



GUARDIAN®

Always on Duty.

Technical Catalogue

Indoor Model

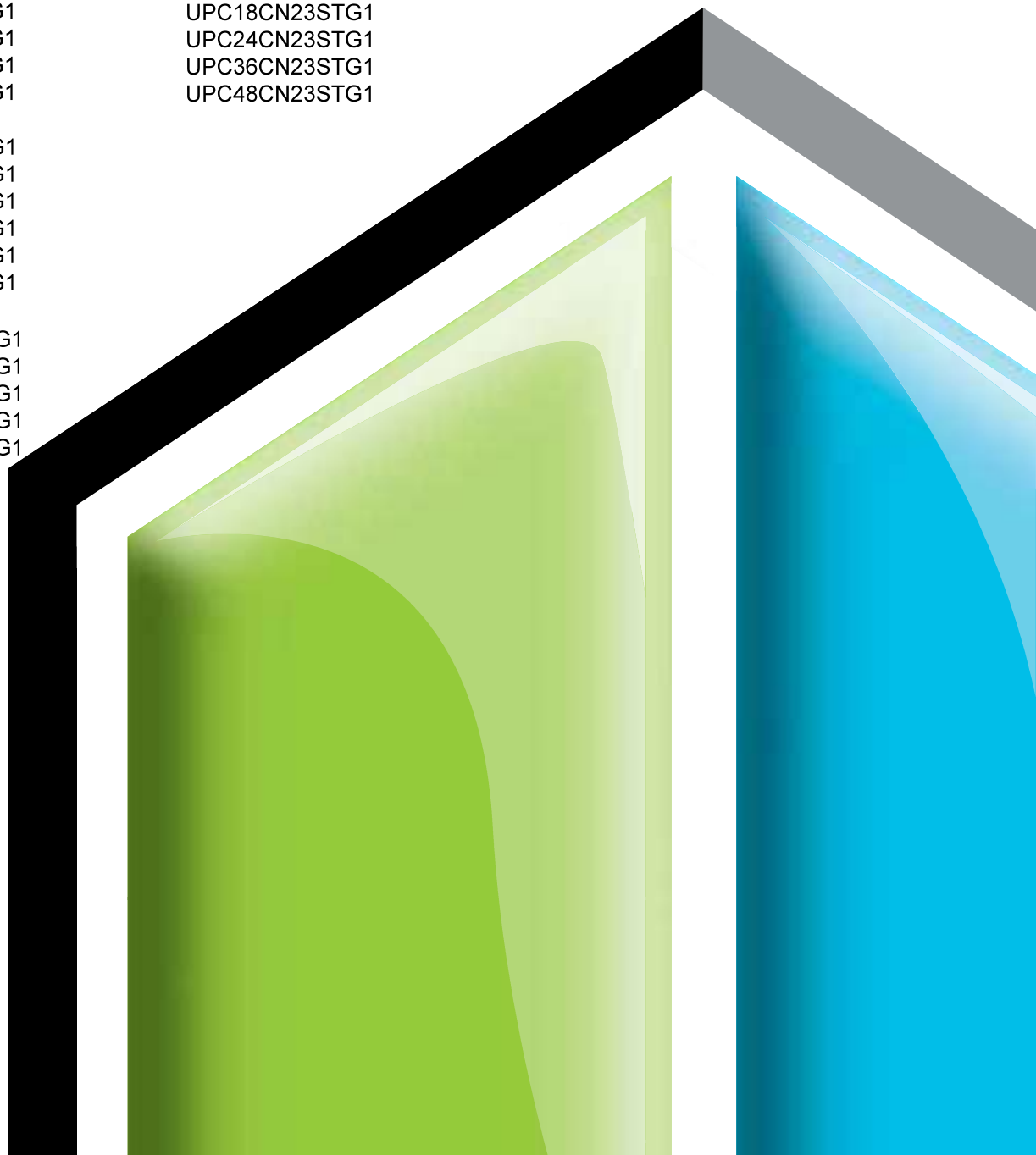
UNI09DT23STG1
UNI12DT23STG1
UNI18DT23STG1
UNI24DT23STG1
UNI36DT23STG1
UNI48DT23STG1

UNI09CS23STG1
UNI12CS23STG1
UNI18CS23STG1
UNI24CS23STG1
UNI36CS23STG1
UNI48CS23STG1

UNI09HW23STG1
UNI12HW23STG1
UNI18HW23STG1
UNI24HW23STG1
UNI36HW23STG1

Outdoor Model

UPC09CN23STG1
UPC12CN23STG1
UPC18CN23STG1
UPC24CN23STG1
UPC36CN23STG1
UPC48CN23STG1



Safety Precautions

1. This air conditioner uses new refrigerant HFO (R454B). R454B refrigerant is flammable.
2. Since the max. working pressure is 600 psig (4.14MPa) [R22:450 psig (R22:3.1MPa)], some of the piping and installation and service tools are special.
3. This air conditioner uses power supply: 208/230V ~, 60Hz.
4. Specified filter drier is required on the liquid pipe when connecting the units.
5. Be sure that servicing equipment and replacement components are applicable for R454B refrigerant.
6. Do not discharge R454B refrigerant into the air, and when recover it, the cylinder service pressure rating must be over 600 psig. R454B refrigerant systems should be charged with liquid refrigerant and the service pressure rating of the hoses used must be over 750 psig.
7. Leak detectors should be designed to detect HFC refrigerant.
8. R454B refrigerant is only compatible with POE oils, which could absorb moisture rapidly, so do not expose it to the air, in case that it damages certain plastics materials.
9. Replace all the filter driers after maintenance.

Please read these SAFETY PRECAUTIONS carefully to ensure correct installation.

- Be sure to use a dedicated power circuit, and do not put other loads on the power supply.
- Be sure to read these SAFETY PRECAUTIONS carefully before installation.
- Be sure to comply with SAFETY PRECAUTIONS of installation manual, because it contains important safety issues. Definitions for identifying hazard levels are provide below with their respective safety symbols.

⚠ **WARNING:** Hazards or unsafe practices which COULD result in severe personal injury or death.

⚠ **CAUTION:** Hazards or unsafe practices which COULD result in minor personal injury or product or property damage.

- Please carefully file indoor and outdoor unit manual away for future reference.

⚠ WARNING

- Installation should be performed by a qualified personnel.
Improper installation may cause water leakage, electrical shock or fire.
- Install the air conditioner on a solid base that can support the unit weight.
An inadequate base or incomplete installation may cause injury if the unit falls off the base.
- Use the specified type of wire for electrical connections safely between the indoor and outdoor units.
And firmly clamp the interconnecting wires so their terminals receive no external stresses.
- For wiring, use a cable long enough to cover the entire distance with no connection.
And do not connect multiple devices to the same AC power supply.
Otherwise, it may be due to bad contact, poor insulation, exceed the allowable current and cause a fire or electric shock.
- After all installation is completed, check to make sure that no refrigerant is leaking out.
If the refrigerant gas leakage to the interior, and the heater, stove flame touching it, will generate harmful substances.
- Perform the installation securely referring to the installation manual.
Incomplete installation could cause a personal injury due to fire, electric shock, the unit falling or leakage of water.
- In accordance with the installation instructions for electrical work, please be sure to use a dedicated line.
- If the power supply circuit capacity or electrical work is not in place, may cause a fire or electric shock.
- Attach the electrical cover to the indoor unit and the service panel to the outdoor unit securely.
- If the electrical covers on the indoor unit or the service panel of the outdoor unit are not attached securely, it could result in a fire or an electric shock due to dust water, etc.
- Please be sure to cut off the main power supply before the installation of indoor electronic PCB or wiring. Otherwise, it will cause electric shock.
- The device should be in accordance with the state provisions for installation wiring.

Safety Precautions

- The outdoor machine installation location should pay attention to the protection, avoid people or other small animals contact with electrical components, please keep the outdoor unit of the surrounding environment clean and tidy.
- When installing or relocating the unit, make sure that no substance other than the specified refrigerant (R454B) enters the refrigerant circuit.
Any presence of foreign substance such as air can cause abnormal pressure rise or an explosion.



- Perform grounding
Does not connect the earth wire to a gas pipe, water pipe, lightning rod or telephone earth wire.
Defective grounding could cause an electric shock.
- Do not install the unit in a place where an inflammable gas leaks.
If gas leaks and accumulates in the area surrounding the unit, it could cause an explosion.
- Fasten a flare nut with a torque wrench as specified in this manual.
When fastened too tight, a flare nut may break after a long period and cause a leakage of refrigerant.
- Install an earth leakage breaker depending on the installation place (where it is humid).
If an earth leakage breaker is not installed, it could cause an electric shock.
- Perform the drainage/piping work securely according to the installation manual.
- If there is a defect in the drainage/piping work, water could drop from the unit and household goods could be wet and damaged.

Safety instructions

- Do not let air enter the refrigeration system or discharge refrigerant when moving the air conditioner.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The appliance shall be installed in accordance with national wiring regulations.
- Servicing shall only be performed as recommended by the equipment manufacturer.
- Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
- Means for disconnection, such as circuit breaker, which can provide full disconnection in all poles, must be incorporated in the fixed wiring in accordance with the wiring rules.
It is necessary to allow the disconnection of the appliance from the supply after installation.
Make sure the disconnection of the appliance from the supply when service and maintenance, a disconnection with a locking system in the isolated position shall be provided.
- The method of connection of the appliance to the electrical supply and interconnection of separate components, and the wiring diagram with a clear indication of the connections and wiring to external control devices and supply cord are detailed in below parts.
- Details of type and rating of circuit breakers / ELB is detailed in below parts.
- The information of dimensions of the space necessary for correct installation of the appliance including the minimum permissible distances to adjacent structures is detailed in below parts.
- This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.
- Instructions on additional charging of refrigerants are detailed below.

Safety Precautions

Precautions for using R454B refrigerant

The basic installation work procedures are the same as the conventional refrigerant (R22 or R410A). However, pay attention to the following points:

WARNING

1. Transport of equipment containing flammable refrigerants.

Attention is drawn to the fact that additional transportation regulations may exist with respect to equipment containing flammable gas. The maximum number of pieces of equipment or the configuration of the equipment, permitted to be transported together will be determined by the applicable transport regulations.

2. Marking of equipment using signs

Signs for similar appliances (containing flammable refrigerants) used in a work area generally are addressed by local regulations and give the minimum requirements for the provision of safety and/or health signs for a work location. All required signs are to be maintained and employers should ensure that employees receive suitable and sufficient instruction and training on the meaning of appropriate safety signs and the actions that need to be taken in connection with these signs. The effectiveness of signs should not be diminished by too many signs being placed together. Any pictograms used should be as simple as possible and contain only essential details.

3. Disposal of equipment using flammable refrigerants

Compliance with national regulations

4. Storage of equipment/appliances

The storage of equipment should be in accordance with the manufacturer's instructions.

5. Storage of packed (unsold) equipment

- Storage package protection should be constructed such that mechanical damage to the equipment inside the package will not cause a leak of the refrigerant charge.
- The maximum number of pieces of equipment permitted to be stored together will be determined by local regulations.
- The storage temperature should not exceed 60°C, as the refrigerant leakage may occur above 140°F (60°C), which can cause danger.

6. Information on servicing

6-1 Checks to the area

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating system, the following precautions should be complied with prior to conducting work on the system.

6-2 Work procedure

Work shall be undertaken under a controlled procedure so as to minimise the risk of flammable gas or vapour being present while the work is being performed.

6-3 General work area

- All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided.
- The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

6-4 Checking for presence of refrigerant

- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres.
- Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

6-5 Presence of fire extinguisher

- If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand.
- Have a dry powder or CO2 fire extinguisher adjacent to the charging area.

6-6 No ignition sources

- No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion.
- All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space.
- Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

6-7 Ventilated area

- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work.
- A degree of ventilation shall continue during the period that the work is carried out.
- The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

6-8 Checks to the refrigeration equipment

- Where electrical components are being changed, they shall be fit for the purpose and to the correct specification.
- At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt consult the manufacturer's technical department for assistance.

Safety Precautions

WARNING

- The following checks shall be applied to installations using flammable refrigerants:
 - The charge amount is in accordance with the room size within which the refrigerant containing parts are installed;
 - The ventilation machinery and outlets are operating adequately and are not obstructed;
 - If an indirect refrigerating circuit is used, the secondary circuit shall be checked for the leak of refrigerant;
 - Marking of the equipment should be visible and legible. Illegal markings and signs shall be corrected;
 - Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

6-9 Checks of electrical devices

- Repair and maintenance of electrical components shall include initial safety checks and component inspection procedures.
- If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.
- If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used.
- This shall be reported to the owner of the equipment so all parties are advised.
- Initial safety checks shall include:
 - That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
 - That there are no live electrical components and wiring are exposed while charging, recovering or purging the system;
 - That there is continuity of earth bonding.

7. Repairs of sealed components

Sealed electrical components shall be replaced.

8. Repairs of intrinsically safe components

Intrinsically safe components must be replaced.

9. Cabling

- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects.
- The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

10. Detection of flammable refrigerants

- Under no circumstances shall potential sources of ignition be used in the searching or detection of refrigerant leaks.
- A halide torch (or any other detector using a naked flame) shall not be used.

11. Leak detection methods

The following leak detection methods are deemed acceptable for systems containing flammable refrigerants:

- Electronic leak detectors shall be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.)
- Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.
- Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (maximum 25%) is confirmed.
- Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.
- If a leak is suspected, all naked flames shall be removed/ extinguished.
- If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.
- Removal of refrigerant shall be according to the manual.

Safety Precautions

WARNING

12. Removal and evacuation

- When breaking into the refrigerant circuit to make repairs – or for any other purpose – conventional procedures shall be used.
- However, for flammable refrigerants it is important that best practice be followed, since flammability is a consideration.
- The following procedure shall be adhered to:
 - Safely remove refrigerant following local and national regulations;
 - Evacuate;
 - Purge the circuit with inert gas (optional for A2L);
 - Evacuate (optional for A2L);
 - Continuously flush or purge with inert gas when using flame to open circuit;
 - Open the circuit.
- The refrigerant charge shall be recovered into the correct recovery cylinders.
- The system shall be “flushed” with OFN to render the unit safe.
- This process may need to be repeated for several times.
- Compressed air or oxygen shall not be used for this task.
- Flushing shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum.
- This process shall be repeated until no refrigerant is within the system. When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable working.
- This operation is absolutely vital if brazing operations on the pipe-work are to take place.
- Ensure that the outlet for the vacuum pump is not close to any ignition sources and there is ventilation available.

13. Charging procedures

- In addition to conventional charging procedures, the following requirements shall be followed:
 - Ensure that contamination of different refrigerants does not occur when using charging equipment.
 - Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.
 - Cylinders shall be kept upright.
 - Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
 - Label the system when charging is complete (if not already).
 - Extreme care shall be taken not to overfill the refrigeration system.
 - Prior to recharging the system pressure shall be tested with OFN.
- The system shall be leak tested on completion of charging but prior to commissioning.
- A follow up leak test shall be carried out prior to leaving the site.

14. Decommissioning

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail.

It is recommended that all refrigerants are recovered safely.

Prior to the task, an oil and refrigerant sample shall be taken in case that an analysis is required prior to the re-use of recovered refrigerant. It is essential that electrical power is available before the task.

a) Become familiar with the equipment and its operation.

b) Isolate system electrically.

c) Before attempting the procedure ensure that:

- Mechanical handling equipment is available, if required, for handling refrigerant cylinders;
- All personal protective equipment is available and being used correctly;
- The recovery process is supervised at all times by a competent person;
- Recovery equipment and cylinders conform to the appropriate standards.

d) Pump down refrigerant system, if possible.

e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.

f) Make sure that cylinder is situated on the scales before recovery.

g) Start the recovery machine and operate in accordance with manufacturer's instructions.

h) Do not overfill cylinders. (No more than 80 % volume liquid charge).

Safety Precautions

WARNING

- i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
- j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
- k) Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

15. Labelling

Equipment shall be labelled stating that it has been de-commissioned and empty of refrigerant.
The label shall be dated and signed.

For appliances containing FLAMMABLE REFRIGERANTS, ensure that there are labels on the equipment stating the equipment contains FLAMMABLE REFRIGERANTS.

16. Recovery

- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended that all refrigerant is removed safely.
- When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed.
- Ensure that the correct number of cylinders for holding the total system charge is available.
- All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant).
- Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order.
- Empty recovery cylinders are evacuated and, if possible, cooled before recovery.

17. Competence of service personnel

Information and training

The training should include the substance of the following:

Information about the explosion potential of flammable refrigerants to show that flammables may be dangerous when handled without care.

Information about potential ignition sources, especially those that are not obvious, such as lighters, light switches, vacuum cleaners, electric heaters.

Information about the concept of sealed components and sealed enclosures according to UL 60335.

Information about the correct working procedures:

a) Commissioning

- Ensure that the floor area is sufficient for the refrigerant charge or that the ventilation duct is assembled in a correct manner.
- Connect the pipes and carry out a leak test before charging with refrigerant.
- Check safety equipment before putting into service.

b) Maintenance

- Portable equipment shall be repaired outside or in a workshop specially equipped for servicing units with flammable refrigerants.
- Ensure sufficient ventilation at the repair place.
- Be aware that malfunction of the equipment may be caused by refrigerant loss and a refrigerant leak is possible.
- Discharge capacitors in a way that won't cause any spark. The standard procedure to short circuit the capacitor terminals usually creates sparks.
- Reassemble sealed enclosures accurately. If seals are worn, replace them.
- Check safety equipment before putting into service.

c) Repair

- Portable equipment shall be repaired outside or in a workshop specially equipped for servicing units with flammable refrigerants.
- Ensure sufficient ventilation at the repair place.
- Be aware that of the equipment may be caused by refrigerant loss and a refrigerant leak is possible.
- Discharge capacitors in a way that won't cause any spark.
- When brazing is required the following procedures shall be carried out in the right order.
 - Remove the refrigerant. If the refrigerant is not required by national regulations, drain the refrigerant to the outside. Take care that the drained refrigerant will not cause any danger. In doubt, one person should guard the outlet. Take special care that drained refrigerant will not float back into the building.

Safety Precautions

WARNING

- Evacuate the refrigerant circuit.
 - Purge the refrigerant circuit with nitrogen for 5 min.
 - Evacuate again (not required for A2L refrigerants)
 - Remove parts to be replaced by cutting, not by flame.
 - Purge the braze point with nitrogen during the brazing procedure.
 - Carry out a leak test before charging with refrigerant.
 - Reassemble sealed enclosures accurately. If seals are worn, replace them.
 - Check safety equipment before putting into service.
 - d) Decommissioning
 - If the safety is affected when the equipment is put out of service, the refrigerant charge shall be removed before decommissioning.
 - Ensure sufficient ventilation at the equipment location.
 - Be aware that malfunction of the equipment may be caused by refrigerant loss and a leak is possible.
 - Discharge capacitors in a way that won't cause any spark.
 - Remove the If the recovery is not required by national regulations, drain the refrigerant to the outside. Take care that the drained refrigerant will not cause any danger. In doubt, one person should guard the outlet. Take special care that drained refrigerant will not float back into the building.
 - e) Disposal
 - Ensure sufficient ventilation at the working place.
 - Remove the refrigerant. If the recovery is not required by national regulations, drain the refrigerant to the outside. Take care that the drained refrigerant will not cause any danger. In doubt, one person should guard the outlet. Take special care that drained refrigerant will not float back into the building.
 - Evacuate the refrigerant circuit
 - Purge the refrigerant circuit with nitrogen for 5 min.
 - Evacuate again.
 - Cut out the compressor and drain the oil.
-
- The pipe-work shall be complied with national gas regulations.
 - The maximum refrigerant charge amount is X kg (X see below).
 - Where addition of charge is required to complete installation, according to the content in "Refrigerant piping". After charged, finish the label (in accessory bag) and paste it near the nameplate.
 - When moving or relocating the air conditioner, consult experienced service technicians for disconnection and reinstallation of the unit.
 - Do not place any other electrical products or household belongings under indoor unit or outdoor unit.
 - Condensation dripping from the unit might get them wet, and may cause damage or malfunction of your property.
 - Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
 - The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
 - Do not pierce or burn.
 - Be aware that refrigerants may not contain an odour.
 - To keep ventilation openings clear of obstruction.
 - The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
 - The appliance shall be stored in a room without continuously operating open flames (for example an operating as appliance) and ignition sources (for example an operating electric heater).
 - Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorises their competence to handle refrigerants safely in accordance with an industry recognised assessment specification.
 - Servicing shall only be performed as recommended by the equipment manufacturer.
 - Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
 - The appliance shall be installed and stored so as to prevent mechanical damage from occurring.
 - Mechanical connectors used indoors shall comply with ISO 14903. When mechanical connectors are reused indoors, sealing parts shall be renewed. When flared joints are reused indoors, the flare part shall be re-fabricated.
 - The installation of pipe-work shall be kept to a minimum.
 - Mechanical connections shall be accessible for maintenance purposes.

Safety Precautions

⚠ WARNING

- That pipe-work including piping material, pipe routing, and installation shall include protection from physical damage in operation and service, and be in compliance with national and local codes and standards, such as ASHRAE 15, ASHRAE 15.2, IAPMO Uniform Mechanical Code, ICC International Mechanical Code, or CSA B52. All field joints shall be accessible for inspection prior to being covered or enclosed;
- That after completion of field piping for split systems, the field pipework shall be pressure tested with an inert gas and then vacuum tested prior to refrigerant charging, according to the following requirements;
The minimum test pressure for the low side: 1.65MPa
The minimum test pressure for the high side: 4.14MPa
- Field-made refrigerant joints indoors shall be tightness tested. The test method shall have a sensitivity of 5 grams per year of refrigerant or better under a pressure of at least 0,25 times the maximum allowable pressure. No leak shall be detected. The joints must be welded or brazed.

Label in accessory bag

Contains Flammable Refrigerants	
Contient des réfrigérants inflammables	
Refrigerant:	R454B
Fluide frigorigène:	
Additional Charge:	OZ
Charge supplémentaire:	
Total Charge (Installer Reference):	
Charge totale (Référence du Programme d'installation):	OZ

Max. Refrigerant Charge Amount X[oz.(g)]

Capacity (Btu/h)	9K/12K	18K	24K	36K	48K
Max. Refrigerant charge [oz.(g)]	55.24(1566)	76.65(2173)	126.53(3587)	165.22(4684)	213.87(6063)

Explanation of symbols displayed on the indoor unit or outdoor unit.

  Refrigerant safety group A2L	WARNING	This symbol shows that this appliance uses a flammable refrigerant. If the refrigerant is leaked and exposed to an external ignition source, there is a risk of fire.
	CAUTION	This symbol shows that the operation manual should be read carefully.
	CAUTION	This symbol shows that a service personnel should be handling this equipment with reference to the installation manual.
	CAUTION	This symbol shows that information is available such as the operating manual or installation manual.

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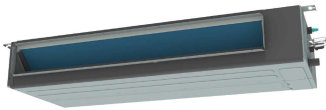
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1. GENERAL

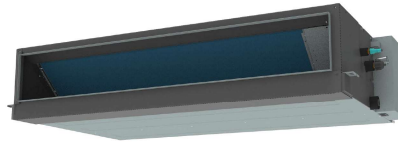
1.1 External Appearance

Indoor unit

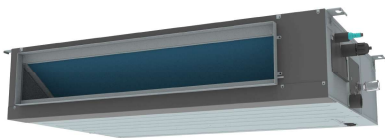
Duct type



UNI09DT23STG1
UNI12DT23STG1



UNI36DT23STG1
UNI48DT23STG1



UNI18DT23STG1
UNI24DT23STG1

Cassette type



UNI09CS23STG1
UNI12CS23STG1



UNI18CS23STG1
UNI24CS23STG1
UNI36CS23STG1
UNI48CS23STG1

High wall type



UNI09HW23STG1
UNI12HW23STG1



UNI18HW23STG1
UNI24HW23STG1



UNI36HW23STG1

1. GENERAL

Outdoor unit



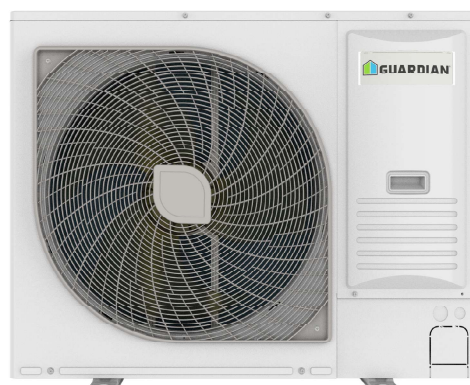
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UPC48CN23STG1

1. GENERAL

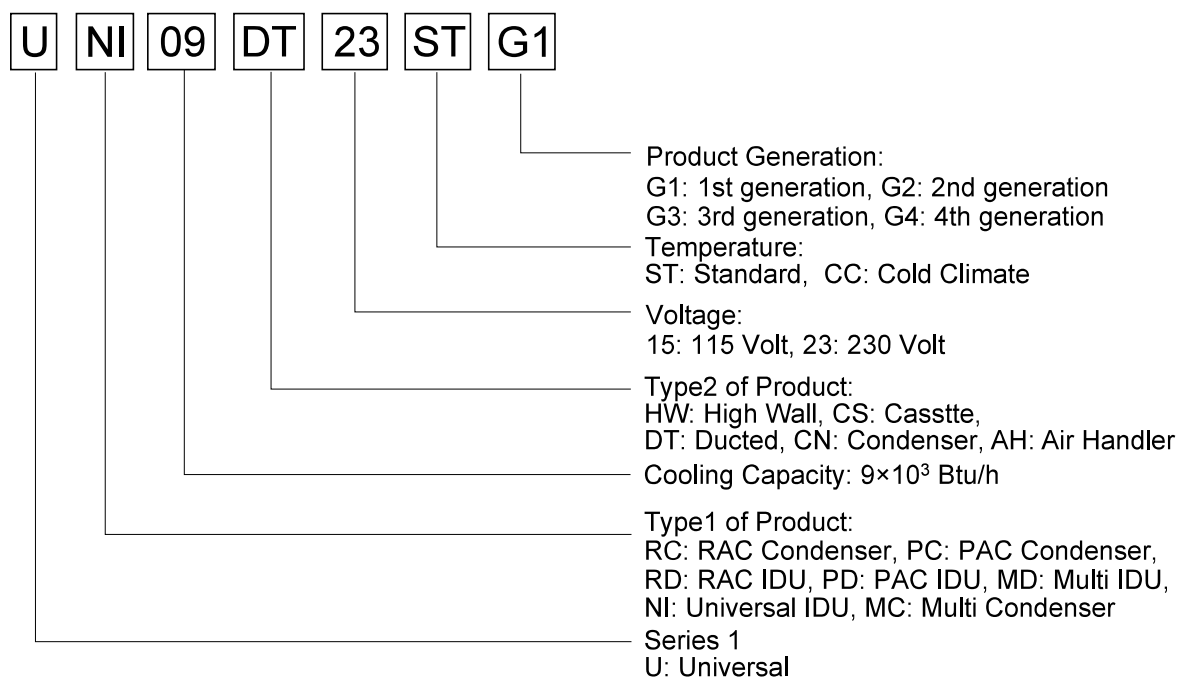
1.2 Power Supply

Outdoor unit	Power supply			Applicable voltage		ELB	
model	Voltage(V)	PH	Frequency (Hz)	Umin(V)	Umax(V)	Nominal Current(A)	Nominal Sensitive Current(mA)
9K/12K	208/230	1	60	187	264	20	30
18K	208/230	1	60	187	264	25	30
24K	208/230	1	60	187	264	30	30
36K/48K	208/230	1	60	187	264	50	30

NOTE:

1. The above data is based on 100% capacity combination of indoor units at the rated operating frequency.
2. This data is based on the same conditions as the nominal cooling capacities.

1.3 Nomenclature



1. GENERAL

1.4 Unit Installation

1:1 system is the only compatible combination.

(Only one indoor unit can be connected with one outdoor unit.)

1.5 Operation Limits

Power supply

Working Voltage	187V~264V
Voltage Imbalance	Within a 3% deviation from each voltage at the main terminal of outdoor unit
Starting Voltage	Higher than 85% of the Rated Voltage

For more product information, please refer to the catalog and other technical files.

NOTE:

- This air conditioner is designed for the following temperatures.
It should be operated within this range:

Capacity (Btu/h)	Mode	Outdoor operation temperature range [°F (°C)]	
		Maximum	Minimum
9K/12K/18K/24K/36K/48K	Cooling Operation	125(52)	5(-15)
	Heating Operation	75(24)	-13(-25)

- Storage condition: Temperature -13~140°F (-25~60°C)
Humidity 30%~80%

1.6 Specification

Mini Split

JCH Indoor Model			UNI09HW23STG1	UNH12HW23STG1	UNI18HW23STG1	UNI24HW23STG1	UNI36HW23STG1
JCH Outdoor Model			UPC09CN23STG1	UPC12CN23STG1	UPC18CN23STG1	UPC24CN23STG1	UPC36CN23STG1
Type	E-STAR_V6.1		Wall Mounted Mini Split	Wall Mounted Mini Split	Wall Mounted Mini Split	Wall Mounted Mini Split	Wall Mounted Mini Split
	NEEP		Yes	Yes	Yes	Yes	Yes
	Canada Greener Home Program		Yes	Yes	Yes	Yes	Yes
Power Supply	V/ph/Hz		208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
Energy Star	Yes		Yes	Yes	Yes	Yes	Yes
Cooling	Rated Capacity	Btu/h	9000	12000	18000	24000	36000
	Capacity(MIN-MAX)	Btu/h	4500~12600	4600~12700	7800~22000	10000~28000	12000~45000
	Input	W	750	1000	1500	2000	3000
	Current	A	3.88	4.5	6.65	8.87	13.5
	EER2	W/W	3.52	3.52	3.52	3.52	3.52
	EER2 (95F)	Btu/h/W	12.00	12.00	12.00	12.00	12.00
Heating	SEER2	Btu/h/W	22.0	22.0	21.0	21.0	20.00
	Rated Capacity	Btu/h	9000	12000	18000	24000	36000
	Capacity(MIN-MAX)	Btu/h	5400~15500	5500~16000	7800~23000	6700~30000	11000~45000
	Input	W	750	1000	1440	2069	2928
	Current	A	3.88	4.5	6.38	9.18	13.2
	COP2	W/W	3.52	3.52	3.66	3.40	3.60
	COP2	Btu/h/W	12.00	12.00	12.50	11.60	12.30
	HSPF2	Btu/h/W	10.5	10.5	10.0	10.0	10.00
	Rated Capacity Heating at 17°F	Btu/h	8900	8900	13400	24000	25000
	Maximum Heating Capacity COP @ 5F (Under Maximum Capacity)	W/W	1.80	1.80	1.80	1.80	1.80
Working Temperature Range	Cooling	°F	5-125	5-125	5~125	5-125	5-125
		°C	-15~52	-15~52	-15~52	-15~52	-15~52
	Heating	°F	-13~75	-13~75	-13~75	-13~75	-13~75
		°C	-25 - 24	-25 - 24	-25~24	-25 - 24	-25 - 24
Indoor Noise Level (PWL Hi)	dB(A)		57	57	58	67	67
Outdoor Noise Level (PWL Hi)	dB(A)		64	64	68	71	74
ESP	Rated	Pa	NA	NA	NA	NA	NA
		in-H ₂ O	NA	NA	NA	NA	NA
	Range	Pa	NA	NA	NA	NA	NA
		in-H ₂ O	NA	NA	NA	NA	NA
Design Pressure	H/L	MPa	4.14/1.65	4.14/1.65	4.14/1.65	4.14/1.65	4.14/1.65
	H/L	PSIG	600/240	600/240	600/240	600/240	600/240
Drainage Water Pipe Diameter	mm/in		dΦ32/(1-1/4)	dΦ32/(1-1/4)	OD20/(4/5)	dΦ32/(1-1/4)	dΦ32/(1-1/4)
ELECTRICAL DATA							
Min. ampacity	A		Outdoor12/Indoor3	Outdoor12/Indoor3	Outdoor16/Indoor3	Outdoor21/Indoor3	Outdoor30/Indoor3
Max. td fuse/breaker	A		Outdoor20/Indoor无	Outdoor20/Indoor无	Outdoor25/Indoor无	Outdoor40/Indoor无	Outdoor50/Indoor无
Remote Control Adjustable Temperature Range	°C		16-30	16-30	16-30	16-30	16-30
	°F		61-86	61-86	61-86	61-86	61-86
AIR SUPPLY							
Indoor Fan Motor	Model		ZWA108D42B	ZWA108D42B	ZWK465A00410	ZWK465A00410	ZWB178D92A
	Qty		1	1	1	1	1
	Output	HP	1/30	1/30	1/21	1/21	1/6
	Capacitor	μF	NA	NA	/	/	NA
Indoor Air Flow Rated(Hi/Med/Lo)	Speed(Hi/Med/Lo)	r/min	1150/990/800	1150/990/800	1101/960/800	1200/1043/882	1154/1000/851
		m3/h	620/530/430	620/530/430	1100	1200/1600/1350	1800/1600/1350
		CFM	364/312/253	364/312/253	647.06	705.9	1058/942/882
Outdoor Fan Motor	Model		ZKFN-40-8-33	ZKFN-40-8-33	ZWB2710L01AL	ZWB278L46A	ZWB4710L17A
	Qty		1	1	1	1	1
	Output	Hp	1/20	1/20	1/12	1/7	1/3
	Capacitor	μF	NA	NA	/	/	NA
Outdoor Air Flow	Speed (Hi)	r/min	880	880	880	870	850
		m³/h	2300	2300	3150	3800	5700
		CFM	1354	1354	1853	2235	3350
REFRIGERATIO							
Indoor Coil	Number of		2	2	2	2	3
	Tube Pitch(a)	mm	21	21	21	21	21
		in	0.827	0.827	0.827	0.827	0.827
	Row Pitch(b)	mm	13.6	13.6	13.6	13.6	13.6
		in	0.535	0.535	0.535	0.535	0.535
	Fin Spacing	mm	1.4	1.4	1.4	1.4	1.6
		Fins Per in	18	18	18	18	16
	Fin Type		Copper Tube/ Aluminum Fin	Copper Tube/ Aluminum Fin	Copper Tube/ Aluminum Fin	Copper Tube/ Aluminum Fin	Copper Tube/ Aluminum Fin
	Tube Outside Diameter and Type	mm	Φ7,innergroove tube	Φ7,innergroove tube	Φ7,innergroove tube	Φ7,innergroove tube	Φ7,innergroove tube
	Coil Dimension(WxH)	mm	620x294x27.2	620x294x27.2	842x378x27.2	842x378x27.2	1044x420x40.8
Outdoor coil	Number of Circuits		2	2	6	6	9
	Number of Rows		2	2	2	2	2
			2	2	2	2	2
	Tube Pitch(a)	mm	21	21	21	21	21
		in	0.827	0.827	0.827	0.827	0.827
	Row Pitch(b)	mm	21.65	21.65	21.65	21.65	21.65
		in	0.852	0.852	0.852	0.852	0.852
	Fin Spacing	mm	1.4	1.4	1.4	1.5	1.4
		Fins Per in	18	18	18	17	18
	Coil Dimension(WxHx)	mm	840x546x43.3	840x546x43.3	895x630x43.3	975x714x43.3	1190x840x43.3
Throttle Type	Dimension(WxHx)	in	33 1/8x21 1/2x1 3/4	33 1/8x21 1/2x1 3/4	35.2x24.8x1.7	38-3/8x28-1/8x1-3/4	46 7/8x33 1/8x1 3/4
	Fin Type		Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium
	Tube Outside Dia	mm	Φ7,innergroove tube	Φ7,innergroove tube	Φ7.94,innergroove tube	Φ7.94,innergroove tube	Φ7.94,innergroove tube
	Number of Circuits		6	6	6	5	6
	EEV		EEV	EEV	EEV	EEV	EEV
	CRSS		CRSS	CRSS	CRSS	CRSS	CRSS
Compressor	Type		Twin ROTARY	Twin ROTARY	Twin ROTARY	Twin ROTARY	Twin ROTARY
	Capacity	Btu/h	14740	14740	21325	27705	41524
	Input	W	1050	1050	1465	2575	3800
	Rated current	A	4.3	4.3	5.61	10.8	14.6
	Refrigerant oil	ml	FV68S /600	FV68S /600	FV68S/950	FV68S/900	FV68S /1200
	Type		R454B	R454B	R454B	R454B	R454B
Refrigerant	REFRIGERANT	oz(kg)	38.1 (1.08)	38.1 (1.08)	56.4 (1.6)	74.1 (2.1)	112.8 (3.2)

Type/Quantity	FACTORY PREPARED	ft (m)	25 (7.6)	25 (7.6)	25 (7.6)	25 (7.6)	25 (7.6)
	Additional charge	oz/ft	0.16	0.16	0.16	0.38	0.38
Refrigerant Piping	Liquid Line OD	mm/in	Φ6.35/(1/4)	Φ6.35/(1/4)	Φ6.35 (1/4)	Φ9.52(3/8')	Φ9.52(3/8')
	Vapor Line OD	mm/in	Φ9.52/(3/8)	Φ9.52/(3/8)	Φ12.7 (1/2)	Φ15.88(5/8')	Φ15.88(5/8')
	Max. Pipe Length	m	39.6	39.6	45.7	50	50
		Ft.	130	130	150	164	164
	Max. Difference in Level	m	15.2	15.2	24.4	30	30
		Ft.	50	50	80	98	98
DIMENSIONS &							
Indoor Unit	Dimension (mm)	mm	815×270×210	815×270×210	1085×230×315	1085×230×315	1380×379×295
		in	32x10 5/8x8 1/4	32x10 5/8x8 1/4	42-5/7 ×9×12-2/5	42-5/7 ×9×12-2/5	54 3/8x15x11 5/8
	Packing(WxHxD)	mm	900×335×260	900×335×260	1220×310×400	1220×310×400	1495×480×410
		in	35 1/2x13 1/8x10 1/4	35 1/2x13 1/8x10 1/4	48 ×12-1/5 ×15-3/4	48 ×12-1/5 ×15-3/4	58 7/8x18 7/8x16 1/8
	Net Weight	kg	8.5	8.5	14.0	14.0	24.5
		lbs	18.7	18.7	29.5	29.5	54.0
	Shipping Weight	kg	10.5	10.5	17.0	17.0	29.0
		lbs	23.1	23.1	35.9	35.9	63.9
Panel	Dimension (mm)	mm	NA	NA	NA	NA	NA
	(WxHxD)	in	NA	NA	NA	NA	NA
	Packing (LxWxH)	mm	NA	NA	NA	NA	NA
		in	NA	NA	NA	NA	NA
	Net Weight	kg	NA	NA	NA	NA	NA
		lbs	NA	NA	NA	NA	NA
	Shipping Weight	kg	NA	NA	NA	NA	NA
		lbs	NA	NA	NA	NA	NA
Outdoor Unit	Dimension(WxHxD)	mm	810×580×280	810×580×280	860×670×310	900×750×340	1100×875×450
		in	31 7/8 ×22 7/8 ×11	31 7/8 ×22 7/8 ×11	33-7/8 ×26-3/8 ×12-1/4	35-3/8×29-1/2×13-3/8	43 1/4x34 1/2x17 3/4
	Packing(WxHxD)	mm	940×420×640	940×420×640	990×730×450	1040×830×460	1165×1005×540
		in	37x16 1/2x25 1/4	37x16 1/2x25 1/4	39×28-3/4 ×17-3/4	41×32-5/8×18-1/8	45 7/8x39 5/8x21 3/4
	Net Weight	kg	36.0	36.0	47.0	56.0	84
		lbs	79.4	79.4	103.6	123.5	185.2
	Shipping Weight	kg	39.0	39.0	50.5	60.0	95
		lbs	86.0	86.0	111.3	132.3	209.4
Qty/per 20' /40' /40'HQ (Indoor Unit)	Set		408/807/944	408/807/944	199/402/464	199/402/464	104/208/240
Qty/per 20' /40' /40'HQ (Outdoor Unit)	Set		102/204/272	102/204/272	90/186/186	54/110/165	40/88/88

Duct

JCH Indoor Model			UN109D2T3STG1	UN120T2T3STG1	UN180T2T3STG1	UN124D2T3STG1	UN136D2T3STG1	UN148D2T3STG1
JCH Outdoor Model			UPC09CN23STG1	UPC12CN23STG1	UPC18CN23STG1	UPC24CN23STG1	UPC36CN23STG1	UPC48CN23STG1
Type			Duct	Duct	Duct	Duct	Duct	Duct
E-STAR_V6.1			Yes	Yes	Yes	Yes	Yes	Yes
NEEP			Yes	Yes	Yes	Yes	Yes	Yes
Canada Greener Home Program			Yes	Yes	Yes	Yes	Yes	Yes
Power Supply		V/ph/Hz	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
Energy Star			Yes	Yes	Yes	Yes	Yes	Yes
Cooling	Rated Capacity	Btu/h	9000	12000	18000	24000	33000	44000
	Capacity(MIN-MAX)	Btu/h	4300-14500	4300-14500	6500-25000	9000-21500	12000-45000	16800-61000
	Input	W	769	1025	1540	2050	2820	4100
	Current	A	3.1	4.5	6.7	9.4	13.4	17.5
	EER2	W/W	3.43	3.43	3.43	3.43	3.43	3.14
	EER2 (95F)	Btu/h/W	11.70	11.70	11.70	11.70	11.70	10.70
Heating	SEER2	Btu/h/W	19.5	19.5	19.0	19.0	18.5	19.5
	Rated Capacity	Btu/h	9000	12000	18000	24000	36000	44000
	Capacity(MIN-MAX)	Btu/h	5300-18000	5300-18000	5700-30000	7600-37500	11000-45000	15800-65000
	Input	W	750	1000	1540	2050	2900	3400
	Current	A	2.86	4.3	6.7	9.2	13.8	14.8
	COP2	W/W	3.52	3.52	3.43	3.50	3.64	3.79
Working Temperature Range	COP2	Btu/h/W	12.00	12.00	11.70	12.00	12.42	12.94
	HSPF2	Btu/h/W	9.5	9.5	9.0	9.5	9.0	9.5
	Rated Capacity Heating at 17°F	Btu/h	8700	8700	13200	15800	25500	28000
	Maximum Heating Capacity @5F	Btu/h	12000	12000	18000	24000	36000	44000
	COP @ 5F (Under Maximum Capacity)	W/W	1.80	1.80	2.00	2.00	2.00	2.00
	Cooling	°F	5-125	5-125	5-125	5-125	5-125	5-125
ESP	Heating	°C	-15~-52	-15~-52	-15~-52	-15~-52	-15~-52	-15~-52
	Indoor Noise Level (PWL Hi)	dB(A)	57	64	68	71	74	75
	Outdoor Noise Level (PVL Hi)	dB(A)	64	64	68	71	74	75
	Rated	Pa	45	45	45	145	145	145
	Range	in-H ₂ O	0.18	0.18	0.18	0.58	0.58	0.58
	Range	Pa	0-30	0-30	0-140	0-165	0-180	0-180
Design Pressure	H/L	MPa	4,14/1,65	4,14/1,65	4,14/1,65	4,14/1,65	4,14/1,65	4,14/1,65
	H/L	PSIG	600/239	600/239	600/239	600/239	600/239	600/239
Drainage Water Pipe Diameter		mm/in	øΦ32/(1-1/4)	øΦ32/(1-1/4)	øΦ32/(1-1/4)	øΦ32/(1-1/4)	øΦ32/(1-1/4)	øΦ32/(1-1/4)
ELECTRICAL								
Min. ampacity	A		Outdoor12/Indoor0.5	Outdoor12/Indoor0.5	Outdoor18/Indoor1.2	Outdoor22/Indoor1.8	Outdoor30/Indoor3	Outdoor37/Indoor3
Max. Id fuse/breaker	A		Outdoor20/Indoor1.5	Outdoor20/Indoor1.5	Outdoor25/Indoor1.5	Outdoor30/Indoor1.5	Outdoor50/Indoor1.5	Outdoor50/Indoor1.5
Remote Control Adjustable Temperature Range			°C	°C	°C	°C	°C	°C
			°F	°F	°F	°F	°F	°F
AIR SUPPLY SYSTEM								
Indoor Fan Motor	Model		TWZ65-S01	TWZ65-S01	ZWF-100H	ZWF-210H	ZWK702B500021	ZWK702B500021
	Qty		1	1	1	1	1	1
	Output	HP	1/20HP	1/20HP	1/8HP	2/7HP	7/16HP	1/2HP
	Capacitor	µF	NA	NA	NA	NA	NA	NA
	Speed(Hi/Med/Lo)	r/min	1110/1000/800	1110/1000/800	920/820/720	1400/1250/1100	1260/1150/1020	1400/1370/1320
	Indoor Air Flow Rated(Hi/Med/Lo)	CFM	550/500/400	550/500/400	900/800/700	1250/1100/950	1900/1700/1500	2400/2250/2100
Outdoor Fan Motor	Model		ZKFN40-8-33	ZKFN40-8-33	ZWB2710L01AL	ZWB278L46A	ZWB4710L17A	ZW511B500064+ZW511B500067
	Qty		1	1	1	1	1	1
	Output	W	40W	40W	60	102	250W	140/140
	Capacitor	µF	NA	NA	/	/	NA	/
	Speed (Hi)	r/min	880	880	880	870	850	890
	Outdoor Air Flow	m ³ /h	2300	2300	3150	3800	5700	8200
REFRIGERATION SYSTEM			CFM	CFM	CFM	CFM	CFM	CFM
Indoor Coil	Number of Rows		3	3	3	3	3	3
	Tube Pitch(a)	mm	21	21	19	19	21	21
	Row Pitch(b)	mm	0,827	0,827	0,748	0,75	0,826771654	0,827
	Fin Spacing	mm	13,6	13,6	13,6	13,6	18,19	18,19
	Fin Type	mm	0,535	0,535	0,535	0,535	0,716	0,716
	Tube Outside Diameter and Type	mm	1,6	1,6	1,4	1,4	1,4	1,4
Outdoor coil	Coil Dimension(WxHxD)	mm	18	18	18	18	18	18
	Number of Circuits		3	3	6	8	8	8
	Number of Rows		2	2	2	2	2	2
	Tube Pitch(a)	mm	21	21	21	21	21	21
	Row Pitch(b)	mm	0,827	0,827	0,83	0,83	0,827	0,827
	Fin Spacing	mm	21,65	21,65	21,65	21,65	21,65	21,65
Throttle Type	Fin Type	mm	0,852	0,852	0,875	0,850	0,852	0,852
	Tube Outside Diameter and Type	mm	1,4	1,4	1,4	1,5	1,4	1,4
	Number of Circuits		18	18	18	17	18	18
	Coil Dimension(WxHxD)	mm	840×549×43,3	840×549×43,3	895×630×43,3	(875×840×714)×43,3	1190×840×43,3	(868×934×643)×428×21,65
	Fin Type	mm	33×21-1/2×	33×21-1/2×	35,2×24,8×1,7	(38-3/8×37)×28-1/8×1-3/4	46-7/8×33-1/8×1-3/4	(38-1/8×36-3/4×25-3/8) ×56-1/4×7/8
	Tube Outside Diameter and Type	mm	1-3/4	1-3/4	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium
Compressor	Brand		EEV	EEV	EEV	EEV	EEV	EEV
	Type		C-6RZ146H1DJ	C-6RZ146H1DJ	C-6RZ210H1EBF	C-7RZ280H1AAF	C-7RZ420H1CAF	C-8RZ460H1BAF
	Capacity	Btu/h	14740	14740	21325	27705	41524	57458
	Input	W	1050,00	1050,00	1465,00	2575,00	3800,00	5830,00
	Rated current	A	4,3	4,3	5,61	10,8	14,6	21,2
	Refrigerant oil	ml	FV68S /600	FV68S /600	FV68S/950	FV68S /900	FV68S /1200	FV68S /1700
Refrigerant Type/Quantity	Type		R454B	R454B	R454B	R454B	R454B	R454B
	Refrigerant CHARGE	oz/kg	38,1 (1,08)	38,1 (1,08)	56,1 (1,6)	74,1 (2,1)	112,8 (3,2)	130,5 (3,7)
	FACTORY PRECHARGE	ft. (m)	25 (7,6)	25 (7,6)	25 (7,6)	25 (7,6)	25 (7,6)	25 (7,6)
	Additional charge for each ft	oz/ft	0,16	0,16	0,16	0,38	0,38	0,38
	Liquid Line OD	mm/in	Φ6,35(1/4)	Φ6,35(1/4)	Φ6,35 (1/4)	Φ9,52(3/8)	Φ9,52(3/8)	Φ9,52(3/8)
	Vapor Line OD	mm/in	Φ9,52(3/8)	Φ9,52(3/8)	Φ12,7 (1/2)	Φ15,88(5/8)	Φ15,88(5/8)	Φ19,05(3/4)
Refrigerant Piping	Max. Pipe Length	m	39,6	39,6	45	50	50	75
	Max. Difference in Level	ft.	130	130	150	165	165	246
	Max. Difference in Level	ft.	15,2	15,2	24	30	30	30
	Max. Difference in Level	ft.	50	50	80	100	98	98
	Max. Difference in Level	ft.	50	50	80	100	98	98
	Max. Difference in Level	ft.	50	50	80	100	98	98
DIMENSIONS & WEIGHT								
Indoor Unit	Dimension (WxHxD)	mm	910×190×447	910×190×447	800×245×700	1100×245×700	1400×300×800	1400×300×800
	Packing(WxHxD)	mm	35-7/8 ×7-1/2×17-5/8	35-7/8 ×7-1/2×17-5/8	31-1/2×9-5/8×27-1/2	43-1/4×9-5/8×27-1/2	55-1/8 × 11-3/4 × 31-1/2	55-1/8 × 11-3/4 × 31-1/2
	Net Weight	kg	20	20	26,5	33,5	51	51
	Shipping Weight	lbs	44,1	44,1	58,4	73,9	112,4	112,4
	Net Weight	kg	23,5	23,5	31	38,5	57	57
	Shipping Weight	lbs	51,8	51,8	68,3	84,9	125,7	125,7
Panel	Dimension (WxHxD)	mm	NA	NA	NA	NA	NA	NA
	Packing (LxWxH)	mm	NA	NA	NA	NA	NA	NA
	Net Weight	kg	NA	NA	NA	NA	NA	NA
	Shipping Weight	lbs	NA	NA	NA	NA	NA	NA
	Net Weight	kg	NA	NA	NA	NA	NA	NA
	Shipping Weight	lbs	NA	NA	NA	NA	NA	NA
Outdoor Unit	Dimension(WxHxD)	mm	810×580×280	810×580×280	880×670×310	900×750×340	1100×875×450	875×1460×330
	Packing(WxHxD)	mm	31-7/8×22-7/8×11	31-7/8×22-7/8×11	33-7/8 ×28-3/8 ×12-1/4	35-3/8×28-3/8×13-3/8	43-1/4×34-1/2×17-3/4	38-3/8×57-1/2×13
	Net Weight	kg	36	36	47,0	56,0	84	111
	Shipping Weight	lbs	79,4	79,4	103,6	123,4	185,2	244,7
	Net Weight	kg	39	39	50,5	60,0	95	121
	Shipping Weight	lbs	86,0	86,0	111,3	132,3	209,4	266,8
Qty per 20' /40' /40'HQ (Indoor Unit)			Set	Set	Set	Set	Set	Set
Qty per 20' /40' /40'HQ (Outdoor Unit)			Set	Set	Set	Set	Set	Set

Cassette

JCH Indoor Model		UN09CS23STG1	UN12CS23STG1	UN18CS23STG1	UN24CS23STG1	UNJ36CS23STG1	UNJ48CS23STG1
JCH Outdoor Model		UPC09CN23STG1	UPC12CN23STG1	UPC18CN23STG1	UPC24CN23STG1	UPC36CN23STG1	UPC48CN23STG1
Type		Cassette	Cassette	Cassette	Cassette	Cassette	Cassette
E-STAR_V6.1		Yes	Yes	Yes	Yes	Yes	Yes
NEEP		Yes	Yes	Yes	Yes	Yes	Yes
Canada Greener Home Program		Yes	Yes	Yes	Yes	Yes	Yes
Power Supply	V/ph/Hz	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
Energy Star		Yes	Yes	Yes	Yes	Yes	Yes
Cooling	Rated Capacity	9000	12000	18000	24000	36000	44000
	Capacity(MIN-MAX)	Btu/h 4300~14900	Btu/h 4300~14900	Btu/h 4300~23200	Btu/h 10900~30500	Btu/h 12000~49000	Btu/h 17000~59000
	Input	W 750	1000	1500	2000	3000	3666
	Current	A 3	4.3	6.3	8.5	14.2	16
	EER2	W/W 3.52	3.52	3.52	3.52	3.52	3.52
	EER2 (95F)	Btu/h/W 12.00	12.00	12.00	12.00	12.00	12.00
	SEER2	Btu/h/W 9.5	20.0	20.0	20.0	19.5	20.0
Heating	Rated Capacity	Btu/h 9000	12000	18000	24000	36000	44000
	Capacity(MIN-MAX)	Btu/h 5500~18000	Btu/h 5500~18000	Btu/h 8000~30000	Btu/h 8200~34000	Btu/h 11000~45000	Btu/h 15500~65000
	Input	W 750	1000	1560	2000	2850	3400
	Current	A 3	4.25	6.78	8.5	13.5	14.8
	COP2	W/W 3.52	3.52	3.38	3.52	3.70	3.79
	COP2	Btu/h/W 12.00	12.00	11.50	12.00	12.42	12.94
	HSPF2	Btu/h/W 9.5	9.5	10.0	10.5	9.5	9.5
Working Temperature Range	Rated Capacity Heating at 17°F	Btu/h 8900	8900	14100	19100	26500	28800
	Maximum Heating Capacity @5F	Btu/h 12000	12000	18000	24000	36000	44000
	COP @ 5F (Under Maximum Capacity)	W/W 1.80	1.80	2.00	2.00	2.00	2.00
	Heating	°F 5~125	5~125	5~125	5~125	5~125	5~125
Indoor Noise Level (PWL Hi)	°C -15~52	-15~52	-15~52	-15~52	-15~52	-15~52	-15~52
	°F -13~75	-13~75	-13~75	-13~75	-13~75	-13~75	-13~75
Outdoor Noise Level (PWL Hi)	°C -25~24	-25~24	-25~24	-25~24	-25~24	-25~24	-25~24
	°F -13~75	-13~75	-13~75	-13~75	-13~75	-13~75	-13~75
ESP	Rated	dB(A) 64	64	68	71	74	74
	Pa	0	0	/	/	0	0
	in-H ₂ O	0	0	/	/	0	0
	Range	Pa 0	0	/	/	0	0
Design Pressure	in-H ₂ O	0	0	/	/	0	0
	in-H ₂ O	0	0	/	/	0	0
Drainage Water Pipe Diameter	mm/in	4.14/1.65	4.14/1.65	4.14/1.65	4.14/1.65	4.14/1.65	4.14/1.65
ELECTRICAL							
Min. ampacity	A	Outdoor12/Indoor0.63	Outdoor12/Indoor0.63	Outdoor16/Indoor1.13	Outdoor22/Indoor1.13	Outdoor30/Indoor1.03	Outdoor37/Indoor1.04
Max. td fuse/ breaker	A	Outdoor20/Indoor1.1	Outdoor20/Indoor1.1	Outdoor25/Indoor1.1	Outdoor30/Indoor1.1	Outdoor50/Indoor1.1	Outdoor50/Indoor1.1
Remote Control Adjustable Temperature Range	°C	16~30	16~30	16~30	16~30	16~30	16~30
	°F	61~86	61~86	61~86	61~86	61~86	61~86
AIR SUPPLY SYSTEM							
Indoor Fan Motor	Model		ZW465B500021	ZW511B500061	ZW511B500061	ZW511B500062	ZW511B500062
	Qty		1	1	1	1	1
	HP	1/13HP	1/13HP	1/10	1/10	1/7	1/7
	Capacitor	µF NA	NA	NA	NA	NA	NA
Indoor Air Flow Rated(Hi/Med/Lo)	Speed(Hi/Med/Lo)	r/min	700/600/500	420/3810/320	470/400/340	660/560/480	760/680/600
	m3/h	580/500/400	580/500/400	1080/930/780	1200/1000/840	1750/1500/1250	2100/1850/1600
	CFM	341/294/235	341/294/235	643/554/465	706/588/494	1030/883/736	1235/1088/941
	Model	DC	DC	DC	DC	DC	DC
Outdoor Fan Motor	Qty	ZKFLV40-8-33	ZKFLV40-8-33	ZWB2710L01AL	ZWB4710L46A	ZWB4710L17A	ZW511B500064-ZW511B500067
	Output	W 40W	40W	80	110	250	140~149
	Capacitor	µF NA	NA	NA	NA	NA	NA
	Speed (Hi)	r/min 880	880	880	870	850	890
Outdoor Air Flow	m ³ /h	2300	2300	3150	3800	5700	8200
	CFM	1354	1354	1853	2235	3350	4820
REFRIGERATION SYSTEM							
Indoor Coil	Number of Rows	3	3	2	2	3	3
	Tube Pitch(a)	mm 13.9	13.9	21	21	21	21
	in 0.547	0.547	0.547	0.813	0.827	0.826771654	0.826771654
	Row Pitch(b)	mm 9.4	9.4	13.6	13.6	13.6	13.6
	in 0.370	0.370	0.531	0.535	0.535	0.535	0.535
	mm 1.3	1.3	1.5	1.5	1.5	1.5	1.5
	Fin Spacing	Fins Per in 20	20	17	17	17	17
	Fin Type	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium
	Tube Outside Diameter and Type	mm ø5,innergroove tube	ø5,innergroove tube	ø7,innergroove tube	ø7,innergroove tube	ø7,innergroove tube	ø7,innergroove tube
	Coil Dimension(WxHxD)	mm 1213×166,68×28.2	1213×166,68×28.2	2106×189×27.2	(2042×2106)×189×27.3	2096×231×40.8	2096×231×40.8
Outdoor coil	Number of Circuits	in 47-3/4×6-9/16×1-1/8	47-3/4×6-9/16×1-1/8	47,5×7,4×1,1	(80-2/5×6-83)×7-4/8×1	82-1/2×9-1/16×1-5/8	82-1/2×9-1/16×1-5/8
	Number of Rows	6	6	4	4	5	5
	Tube Pitch(a)	mm 21	21	2	2	2	2.5
	in 0.827	0.827	53/64	0.827	0.827	0.827	0.827
	Row Pitch(b)	mm 21.65	21.65	21.65	21.65	21.65	21.65
	in 0.852	0.852	0.852	0.852	0.852	0.852	0.852
	mm 1.4	1.4	1.4	1.5	1.5	1.4	1.4
	Fin Spacing	Fins Per in 18	18	18	17	18	18
	Coil Dimension(WxHxD)	mm 840×546×43.3	840×546×43.3	895×630×43.3	975×714×43.3	1190×840×43.3	(968+934+643)×1428×21.65
	in 33×21-1/2×	33×21-1/2×	35,2×24,8×1,7	38-3/8×28-1/8×1-3/4	46-7/8×33-1/8×1-3/4	46-7/8×33-1/8×1-3/4	(38-1/8+36-3/4+25-3/8) ×56-1/4×7/8
Throttle Type	Fin Type	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium	Hydrophilic aluminium
	Tube Outside Diameter and Type	mm ø7,innergroove tube	ø7,innergroove tube	ø7,94,innergroove tube	ø7,94,innergroove tube	ø7,94,innergroove tube	ø7,94,innergroove tube
Compressor	Number of Circuits	6	6	6	6	6	6
	Model	EEV C-6RZ146H1DJ	EEV C-6RZ146H1DJ	EEV C-6RZ210H1EBF	EEV C-7RZ280H1AAF	EEV C-7RZ420H1CAF	EEV C-8RZ2580H1BAF
	Brand	CRSS	CRSS	CRSS	CRSS	CRSS	CRSS
	Type	Twin ROTARY	Twin ROTARY	Twin ROTARY	Twin ROTARY	Twin ROTARY	Twin ROTARY
Refrigerant Type/Quantity	Capacity	Btu/h 14740	14740	21325	27705	41524	57458
	Input	W 1050.00	1050.00	1465	2575	3800.00	5830.00
	Rated current	A 4.3	4.3	5.61	10.8	14.6	21.2
	Refrigerant oil	ml FV68S /600	FV68S /600	FV68S/950	FV68S /900	FV68S /1200	FV68S /1700
Refrigerant Type/Quantity	Type	R454B	R454B	R454B	R454B	R454B	R454B
	REFRIGERANT CHARGE	oz(kg) 38.1 (1.08)	38.1 (1.08)	56.4 (1.6)	74.1 (2.1)	112.8 (3.2)	130.5 (3.7)
	FACTORY PRECHARGE	ft. (m) 25 (7.6)	25 (7.6)	25 (7.6)	25 (7.6)	25 (7.6)	25 (7.6)
	Additional charge for each ft	oz/ft 0.16	0.16	0.16	0.38	0.38	0.38
Refrigerant Piping	Liquid Line OD	mm/in ø6.35(1/4)	ø6.35(1/4)	ø6.35 (1/4)	ø9.52(3/8)	ø9.52(3/8)	ø9.52(3/8)
	Vapor Line OD	mm/in ø9.52(3/8)	ø9.52(3/8)	ø12.7 (1/2)	ø15.88(5/8)	ø15.88(5/8)	ø19.05(3/4)
	Max. Pipe Length	m 39.6	39.6	45	50	50	75
	Max. Difference in Level	ft. 130	130	150	165	164	246
DIMENSIONS & WEIGHT	m 15.2	15.2	24	30	30	30	30
	ft. 50	50	80	100	98	98	98
Indoor Unit	Dimension (WxHxD)	mm 570×215×570	570×215×570	840×236×840	840×236×840	840×272×840	840×272×840
	in 22-1/2 ×8-1/2×22-1/2	22-1/2 ×8-1/2×22-1/2	33-1/8 ×9-1/4 ×33-1/8	33-1/8 ×9-1/4 ×33-1/8	33-1/8 ×10-3/4×33-1/8	33-1/8 ×10-3/4×33-1/8	33-1/8 ×10-3/4×33-1/8
	Packing(WxHxD)	mm 730×292×688	730×292×688	950×320×950	950×320×950	950×360×950	950×360×950
	in 28-3/4 ×11-1/2 ×26-1/4	28-3/4 ×11-1/2 ×26-1/4	37-3/8 ×12-5/8 ×37-3/8	37-3/8 ×12-5/8 ×37-3/8	37-3/8 ×14-1/8×37-3/8	37-3/8 ×14-1/8×37-3/8	37-3/8 ×14-1/8×37-3/8
	Net Weight	kg 15.5	15.5	24.0	24.0	26	27
	lbs 34.2	34.2	52.9	52.9	57.3	59.5	59.5
	Shipping Weight	kg 18.5	18.5	29.0	29.0	32	32
Panel	in 40.8	40.8	63.9	63.9	70.6	70.6	70.6
	Dimension (WxHxD)	mm 620×40×620	620×40×620	950×50×950	950×50×950	950×50×950	950×50×950
	in 24-3/8×1-5/8×24-3/8	24-3/8×1-5/8×24-3/8	37-3/8×2×37-3/8	37-3/8×2×37-3/8	37-3/8×2×37-3/8	37-3/8×2×37-3/8	37-3/8×2×37-3/8
	Packing (LxWxH)	mm 690×680×115	690×680×115	1020×1000×105	1020×1000×105	1020×105×1000	1020×105×1000
	in 27-1/8×26-3/4 ×4-1/2	27-1/8×26-3/4 ×4-1/2	40-1/8×39-3/8×4-1/8	40-1/8×39-3/8×4-1/8	40-1/8×4-1/8×39-3/8	40-1/8×4-1/8×39-3/8	40-1/8×4-1/8×39-3/8
	Net Weight	kg 2.6	2.6	6.5	6.5	6.5	6.5
	Shipping Weight	lbs 5.7	5.7	14.3	14.3	14.3	14.3
Outdoor Unit	kg 4.5	4.5	9	9	9	9	9
	Dimension (WxHxD)	mm 810×580×280	810×580×280	860×670×310	900×750×340	1100×875×450	975×1460×330
	in 31-7/8×22-7/8×11	31-7/8×22-7/8×11	33-7/8 ×26-3/8 ×12-1/4	35-3/8×29-1/2×13-3/8	43-1/4×34-1/2×17-3/4	38-3/8×57-1/2×13	38-3/8×57-1/2×13
	Packing(WxHxD)	mm 940×640×420	940×640×420	990×370×450	1040×830×460	1165×1005×540	1120×1590×435
	in 37×25-1/4×16-1/2	37×25-1/4×16-1/2	39×28-3/4 ×17-3/4	41×32-5/8×18-1/8	45-7/8×39-1/2×21-1/4	44-1/8×62-5/8×16-3/4	44-1/8×62-5/8×16-3/4
	Net Weight	kg 36	36	47.0	56.0	84	111
	Shipping Weight	lbs 79.4	79.4	103.6	123.4	185.2	244.7
Qty per 20' /40' /40HQ (Indoor Unit)	Set	140/298/330	140/298/330	84/168/192	199/402/464	72/144/168	72/144/168
	Set	102/204/272	102/204/272	80/166/186	54/110/165	40/88/88	28/61/61

2. OUTLINES AND DIMENSIONS

2. Outlines and Dimensions

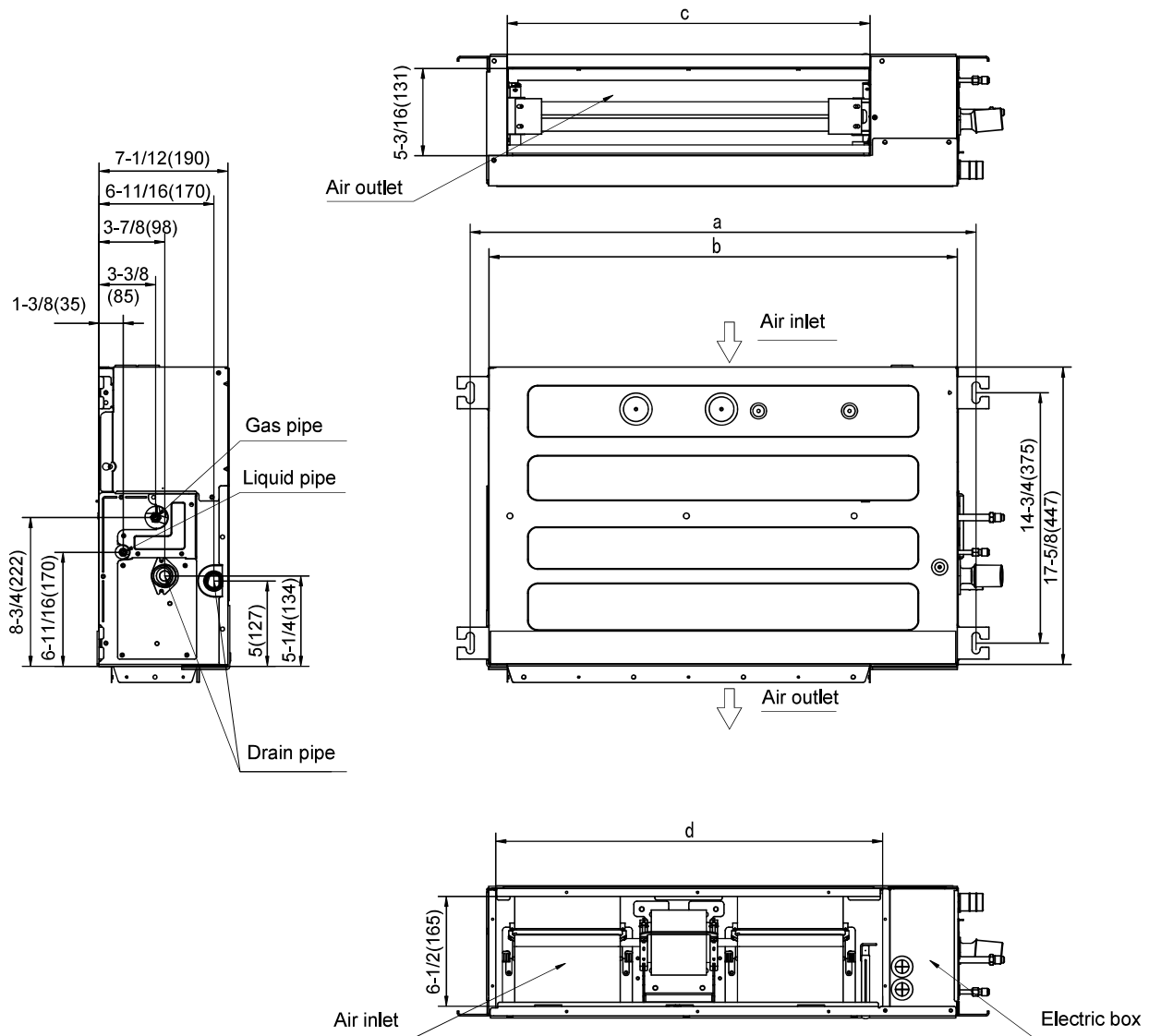
2.1 Indoor Units

Duct type

UNI09DT23STG1

UNI12DT23STG1

Unit : in.(mm)



Model (Btu/h)	a	b	c	d
9K/12K	37-13/16 (961)	35-13/16 (910)	29-1/2 (749)	30 (786)

2. OUTLINES AND DIMENSIONS

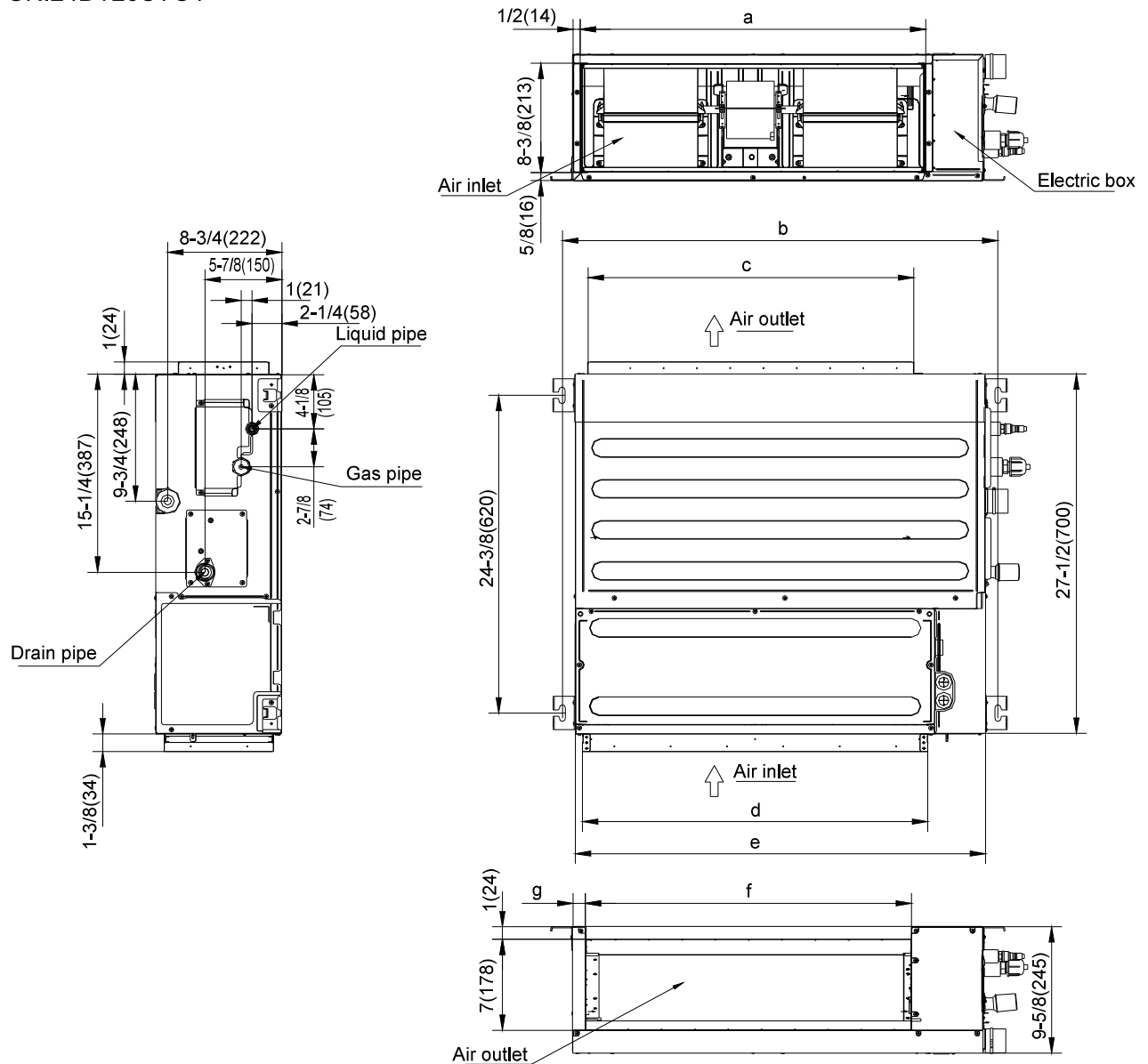
2. Outlines and Dimensions

2.1 Indoor Units

Unit : in.(mm)

UNI18DT23STG1

UNI24DT23STG1

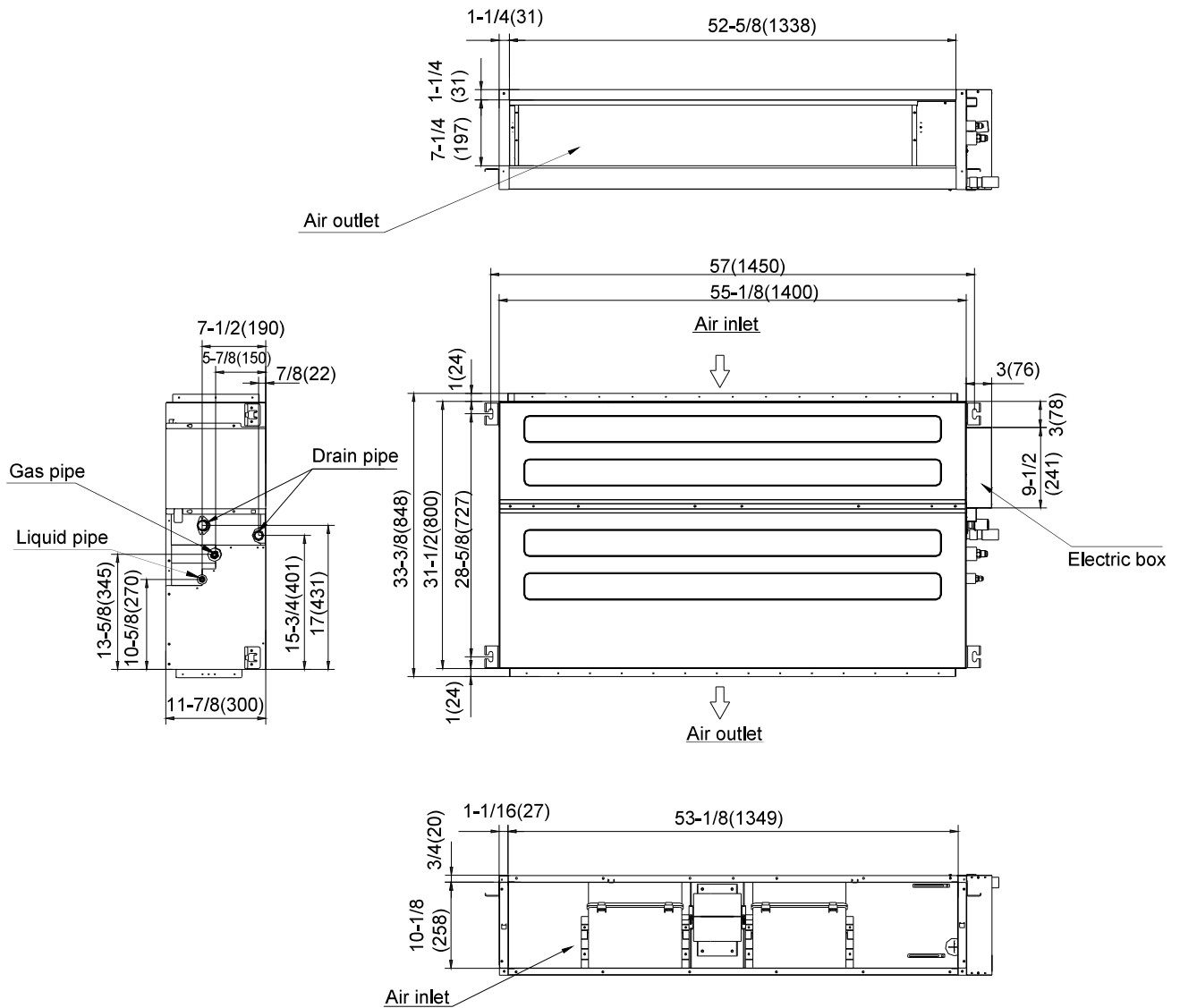


Model(Btu/h)	a	b	c	d	e	f	g
18K	26-1/2 (674)	33-1/2 (850)	25 (636)	26-1/2 (673)	31-1/2 (800)	25 (636)	1 (24)
24K	38-3/8 (974)	45-1/4 (1150)	35-7/8 (912)	38-1/4 (973)	43-1/4 (1100)	35-7/8 (912)	1-7/8 (49)

2. OUTLINES AND DIMENSIONS

UNI36DT23STG1
UNI48DT23STG1

Unit : in.(mm)



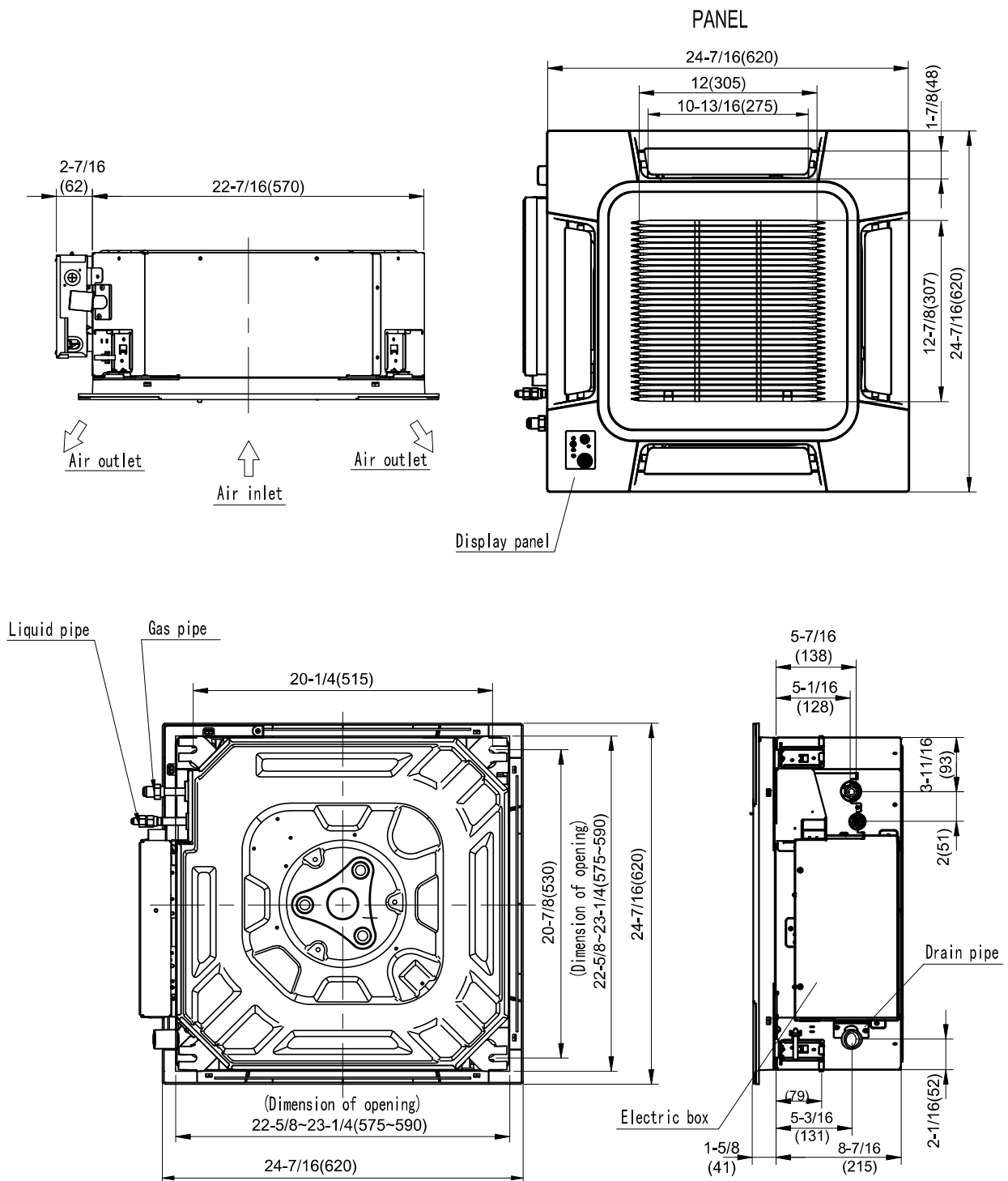
2. OUTLINES AND DIMENSIONS

Cassette type

UNI09CS23STG1

UNI12CS23STG1

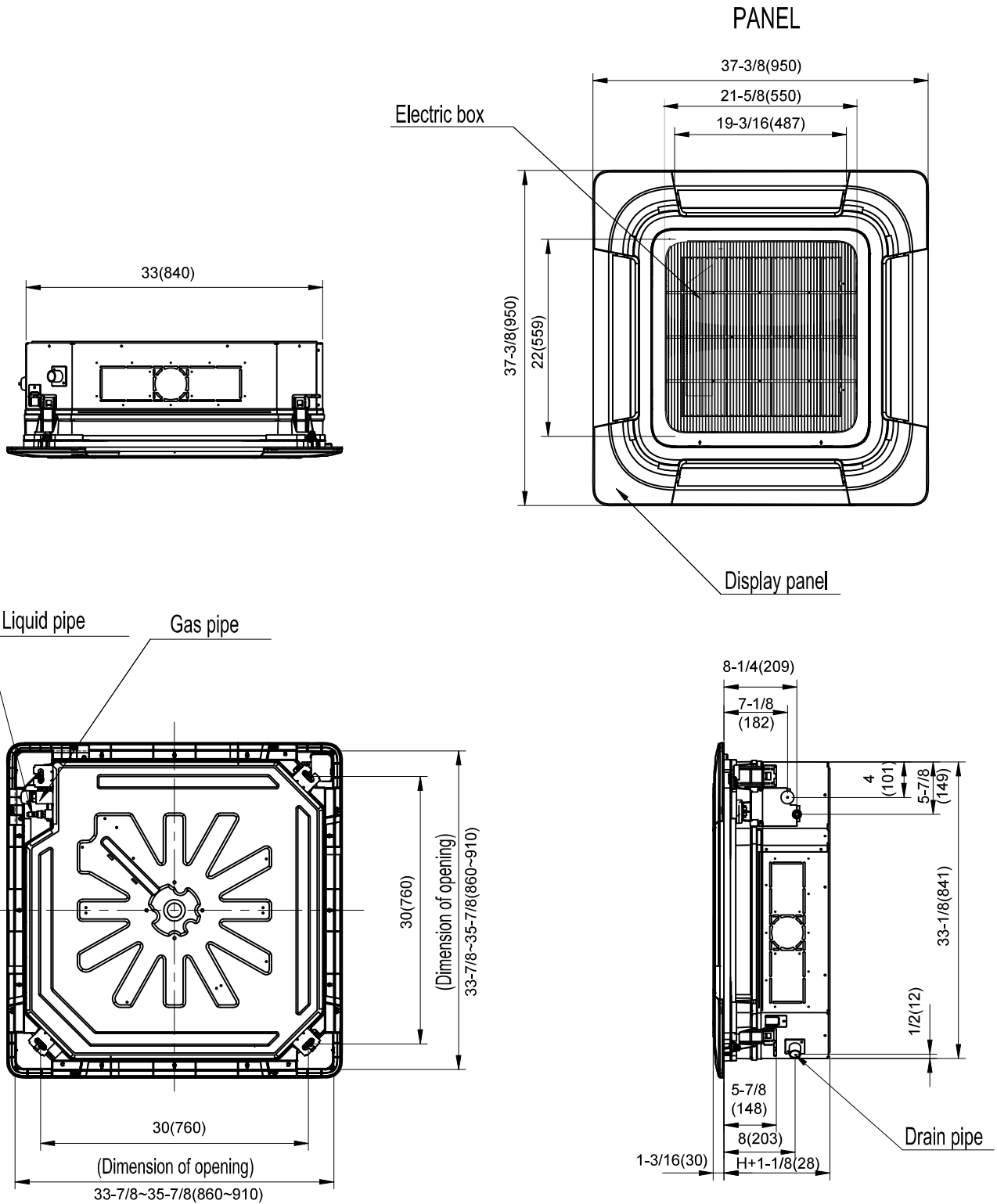
Unit: in.(mm)



2. OUTLINES AND DIMENSIONS

UNI18CS23STG1
UNI24CS23STG1
UNI36CS23STG1
UNI48CS23STG1

Unit : in.(mm)



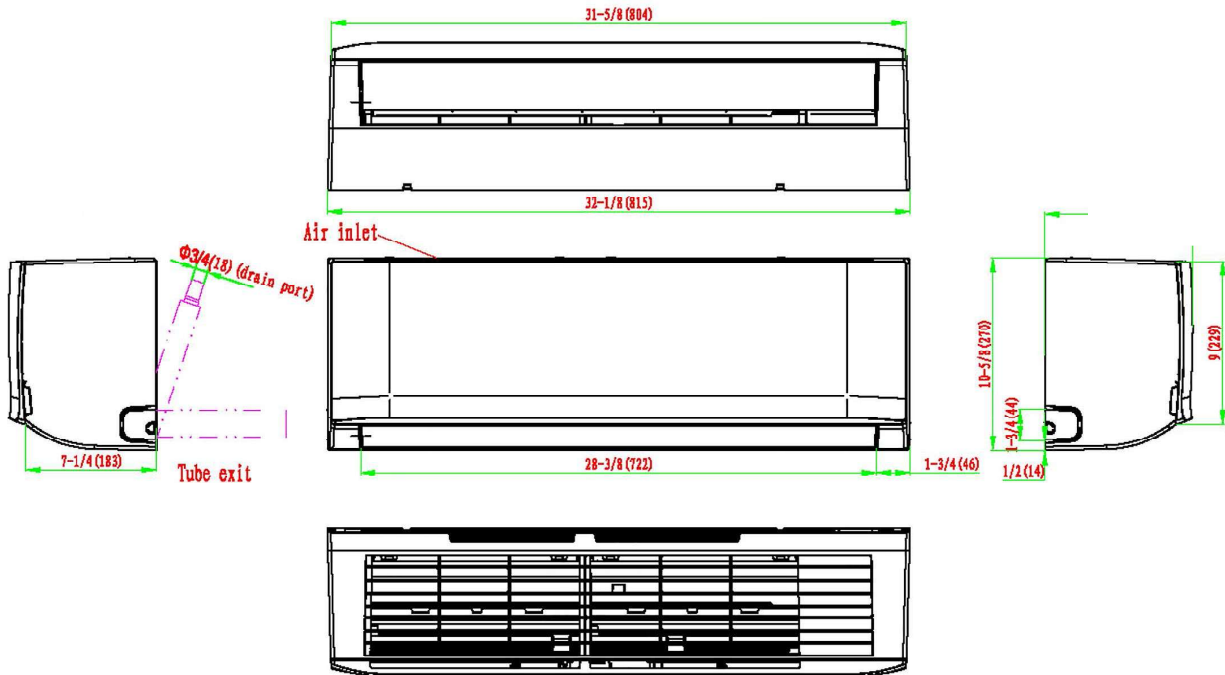
Model	H
36K/48K	272

2. OUTLINES AND DIMENSIONS

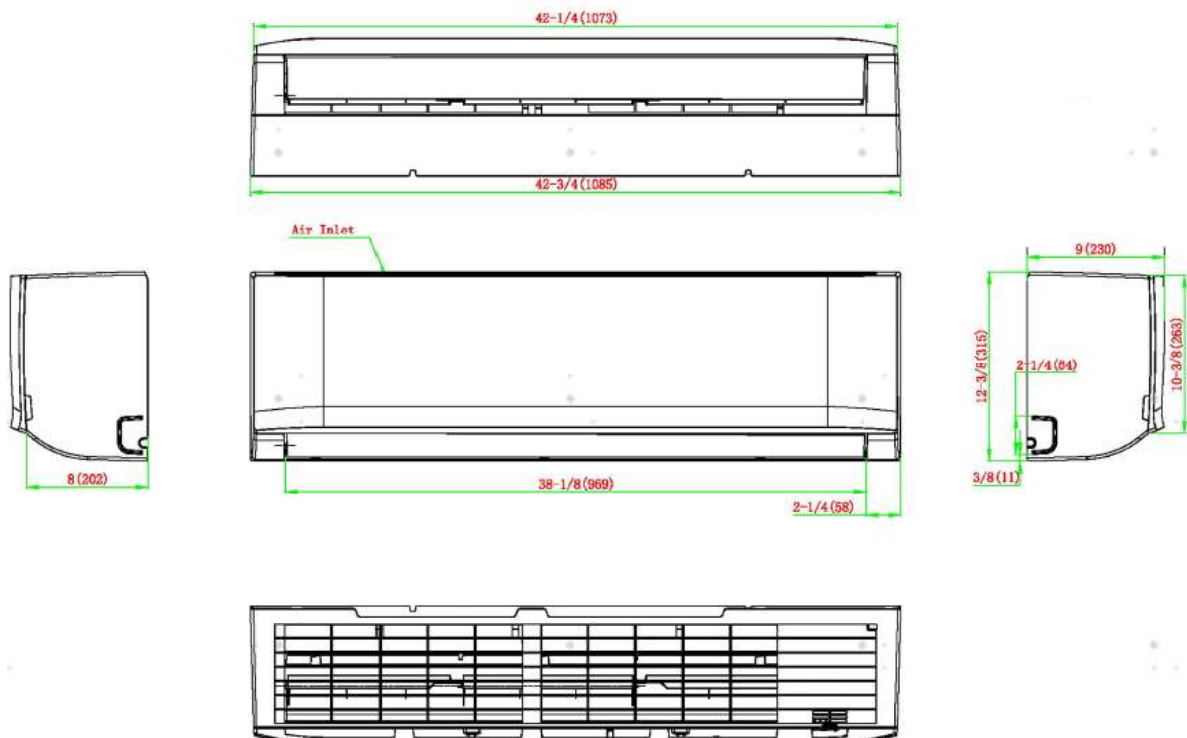
High wall type
 UNI09HW23STG1
 UNI12HW23STG1

Unit : in.(mm)

09/12K



18/24K

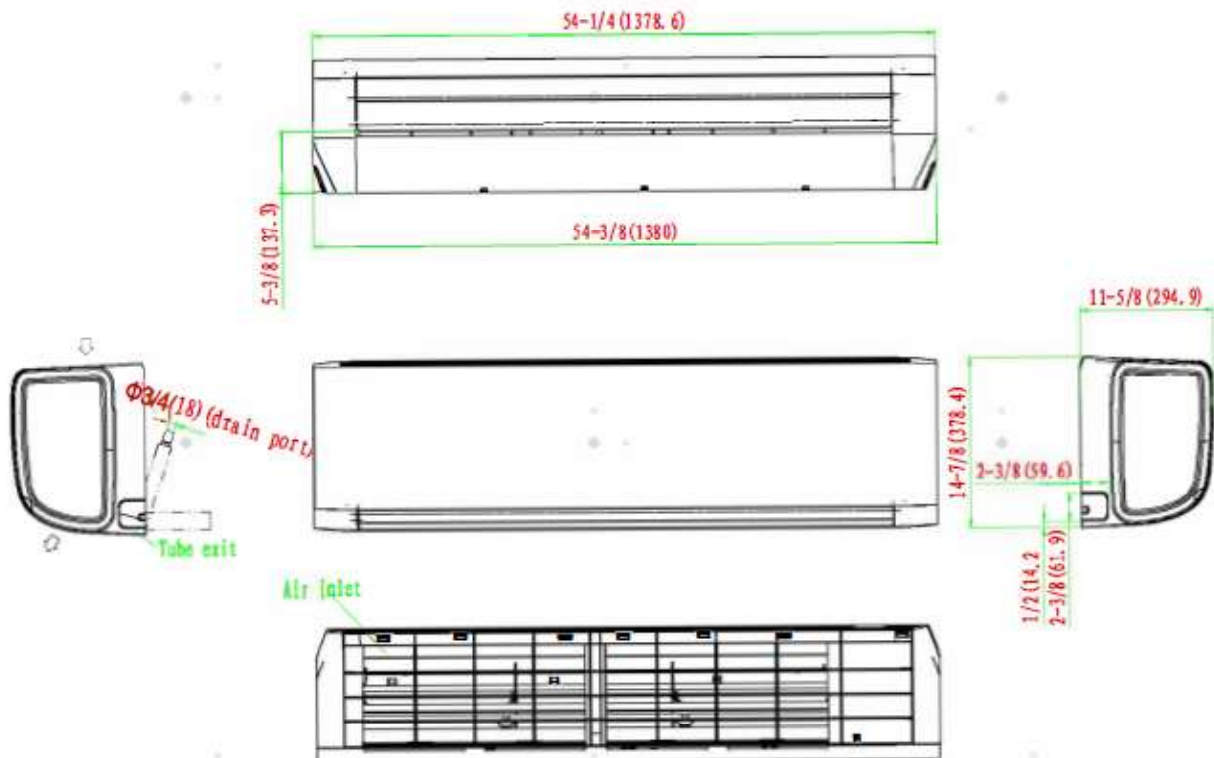


2. OUTLINES AND DIMENSIONS

High wall type
UNI36HW23STG1

36K

Unit : in.(mm)

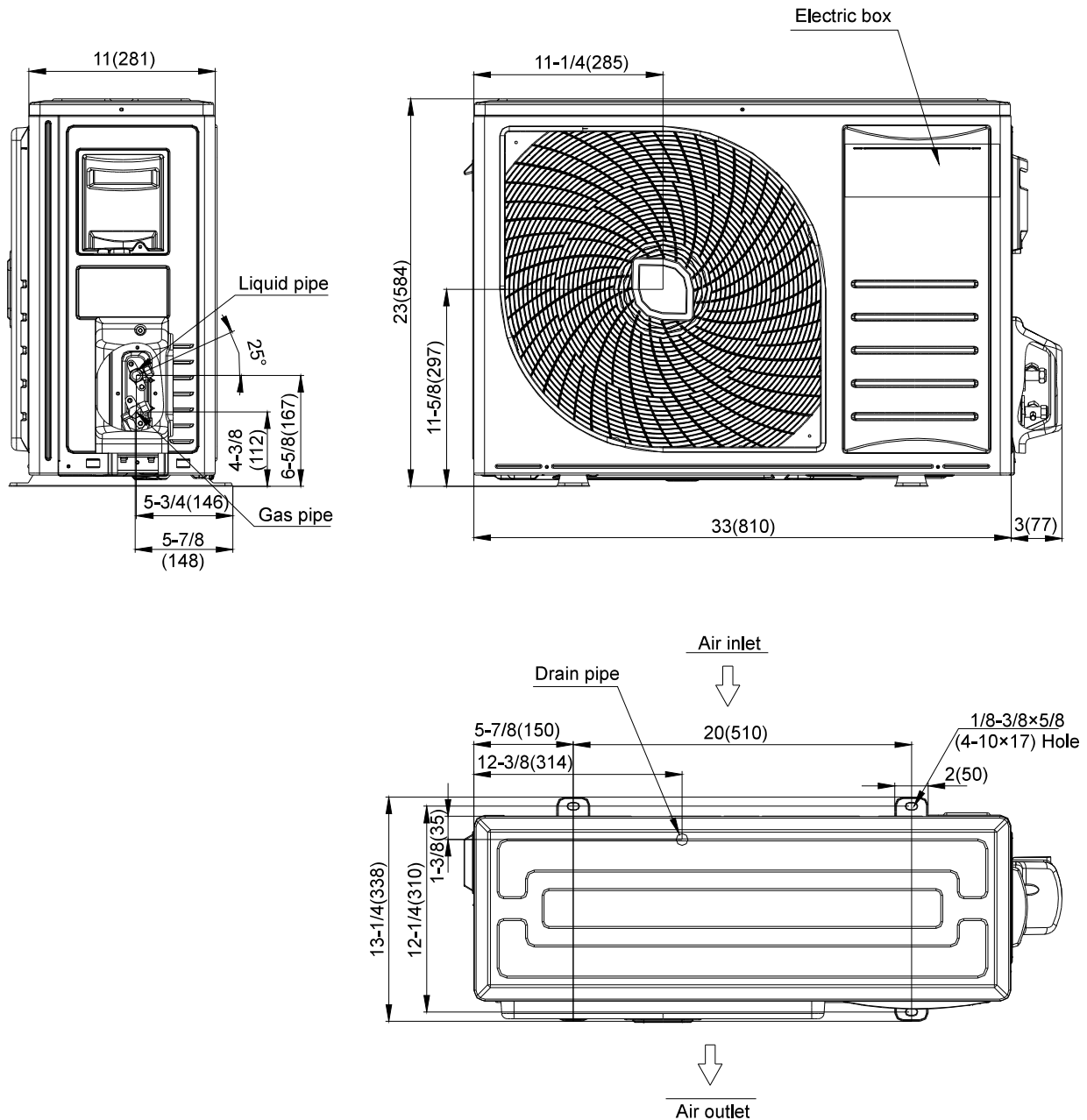


2. OUTLINES AND DIMENSIONS

2.2 Outdoor Units

UPC09CN23STG1
UPC12CN23STG1

Unit: in.(mm)

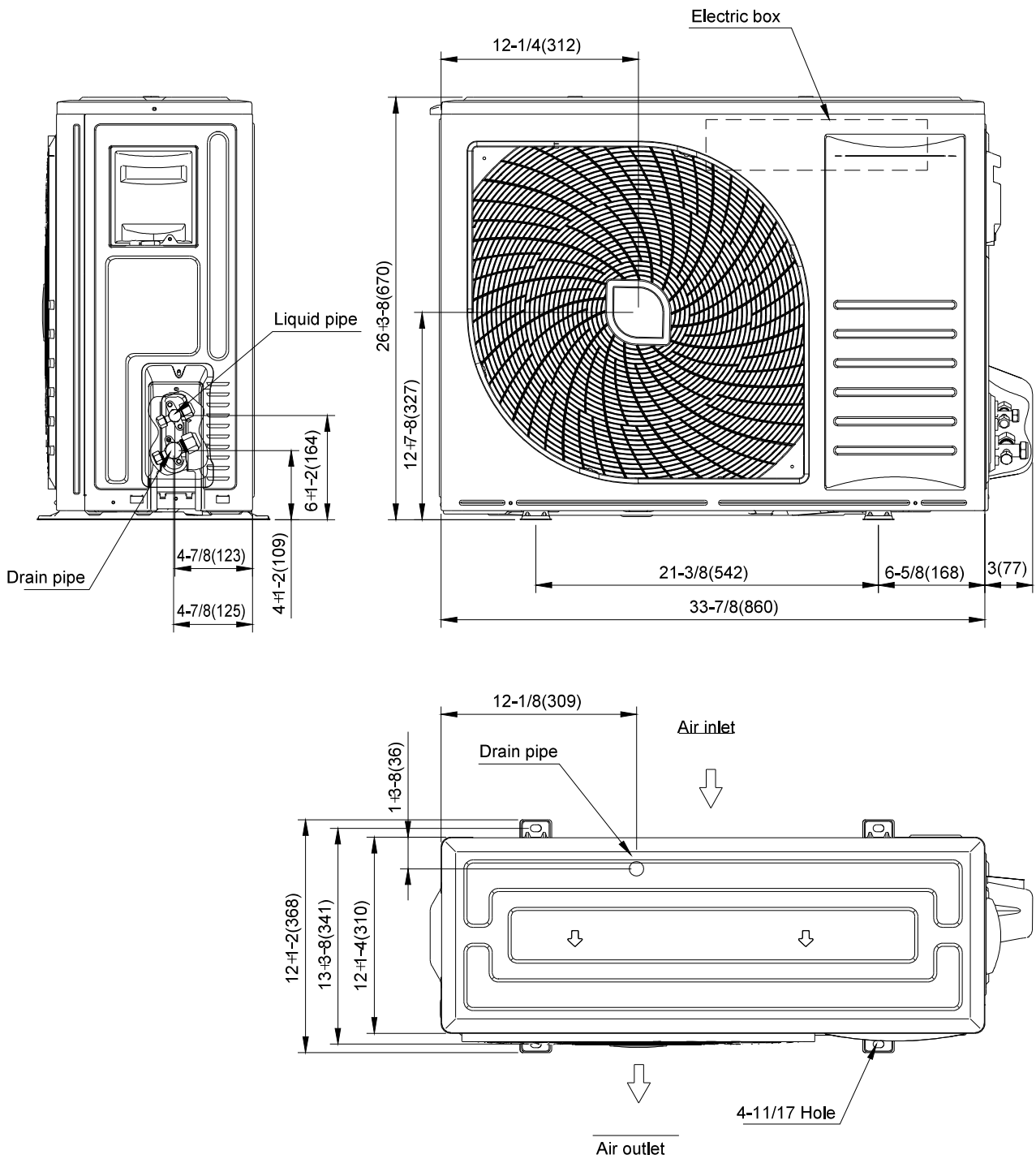


2. OUTLINES AND DIMENSIONS

2.2 Outdoor Units

UPC18CN23STG1

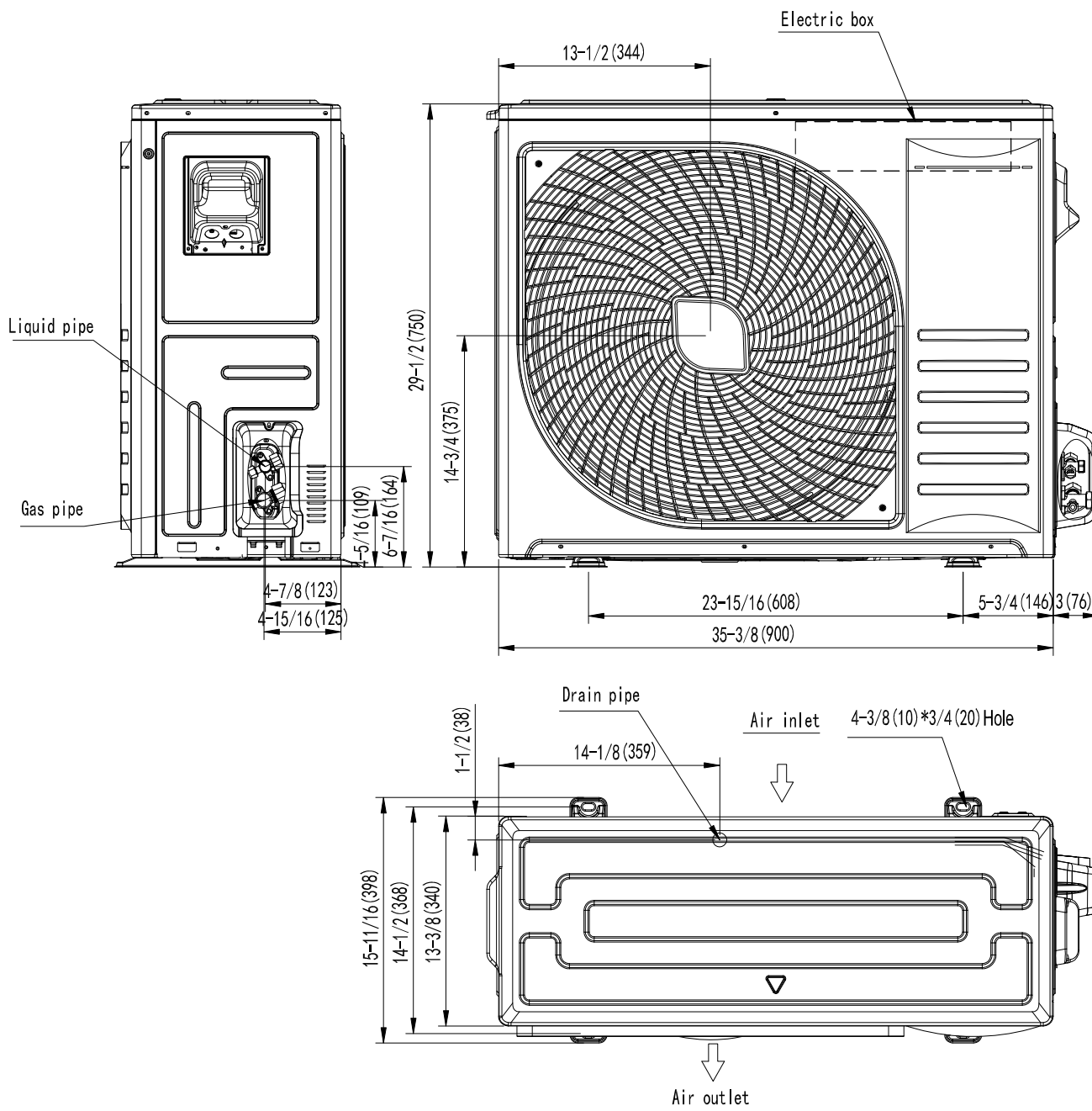
Unit: in.(mm)



2. OUTLINES AND DIMENSIONS

2.2 Outdoor Units

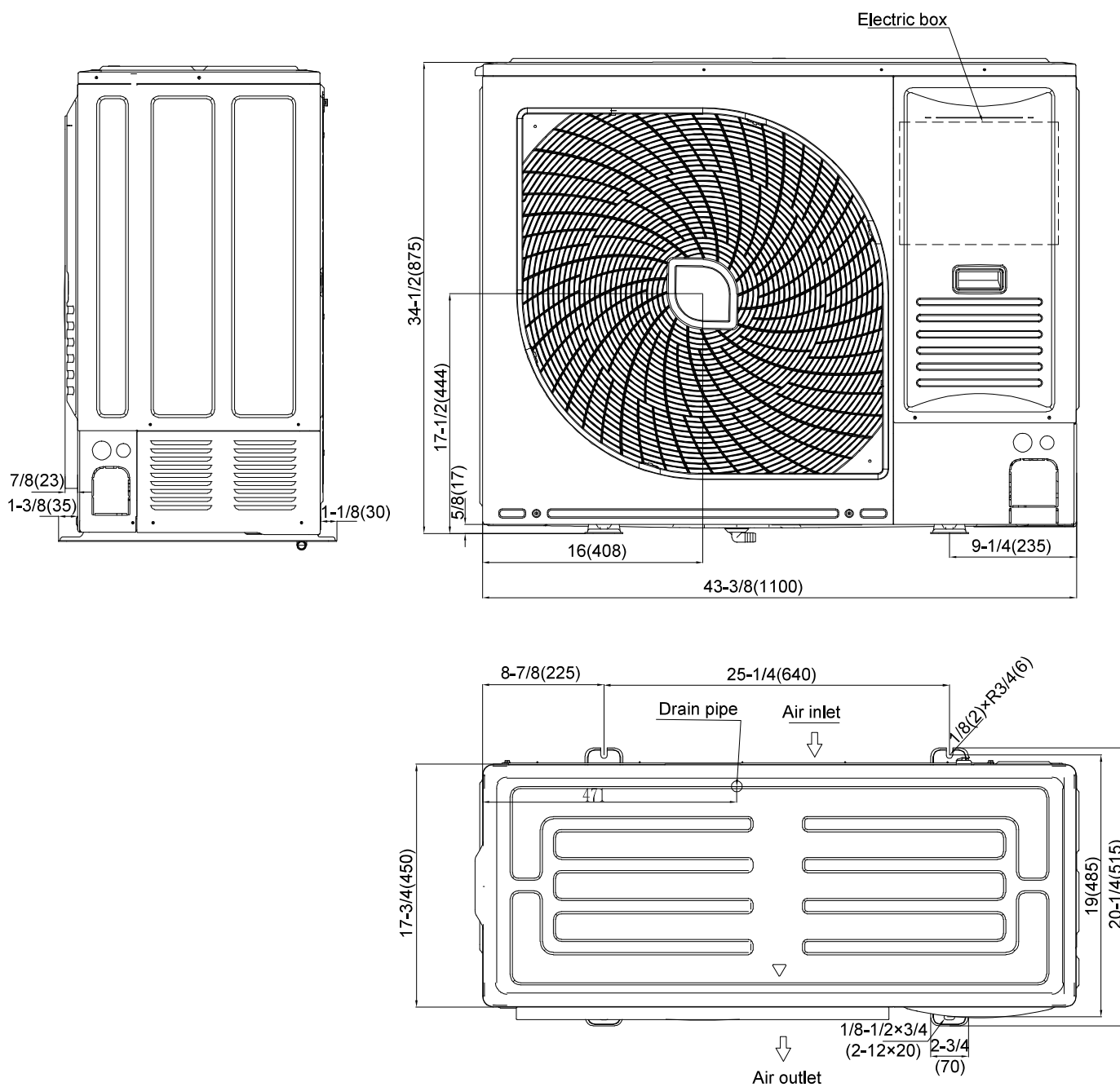
UPC24CN23STG1



2. OUTLINES AND DIMENSIONS

UPC36CN23STG1

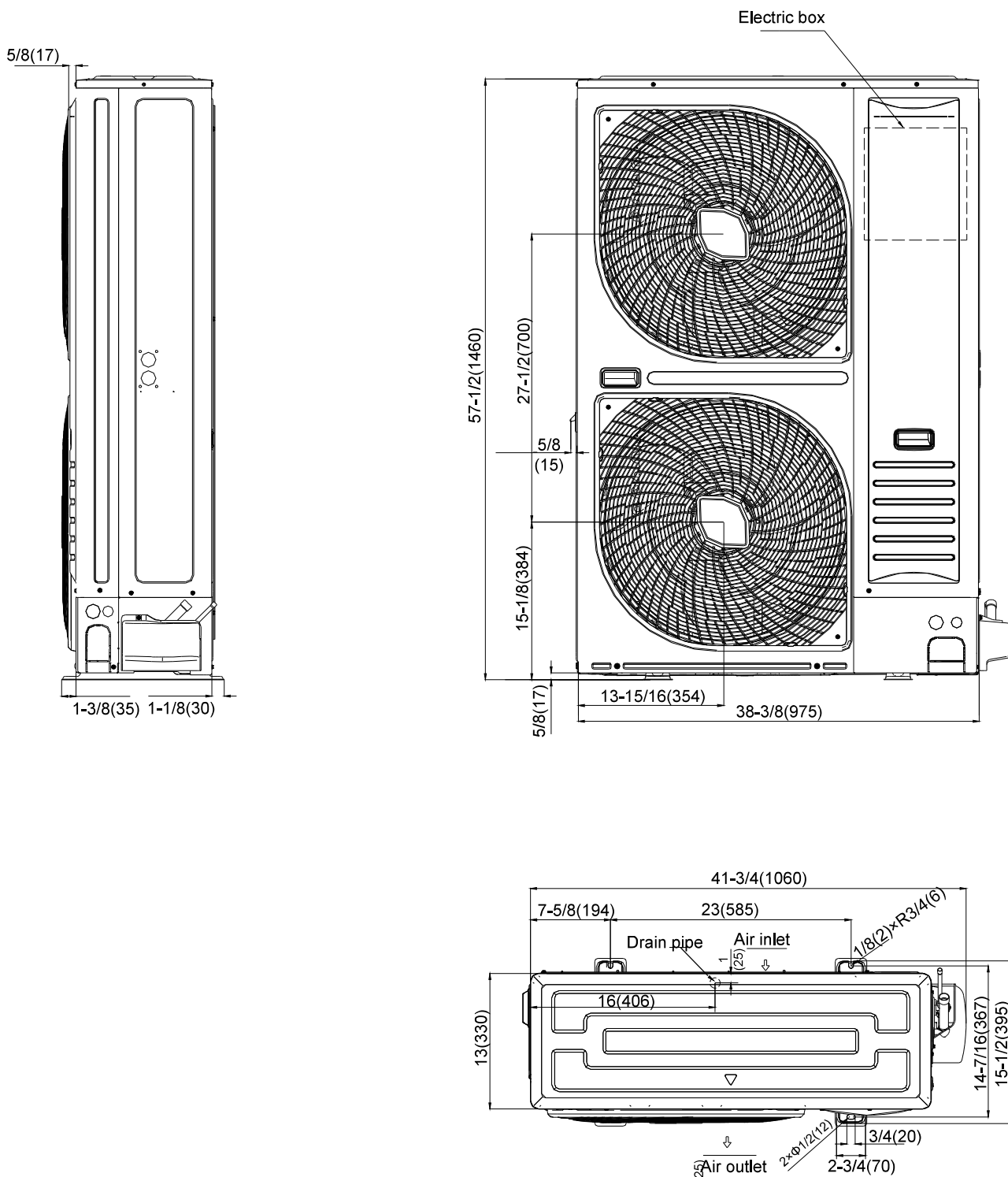
Unit: in.(mm)



2. OUTLINES AND DIMENSIONS

UPC48CN23STG1

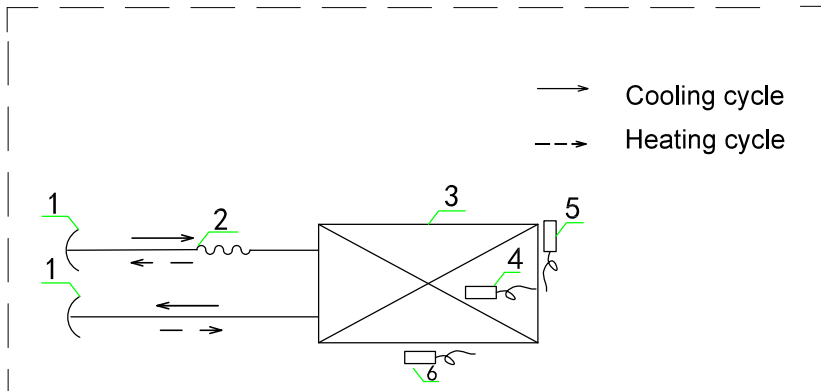
Unit: in.(mm)



3. REFRIGERANT CYCLE DIAGRAM

3. Refrigerant Cycle Diagram

INDOOR UNIT

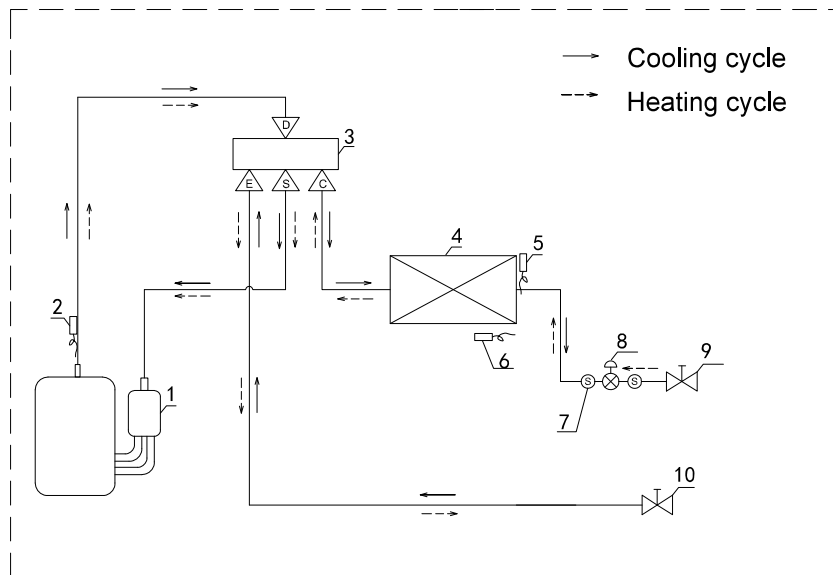


List of component

No.	Apellation
1	Hexagon nut
2	Split capillary
3	Indoor heat exchanger
4	Coil temperature sensor
5	Ambient temperature sensor
6	Refrigerant leakage sensor

OUTDOOR UNIT

UPC09CN23STG1
UPC12CN23STG1
UPC18CN23STG1
UPC24CN23STG1



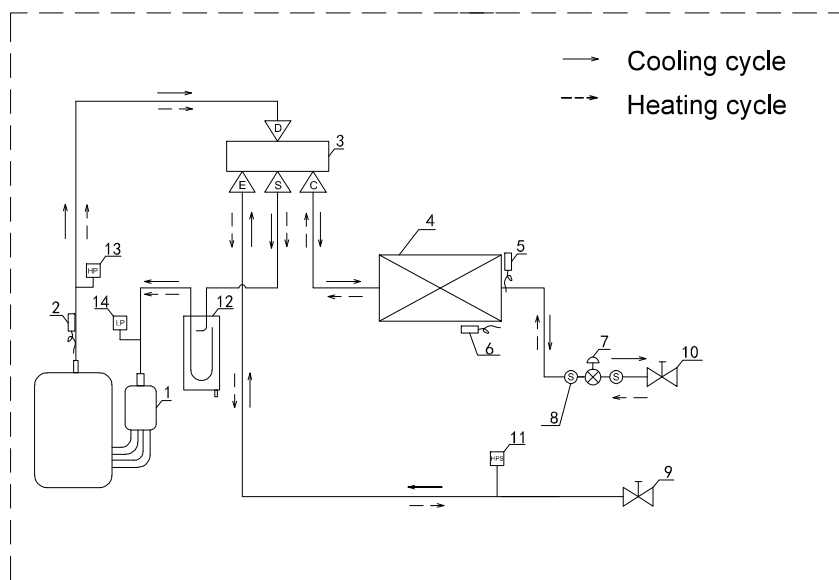
List of component

No.	Apellation
1	Compressor
2	Discharge temperature sensor
3	4-Way valve
4	Outdoor heat exchanger
5	Coil temperature sensor
6	Ambient temperature sensor
7	Strainer
8	Electronic expansion value
9	Stop valve(Liquid)
10	Stop valve(Gas)

3. REFRIGERANT CYCLE DIAGRAM

UPC36CN23STG1
UPC48CN23STG1

List of component



No.	Apellation
1	Compressor
2	Discharge temperature sensor
3	4-Way valve
4	Outdoor heat exchanger
5	Ambient temperature sensor
6	Coil temperature sensor
7	Electronic expansion value
8	Strainer
9	Stop valve(Gas)
10	Stop valve(Liquid)
11	Pressure sensor
12	Gas-Liquid separator
13	High pressure switch
14	Low pressure switch

4. WIRING DIAGRAM

4. Wiring Diagram

4.1 Electrical Wiring Diagrams

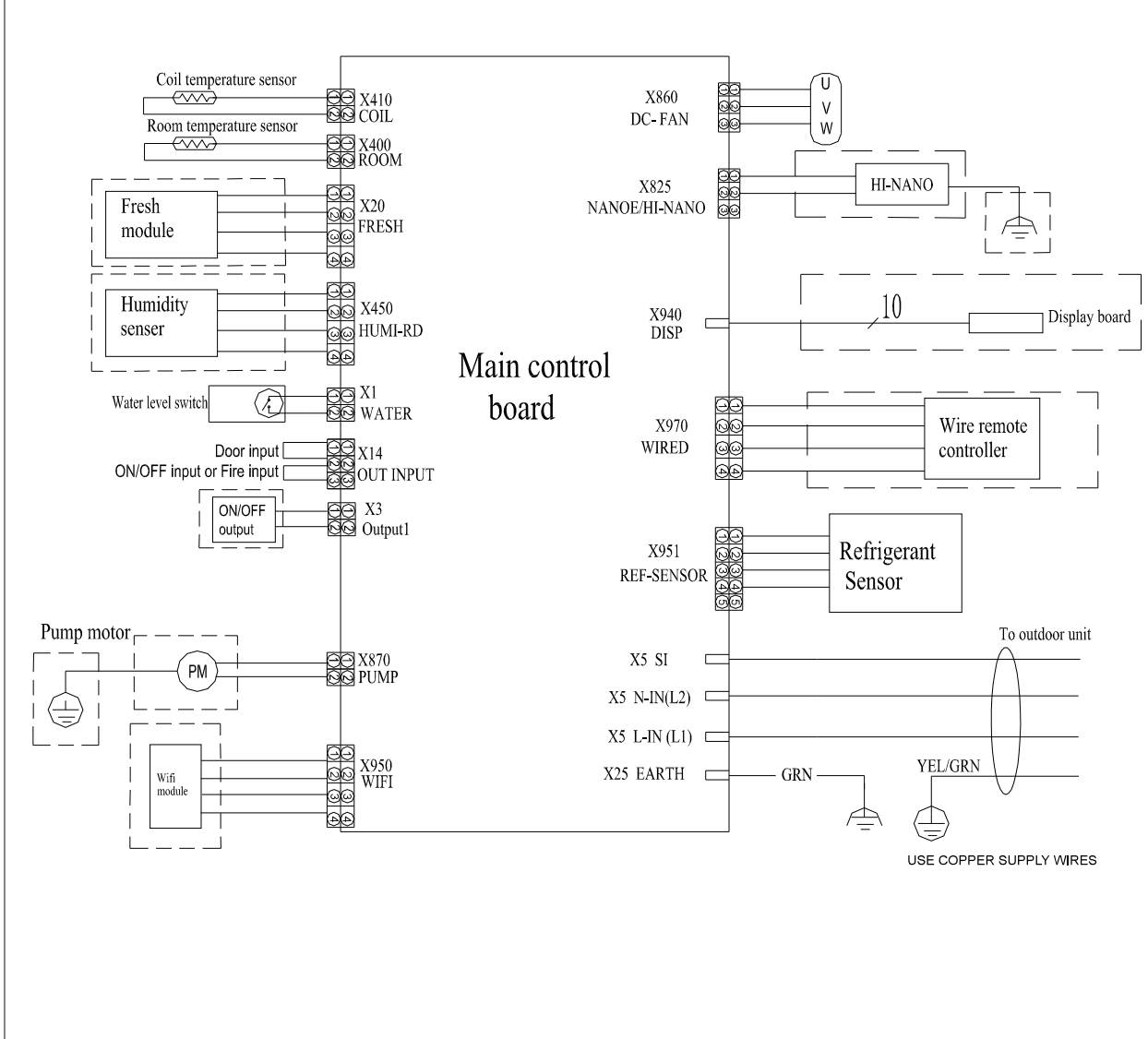
Indoor unit

Duct type

UNI09DT23STG1

UNI12DT23STG1

Electric wiring diagram 2416593, A



Remark:

Dashed parts are not available in some models.

Details see the table below.

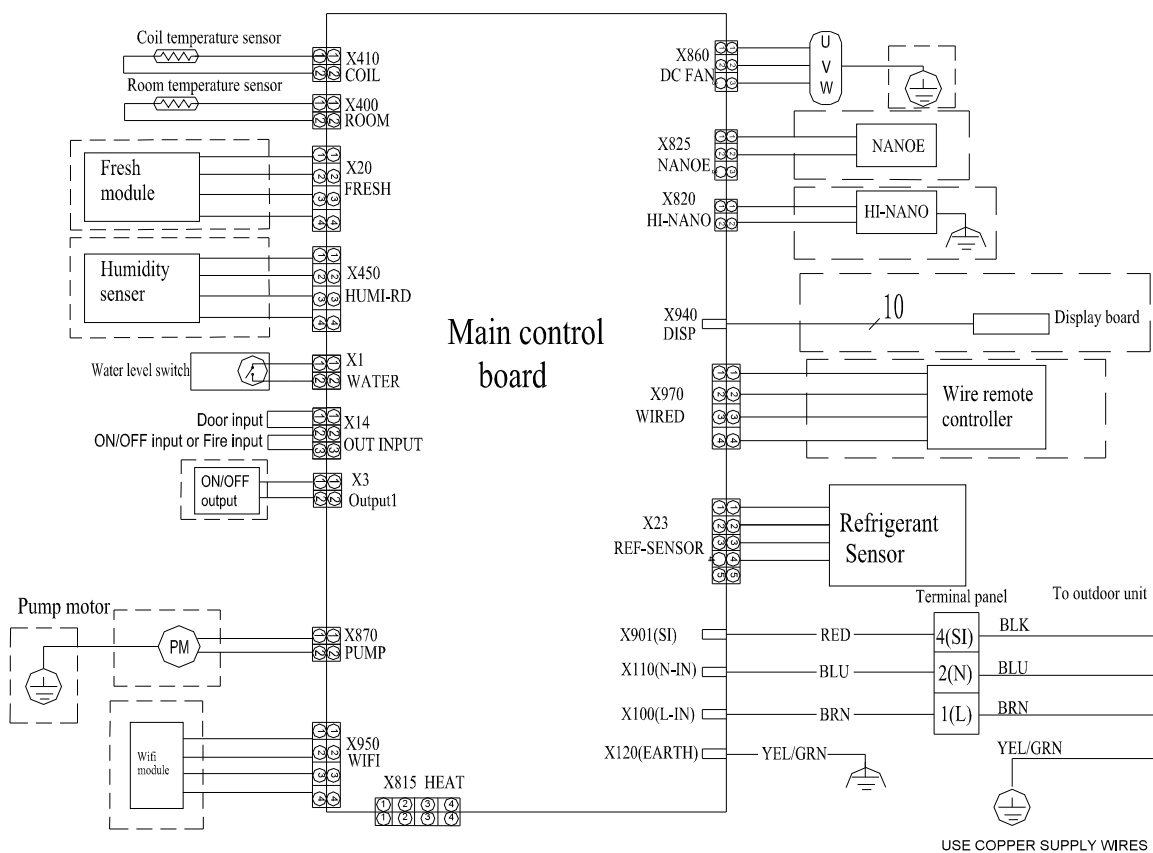
Fresh module	ON/OFF output	Pump motor	Humidity module	Wifi module	Nano module	Wired remote controller	Display board	Hi-NANO
		●	●	●		●		

● --available part

4. WIRING DIAGRAM

UNI18DT23STG1
UNI24DT23STG1
UNI36DT23STG1
UNI48DT23STG1

Electric wiring diagram 2414390, A



Remark:

Dashed parts are not available in some models.
Details see the table below.

Fresh module	UVC	ON/OFF output	Pump motor	Humidity module	Wifi module	Nanoe module	Wired remote controller	Display board	Hi-NANO
			●	●	●		●		

● --available part

4. WIRING DIAGRAM

Cassette type

UNI09CS23STG1

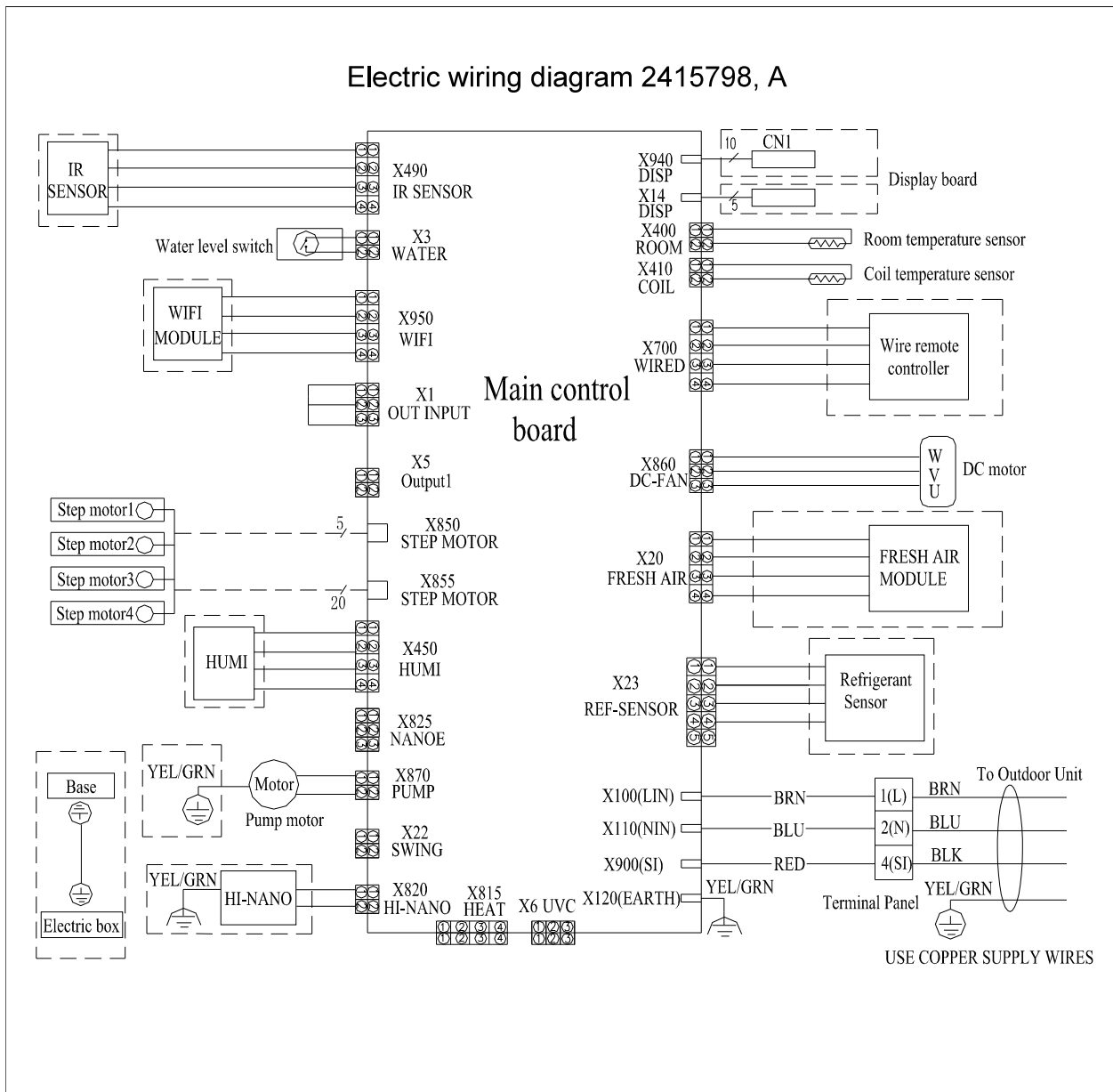
UNI12CS23STG1

UNI18CS23STG1

UNI24CS23STG1

UNI36CS23STG1

UNI48CS23STG1



Remark:

Dashed parts are not available in some models.

Details see the table below.

Model	WIFI Module	Humidity module	Hi-Nano	Refrigerant box	Display board (X940)	Display board (X14)	IR Sensor	Fresh air module	Wire remote controller
9K/12K	●	●		●	●				
36K/48K	●	●		●		●			

●--available part

4. WIRING DIAGRAM

High wall type

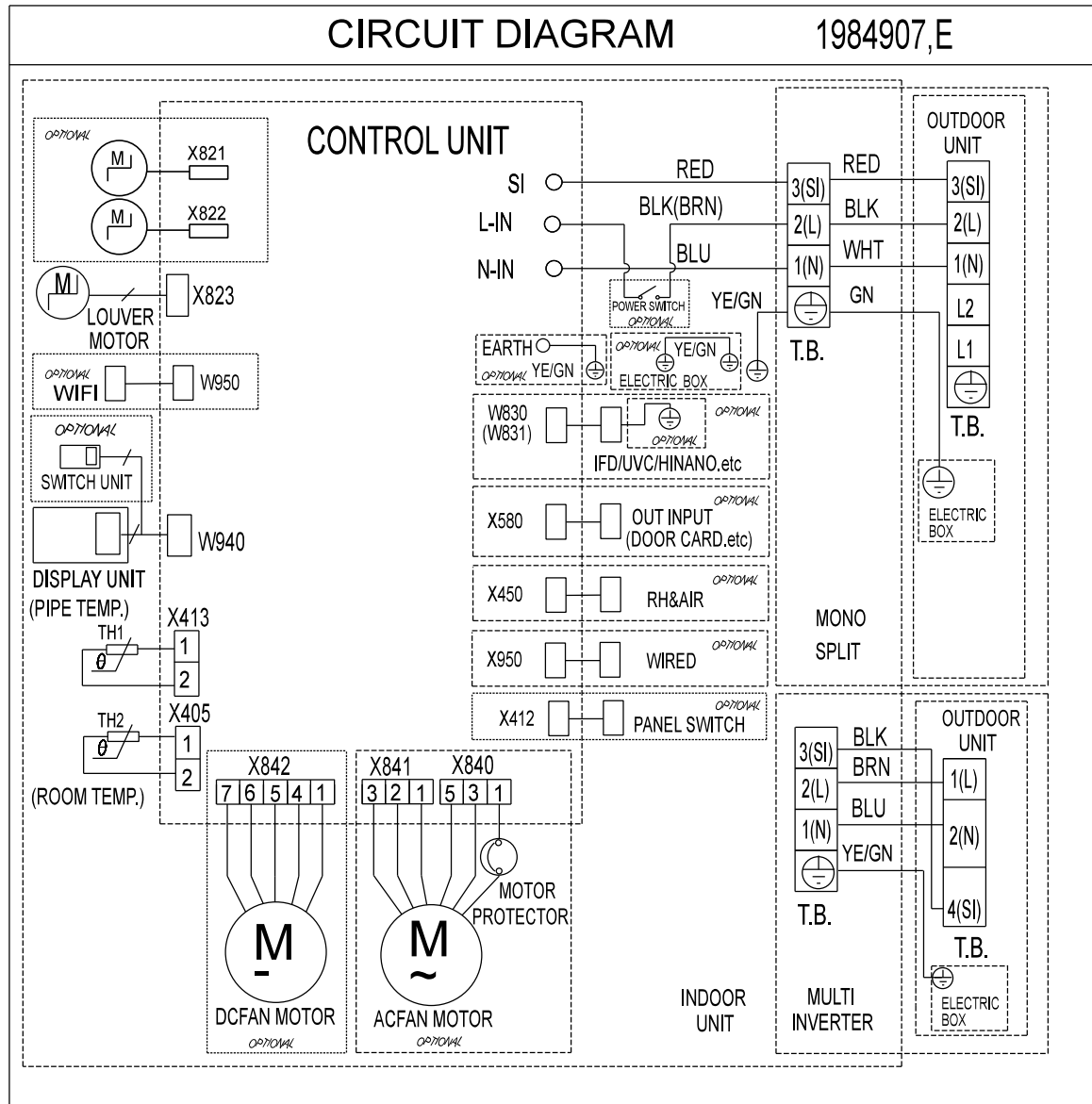
UNI09HW23STG1

UNI12HW23STG1

UNI18HW23STG1

UNI24HW23STG1

UNI36HW23STG1



	X821	X822 Step motor	W950 Wifi		Switch unit
			●		
	DC Fan motor	AC Fan motor	X450 Humidity	X412 Panel swtich	X580 Out input
	●				
	W830 UVC	MULTI INVERTER	Electric box earth	Control board Earth	SPLIT MONO

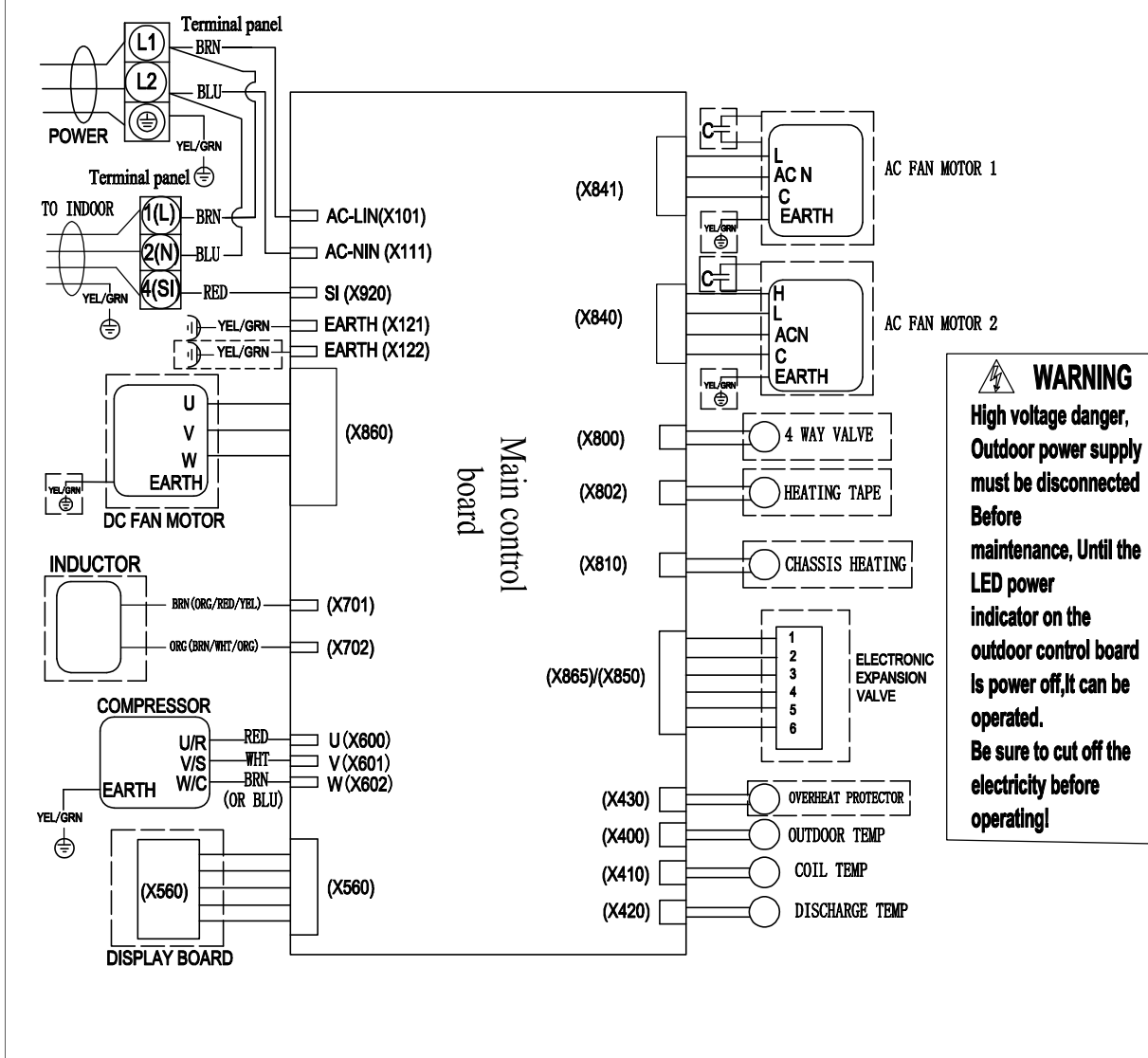
4. WIRING DIAGRAM

Outdoor unit

UPC09CN23STG1

UPC12CN23STG1

Electric wiring diagram 2415532, B



Remark:

Dashed parts are not available in some models.

Details see the table below.

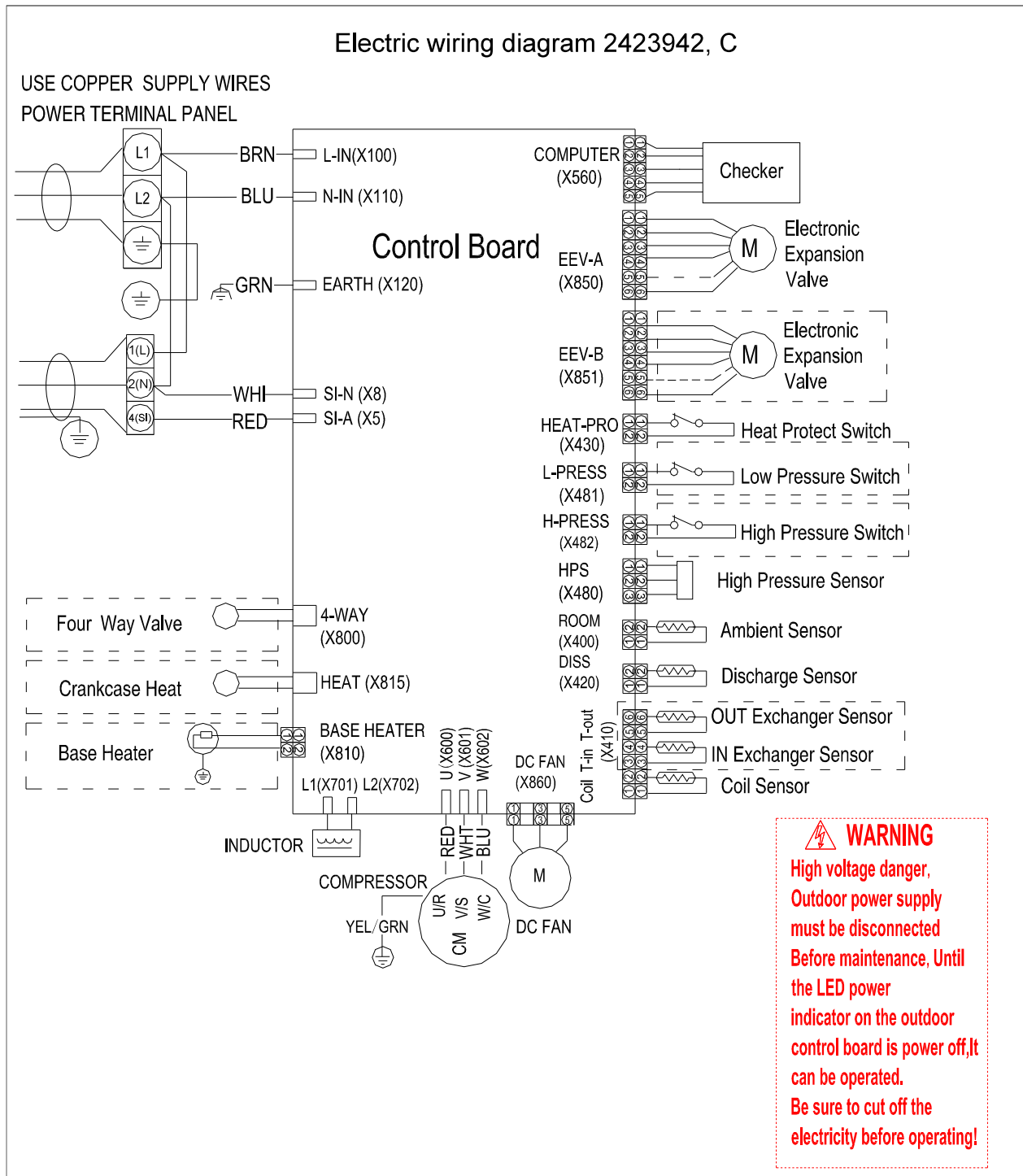
DC fan motor	Compressor	Display board	Overheat protector	Electronic expansion valve	Chassis heating	Heating tape	4-way valve	AC fan motor1	AC fan motor2
●	●	●	●	●	●	●	●		

●--available part

4. WIRING DIAGRAM

Outdoor unit

UPC18CN23STG1



Remark:

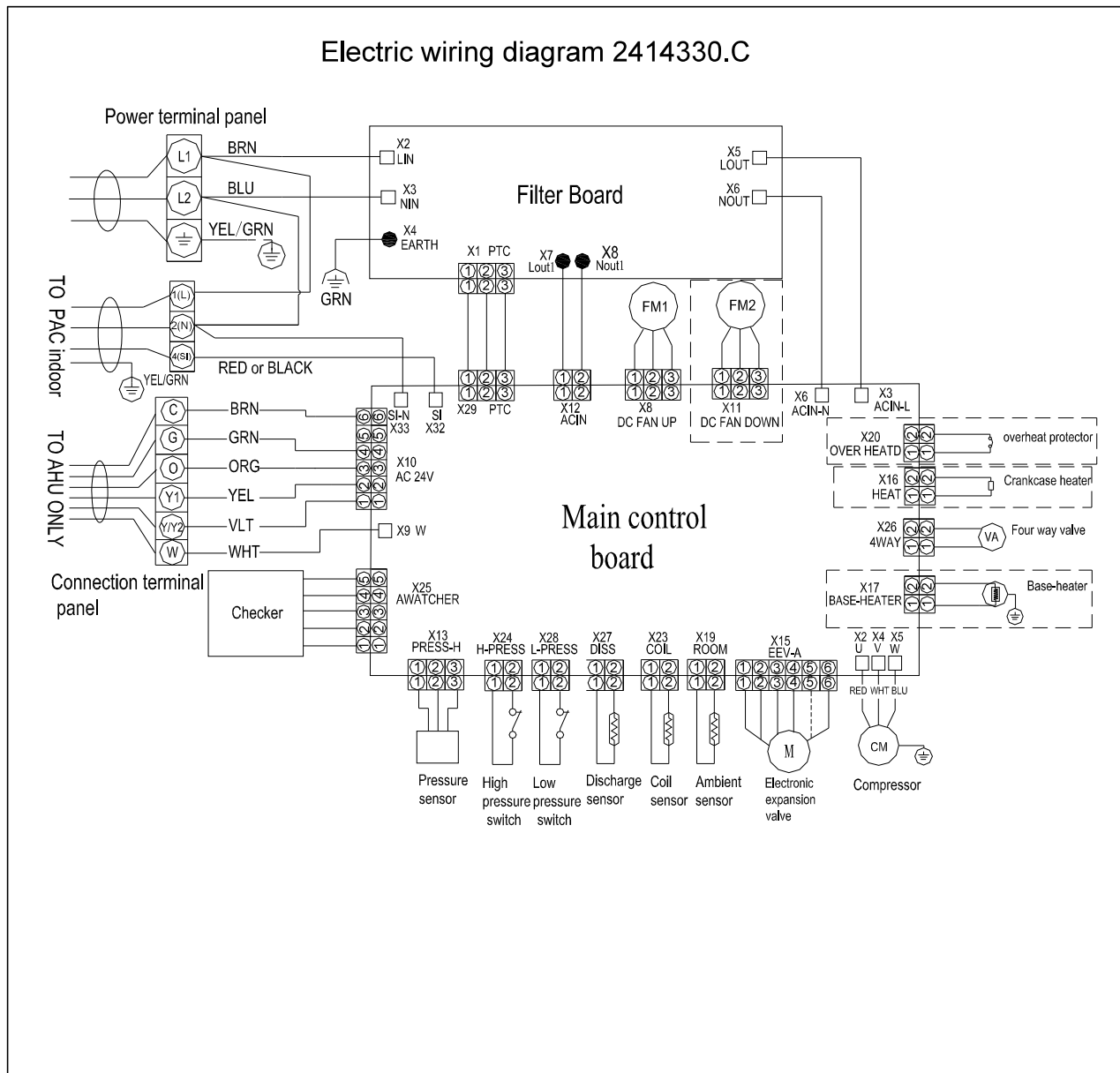
Dashed parts are not available in some models.
Details see the table below.

4-WAY	Crankcase Heat	Base Heater	Out Exchanger Sensor In Exchanger Sensor	High Pressure Sensor	Low Pressure Sensor	Electronic Expansion Valve B
●	●	●				

● --available part

4. WIRING DIAGRAM

UPC36CN23STG1
UPC48CN23STG1



Remark:

Dashed parts are not available in some models.
Details see the table below.

Model	Base heater	Crankcase heater	Overheat protector	DC fan motor down
9K/12K	●	●	●	
36K/48K	●	●	●	●

●--available part

4. WIRING DIAGRAM

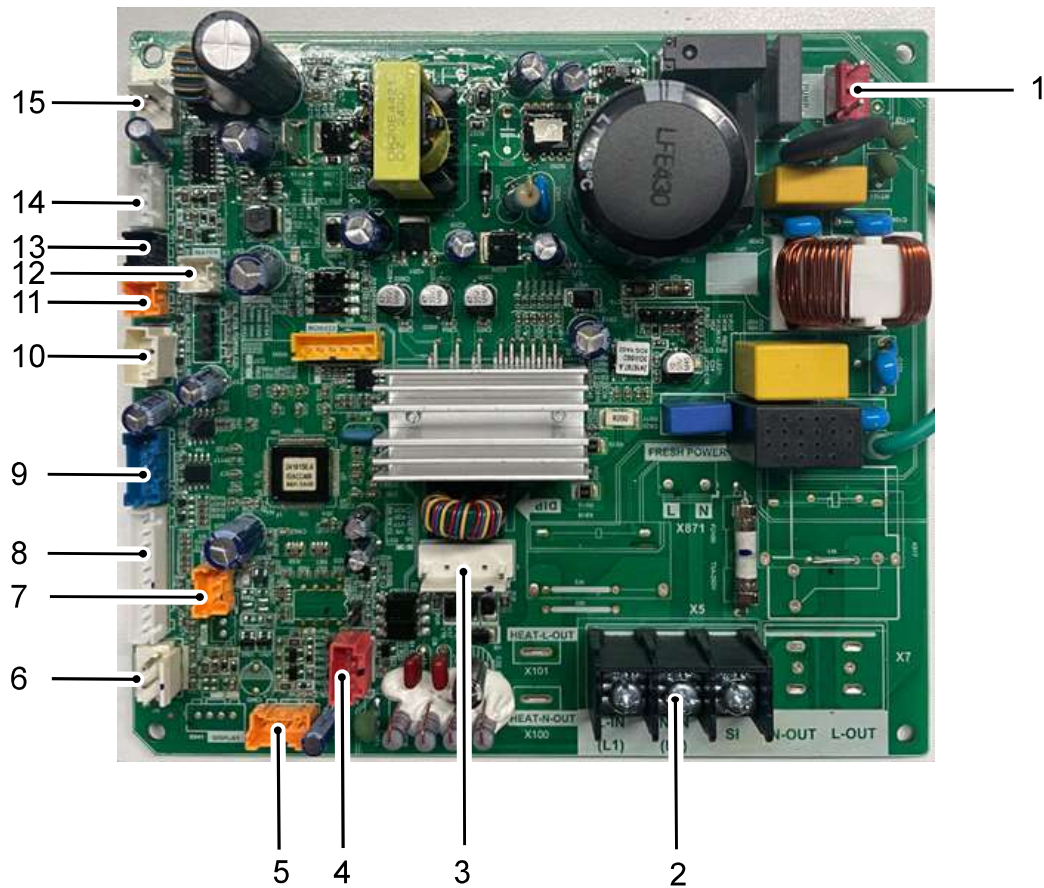
4.2 Control Board Picture

Indoor unit

Duct type

UNI09DT23STG1

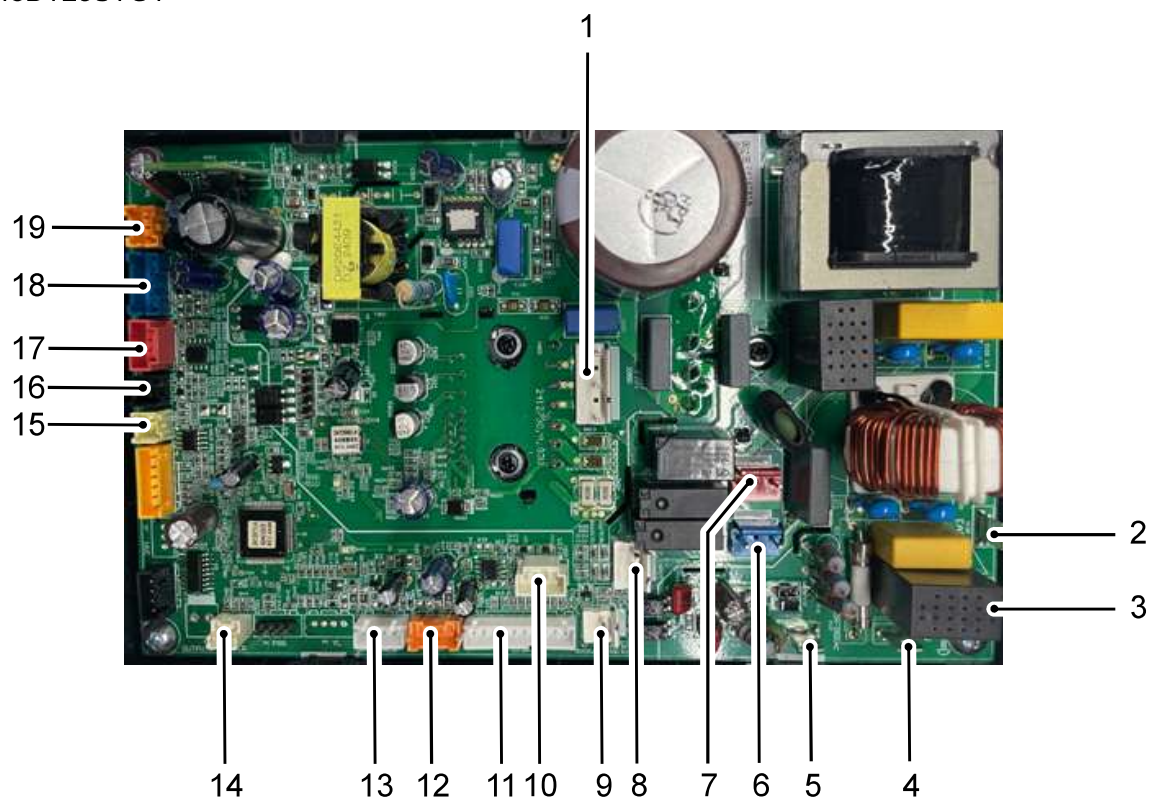
UNI12DT23STG1



NO.	Description	NO.	Description
1	Pump Motor	9	Refrigerant Module
2	Terminal Block	10	WIFI Interface
3	DC-Fan Motor	11	Ambient Temperature Sensor
4	Humidity Sensor	12	Water Switch
5	Fresh Module	13	Coil Temperature Sensor
6	Door ON/OFF Input or Fire Input	14	Wired Controller
7	Nanoe Module	15	12V-Output
8	Display Interface		

4. WIRING DIAGRAM

UNI18DT23STG1
 UNI24DT23STG1
 UNI36DT23STG1
 UNI48DT23STG1



NO.	Description	NO.	Description
1	DC Fan Motor	11	Display Module
2	Earth line	12	Fresh Module
3	N-In Line	13	Wired Controller
4	L-In Line	14	Water Switch
5	Si Line	15	Ambient Temperature Sensor
6	Hi-nano Module	16	Coil Temperter Sensor
7	Pump Motor	17	Humidity Sensor
8	Door ON/OFF Input or Fire Input	18	Refrigerant Module
9	12V-Output	19	Nanoe Module
10	WIFI Interface		

4. WIRING DIAGRAM

Cassette type

UNI09CS23STG1

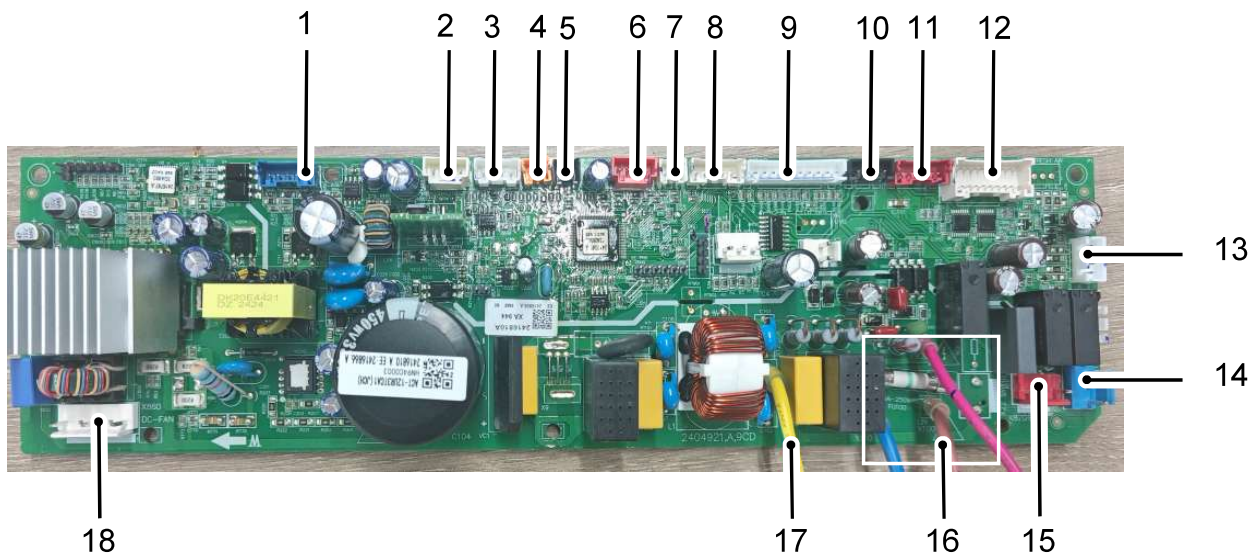
UNI12CS23STG1

UNI18CS23STG1

UNI24CS23STG1

UNI36CS23STG1

UNI48CS23STG1



NO.	Description	NO.	Description
1	Refrigerant Module	10	Heater
2	WIFI Interface	11	STEP Motor
3	IR SENSOR	12	STEP Motor
4	Ambient Temperature Sensor	13	Wired Controller
5	Coil Temperature Sensor	14	HI-NANO
6	Humidity Sensor	15	Pump
7	Water Level	16	L-in/ N-in /Si Line
8	Display Interface	17	Earth
9	Display Interface	18	DC Fan Motor

4. WIRING DIAGRAM

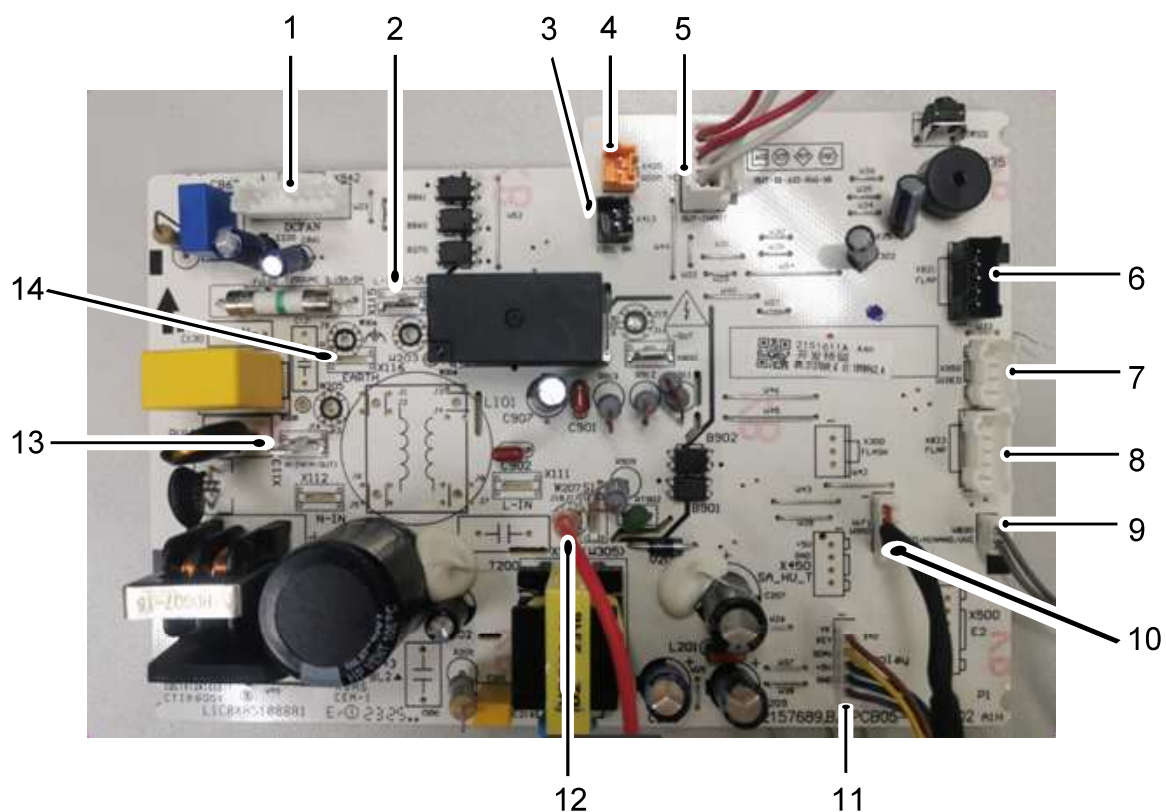
High wall type

UNI09HW23STG1

UNI12HW23STG1

UNI18HW23STG1

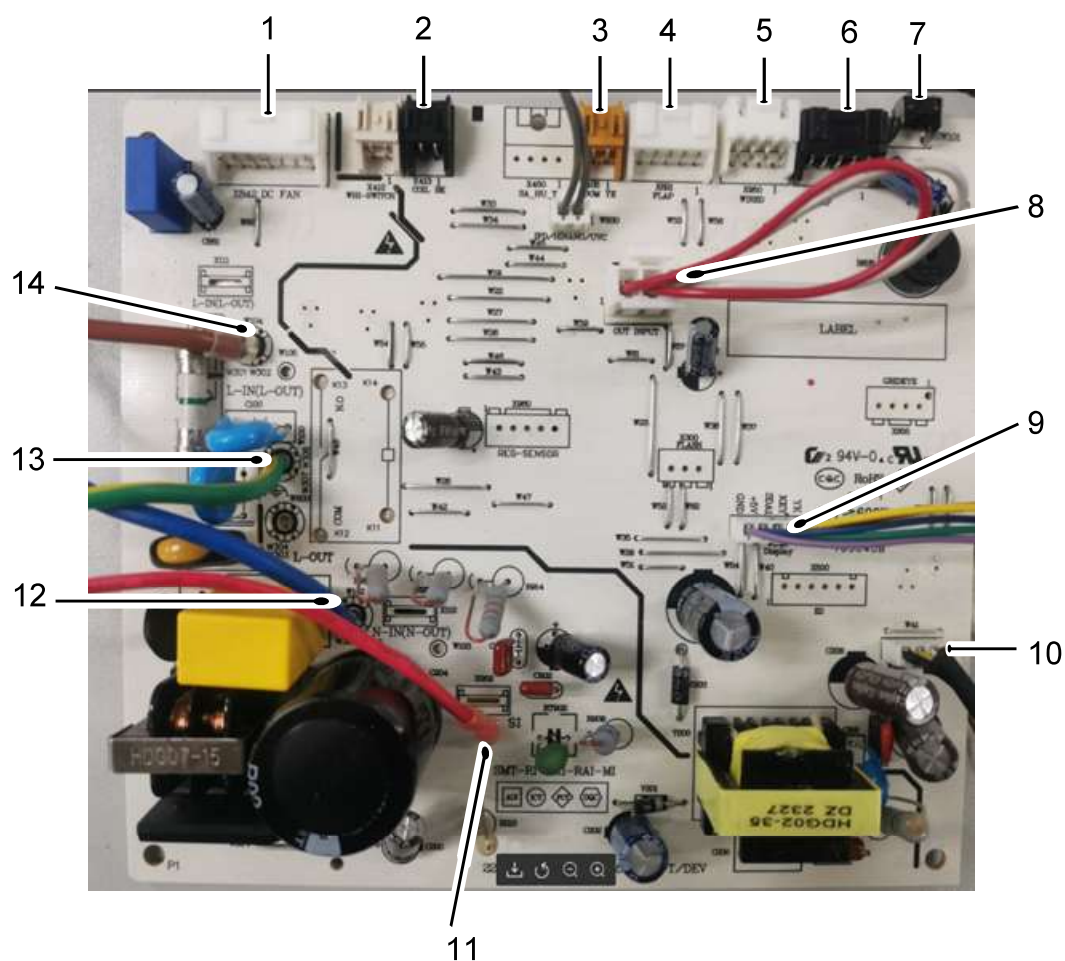
UNI24HW23STG1



NO.	Description	NO.	Description
1	DC fan motor	8	Step motor
2	L-IN	9	UVC
3	Indoor Coil temp.sensor	10	WIFI
4	Ambient temp.sensor	11	Display board
5	Fire coupling /Access interface	12	SI
6	Step motor	13	N-IN
7	Wired controller	14	Earth

4. WIRING DIAGRAM

IUNI36HW23STG1



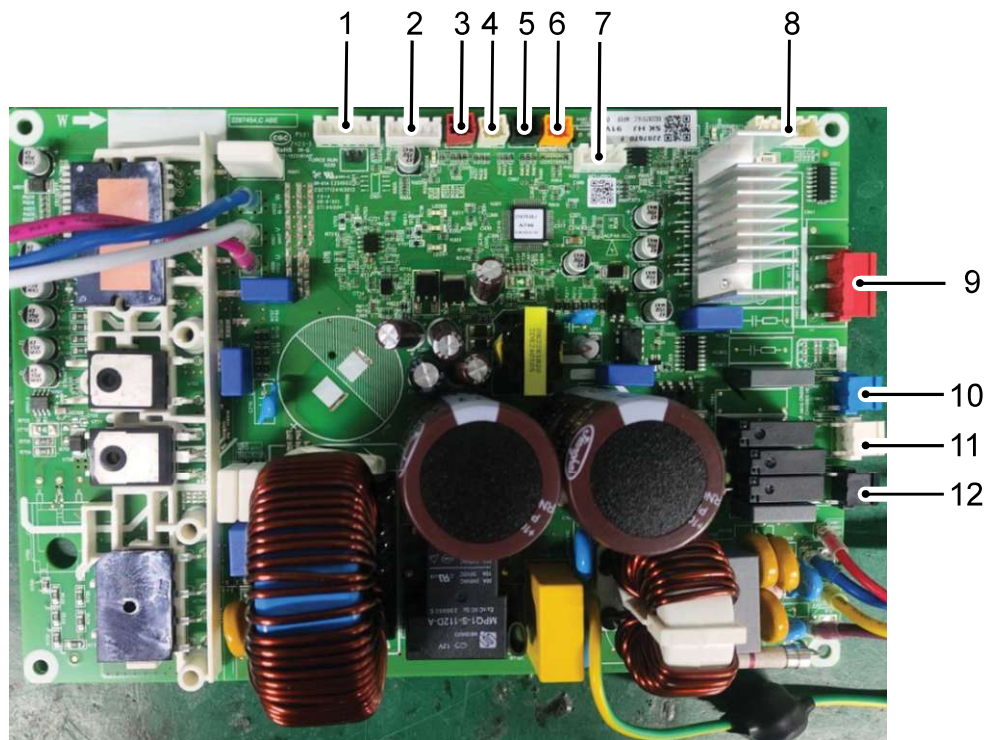
NO.	Description	NO.	Description
1	DC fan motor	8	Fire coupling /Access interface
2	Indoor Coil temp.sensor	9	Display board
3	Ambient temp.sensor	10	WIFI
4	Step motor	11	SI
5	Wired controller	12	N-IN
6	Step motor	13	Earth
7	Key	14	L-IN

4. WIRING DIAGRAM

Outdoor unit

UPC09CN23STG1

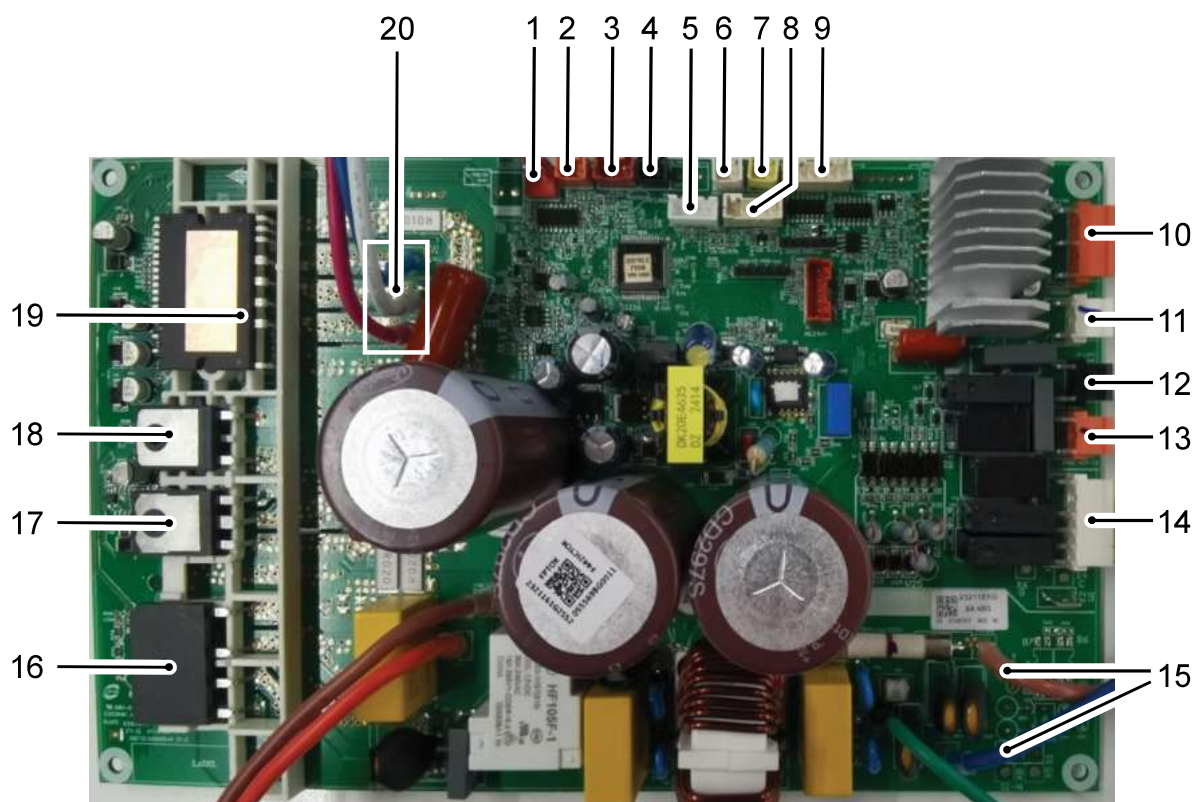
UPC12CN23STG1



NO.	Description	NO.	Description
1	EE-PRG	7	Flash
2	Checker	8	Electronic Expansion Valve
3	Overheat Protector	9	DC Fan Motor
4	Discharge Temperature Sensor	10	Base Heater Interface
5	Coil Temperature Sensor	11	Heating Belt Interface
6	Ambient Temperature Sensor	12	4-Way Valve Circuit and Interface

4. WIRING DIAGRAM

UPC18CN23STG1
UPC24CN23STG1

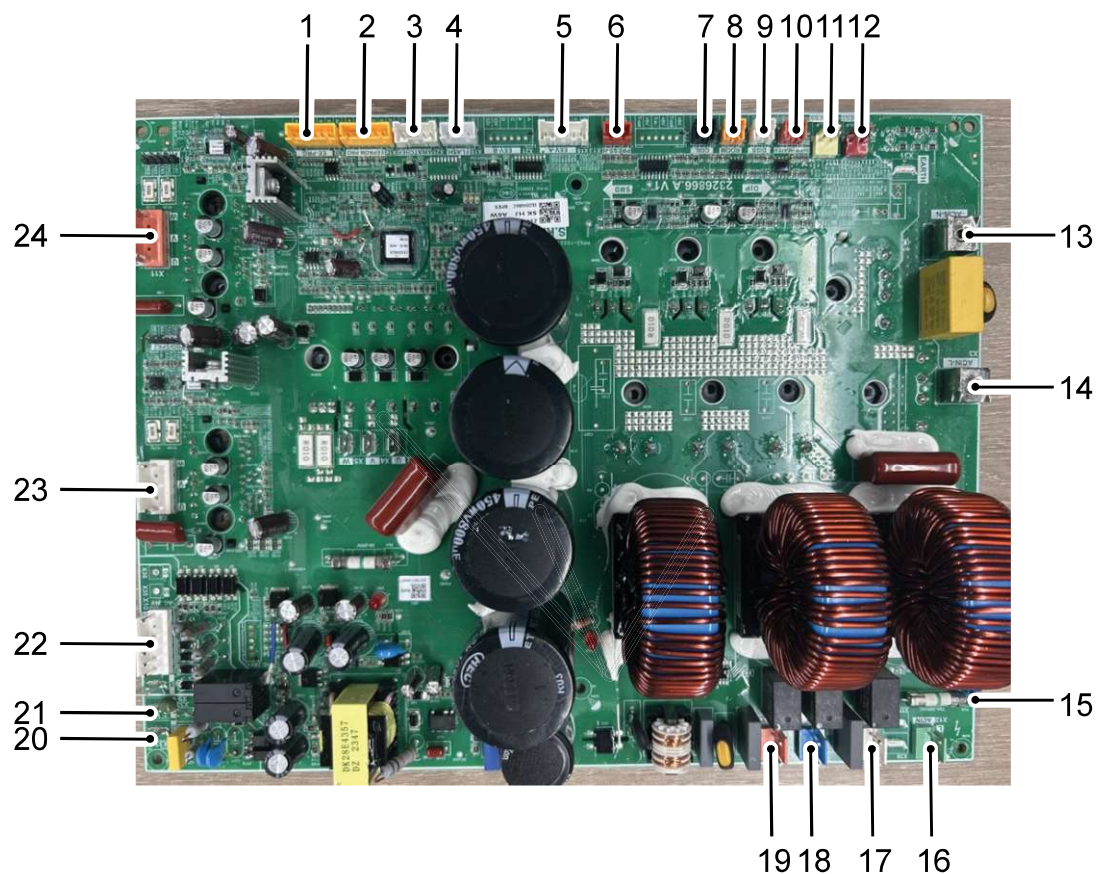


NO.	Description	NO.	Description
1	High Pressure Switch	11	Crankcase Heater
2	Overheat Protector	12	4-way Valve
3	Press Sensor	13	Base Heater
4	Coil Temperature Sensor	14	Communication Signal between IDU&ODU
5	EEPROM	15	AC Power Lin / AC Power Nin
6	Discharge Temperature Sensor	16	Rectification Module
7	Ambient Temperature Sensor	17	IGBT
8	Computer/Checker	18	Freewheel Diode
9	Electronic Expansion Valve	19	IPM Model
10	DC Fan Motor	20	Compressor

4. WIRING DIAGRAM

UPC36CN23STG1

UPC48CN23STG1



NO.	Description	NO.	Description
1	EE-PRG	13	N Power input
2	EEPROM PRO	14	L Power input
3	Watcher	15	PTC signal
4	EEPROM Flashing	16	L/N Power input
5	Electronic Expansion Valve	17	Heating Belt Interface
6	Pressure Sensor	18	Base Heater Interface
7	Coil Temperature Sensor	19	4-Way Valve Circuit and Interface
8	Ambient Temperature Sensor	20	TO PAC Indoor
9	Discharge Temperature Sensor	21	24V Communication signal-W
10	Compressor Overheat Protector	22	24V Communication signal-C/G/B/Y1/Y2
11	Low Voltage Switch	23	DC Fan Motor1
12	high voltage switch	24	DC Fan Motor2

4. WIRING DIAGRAM

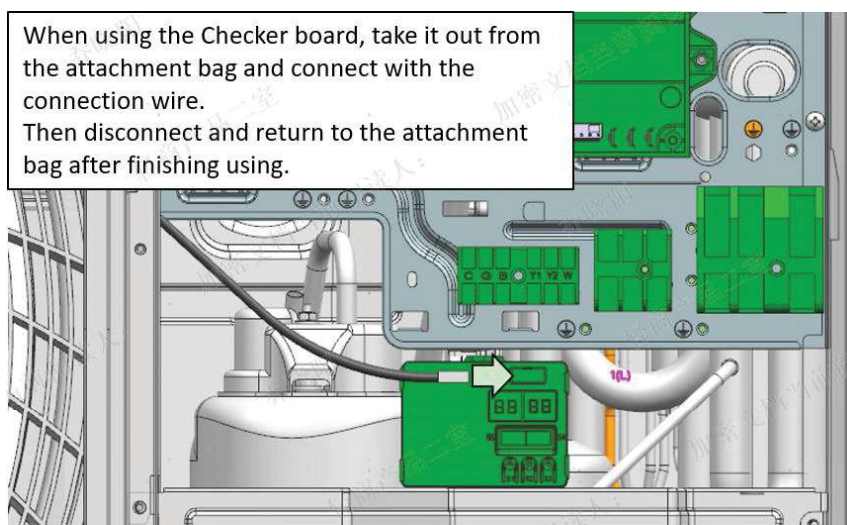
7 Segment display board (Checker board)



NO.	Description	NO.	Description
1	Computer/Checker to Outdoor Control Board	4	S1-Select Button
2	7-Segment Display	5	S2-Increase Button
3	DIP Switch	6	S3-Decrease Button

NOTE:

For 36K model, the checker board is in the accessory bag. Please refer to the illustration when using it.

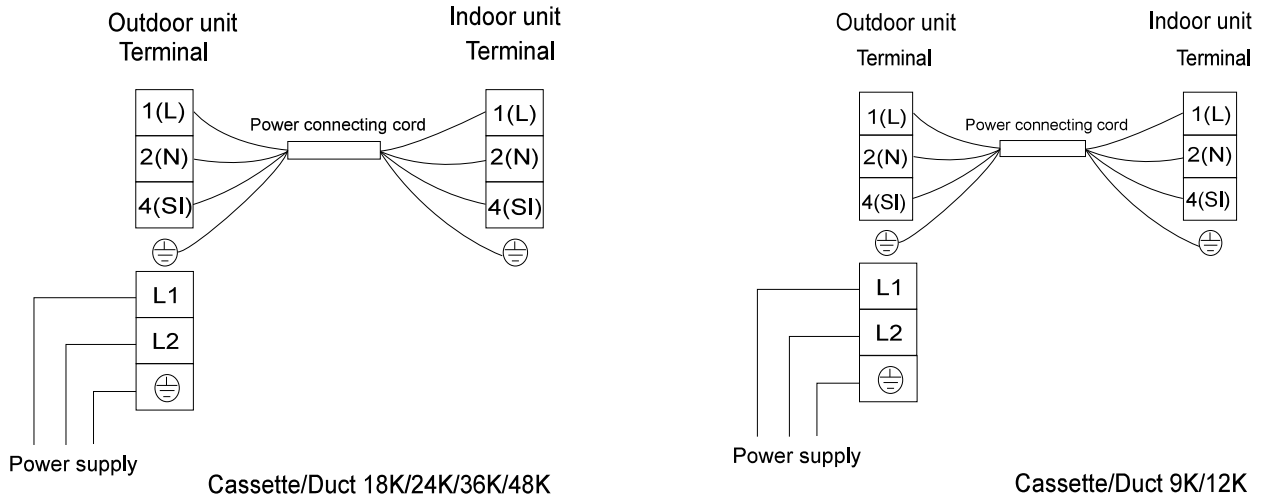


4. WIRING DIAGRAM

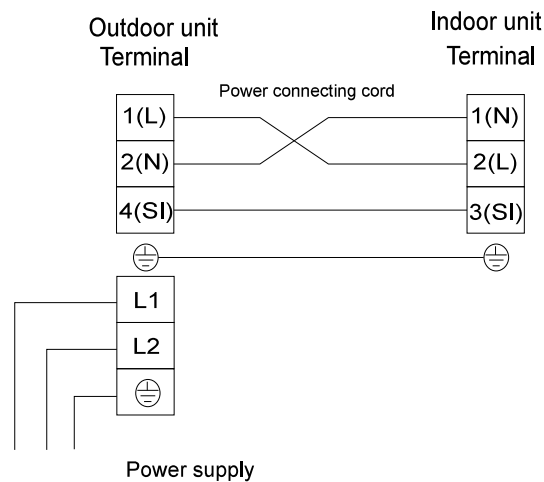
4.3 Common Wiring

Electrical Wiring Diagram

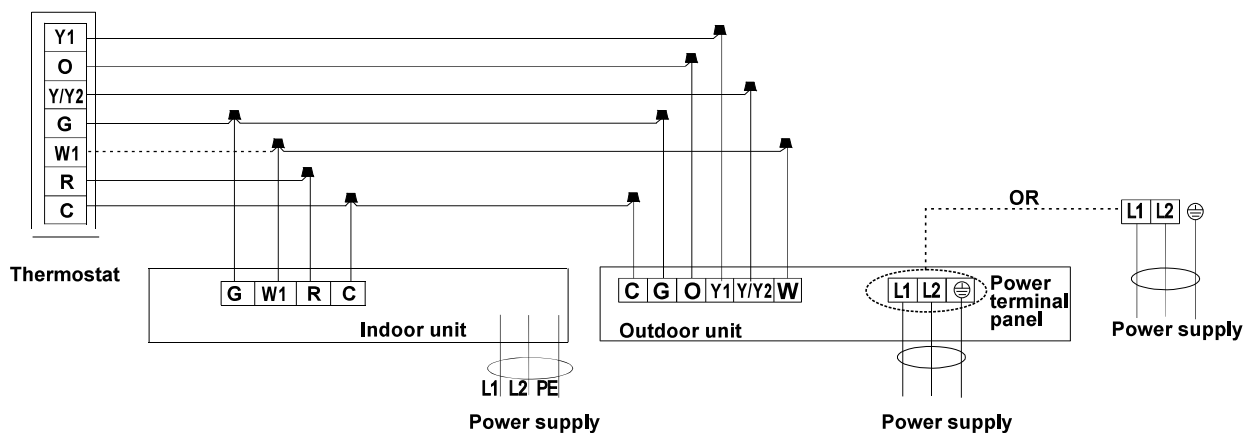
Outdoor unit connected to a duct /cassette indoor unit



Outdoor unit connected to a High wall indoor unit(9K/12K/18K/24K/36K)



Outdoor unit connected to an AHU indoor unit (18K/24K/36K/48K)



Note:

When connecting AHU indoor machines, the indoor unit wiring should be operated according to the indoor unit wiring diagram.

4. WIRING DIAGRAM

Electrical Data

Capacity (Btu/h)	Power Supply	ELB		Power Source Cable Size	Transmitting Cable Size	Circuit Breaker (A)
		Rated Current (A)	Nominal Sensitive Current (mA)			
9K/12K/18K	208/230V ~/60Hz	20	30	3×14AWG	4×16AWG	20
24K	208/230V ~/60Hz	25	30	3×12AWG	4×16AWG	25
36K	208/230V ~/60Hz	50	30	3×10AWG	4×16AWG	50
48K	208/230V ~/60Hz	50	30	3×10AWG	4×16AWG	50

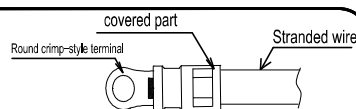
Max. Running Current (A): REFER TO NAMEPLATE

Note:

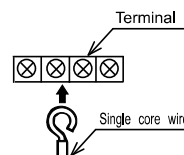
- (1) Follow local codes and regulations when select field wires, and all the above are the minimum wire size.
- (2) 18AWG. color-coded low voltage wire should be used for lengths less than 100ft.(30m). For wire lengths than 100ft.(30m), 16AWG. wire should be used. When transmitting cable length is longer than 262ft. (80m), a larger wire size should be selected.
- (3) Install main switch and ELB for each system separately. Select the high response type ELB that is acted within 0.1second. Recommended capacity to see outdoor machine switch capacity.

<Attentions when Connect the power supply wiring>

1. When connecting the terminal block using stranded wire, make sure to use the round crimp-style terminal for connection to the power supply terminal block. Place the round crimp-style terminals on the wires up to the covered part and secure in place.



2. When connecting the terminal block using a single core wire, be sure to perform curing.



5. CAPACITY TABLES

5. Capacity Tables

5.1 Capacity Characteristic Charts

The following charts show the characteristics of outdoor unit capacity, which corresponds with the operating ambient temperature of outdoor unit.

The data are based on the following conditions:

- ① Pipe length / height difference : 25 ft. (7.6m) / 0 ft.(0m)
- ② Compressor at rated inverter frequency
- ③ Indoor fan speed at high fan speed
- ④ Capacity loss due to white frost and defrost operation is not included.

5. CAPACITIES AND SELECTION DATA

Duct

Cooling Capacity Table																			
Model No. / Nominal Capacity	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °FWB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
9K	5	8.91	7.14	0.31	9.47	7.54	0.42	10.02	7.76	0.45	10.42	7.46	0.46	11.13	7.52	0.46	11.68	7.66	0.46
	10	8.90	7.19	0.32	9.45	7.60	0.43	10.01	7.82	0.46	10.41	7.51	0.47	11.12	7.58	0.47	11.67	7.72	0.47
	15	8.89	7.25	0.32	9.44	7.65	0.44	9.99	7.88	0.48	10.39	7.56	0.48	11.10	7.63	0.48	11.65	7.77	0.48
	20	8.88	7.29	0.33	9.43	7.71	0.45	9.98	7.93	0.49	10.38	7.62	0.50	11.08	7.68	0.50	11.63	7.83	0.50
	25	8.87	7.35	0.34	9.41	7.76	0.46	9.96	7.99	0.50	10.36	7.67	0.51	11.07	7.74	0.51	11.62	7.88	0.51
	30	8.85	7.40	0.35	9.40	7.82	0.47	9.95	8.04	0.51	10.35	7.73	0.52	11.05	7.79	0.52	11.60	7.94	0.52
	35	8.84	7.45	0.36	9.39	7.87	0.48	9.94	8.10	0.53	10.33	7.78	0.53	11.03	7.85	0.53	11.58	8.00	0.53
	40	8.82	7.50	0.37	9.38	7.92	0.50	9.92	8.16	0.54	10.32	7.83	0.55	11.02	7.90	0.55	11.57	8.05	0.55
	45	8.81	7.55	0.38	9.36	7.98	0.51	9.91	8.21	0.55	10.30	7.89	0.56	11.00	7.95	0.56	11.55	8.10	0.56
	50	8.80	7.60	0.38	9.35	8.03	0.52	9.89	8.27	0.56	10.29	7.94	0.57	10.99	8.01	0.57	11.53	8.16	0.57
	55	8.79	7.65	0.39	9.33	8.09	0.53	9.88	8.32	0.58	10.27	7.99	0.58	10.97	8.06	0.58	11.52	8.21	0.58
	60	8.78	7.70	0.40	9.32	8.14	0.54	9.86	8.38	0.59	10.26	8.04	0.60	10.95	8.11	0.60	11.50	8.27	0.60
	65	8.76	7.75	0.41	9.30	8.19	0.55	9.85	8.43	0.60	10.24	8.10	0.61	10.94	8.16	0.61	11.48	8.32	0.61
	70	8.75	7.80	0.42	9.29	8.24	0.57	9.84	8.49	0.62	10.23	8.15	0.62	10.92	8.22	0.62	11.46	8.37	0.62
	75	8.54	7.67	0.45	9.08	8.12	0.58	9.62	8.37	0.63	10.01	8.04	0.64	10.71	8.12	0.65	11.25	8.28	0.65
	80	8.33	7.54	0.47	8.87	7.99	0.60	9.41	8.24	0.65	9.80	7.93	0.66	10.49	8.02	0.67	11.03	8.18	0.68
	85	8.12	7.41	0.54	8.66	7.86	0.65	9.20	8.12	0.70	9.59	7.81	0.71	10.28	7.91	0.72	10.82	8.08	0.73
	90	7.91	7.26	0.60	8.45	7.72	0.71	8.99	7.98	0.74	9.38	7.69	0.75	10.06	7.80	0.77	10.60	7.97	0.78
	95	7.68	7.19	0.67	8.22	7.65	0.75	8.76	7.92	0.78	9.00	7.52	0.77	9.83	7.76	0.81	10.36	7.94	0.82
	100	7.50	7.00	0.70	8.03	7.46	0.77	8.57	7.73	0.79	8.88	7.41	0.78	9.64	7.59	0.81	10.17	7.77	0.82
	105	7.31	6.80	0.73	7.85	7.26	0.78	8.38	7.55	0.79	8.77	7.29	0.80	9.45	7.42	0.81	9.99	7.61	0.82
	110	7.12	6.57	0.71	7.66	7.03	0.74	8.19	7.31	0.74	8.58	7.07	0.73	9.26	7.21	0.74	9.80	7.40	0.76
	115	6.93	6.38	0.64	7.47	6.83	0.65	8.01	7.12	0.63	8.39	6.89	0.62	9.08	7.04	0.62	9.61	7.23	0.64
	118	6.55	6.08	0.57	7.07	6.52	0.56	7.58	6.80	0.53	7.95	6.59	0.52	8.61	6.74	0.52	9.12	6.93	0.53
	122	6.42	5.97	0.54	6.93	6.41	0.53	7.44	6.69	0.50	7.80	6.48	0.48	8.45	6.63	0.48	8.96	6.82	0.50

Heating Capacity Table														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
9K	-13	-15	8.84	0.66	8.65	0.68	8.40	0.70	8.26	0.71	8.15	0.72	7.86	0.74
	-4	-6	10.11	0.89	9.88	0.92	9.60	0.95	9.44	0.97	9.32	0.98	8.98	1.01
	0	-2	11.37	1.31	11.12	1.36	10.80	1.40	10.62	1.43	10.48	1.44	10.10	1.49
	5	3	12.63	1.76	12.35	1.82	12.00	1.88	11.80	1.91	11.65	1.94	11.22	2.00
	10	8	10.99	1.31	10.75	1.36	10.44	1.40	10.27	1.43	10.13	1.44	9.76	1.49
	17	15	9.35	0.89	9.14	0.92	8.88	0.95	8.73	0.97	8.62	0.98	8.30	1.01
	20	18	6.62	0.61	6.41	0.62	6.20	0.65	6.08	0.66	5.99	0.67	5.76	0.68
	25	23	7.18	0.62	6.97	0.64	6.72	0.66	6.60	0.67	6.50	0.68	6.25	0.70
	30	28	7.75	0.64	7.50	0.66	7.25	0.68	7.11	0.69	7.01	0.70	6.75	0.72
	35	32	8.31	0.65	8.05	0.68	7.77	0.69	7.63	0.71	7.52	0.72	7.25	0.74
	40	36	8.73	0.67	8.49	0.69	8.22	0.71	8.08	0.73	7.96	0.74	7.68	0.76
	45	41	9.27	0.69	9.04	0.72	8.78	0.74	8.63	0.75	8.51	0.76	8.20	0.79
	47	43	9.48	0.70	9.27	0.73	9.00	0.75	8.85	0.76	8.73	0.77	8.42	0.80
	50	44	9.50	0.70	9.31	0.72	9.08	0.74	8.95	0.75	8.85	0.76	8.55	0.78
	55	48	9.55	0.69	9.39	0.71	9.22	0.73	9.11	0.73	9.03	0.74	8.76	0.76
	60	52	9.60	0.68	9.47	0.70	9.35	0.71	9.28	0.72	9.21	0.72	8.98	0.73
	63	54	9.62	0.68	9.52	0.69	9.44	0.70	9.37	0.71	9.32	0.71	9.10	0.72
	68	58	9.65	0.68	9.57	0.68	9.52	0.69	9.47	0.69	9.43	0.70	9.24	0.70
	75	64	9.68	0.67	9.62	0.68	9.61	0.68	9.57	0.68	9.55	0.69	9.37	0.69

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Table																			
Model No. / Nominal Capacity	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
12K	5	11.89	9.52	0.41	12.63	10.06	0.55	13.37	10.35	0.60	13.90	9.94	0.61	14.84	10.03	0.61	15.58	10.22	0.61
	10	11.87	9.59	0.42	12.61	10.13	0.57	13.35	10.43	0.62	13.88	10.02	0.63	14.82	10.10	0.63	15.56	10.29	0.63
	15	11.85	9.66	0.43	12.59	10.21	0.58	13.33	10.50	0.64	13.86	10.09	0.64	14.80	10.17	0.65	15.54	10.37	0.64
	20	11.84	9.73	0.44	12.57	10.28	0.60	13.31	10.58	0.65	13.84	10.16	0.66	14.78	10.25	0.66	15.51	10.44	0.66
	25	11.82	9.80	0.46	12.55	10.35	0.62	13.29	10.65	0.67	13.82	10.23	0.68	14.76	10.32	0.68	15.49	10.51	0.68
	30	11.80	9.87	0.47	12.54	10.42	0.63	13.27	10.73	0.68	13.80	10.30	0.69	14.74	10.39	0.70	15.47	10.59	0.69
	35	11.79	9.94	0.48	12.52	10.49	0.65	13.25	10.80	0.70	13.78	10.38	0.71	14.71	10.46	0.71	15.45	10.66	0.71
	40	11.77	10.00	0.49	12.50	10.57	0.66	13.23	10.88	0.72	13.76	10.45	0.73	14.69	10.53	0.73	15.42	10.73	0.73
	45	11.75	10.07	0.50	12.48	10.64	0.68	13.21	10.95	0.73	13.74	10.52	0.74	14.67	10.61	0.75	15.40	10.81	0.74
	50	11.74	10.14	0.51	12.46	10.71	0.69	13.19	11.02	0.75	13.72	10.59	0.76	14.65	10.68	0.76	15.38	10.88	0.76
	55	11.72	10.21	0.52	12.45	10.78	0.71	13.17	11.10	0.77	13.70	10.66	0.78	14.63	10.75	0.78	15.36	10.95	0.78
	60	11.70	10.27	0.53	12.43	10.85	0.72	13.15	11.17	0.78	13.68	10.73	0.79	14.61	10.82	0.80	15.33	11.02	0.79
	65	11.68	10.34	0.55	12.41	10.92	0.74	13.14	11.24	0.80	13.66	10.80	0.81	14.59	10.89	0.81	15.31	11.10	0.81
	70	11.67	10.41	0.56	12.39	10.99	0.75	13.12	11.32	0.82	13.64	10.87	0.83	14.57	10.96	0.83	15.29	11.17	0.83
	75	11.39	10.23	0.59	12.11	10.83	0.78	12.83	11.16	0.84	13.35	10.72	0.86	14.28	10.83	0.86	15.00	11.04	0.87
	80	11.11	10.06	0.63	11.83	10.65	0.80	12.55	10.99	0.86	13.07	10.57	0.88	13.99	10.69	0.89	14.71	10.91	0.90
	85	10.83	9.88	0.72	11.55	10.48	0.87	12.27	10.82	0.93	12.79	10.42	0.94	13.70	10.55	0.96	14.42	10.77	0.97
	90	10.55	9.69	0.80	11.27	10.29	0.94	11.98	10.65	0.99	12.50	10.26	1.00	13.42	10.40	1.03	14.14	10.63	1.04
	95	10.25	9.59	0.89	10.96	10.20	1.00	11.68	10.57	1.04	12.00	10.03	1.03	13.10	10.34	1.08	13.82	10.59	1.10
	100	10.00	9.33	0.93	10.71	9.94	1.03	11.43	10.31	1.05	11.85	9.88	1.04	12.85	10.12	1.08	13.57	10.37	1.10
	105	9.75	9.07	0.97	10.46	9.69	1.05	11.18	10.06	1.06	11.69	9.72	1.06	12.60	9.90	1.08	13.32	10.15	1.10
	110	9.50	8.76	0.95	10.21	9.37	0.99	10.93	9.75	0.98	11.44	9.43	0.98	12.35	9.62	0.99	13.07	9.87	1.01
	115	9.25	8.50	0.85	9.96	9.11	0.86	10.68	9.49	0.84	11.19	9.19	0.83	12.10	9.39	0.83	12.82	9.65	0.85
	118	8.74	8.10	0.75	9.42	8.69	0.74	10.11	9.07	0.71	10.60	8.78	0.69	11.48	8.98	0.69	12.16	9.24	0.71
	122	8.56	7.97	0.72	9.24	8.55	0.70	9.92	8.92	0.67	10.40	8.65	0.65	11.27	8.84	0.65	11.94	9.10	0.66

Heating Capacity Table														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
12K	-13	-15	8.84	0.66	8.65	0.68	8.40	0.70	8.26	0.71	8.15	0.72	7.86	0.74
	-4	-6	10.11	0.89	9.88	0.92	9.60	0.95	9.44	0.97	9.32	0.98	8.98	1.01
	0	-2	11.37	1.31	11.12	1.36	10.80	1.40	10.62	1.43	10.48	1.44	10.10	1.49
	5	3	12.63	1.76	12.35	1.82	12.00	1.88	11.80	1.91	11.65	1.94	11.22	2.00
	10	8	10.99	1.31	10.75	1.36	10.44	1.40	10.27	1.43	10.13	1.44	9.76	1.49
	17	15	9.35	0.89	9.14	0.92	8.88	0.95	8.73	0.97	8.62	0.98	8.30	1.01
	20	18	8.82	0.81	8.54	0.83	8.27	0.86	8.11	0.88	7.98	0.89	7.68	0.91
	25	23	9.57	0.83	9.29	0.85	8.97	0.88	8.80	0.90	8.66	0.91	8.34	0.94
	30	28	10.33	0.85	10.01	0.88	9.67	0.90	9.49	0.92	9.35	0.94	9.00	0.96
	35	32	11.08	0.87	10.73	0.90	10.37	0.92	10.18	0.95	10.03	0.96	9.67	0.99
	40	36	11.65	0.89	11.32	0.92	10.96	0.95	10.77	0.97	10.62	0.99	10.23	1.01
	45	41	12.35	0.92	12.06	0.96	11.70	0.99	11.51	1.00	11.35	1.02	10.94	1.05
	47	43	12.63	0.94	12.35	0.97	12.00	1.00	11.80	1.02	11.65	1.03	11.22	1.06
	50	44	12.67	0.93	12.42	0.96	12.11	0.99	11.93	1.00	11.79	1.01	11.40	1.04
	55	48	12.73	0.92	12.52	0.95	12.29	0.97	12.15	0.98	12.04	0.99	11.68	1.01
	60	52	12.80	0.91	12.63	0.93	12.47	0.95	12.37	0.96	12.28	0.96	11.97	0.97
	63	54	12.83	0.91	12.69	0.92	12.58	0.94	12.50	0.94	12.43	0.94	12.14	0.96
	68	58	12.87	0.90	12.76	0.91	12.70	0.92	12.63	0.92	12.58	0.93	12.31	0.94
	75	64	12.91	0.90	12.82	0.90	12.81	0.91	12.76	0.91	12.73	0.92	12.49	0.92

Remarks:

TC: Total Cooling Capacity (Gross) (kBtu/h)

SHC: Sensible Heat Capacity (Gross)

PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)

DB: Dry Bulb Temperature

WB: Wet Bulb Temperature

5.CAPACITIES AND SELECTION DATA

Cooling Capacity Tables																			
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
18K	5	17.83	14.28	0.62	18.94	15.08	0.83	20.05	15.53	0.90	20.84	14.91	0.92	22.26	15.04	0.92	23.36	15.32	0.92
	10	17.81	14.39	0.63	18.91	15.20	0.85	20.02	15.64	0.92	20.81	15.02	0.94	22.23	15.15	0.94	23.33	15.44	0.94
	15	17.78	14.49	0.65	18.89	15.31	0.88	19.99	15.75	0.95	20.78	15.13	0.96	22.19	15.26	0.97	23.30	15.55	0.96
	20	17.75	14.59	0.66	18.86	15.41	0.90	19.96	15.86	0.98	20.75	15.24	0.99	22.16	15.37	0.99	23.27	15.66	0.99
	25	17.73	14.69	0.68	18.83	15.53	0.92	19.93	15.98	1.00	20.72	15.35	1.02	22.13	15.47	1.02	23.24	15.77	1.02
	30	17.70	14.80	0.70	18.80	15.63	0.95	19.90	16.09	1.02	20.69	15.45	1.04	22.10	15.59	1.05	23.20	15.88	1.04
	35	17.68	14.90	0.72	18.77	15.74	0.97	19.88	16.20	1.05	20.66	15.56	1.07	22.07	15.69	1.07	23.17	15.99	1.07
	40	17.65	15.00	0.73	18.75	15.85	0.99	19.85	16.31	1.08	20.63	15.67	1.09	22.04	15.80	1.09	23.13	16.10	1.09
	45	17.63	15.11	0.75	18.72	15.95	1.02	19.82	16.43	1.10	20.60	15.77	1.12	22.01	15.91	1.12	23.10	16.21	1.12
	50	17.60	15.20	0.77	18.69	16.06	1.04	19.79	16.53	1.12	20.57	15.88	1.15	21.98	16.01	1.15	23.06	16.31	1.15
	55	17.57	15.31	0.78	18.67	16.17	1.06	19.76	16.64	1.15	20.54	15.98	1.17	21.94	16.12	1.17	23.03	16.43	1.17
	60	17.55	15.41	0.80	18.64	16.28	1.08	19.73	16.76	1.18	20.51	16.09	1.19	21.91	16.22	1.20	23.00	16.53	1.19
	65	17.52	15.50	0.82	18.61	16.38	1.11	19.70	16.86	1.20	20.48	16.19	1.22	21.88	16.33	1.22	22.97	16.64	1.22
	70	17.50	15.61	0.84	18.59	16.49	1.13	19.67	16.97	1.23	20.45	16.30	1.25	21.85	16.43	1.25	22.93	16.75	1.25
	75	17.08	15.35	0.89	18.16	16.24	1.17	19.25	16.73	1.26	20.03	16.08	1.28	21.41	16.24	1.29	22.49	16.56	1.30
	80	16.66	15.08	0.95	17.74	15.98	1.21	18.82	16.49	1.29	19.60	15.86	1.31	20.98	16.04	1.34	22.07	16.37	1.35
	85	16.24	14.81	1.08	17.32	15.71	1.31	18.40	16.23	1.39	19.18	15.62	1.41	20.55	15.82	1.44	21.63	16.16	1.46
	90	15.82	14.53	1.20	16.90	15.44	1.41	17.97	15.97	1.48	18.75	15.38	1.51	20.12	15.59	1.54	21.20	15.95	1.56
	95	15.37	14.38	1.33	16.44	15.30	1.51	17.51	15.85	1.56	18.00	15.05	1.54	19.65	15.51	1.61	20.72	15.88	1.65
	100	14.99	14.00	1.40	16.07	14.91	1.54	17.14	15.47	1.58	17.77	14.81	1.56	19.28	15.17	1.61	20.35	15.55	1.65
	105	14.62	13.61	1.46	15.69	14.53	1.57	16.76	15.09	1.58	17.54	14.58	1.59	18.90	14.84	1.61	19.97	15.23	1.65
	110	14.24	13.14	1.42	15.32	14.06	1.48	16.39	14.63	1.48	17.16	14.15	1.47	18.53	14.42	1.48	19.60	14.81	1.52
	115	13.87	12.75	1.28	14.94	13.66	1.29	16.01	14.24	1.26	16.79	13.79	1.24	18.15	14.08	1.25	19.22	14.47	1.28
	118	13.10	12.15	1.13	14.13	13.04	1.12	15.16	13.60	1.06	15.90	13.17	1.04	17.21	13.47	1.04	18.24	13.85	1.06
	122	12.84	11.95	1.08	13.86	12.83	1.05	14.87	13.38	1.00	15.60	12.97	0.97	16.90	13.26	0.97	17.91	13.64	0.99

Heating Capacity Tables														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
18K	-13	-15	13.27	1.01	12.97	1.04	12.60	1.08	12.39	1.10	12.23	1.11	11.78	1.14
	-4	-6	15.16	1.37	14.82	1.42	14.40	1.46	14.16	1.49	13.98	1.51	13.47	1.55
	0	-2	17.06	2.02	16.68	2.09	16.20	2.15	15.93	2.19	15.72	2.22	15.15	2.29
	5	3	18.95	2.71	18.53	2.80	18.00	2.89	17.70	2.94	17.47	2.98	16.83	3.07
	10	8	11.44	1.20	10.98	1.24	10.73	1.28	10.52	1.29	10.34	1.30	9.93	1.35
	17	15	12.56	1.22	12.12	1.26	11.77	1.30	11.54	1.33	11.36	1.35	10.92	1.38
	20	18	13.23	1.24	12.81	1.28	12.40	1.33	12.16	1.35	11.97	1.37	11.51	1.40
	25	23	14.36	1.27	13.93	1.30	13.45	1.35	13.19	1.38	12.99	1.40	12.50	1.44
	30	28	15.50	1.30	15.01	1.35	14.50	1.39	14.23	1.41	14.02	1.44	13.50	1.48
	35	32	16.62	1.34	16.09	1.39	15.55	1.42	15.27	1.46	15.04	1.48	14.50	1.52
	40	36	17.47	1.37	16.98	1.42	16.44	1.46	16.15	1.50	15.93	1.52	15.35	1.56
	45	41	18.53	1.42	18.09	1.47	17.55	1.52	17.26	1.54	17.03	1.57	16.41	1.61
	47	43	18.95	1.44	18.53	1.49	18.00	1.54	17.70	1.57	17.47	1.59	16.83	1.63
	50	44	19.01	1.44	18.62	1.48	18.16	1.52	17.90	1.54	17.69	1.56	17.10	1.61
	55	48	19.10	1.42	18.79	1.46	18.44	1.49	18.22	1.50	18.06	1.52	17.52	1.55
	60	52	19.19	1.40	18.94	1.43	18.71	1.46	18.55	1.47	18.42	1.48	17.95	1.50
	63	54	19.25	1.39	19.04	1.41	18.87	1.44	18.75	1.45	18.64	1.45	18.21	1.47
	68	58	19.30	1.39	19.13	1.40	19.04	1.42	18.94	1.42	18.87	1.43	18.47	1.44
	75	64	19.36	1.38	19.23	1.39	19.21	1.40	19.14	1.39	19.09	1.41	18.74	1.41

Remarks:

TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Tables																			
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
24K	5	23.77	19.04	0.82	25.25	20.11	1.11	26.73	20.70	1.20	27.79	19.88	1.22	29.68	20.05	1.22	31.15	20.43	1.22
	10	23.74	19.18	0.84	25.21	20.26	1.14	26.69	20.85	1.23	27.75	20.03	1.25	29.64	20.20	1.25	31.11	20.58	1.25
	15	23.70	19.32	0.86	25.18	20.41	1.17	26.65	21.00	1.27	27.71	20.17	1.28	29.59	20.34	1.29	31.07	20.73	1.28
	20	23.67	19.45	0.88	25.14	20.55	1.20	26.61	21.15	1.30	27.67	20.32	1.32	29.55	20.49	1.32	31.02	20.88	1.32
	25	23.64	19.59	0.91	25.10	20.70	1.23	26.57	21.30	1.33	27.63	20.46	1.35	29.51	20.63	1.35	30.98	21.02	1.35
	30	23.60	19.73	0.93	25.07	20.84	1.26	26.53	21.45	1.36	27.59	20.60	1.38	29.47	20.78	1.39	30.93	21.17	1.38
	35	23.57	19.87	0.95	25.03	20.98	1.29	26.50	21.60	1.40	27.55	20.75	1.42	29.42	20.92	1.42	30.89	21.32	1.42
	40	23.53	20.00	0.97	25.00	21.13	1.32	26.46	21.75	1.44	27.51	20.89	1.46	29.38	21.06	1.46	30.84	21.46	1.46
	45	23.50	20.14	1.00	24.96	21.27	1.35	26.42	21.90	1.47	27.47	21.03	1.49	29.34	21.21	1.50	30.80	21.61	1.49
	50	23.47	20.27	1.03	24.92	21.41	1.38	26.38	22.04	1.50	27.43	21.17	1.53	29.30	21.35	1.53	30.75	21.75	1.53
	55	23.43	20.41	1.05	24.89	21.56	1.41	26.34	22.19	1.54	27.39	21.31	1.56	29.25	21.49	1.56	30.71	21.90	1.56
	60	23.40	20.54	1.07	24.85	21.70	1.45	26.30	22.34	1.57	27.35	21.45	1.59	29.21	21.63	1.60	30.66	22.04	1.59
	65	23.36	20.67	1.10	24.81	21.84	1.48	26.27	22.48	1.60	27.31	21.59	1.63	29.17	21.77	1.63	30.62	22.19	1.63
	70	23.33	20.81	1.12	24.78	21.98	1.51	26.23	22.63	1.64	27.27	21.73	1.66	29.13	21.91	1.66	30.57	22.33	1.66
	75	22.77	20.46	1.19	24.21	21.65	1.56	25.66	22.31	1.68	26.70	21.44	1.71	28.55	21.65	1.72	29.99	22.08	1.73
	80	22.21	20.11	1.26	23.65	21.30	1.61	25.09	21.98	1.72	26.13	21.14	1.75	27.97	21.38	1.78	29.42	21.82	1.80
	85	21.65	19.75	1.44	23.09	20.95	1.74	24.53	21.64	1.86	25.57	20.83	1.89	27.40	21.09	1.92	28.84	21.54	1.95
	90	21.09	19.37	1.60	22.53	20.58	1.89	23.96	21.29	1.98	25.00	20.51	2.01	26.83	20.79	2.05	28.27	21.26	2.08
	95	20.49	19.17	1.77	21.92	20.40	2.01	23.35	21.13	2.08	24.00	20.06	2.05	26.20	20.68	2.15	27.63	21.17	2.19
	100	19.99	18.66	1.87	21.42	19.88	2.05	22.85	20.62	2.10	23.69	19.75	2.08	25.70	20.23	2.15	27.13	20.73	2.19
	105	19.49	18.14	1.95	20.92	19.37	2.09	22.35	20.12	2.11	23.38	19.44	2.12	25.20	19.79	2.15	26.63	20.30	2.19
	110	18.99	17.52	1.90	20.42	18.74	1.98	21.85	19.50	1.97	22.88	18.86	1.96	24.70	19.23	1.98	26.13	19.74	2.03
	115	18.49	17.00	1.70	19.92	18.21	1.72	21.35	18.98	1.68	22.38	18.38	1.65	24.20	18.77	1.66	25.63	19.29	1.70
	118	17.47	16.20	1.51	18.84	17.38	1.49	20.21	18.13	1.41	21.20	17.56	1.38	22.95	17.96	1.38	24.32	18.47	1.41
	122	17.12	15.93	1.45	18.48	17.10	1.40	19.83	17.84	1.33	20.80	17.29	1.29	22.53	17.68	1.29	23.88	18.19	1.32

Heating Capacity Tables														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
24K	-13	-15	17.69	1.31	17.30	1.36	16.80	1.40	16.52	1.43	16.30	1.44	15.71	1.49
	-4	-6	20.21	1.78	19.77	1.84	19.20	1.90	18.89	1.93	18.63	1.96	17.95	2.02
	0	-2	22.74	2.63	22.24	2.71	21.60	2.80	21.25	2.85	20.96	2.89	20.20	2.98
	5	3	25.27	3.53	24.71	3.64	24.00	3.76	23.61	3.83	23.29	3.88	22.44	4.00
	10	8	15.26	1.56	14.64	1.62	14.31	1.66	14.02	1.68	13.79	1.70	13.25	1.75
	17	15	16.74	1.59	16.16	1.64	15.69	1.70	15.39	1.72	15.14	1.75	14.56	1.79
	20	18	17.64	1.62	17.08	1.66	16.53	1.72	16.22	1.75	15.97	1.78	15.35	1.82
	25	23	19.15	1.65	18.58	1.70	17.93	1.76	17.59	1.79	17.32	1.82	16.67	1.88
	30	28	20.66	1.70	20.01	1.75	19.33	1.80	18.97	1.84	18.69	1.88	18.00	1.92
	35	32	22.16	1.74	21.46	1.80	20.73	1.85	20.35	1.89	20.06	1.92	19.33	1.97
	40	36	23.29	1.79	22.64	1.85	21.92	1.90	21.53	1.95	21.24	1.97	20.47	2.03
	45	41	24.71	1.85	24.11	1.91	23.41	1.97	23.01	2.01	22.71	2.04	21.88	2.10
	47	43	25.27	1.88	24.71	1.94	24.00	2.00	23.61	2.04	23.29	2.06	22.44	2.13
	50	44	25.35	1.87	24.83	1.92	24.22	1.97	23.87	2.01	23.59	2.03	22.79	2.09
	55	48	25.47	1.85	25.05	1.89	24.59	1.94	24.30	1.96	24.08	1.97	23.36	2.02
	60	52	25.59	1.82	25.26	1.86	24.94	1.89	24.73	1.91	24.56	1.92	23.94	1.95
	63	54	25.66	1.81	25.38	1.84	25.16	1.88	25.00	1.88	24.86	1.88	24.28	1.91
	68	58	25.74	1.80	25.51	1.82	25.39	1.85	25.26	1.85	25.15	1.86	24.63	1.88
	75	64	25.82	1.79	25.64	1.80	25.62	1.82	25.52	1.81	25.45	1.83	24.98	1.84

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Table																			
Model No. / Nominal Capacity	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
36K	5	32.68	26.18	1.13	34.72	27.65	1.52	36.75	28.46	1.65	38.21	27.34	1.68	40.81	27.57	1.68	42.83	28.09	1.68
	10	32.64	26.37	1.16	34.66	27.86	1.57	36.70	28.67	1.69	38.16	27.54	1.72	40.76	27.78	1.72	42.78	28.30	1.72
	15	32.59	26.57	1.18	34.62	28.06	1.61	36.64	28.88	1.75	38.10	27.73	1.76	40.69	27.97	1.78	42.72	28.50	1.76
	20	32.55	26.74	1.21	34.57	28.26	1.65	36.59	29.08	1.79	38.05	27.94	1.82	40.63	28.17	1.82	42.65	28.71	1.82
	25	32.51	26.94	1.25	34.51	28.46	1.69	36.53	29.29	1.83	37.99	28.13	1.86	40.58	28.37	1.86	42.60	28.90	1.86
	30	32.45	27.13	1.28	34.47	28.66	1.73	36.48	29.49	1.88	37.94	28.33	1.90	40.52	28.57	1.92	42.53	29.11	1.90
	35	32.41	27.32	1.31	34.42	28.85	1.78	36.44	29.70	1.93	37.88	28.53	1.96	40.45	28.77	1.96	42.47	29.32	1.96
	40	32.35	27.50	1.34	34.38	29.05	1.82	36.38	29.91	1.97	37.83	28.72	2.00	40.40	28.96	2.00	42.41	29.51	2.00
	45	32.31	27.69	1.38	34.32	29.25	1.86	36.33	30.11	2.02	37.77	28.92	2.04	40.34	29.16	2.06	42.35	29.71	2.04
	50	32.27	27.87	1.41	34.27	29.44	1.90	36.27	30.31	2.06	37.72	29.11	2.10	40.29	29.36	2.10	42.28	29.91	2.10
	55	32.22	28.06	1.44	34.22	29.65	1.95	36.22	30.51	2.12	37.66	29.30	2.14	40.22	29.55	2.14	42.23	30.11	2.14
	60	32.18	28.24	1.47	34.17	29.84	1.99	36.16	30.72	2.16	37.61	29.49	2.19	40.16	29.74	2.20	42.16	30.31	2.19
	65	32.12	28.42	1.51	34.11	30.03	2.03	36.12	30.91	2.20	37.55	29.69	2.24	40.11	29.93	2.24	42.10	30.51	2.24
	70	32.08	28.61	1.54	34.07	30.22	2.07	36.07	31.12	2.26	37.50	29.88	2.28	40.05	30.13	2.28	42.03	30.70	2.28
	75	31.31	28.13	1.64	33.29	29.77	2.14	35.28	30.68	2.31	36.71	29.48	2.35	39.26	29.77	2.37	41.24	30.36	2.38
	80	30.54	27.65	1.73	32.52	29.29	2.21	34.50	30.22	2.37	35.93	29.07	2.41	38.46	29.40	2.45	40.45	30.00	2.48
	85	29.77	27.16	1.97	31.75	28.81	2.40	33.73	29.76	2.55	35.16	28.64	2.59	37.68	29.00	2.64	39.66	29.62	2.68
	90	29.00	26.63	2.20	30.98	28.30	2.59	32.95	29.27	2.72	34.38	28.20	2.76	36.89	28.59	2.82	38.87	29.23	2.86
	95	28.17	26.36	2.44	30.14	28.05	2.76	32.11	29.05	2.86	33.00	27.58	2.82	36.03	28.44	2.96	37.99	29.11	3.02
	100	27.49	25.66	2.57	29.45	27.34	2.82	31.42	28.35	2.89	32.57	27.16	2.86	35.34	27.82	2.96	37.30	28.50	3.02
	105	26.80	24.94	2.68	28.77	26.63	2.88	30.73	27.67	2.90	32.15	26.73	2.92	34.65	27.21	2.96	36.62	27.91	3.02
	110	26.11	24.09	2.61	28.08	25.77	2.72	30.04	26.81	2.71	31.46	25.93	2.69	33.96	26.44	2.72	35.93	27.14	2.79
	115	25.42	23.38	2.34	27.39	25.04	2.37	29.36	26.10	2.31	30.77	25.27	2.27	33.28	25.81	2.28	35.24	26.52	2.34
	118	24.02	22.28	2.07	25.91	23.90	2.04	27.79	24.93	1.95	29.15	24.15	1.90	31.56	24.70	1.90	33.44	25.40	1.95
	122	23.54	21.90	1.99	25.41	23.51	1.93	27.27	24.53	1.83	28.60	23.77	1.78	30.98	24.31	1.78	32.84	25.01	1.82

Heating Capacity Table														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
36K	-13	-15	26.53	1.90	25.94	1.97	25.20	2.03	24.79	2.07	24.46	2.09	23.57	2.16
	-4	-6	30.32	2.58	29.65	2.67	28.80	2.76	28.33	2.80	27.95	2.84	26.93	2.93
	0	-2	34.11	3.81	33.36	3.93	32.40	4.06	31.87	4.13	31.44	4.19	30.30	4.31
	5	3	37.90	5.11	37.06	5.28	36.00	5.45	35.41	5.55	34.94	5.62	33.67	5.79
	10	8	22.89	2.27	21.95	2.34	21.47	2.41	21.04	2.43	20.68	2.46	19.87	2.54
	17	15	25.11	2.30	24.24	2.38	23.54	2.46	23.08	2.50	22.71	2.54	21.84	2.60
	20	18	26.47	2.34	25.63	2.41	24.80	2.50	24.33	2.54	23.95	2.58	23.03	2.64
	25	23	28.72	2.40	27.87	2.46	26.90	2.55	26.39	2.60	25.98	2.64	25.01	2.72
	30	28	30.99	2.46	30.02	2.54	29.00	2.62	28.46	2.67	28.04	2.72	27.00	2.78
	35	32	33.25	2.52	32.18	2.62	31.10	2.68	30.53	2.74	30.09	2.78	29.00	2.86
	40	36	34.94	2.59	33.95	2.68	32.88	2.76	32.30	2.82	31.86	2.86	30.70	2.94
	45	41	37.06	2.68	36.17	2.77	35.11	2.86	34.52	2.91	34.06	2.95	32.81	3.04
	47	43	37.90	2.72	37.06	2.81	36.00	2.90	35.41	2.95	34.94	2.99	33.67	3.08
	50	44	38.02	2.71	37.25	2.78	36.33	2.86	35.80	2.91	35.38	2.94	34.19	3.03
	55	48	38.20	2.68	37.57	2.74	36.88	2.81	36.45	2.84	36.12	2.86	35.04	2.93
	60	52	38.39	2.64	37.89	2.69	37.42	2.74	37.10	2.77	36.84	2.78	35.91	2.82
	63	54	38.49	2.63	38.07	2.67	37.74	2.72	37.50	2.73	37.29	2.73	36.42	2.77
	68	58	38.61	2.62	38.27	2.64	38.09	2.68	37.89	2.68	37.73	2.69	36.94	2.72
	75	64	38.73	2.60	38.47	2.62	38.43	2.64	38.29	2.63	38.18	2.65	37.48	2.67

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Table																			
Model No. / Nominal Capacity	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
48K	5	43.58	34.91	1.64	46.29	36.87	2.21	49.01	37.95	2.40	50.95	36.45	2.44	54.41	36.76	2.44	57.11	37.46	2.44
	10	43.52	35.16	1.68	46.22	37.14	2.28	48.93	38.23	2.46	50.88	36.72	2.50	54.34	37.03	2.50	57.04	37.73	2.50
	15	43.45	35.42	1.72	46.16	37.42	2.34	48.86	38.50	2.54	50.80	36.98	2.56	54.25	37.29	2.58	56.96	38.01	2.56
	20	43.40	35.66	1.76	46.09	37.68	2.40	48.79	38.78	2.60	50.73	37.25	2.64	54.18	37.57	2.64	56.87	38.28	2.64
	25	43.34	35.92	1.82	46.02	37.95	2.46	48.71	39.05	2.67	50.66	37.51	2.71	54.10	37.82	2.71	56.80	38.54	2.71
	30	43.27	36.17	1.87	45.96	38.21	2.52	48.64	39.33	2.73	50.58	37.77	2.77	54.03	38.10	2.79	56.71	38.81	2.77
	35	43.21	36.43	1.91	45.89	38.46	2.58	48.58	39.60	2.81	50.51	38.04	2.85	53.94	38.35	2.85	56.63	39.09	2.85
	40	43.14	36.67	1.95	45.83	38.74	2.64	48.51	39.88	2.87	50.44	38.30	2.91	53.86	38.61	2.91	56.54	39.34	2.91
	45	43.08	36.92	2.01	45.76	39.00	2.71	48.44	40.15	2.93	50.36	38.56	2.97	53.79	38.89	2.99	56.47	39.62	2.97
	50	43.03	37.16	2.05	45.69	39.25	2.77	48.36	40.41	2.99	50.29	38.81	3.05	53.72	39.14	3.05	56.38	39.88	3.05
	55	42.96	37.42	2.09	45.63	39.53	2.83	48.29	40.68	3.08	50.22	39.07	3.12	53.63	39.40	3.12	56.30	40.15	3.12
	60	42.90	37.66	2.13	45.56	39.78	2.89	48.22	40.96	3.14	50.14	39.33	3.18	53.55	39.66	3.20	56.21	40.41	3.18
	65	42.83	37.90	2.19	45.49	40.04	2.95	48.16	41.21	3.20	50.07	39.58	3.26	53.48	39.91	3.26	56.14	40.68	3.26
	70	42.77	38.15	2.23	45.43	40.30	3.01	48.09	41.49	3.28	50.00	39.84	3.32	53.41	40.17	3.32	56.05	40.94	3.32
	75	41.75	37.51	2.38	44.39	39.69	3.12	47.04	40.90	3.36	48.95	39.31	3.42	52.34	39.69	3.44	54.98	40.48	3.46
	80	40.72	36.87	2.52	43.36	39.05	3.22	46.00	40.30	3.44	47.91	38.76	3.51	51.28	39.20	3.57	53.94	40.00	3.61
	85	39.69	36.21	2.87	42.33	38.41	3.49	44.97	39.67	3.71	46.88	38.19	3.77	50.23	38.67	3.83	52.87	39.49	3.90
	90	38.67	35.51	3.20	41.31	37.73	3.77	43.93	39.03	3.96	45.83	37.60	4.02	49.19	38.12	4.10	51.83	38.98	4.16
	95	37.57	35.15	3.55	40.19	37.40	4.02	42.81	38.74	4.16	44.00	36.78	4.10	48.03	37.91	4.31	50.66	38.81	4.39
	100	36.65	34.21	3.73	39.27	36.45	4.10	41.89	37.80	4.20	43.43	36.21	4.16	47.12	37.09	4.31	49.74	38.01	4.39
	105	35.73	33.26	3.90	38.35	35.51	4.18	40.98	36.89	4.22	42.86	35.64	4.24	46.20	36.28	4.31	48.82	37.22	4.39
	110	34.82	32.12	3.79	37.44	34.36	3.96	40.06	35.75	3.94	41.95	34.58	3.92	45.28	35.26	3.96	47.91	36.19	4.06
	115	33.90	31.17	3.40	36.52	33.39	3.44	39.14	34.80	3.36	41.03	33.70	3.30	44.37	34.41	3.32	46.99	35.37	3.40
	118	32.03	29.70	3.01	34.54	31.86	2.97	37.05	33.24	2.83	38.87	32.19	2.77	42.08	32.93	2.77	44.59	33.86	2.83
	122	31.39	29.21	2.89	33.88	31.35	2.81	36.36	32.71	2.67	38.13	31.70	2.58	41.31	32.41	2.58	43.78	33.35	2.64

Heating Capacity Table														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
48K	-13	-15	32.43	2.23	31.71	2.31	30.80	2.38	30.30	2.42	29.89	2.45	28.80	2.53
	-4	-6	37.06	3.03	36.24	3.13	35.20	3.23	34.62	3.29	34.16	3.33	32.92	3.43
	0	-2	41.69	4.46	40.77	4.61	39.60	4.76	38.95	4.85	38.43	4.91	37.03	5.06
	5	3	46.32	5.99	45.30	6.19	44.00	6.39	43.28	6.51	42.70	6.59	41.15	6.79
	10	8	27.97	2.66	26.83	2.75	26.24	2.82	25.71	2.85	25.28	2.88	24.28	2.98
	17	15	30.70	2.70	29.62	2.79	28.77	2.88	28.21	2.93	27.76	2.98	26.69	3.05
	20	18	32.35	2.75	31.32	2.82	30.31	2.93	29.73	2.98	29.27	3.02	28.15	3.10
	25	23	35.10	2.81	34.06	2.88	32.88	2.99	32.25	3.05	31.75	3.10	30.57	3.19
	30	28	37.88	2.88	36.69	2.98	35.44	3.07	34.78	3.13	34.27	3.19	33.00	3.26
	35	32	40.63	2.96	39.34	3.07	38.01	3.14	37.32	3.22	36.77	3.26	35.44	3.35
	40	36	42.70	3.04	41.50	3.14	40.19	3.23	39.48	3.31	38.93	3.35	37.52	3.45
	45	41	45.30	3.14	44.21	3.25	42.91	3.35	42.19	3.42	41.63	3.46	40.10	3.57
	47	43	46.32	3.19	45.30	3.29	44.00	3.40	43.28	3.46	42.70	3.51	41.15	3.61
	50	44	46.47	3.17	45.52	3.26	44.40	3.35	43.76	3.42	43.25	3.45	41.79	3.55
	55	48	46.69	3.14	45.92	3.22	45.07	3.29	44.54	3.32	44.14	3.35	42.83	3.43
	60	52	46.92	3.10	46.31	3.16	45.73	3.22	45.35	3.25	45.03	3.26	43.89	3.31
	63	54	47.05	3.08	46.53	3.13	46.13	3.19	45.83	3.20	45.57	3.20	44.51	3.25
68	58	47.19	3.07	46.77	3.10	46.55	3.14	46.31	3.14	46.12	3.16	45.15	3.19	
75	64	47.33	3.05	47.01	3.07	46.97	3.10	46.79	3.08	46.67	3.11	45.80	3.13	

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cassette

Cooling Capacity Table																			
Model No. / Nominal Capacity	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
9K	5	8.91	7.14	0.30	9.47	7.54	0.41	10.02	7.76	0.44	10.42	7.46	0.45	11.13	7.52	0.45	11.68	7.66	0.45
	10	8.90	7.19	0.31	9.45	7.60	0.42	10.01	7.82	0.45	10.41	7.51	0.46	11.12	7.58	0.46	11.67	7.72	0.46
	15	8.89	7.25	0.32	9.44	7.65	0.43	9.99	7.88	0.47	10.39	7.56	0.47	11.10	7.63	0.47	11.65	7.77	0.47
	20	8.88	7.29	0.32	9.43	7.71	0.44	9.98	7.93	0.48	10.38	7.62	0.48	11.08	7.68	0.48	11.63	7.83	0.48
	25	8.87	7.35	0.33	9.41	7.76	0.45	9.96	7.99	0.49	10.36	7.67	0.50	11.07	7.74	0.50	11.62	7.88	0.50
	30	8.85	7.40	0.34	9.40	7.82	0.46	9.95	8.04	0.50	10.35	7.73	0.51	11.05	7.79	0.51	11.60	7.94	0.51
	35	8.84	7.45	0.35	9.39	7.87	0.47	9.94	8.10	0.51	10.33	7.78	0.52	11.03	7.85	0.52	11.58	8.00	0.52
	40	8.82	7.50	0.36	9.38	7.92	0.48	9.92	8.16	0.53	10.32	7.83	0.53	11.02	7.90	0.53	11.57	8.05	0.53
	45	8.81	7.55	0.37	9.36	7.98	0.50	9.91	8.21	0.54	10.30	7.89	0.54	11.00	7.95	0.55	11.55	8.10	0.54
	50	8.80	7.60	0.38	9.35	8.03	0.51	9.89	8.27	0.55	10.29	7.94	0.56	10.99	8.01	0.56	11.53	8.16	0.56
	55	8.79	7.65	0.38	9.33	8.09	0.52	9.88	8.32	0.56	10.27	7.99	0.57	10.97	8.06	0.57	11.52	8.21	0.57
	60	8.78	7.70	0.39	9.32	8.14	0.53	9.86	8.38	0.57	10.26	8.04	0.58	10.95	8.11	0.59	11.50	8.27	0.58
	65	8.76	7.75	0.40	9.30	8.19	0.54	9.85	8.43	0.59	10.24	8.10	0.60	10.94	8.16	0.60	11.48	8.32	0.60
	70	8.75	7.80	0.41	9.29	8.24	0.55	9.84	8.49	0.60	10.23	8.15	0.61	10.92	8.22	0.61	11.46	8.37	0.61
	75	8.54	7.67	0.44	9.08	8.12	0.57	9.62	8.37	0.62	10.01	8.04	0.63	10.71	8.12	0.63	11.25	8.28	0.63
	80	8.33	7.54	0.46	8.87	7.99	0.59	9.41	8.24	0.63	9.80	7.93	0.64	10.49	8.02	0.65	11.03	8.18	0.66
	85	8.12	7.41	0.53	8.66	7.86	0.64	9.20	8.12	0.68	9.59	7.81	0.69	10.28	7.91	0.70	10.82	8.08	0.71
	90	7.91	7.26	0.59	8.45	7.72	0.69	8.99	7.98	0.72	9.38	7.69	0.74	10.06	7.80	0.75	10.60	7.97	0.76
	95	7.68	7.19	0.65	8.22	7.65	0.74	8.76	7.92	0.76	9.00	7.52	0.75	9.83	7.76	0.79	10.36	7.94	0.80
	100	7.50	7.00	0.68	8.03	7.46	0.75	8.57	7.73	0.77	8.88	7.41	0.76	9.64	7.59	0.79	10.17	7.77	0.80
	105	7.31	6.80	0.71	7.85	7.26	0.77	8.38	7.55	0.77	8.77	7.29	0.78	9.45	7.42	0.79	9.99	7.61	0.80
	110	7.12	6.57	0.69	7.66	7.03	0.72	8.19	7.31	0.72	8.58	7.07	0.72	9.26	7.21	0.72	9.80	7.40	0.74
	115	6.93	6.38	0.62	7.47	6.83	0.63	8.01	7.12	0.62	8.39	6.89	0.60	9.08	7.04	0.61	9.61	7.23	0.62
	118	6.55	6.08	0.55	7.07	6.52	0.54	7.58	6.80	0.52	7.95	6.59	0.51	8.61	6.74	0.51	9.12	6.93	0.52
	122	6.42	5.97	0.53	6.93	6.41	0.51	7.44	6.69	0.49	7.80	6.48	0.47	8.45	6.63	0.47	8.96	6.82	0.48

Heating Capacity Table														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
9K	-13	-15	8.84	0.66	8.65	0.68	8.40	0.70	8.26	0.71	8.15	0.72	7.86	0.74
	-4	-6	10.11	0.89	9.88	0.92	9.60	0.95	9.44	0.97	9.32	0.98	8.98	1.01
	0	-2	11.37	1.31	11.12	1.36	10.80	1.40	10.62	1.43	10.48	1.44	10.10	1.49
	5	3	12.63	1.76	12.35	1.82	12.00	1.88	11.80	1.91	11.65	1.94	11.22	2.00
	10	8	10.99	1.31	10.75	1.36	10.44	1.40	10.27	1.43	10.13	1.44	9.76	1.49
	17	15	9.35	0.89	9.14	0.92	8.88	0.95	8.73	0.97	8.62	0.98	8.30	1.01
	20	18	6.62	0.61	6.41	0.62	6.20	0.65	6.08	0.66	5.99	0.67	5.76	0.68
	25	23	7.18	0.62	6.97	0.64	6.72	0.66	6.60	0.67	6.50	0.68	6.25	0.70
	30	28	7.75	0.64	7.50	0.66	7.25	0.68	7.11	0.69	7.01	0.70	6.75	0.72
	35	32	8.31	0.65	8.05	0.68	7.77	0.69	7.63	0.71	7.52	0.72	7.25	0.74
	40	36	8.73	0.67	8.49	0.69	8.22	0.71	8.08	0.73	7.96	0.74	7.68	0.76
	45	41	9.27	0.69	9.04	0.72	8.78	0.74	8.63	0.75	8.51	0.76	8.20	0.79
	47	43	9.48	0.70	9.27	0.73	9.00	0.75	8.85	0.76	8.73	0.77	8.42	0.80
	50	44	9.50	0.70	9.31	0.72	9.08	0.74	8.95	0.75	8.85	0.76	8.55	0.78
	55	48	9.55	0.69	9.39	0.71	9.22	0.73	9.11	0.73	9.03	0.74	8.76	0.76
	60	52	9.60	0.68	9.47	0.70	9.35	0.71	9.28	0.72	9.21	0.72	8.98	0.73
	63	54	9.62	0.68	9.52	0.69	9.44	0.70	9.37	0.71	9.32	0.71	9.10	0.72
	68	58	9.65	0.68	9.57	0.68	9.52	0.69	9.47	0.69	9.43	0.70	9.24	0.70
	75	64	9.68	0.67	9.62	0.68	9.61	0.68	9.57	0.68	9.55	0.69	9.37	0.69

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Table																			
Model No. / Nominal Capacity	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
12K	5	11.89	9.52	0.40	12.63	10.06	0.54	13.37	10.35	0.59	13.90	9.94	0.60	14.84	10.03	0.60	15.58	10.22	0.60
	10	11.87	9.59	0.41	12.61	10.13	0.56	13.35	10.43	0.60	13.88	10.02	0.61	14.82	10.10	0.61	15.56	10.29	0.61
	15	11.85	9.66	0.42	12.59	10.21	0.57	13.33	10.50	0.62	13.86	10.09	0.63	14.80	10.17	0.63	15.54	10.37	0.63
	20	11.84	9.73	0.43	12.57	10.28	0.59	13.31	10.58	0.64	13.84	10.16	0.65	14.78	10.25	0.65	15.51	10.44	0.65
	25	11.82	9.80	0.45	12.55	10.35	0.60	13.29	10.65	0.65	13.82	10.23	0.66	14.76	10.32	0.66	15.49	10.51	0.66
	30	11.80	9.87	0.46	12.54	10.42	0.62	13.27	10.73	0.67	13.80	10.30	0.68	14.74	10.39	0.68	15.47	10.59	0.68
	35	11.79	9.94	0.47	12.52	10.49	0.63	13.25	10.80	0.69	13.78	10.38	0.70	14.71	10.46	0.70	15.45	10.66	0.70
	40	11.77	10.00	0.48	12.50	10.57	0.65	13.23	10.88	0.70	13.76	10.45	0.71	14.69	10.53	0.71	15.42	10.73	0.71
	45	11.75	10.07	0.49	12.48	10.64	0.66	13.21	10.95	0.72	13.74	10.52	0.73	14.67	10.61	0.73	15.40	10.81	0.73
	50	11.74	10.14	0.50	12.46	10.71	0.68	13.19	11.02	0.73	13.72	10.59	0.75	14.65	10.68	0.75	15.38	10.88	0.75
	55	11.72	10.21	0.51	12.45	10.78	0.69	13.17	11.10	0.75	13.70	10.66	0.76	14.63	10.75	0.76	15.36	10.95	0.76
	60	11.70	10.27	0.52	12.43	10.85	0.71	13.15	11.17	0.77	13.68	10.73	0.78	14.61	10.82	0.78	15.33	11.02	0.78
	65	11.68	10.34	0.54	12.41	10.92	0.72	13.14	11.24	0.78	13.66	10.80	0.80	14.59	10.89	0.80	15.31	11.10	0.80
	70	11.67	10.41	0.55	12.39	10.99	0.74	13.12	11.32	0.80	13.64	10.87	0.81	14.57	10.96	0.81	15.29	11.17	0.81
	75	11.39	10.23	0.58	12.11	10.83	0.76	12.83	11.16	0.82	13.35	10.72	0.84	14.28	10.83	0.84	15.00	11.04	0.85
	80	11.11	10.06	0.62	11.83	10.65	0.79	12.55	10.99	0.84	13.07	10.57	0.86	13.99	10.69	0.87	14.71	10.91	0.88
	85	10.83	9.88	0.70	11.55	10.48	0.85	12.27	10.82	0.91	12.79	10.42	0.92	13.70	10.55	0.94	14.42	10.77	0.95
	90	10.55	9.69	0.78	11.27	10.29	0.92	11.98	10.65	0.97	12.50	10.26	0.98	13.42	10.40	1.00	14.14	10.63	1.02
	95	10.25	9.59	0.87	10.96	10.20	0.98	11.68	10.57	1.02	12.00	10.03	1.00	13.10	10.34	1.05	13.82	10.59	1.07
	100	10.00	9.33	0.91	10.71	9.94	1.00	11.43	10.31	1.03	11.85	9.88	1.02	12.85	10.12	1.05	13.57	10.37	1.07
	105	9.75	9.07	0.95	10.46	9.69	1.02	11.18	10.06	1.03	11.69	9.72	1.04	12.60	9.90	1.05	13.32	10.15	1.07
	110	9.50	8.76	0.93	10.21	9.37	0.97	10.93	9.75	0.96	11.44	9.43	0.96	12.35	9.62	0.97	13.07	9.87	0.99
	115	9.25	8.50	0.83	9.96	9.11	0.84	10.68	9.49	0.82	11.19	9.19	0.81	12.10	9.39	0.81	12.82	9.65	0.83
	118	8.74	8.10	0.74	9.42	8.69	0.73	10.11	9.07	0.69	10.60	8.78	0.68	11.48	8.98	0.68	12.16	9.24	0.69
	122	8.56	7.97	0.71	9.24	8.55	0.69	9.92	8.92	0.65	10.40	8.65	0.63	11.27	8.84	0.63	11.94	9.10	0.65

Heating Capacity Table														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
12K	-13	-15	8.84	0.66	8.65	0.68	8.40	0.70	8.26	0.71	8.15	0.72	7.86	0.74
	-4	-6	10.11	0.89	9.88	0.92	9.60	0.95	9.44	0.97	9.32	0.98	8.98	1.01
	0	-2	11.37	1.31	11.12	1.36	10.80	1.40	10.62	1.43	10.48	1.44	10.10	1.49
	5	3	12.63	1.76	12.35	1.82	12.00	1.88	11.80	1.91	11.65	1.94	11.22	2.00
	10	8	10.99	1.31	10.75	1.36	10.44	1.40	10.27	1.43	10.13	1.44	9.76	1.49
	17	15	9.35	0.89	9.14	0.92	8.88	0.95	8.73	0.97	8.62	0.98	8.30	1.01
	20	18	8.82	0.81	8.54	0.83	8.27	0.86	8.11	0.88	7.98	0.89	7.68	0.91
	25	23	9.57	0.83	9.29	0.85	8.97	0.88	8.80	0.90	8.66	0.91	8.34	0.94
	30	28	10.33	0.85	10.01	0.88	9.67	0.90	9.49	0.92	9.35	0.94	9.00	0.96
	35	32	11.08	0.87	10.73	0.90	10.37	0.92	10.18	0.95	10.03	0.96	9.67	0.99
	40	36	11.65	0.89	11.32	0.92	10.96	0.95	10.77	0.97	10.62	0.99	10.23	1.01
	45	41	12.35	0.92	12.06	0.96	11.70	0.99	11.51	1.00	11.35	1.02	10.94	1.05
	47	43	12.63	0.94	12.35	0.97	12.00	1.00	11.80	1.02	11.65	1.03	11.22	1.06
	50	44	12.67	0.93	12.42	0.96	12.11	0.99	11.93	1.00	11.79	1.01	11.40	1.04
	55	48	12.73	0.92	12.52	0.95	12.29	0.97	12.15	0.98	12.04	0.99	11.68	1.01
	60	52	12.80	0.91	12.63	0.93	12.47	0.95	12.37	0.96	12.28	0.96	11.97	0.97
	63	54	12.83	0.91	12.69	0.92	12.58	0.94	12.50	0.94	12.43	0.94	12.14	0.96
	68	58	12.87	0.90	12.76	0.91	12.70	0.92	12.63	0.92	12.58	0.93	12.31	0.94
	75	64	12.91	0.90	12.82	0.90	12.81	0.91	12.76	0.91	12.73	0.92	12.49	0.92

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Tables																			
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
18K	5	17.83	14.28	0.60	18.94	15.08	0.81	20.05	15.53	0.88	20.84	14.91	0.89	22.26	15.04	0.89	23.36	15.32	0.89
	10	17.81	14.39	0.62	18.91	15.20	0.83	20.02	15.64	0.90	20.81	15.02	0.92	22.23	15.15	0.92	23.33	15.44	0.92
	15	17.78	14.49	0.63	18.89	15.31	0.86	19.99	15.75	0.93	20.78	15.13	0.94	22.19	15.26	0.95	23.30	15.55	0.94
	20	17.75	14.59	0.65	18.86	15.41	0.88	19.96	15.86	0.95	20.75	15.24	0.97	22.16	15.37	0.97	23.27	15.66	0.97
	25	17.73	14.69	0.67	18.83	15.53	0.90	19.93	15.98	0.98	20.72	15.35	0.99	22.13	15.47	0.99	23.24	15.77	0.99
	30	17.70	14.80	0.68	18.80	15.63	0.92	19.90	16.09	1.00	20.69	15.45	1.01	22.10	15.59	1.02	23.20	15.88	1.01
	35	17.68	14.90	0.70	18.77	15.74	0.95	19.88	16.20	1.03	20.66	15.56	1.04	22.07	15.69	1.04	23.17	15.99	1.04
	40	17.65	15.00	0.71	18.75	15.85	0.97	19.85	16.31	1.05	20.63	15.67	1.07	22.04	15.80	1.07	23.13	16.10	1.07
	45	17.63	15.11	0.74	18.72	15.95	0.99	19.82	16.43	1.07	20.60	15.77	1.09	22.01	15.91	1.10	23.10	16.21	1.09
	50	17.60	15.20	0.75	18.69	16.06	1.01	19.79	16.53	1.10	20.57	15.88	1.12	21.98	16.01	1.12	23.06	16.31	1.12
	55	17.57	15.31	0.77	18.67	16.17	1.04	19.76	16.64	1.13	20.54	15.98	1.14	21.94	16.12	1.14	23.03	16.43	1.14
	60	17.55	15.41	0.78	18.64	16.28	1.06	19.73	16.76	1.15	20.51	16.09	1.16	21.91	16.22	1.17	23.00	16.53	1.16
	65	17.52	15.50	0.80	18.61	16.38	1.08	19.70	16.86	1.17	20.48	16.19	1.19	21.88	16.33	1.19	22.97	16.64	1.19
	70	17.50	15.61	0.82	18.59	16.49	1.10	19.67	16.97	1.20	20.45	16.30	1.22	21.85	16.43	1.22	22.93	16.75	1.22
	75	17.08	15.35	0.87	18.16	16.24	1.14	19.25	16.73	1.23	20.03	16.08	1.25	21.41	16.24	1.26	22.49	16.56	1.27
	80	16.66	15.08	0.92	17.74	15.98	1.18	18.82	16.49	1.26	19.60	15.86	1.28	20.98	16.04	1.31	22.07	16.37	1.32
	85	16.24	14.81	1.05	17.32	15.71	1.28	18.40	16.23	1.36	19.18	15.62	1.38	20.55	15.82	1.40	21.63	16.16	1.43
	90	15.82	14.53	1.17	16.90	15.44	1.38	17.97	15.97	1.45	18.75	15.38	1.47	20.12	15.59	1.50	21.20	15.95	1.52
	95	15.37	14.38	1.30	16.44	15.30	1.47	17.51	15.85	1.52	18.00	15.05	1.50	19.65	15.51	1.58	20.72	15.88	1.61
	100	14.99	14.00	1.37	16.07	14.91	1.50	17.14	15.47	1.54	17.77	14.81	1.52	19.28	15.17	1.58	20.35	15.55	1.61
	105	14.62	13.61	1.43	15.69	14.53	1.53	16.76	15.09	1.55	17.54	14.58	1.55	18.90	14.84	1.58	19.97	15.23	1.61
	110	14.24	13.14	1.39	15.32	14.06	1.45	16.39	14.63	1.44	17.16	14.15	1.43	18.53	14.42	1.45	19.60	14.81	1.49
	115	13.87	12.75	1.25	14.94	13.66	1.26	16.01	14.24	1.23	16.79	13.79	1.21	18.15	14.08	1.22	19.22	14.47	1.25
	118	13.10	12.15	1.10	14.13	13.04	1.09	15.16	13.60	1.04	15.90	13.17	1.01	17.21	13.47	1.01	18.24	13.85	1.04
	122	12.84	11.95	1.06	13.86	12.83	1.03	14.87	13.38	0.98	15.60	12.97	0.95	16.90	13.26	0.95	17.91	13.64	0.97

Heating Capacity Tables														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
18K	-13	-15	13.27	1.02	12.97	1.06	12.60	1.09	12.39	1.11	12.23	1.13	11.78	1.16
	-4	-6	15.16	1.39	14.82	1.44	14.40	1.48	14.16	1.51	13.98	1.53	13.47	1.57
	0	-2	17.06	2.05	16.68	2.12	16.20	2.18	15.93	2.22	15.72	2.25	15.15	2.32
	5	3	18.95	2.75	18.53	2.84	18.00	2.93	17.70	2.99	17.47	3.02	16.83	3.12
	10	8	11.44	1.22	10.98	1.26	10.73	1.30	10.52	1.31	10.34	1.32	9.93	1.37
	17	15	12.56	1.24	12.12	1.28	11.77	1.32	11.54	1.34	11.36	1.37	10.92	1.40
	20	18	13.23	1.26	12.81	1.30	12.40	1.34	12.16	1.37	11.97	1.39	11.51	1.42
	25	23	14.36	1.29	13.93	1.32	13.45	1.37	13.19	1.40	12.99	1.42	12.50	1.46
	30	28	15.50	1.32	15.01	1.37	14.50	1.41	14.23	1.43	14.02	1.46	13.50	1.50
	35	32	16.62	1.36	16.09	1.41	15.55	1.44	15.27	1.48	15.04	1.50	14.50	1.54
	40	36	17.47	1.39	16.98	1.44	16.44	1.48	16.15	1.52	15.93	1.54	15.35	1.58
	45	41	18.53	1.44	18.09	1.49	17.55	1.54	17.26	1.57	17.03	1.59	16.41	1.64
	47	43	18.95	1.46	18.53	1.51	18.00	1.56	17.70	1.59	17.47	1.61	16.83	1.66
	50	44	19.01	1.46	18.62	1.50	18.16	1.54	17.90	1.57	17.69	1.58	17.10	1.63
	55	48	19.10	1.44	18.79	1.48	18.44	1.51	18.22	1.53	18.06	1.54	17.52	1.57
	60	52	19.19	1.42	18.94	1.45	18.71	1.48	18.55	1.49	18.42	1.50	17.95	1.52
	63	54	19.25	1.41	19.04	1.43	18.87	1.46	18.75	1.47	18.64	1.47	18.21	1.49
	68	58	19.30	1.41	19.13	1.42	19.04	1.44	18.94	1.44	18.87	1.45	18.47	1.46
	75	64	19.36	1.40	19.23	1.41	19.21	1.42	19.14	1.41	19.09	1.43	18.74	1.44

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Tables																			
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
24K	5	23.77	19.04	0.80	25.25	20.11	1.08	26.73	20.70	1.17	27.79	19.88	1.19	29.68	20.05	1.19	31.15	20.43	1.19
	10	23.74	19.18	0.82	25.21	20.26	1.11	26.69	20.85	1.20	27.75	20.03	1.22	29.64	20.20	1.22	31.11	20.58	1.22
	15	23.70	19.32	0.84	25.18	20.41	1.14	26.65	21.00	1.24	27.71	20.17	1.25	29.59	20.34	1.26	31.07	20.73	1.25
	20	23.67	19.45	0.86	25.14	20.55	1.17	26.61	21.15	1.27	27.67	20.32	1.29	29.55	20.49	1.29	31.02	20.88	1.29
	25	23.64	19.59	0.89	25.10	20.70	1.20	26.57	21.30	1.30	27.63	20.46	1.32	29.51	20.63	1.32	30.98	21.02	1.32
	30	23.60	19.73	0.91	25.07	20.84	1.23	26.53	21.45	1.33	27.59	20.60	1.35	29.47	20.78	1.36	30.93	21.17	1.35
	35	23.57	19.87	0.93	25.03	20.98	1.26	26.50	21.60	1.37	27.55	20.75	1.39	29.42	20.92	1.39	30.89	21.32	1.39
	40	23.53	20.00	0.95	25.00	21.13	1.29	26.46	21.75	1.40	27.51	20.89	1.42	29.38	21.06	1.42	30.84	21.46	1.42
	45	23.50	20.14	0.98	24.96	21.27	1.32	26.42	21.90	1.43	27.47	21.03	1.45	29.34	21.21	1.46	30.80	21.61	1.45
	50	23.47	20.27	1.00	24.92	21.41	1.35	26.38	22.04	1.46	27.43	21.17	1.49	29.30	21.35	1.49	30.75	21.75	1.49
	55	23.43	20.41	1.02	24.89	21.56	1.38	26.34	22.19	1.50	27.39	21.31	1.52	29.25	21.49	1.52	30.71	21.90	1.52
	60	23.40	20.54	1.04	24.85	21.70	1.41	26.30	22.34	1.53	27.35	21.45	1.55	29.21	21.63	1.56	30.66	22.04	1.55
	65	23.36	20.67	1.07	24.81	21.84	1.44	26.27	22.48	1.56	27.31	21.59	1.59	29.17	21.77	1.59	30.62	22.19	1.59
	70	23.33	20.81	1.09	24.78	21.98	1.47	26.23	22.63	1.60	27.27	21.73	1.62	29.13	21.91	1.62	30.57	22.33	1.62
	75	22.77	20.46	1.16	24.21	21.65	1.52	25.66	22.31	1.64	26.70	21.44	1.67	28.55	21.65	1.68	29.99	22.08	1.69
	80	22.21	20.11	1.23	23.65	21.30	1.57	25.09	21.98	1.68	26.13	21.14	1.71	27.97	21.38	1.74	29.42	21.82	1.76
	85	21.65	19.75	1.40	23.09	20.95	1.70	24.53	21.64	1.81	25.57	20.83	1.84	27.40	21.09	1.87	28.84	21.54	1.90
	90	21.09	19.37	1.56	22.53	20.58	1.84	23.96	21.29	1.93	25.00	20.51	1.96	26.83	20.79	2.00	28.27	21.26	2.03
	95	20.49	19.17	1.73	21.92	20.40	1.96	23.35	21.13	2.03	24.00	20.06	2.00	26.20	20.68	2.10	27.63	21.17	2.14
	100	19.99	18.66	1.82	21.42	19.88	2.00	22.85	20.62	2.05	23.69	19.75	2.03	25.70	20.23	2.10	27.13	20.73	2.14
	105	19.49	18.14	1.90	20.92	19.37	2.04	22.35	20.12	2.06	23.38	19.44	2.07	25.20	19.79	2.10	26.63	20.30	2.14
	110	18.99	17.52	1.85	20.42	18.74	1.93	21.85	19.50	1.92	22.88	18.86	1.91	24.70	19.23	1.93	26.13	19.74	1.98
	115	18.49	17.00	1.66	19.92	18.21	1.68	21.35	18.98	1.64	22.38	18.38	1.61	24.20	18.77	1.62	25.63	19.29	1.66
	118	17.47	16.20	1.47	18.84	17.38	1.45	20.21	18.13	1.38	21.20	17.56	1.35	22.95	17.96	1.35	24.32	18.47	1.38
	122	17.12	15.93	1.41	18.48	17.10	1.37	19.83	17.84	1.30	20.80	17.29	1.26	22.53	17.68	1.26	23.88	18.19	1.29

Heating Capacity Tables														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
24K	-13	-15	17.69	1.31	17.30	1.36	16.80	1.40	16.52	1.43	16.30	1.44	15.71	1.49
	-4	-6	20.21	1.78	19.77	1.84	19.20	1.90	18.89	1.93	18.63	1.96	17.95	2.02
	0	-2	22.74	2.63	22.24	2.71	21.60	2.80	21.25	2.85	20.96	2.89	20.20	2.98
	5	3	25.27	3.53	24.71	3.64	24.00	3.76	23.61	3.83	23.29	3.88	22.44	4.00
	10	8	15.26	1.56	14.64	1.62	14.31	1.66	14.02	1.68	13.79	1.70	13.25	1.75
	17	15	16.74	1.59	16.16	1.64	15.69	1.70	15.39	1.72	15.14	1.75	14.56	1.79
	20	18	17.64	1.62	17.08	1.66	16.53	1.72	16.22	1.75	15.97	1.78	15.35	1.82
	25	23	19.15	1.65	18.58	1.70	17.93	1.76	17.59	1.79	17.32	1.82	16.67	1.88
	30	28	20.66	1.70	20.01	1.75	19.33	1.80	18.97	1.84	18.69	1.88	18.00	1.92
	35	32	22.16	1.74	21.46	1.80	20.73	1.85	20.35	1.89	20.06	1.92	19.33	1.97
	40	36	23.29	1.79	22.64	1.85	21.92	1.90	21.53	1.95	21.24	1.97	20.47	2.03
	45	41	24.71	1.85	24.11	1.91	23.41	1.97	23.01	2.01	22.71	2.04	21.88	2.10
	47	43	25.27	1.88	24.71	1.94	24.00	2.00	23.61	2.04	23.29	2.06	22.44	2.13
	50	44	25.35	1.87	24.83	1.92	24.22	1.97	23.87	2.01	23.59	2.03	22.79	2.09
	55	48	25.47	1.85	25.05	1.89	24.59	1.94	24.30	1.96	24.08	1.97	23.36	2.02
	60	52	25.59	1.82	25.26	1.86	24.94	1.89	24.73	1.91	24.56	1.92	23.94	1.95
	63	54	25.66	1.81	25.38	1.84	25.16	1.88	25.00	1.88	24.86	1.88	24.28	1.91
	68	58	25.74	1.80	25.51	1.82	25.39	1.85	25.26	1.85	25.15	1.86	24.63	1.88
	75	64	25.82	1.79	25.64	1.80	25.62	1.82	25.52	1.81	25.45	1.83	24.98	1.84

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Table																			
Model No. / Nominal Capacity	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
36K	5	35.66	28.56	1.20	37.88	30.17	1.62	40.10	31.05	1.76	41.69	29.82	1.79	44.52	30.08	1.79	46.73	30.65	1.79
	10	35.61	28.77	1.23	37.82	30.39	1.67	40.04	31.28	1.80	41.63	30.05	1.83	44.46	30.30	1.83	46.67	30.87	1.83
	15	35.55	28.98	1.26	37.77	30.62	1.71	39.98	31.50	1.86	41.57	30.26	1.88	44.39	30.51	1.89	46.61	31.10	1.88
	20	35.51	29.18	1.29	37.71	30.83	1.76	39.92	31.73	1.91	41.51	30.48	1.94	44.33	30.74	1.94	46.53	31.32	1.94
	25	35.46	29.39	1.34	37.65	31.05	1.80	39.86	31.95	1.95	41.45	30.69	1.98	44.27	30.95	1.98	46.47	31.53	1.98
	30	35.40	29.60	1.37	37.61	31.26	1.85	39.80	32.18	2.00	41.39	30.90	2.03	44.21	31.17	2.04	46.40	31.76	2.03
	35	35.36	29.81	1.40	37.55	31.47	1.89	39.75	32.40	2.06	41.33	31.13	2.09	44.13	31.38	2.09	46.34	31.98	2.09
	40	35.30	30.00	1.43	37.50	31.70	1.94	39.69	32.63	2.10	41.27	31.34	2.13	44.07	31.59	2.13	46.26	32.19	2.13
	45	35.25	30.21	1.47	37.44	31.91	1.98	39.63	32.85	2.15	41.21	31.55	2.18	44.01	31.82	2.19	46.20	32.42	2.18
	50	35.21	30.41	1.50	37.38	32.12	2.03	39.57	33.06	2.19	41.15	31.76	2.24	43.95	32.03	2.24	46.13	32.63	2.24
	55	35.15	30.62	1.53	37.34	32.34	2.07	39.51	33.29	2.25	41.09	31.97	2.28	43.88	32.24	2.28	46.07	32.85	2.28
	60	35.10	30.81	1.56	37.28	32.55	2.12	39.45	33.51	2.30	41.03	32.18	2.33	43.82	32.45	2.34	45.99	33.06	2.33
	65	35.04	31.01	1.61	37.22	32.76	2.16	39.41	33.72	2.34	40.97	32.39	2.39	43.76	32.66	2.39	45.93	33.29	2.39
	70	35.00	31.22	1.64	37.17	32.97	2.21	39.35	33.95	2.40	40.91	32.60	2.43	43.70	32.87	2.43	45.86	33.50	2.43
	75	34.16	30.69	1.74	36.32	32.48	2.28	38.49	33.47	2.46	40.05	32.16	2.51	42.83	32.48	2.52	44.99	33.12	2.54
	80	33.32	30.17	1.85	35.48	31.95	2.36	37.64	32.97	2.52	39.20	31.71	2.57	41.96	32.07	2.61	44.13	32.73	2.64
	85	32.48	29.63	2.10	34.64	31.43	2.55	36.80	32.46	2.72	38.36	31.25	2.76	41.10	31.64	2.81	43.26	32.31	2.85
	90	31.64	29.06	2.34	33.80	30.87	2.76	35.94	31.94	2.90	37.50	30.77	2.94	40.25	31.19	3.00	42.41	31.89	3.05
	95	30.74	28.76	2.60	32.88	30.60	2.94	35.03	31.70	3.05	36.00	30.09	3.00	39.30	31.02	3.15	41.45	31.76	3.21
	100	29.99	27.99	2.73	32.13	29.82	3.00	34.28	30.93	3.08	35.54	29.63	3.05	38.55	30.35	3.15	40.70	31.10	3.21
	105	29.24	27.21	2.85	31.38	29.06	3.06	33.53	30.18	3.09	35.07	29.16	3.11	37.80	29.69	3.15	39.95	30.45	3.21
	110	28.49	26.28	2.78	30.63	28.11	2.90	32.78	29.25	2.88	34.32	28.29	2.87	37.05	28.85	2.90	39.20	29.61	2.97
	115	27.74	25.50	2.49	29.88	27.32	2.52	32.03	28.47	2.46	33.57	27.57	2.42	36.30	28.16	2.43	38.45	28.94	2.49
	118	26.21	24.30	2.21	28.26	26.07	2.18	30.32	27.20	2.07	31.80	26.34	2.03	34.43	26.94	2.03	36.48	27.71	2.07
	122	25.68	23.90	2.12	27.72	25.65	2.06	29.75	26.76	1.95	31.20	25.94	1.89	33.80	26.52	1.89	35.82	27.29	1.94

Heating Capacity Table														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
36K	-13	-15	26.53	1.87	25.94	1.93	25.20	2.00	24.79	2.03	24.46	2.06	23.57	2.12
	-4	-6	30.32	2.54	29.65	2.62	28.80	2.71	28.33	2.76	27.95	2.79	26.93	2.88
	0	-2	34.11	3.74	33.36	3.87	32.40	3.99	31.87	4.06	31.44	4.11	30.30	4.24
	5	3	37.90	5.02	37.06	5.19	36.00	5.36	35.41	5.45	34.94	5.53	33.67	5.69
	10	8	22.89	2.23	21.95	2.30	21.47	2.37	21.04	2.39	20.68	2.42	19.87	2.49
	17	15	25.11	2.26	24.24	2.34	23.54	2.42	23.08	2.46	22.71	2.49	21.84	2.56
	20	18	26.47	2.30	25.63	2.37	24.80	2.46	24.33	2.49	23.95	2.53	23.03	2.60
	25	23	28.72	2.35	27.87	2.42	26.90	2.51	26.39	2.56	25.98	2.60	25.01	2.67
	30	28	30.99	2.42	30.02	2.49	29.00	2.57	28.46	2.62	28.04	2.67	27.00	2.74
	35	32	33.25	2.48	32.18	2.57	31.10	2.63	30.53	2.70	30.09	2.74	29.00	2.81
	40	36	34.94	2.54	33.95	2.63	32.88	2.71	32.30	2.77	31.86	2.81	30.70	2.89
	45	41	37.06	2.63	36.17	2.72	35.11	2.81	34.52	2.86	34.06	2.90	32.81	2.99
	47	43	37.90	2.67	37.06	2.76	36.00	2.85	35.41	2.90	34.94	2.94	33.67	3.03
	50	44	38.02	2.66	37.25	2.74	36.33	2.81	35.80	2.86	35.38	2.89	34.19	2.98
	55	48	38.20	2.63	37.57	2.70	36.88	2.76	36.45	2.79	36.12	2.81	35.04	2.88
	60	52	38.39	2.60	37.89	2.65	37.42	2.70	37.10	2.72	36.84	2.74	35.91	2.77
	63	54	38.49	2.58	38.07	2.62	37.74	2.67	37.50	2.68	37.29	2.68	36.42	2.72
	68	58	38.61	2.57	38.27	2.60	38.09	2.63	37.89	2.63	37.73	2.65	36.94	2.67
	75	64	38.73	2.56	38.47	2.57	38.43	2.60	38.29	2.58	38.18	2.61	37.48	2.62

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Table																			
Model No. / Nominal Capacity	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
48K	5	43.58	34.91	1.46	46.29	36.87	1.98	49.01	37.95	2.14	50.95	36.45	2.18	54.41	36.76	2.18	57.11	37.46	2.18
	10	43.52	35.16	1.50	46.22	37.14	2.03	48.93	38.23	2.20	50.88	36.72	2.23	54.34	37.03	2.23	57.04	37.73	2.23
	15	43.45	35.42	1.54	46.16	37.42	2.09	48.86	38.50	2.27	50.80	36.98	2.29	54.25	37.29	2.31	56.96	38.01	2.29
	20	43.40	35.66	1.57	46.09	37.68	2.14	48.79	38.78	2.32	50.73	37.25	2.36	54.18	37.57	2.36	56.87	38.28	2.36
	25	43.34	35.92	1.63	46.02	37.95	2.20	48.71	39.05	2.38	50.66	37.51	2.42	54.10	37.82	2.42	56.80	38.54	2.42
	30	43.27	36.17	1.67	45.96	38.21	2.25	48.64	39.33	2.43	50.58	37.77	2.47	54.03	38.10	2.49	56.71	38.81	2.47
	35	43.21	36.43	1.70	45.89	38.46	2.31	48.58	39.60	2.51	50.51	38.04	2.54	53.94	38.35	2.54	56.63	39.09	2.54
	40	43.14	36.67	1.74	45.83	38.74	2.36	48.51	39.88	2.56	50.44	38.30	2.60	53.86	38.61	2.60	56.54	39.34	2.60
	45	43.08	36.92	1.79	45.76	39.00	2.42	48.44	40.15	2.62	50.36	38.56	2.65	53.79	38.89	2.67	56.47	39.62	2.65
	50	43.03	37.16	1.83	45.69	39.25	2.47	48.36	40.41	2.67	50.29	38.81	2.73	53.72	39.14	2.73	56.38	39.88	2.73
	55	42.96	37.42	1.87	45.63	39.53	2.53	48.29	40.68	2.75	50.22	39.07	2.78	53.63	39.40	2.78	56.30	40.15	2.78
	60	42.90	37.66	1.90	45.56	39.78	2.58	48.22	40.96	2.80	50.14	39.33	2.84	53.55	39.66	2.85	56.21	40.41	2.84
	65	42.83	37.90	1.96	45.49	40.04	2.64	48.16	41.21	2.85	50.07	39.58	2.91	53.48	39.91	2.91	56.14	40.68	2.91
	70	42.77	38.15	1.99	45.43	40.30	2.69	48.09	41.49	2.93	50.00	39.84	2.96	53.41	40.17	2.96	56.05	40.94	2.96
	75	41.75	37.51	2.12	44.39	39.69	2.78	47.04	40.90	3.00	48.95	39.31	3.06	52.34	39.69	3.07	54.98	40.48	3.09
	80	40.72	36.87	2.25	43.36	39.05	2.87	46.00	40.30	3.07	47.91	38.76	3.13	51.28	39.20	3.18	53.94	40.00	3.22
	85	39.69	36.21	2.56	42.33	38.41	3.11	44.97	39.67	3.31	46.88	38.19	3.37	50.23	38.67	3.42	52.87	39.49	3.48
	90	38.67	35.51	2.85	41.31	37.73	3.37	43.93	39.03	3.53	45.83	37.60	3.59	49.19	38.12	3.66	51.83	38.98	3.71
	95	37.57	35.15	3.17	40.19	37.40	3.59	42.81	38.74	3.71	44.00	36.78	3.66	48.03	37.91	3.84	50.66	38.81	3.92
	100	36.65	34.21	3.33	39.27	36.45	3.66	41.89	37.80	3.75	43.43	36.21	3.71	47.12	37.09	3.84	49.74	38.01	3.92
	105	35.73	33.26	3.48	38.35	35.51	3.73	40.98	36.89	3.77	42.86	35.64	3.79	46.20	36.28	3.84	48.82	37.22	3.92
	110	34.82	32.12	3.39	37.44	34.36	3.53	40.06	35.75	3.51	41.95	34.58	3.50	45.28	35.26	3.53	47.91	36.19	3.62
	115	33.90	31.17	3.04	36.52	33.39	3.07	39.14	34.80	3.00	41.03	33.70	2.95	44.37	34.41	2.96	46.99	35.37	3.04
	118	32.03	29.20	2.69	34.54	31.86	2.65	37.05	33.24	2.53	38.87	32.19	2.47	42.08	32.93	2.47	44.59	33.86	2.53
	122	31.39	29.21	2.58	33.88	31.35	2.51	36.36	32.71	2.38	38.13	31.70	2.31	41.31	32.41	2.31	43.78	33.35	2.36

Heating Capacity Table														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
48K	-13	-15	32.43	2.23	31.71	2.31	30.80	2.38	30.30	2.42	29.89	2.45	28.80	2.53
	-4	-6	37.06	3.03	36.24	3.13	35.20	3.23	34.62	3.29	34.16	3.33	32.92	3.43
	0	-2	41.69	4.46	40.77	4.61	39.60	4.76	38.95	4.85	38.43	4.91	37.03	5.06
	5	3	46.32	5.99	45.30	6.19	44.00	6.39	43.28	6.51	42.70	6.59	41.15	6.79
	10	8	27.97	2.66	26.83	2.75	26.24	2.82	25.71	2.85	25.28	2.88	24.28	2.98
	17	15	30.70	2.70	29.62	2.79	28.77	2.88	28.21	2.93	27.76	2.98	26.69	3.05
	20	18	32.35	2.75	31.32	2.82	30.31	2.93	29.73	2.98	29.27	3.02	28.15	3.10
	25	23	35.10	2.81	34.06	2.88	32.88	2.99	32.25	3.05	31.75	3.10	30.57	3.19
	30	28	37.88	2.88	36.69	2.98	35.44	3.07	34.78	3.13	34.27	3.19	33.00	3.26
	35	32	40.63	2.96	39.34	3.07	38.01	3.14	37.32	3.22	36.77	3.26	35.44	3.35
	40	36	42.70	3.04	41.50	3.14	40.19	3.23	39.48	3.31	38.93	3.35	37.52	3.45
	45	41	45.30	3.14	44.21	3.25	42.91	3.35	42.19	3.42	41.63	3.46	40.10	3.57
	47	43	46.32	3.19	45.30	3.29	44.00	3.40	43.28	3.46	42.70	3.51	41.15	3.61
	50	44	46.47	3.17	45.52	3.26	44.40	3.35	43.76	3.42	43.25	3.45	41.79	3.55
	55	48	46.69	3.14	45.92	3.22	45.07	3.29	44.54	3.32	44.14	3.35	42.83	3.43
	60	52	46.92	3.10	46.31	3.16	45.73	3.22	45.35	3.25	45.03	3.26	43.89	3.31
	63	54	47.05	3.08	46.53	3.13	46.13	3.19	45.83	3.20	45.57	3.20	44.51	3.25
	68	58	47.19	3.07	46.77	3.10	46.55	3.14	46.31	3.14	46.12	3.16	45.15	3.19
	75	64	47.33	3.05	47.01	3.07	46.97	3.10	46.79	3.08	46.67	3.11	45.80	3.13

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

High Wall

Cooling Capacity Tables																			
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
UNI09HW23ST G1	5	8.91	7.14	0.30	9.47	7.54	0.41	10.02	7.76	0.44	10.42	7.46	0.45	11.13	7.52	0.45	11.68	7.66	0.45
	10	8.90	7.19	0.31	9.45	7.60	0.42	10.01	7.82	0.45	10.41	7.51	0.46	11.12	7.58	0.46	11.67	7.72	0.46
	15	8.89	7.25	0.32	9.44	7.65	0.43	9.99	7.88	0.47	10.39	7.56	0.47	11.10	7.63	0.47	11.65	7.77	0.47
	20	8.88	7.29	0.32	9.43	7.71	0.44	9.98	7.93	0.48	10.38	7.62	0.48	11.08	7.68	0.48	11.63	7.83	0.48
	25	8.87	7.35	0.33	9.41	7.76	0.45	9.96	7.99	0.49	10.36	7.67	0.50	11.07	7.74	0.50	11.62	7.88	0.50
	30	8.85	7.40	0.34	9.40	7.82	0.46	9.95	8.04	0.50	10.35	7.73	0.51	11.05	7.79	0.51	11.60	7.94	0.51
	35	8.84	7.45	0.35	9.39	7.87	0.47	9.94	8.10	0.51	10.33	7.78	0.52	11.03	7.85	0.52	11.58	8.00	0.52
	40	8.82	7.50	0.36	9.38	7.92	0.48	9.92	8.16	0.53	10.32	7.83	0.53	11.02	7.90	0.53	11.57	8.05	0.53
	45	8.81	7.55	0.37	9.36	7.98	0.50	9.91	8.21	0.54	10.30	7.89	0.54	11.00	7.95	0.55	11.55	8.10	0.54
	50	8.80	7.60	0.38	9.35	8.03	0.51	9.89	8.27	0.55	10.29	7.94	0.56	10.99	8.01	0.56	11.53	8.16	0.56
	55	8.79	7.65	0.38	9.33	8.09	0.52	9.88	8.32	0.56	10.27	7.99	0.57	10.97	8.06	0.57	11.52	8.21	0.57
	60	8.78	7.70	0.39	9.32	8.14	0.53	9.86	8.38	0.57	10.26	8.04	0.58	10.95	8.11	0.59	11.50	8.27	0.58
	65	8.76	7.75	0.40	9.30	8.19	0.54	9.85	8.43	0.59	10.24	8.10	0.60	10.94	8.16	0.60	11.48	8.32	0.60
	70	8.75	7.80	0.41	9.29	8.24	0.55	9.84	8.49	0.60	10.23	8.15	0.61	10.92	8.22	0.61	11.46	8.37	0.61
	75	8.54	7.67	0.44	9.08	8.12	0.57	9.62	8.37	0.62	10.01	8.04	0.63	10.71	8.12	0.63	11.25	8.28	0.63
	80	8.33	7.54	0.46	8.87	7.99	0.59	9.41	8.24	0.63	9.80	7.93	0.64	10.49	8.02	0.65	11.03	8.18	0.66
	85	8.12	7.41	0.53	8.66	7.86	0.64	9.20	8.12	0.68	9.59	7.81	0.69	10.28	7.91	0.70	10.82	8.08	0.71
	90	7.91	7.26	0.59	8.45	7.72	0.69	8.99	7.98	0.72	9.38	7.69	0.74	10.06	7.80	0.75	10.60	7.97	0.76
	95	7.68	7.19	0.65	8.22	7.65	0.74	8.76	7.92	0.76	9.00	7.52	0.75	9.83	7.76	0.79	10.36	7.94	0.80
	100	7.50	7.00	0.68	8.03	7.46	0.75	8.57	7.73	0.77	8.88	7.41	0.76	9.64	7.59	0.79	10.17	7.77	0.80
	105	7.31	6.80	0.71	7.85	7.26	0.77	8.38	7.55	0.77	8.77	7.29	0.78	9.45	7.42	0.79	9.99	7.61	0.80
	110	7.12	6.57	0.69	7.66	7.03	0.72	8.19	7.31	0.72	8.58	7.07	0.72	9.26	7.21	0.72	9.80	7.40	0.74
	115	6.93	6.38	0.62	7.47	6.83	0.63	8.01	7.12	0.62	8.39	6.89	0.60	9.08	7.04	0.61	9.61	7.23	0.62
	118	6.55	6.08	0.55	7.07	6.52	0.54	7.58	6.80	0.52	7.95	6.59	0.51	8.61	6.74	0.51	9.12	6.93	0.52
	122	6.42	5.97	0.53	6.93	6.41	0.51	7.44	6.69	0.49	7.80	6.48	0.47	8.45	6.63	0.47	8.96	6.82	0.48

Heating Capacity Tables														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
UNI09HW23STG 1	-13	-15	6.63	0.49	6.49	0.51	6.30	0.53	6.20	0.53	6.11	0.54	5.89	0.56
	-4	-6	7.58	0.67	7.41	0.69	7.20	0.71	7.08	0.73	6.99	0.73	6.73	0.76
	0	-2	8.53	0.98	8.34	1.02	8.10	1.05	7.97	1.07	7.86	1.08	7.57	1.12
	5	3	9.48	1.32	9.27	1.37	9.00	1.41	8.85	1.44	8.73	1.45	8.42	1.50
	10	8	8.24	0.98	8.06	1.02	7.83	1.05	7.70	1.07	7.60	1.08	7.32	1.12
	17	15	7.01	0.67	6.86	0.69	6.66	0.71	6.55	0.73	6.46	0.73	6.23	0.76
	20	18	6.62	0.61	6.41	0.62	6.20	0.65	6.08	0.66	5.99	0.67	5.76	0.68
	25	23	7.18	0.62	6.97	0.64	6.72	0.66	6.60	0.67	6.50	0.68	6.25	0.70
	30	28	7.75	0.64	7.50	0.66	7.25	0.68	7.11	0.69	7.01	0.70	6.75	0.72
	35	32	8.31	0.65	8.05	0.68	7.77	0.69	7.63	0.71	7.52	0.72	7.25	0.74
	40	36	8.73	0.67	8.49	0.69	8.22	0.71	8.08	0.73	7.96	0.74	7.68	0.76
	45	41	9.27	0.69	9.04	0.72	8.78	0.74	8.63	0.75	8.51	0.76	8.20	0.79
	47	43	9.48	0.70	9.27	0.73	9.00	0.75	8.85	0.76	8.73	0.77	8.42	0.80
	50	44	9.50	0.70	9.31	0.72	9.08	0.74	8.95	0.75	8.85	0.76	8.55	0.78
	55	48	9.55	0.69	9.39	0.71	9.22	0.73	9.11	0.73	9.03	0.74	8.76	0.76
	60	52	9.60	0.68	9.47	0.70	9.35	0.71	9.28	0.72	9.21	0.72	8.98	0.73
	63	54	9.62	0.68	9.52	0.69	9.44	0.70	9.37	0.71	9.32	0.71	9.10	0.72
	68	58	9.65	0.68	9.57	0.68	9.52	0.69	9.47	0.69	9.43	0.70	9.24	0.70
	75	64	9.68	0.67	9.62	0.68	9.61	0.68	9.57	0.68	9.55	0.69	9.37	0.69

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor,
 evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Tables																			
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
UNI12HW23ST G1	5	11.89	9.52	0.40	12.63	10.06	0.54	13.37	10.35	0.59	13.90	9.94	0.60	14.84	10.03	0.60	15.58	10.22	0.60
	10	11.87	9.59	0.41	12.61	10.13	0.56	13.35	10.43	0.60	13.88	10.02	0.61	14.82	10.10	0.61	15.56	10.29	0.61
	15	11.85	9.66	0.42	12.59	10.21	0.57	13.33	10.50	0.62	13.86	10.09	0.63	14.80	10.17	0.63	15.54	10.37	0.63
	20	11.84	9.73	0.43	12.57	10.28	0.59	13.31	10.58	0.64	13.84	10.16	0.65	14.78	10.25	0.65	15.51	10.44	0.65
	25	11.82	9.80	0.45	12.55	10.35	0.60	13.29	10.65	0.65	13.82	10.23	0.66	14.76	10.32	0.66	15.49	10.51	0.66
	30	11.80	9.87	0.46	12.54	10.42	0.62	13.27	10.73	0.67	13.80	10.30	0.68	14.74	10.39	0.68	15.47	10.59	0.68
	35	11.79	9.94	0.47	12.52	10.49	0.63	13.25	10.80	0.69	13.78	10.38	0.70	14.71	10.46	0.70	15.45	10.66	0.70
	40	11.77	10.00	0.48	12.50	10.57	0.65	13.23	10.88	0.70	13.76	10.45	0.71	14.69	10.53	0.71	15.42	10.73	0.71
	45	11.75	10.07	0.49	12.48	10.64	0.66	13.21	10.95	0.72	13.74	10.52	0.73	14.67	10.61	0.73	15.40	10.81	0.73
	50	11.74	10.14	0.50	12.46	10.71	0.68	13.19	11.02	0.73	13.72	10.59	0.75	14.65	10.68	0.75	15.38	10.88	0.75
	55	11.72	10.21	0.51	12.45	10.78	0.69	13.17	11.10	0.75	13.70	10.66	0.76	14.63	10.75	0.76	15.36	10.95	0.76
	60	11.70	10.27	0.52	12.43	10.85	0.71	13.15	11.17	0.77	13.68	10.73	0.78	14.61	10.82	0.78	15.33	11.02	0.78
	65	11.68	10.34	0.54	12.41	10.92	0.72	13.14	11.24	0.78	13.66	10.80	0.80	14.59	10.89	0.80	15.31	11.10	0.80
	70	11.67	10.41	0.55	12.39	10.99	0.74	13.12	11.32	0.80	13.64	10.87	0.81	14.57	10.96	0.81	15.29	11.17	0.81
	75	11.39	10.23	0.58	12.11	10.83	0.76	12.83	11.16	0.82	13.35	10.72	0.84	14.28	10.83	0.84	15.00	11.04	0.85
	80	11.11	10.06	0.62	11.83	10.65	0.79	12.55	10.99	0.84	13.07	10.57	0.86	13.99	10.69	0.87	14.71	10.91	0.88
	85	10.83	9.88	0.70	11.55	10.48	0.85	12.27	10.82	0.91	12.79	10.42	0.92	13.70	10.55	0.94	14.42	10.77	0.95
	90	10.55	9.69	0.78	11.27	10.29	0.92	11.98	10.65	0.97	12.50	10.26	0.98	13.42	10.40	1.00	14.14	10.63	1.02
	95	10.25	9.59	0.87	10.96	10.20	0.98	11.68	10.57	1.02	12.00	10.03	1.00	13.10	10.34	1.05	13.82	10.59	1.07
	100	10.00	9.33	0.91	10.71	9.94	1.00	11.43	10.31	1.03	11.85	9.88	1.02	12.85	10.12	1.05	13.57	10.37	1.07
	105	9.75	9.07	0.95	10.46	9.69	1.02	11.18	10.06	1.03	11.69	9.72	1.04	12.60	9.90	1.05	13.32	10.15	1.07
	110	9.50	8.76	0.93	10.21	9.37	0.97	10.93	9.75	0.96	11.44	9.43	0.96	12.35	9.62	0.97	13.07	9.87	0.99
	115	9.25	8.50	0.83	9.96	9.11	0.84	10.68	9.49	0.82	11.19	9.19	0.81	12.10	9.39	0.81	12.82	9.65	0.83
	118	8.74	8.10	0.74	9.42	8.69	0.73	10.11	9.07	0.69	10.60	8.78	0.68	11.48	8.98	0.68	12.16	9.24	0.69
	122	8.56	7.97	0.71	9.24	8.55	0.69	9.92	8.92	0.65	10.40	8.65	0.63	11.27	8.84	0.63	11.94	9.10	0.65

Heating Capacity Tables														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
UNI12HW23STG 1	-13	-15	8.84	0.66	8.65	0.68	8.40	0.70	8.26	0.71	8.15	0.72	7.86	0.74
	-4	-6	10.11	0.89	9.88	0.92	9.60	0.95	9.44	0.97	9.32	0.98	8.98	1.01
	0	-2	11.37	1.31	11.12	1.36	10.80	1.40	10.62	1.43	10.48	1.44	10.10	1.49
	5	3	12.63	1.76	12.35	1.82	12.00	1.88	11.80	1.91	11.65	1.94	11.22	2.00
	10	8	10.99	1.31	10.75	1.36	10.44	1.40	10.27	1.43	10.13	1.44	9.76	1.49
	17	15	9.35	0.89	9.14	0.92	8.88	0.95	8.73	0.97	8.62	0.98	8.30	1.01
	20	18	8.82	0.81	8.54	0.83	8.27	0.86	8.11	0.88	7.98	0.89	7.68	0.91
	25	23	9.57	0.83	9.29	0.85	8.97	0.88	8.80	0.90	8.66	0.91	8.34	0.94
	30	28	10.33	0.85	10.01	0.88	9.67	0.90	9.49	0.92	9.35	0.94	9.00	0.96
	35	32	11.08	0.87	10.73	0.90	10.37	0.92	10.18	0.95	10.03	0.96	9.67	0.99
	40	36	11.65	0.89	11.32	0.92	10.96	0.95	10.77	0.97	10.62	0.99	10.23	1.01
	45	41	12.35	0.92	12.06	0.96	11.70	0.99	11.51	1.00	11.35	1.02	10.94	1.05
	47	43	12.63	0.94	12.35	0.97	12.00	1.00	11.80	1.02	11.65	1.03	11.22	1.06
	50	44	12.67	0.93	12.42	0.96	12.11	0.99	11.93	1.00	11.79	1.01	11.40	1.04
	55	48	12.73	0.92	12.52	0.95	12.29	0.97	12.15	0.98	12.04	0.99	11.68	1.01
	60	52	12.80	0.91	12.63	0.93	12.47	0.95	12.37	0.96	12.28	0.96	11.97	0.97
	63	54	12.83	0.91	12.69	0.92	12.58	0.94	12.50	0.94	12.43	0.94	12.14	0.96
	68	58	12.87	0.90	12.76	0.91	12.70	0.92	12.63	0.92	12.58	0.93	12.31	0.94
	75	64	12.91	0.90	12.82	0.90	12.81	0.91	12.76	0.91	12.73	0.92	12.49	0.92

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor,
 evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Tables																			
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
UNI18HW23ST G1	5	17.83	14.28	0.60	18.94	15.08	0.81	20.05	15.53	0.88	20.84	14.91	0.89	22.26	15.04	0.89	23.36	15.32	0.89
	10	17.81	14.39	0.62	18.91	15.20	0.83	20.02	15.64	0.90	20.81	15.02	0.92	22.23	15.15	0.92	23.33	15.44	0.92
	15	17.78	14.49	0.63	18.89	15.31	0.86	19.99	15.75	0.93	20.78	15.13	0.94	22.19	15.26	0.95	23.30	15.55	0.94
	20	17.75	14.59	0.65	18.86	15.41	0.88	19.96	15.86	0.95	20.75	15.24	0.97	22.16	15.37	0.97	23.27	15.66	0.97
	25	17.73	14.69	0.67	18.83	15.53	0.90	19.93	15.98	0.98	20.72	15.35	0.99	22.13	15.47	0.99	23.24	15.77	0.99
	30	17.70	14.80	0.68	18.80	15.63	0.92	19.90	16.09	1.00	20.69	15.45	1.01	22.10	15.59	1.02	23.20	15.88	1.01
	35	17.68	14.90	0.70	18.77	15.74	0.95	19.88	16.20	1.03	20.66	15.56	1.04	22.07	15.69	1.04	23.17	15.99	1.04
	40	17.65	15.00	0.71	18.75	15.85	0.97	19.85	16.31	1.05	20.63	15.67	1.07	22.04	15.80	1.07	23.13	16.10	1.07
	45	17.63	15.11	0.74	18.72	15.95	0.99	19.82	16.43	1.07	20.60	15.77	1.09	22.01	15.91	1.10	23.10	16.21	1.09
	50	17.60	15.20	0.75	18.69	16.06	1.01	19.79	16.53	1.10	20.57	15.88	1.12	21.98	16.01	1.12	23.06	16.31	1.12
	55	17.57	15.31	0.77	18.67	16.17	1.04	19.76	16.64	1.13	20.54	15.98	1.14	21.94	16.12	1.14	23.03	16.43	1.14
	60	17.55	15.41	0.78	18.64	16.28	1.06	19.73	16.76	1.15	20.51	16.09	1.16	21.91	16.22	1.17	23.00	16.53	1.16
	65	17.52	15.50	0.80	18.61	16.38	1.08	19.70	16.86	1.17	20.48	16.19	1.19	21.88	16.33	1.19	22.97	16.64	1.19
	70	17.50	15.61	0.82	18.59	16.49	1.10	19.67	16.97	1.20	20.45	16.30	1.22	21.85	16.43	1.22	22.93	16.75	1.22
	75	17.08	15.35	0.87	18.16	16.24	1.14	19.25	16.73	1.23	20.03	16.08	1.25	21.41	16.24	1.26	22.49	16.56	1.27
	80	16.66	15.08	0.92	17.74	15.98	1.18	18.82	16.49	1.26	19.60	15.86	1.28	20.98	16.04	1.31	22.07	16.37	1.32
	85	16.24	14.81	1.05	17.32	15.71	1.28	18.40	16.23	1.36	19.18	15.62	1.38	20.55	15.82	1.40	21.63	16.16	1.43
	90	15.82	14.53	1.17	16.90	15.44	1.38	17.97	15.97	1.45	18.75	15.38	1.47	20.12	15.59	1.50	21.20	15.95	1.52
	95	15.37	14.38	1.30	16.44	15.30	1.47	17.51	15.85	1.52	18.00	15.05	1.50	19.65	15.51	1.58	20.72	15.88	1.61
	100	14.99	14.00	1.37	16.07	14.91	1.50	17.14	15.47	1.54	17.77	14.81	1.52	19.28	15.17	1.58	20.35	15.55	1.61
	105	14.62	13.61	1.43	15.69	14.53	1.53	16.76	15.09	1.55	17.54	14.58	1.55	18.90	14.84	1.58	19.97	15.23	1.61
	110	14.24	13.14	1.39	15.32	14.06	1.45	16.39	14.63	1.44	17.16	14.15	1.43	18.53	14.42	1.45	19.60	14.81	1.49
	115	13.87	12.75	1.25	14.94	13.66	1.26	16.01	14.24	1.23	16.79	13.79	1.21	18.15	14.08	1.22	19.22	14.47	1.25
	118	13.10	12.15	1.10	14.13	13.04	1.09	15.16	13.60	1.04	15.90	13.17	1.01	17.21	13.47	1.01	18.24	13.85	1.04
	122	12.84	11.95	1.06	13.86	12.83	1.03	14.87	13.38	0.98	15.60	12.97	0.95	16.90	13.26	0.95	17.91	13.64	0.97

Heating Capacity Tables															
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB												
			61		64		68		70		72		75		
	°F DB	°F WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	
UNI18HW23STG 1	-13	-15	13.27	0.95	12.97	0.98	12.60	1.01	12.39	1.03	12.23	1.04	11.78	1.07	
	-4	-6	15.16	1.28	14.82	1.33	14.40	1.37	14.16	1.39	13.98	1.41	13.47	1.45	
	0	-2	17.06	1.89	16.68	1.95	16.20	2.02	15.93	2.05	15.72	2.08	15.15	2.14	
	5	3	18.95	2.54	18.53	2.62	18.00	2.71	17.70	2.76	17.47	2.79	16.83	2.88	
	10	8	16.49	1.89	16.12	1.95	15.66	2.02	15.40	2.05	15.20	2.08	14.64	2.14	
	17	15	14.02	1.28	13.71	1.33	13.32	1.37	13.10	1.39	12.93	1.41	12.46	1.45	
	20	18	13.23	1.16	12.81	1.20	12.40	1.24	12.16	1.26	11.97	1.28	11.51	1.31	
	25	23	14.36	1.19	13.93	1.22	13.45	1.27	13.19	1.29	12.99	1.31	12.50	1.35	
	30	28	15.50	1.22	15.01	1.26	14.50	1.30	14.23	1.32	14.02	1.35	13.50	1.38	
	35	32	16.62	1.25	16.09	1.30	15.55	1.33	15.27	1.36	15.04	1.38	14.50	1.42	
	40	36	17.47	1.29	16.98	1.33	16.44	1.37	16.15	1.40	15.93	1.42	15.35	1.46	
	45	41	18.53	1.33	18.09	1.38	17.55	1.42	17.26	1.45	17.03	1.47	16.41	1.51	
	47	43	18.95	1.35	18.53	1.40	18.00	1.44	17.70	1.47	17.47	1.49	16.83	1.53	
	50	44	19.01	1.34	18.62	1.38	18.16	1.42	17.90	1.45	17.69	1.46	17.10	1.50	
	55	48	19.10	1.33	18.79	1.36	18.44	1.40	18.22	1.41	18.06	1.42	17.52	1.45	
	60	52	19.19	1.31	18.94	1.34	18.71	1.36	18.55	1.38	18.42	1.38	17.95	1.40	
	63	54	19.25	1.31	19.04	1.32	18.87	1.35	18.75	1.36	18.64	1.36	18.21	1.38	
	68	58	19.30	1.30	19.13	1.31	19.04	1.33	18.94	1.33	18.87	1.34	18.47	1.35	
	75	64	19.36	1.29	19.23	1.30	19.21	1.31	19.14	1.31	19.09	1.32	18.74	1.32	

Remarks:

TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor,
 evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Tables																			
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
UNI24HW23ST G1	5	23.77	19.04	0.80	25.25	20.11	1.08	26.73	20.70	1.17	27.79	19.88	1.19	29.68	20.05	1.19	31.15	20.43	1.19
	10	23.74	19.18	0.82	25.21	20.26	1.11	26.69	20.85	1.20	27.75	20.03	1.22	29.64	20.20	1.22	31.11	20.58	1.22
	15	23.70	19.32	0.84	25.18	20.41	1.14	26.65	21.00	1.24	27.71	20.17	1.25	29.59	20.34	1.26	31.07	20.73	1.25
	20	23.67	19.45	0.86	25.14	20.55	1.17	26.61	21.15	1.27	27.67	20.32	1.29	29.55	20.49	1.29	31.02	20.88	1.29
	25	23.64	19.59	0.89	25.10	20.70	1.20	26.57	21.30	1.30	27.63	20.46	1.32	29.51	20.63	1.32	30.98	21.02	1.32
	30	23.60	19.73	0.91	25.07	20.84	1.23	26.53	21.45	1.33	27.59	20.60	1.35	29.47	20.78	1.36	30.93	21.17	1.35
	35	23.57	19.87	0.93	25.03	20.98	1.26	26.50	21.60	1.37	27.55	20.75	1.39	29.42	20.92	1.39	30.89	21.32	1.39
	40	23.53	20.00	0.95	25.00	21.13	1.29	26.46	21.75	1.40	27.51	20.89	1.42	29.38	21.06	1.42	30.84	21.46	1.42
	45	23.50	20.14	0.98	24.96	21.27	1.32	26.42	21.90	1.43	27.47	21.03	1.45	29.34	21.21	1.46	30.80	21.61	1.45
	50	23.47	20.27	1.00	24.92	21.41	1.35	26.38	22.04	1.46	27.43	21.17	1.49	29.30	21.35	1.49	30.75	21.75	1.49
	55	23.43	20.41	1.02	24.89	21.56	1.38	26.34	22.19	1.50	27.39	21.31	1.52	29.25	21.49	1.52	30.71	21.90	1.52
	60	23.40	20.54	1.04	24.85	21.70	1.41	26.30	22.34	1.53	27.35	21.45	1.55	29.21	21.63	1.56	30.66	22.04	1.55
	65	23.36	20.67	1.07	24.81	21.84	1.44	26.27	22.48	1.56	27.31	21.59	1.59	29.17	21.77	1.59	30.62	22.19	1.59
	70	23.33	20.81	1.09	24.78	21.98	1.47	26.23	22.63	1.60	27.27	21.73	1.62	29.13	21.91	1.62	30.57	22.33	1.62
	75	22.77	20.46	1.16	24.21	21.65	1.52	25.66	22.31	1.64	26.70	21.44	1.67	28.55	21.65	1.68	29.99	22.08	1.69
	80	22.21	20.11	1.23	23.65	21.30	1.57	25.09	21.98	1.68	26.13	21.14	1.71	27.97	21.38	1.74	29.42	21.82	1.76
	85	21.65	19.75	1.40	23.09	20.95	1.70	24.53	21.64	1.81	25.57	20.83	1.84	27.40	21.09	1.87	28.84	21.54	1.90
	90	21.09	19.37	1.56	22.53	20.58	1.84	23.96	21.29	1.93	25.00	20.51	1.96	26.83	20.79	2.00	28.27	21.26	2.03
	95	20.49	19.17	1.73	21.92	20.40	1.96	23.35	21.13	2.03	24.00	20.06	2.00	26.20	20.68	2.10	27.63	21.17	2.14
	100	19.99	18.66	1.82	21.42	19.88	2.00	22.85	20.62	2.05	23.69	19.75	2.03	25.70	20.23	2.10	27.13	20.73	2.14
	105	19.49	18.14	1.90	20.92	19.37	2.04	22.35	20.12	2.06	23.38	19.44	2.07	25.20	19.79	2.10	26.63	20.30	2.14
	110	18.99	17.52	1.85	20.42	18.74	1.93	21.85	19.50	1.92	22.88	18.86	1.91	24.70	19.23	1.93	26.13	19.74	1.98
	115	18.49	17.00	1.66	19.92	18.21	1.68	21.35	18.98	1.64	22.38	18.38	1.61	24.20	18.77	1.62	25.63	19.29	1.66
	118	17.47	16.20	1.47	18.84	17.38	1.45	20.21	18.13	1.38	21.20	17.56	1.35	22.95	17.96	1.35	24.32	18.47	1.38
	122	17.12	15.93	1.41	18.48	17.10	1.37	19.83	17.84	1.30	20.80	17.29	1.26	22.53	17.68	1.26	23.88	18.19	1.29

Heating Capacity Tables														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
UNI24HW23STG 1	-13	-15	17.69	1.36	17.30	1.40	16.80	1.45	16.52	1.47	16.30	1.49	15.71	1.54
	-4	-6	20.21	1.84	19.77	1.90	19.20	1.97	18.89	2.00	18.63	2.03	17.95	2.09
	0	-2	22.74	2.72	22.24	2.81	21.60	2.90	21.25	2.95	20.96	2.99	20.20	3.08
	5	3	25.27	3.65	24.71	3.77	24.00	3.89	23.61	3.96	23.29	4.01	22.44	4.13
	10	8	21.98	2.72	21.50	2.81	20.88	2.90	20.54	2.95	20.26	2.99	19.53	3.08
	17	15	18.70	1.84	18.28	1.90	17.76	1.97	17.47	2.00	17.24	2.03	16.61	2.09
	20	18	17.64	1.67	17.08	1.72	16.53	1.78	16.22	1.81	15.97	1.84	15.35	1.88
	25	23	19.15	1.71	18.58	1.75	17.93	1.82	17.59	1.86	17.32	1.88	16.67	1.94
	30	28	20.66	1.75	20.01	1.81	19.33	1.87	18.97	1.90	18.69	1.94	18.00	1.99
	35	32	22.16	1.80	21.46	1.87	20.73	1.91	20.35	1.96	20.06	1.99	19.33	2.04
	40	36	23.29	1.85	22.64	1.91	21.92	1.97	21.53	2.01	21.24	2.04	20.47	2.10
	45	41	24.71	1.91	24.11	1.98	23.41	2.04	23.01	2.08	22.71	2.11	21.88	2.17
	47	43	25.27	1.94	24.71	2.00	24.00	2.07	23.61	2.11	23.29	2.13	22.44	2.20
	50	44	25.35	1.93	24.83	1.99	24.22	2.04	23.87	2.08	23.59	2.10	22.79	2.16
	55	48	25.47	1.91	25.05	1.96	24.59	2.00	24.30	2.02	24.08	2.04	23.36	2.09
	60	52	25.59	1.88	25.26	1.92	24.94	1.96	24.73	1.98	24.56	1.99	23.94	2.01
	63	54	25.66	1.88	25.38	1.90	25.16	1.94	25.00	1.95	24.86	1.95	24.28	1.98
	68	58	25.74	1.87	25.51	1.88	25.39	1.91	25.26	1.91	25.15	1.92	24.63	1.94
	75	64	25.82	1.86	25.64	1.87	25.62	1.88	25.52	1.88	25.45	1.89	24.98	1.90

Remarks:
 TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

Cooling Capacity Tables																			
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		68 / 57			73 / 61			77 / 64			80 / 67			86 / 72			90 / 75		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
UNI36HW23ST G1	5	35.66	28.56	1.20	37.88	30.17	1.62	40.10	31.05	1.76	41.69	29.82	1.79	44.52	30.08	1.79	46.73	30.65	1.79
	10	35.61	28.77	1.23	37.82	30.39	1.67	40.04	31.28	1.80	41.63	30.05	1.83	44.46	30.30	1.83	46.67	30.87	1.83
	15	35.55	28.98	1.26	37.77	30.62	1.71	39.98	31.50	1.86	41.57	30.26	1.88	44.39	30.51	1.89	46.61	31.10	1.88
	20	35.51	29.18	1.29	37.71	30.83	1.76	39.92	31.73	1.91	41.51	30.48	1.94	44.33	30.74	1.94	46.53	31.32	1.94
	25	35.46	29.39	1.34	37.65	31.05	1.80	39.86	31.95	1.95	41.45	30.69	1.98	44.27	30.95	1.98	46.47	31.53	1.98
	30	35.40	29.60	1.37	37.61	31.26	1.85	39.80	32.18	2.00	41.39	30.90	2.03	44.21	31.17	2.04	46.40	31.76	2.03
	35	35.36	29.81	1.40	37.55	31.47	1.89	39.75	32.40	2.06	41.33	31.13	2.09	44.13	31.38	2.09	46.34	31.98	2.09
	40	35.30	30.00	1.43	37.50	31.70	1.94	39.69	32.63	2.10	41.27	31.34	2.13	44.07	31.59	2.13	46.26	32.19	2.13
	45	35.25	30.21	1.47	37.44	31.91	1.98	39.63	32.85	2.15	41.21	31.55	2.18	44.01	31.82	2.19	46.20	32.42	2.18
	50	35.21	30.41	1.50	37.38	32.12	2.03	39.57	33.06	2.19	41.15	31.76	2.24	43.95	32.03	2.24	46.13	32.63	2.24
	55	35.15	30.62	1.53	37.34	32.34	2.07	39.51	33.29	2.25	41.09	31.97	2.28	43.88	32.24	2.28	46.07	32.85	2.28
	60	35.10	30.81	1.56	37.28	32.55	2.12	39.45	33.51	2.30	41.03	32.18	2.33	43.82	32.45	2.34	45.99	33.06	2.33
	65	35.04	31.01	1.61	37.22	32.76	2.16	39.41	33.72	2.34	40.97	32.39	2.39	43.76	32.66	2.39	45.93	33.29	2.39
	70	35.00	31.22	1.64	37.17	32.97	2.21	39.35	33.95	2.40	40.91	32.60	2.43	43.70	32.87	2.43	45.86	33.50	2.43
	75	34.16	30.69	1.74	36.32	32.48	2.28	38.49	33.47	2.46	40.05	32.16	2.51	42.83	32.48	2.52	44.99	33.12	2.54
	80	33.32	30.17	1.85	35.48	31.95	2.36	37.64	32.97	2.52	39.20	31.71	2.57	41.96	32.07	2.61	44.13	32.73	2.64
	85	32.48	29.63	2.10	34.64	31.43	2.55	36.80	32.46	2.72	38.36	31.25	2.76	41.10	31.64	2.81	43.26	32.31	2.85
	90	31.64	29.06	2.34	33.80	30.87	2.76	35.94	31.94	2.90	37.50	30.77	2.94	40.25	31.19	3.00	42.41	31.89	3.05
	95	30.74	28.76	2.60	32.88	30.60	2.94	35.03	31.70	3.05	36.00	30.09	3.00	39.30	31.02	3.15	41.45	31.76	3.21
	100	29.99	27.99	2.73	32.13	29.82	3.00	34.28	30.93	3.08	35.54	29.63	3.05	38.55	30.35	3.15	40.70	31.10	3.21
	105	29.24	27.21	2.85	31.38	29.06	3.06	33.53	30.18	3.09	35.07	29.16	3.11	37.80	29.69	3.15	39.95	30.45	3.21
	110	28.49	26.28	2.78	30.63	28.11	2.90	32.78	29.25	2.88	34.32	28.29	2.87	37.05	28.85	2.90	39.20	29.61	2.97
	115	27.74	25.50	2.49	29.88	27.32	2.52	32.03	28.47	2.46	33.57	27.57	2.42	36.30	28.16	2.43	38.45	28.94	2.49
	118	26.21	24.30	2.21	28.26	26.07	2.18	30.32	27.20	2.07	31.80	26.34	2.03	34.43	26.94	2.03	36.48	27.71	2.07
	122	25.68	23.90	2.12	27.72	25.65	2.06	29.75	26.76	1.95	31.20	25.94	1.89	33.80	26.52	1.89	35.82	27.29	1.94

Heating Capacity Tables														
Model No. / Nominal Capacity (Btu/h)	Outdoor Air Temp. (°F DB)		Indoor Air Temp. °F DB / °F WB											
	°F DB	°F WB	61		64		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
UNI36HW23STG 1	-13	-15	26.53	1.92	25.94	1.99	25.20	2.05	24.79	2.09	24.46	2.11	23.57	2.18
	-4	-6	30.32	2.61	29.65	2.69	28.80	2.78	28.33	2.83	27.95	2.87	26.93	2.96
	0	-2	34.11	3.84	33.36	3.97	32.40	4.10	31.87	4.17	31.44	4.23	30.30	4.36
	5	3	37.90	5.16	37.06	5.33	36.00	5.50	35.41	5.60	34.94	5.68	33.67	5.85
	10	8	32.97	3.84	32.24	3.97	31.32	4.10	30.81	4.17	30.40	4.23	29.29	4.36
	17	15	28.05	2.61	27.43	2.69	26.64	2.78	26.20	2.83	25.85	2.87	24.91	2.96
	20	18	26.47	2.37	25.63	2.43	24.80	2.52	24.33	2.56	23.95	2.60	23.03	2.67
	25	23	28.72	2.42	27.87	2.48	26.90	2.58	26.39	2.63	25.98	2.67	25.01	2.75
	30	28	30.99	2.48	30.02	2.56	29.00	2.64	28.46	2.69	28.04	2.75	27.00	2.81
	35	32	33.25	2.55	32.18	2.64	31.10	2.71	30.53	2.77	30.09	2.81	29.00	2.89
	40	36	34.94	2.61	33.95	2.71	32.88	2.78	32.30	2.85	31.86	2.89	30.70	2.97
	45	41	37.06	2.71	36.17	2.80	35.11	2.89	34.52	2.94	34.06	2.98	32.81	3.07
	47	43	37.90	2.75	37.06	2.84	36.00	2.93	35.41	2.98	34.94	3.02	33.67	3.11
	50	44	38.02	2.73	37.25	2.81	36.33	2.89	35.80	2.94	35.38	2.97	34.19	3.06
	55	48	38.20	2.71	37.57	2.77	36.88	2.84	36.45	2.86	36.12	2.89	35.04	2.95
	60	52	38.39	2.67	37.89	2.72	37.42	2.77	37.10	2.80	36.84	2.81	35.91	2.85
	63	54	38.49	2.65	38.07	2.69	37.74	2.75	37.50	2.76	37.29	2.76	36.42	2.80
	68	58	38.61	2.64	38.27	2.67	38.09	2.71	37.89	2.71	37.73	2.72	36.94	2.75
	75	64	38.73	2.63	38.47	2.64	38.43	2.67	38.29	2.65	38.18	2.68	37.48	2.69

Remarks:

TC: Total Cooling Capacity (Gross) (kBtu/h)
 SHC: Sensible Heat Capacity (Gross)
 PI: Power Input (including the compressor,
 evap. fan motor & cond. fan motor) (kW)
 DB: Dry Bulb Temperature
 WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

JHE18B5AB2SS1

Cooling Capacity Tables																			
Airflow (CMF)	Outdoor DB	IWB (°F)	59				63				67				71				
		IDB (°F)	70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85	
500	5	TC	14.0	14.1	14.4	14.6	14.4	14.6	14.7	14.9	15.4	15.5	15.7	15.8	\	18.8	18.9	19.0	
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67	
		kW	0.67	0.68	0.69	0.69	0.69	0.69	0.70	0.71	0.71	0.71	0.72	0.73	\	0.89	0.90	0.91	
	25	TC	14.6	14.7	15.0	15.2	15.0	15.2	15.4	15.5	16.1	16.2	16.4	16.5	\	19.6	19.7	19.9	
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67	
		kW	0.75	0.76	0.76	0.76	0.76	0.77	0.78	0.79	0.79	0.79	0.80	0.81	\	0.99	1.00	1.01	
	50	TC	15.3	15.5	15.8	16.0	15.8	16.0	16.2	16.3	16.9	17.1	17.2	17.3	\	20.6	20.8	20.9	
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67	
		kW	0.83	0.84	0.85	0.85	0.85	0.86	0.86	0.87	0.87	0.88	0.89	0.90	\	1.10	1.11	1.13	
	75	TC	15.3	15.5	15.9	16.0	15.9	16.0	16.2	16.4	17.0	17.1	17.3	17.4	\	20.4	20.6	20.7	
		S/T	1.00	1.00	0.99	1.00	0.62	0.83	1.00	1.00	0.39	0.56	0.73	0.90	\	0.39	0.53	0.67	
		kW	0.92	0.93	0.94	0.94	0.94	0.96	0.97	0.97	0.97	0.98	0.99	1.00	\	1.21	1.22	1.24	
	85	TC	15.1	15.3	15.6	15.8	15.6	15.8	16.0	16.1	16.7	16.9	17.0	17.1	\	20.0	20.2	20.3	
		S/T	1.00	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.74	0.91	\	0.39	0.53	0.67	
		kW	1.04	1.05	1.06	1.06	1.06	1.07	1.08	1.10	1.10	1.11	1.12	1.13	\	1.38	1.39	1.40	
	95	TC	14.9	15.0	15.3	15.5	15.3	15.5	15.7	15.9	16.4	16.6	16.7	16.9	\	19.6	19.7	19.8	
		S/T	1.00	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.74	0.92	\	0.39	0.53	0.68	
		kW	1.25	1.26	1.28	1.28	1.28	1.29	1.31	1.32	1.32	1.33	1.34	1.36	\	1.64	1.65	1.67	
	105	TC	14.6	14.8	15.1	15.2	15.1	15.2	15.4	15.5	16.1	16.3	16.4	16.5	\	18.9	18.9	19.0	
		S/T	0.99	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.75	0.93	\	0.39	0.54	0.69	
		kW	1.49	1.51	1.52	1.52	1.52	1.54	1.55	1.57	1.57	1.59	1.60	1.61	\	1.90	1.90	1.91	
	115	TC	13.0	13.2	13.5	13.6	13.5	13.6	13.8	13.9	14.5	14.6	14.7	14.8	\	15.7	15.8	15.9	
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	\	0.39	0.58	0.76	
		kW	1.52	1.53	1.55	1.55	1.55	1.57	1.59	1.60	1.61	1.62	1.63	1.64	\	1.69	1.70	1.71	
	125	TC	11.1	11.2	11.5	11.6	11.5	11.6	11.7	11.8	12.3	12.4	12.5	12.6	\	13.3	13.4	13.5	
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	\	0.39	0.58	0.76	
		kW	1.56	1.58	1.60	1.60	1.60	1.62	1.63	1.65	1.66	1.67	1.68	1.69	\	1.74	1.75	1.76	
	700	5	TC	15.0	15.1	15.5	15.7	15.5	15.7	15.9	16.0	16.6	16.7	16.9	17.0	\	20.0	20.2	20.3
			S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
			kW	0.79	0.80	0.80	0.80	0.80	0.81	0.82	0.83	0.83	0.84	0.85	0.86	\	1.02	1.04	1.04
		25	TC	15.7	15.8	16.2	16.4	16.2	16.4	16.6	16.7	17.3	17.4	17.6	17.7	\	20.9	21.1	21.2
			S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
			kW	0.87	0.88	0.89	0.89	0.89	0.90	0.91	0.92	0.92	0.93	0.94	0.95	\	1.14	1.15	1.16
		50	TC	16.5	16.6	17.1	17.2	17.1	17.2	17.4	17.6	18.3	18.4	18.5	18.7	\	22.0	22.2	22.3
			S/T	0.99	1.00	1.00	1.00	0.63	0.86	1.00	1.00	0.39	0.58	0.76	0.94	\	0.39	0.54	0.69
			kW	0.97	0.98	0.99	0.99	0.99	1.00	1.01	1.03	1.02	1.04	1.05	1.06	\	1.26	1.28	1.29
75		TC	16.5	16.7	17.1	17.2	17.1	17.2	17.4	17.6	18.3	18.4	18.5	18.7	\	21.9	22.0	22.2	
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.39	0.58	0.76	0.94	\	0.39	0.54	0.69	
		kW	1.06	1.07	1.08	1.08	1.08	1.10	1.11	1.12	1.12	1.13	1.14	1.15	\	1.33	1.34	1.35	
85		TC	16.2	16.4	16.7	17.0	16.7	17.0	17.1	17.3	17.9	18.1	18.2	18.4	\	21.3	21.4	21.6	
		S/T	1.00	1.00	1.00	1.00	0.63	0.86	1.00	1.00	0.39	0.58	0.76	0.95	\	0.39	0.54	0.70	
		kW	1.17	1.18	1.20	1.20	1.20	1.21	1.22	1.24	1.24	1.25	1.26	1.27	\	1.53	1.54	1.56	
95		TC	16.0	16.2	16.6	16.7	16.6	16.7	16.9	17.1	17.6	17.8	18.0	18.1	\	20.8	20.9	21.0	
		S/T	1.00	1.00	0.99	1.00	0.63	0.87	1.00	1.00	0.39	0.58	0.76	1.00	\	0.39	0.55	0.71	
		kW	1.39	1.41	1.42	1.42	1.42	1.44	1.45	1.47	1.47	1.48	1.50	1.51	\	1.80	1.82	1.83	
105		TC	15.6	15.8	16.2	16.3	16.2	16.3	16.5	16.7	17.2	17.4	17.5	17.7	\	19.3	19.3	19.4	
		S/T	0.99	1.00	0.99	1.00	0.63	0.87	1.00	1.00	0.39	0.59	0.78	1.00	\	0.39	0.57	0.74	
		kW	1.65	1.66	1.68	1.68	1.68	1.70	1.72	1.73	1.74	1.75	1.77	1.78	\	1.95	1.94	1.95	
115		TC	12.9	13.1	13.4	13.5	13.4	13.5	13.7	13.8	14.7	14.8	14.6	14.6	\	15.2	15.2	15.3	
		S/T	1.00	1.00	1.00	1.00	0.64	0.88	1.00	1.00	0.40	0.62	0.86	1.00	\	0.40	0.62	0.84	
		kW	1.54	1.56	1.58	1.58	1.58	1.59	1.61	1.62	1.65	1.66	1.66	1.67	\	1.68	1.69	1.69	
125		TC	11.0	11.1	11.4	11.5	11.4	11.5	11.6	11.8	12.5	12.6	12.4	12.4	\	12.9	12.9	13.0	
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	\	0.39	0.58	0.76	
		kW	1.59	1.61	1.62	1.62	1.62	1.64	1.66	1.67	1.70	1.71	1.71	1.72	\	1.73	1.74	1.75	
900		5	TC	16.0	16.1	16.5	16.7	16.5	16.7	16.9	17.0	17.7	17.8	17.9	18.0	\	21.1	21.3	21.6
			S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
			kW	0.92	0.93	0.94	0.94	0.94	0.95	0.96	0.97	0.97	0.98	0.99	1.00	\	1.17	1.18	1.12
		25	TC	16.7	16.9	17.2	17.4	17.2	17.4	17.6	17.8	18.4	18.6	18.7	18.8	\	22.1	22.2	22.6
			S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
			kW	1.02	1.03	1.04	1.04	1.04	1.06	1.07	1.08	1.08	1.09	1.10	1.11	\	1.30	1.31	1.24
		50	TC	17.5	17.7	18.1	18.3	18.1	18.3	18.5	18.7	19.4	19.6	19.7	19.8	\	23.2	23.4	23.7
			S/T	0.99	1.00	1.00	1.00	0.64	0.88	1.00	1.00	0.39	0.59	0.78	0.99	\	0.38	0.55	0.71
			kW	1.14	1.15	1.16	1.16	1.16	1.18	1.19	1.20	1.20	1.21	1.22	1.24	\	1.45	1.46	1.38
	75	TC	17.6	17.8	18.2	18.4	18.2	18.4	18.6	18.8	19.5	19.6	19.8	19.9	\	23.8	23.9	23.9	
		S/T	0.99	1.00	1.00	1.00	0.63	0.88	1.00	1.00	0.39	0.59	0.78	1.00	\	0.38	0.55	0.71	
		kW	1.17	1.18	1.20	1.20	1.20	1.21	1.22	1.24	1.24	1.25	1.26	1.27	\	1.59	1.60	1.60	
	85	TC	17.2	17.4	17.8	18.0	17.8	18.0	18.2	18.4	19.1	19.2	19.4	19.5	\	22.4	22.5	22.7	
		S/T	0.99	1.00	1.00	1.00	0.64	0.89	1.00	1.00	0.39	0.59	0.79	1.00	\	0.39	0.56	0.73	
		kW	1.32	1.33	1.35	1.35	1.35	1.37	1.38	1.39	1.40	1.41	1.42	1.43	\	1.70	1.72	1.73	
	95	TC	16.8	17.0	17.3	17.5	17.3	17.5	17.7	17.9	18.6	18.7							

5. CAPACITIES AND SELECTION DATA

Heating Capacity Tables												
Airflow (CFM)	ID °F	ODB (°F)	75	65	55	47	35	25	15	5	-4	-13
		OWB (°F)	64	55	48	43	32	23	13	3	-6	-15
600	60	TC	21.2	21.2	21.2	20.3	17.3	16.1	13.5	12.5	10.9	8.2
		kW	1.23	1.31	1.55	1.68	1.56	1.67	1.50	1.49	1.42	1.14
	70	TC	16.4	16.3	16.3	16.1	16.1	15.8	13.2	12.3	10.7	8.0
		kW	0.92	0.97	1.14	1.33	1.60	1.82	1.65	1.61	1.52	1.22
	75	TC	13.8	13.8	13.8	13.8	13.6	13.6	12.5	11.5	9.8	7.4
		kW	0.77	0.82	0.96	1.13	1.32	1.55	1.73	1.67	1.58	1.26
	80	TC	11.3	11.3	11.3	11.3	11.2	11.1	11.1	11.1	9.6	7.2
		kW	0.64	0.68	0.80	0.92	1.10	1.24	1.56	1.70	1.65	1.32
800	60	TC	23.7	23.7	23.0	20.6	17.5	16.3	13.8	12.8	11.1	8.3
		kW	1.45	1.54	1.71	1.65	1.55	1.66	1.53	1.49	1.43	1.14
	70	TC	18.4	18.3	18.1	18.0	17.1	16.0	13.4	12.5	10.9	8.2
		kW	1.06	1.13	1.30	1.50	1.69	1.79	1.65	1.61	1.53	1.22
	75	TC	15.5	15.4	15.4	15.2	15.2	15.2	12.7	11.7	9.9	7.4
		kW	0.89	0.95	1.11	1.26	1.51	1.78	1.72	1.67	1.58	1.26
	80	TC	12.7	12.7	12.7	12.6	12.5	12.4	12.5	11.5	9.8	7.4
		kW	0.73	0.78	0.91	1.05	1.22	1.42	1.78	1.74	1.65	1.32
1000	60	TC	26.4	26.0	23.4	20.9	17.8	16.6	14.0	13.0	11.3	8.5
		kW	1.71	1.75	1.70	1.65	1.56	1.67	1.56	1.52	1.46	1.17
	70	TC	20.3	20.2	20.2	20.2	17.4	16.2	13.7	12.7	11.1	8.3
		kW	1.22	1.30	1.52	1.77	1.69	1.80	1.67	1.64	1.56	1.25
	75	TC	17.3	17.2	17.0	17.0	17.0	16.0	12.9	11.9	10.2	7.7
		kW	1.04	1.10	1.25	1.47	1.74	1.88	1.74	1.70	1.62	1.30
	80	TC	14.2	14.2	14.2	14.1	13.9	13.9	12.8	11.7	10.0	7.5
		kW	0.86	0.91	1.05	1.22	1.42	1.64	1.81	1.77	1.67	1.34

Remarks:

TC: Total Cooling Capacity (Gross) (kBtu/h)

SHC: Sensible Heat Capacity (Gross)

PI: Power Input (including the compressor, evap. fan motor & cond. fan motor) (kW)

DB: Dry Bulb Temperature

WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

JHE24B5AC2SS1

Cooling Capacity Tables																		
Airflow (CMF)	Outdoor DB	IWB (°F)	59				63				67				71			
		IDB (°F)	70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85
600	5	TC	18.6	18.8	19.2	19.4	19.2	19.4	19.6	19.8	20.5	20.7	20.9	21.0	↘	25.0	25.2	25.4
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.67	0.68	0.69	0.69	0.69	0.69	0.70	0.71	0.71	0.71	0.71	0.72	0.73	↘	0.89	0.90
	25	TC	19.4	19.6	20.0	20.3	20.0	20.3	20.5	20.7	21.4	21.6	21.8	21.9	↘	26.1	26.3	26.5
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.75	0.76	0.76	0.76	0.76	0.77	0.78	0.79	0.79	0.79	0.79	0.80	0.81	↘	0.99	1.00
	50	TC	20.5	20.7	21.1	21.4	21.1	21.4	21.6	21.8	22.5	22.7	23.0	23.1	↘	27.5	27.7	27.9
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.83	0.84	0.85	0.85	0.85	0.86	0.86	0.87	0.87	0.88	0.89	0.90	↘	1.10	1.11	1.13
	75	TC	20.5	20.7	21.1	21.4	21.1	21.4	21.6	21.8	22.6	22.8	23.0	23.2	↘	27.2	27.4	27.6
		S/T	1.00	1.00	0.99	1.00	0.62	0.83	1.00	1.00	0.39	0.56	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.92	0.93	0.94	0.94	0.94	0.96	0.97	0.97	0.97	0.98	0.99	1.00	↘	1.21	1.22	1.24
	85	TC	20.2	20.4	20.8	21.1	20.8	21.1	21.3	21.5	22.3	22.5	22.7	22.8	↘	26.7	26.9	27.1
		S/T	1.00	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.74	0.91	↘	0.39	0.53	0.67
		kW	1.04	1.05	1.06	1.06	1.06	1.07	1.08	1.10	1.10	1.11	1.12	1.13	↘	1.38	1.39	1.40
	95	TC	19.8	20.0	20.5	20.7	20.5	20.7	20.9	21.1	21.9	22.1	22.3	22.5	↘	26.1	26.3	26.4
		S/T	1.00	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.74	0.92	↘	0.39	0.53	0.68
		kW	1.25	1.26	1.28	1.28	1.28	1.29	1.31	1.32	1.32	1.33	1.34	1.36	↘	1.64	1.65	1.67
	105	TC	19.4	19.7	20.1	20.3	20.1	20.3	20.5	20.7	21.5	21.7	21.8	22.0	↘	25.2	25.3	25.4
		S/T	0.99	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.75	0.93	↘	0.39	0.54	0.69
		kW	1.49	1.51	1.52	1.52	1.52	1.54	1.55	1.57	1.57	1.59	1.60	1.61	↘	1.90	1.90	1.91
	115	TC	17.4	17.6	18.0	18.2	18.0	18.2	18.4	18.6	19.3	19.5	19.5	19.7	↘	20.9	21.1	21.1
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	↘	0.39	0.58	0.76
		kW	1.52	1.53	1.55	1.55	1.55	1.57	1.59	1.60	1.61	1.62	1.63	1.64	↘	1.69	1.70	1.71
	125	TC	14.8	15.0	15.3	15.4	15.3	15.4	15.6	15.8	16.4	16.6	16.6	16.7	↘	17.8	17.9	18.0
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	↘	0.39	0.58	0.76
		kW	1.56	1.58	1.60	1.60	1.60	1.62	1.63	1.65	1.66	1.67	1.68	1.69	↘	1.74	1.75	1.76
800	5	TC	20.0	20.2	20.7	20.9	20.7	20.9	21.1	21.3	22.2	22.3	22.5	22.7	↘	26.7	26.9	27.1
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.79	0.80	0.80	0.80	0.80	0.81	0.82	0.83	0.83	0.84	0.85	0.86	↘	1.02	1.04	1.04
	25	TC	20.9	21.1	21.6	21.8	21.6	21.8	22.1	22.3	23.1	23.3	23.5	23.7	↘	27.9	28.1	28.3
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.87	0.88	0.89	0.89	0.89	0.90	0.91	0.92	0.92	0.93	0.94	0.95	↘	1.14	1.15	1.16
	50	TC	22.0	22.2	22.7	23.0	22.7	23.0	23.2	23.4	24.3	24.5	24.7	24.9	↘	29.4	29.6	29.8
		S/T	0.99	1.00	1.00	1.00	0.63	0.86	1.00	1.00	0.39	0.58	0.76	0.94	↘	0.39	0.54	0.69
		kW	0.97	0.98	0.99	0.99	0.99	1.00	1.01	1.03	1.02	1.04	1.05	1.06	↘	1.26	1.28	1.29
	75	TC	22.0	22.3	22.7	23.0	22.7	23.0	23.2	23.5	24.3	24.6	24.7	24.9	↘	29.1	29.4	29.6
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.39	0.58	0.76	0.94	↘	0.39	0.54	0.69
		kW	1.06	1.07	1.08	1.08	1.08	1.10	1.11	1.12	1.12	1.13	1.14	1.15	↘	1.33	1.34	1.35
	85	TC	21.6	21.8	22.3	22.6	22.3	22.6	22.8	23.1	23.9	24.1	24.3	24.5	↘	28.4	28.6	28.8
		S/T	1.00	1.00	1.00	1.00	0.63	0.86	1.00	1.00	0.39	0.58	0.76	0.95	↘	0.39	0.54	0.70
		kW	1.17	1.18	1.20	1.20	1.20	1.21	1.22	1.24	1.24	1.25	1.26	1.27	↘	1.53	1.54	1.56
	95	TC	21.4	21.6	22.1	22.3	22.1	22.3	22.5	22.8	23.4	23.8	24.0	24.1	↘	27.7	27.8	28.0
		S/T	1.00	1.00	0.99	1.00	0.63	0.87	1.00	1.00	0.39	0.58	0.76	1.00	↘	0.39	0.55	0.71
		kW	1.39	1.41	1.42	1.42	1.42	1.44	1.45	1.47	1.47	1.48	1.50	1.51	↘	1.80	1.82	1.83
	105	TC	20.8	21.1	21.6	21.8	21.6	21.8	22.0	22.3	23.0	23.2	23.4	23.6	↘	25.7	25.7	25.8
		S/T	0.99	1.00	0.99	1.00	0.63	0.87	1.00	1.00	0.39	0.59	0.78	1.00	↘	0.39	0.57	0.74
		kW	1.65	1.66	1.68	1.68	1.68	1.70	1.72	1.73	1.74	1.75	1.77	1.78	↘	1.95	1.94	1.95
	115	TC	17.3	17.5	17.8	18.0	17.8	18.0	18.2	18.4	19.6	19.7	19.4	19.5	↘	20.2	20.3	20.4
		S/T	1.00	1.00	1.00	1.00	0.64	0.88	1.00	1.00	0.40	0.62	0.86	1.00	↘	0.40	0.62	0.84
		kW	1.54	1.56	1.58	1.58	1.58	1.59	1.61	1.62	1.65	1.66	1.66	1.67	↘	1.68	1.69	1.69
	125	TC	14.7	14.8	15.1	15.3	15.1	15.3	15.5	15.7	16.7	16.7	16.5	16.6	↘	17.2	17.3	17.3
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	↘	0.39	0.58	0.76
		kW	1.59	1.61	1.62	1.62	1.62	1.64	1.66	1.67	1.70	1.71	1.71	1.72	↘	1.73	1.74	1.75
1000	5	TC	21.3	21.5	22.0	22.2	22.0	22.2	22.5	22.7	23.5	23.7	23.9	24.1	↘	28.2	28.4	28.8
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.92	0.93	0.94	0.94	0.94	0.95	0.96	0.97	0.97	0.98	0.99	1.00	↘	1.17	1.18	1.12
	25	TC	22.2	22.5	22.9	23.2	22.9	23.2	23.5	23.7	24.6	24.8	24.9	25.1	↘	29.4	29.6	30.1
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	1.02	1.03	1.04	1.04	1.04	1.06	1.07	1.08	1.08	1.09	1.10	1.11	↘	1.30	1.31	1.24
	50	TC	23.4	23.7	24.1	24.4	24.1	24.4	24.7	25.0	25.9	26.1	26.2	26.4	↘	31.0	31.2	31.7
		S/T	0.99	1.00	1.00	1.00	0.64	0.88	1.00	1.00	0.39	0.59	0.78	0.99	↘	0.38	0.55	0.71
		kW	1.14	1.15	1.16	1.16	1.16	1.18	1.19	1.20	1.20	1.21	1.22	1.24	↘	1.45	1.46	1.38
	75	TC	23.4	23.7	24.3	24.5	24.3	24.5	24.8	25.0	26.0	26.2	26.4	26.6	↘	31.7	31.9	31.9
		S/T	0.99	1.00	1.00	1.00	0.63	0.88	1.00	1.00	0.39	0.59	0.78	1.00	↘	0.38	0.55	0.71
		kW	1.17	1.18	1.20	1.20	1.20	1.21	1.22	1.24	1.24	1.25	1.26	1.27	↘	1.59	1.60	1.60
	85	TC	23.0	23.2	23.7	24.0	23.7	24.0	24.2	24.5	25.5	25.6	25.8	25.9	↘	29.9	30.1	30.3
		S/T	0.99	1.00	1.00	1.00	0.64	0.89	1.00	1.00	0.39	0.59	0.79	1.00	↘	0.39	0.56	0.73
		kW	1.32	1.33	1.35	1.35	1.35	1.37	1.38	1.39	1.40	1.41	1.42	1.43	↘	1.70	1.72	1.73
	95	TC	22.4	22.6	23.1	23.4	23.1	23.4	23.7	23.9	24.8	25.0	25.1	25.3				

5. CAPACITIES AND SELECTION DATA

Heating Capacity Tables												
Airflow (CFM)	ID °F	ODB (°F) OWB (°F)	75 64	65 55	55 48	47 43	35 32	25 23	15 13	5 3	-4 -6	-13 -15
600	60	TC	28.3	28.3	28.2	27.1	23.0	21.4	18.0	16.7	14.6	11.0
		kW	1.56	1.66	1.96	2.13	1.98	2.11	1.90	1.89	1.80	1.44
	70	TC	21.9	21.7	21.8	21.5	21.5	21.0	17.7	16.4	14.3	10.7
		kW	1.16	1.23	1.44	1.69	2.02	2.30	2.09	2.04	1.92	1.54
	75	TC	18.4	18.3	18.3	18.3	18.1	18.1	16.7	15.4	13.0	9.8
		kW	0.97	1.04	1.21	1.44	1.67	1.96	2.19	2.12	2.00	1.60
	80	TC	15.1	15.1	15.1	15.0	15.0	14.8	14.8	14.8	12.8	9.6
		kW	0.81	0.86	1.01	1.17	1.39	1.57	1.97	2.15	2.09	1.67
800	60	TC	31.6	31.6	30.7	27.4	23.4	21.8	18.3	17.0	14.8	11.1
		kW	1.84	1.95	2.16	2.09	1.96	2.10	1.94	1.89	1.81	1.45
	70	TC	24.5	24.3	24.1	24.0	22.8	21.3	17.9	16.6	14.5	10.9
		kW	1.34	1.44	1.65	1.90	2.14	2.27	2.09	2.04	1.94	1.55
	75	TC	20.6	20.6	20.6	20.2	20.3	20.3	17.0	15.6	13.2	9.9
		kW	1.13	1.20	1.41	1.60	1.91	2.25	2.18	2.11	2.01	1.61
	80	TC	16.9	16.9	16.9	16.8	16.6	16.6	16.6	15.4	13.0	9.8
		kW	0.93	0.99	1.15	1.33	1.55	1.80	2.26	2.21	2.09	1.67
1000	60	TC	35.2	34.6	31.2	27.9	23.7	22.1	18.6	17.3	15.1	11.3
		kW	2.16	2.21	2.15	2.09	1.97	2.11	1.98	1.93	1.85	1.48
	70	TC	27.0	27.0	27.0	26.9	23.2	21.7	18.3	17.0	14.8	11.1
		kW	1.54	1.64	1.93	2.24	2.14	2.29	2.12	2.07	1.98	1.58
	75	TC	23.0	23.0	22.7	22.6	22.6	21.4	17.2	15.9	13.6	10.2
		kW	1.31	1.39	1.59	1.86	2.21	2.39	2.21	2.15	2.05	1.64
	80	TC	19.0	18.9	18.9	18.8	18.6	18.6	17.0	15.7	13.3	10.0
		kW	1.09	1.16	1.33	1.55	1.79	2.08	2.29	2.24	2.12	1.70

Remarks:

TC: Total Cooling Capacity (Gross) (kBtu/h)

SHC: Sensible Heat Capacity (Gross)

PI: Power Input (including the compressor,
evap. fan motor & cond. fan motor) (kW)

DB: Dry Bulb Temperature

WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

JHE36B5CD2SS1

Cooling Capacity Tables																		
Airflow (CMF)	Outdoor DB	IWB (°F)	59				63				67				71			
		IDB (°F)	70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85
1000	5	TC	27.9	28.2	28.8	29.2	28.8	29.2	29.4	29.7	30.8	31.1	31.3	31.5	\	37.5	37.8	38.1
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
		kW	0.67	0.68	0.69	0.69	0.69	0.69	0.70	0.71	0.71	0.71	0.72	0.73	\	0.89	0.90	0.91
	25	TC	29.1	29.4	30.0	30.4	30.0	30.4	30.7	31.0	32.1	32.4	32.7	32.9	\	39.2	39.5	39.8
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
		kW	0.75	0.76	0.76	0.76	0.76	0.77	0.78	0.79	0.79	0.79	0.80	0.81	\	0.99	1.00	1.01
	50	TC	30.7	31.0	31.6	32.0	31.6	32.0	32.3	32.7	33.8	34.1	34.4	34.6	\	41.2	41.5	41.8
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
		kW	0.83	0.84	0.85	0.85	0.85	0.86	0.86	0.87	0.87	0.88	0.89	0.90	\	1.10	1.11	1.13
	75	TC	30.7	31.1	31.7	32.0	31.7	32.0	32.5	32.8	33.9	34.2	34.5	34.7	\	40.8	41.1	41.4
		S/T	1.00	1.00	0.99	1.00	0.62	0.83	1.00	1.00	0.39	0.56	0.73	0.90	\	0.39	0.53	0.67
		kW	0.92	0.93	0.94	0.94	0.94	0.96	0.97	0.97	0.97	0.98	0.99	1.00	\	1.21	1.22	1.24
	85	TC	30.3	30.6	31.2	31.6	31.2	31.6	31.9	32.2	33.4	33.7	34.0	34.2	\	40.1	40.4	40.6
		S/T	1.00	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.74	0.91	\	0.39	0.53	0.67
		kW	1.04	1.05	1.06	1.06	1.06	1.07	1.08	1.10	1.10	1.11	1.12	1.13	\	1.38	1.39	1.40
	95	TC	29.7	30.1	30.7	31.1	30.7	31.1	31.4	31.7	32.9	33.2	33.4	33.7	\	39.1	39.4	39.7
		S/T	1.00	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.74	0.92	\	0.39	0.53	0.68
		kW	1.25	1.26	1.28	1.28	1.28	1.29	1.31	1.32	1.32	1.33	1.34	1.36	\	1.64	1.65	1.67
	105	TC	29.1	29.5	30.2	30.5	30.2	30.5	30.8	31.1	32.2	32.6	32.8	33.0	\	37.8	37.9	38.1
		S/T	0.99	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.75	0.93	\	0.39	0.54	0.69
		kW	1.49	1.51	1.52	1.52	1.52	1.54	1.55	1.57	1.57	1.59	1.60	1.61	\	1.90	1.90	1.91
	115	TC	26.1	26.4	27.0	27.2	27.0	27.2	27.5	27.9	29.0	29.2	29.3	29.5	\	31.4	31.6	31.7
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	\	0.39	0.58	0.76
		kW	1.52	1.53	1.55	1.55	1.55	1.57	1.59	1.60	1.61	1.62	1.63	1.64	\	1.69	1.70	1.71
	125	TC	22.2	22.4	23.0	23.1	23.0	23.1	23.4	23.7	24.7	24.8	24.9	25.1	\	26.7	26.9	27.0
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	\	0.39	0.58	0.76
		kW	1.56	1.58	1.60	1.60	1.60	1.62	1.63	1.65	1.66	1.67	1.68	1.69	\	1.74	1.75	1.76
1200	5	TC	30.0	30.3	31.1	31.3	31.1	31.3	31.7	32.0	33.2	33.4	33.7	34.0	\	40.1	40.4	40.6
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
		kW	0.79	0.80	0.80	0.80	0.80	0.81	0.82	0.83	0.83	0.84	0.85	0.86	\	1.02	1.04	1.04
	25	TC	31.3	31.6	32.4	32.7	32.4	32.7	33.1	33.4	34.7	34.9	35.2	35.5	\	41.8	42.1	42.4
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
		kW	0.87	0.88	0.89	0.89	0.89	0.90	0.91	0.92	0.92	0.93	0.94	0.95	\	1.14	1.15	1.16
	50	TC	33.0	33.3	34.1	34.4	34.1	34.4	34.9	35.2	36.5	36.7	37.0	37.4	\	44.0	44.3	44.7
		S/T	0.99	1.00	1.00	1.00	0.63	0.86	1.00	1.00	0.39	0.58	0.76	0.94	\	0.39	0.54	0.69
		kW	0.97	0.98	0.99	0.99	0.99	1.00	1.01	1.03	1.02	1.04	1.05	1.06	\	1.26	1.28	1.29
	75	TC	33.0	33.4	34.1	34.4	34.1	34.4	34.9	35.3	36.5	36.8	37.0	37.4	\	43.7	44.0	44.3
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.39	0.58	0.76	0.94	\	0.39	0.54	0.69
		kW	1.06	1.07	1.08	1.08	1.08	1.10	1.11	1.12	1.12	1.13	1.14	1.15	\	1.33	1.34	1.35
	85	TC	32.5	32.8	33.5	33.9	33.5	33.9	34.2	34.6	35.9	36.2	36.4	36.7	\	42.6	42.9	43.2
		S/T	1.00	1.00	1.00	1.00	0.63	0.86	1.00	1.00	0.39	0.58	0.76	0.95	\	0.39	0.54	0.70
		kW	1.17	1.18	1.20	1.20	1.20	1.21	1.22	1.24	1.24	1.25	1.26	1.27	\	1.53	1.54	1.56
	95	TC	32.0	32.5	33.2	33.5	33.2	33.5	33.8	34.2	35.2	35.7	36.0	36.2	\	41.5	41.7	41.9
		S/T	1.00	1.00	0.99	1.00	0.63	0.87	1.00	1.00	0.39	0.58	0.76	1.00	\	0.39	0.55	0.71
		kW	1.39	1.41	1.42	1.42	1.42	1.44	1.45	1.47	1.47	1.48	1.50	1.51	\	1.80	1.82	1.83
	105	TC	31.2	31.6	32.3	32.7	32.3	32.7	33.0	33.4	34.4	34.9	35.1	35.4	\	38.5	38.5	38.7
		S/T	0.99	1.00	0.99	1.00	0.63	0.87	1.00	1.00	0.39	0.59	0.78	1.00	\	0.39	0.57	0.74
		kW	1.65	1.66	1.68	1.68	1.68	1.70	1.72	1.73	1.74	1.75	1.77	1.78	\	1.95	1.94	1.95
	115	TC	25.9	26.2	26.7	27.0	26.7	27.0	27.3	27.7	29.4	29.5	29.1	29.2	\	30.4	30.5	30.6
		S/T	1.00	1.00	1.00	1.00	0.64	0.88	1.00	1.00	0.40	0.62	0.86	1.00	\	0.40	0.62	0.84
		kW	1.54	1.56	1.58	1.58	1.58	1.59	1.61	1.62	1.65	1.66	1.66	1.67	\	1.68	1.69	1.69
	125	TC	22.0	22.3	22.7	23.0	22.7	23.0	23.2	23.5	25.0	25.1	24.7	24.8	\	25.8	25.9	26.0
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	\	0.39	0.58	0.76
		kW	1.59	1.61	1.62	1.62	1.62	1.64	1.66	1.67	1.70	1.71	1.71	1.72	\	1.73	1.74	1.75
1400	5	TC	31.9	32.3	33.0	33.3	33.0	33.3	33.7	34.1	35.3	35.6	35.8	36.1	\	42.3	42.5	43.2
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
		kW	0.92	0.93	0.94	0.94	0.94	0.95	0.96	0.97	0.97	0.98	0.99	1.00	\	1.17	1.18	1.12
	25	TC	33.3	33.7	34.4	34.8	34.4	34.8	35.2	35.6	36.9	37.2	37.4	37.7	\	44.1	44.4	45.1
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	\	0.39	0.53	0.67
		kW	1.02	1.03	1.04	1.04	1.04	1.06	1.07	1.08	1.08	1.09	1.10	1.11	\	1.30	1.31	1.24
	50	TC	35.1	35.5	36.2	36.6	36.2	36.6	37.0	37.5	38.8	39.1	39.3	39.7	\	46.4	46.7	47.5
		S/T	0.99	1.00	1.00	1.00	0.64	0.88	1.00	1.00	0.39	0.59	0.78	0.99	\	0.38	0.55	0.71
		kW	1.14	1.15	1.16	1.16	1.16	1.18	1.19	1.20	1.20	1.21	1.22	1.24	\	1.45	1.46	1.38
	75	TC	35.2	35.6	36.4	36.7	36.4	36.7	37.1	37.6	39.0	39.2	39.5	39.9	\	47.6	47.8	47.9
		S/T	0.99	1.00	1.00	1.00	0.63	0.88	1.00	1.00	0.39	0.59	0.78	1.00	\	0.38	0.55	0.71
		kW	1.17	1.18	1.20	1.20	1.20	1.21	1.22	1.24	1.24	1.25	1.26	1.27	\	1.59	1.60	1.60
	85	TC	34.4	34.9	35.6	36.0	35.6	36.0	36.3	36.7	38.2	38.4	38.7	38.9	\	44.9	45.1	45.4
		S/T	0.99	1.00	1.00	1.00	0.64	0.89	1.00	1.00	0.39	0.59	0.79	1.00	\	0.39	0.56	0.73
		kW	1.32	1.33	1.35	1.35	1.35	1.37	1.38	1.39	1.40	1.41	1.42	1.43	\	1.70	1.72	1.73
	95	TC	33.6	33.9	34.6	35.1	34.6	35.1	35.5	35.8	37.3	37.5	37.7	38.0	\	42.7	42.9	42.9
		S/T	1.00	1.00	1.00	1.00	0.64	0.90	1.00	1.00	0.39	0.60	0.80	1.00	\	0.39		

5. CAPACITIES AND SELECTION DATA

Heating Capacity Tables												
Airflow (CFM)	ID °F	ODB (°F)	75	65	55	47	35	25	15	5	-4	-13
		OWB (°F)	64	55	48	43	32	23	13	3	-6	-15
1000	60	TC	42.4	42.4	42.3	40.7	34.6	32.2	27.0	25.0	21.8	16.4
		kW	2.42	2.58	3.04	3.30	3.07	3.28	3.00	2.94	2.79	2.23
	70	TC	32.8	32.6	32.7	32.3	32.3	31.6	26.5	24.6	21.4	16.1
		kW	1.81	1.91	2.24	2.62	3.14	3.57	3.25	3.16	2.98	2.38
	75	TC	27.6	27.5	27.5	27.5	27.1	27.1	25.0	23.1	19.6	14.7
		kW	1.51	1.62	1.89	2.23	2.60	3.04	3.39	3.29	3.11	2.49
	80	TC	22.7	22.7	22.7	22.6	22.4	22.2	22.2	22.2	19.2	14.4
		kW	1.25	1.33	1.56	1.82	2.16	2.44	3.06	3.34	3.24	2.59
1200	60	TC	47.4	47.4	46.0	41.2	35.1	32.7	27.5	25.6	22.2	16.7
		kW	2.86	3.03	3.36	3.24	3.04	3.26	3.02	2.94	2.81	2.25
	70	TC	36.7	36.5	36.2	36.0	34.2	32.0	26.9	24.9	21.7	16.3
		kW	2.08	2.23	2.56	2.95	3.32	3.53	3.25	3.16	3.01	2.41
	75	TC	30.9	30.8	30.8	30.3	30.4	30.4	25.4	23.4	19.9	14.9
		kW	1.75	1.86	2.18	2.48	2.97	3.49	3.38	3.28	3.12	2.50
	80	TC	25.3	25.3	25.3	25.2	24.9	24.8	24.9	23.1	19.6	14.7
		kW	1.44	1.53	1.79	2.06	2.41	2.79	3.50	3.43	3.24	2.59
1400	60	TC	52.8	51.9	46.9	41.9	35.6	33.2	27.9	26.0	22.7	17.0
		kW	3.36	3.44	3.34	3.24	3.06	3.28	3.07	2.99	2.87	2.30
	70	TC	40.6	40.4	40.4	40.3	34.8	32.5	27.4	25.4	22.1	16.6
		kW	2.40	2.55	2.99	3.48	3.33	3.55	3.29	3.22	3.07	2.46
	75	TC	34.6	34.4	34.0	33.9	33.9	32.1	25.9	23.8	20.4	15.3
		kW	2.04	2.16	2.46	2.88	3.43	3.70	3.43	3.34	3.18	2.54
	80	TC	28.4	28.3	28.3	28.2	27.8	27.8	25.6	23.5	20.0	15.0
		kW	1.70	1.80	2.06	2.41	2.78	3.23	3.56	3.47	3.29	2.63

Remarks:

TC: Total Cooling Capacity (Gross) (kBtu/h)

SHC: Sensible Heat Capacity (Gross)

PI: Power Input (including the compressor,
evap. fan motor & cond. fan motor) (kW)

DB: Dry Bulb Temperature

WB: Wet Bulb Temperature

5. CAPACITIES AND SELECTION DATA

JHE48C5CG2SS1

Cooling Capacity Tables																		
Airflow (CMF)	Outdoor DB	IWB (°F) IDB (°F)	59				63				67				71			
			70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85
1500	5	TC	37.2	37.6	38.4	38.9	38.4	38.9	39.2	39.6	41.0	41.4	41.8	42.0	↘	50.0	50.4	50.8
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.67	0.68	0.69	0.69	0.69	0.69	0.70	0.71	0.71	0.71	0.71	0.72	0.73	↘	0.89	0.90
	25	TC	38.9	39.3	40.0	40.6	40.0	40.6	41.0	41.4	42.8	43.2	43.6	43.9	↘	52.2	52.6	53.0
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.75	0.76	0.76	0.76	0.76	0.77	0.78	0.79	0.79	0.79	0.79	0.80	0.81	↘	0.99	1.00
	50	TC	40.9	41.3	42.2	42.7	42.2	42.7	43.1	43.5	45.1	45.5	45.9	46.2	↘	55.0	55.4	55.8
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.83	0.84	0.85	0.85	0.85	0.86	0.86	0.87	0.87	0.88	0.89	0.90	↘	1.10	1.11	1.13
	75	TC	40.9	41.5	42.3	42.7	42.3	42.7	43.3	43.7	45.2	45.6	46.1	46.3	↘	54.4	54.8	55.2
		S/T	1.00	1.00	0.99	1.00	0.62	0.83	1.00	1.00	0.39	0.56	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.92	0.93	0.94	0.94	0.94	0.96	0.96	0.97	0.97	0.97	0.98	0.99	1.00	↘	1.21	1.22
	85	TC	40.3	40.8	41.6	42.2	41.6	42.2	42.6	43.0	44.5	44.9	45.4	45.6	↘	53.4	53.8	54.1
		S/T	1.00	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.74	0.91	↘	0.39	0.53	0.67
		kW	1.04	1.05	1.06	1.06	1.06	1.07	1.08	1.10	1.10	1.11	1.12	1.13	↘	1.38	1.39	1.40
	95	TC	39.7	40.1	40.9	41.5	40.9	41.5	41.9	42.3	43.8	44.2	44.5	44.9	↘	52.2	52.6	52.9
		S/T	1.00	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.74	0.92	↘	0.39	0.53	0.68
		kW	1.25	1.26	1.28	1.28	1.28	1.29	1.31	1.32	1.32	1.33	1.34	1.36	↘	1.64	1.65	1.67
	105	TC	38.8	39.4	40.2	40.6	40.2	40.6	41.0	41.5	43.0	43.4	43.7	44.0	↘	50.4	50.5	50.8
		S/T	0.99	1.00	1.00	1.00	0.62	0.84	1.00	1.00	0.39	0.57	0.75	0.93	↘	0.39	0.54	0.69
		kW	1.49	1.51	1.52	1.52	1.52	1.54	1.55	1.57	1.57	1.59	1.60	1.61	↘	1.90	1.90	1.91
	115	TC	34.8	35.2	36.0	36.3	36.0	36.3	36.7	37.1	38.7	39.0	39.1	39.4	↘	41.9	42.2	42.3
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	↘	0.39	0.58	0.76
		kW	1.52	1.53	1.55	1.55	1.55	1.57	1.59	1.60	1.61	1.62	1.63	1.64	↘	1.69	1.70	1.71
	125	TC	29.6	29.9	30.6	30.9	30.6	30.9	31.2	31.6	32.9	33.1	33.2	33.5	↘	35.6	35.8	36.0
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	↘	0.39	0.58	0.76
		kW	1.56	1.58	1.60	1.60	1.60	1.62	1.63	1.65	1.66	1.67	1.68	1.69	↘	1.74	1.75	1.76
1700	5	TC	40.0	40.4	41.4	41.8	41.4	41.8	42.3	42.7	44.3	44.6	44.9	45.3	↘	53.4	53.8	54.2
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.79	0.80	0.80	0.80	0.80	0.81	0.82	0.83	0.83	0.84	0.85	0.86	↘	1.02	1.04	1.04
	25	TC	41.8	42.2	43.2	43.6	43.2	43.6	44.1	44.5	46.3	46.5	46.9	47.3	↘	55.8	56.2	56.6
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.87	0.88	0.89	0.89	0.89	0.90	0.91	0.92	0.92	0.93	0.94	0.95	↘	1.14	1.15	1.16
	50	TC	44.0	44.4	45.5	45.9	45.5	45.9	46.5	46.9	48.7	49.0	49.4	49.8	↘	58.7	59.1	59.5
		S/T	0.99	1.00	1.00	1.00	0.63	0.86	1.00	1.00	0.39	0.58	0.76	0.94	↘	0.39	0.54	0.69
		kW	0.97	0.98	0.99	0.99	0.99	1.00	1.01	1.03	1.02	1.04	1.05	1.06	↘	1.26	1.28	1.29
	75	TC	44.0	44.5	45.5	45.9	45.5	45.9	46.5	47.0	48.7	49.1	49.4	49.8	↘	58.3	58.7	59.1
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.39	0.58	0.76	0.94	↘	0.39	0.54	0.69
		kW	1.06	1.07	1.08	1.08	1.08	1.10	1.11	1.12	1.12	1.13	1.14	1.15	↘	1.33	1.34	1.35
	85	TC	43.3	43.7	44.7	45.2	44.7	45.2	45.6	46.2	47.9	48.3	48.6	49.0	↘	56.8	57.2	57.6
		S/T	1.00	1.00	1.00	1.00	0.63	0.86	1.00	1.00	0.39	0.58	0.76	0.95	↘	0.39	0.54	0.70
		kW	1.17	1.18	1.20	1.20	1.20	1.21	1.22	1.24	1.24	1.25	1.26	1.27	↘	1.53	1.54	1.56
	95	TC	42.7	43.3	44.2	44.7	44.2	44.7	45.1	45.6	46.9	47.6	48.0	48.3	↘	55.4	55.7	55.9
		S/T	1.00	1.00	0.99	1.00	0.63	0.87	1.00	1.00	0.39	0.58	0.76	1.00	↘	0.39	0.55	0.71
		kW	1.39	1.41	1.42	1.42	1.42	1.44	1.45	1.47	1.47	1.48	1.50	1.51	↘	1.80	1.82	1.83
	105	TC	41.6	42.2	43.1	43.5	43.1	43.5	44.0	44.5	45.9	46.5	46.7	47.2	↘	51.3	51.3	51.6
		S/T	0.99	1.00	0.99	1.00	0.63	0.87	1.00	1.00	0.39	0.59	0.78	1.00	↘	0.39	0.57	0.74
		kW	1.65	1.66	1.68	1.68	1.68	1.70	1.72	1.73	1.74	1.75	1.77	1.78	↘	1.95	1.94	1.95
	115	TC	34.5	34.9	35.6	36.0	35.6	36.0	36.5	36.9	39.2	39.4	38.8	39.0	↘	40.5	40.6	40.8
		S/T	1.00	1.00	1.00	1.00	0.64	0.88	1.00	1.00	0.40	0.62	0.86	1.00	↘	0.40	0.62	0.84
		kW	1.54	1.56	1.58	1.58	1.58	1.59	1.61	1.62	1.65	1.66	1.66	1.67	↘	1.68	1.69	1.69
	125	TC	29.3	29.7	30.3	30.6	30.3	30.6	31.0	31.3	33.3	33.5	33.0	33.1	↘	34.4	34.5	34.7
		S/T	1.00	1.00	1.00	1.00	0.62	0.85	1.00	1.00	0.40	0.60	0.79	0.99	↘	0.39	0.58	0.76
		kW	1.59	1.61	1.62	1.62	1.62	1.64	1.66	1.67	1.70	1.71	1.71	1.72	↘	1.73	1.74	1.75
1900	5	TC	42.5	43.0	43.9	44.4	43.9	44.4	44.9	45.5	47.1	47.5	47.7	48.1	↘	56.3	56.7	57.6
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	0.92	0.93	0.94	0.94	0.94	0.95	0.96	0.97	0.97	0.98	0.99	1.00	↘	1.17	1.18	1.12
	25	TC	44.4	44.9	45.9	46.4	45.9	46.4	46.9	47.5	49.2	49.6	49.8	50.2	↘	58.8	59.2	60.1
		S/T	0.99	1.00	1.00	1.00	0.61	0.83	1.00	1.00	0.39	0.57	0.73	0.90	↘	0.39	0.53	0.67
		kW	1.02	1.03	1.04	1.04	1.04	1.06	1.07	1.08	1.08	1.09	1.10	1.11	↘	1.30	1.31	1.24
	50	TC	46.7	47.3	48.3	48.8	48.3	48.8	49.4	49.9	51.8	52.2	52.5	52.9	↘	61.9	62.3	63.3
		S/T	0.99	1.00	1.00	1.00	0.64	0.88	1.00	1.00	0.39	0.59	0.78	0.99	↘	0.38	0.55	0.71
		kW	1.14	1.15	1.16	1.16	1.16	1.18	1.19	1.20	1.20	1.21	1.22	1.24	↘	1.45	1.46	1.38
	75	TC	46.9	47.4	48.6	49.0	48.6	49.0	49.5	50.1	52.0	52.3	52.7	53.1	↘	63.4	63.7	63.9
		S/T	0.99	1.00	1.00	1.00	0.63	0.88	1.00	1.00	0.39	0.59	0.78	1.00	↘	0.38	0.55	0.71
		kW	1.17	1.18	1.20	1.20	1.20	1.21	1.22	1.24	1.24	1.25	1.26	1.27	↘	1.59	1.60	1.60
	85	TC	45.9	46.5	47.4	48.0	47.4	48.0	48.4	49.0	50.9	51.2	51.6	51.9	↘	59.8	60.1	60.5
		S/T	0.99	1.00	1.00	1.00	0.64	0.89	1.00	1.00	0.39	0.59	0.79	1.00	↘	0.39	0.56	0.73
		kW	1.32	1.33	1.35	1.35	1.35	1.37	1.38	1.39	1.40	1.41	1.42	1.43	↘	1.70	1.72	1.73
	95	TC	44.8	45.2	46.2	46.7	46.2	46.7	47.3	47.7	49.7	49.9						

5. CAPACITIES AND SELECTION DATA

Heating Capacity Tables												
Airflow (CFM)	ID °F	ODB (°F) OWB (°F)	75 64	65 55	55 48	47 43	35 32	25 23	15 13	5 3	-4 -6	-13 -15
1500	60	TC	56.6	56.6	56.4	54.2	46.1	42.9	36.0	33.4	29.1	21.8
		kW	3.20	3.42	4.02	4.37	4.06	4.34	4.00	3.89	3.69	2.95
	70	TC	43.7	43.4	43.6	43.0	43.0	42.1	35.3	32.8	28.6	21.5
		kW	2.39	2.52	2.96	3.46	4.15	4.72	4.30	4.18	3.94	3.15
	75	TC	36.8	36.7	36.7	36.7	36.1	36.1	33.4	30.8	26.1	19.6
		kW	1.99	2.14	2.49	2.95	3.43	4.02	4.49	4.35	4.11	3.29
	80	TC	30.2	30.2	30.2	30.1	29.9	29.7	29.7	29.7	25.7	19.3
		kW	1.66	1.76	2.07	2.40	2.86	3.23	4.05	4.41	4.28	3.42
1700	60	TC	63.2	63.2	61.4	54.9	46.8	43.6	36.7	34.1	29.7	22.3
		kW	3.78	4	4.44	4.28	4.02	4.31	3.99	3.89	3.71	2.97
	70	TC	49.0	48.7	48.3	48.0	45.7	42.6	35.9	33.2	29.0	21.8
		kW	2.76	2.95	3.39	3.90	4.38	4.66	4.30	4.18	3.97	3.18
	75	TC	41.2	41.1	41.1	40.4	40.6	40.6	33.9	31.2	26.5	19.9
		kW	2.32	2.46	2.89	3.28	3.93	4.62	4.47	4.34	4.12	3.30
	80	TC	33.8	33.8	33.8	33.7	33.2	33.1	33.2	30.8	26.1	19.6
		kW	1.91	2.02	2.36	2.73	3.18	3.69	4.63	4.53	4.28	3.42
1900	60	TC	70.3	69.2	62.5	55.9	47.4	44.3	37.2	34.6	30.2	22.7
		kW	4.44	4.55	4.41	4.28	4.05	4.34	4.06	3.96	3.80	3.04
	70	TC	54.1	53.9	53.9	53.8	46.3	43.3	36.6	33.9	29.5	22.1
		kW	3.17	3.37	3.96	4.60	4.40	4.69	4.35	4.25	4.06	3.25
	75	TC	46.1	45.9	45.4	45.2	45.2	42.8	34.5	31.7	27.2	20.4
		kW	2.70	2.86	3.25	3.81	4.53	4.90	4.53	4.41	4.21	3.37
	80	TC	37.9	37.8	37.8	37.7	37.1	37.1	34.1	31.3	26.6	20.0
		kW	2.24	2.38	2.73	3.18	3.68	4.27	4.71	4.59	4.35	3.48

Remarks:

TC: Total Cooling Capacity (Gross) (kBtu/h)

SHC: Sensible Heat Capacity (Gross)

PI: Power Input (including the compressor,
evap. fan motor & cond. fan motor) (kW)

DB: Dry Bulb Temperature

WB: Wet Bulb Temperature

5. CAPACITY TABLES

5.2 Piping Length Correction Factor

The correction factor is based on the equivalent piping length in meters (EL) and the height between outdoor and indoor units in meters (H).

H:

Height difference between indoor unit and outdoor unit (m).

- H>0: Position of outdoor unit is higher than that of the indoor unit (m).
- H<0: Position of outdoor unit is lower than that of the indoor unit (m).

L:

Actual one-way piping length between indoor unit and outdoor unit (m).

EL:

Equivalent one-way piping length between indoor unit and outdoor unit (m).

Equivalent length of 90° Elbow

Gas Diameter (mm/inch)	9.52 (3/8')	12.7 (1/2')	15.88 (5/8')	19.05 (3/4')	22.22 (7/8')
EL of 90° Elbow(m)	0.15	0.2	0.25	0.35	0.4

Cooling

EL[ft(m)] Model	25 (7.6)	38 (10)	50 (15)	66 (20)	82 (25)	100 (30)	115 (35)	131 (40)	148 (45)	164 (50)	180 (55)	200 (60)	213 (65)	230 (70)	246 (75)
9K/12K	1.00	0.98	0.93	0.89	0.84	0.79	0.75	0.70	--	--	--	--	--	--	--
18K	1.00	0.96	0.94	0.91	0.89	0.85	0.83	0.80	0.76	--	--	--	--	--	--
24K	1.00	0.98	0.96	0.94	0.92	0.89	0.86	0.83	0.79	--	--	--	--	--	--
36K	1.00	0.98	0.95	0.91	0.88	0.84	0.81	0.77	0.73	0.70	--	--	--	--	--
48K	1.00	0.98	0.96	0.94	0.92	0.90	0.87	0.84	0.81	0.78	0.75	0.72	0.69	0.66	0.63

Heating

EL[ft(m)] Model	25 (7.6)	38 (10)	50 (15)	66 (20)	82 (25)	100 (30)	115 (35)	131 (40)	148 (45)	164 (50)	180 (55)	200 (60)	213 (65)	230 (70)	246 (75)
9K/12K	1.00	0.99	0.97	0.94	0.92	0.90	0.87	0.85	--	--	--	--	--	--	--
18K	1.00	0.96	0.94	0.91	0.89	0.85	0.83	0.80	0.76	--	--	--	--	--	--
24K	1.00	0.98	0.96	0.94	0.92	0.89	0.86	0.83	0.79	--	--	--	--	--	--
36K	1.00	0.99	0.87	0.94	0.92	0.89	0.87	0.85	0.82	0.80	--	--	--	--	--
48K	1.00	0.99	0.97	0.95	0.93	0.91	0.88	0.86	0.83	0.80	0.77	0.74	0.70	0.66	0.62

To ensure correct unit selection, consider the farthest indoor unit.

NOTE:

1. Above data is assuming that the height difference between indoor unit and outdoor unit is 0m.
2. Be sure to minimize length of connection pipes to optimize performance. If the outdoor unit is installed higher or lower than the indoor unit, it is necessary to apply height correction factor additionally to length correction factor to calculate cooling.

If outdoor unit is higher, correction should be applied to cooling capacity, if outdoor unit is lower, correction should be applied to heating capacity.

5. CAPACITY TABLES

The correction factor of height difference between indoor unit and outdoor unit

Height difference	16ft(5m)	33ft(10m)	108ft(30m)
Factor	0.01	0.02	0.025

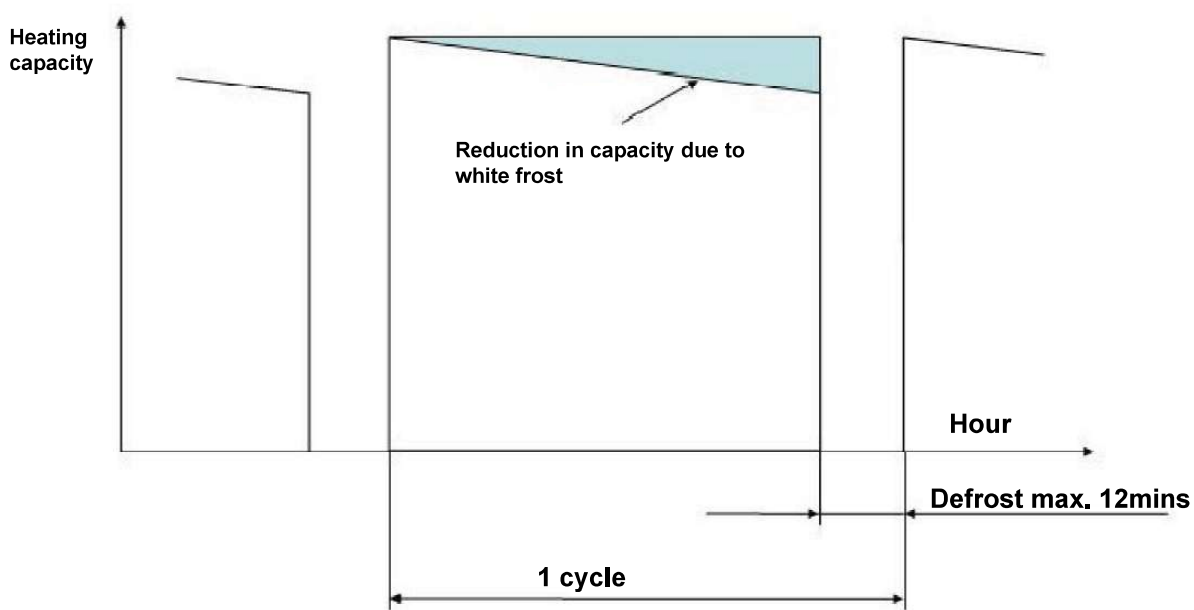
5.3 Correction Factors According To Defrosting Operation

The heating capacity in the preceding paragraph, excludes the condition of defrosting operation period. In consideration of defrosting operation, the heating capacity is corrected by the equation below.

Corrected heating capacity = Defrost Correction factor x unit capacity

Outdoor Temperature [°F (°C)DB]	-13 (-25)	-4 (-20)	5 (-15)	14 (-10)	23 (-5)	32 (0)	44.6 (7)	50 (10)	59 (15)
9K/12K/18K/24K/36K/48K	0.97	0.96	0.95	0.95	0.95	0.85	1.0	1.0	1.0

Correction Factor



NOTE:

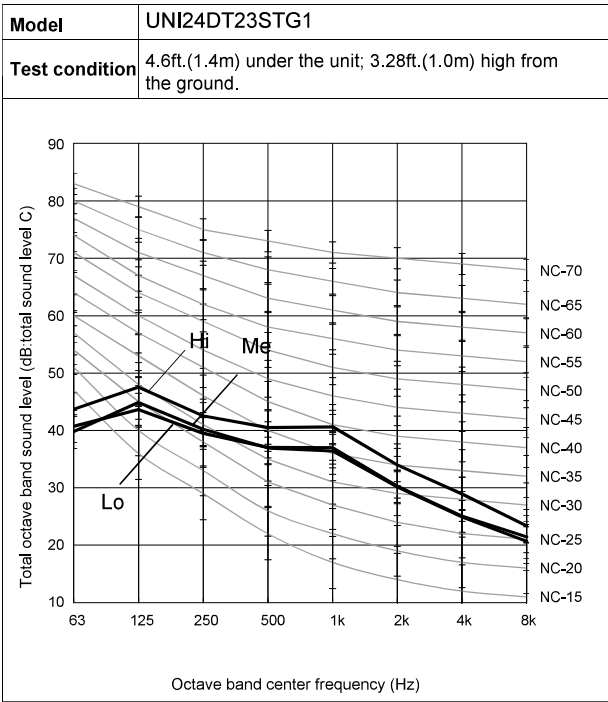
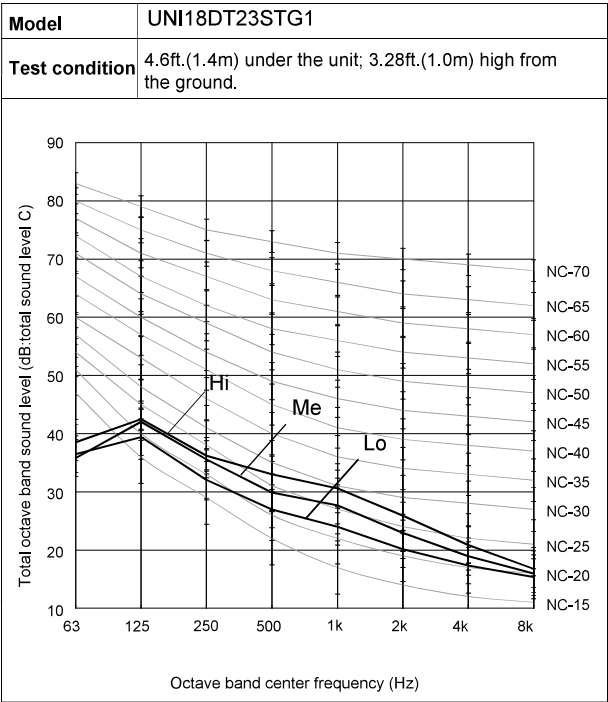
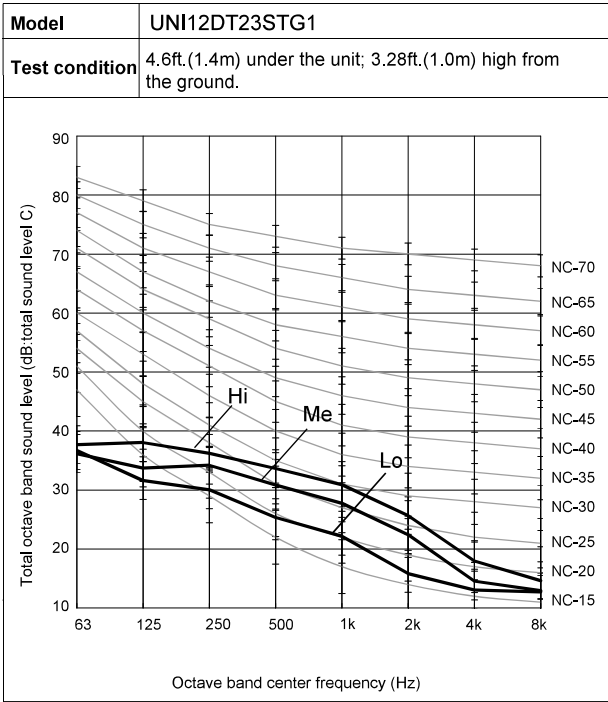
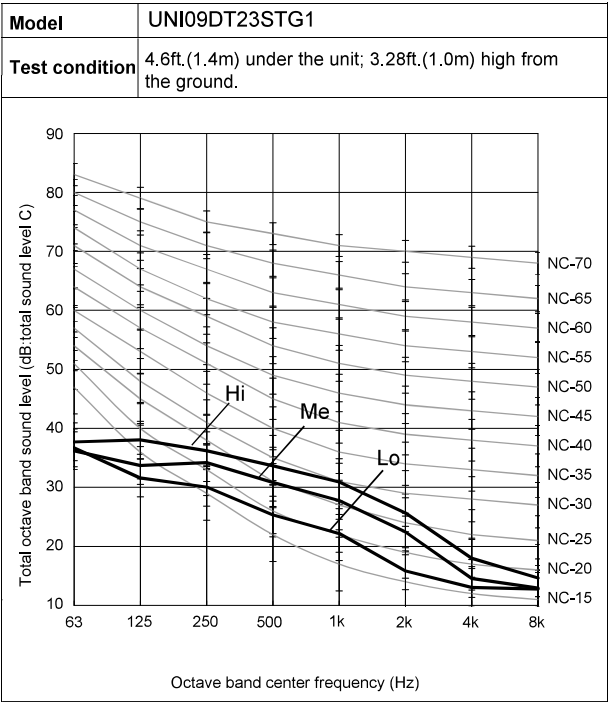
The correction factor is not valid for special conditions such as snowfall or operation in a transitional period.

6. SOUND LEVEL

6. Sound Level (Reference)

Indoor unit

Duct type

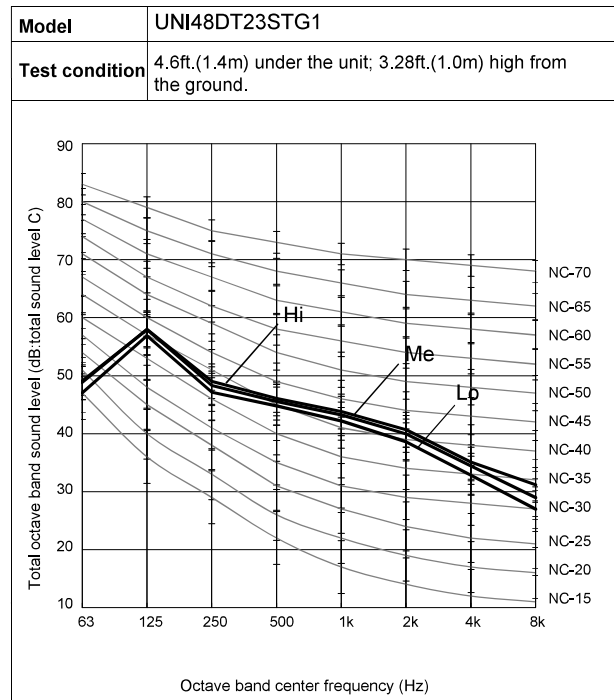
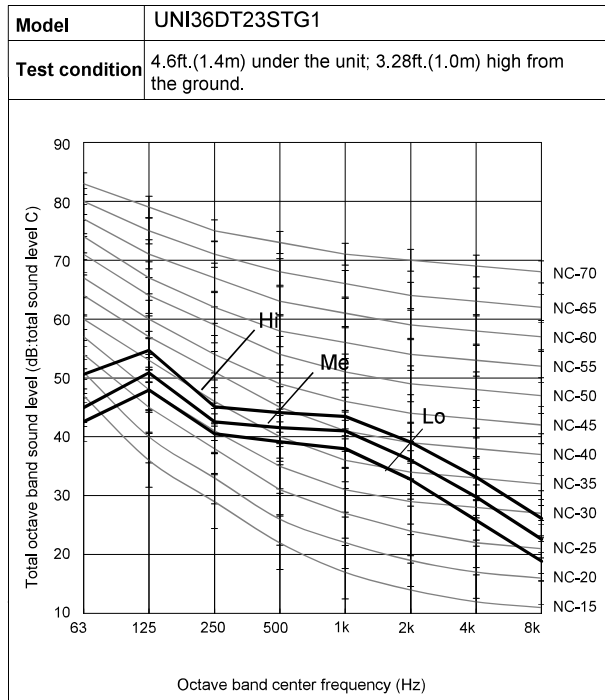


6. SOUND LEVEL

6. Sound Level (Reference)

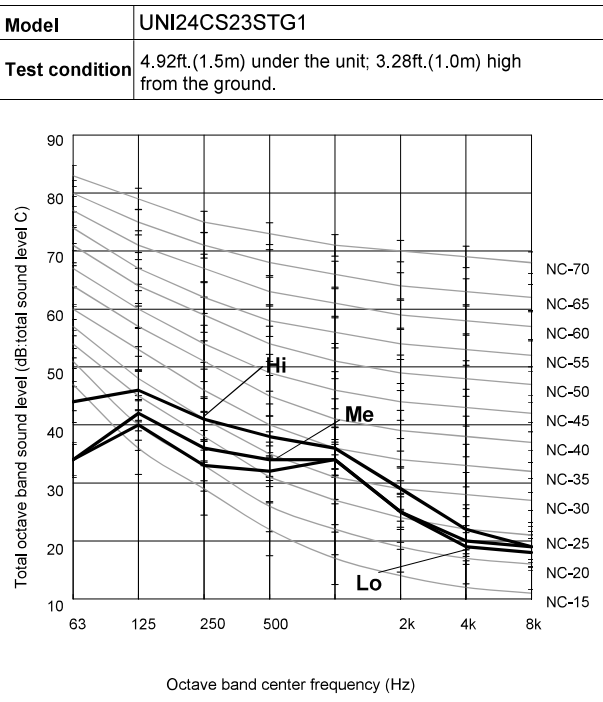
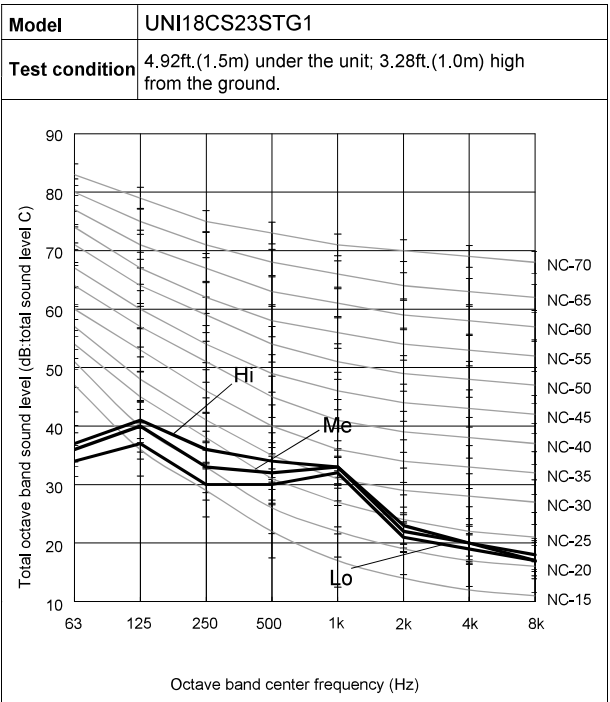
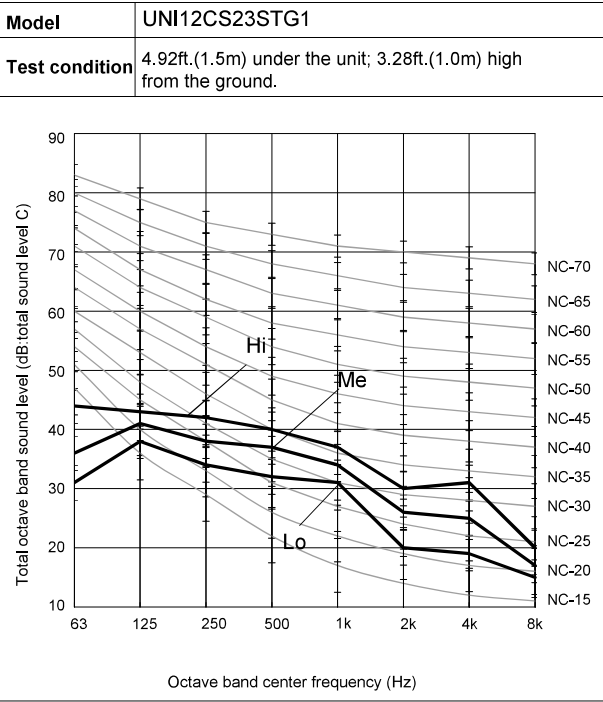
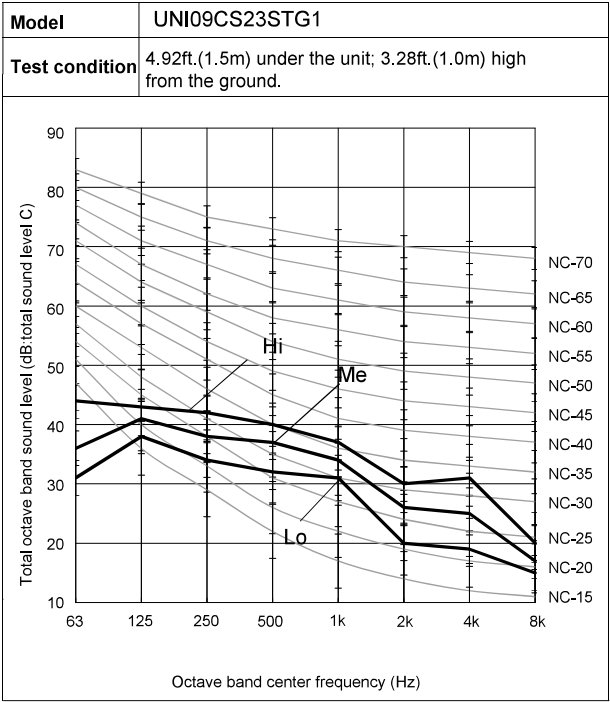
Indoor unit

Duct type

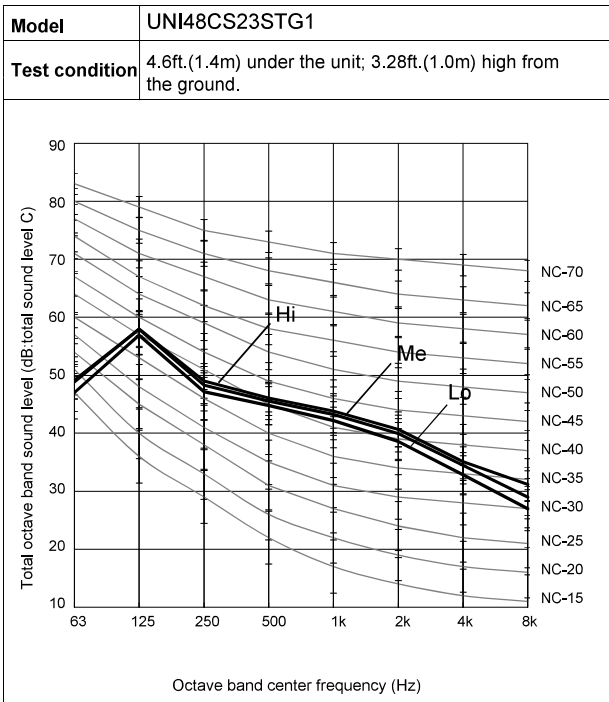
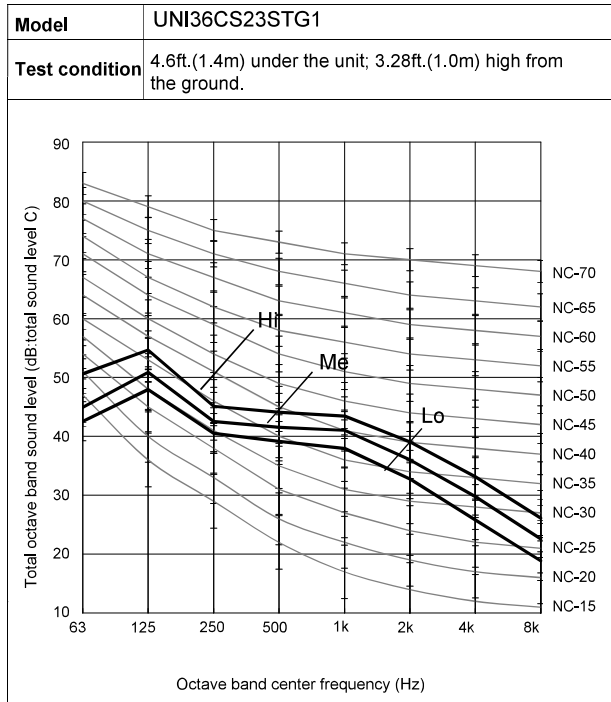


6. SOUND LEVEL

Cassette type



6. SOUND LEVEL



6. SOUND LEVEL

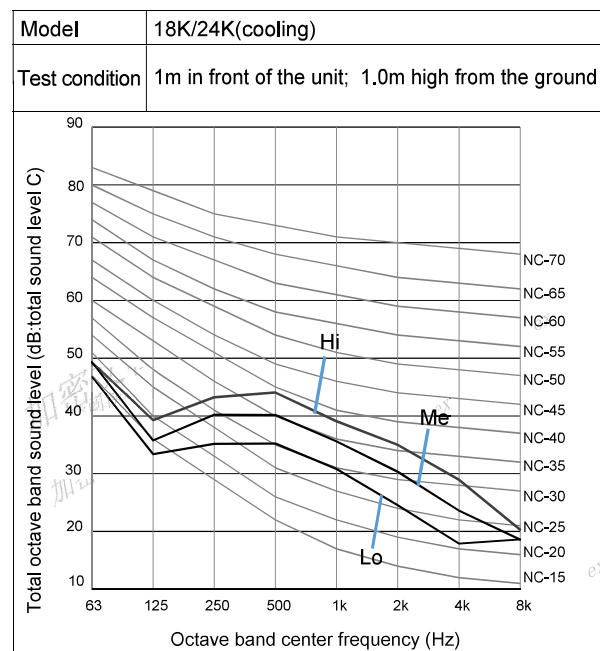
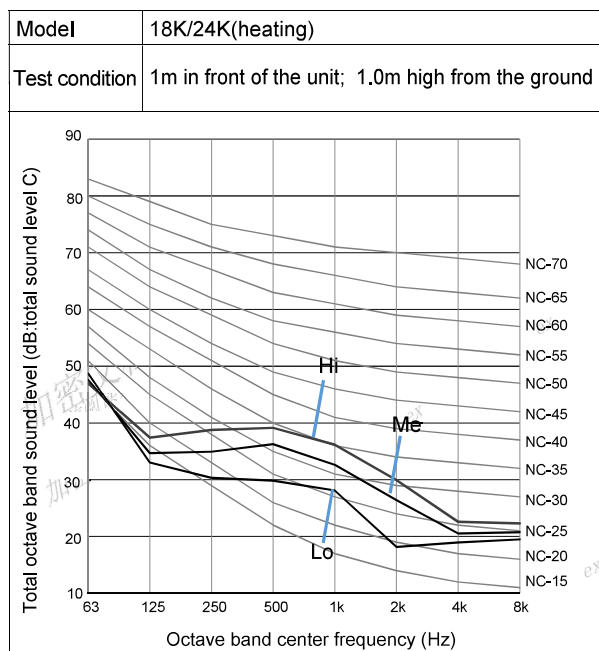
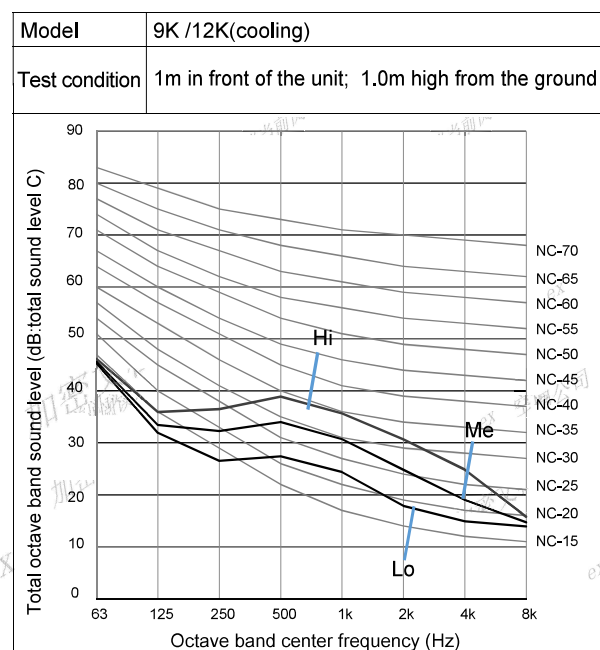
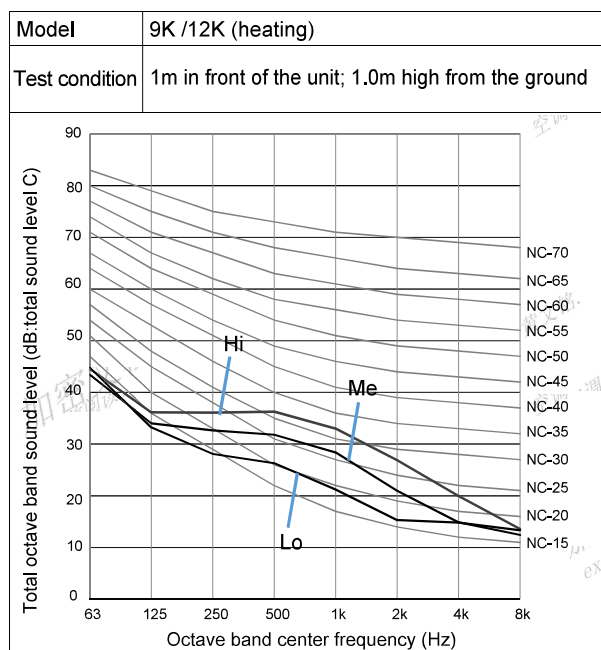
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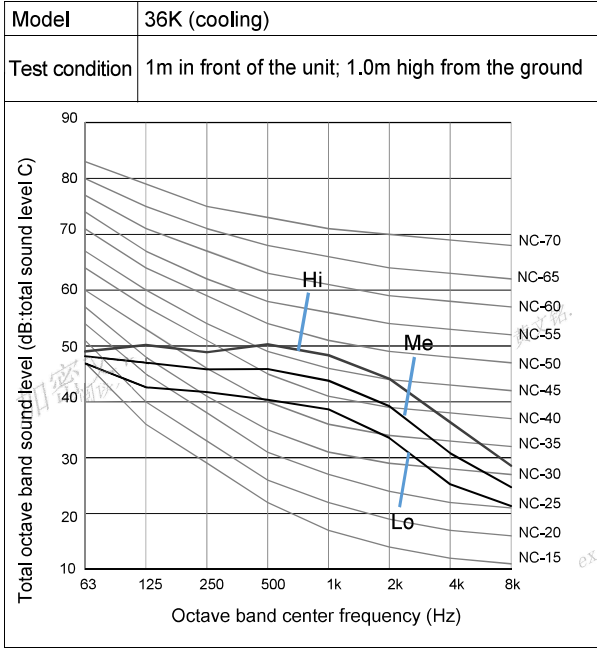
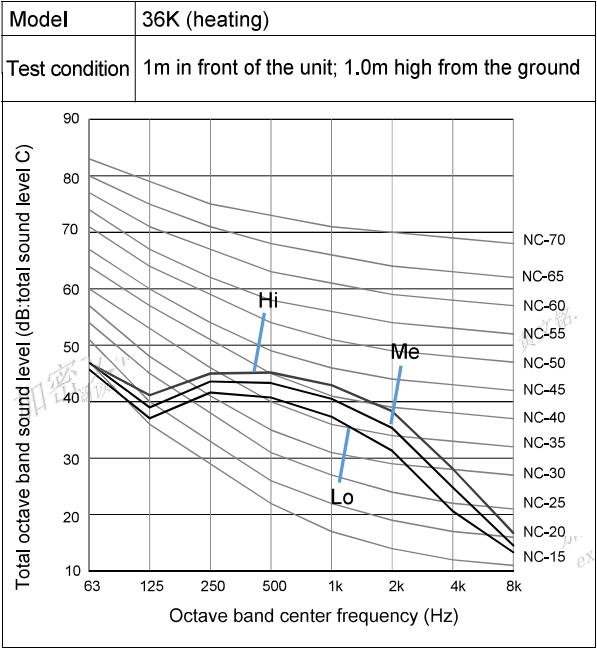
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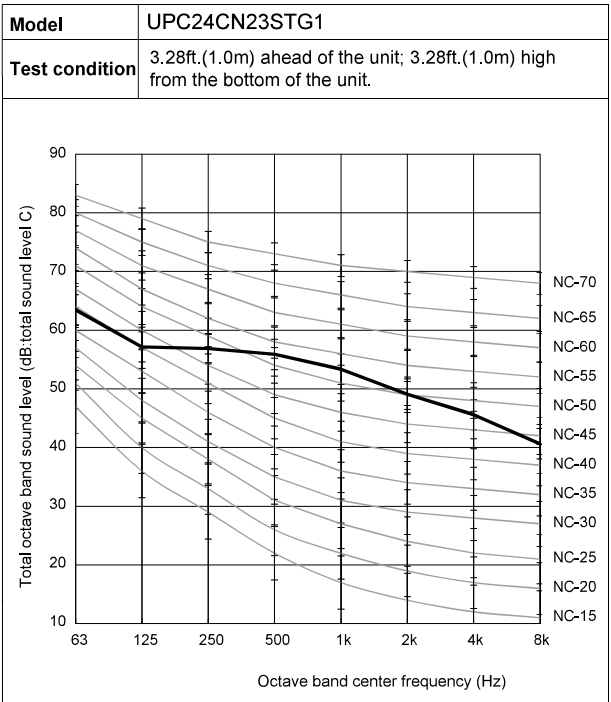
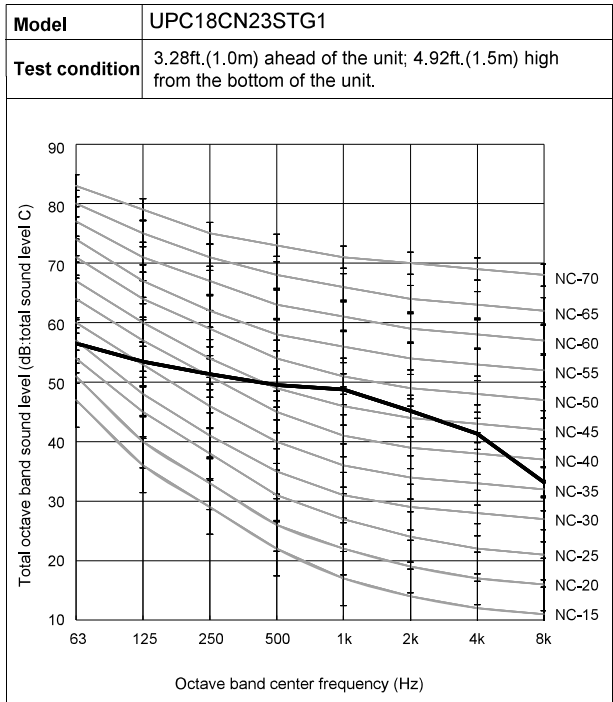
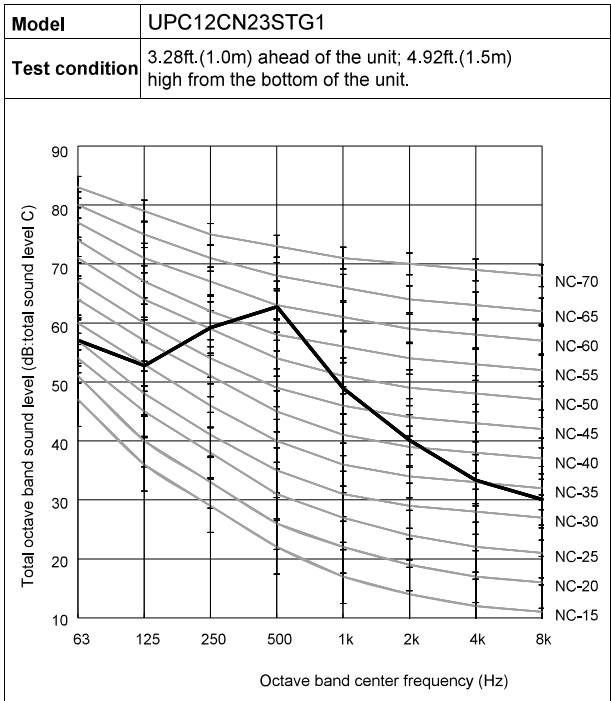
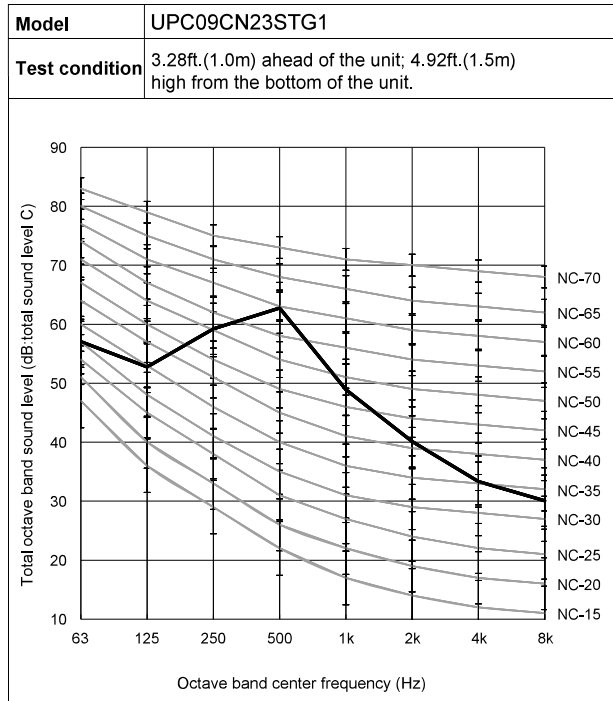
6. SOUND LEVEL

Highwall type
UNI36HW23STG1



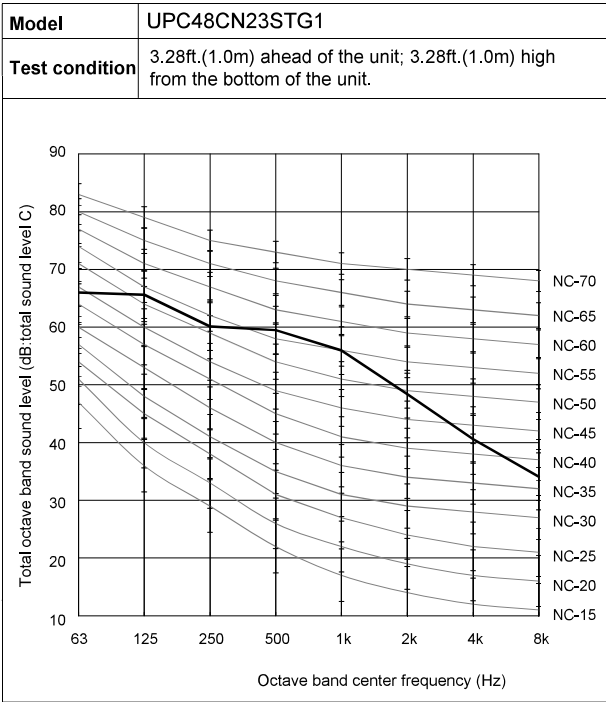
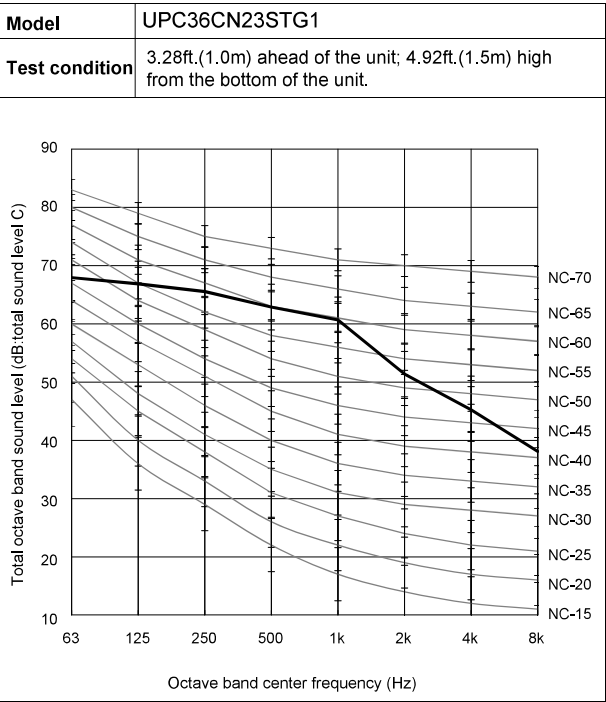
6. SOUND LEVEL

Outdoor unit



6. SOUND LEVEL

Outdoor unit



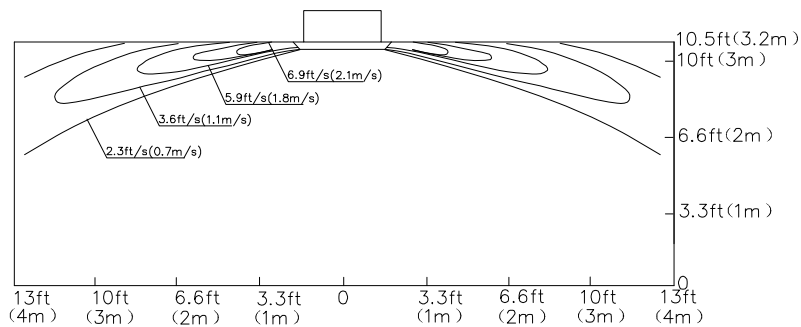
7. AIR FLOW DISTRIBUTION

7. Air Flow Distribution

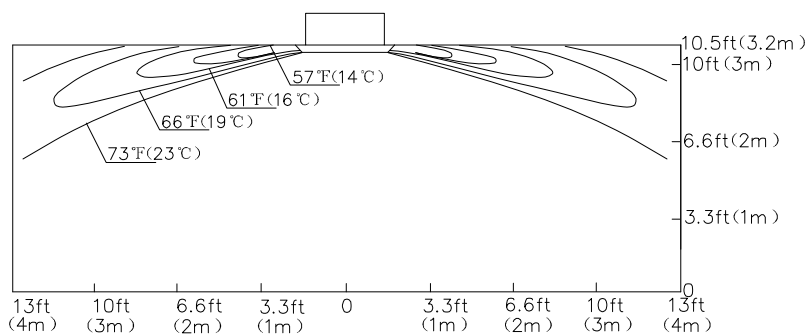
Cassette type

UNI09CS23STG1

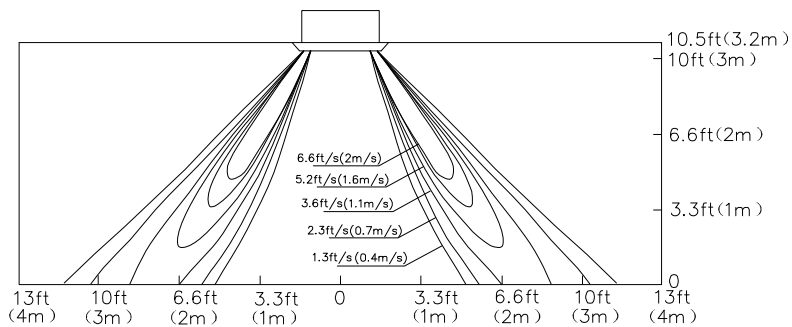
1) Cooling/Air Velocity Distribution



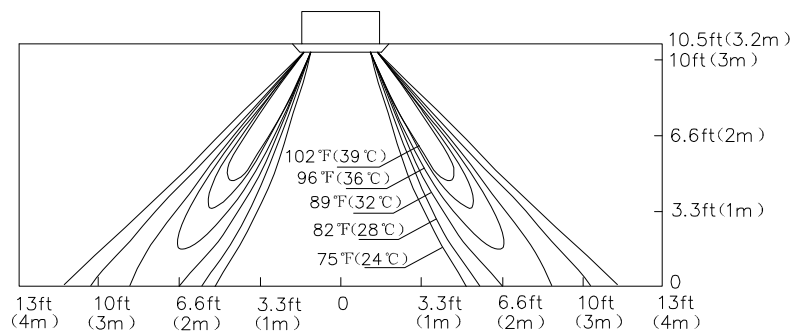
2) Cooling/Air Temperature Distribution



3) Heating/Air Velocity Distribution



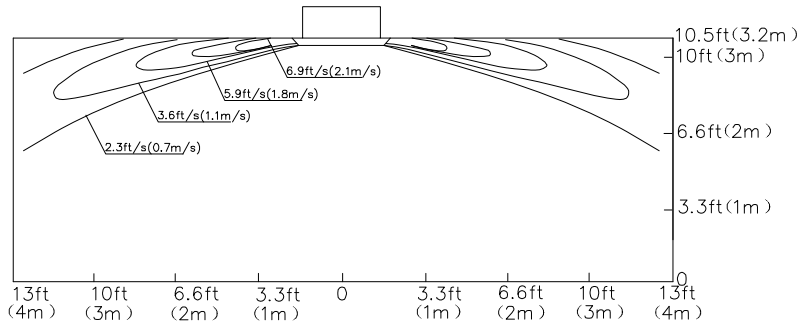
4) Heating/Air Temperature Distribution



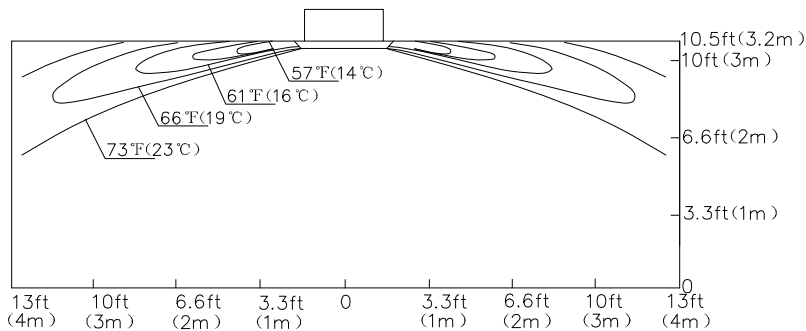
7. AIR FLOW DISTRIBUTION

UNI12CS23STG1

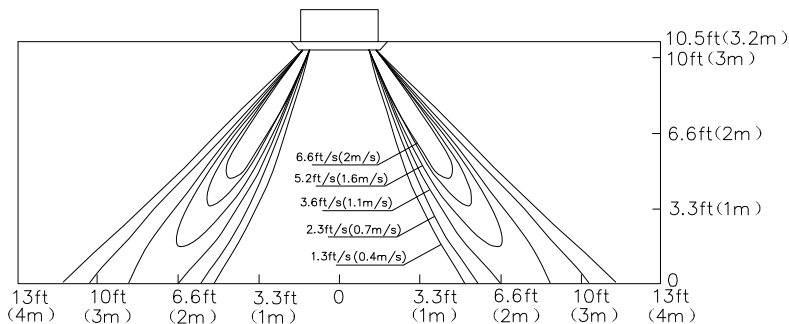
1) Cooling/Air Velocity Distribution



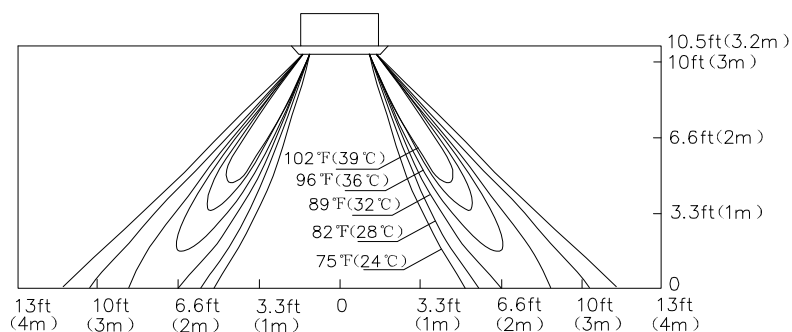
2) Cooling/Air Temperature Distribution



3) Heating/Air Velocity Distribution



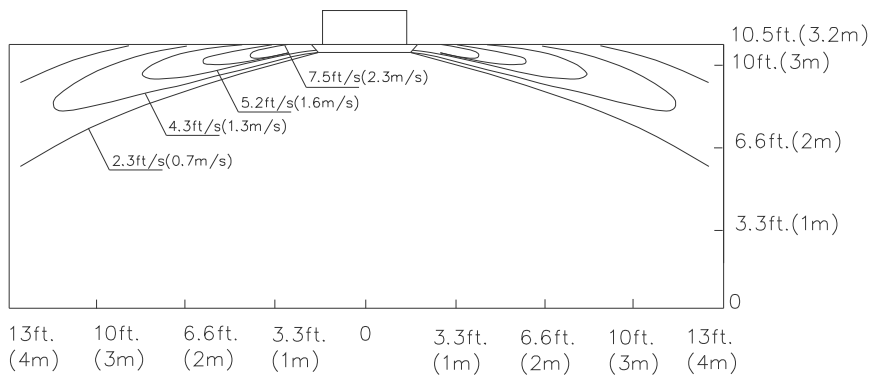
4) Heating/Air Temperature Distribution



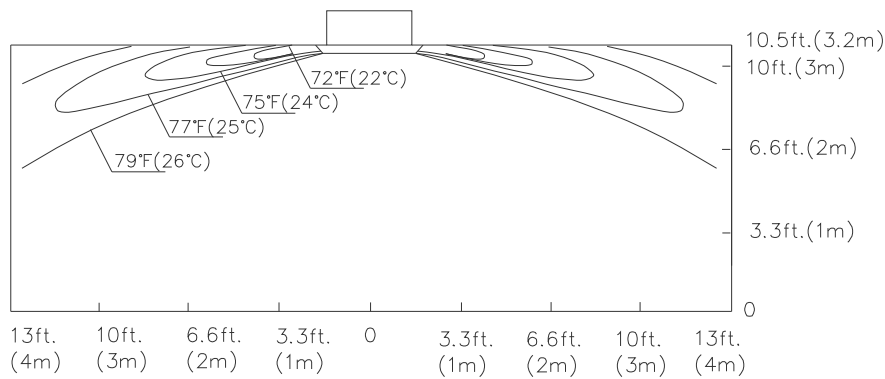
7. AIR FLOW DISTRIBUTION

UNI18CS23STG1

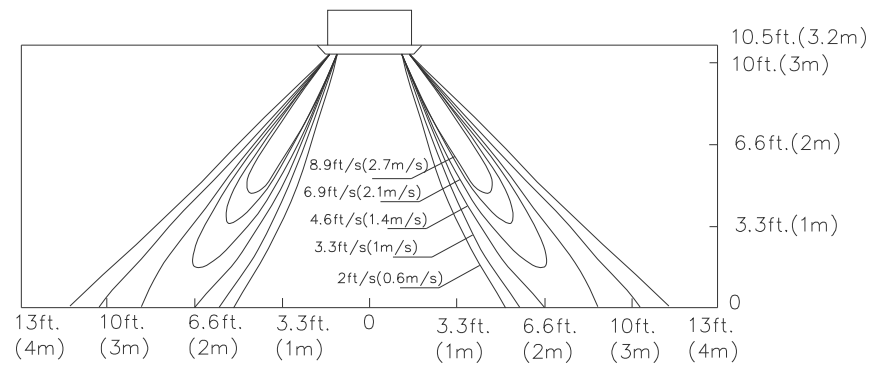
1) Cooling/Air Velocity Distribution



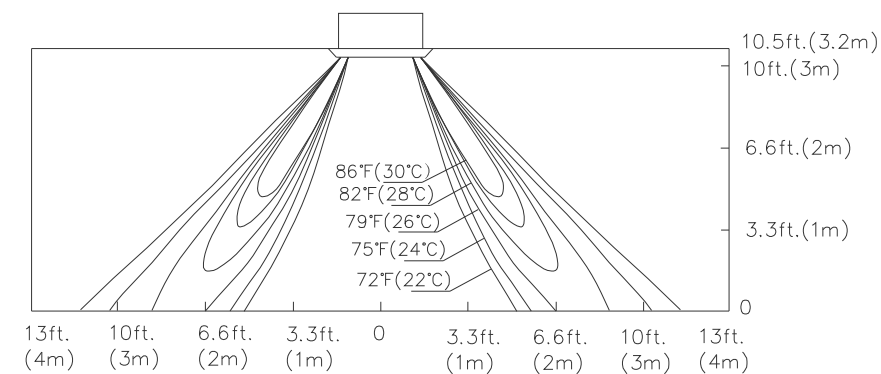
2) Cooling/Air Temperature Distribution



3) Heating/Air Velocity Distribution



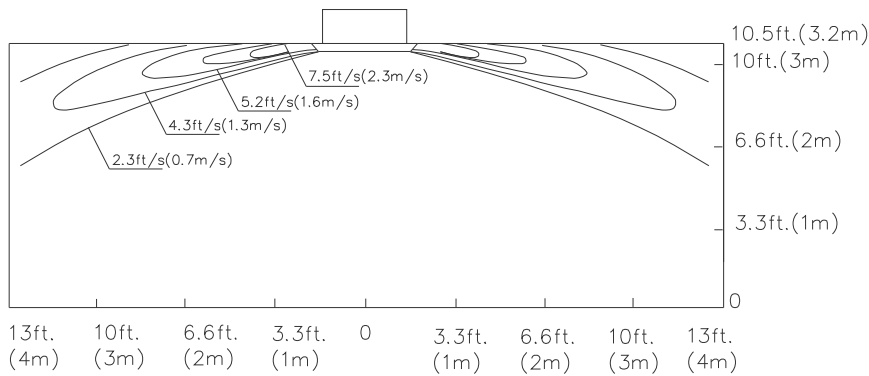
4) Heating/Air Temperature Distribution



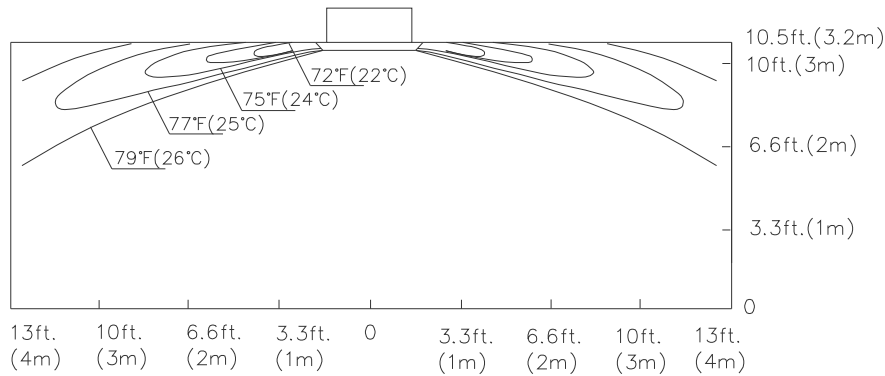
AIR FLOW DISTRIBUTION

UNI24CS23STG1

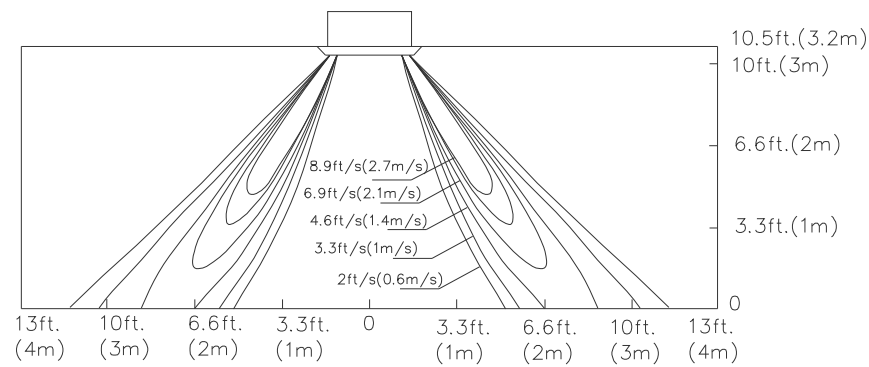
1) Cooling/Air Velocity Distribution



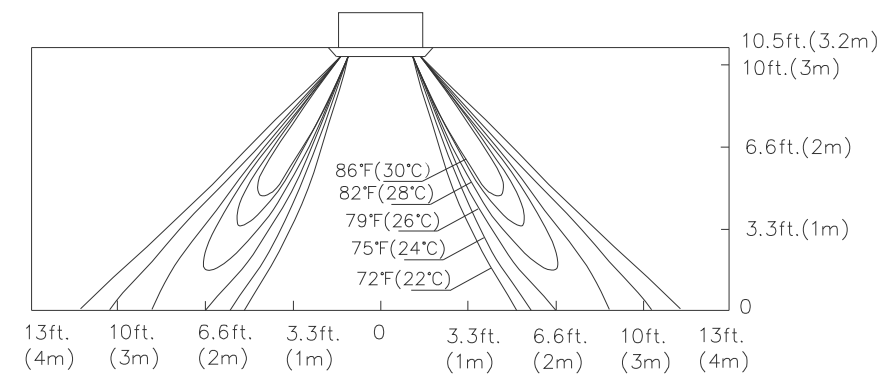
2) Cooling/Air Temperature Distribution



3) Heating/Air Velocity Distribution



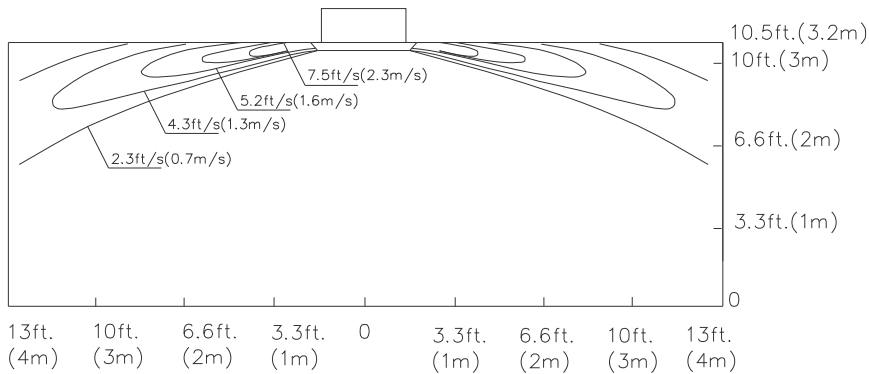
4) Heating/Air Temperature Distribution



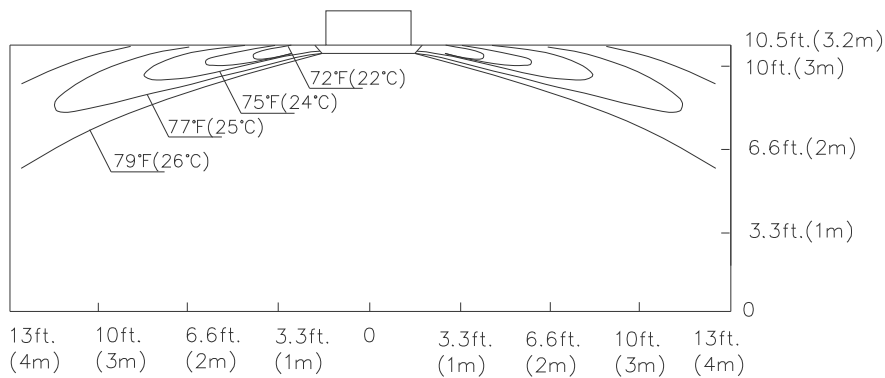
7. AIR FLOW DISTRIBUTION

UNI36CS23STG1

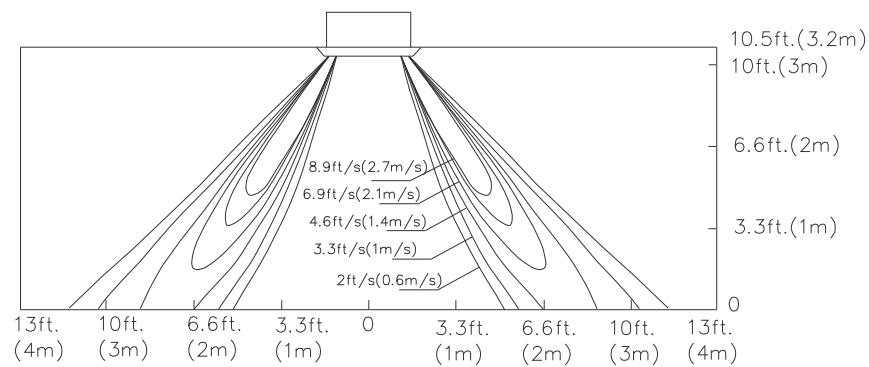
1) Cooling/Air Velocity Distribution



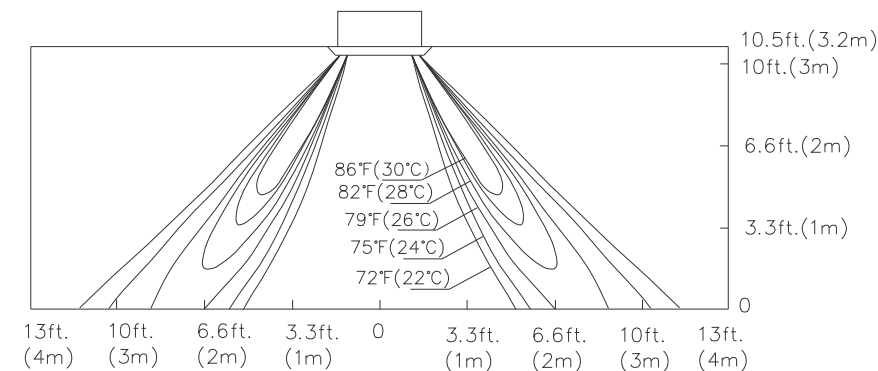
2) Cooling/Air Temperature Distribution



3) Heating/Air Velocity Distribution



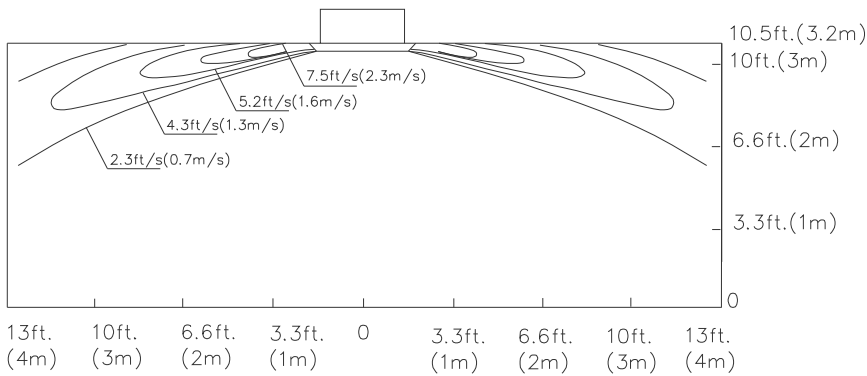
4) Heating/Air Temperature Distribution



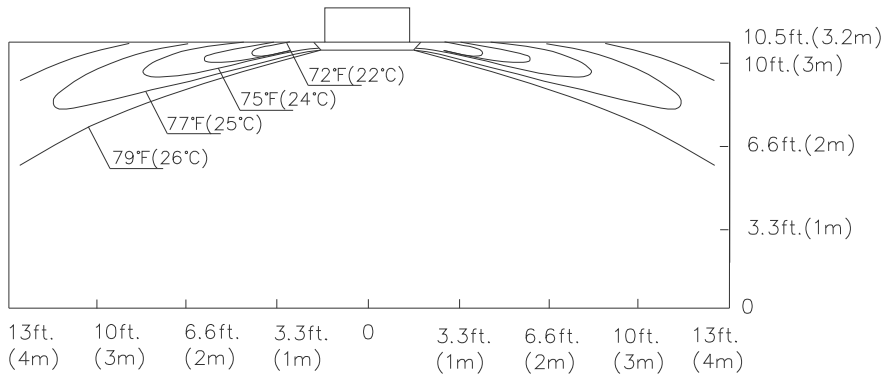
7. AIR FLOW DISTRIBUTION

UNI48CS23STG1

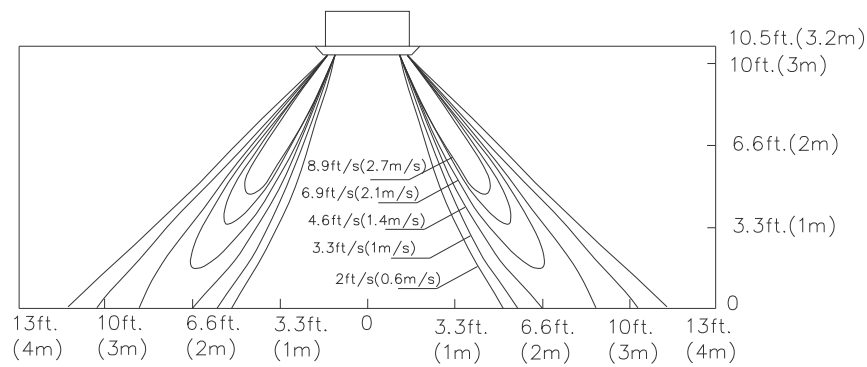
1) Cooling/Air Velocity Distribution



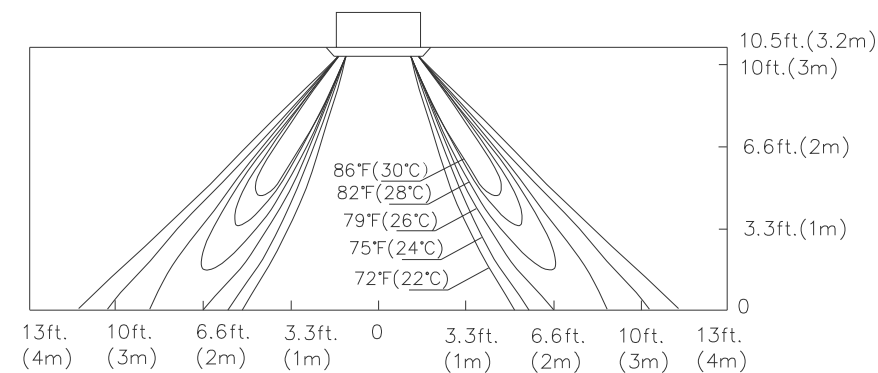
2) Cooling/Air Temperature Distribution



3) Heating/Air Velocity Distribution



4) Heating/Air Temperature Distribution

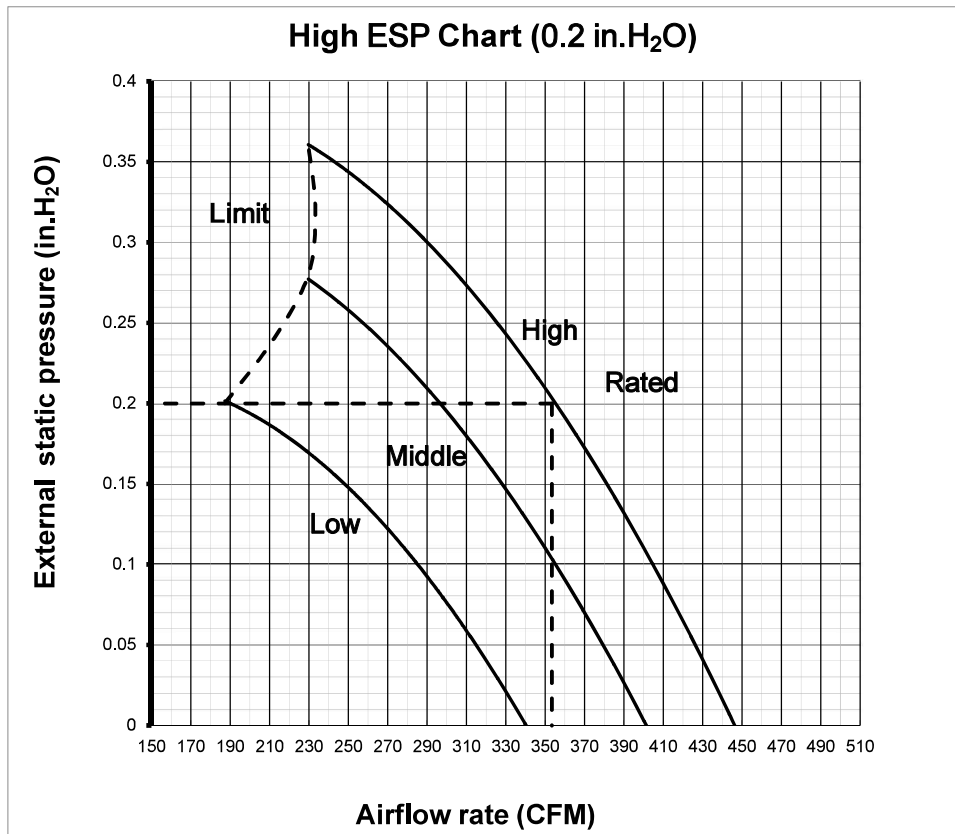
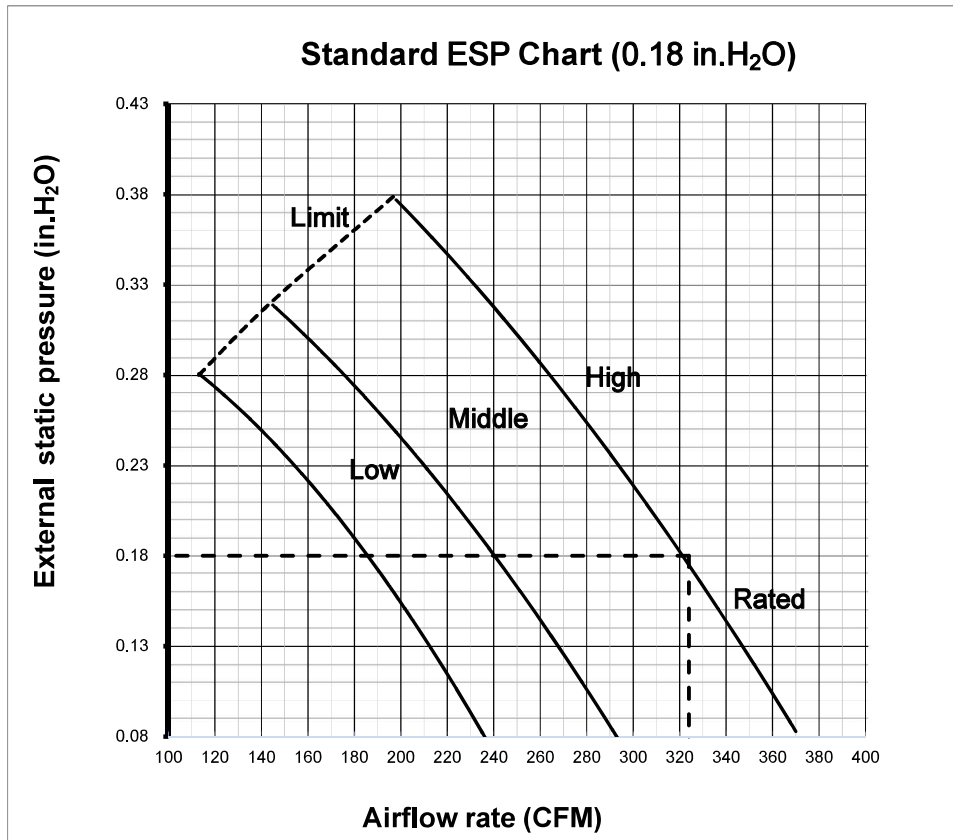


8. ESP CHART (DUCT TYPE)

8. ESP (External static pressure) Chart (Duct type)

UNI09DT23STG1

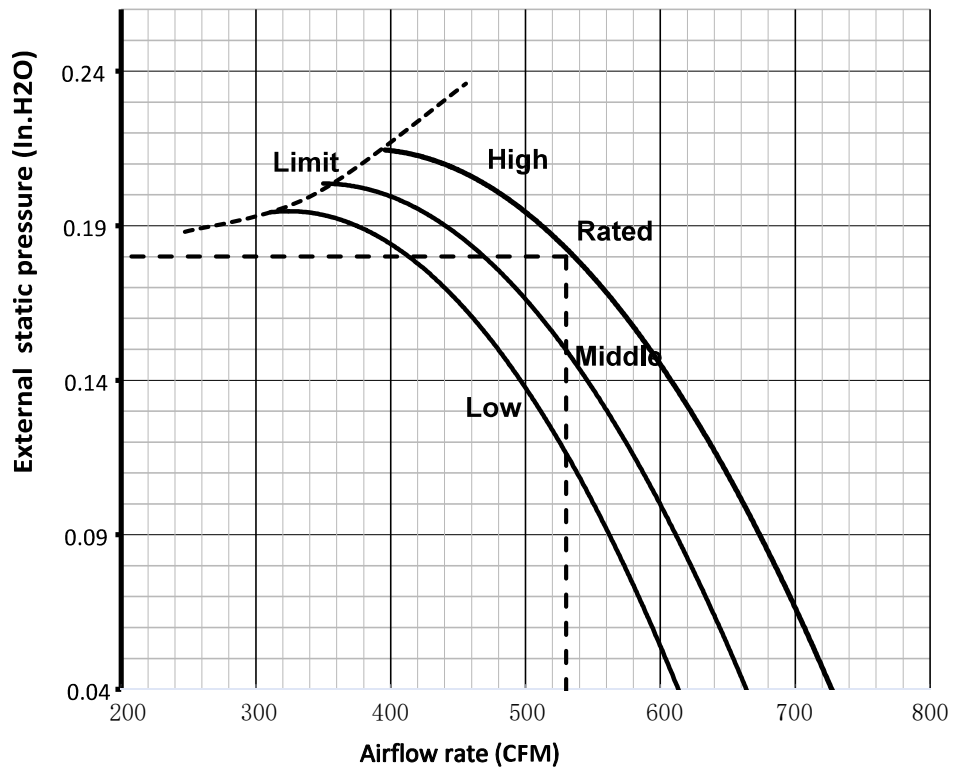
UNI12DT23STG1



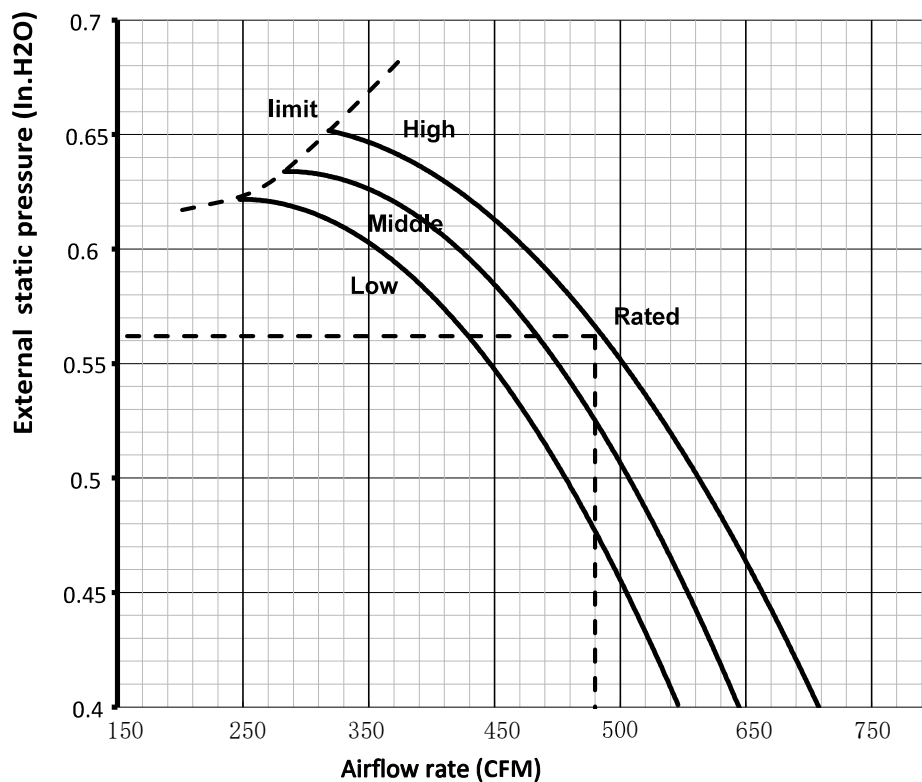
8. ESP CHART (DUCT TYPE)

UNI18DT23STG1

Low ESP (0.18 In.H₂O)



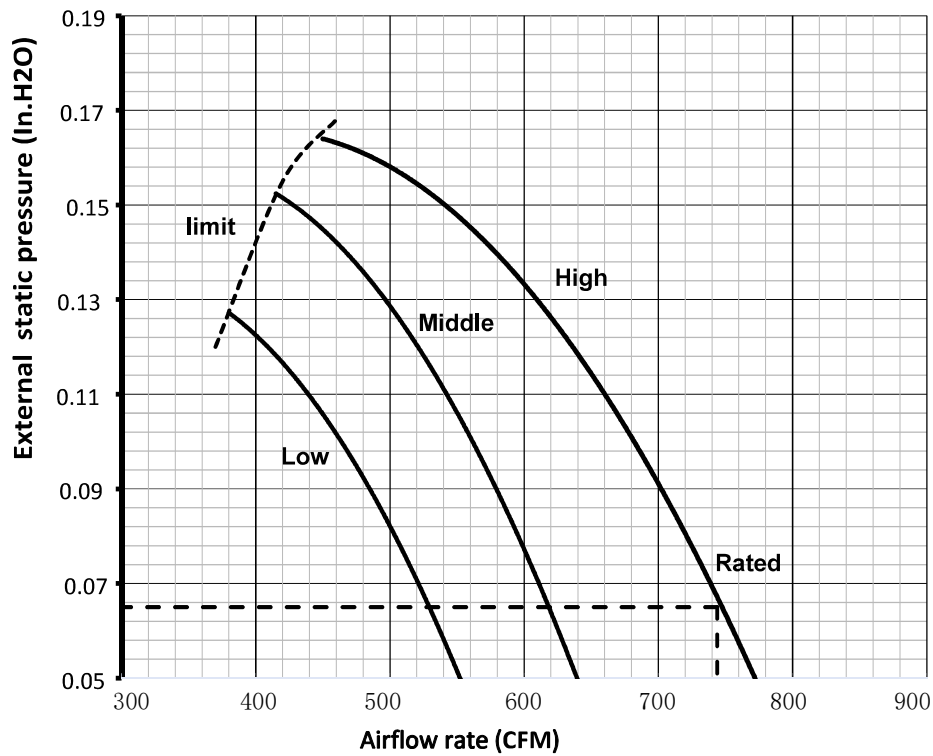
Standard ESP (0.56 In.H₂O)



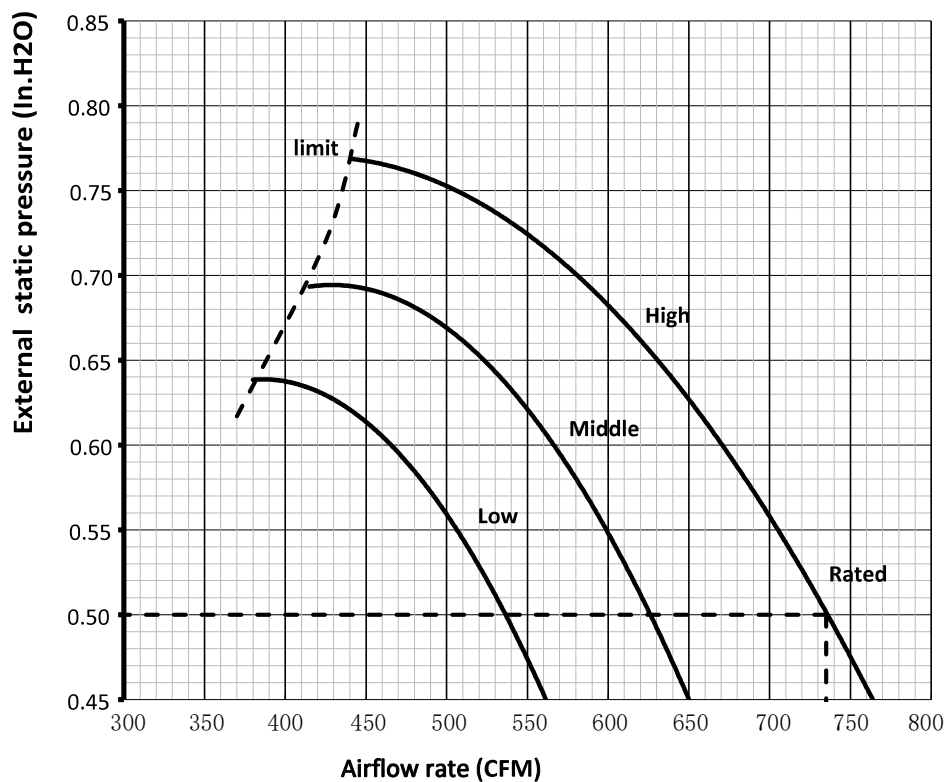
8. ESP CHART (DUCT TYPE)

UNI24DT23STG1

Low ESP (0.06 In.H₂O)



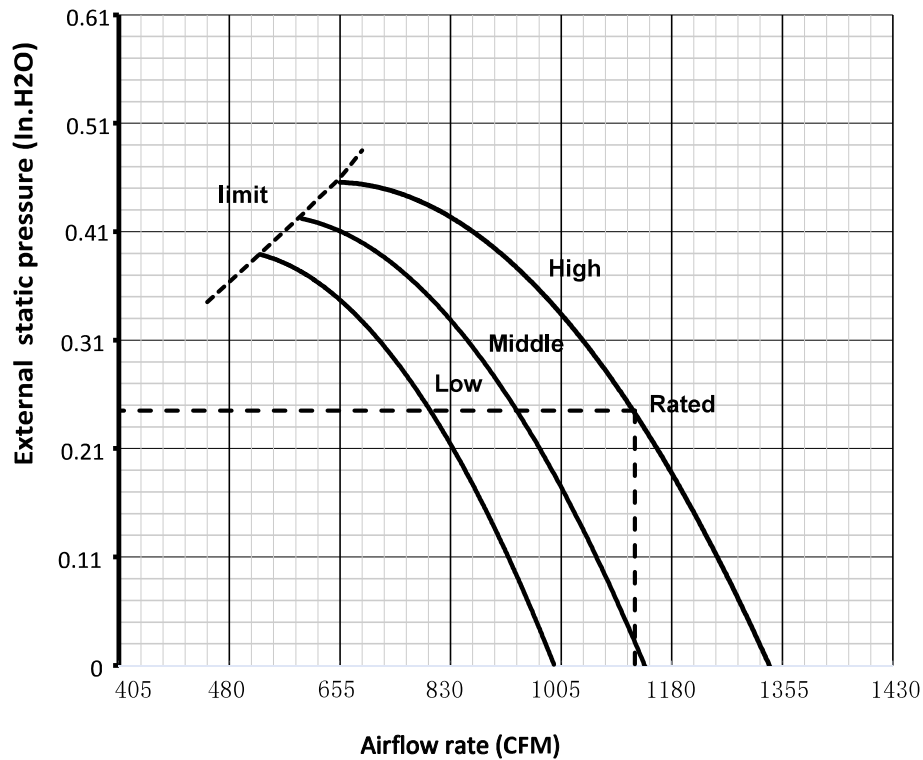
Standard ESP (0.50 In.H₂O)



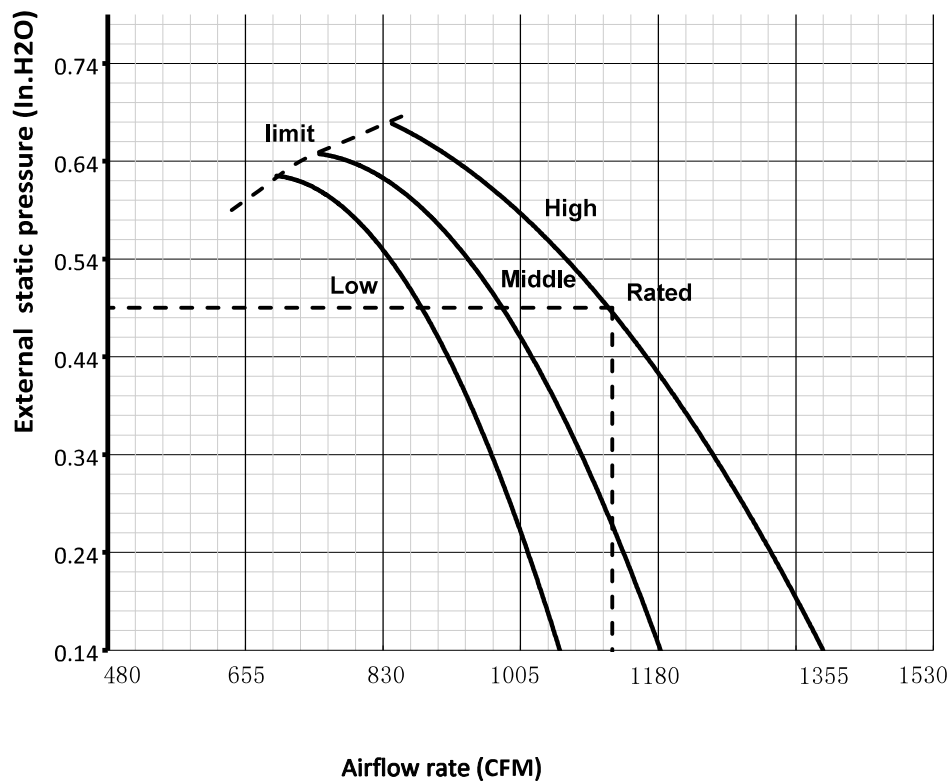
8. ESP CHART (DUCT TYPE)

UNI36DT23STG1

Low ESP (0.24 In.H₂O)

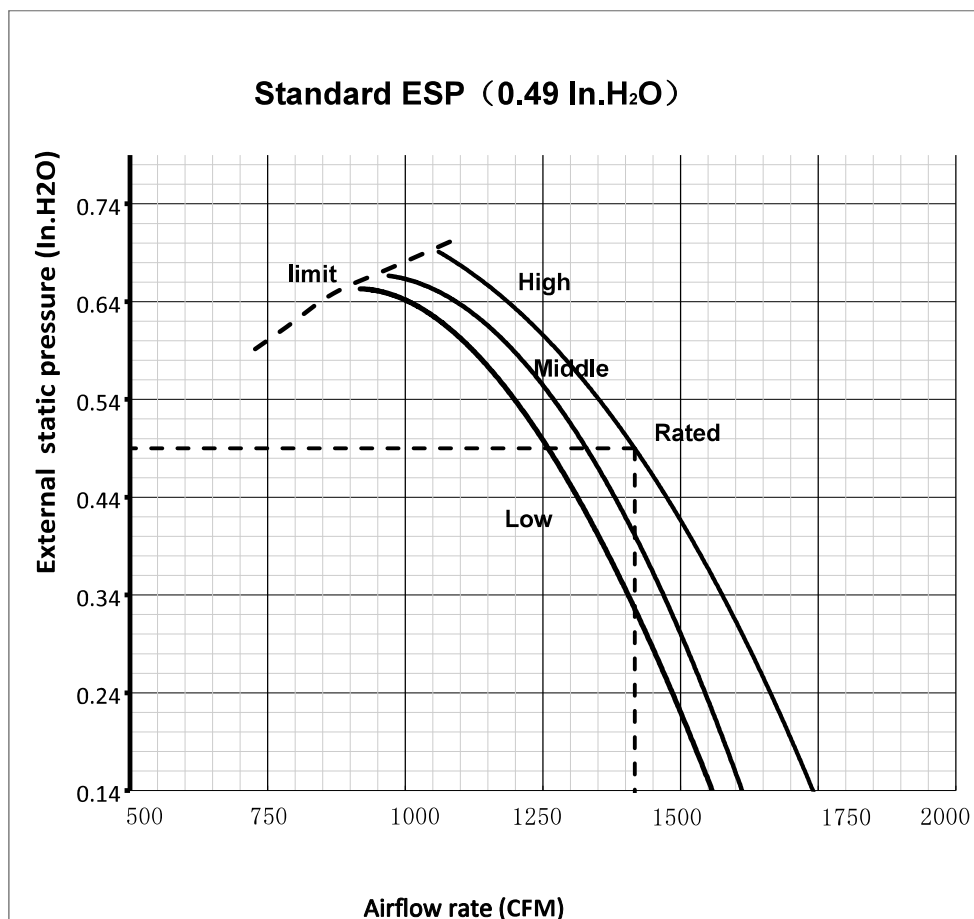
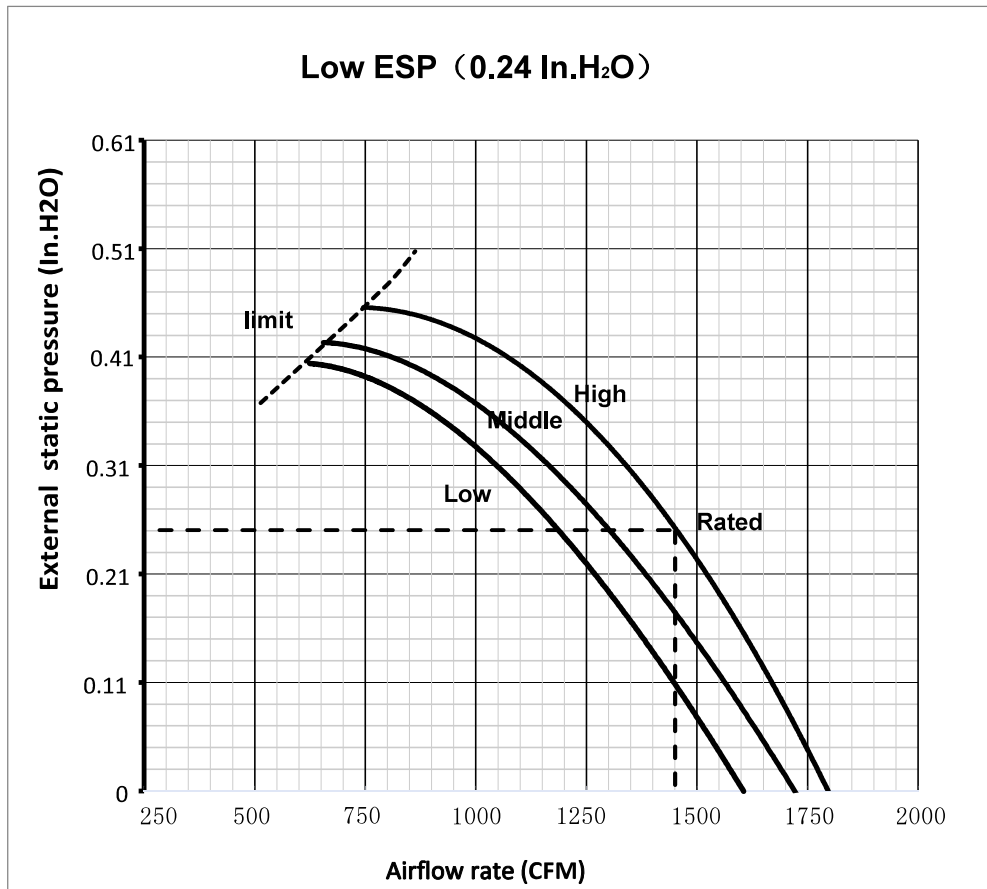


Standard ESP (0.49 In.H₂O)



8. ESP CHART (DUCT TYPE)

UNI48DT23STG1



Specifications in this document are subject to change without notice, in order that Hitachi-Johnson Controls Air Conditioning, Inc. may bring the latest innovations to their customers.

Hitachi-Johnson Controls Air Conditioning, Inc.