pitch	mm	21
	Row Pitch	mm	21.65
	Fin Spacing	mm	1.45
	Fin Type		Hydrophilic aluminum
	Fin Coating Type	Optional	Clear lacquer
	Salt Spray Test Duration	hour	168
	Tube(ID)	mm	φ6
	Tube Type		INNERGROOVE TUBE
Plate Heat Exchanger	Brand		Weyee

Outdoor Unit			Unit	AW052HSGHA
Water Pump	Head	m	/	/
Electronic Expansion Valve	LEV _a		Brand	DUNAN
Four Way Valve			Brand	SANHUA
			Quantity	1
Pressure Sensor of Discharge	Brand			Sensata/SANHUA
Pressure Sensor of Suction	Brand			Sensata/SANHUA
Temp. Sensor	Temperature Sensor Type			Discharge
	Value of Resistance @20°C /Ω			50K
	Temperature Sensor Type			Suction/Outdoor Ambient/Defrost/ Liquid pipe/Gas pipe/Inlet water/ Outlet water
	Value of Resistance @20°C /Ω			10K
Cabinet Coating	Coating Type			Powder Coating
	Salt Spray Test Duration	hour		72
	Sheet Metal Material			Hot zinc plate
	Sheet Metal Thickness	mm		1
Electrical Control Box IP Class			Standard	IP24
Refrigerant	Type		-	R290
	Charge		kg	0.59
	CO ₂ Eq.		kg	1.77
Sound pressure level*(1)			dB(A)	42
Sound power level*(1)			dB	55
Net dimension	H*W*D		mm	765*920*372
Packing dimension	H*W*D		mm	875*1045*488
Net / Gross weight			kg	68/80
Power Supply			Ph/V/Hz	1/220~240/50
Minimum Circuit Amps(MCA)			A	13.5
Maximum Fuse Amps(MFA)			A	16
Minimum Power Supply Cable			mm ²	4
Accessory	Wired Controller		/	1
	Filter		/	1
	Sensor		/	5

Note:

1. According to EN14511, EN14825 (EU) and No 811/2013(EU).
2. LWT: Leaving water temperature; OAT: Outdoor air temperature.
3. Sound level values are measured at a semi-anechoic room. And the sound power level values are based on measurement of EN12102-1 under conditions of EN14825.
4. The above data may be changed without notice for future improvement on quality and performance.

4.2 Indoor Units - Hydro All in One

Indoor Unit		Unit	HU102F20AHYA
Leaving Water Temperature Range	Heating	°C	20~80
	Cooling	°C	5~25
Storage Temperature Range(Tank)	DHW	°C	25~75
Water Piping Connection	Inlet/Outlet (except for DHW)	inch	R 1/R 1
	Inlet/Outlet (DHW)	inch	R 3/4
Expansion Vessel		L	8
Primary Circuit	Pressure Relief Valve	bar	3
Power Supply		Ph/V/Hz	1/220~240/50
Minimum Circuit Amps(MCA)*(1)		A	14.1
Maximum Fuse Amps(MFA)		A	20
DHW Tank	Tank Volume	L	200
	Maximum Water Pressure Limit	bar	7
	Tank Heater	kW	3
	Inner Coil heat exchange area	m ²	1.8
	Energy class	-	A+
Pressure Relief Valve Water Circuit	Water Circuit	bar	Open: 3.5, Close: 2.5 and below
	DHW Tank	bar	Open: 7.5, Close: 6.5 and below
Flow Switch			Electronic Sensor
Backup Electric Heater	Power Supply	Ph/V/Hz	1/220~240/50
	Capacity	kW	1+2
	Steps	-	2
	Minimum Circuit Amps(MCA)	A	14.0
	Maximum Fuse Amps(MFA)	A	20
Water Flow Rate	Standard	m ³ /h	0.690
	Minimum	m ³ /h	0.240
Sound Power Level		dB	40
Net Dimension	H*W*D	mm	1780*590*590
Packing Dimension	H*W*D	mm	2060*695*695
Net / Gross Weight		kg	115 / 131

Outdoor Unit		Unit	AW032HSGHA
Heating (LWT 35°C / OAT 7°C)	Capacity	kW	3.80
	Power input	kW	0.72
	COP	W/W	5.30
Heating (LWT 55°C / OAT 7°C)	Capacity	kW	3.50
	Power input	kW	1.09
	COP	W/W	3.21
Space Heating Average Climate Water Outlet 35°C	SCOP	~	5.07
	η _s	%	200
	Energy class	-	A+++
Space Heating Average Climate Water Outlet 55°C	SCOP	-	3.85
	η _s	%	151
	Energy class	-	A+++

Outdoor Unit		Unit	AW032HSGHA
Cooling (LWT 18℃ / OAT 35℃)	Capacity	kW	3.50
	Power input	kW	0.74
	EER	W/W	4.70
Cooling (LWT 7℃ / OAT 35℃)	Capacity	kW	3.50
	Power input	kW	1.13
	EER	W/W	3.10
Outdoor operating temperature range	Heating	℃	-25 ~35
	Cooling	℃	10 ~ 48
	DHW	℃	-25 ~43
Leaving Water Temperature Range	Heating	℃	20~80
	Cooling	℃	5~25
Storage Temperature Range(Tank)	DHW	℃	25~75
Water Flow Rate	Standard	L/min	10.0
	Minimum	L/min	4.0
Water Piping Connection	Inlet/Outlet	inch	G1 / G1
Safety Devices			High pressure switch, Fan driver overload protector, Overcurrent fuse, Inverter overload protector, Refrigerant separator, Safety valve, Expansion vessel
Defrost Method			4WV reverse defrosting
Casing	Color		Slate Grey
	Material		Galvanized steel
Compressor	Brand		Shanghai Highly
	Type		DC Inverter Twin Rotary
	Compressor Quantity		1
	Rated Load Amps. (RLA)	A	5.80
	Crankcase Heater	W	27
		Quantity	1
	Compressor Oil Brand		Idemitsu Luoyi (Shanghai) Chemical Co., Ltd.IDEMITSUKOSAN CO.,LTD
	Compressor Oil Type		RA46XA-H
	Compressor Oil Charge(Compressor + Gas-liquid Separator)	ml	500±20ml
Fan Motor	Brand		BROAD-OCEAN
	IP Class		IP44
	Type		DC
	Quantity		1
	Insulation Class		E
	Safe Class		I
	Max. Speed	rpm	900
	Output	W	160
Fan	Brand		Lang Di
	Type		Axial
	Diameter	mm	Ø570

Outdoor Unit		Unit	AW032HSGHA
Heat Exchanger	Number of Rows		2
	Tube Pitch	mm	21
	Row Pitch	mm	21.65
	Fin Spacing	mm	1.45
	Fin Type		Hydrophilic aluminum
	Fin Coating Type	Optional	Clear lacquer
	Salt Spray Test Duration	hour	168
	Tube(ID)	mm	φ6
	Tube Type		INNERGROOVE TUBE
Plate Heat Exchanger	Brand		Weyee
Water Pump	Head	m	/
Electronic Expansion Valve	LEVa	Brand	DUNAN
Four Way Valve		Brand	SANHUA
		Quantity	1
Pressure Sensor of Discharge	Brand		Sensata/SANHUA
Pressure Sensor of Suction	Brand		Sensata/SANHUA
Temp. Sensor	Temperature Sensor Type		Discharge
	Value of Resistance @20°C /Ω		50K
	Temperature Sensor Type		Suction/Outdoor Ambient/Defrost/ Liquid pipe/Gas pipe/Inlet water/ Outlet water
	Value of Resistance @20°C /Ω		10K
Cabinet Coating	Coating Type		Powder Coating
	Salt Spray Test Duration	hour	72
	Sheet Metal Material		Hot zinc plate
	Sheet Metal Thickness	mm	1
Electrical Control Box IP Class		Standard	IP24
Refrigerant	Type	-	R290
	Charge	kg	0.59
	CO ₂ Eq.	kg	1.77
Sound pressure level*(1)		dB(A)	42
Sound power level*(1)		dB	55
Net dimension	H*W*D	mm	765*920*372
Packing dimension	H*W*D	mm	875*1045*488
Net / Gross weight		kg	68/80
Power Supply		Ph/V/Hz	1/220~240/50
Minimum Circuit Amps(MCA)		A	13.5
Maximum Fuse Amps(MFA)		A	16
Minimum Power Supply Cable		mm ²	4
Accessory	Wired Controller	/	1
	Filter	/	1
	Sensor	/	3

Note:

1. According to EN14511, EN14825 (EU) and No 811/2013(EU).
2. LWT: Leaving water temperature; OAT: Outdoor air temperature.
3. Sound level values are measured at a semi-anechoic room. And the sound power level values are based on measurement of EN12102-1 under conditions of EN14825.
4. The above data may be changed without notice for future improvement on quality and performance.

Indoor Unit		Unit	HU102F20AHYA
Leaving Water Temperature Range	Heating	°C	20~80
	Cooling	°C	5~25
Storage Temperature Range(Tank)	DHW	°C	25~75
Water Piping Connection	Inlet/Outlet (except for DHW)	inch	R 1/R 1
	Inlet/Outlet (DHW)	inch	R 3/4
Expansion Vessel		L	8
Primary Circuit	Pressure Relief Valve	bar	3
Power Supply		Ph/V/Hz	1/220~240/50
Minimum Circuit Amps(MCA)*(1)		A	14.1
Maximum Fuse Amps(MFA)		A	20
DHW Tank	Tank Volume	L	200
	Maximum Water Pressure Limit	bar	7
	Tank Heater	kW	3
	Inner Coil heat exchange area	m ²	1.8
	Energy class	-	A+
Pressure Relief Valve Water Circuit	Water Circuit	bar	Open: 3.5, Close: 2.5 and below
	DHW Tank	bar	Open: 7.5, Close: 6.5 and below
Flow Switch			Electronic Sensor
Backup Electric Heater	Power Supply	Ph/V/Hz	1/220~240/50
	Capacity	kW	1+2
	Steps	-	2
	Minimum Circuit Amps(MCA)	A	14.0
	Maximum Fuse Amps(MFA)	A	20
Water Flow Rate	Standard	m ³ /h	0.690
	Minimum	m ³ /h	0.240
Sound Power Level		dB	40
Net Dimension	H*W*D	mm	1780*590*590
Packing Dimension	H*W*D	mm	2060*695*695
Net / Gross Weight		kg	115 / 131

Outdoor Unit		Unit	AW052HSGHA
Heating (LWT 35°C / OAT 7°C)	Capacity	kW	5.10
	Power input	kW	0.99
	COP	W/W	5.16
Heating (LWT 55°C / OAT 7°C)	Capacity	kW	5.10
	Power input	kW	1.58
	COP	W/W	3.23
Space Heating Average Climate Water Outlet 35°C	SCOP	~	4.90
	η _s	%	193
	Energy class	-	A+++
Space Heating Average Climate Water Outlet 55°C	SCOP	-	3.85
	η _s	%	151
	Energy class	-	A+++

Outdoor Unit		Unit	AW052HSGHA
Cooling (LWT 18℃ / OAT 35℃)	Capacity	kW	5.00
	Power input	kW	1.08
	EER	W/W	4.65
Cooling (LWT 7℃ / OAT 35℃)	Capacity	kW	4.60
	Power input	kW	1.51
	EER	W/W	3.05
Outdoor operating temperature range	Heating	℃	-25 ~35
	Cooling	℃	10 ~ 48
	DHW	℃	-25 ~43
Leaving Water Temperature Range	Heating	℃	20~80
	Cooling	℃	5~25
Storage Temperature Range(Tank)	DHW	℃	25~75
Water Flow Rate	Standard	L/min	14.0
	Minimum	L/min	6.0
Water Piping Connection	Inlet/Outlet	inch	G1 / G1
Safety Devices			High pressure switch, Fan driver overload protector, Overcurrent fuse, Inverter overload protector, Refrigerant separator, Safety valve, Expansion vessel
Defrost Method			4WV reverse defrosting
Casing	Color		Slate Grey
	Material		Galvanized steel
Compressor	Brand		Shanghai Highly
	Type		DC Inverter Twin Rotary
	Compressor Quantity		1
	Rated Load Amps. (RLA)	A	5.80
	Crankcase Heater	W	27
		Quantity	1
	Compressor Oil Brand		Idemitsu Luoyi (Shanghai) Chemical Co., Ltd.
	Compressor Oil Type		RA46XA-H
	Compressor Oil Charge(Compressor + Gas-liquid Separator)	ml	500±20ml
Fan Motor	Brand		BROAD-OCEAN
	IP Class		IP44
	Type		DC
	Quantity		1
	Insulation Class		E
	Safe Class		I
	Max. Speed	rpm	900
	Output	W	160
Fan	Brand		Lang Di
	Type		Axial
	Diameter	mm	Ø570

Outdoor Unit		Unit	AW052HSGHA
Heat Exchanger	Number of Rows		2
	Tube Pitch	mm	21
	Row Pitch	mm	21.65
	Fin Spacing	mm	1.45
	Fin Type		Hydrophilic aluminum
	Fin Coating Type	Optional	Clear lacquer
	Salt Spray Test Duration	hour	168
	Tube(ID)	mm	φ6
	Tube Type		INNERGROOVE TUBE
Plate Heat Exchanger	Brand		Weyee
Water Pump	Head	m	/
Electronic Expansion Valve	LEV a	Brand	DUNAN
Four Way Valve		Brand	SANHUA
		Quantity	1
Pressure Sensor of Discharge	Brand		Sensata/SANHUA
Pressure Sensor of Suction	Brand		Sensata/SANHUA
Temp. Sensor	Temperature Sensor Type		Discharge
	Value of Resistance @20°C /Ω		50K
	Temperature Sensor Type		Suction/Outdoor Ambient/Defrost/ Liquid pipe/Gas pipe/Inlet water/ Outlet water
	Value of Resistance @20°C /Ω		10K
Cabinet Coating	Coating Type		Powder Coating
	Salt Spray Test Duration	hour	72
	Sheet Metal Material		Hot zinc plate
	Sheet Metal Thickness	mm	1
Electrical Control Box IP Class		Standard	IP24
Refrigerant	Type	-	R290
	Charge	kg	0.59
	CO ₂ Eq.	kg	1.77
Sound pressure level*(1)		dB(A)	42
Sound power level*(1)		dB	55
Net dimension	H*W*D	mm	765*920*372
Packing dimension	H*W*D	mm	875*1045*488
Net / Gross weight		kg	68/80
Power Supply		Ph/V/Hz	1/220~240/50
Minimum Circuit Amps(MCA)		A	13.5
Maximum Fuse Amps(MFA)		A	16
Minimum Power Supply Cable		mm ²	4
Accessory	Wired Controller	/	1
	Filter	/	1
	Sensor	/	3

Note:

1. Accordng to EN14511, EN14825 (EU) and No 811/2013(EU).

2. LWT: Leaving water temperature; OAT: Outdoor air temperature.

3. Sound level values are measured at a semi-anechoic room. And the sound power level values are based on measurement of EN12102-1 under conditions of EN14825.

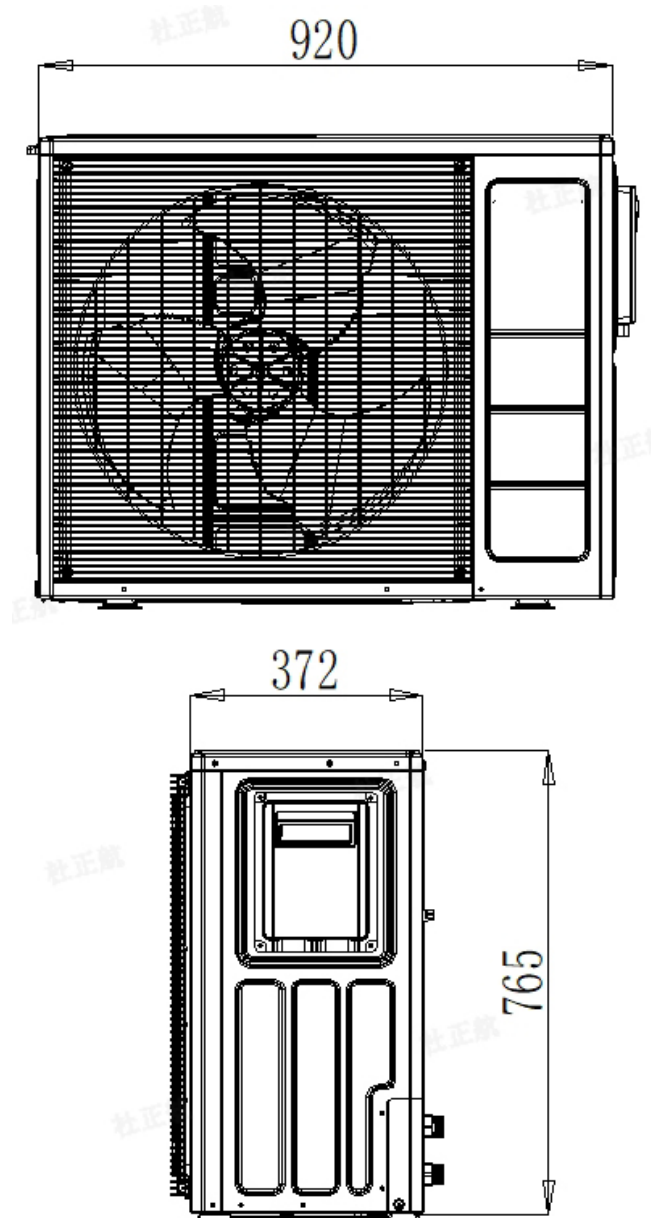
4. The above data may be changed without notice for future improvement on quality and performance.

5. Dimensions

5.1 Outdoor Units

AW032HSGHA AW052HSGHA

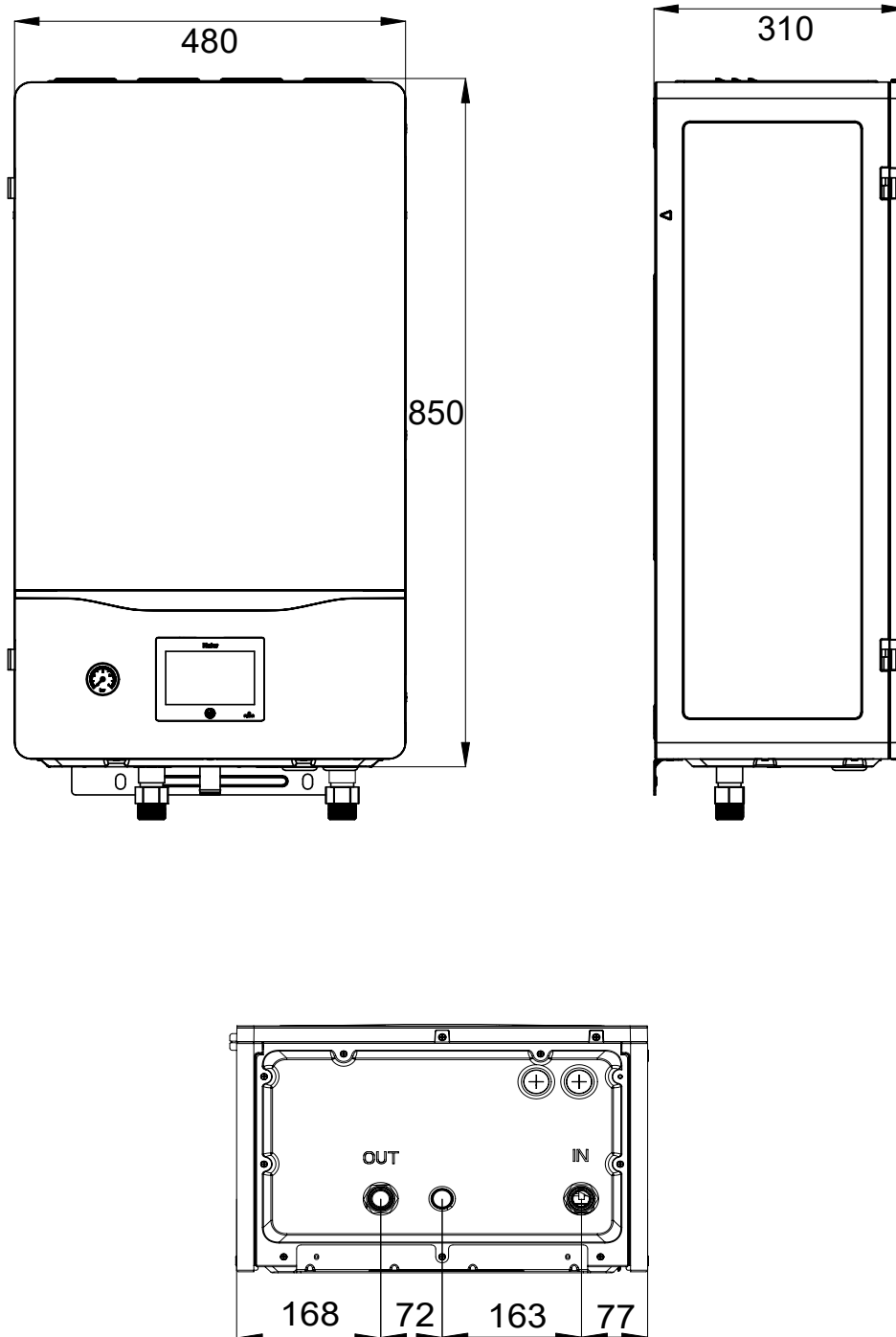
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5.2 Indoor Units - Hydro Split

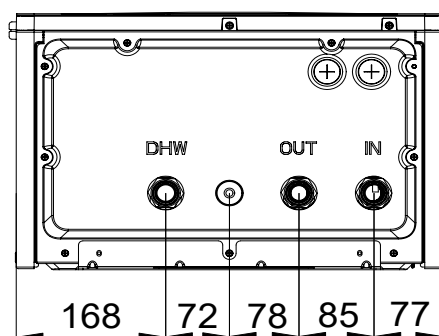
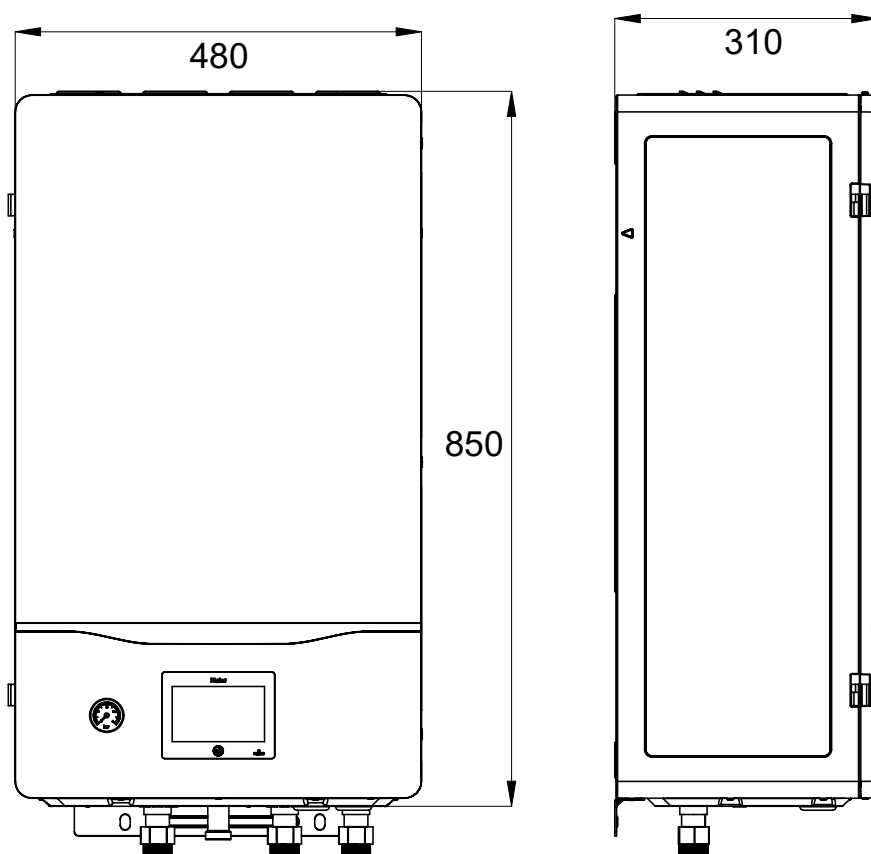
HU102WAHYA

(Unit: mm)



HU102WAHYB

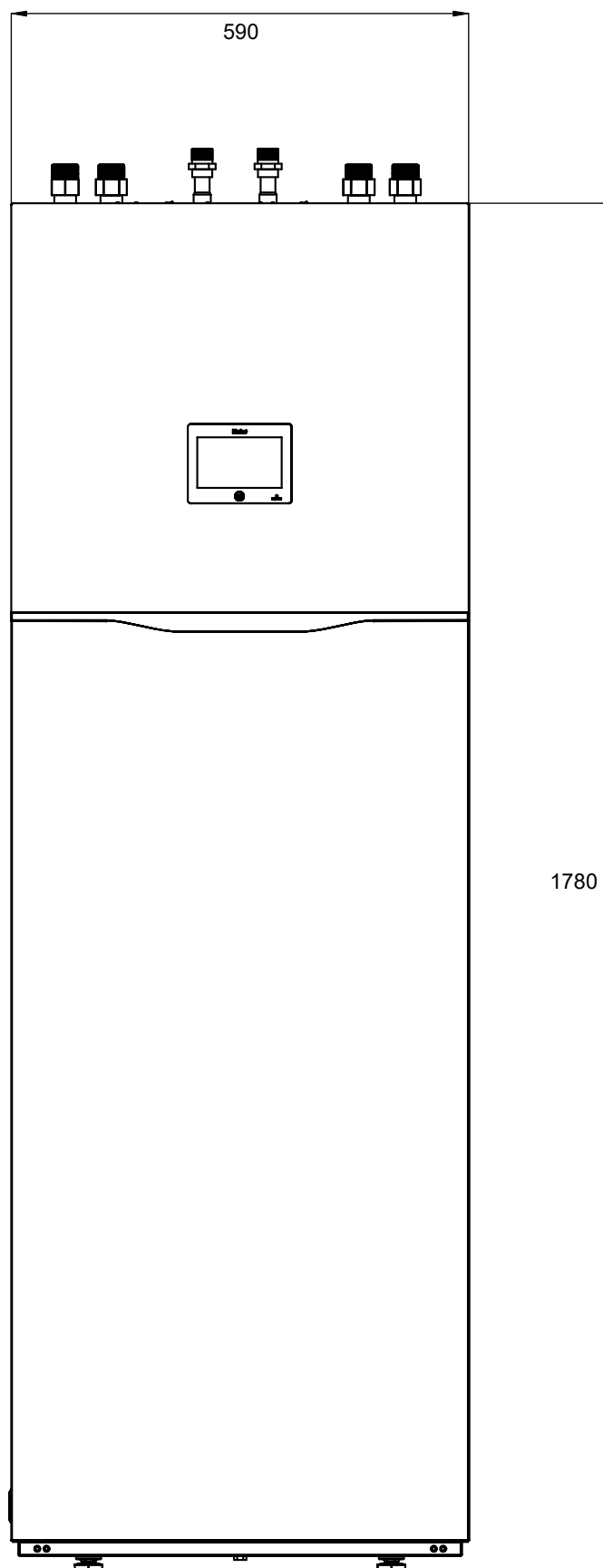
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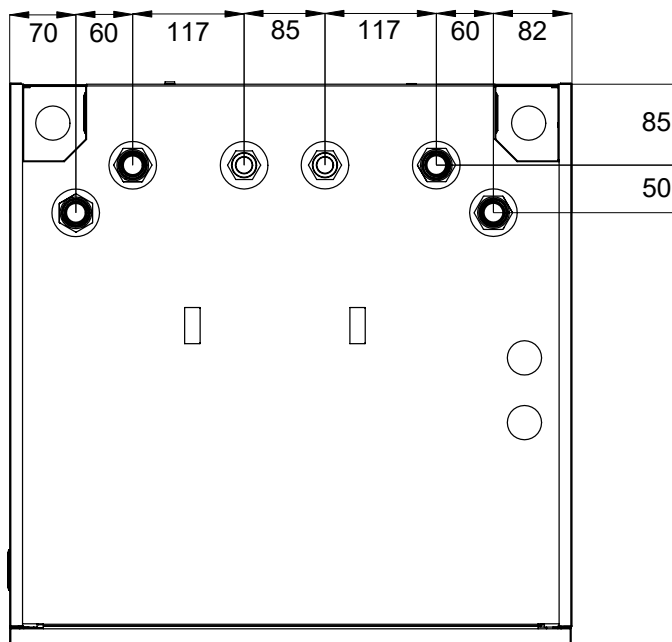
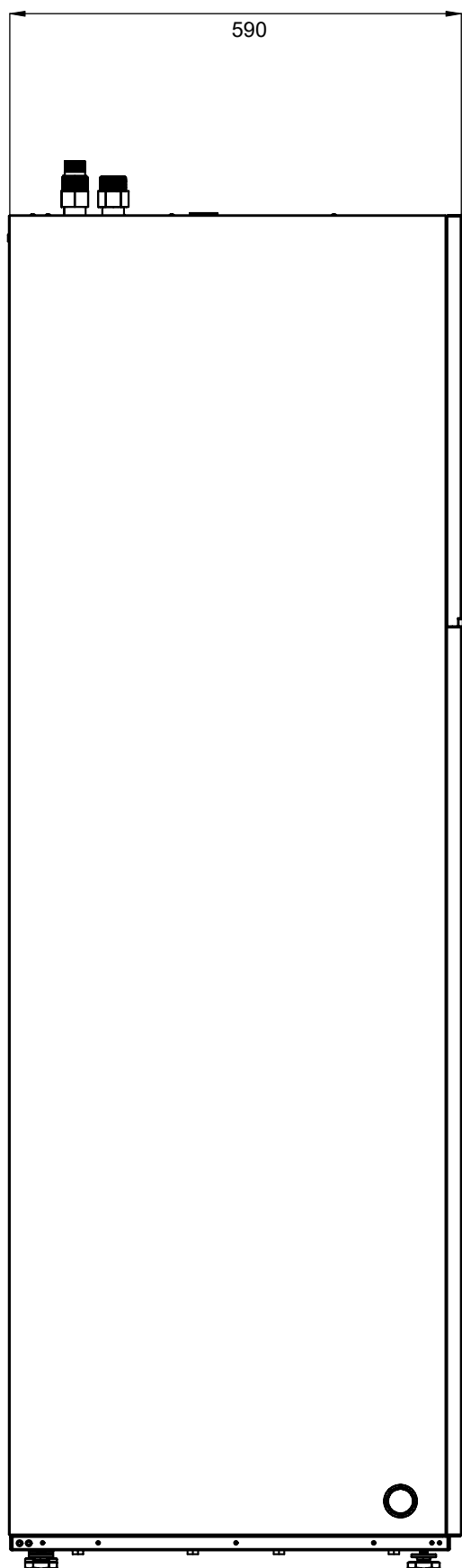
5.3 Indoor Units - Hydro All in One

HU102F16AHYA HU102F20AHYA HU102F24AHYA

(Unit: mm)



(Unit: mm)

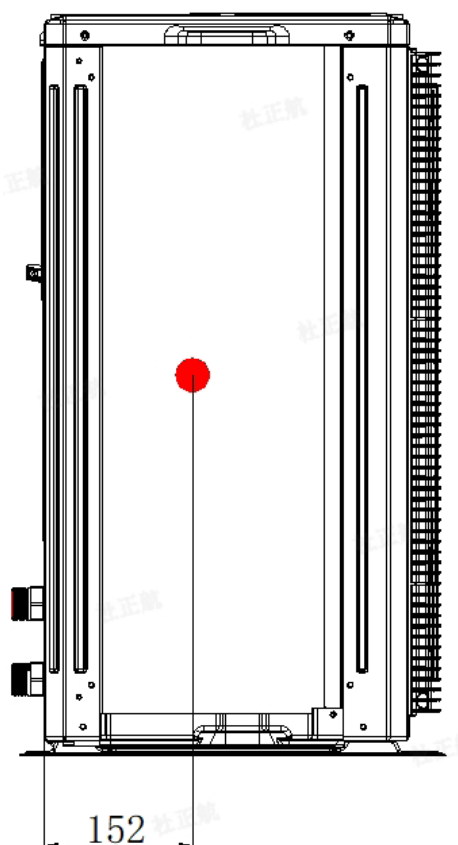
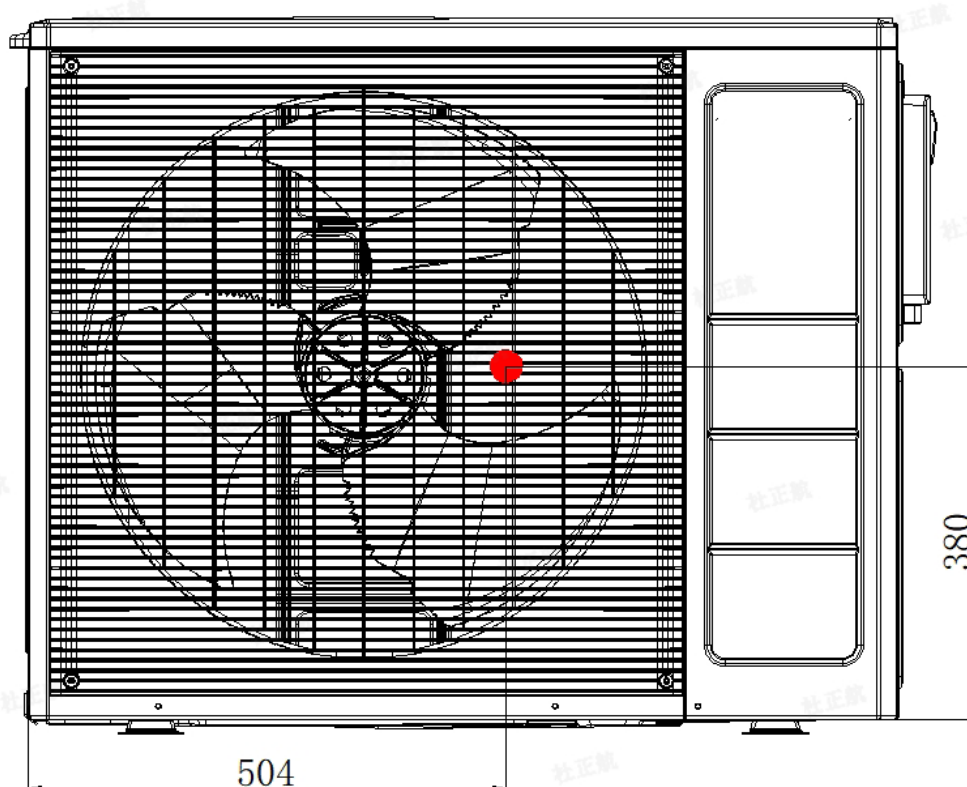


6. Center of Gravity

6.1 Outdoor Units

AW032HSGHA AW052HSGHA

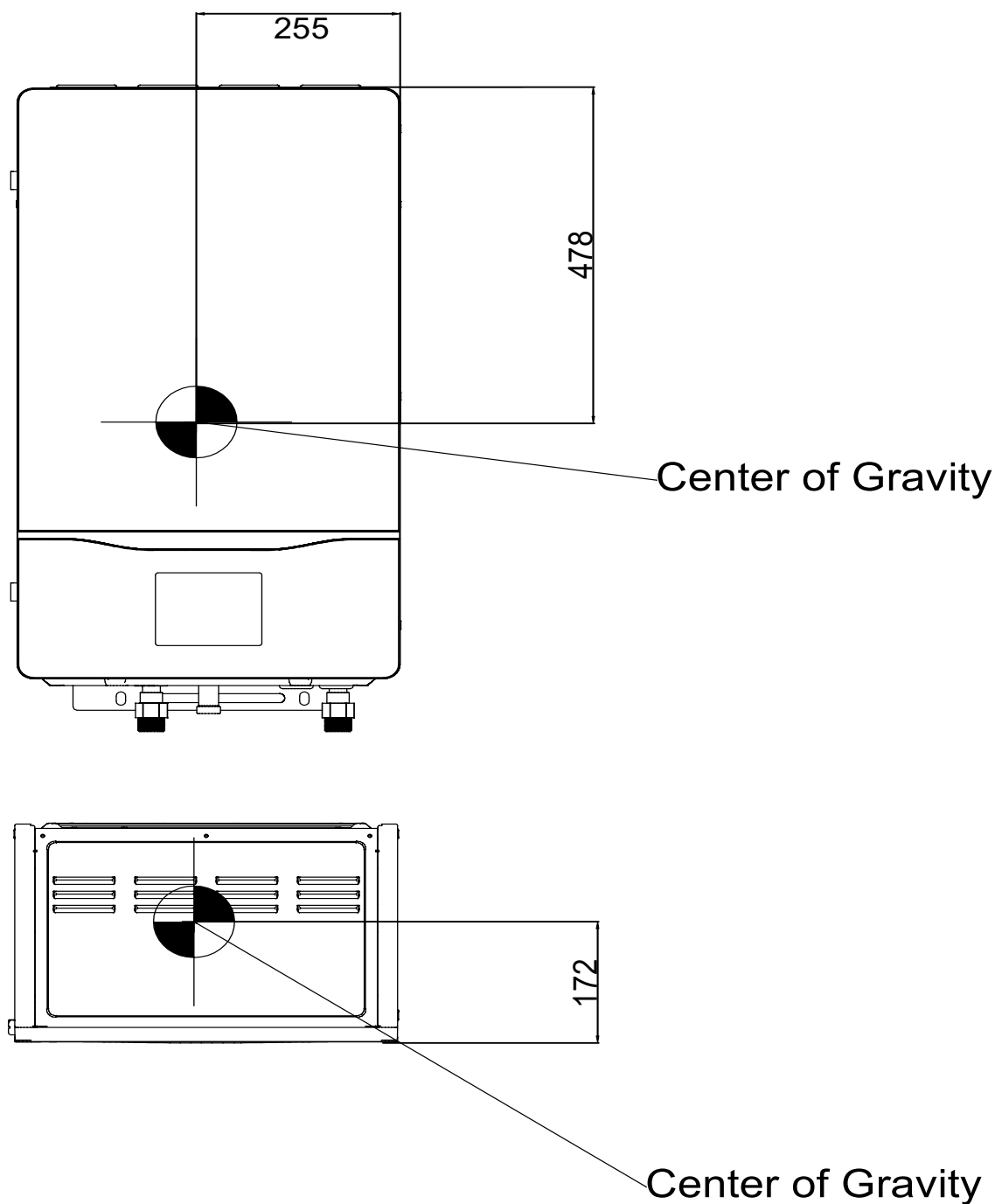
Unit: mm



6.2 Indoor Units - Hydro Split

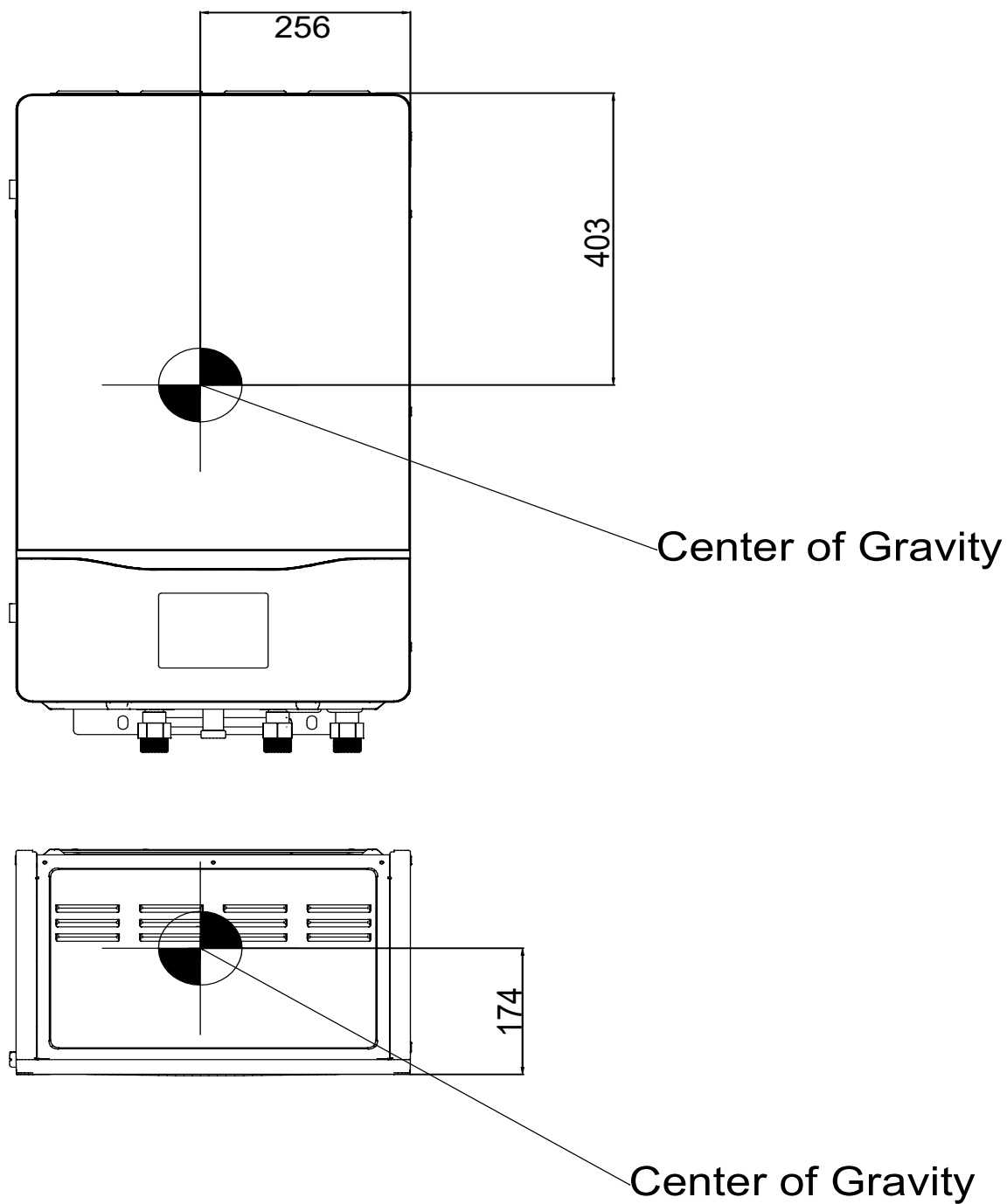
HU102WAHYA

Unit: mm



HU102WAHYB

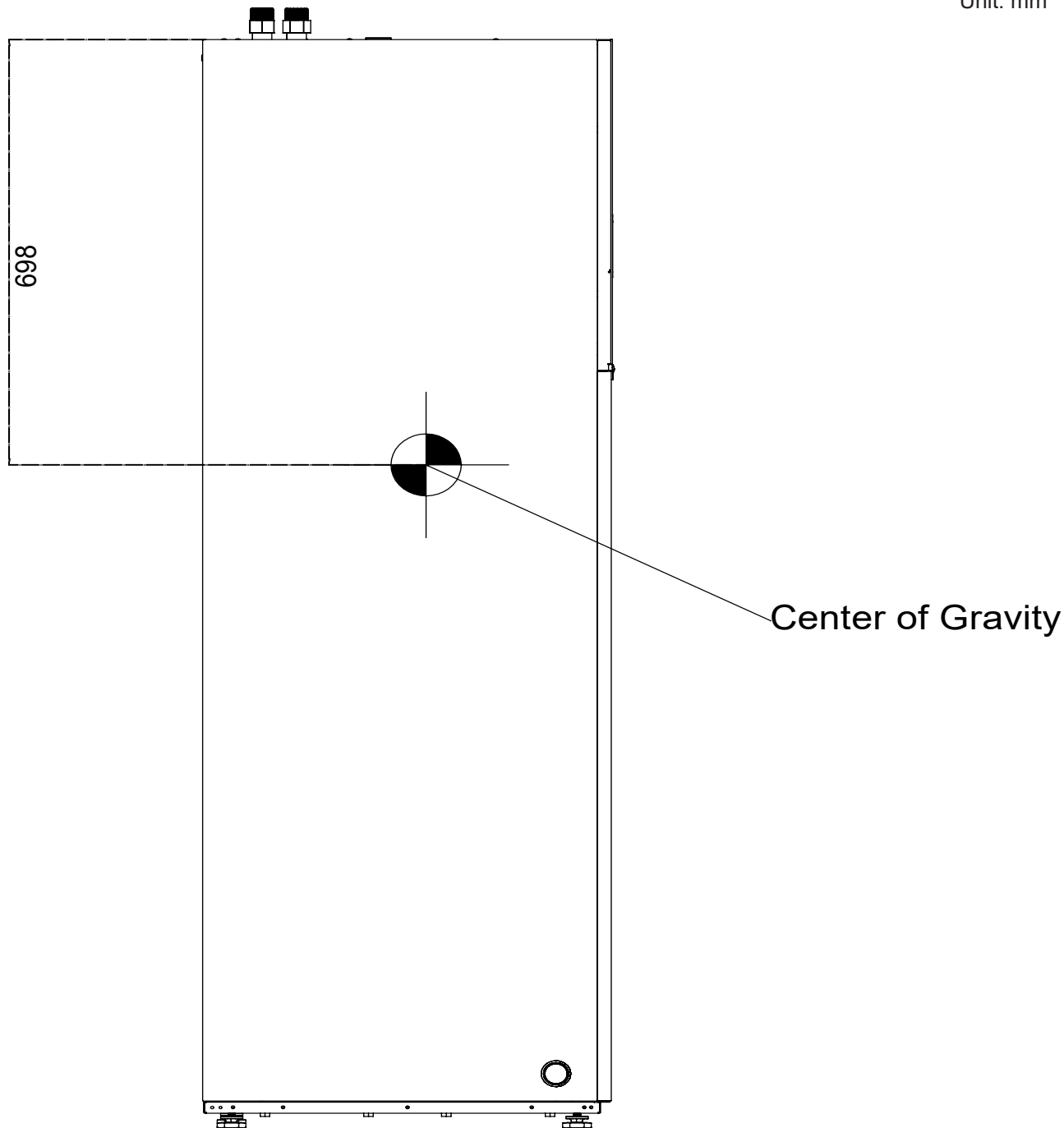
Unit: mm



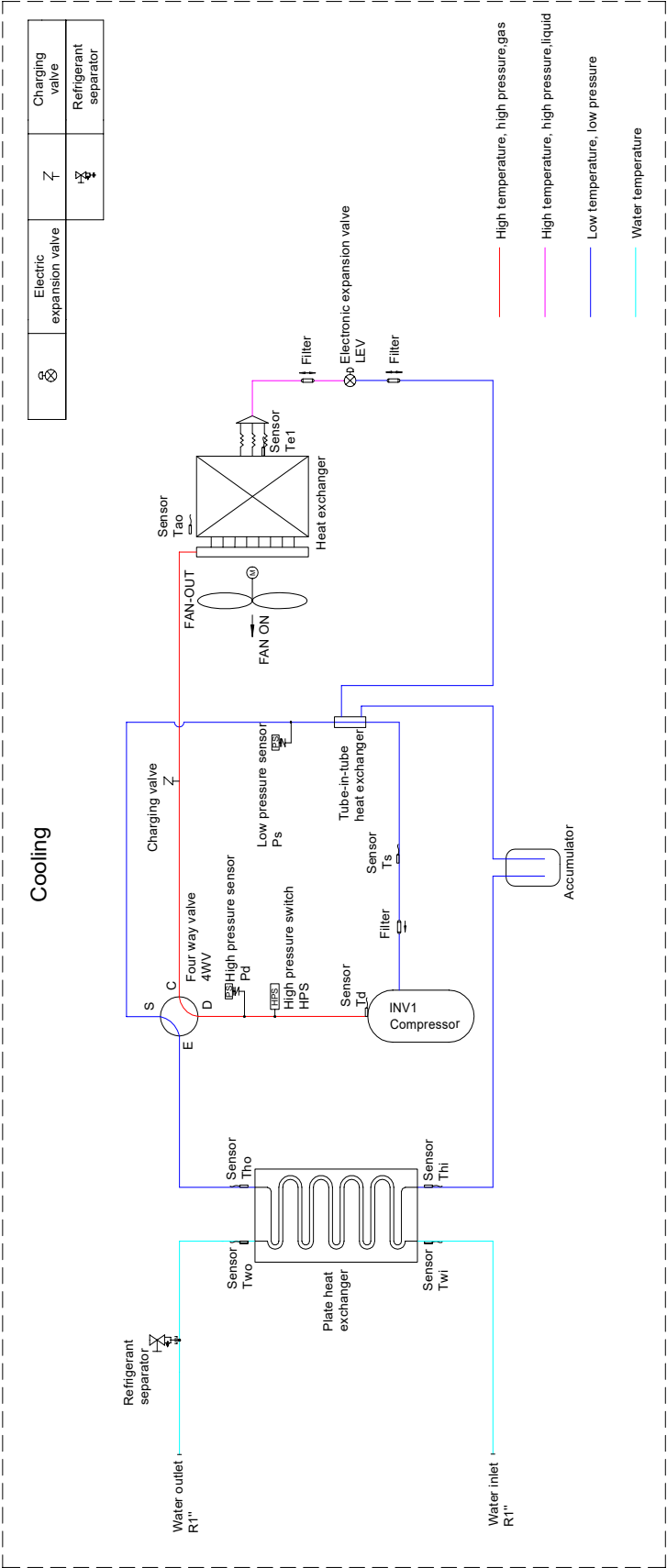
6.3 Indoor Units - Hydro All in One

HU102F20AHYA

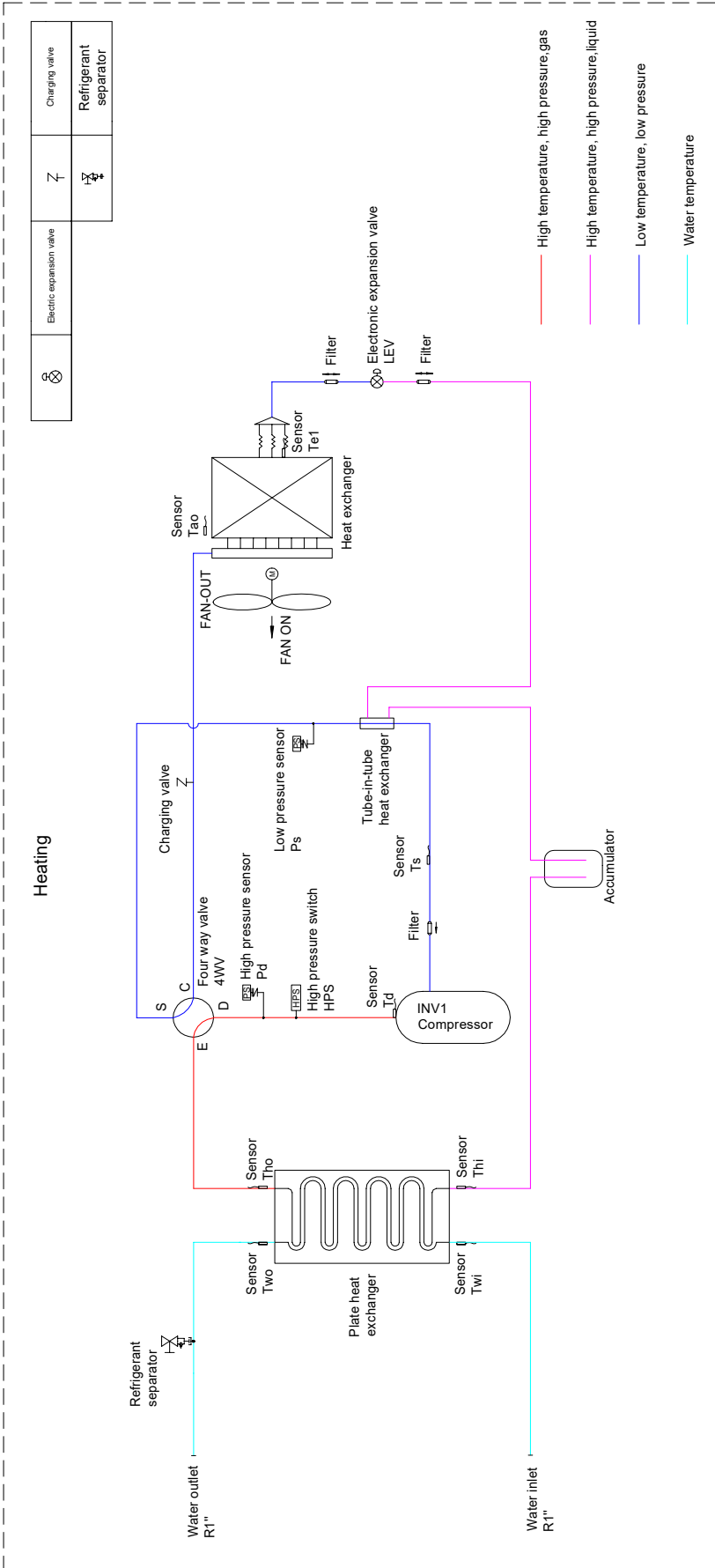
Unit: mm



7. Piping Diagrams
7.1 Outdoor Unit - Cooling



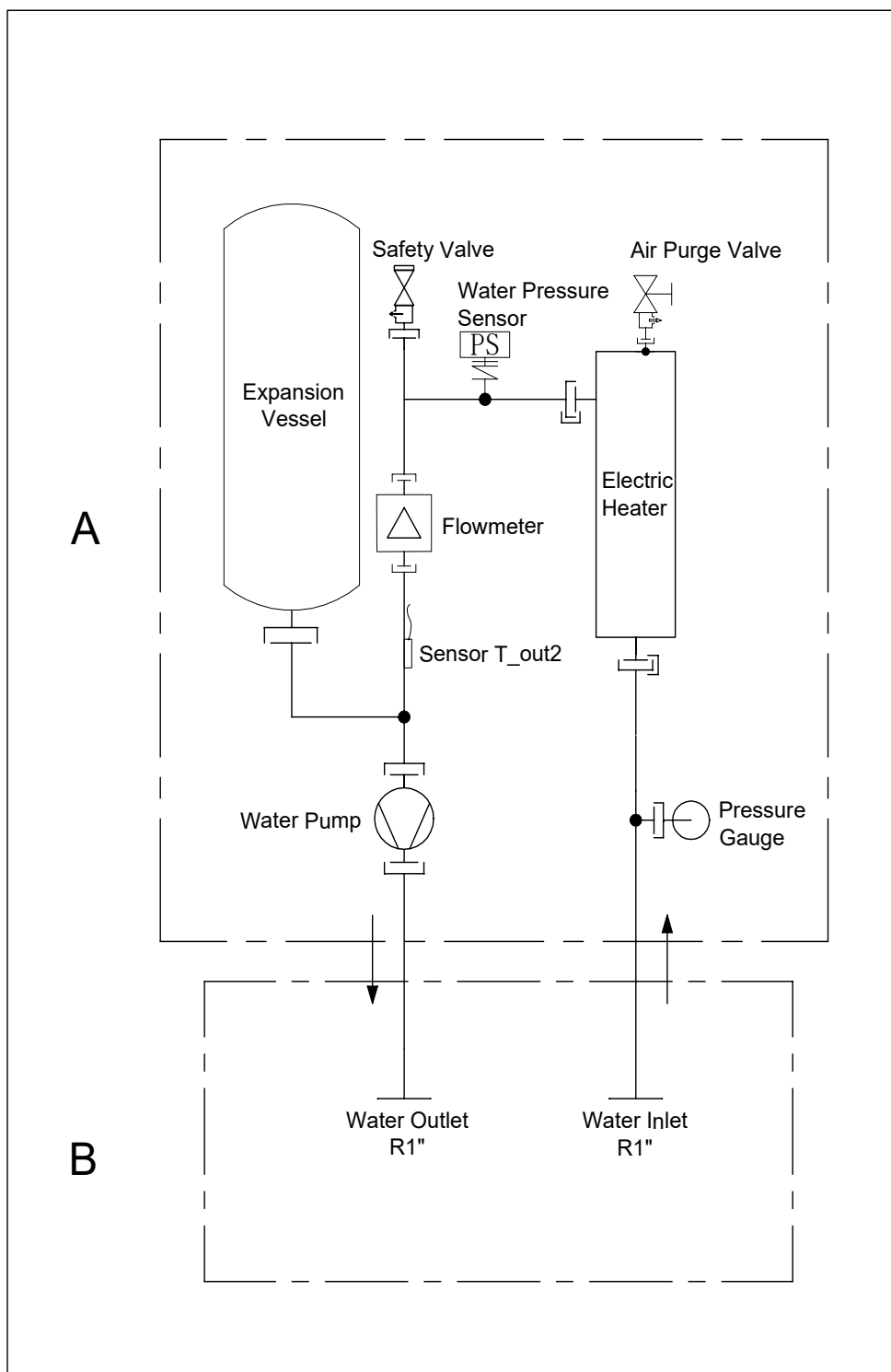
7.2 Outdoor Unit - Heating



Part name	Model	abbr.	Function	Characteristics
Compressor	AW032HSGHA AW052HSGHA	Comp.	Capacity control,meet indoor load request by adjusting the frequency	Motor resistance(at 20°C):0.93Ω
Pressure Sensor		Pd	High pressure detection	Pressure range: 0 to 4.15 MPa
		Ps	Low pressure detection	Pressure range: 0 to 1.7 MPa
Pressure Switch		Hps	High pressure protection	break:3.3MPa reset:2.65MPa
Electronic Expansion Valve1		LEV _a	Refrigerant flow controll	Ø1.3
Four Way Valve		4WV	Change over between cooling and heating	AC220V, electrified in heat; not electrified in cooling or defrosting
Liquid Receiver		/	Used to storage the refrigerant	Volume:0.35L
Charging Valve		/	Used to charge the refrigerant to unit	Ø6.35
Filter		/	Filter impurities	40 mesh
Refrigerant Separator		/	Release refrigerant from the water system	/
Temp. Sensor	AW032HSGHA AW052HSGHA	Td	Discharge temp. of compressor	R80=50kΩ±3%; B25/80=4450K
		Ts	Suction temp. of compressor	R25=10KΩ±3%; B25/50=3700K
		Te	Check frost condition of outdoor heat exchanger	R25=10KΩ±3%; B25/50=3700K
		Tsci	Detect the refrigerant inlet temp. of economizer plate heat exchanger	R25=10kΩ±3%; B25/80=3700K
		Tao	Detect ambient temp. set primary setting for fan speed target pressure and PMV open angle	R25=10KΩ±3%; B25/50=3700K
		Thi	Detect the refrigerant inlet temp. of heat exchanger	R25=10KΩ±3%; B25/50=3700K
		Tho	Detect the refrigerant outlet temp. of heat exchanger	R25=10KΩ±3%; B25/50=3700K
		Tw _i	Detect the water inlet temp. of heat exchanger	R25=10KΩ±3%; B25/50=3700K
		Two	Detect the water outlet temp. of heat exchanger	R25=10KΩ±3%; B25/50=3700K
Plate Heat Exchanger	All	/	Used to exchange the heat from refrigerant to water	Design pressure of refrigerant side:4.5MPa

7.3 Indoor Unit - Hydro Split

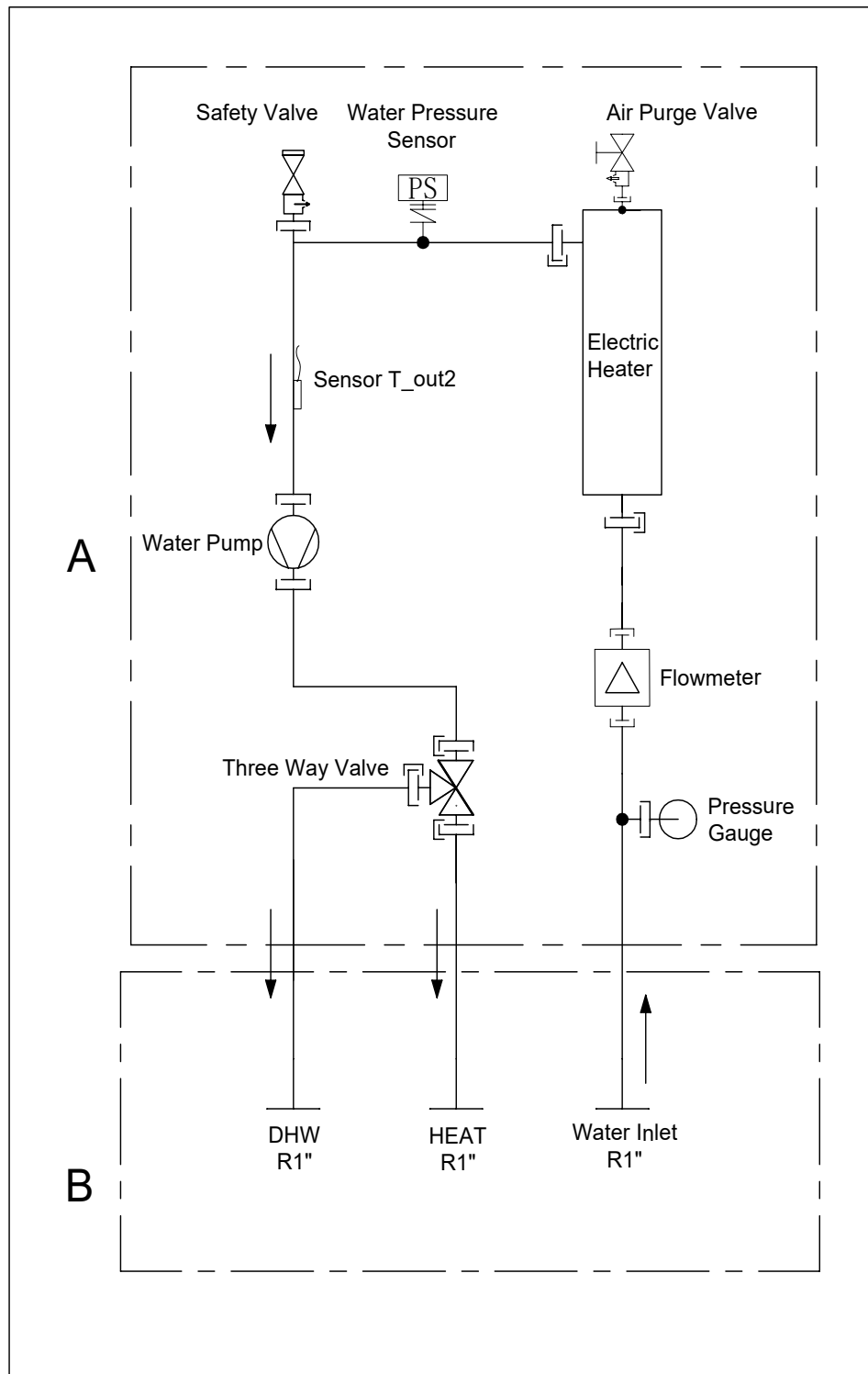
HU102WAHYA



A Split
B Field installed

—|— Screw connection
—•— Brazed connection
—|— Quick coupling

HU102WAHYB

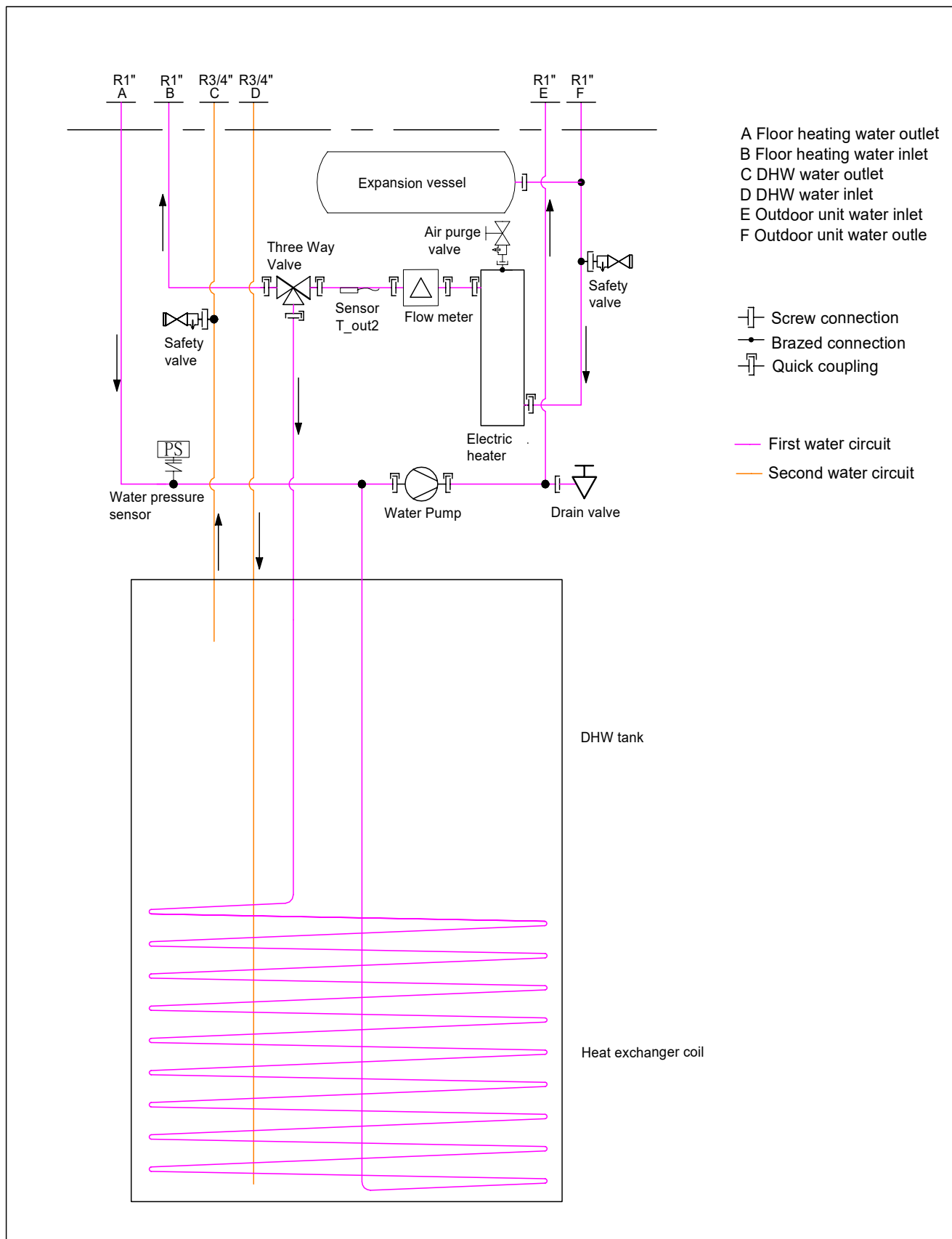


Note: Heat/DHW outlet can't be switched.

Part name	Model	abbr.	Function	Characteristics
Water Pump	HU102WAHYA HU102WAHYB	Pump	Transport water.	Pumping head:9m
Low Pressure Sensor	HU102WAHYA HU102WAHYB	Ps	Low pressure detection.	Pressure range: 0 to 10barG
Safety Valve 3Ber	HU102WAHYA HU102WAHYB	/	High pressure protection.	Operation pressure:3ber.
Three Way Valve	HU102WAHYB	/	Change over between room temperature control and Domestic water tank control.	AC220V, electrified in Domestic water tank control; not electrified in room temperature control.
Flowmeter	HU102WAHYA HU102WAHYB	/	Detect water flow.	5~80 L/min
Air Purge Valve	HU102WAHYA HU102WAHYB	/	Release gas from heating system and water supply pipeline.	\
Expansion Vessel	HU102WAHYA	/	Pressure fluctuation of buffer system.	8L
Electric Heater	HU102WAHYA HU102WAHYB	/	Auxiliary heating at low temperature.	1+2kW
Tout2	HU102WAHYA HU102WAHYB	/	After heaters Temperature Sensor	R25=10KΩ±3%; B25/50=3700K

7.4 Indoor Unit - Hydro All in One

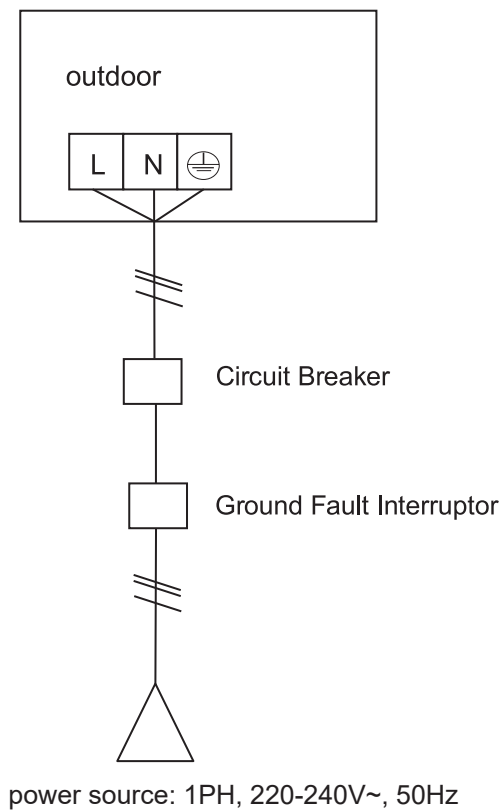
HU102F20AHYA



Part name	Model	abbr.	Function	Characteristics
Water Pump	HU102F20AHYA	Pump	Transport water.	Pumping head:9m
Low Pressure Sensor	HU102F20AHYA	Ps	Low pressure detection.	Pressure range: 0 to 10barG
Drain Valve	HU102F20AHYA	/	Drain the liquid from the system loop.	\
Safety Valve 3bar	HU102F20AHYA	/	High pressure protection.	Operation pressure:3bar.
Safety Valve 7bar	HU102F20AHYA	/	High pressure protection.	Operation pressure:7bar.
Three Way Valve	3WV	/	Change over between room temperature control and Domestic water tank control.	AC220V, electrified in Domestic water tank control; not electrified in room temperature control.
Flowmeter	HU102F20AHYA	/	Detect water flow.	5~80 L/min
Air Purge Valve	HU102F20AHYA	/	Release gas from heating system and water supply pipeline.	\
Expansion Vessel	HU102F20AHYA	/	Pressure fluctuation of buffer system.	8L
Electric Heater	HU102F20AHYA	/	Auxiliary heating at low temperature.	1+2kW
Domestic Water Tank	HU102F20AHYA	/	Provision of domestic water0	200L
T_tank up	HU102F20AHYA	/	Temperature Sensor on Upper Part of Tank	R25=10K Ω ±3%; B25/50=3700K
T_tank down	HU102F20AHYA	/	Temperature Sensor on Lower Part of Tank	R25=10K Ω ±3%; B25/50=3700K
Tout2	HU102F20AHYA	/	After heaters Temperature Sensor	R25=10K Ω ±3%; B25/50=3700K

8. Wiring Diagrams

8.1 Power Wring Figure



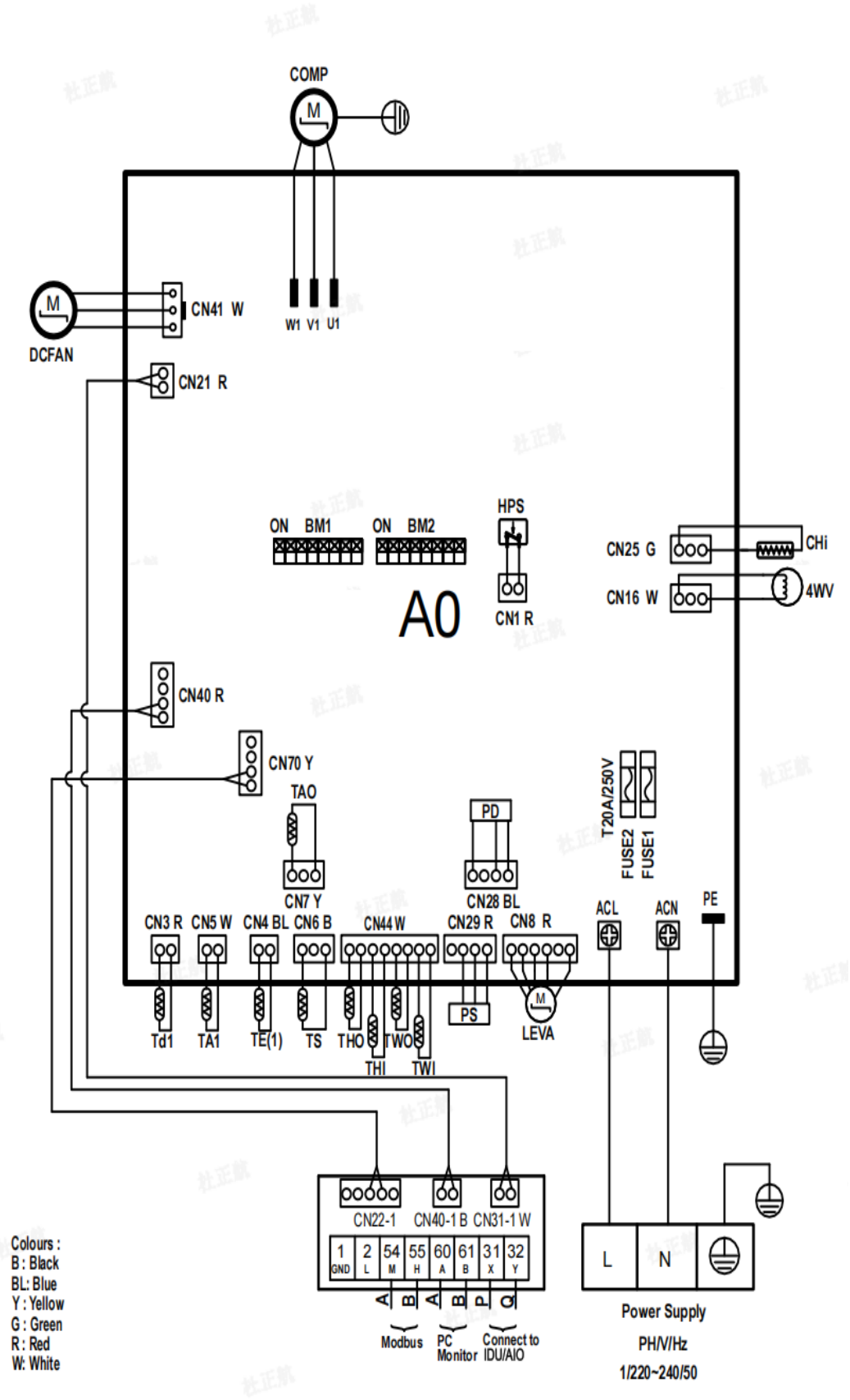
Communication wire to HU indoor unit

Length of Signal Line (m)	Wiring Dimensions
≤1000	0.75mm ² × 2 core shielding line

- The shielding lay of the signal line must be grounded at two side.

8.2 Outdoor Units

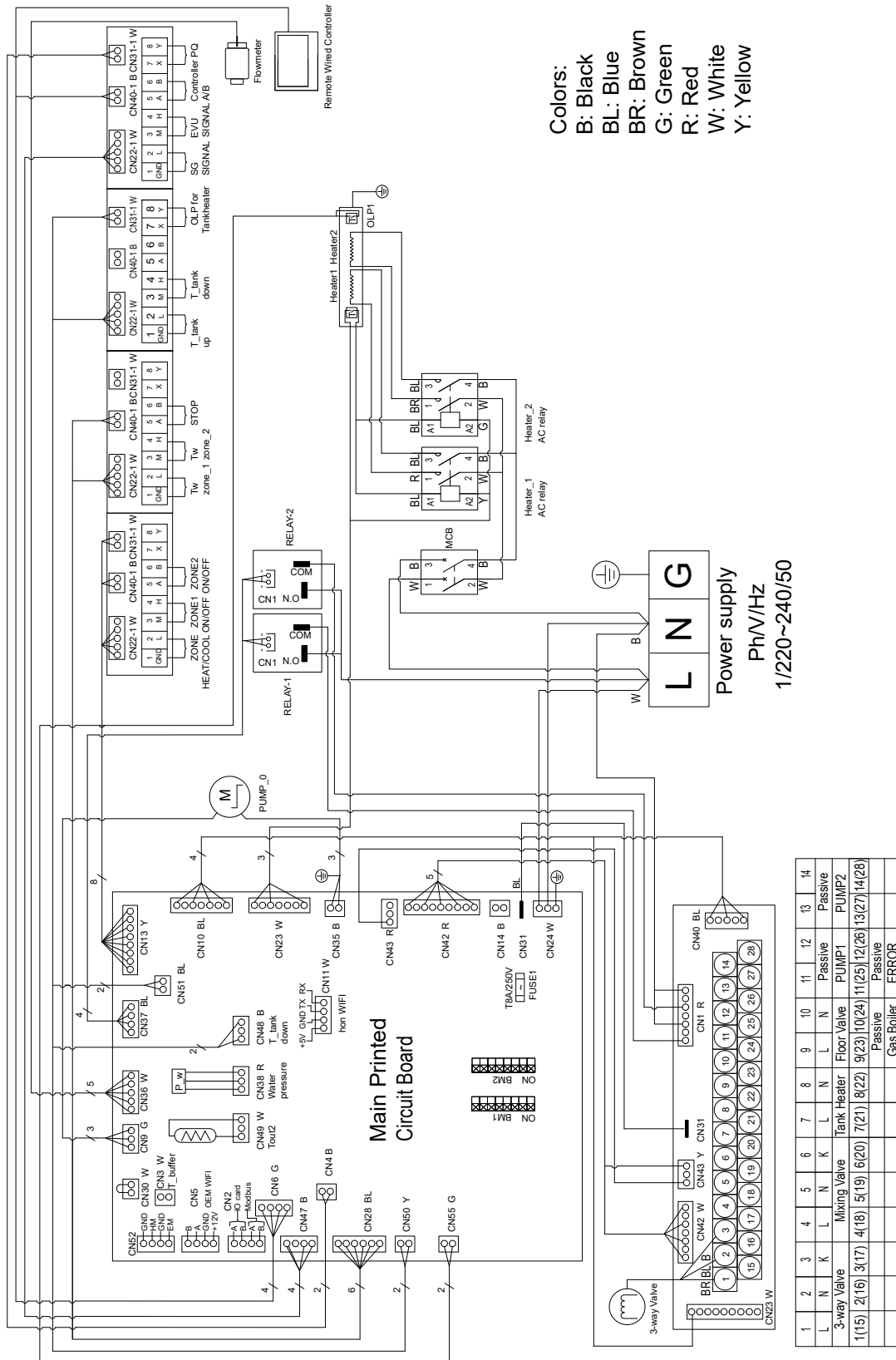
AW032HSGHA AW052HSGHA



Port	Port Definition	Function Description
/	U1\W1\W1	Compressor Control
CN41	U\W\W	Condensor Fan Control
CN21	P \Q	Indoor&Outdoor Units Communication
CN40	A\B	PC Monitor
CN70	A\B	Modbus Communication
CN5	TA1	Internal temperature sensor of the electric control box
CN4	TE(1)	Defrosting temperature sensor
CN3	Td1	Discharge temperature sensor
CN6	Ts	Suction temperature sensor
CN44	THI	Gas Pipe temperature sensor
	THO	Liquid Pipe temperature sensor
	TWO	Water outlet temperature sensor
	TWI	Water inlet temperature sensor
CN29	Ps	Low-pressure sensor
CN28	Pd	High-pressure sensor
CN8	LEVA	Electronic expansion valve
CN1	HPS	High pressure switch
CN25	HEATER1	Electrical heater Control
CN16	4MV	4 way valve Control
/	ACL\ACN	Power Supply
/	PE	Protective earth

8.3 Indoor Units - Hydro Split

HU102WAHYA(B)



The wires that have already been connected in the factory

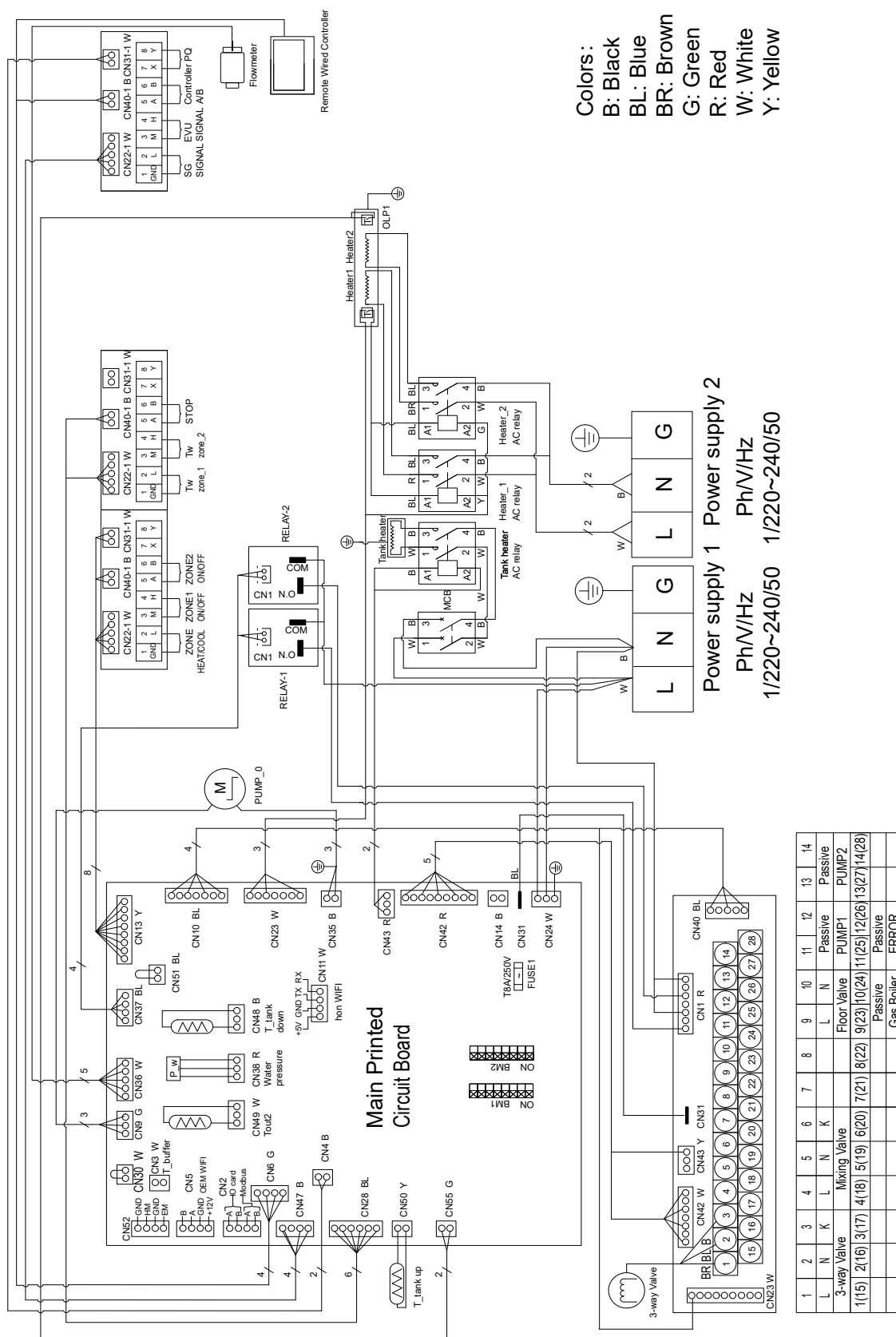
Port	Port Definition	Function Description
CN35	PUMP_0	HU Built-in Pump 220V Output
CN42	3 way valve	Three Way Valve Control Output(220V)
CN16	Antifreeze Heater	Antifreezing Electric Heating of Plate Heat Exchanger Control Signal Output(220V)
CN43	Tank Heater	DHW Heater Control Signal Output(220V)
CN23	Backupheater1	Auxiliary Heating 1 Control Signal Output(220V)
CN23	Backupheater2	Auxiliary Heating 2 Control Signal Output(220V)
CN50	T_tank up	Temperature Sensor on Upper Part of Tank
CN48	T_tank down	Temperature Sensor on Lower Part of Tank
CN34	Tz	Outlet Temperature Sensor
CN49	Tout2	After heaters Temperature Sensor
CN38	P_w	Water Pressure Sensor
CN36	FM	Flowmeter
CN55	OLP for Backupheater	Auxiliary Electric Heater Protection Signal Feedback Port
CN51	OLP for Tankheater	DHW Auxiliary Electric Heater Protection Signal Feedback Port

The wires that need to be connected on site

Port	Port Definition	Function Description
CN37	PUMP1	Zone1 Pump Control Signal Output(220V)
CN37	PUMP2	Zone2 Pump Control Signal Output(220V)
CN10	Gas Boiler	Gas Boiler Pump Control Signal Output (passive)
CN42	Mixing valve	Zone2 Mixing Valve Control Output(220V)
CN42	Floor Valve	Floor Heating Valve Control Signal Output(220V)
CN10	ERROR	Fault Output Signal(Passive)
CN28	Twzone_1	Zone1 Water Temperature after zone1 water pump
CN28	Twzone_2	Zone2 Water Temperature after zone2 water pump
CN3	T_buffer	Buffer Water Tank Temperature Sensor
CN13	ZONE HEAT/COOL	Zone HEAT/COOL Switch Signal
CN13	ZONE1 ON/OFF	Zone1 ON/OFF Switch Signal
CN13	ZONE2 ON/OFF	Zone2 ON/OFF Switch Signal
CN28	STOP	Externally Controlled Stop
CN47	SG SIGNAL	SG READY 1 Signal
CN47	EVU SIGNAL	SG READY 2 Signal
CN6	controller A/B	Haier Room Thermostat /Cascade / sub controller
CN4	PQ	Indoor Unit Communication With Outdoor Unit
CN2	Modbus	Third Party Agreement
CN2	IO card	The Indoor Unit Communicates With ATW-A02
CN52	EM	Energy Meter Interface
CN52	HM	Heat Meter Interface
CN5	OEM WIFI	TUYA WIFI Interface
CN11	h0n WIFI	CANDY WIFI Interface

8.4 Indoor Units - Hydro All in One

HU102F20AHYA



The wires that have already been connected in the factory

Port	Port Definition	Function Description
CN35	PUMP_0	HU Built-in Pump 220V Output
CN42	3 way valve	Three Way Valve Control Output(220V)
CN16	Antifreeze Heater	Antifreezing Electric Heating of Plate Heat Exchanger Control Signal Output(220V)
CN43	Tank Heater	DHW Heater Control Signal Output(220V)
CN23	Backupheater1	Auxiliary Heating 1 Control Signal Output(220V)
CN23	Backupheater2	Auxiliary Heating 2 Control Signal Output(220V)
CN50	T_tank up	Temperature Sensor on Upper Part of Tank
CN48	T_tank down	Temperature Sensor on Lower Part of Tank
CN34	Tz	Outlet Temperature Sensor
CN49	Tout2	After heaters Temperature Sensor
CN38	P_w	Water Pressure Sensor
CN36	FM	Flowmeter
CN55	OLP for Backupheater	Auxiliary Electric Heater Protection Signal Feedback Port
CN51	OLP for Tankheater	DHW Auxiliary Electric Heater Protection Signal Feedback Port

The wires that need to be connected on site

Port	Port Definition	Function Description
CN37	PUMP1	Zone1 Pump Control Signal Output(220V)
CN37	PUMP2	Zone2 Pump Control Signal Output(220V)
CN10	Gas Boiler	Gas Boiler Pump Control Signal Output (passive)
CN42	Mixing valve	Zone2 Mixing Valve Control Output(220V)
CN42	Floor Valve	Floor Heating Valve Control Signal Output(220V)
CN10	ERROR	Fault Output Signal(Passive)
CN28	Twzone_1	Zone1 Water Temperature after zone1 water pump
CN28	Twzone_2	Zone2 Water Temperature after zone2 water pump
CN3	T_buffer	Buffer Water Tank Temperature Sensor
CN13	ZONE HEAT/COOL	Zone HEAT/COOL Switch Signal
CN13	ZONE1 ON/OFF	Zone1 ON/OFF Switch Signal
CN13	ZONE2 ON/OFF	Zone2 ON/OFF Switch Signal
CN28	STOP	Externally Controlled Stop
CN47	SG SIGNAL	SG READY 1 Signal
CN47	EVU SIGNAL	SG READY 2 Signal
CN6	controller A/B	Haier Room Thermostat /Cascade / sub controller
CN4	PQ	Indoor Unit Communication With Outdoor Unit
CN2	Modbus	Third Party Agreement
CN2	IO card	The Indoor Unit Communicates With ATW-A02
CN52	EM	Energy Meter Interface
CN52	HM	Heat Meter Interface
CN5	OEM WIFI	TUYA WIFI Interface
CN11	h0n WIFI	CANDY WIFI Interface

9. Electric Characteristics

Hydro ODU	Power Supply					MCA (A)	MFA (A)	MSC(A)	OFM	
	Hz	Voltage	Phase	Min	Max				kW	FLA (A)
AW032HSGHA	50Hz	220-240V	1Ph	198V	264V	12	16	2	0.14	1.1
AW052HSGHA	50Hz	220-240V	1Ph	198V	264V	12	16	2	0.14	1.1

Remark:

MCA: Min. Circuit Amps. (A)

MFA: Max. Fuse Amps. (A)

MSC: Max. Starting Amps. (A)

OFM: Outdoor Fan Motor

FLA: Full Load Amps. (A)

kW: Rated Motor Output (kW)

10. Capacity Tables

10.1 Cooling capacity

AW032HSGHA											
Water Out(°C)		5		7		14		18		25	
Ambient Temperature(°C)		Capacity	EER	Capacity	EER	Capacity	EER	Capacity	EER	Capacity	EER
Max.	10	2701	2.64	3859	4.32	3982	5.95	4052	7.48	4173	8.20
	15	2585	2.48	3822	4.08	3920	5.50	3976	6.81	3906	7.62
	25	2353	2.18	3749	3.65	3798	4.76	3826	5.73	3372	6.49
	35	2121	1.90	3675	3.29	3675	4.15	3675	4.88	2838	5.38
	48	1819	1.56	2021	2.26	2060	2.99	2082	3.64	2144	3.99
Nom.	10	2573	3.02	3675	4.53	3792	6.37	3859	8.19	3975	9.38
	15	2462	2.84	3640	4.27	3734	5.90	3787	7.46	3720	8.71
	25	2241	2.49	3570	3.83	3617	5.10	3644	6.27	3212	7.41
	35	2020	2.17	3500	3.45	3500	4.46	3500	5.35	2703	6.15
	48	1733	1.78	1925	2.37	1962	3.21	1983	3.99	2042	4.56
Mid.	10	1405	3.19	1929	5.09	1991	7.04	2026	8.90	2087	9.88
	15	1344	3.00	1911	4.80	1960	6.51	1988	8.11	1953	9.18
	25	1224	2.63	1874	4.30	1899	5.63	1913	6.82	1686	7.82
	35	1103	2.29	1838	3.87	1838	4.92	1838	5.82	1419	6.49
	48	946	1.88	1011	2.66	1030	3.54	1041	4.33	1072	4.81
Min.	10	675	3.30	965	5.69	995	7.83	1013	9.84	1064	11.31
	15	646	3.10	956	5.36	980	7.24	994	8.96	996	10.51
	25	588	2.72	937	4.80	949	6.26	956	7.53	860	8.94
	35	530	2.37	919	4.33	919	5.47	919	6.43	724	7.42
	48	455	1.95	505	2.98	515	3.94	520	4.79	547	5.50

AW052HSGHA											
Water Out(°C)		5		7		14		18		25	
Ambient Temperature(°C)		Capacity	EER	Capacity	EER	Capacity	EER	Capacity	EER	Capacity	EER
Max.	10	3550	2.60	5072	4.25	5528	5.75	5788	6.99	5962	7.67
	15	3398	2.44	5023	4.01	5441	5.31	5681	6.37	5580	7.12
	25	3092	2.14	4927	3.59	5269	4.59	5465	5.35	4818	6.06
	35	2787	1.86	4830	3.24	5097	4.00	5250	4.57	4055	5.03
	48	2391	1.53	2657	2.22	2859	2.89	2974	3.40	3063	3.73
Nom.	10	3381	2.97	4830	4.45	5264	6.17	5513	7.66	5678	8.76
	15	3236	2.79	4784	4.20	5182	5.71	5410	6.97	5315	8.14
	25	2945	2.45	4692	3.76	5018	4.92	5205	5.86	4588	6.93
	35	2655	2.13	4600	3.39	4855	4.30	5000	5.00	3862	5.75
	48	2277	1.75	2530	2.33	2723	3.10	2833	3.73	2917	4.27
Mid.	10	1846	3.14	2536	5.00	2764	6.81	2894	8.32	2981	9.24
	15	1767	2.95	2512	4.71	2721	6.29	2840	7.58	2790	8.58
	25	1608	2.59	2463	4.22	2635	5.43	2733	6.37	2409	7.30
	35	1449	2.25	2415	3.81	2549	4.74	2625	5.43	2027	6.06
	48	1243	1.85	1328	2.62	1429	3.42	1487	4.05	1532	4.50
Min.	10	888	3.24	1268	5.59	1382	7.57	1447	9.20	1520	10.57
	15	849	3.05	1256	5.27	1360	6.99	1420	8.38	1423	9.82
	25	773	2.68	1232	4.72	1317	6.03	1366	7.04	1229	8.36
	35	697	2.33	1208	4.26	1274	5.26	1313	6.01	1034	6.93
	48	598	1.91	664	2.93	715	3.80	744	4.48	781	5.14

10.2 Heating capacity

AW032HSGHA																										
Water Out(°C) Ambient Temperature(°C)	20		25		30		35		40		45		50		55		60		65		70		75		80	
	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP
-25	2342	3.13	2326	3.05	2311	2.98	2296	2.91	2020	2.53	1744	2.14	1468	1.76	1192	1.38	1072	1.22	--	--	--	--	--	--	--	--
-20	2853	3.70	2835	3.61	2816	3.53	2797	3.44	2487	3.01	2178	2.58	1868	2.15	1558	1.72	1391	1.51	1224	1.30	1058	1.11	--	--	--	--
-15	3365	4.24	3343	4.14	3321	4.04	3299	3.95	2955	3.47	2611	2.99	2268	2.51	1924	2.03	1711	1.76	1497	1.51	1284	1.27	--	--	--	--
-10	3876	4.75	3851	4.64	3825	4.53	3800	4.42	3423	3.89	3045	3.37	2668	2.84	2290	2.31	2030	1.99	1771	1.70	1511	1.41	1251	1.14	--	--
-7	3945	4.82	3916	4.70	3886	4.59	3857	4.48	3520	3.98	3183	3.47	2847	2.97	2510	2.47	2222	2.12	1934	1.80	1647	1.49	1359	1.20	--	--
-2	4060	4.94	4024	4.81	3988	4.70	3952	4.58	3683	4.11	3414	3.65	3145	3.18	2876	2.71	2542	2.32	2207	1.96	1873	1.61	1539	1.29	--	--
2	4152	5.03	4111	4.90	4069	4.78	4028	4.66	3813	4.22	3598	3.78	3384	3.34	3169	2.90	2797	2.47	2426	2.07	2054	1.70	1683	1.35	--	--
7	4267	5.14	4219	5.01	4171	4.88	4123	4.76	3911	4.34	3650	3.93	3410	3.52	3235	3.11	2850	2.64	2599	2.21	2181	1.80	1863	1.42	--	--
12	4382	5.25	4327	5.12	4273	4.98	4218	4.85	3947	4.30	3677	3.76	3511	3.21	3336	2.66	2911	2.30	2593	1.97	2201	1.66	1890	1.38	1579	1.11
15	4451	5.32	4392	5.18	4334	5.04	4275	4.91	4031	4.37	3786	3.82	3640	3.28	3498	2.74	2970	2.36	2642	2.02	2314	1.70	1987	1.41	1659	1.13
20	4566	5.43	4501	5.29	4435	5.15	4370	5.01	4170	4.47	3969	3.93	3769	3.40	3568	2.86	3213	2.46	2858	2.10	2503	1.77	2147	1.46	1792	1.17
25	--	--	4609	5.39	4537	5.25	4465	5.10	4308	4.57	4152	4.04	3995	3.51	3839	2.98	3456	2.56	3074	2.17	2691	1.82	2308	1.50	--	--
30	--	--	--	--	4639	5.35	4560	5.20	4447	4.67	4335	4.14	4222	3.61	4109	3.09	3699	2.64	3289	2.24	2879	1.88	--	--	--	--
35	--	--	--	--	--	--	4655	5.29	4586	4.77	4517	4.24	4449	3.71	4380	3.19	--	--	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--	--	--	4810	4.39	4811	3.86	4813	3.34	--	--	--	--	--	--	--	--	--	--
-25	2166	4.27	2132	4.13	2097	4.00	2063	3.87	1842	3.27	1621	2.67	1401	2.07	1144	1.47	1018	1.31	937	1.15	--	--	--	--	--	--
-20	2451	4.59	2412	4.44	2373	4.29	2334	4.15	2136	3.57	1938	2.99	1740	2.40	1496	1.82	1322	1.61	1175	1.40	1031	1.20	--	--	--	--
-15	2736	4.87	2693	4.71	2649	4.56	2606	4.41	2431	3.84	2255	3.27	2080	2.70	1847	2.13	1642	1.88	1453	1.63	1248	1.38	--	--	--	--
-10	3021	5.13	3015	4.96	2925	4.80	2877	4.64	2725	4.09	2572	3.53	2420	2.97	2199	2.42	1949	2.12	1717	1.83	1464	1.54	1196	1.25	--	--
-7	3192	5.28	3141	5.10	3091	4.94	3040	4.77	2901	4.22	2763	3.67	2624	3.12	2409	2.57	2133	2.26	1876	1.94	1594	1.63	1297	1.32	--	--
-2	3477	5.50	3422	5.32	3367	5.15	3311	4.98	3195	4.44	3079	3.90	2963	3.36	2761	2.82	2465	2.47	2163	2.12	1810	1.77	1464	1.42	--	--
2	3705	5.67	3646	5.48	3587	5.30	3529	5.13	3431	4.60	3333	4.06	3235	3.53	3042	3.00	2713	2.62	2377	2.24	1983	1.87	1598	1.50	1213	1.13
7	3990	5.86	3927	5.67	3863	5.48	3800	5.30	3725	4.78	3512	4.26	3312	3.73	3106	3.21	2765	2.80	2547	2.39	2137	1.99	1766	1.59	1332	1.19
12	4073	5.88	4008	5.69	3944	5.51	3879	5.34	3815	4.82	3610	4.29	3421	3.77	3202	3.25	2853	2.84	2541	2.43	2157	2.03	1845	1.64	1451	1.25
15	4123	5.89	4058	5.71	3992	5.53	3927	5.36	3869	4.84	3721	4.32	3567	3.80	3393	3.28	2911	2.86	2589	2.45	2268	2.06	1957	1.66	1522	1.28
20	4206	5.91	4139	5.73	4073	5.56	4006	5.39	3958	4.87	3911	4.36	3690	3.84	3461	3.32	3149	2.90	2801	2.49	2453	2.09	2076	1.71	1641	1.33
25	--	--	4221	5.75	4153	5.59	4085	5.43	4048	4.91	4011	4.39	3974	3.88	3685	3.36	3387	2.93	3012	2.52	2610	2.13	2195	1.75	--	--
30	--	--	--	--	4234	5.62	4164	5.46	4138	4.94	4112	4.43	4085	3.91	3945	3.40	3623	2.97	3223	2.56	2764	2.16	--	--	--	--
35	--	--	--	--	--	--	4243	5.49	4228	4.98	4212	4.46	4196	3.95	4205	3.43	--	--	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--	--	--	4373	4.52	4374	4.00	4620	3.49	--	--	--	--	--	--	--	--	--	--

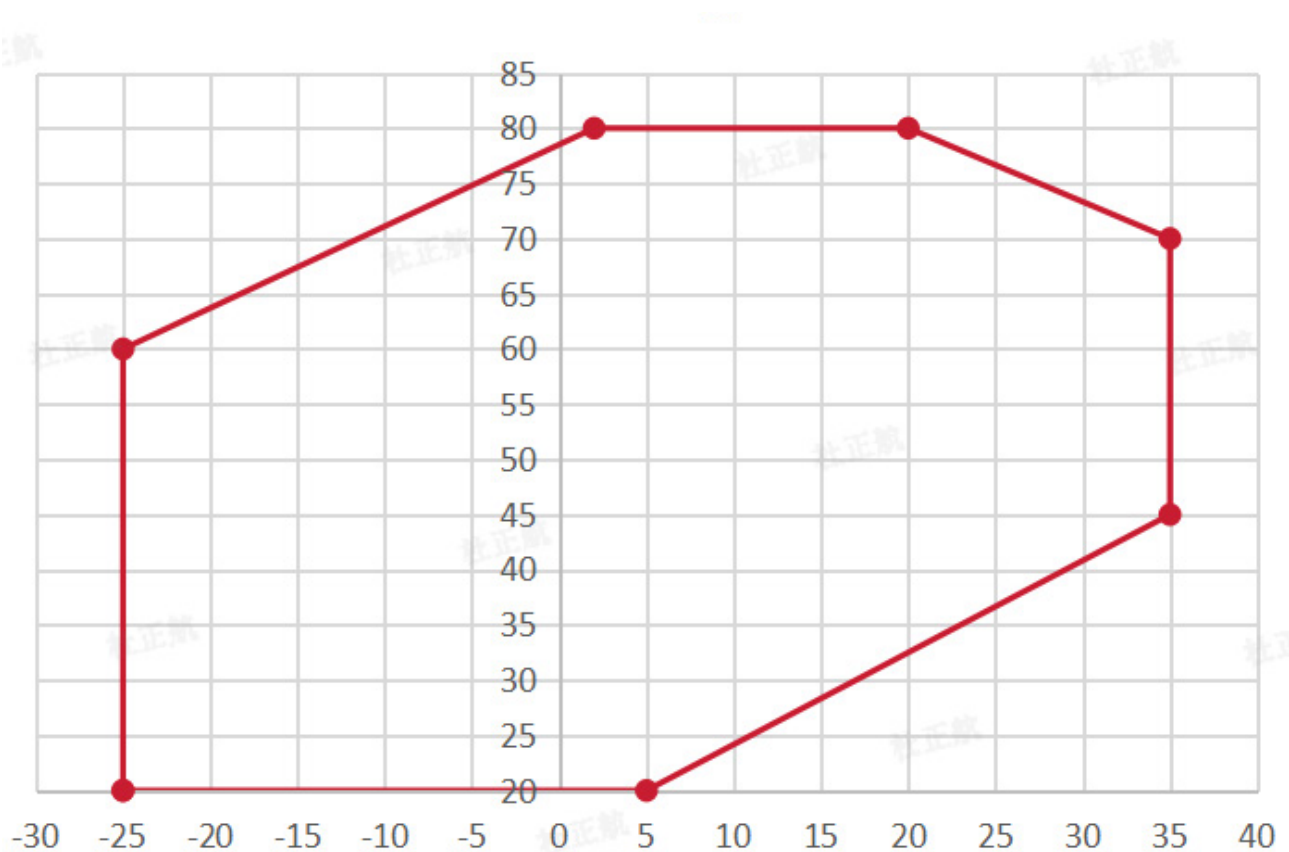
AW032HSGHA																											
Water Out(°C) Ambient Temperature(°C)	20		25		30		35		40		45		50		55		60		65		70		75		80		
	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	
-25	1093	3.27	1077	3.17	1062	3.07	1046	2.97	925	2.62	805	2.26	684	1.91	564	1.55	507	1.47	451	1.37	--	--	--	--	--	--	--
-20	1219	3.58	1199	3.46	1179	3.35	1160	3.24	1047	2.90	935	2.55	823	2.20	710	1.86	638	1.75	565	1.63	493	1.49	--	--	--	--	--
-15	1344	3.89	1321	3.75	1297	3.62	1274	3.50	1169	3.16	1065	2.82	961	2.48	856	2.14	768	2.00	680	1.86	592	1.69	--	--	--	--	--
-10	1470	4.18	1443	4.03	1415	3.89	1388	3.75	1291	3.41	1195	3.07	1099	2.73	1002	2.39	899	2.23	795	2.06	691	1.87	588	1.66	--	--	--
-7	1545	4.35	1516	4.20	1486	4.05	1456	3.90	1365	3.56	1273	3.22	1181	2.88	1090	2.54	977	2.36	864	2.17	751	1.97	638	1.75	525	1.50	1.50
-2	1671	4.63	1637	4.46	1604	4.30	1570	4.14	1487	3.79	1403	3.45	1319	3.10	1236	2.76	1107	2.56	979	2.35	850	2.12	721	1.87	593	1.60	1.60
2	1772	4.85	1735	4.67	1698	4.49	1661	4.33	1584	3.98	1507	3.62	1430	3.27	1353	2.92	1212	2.71	1070	2.48	929	2.23	788	1.96	647	1.68	1.68
7	1897	5.11	1857	4.92	1816	4.73	1775	4.55	1706	4.19	1637	3.83	1568	3.48	1499	3.12	1342	2.88	1185	2.63	1028	2.36	872	2.07	715	1.76	1.76
12	2023	5.37	1978	5.16	1934	4.96	1889	4.77	1828	4.40	1767	4.03	1706	3.66	1645	3.30	1472	3.04	1300	2.76	1128	2.47	965	2.16	783	1.83	1.83
15	2099	5.52	2052	5.30	2005	5.10	1958	4.90	1901	4.52	1845	4.15	1789	3.77	1733	3.40	1551	3.13	1369	2.84	1187	2.54	1005	2.22	823	1.88	1.88
20	2224	5.76	2173	5.54	2122	5.32	2072	5.11	2023	4.72	1975	4.33	1927	3.94	1879	3.55	1681	3.27	1484	2.96	1286	2.64	1089	2.30	891	1.94	1.94
25	--	--	2295	5.76	2240	5.53	2186	5.31	2145	4.91	2105	4.51	2065	4.10	2025	3.70	1812	3.40	1598	3.07	1385	2.73	1172	2.38	--	--	--
30	--	--	--	--	2358	5.74	2299	5.51	2267	5.09	2235	4.68	2203	4.26	2171	3.84	1942	3.52	1713	3.18	1484	2.82	--	--	--	--	--
35	--	--	--	--	--	--	2413	5.70	2389	5.27	2365	4.84	2341	4.40	2317	3.97	--	--	--	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--	--	--	2573	5.08	2562	4.62	2551	4.16	--	--	--	--	--	--	--	--	--	--	--
-25	568	4.22	540	3.95	513	3.69	486	3.44	435	3.03	383	2.61	332	2.20	280	1.78	253	1.71	225	1.62	--	--	--	--	--	--	--
-20	632	4.59	599	4.27	565	3.97	532	3.68	489	3.29	445	2.91	402	2.52	359	2.13	322	2.03	285	1.91	248	1.78	--	--	--	--	--
-15	696	4.93	657	4.58	617	4.24	577	3.91	542	3.54	507	3.18	472	2.81	437	2.44	391	2.31	345	2.16	298	2.00	--	--	--	--	--
-10	761	5.26	715	4.87	669	4.49	623	4.12	596	3.77	569	3.42	543	3.07	516	2.72	460	2.56	405	2.39	349	2.19	293	1.96	--	--	--
-7	799	5.45	749	5.04	700	4.64	650	4.25	628	3.90	607	3.56	585	3.22	563	2.87	502	2.70	441	2.51	379	2.29	318	2.05	257	1.77	1.77
-2	863	5.76	807	5.31	752	4.87	696	4.45	682	4.11	669	3.78	655	3.44	641	3.10	571	2.91	500	2.69	430	2.45	360	2.18	289	1.87	1.87
2	915	5.99	854	5.52	793	5.06	732	4.61	725	4.27	718	3.94	711	3.61	704	3.27	626	3.06	548	2.83	470	2.57	393	2.27	315	1.94	1.94
7	979	6.27	912	5.77	845	5.28	778	4.80	779	4.46	780	4.13	781	3.80	783	3.46	695	3.23	608	2.98	521	2.70	434	2.38	347	2.02	2.02
12	1043	6.54	970	6.01	897	5.49	823	4.98	833	4.64	842	4.31	852	3.97	861	3.64	765	3.39	668	3.12	572	2.81	475	2.47	379	2.09	2.09
15	1082	6.70	1005	6.15	928	5.61	851	5.08	865	4.75	879	4.41	894	4.07	908	3.74	806	3.48	704	3.19	602	2.88	500	2.53	398	2.13	2.13
20	1146	6.95	1063	6.37	979	5.81	896	5.25	919	4.91	941	4.57	964	4.23	987	3.89	875	3.61	764	3.31	653	2.98	541	2.61	430	2.19	2.19
25	--	--	1121	6.59	1031	6.00	942	5.42	972	5.07	1003	4.72	1034	4.38	1065	4.03	944	3.74	824	3.42	703	3.07	583	2.68	--	--	--
30	--	--	--	--	1083	6.18	987	5.58	1026	5.22	1065	4.87	1104	4.51	1143	4.16	1014	3.85	884	3.52	754	3.15	--	--	--	--	--
35	--	--	--	--	--	--	1033	5.73	1080	5.37	1127	5.00	1175	4.64	1222	4.28	--	--	--	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--	--	--	1227	5.21	1287	4.83	1348	4.45	--	--	--	--	--	--	--	--	--	--	--

AW052HSGHA																											
Water Out(°C)	Ambient Temperature(°C)	20		25		30		35		40		45		50		55		60		65		70		75		80	
		Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP
	-25	3234	3.10	3213	3.16	3192	3.22	3171	3.28	2819	2.80	2467	2.31	2116	1.83	1764	1.34	1585	1.17	--	--	--	--	--	--	--	--
	-20	3890	3.65	3865	3.67	3839	3.68	3814	3.69	3434	3.19	3053	2.69	2673	2.19	2293	1.69	2045	1.47	1797	1.26	--	--	--	--	--	--
	-15	4546	4.18	4516	4.13	4487	4.09	4457	4.05	4048	3.54	3640	3.03	3231	2.52	2822	2.01	2505	1.74	2188	1.48	1871	1.24	--	--	--	--
	-10	5202	4.68	5168	4.57	5134	4.47	5100	4.36	4663	3.85	4226	3.34	3789	2.83	3352	2.32	2965	2.00	2579	1.70	2193	1.41	1807	1.14	--	--
	-7	5345	4.79	5305	4.68	5264	4.57	5224	4.46	4835	3.97	4447	3.47	4058	2.98	3669	2.49	3241	2.15	2814	1.82	2386	1.51	1958	1.21	--	--
	-2	5584	4.98	5533	4.85	5482	4.73	5431	4.62	5123	4.15	4815	3.69	4507	3.23	4198	2.77	3702	2.38	3205	2.01	2708	1.66	2211	1.33	--	--
	2	5775	5.12	5715	4.99	5656	4.86	5597	4.74	5353	4.30	5109	3.86	4650	3.42	4622	2.98	4070	2.56	3517	2.16	2965	1.78	2413	1.42	--	--
	7	6013	5.30	5943	5.16	5873	5.03	5803	4.90	5640	4.48	5200	3.87	4750	3.65	4850	3.23	4120	2.77	3711	2.34	3187	1.92	2666	1.53	2044	1.15
	12	6252	5.48	6171	5.33	6091	5.19	6010	5.05	5614	4.46	5317	3.88	4850	3.29	4950	2.70	4300	2.38	3856	2.07	3206	1.77	2715	1.49	2228	1.22
	15	6395	5.58	6308	5.43	6221	5.29	6134	5.15	5763	4.56	5491	3.97	5250	3.38	5050	2.79	4450	2.46	4001	2.14	3315	1.83	2800	1.54	2338	1.26
	20	6633	5.76	6536	5.60	6439	5.45	6341	5.30	6011	4.71	5681	4.12	5450	3.53	5150	2.94	4520	2.59	4288	2.25	3521	1.93	3021	1.62	2522	1.32
	25	--	--	6764	5.76	6656	5.61	6548	5.45	6259	4.86	5970	4.26	5681	3.67	5392	3.08	4855	2.71	4478	2.36	3780	2.02	3243	1.70	--	--
	30	--	--	--	--	6874	5.76	6755	5.60	6507	5.00	6260	4.41	6012	3.81	5764	3.21	5189	2.83	4614	2.46	4039	2.11	--	--	--	--
	35	--	--	--	--	--	--	6962	5.75	6756	5.15	6549	4.54	6343	3.94	6136	3.33	--	--	--	--	--	--	--	--	--	--
	43	--	--	--	--	--	--	--	--	--	--	7013	4.76	6872	4.14	6732	3.52	--	--	--	--	--	--	--	--	--	--
	-25	3005	3.74	2957	3.79	2910	3.84	2862	3.89	2583	3.27	2304	2.66	2025	2.04	1746	1.42	1566	1.23	--	--	--	--	--	--	--	--
	-20	3372	4.09	3319	4.11	3285	4.13	3212	4.14	2976	3.55	2741	2.96	2506	2.36	2270	1.77	2017	1.52	1650	1.29	--	--	--	--	--	--
	-15	3739	4.42	3680	4.41	3621	4.39	3561	4.37	3370	3.80	3178	3.23	2986	2.66	2794	2.09	2469	1.79	2099	1.51	1819	1.25	--	--	--	--
	-10	4107	4.74	4041	4.68	3976	4.63	3911	4.58	3763	4.03	3615	3.48	3467	2.93	3318	2.38	2921	2.04	2524	1.72	2126	1.42	1729	1.12	--	--
	-7	4327	4.92	4258	4.84	4189	4.77	4121	4.70	3999	4.16	3877	3.62	3755	3.09	3633	2.55	3192	2.19	2751	1.84	2311	1.51	1870	1.20	--	--
	-2	4694	5.21	4620	5.10	4545	4.98	4471	4.87	4392	4.36	4314	3.84	4235	3.33	4157	2.81	3644	2.41	3131	2.03	2618	1.66	2105	1.31	--	--
	2	4988	5.43	4909	5.29	4829	5.15	4750	5.01	4707	4.51	4663	4.00	4620	3.50	4576	3.00	4005	2.58	3435	2.17	2864	1.78	2294	1.40	--	--
	7	5355	5.70	5270	5.52	5185	5.33	5100	5.16	5100	4.68	5100	4.20	4720	3.71	4750	3.23	4050	2.78	3642	2.34	3044	1.91	2529	1.50	1886	1.10
	12	5578	5.84	5490	5.65	5401	5.47	5313	5.30	5295	4.79	5277	4.29	4800	3.78	4850	3.27	4150	2.82	3715	2.39	3189	1.97	2688	1.56	2049	1.17
	15	5712	5.92	5621	5.73	5531	5.56	5440	5.38	5412	4.86	5383	4.34	5100	3.82	4950	3.30	4379	2.85	3942	2.42	3251	2.00	2783	1.60	2147	1.21
	20	--	--	5841	5.87	5747	5.69	5653	5.52	5606	4.98	5560	4.43	5350	3.89	5050	3.34	4421	2.89	4112	2.46	3473	2.05	2942	1.65	2310	1.27
	25	--	--	--	--	5963	5.82	5865	5.65	5801	5.08	5738	4.52	5500	3.95	5250	3.38	4699	2.94	4300	2.51	3628	2.10	3100	1.71	--	--
	30	--	--	--	--	--	--	6078	5.78	5996	5.19	5915	4.60	5700	4.01	5450	3.42	5129	2.98	4505	2.55	3882	2.15	--	--	--	--
	35	--	--	--	--	--	--	6544	5.82	6366	5.21	6092	4.68	5993	4.07	5893	3.46	--	--	--	--	--	--	--	--	--	--
	43	--	--	--	--	--	--	--	--	--	--	6375	4.81	6248	4.17	6120	3.52	--	--	--	--	--	--	--	--	--	--

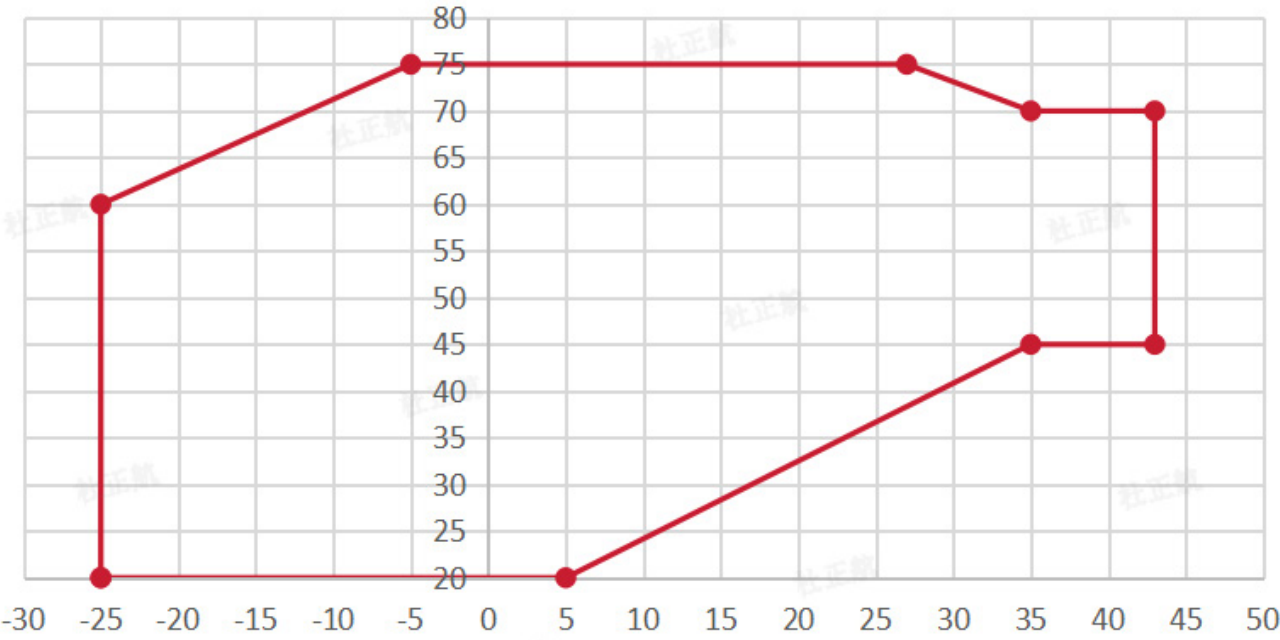
AW052HSGHA																												
Water Out(°C)		20		25		30		35		40		45		50		55		60		65		70		75		80		
Ambient Temperature(°C)		Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	
-25		1540	3.30	1518	3.35	1495	3.41	1473	3.48	1312	2.98	1151	2.49	990	1.99	830	1.50	746	1.40	663	1.30	--	--	--	--	--	--	--
-20		1739	3.67	1711	3.70	1683	3.75	1654	3.79	1499	3.29	1343	2.80	1187	2.30	1031	1.80	926	1.68	821	1.56	716	1.42	--	--	--	--	--
-15		1939	4.02	1904	4.04	1870	4.06	1836	4.09	1685	3.59	1534	3.09	1383	2.59	1232	2.09	1106	1.95	979	1.80	853	1.64	--	--	--	--	--
-10		2138	4.37	2098	4.37	2057	4.37	2017	4.37	1871	3.86	1725	3.36	1579	2.85	1434	2.35	1286	2.19	1137	2.03	989	1.84	841	1.64	--	--	--
-7		2258	4.57	2214	4.56	2170	4.54	2126	4.53	1983	4.02	1840	3.51	1697	3.01	1554	2.50	1393	2.34	1232	2.16	1071	1.96	910	1.75	749	1.51	1.51
-2		2457	4.90	2407	4.86	2357	4.82	2307	4.78	2169	4.27	2031	3.76	1894	3.25	1756	2.74	1573	2.56	1390	2.36	1208	2.15	1025	1.91	843	1.65	1.65
2		2617	5.16	2562	5.10	2507	5.04	2452	4.98	2318	4.46	2184	3.95	2051	3.44	1917	2.92	1717	2.73	1517	2.52	1317	2.29	1117	2.04	917	1.76	1.76
7		2816	5.47	2755	5.39	2694	5.30	2633	5.21	2504	4.69	2376	4.18	2247	3.66	2118	3.14	1897	2.93	1675	2.71	1454	2.46	1232	2.19	1011	1.89	1.89
12		3015	5.77	2948	5.66	2881	5.55	2814	5.43	2691	4.91	2567	4.39	2443	3.87	2320	3.34	2076	3.12	1833	2.88	1590	2.62	1347	2.33	1104	2.01	2.01
15		3135	5.95	3064	5.82	2994	5.69	2923	5.56	2803	5.04	2682	4.51	2561	3.99	2440	3.46	2184	3.23	1928	2.98	1672	2.71	1416	2.41	1160	2.08	2.08
20		3335	6.24	3258	6.08	3181	5.93	3104	5.77	2989	5.24	2873	4.71	2757	4.18	2642	3.65	2364	3.41	2086	3.15	1809	2.86	1531	2.54	1253	2.19	2.19
25	--	--	--	3451	6.34	3368	6.15	3286	5.96	3175	5.43	3064	4.89	2954	4.36	2843	3.82	2544	3.57	2245	3.30	1945	3.00	1646	2.67	--	--	--
30	--	--	--	--	--	3556	6.36	3467	6.15	3361	5.61	3256	5.07	3150	4.53	3044	3.99	2724	3.73	2403	3.45	2082	3.13	--	--	--	--	--
35	--	--	--	--	--	--	--	3648	6.33	3548	5.79	3447	5.24	3346	4.70	3246	4.15	--	--	--	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--	--	--	--	3753	5.50	3661	4.95	3568	4.39	--	--	--	--	--	--	--	--	--	--	--
-25		800	4.26	758	4.17	717	4.07	675	3.96	603	3.38	531	2.79	459	2.20	387	1.62	351	1.54	315	1.46	--	--	--	--	--	--	--
-20		902	4.69	845	4.52	789	4.34	733	4.15	663	3.56	592	2.97	522	2.39	452	1.80	412	1.73	372	1.65	333	1.57	--	--	--	--	--
-15		1004	5.10	933	4.86	861	4.60	790	4.32	722	3.73	654	3.15	586	2.56	518	1.97	474	1.90	429	1.83	385	1.74	--	--	--	--	--
-10		1106	5.50	1020	5.17	934	4.84	848	4.48	782	3.89	716	3.30	650	2.71	583	2.12	535	2.06	486	1.98	438	1.90	389	1.81	--	--	--
-7		1167	5.72	1072	5.36	977	4.97	882	4.57	818	3.98	753	3.39	688	2.80	623	2.21	572	2.14	521	2.07	470	1.99	418	1.90	367	1.79	1.79
-2		1269	6.09	1159	5.65	1050	5.19	940	4.72	877	4.13	814	3.53	751	2.94	688	2.34	633	2.28	578	2.21	522	2.13	467	2.04	411	1.94	1.94
2		1351	6.37	1229	5.87	1108	5.36	986	4.83	925	4.23	864	3.64	802	3.04	741	2.44	682	2.38	623	2.32	564	2.24	505	2.15	447	2.05	2.05
7		1453	6.71	1317	6.14	1180	5.55	1044	4.96	984	4.36	925	3.76	866	3.16	807	2.56	743	2.50	680	2.44	617	2.36	554	2.28	491	2.18	2.18
12		1555	7.04	1404	6.39	1253	5.74	1101	5.08	1044	4.48	987	3.87	929	3.27	872	2.66	805	2.61	737	2.55	670	2.48	602	2.40	535	2.31	2.31
15		1616	7.23	1456	6.54	1296	5.85	1136	5.15	1080	4.54	1024	3.94	968	3.33	912	2.73	841	2.67	771	2.61	701	2.55	631	2.47	561	2.38	2.38
20		1718	7.53	1543	6.78	1368	6.02	1194	5.26	1139	4.65	1085	4.04	1031	3.43	977	2.82	903	2.77	828	2.72	754	2.65	680	2.58	605	2.49	2.49
25	--	--	--	1631	7.01	1441	6.19	1251	5.37	1199	4.75	1147	4.14	1095	3.52	1043	2.91	964	2.86	885	2.81	807	2.75	728	2.68	--	--	--
30	--	--	--	--	--	1513	6.34	1309	5.47	1259	4.85	1209	4.23	1159	3.61	1108	2.99	1025	2.95	942	2.90	859	2.84	--	--	--	--	--
35	--	--	--	--	--	--	--	--	--	1366	5.56	1318	4.94	1270	4.32	1222	3.69	1174	3.07	--	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--	--	--	--	1360	3.85	1310	3.45	1279	3.19	--	--	--	--	--	--	--	--	--	--	--

11. Operation Limits Delivery-Leaving

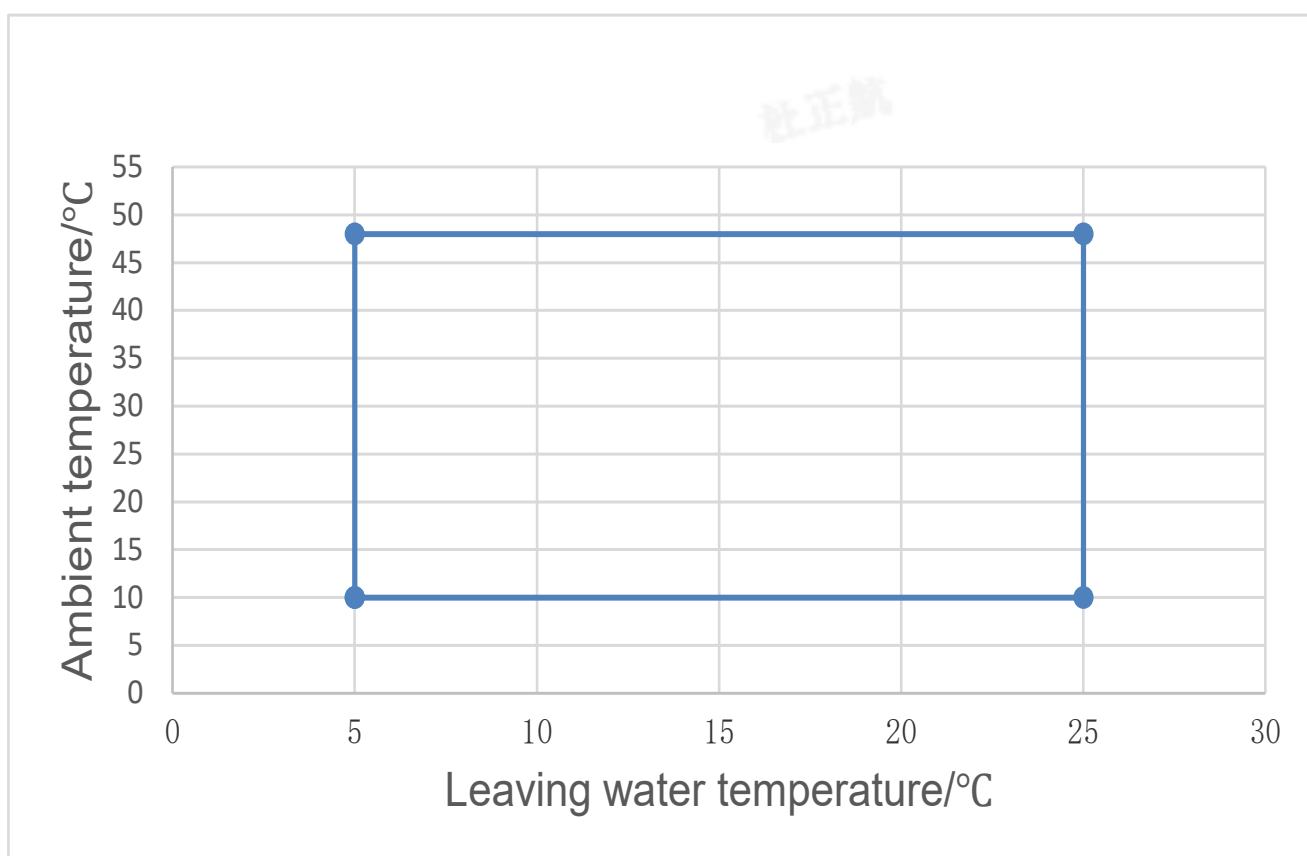
11.1 Heating



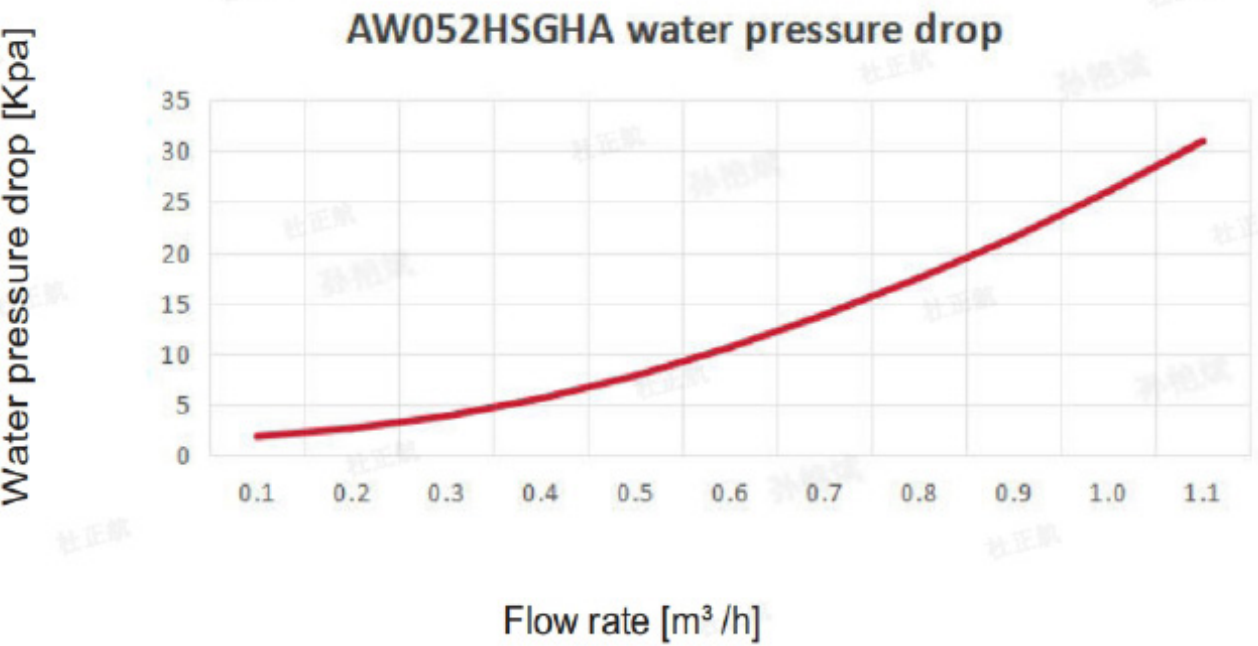
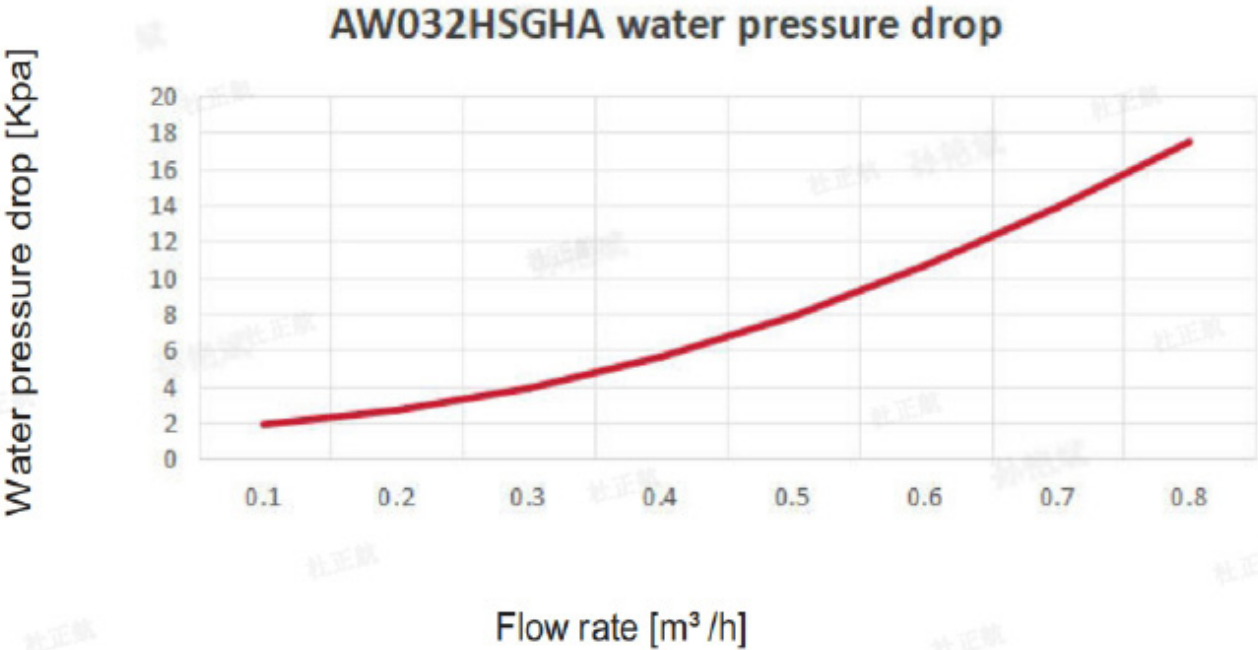
11.2 DHW



11.3 Cooling

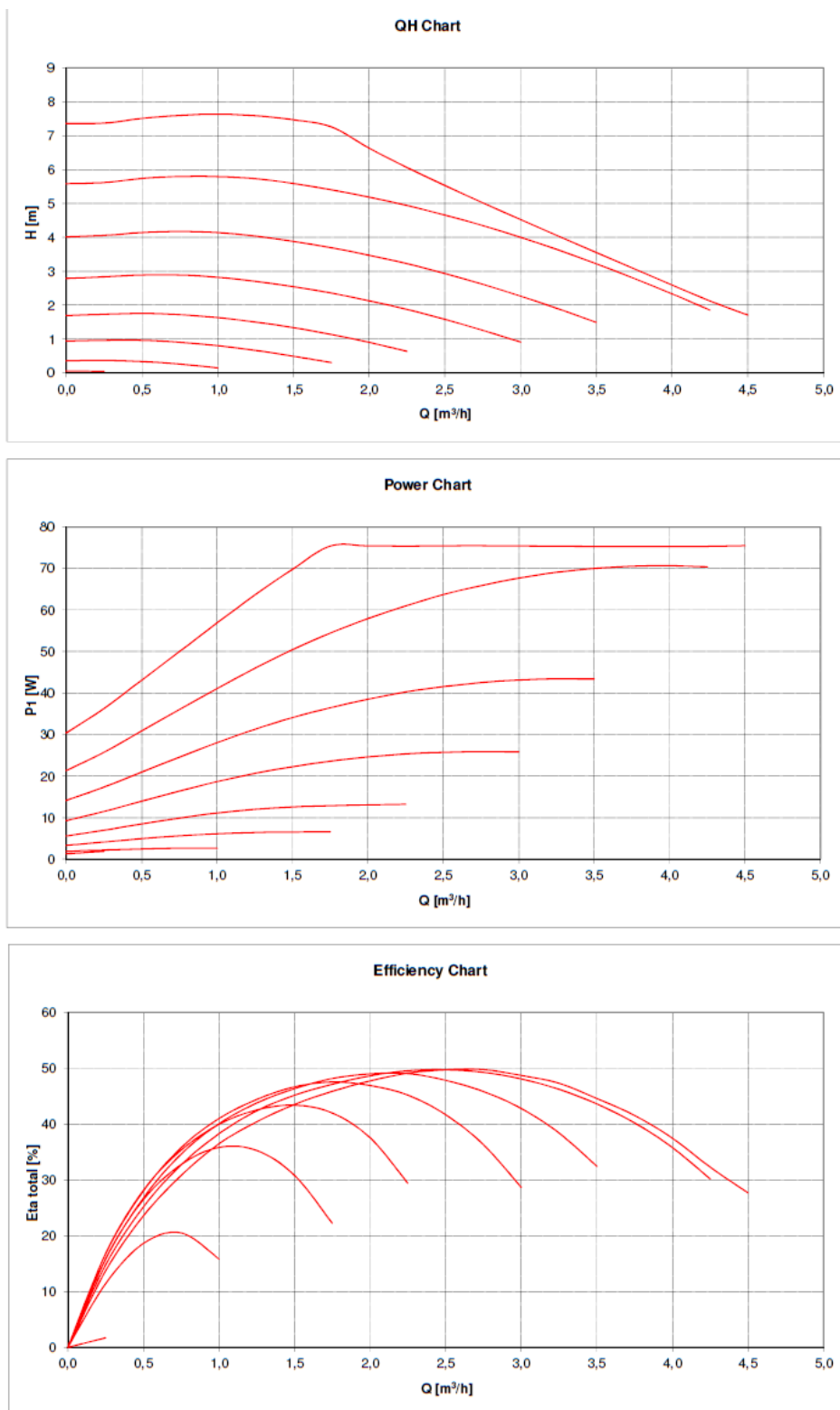


12. Water Pressure Drop



13. Water Pump Characteristic Curve

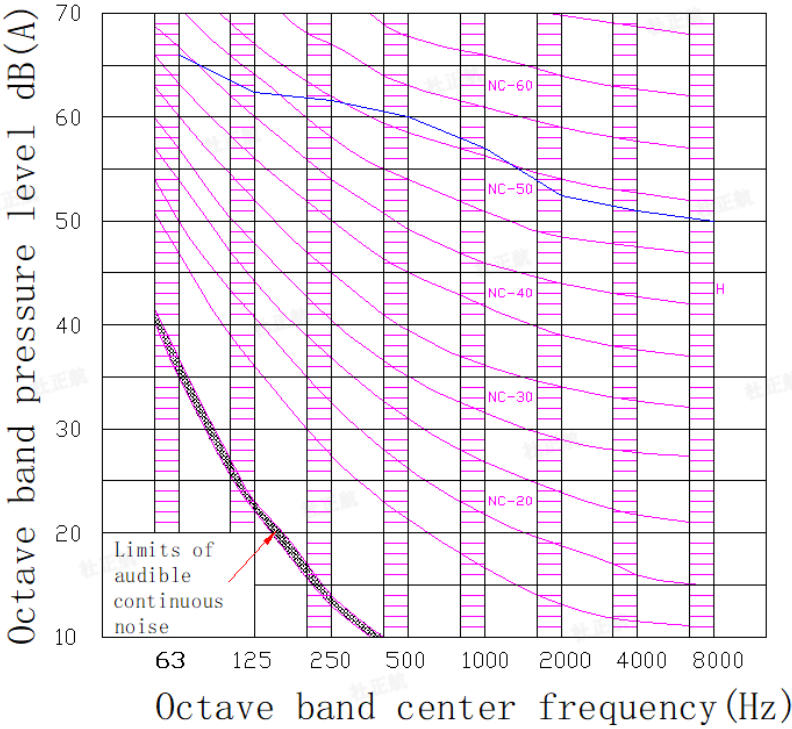
HU102WAHYA HU102WAHYB HU102F16AHYA HU102F20AHYA HU102F24AHYA



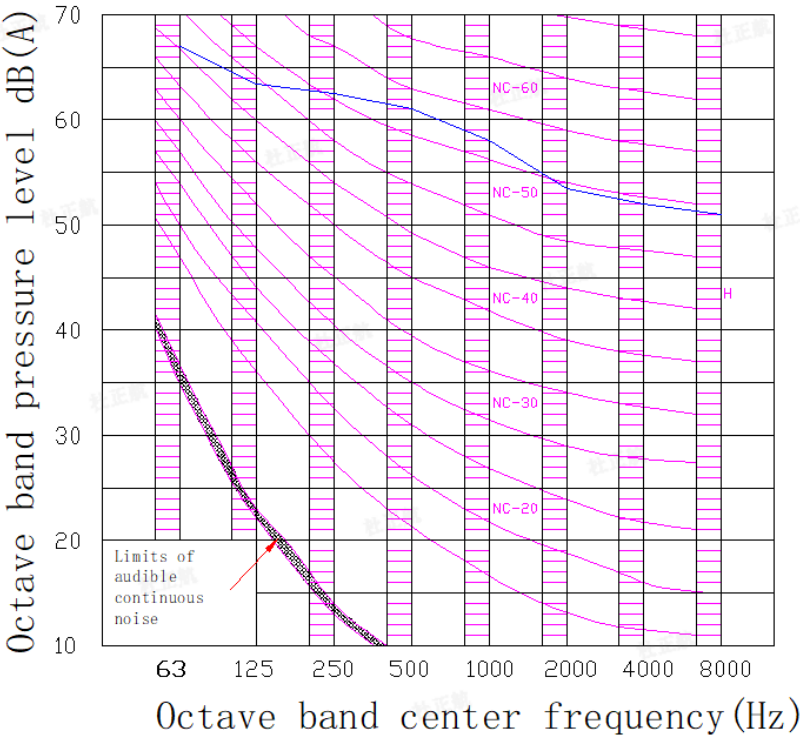
The performance test was measured according to ISO 9906 (GBT 3216). System initial pressure 2.0 bar, liquid temperature 20 °C

14. Sound level

AW032HSGHA



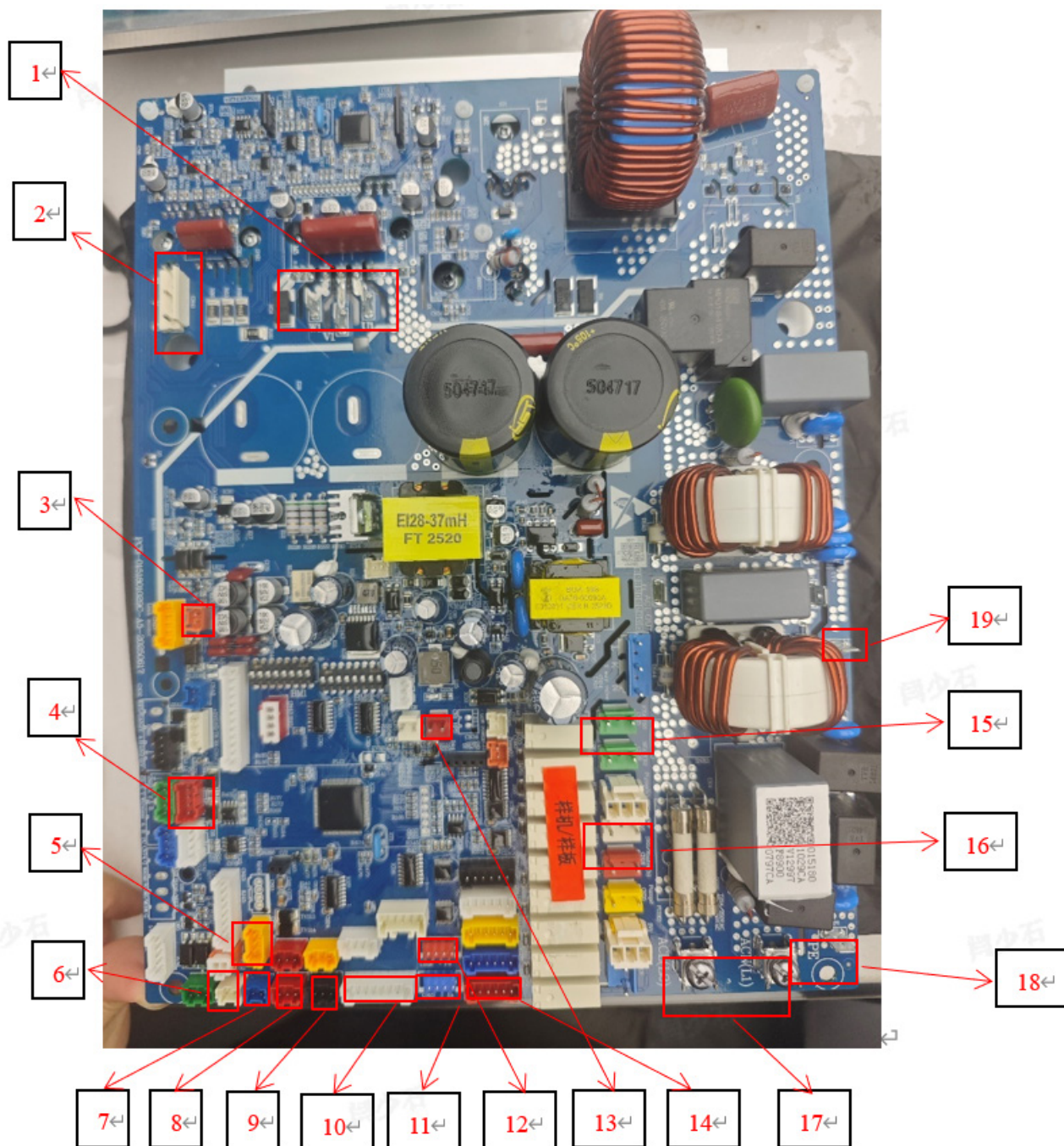
AW052HSGHA



15. PCB Photos

15.1 Outdoor Units

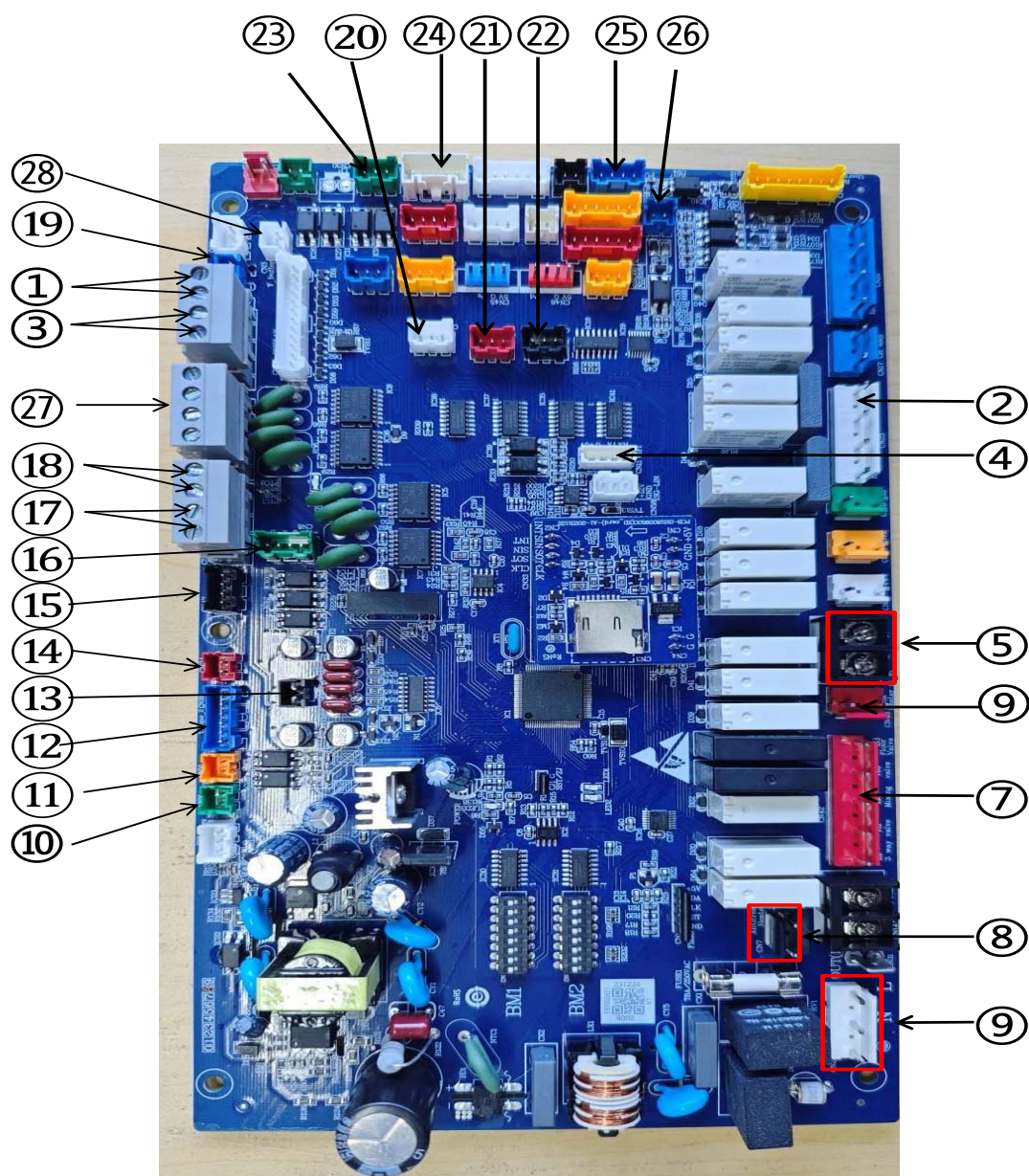
AW032HSGHA AW052HSGHA
Main PCB Code: 0151801029CA



NO	Port	Port Definition	Function Description
1	/	U1\W1\W1	Compressor Control
2	CN41	U\W\W	Condensor Fan Control
3	CN21	P \Q	Indoor&Outdoor Units Communication
4	CN40	A\B	PC Monitor
5	CN70	A\B	Modbus Communication
6	CN5	TA1	Internal temperature sensor of the electric control box
7	CN4	TE(1)	Defrosting temperature sensor
8	CN3	Td1	Discharge temperature sensor
9	CN6	Ts	Suction temperature sensor
10	CN44	THI	Gas Pipe temperature sensor
		THO	Liquid Pipe temperature sensor
		TWO	Water outlet temperature sensor
		TWI	Water inlet temperature sensor
11	CN29	Ps	Low-pressure sensor
12	CN28	Pd	High-pressure sensor
13	CN8	LEVA	Electronic expansion valve
14	CN1	HPS	High pressure switch
15	CN25	HEATER1	Electrical heater Control
16	CN16	4MV	4 way valve Control
17	/	ACL\ACN	Power Supply
18	/	PE	Protective earth

15.2 Indoor Units

HU102WAHYA HU102WAHYB HU102F20AHYA
Main PCB Code:0151800950B



No.	Port No.	Silk No.	Full Name Description
1	CN52	HM	Calorimeter
2	CN23	Heater_1 Heater_2	HU Electric Heater
3	CN52	EM	Electric Meter
4	CN11	WIFI	Wi-Fi
5	CN35	PUMP_0	DC Water Pump Power Supply
6	CN43	Tank Heater	Water Tank Electric Heater
7	CN42	3 way valve Mixing valve Floor Valve	Three way valve Mixing Valve Floor Heating Valve
8	CN7	Antifreeze Heater	Water Circuit Anti-freeze Electric Heater
9	CN24	N L	Power Supply
10	CN55	OLP-1	Electric Heater Over Heat Protection Feedback
11	CN50	T_tanku	Water Tank Upper Temperature Sensor
12	CN28	Twzone_1 Twzone_2	Zone1 Zone2
13	CN4	Q P	Indoor & Outdoor Communication
14	CN34	Tz	Anti-freeze Sensor
15	CN47	DRED-SG	SG
16	CN6	/	Controller
17	CN2	Modbus	The Third-party Modbus Cloud service
18	CN2	IO card	485
19	CN8	PC	PC Monitor
20	CN49	Tout2	Temperature Sensor after Auxiliary Heater
21	CN38	P_w	Water Pressure Sensor
22	CN48	T_tankd	Water Tank Lower Temperature Sensor
23	CN9	PUMP_0-FB	DC Water Pump Control Signal
24	CN36	FM	Flow Meter
25	CN37	PUMP_1 PUMP_2	External Water Pump Control Signal
26	CN51	OLP-2	Water Tank Electric Heater Over Heat Protection Feedback
27	CN5	/	OEM WIFI
28	CN3	T_buffer	T_buffer Temperature Sensor

16. Dip Switch Setting

The electrical control box must be powered off before opening its cover and setting the dip switch. In the following table, '1' means 'ON' and '0' means 'OFF'.

16.1 Outdoor Units

(1) BM1 dip switch definition:

BM1_1	Reserved	[1]	Performance control mode selection			
		0	General control(default)			
		1	IO PCB:0-10V control			
BM1_2	Outdoor unit Model selection	[2]	[3]	[4]	[5]	Outdoor unit Model selection
BM1_3		0	1	0	0	35 Model
BM1_4		0	1	0	1	50 Model
BM1_5						
BM1_6	Power selection	[6]	Power selection			
		0	Single phase			
		1	Three phase(default)			
BM1_7	Running mode selection	[7]	[8]	Running mode selection		
		0	0	Normal mode (default)		
		0	1	Powerful mode		
		1	0	Silent mode		
BM1_8		1	1	Performance test mode		

(2) BM2 dip switch definition:

BM2_1	Outdoor unit type selection	[1]	[2]	[3]	Outdoor unit Type
		0	0	0	MONOBLOC
		0	0	1	Hydro split (default)
		0	1	0	Hydro All in one
		0	1	1	Split
		1	0	0	Split All in one
		1	1	0	MONOBLOC(No IDU)
BM2_4	Refrigerant type selection	[4]	Refrigerant type selection		
		0	R290(默认)		
		1	R32		
BM2_6~8	Host Machine & Submachine Option	[6]	[7]	[8]	Host Machine & Submachine Option
		0	0	0	Host Machine (Default)
		0	0	1	Submachine 1#
		0	1	0	Submachine 2#
		0	1	1	Submachine 3#
		1	0	0	Submachine 4#
		1	0	1	Submachine 5#
		1	1	0	Submachine 6#
		1	1	1	Submachine 7#

16.2 Indoor Units

(1) BM1 dip switch definition:

BM1_1	Hydrobox Models	[1]				Reserved
		0				Normal HydroBox (Default)
		1				HydroBox
BM1_2~4	Host Machine & Submachine Option	[2]	[3]	[4]		Host Machine & Submachine Option
		0	0	0		Host Machine (Default)
		0	0	1		Submachine 1#
		0	1	0		Submachine 2#
		0	1	1		Submachine 2#
		1	0	0		Submachine 4#
		1	0	1		Submachine 5#
		1	1	0		Submachine 6#
		1	1	1		Submachine 7#
BM1_5~8	Capacity Option	[5]	[6]	[7]	[8]	Capacity Option
		0	1	0	0	AW032HSGHA
		0	1	0	1	AW052HSGHA

(2) BM2 dip switch definition:

BM2_1	Indoor Unit Communication Address Setting Mode	0	Auto Setting (Default)					
		1	Dip Switch Setting Address					
BM2_2	Water Tank Sensor Option	0	Two Sensors: Ttanku and Ttankd (Default)					
		1	One Sensor: Ttanku					
BM2_3~8	Indoor Unit Communication Address for Modbus RTU	[3]	[4]	[5]	[6]	[7]	[8]	Communication Address
		0	0	0	0	0	0	0# (Default)
		0	0	0	0	0	1	1#
		0	0	0	0	1	0	2#
		...	...	...	...	...	...	
		1	1	1	1	1	1	63#

17. Sensor Resistance Table

1. Reference Table

No.	Spare Parts Code	Sign	Parameter	Note
1	0004000046	Ts	25°10 kΩ	Sheet 1
2	0004000047	Te1	25°10 kΩ	Sheet 1
3	0004000052	Tout2	25°10 kΩ	Sheet 1
4	0004000053	Tai	25°10 kΩ	Sheet 1
5	0004000049	T-tank	25°10 kΩ	Sheet 1
6	0004000050	T-tank2	25°10 kΩ	Sheet 1
7	0004000048	Tw1, Tw2	25°10 kΩ	Sheet 1
8		Th1, Th2	25°10 kΩ	Sheet 1
9	0150409004	Tao	25°10 kΩ	Sheet 1
10	0004000045	Td1	80°50 kΩ	Sheet 2

2. Sensor Resistance Table (Sheet 1)

25°10 kΩ

R25=10.00KΩ±3% B25/50= 3700K±3%

T(°C)	Rnom(KΩ)	T(°C)	Rnom(KΩ)
-40	250.4931	34	6.9733
-39	235.5181	35	6.7067
-38	221.5962	36	6.4516
-37	208.6378	37	6.2076
-36	196.5621	38	5.9740
-35	185.2972	39	5.7503
-34	174.7781	40	5.5362
-33	164.9457	41	5.3311
-32	155.7471	42	5.1346
-31	147.1341	43	4.9463
-30	139.0630	44	4.7659
-29	131.4940	45	4.5929
-28	111.8705	46	4.4271
-27	117.7198	47	4.2681
-26	111.4512	48	4.1155
-25	105.5570	49	3.9692
-24	100.0117	50	3.8287
-23	94.7917	51	3.6947
-22	89.8755	52	3.5660
-21	85.2430	53	3.4424
-20	80.8759	54	3.3237
-19	76.7571	55	3.2096
-18	72.8709	56	3.1000
-17	69.2025	57	2.9946
-16	65.7385	58	2.8933
-15	62.4662	59	2.7959
-14	59.3739	60	2.7022
-13	56.4507	61	2.6121
-12	53.6864	62	2.5253
-11	51.0715	63	2.4419

T(°C)	Rnom(KΩ)	T(°C)	Rnom(KΩ)
-10	48.5972	64	2.3615
-9	46.2552	65	2.2842
-8	44.0377	66	2.2097
-7	41.9376	67	2.1380
-6	39.9480	68	2.0689
-5	38.0627	69	2.0024
-4	36.2756	70	1.9383
-3	34.5812	71	1.8765
-2	32.9744	72	1.8169
-1	31.4500	73	1.7595
0	30.0037	74	1.7042
1	28.6310	75	1.6508
2	27.3278	76	1.5994
3	26.0904	77	1.5497
4	24.9152	78	1.5018
5	23.7987	79	1.4556
6	22.7377	80	1.4110
7	21.7294	81	1.3680
8	20.7707	82	1.3265
9	19.8592	83	1.2864
10	18.9922	84	1.2477
11	18.1673	85	1.2103
12	17.3825	86	1.1742
13	16.6355	87	1.1393
14	15.9243	88	1.1057
15	15.2472	89	1.0731
16	14.6023	90	1.0417
17	13.9879	91	1.0113
18	13.4024	92	0.9819
19	12.8445	93	0.9535
20	12.3126	94	0.9261
21	11.8055	95	0.8996
22	11.3218	96	0.8739
23	10.8604	97	0.8491
24	10.4201	98	0.8251
25	10.0000	99	0.8019
26	9.5989	100	0.7794
27	9.2160	101	0.7577
28	8.8503	102	0.7366
29	8.5010	103	0.7163
30	8.1673	104	0.6966
31	7.8483	105	0.6775
32	7.5435	106	0.6591
33	7.2520	107	0.6412

80°50 kΩ (Sheet 2)

R80=50KΩ±3% B25/80=4450±3% M470-2

T(°C)	Rnom(KΩ)	T(°C)	Rnom(KΩ)
-40	24087.7290	33	349.3720
-39	22367.9580	34	333.5280
-38	20789.5510	35	318.5030
-37	19338.8110	36	304.1920
-36	18003.4710	37	290.5980
-35	16772.8000	38	277.7190
-34	15637.1890	39	265.4530
-33	14588.0520	40	253.8000
-32	13617.8260	41	242.6590
-31	12719.6600	42	232.1310
-30	11887.4240	43	222.0110
-29	11115.5970	44	212.4030
-28	10399.1710	45	203.3060
-27	9733.7500	46	194.6180
-26	9115.2460	47	186.3380
-25	8539.8760	48	178.3660
-24	8004.3710	49	170.9040
-23	7505.5610	50	163.6470
-22	7040.7880	51	156.8770
-21	6607.3950	52	150.3850
-20	6203.1340	53	144.1920
-19	5825.8580	54	138.2840
-18	5473.5220	55	132.6470
-17	5144.3890	56	127.2660
-16	4836.8240	57	122.1290
-15	4549.1900	58	117.2230
-14	4280.2620	59	112.5390
-13	4028.5060	60	108.0630
-12	3792.9000	61	103.7870
-11	3572.3190	62	99.6990
-10	3365.7420	63	95.7930
-9	3172.0450	64	92.0570
-8	2990.6130	65	88.4850
-7	2820.4240	66	85.0680
-6	2660.7640	67	81.7990
-5	2511.0190	68	78.6710
-4	2370.4730	69	75.6770
-3	2238.5130	70	72.8110
-2	2114.5260	71	70.0670
-1	1998.1030	72	67.4390
0	1888.7330	73	64.9210
1	1785.8020	74	62.5100
2	1689.1060	75	60.1980
3	1598.1350	76	57.9840
4	1512.5810	77	55.8600
5	1432.0350	78	53.8250

T(°C)	Rnom(KΩ)	T(°C)	Rnom(KΩ)
6	1356.1910	79	51.8720
7	1284.7430	80	50.0000
8	1217.4850	81	48.2040
9	1154.1120	82	46.4800
10	1094.3160	83	44.8260
11	1037.9950	84	43.2390
12	984.8440	85	41.7140
13	934.7580	86	40.2510
14	887.4320	87	38.8450
15	842.7640	88	37.4950
16	800.6520	89	36.1980
17	760.7880	90	34.9520
18	723.1730	91	33.7550
19	687.6020	92	32.6030
20	653.9730	93	31.4960
21	622.0820	94	30.4320
22	592.0300	95	29.4090
23	563.5120	96	28.4250
24	536.6300	97	27.4770
25	511.0760	98	26.5660
26	486.8510	99	25.6890
27	463.9550	100	24.8450
28	442.2850	101	24.0330
29	421.7400	102	23.2500
30	402.2170	103	22.4970
31	383.6140	104	21.7720
32	366.0330	105	21.0730

18. Accessories

18.1 Outdoor Units

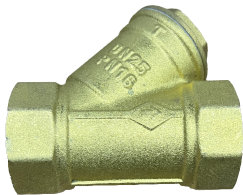
	AW032HSGHA AW052HSGHA	Description	Spare Parts No.
Drainage elbow	4	Water drainage of outdoor unit drain pan.	0010207576
Rubber cushion	4	Reduce vibration.	0150205886
Water filter	1	Filter water	0150751113
Specification	1	Refer to this manual for installation.	/



Drainage elbow



Rubber cushion



Water filter

18.2 Indoor Units

	HU102WAHYA HU102WAHYB	HU102F20AHYA	Description	Spare Parts No.
Installation manual	1	1	Refer to this manual for installation.	/
Rubber ring	2	9	Sealing ring of quick connector. Sealing function.	0150206286
T-Zone_1 Temperature sensor	1	1	Water temperature sensor of Zone_1. To detect the water tank Zone_1 temperature.	0150408957
T-Zone_2 Temperature sensor	1	1	Water temperature sensor of Zone_2. To detect the water tank Zone_2 temperature.	0150408957
T_tank Temperature sensor	2	/	Water temperature sensor of water tank.To detect the water tank temperature.	0150408957
T_buffer Temperature sensor	1	1	Water temperature sensor of buffer tank. To detect the buffter tank temperature.	0150405308
Installation plate I	1	/	To fix the unit in the box during transportation.	0150177509
Installation plate II	1	/	To fix the unit in the box during transportation.	0150177509



Rubber ring



Temperature sensor



Installation plate I



Installation plate II

19. Manual Updates Versions

This part will show the update versions of this Manual.

Version Code	Description	Date

Haier Commercial Air Condition

ADDRESS: No.1 Haier Road, Hi-tech Zone, Qingdao 266101 P.R.China

Web: [Http://www.haier.com](http://www.haier.com)

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