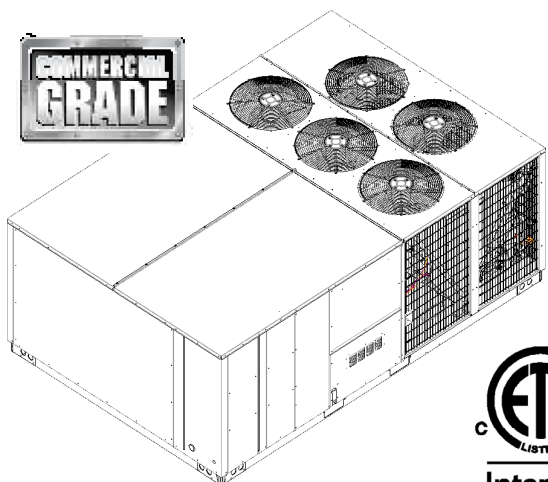


DSC/DSH SERIES PACKAGED HEATING AND COOLING UNIT 15 TO 25 TON



NOTE: 25 ton AC model shown in picture.
20 ton AC/HP and 15 ton HP models have 4 fans
15 ton AC model has 3 fans



! RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION.

These installation instructions cover the outdoor installation of single package heating and cooling units. See the Specification Sheet applicable to your model for information regarding accessories.

***NOTE:** Please contact your distributor or our website for the applicable Specification Sheet referred to in this manual.

NOTE: This equipment is approved to use only with R-32 refrigerant.

NOTE: Specifications and performance data listed herein are subject to change without notice.

NOTE: Never operate the unit without the recommended filter or the outer panel installed.



WARNING

ONLY PERSONNEL THAT HAVE BEEN TRAINED TO INSTALL, ADJUST, SERVICE, MAINTENANCE OR REPAIR (HEREINAFTER, "SERVICE") THE EQUIPMENT SPECIFIED IN THIS MANUAL SHOULD SERVICE THE EQUIPMENT.

THIS EQUIPMENT IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPACITIES, 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 EQUIPMENT.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SUPERVISION, SERVICE OR SERVICE PROCEDURES. IF YOU SERVICE THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY INJURY OR PROPERTY DAMAGE WHICH MAY RESULT. IN ADDITION, IN JURISDICTIONS THAT REQUIRE ONE OR MORE LICENSES TO SERVICE THE EQUIPMENT SPECIFIED IN THIS MANUAL, ONLY LICENSED PERSONNEL SHOULD SERVICE THE EQUIPMENT. IMPROPER SUPERVISION, INSTALLATION, ADJUSTMENT, SERVICING, MAINTENANCE OR REPAIR OF THE EQUIPMENT SPECIFIED IN THIS MANUAL, OR ATTEMPTING TO INSTALL, ADJUST, SERVICE OR REPAIR THE EQUIPMENT SPECIFIED IN THIS MANUAL WITHOUT PROPER SUPERVISION OR TRAINING MAY RESULT IN PRODUCT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

DO NOT BYPASS SAFETY DEVICES.

QUEBEC DISCLOSURE REGARDING AVAILABILITY OF REPLACEMENT PARTS, REPAIR SERVICES AND INFORMATION FOR MAINTENANCE AND REPAIR: Daikin Comfort Technologies Manufacturing, Inc. (Daikin) does not guarantee the availability of (1) replacement parts; (2) repair services; and (3) information necessary to maintain or repair products, within the meaning of section 39.1 of the Consumer Protection Act, CQLR, c P-40.1 and section 79.18 of the Regulation respecting the application of the Consumer Protection Act, CQLR, c P-40.1, r. 3.

AVIS POUR LE QUÉBEC CONCERNANT LA DISPONIBILITÉ DES PIÈCES DE RECHANGE, DES SERVICES DE RÉPARATION ET DES RENSEIGNEMENTS POUR L'ENTRETIEN ET LA RÉPARATION : Daikin Comfort Technologies Manufacturing, Inc. (Daikin) ne garantit pas la disponibilité (1) des pièces de rechange, (2) des services de réparation et (3) des renseignements pour l'entretien et la réparation, au sens de l'article 39.1 de la Loi sur la protection du consommateur, RLRQ c P-40.1 et de l'article 79.18 du Règlement d'application de la Loi sur la protection du consommateur, RLRQ c P-40.1, r 3.

Our continuing commitment to quality products may mean a change in specifications without notice.

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19001 Kermier Rd. Waller, TX 77484
www.daikincomfort.com



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WARNING

LEAK DETECTION SYSTEM INSTALLED. UNIT MUST BE POWERED EXCEPT FOR SERVICE.



WARNING

TO AVOID PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, DO NOT USE THIS UNIT IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE FURNACE AND TO REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL HAVING BEEN UNDER WATER



CAUTION

SHEET METAL PARTS, SCREWS, CLIPS AND SIMILAR ITEMS INHERENTLY HAVE SHARP EDGES, AND IT IS NECESSARY THAT THE INSTALLER AND SERVICER PERSONNEL EXERCISE CAUTION.



WARNING

DO NOT CONNECT TO OR USE ANY DEVICE THAT IS NOT CERTIFIED BY THE MANUFACTURER FOR USE WITH THIS UNIT. SERIOUS PROPERTY DAMAGE, PERSONAL INJURY, REDUCED UNIT PERFORMANCE AND/OR HAZARDOUS CONDITIONS MAY RESULT FROM THE USE OF SUCH NON-APPROVED DEVICES.



WARNING

THIS UNIT MUST NOT BE USED AS A "CONSTRUCTION HEATER" DURING THE FINISHING PHASES OF CONSTRUCTION ON A NEW STRUCTURE. THIS TYPE OF USE MAY RESULT IN PREMATURE FAILURE OF THE UNIT DUE TO EXTREMELY LOW RETURN AIR TEMPERATURES AND EXPOSURE TO CORROSIVE OR VERY DIRTY ATMOSPHERES.



WARNING

DO NOT OPERATE THE COMPRESSOR(S) WITHOUT THE TERMINAL PLUG FULLY ENGAGED OR THE TERMINAL COVER PROPERLY INSTALLED. GET AWAY IF UNUSUAL SOUNDS ARE HEARD FROM WITHIN THE COMPRESSOR. DISCONNECT ELECTRICAL POWER FROM THE UNIT.



WARNING

A TRIPPED CIRCUIT BREAKER OR BLOWN FUSE MAY INDICATE THAT AN ELECTRICAL PROBLEM EXISTS. DO NOT RESET A CIRCUIT BREAKER OR REPLACE FUSES WITHOUT FIRST PERFORMING THOROUGH ELECTRICAL TROUBLESHOOTING AND TESTING PROCEDURES.



WARNING

HIGH VOLTAGE!
PRIOR TO SERVICING THE UNIT OR REMOVING THE COMPRESSOR TERMINAL PLUG OR TERMINAL COVER, DISCONNECT ALL ELECTRICAL POWER FROM THE UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT.





WARNING

HIGH VOLTAGE

DISCONNECT ALL POWER BEFORE SERVICING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

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 ODOR.



WARNING

ONLY AUXILIARY DEVICES APPROVED BY THE APPLIANCE MANUFACTURER OR DECLARED SUITABLE WITH THE REFRIGERANT SHALL BE INSTALLED IN CONNECTING DUCTWORK.



CAUTION

AUXILIARY DEVICES WHICH MAY BE A POTENTIAL IGNITION SOURCE SHALL NOT BE INSTALLED IN THE DUCT WORK. EXAMPLES OF SUCH POTENTIAL IGNITION SOURCES ARE HOT SURFACES WITH A TEMPERATURE EXCEEDING 700°C AND ELECTRIC SWITCHING DEVICES.



WARNING

THIS UNIT IS EQUIPPED WITH ELECTRICALLY POWERED SAFETY MEASURES. TO BE EFFECTIVE, THE UNIT MUST BE ELECTRICALLY POWERED AT ALL TIMES AFTER INSTALLATION, OTHER THAN WHEN SERVICING.



WARNING

TO PREVENT THE RISK OF PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, DO NOT STORE COMBUSTIBLE MATERIALS OR USE GASOLINE OR OTHER FLAMMABLE LIQUIDS OR VAPORS IN THE VICINITY OF THIS APPLIANCE.



WARNING

HERMETIC COMPRESSOR ELECTRICAL TERMINAL VENTING CAN BE DANGEROUS. IN CERTAIN CIRCUMSTANCES, THE TERMINAL MAY BE EXPELLED, VENTING THE REFRIGERANT VAPOR AND COMPRESSOR OIL CONTAINED WITHIN THE COMPRESSOR HOUSING AND SYSTEM. BE ALERT FOR SOUNDS OF ARCING (SIZZLING, SPATTERING, OR POPPING) INSIDE THE COMPRESSOR. IMMEDIATELY GET AWAY IF YOU HEAR THESE SOUNDS AND DISCONNECT ELECTRICAL POWER FROM THE UNIT.



WARNING

TO PREVENT PROPERTY DAMAGE, PERSONAL INJURY OR DEATH DUE TO FIRE, EXPLOSIONS, SMOKE, SOOT, CONDENSATION, ELECTRIC SHOCK OR CARBON MONOXIDE, THIS UNIT MUST BE PROPERLY INSTALLED, REPAIRED, OPERATED AND MAINTAINED.

This unit is approved for outdoor installation ONLY. For Installation Only in Locations Not Accessible to the General Public. Rated performance is achieved after 20 hours of operation. Rated performance is delivered at the specified airflow. See outdoor unit specification sheet for split system models or product specification sheet for packaged and light commercial model. Specification sheets can be found at www.daikincomfort.com for Daikin brand products. Within the website, please select the residential or commercial products menu and then select the submenu for the type of product to be installed, such as air conditioners or heat pumps, to access a list of product pages that each contain links to that model's specification sheet.

To assure that your unit operates safely and efficiently, it must be installed, operated, and maintained in accordance with these installation and operating instructions, and all local building codes and ordinances.

1.1 SAFETY INSTRUCTIONS

1.1.1 TO THE INSTALLER

Before installing this unit, please read this manual to familiarize yourself on the specific items which must be adhered to, including maximum external static pressure to unit, air temperature rise and minimum or maximum CFM.

Keep this literature in a safe place for future reference.

1.1.2 TERMINAL VENTING

Never operate the compressor without the terminal cover secured and properly in place or without the electrical plug fully seated and engaged to the terminal posts.

If a terminal is damaged, electrically overloaded, or short circuited to ground, there is a remote possibility that the terminal can be suddenly expelled from the terminal housing thereby venting the refrigerant and compressor oil mixture to atmosphere.

This discharge can be ignited from electrical arcing, or other open sources of ignition, and can cause potentially severe or fatal injury. This event is known as "Terminal Venting".

To reduce the possibility of external ignition, all open flames or other heat sources must be extinguished, and all electrical power must be turned off prior to opening the terminal cover or removing the electrical plug and servicing the system. Proper sealed system evacuation is required during equipment servicing to maintain adequate internal system cleanliness while eliminating contaminants.

1 GENERAL INFORMATION

For complete information and installation instructions for models with DDC controls, see manual UM-ILINQ* and QSG-ILINQ*.

Be alert for sounds of arcing (sizzling, sputtering, or popping) inside the compressor. IMMEDIATELY GET AWAY from the unit if you hear these sounds and disconnect electrical power.

2 INSTRUCTIONS FOR A2L SYSTEMS

2.1 DETECTION OF FLAMMABLE REFRIGERANTS

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

The following leak detection methods are deemed acceptable for all refrigerant systems.

Electronic leak detectors may be used to detect refrigerant leaks but, in the case of FLAMMABLE REFRIGERANTS, 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 (25% maximum) is confirmed.

Leak detection fluids are also 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 should be recovered from the system.

2.2 ALTITUDE ADJUSTMENT FACTOR TO CALCULATE MINIMUM ROOM AREA


WARNING

THE APPLIANCE SHALL BE INSTALLED, OPERATED AND STORED IN A ROOM WITH A FLOOR AREA NOT LESS THAN THE MINIMUM ROOM AREA INDICATED.



Minimum Room Area	
DSC Series	DSH Series
15.3 m ²	30.2 m ²
164.7 ft ²	325.3 ft ²

$\geq$

MINIMUM ROOM AREA REQUIREMENT

The Indoor equipment mitigation requirements are calculated at sea level. For higher altitudes adjust the minimum room area specified near the Serial Plate by the corresponding altitude adjustment factor shown below. This table is provided as a reference.

Adjusted room area ($A_{\min \text{ adj}}$) is the product of the minimum room area specified in the serial plate and the adjustment factor AF, as shown in below formula.

$$A_{\min \text{ adj}} = A_{\min} (\text{serial plate}) * \text{AF}$$

Height in meters	Height in feet	Altitude Adjustment Factor (AF)
At sea level	At sea level	1.00
1~200	1~660	1.02
200~400	660~1320	1.03
400~600	1320~1970	1.05
600~800	1970~2630	1.07
800~1000	2630~3290	1.09
1000~1200	3290~3940	1.11
1200~1400	3940~4600	1.13
1400~1600	4600~5250	1.15
1600~1800	5250~5910	1.17
1800~2000	5910~6570	1.19
2000~2200	6570~7220	1.21
2200~2400	7220~7880	1.24
2400~2600	7880~8540	1.26
2600~2800	8540~9190	1.29
2800~3000	9190~9850	1.31
3000~3200	9850~10500	1.34

2.3 QUALIFICATION OF WORKERS

Personnel must be certified to service, work, and/or repair units with FLAMMABLE REFRIGERANTS. A certificate should document the competence and qualification achieved through training that included 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 different safety concepts, including ventilated and unventilated areas.
- Information about refrigerant detectors, including function, operation, and service measures.
- Information about the concept of sealed components and sealed enclosures according to IEC 60079-15:2010.
- Information about the correct working procedures, including commissioning, maintenance, repair, decommissioning, and disposal procedures.

EPA REGULATIONS

IMPORTANT: THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) HAS ISSUED VARIOUS REGULATIONS REGARDING THE INTRODUCTION AND DISPOSAL OF REFRIGERANTS IN THIS UNIT. FAILURE TO FOLLOW THESE REGULATIONS MAY HARM THE ENVIRONMENT AND CAN LEAD TO THE IMPOSITION OF SUBSTANTIAL FINES. BECAUSE REGULATIONS MAY VARY DUE TO PASSAGE OF NEW LAWS, WE SUGGEST A CERTIFIED TECHNICIAN PERFORM ANY WORK DONE ON THIS UNIT. SHOULD YOU HAVE ANY QUESTIONS PLEASE CONTACT THE LOCAL OFFICE OF THE EPA.

2.4 NATIONAL CODES

This product is designed and manufactured to permit installation in accordance with National Codes. It is the installer's responsibility to install the product in accordance with National Codes and/or prevailing local codes and regulations. The heating and cooling capacities of the unit should be greater than or equal to the design heating and cooling loads of the area to be conditioned. The loads should be calculated by an approved method or in accordance with ASHRAE Guide or Manual J - Load Calculations published by the Air Conditioning Contractors of America.

Obtain from:
American National Standards Institute
25 West 43rd Street, 4th Floor
New York, NY 10036

System design and installation should also, where applicable, follow information presented in accepted industry guides such as the ASHRAE Handbooks. The manufacturer assumes no responsibility for equipment installed in violation of any code or regulation.

The mechanical installation of the packaged roof top units consists of making final connections between the unit and building services; supply and return duct connections; and drain connections (if required). The internal systems of the unit are completely factory-installed and tested prior to shipment.

Units are generally installed on a steel roof mounting curb assembly which has been shipped to the job site for installation on the roof structure prior to the arrival of the unit. The model number shown on the unit's identification plate identifies the various components of the unit such as refrigeration tonnage, heating input and voltage. Verify that the Voltage listed on the unit id plate matches the voltage supplied from the site.

Carefully inspect the unit for damage including damage to the cabinetry. Any bolts or screws which may have loosened in transit must be re-tightened. In the event of damage, the receiver should:

1. Make notation on delivery receipt of any visible damage to shipment or container.
2. Notify the carrier promptly and request an inspection.

3. In case of concealed damage, the carrier should be notified as soon as possible-preferably within 5 days.
4. File the claim with the following supporting documents:
 - a. Original Bill of Lading, certified copy, or indemnity bond.
 - b. Original paid freight bill or indemnity in lieu thereof.
 - c. Original invoice or certified copy thereof, showing trade and other discounts or reductions.
 - d. Copy of the inspection report issued by the carrier representative at the time damage is reported to the carrier. The carrier is responsible for making prompt inspection of damage and for a thorough investigation of each claim. The distributor or manufacturer will not accept claims from dealers for transportation damage.

NOTE: WHEN INSPECTING THE UNIT FOR TRANSPORTATION DAMAGE, REMOVE ALL PACKAGING MATERIALS. RECYCLE OR DISPOSE OF THE PACKAGING MATERIAL ACCORDING TO LOCAL CODES.

3 PRE-INSTALLATION CHECKS

NOTE: VERIFY THAT VOLTAGE LISTED ON SERIAL PLATE MATCHES VOLTAGE BEING SUPPLIED BY SITE.

Carefully read all instructions for the installation prior to installing unit. Ensure each step or procedure is understood and any special considerations are taken into account before starting installation. Assemble all tools, hardware and supplies needed to complete the installation. Some items may need to be purchased locally.

ACCESSORY INSTALLATION



WARNING

ALL ACCESSORIES THAT MAY BECOME A POTENTIAL IGNITION SOURCE IF INSTALLED, SUCH AS ELECTRONIC AIR CLEANERS, MUST ONLY BE POWERED THROUGH OUR ACCESSORY CONTROL BOARD KIT. IF AN ELECTRONIC AIR CLEANER IS ALREADY INSTALLED IN THE DUCT WORK AND NOT CONNECTED TO THE ACCESSORY CONTROL BOARD. IT WILL HAVE TO BE DISABLED OR REMOVED. ENSURE THAT ANY ADDITIONAL WIRING FROM THE INDOOR UNIT TO THE ACCESSORY CONTROL BOARD IS ROUTED AND PROTECTED FROM DAMAGE WEAR, AVOIDING THE FLUE PIPE AND ANY JOINTS THAT MAY NEED BRAZED OR DISCONNECTED FOR SERVICE. REFER TO THE PRODUCT SPECIFICATION SHEET FOR THE ACCESSORY CONTROL BOARD KIT PART NUMBER.

4 INSTALLATION INSTRUCTIONS

4.1 RIGGING DETAILS



WARNING

TO PREVENT PROPERTY DAMAGE, THE UNIT SHOULD REMAIN IN AN UPRIGHT POSITION DURING ALL RIGGING AND MOVING OPERATIONS. TO FACILITATE LIFTING AND MOVING WHEN A CRANE IS USED, PLACE THE UNIT IN AN ADEQUATE CABLE SLING.



CAUTION

DO NOT LIFT UNITS TWO AT A TIME. PROVISIONS FOR FORKS HAVE BEEN INCLUDED IN THE UNIT BASE FRAME. MINIMUM FORK LENGTH IS 72" TO PREVENT DAMAGE TO THE UNIT.

Provisions for forks have been included in the unit base frame. No other fork locations are approved.



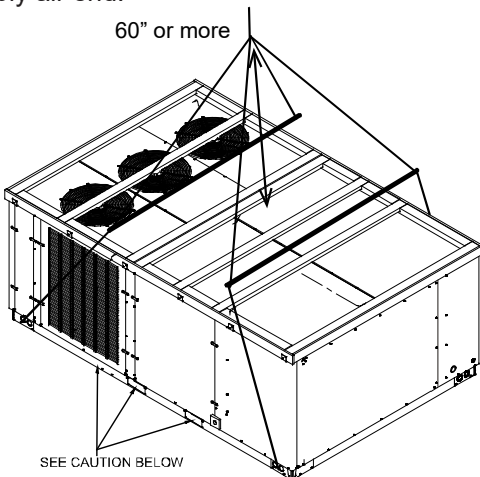
WARNING

TO PREVENT POSSIBLE EQUIPMENT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, THE FOLLOWING BULLET POINTS MUST BE OBSERVED WHEN INSTALLING THE UNIT.

- Unit must be lifted by the four lifting holes located at the base frame corners.
- Lifting cables should be attached to the unit with shackles.
- The distance between the crane hook and the top of the unit must not be less than 60".
- Two spreader bars must span over the unit to prevent damage to the cabinet by the lift cables. Spreader bars must be of sufficient length so that cables do not come in contact with the unit during transport. Remove wood struts mounted beneath unit base frame before setting unit on roof curb. These struts are intended to protect unit base frame from fork lift damage. Removal is accomplished by extracting the sheet metal retainers and pulling the struts through the base of the unit. Refer to rigging label on the unit.

IMPORTANT NOTE: If using bottom discharge with roof curb, ductwork should be attached to the curb prior to installing the unit. Ductwork dimensions are shown in Roof Curb Installation Instructions.

Refer to the Roof Curb Installation Instructions for proper curb installation. Curbing must be installed in compliance with the National Roofing Contractors Association Manual. Lower unit carefully onto roof mounting curb. While rigging unit, center of gravity will cause condenser end to be lower than supply air end.



CAUTION

WHEN UNIT IS SUSPENDED, BOARDS AND SHIPPING BRACE WILL DROP WHEN SCREWS ARE REMOVED. TO PREVENT PERSONAL INJURY, STAND CLEAR. REMOVE FORK HOLE BRACKETS, BOARDS AND SHIPPING BRACE FROM BOTTOM OF UNIT BEFORE PLACING UNITS ONTO CURB.

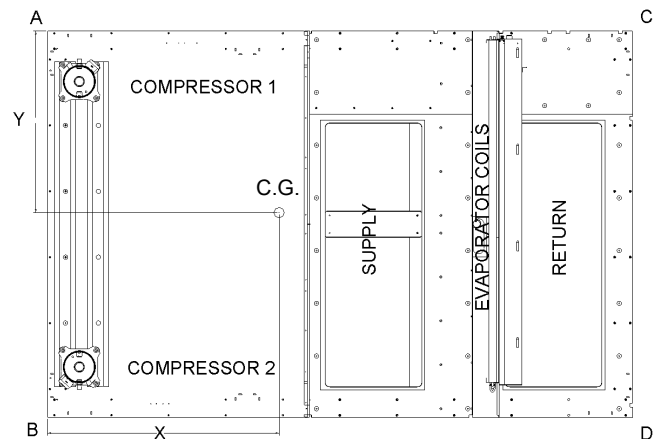
To assist in determining rigging requirements, unit weights are shown as follows:

CORNER & CENTER OF GRAVITY LOCATIONS

DATA	DSC Weights (lbs)			DSH Weights (lbs)	
	15T	20T	25T	15T	20T
Corner Weight - A	479	580	446	740	508
Corner Weight - B	487	380	499	518	839
Corner Weight - C	511	437	621	440	607
Corner Weight - D	445	596	517	575	475
Unit Shipping Weight	1839	2108	2198	2388	2469
Unit Operating Weight	1922	1993	2083	2273	2354

X (Inches)	66.4	64.2	60.5	59.5	59.6
Y (Inches)	45.3	43.2	43.0	46.1	40.6

NOTE: THESE WEIGHTS ARE WITHOUT ACCESSORIES INSTALLED.



CAUTION

TO PREVENT SEVERE DAMAGE TO THE BOTTOM OF THE UNIT, DO NOT FORK LIFT UNIT AFTER WOOD STRUTS HAVE BEEN REMOVED.

Bring condenser end of unit into alignment with the curb. With condenser end of the unit resting on curb member and using curb as a fulcrum, lower opposite end of the unit until entire unit is seated on the curb. When a rectangular cantilever curb is used, care should be taken to center the unit. Check for proper alignment and orientation of supply and return openings with duct.

RIGGING REMOVAL



CAUTION

TO PREVENT DAMAGE TO THE UNIT, DO NOT ALLOW CRANE HOOKS AND SPREADER BARS TO REST ON THE ROOF OF THE UNIT.

Remove spreader bars, lifting cables and other rigging equipment.

4.2 UNIT LOCATION AND CLEARANCES

NOTE: THESE UNITS ARE DESIGNED FOR INSTALLATIONS ONLY AT A MAX ALTITUDE OF 2000 METERS OR 6562 FEET ABOVE SEA LEVEL.



WARNING

TO PREVENT POSSIBLE EQUIPMENT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, THE FOLLOWING MUST BE OBSERVED WHEN STORING, INSTALLING AND OPERATING THE UNIT.

IMPORTANT NOTE: Remove wood shipping rails prior to installation of the unit. *See important note under Roof Curb Installation Only.*

Proper installation of the unit ensures trouble-free operation. Improper installation can result in problems ranging from noisy operation to property or equipment damages, dangerous conditions that could result in injury or personal property damage. Damage or repairs due to improper installation are not covered under the warranty. Give this booklet to the user and explain its provisions. The user should retain these instructions for future reference.

- For proper operation and condensate drainage, the unit must be mounted level.
- Do not locate the unit in an area where the outdoor air (i.e. combustion air for the unit) will be frequently contaminated by compounds containing chlorine or fluorine. Common sources of such compounds include swimming pool chemicals and chlorine bleaches, paint stripper, adhesives, paints, varnishes, sealers, waxes (which are not yet dried) and solvents used during construction and remodeling. Various commercial and industrial processes may also be sources of chlorine/fluorine compounds.
- To avoid possible illness or death of the building occupants, do NOT locate outside air intake device (economizer, manual fresh air intake, motorized fresh air intake) too close to an exhaust outlet, gas vent termination, or plumbing vent outlet. For specific distances required, consult local codes or in their absence, with the latest edition of the National Fuel Gas Code latest edition of the National Fuel Gas Code NFPA54/ANSI Z223.1 and National Standard of Canada CAN/CSA B149 Installation Codes.
- Allow minimum clearances from the enclosure for fire protection, proper operation, and service access

(see unit clearances). These clearances must be permanently maintained.

- If used, do not allow the economizer/manual fresh air damper/ motorized fresh air damper to become blocked by snow or debris. In some climates or locations, it may be necessary to elevate the unit to avoid these problems. For proper operation and condensate drainage, the unit must be mounted level
- When the unit is heating, the temperature of the return air entering the unit must be between 50°F and 100°F.

4.2.1 GROUND LEVEL INSTALLATIONS ONLY:

- When the unit is installed on the ground adjacent to the building, a level concrete (or equal) base is recommended. Prepare a base that is 3" larger than the package unit footprint and a minimum of 3" thick.
- The base should also be located where no runoff of water from higher ground can collect in the unit.
- Because units are shipped as vertical supply and return only, the unit must be raised on an appropriate pier and rail system for duct work installation. Alternately, an optional horizontal kit is available.
- The unit must be installed in locations that are not accessible to the general public. Therefore, add protection guards, fencing, anti-vandalism/theft protection devices around the unit to ensure access to authorized personnel only.

4.2.2 ROOFTOP INSTALLATIONS ONLY:

- To avoid possible property damage or personal injury, the roof must have sufficient structural strength to carry the weight of the unit(s) and snow or water loads as required by local codes. Consult a structural engineer to determine the weight capabilities of the roof.
- The unit may be installed directly on wood floors or on Class A, Class B, or Class C roof covering material.
- To avoid possible personal injury, a safe, flat surface for service personnel should be provided.
- Adequate clearances from the unit to any adjacent public walkways, adjacent buildings, building openings or openable windows must be maintained in accordance with national codes. National Fuel Gas Code NFPA54/ANSI Z223.1 and National Standard of Canada CAN/CSA B149 Installation Codes.

UNIT PRECAUTIONS

- Do not stand or walk on the unit.
- Do not drill holes anywhere in panels or in the base frame of the unit (except where indicated). Unit access panels provide structural support.
- Do not remove any access panels until unit has been installed on roof curb or field supplied structure.
- Do not roll unit across finished roof without prior approval of owner or architect.
- Do not skid or slide on any surface as this may damage unit base. The unit must be stored on a flat,

level surface. Protect the condenser coil because it is easily damaged.

4.2.3 ROOF CURB INSTALLATIONS ONLY: Before installing this unit...

IMPORTANT NOTE: This unit has been equipped with a shipping brace under the compressor section that **MUST BE REMOVED** before installing the unit on a roof curb.

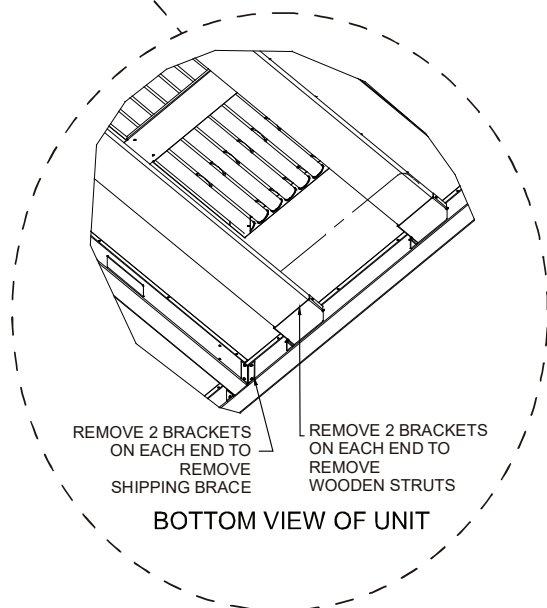
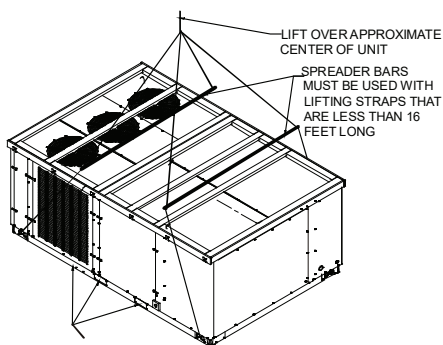
Please follow the instructions below to remove brace.



CAUTION

WHEN UNIT IS SUSPENDED, BOARDS AND SHIPPING BRACE WILL DROP WHEN SCREWS ARE REMOVED. TO PREVENT PERSONAL INJURY, STAND CLEAR. REMOVE FORK HOLE BRACKETS, BOARDS AND SHIPPING BRACE FROM BOTTOM OF UNIT BEFORE PLACING UNITS ONTO CURB.

1. Remove wooden struts and shipping brace per installation instructions. *The struts are located in the fork holes and are used to protect the unit from damage while lifting with forks. The shipping brace is located under the unit (under compressor).* Also remove the fork hole brackets as shown in the following figure.
2. Locate and remove the end brackets as shown in the following figure.



3. Lift unit per the "Rigging Details" section of this manual, observing all warnings and cautions. When unit is lifted, boards and shipping brace will drop if screws have been removed. To avoid injury, **STAND CLEAR.**
4. Dispose of the boards and brace appropriately.

Curb installations must comply with local codes and should be done in accordance with the established guidelines of the National Roofing Contractors Association.

Proper unit installation requires that the roof curb be firmly and permanently attached to the roof structure. Check for adequate fastening method prior to setting the unit on the curb.

Full perimeter roof curbs are available from the factory and are shipped unassembled. Field assembly, squaring, leveling and mounting on the roof structure are the responsibility of the installing contractor. All required hardware necessary for the assembly of the sheet metal curb is included in the curb accessory.



WARNING

TO PREVENT POSSIBLE EQUIPMENT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, THE FOLLOWING BULLET POINTS MUST BE OBSERVED WHEN INSTALLING THE UNIT.

- Sufficient structural support must be determined prior to locating and mounting the curb and package unit.
- Ductwork must be constructed using industry guidelines. The duct work must be placed into the roof curb before mounting the package unit. Our full perimeter curbs include duct connection frames to be assembled with the curb. Cantilevered type curbs are not available from the factory.
- Curb insulation, cant strips, flashing and general roofing material are furnished by the contractor.

The curbs must be supported on parallel sides by roof members. The roof members must not penetrate supply and return duct opening areas as damage to the unit might occur.

NOTE: THE UNIT AND CURB ACCESSORIES ARE DESIGNED TO ALLOW VERTICAL DUCT INSTALLATION BEFORE UNIT PLACEMENT. DUCT INSTALLATION AFTER UNIT PLACEMENT IS NOT RECOMMENDED.

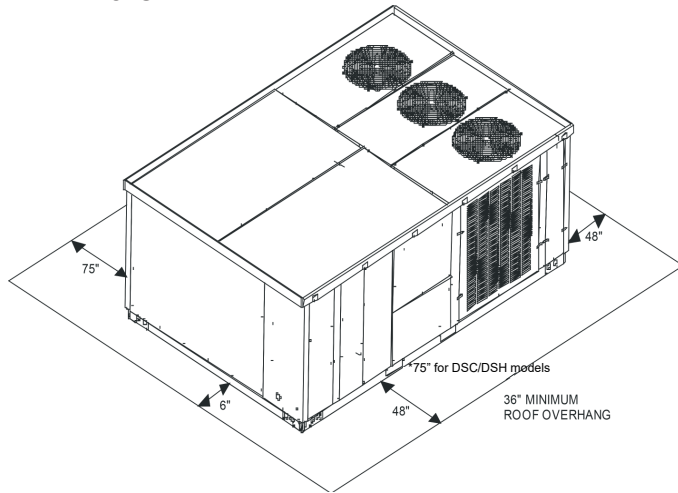


CAUTION

ALL CURBS LOOK SIMILAR. TO AVOID INCORRECT CURB POSITIONING, CHECK JOB PLANS CAREFULLY AND VERIFY MARKINGS ON CURB ASSEMBLY. INSTRUCTIONS MAY VARY IN CURB STYLES AND SUPERSEDE INFORMATION SHOWN.

See the manual shipped with the roof curb for assembly and installation instructions.

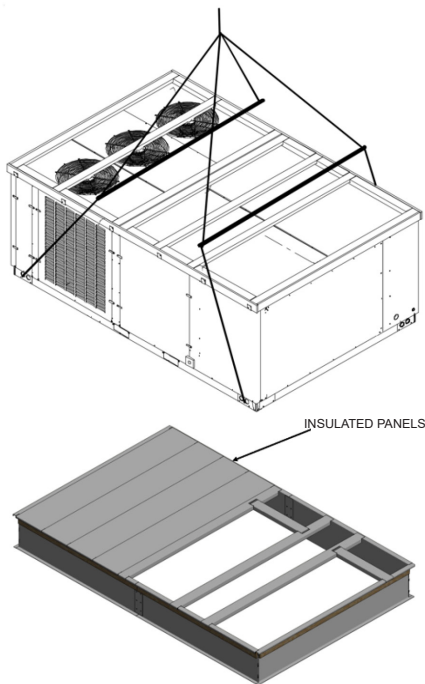
CLEARANCES



***IN SITUATIONS THAT HAVE MULTIPLE UNITS, A 48" MINIMUM CLEARANCE IS REQUIRED BETWEEN THE CONDENSER COILS.**

UNIT CLEARANCES

Adequate clearance around the unit should be kept for safety, service, maintenance, and proper unit operation. A 75" clearance on the non-service side of the unit is required to facilitate possible blower assembly and coil removal. This unit must not be installed beneath any obstruction. This unit should be installed remote from all building exhausts to inhibit ingestion of exhaust air into the unit's fresh air intake.



ROOF CURB INSTALLATION

ROOF CURB POST-INSTALLATION CHECKS

After installation, check the top of the curb, duct connection frame and duct flanges to make sure gasket has been applied properly. Gasket should be firmly applied to the top of the curb perimeter, duct flanges and any exposed duct connection frame. If gasket is loose, re-apply using strong weather resistant adhesive.

PROTRUSION

Inspect curb to ensure that none of the utility services (electric) routed through the curb protrude above the curb.



CAUTION

IF PROTRUSIONS EXIST, DO NOT ATTEMPT TO SET UNIT ON CURB.

ROOFTOP DUCT CONNECTIONS

Install duct connections on the roof curb before placing the unit on the rooftop.

NOTE: IF DUCT IS TO BE FASTENED TO THE ROOF CURB THE FASTENERS NEED TO BE INSTALLED HORIZONTALLY TO ALLOW THE UNIT TO BE SET FLAT ON THE CURB.

5 POST INSTALLATION CHECKS

5.1 CONTRACTOR RESPONSIBILITY

The installing contractor must be certain that:

- All supply and return air ductwork is in place, properly sealed, and corresponds with installation instructions.
- All thermostats are mounted and wired in accordance with installation instructions.
- All electric power, all gas, and the condensate drain installation have been made to each unit on the job. These main supply lines must be functional and capable of operating all units simultaneously.
- Clean Air filters are in place.

5.2 ROOF CURB INSTALLATION CHECK

Inspect the roof curb for correct installation. The unit and curb assembly should be level. Inspect the flashing of the roof mounting curb to the roof, especially at the corners, for good workmanship. Also check for leaks around gaskets. Note any deficiencies in a separate report and forward to the contractor.

5.3 ELECTRICAL WIRING



WARNING

HIGH VOLTAGE

DISCONNECT ALL POWER BEFORE SERVICING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

HIGH VOLTAGE

TO AVOID PROPERTY DAMAGE, PERSONAL INJURY OR DEATH DUE TO ELECTRICAL SHOCK, DO NOT TAMPER WITH FACTORY WIRING. THE INTERNAL POWER AND CONTROL WIRING OF THESE UNITS ARE FACTORY-INSTALLED HAVE BEEN THOROUGHLY TESTED PRIOR TO SHIPMENT. CONTACT YOUR LOCAL REPRESENTATIVE IF ASSISTANCE IS REQUIRED.





CAUTION

TO PREVENT DAMAGE TO THE WIRING, PROTECT WIRING FROM SHARP EDGES. FOLLOW NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES AND ORDINANCES. DO NOT ROUTE WIRES THROUGH REMOVABLE ACCESS PANELS.



CAUTION

CONDUIT AND FITTINGS MUST BE WEATHER-TIGHT TO PREVENT WATER ENTRY INTO THE BUILDING OR UNIT.

5.3.1 CABLING / WIRING

Check that cabling / wiring 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.

5.3.2 VOLTAGE CHECKS



WARNING

HIGH VOLTAGE

TO AVOID PERSONAL INJURY OR DEATH DUE TO ELECTRICAL SHOCK, BOND THE FRAME OF THIS UNIT TO THE BUILDING ELECTRICAL GROUND BY USE OF THE GROUNDING TERMINAL PROVIDED OR OTHER ACCEPTABLE MEANS. DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT.



CAUTION

TO PREVENT PROPERTY DAMAGE OR PERSONAL INJURY, DO NOT START THE UNIT UNTIL ALL NECESSARY PRE-CHECKS AND TESTS HAVE BEEN PERFORMED.

It is important to your safety that the unit has been properly grounded during installation. Check ground lug connection in main control box for tightness prior to closing circuit breaker or disconnect switch. Verify that supply voltage on line side of disconnect agrees with voltage on unit identification plate and is within the utilization voltage range as indicated in Appendix B Electrical Data.

System Voltage - The nominal voltage value assigned to a circuit or system for the purpose of designating its voltage class.

Nameplate Voltage - The voltage assigned to a piece of equipment for the purpose of designating its voltage class and for the purpose of defining the minimum and maximum voltage at which the equipment will operate.

Utilization Voltage - The voltage of the line terminals of the equipment at which the equipment must give fully satisfactory performance. Once it is established that supply

voltage will be maintained within the utilization range under all system conditions, check and calculate if an unbalanced condition exists between phases. Calculate percent voltage unbalance as follows:

Three Phase Models

$$3) \text{ PERCENT VOLTAGE UNBALANCE} = 100 \times \frac{2) \text{ MAXIMUM VOLTAGE DEVIATIONS FROM AVERAGE VOLTAGE}}{1) \text{ AVERAGE VOLTAGE}}$$

HOW TO USE THE FORMULA:

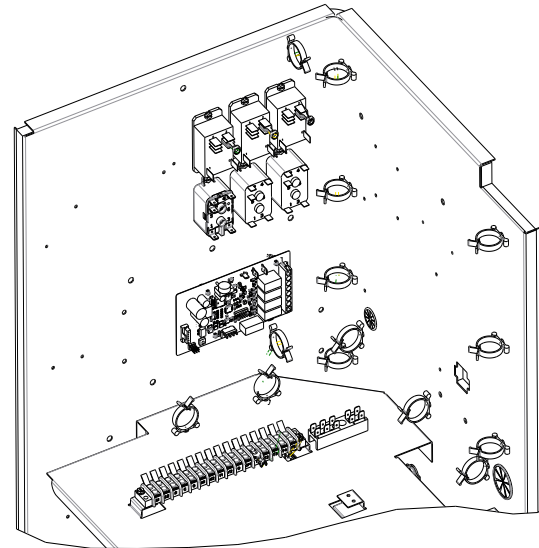
EXAMPLE: With voltage of 220, 216, and 213

1) Average Voltage = $220 + 216 + 213 = 649 / 3 = 216$

2) Maximum Voltage Deviations from Average Voltage = $220 - 216 = 4$

3) Percent Voltage Unbalance = $100 \times \frac{4}{216} = \frac{400}{216} = 1.8\%$

Percent voltage unbalance MUST NOT exceed 2%.



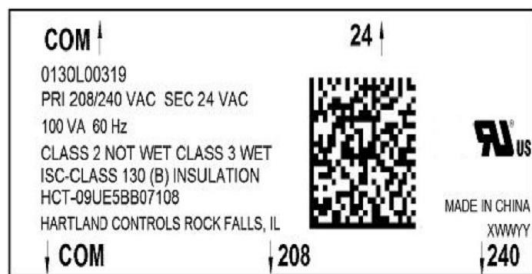
For unit protection, use a fuse or HACR circuit breaker that is in excess of the circuit ampacity, but less than or equal to the maximum overcurrent protection device. DO NOT EXCEED THE MAXIMUM OVERCURRENT DEVICE SIZE SHOWN ON UNIT DATA PLATE.

All line voltage connections must be made through weatherproof fittings. All exterior power supply and ground wiring must be in approved weatherproof conduit.

The main power supply wiring to the unit and low voltage wiring to accessory controls must be done in accordance with these instructions, the latest edition of the National Electrical Code (ANSI/NFPA 70), and all local codes and ordinances.

The main power supply shall be three-phase, three wire with a ground. The unit is factory wired for the voltage shown on the unit's data plate.

NOTE: IF SUPPLY VOLTAGE IS 208V, ALL LEADS ON PRIMARY OF TRANSFORMER(S) MUST BE MOVED FROM THE 240V TO THE 208V TAP.



Main power wiring should be sized for the minimum circuit ampacity shown on the unit's data plate. Size wires in accordance with the ampacity tables in Article 310 of the National Electrical Code. If long wires are required, it may be necessary to increase the wire size to prevent excessive voltage drop. Wires should be sized for a maximum of 3% voltage drop.

5.3.3 AREAS WITHOUT CONVENIENCE OUTLET

It is recommended that an independent 115V power source be brought to the vicinity of the roof top unit for portable lights and tools used by the service mechanic. Do not Field Install outlets powered off of the unit electrical connections.

NOTE: REFER TO LOCAL CODES FOR REQUIREMENTS. THESE OUTLETS CAN ALSO BE FACTORY INSTALLED.

5.3.4 UNITS INSTALLED ON ROOF TOPS

Main power and low voltage wiring may enter the unit through the side or through the roof curb. Install conduit connectors at the designated entrance locations. External connectors must be weatherproof. All holes in the unit base must be sealed (including those around conduit nuts) to prevent water leakage into building. All required conduit and fittings are to be field supplied. For wiring and/or gas connections entering through roof curb, the through the base kit would be required (TTBCK03).

Supply voltage to roof top unit must not vary by more than 10% of the value indicated on the unit data plate. Phase voltage unbalance must not exceed 2%. Contact your local power company for correction of improper voltage or phase unbalance.

5.3.5 LOW VOLTAGE CONTROL WIRING

NOTE: FOR MODELS EQUIPPED WITH THE DDC CONTROLS OPTION, REFER TO THE SUPPLEMENTAL DDC LITERATURE SUPPLIED WITH THE UNIT FOR ADDITIONAL INFORMATION.

1. A 24V thermostat must be installed for unit operation. It may be purchased with the unit or field-supplied. Thermostats may be programmable or electromechanical as required.
2. Locate thermostat or remote sensor in the conditioned space where it will sense average temperature. Do not locate the device where it may be directly exposed to supply air, sunlight or other sources of heat. Follow installation instructions packaged with the thermostat.

3. Use #18 AWG wire for 24V control wiring runs not exceeding 75 feet. Use #16 AWG wire for 24V control wiring runs not exceeding 125 feet. Use #14 AWG wire for 24V control wiring runs not exceeding 200 feet. Low voltage wiring may be National Electrical Code (NEC) Class 2 where permitted by local codes.
4. Route thermostat wires from sub-base terminals to the unit. Control wiring should enter through the duct panel (dimple marks entrance location) or through the specified through the base connection points through the base pan. Connect thermostat and any accessory wiring to low voltage terminal block TB1 in the main control box.

NOTE: FIELD-SUPPLIED CONDUIT MAY NEED TO BE INSTALLED DEPENDING ON UNIT/CURB CONFIGURATION. USE #18 AWG SOLID CONDUCTOR WIRE WHENEVER CONNECTING THERMOSTAT WIRES TO TERMINALS ON SUB-BASE. DO NOT USE LARGER THAN #18 AWG WIRE. A TRANSITION TO #18 AWG WIRE MAY BE REQUIRED BEFORE ENTERING THERMOSTAT SUB-BASE.

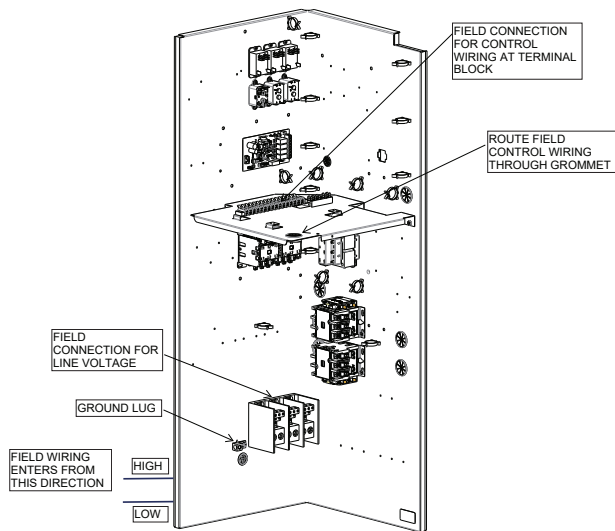
NOTE: REFER TO UNIT WIRING DIAGRAMS FOR THERMOSTAT HOOKUPS.

 CAUTION
TO AVOID PROPERTY DAMAGE OR PERSONAL INJURY DUE TO FIRE, USE ONLY COPPER CONDUCTORS.
 CAUTION
TO PREVENT IMPROPER AND DANGEROUS OPERATION DUE TO WIRING ERRORS, LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. VERIFY PROPER OPERATION AFTER SERVICING.

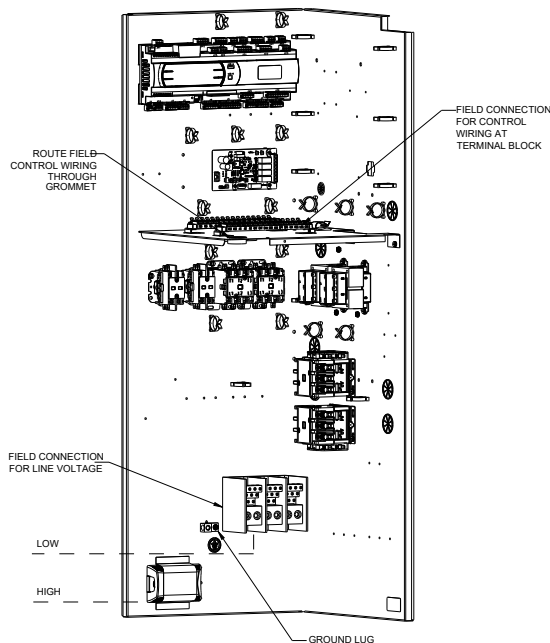
NOTE: A WEATHER-TIGHT DISCONNECT SWITCH, PROPERLY SIZED FOR THE UNIT TOTAL LOAD MUST BE FIELD OR FACTORY INSTALLED. AN EXTERNAL FIELD SUPPLIED DISCONNECT MAY BE MOUNTED ON THE EXTERIOR PANEL. SWITCH SHALL BE PROVIDED TO ENSURE ALL-POLE DISCONNECTION FROM THE SUPPLY MAINS.

Ensure the data plate is not covered by the field-supplied disconnect switch.

- Some disconnect switches are not fused. Protect the power leads at the point of distribution in accordance with the unit data plate.
- The unit must be electrically grounded in accordance with local codes or, in the absence of local codes, with the latest edition of the National Electrical Code (ANSI-NFPA 70). A ground lug is provided for this purpose. Size grounding conductor in accordance with Table 250-95 of the National Electrical Code. Do not use the ground lug for connecting a neutral conductor.
- Connect power wiring to the middle contactor within the main control box or power block, if equipped.



15-25 Ton TSTAT Power and Low Voltage Terminal Locations



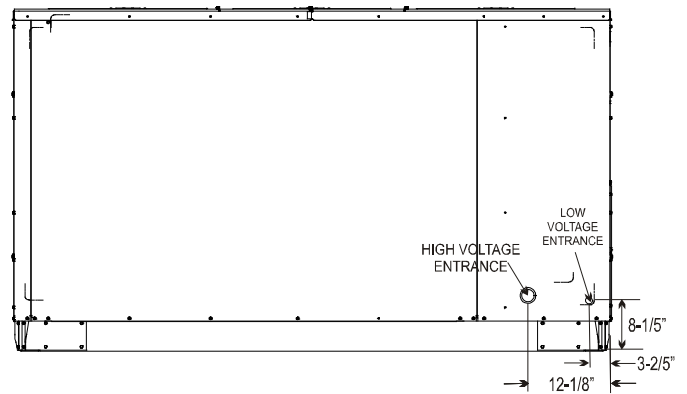
15-25 Ton DDC Power and Low Voltage Terminal Locations

NOTE: DEPENDING ON THE OPTIONS INSTALLED, THE LOCATION OF THE COMPONENTS MAY VARY IN SOME MODELS.



WARNING

FAILURE OF UNIT DUE TO OPERATION ON IMPROPER LINE VOLTAGE OR WITH EXCESSIVE PHASE UNBALANCE CONSTITUTES PRODUCT ABUSE AND IS NOT COVERED BY THE WARRANTY. IT MAY CAUSE SEVERE DAMAGE TO THE UNIT ELECTRICAL COMPONENTS.



ELECTRICAL ENTRANCE LOCATIONS

Unit is equipped with a Low Voltage Terminal Block and has Single Point wiring to the contactor.

5.4 AIR SIDE CHECKS

5.4.1 AIR FILTERS

Check the filter rack to verify that air-filters are installed. Verify that the arrows on the air-filters point in the direction of airflow. For replacement, please follow instructions in the maintenance section.

5.4.2 DUCTWORK

The supply duct from the unit through a wall may be installed without clearance. However, minimum unit clearances must be maintained (see "Clearances" section). The supply duct should be provided with an access panel large enough to inspect the air chamber downstream of the heat exchanger. A cover should be tightly attached to prevent air leaks. False ceilings or drop ceilings may be used as a return air plenum.

NOTE: ADEQUATE RETURN GRILLS HAVE TO BE SUPPLIED FOR EACH ROOM FOR PROPER RETURN FOR THAT SPACE.

Ductwork dimensions are shown in the roof curb installation manual.

If desired, supply and return duct connections to the unit may be made with flexible connections to reduce possible unit operating sound transmission.

5.4.3 FIELD DUCT CONNECTIONS

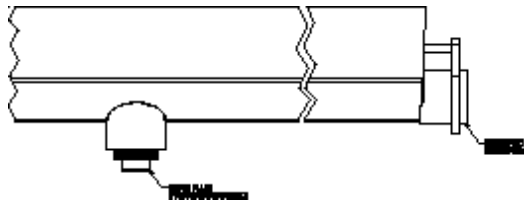
Verify that all duct connections are tight and that there is no air bypass between supply and return.

5.4.4 OBSTRUCTIONS, FAN CLEARANCE AND WIRING

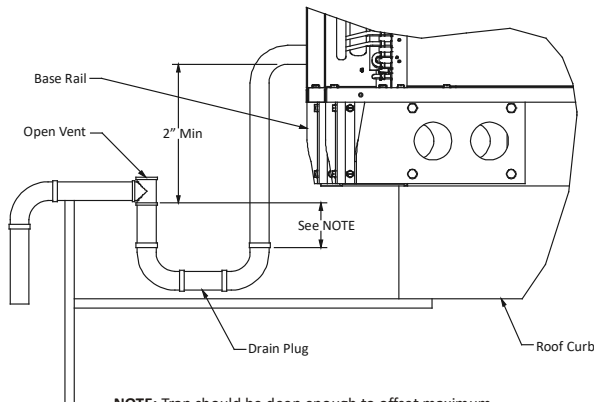
Remove any extraneous construction and shipping materials that may be found during this procedure. Rotate all fans manually to check for proper clearances and that they rotate freely. Check for bolts and screws that may have jarred loose during shipment to the job site. Re-tighten if necessary. Re-tighten all electrical connections.

5.5 CONDENSATE DRAIN CONNECTION

A 1" female NPT drain connection is supplied on the end of the condensate pan, with an alternative connection on the bottom of the pan. An external trap must be installed for proper condensate drainage.



DRAIN PAN (SIDE VIEW)



NOTE: Trap should be deep enough to offset maximum unit static difference. A minimum 4" trap is recommended.

DRAIN CONNECTION

Install condensate drain trap as shown. Use 1" drain line and fittings or larger. Do not operate without trap.

NOTE: All threaded connections should be sealed with a threaded sealer.

5.5.1 HORIZONTAL DRAIN

Drainage of condensate directly onto the roof may be acceptable; (refer to local code). It is recommended that a small drip pad of either stone, mortar, wood or metal be provided to prevent any possible damage to the roof. When using the horizontal drain connection, check the drain plug in bottom connection to ensure it is tight.

5.5.2 CLEANING

Due to the fact that drain pans in any air conditioning unit will have some moisture in them, algae and fungus will grow due to airborne bacteria and spores. Periodic cleaning is necessary to prevent this build-up from plugging the drain.



WARNING

MOVING MACHINERY HAZARD!

TO PREVENT POSSIBLE PERSONAL INJURY OR DEATH, DISCONNECT POWER TO THE UNIT AND PADLOCK IN THE "OFF" POSITION BEFORE SERVICING FANS.

6 START UP INSTRUCTIONS

ALL INSTALLATIONS:

IMPORTANT NOTE: Unit should be energized 24 hours prior to compressor start up to ensure crankcase heater has sufficiently warmed the compressors. Compressor damage may occur if this step is not followed.

NOTE: FOR COOLING OPERATION BELOW OUTDOOR TEMPERATURES OF 55°F OR LOWER, A LOW AMBIENT KIT IS REQUIRED (LAKT-).**

6.1 START UP VERIFICATION CHECKS

The installer is advised to fill in the start-up checklist located at the end of this document. The following steps allow the installer to verify the different features by placing a jumper across different terminals on the terminal block TB1. Refer to blower adjustment section for more information on the taps.

1. Blower Test:

- Energize G with R (24 VAC). Both the contactors to the indoor blowers are energized. Tap "T1" is energized. Ensure that the blowers are energized while testing the cooling and heating stages.
- The blower motors are direct drive and are pre-programmed to have the correct rotation. If the direction of rotation is incorrect in either blower, please contact Daikin Customer Service.

2. Stage 1 Cooling Test:

- Energize G, and Y1 with R (24 VAC). Circuit 1 compressor contactor closes and energizes both the circuit 1 compressor and the corresponding outdoor fan motors. Tap "T1" is energized.
- For Heat Pump models, energize G, Y1, and O, with R (24 VAC). There will be a compressor delay of 3 minutes depending on the countdown timer on energizing "R" on the defrost board. Tap "T1" is energized.
- When the compressor is energized, the corresponding outdoor fans are energized as well. For confirming the compressor and outdoor fan operation, check the suction and discharge pressure and temperature, and look for any abnormal sounds. If the compressor is operating backwards (loud sounds, no pressurization, etc.), or if the outdoor fans are not rotating in counterclockwise direction (lead end), check the power wiring and correct any leads that may have been interchanged at the contactor or at the motor. Perform similar checks on circuit 2 while operating in stage 2.

3. Stage 2 Cooling Test:

- Energize G, Y1, and Y2, with R (24 VAC). Both circuit 1 and circuit 2 compressor contactors close and energize both the compressors and their corresponding outdoor fan motors. Tap "T3" is energized.

- b. For Heat Pump models, energize G, Y1, and O, with R (24 VAC). There will be a compressor delay of 3 minutes depending on the countdown timer on energizing "R" on the defrost board. Tap "T2" is energized.
4. Stage 1 Heating Test:
 - a. For Heat Pump models, energize G, Y1 with R (24 VAC). There will be a compressor delay of 3 minutes depending on the countdown timer on energizing "R" on the defrost board. Tap "T1" is energized.
5. Stage 2 Heating Test:
 - a. For Heat Pump models, energize G, Y1, Y2, with R (24 VAC). There will be a compressor delay of 3 minutes depending on the countdown timer on energizing "R" on the defrost board. Tap "T3" is energized.
6. Stage 1 Electric Heat Test (if installed):
 - a. Energize W1 with R (24 VAC). Tap "T6" is energized. Note: T6 is DH+T1.
7. Stage 2 Electric Heat Test (if installed):
 - a. Energize W1, and W2, with R (24 VAC). Tap "T8" is energized. Note: T8 is DH+T3.

NOTE: FOR UNITS WITH ECONOMIZER, IF THE OUTDOOR AIR ENTHALPY (TEMPERATURE AND HUMIDITY) IS UNSUITABLE FOR ECONOMIZER OPERATION, THE ECONOMIZER WILL CLOSE CONTACT TO PERMIT COMPRESSOR COOLING. WHEN THE OUTDOOR AIR CONDITIONS ARE SUITABLE FOR ECONOMIZER OPERATION, THE ECONOMIZER WILL OPEN CONTACTS TO DISENGAGE THE COMPRESSORS. FOR MORE INFORMATION, PLEASE SEE THE ECONOMIZER LITERATURE TO OVERRIDE SEQUENCE TO CONTINUE TESTING.

- Economizer at minimum position → Full mechanical cooling available.
- Economizer position between minimum and maximum → Full economizer cooling available.
- Economizer at maximum position → Full economizer cooling available + Y1 mechanical cooling (if required).

Disconnect the jumper wires when the tests are complete. There will be a delay of approximately 1 minute for the blower to shut down.

6.2 AIR FLOW ADJUSTMENTS

When the final adjustments are complete, the current draw of the motor should be checked and compared to the full load current rating of the motor. The amperage must not exceed the service factor stamped on the motor nameplate. The total airflow must not be less than that required for operation of the electric heaters or the furnace.

If an economizer is installed, check the unit operating balance with the economizer at full outside air and at minimum outside air.

NOTE: HIGH STAGE AIRFLOW SETTING BELOW 300 CFM/TON IS NOT RECOMMENDED, AS EVAPORATOR FREEZING OR POOR UNIT PERFORMANCE IS POSSIBLE.

AIRFLOW ADJUSTMENT FOR AC MODELS

- The unit has one set of taps for cooling (T1-T5) and a second set of taps for heating (T6-T10). When Heat is called TB1-W1 will also call TB1-DH activating the second set of taps T6-T10.
- If cooling and heating is called at the same time heating will take priority and T6-T10 will be chosen by default.
- Taps T1 and T2 are for low cool operation (cooling stage 1) and Taps T3 to T5 are for high cool operation (cooling stage 2).
- Taps T6 and T7 are for low heat operation (heating stage 1) and taps T8 to T10 are for high heat operation (heating stage 2).

Taps are selected by changing the position of the low voltage leads on the terminal block TB1. Refer to Appendix A for blower performance at each speed tap.

Fan speed for G (GR) is fixed at TB1-T1 and cannot be moved.

NOTE: REFER APPENDIX A FOR AIRFLOW TABLES.

Low Cool Y1, Yellow (YL) is movable and set to TB1-T1. Low Heat W1, White (WH) is movable and set to TB1-T6. High Cool Y2, Purple (PU) is movable and set to TB1-T3. High Heat W2, Brown (BR) is movable and set to TB1-T8.

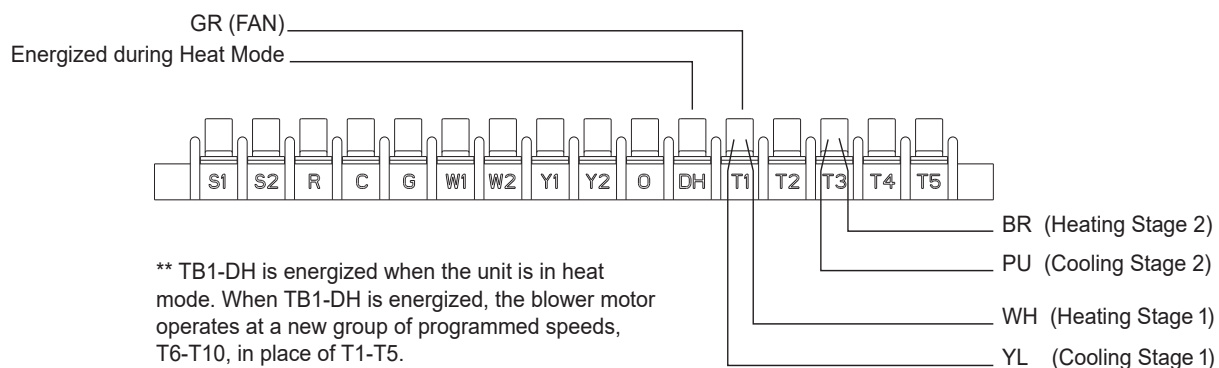
These wires can be moved together or separately and placed on any unoccupied terminal.

NOTE: YL CAN BE MOVED TO TAP T3 AS LONG AS YL DOES NOT SHARE THE TAP WITH PU. WH CAN BE MOVED TO TAP T7 AS LONG AS WH DOES NOT SHARE THE TAP WITH BR.

If high cool operation is set at Tap T4 or T5, low cool operation must be set at T2.

If high heat operation is set at T9 or T10, low heat operation must be set at T7.

BLOWER ADJUSTMENT FOR AC AND GAS MODELS



- Move YELLOW (YL) wire from TB1-T1 to T2 to change blower speed during cooling stage 1 operation.
(Do not move wires YL and PU to the same taps)
- Move WHITE (WH) wire from TB1-T6 to T7 to change blower speed during heating stage 1 operation.
(Do not move wires WH and BR to the same taps)
- Move PURPLE (PU) wire from TB1-T3 to T4 or T5 to change blower speed during cooling stage 2 operation.
(Do not move wires YL and PU to the same taps)
- Move BROWN (BR) wire from TB1-T8 to T9 or T10 to change blower speed during heating stage 2 operation.
(Do not move wires WH and BR to the same taps)

DSC/DSG OPERATION and WIRE RANGE CHART

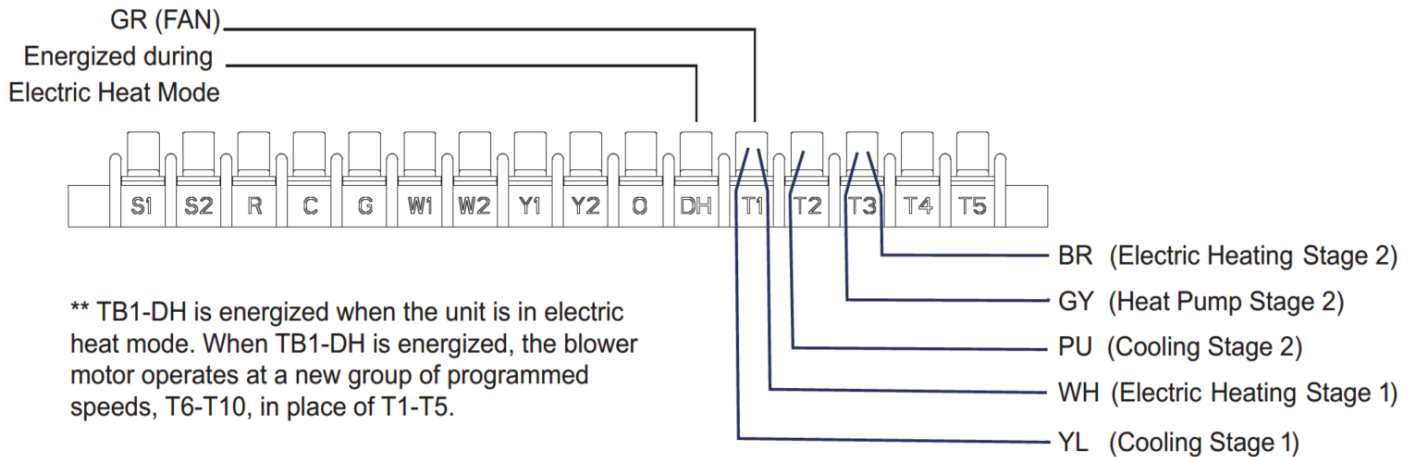
DSC/DSG OPERATION							WIRE RANGE									
AC	G	Y1	Y2	W1	W2	DH	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Fan Only	X						GR									
Cooling Mode LO	X	X					● →									
Cooling Mode HI	X	X	X					● →								
Heating Mode Lo	X			X		X						● →				
Heating Mode HI	X			X	X	X								● →		

X= 24V Signal

● → = Range of AVAILABLE TAPS

For wire color information and placement, view DSC/DSG Model Wiring

BLOWER ADJUSTMENT FOR HP



- Move YELLOW (YL) wire from TB1-T1 to T2 to change blower speed during cooling stage 1 operation. (Do not move wires YL and PU to the same taps)
- Move WHITE (WH) wire from TB1-T6 to T7 to change blower speed during electric heating stage 1 operation. (Do not move wires WH and BR to the same taps)
- Move PURPLE (PU) wire from TB1-T2 to T3, T4 or T5 to change blower speed during cooling stage 2 operation. (Do not move wires YL and PU to the same taps)
- Move GRAY (GY) wire from TB1-T3 to T4 or T5 to change blower speed during heatpump stage 2 operation. (Do not move wires YL and GY to the same taps)
- Move BROWN (BR) wire from TB1-T8 to T9 or T10 to change blower speed during electric heating stage 2 operation. (Do not move wires WH and BR to the same taps)

DSH OPERATION and WIRE RANGE CHART DSH

	OPERATION							WIRE RANGE									
AC/HP	G	Y1	Y2	W1	W2	O	DH	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Fan Only	X							GR									
Cooling / HeatPump Mode LO	X	X				-/X		● →									
Cooling Mode HI	X		X			-/X			● →								
HeatPump Mode HI	X		X							● →							
E. Heating Mode LO	X			X			X						● →				
E. Heating Mode HI	X				X		X								● →		

CONTROL VOLTAGE CHECK

Close the disconnect switch to energize control transformer. check primary and secondary (24V) of control transformer.

AIRFLOW ADJUSTMENT FOR HP MODELS

Tap 1	AHRI RATING LOW COOL DEFAULT SPEED FOR G, Y1
Tap 2	AHRI RATING FOR HIGH COOL DEFAULT FOR ALL Y2
Tap 3	AHRI RATING FOR HIGH HEAT DEFAULT FOR HEAT PUMP Y2
Tap 4	HIGHER SPEED 1 OPTION Y2
Tap 5	HIGHER SPEED 2 OPTION Y2
Tap 6	LOW ELECTRIC HEAT/DEFROST Y1 ONLY W1
Tap 7	LOW ELECTRIC HEAT HIGHER SPEED W1 OPTION
Tap 8	HIGH ELECTRIC HEAT W2 AND HEAT PUMP Y2 / DEFROST Y2 ONLY W1
Tap 9	HIGH ELECTRIC HEAT HIGHER SPEED W2 OPTION 1
Tap 10	HIGH ELECTRIC HEAT HIGHER SPEED W2 OPTION 2

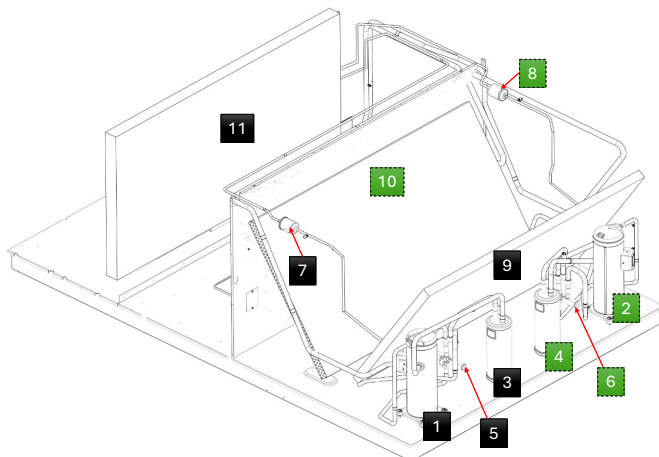
NOTE: ON UNITS WITH DDC CONTROLS INSTALLED, AIR FLOW ADJUSTMENTS ARE MADE THROUGH SETTINGS IN THE DDC CONTROLLER AND SPEED TAP ADJUSTMENTS ARE NOT REQUIRED. REFER TO THE DDC USER MANUAL FOR DETAILS ON MAKING AIRFLOW ADJUSTMENTS. INDIVIDUAL SETTINGS ARE AVAILABLE FOR FAN ONLY, LOW STAGE COOLING, HIGH STAGE COOLING, LOW STAGE HEATING, AND HIGH STAGE HEATING WHICH CAN BE ADJUSTED AS NEEDED TO MEET AIRFLOW REQUIREMENTS.

ELECTRICAL INPUT CHECK

Conduct a preliminary check to ensure the motor ampere draw of the indoor blowers do not exceed the nameplate amps. A final check of amp draw should be made upon completion of air balancing of the duct system (see Appendix B).

6.3 AC AND HEAT PUMP SYSTEM INFORMATION

The main components are as shown in the picture. The accumulators and reversing valves are present in the heat pump only.



Component	Compressor	Accumulator	Reversing Valve	Filter-Drier	Outdoor Coil	Indoor Coil	TXVs
Circuit 1	1	3	5	7	9	11	Black
Circuit 2	2	4	6	8	10	11	Green

The units are equipped with TXVs as metering devices. Ensure TXV bulbs are adequately clamped and insulated. Ensure the hold-down bolts on the compressor are secure and have not vibrated loose during shipment. Check that vibration grommets have been installed. Visually check all piping for damage and leaks; repair if necessary. The entire system has been factory charged and tested, making it unnecessary to field charge. Factory charges are shown on the unit's nameplate. To confirm charge levels or, if a leak occurs and charge needs to be added to the system, it is recommended to evacuate the system and recharge refrigerant to unit nameplate specifications. This unit has been rated in the cooling mode at the AHRI rated conditions of: Indoor (80°F db / 67°F wb) and outdoor (95°F db). In heating, the HP models are rated at indoor (70°F db/60°F wb) with outdoor conditions at (47°F db/ 43°F wb) and (17°F db/15°F wb).

While operating at this condition, the superheat and subcool for each circuit for each unit should fall within the values listed in the table below. The superheat is measured at the suction service port located near the compressor. The subcool is measured at the liquid line service port.

6.4 SUPERHEAT AND SUBCOOLING

CHECKING SUBCOOLING

NOTE: UNITS WITH A TXV SHOULD BE CHARGED TO SUBCOOLING ONLY. MAKE SURE THE AIR FLOW IS CORRECT BEFORE MAKING ANY ADJUSTMENTS.

EXAMPLE:

- Liquid Line Pressure = 417 PSI
- Corresponding Temp. = 120°F
- Thermometer on Liquid line = 109°F

To obtain the amount of subcooling, subtract 109°F from 120°F. The difference is 11° subcooling. See the specification sheet or technical information manual for the design subcooling range for your unit.

SUBCOOLING FORMULA = SATURATED LIQUID LINE TEMPERATURE - LIQUID LINE TEMPERATURE

CHECKING SUPERHEAT

EXAMPLE:

- Suction Pressure = 143 PSI
- Corresponding Temp. = 50°F
- Thermometer on Suction Line = 59°F

To obtain the degrees temperature of superheat, subtract 50.0 from 59.0°F. The difference is 9° Superheat. The 9° Superheat would fall in the ± range of allowable superheat.

SUPERHEAT = SUCTION LINE TEMP - SAT. SUCTION TEMP.

Design Superheat & Subcooling							
Model	Circuit	Super heat ± 2°F	Sub cooling ± 1°F	Expansio n Device	TXV Type	Indoor Ambient	Outdoor Ambient (°F)
DSC180	1	9	14	TXV	Indoor	80/67	95
DSC180	2	9	13	TXV	Indoor	80/67	95
DSC240	1	11	10	TXV	Indoor	80/67	95
DSC240	2	9	11	TXV	Indoor	80/67	95
DSC300	1	12	13	TXV	Indoor	80/67	95
DSC300	2	11	8	TXV	Indoor	80/67	95
DSH180	1	19	14	TXV	Indoor	80/67	95
DSH180	2	19	14	TXV	Indoor	80/67	95
DSH180	1	9	2	TXV	Outdoor	70/60	47
DSH180	2	9	2	TXV	Outdoor	70/60	47
DSH240	1	14	11	TXV	Indoor	80/67	95
DSH240	2	14	14	TXV	Indoor	80/67	95
DSH240	1	10	4	TXV	Outdoor	70/60	47
DSH240	2	10	4	TXV	Outdoor	70/60	47

The units consist of 2 refrigeration circuits. Circuit 1 can be identified by tracing the tubing connected to compressor 1. Circuit 2 can be identified by tracing the tubing connected to compressor 2.

SUPERHEAT ADJUSTMENT

NOTE: SUPERHEAT ADJUSTMENTS SHOULD NOT BE MADE UNTIL INDOOR AMBIENT CONDITIONS HAVE STABILIZED AND AIRFLOW VERIFIED. THIS COULD TAKE UP TO 24 HOURS DEPENDING ON INDOOR TEMPERATURE AND HUMIDITY. BEFORE CHECKING SUPERHEAT, RUN THE UNIT IN COOLING FOR 15-20 MINUTES OR UNTIL REFRIGERANT PRESSURES STABILIZE. USE THE FOLLOWING GUIDELINES AND METHODS TO CHECK UNIT OPERATION AND ENSURE THAT THE REFRIGERANT CHARGE IS WITHIN LIMITS.

For TXV systems, to adjust superheat, unscrew the cover from the expansion valve, locate the adjustment screw, and turn it clockwise (in) to increase superheat or counterclockwise (out) to decrease superheat. It is recommended to make small adjustments at a time, 1/8-1/4 turn increments. Replace adjustment cap. Wait a minimum of 15 minutes between adjustments to allow time for the TXV and pressures to stabilize.

REFRIGERANT CHARGE CHECK

NOTE: FOR OPTIMAL PERFORMANCE, FOLLOW CHARGING INSTRUCTIONS BELOW.

UNITS WITH EXPANSION VALVE (TXV)

Single Stage Cooling Application: Refer to the Design Superheat & Subcooling table.

Two-Stage Cooling Application: Run unit on Low Stage cooling and refer to Design Superheat & Subcooling table.

1. Purge gauge lines. Connect service gauge manifold to access fittings. Run system at least 10 minutes to allow pressure to stabilize.
2. Temporarily install thermometer on liquid (small) line near liquid line access fitting with adequate contact and insulate for best possible reading.
3. Check subcooling and superheat. System should have a subcooling and superheat within the range listed on the Design Superheat and Subcooling table.

- a. If subcooling and superheat are low, adjust TXV superheat, then check subcooling.

NOTE: To adjust superheat, turn the valve stem clockwise to increase and counterclockwise to decrease. If an under charge is suspected, recover the charge, re-evacuate the system and recharge per data plate. No adjustments should be made if suspecting a charge issue.

- b. If subcooling is low and superheat is high, add charge to raise subcooling then check superheat.
- c. If subcooling and superheat are high, adjust TXV valve superheat, then check subcooling.
- d. If subcooling is high and superheat is low, adjust TXV valve superheat and remove charge to lower the subcooling.

NOTE: Do NOT adjust the charge based on suction pressure unless there is a gross undercharge. If an under charge is suspected recover the charge, re-evacuate the system and recharge per data plate. No adjustments should be made if suspecting a charge issue.

4. Disconnect manifold set, installation is complete.

6.5 NORMAL SEQUENCE OF OPERATION - AC & HEAT PUMP

6.5.1 COOLING START-UP PROCEDURE (AC AND HEAT PUMP UNIT)

1. Check for compatibility of the thermostat with the unit and install the correct thermostat, if needed.
 - a. For AC units, the thermostat must support 2 stages of cooling, and 2 stages of electric heat.
 - b. For heat pumps, the thermostats must support 2 stages of cooling and heating, as well as 2 stages of electric heat.
2. Turn the thermostat switch to "COOL" and fan switch to "AUTO". Adjust indoor setpoint to a value lower than room temperature to initiate Stage 1 cooling (i.e., only circuit 1 compressor, circuit 1 outdoor fans, and both blowers are energized).
3. Some thermostats may have built in delay. Some adjustment of the setpoint may be needed to achieve single stage cooling. Once the setpoint is adequate and the delay is met, single stage cooling should begin. Verify single stage cooling (low airflow and 1 circuit operational). Ensure that any airside leaks in the ducts and the unit are minimized.
4. Adjust indoor setpoint to a temperature much lower than the room temperature to initiate Stage 2 cooling (both circuits are operational, i.e., both compressors, and all the outdoor fans, and both blowers are energized). Verify two stage cooling (high airflow and both circuits operational).

For heat pumps, "O" is energized in cooling mode. A clicking sound occurs during the transition from heating to cooling mode (or vice versa) due to change in reversing valve position. In the cooling mode, the indoor blowers, compressors, and the outdoor fans must be running with the solenoids of the reversing valves in the energized state. In the event of power interruption to the heat pumps, an

anti-short cycle is triggered which keeps the compressors “OFF” for a period of 3-minutes to protect compressor reliability. After the cooling mode is verified, turn the thermostat switch to “OFF”.

NOTE: FOR UNITS WITH ECONOMIZER, IF THE OUTDOOR AIR ENTHALPY (TEMPERATURE AND HUMIDITY) IS UNSUITABLE FOR ECONOMIZER OPERATION, THE ECONOMIZER WILL CLOSE CONTACT TO PERMIT COMPRESSOR COOLING. WHEN THE OUTDOOR AIR CONDITIONS ARE SUITABLE FOR ECONOMIZER OPERATION, THE ECONOMIZER WILL OPEN CONTACTS TO DISENGAGE THE COMPRESSORS. FOR MORE INFORMATION, PLEASE SEE THE ECONOMIZER LITERATURE TO OVERRIDE SEQUENCE TO CONTINUE TESTING.

- Economizer at minimum position → Full mechanical cooling available.
- Economizer position between minimum and maximum → Full economizer cooling available.
- Economizer at maximum position → Full economizer cooling available + Y1 mechanical cooling (if required).



WARNING

BURN HAZARD!
DO NOT TOUCH! DISCHARGE LINE MAY BE HOT!

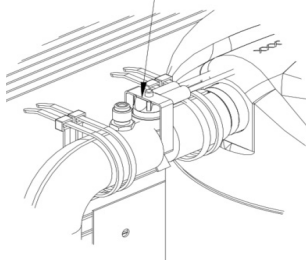
COMPRESSOR DISCHARGE TEMPERATURE SWITCH (CDTS) (USED ON 20 Ton (AC, HP) & 25 Ton (AC) UNIT ONLY)

Compressor Discharge Temperature Switch (CDTS) is a thermostatic switch located on the discharge line which turns off the compressor if the temperature of hot gas is 275°F or greater.

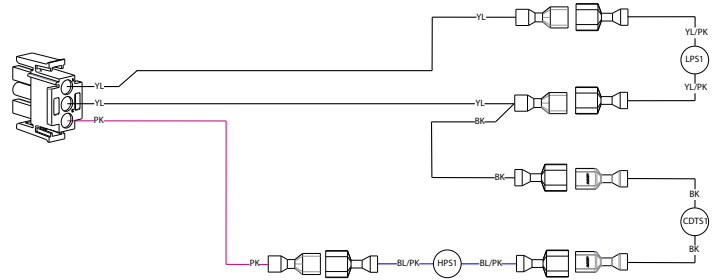
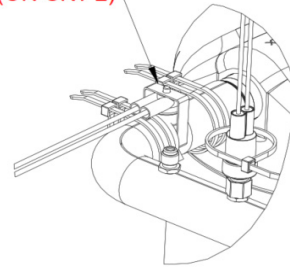
The CDTS is located on each compressor's discharge line within 6 inches of the discharge line braze joint. Discharge temperature switch must not be moved from its factory installed location or electrically disconnected.

OPERATING TEMPERATURE:	
OPEN:	126.7 / 137.8 DEG.C 260.0 / 280.0 DEG.F
CLOSE:	76.7 / 98.9 DEG.C 170.0 / 210.0 DEG.F

CDTS
(ON CKT 1)



CDTS
(ON CKT 2)



WARNING

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

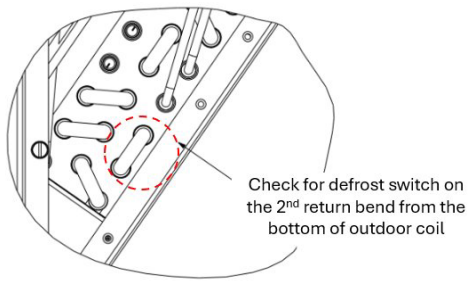


6.6 NORMAL SEQUENCE OF OPERATION - HEATING

6.6.1 HEAT PUMP START-UP PROCEDURE

1. Turn the thermostat system switch to “HEAT” and fan switch to “AUTO”.
2. Slowly raise the heating temperature setting. When the heating first stage makes contact, stop raising the temperature setting. In the heating mode, the indoor blowers, compressors, and the outdoor fans must be running with the solenoids of the reversing valves in the de-energized state. After giving the unit time to stabilize, make sure the unit is supplying heated air.

NOTE: If the outdoor ambient is above 80°F, the unit may trip on its high pressure cut out when on heating. The compressor should stop. In such a situation, postpone the test to another day when the conditions are suitable for heating verification. The heating cycle must be thoroughly verified before releasing the product for daily operations. If the outdoor ambient is low and the unit operates properly on the heating cycle, you may check the pressure cutout operation by blocking off the indoor return air until the unit trips.



3. During heat pump installation, verify that the defrost switch is connected to the OD coil return bend as shown (second return bend from the bottom of each coil). Ensure that the switches make good contact with the tube and are insulated.
4. Once the heating has been confirmed, raise the temperature setting until the second stage heating makes contact. Supplemental resistance heat (Electric Heat Kit), if installed should now come on. Make sure it operates properly.
5. For thermostats with emergency heat switch, set thermostat to Emergency Heat mode. The heat pump will stop, the blower will continue to run, all heaters will come on and the thermostat emergency heat light will come on. Confirm heaters operate normally.

FINAL SYSTEM CHECKS

1. Check to see if all supply and return air grilles are adjusted and the air distribution system is balanced for the best compromise between heating and cooling.
2. Check for air leaks in the ductwork. See Sections on Air Flow Adjustments.
3. Make sure the unit is free of "rattles", and the tubing in the unit is free from excessive vibration. Also make sure tubes and wires are not rubbing against each other or sheet metal surfaces or edges. If so, correct the issue.
4. Set the thermostat at the appropriate setting for cooling and heating or automatic changeover for normal use.
5. Be sure the Owner is instructed on the unit operation, filter, servicing, correct thermostat operation, etc.

NOTE: CHECK THAT COMPRESSOR RLA CORRESPONDS TO VALUES SHOWN IN APPENDIX A. RLA DRAW CAN BE MUCH LOWER THAN VALUES LISTED AT LOW LOAD CONDITIONS AND LOW AMBIENT CONDENSING TEMPERATURES. VALUES IN APPENDIX A CAN SLIGHTLY EXCEED AT HIGH LOAD CONDITIONS AND HIGH AMBIENT CONDENSING TEMPERATURES.

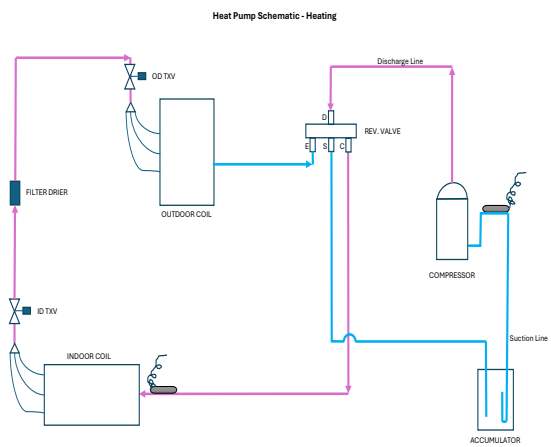
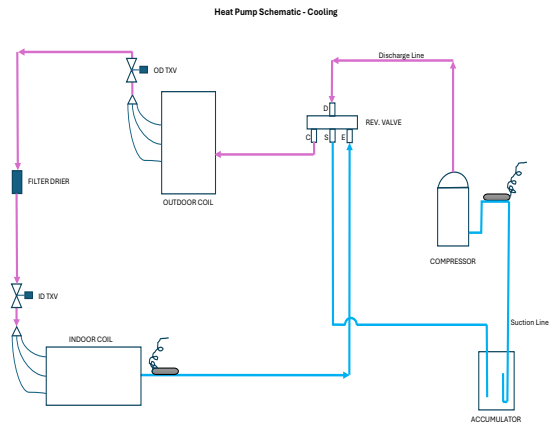
HEAT PUMP OPERATION

COOLING CYCLE

When the heat pump is in the cooling cycle, it operates exactly as a Summer Air Conditioner unit. In this mode, all the charts and data for service that apply to summer air conditioning apply to the heat pump.

The heat pump is equipped with thermal expansion valves for the indoor and outdoor coils. It is also provided with a defrost control system.

The heat pump schematics show the operation of a single refrigerant circuit. However, the 15T and 20T heat pump models have 2 separate refrigerant circuits. Depending on the requirement, either one or both circuits may be called for heating or cooling.



HEATING

When the heat pump is on the heating cycle, the outdoor coil is functioning as an evaporator. The temperature of the refrigerant in the outdoor coil must be below the temperature of the outdoor air in order to extract heat from the air.

Since the temperature of the refrigerant in the outdoor coil on the heating cycle is generally below freezing point, frost forms on the surfaces of the outdoor coil under certain weather conditions of temperature and relative humidity. Therefore, it is necessary to reverse the flow of the refrigerant to provide hot gas in the outdoor coil to melt the frost accumulation. This is accomplished by reversing the heat pump to the cooling cycle. At the same time, the outdoor fan stops to hasten the temperature rise of the outdoor coil and lessen the time required for defrosting. The indoor blower continues to run and the supplementary heaters are energized.

It is a good practice to provide supplementary heat for all heat pump installations in areas where the temperature drops below 45°F. It is also a good practice to provide sufficient supplementary heat to handle the entire heating requirement should there be a component failure of the heat pump, such as a compressor, or refrigerant leak, etc.

6.6.2 DEFROST LOGIC

A temperature switch mounted on the outdoor coil return bend signals the control board when frost is present. Defrost timing options of 30, 60, or 90 minutes can be selected by configuring the circuit board jumper accordingly. Timing begins when the temperature switch closes (approximately 30°F) and the thermostat is calling for heat. If the unit exits heat mode, timing pauses. If the temperature switch opens, timing resets. Once the selected timing period elapses, the defrost cycle initiates. The cycle ends when the temperature switch opens (approximately 60°F) or when the 12-minute maximum defrost duration is reached. The unit includes two defrost boards—one per refrigerant circuit. Each circuit defrosts independently. When operating in heat pump heating mode, if any circuit requires defrost, the unit enters defrost mode. A circuit with a closed defrost temperature switch begins its defrost cycle.

Each cycle ends independently when the switch opens, or the 12-minute maximum time expires. Once both circuits complete their defrost cycles, the unit resumes normal heating operation.

6.6.3 SUGGESTED FIELD TESTING/ TROUBLESHOOTING

6.6.3.1 TESTING DEFROST CONTROL

NOTE: PCBDM133 DEFROST CONTROLS HAVE A THREE (3) MINUTE COMPRESSOR OFF CYCLE DELAY.

NOTE: THE PCBDM133 DEFROST CONTROLS ARE SHIPPED FROM THE FACTORY WITH THE COMPRESSOR DELAY OPTION SELECTED. THIS WILL DEENERGIZE THE COMPRESSOR CONTACTOR FOR 30 SECONDS ON DEFROST INITIATION AND DEFROST TERMINATION. IF THE JUMPER IS SET TO NORMAL, THE COMPRESSOR WILL CONTINUE TO RUN DURING DEFROST INITIATION AND DEFROST TERMINATION. THE CONTROL WILL ALSO IGNORE THE LOW-PRESSURE SWITCH CONNECTED TO R-PS1 AND PS2 FOR 5 MINUTES UPON DEFROST INITIATION AND 5 MINUTES AFTER DEFROST TERMINATION.

To check the defrost control for proper sequencing, proceed as follows: With power ON; unit not running.

1. Jumper defrost thermostat by placing a jumper wire across the terminals “DFT” and “R”/“R-DFT” at defrost control board.
2. Remove jumper from timer pins and jump across test pins on defrost control board.
NOTE: Do not use screwdriver or field supplied jumper to test the control.
3. Set thermostat to call for heating. System should go into defrost within 21 seconds.

4. Immediately remove jumper from test pins.
5. Using VOM check for voltage across terminals “C & O”. Meter should read 24 volts.
6. Using VOM check for voltage across fan terminals DF1 and DF2 on the board. Should read voltage (24 VAC) indicating the relay is open in the defrost mode.
7. Using VOM check for voltage across “W”/“W2” & “C” terminals on the board. Meter should read 24 volts.
8. If not as above, replace control board.
9. Set thermostat to off position and disconnect power. Remove jumper from defrost thermostat and replace timer jumper to the desired defrost time.

NOTE: Remove jumper across defrost thermostat before returning system to service. See Figure: Defrost control Wiring Diagram.

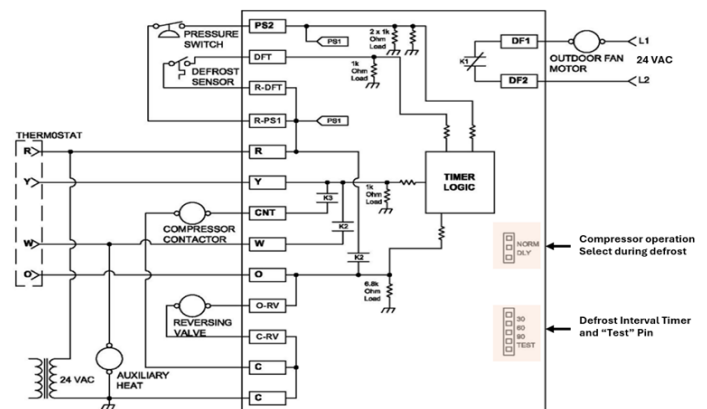


FIGURE: DEFROST CONTROL WIRING DIAGRAM

TESTING DEFROST THERMOSTAT

1. Install a thermocouple type temperature test lead on the tube adjacent to the defrost thermostat. Insulate the lead point of contact.
2. Check the temperature at which the defrost thermostat closes its contacts by lowering the temperature of the defrost thermostat. It should close at approximately 30°F.
3. Check the temperature at which the defrost thermostat opens its contacts by raising the temperature of the defrost thermostat. It should open at approximately 60°F. If not as above, replace defrost thermostat.

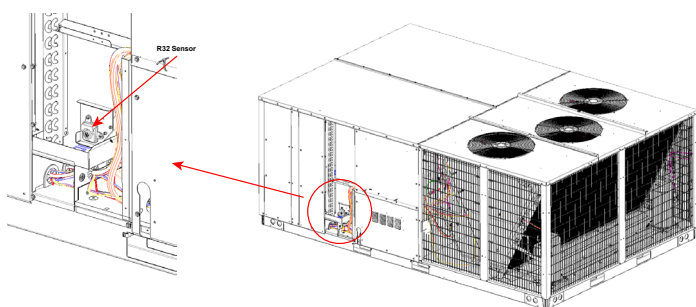
6.7 REFRIGERANT DETECTION SYSTEM (RDS)

RDS FUNCTION

The mitigation system is a stationary device that detects the presence of R-32 refrigerant above 25% LFL using refrigerant sensors and then initiates mitigation actions. The mitigation system's primary function is to reduce the concentration of leaked R-32 refrigerant to prevent serious safety hazards. The mitigation actions are accomplished by halting HVAC operation and continuing indoor blower operation to provide airflow. Once refrigerant concentration reaches below a safe threshold, the unit will remain in mitigation mode for five minutes to evacuate any remaining R-32 refrigerant within the unit. Upon completion, the unit will resume its normal operation.

RDS OPERATION

During operation, the mitigation system is controlled by a refrigerant sensor(s), which is secured to a designated location(s) for active monitoring. Throughout this period, the HVAC operation stops, and the indoor blower fan remains on providing airflow at or above Q_{min} to evacuate excess concentration. If the unit has a zone damper(s), all zones will open automatically, as part of the mitigation mode, to provide ventilation throughout all ducting. If the unit is installed with a communicating thermostat, the thermostat will display relevant alerts/information concerning mitigation mode. Once sensors read concentration levels below a safe threshold, a five-minute timer will initiate. Once the time is over, the unit will resume back to its normal operation. If the sensors detect another concentration excess, the unit will go back into mitigation mode and will repeat the same process.



RDS

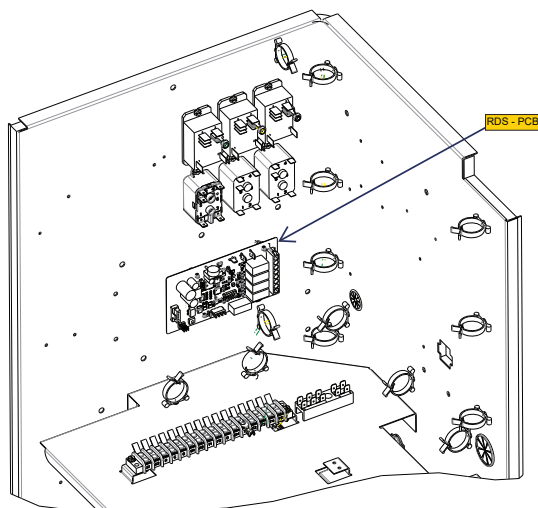
Servicing measures for the REFRIGERANT DETECTION SYSTEM:

Before servicing, identify the mode of operation of the system by reading the LED flashing pattern on the PCB within the control box and matching the LED flashing pattern with mode of operation in the A2L PCB fault code table on the wiring diagram which is attached on the back side of the control box panel. After identifying the mode of operation, take recommended actions as specified in the recommended action for PCB LED Flashing Codes Table. REFRIGERANT SENSORS for REFRIGERANT DETECTION SYSTEMS shall only be replaced with sensors specified by the manufacturer.

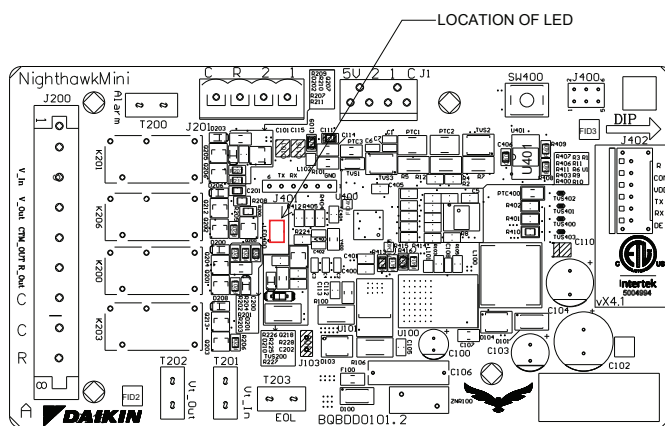
If refrigerant sensor requires replacement, please replace with Sensata R32 sensor PN:RGD-00ML12 (Daikin PN: SER2A08012).

LED STATUS	
MODE	LED FLASHING PATTERN
NORMAL OPERATION	SLOW LED FLASHING PATTERN (2 SECONDS ON 2 SECONDS OFF)
R-32 LEAK ALARM	FAST LED FLASHING PATTERN
DELAY MODE	LED WILL BE ON CONTINUOUSLY
SYSTEM VERIFICATION MODE	FAST LED FLASHING PATTERN
CONTROL BOARD INTERNAL FAULT	LED WILL FLASH 2 TIMES AND THEN BE OFF FOR 5 SECONDS
R32 SENSOR COMMUNICATION FAULT	LED WILL FLASH 3 TIMES AND THEN BE OFF FOR 5 SECONDS
R32 SENSOR FAULT	LED WILL FLASH 4 TIMES AND THEN BE OFF FOR 5 SECONDS

RDS PCB FAULT CODE TABLE



RDS PCB



PCB LED

6.7.1 RECOMMENDED ACTION FOR RDS PCB LED FLASHING CODES

● (RED LED ON) ○ (RED LED OFF) ⚡ (RED LED FAST FLASH)		
LED STATUS CODES		
Red LED Flashing Pattern	Mode	Recommended Actions
Slow LED flashing pattern (2 seconds on and 2 seconds off) ●→○→●→○→●→○→○	Normal Operation	No action needed. Control system is working properly.
Fast LED Flashing Pattern ⚡→⚡→⚡→⚡→⚡→⚡→⚡	R32 Leak Alarm	The control board and sensor are working properly. Identify where the leak is coming from and address the leak.
LED on continuously ●	Delay Mode	After any alarm or fault has cleared, the system will remain in R32 mitigation Delay Mode for 5 minutes and then return to normal operation. Wait until the control board returns to normal operation (LED Flashing Pattern will be SLOW - 2 seconds on and 2 seconds off). Check HVAC performance (cooling and Heating Modes). Check system pressures and lines for any leaks. Re-Check HVAC performance after addressing any issues.
LED will flash 2 times and then be off for 5 seconds before repeating the pattern ⚡→⚡→○→○→⚡→⚡→○→○→○	Control Board Internal Fault	The control board has detected an issue with the R32 detection system. 1. Unplug and plug the R32 sensor back in. Cycle power to the system and wait 2 minutes. 2. If the control board is in Normal Operation (Slow Flash Pattern) or Delay mode (LED continuously on), there is no more issue. If not, continue with diagnostics 3. If the control board still displays "Control Board Internal Fault" (2 flash pattern), Replace the control board.
LED will flash 3 times and then be off for 5 seconds before repeating the pattern ⚡→⚡→⚡→○→○→⚡→⚡→⚡→○→○→○	R32 Sensor Communication Fault	1. Unplug and plug the R32 sensor back in. Cycle power to the system and wait 2 minutes. 2. If the control board is in Normal Operation (Slow Flash Pattern) or Delay mode (LED continuously on), there is no more issue. If not, continue with diagnostics 3. If the control board still displays "R32 Sensor Communication Fault" (3 flash pattern), Replace the sensor. NOTE: If the sensor was already replaced, and the control board still reports the 3 flash pattern, replace the control board.
LED will flash 4 times and then be off for 5 seconds before repeating the pattern ⚡→⚡→⚡→⚡→○→○→⚡→⚡→⚡→⚡→○→○→○	R32 Sensor Fault	1. Unplug and plug the R32 sensor back in. Cycle power to the system and wait 2 minutes. 2. If the control board is in Normal Operation (Slow Flash Pattern) or Delay mode (LED continuously on), there is no more issue. If not, continue with diagnostics 3. If the control board still displays "R32 Sensor Fault" (4 flash pattern), Replace the sensor.

If you have technical questions, please call 1-855-DAIKIN1, or e-mail TechnicalServicesDaikin@daikincomfort.com.

NOTE: FOR DECOMMISSIONING, PLEASE SEE DECOMMISSIONING SECTION IN SERVICE MANUAL.

7 MAINTENANCE



WARNING

ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD

FAILURE TO FOLLOW SAFETY WARNINGS EXACTLY COULD RESULT IN DANGEROUS OPERATION, SERIOUS INJURY, DEATH OR PROPERTY DAMAGE.

IMPROPER SERVICING COULD RESULT IN DANGEROUS OPERATION, SERIOUS INJURY, DEATH OR PROPERTY DAMAGE.

- BEFORE SERVICING, DISCONNECT ALL ELECTRICAL POWER TO FURNACE.
- WHEN SERVICING CONTROLS, LABEL ALL WIRES PRIOR TO DISCONNECTING. RECONNECT WIRES CORRECTLY.
- VERIFY PROPER OPERATION AFTER SERVICING.



WARNING

HIGH VOLTAGE

DISCONNECT ALL POWER BEFORE SERVICING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

TO PREVENT PERSONAL INJURY OR DEATH DUE TO IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE, REFER TO THIS MANUAL. FOR ADDITIONAL ASSISTANCE OR INFORMATION, CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.



CAUTION

SHEET METAL PARTS, SCREWS, CLIPS AND SIMILAR ITEMS INHERENTLY HAVE SHARP EDGES, AND IT IS NECESSARY THAT THE INSTALLER AND SERVICE PERSONNEL EXERCISE CAUTION.

Preventive maintenance is the best way to avoid unnecessary expense and inconvenience. Have this system inspected at regular intervals by qualified service personnel, at least twice a year. Routine maintenance should cover the following items:

1. Tighten set screws, and wire connections.
2. Clean evaporator mechanically or with cold water, if necessary. Usually any fouling is only matted on the entering air face of the coil and can be removed by brushing.
3. Replace filters as needed (see below).
4. Check for blockage of condensate drain.
5. Check power and control voltages.
6. Check running amperage.
7. Check operating temperatures and pressures.
8. Check and adjust temperature and pressure controls.
9. Check and adjust damper linkages.
10. Check operation of all safety controls.
11. Check condenser fans and tighten set screws.

7.1 AIR FILTERS



CAUTION

TO PREVENT PROPERTY DAMAGE DUE TO FIRE AND LOSS OF EQUIPMENT EFFICIENCY OR EQUIPMENT DAMAGE DUE TO DUST AND LINT BUILD UP ON INTERNAL PARTS, NEVER OPERATE UNIT WITHOUT AN AIR FILTER INSTALLED IN THE RETURN AIR SYSTEM.

Every application may require a different frequency of replacement of dirty filters. Filters must be replaced at least every three (3) months during operating seasons.

Dirty filters are the most common cause of inadequate heating or cooling performance. Filter inspection should be made at least every two months; more often if necessary because of local conditions and usage. Dirty throwaway filters should be discarded and replaced with a new, clean filter.

Disposable return air filters are supplied with this unit. See the unit Specification Sheet or Technical Manual for the correct size and part number. To remove the filters, remove the filter access panel on return side of the unit.

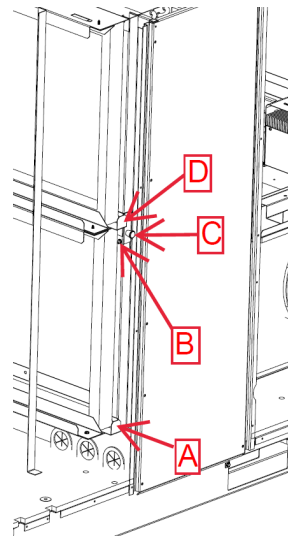
7.1.1 Removing old Air Filters:

Always remove the filters on the bottom first followed by filters on the top. Following are the steps to remove the air filters:

Step 1: Pull the part marked as 'A' horizontally, as it slides out, start removing air filters one by one.

Step 2: Remove the screw marked as 'B'

Step 3: Pull the part marked as 'C'. This will allow the sliding part to slide down by an inch. Once it slides down by an inch, pull the strap "D" and remove all filters one by one.



7.1.2 Replacing with new filters:

Follow the above steps in reverse order. First install the top filters and then the bottom filters.

Step 1: With strap 'D' pulled, add filters one by one (Qty 4) on the top and push the strap marked as 'D'.

Step 2: Pull the part marked as 'C' and at the same time keeping it pulled position, push it upwards until it aligns with the screw hole marked as 'B' and release the pull. Install screw at the location 'B' to lock the movement.

Step 3: Pull strap marked as 'A' by 1 to 2 inch and add filters at the bottom slots one by one and push the strap back.

Replacing default filters with high efficiency filters (for example, MERV 13), would result in higher air side pressure drop and potentially increase blower power consumption.

7.2 CABINET FINISH MAINTENANCE

Use a fine grade automotive wax on the cabinet finish to maintain the finish's original high luster. This is especially important in installations with extended periods of direct sunlight.

7.3 REFRIGERANT RECOVERY

When removing refrigerant from a system, either for servicing or decommissioning, all refrigerants must be 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 labeled 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 occurs.

All recovery equipment must be suitable for the recovery of A2L refrigerant and in good working order. Ensure that you follow the manufacturer's instructions carefully. If in doubt, the manufacturer should be consulted. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition.

The recovered refrigerant shall be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The compressor body shall not be heated by an open flame or other ignition sources to accelerate this process. When oil is drained from a system, it shall be carried out safely.

7.4 LEAK CHECKS

The Following Instructions are mandatory for A2L Systems and Supersede other instructions



WARNING

ONLY BRAZING TECHNIQUES OR APPROVED MECHANICAL JOINTS SHOULD BE USED TO CONNECT REFRIGERANT TUBING CONNECTIONS. NON-APPROVED MECHANICAL CONNECTORS AND OTHER METHODS ARE NOT PERMITTED IN THIS SYSTEM CONTAINING A2L REFRIGERANT. APPROVED MECHANICAL JOINTS WILL BE DETAILED IN THE PRODUCT'S SPECIFICATION SHEETS.

7.4.1 STANDING PRESSURE TEST/LEAK DETECTION METHOD

Using dry nitrogen or dry helium, pressurize the system to 450 PSIG. Allow the pressure to stabilize and hold for 15 minutes (minimum). The system is considered leak-free if the pressure does not drop below 450 PSIG. If, after 15 minutes, the pressure drops below 450 PSIG, it implies a leak in the system. Proceed with identifying and sealing the leak and repeating the Standing Pressure Test. Leak test the system using dry nitrogen or dry helium and soapy water to identify leaks. No refrigerant shall be used for pressure testing to detect leaks. Proceed to system evacuation using the Deep Vacuum Method.

7.4.2 DEEP VACUUM METHOD

The Deep Vacuum Method requires a vacuum pump rated for 500 microns or less. This method effectively and efficiently ensures the system is free of non-condensable air and moisture. The Triple Evacuation Method is detailed in the Service Manual for this product model as an alternative. To expedite the evacuation procedure, it is recommended that the Schrader Cores be removed from the service valves using a core-removal tool.

1. Connect the vacuum pump, micron gauge, and vacuum-rated hoses to both service valves. Evacuation must use both service valves to eliminate system mechanical seals.
2. Evacuate the system to less than 500 microns.
3. Isolate the pump from the system and hold the vacuum for 10 minutes (minimum). Typically, pressure will rise slowly during this period. If the pressure rises to less than 1000 microns and remains steady, the system is considered leak-free; proceed to system charging and startup.
4. If pressure rises above 1000 microns but holds steady below 2000 microns, non-condensable air or moisture may remain, or a small leak may be present. Return to step 2: If the same result is achieved, check for leaks and repair. Repeat the evacuation procedure.
5. If pressure rises above 2000 microns, a leak is present. Check for leaks and repair them. Then, repeat the evacuation procedure.

7.5 CHARGING PROCEDURES

In addition to conventional charging procedures, the following requirements shall be followed.

- Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. 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.
- Ensure that contamination of different refrigerants does not occur when using charging equipment.
- Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate position according to the instructions.
- Ensure that the REFRIGERATING SYSTEM is grounded 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 REFRIGERATING SYSTEM.

7.6 CLEAN INDOOR COIL (QUALIFIED SERVICER ONLY)

Before cleaning the indoor coil, A2L sensor must be removed from the unit to avoid damage and contamination. Air filters should also be removed before performing maintenance. The coil with the filtered air flowing over it should be inspected and cleaned as frequently as necessary to keep the finned areas free of debris. Any air blowing or water rinsing should be performed from inside-out (opposite operating airflow direction) to prevent damage to the tube, fin coil and any other components. Prior to resuming unit operation, ensure to reinstall the A2L sensor.

7.7 CLEAN OUTDOOR COIL

The coil with the outside air flowing over it should be inspected annually and cleaned as frequently as necessary to keep the finned areas free of lint, hair and debris.

NOTE: CLEAN THE OPPOSITE DIRECTION OF AIR FLOW.

MAINTENANCE OF MICROCHANNEL HEAT EXCHANGERS (MCHE)

Frequent servicing is essential to maintaining the required MCHE performance. For every installed Danfoss MCHE, service records must be documented.



CAUTION

PRIOR TO SERVICING MCHE, BE SURE TO DISCONNECT THE POWER SUPPLY AND USE LOCK-OUT METHODS TO PREVENT THE POWER FROM ACCIDENTALLY BEING TURNED ON.

SHUT DOWN PERIODS

During periods when the MCHE is not operated for longer than a week, the MCHE must be cleaned following the cleaning procedure. This practice must also be performed during short shut-down periods where corrosive deposits accumulate on the MCHE.

CLEANING PROCEDURE

Relative to tube & fin heat exchangers, MicroChannel heat exchanger coils tend to accumulate more dirt on the surface of the coil and less dirt inside the coil, making them easier to clean. Follow the steps below for proper cleaning:

STEP 1: REMOVE SURFACE DEBRIS

Remove surface dirt, leaves, fibers, etc. with a vacuum cleaner (preferably with a brush or other soft attachment rather than a metal tube), compressed air blown from the inside out, and/or a soft bristle (not wire!) brush. Do not impact or scrape the coil with the vacuum tube, air nozzle, etc.

STEP 2: RINSE

Rinse the coil by following procedure:

1. Rinse the coil by approved MCHE cleaner first, or rinsing by water directly;
2. Waiting for 5 minutes;
3. Wash the coil by water;

Adjust the angle of gimbaled nozzle and insert it through fans. Using an extension rod if the nozzle cannot reach the bottom side. Preferably cleaning the coils from the inside-out and top to bottom (see figure 1), running the water through every fin passage until it comes out clean. The fins of MicroChannel coils are stronger than traditional tube & fin coil fins but still need to be handled with care. Do not hit the coil with the hose. We recommend placing your thumb over the end of the hose to obtain a gentler spray and reduce the possibility of impact damage. Please PAY MORE ATTENTION when using a pressure cleaning equipment to prevent damage.

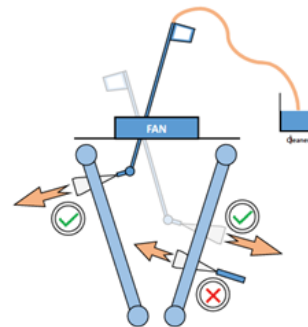


FIGURE 1

Highest pressure of cleaning equipment shall not exceed 15 bar (~215 PSI), and tentatively move the cleaning equipment from far to near to prevent damage.

- KEEP the outlet of washer away from coil for at least 4in (see figure 2);
- KEEP the spray nozzle perpendicular to the coil surface and the angle error shall less than 20°, or ±40° if the distance from washer to coil is more than 12in (see figure 2);
- Water outlet angle for high pressure cleaning equipment must be over 15° (see figure 3).

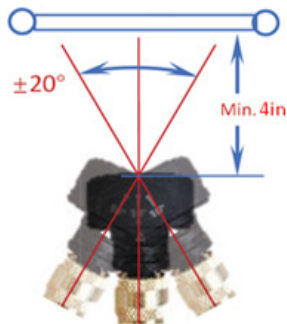


FIGURE 2



FIGURE 3

8 REPLACEMENT PARTS

ORDERING PARTS

When reporting shortages or damages, or ordering repair parts, give the complete unit model and serial numbers as stamped on the unit's nameplate. Refrigerant Sensors for refrigeration detection system shall only be replaced with sensors specified by the manufacturer. Shortages and damage needs to be reported to logistic Feedback @ <https://www.goodmanmfg.com/logistics-feedback>.

Replacement parts for this appliance are available through your contractor or local distributor. Your nearest distributor can be located online at www.daikincomfort.com or by contacting:

EQUIPMENT SUPPORT
DAIKIN COMFORT TECHNOLOGIES
MANUFACTURING, INC.
19001 KERMIER ROAD
WALLER, TEXAS 77484
855-770-5678

Warranty claims related to cleaning damage, especially for incorrect pressure washing operation, or corrosion resulting from applying non-recommended cleaners, will NOT be honored.

STEP 3: REMOVE SURFACE DEBRIS

Depending on the installation and fin geometry, MicroChannel heat exchangers could possibly retain more water compared to traditional tube & fin coils. It is advised to blow off or vacuum out the residual water from the coil to speed up drying and prevent pooling. Daikin recommends a quarterly cleaning of the coils, as the minimum. The cleaning frequency should be increased depending on the level of dirt/dust accumulation and the environment (e.g., coastal areas with chlorides and salts) or industrial areas with aggressive substances.



WARNING

FIELD APPLIED COATINGS ARE NOT RECOMMENDED FOR BRAZED ALUMINUM MICROCHANNEL HEAT EXCHANGERS. MICROCHANNEL HEAT EXCHANGERS MUST NOT BE COATED USING ANY OTHER COATING. COATING OF A COIL USING A SUPPLIER OR COATING PROCESS IS NOT APPROVED. IT MAY ALSO REDUCE THE LIFETIME AND/OR THE PERFORMANCE OF THE MICROCHANNEL HEAT EXCHANGER.

CONDENSER FANS

Bearings on the condenser fan motors are permanently lubricated. No additional oiling is required.

FUNCTIONAL PARTS

Refer to the unit Parts Catalog for a list of functional parts. Parts are available from your distributor.

9 APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - STANDARD

DSC180D - STD STATIC						
SPEED Tap	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	2489	442	436	0.17	0.17
	0.4	1540	561	560	0.21	0.21
	0.6	1029	619	620	0.24	0.24
	0.8	492	678	677	0.26	0.26
	1.0	-	-	-	-	-
	1.2	-	-	-	-	-
T2	0.2	4085	494	499	0.34	0.35
	0.4	3417	619	583	0.43	0.41
	0.6	2773	680	683	0.47	0.48
	0.8	1974	752	750	0.52	0.52
	1.0	1492	797	795	0.55	0.55
	1.2	1243	844	841	0.59	0.59
T3	0.2	4888	533	540	0.49	0.50
	0.4	4424	609	619	0.56	0.57
	0.6	3767	721	685	0.66	0.63
	0.8	3225	772	773	0.71	0.71
	1.0	2608	837	833	0.77	0.76
	1.2	2005	886	883	0.81	0.81
T4	0.2	7235	661	674	1.24	1.27
	0.4	6874	729	738	1.37	1.39
	0.6	6579	788	797	1.48	1.50
	0.8	6301	835	846	1.57	1.59
	1.0	6023	881	895	1.65	1.68
	1.2	5436	986	940	1.85	1.77
T5	0.2	8207	665	678	1.34	1.37
	0.4	7783	737	747	1.49	1.51
	0.6	7436	793	802	1.60	1.62
	0.8	7098	845	857	1.70	1.73
	1.0	6725	896	909	1.81	1.83
	1.2	6023	1002	956	2.02	1.93
T6	0.2	6824	633	644	1.04	1.06
	0.4	6489	700	710	1.15	1.16
	0.6	6119	758	767	1.24	1.26
	0.8	5803	809	820	1.33	1.35
	1.0	5187	916	869	1.50	1.43
	1.2	4817	964	926	1.58	1.52
T7	0.2	7041	640	653	1.10	1.13
	0.4	6682	709	719	1.22	1.24
	0.6	6354	768	777	1.33	1.34
	0.8	6035	819	830	1.41	1.43
	1.0	5470	917	879	1.58	1.52
	1.2	5111	971	925	1.68	1.60
T8	0.2	7291	650	663	1.19	1.21
	0.4	6936	719	728	1.32	1.33
	0.6	6604	778	786	1.42	1.44
	0.8	6311	828	840	1.51	1.54
	1.0	5998	877	890	1.60	1.63
	1.2	5388	980	935	1.79	1.71
T9	0.2	7399	656	669	1.23	1.26
	0.4	7019	725	734	1.36	1.38
	0.6	7138	800	815	1.50	1.53
	0.8	6826	843	851	1.59	1.60
	1.0	6501	888	888	1.67	1.67
	1.2	6149	942	928	1.77	1.74
T10	0.2	7700	719	739	1.39	1.42
	0.4	7502	764	782	1.47	1.51
	0.6	7247	805	821	1.55	1.58
	0.8	6941	848	857	1.63	1.65
	1.0	6620	892	893	1.72	1.72
	1.2	6275	946	932	1.82	1.80

DSC240D- STD STATIC						
SPEED TAP	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	4329	529	538	0.30	0.31
	0.4	3748	613	632	0.35	0.36
	0.6	3175	698	713	0.40	0.41
	0.8	2598	765	776	0.44	0.45
	1	1961	826	824	0.48	0.47
	1.2	1581	861	858	0.50	0.49
T2	0.2	6131	630	641	0.66	0.67
	0.4	5728	698	709	0.73	0.75
	0.6	5383	751	766	0.79	0.81
	0.8	4875	824	839	0.87	0.88
	1	4430	881	903	0.93	0.95
	1.2	4032	933	953	0.98	1.00
T3	0.2	7378	770	720	1.14	1.07
	0.4	7012	770	779	1.14	1.15
	0.6	6713	819	832	1.21	1.23
	0.8	6434	862	879	1.28	1.30
	1	6147	907	928	1.34	1.37
	1.2	5641	968	994	1.43	1.47
T4	0.2	9035	831	853	2.04	2.09
	0.4	8705	885	905	2.17	2.22
	0.6	8441	931	949	2.28	2.33
	0.8	8214	972	986	2.38	2.42
	1	8010	1008	1024	2.47	2.51
	1.2	7817	1037	1057	2.54	2.59
T5	0.2	9243	853	876	2.19	2.25
	0.4	8881	909	928	2.33	2.38
	0.6	8628	954	971	2.45	2.49
	0.8	8428	991	1006	2.54	2.58
	1	8219	1027	1042	2.64	2.68
	1.2	8010	1058	1077	2.72	2.76
T6	0.2	8648	779	797	1.53	1.56
	0.4	8257	839	853	1.64	1.67
	0.6	7965	884	897	1.73	1.76
	0.8	7705	928	943	1.82	1.85
	1	7445	966	984	1.89	1.93
	1.2	7209	1002	1024	1.96	2.01
T7	0.2	9025	801	820	1.71	1.75
	0.4	8641	862	877	1.84	1.87
	0.6	8368	908	921	1.94	1.97
	0.8	8107	952	965	2.03	2.06
	1	7863	986	1003	2.10	2.14
	1.2	7616	1023	1043	2.18	2.23
T8	0.2	9429	837	846	1.94	1.96
	0.4	9073	885	900	2.05	2.09
	0.6	8768	931	945	2.16	2.19
	0.8	8508	972	987	2.26	2.29
	1	8261	1007	1024	2.34	2.38
	1.2	8052	1043	1064	2.42	2.47
T9	0.2	9997	863	886	2.26	2.32
	0.4	9632	919	940	2.40	2.46
	0.6	9340	967	985	2.53	2.57
	0.8	9089	1009	1024	2.64	2.68
	1	8863	1047	1063	2.74	2.78
	1.2	8649	1077	1098	2.81	2.87
T10	0.2	10340	881	905	2.45	2.52
	0.4	9935	939	958	2.61	2.66
	0.6	9652	986	1003	2.74	2.79
	0.8	9429	1024	1039	2.85	2.89
	1	9195	1061	1077	2.95	2.99
	1.2	8961	1093	1112	3.04	3.09

NOTES:

If high static fan is needed it should be ordered as factory installed.

Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.

Refer to the 'Airflow Adjustment' section for airflow adjustments.

Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - STANDARD

DSC300D STD STATIC						
Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	5677	764	679	0.75	0.67
	0.4	5447	804	725	0.79	0.71
	0.6	5218	844	773	0.83	0.76
	0.8	4937	883	822	0.87	0.81
	1	4689	923	867	0.91	0.85
	1.2	4376	963	914	0.95	0.90
T2	0.2	6841	842	753	1.14	1.02
	0.4	6594	790	874	1.07	1.19
	0.6	6555	802	881	1.09	1.20
	0.8	6377	907	836	1.23	1.13
	1	6174	941	872	1.28	1.18
	1.2	5651	1007	959	1.37	1.30
T3	0.2	7993	996	879	1.78	1.57
	0.4	7824	1024	913	1.83	1.63
	0.6	7646	1052	946	1.88	1.69
	0.8	7489	1079	976	1.92	1.74
	1	7307	1104	1007	1.97	1.80
	1.2	7131	1133	1043	2.02	1.86
T4	0.2	10787	1065	993	3.14	2.92
	0.4	10524	1091	1020	3.21	3.01
	0.6	10331	1120	1040	3.30	3.07
	0.8	10170	1147	1075	3.38	3.17
	1	10010	1167	1112	3.44	3.28
	1.2	9814	1194	1147	3.52	3.38
T5	0.2	10969	1086	1011	3.38	3.15
	0.4	10712	1110	1036	3.46	3.23
	0.6	10532	1138	1056	3.54	3.29
	0.8	10369	1162	1087	3.62	3.38
	1	10197	1183	1118	3.69	3.48
	1.2	10010	1209	1150	3.76	3.58
T6	0.2	9218	832	787	1.79	1.70
	0.4	8927	869	828	1.87	1.79
	0.6	-	-	-	-	-
	0.8	-	-	-	-	-
	1	-	-	-	-	-
	1.2	-	-	-	-	-
T7	0.2	9642	879	828	2.07	1.95
	0.4	9358	913	866	2.15	2.04
	0.6	9096	949	893	2.23	2.10
	0.8	8916	983	938	2.31	2.21
	1	8754	1008	991	2.37	2.33
	1.2	-	-	-	-	-
T8	0.2	9934	1083	971	2.78	2.49
	0.4	9735	1110	999	2.85	2.56
	0.6	9559	1138	1027	2.92	2.64
	0.8	9379	1162	1056	2.98	2.71
	1	9201	1187	1086	3.05	2.79
	1.2	9006	1212	1120	3.11	2.87
T9	0.2	10398	1123	1008	3.16	2.84
	0.4	10203	1149	1034	3.24	2.91
	0.6	10034	1176	1060	3.31	2.99
	0.8	9863	1199	1087	3.38	3.06
	1	9698	1222	1116	3.44	3.14
	1.2	9516	1245	1147	3.51	3.23
T10	0.2	10958	1088	1013	3.38	3.15
	0.4	10701	1112	1038	3.45	3.22
	0.6	10521	1140	1058	3.54	3.29
	0.8	10359	1164	1089	3.61	3.38
	1	10187	1186	1120	3.68	3.48
	1.2	10000	1211	1152	3.76	3.58

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DSC180W HIGH STATIC						
SPEED TAP	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	2070	436	436	0.17	0.17
	0.4	1373	539	536	0.21	0.21
	0.6	999.7	604	614	0.24	0.24
	0.8	-	-	-	-	-
	1	-	-	-	-	-
	1.2	-	-	-	-	-
	1.4	-	-	-	-	-
	1.6	-	-	-	-	-
	1.8	-	-	-	-	-
	2	-	-	-	-	-
T2	0.2	2121	441	447	0.18	0.18
	0.4	1357	528	551	0.21	0.22
	0.6	1035	608	616	0.24	0.25
	0.8	-	-	-	-	-
	1	-	-	-	-	-
	1.2	-	-	-	-	-
	1.4	-	-	-	-	-
	1.6	-	-	-	-	-
	1.8	-	-	-	-	-
	2	-	-	-	-	-
T3	0.2	6518	631	640	0.72	0.73
	0.4	6166	686	706	0.78	0.81
	0.6	5853	741	764	0.85	0.87
	0.8	5478	803	825	0.92	0.94
	1	4895	863	890	0.99	1.02
	1.2	4431	923	952	1.05	1.09
	1.4	4051	987	985	1.13	1.13
	1.6	3388	1052	1063	1.20	1.21
	1.8	2974	1087	1100	1.24	1.26
	2	2544	1124	1132	1.28	1.29
T4	0.2	9407	785	781	0.86	0.86
	0.4	9046	821	818	0.90	0.90
	0.6	8725	857	855	0.94	0.94
	0.8	8393	895	893	0.98	0.98
	1	8084	930	927	1.02	1.02
	1.2	7749	966	963	1.06	1.06
	1.4	7302	1015	1004	1.11	1.10
	1.6	6860	1058	1045	1.16	1.15
	1.8	6409	1105	1084	1.21	1.19
	2	5980	1146	1124	1.26	1.23
T5	0.2	9342	815	810	1.22	1.21
	0.4	9023	850	847	1.27	1.26
	0.6	8740	885	883	1.32	1.32
	0.8	8449	922	919	1.37	1.37
	1	8181	955	951	1.42	1.42
	1.2	7896	989	986	1.47	1.47
	1.4	7575	1027	1021	1.53	1.52
	1.6	7205	1067	1058	1.59	1.58
	1.8	6812	1113	1095	1.66	1.63
	2	6446	1154	1133	1.72	1.69
T6	0.2	8791	766	775	1.43	1.45
	0.4	8453	824	837	1.54	1.56
	0.6	8175	870	888	1.63	1.66
	0.8	7911	912	938	1.71	1.75
	1	7640	950	981	1.78	1.83
	1.2	7386	986	1016	1.84	1.90
	1.4	7118	1028	1058	1.92	1.98
	1.6	6582	1082	1117	2.02	2.09
	1.8	6206	1124	1158	2.10	2.16
	2	5852	1172	1210	2.19	2.26
T7	0.2	9167	790	803	1.59	1.62
	0.4	8822	848	863	1.71	1.74
	0.6	8546	902	912	1.82	1.84
	0.8	8276	937	963	1.89	1.94
	1	8015	973	1005	1.96	2.02
	1.2	7756	1010	1042	2.03	2.10
	1.4	7462	1047	1082	2.11	2.18
	1.6	7177	1092	1119	2.20	2.25
	1.8	6673	1138	1177	2.29	2.37
	2	6364	1182	1218	2.38	2.45
T8	0.2	9536	816	828	1.77	1.79
	0.4	9212	870	885	1.89	1.92
	0.6	8934	913	932	1.98	2.02
	0.8	8680	955	977	2.07	2.12
	1	8445	990	1016	2.15	2.20
	1.2	8170	1024	1056	2.22	2.29
	1.4	7938	1060	1093	2.30	2.37
	1.6	7669	1101	1130	2.39	2.45
	1.8	7185	1150	1150	2.49	2.49
	2	6823	1187	1227	2.57	2.66
T9	0.2	9916	836	849	1.95	1.98
	0.4	9546	892	912	2.08	2.13
	0.6	9271	936	954	2.18	2.22
	0.8	9036	977	1000	2.28	2.33
	1	8766	1013	1043	2.36	2.43
	1.2	8527	1044	1080	2.43	2.52
	1.4	8295	1092	1117	2.55	2.60
	1.6	8073	1115	1148	2.60	2.68
	1.8	7832	1153	1185	2.69	2.76
	2	7291	1200	1240	2.80	2.89
T10	0.2	10290	859	872	2.15	2.18
	0.4	9974	913	927	2.29	2.32
	0.6	9693	957	974	2.40	2.44
	0.8	9455	996	1017	2.49	2.55
	1	9222	1030	1058	2.58	2.65
	1.2	8986	1063	1098	2.66	2.75
	1.4	8736	1097	1132	2.75	2.84
	1.6	8530	1127	1163	2.82	2.91
	1.8	8305	1163	1197	2.91	3.00
	2	8016	1199	1231	3.00	3.08
T5	0.2	7453	1246	1284	3.12	3.22

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DSC240W - HIGH STATIC						
SPEED TAP	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	6492	631	620	0.71	0.70
	0.4	6091	702	733	0.79	0.83
	0.6	5741	764	793	0.86	0.89
	0.8	5160	862	847	0.97	0.95
	1	4674	906	931	1.02	1.05
	1.2	4316	953	985	1.07	1.11
	1.4	3992	999	1027	1.13	1.16
	1.6	3577	1052	1070	1.19	1.21
	1.8	3116	1100	1100	1.24	1.24
	2	2667	1137	1153	1.28	1.30
T2	2.2	2195	1164	1185	1.31	1.34
	0.2	6962	666	697	0.83	0.87
	0.4	6573	729	761	0.91	0.95
	0.6	6187	787	819	0.98	1.02
	0.8	5633	874	881	1.09	1.10
	1	5273	921	936	1.15	1.17
	1.2	4783	976	1004	1.22	1.25
	1.4	4477	1018	1053	1.27	1.32
	1.6	4148	1061	1092	1.33	1.36
	1.8	3728	1115	1134	1.39	1.42
T3	2	3292	1158	1174	1.45	1.47
	2.2	2850	1193	1214	1.49	1.52
	0.2	9902	842	879	1.91	1.99
	0.4	9514	897	897	2.04	2.04
	0.6	9220	940	940	2.13	2.13
	0.8	8949	978	1019	2.22	2.31
	1	8695	1017	1060	2.31	2.41
	1.2	8415	1054	1098	2.39	2.49
	1.4	8158	1091	1136	2.48	2.58
	1.6	7604	1163	1184	2.64	2.69
T4	1.8	7336	1222	1205	2.77	2.73
	2	7034	1247	1244	2.83	2.82
	2.2	6667	1276	1306	2.90	2.96
	0.2	11001	820	859	1.81	1.90
	0.4	10606	873	909	1.93	2.01
	0.6	10247	916	954	2.02	2.11
	0.8	9983	952	994	2.10	2.20
	1	9713	987	1033	2.18	2.28
	1.2	9445	1026	1070	2.27	2.36
	1.4	9169	1062	1108	2.35	2.45
T5	1.6	8892	1095	1143	2.42	2.53
	1.8	8261	1169	1183	2.58	2.61
	2	8010	1222	1207	2.70	2.67
	2.2	7698	1242	1259	2.74	2.78
	0.2	11135	830	872	2.03	2.13
	0.4	10732	888	926	2.17	2.27
	0.6	10412	930	969	2.28	2.37
	0.8	10166	964	1008	2.36	2.47
	1	9895	1000	1046	2.45	2.56
	1.2	9640	1036	1082	2.54	2.65
T6	1.4	9397	1076	1116	2.63	2.73
	1.6	9119	1104	1153	2.70	2.82
	1.8	8865	1138	1188	2.79	2.91
	2	8254	1221	1219	2.99	2.98
	2.2	8010	1262	1250	3.09	3.06
T7	0.2	9125	822	779	1.74	1.65
	0.4	8832	860	821	1.82	1.74
	0.6	8546	898	852	1.90	1.80
	0.8	8348	935	901	1.98	1.91
	1	8158	964	958	2.04	2.03
	1.2	7887	998	1007	2.11	2.13
	1.4	7592	1029	1063	2.18	2.25
	1.6	7272	1072	1109	2.27	2.35
	1.8	-	-	-	-	-
	2	-	-	-	-	-
T8	2.2	-	-	-	-	-
	0.2	9412	852	805	1.91	1.81
	0.4	9124	888	845	1.99	1.90
	0.6	8851	925	874	2.08	1.96
	0.8	8663	960	920	2.15	2.06
	1	8490	987	976	2.22	2.19
	1.2	8232	1020	1024	2.29	2.30
	1.4	7947	1050	1079	2.36	2.42
	1.6	7646	1090	1124	2.45	2.52
	1.8	7366	1129	1155	2.53	2.59
T9	2	7134	1168	1186	2.62	2.66
	2.2	-	-	-	-	-
	0.2	9695	885	834	2.10	1.98
	0.4	9412	919	871	2.19	2.07
	0.6	9153	954	897	2.27	2.13
	0.8	8974	988	942	2.35	2.24
	1	8814	1013	995	2.41	2.37
	1.2	8568	1045	1042	2.48	2.48
	1.4	8293	1073	1095	2.55	2.60
	1.6	8010	1111	1140	2.64	2.71
T10	1.8	7743	1148	1170	2.73	2.78
	2	7518	1186	1201	2.82	2.86
	2.2	7200	1223	1229	2.91	2.92
	0.2	9881	909	854	2.30	2.16
	0.4	9602	941	890	2.38	2.25
	0.6	9353	976	915	2.46	2.31
	0.8	9179	1008	959	2.55	2.42
	1	9025	1032	1009	2.61	2.55
	1.2	8787	1063	1055	2.68	2.66
	1.4	8519	1090	1107	2.75	2.80
T11	1.6	8248	1127	1151	2.85	2.91
	1.8	7989	1163	1181	2.94	2.98
	2	7770	1199	1211	3.03	3.06
	2.2	7460	1237	1239	3.12	3.13
	0.2	10268	963	902	2.58	2.41
	0.4	9996	993	935	2.66	2.50
	0.6	9769	1025	957	2.74	2.56
	0.8	9604	1055	997	2.82	2.67
	1	9456	1077	1042	2.88	2.79
	1.2	9235	1106	1084	2.96	2.90
T12	1.4	8983	1132	1133	3.03	3.03
	1.6	8736	1164	1175	3.11	3.14
	1.8	8496	1197	1204	3.20	3.22
	2	8288	1232	1233	3.29	3.30
	2.2	8001	1267	1259	3.39	3.37

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DSC3003W High Static						
Speed Tap	Static	AIR FLOW	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	7629	701	674	1.07	1.03
	0.4	7314	746	725	1.14	1.11
	0.6	6969	789	777	1.21	1.19
	0.8	6701	833	829	1.28	1.27
	1.0	6380	882	892	1.35	1.37
	1.2	6049	919	939	1.41	1.44
	1.4	5706	956	994	1.46	1.52
	1.6	5285	1010	1035	1.55	1.58
	1.8	4952	1055	1066	1.62	1.63
	2.0	4673	1094	1098	1.68	1.68
T2	2.2	4339	1128	1134	1.73	1.74
	0.2	7900	719	690	1.17	1.12
	0.4	7588	763	739	1.24	1.20
	0.6	7253	805	787	1.31	1.28
	0.8	6999	848	839	1.38	1.37
	1.0	6706	893	902	1.45	1.47
	1.2	6386	929	949	1.51	1.55
	1.4	6051	966	1005	1.57	1.64
	1.6	5649	1018	1048	1.66	1.71
	1.8	5322	1063	1079	1.73	1.76
T3	2.0	5050	1102	1111	1.79	1.81
	2.2	4712	1137	1146	1.85	1.87
	0.2	9468	859	811	1.95	1.84
	0.4	9181	894	850	2.03	1.93
	0.6	8911	930	878	2.11	1.99
	0.8	8724	966	925	2.19	2.10
	1.0	8554	992	980	2.25	2.22
	1.2	8298	1025	1027	2.33	2.33
	1.4	8015	1054	1082	2.39	2.45
	1.6	7718	1094	1128	2.48	2.56
T4	1.8	7441	1133	1158	2.57	2.63
	2.0	7210	1171	1189	2.66	2.70
	2.2	6884	1209	1218	2.74	2.76
	0.2	12723	972	914	2.75	2.58
	0.4	12364	1007	952	2.84	2.69
	0.6	12043	1044	979	2.95	2.77
	0.8	11819	1078	1026	3.04	2.90
	1.0	11621	1104	1079	3.12	3.05
	1.2	11315	1137	1129	3.21	3.19
	1.4	10969	1166	1184	3.29	3.35
T5	1.6	10620	1206	1231	3.41	3.48
	1.8	10287	1244	1263	3.52	3.57
	2.0	10005	1283	1295	3.62	3.66
	2.2	9606	1323	1325	3.74	3.75
	0.2	12849	1012	948	2.99	2.80
	0.4	12509	1044	983	3.09	2.91
	0.6	12223	1078	1006	3.18	2.98
	0.8	12017	1109	1048	3.28	3.10
	1.0	11831	1131	1095	3.34	3.24
	1.2	11553	1163	1141	3.44	3.37
	1.4	11237	1190	1191	3.52	3.52
	1.6	10927	1224	1236	3.62	3.66
	1.8	10626	1258	1266	3.72	3.74
	2.0	10366	1295	1297	3.83	3.84
	2.2	10005	1333	1325	3.94	3.92

T6	0.2	10268	963	902	2.58	2.41
	0.4	9996	993	935	2.66	2.50
	0.6	9769	1025	957	2.74	2.56
	0.8	9604	1055	997	2.82	2.67
	1.0	9456	1077	1042	2.88	2.79
	1.2	9235	1106	1084	2.96	2.90
	1.4	8983	1132	1133	3.03	3.03
	1.6	8736	1164	1175	3.11	3.14
	1.8	8496	1197	1204	3.20	3.22
	2.0	8288	1232	1233	3.29	3.30
T7	2.2	8001	1267	1259	3.39	3.37
	0.2	10626	1022	955	2.95	2.75
	0.4	10361	1049	984	3.03	2.84
	0.6	10156	1080	1004	3.11	2.90
	0.8	9995	1107	1040	3.19	3.00
	1.0	9842	1127	1079	3.25	3.11
	1.2	9638	1155	1117	3.33	3.22
	1.4	9402	1179	1160	3.40	3.35
	1.6	9176	1207	1199	3.48	3.46
	1.8	8958	1236	1227	3.57	3.54
T8	2.0	8760	1269	1255	3.66	3.62
	2.2	8502	1302	1280	3.76	3.69
	0.2	10979	1092	1017	3.41	3.17
	0.4	10723	1116	1042	3.48	3.25
	0.6	10544	1144	1062	3.57	3.31
	0.8	10382	1168	1093	3.65	3.41
	1.0	10209	1190	1123	3.71	3.51
	1.2	10023	1216	1155	3.79	3.60
	1.4	9804	1237	1191	3.86	3.72
	1.6	9598	1261	1225	3.93	3.82
T9	1.8	9406	1285	1252	4.01	3.91
	2.0	9218	1314	1278	4.10	3.99
	2.2	9000	1344	1301	4.19	4.06
	0.2	11348	1185	1101	4.05	3.76
	0.4	11101	1206	1120	4.11	3.82
	0.6	10956	1230	1142	4.20	3.90
	0.8	10785	1250	1165	4.27	3.97
	1.0	10567	1275	1183	4.35	4.04
	1.2	10402	1298	1205	4.43	4.11
	1.4	10203	1317	1230	4.49	4.20
T10	1.6	10015	1335	1257	4.56	4.29
	1.8	9858	1353	1281	4.62	4.37
	2.0	9682	1376	1305	4.70	4.45
	2.2	9524	1400	1326	4.78	4.52
	0.2	11679	1301	1205	4.88	4.52
	0.4	11444	1317	1219	4.94	4.57
	0.6	11337	1338	1246	5.02	4.67
	0.8	11145	1353	1257	5.07	4.71
	1.0	10847	1386	1260	5.20	4.72
	1.2	10703	1405	1267	5.27	4.75
	1.4	10526	1421	1277	5.33	4.79
	1.6	10353	1432	1291	5.37	4.84
	1.8	10238	1441	1313	5.40	4.93
	2.0	10074	1457	1333	5.47	5.00
	2.2	10002	1473	1353	5.52	5.07

NOTES:

If high static fan is needed it should be ordered as factory installed.

Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.

Refer to the 'Airflow Adjustment' section for airflow adjustments.

Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - STANDARD

DSH180D STD STATIC						
Speed Tap	Static	AIR FLOW	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	4869	602	628	0.41	0.43
	0.4	4552	635	666	0.44	0.46
	0.6	4164	673	710	0.46	0.49
	0.8	3709	717	760	0.49	0.52
	1.0	3192	766	817	0.53	0.56
	1.2	2625	820	878	0.56	0.60
T2	0.2	7669	703	777	1.17	1.30
	0.4	7217	755	837	1.26	1.40
	0.6	6745	808	898	1.35	1.50
	0.8	6266	862	958	1.44	1.60
	1.0	5793	915	1018	1.53	1.70
	1.2	5338	967	1075	1.62	1.80
T3	0.2	7503	697	769	1.07	1.18
	0.4	7054	749	828	1.15	1.27
	0.6	6581	802	889	1.23	1.36
	0.8	6097	856	951	1.31	1.46
	1.0	5618	910	1011	1.39	1.55
	1.2	5156	963	1069	1.47	1.64
T4	0.2	7867	710	787	1.23	1.36
	0.4	7414	762	847	1.32	1.46
	0.6	6943	815	907	1.41	1.57
	0.8	6468	868	967	1.50	1.67
	1.0	6002	921	1025	1.59	1.77
	1.2	5557	972	1081	1.68	1.87
T5	0.2	8322	727	810	1.35	1.50
	0.4	7865	778	869	1.44	1.61
	0.6	7399	830	927	1.54	1.72
	0.8	6934	882	985	1.64	1.83
	1.0	6481	933	1040	1.73	1.93
	1.2	6052	982	1093	1.82	2.03
T6	0.2	7669	703	777	1.17	1.30
	0.4	7217	755	837	1.26	1.40
	0.6	6745	808	898	1.35	1.50
	0.8	6266	862	958	1.44	1.60
	1.0	5793	915	1018	1.53	1.70
	1.2	5338	967	1075	1.62	1.80
T7	0.2	7867	710	787	1.23	1.36
	0.4	7414	762	847	1.32	1.46
	0.6	6943	815	907	1.41	1.57
	0.8	6468	868	967	1.50	1.67
	1.0	6002	921	1025	1.59	1.77
	1.2	5557	972	1081	1.68	1.87
T8	0.2	8226	723	806	1.32	1.47
	0.4	7770	775	864	1.42	1.58
	0.6	7302	827	923	1.51	1.69
	0.8	6835	879	981	1.61	1.79
	1.0	6380	931	1037	1.70	1.90
	1.2	5948	980	1090	1.79	1.99
T9	0.2	7867	710	787	1.23	1.36
	0.4	7414	762	847	1.32	1.46
	0.6	6943	815	907	1.41	1.57
	0.8	6468	868	967	1.50	1.67
	1.0	6002	921	1025	1.59	1.77
	1.2	5557	972	1081	1.68	1.87
T10	0.2	8322	727	810	1.35	1.50
	0.4	7865	778	869	1.44	1.61
	0.6	7399	830	927	1.54	1.72
	0.8	6934	882	985	1.64	1.83
	1.0	6481	933	1040	1.73	1.93
	1.2	6052	982	1093	1.82	2.03

DSH240D STD STATIC						
Speed Tap	Static	AIR FLOW	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	4869	602	628	0.41	0.43
	0.4	4552	635	666	0.44	0.46
	0.6	4164	673	710	0.46	0.49
	0.8	3709	717	760	0.49	0.52
	1.0	3192	766	817	0.53	0.56
	1.2	2625	820	878	0.56	0.60
T2	0.2	7253	688	756	1.07	1.17
	0.4	6809	739	815	1.15	1.27
	0.6	6335	793	877	1.23	1.36
	0.8	5846	847	939	1.32	1.46
	1.0	5357	902	1001	1.40	1.56
	1.2	4882	956	1061	1.49	1.65
T3	0.2	8481	732	818	1.39	1.56
	0.4	8023	784	876	1.49	1.67
	0.6	7558	835	934	1.59	1.78
	0.8	7095	887	991	1.69	1.88
	1.0	6647	937	1045	1.78	1.99
	1.2	6222	985	1097	1.88	2.09
T4	0.2	9948	791	894	1.91	2.16
	0.4	9472	839	945	2.03	2.28
	0.6	8999	887	994	2.14	2.40
	0.8	8536	933	1042	2.25	2.51
	1.0	8093	977	1087	2.36	2.62
	1.2	7678	1019	1129	2.46	2.72
T5	0.2	10371	817	923	2.16	2.44
	0.4	9877	863	971	2.28	2.57
	0.6	9389	909	1017	2.41	2.69
	0.8	8915	953	1062	2.52	2.81
	1.0	8464	995	1104	2.63	2.92
	1.2	8044	1035	1143	2.74	3.02
T6	0.2	8668	739	828	1.45	1.62
	0.4	8209	790	885	1.55	1.73
	0.6	7745	841	942	1.65	1.85
	0.8	7285	892	997	1.75	1.95
	1.0	6840	942	1050	1.84	2.06
	1.2	6420	989	1101	1.94	2.16
T7	0.2	9223	760	855	1.62	1.83
	0.4	8761	810	910	1.73	1.94
	0.6	8297	860	964	1.84	2.06
	0.8	7842	908	1016	1.94	2.17
	1.0	7403	956	1066	2.04	2.28
	1.2	6989	1001	1112	2.14	2.37
T8	0.2	9731	781	882	1.81	2.05
	0.4	9260	830	934	1.92	2.17
	0.6	8792	878	985	2.04	2.29
	0.8	8333	925	1034	2.15	2.40
	1.0	7893	970	1080	2.25	2.51
	1.2	7479	1013	1123	2.35	2.61
T9	0.2	9948	791	894	1.91	2.16
	0.4	9472	839	945	2.03	2.28
	0.6	8999	887	994	2.14	2.40
	0.8	8536	933	1042	2.25	2.51
	1.0	8093	977	1087	2.36	2.62
	1.2	7678	1019	1129	2.46	2.72
T10	0.2	10371	817	923	2.16	2.44
	0.4	9877	863	971	2.28	2.57
	0.6	9389	909	1017	2.41	2.69
	0.8	8915	953	1062	2.52	2.81
	1.0	8464	995	1104	2.63	2.92
	1.2	8044	1035	1143	2.74	3.02

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DSH180W HIGH STATIC						
SPEED TAP	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	6291	710	773	0.79	0.86
	0.4	5939	752	812	0.84	0.91
	0.6	5575	796	853	0.89	0.95
	0.8	5202	843	897	0.94	1.00
	1	4822	891	942	0.99	1.05
	1.2	4440	939	987	1.05	1.10
	1.4	4059	988	1033	1.10	1.15
	1.6	3682	1037	1078	1.16	1.20
	1.8	3314	1084	1122	1.21	1.25
	2	2958	1129	1164	1.26	1.30
T2	2.2	2615	1172	1203	1.31	1.34
	0.2	10551	859	895	2.15	2.24
	0.4	10212	908	940	2.27	2.35
	0.6	9868	957	985	2.39	2.46
	0.8	9523	1006	1030	2.52	2.58
	1	9180	1054	1075	2.64	2.69
	1.2	8844	1101	1118	2.75	2.80
	1.4	8516	1146	1159	2.87	2.90
	1.6	8200	1188	1198	2.97	3.00
	1.8	7897	1228	1234	3.07	3.09
T3	2	7607	1264	1268	3.16	3.17
	2.2	7332	1297	1298	3.24	3.24
	0.2	10997	878	909	2.33	2.41
	0.4	10659	926	954	2.46	2.53
	0.6	10318	976	1000	2.59	2.65
	0.8	9977	1024	1045	2.72	2.77
	1	9639	1072	1089	2.85	2.89
	1.2	9308	1119	1132	2.97	3.00
	1.4	8987	1162	1172	3.09	3.11
	1.6	8676	1204	1210	3.19	3.21
T4	1.8	8379	1242	1245	3.30	3.30
	2	8096	1277	1277	3.39	3.39
	2.2	7827	1309	1306	3.47	3.47
	0.2	8846	795	843	1.54	1.63
	0.4	8498	841	886	1.63	1.72
	0.6	8143	889	931	1.72	1.80
	0.8	7783	938	976	1.82	1.89
	1	7423	987	1022	1.91	1.98
	1.2	7066	1036	1067	2.01	2.07
	1.4	6715	1084	1110	2.10	2.15
T5	1.6	6375	1129	1152	2.19	2.23
	1.8	6046	1172	1192	2.27	2.31
	2	5731	1213	1229	2.35	2.38
	2.2	5431	1250	1263	2.42	2.45
	0.2	9398	815	860	1.72	1.82
	0.4	9052	862	903	1.82	1.91
	0.6	8700	911	948	1.93	2.01
	0.8	8345	960	994	2.03	2.10
	1	7991	1009	1039	2.13	2.20
	1.2	7641	1057	1083	2.24	2.29
	1.4	7298	1104	1126	2.34	2.38
	1.6	6965	1148	1168	2.43	2.47
	1.8	6645	1191	1206	2.52	2.55
	2	6338	1230	1242	2.60	2.63
	2.2	6047	1266	1275	2.68	2.70

DSH180W HIGH STATIC						
T6	0.2	8846	795	843	1.54	1.63
	0.4	8498	841	886	1.63	1.72
	0.6	8143	889	931	1.72	1.80
	0.8	7783	938	976	1.82	1.89
	1	7423	987	1022	1.91	1.98
	1.2	7066	1036	1067	2.01	2.07
	1.4	6715	1084	1110	2.10	2.15
	1.6	6375	1129	1152	2.19	2.23
	1.8	6046	1172	1192	2.27	2.31
	2	5731	1213	1229	2.35	2.38
T7	2.2	5431	1250	1263	2.42	2.45
	0.2	9083	803	850	1.62	1.71
	0.4	8736	850	894	1.71	1.80
	0.6	8382	898	938	1.81	1.89
	0.8	8025	947	984	1.91	1.98
	1	7667	997	1029	2.01	2.07
	1.2	7313	1045	1074	2.10	2.16
	1.4	6966	1092	1117	2.20	2.25
	1.6	6628	1137	1159	2.29	2.33
	1.8	6303	1180	1198	2.38	2.41
T8	2	5992	1220	1235	2.46	2.49
	2.2	5696	1257	1268	2.53	2.55
	0.2	9554	821	864	1.78	1.87
	0.4	9209	868	908	1.88	1.97
	0.6	8859	917	953	1.99	2.07
	0.8	8505	966	999	2.09	2.16
	1	8152	1015	1044	2.20	2.26
	1.2	7804	1063	1088	2.30	2.36
	1.4	7463	1110	1131	2.40	2.45
	1.6	7132	1154	1172	2.50	2.54
T9	1.8	6814	1196	1210	2.59	2.62
	2	6511	1234	1245	2.68	2.70
	2.2	6221	1270	1278	2.75	2.77
	0.2	8846	795	843	1.54	1.63
	0.4	8498	841	886	1.63	1.72
	0.6	8143	889	931	1.72	1.80
	0.8	7783	938	976	1.82	1.89
	1	7423	987	1022	1.91	1.98
	1.2	7066	1036	1067	2.01	2.07
	1.4	6715	1084	1110	2.10	2.15
T10	1.6	6375	1129	1152	2.19	2.23
	1.8	6046	1172	1192	2.27	2.31
	2	5731	1213	1229	2.35	2.38
	2.2	5431	1250	1263	2.42	2.45
	0.2	9398	815	860	1.72	1.82
	0.4	9052	862	903	1.82	1.91
	0.6	8700	911	948	1.93	2.01
	0.8	8345	960	994	2.03	2.10
	1	7991	1009	1039	2.13	2.20
	1.2	7641	1057	1083	2.24	2.29
	1.4	7298	1104	1126	2.34	2.38
	1.6	6965	1148	1168	2.43	2.47
	1.8	6645	1191	1206	2.52	2.55
	2	6338	1230	1242	2.60	2.63
	2.2	6047	1266	1275	2.68	2.70

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DSH240W HIGH STATIC						
SPEED TAP	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	5972	701	764	0.71	0.77
	0.4	5621	742	803	0.75	0.81
	0.6	5257	785	844	0.80	0.86
	0.8	4884	831	887	0.84	0.90
	1	4503	879	931	0.89	0.94
	1.2	4119	927	977	0.94	0.99
	1.4	3736	976	1023	0.99	1.04
	1.6	3356	1025	1068	1.04	1.08
	1.8	2984	1072	1112	1.09	1.13
	2	2622	1118	1155	1.13	1.17
T2	2.2	2275	1162	1195	1.18	1.21
	0.2	10096	841	881	1.97	2.07
	0.4	9754	889	925	2.09	2.17
	0.6	9407	938	970	2.20	2.28
	0.8	9058	988	1016	2.32	2.38
	1	8711	1036	1061	2.43	2.49
	1.2	8369	1084	1104	2.54	2.59
	1.4	8035	1129	1146	2.65	2.69
	1.6	7713	1173	1186	2.75	2.78
	1.8	7403	1213	1223	2.85	2.87
T3	2	7107	1251	1258	2.93	2.95
	2.2	6825	1285	1289	3.02	3.02
	0.2	11430	896	924	2.52	2.59
	0.4	11095	945	969	2.65	2.72
	0.6	10756	994	1015	2.79	2.85
	0.8	10419	1043	1059	2.93	2.97
	1	10085	1090	1103	3.06	3.10
	1.2	9760	1135	1145	3.19	3.22
	1.4	9444	1178	1185	3.31	3.33
	1.6	9140	1219	1222	3.42	3.43
T4	1.8	8849	1256	1256	3.53	3.53
	2	8572	1290	1287	3.62	3.61
	2.2	8308	1320	1315	3.71	3.69
	0.2	10701	865	900	2.21	2.30
	0.4	10362	914	945	2.33	2.41
	0.6	10019	963	990	2.46	2.53
	0.8	9675	1012	1035	2.58	2.64
	1	9335	1060	1080	2.71	2.75
	1.2	9000	1107	1123	2.82	2.86
	1.4	8674	1152	1164	2.94	2.97
T5	1.6	8360	1194	1202	3.05	3.07
	1.8	8059	1233	1238	3.14	3.16
	2	7771	1269	1271	3.24	3.24
	2.2	7498	1301	1301	3.32	3.32
	0.2	11157	884	915	2.40	2.48
	0.4	10820	933	960	2.53	2.60
	0.6	10480	982	1005	2.66	2.72
	0.8	10140	1031	1050	2.79	2.85
	1	9804	1079	1094	2.92	2.97
	1.2	9475	1125	1137	3.05	3.08
T5	1.4	9156	1168	1177	3.17	3.19
	1.6	8848	1209	1214	3.28	3.29
	1.8	8553	1247	1249	3.38	3.39
	2	8272	1282	1281	3.47	3.47
	2.2	8005	1313	1310	3.56	3.55

DSH240W HIGH STATIC						
T6	0.2	9398	815	860	1.72	1.82
	0.4	9052	862	903	1.82	1.91
	0.6	8700	911	948	1.93	2.01
	0.8	8345	960	994	2.03	2.10
	1	7991	1009	1039	2.13	2.20
	1.2	7641	1057	1083	2.24	2.29
	1.4	7298	1104	1126	2.34	2.38
	1.6	6965	1148	1168	2.43	2.47
	1.8	6645	1191	1206	2.52	2.55
	2	6338	1230	1242	2.60	2.63
T7	2.2	6047	1266	1275	2.68	2.70
	0.2	9787	829	871	1.86	1.96
	0.4	9444	877	915	1.97	2.05
	0.6	9095	926	960	2.08	2.16
	0.8	8743	975	1006	2.19	2.26
	1	8393	1024	1051	2.30	2.36
	1.2	8047	1072	1095	2.41	2.46
	1.4	7710	1118	1138	2.51	2.55
	1.6	7382	1162	1178	2.61	2.64
	1.8	7068	1203	1216	2.70	2.73
T8	2	6767	1242	1251	2.79	2.81
	2.2	6482	1277	1283	2.87	2.88
	0.2	10188	845	884	2.01	2.10
	0.4	9846	893	928	2.12	2.21
	0.6	9500	942	973	2.24	2.31
	0.8	9151	991	1019	2.36	2.42
	1	8805	1040	1064	2.47	2.53
	1.2	8465	1087	1107	2.59	2.63
	1.4	8132	1133	1149	2.69	2.73
	1.6	7811	1176	1189	2.80	2.83
T9	1.8	7502	1216	1226	2.89	2.91
	2	7207	1253	1260	2.98	2.99
	2.2	6927	1287	1291	3.06	3.07
	0.2	10701	865	900	2.21	2.30
	0.4	10362	914	945	2.33	2.41
	0.6	10019	963	990	2.46	2.53
	0.8	9675	1012	1035	2.58	2.64
	1	9335	1060	1080	2.71	2.75
	1.2	9000	1107	1123	2.82	2.86
	1.4	8674	1152	1164	2.94	2.97
T10	1.6	8360	1194	1202	3.05	3.07
	1.8	8059	1233	1238	3.14	3.16
	2	7771	1269	1271	3.24	3.24
	2.2	7498	1301	1301	3.32	3.32
	0.2	11157	884	915	2.40	2.48
	0.4	10820	933	960	2.53	2.60
	0.6	10480	982	1005	2.66	2.72
	0.8	10140	1031	1050	2.79	2.85
	1	9804	1079	1094	2.92	2.97
	1.2	9475	1125	1137	3.05	3.08
T10	1.4	9156	1168	1177	3.17	3.19
	1.6	8848	1209	1214	3.28	3.29
	1.8	8553	1247	1249	3.38	3.39
	2	8272	1282	1281	3.47	3.47
	2.2	8005	1313	1310	3.56	3.55

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DSC1803D, DSC1804D, DSC1807D
STANDARD STATIC TO 3.5HP (0.2 ~1.2 ESP)

CFM	0.2					0.4					0.6				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
3600	449	462	27	0.36	0.38	554	551	29	0.41	0.41	667	640	31	0.52	0.50
3900	468	480	28	0.36	0.37	568	568	30	0.43	0.43	674	652	32	0.54	0.52
4200	486	499	29	0.37	0.38	583	584	31	0.45	0.46	682	665	33	0.58	0.56
4500	505	518	30	0.39	0.40	598	601	32	0.49	0.50	691	678	34	0.63	0.61
4800	523	537	32	0.42	0.44	613	618	34	0.54	0.55	700	692	36	0.69	0.68
5100	542	556	33	0.47	0.48	628	635	35	0.60	0.61	710	706	38	0.76	0.75
5400	561	575	35	0.52	0.54	644	652	37	0.67	0.68	721	721	40	0.84	0.84
5700	579	595	37	0.59	0.60	660	670	39	0.76	0.77	733	736	42	0.93	0.94
6000	598	614	39	0.67	0.68	676	687	42	0.85	0.86	745	751	44	1.04	1.05
6300	617	634	41	0.76	0.77	693	705	44	0.96	0.97	758	767	47	1.15	1.17
6600	636	653	43	0.86	0.88	709	724	47	1.07	1.09	772	784	50	1.28	1.30
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
3600	758	745	36	0.76	0.75	798	784	34	0.74	0.71	861	855	37	0.90	0.87
3900	756	742	36	0.74	0.73	808	791	36	0.80	0.77	872	861	38	0.98	0.95
4200	756	741	36	0.74	0.72	817	800	37	0.87	0.84	883	868	40	1.06	1.03
4500	758	742	36	0.76	0.74	827	809	39	0.94	0.91	893	876	42	1.15	1.12
4800	761	745	37	0.79	0.77	836	819	41	1.03	1.00	904	884	44	1.25	1.22
5100	765	750	38	0.84	0.82	846	829	43	1.13	1.10	913	892	46	1.36	1.33
5400	772	758	39	0.91	0.89	856	840	45	1.23	1.21	923	902	49	1.48	1.44
5700	779	767	41	0.99	0.98	866	852	48	1.35	1.33	932	912	51	1.60	1.57
6000	789	778	43	1.10	1.09	875	865	50	1.47	1.46	941	922	54	1.73	1.71
6300	800	792	46	1.22	1.22	885	878	53	1.61	1.61	949	934	57	1.87	1.86
6600	812	807	48	1.36	1.36	895	892	56	1.75	1.76	957	946	60	2.02	2.01

MODELS: DSC1803W, DSC1804W, DSC1807W
HIGH STATIC TO 5HP (0.8 ~2.2 ESP)

CFM	0.8					1					1.2					1.4				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4200	689	688	17	1.72	0.41	761	770	20	1.89	0.54	836	838	22	1.77	0.60	994	948	27	2.26	0.81
4500	704	704	18	1.71	0.41	774	782	21	1.87	0.54	846	847	23	1.76	0.61	990	949	28	2.25	0.82
4800	720	719	19	1.70	0.41	787	793	22	1.86	0.55	857	857	24	1.74	0.63	987	951	29	2.23	0.84
5100	736	735	21	1.68	0.44	801	805	23	1.85	0.57	868	867	26	1.73	0.67	985	955	30	2.22	0.87
5400	752	751	22	1.67	0.47	814	818	25	1.83	0.61	879	878	27	1.72	0.72	985	959	31	2.21	0.92
5700	768	767	24	1.66	0.52	829	831	27	1.82	0.66	891	889	29	1.71	0.78	986	965	32	2.19	0.99
6000	785	783	26	1.65	0.58	843	844	28	1.81	0.72	903	901	31	1.70	0.86	989	971	34	2.18	1.07
6300	801	799	28	1.63	0.66	858	858	30	1.79	0.80	916	913	33	1.68	0.96	992	978	36	2.16	1.16
6600	818	816	30	1.62	0.75	873	872	32	1.78	0.90	929	926	35	1.67	1.06	998	986	38	2.15	1.27
CFM	1.6					1.8					2					2.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4200	1025	1009	29	1.82	0.90	1070	1049	30	1.36	0.99	1114	1095	32	1.10	1.13	1164	1140	34	0.77	1.29
4500	1024	1009	30	1.81	0.93	1073	1051	31	1.35	1.04	1119	1098	34	1.10	1.20	1170	1145	36	0.77	1.39
4800	1025	1010	31	1.79	0.97	1076	1054	33	1.34	1.11	1124	1101	35	1.09	1.28	1177	1150	38	0.77	1.49
5100	1027	1013	32	1.78	1.02	1080	1058	34	1.34	1.18	1129	1106	37	1.09	1.37	1183	1155	40	0.77	1.60
5400	1029	1016	33	1.77	1.09	1085	1062	36	1.33	1.27	1135	1111	38	1.09	1.47	1190	1161	41	0.77	1.72
5700	1033	1020	35	1.76	1.17	1090	1067	38	1.32	1.37	1141	1116	40	1.08	1.59	1196	1167	43	0.77	1.85
6000	1037	1025	37	1.75	1.26	1096	1073	40	1.32	1.49	1147	1122	42	1.08	1.71	1203	1173	45	0.77	1.98
6300	1043	1031	39	1.74	1.37	1102	1080	42	1.31	1.61	1153	1129	44	1.07	1.84	1209	1180	48	0.77	2.13
6600	1049	1038	41	1.73	1.50	1109	1088	44	1.30	1.75	1160	1136	47	1.07	1.99	1216	1187	50	0.76	2.29

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DSC2403D, DSC2404D, DSC2407D
STANDARD STATIC TO 3.5HP (0.2 ~1.2 ESP)

CFM	0.2					0.4					0.6				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4800	525	539	31	0.42	1.18	615	621	33	0.53	1.07	699	693	35	0.66	1.05
5200	550	566	33	0.48	1.17	635	644	35	0.61	1.07	712	712	37	0.75	1.05
5600	576	593	35	0.56	1.16	656	668	38	0.71	1.06	726	731	40	0.86	1.04
6000	601	620	38	0.65	1.15	678	691	40	0.82	1.05	742	752	43	1.00	1.03
6400	627	646	41	0.77	1.14	700	715	44	0.96	1.04	759	773	46	1.15	1.02
6800	652	672	44	0.91	1.13	722	739	47	1.12	1.03	778	794	50	1.32	1.01
7200	677	698	48	1.06	1.12	744	763	51	1.30	1.03	798	817	54	1.52	1.01
7600	702	724	52	1.24	1.11	767	788	55	1.49	1.02	819	840	59	1.73	1.00
8000	727	750	56	1.43	1.11	791	812	60	1.71	1.01	842	865	64	1.97	0.99
8400	752	775	61	1.65	1.10	814	836	65	1.95	1.00	867	890	69	2.22	0.99
8800	777	800	66	1.88	1.09	838	861	70	2.21	0.99	892	915	74	2.50	0.98
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4800	777	761	37	0.84	0.92	860	820	40	1.05	0.75	908	884	43	1.22	0.71
5200	791	776	40	0.95	0.91	874	834	43	1.18	0.75	920	896	46	1.36	0.71
5600	806	792	43	1.08	0.91	888	849	46	1.32	0.74	932	908	49	1.51	0.70
6000	821	809	46	1.23	0.90	900	866	49	1.48	0.74	944	922	52	1.68	0.70
6400	836	828	50	1.39	0.89	911	883	53	1.65	0.74	954	937	56	1.87	0.70
6800	852	848	53	1.57	0.89	922	902	57	1.84	0.73	964	953	60	2.07	0.70
7200	868	869	58	1.78	0.88	931	921	61	2.04	0.73	973	971	64	2.28	0.69
7600	885	892	62	2.00	0.88	939	942	66	2.26	0.72	981	989	69	2.50	0.69
8000	902	915	67	2.23	0.87	947	964	71	2.49	0.72	989	1009	74	2.74	0.69
8400	919	940	72	2.49	0.87										
8800															

MODELS: DSC2403W, DSC2404W, DSC2407W
HIGH STATIC TO SHP (0.8 ~2.2 ESP)

CFM	0.8					1					1.2					1.4				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
5600	775	789	22	0.86	0.88	842	861	24	0.99	1.04	889	918	27	1.14	1.21	938	985	30	1.31	1.41
6000	789	797	25	0.95	0.97	852	871	27	1.10	1.14	901	931	30	1.26	1.33	953	999	33	1.46	1.55
6400	807	808	28	1.07	1.08	866	884	31	1.23	1.27	916	946	33	1.42	1.48	970	1015	36	1.63	1.72
6800	828	822	32	1.22	1.21	883	900	34	1.39	1.42	936	963	37	1.59	1.64	991	1032	40	1.82	1.90
7200	853	840	36	1.39	1.37	906	918	38	1.57	1.59	959	981	41	1.79	1.83	1015	1050	44	2.04	2.10
7600	882	861	40	1.59	1.56	932	938	42	1.79	1.79	987	1002	45	2.02	2.03	1043	1069	49	2.28	2.31
8000	914	886	44	1.82	1.77	963	961	47	2.03	2.01	1018	1024	50	2.27	2.26	1074	1090	53	2.54	2.54
8400	950	914	49	2.08	2.00	998	986	52	2.30	2.25	1052	1047	55	2.55	2.50	1108	1111	58	2.82	2.79
8800	989	946	54	2.36	2.26	1037	1014	57	2.59	2.51										
CFM	1.6					1.8					2					2.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
5600	1008	1042	33	1.54	1.63	1066	1086	36	1.75	1.82	1116	1129	38	1.94	1.98	1165	1175	41	2.16	2.19
6000	1023	1058	36	1.71	1.79	1081	1101	39	1.93	1.98	1132	1143	41	2.12	2.16	1182	1189	45	2.35	2.38
6400	1040	1074	40	1.89	1.97	1099	1117	43	2.12	2.17	1149	1159	45	2.32	2.35	1199	1203	48	2.56	2.57
6800	1060	1091	44	2.09	2.16	1118	1134	47	2.33	2.36	1168	1175	49	2.54	2.55	1219	1217	52	2.78	2.78
7200	1083	1108	48	2.31	2.36	1139	1150	51	2.56	2.57	1189	1191	53	2.77	2.77	1239	1232	56	3.02	2.99
7600	1109	1127	52	2.56	2.58	1163	1168	55	2.80	2.80	1212	1208	58	3.02	3.00	1261	1247	61	3.28	3.22
8000	1137	1146	57	2.82	2.82	1189	1186	60	3.06	3.03	1237	1225	62	3.29	3.24	1285	1262	65	3.55	3.46
8400																				
8800																				

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DSC3003D, DSC3004D, DSC3007D
STANDARD STATIC TO 5HP (0.2 ~1.2 ESP)

CFM	0.2					0.4					0.6				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
6000	749	697	32	0.76	0.71	801	758	34	0.91	0.86	850	814	36	1.05	1.01
6400	757	707	35	0.87	0.81	809	768	37	1.02	0.97	858	824	39	1.17	1.13
6800	766	718	37	0.98	0.92	818	779	39	1.14	1.08	867	835	41	1.30	1.25
7200	776	731	40	1.10	1.03	830	791	42	1.26	1.20	879	848	44	1.43	1.37
7600	789	744	42	1.22	1.15	843	805	44	1.39	1.33	894	862	46	1.57	1.51
8000	805	760	45	1.35	1.28	860	821	47	1.54	1.47	911	878	49	1.72	1.66
8400	824	778	48	1.50	1.42	881	840	50	1.70	1.62	933	897	52	1.90	1.82
8800	848	799	51	1.68	1.58	906	861	53	1.89	1.79	960	920	55	2.10	2.01
9200	877	823	54	1.88	1.76	937	887	56	2.11	2.00	993	947	58	2.34	2.23
9600	912	852	58	2.12	1.98	974	918	60	2.38	2.24	1033	979	62	2.64	2.50
10000	955	887	62	2.41	2.24	1020	954	64	2.70	2.53	1082	1018	66	3.00	2.82
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
6000	894	865	38	1.20	1.16	934	912	40	1.35	1.32	970	953	42	1.50	1.47
6400	902	875	41	1.33	1.29	943	922	43	1.48	1.44	980	964	45	1.63	1.60
6800	912	886	43	1.45	1.41	954	933	45	1.61	1.58	991	975	47	1.76	1.74
7200	925	899	46	1.59	1.55	967	946	48	1.75	1.71	1005	988	49	1.91	1.88
7600	940	914	48	1.74	1.69	983	961	50	1.91	1.87	1022	1004	52	2.08	2.04
8000	959	931	51	1.90	1.85	1003	979	53	2.08	2.03	1043	1022	55	2.26	2.22
8400	982	951	54	2.09	2.02	1028	1000	56	2.29	2.22	1070	1044	57	2.48	2.42
8800	1011	974	57	2.31	2.23	1058	1024	59	2.53	2.45	1103	1071	61	2.74	2.66
9200	1046	1003	60	2.58	2.47	1096	1054	62	2.82	2.71	1143	1102	64	3.06	2.95
9600	1089	1037	64	2.90	2.76	1142	1090	66	3.17	3.03	1192	1140	69	3.45	3.30
10000	1141	1077	69	3.30	3.12	1198	1133	71	3.62	3.42	1252	1186	74	3.93	3.73

MODELS: DSC3003W, DSC3004W, DSC3007W
HIGH STATIC TO 5HP (0.8 ~2.2 ESP)

CFM	0.8					1					1.2					1.4				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
6800	912	886	43	1.45	1.41	954	933	45	1.61	1.58	991	975	47	1.76	1.74	1024	1013	49	1.91	1.89
7200	925	899	46	1.59	1.55	967	946	48	1.75	1.71	1005	988	49	1.91	1.88	1039	1027	51	2.07	2.04
7600	940	914	48	1.74	1.69	983	961	50	1.91	1.87	1022	1004	52	2.08	2.04	1058	1043	54	2.24	2.21
8000	959	931	51	1.90	1.85	1003	979	53	2.08	2.03	1043	1022	55	2.26	2.22	1081	1062	56	2.44	2.40
8400	982	951	54	2.09	2.02	1028	1000	56	2.29	2.22	1070	1044	57	2.48	2.42	1109	1085	59	2.68	2.62
8800	1011	974	57	2.31	2.23	1058	1024	59	2.53	2.45	1103	1071	61	2.74	2.66	1144	1113	63	2.96	2.88
9200	1046	1003	60	2.58	2.47	1096	1054	62	2.82	2.71	1143	1102	64	3.06	2.95	1187	1146	67	3.30	3.19
9600	1089	1037	64	2.90	2.76	1142	1090	66	3.17	3.03	1192	1140	69	3.45	3.30	1240	1187	71	3.73	3.57
10000	1141	1077	69	3.30	3.12	1198	1133	71	3.62	3.42	1252	1186	74	3.93	3.73	1303	1235	76	4.26	4.04
CFM	1.6					1.8					2					2.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
6800	1055	1047	50	2.06	2.04	1082	1077	52	2.20	2.19	1107	1105	53	2.33	2.33	1130	1129	55	2.47	2.47
7200	1071	1061	53	2.22	2.20	1099	1092	54	2.37	2.35	1125	1120	56	2.51	2.50	1149	1146	57	2.65	2.64
7600	1090	1078	55	2.40	2.38	1120	1110	57	2.56	2.54	1148	1139	58	2.72	2.70	1174	1165	60	2.87	2.85
8000	1115	1098	58	2.62	2.58	1147	1131	60	2.79	2.75	1176	1162	61	2.96	2.92	1204	1189	63	3.13	3.09
8400	1145	1123	61	2.87	2.81	1179	1157	63	3.06	3.00	1211	1189	65	3.25	3.19	1242	1219	66	3.45	3.38
8800	1183	1152	65	3.17	3.09	1220	1188	66	3.39	3.31	1255	1222	68	3.61	3.52	1288	1254	70	3.84	3.74
9200	1229	1188	69	3.55	3.43	1269	1226	71	3.80	3.67	1308	1262	73	4.06	3.92	1345	1297	75	4.33	4.17
9600	1285	1230	73	4.02	3.85	1329	1271	76	4.31	4.12	1372	1310	78	4.62	4.41	1413	1348	80	4.93	4.70
10000	1353	1281	79	4.60	4.36	1401	1325	81	4.95	4.68	1448	1367	84	5.31	5.01	1494	1408	86	5.69	5.36

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DSH1803D, DSH1804D, DSH1807D
STANDARD STATIC TO 3.5HP (0.2 ~1.2 ESP)

CFM	0.2					0.4					0.6				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4000	592	615	25	0.31	0.32	630	659	28	0.40	0.41	683	723	30	0.52	0.55
4300	598	622	27	0.37	0.38	639	672	30	0.47	0.49	696	741	33	0.60	0.64
4600	604	631	29	0.43	0.45	649	685	32	0.54	0.57	709	760	35	0.69	0.74
4900	611	641	32	0.50	0.52	659	700	34	0.61	0.65	723	779	37	0.77	0.83
5200	618	652	34	0.56	0.59	670	716	36	0.69	0.74	738	800	39	0.86	0.94
5500	626	664	36	0.63	0.67	682	733	38	0.77	0.82	752	820	41	0.95	1.04
5800	635	677	38	0.70	0.74	695	751	40	0.85	0.92	766	840	43	1.05	1.15
6100	645	692	40	0.77	0.82	707	769	42	0.93	1.01	780	859	46	1.14	1.26
6400	655	707	42	0.84	0.91	720	787	44	1.02	1.11	793	877	48	1.24	1.37
6700	666	723	44	0.92	1.00	733	806	46	1.10	1.21	806	894	50	1.33	1.48
7000	677	740	46	0.99	1.09	745	823	48	1.19	1.31	817	910	52	1.43	1.59
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
3600	752	808	34	0.69	0.74	833	906	37	0.90	0.98	913	1003	40	1.11	1.22
3900	768	830	36	0.79	0.85	849	929	39	1.00	1.10	927	1023	42	1.22	1.35
4200	784	852	38	0.88	0.96	865	950	42	1.11	1.22	940	1040	44	1.33	1.47
4500	800	874	40	0.98	1.07	879	970	44	1.21	1.34	951	1054	47	1.44	1.59
4800	815	895	43	1.08	1.19	892	988	46	1.32	1.46	961	1067	49	1.54	1.71
5100	830	915	45	1.18	1.30	904	1003	48	1.42	1.58	970	1078	51	1.65	1.83
5400	843	933	47	1.28	1.42	915	1017	50	1.53	1.70	977	1087	53	1.75	1.95
5700	855	950	49	1.38	1.54	924	1029	52	1.63	1.81	984	1095	55	1.85	2.06
6000	867	965	51	1.48	1.65	933	1040	54	1.73	1.93	990	1102	56	1.95	2.17
6300	877	978	53	1.58	1.77	941	1049	56	1.83	2.04	996	1108	58	2.05	2.28
6600	886	990	55	1.68	1.88	948	1057	58	1.93	2.15	1002	1113	60	2.16	2.40

MODELS: DSH1803W, DSH1804W, DSH1807W
HIGH STATIC TO 5HP (0.8 ~2.2 ESP)

CFM	0.8					1					1.2					1.4				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4200	808	866	28	0.64	0.69	868	922	30	0.80	0.85	931	980	33	0.97	1.02	993	1037	35	1.15	1.20
4500	818	875	30	0.73	0.78	879	931	32	0.89	0.95	942	989	34	1.07	1.12	1004	1046	37	1.26	1.31
4800	829	884	32	0.82	0.87	890	941	34	0.99	1.04	953	998	36	1.17	1.23	1015	1055	38	1.37	1.42
5100	839	894	33	0.91	0.97	901	950	36	1.09	1.14	964	1008	38	1.27	1.33	1026	1064	40	1.48	1.53
5400	850	903	35	1.00	1.07	912	960	38	1.19	1.25	975	1017	40	1.38	1.44	1037	1073	42	1.59	1.64
5700	861	912	37	1.10	1.16	923	969	39	1.29	1.35	986	1026	42	1.49	1.55	1047	1082	44	1.70	1.76
6000	872	921	39	1.20	1.26	934	978	41	1.39	1.46	997	1035	44	1.60	1.66	1058	1090	46	1.82	1.87
6300	883	931	41	1.30	1.37	945	988	43	1.50	1.56	1008	1044	45	1.71	1.77	1069	1099	48	1.93	1.99
6600	894	940	43	1.40	1.47	957	997	45	1.61	1.67	1019	1053	47	1.83	1.89	1080	1107	49	2.05	2.11
CFM	1.6					1.8					2					2.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4200	1055	1093	37	1.34	1.39	1113	1146	39	1.54	1.58	1168	1195	41	1.74	1.78	1218	1239	43	1.93	1.96
4500	1065	1102	39	1.45	1.50	1123	1154	41	1.66	1.70	1177	1202	43	1.85	1.89	1226	1245	45	2.05	2.08
4800	1076	1110	41	1.57	1.62	1133	1161	43	1.77	1.82	1186	1209	45	1.97	2.01	1234	1251	46	2.17	2.20
5100	1086	1118	42	1.68	1.73	1143	1169	44	1.89	1.93	1195	1215	46	2.09	2.13	1242	1257	48	2.29	2.32
5400	1096	1127	44	1.80	1.85	1152	1177	46	2.01	2.05	1203	1222	48	2.22	2.25	1250	1263	50	2.41	2.44
5700	1107	1135	46	1.92	1.97	1162	1184	48	2.13	2.17	1212	1229	50	2.34	2.37	1257	1268	52	2.54	2.56
6000	1117	1143	48	2.04	2.08	1171	1191	50	2.25	2.29	1221	1235	52	2.46	2.49	1265	1274	53	2.66	2.68
6300	1127	1151	50	2.16	2.20	1180	1198	52	2.38	2.41	1229	1241	53	2.59	2.62	1272	1279	55	2.79	2.80
6600	1137	1158	51	2.28	2.32	1189	1205	53	2.50	2.54	1237	1247	55	2.72	2.74	1280	1285	57	2.92	2.93

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DSH2403D, DSH2404D, DSH2407D
STANDARD STATIC TO 3.5HP (0.2 ~1.2 ESP)

CFM	0.2					0.4					0.6				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4800	608	637	31	0.47	0.50	656	695	33	0.59	0.62	719	773	36	0.74	0.80
5200	618	652	34	0.56	0.59	670	716	36	0.69	0.74	738	800	39	0.86	0.94
5600	629	668	36	0.65	0.69	686	739	39	0.79	0.85	757	827	42	0.98	1.08
6000	642	687	39	0.75	0.80	703	763	42	0.90	0.98	776	853	45	1.11	1.22
6400	655	707	42	0.84	0.91	720	787	44	1.02	1.11	793	877	48	1.24	1.37
6800	670	729	44	0.94	1.03	737	811	47	1.13	1.25	809	900	50	1.36	1.52
7200	685	751	47	1.05	1.15	753	834	50	1.25	1.38	824	920	53	1.49	1.66
7600	700	773	49	1.15	1.27	768	856	52	1.37	1.52	838	938	56	1.62	1.81
8000	715	794	52	1.26	1.40	783	876	55	1.49	1.66	851	954	58	1.74	1.96
8400	729	814	54	1.37	1.53	797	894	57	1.61	1.80	863	969	61	1.88	2.11
8800	743	833	57	1.48	1.66	810	911	60	1.73	1.95	877	984	64	2.03	2.28
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4800	795	867	40	0.95	1.03	875	964	43	1.18	1.30	948	1050	46	1.40	1.55
5200	815	895	43	1.08	1.19	892	988	46	1.32	1.46	961	1067	49	1.54	1.71
5600	834	921	45	1.22	1.34	908	1008	49	1.46	1.62	972	1081	51	1.68	1.87
6000	851	944	48	1.35	1.50	921	1025	51	1.59	1.77	982	1092	54	1.82	2.02
6400	867	965	51	1.48	1.65	933	1040	54	1.73	1.93	990	1102	56	1.95	2.17
6800	880	982	54	1.62	1.80	943	1052	57	1.86	2.08	998	1110	59	2.09	2.32
7200	892	997	56	1.75	1.95	953	1063	59	2.00	2.23	1006	1117	62	2.23	2.48
7600	904	1011	59	1.88	2.10	962	1073	62	2.14	2.38	1016	1126	65	2.41	2.67
8000	915	1023	62	2.02	2.26	974	1084	65	2.31	2.57	1033	1141	70	2.70	2.99
8400	927	1036	65	2.18	2.44	992	1101	70	2.59	2.87					
8800	947	1056	69	2.44	2.72										

MODELS: DSH2403W, DSH2404W, DSH2407W
HIGH STATIC TO 5HP (0.8 ~2.2 ESP)

CFM	0.8					1					1.2					1.4				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
5600	857	909	36	1.07	1.13	919	966	39	1.25	1.32	982	1023	41	1.45	1.51	1044	1079	43	1.66	1.72
6000	872	921	39	1.20	1.26	934	978	41	1.39	1.46	997	1035	44	1.60	1.66	1058	1090	46	1.82	1.87
6400	886	934	41	1.33	1.40	949	991	44	1.53	1.60	1012	1047	46	1.75	1.81	1072	1102	48	1.97	2.03
6800	901	946	44	1.47	1.54	964	1003	46	1.68	1.75	1026	1059	48	1.90	1.96	1087	1113	51	2.13	2.18
7200	916	959	46	1.61	1.68	979	1015	49	1.83	1.90	1041	1071	51	2.06	2.12	1101	1124	53	2.30	2.34
7600	932	971	49	1.75	1.83	994	1027	51	1.98	2.05	1056	1082	53	2.22	2.28	1114	1135	55	2.46	2.51
8000	947	983	51	1.90	1.97	1009	1039	54	2.14	2.20	1070	1094	56	2.39	2.44	1128	1145	58	2.63	2.67
8400	962	995	54	2.05	2.12	1024	1051	56	2.30	2.36	1085	1105	58	2.56	2.60	1142	1156	60	2.81	2.85
8800	978	1008	56	2.21	2.28	1040	1063	59	2.47	2.53	1100	1117	61	2.73	2.77	1156	1167	63	3.00	3.03
CFM	1.6					1.8					2					2.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
5600	1103	1132	45	1.88	1.93	1159	1182	47	2.09	2.13	1209	1226	49	2.30	2.33	1255	1267	51	2.49	2.52
6000	1117	1143	48	2.04	2.08	1171	1191	50	2.25	2.29	1221	1235	52	2.46	2.49	1265	1274	53	2.66	2.68
6400	1130	1153	50	2.20	2.24	1183	1201	52	2.42	2.45	1232	1243	54	2.63	2.66	1275	1281	56	2.83	2.85
6800	1143	1163	53	2.36	2.40	1195	1210	54	2.59	2.62	1243	1251	56	2.80	2.82	1284	1288	58	3.00	3.01
7200	1156	1174	55	2.53	2.57	1207	1219	57	2.76	2.79	1253	1259	59	2.98	2.99	1294	1295	60	3.18	3.19
7600	1169	1183	57	2.70	2.74	1219	1228	59	2.94	2.96	1264	1268	61	3.16	3.17	1304	1302	63	3.37	3.36
8000	1182	1193	60	2.88	2.91	1231	1237	62	3.12	3.13	1275	1276	63	3.35	3.35	1313	1309	65	3.56	3.55
8400	1195	1203	62	3.06	3.09	1243	1246	64	3.31	3.32	1285	1284	66	3.54	3.53	1322	1316	68	3.75	3.73
8800	1208	1213	65	3.26	3.27	1254	1255	67	3.50	3.50	1295	1291	68	3.73	3.72	1331	1323	70	3.94	3.91

ECONOMIZER PRESSURE DROP

Airflow Pressure Drop of Downflow Economizer for 15 to 25 Ton Rooftop Units (100% Return Air)												
SCFM	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
(In WG)	0.15	0.18	0.22	0.27	0.32	0.37	0.42	0.48	0.55	0.61	0.69	0.76

10 APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC1803D	208/230/3/60	2	25.0	179	3	0.33	2.0	2	3.5	10.9	-	-	-	-	-	-	84.1/84.1	100/100
											-	-	-	-	4.8	-	88.9/88.9	110/110
											-	-	-	-	-	13.9	98.0/98.0	110/110
											-	-	-	9.6/8.7	-	-	93.7/92.8	110/110
											-	-	-	9.6/8.7	4.8	-	98.5/97.6	110/110
											-	-	-	9.6/8.7	-	13.9	108/107	125/125
											EH**-3L30 or EH**-3L30A	21.6/28.8	60.0/69.3	-	-	-	102/114	110/125
														-	4.8	-	108/120	110/125
														-	-	13.9	120/131	125/150
														9.6/8.7	-	-	114/125	125/125
														9.6/8.7	4.8	-	120/131	125/150
														9.6/8.7	-	13.9	132/142	150/150
											EH**-3L45 or EH**-3L45A	32.4/43.2	90.1/104	-	-	-	140/157	150/175
														-	4.8	-	146/163	150/175
														-	-	13.9	157/175	175/175
														9.6/8.7	-	-	152/168	175/175
														9.6/8.7	4.8	-	158/174	175/175
														9.6/8.7	-	13.9	169/185	175/200
											EH**-3L60 or EH**-3L60A	43.3/57.6	120/139	-	-	-	177/166	200/175
														-	4.8	-	183/172	200/175
														-	-	13.9	195/183	200/200
														9.6/8.7	-	-	189/177	200/200
														9.6/8.7	4.8	-	195/183	200/200
														9.6/8.7	-	13.9	207/194	225/200
DSC1803W	208/230/3/60	2	25.0	179	3	0.33	2.0	2	5.0	14.5	-	-	-	-	-	-	91.3/91.3	110/110
											-	-	-	-	4.8	-	96.1/96.1	110/110
											-	-	-	-	-	13.9	105/105	125/125
											-	-	-	9.6/8.7	-	-	101/100	125/125
											-	-	-	9.6/8.7	4.8	-	106/105	125/125
											-	-	-	9.6/8.7	-	13.9	115/114	125/125
											EH**-3L30 or EH**-3L30A	21.6/28.8	60.0/69.3	-	-	-	111/123	125/125
														-	4.8	-	117/129	125/150
														-	-	13.9	129/140	150/150
														9.6/8.7	-	-	123/134	125/150
														9.6/8.7	4.8	-	129/140	150/150
														9.6/8.7	-	13.9	141/151	150/175
											EH**-3L45 or EH**-3L45A	32.4/43.2	90.1/104	-	-	-	149/166	150/175
														-	4.8	-	155/172	175/175
														-	-	13.9	166/184	175/200
														9.6/8.7	-	-	161/177	175/200
														9.6/8.7	4.8	-	167/183	175/200
														9.6/8.7	-	13.9	178/194	200/200
											EH**-3L60 or EH**-3L60A	43.3/57.6	120/139	-	-	-	186/175	200/175
														-	4.8	-	192/181	200/200
														-	-	13.9	204/192	225/200
														9.6/8.7	-	-	198/186	200/200
														9.6/8.7	4.8	-	204/192	225/200
														9.6/8.7	-	13.9	216/203	225/225

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC1804D	460/3/60	2	10.9	103	3	0.33	0.85	2	3.5	7.2	-	-	-	-	-	-	41.4	50
											-	-	-	-	2.4	-	43.8	50
											-	-	-	-	-	8.1	49.5	60
											-	-	-	4.3	-	-	45.7	50
											-	-	-	4.3	2.4	-	48.1	50
											-	-	-	4.3	-	8.1	53.8	60
											EH**-4L30 or EH**-4L30A	28.8	34.6	-	-	-	61.3	70
														-	2.4	-	64.3	70
														-	-	8.1	71.4	80
														4.3	-	-	66.7	70
														4.3	2.4	-	69.7	70
														4.3	-	8.1	76.8	80
											EH**-4L45 or EH**-4L45A	43.2	52.0	-	-	-	83.0	90
														-	2.4	-	86.0	90
														-	-	8.1	93.1	100
														4.3	-	-	88.3	90
														4.3	2.4	-	91.3	100
														4.3	-	8.1	98.5	100
											EH**-4L60 or EH**-4L60A	57.6	69.3	-	-	-	87.3	90
														-	2.4	-	90.3	100
														-	-	8.1	97.4	100
														4.3	-	-	92.7	100
														4.3	2.4	-	95.7	100
														4.3	-	8.1	103	110
DSC1804W	460/3/60	2	10.9	103	3	0.33	0.85	2	5.0	10.6	-	-	-	-	-	-	48.2	50
											-	-	-	-	2.4	-	50.6	60
											-	-	-	-	-	8.1	56.3	60
											-	-	-	4.3	-	-	52.5	60
											-	-	-	4.3	2.4	-	54.9	60
											-	-	-	4.3	-	8.1	60.6	70
											EH**-4L30 or EH**-4L30A	28.8	34.6	-	-	-	69.8	70
														-	2.4	-	72.8	80
														-	-	8.1	79.9	80
														4.3	-	-	75.2	80
														4.3	2.4	-	78.2	80
														4.3	-	8.1	85.3	90
											EH**-4L45 or EH**-4L45A	43.2	52.0	-	-	-	91.5	100
														-	2.4	-	94.5	100
														-	-	8.1	102	110
														4.3	-	-	96.8	100
														4.3	2.4	-	99.8	100
														4.3	-	8.1	107	110
											EH**-4L60 or EH**-4L60A	57.6	69.3	-	-	-	95.8	100
														-	2.4	-	98.8	100
														-	-	8.1	106	110
														4.3	-	-	101	110
														4.3	2.4	-	104	110
														4.3	-	8.1	111	125

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC1807D	575/3/60	2	8.4	78.0	3	0.33	0.67	2	3.5	5.0	-	-	-	-	-	-	31.0	35
											-	-	-	-	2.0	-	33.0	40
											-	-	-	-	-	8.3	39.3	45
											-	-	-	3.5	-	-	34.5	40
											-	-	-	3.5	2.0	-	36.5	40
											-	-	-	3.5	-	8.3	42.8	50
											EH**-7L30 or EH**-7L30A	28.8	27.7	-	-	-	47.1	50
														-	2.0	-	49.6	50
														-	-	8.3	57.5	60
														3.5	-	-	51.5	60
														3.5	2.0	-	54.0	60
														3.5	-	8.3	61.9	70
											EH**-7L45 or EH**-7L45A	43.2	41.6	-	-	-	64.5	70
														-	2.0	-	67.0	70
														-	-	8.3	74.8	80
														3.5	-	-	68.8	70
														3.5	2.0	-	71.3	80
														3.5	-	8.3	79.2	80
											EH**-7L60 or EH**-7L60A	57.6	55.4	-	-	-	67.9	70
														-	2.0	-	70.4	80
														-	-	8.3	78.3	80
														3.5	-	-	72.3	80
														3.5	2.0	-	74.8	80
														3.5	-	8.3	82.7	90
DSC1807W	575/3/60	2	8.4	78.0	3	0.33	0.67	2	5.0	7.2	-	-	-	-	-	-	35.4	40
											-	-	-	-	2.0	-	37.4	45
											-	-	-	-	-	8.3	43.7	50
											-	-	-	3.5	-	-	38.9	45
											-	-	-	3.5	2.0	-	40.9	45
											-	-	-	3.5	-	8.3	47.2	50
											EH**-7L30 or EH**-7L30A	28.8	27.7	-	-	-	52.6	60
														-	2.0	-	55.1	60
														-	-	8.3	63.0	70
														3.5	-	-	57.0	60
														3.5	2.0	-	59.5	60
														3.5	-	8.3	67.4	70
											EH**-7L45 or EH**-7L45A	43.2	41.6	-	-	-	70.0	70
														-	2.0	-	72.5	80
														-	-	8.3	80.3	90
														3.5	-	-	74.3	80
														3.5	2.0	-	76.8	80
														3.5	-	8.3	84.7	90
											EH**-7L60 or EH**-7L60A	57.6	55.4	-	-	-	73.4	80
														-	2.0	-	75.9	80
														-	-	8.3	83.8	90
														3.5	-	-	77.8	80
														3.5	2.0	-	80.3	90
														3.5	-	8.3	88.2	90

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC2403D	208/230/3/60	2	29.4	225	4	0.5	2.7	2	3.5	10.9	-	-	-	-	-	-	98.7/98.7	125/125
											-	-	-	-	4.8	-	103/103	125/125
											-	-	-	-	-	13.9	113/113	125/125
											-	-	-	9.6/8.7	-	-	108/107	125/125
											-	-	-	9.6/8.7	4.8	-	113/112	125/125
											-	-	-	9.6/8.7	-	13.9	122/121	150/150
											EH**-3L30 or EH**-3L30A	21.6/28.8	60.0/69.3	-	-	-	102/114	125/125
														-	4.8	-	108/120	125/125
														-	-	13.9	120/131	125/150
														9.6/8.7	-	-	114/125	125/125
														9.6/8.7	4.8	-	120/131	125/150
														9.6/8.7	-	13.9	132/142	150/150
											EH**-3L45 or EH**-3L45A	32.4/43.2	90.1/104	-	-	-	140/157	150/175
														-	4.8	-	146/163	150/175
														-	-	13.9	157/175	175/175
														9.6/8.7	-	-	152/168	175/175
														9.6/8.7	4.8	-	158/174	175/175
														9.6/8.7	-	13.9	169/185	175/200
											EH**-3L60 or EH**-3L60A	43.3/57.6	120/139	-	-	-	177/166	200/175
														-	4.8	-	183/172	200/175
														-	-	13.9	195/183	200/200
														9.6/8.7	-	-	189/177	200/200
														9.6/8.7	4.8	-	195/183	200/200
														9.6/8.7	-	13.9	207/194	225/200
											EH**-3L75 or EH**-3L75A	54.1/72.0	150/173	-	-	-	177/200	200/225
														-	4.8	-	183/206	200/225
														-	-	13.9	195/218	200/225
														9.6/8.7	-	-	189/211	200/225
														9.6/8.7	4.8	-	195/217	200/225
														9.6/8.7	-	13.9	207/229	225/250

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC2403W	208/230/3/60	2	29.4	225	4	0.5	2.7	2	5.0	14.5	-	-	-	-	-	-	106/106	125/125
											-	-	-	-	4.8	-	111/111	125/125
											-	-	-	-	-	13.9	120/120	125/125
											-	-	-	9.6/8.7	-	-	115/115	125/125
											-	-	-	9.6/8.7	4.8	-	120/119	125/125
											-	-	-	9.6/8.7	-	13.9	129/128	150/150
											EH**-3L30 or EH**-3L30A	21.6/28.8	60.0/69.3	-	-	-	111/123	125/125
														-	4.8	-	117/129	125/150
														-	-	13.9	129/140	150/150
														9.6/8.7	-	-	123/134	125/150
														9.6/8.7	4.8	-	129/140	150/150
														9.6/8.7	-	13.9	141/151	150/175
											EH**-3L45 or EH**-3L45A	32.4/43.2	90.1/104	-	-	-	149/166	150/175
														-	4.8	-	155/172	175/175
														-	-	13.9	166/184	175/200
														9.6/8.7	-	-	161/177	175/200
														9.6/8.7	4.8	-	167/183	175/200
														9.6/8.7	-	13.9	178/194	200/200
											EH**-3L60 or EH**-3L60A	43.3/57.6	120/139	-	-	-	186/175	200/175
														-	4.8	-	192/181	200/200
														-	-	13.9	204/192	225/200
														9.6/8.7	-	-	198/186	200/200
														9.6/8.7	4.8	-	204/192	225/200
														9.6/8.7	-	13.9	216/203	225/225
											EH**-3L75 or EH**-3L75A	54.1/72.0	150/173	-	-	-	186/209	200/225
														-	4.8	-	192/215	200/225
														-	-	13.9	204/227	225/250
														9.6/8.7	-	-	198/220	200/225
														9.6/8.7	4.8	-	204/226	225/250
														9.6/8.7	-	13.9	216/238	225/250

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC2404D	460/3/60	2	13.7	130	4	0.5	1.4	2	3.5	7.2	-	-	-	-	-	-	50.8	60
											-	-	-	-	2.4	-	53.2	60
											-	-	-	-	-	8.1	58.9	70
											-	-	-	4.3	-	-	55.1	60
											-	-	-	4.3	2.4	-	57.5	70
											-	-	-	4.3	-	8.1	63.2	70
											EH** 4L30 or EH** 4L30A	28.8	34.6	-	-	-	61.3	70
														-	2.4	-	64.3	70
														-	-	8.1	71.4	80
														4.3	-	-	66.7	70
														4.3	2.4	-	69.7	70
														4.3	-	8.1	76.8	80
											EH** 4L45 or EH** 4L45A	43.2	52.0	-	-	-	83.0	90
														-	2.4	-	86.0	90
														-	-	8.1	93.1	100
														4.3	-	-	88.3	90
														4.3	2.4	-	91.3	100
														4.3	-	8.1	98.5	100
											EH** 4L60 or EH** 4L60A	57.6	69.3	-	-	-	87.3	90
														-	2.4	-	90.3	100
														-	-	8.1	97.4	100
														4.3	-	-	92.7	100
														4.3	2.4	-	95.7	100
														4.3	-	8.1	103	110
											EH** 4L75 or EH** 4L75A	72.0	86.6	-	-	-	105	110
														-	2.4	-	108	110
														-	-	8.1	115	125
														4.3	-	-	110	110
														4.3	2.4	-	113	125
														4.3	-	8.1	120	125

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC2404W	460/3/60	2	13.7	130	4	0.5	1.4	2	5.0	10.6	-	-	-	-	-	-	57.6	70
											-	-	-	-	2.4	-	60.0	70
											-	-	-	-	-	8.1	65.7	70
											-	-	-	4.3	-	-	61.9	70
											-	-	-	4.3	2.4	-	64.3	70
											-	-	-	4.3	-	8.1	70.0	80
											EH**-4L30 or EH**-4L30A	28.8	34.6	-	-	-	69.8	70
														-	2.4	-	72.8	80
														-	-	8.1	79.9	80
														4.3	-	-	75.2	80
														4.3	2.4	-	78.2	80
														4.3	-	8.1	85.3	90
											EH**-4L45 or EH**-4L45A	43.2	52.0	-	-	-	91.5	100
														-	2.4	-	94.5	100
														-	-	8.1	102	110
														4.3	-	-	96.8	100
														4.3	2.4	-	99.8	100
														4.3	-	8.1	107	110
											EH**-4L60 or EH**-4L60A	57.6	69.3	-	-	-	95.8	100
														-	2.4	-	98.8	100
														-	-	8.1	106	110
														4.3	-	-	101	110
														4.3	2.4	-	104	110
														4.3	-	8.1	111	125
											EH**-4L75 or EH**-4L75A	72.0	86.6	-	-	-	113	125
														-	2.4	-	116	125
														-	-	8.1	123	125
														4.3	-	-	118	125
														4.3	2.4	-	121	125
														4.3	-	8.1	129	150

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC2407D	575/3/60	2	10.9	93.7	4	0.5	1.0	2	3.5	5.0	-	-	-	-	-	-	38.5	45
											-	-	-	-	2.0	-	40.5	50
											-	-	-	-	-	8.3	46.8	50
											-	-	-	3.5	-	-	42.0	50
											-	-	-	3.5	2.0	-	44.0	50
											-	-	-	3.5	-	8.3	50.3	60
											EH** -7L30 or EH** -7L30A	28.8	27.7	-	-	-	47.1	50
														-	2.0	-	49.6	50
														-	-	8.3	57.5	60
														3.5	-	-	51.5	60
														3.5	2.0	-	54.0	60
														3.5	-	8.3	61.9	70
											EH** -7L45 or EH** -7L45A	43.2	41.6	-	-	-	64.5	70
														-	2.0	-	67.0	70
														-	-	8.3	74.8	80
														3.5	-	-	68.8	70
														3.5	2.0	-	71.3	80
														3.5	-	8.3	79.2	80
											EH** -7L60 or EH** -7L60A	57.6	55.4	-	-	-	67.9	70
														-	2.0	-	70.4	80
														-	-	8.3	78.3	80
														3.5	-	-	72.3	80
														3.5	2.0	-	74.8	80
														3.5	-	8.3	82.7	90
											EH** -7L75 or EH** -7L75A	72.0	69.3	-	-	-	81.8	90
														-	2.0	-	84.3	90
														-	-	8.3	92.2	100
														3.5	-	-	86.2	90
														3.5	2.0	-	88.7	90
														3.5	-	8.3	96.5	100

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC2407W	575/3/60	2	10.9	93.7	4	0.5	1.0	2	5.0	7.2	-	-	-	-	-	-	42.9	50
											-	-	-	-	2.0	-	44.9	50
											-	-	-	-	-	8.3	51.2	60
											-	-	-	3.5	-	-	46.4	50
											-	-	-	3.5	2.0	-	48.4	50
											-	-	-	3.5	-	8.3	54.7	60
											EH**-7L30 or EH**-7L30A	28.8	27.7	-	-	-	52.6	60
														-	2.0	-	55.1	60
														-	-	8.3	63.0	70
														3.5	-	-	57.0	60
														3.5	2.0	-	59.5	60
														3.5	-	8.3	67.4	70
											EH**-7L45 or EH**-7L45A	43.2	41.6	-	-	-	70.0	70
														-	2.0	-	72.5	80
														-	-	8.3	80.3	90
														3.5	-	-	74.3	80
														3.5	2.0	-	76.8	80
														3.5	-	8.3	84.7	90
											EH**-7L60 or EH**-7L60A	57.6	55.4	-	-	-	73.4	80
														-	2.0	-	75.9	80
														-	-	8.3	83.8	90
														3.5	-	-	77.8	80
														3.5	2.0	-	80.3	90
														3.5	-	8.3	88.2	90
											EH**-7L75 or EH**-7L75A	72.0	69.3	-	-	-	87.3	90
														-	2.0	-	89.8	90
														-	-	8.3	97.7	100
														3.5	-	-	91.7	100
														3.5	2.0	-	94.2	100
														3.5	-	8.3	102	110

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC3003D	208/230/3/60	2	48.3	336	5	0.5	2.7	2	5.0	14.5	-	-	-	-	-	-	151/151	175/175
											-	-	-	-	4.8	-	156/156	200/200
											-	-	-	-	-	13.9	165/165	200/200
											-	-	-	9.6/8.7	-	-	161/160	200/200
											-	-	-	9.6/8.7	4.8	-	166/165	200/200
											-	-	-	9.6/8.7	-	13.9	175/174	200/200
											EH**-3L30 or EH**-3L30A	21.6/28.8	60.0/69.3	-	-	-	151/151	175/175
														-	4.8	-	156/156	200/200
														-	-	13.9	165/165	200/200
														9.6/8.7	-	-	161/160	200/200
														9.6/8.7	4.8	-	166/165	200/200
														9.6/8.7	-	13.9	175/174	200/200
											EH**-3L45 or EH**-3L45A	32.4/43.2	90.1/104	-	-	-	151/166	175/175
														-	4.8	-	156/172	200/200
														-	-	13.9	166/184	200/200
														9.6/8.7	-	-	161/177	200/200
														9.6/8.7	4.8	-	167/183	200/200
											EH**-3L60 or EH**-3L60A	43.3/57.6	120/139	-	-	-	186/175	200/175
														-	4.8	-	192/181	200/200
														-	-	13.9	204/192	225/200
														9.6/8.7	-	-	198/186	200/200
														9.6/8.7	4.8	-	204/192	225/200
											EH**-3L75 or EH**-3L75A	54.1/72.0	150/173	-	-	-	216/203	225/225
														-	-	-	186/209	200/225
														-	4.8	-	192/215	200/225
														-	-	13.9	204/227	225/250
														9.6/8.7	-	-	198/220	200/225
														9.6/8.7	4.8	-	204/226	225/250
														9.6/8.7	-	13.9	216/238	225/250

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC3003W	208/230/3/60	2	48.3	336	5	0.5	2.7	2	5.0	14.5	-	-	-	-	-	-	151/151	175/175
											-	-	-	-	4.8	-	156/156	200/200
											-	-	-	-	-	13.9	165/165	200/200
											-	-	-	9.6/8.7	-	-	161/160	200/200
											-	-	-	9.6/8.7	4.8	-	166/165	200/200
											-	-	-	9.6/8.7	-	13.9	175/174	200/200
											EH**-3L30 or EH**-3L30A	21.6/28.8	60.0/69.3	-	-	-	151/151	175/175
											EH**-3L45 or EH**-3L45A	32.4/43.2	90.1/104	-	4.8	-	156/156	200/200
														-	-	13.9	165/165	200/200
														9.6/8.7	-	-	161/160	200/200
														9.6/8.7	4.8	-	166/165	200/200
														9.6/8.7	-	13.9	175/174	200/200
											EH**-3L60 or EH**-3L60A	43.3/57.6	120/139	-	-	-	151/166	175/175
														-	4.8	-	156/172	200/200
														-	-	13.9	166/184	200/200
														9.6/8.7	-	-	161/177	200/200
														9.6/8.7	4.8	-	167/183	200/200
											EH**-3L75 or EH**-3L75A	54.1/72.0	150/173	-	-	13.9	178/194	200/200
														-	-	-	186/175	200/175
														-	4.8	-	192/181	200/200
														-	-	13.9	204/192	225/200
														9.6/8.7	-	-	198/186	200/200
														9.6/8.7	4.8	-	204/192	225/200
														9.6/8.7	-	13.9	216/203	225/225
														-	-	-	186/209	200/225
														-	4.8	-	192/215	200/225
														-	-	13.9	204/227	225/250
														9.6/8.7	-	-	198/220	200/225
														9.6/8.7	4.8	-	204/226	225/250
														9.6/8.7	-	13.9	216/238	225/250

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC3004D	460/3/60	2	20.5	147	5	0.5	1.4	2	5.0	10.6	-	-	-	-	-	-	74.3	90
											-	-	-	-	2.4	-	76.7	90
											-	-	-	-	-	8.1	82.4	100
											-	-	-	4.3	-	-	78.6	90
											-	-	-	4.3	2.4	-	81.0	100
											-	-	-	4.3	-	8.1	86.7	100
											EH**-.4L30 or EH**-.4L30A	28.8	34.6	-	-	-	74.3	90
														-	2.4	-	76.7	90
														-	-	8.1	82.4	100
														4.3	-	-	78.6	90
														4.3	2.4	-	81.0	100
														4.3	-	8.1	86.7	100
											EH**-.4L45 or EH**-.4L45A	43.2	52.0	-	-	-	91.5	100
														-	2.4	-	94.5	100
														-	-	8.1	102	110
														4.3	-	-	96.8	100
														4.3	2.4	-	99.8	100
														4.3	-	8.1	107	110
											EH**-.4L60 or EH**-.4L60A	57.6	69.3	-	-	-	95.8	100
														-	2.4	-	98.8	100
														-	-	8.1	106	110
														4.3	-	-	101	110
														4.3	2.4	-	104	110
														4.3	-	8.1	111	125
											EH**-.4L75 or EH**-.4L75A	72.0	86.6	-	-	-	113	125
														-	2.4	-	116	125
														-	-	8.1	123	125
														4.3	-	-	118	125
														4.3	2.4	-	121	125
														4.3	-	8.1	129	150

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC3004W	460/3/60	2	20.5	147	5	0.5	1.4	2	5.0	10.6	-	-	-	-	-	-	74.3	90
											-	-	-	-	2.4	-	76.7	90
											-	-	-	-	-	8.1	82.4	100
											-	-	-	4.3	-	-	78.6	90
											-	-	-	4.3	2.4	-	81.0	100
											-	-	-	4.3	-	8.1	86.7	100
											EH** 4L30 or EH** 4L30A	28.8	34.6	-	-	-	74.3	90
														-	2.4	-	76.7	90
														-	-	8.1	82.4	100
														4.3	-	-	78.6	90
														4.3	2.4	-	81.0	100
														4.3	-	8.1	86.7	100
											EH** 4L45 or EH** 4L45A	43.2	52.0	-	-	-	91.5	100
														-	2.4	-	94.5	100
														-	-	8.1	102	110
														4.3	-	-	96.8	100
														4.3	2.4	-	99.8	100
														4.3	-	8.1	107	110
											EH** 4L60 or EH** 4L60A	57.6	69.3	-	-	-	95.8	100
														-	2.4	-	98.8	100
														-	-	8.1	106	110
														4.3	-	-	101	110
														4.3	2.4	-	104	110
														4.3	-	8.1	111	125
											EH** 4L75 or EH** 4L75A	72.0	86.6	-	-	-	113	125
														-	2.4	-	116	125
														-	-	8.1	123	125
														4.3	-	-	118	125
														4.3	2.4	-	121	125
														4.3	-	8.1	129	150

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC3007D	575/3/60	2	13.8	109	5	0.5	1.0	2	5.0	7.2	-	-	-	-	-	-	50.4	60
											-	-	-	-	2.0	-	52.4	60
											-	-	-	-	-	8.3	58.7	70
											-	-	-	3.5	-	-	53.9	60
											-	-	-	3.5	2.0	-	55.9	60
											-	-	-	3.5	-	8.3	62.2	70
											EH** 7L30 or EH** 7L30A	28.8	27.7	-	-	-	52.6	60
														-	2.0	-	55.1	60
														-	-	8.3	63.0	70
														3.5	-	-	57.0	60
														3.5	2.0	-	59.5	60
														3.5	-	8.3	67.4	70
											EH** 7L45 or EH** 7L45A	43.2	41.6	-	-	-	70.0	70
														-	2.0	-	72.5	80
														-	-	8.3	80.3	90
														3.5	-	-	74.3	80
														3.5	2.0	-	76.8	80
														3.5	-	8.3	84.7	90
											EH** 7L60 or EH** 7L60A	57.6	55.4	-	-	-	73.4	80
														-	2.0	-	75.9	80
														-	-	8.3	83.8	90
														3.5	-	-	77.8	80
														3.5	2.0	-	80.3	90
														3.5	-	8.3	88.2	90
											EH** 7L75 or EH** 7L75A	72.0	69.3	-	-	-	87.3	90
														-	2.0	-	89.8	90
														-	-	8.3	97.7	100
														3.5	-	-	91.7	100
														3.5	2.0	-	94.2	100
														3.5	-	8.3	102	110

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC3007W	575/3/60	2	13.8	109	5	0.5	1.0	2	5.0	7.2	-	-	-	-	-	-	50.4	60
											-	-	-	-	2.0	-	52.4	60
											-	-	-	-	-	8.3	58.7	70
											-	-	-	3.5	-	-	53.9	60
											-	-	-	3.5	2.0	-	55.9	60
											-	-	-	3.5	-	8.3	62.2	70
											EH** 7L30 or EH** 7L30A	28.8	27.7	-	-	-	52.6	60
														-	2.0	-	55.1	60
														-	-	8.3	63.0	70
														3.5	-	-	57.0	60
														3.5	2.0	-	59.5	60
														3.5	-	8.3	67.4	70
											EH** 7L45 or EH** 7L45A	43.2	41.6	-	-	-	70.0	70
														-	2.0	-	72.5	80
														-	-	8.3	80.3	90
														3.5	-	-	74.3	80
														3.5	2.0	-	76.8	80
														3.5	-	8.3	84.7	90
											EH** 7L60 or EH** 7L60A	57.6	55.4	-	-	-	73.4	80
														-	2.0	-	75.9	80
														-	-	8.3	83.8	90
														3.5	-	-	77.8	80
														3.5	2.0	-	80.3	90
														3.5	-	8.3	88.2	90
											EH** 7L75 or EH** 7L75A	72.0	69.3	-	-	-	87.3	90
														-	2.0	-	89.8	90
														-	-	8.3	97.7	100
														3.5	-	-	91.7	100
														3.5	2.0	-	94.2	100
														3.5	-	8.3	102	110

APPENDIX B ELECTRICAL DATA

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APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply												
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP											
DSH1807D	575/3/60	2	8.4	78	4	0.5	1.0	2	3.5	5.0	-	-	-	-	-	-	33.0	40											
											-	-	-	-	2.0	-	35.0	40											
											-	-	-	-	-	-	8.3	41.3	45										
											-	-	-	3.5	-	-	36.5	40											
											-	-	-	3.5	2.0	-	38.5	45											
											-	-	-	3.5	-	8.3	44.8	50											
											-	-	-	-	-	-	67.6	70											
											-	-	-	2.0	-	-	69.6	70											
											EH**-7L30A	28.8	27.7	-	-	-	75.9	80											
														3.5	-	-	71.1	80											
														3.5	2.0	-	73.1	80											
														3.5	-	8.3	79.4	80											
											EH**-7L45A	43.2	41.6	-	-	-	85.0	90											
														-	2.0	-	87.0	90											
														-	-	8.3	93.3	100											
														3.5	-	-	88.5	90											
														3.5	2.0	-	90.5	100											
														3.5	-	8.3	96.8	100											
											EH**-7L60A	57.6	55.4	-	-	-	88.4	90											
														-	2.0	-	90.4	100											
														-	-	8.3	96.7	100											
														3.5	-	-	91.9	100											
														3.5	2.0	-	93.9	100											
														3.5	-	8.3	100	110											
DSH1807W	575/3/60	2	8.4	78	4	0.5	1.0	2	5.0	7.2	-	-	-	-	-	-	37.4	45											
											-	-	-	-	2.0	-	39.4	45											
											-	-	-	-	-	8.3	45.7	50											
											-	-	-	3.5	-	-	40.9	45											
											-	-	-	3.5	2.0	-	42.9	50											
											-	-	-	3.5	-	8.3	49.2	50											
											EH**-7L30A	28.8	27.7	-	-	-	72.0	80											
														-	2.0	-	74.0	80											
														-	-	8.3	80.3	90											
														3.5	-	-	75.5	80											
														3.5	2.0	-	77.5	80											
														3.5	-	8.3	83.8	90											
											EH**-7L45A	43.2	41.6	-	-	-	89.4	90											
														-	2.0	-	91.4	100											
														-	-	8.3	97.7	100											
														3.5	-	-	92.9	100											
														3.5	2.0	-	94.9	100											
														3.5	-	8.3	101	110											
											EH**-7L60A	57.6	55.4	-	-	-	92.8	100											
														-	2.0	-	94.8	100											
														-	-	8.3	101	110											
														3.5	-	-	96.3	100											
														3.5	2.0	-	98.3	100											
														3.5	-	8.3	105	110											
DSH2403D	208/230/3/60	2	29.4	225	4	0.5	2.7	2	3.5	10.9	-	-	-	-	-	-	98.7/98.7	125/125											
											-	-	-	-	4.8	-	103/103	125/125											
											-	-	-	-	-	13.9	113/113	125/125											
											-	-	-	9.6/8.7	-	-	108/107	125/125											
											-	-	-	9.6/8.7	4.8	-	113/112	125/125											
											-	-	-	9.6/8.7	-	13.9	122/121	150/150											
											EH**-3L30A	21.6/28.8	60.0/69.3	-	-	-	174/185	175/200											
														-	4.8	-	179/190	200/200											
														-	-	13.9	188/199	200/200											
														9.6/8.7	-	-	183/194	200/200											
														9.6/8.7	4.8	-	188/199	200/200											
														9.6/8.7	-	13.9	197/208	200/225											
											EH**-3L45A	32.4/43.2	90.1/104	-	-	-	211/229	225/250											
														-	4.8	-	216/233	225/250											
														9.6/8.7	-	13.9	225/242	250/250											
														9.6/8.7	-	-	221/237	225/250											
														9.6/8.7	4.8	-	226/242	250/250											
														9.6/8.7	-	13.9	235/251	250/300											
											EH**-3L60A	43.3/57.6	120/139	-	-	-	249/237	250/250											
														-	4.8	-	254/242	300/250											
														-	-	13.9	263/251	300/300											
														9.6/8.7	-	-	258/246	300/250											
														9.6/8.7	4.8	-	263/251	300/300											
														9.6/8.7	-	13.9	272/260	300/300											
											EH**-3L75A	54.1/72.0	150/173	-	-	-	249/272	250/300											
														-	4.8	-	254/277	300/300											
														-	-	13.9	263/286	300/300											
														9.6/8.7	-	-	258/281	300/300											
														9.6/8.7	4.8	-	263/285	300/300											
														9.6/8.7	-	13.9	272/295	300/300											
											DSH2403W	208/230/3/60	2	29.4	225	4	0.5	2.7	2	5.0	14.5	-	-	-	-	-	-	106/106	125/125
																						-	-	-	-	4.8	-	111/111	125/125
																						-	-	-	-	-	13.9	120/120	125/125
																						-	-	-	9.6/8.7	-	-	115/115	125/125
																						-	-	-	9.6/8.7	4.8	-	120/119	125/125
																						-	-	-	9.6/8.7	-	13.9	129/128	150/150
EH**-3L30A	21.6/28.8	60.0/69.3	-	-	-	181/192	200/200																						
			-	4.8	-	186/197	200/200																						
			-	-	13.9	195/206	200/225																						
			9.6/8.7	-	-	191/201	200/225																						
			9.6/8.7	4.8	-	195/206	200/225																						
			9.6/8.7	-	13.9	204/215	225/225																						
EH**-3L45A	32.4/43.2	90.1/104	-	-	-	218/236	225/250																						
			-	4.8	-	223/241	225/250																						
			-	-	13.9	232/250	250/250																						
			9.6/8.7	-	-	228/244	250/250																						
			9.6/8.7	4.8	-	233/249	250/250																						
			9.6/8.7	-	13.9	242/258	250/300																						
EH**-3L60A	43.3/57.6	120/139	-	-	-	256/244	300/250																						
			-	4.8	-	261/249	300/250																						
			-	-	13.9	270/258	300/300																						
			9.6/8.7	-	-	266/253	300/300																						
			9.6/8.7	4.8	-	270/258	300/300																						
			9.6/8.7	-	13.9	280/267	300/300																						
EH**-3L75A	54.1/72.0	150/173	-	-	-	256/279	300/300																						
			-	4.8	-	261/284	300/300																						
			-	-	13.9	270/293	300/300																						
			9.6/8.7	-	-	266/288	300/300																						
			9.6/8.7	4.8	-	270/293	300/300																						
			9.6/8.7	-	13.9	280/302	300/350																						

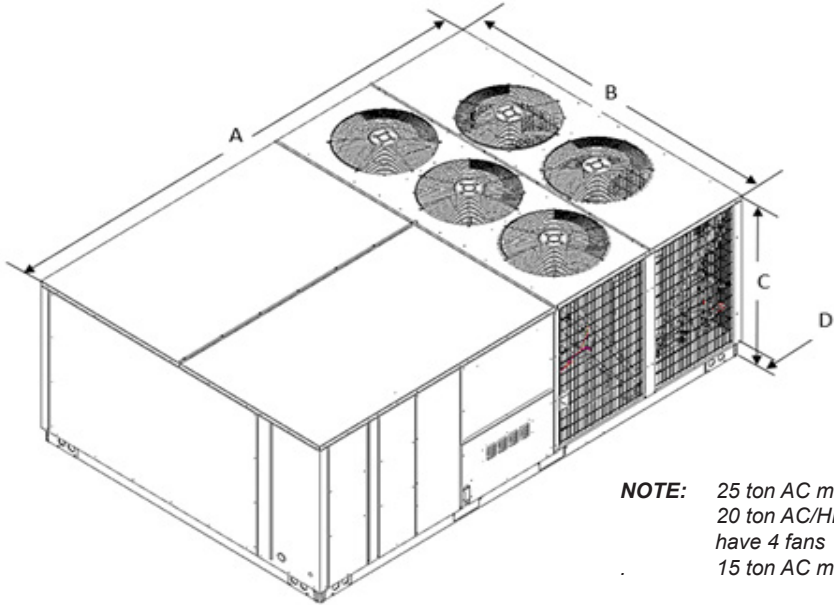
APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply												
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP											
DSH2404D	460/3/60	2	13.7	130	4	0.5	1.4	2	3.5	7.2	-	-	-	-	-	-	50.8	60											
											-	-	-	-	2.4	-	53.2	60											
											-	-	-	-	8.1	-	58.9	70											
											-	-	-	4.3	-	-	55.1	60											
											-	-	-	4.3	2.4	-	57.5	70											
											-	-	-	4.3	-	8.1	63.2	70											
											-	-	-	-	-	-	94.1	100											
											-	-	-	-	2.4	-	96.5	100											
											-	-	-	-	-	8.1	102	110											
											-	-	-	4.3	-	-	98.4	100											
											-	-	-	4.3	2.4	-	101	110											
											-	-	-	4.3	-	8.1	107	110											
											-	-	-	-	-	-	116	125											
											-	-	-	-	2.4	-	118	125											
											-	-	-	-	-	8.1	124	125											
											-	-	-	4.3	-	-	120	125											
											-	-	-	4.3	2.4	-	122	125											
											-	-	-	4.3	-	8.1	128	150											
											-	-	-	-	-	-	120	125											
											-	-	-	-	2.4	-	122	125											
											-	-	-	-	-	8.1	128	150											
											-	-	-	4.3	-	-	124	125											
											-	-	-	4.3	2.4	-	127	150											
											-	-	-	4.3	-	8.1	132	150											
											-	-	-	-	-	-	137	150											
											-	-	-	-	2.4	-	140	150											
											-	-	-	-	-	8.1	146	150											
											-	-	-	4.3	-	-	142	150											
											-	-	-	4.3	2.4	-	144	150											
											-	-	-	4.3	-	8.1	150	150											
											DSH2404W	460/3/60	2	13.7	130	4	0.5	1.4	2	5.0	10.6	-	-	-	-	-	-	57.6	70
																						-	-	-	-	2.4	-	60.0	70
																						-	-	-	-	8.1	-	65.7	70
																						-	-	-	4.3	-	-	61.9	70
																						-	-	-	4.3	2.4	-	64.3	70
																						-	-	-	4.3	-	8.1	70.0	80
-	-	-	-	-	-	101	110																						
-	-	-	-	2.4	-	103	110																						
-	-	-	-	-	8.1	109	110																						
-	-	-	4.3	-	-	105	110																						
-	-	-	4.3	2.4	-	108	110																						
-	-	-	-	-	8.1	113	125																						
-	-	-	-	-	-	123	125																						
-	-	-	-	2.4	-	125	125																						
-	-	-	-	-	8.1	131	150																						
-	-	-	4.3	-	-	127	150																						
-	-	-	4.3	2.4	-	129	150																						
-	-	-	4.3	-	8.1	135	150																						
-	-	-	-	-	-	127	150																						
-	-	-	-	2.4	-	129	150																						
-	-	-	-	-	8.1	135	150																						
-	-	-	4.3	-	-	131	150																						
-	-	-	4.3	2.4	-	134	150																						
-	-	-	4.3	-	8.1	139	150																						
-	-	-	-	-	-	144	150																						
-	-	-	-	2.4	-	147	150																						
-	-	-	-	-	8.1	152	175																						
-	-	-	4.3	-	-	149	150																						
-	-	-	4.3	2.4	-	151	175																						
-	-	-	4.3	-	8.1	157	175																						
DSH2407D	575/3/60	2	10.9	93.7	4	0.5	1.0	2	3.5	5.0												-	-	-	-	-	-	38.5	45
																						-	-	-	-	2.0	-	40.5	50
																						-	-	-	-	8.3	-	46.8	50
																						-	-	-	3.5	-	-	42.0	50
																						-	-	-	3.5	2.0	-	44.0	50
																						-	-	-	3.5	-	8.3	50.3	60
											-	-	-	-	-	-	73.1	80											
											-	-	-	-	2.0	-	75.1	80											
											-	-	-	-	8.3	-	81.4	90											
											-	-	-	3.5	-	-	76.6	80											
											-	-	-	3.5	2.0	-	78.6	80											
											-	-	-	3.5	-	8.3	84.9	90											
											-	-	-	-	-	-	90.4	100											
											-	-	-	-	2.0	-	92.4	100											
											-	-	-	-	-	8.3	98.7	100											
											-	-	-	3.5	-	-	93.9	100											
											-	-	-	3.5	2.0	-	95.9	100											
											-	-	-	3.5	-	8.3	102	110											
											-	-	-	-	-	-	93.9	100											
											-	-	-	-	2.0	-	95.9	100											
											-	-	-	-	-	8.3	102	110											
											-	-	-	3.5	-	-	97.4	100											
											-	-	-	3.5	2.0	-	99.4	110											
											-	-	-	3.5	-	8.3	106	110											
											-	-	-	-	-	-	108	110											
											-	-	-	-	2.0	-	110	110											
											-	-	-	-	-	8.3	116	125											
											-	-	-	3.5	-	-	111	125											
											-	-	-	3.5	2.0	-	113	125											
											-	-	-	3.5	-	8.3	120	125											
											DSH2407W	575/3/60	2	10.9	93.7	4	0.5	1.0	2	5.0	7.2	-	-	-	-	-	-	42.9	50
																						-	-	-	-	2.0	-	44.9	50
																						-	-	-	-	8.3	-	51.2	60
																						-	-	-	3.5	-	-	46.4	50
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																						-	-	-	3.5	-	8.3	54.7	60
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-	-	-	-	2.0	-	79.5	80																						
-	-	-	-	-	8.3	85.8	90																						
-	-	-	3.5	-	-	81.0	90																						
-	-	-	3.5	2.0	-	83.0	90																						
-	-	-	3.5	-	8.3	89.3	90																						
-	-	-	-	-	-	94.8	100																						
-	-	-	-	2.0	-	96.8	100																						
-	-	-	-	-	8.3	103	110																						
-	-	-	3.5	-	-	98.3	100																						
-	-	-	3.5	2.0	-	100	110																						
-	-	-	3.5	-	8.3	107	110																						
-	-	-	-	-	-	98.3	100																						
-	-	-	-	2.0	-	100	110																						
-	-	-	-	-	8.3	107	110																						
-	-	-	3.5	-	-	102	110																						
-	-	-	3.5	2.0	-	104	110																						
-	-	-	3.5	-	8.3	110	125																						
-	-	-	-	-	-	112	125																						
-	-	-	-	2.0	-	114	125																						
-	-	-	-	-	8.3	120	125																						
-	-	-	3.5	-	-	116	125																						
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-	-	-	3.5	-	8.3	124	125																						

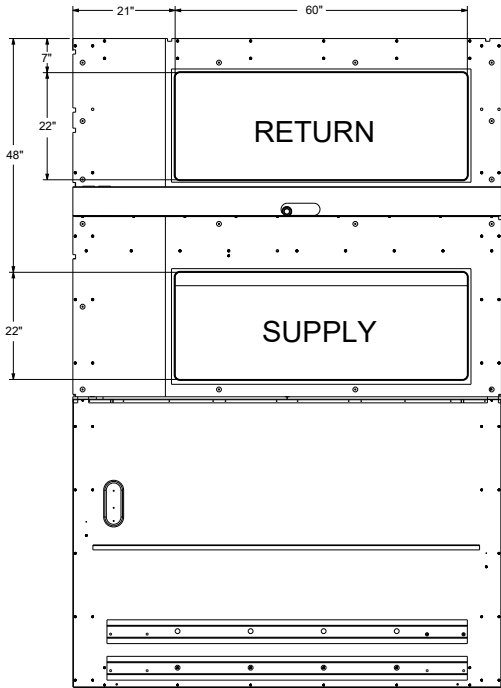
11 APPENDIX C UNIT DIMENSIONS

A/C Model	A	B	C	D
15 Ton	133 - 7/8"	88 - 1/2"	51 - 11/16"	5 - 5/32"
20 Ton 25 Ton	133 - 7/8"	88 - 1/2"	51	5 - 5/32"

HP Model	A	B	C	D
15 Ton 20 Ton	133 - 7/8"	88 - 1/2"	51	5 - 5/32"



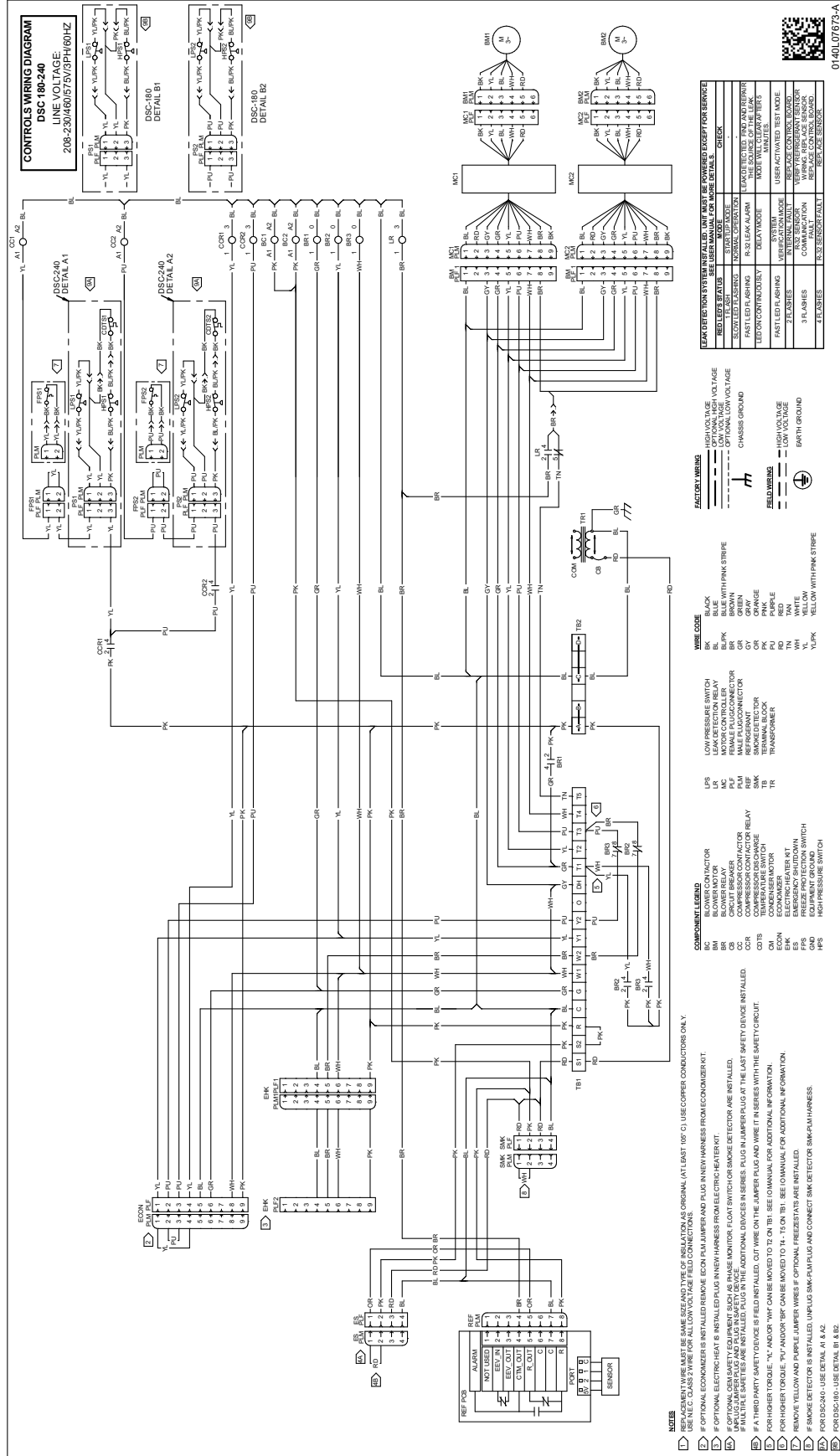
NOTE: 25 ton AC model shown in picture.
20 ton AC/HP and 15 ton HP models
have 4 fans
15 ton AC model has 3 fans



Vertical Discharge (Top View)

WARNING

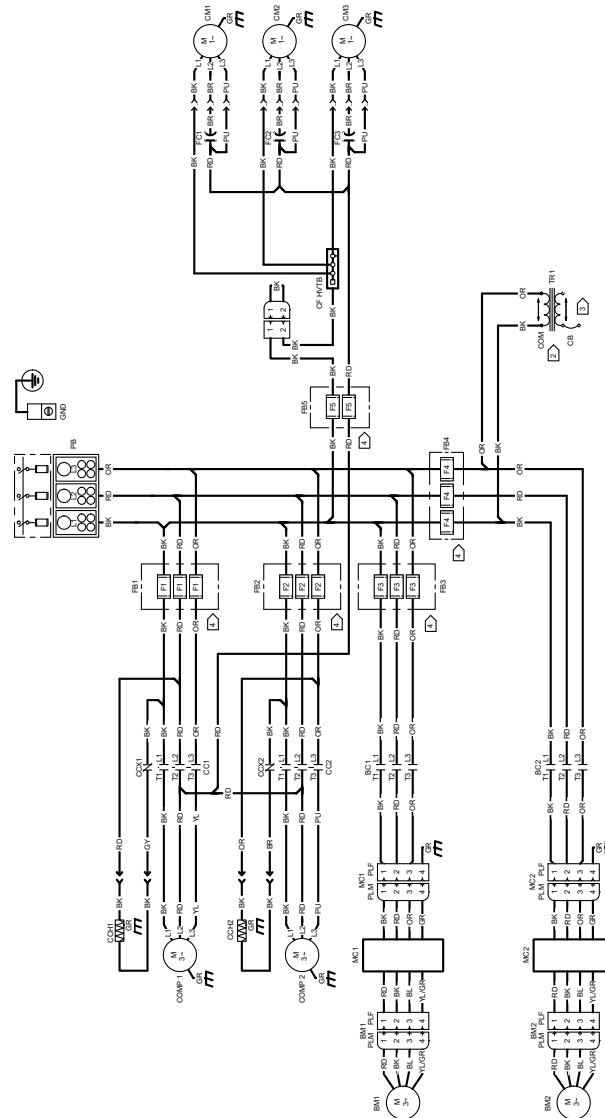
HIGH VOLTAGE!
 DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

WARNING

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



NOTES
1. REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (AT LEAST 100° C). USE COPPER CONDUCTORS ONLY. USE N.E.C. CLASS 7 WIRE FOR ALL LOW VOLTAGE FIELD CONNECTIONS.
2. TRI-PRIMARY HIGH VOLTAGE CONNECTIONS. RED WIRES CONNECTED TO ARMATURE IN FACTORY AND BLACK WIRES TO TERMINAL. FOR 200V SUPPLY, POWER, RED WIRES FROM 100 TO 10 AND 200V 100.
3. SEE CONTROL DIAGRAM FOR CONTROL TRANSFORMER LOW VOLTAGE CONNECTIONS.
4. OPTIONAL FACTORY INSTALLED EQUIPMENT.

COMPONENT LEGEND

NTACTOR
TOR
AKER
R CONTACTOR
HEATER
R CONTACTOR AUXILIARY SWITCH
FAN HIGH VOLTAGE TERMINAL BLOCK

FAN CAPACITOR
EQUIPMENT GROUND
MOTOR CONTROLLER
POWER DISTRIBUTION BLOCK
FEMALE PLUG/CONNECTOR
MALE PLUG/CONNECTOR
TRANSFORMER

WIRE CODE	
BK	BLACK
BL	BLUE
BL/PK	BLUE W/
BR	BROWN
GR	GREEN
GY	GRAY
OR	ORANGE

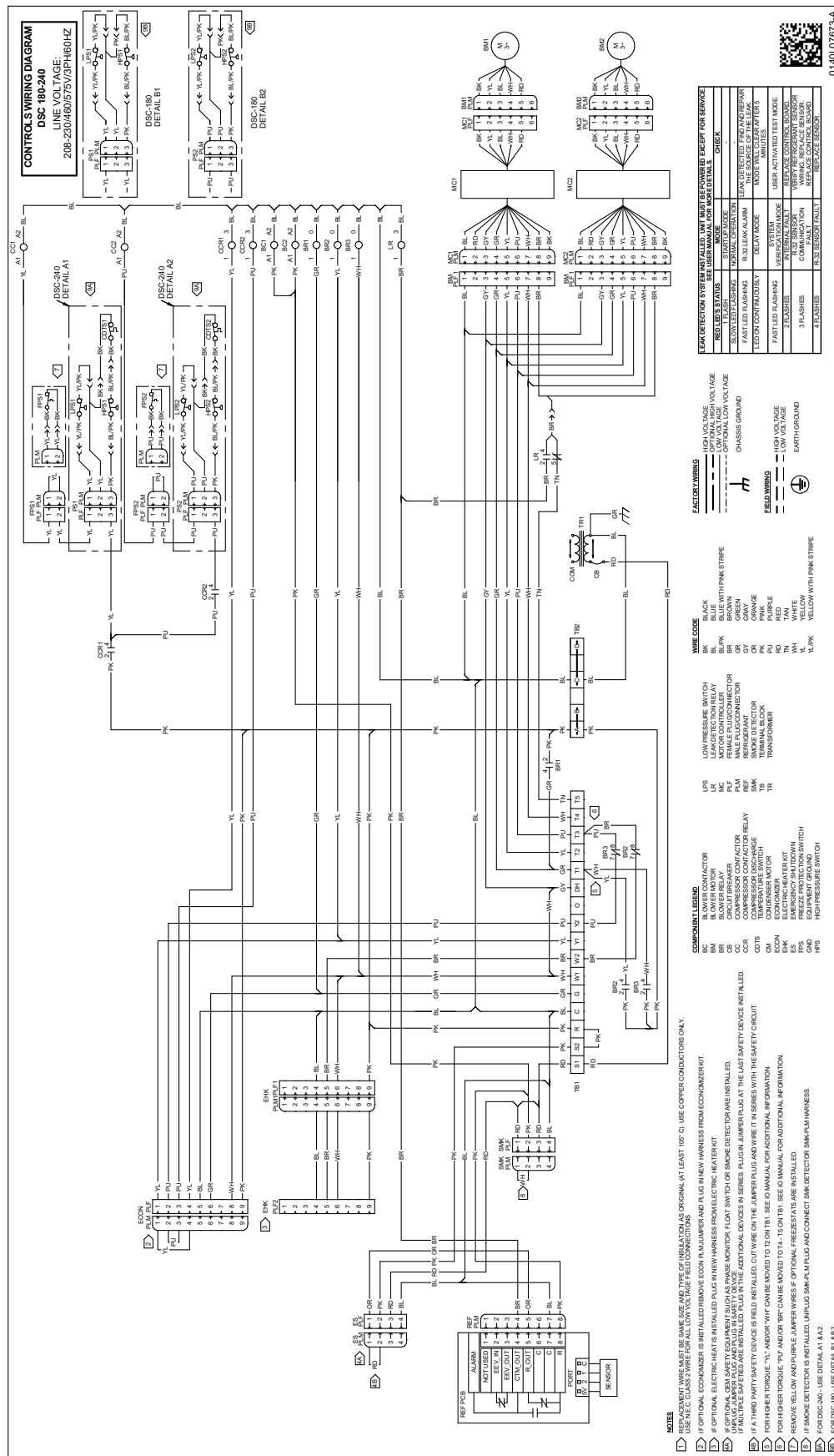
FACTORY WIRING

POWER WIRING DIAGRAM
DSC180**

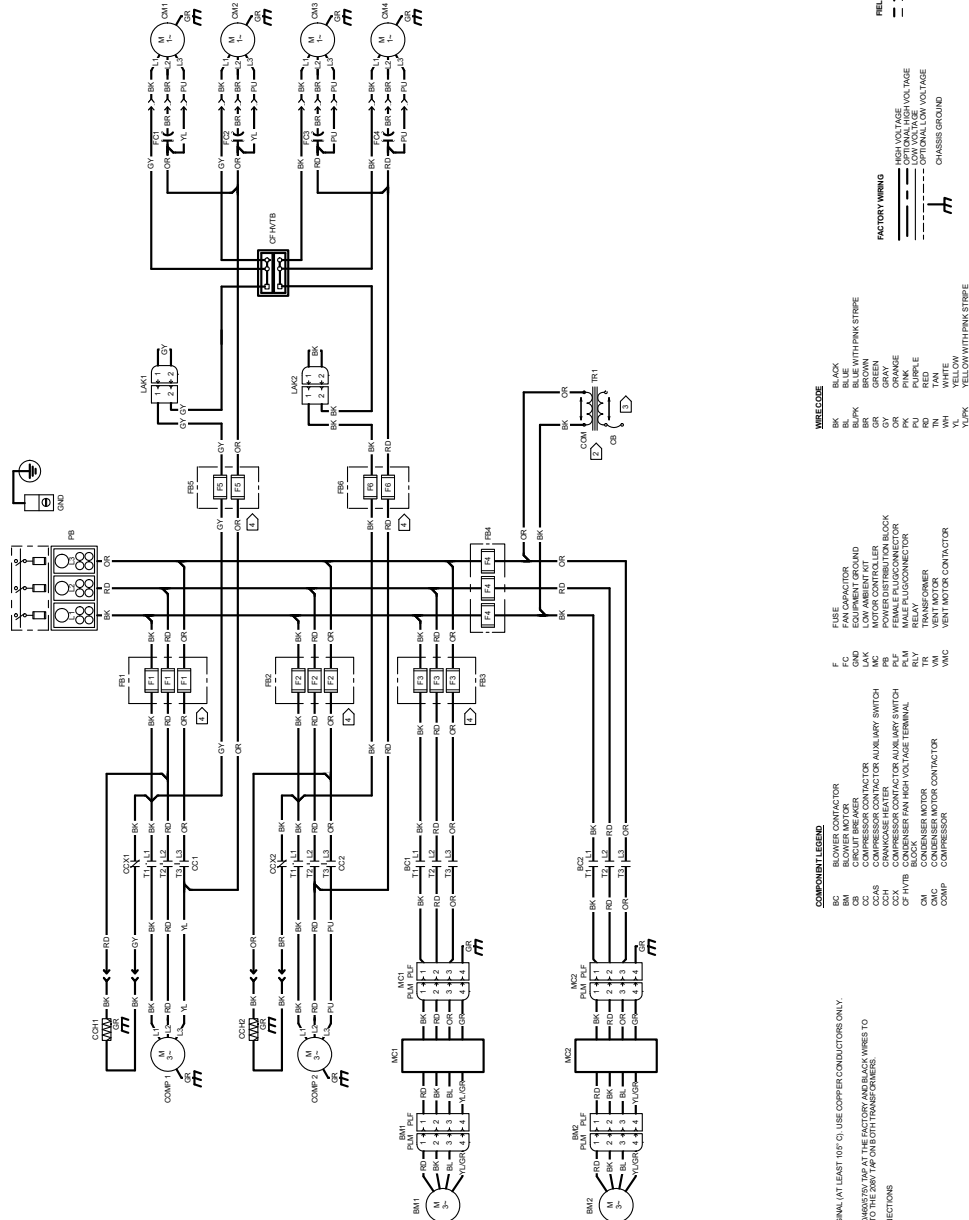
LINE VOLTAGE:
208-230/460/575V/3PH/60HZ



THE UNIVERSITY OF CHICAGO



LINE VOLTAGE:
208-230/460/575V/3PH/60HZ



NOTES

1. REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL. AT LEAST 10% O.D. USE COPPER CONDUCTORS ONLY. USE E.C. CLASSE 2 WIRE FOR ALL LOW VOLTAGE FIELD CONNECTIONS.
2. TRI-PRIMARY HIGH-VOLTAGE TRANSFORMERS: RED WIRE CONNECTED TO 2A00V/0.75 TAP AT THE FACTORY AND BLACK WIRE TO CENTRAL TAP FOR 230 V INPUT. POWER LINE RED WIRE FROM 2.0 TAP TO THE 200V TAP ON OTHER TRANSFORMERS.
3. SEE CONTROL DIAGRAM FOR CONTROL TRANSFORMER LOW VOLTAGE CONNECTIONS.
4. FIVE BLOODS ARE OPTIONAL.

COMPONENT LEGEND

COMPONENT LEGEND

COMPONENT LEGEND

WIRE CODE



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

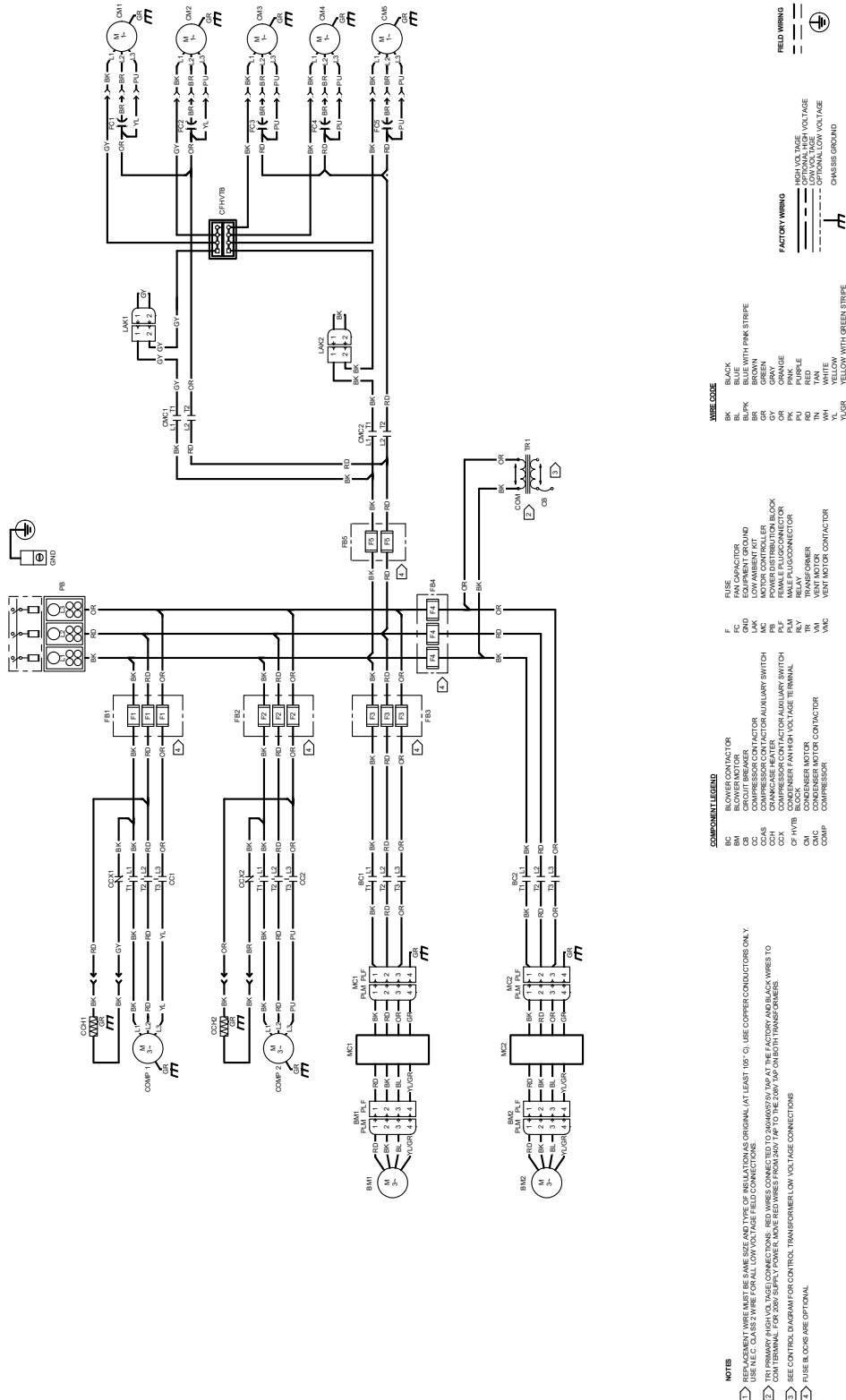
TH.

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

POWER WIRING DIAGRAM

LINE VOLTAGE:

LINE VOLTAGE:
208-230/460/575V/3PH/60HZ



NOTES

1. REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (AT LEAST 105° C). USE COPPER CONDUCTORS ONLY. USE NEC CLASS 5 WIRE FOR ALL LOW VOLTAGE FIELD CONNECTIONS.
2. TRI-PHASE HIGH VOLTAGE CONNECTIONS: RED WIRES CONNECTED TO 240KV/507V TAP AT THE FACTORY AND BLACK WIRES TO CONTROL TERMINAL. FOR 20KV SUPPLY POWER, MOVE RED WIRES FROM 240V TAP TO THE 20KV TAP ON BOTH TRANSFORMERS.
3. SEE CONTROL DIAGRAM FOR CONTROL TRANSFORMER LOW VOLTAGE CONNECTIONS.
4. FUSE BLOCKS ARE OPTIONAL.

COMPONENT I LEGEND

- [illegible]

WIRE CODE

- BK BLACK
 BL BLUE
 BL/PK BLUE WITH PINK STRIPE
 BR BROWN
 GR GREEN
 GY GRAY
 OR ORANGE
 PK PINK
 PU PURPLE
 RD RED
 TN TAN
 WH WHITE
 YL YELLOW
 YL/GR YELLOW WITH GREEN STRIPE
 YL/PK YELLOW WITH PINK STRIPE

FACTORY WIRING

- FACTORY WIRING
- HIGH VOLTAGE
OPTIONAL HIGH VOLTAGE
LOW VOLTAGE
OPTIONAL LOW VOLTAGE
CHASSIS GROUND

FIELD WIRING

- — — — — HIGH VOLTAGE
— — — — — LOW VOLTAGE
⊕ EARTH GROUND



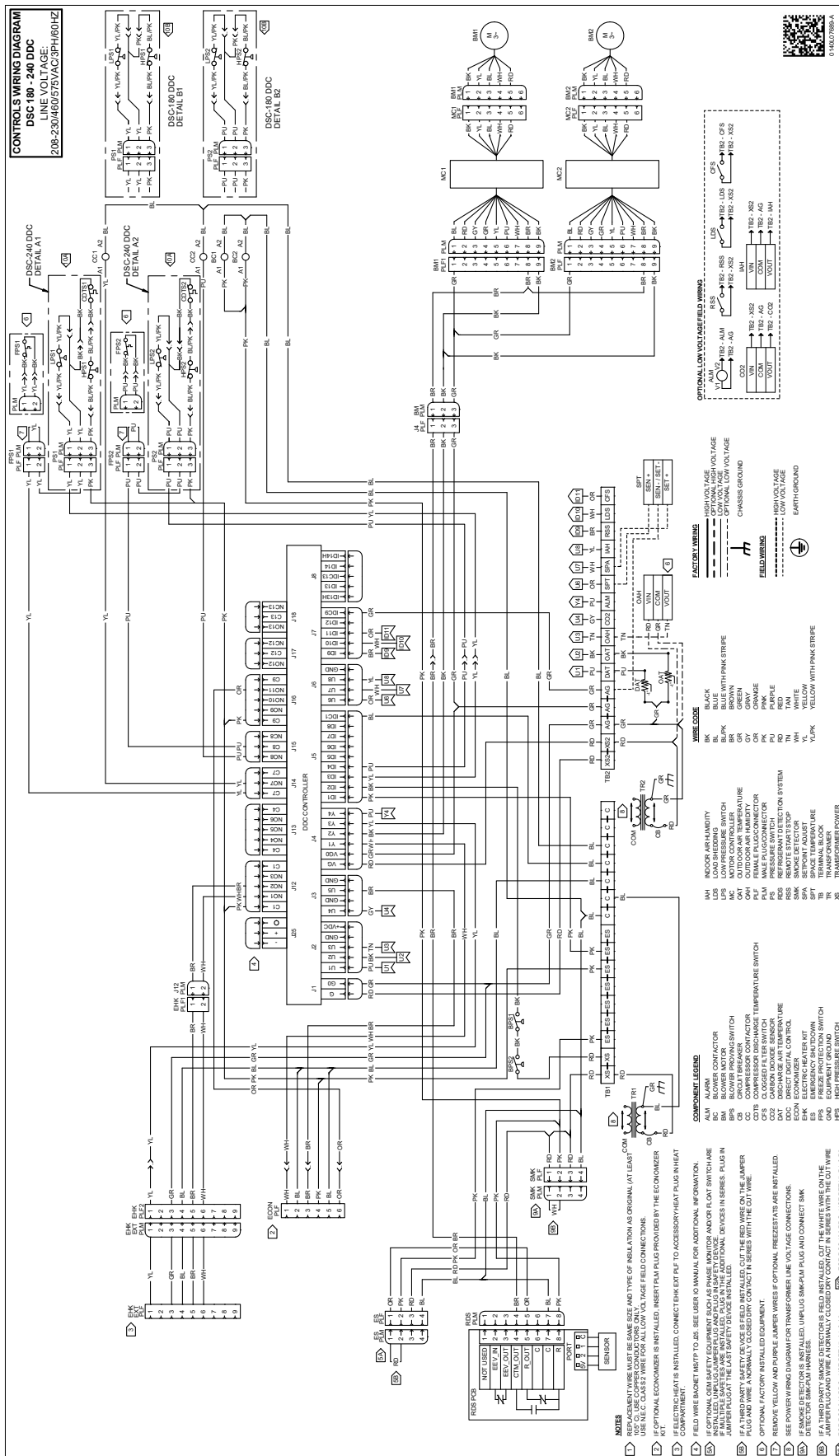
WIRING DIAGRAMS

DSC 180-240 DDC

WARNING

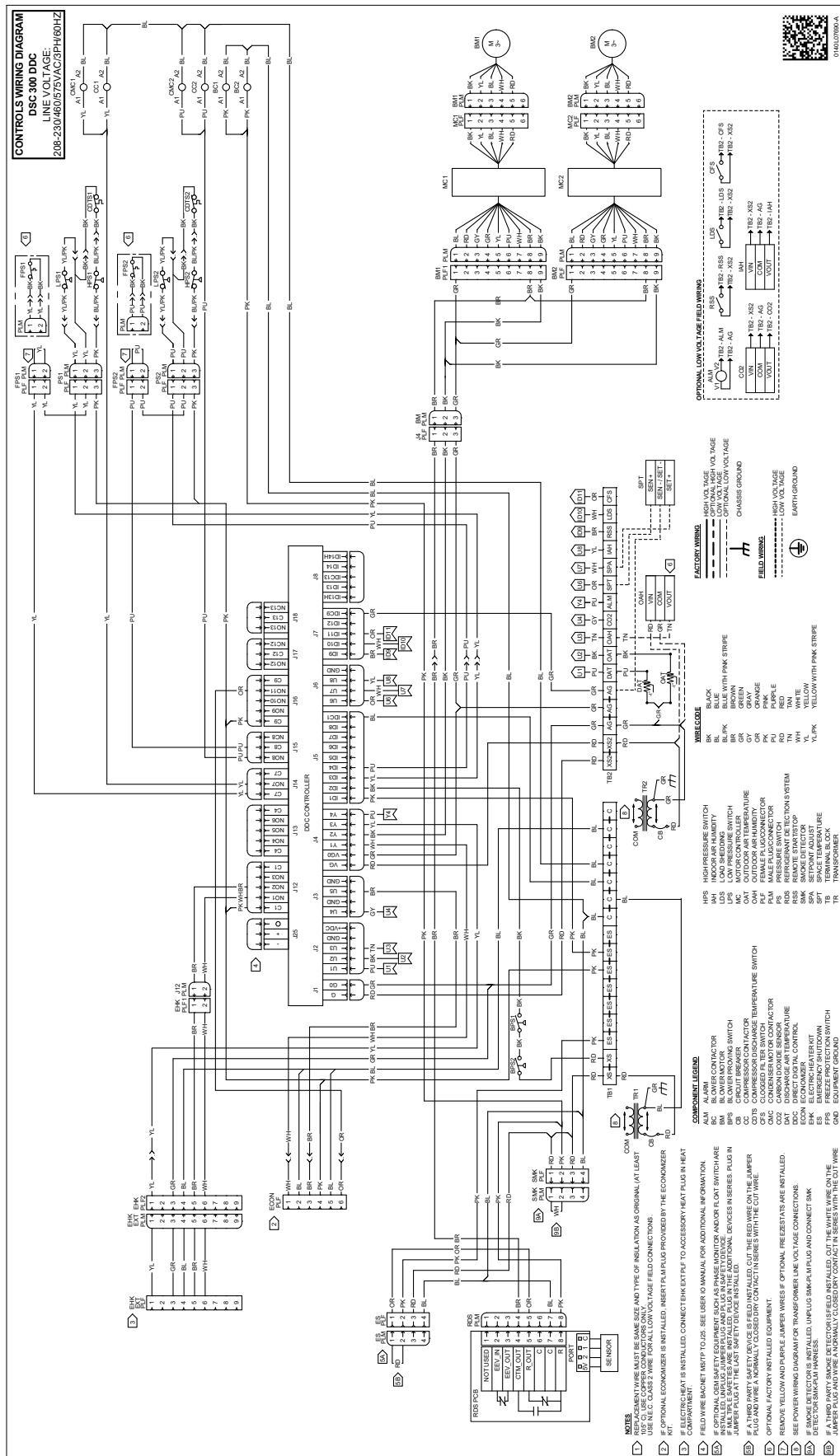
HIGH VOLTAGE!

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Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

**HIGH VOLTAGE!
DISCONNECT ALL
UNIT. MULTIPLE
DO SO MAY CAU**

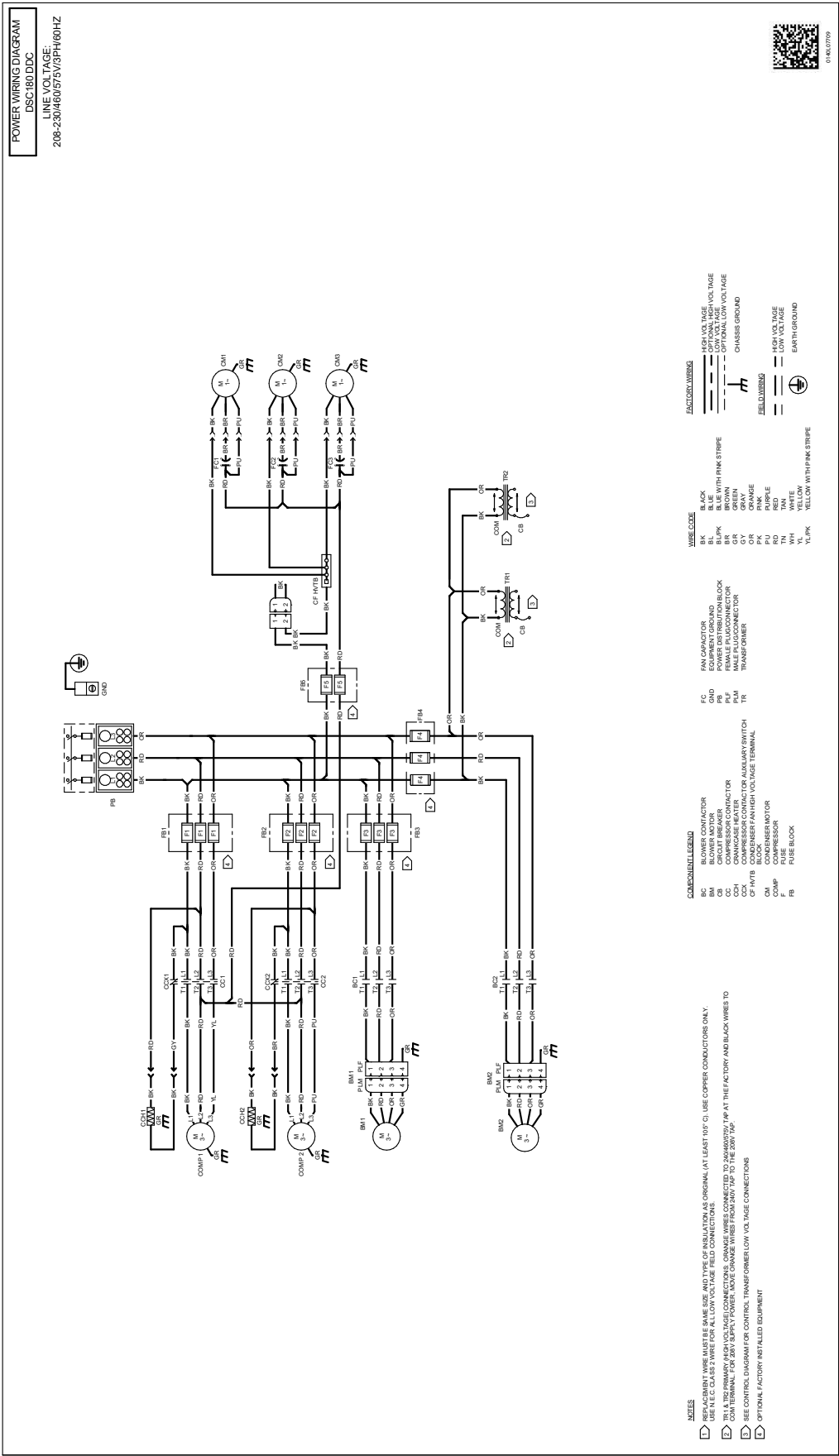


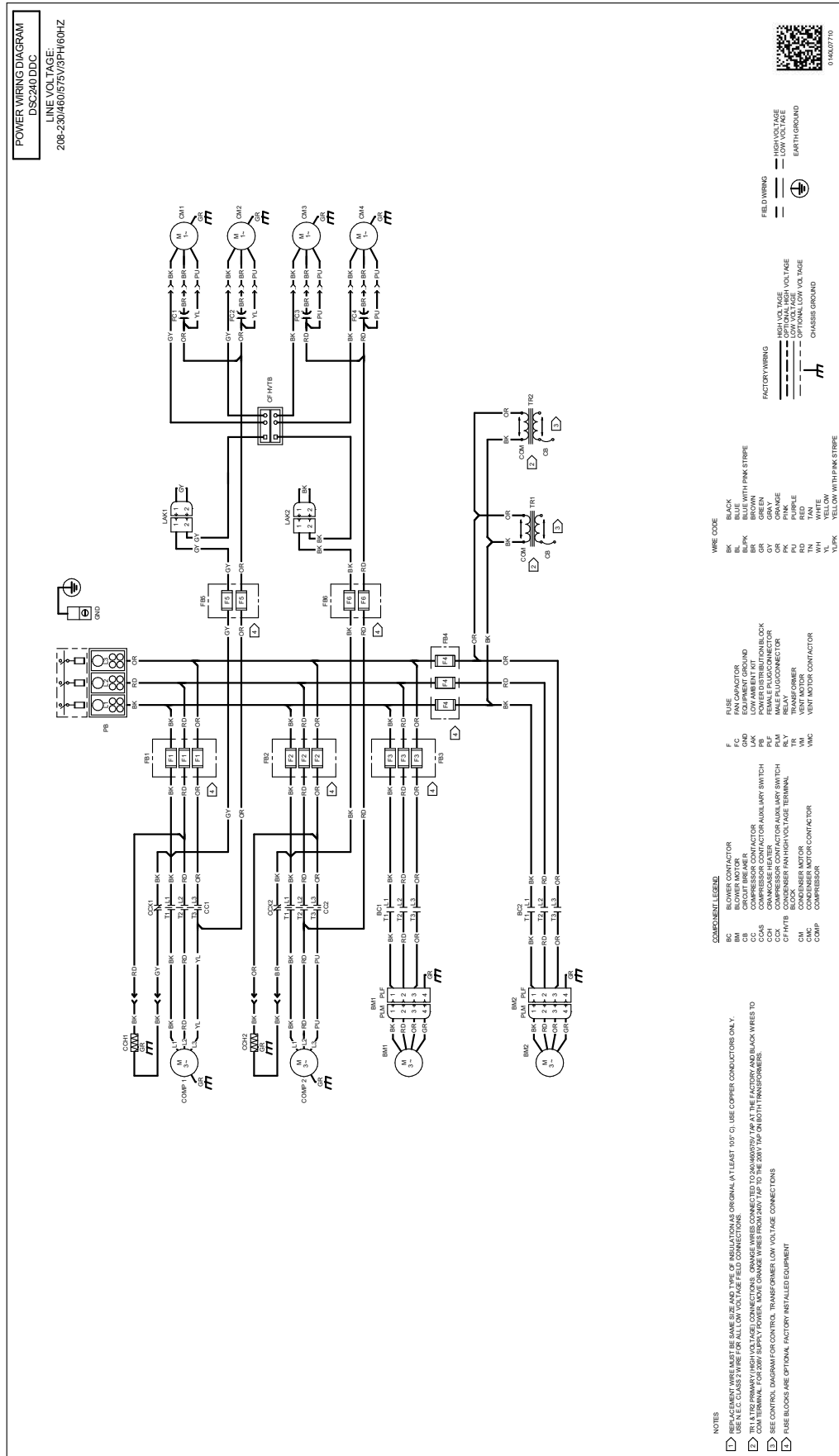
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

**WARNING**



HIGH VOLTAGE!
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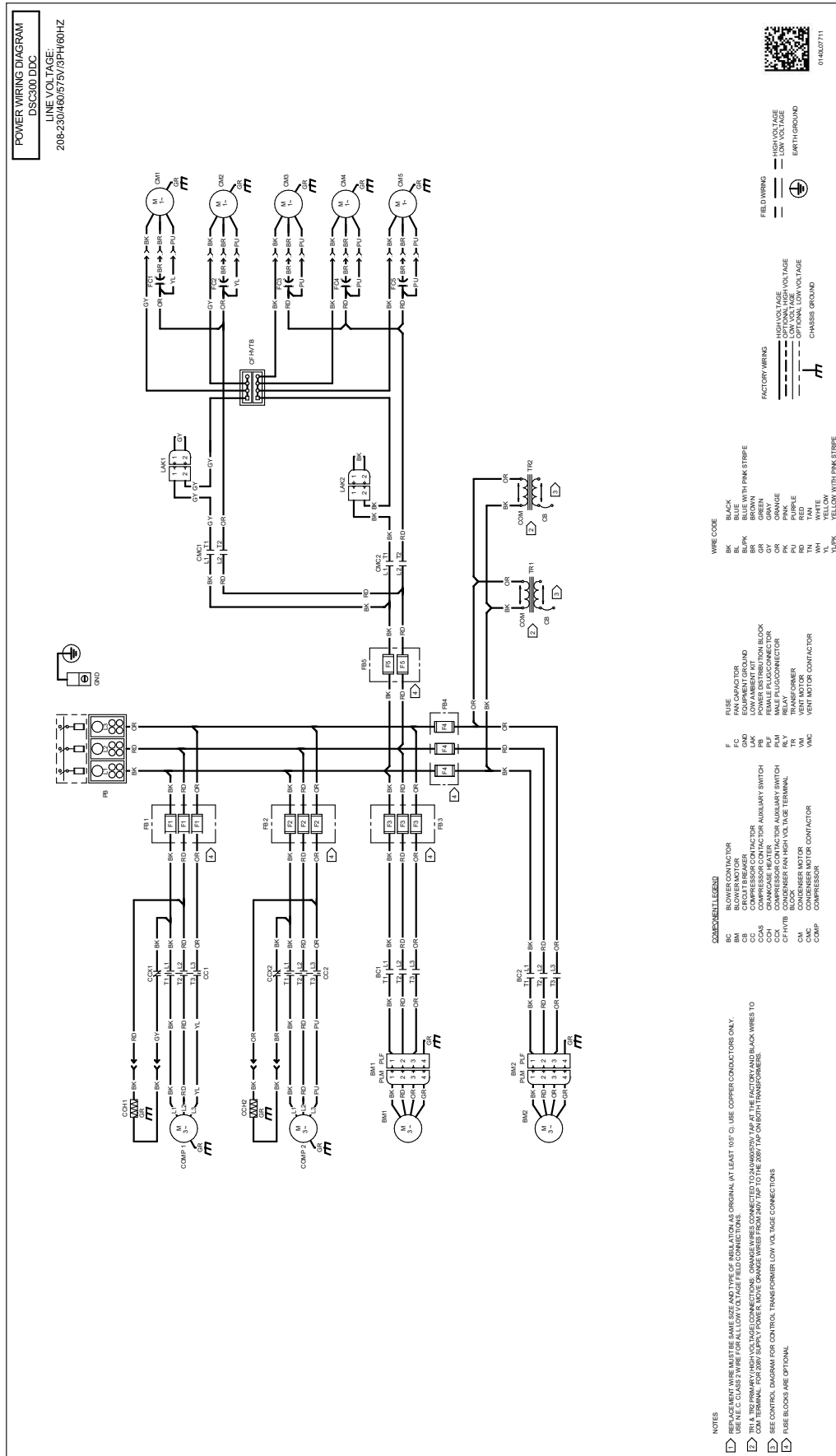


Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

WARNING



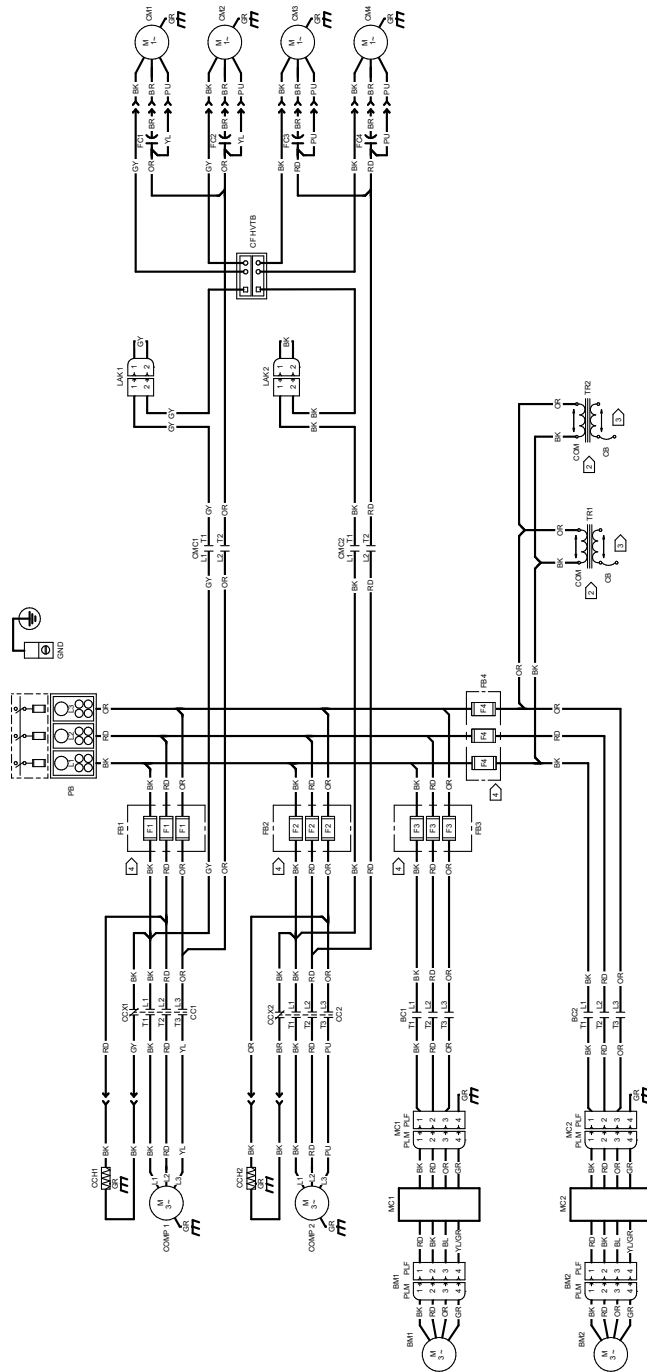
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

POWER WIRING DIAGRAM DSH180 & 240 HEAT PUMP

LINE VOLTAGE:
208/230/460/575/3PH/60HZ



- NOTES**
- 1 REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (AT LEAST 105°F C). USE COPPER CONDUCTORS ONLY.
 - 2 USE N.E.C. CLASS 2 WIRE FOR ALL LOW VOLTAGE FIELD CONNECTIONS.
 - 3 A MINIMUM OF TWO WIRE BUNDLES MUST BE USED FOR ALL WIRING. WIRE BUNDLES MUST BE IDENTIFIED BY A MINIMUM 1/4" AP AT THE FACTORY AND BLACK WIRE TO GROUND TERMINAL FOR LOW SUPPLY POWER. NOTE: CHANCE WIRE FROM ANY JAP TO THE LOW VOLTAGE.
 - 4 SEE CONTROL DIAGRAM FOR CONTROL, TRANSFORMER, LOW VOLTAGE CONNECTIONS.
 - 5 FUSE BLOCKS ARE OPTIONAL FACTORY INSTALLED EQUIPMENT.

COMPONENT LEGEND

BC BLOWER CONTACTOR
CB COMPRESSOR CONTACTOR
CC CONDENSER CONTACTOR
CCX COMPRESSOR CONTACTOR AUXILIARY SWITCH
CFC FUSE
CFCX FUSE
CFCX1 FUSE
CFCX2 FUSE
CFCX3 FUSE
CFCX4 FUSE
CFCX5 FUSE
CFCX6 FUSE
CFCX7 FUSE
CFCX8 FUSE
CFCX9 FUSE
CFCX10 FUSE
CFCX11 FUSE
CFCX12 FUSE
CFCX13 FUSE
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CFCX100 FUSE

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F92 FUSE
F93 FUSE
F94 FUSE
F95 FUSE
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F97 FUSE
F98 FUSE
F99 FUSE
F100 FUSE

WIRE CODE

BLACK
BROWN
BLUE
GRAY
ORANGE
RED
PURPLE
WHITE
YELLOW

BLACK WITH PINK STRIPE
GRAY WITH PINK STRIPE
RED WITH PINK STRIPE
PURPLE WITH PINK STRIPE
WHITE WITH PINK STRIPE
YELLOW WITH PINK STRIPE

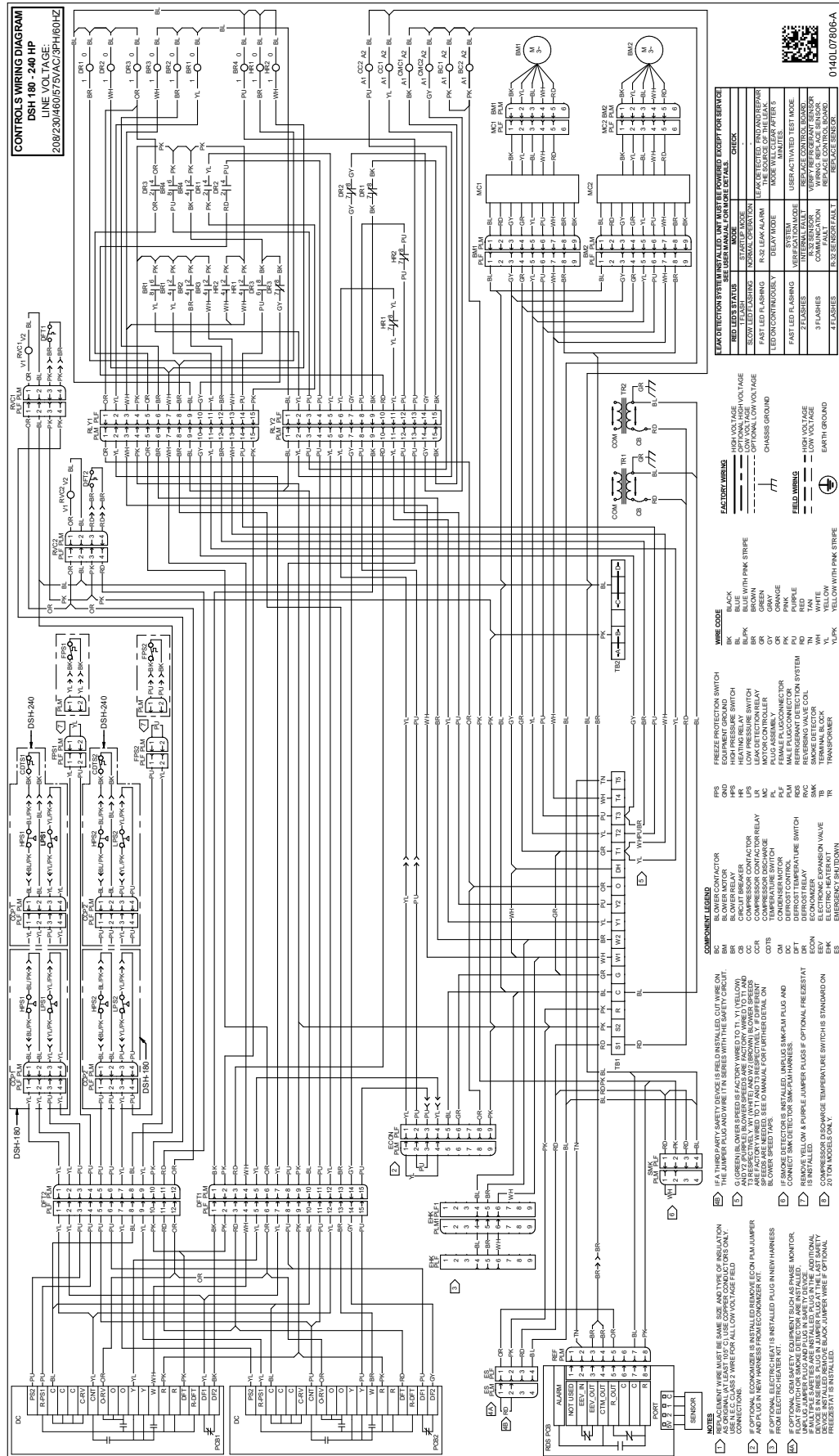
FACTORY WIRING

HIGH VOLTAGE
LOW VOLTAGE
OPTIONAL LOW VOLTAGE
CHASSIS GROUND
EARTH GROUND



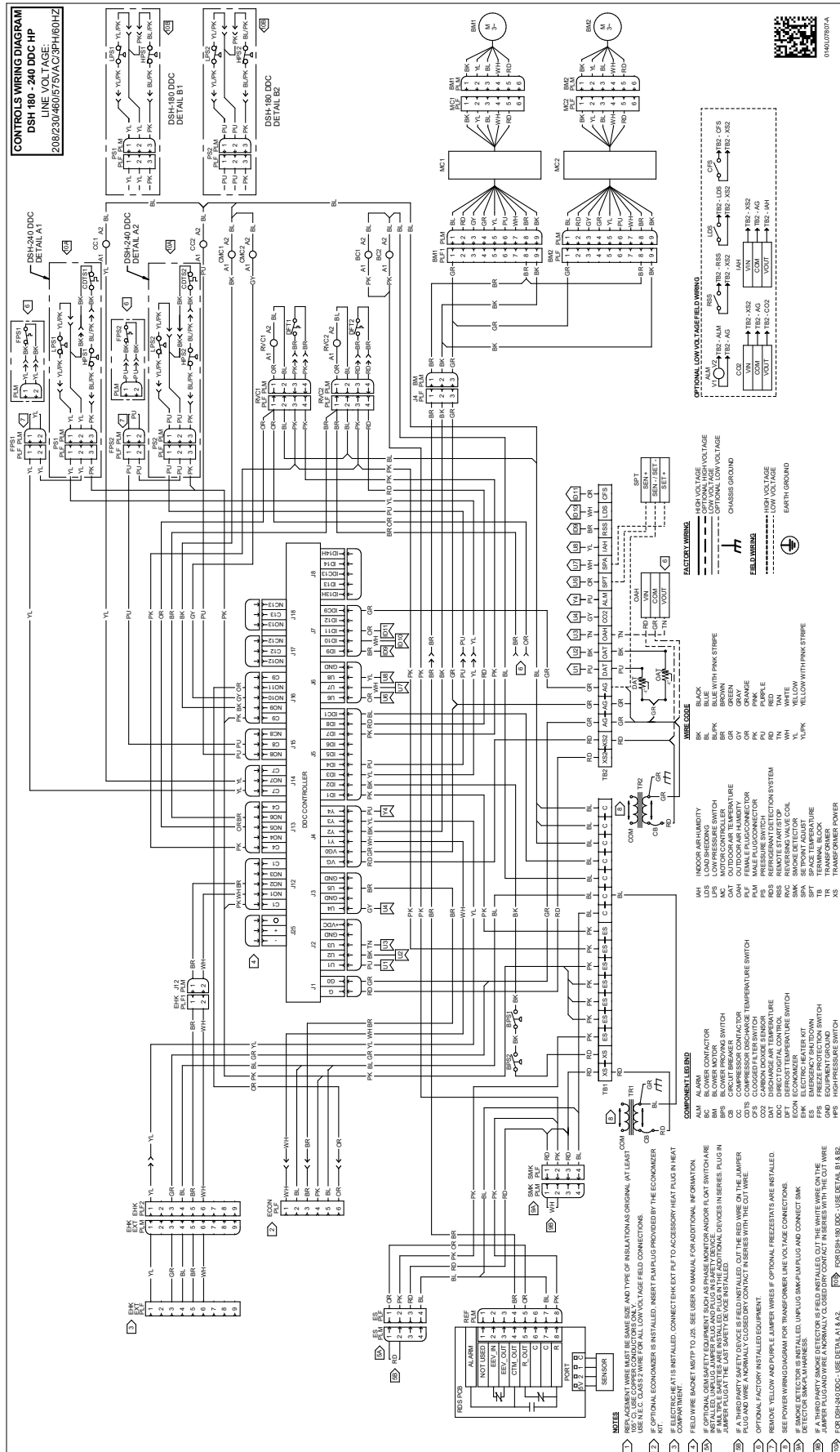
**HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS
UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO
DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.**

WARNING



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



Start-up Checklist

**Store in job file*

Date:	_____	Location:	_____
Model Number:	_____		_____
Serial Number:	_____		_____
Technician:	_____	Unit #:	_____

Pre Start-Up

(Check each item as completed)

- ☐ Verify all packaging material has been removed.
- ☐ Remove all shipping brackets per installation instructions.
- ☐ Verify the job site voltage agrees with the unit serial plate.
- ☐ Verify condensate connection is installed per installation instructions.
- ☐ Verify proper clearance around the unit for safety, service, maintenance and proper unit operation.
- ☐ Verify proper weatherproofing of all ductwork, roof curbs and electrical connections.
- ☐ Check to ensure that all fans are secure.
- ☐ Check refrigerant piping for rubbing and leaks. *Repair if necessary.*
- ☐ Check unit wiring to ensure it is not in contact with refrigerant piping or sharp metal edges.
- ☐ Check all electrical connections and terminals. *Tighten as needed.*
- ☐ Verify that the crankcase heaters have been energized for 24 hours.
- ☐ Verify the scroll compressor(s) are rotating in the right direction.
- ☐ Verify all accessories are installed and operating correctly.
- ☐ Check filters and replace if necessary.
- ☐ Verify the installation of the thermostat.
- ☐ Verify the connection and location of defrost switches on the OD coils in heat pump models.
- ☐ Verify the connection of discharge temperature switches on 20T AC/GE, 20T HP, and 25T AC/GE models.



Start-up Checklist

Start-Up

(Insert the values as each item is completed.)

ELECTRICAL

Supply Voltage	L1 - L2	_____	L2 - L3	_____	L3 - L1	_____
Circuit 1 Compressor Amps	L1	_____	L2	_____	L3	_____
Circuit 2 Compressor Amps	L1	_____	L2	_____	L3	_____
Blower Amps	L1	_____	L2	_____	L3	_____
Condenser Fan Amps	Fan 1	_____	Fan 2	_____	Fan 3	_____

BLOWER EXTERNAL STATIC PRESSURE

Return Air Static Pressure	_____	IN. W.C.
Supply Air Static Pressure	_____	IN. W.C.
Total External Static Pressure	_____	IN. W.C.
Blower Wheel RPM	_____	RPM

TEMPERATURES

Outdoor Air Temperature	_____	DB	_____	WB
Return Air Temperature	_____	DB	_____	WB
Cooling Supply Air Temperature	_____	DB	_____	WB
Heating Supply Air Temperature	_____	DB	_____	

PRESSURES

Gas Inlet Pressure	N/A	IN. W.C.		
Gas Manifold Pressure	N/A	IN. W.C. (Low Fire)	N/A	IN. W.C. (High Fire)
Suction Circuit 1	_____	PSIG	_____	°F
Superheat (Orifice System)			_____	°F
Suction Circuit 2	_____	PSIG	_____	°F
Superheat (Orifice System)			_____	°F
Discharge Circuit 1	_____	PSIG	_____	°F
Subcooling (TXV System)			_____	°F
Discharge Circuit 2	_____	PSIG	_____	°F
Subcooling (TXV System)			_____	°F

(HEAT PUMP ONLY)

Suction Circuit 1	_____	PSIG	_____	°F
Suction Circuit 2	_____	PSIG	_____	°F
Discharge Circuit 1	_____	PSIG	_____	°F
Discharge Circuit 2	_____	PSIG	_____	°F

CUSTOMER FEEDBACK

Daikin is very interested in all product comments.

Please fill out the feedback form on the following link:

<https://daikincomfort.com/contact-us>

You can also scan the QR code on the right to be directed to the feedback page.



Our continuing commitment to quality products may mean a change in specifications without notice.

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19001 Kermier Rd. Waller, TX 77484

www.daikincomfort.com