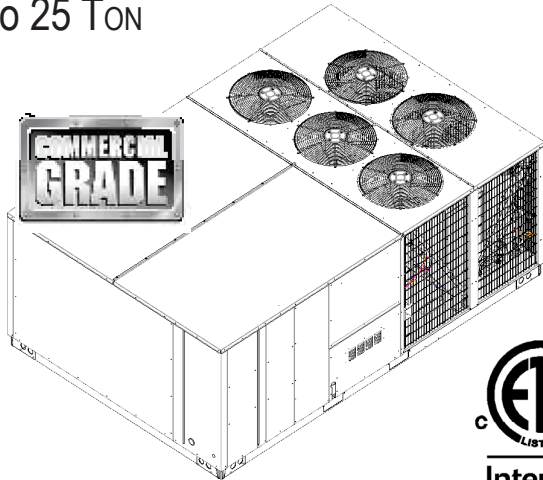


DFC SERIES

PACKAGED HEATING AND COOLING UNIT 15 to 25 Ton



NOTE: 25 ton model shown in picture.
20 ton model has 4 fans
15 ton 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.



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 CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY HAVE BEEN GIVEN SUPERVISION OR INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.

CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE 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

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



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SAFETY INSTRUCTIONS

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.

**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 DESIGN 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**

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**

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.

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.

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

EQUIPMENT SUPPORT
DAIKIN NORTH AMERICA LLC
19001 KERMIER ROAD
WALLER, TEXAS 77484
855-DAIKIN-1

GENERAL INFORMATION

For complete information and installation instructions for models with DDC controls, see manual DK-DDC-TGD-XXX.

**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**. This unit should be installed in a manner so that it is **NOT** accessible to the 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 models. Specification sheets can be found at www.daikinac.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, all local building codes and ordinances.

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.

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.

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.

UNIT LOCATION

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

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

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: Units are vertical supply and return 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.
- The flue outlet hood must be at least three feet above any forced air inlet located within ten feet. The economizer/manual fresh air intake/motorized fresh air intake and combustion air inlet mounted on the unit are not affected by this restriction.
- 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.

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.

ROOF TOP 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.
- As indicated on the unit data plate, a minimum clearance of 36" to any combustible material is required on the furnace access side of the unit. All combustible materials must be kept out of this area.
- This 36" clearance must also be maintained to insure proper combustion air and flue gas flow. The combustion air intake and furnace flue discharge must not be blocked for any reason, including blockage by snow.
- 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.

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.

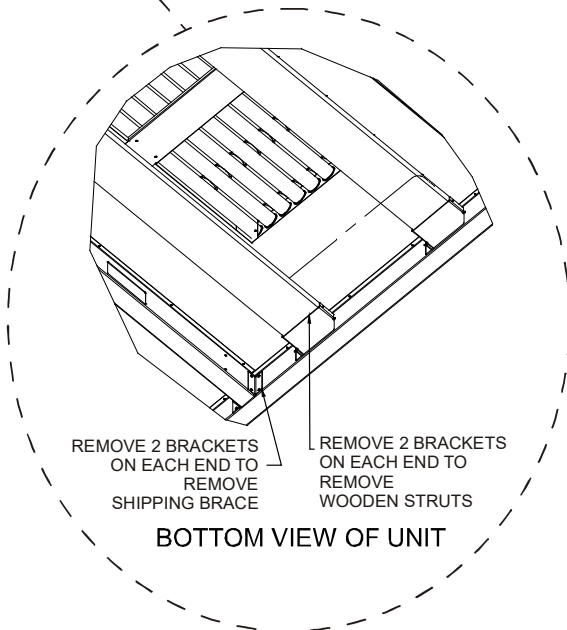
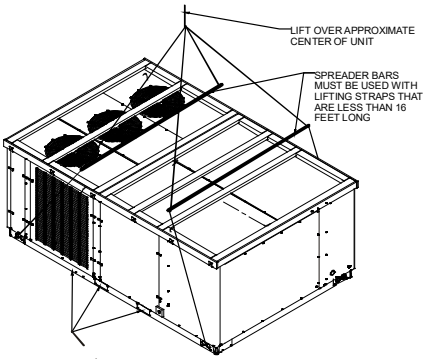
Please follow the instructions below to remove brace.



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.

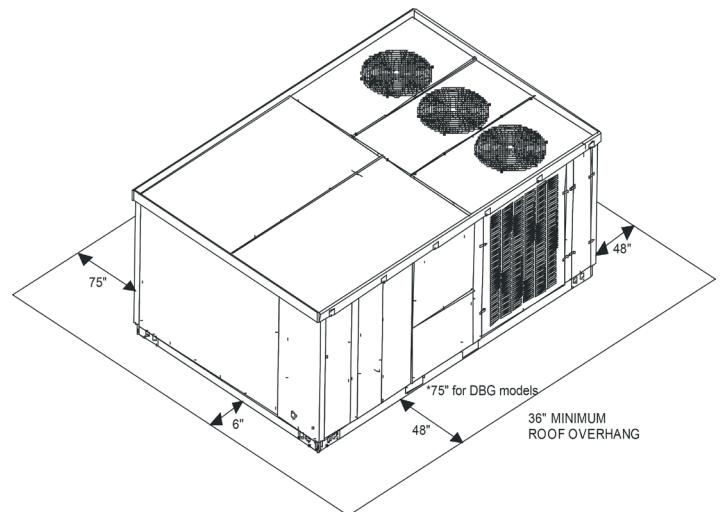
The curbs must be supported on parallel sides by roof members. The roof members must not penetrate supply and return duct opening areas as damage to the unit might occur.

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 SUPERCEDE INFORMATION SHOWN.	

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

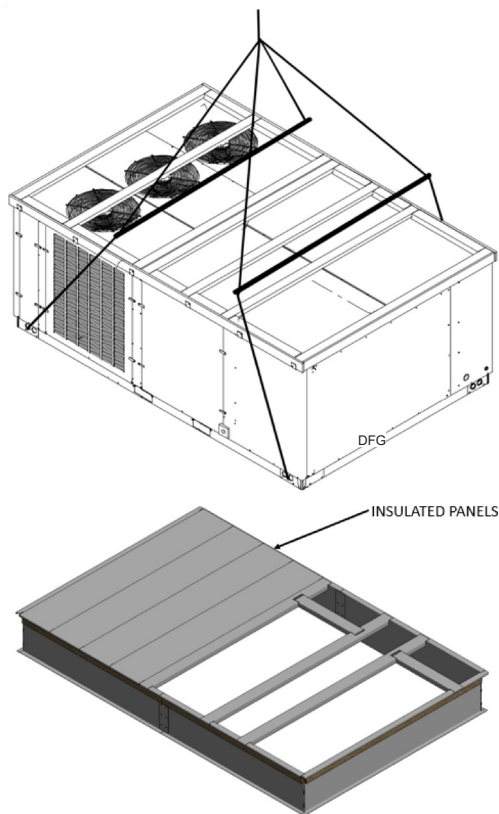
CLEARANCES



**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, shaft, wheel replacement and coil removal. *DFG ONLY - A 75" clearance on the service is required for removal of the gas heat exchanger. 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. INFORMATION SHOWN.

ROOF TOP DUCT CONNECTIONS

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

NOTE: If duct is to be fasten to the roof curb the fasteners need to be installed horizontally to allow the unit to be set flat on the curb.

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

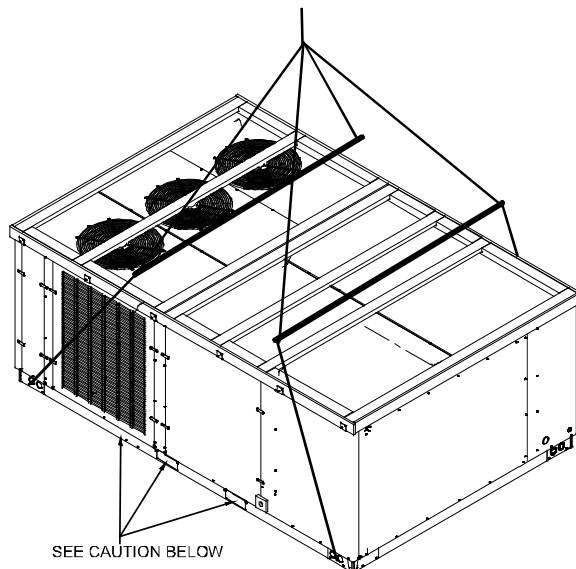
TO PREVENT POSSIBLE EQUIPMENT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, THE FOLLOWING BULLET POINTS MUST BE OBSERVED WHEN INSTALLING THE UNIT.

- 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: 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.

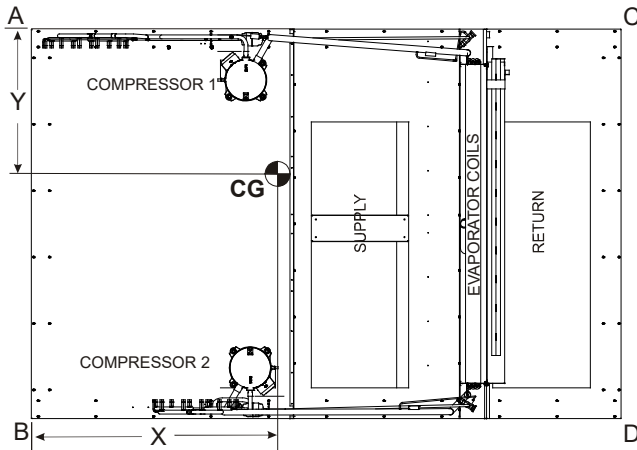




CAUTION

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	DFC Weights (lbs)		
	15T	20T	25T
Corner Weight - A	486	580	446
Corner Weight - B	410	380	499
Corner Weight - C	395	437	621
Corner Weight - D	433	596	517
Unit Shipping Weight	1839	2108	2198
Unit Operating Weight	1724	1993	2083
X (Inches)	69.31	64.23	60.50
Y (Inches)	43.09	43.15	42.98

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.

ELECTRICAL WIRING



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.



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 AND 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.

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. 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 230V 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.



CAUTION

TO AVOID PROPERTY DAMAGE OR PERSONAL INJURY DUE TO FIRE, USE ONLY COPPER CONDUCTORS.



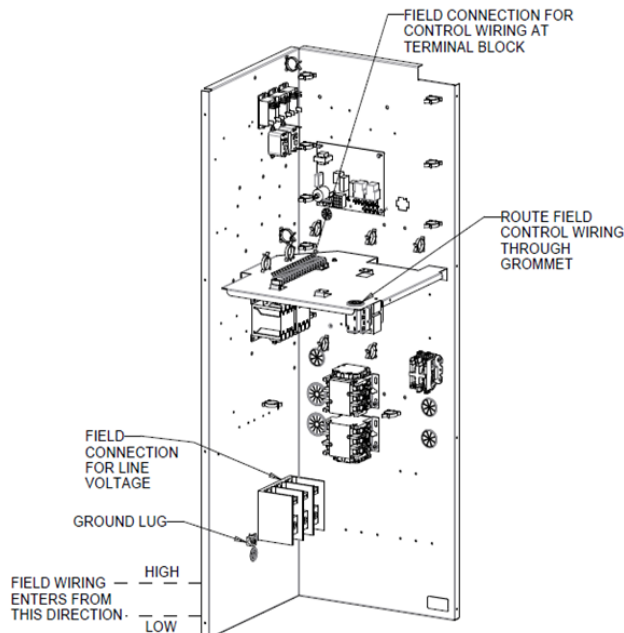
CAUTION

TO PREVENT IMPROPER AND DANGEROUS OPERATION DUE TO WIRING ERRORS, LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. VERIFY PROPER OPERATION AFTER SERVICING.

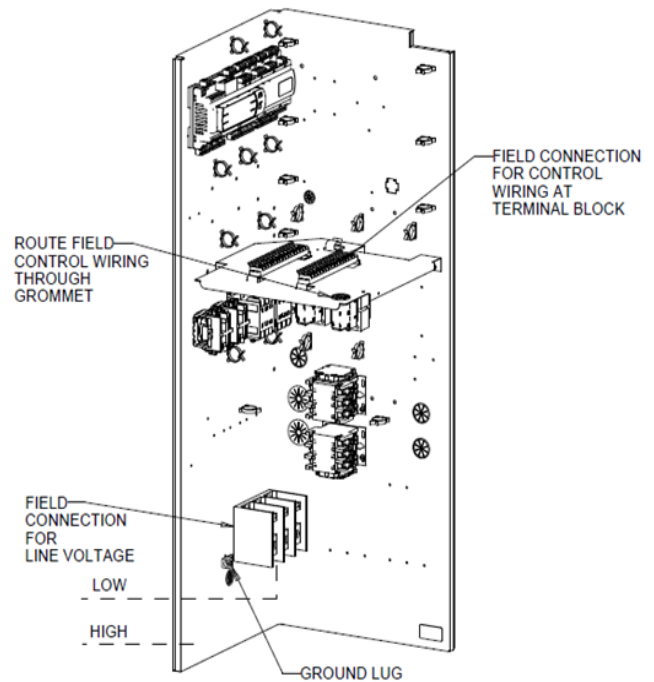
NOTE: A weather-tight disconnect switch, properly sized for the unit total load must be field or factory installed. An external field supplied disconnect may be mounted on the exterior panel. Switch shall be provided to ensure all-pole disconnect from the supply mains.

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.

AREAS WITHOUT CONVENIENCE OUTLET

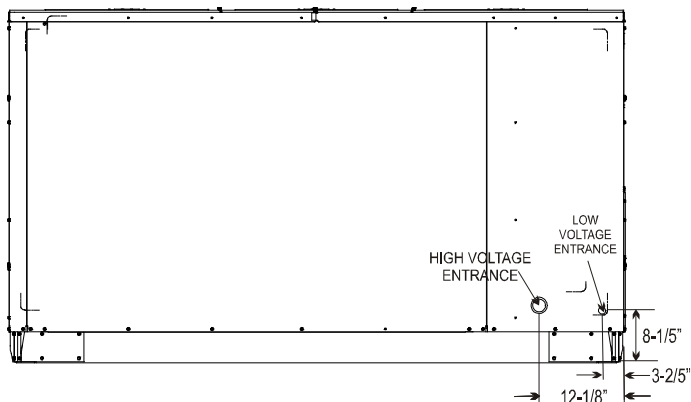
It is recommended that an independent 115V power source be brought to the vicinity of the roof top unit for portable lights and tools used by the service mechanic.

NOTE: Refer to local codes for requirements. These outlets can also be factory installed.

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.



ELECTRICAL ENTRANCE LOCATIONS

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

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.

CIRCULATING AIR AND FILTERS

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.

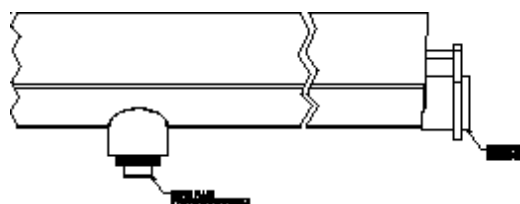
Ductwork dimensions are shown in the roof curb installation manual.

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

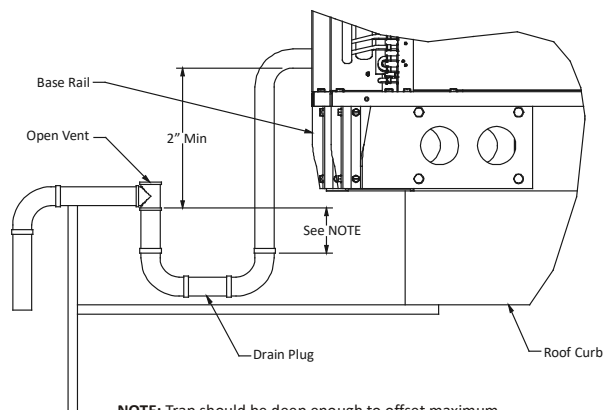
CONDENSATE DRAIN CONNECTION

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 extrnal 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 connection use pipe sealer.

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.

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.

STARTUP, ADJUSTMENTS, AND 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 TEST HAVE BEEN PERFORMED.	

	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.	

HEATING STARTUP

On new installations, or if a major component has been replaced, the operation of the unit must be checked.

Check unit operation as outlined in the following instructions. If any sparking, odors, or unusual sounds are encountered, shut off electrical power and recheck for wiring errors, or obstructions in or near the blower motors.

The Startup, Adjustments, and Checks procedure provides a step-by-step sequence which, if followed, will assure the proper startup of the equipment in the minimum amount of time. Air balancing of duct system is not considered part of this procedure. However, it is an important phase of any air conditioning system startup and should be performed upon completion of the Startup, Adjustments, and Checks procedure. The Startup, Adjustments, and Checks procedure at outside ambients below 55°F should be limited to a readiness check of the refrigeration system with the required final check and calibration left to be completed when the outside ambient rises above 55°F.

TEMPORARY HEATING OR COOLING

If the unit is to be used for temporary heating or cooling, a "Startup, Adjustments, and Checks" must first be performed in accordance with this manual. Damage or repairs due to failure to comply with these requirements are not covered under the warranty. **After** the machines are used for temporary heating or cooling, inspect the coils, fans, and motors for unacceptable levels of construction dust and dirt and install new filters.

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, hot water or steam line connections, 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.

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.

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. Retighten if necessary. Re-tighten all electrical connections.

FIELD DUCT CONNECTIONS

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

FILTER SECTION CHECK

Remove filter section access panels and check that filters are properly installed. Note airflow arrows on filter frames.

PRE-STARTUP PRECAUTIONS

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 C Electrical Data.

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

Nameplate Voltage - That 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%.

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.

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.

- 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.

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.

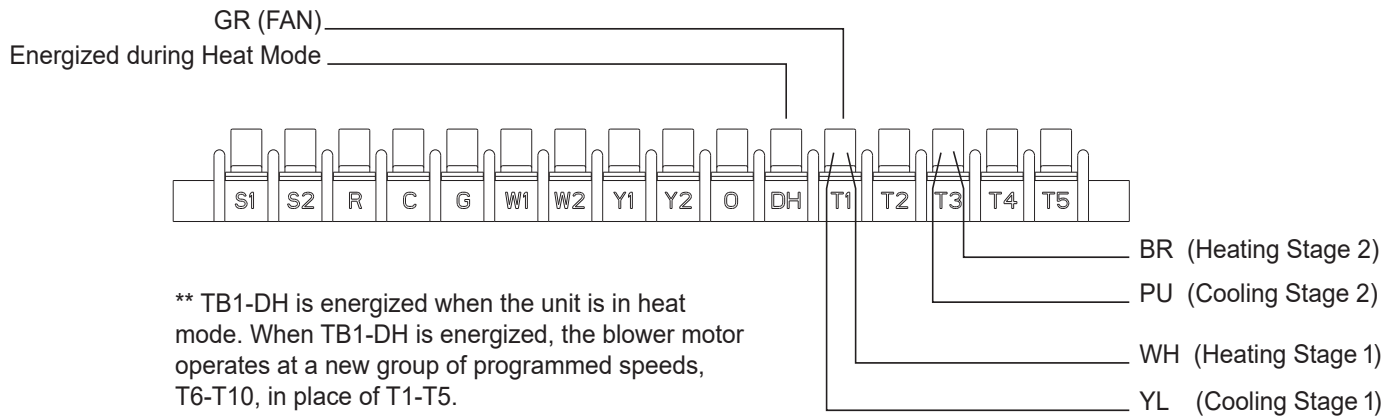
High Heat W2, Brown (BR) is movable and set to TB1-T8.

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.



- 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)

DFC/DFG OPERATION and WIRE RANGE CHART

DFC/DFG 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							● →					
Heating Mode HI	X			X	X									● →		

X= 24V Signal

● → = Range of AVAILABLE TAPS

For wire color information and placement, view DFC/DFG Model Wiring

ELECTRICAL INPUT CHECK

Make preliminary check of evaporator fan ampere draw and verify that motor nameplate amps are not exceeded. A final check of amp draw should be made upon completion of air balancing of the duct system (see Appendix B).

REFRIGERATION SYSTEM

The unit is equipped with a thermal expansion valve as a metering device.

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°db / 67°wb) and outdoor (95°db).

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.

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:

- a. Liquid Line Pressure = 417 PSI
- b. Corresponding Temp. = 120°F
- c. 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:

- a. Suction Pressure = 143 PSI
- b. Corresponding Temp. = 50°F
- c. 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.

SUPERHEAT ADJUSTMENT

NOTE: Superheat adjustments should not be made until indoor ambient conditions have stabilized. This could take up to 24 hours depending on indoor temperature and humidity. Before check-

ing 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 Fixed Orifice Devices

All package units with fixed orifice devices are charged using the superheat method at the compressor suction line. To increase super heat, remove charge and to decrease super heat, add charge. After superheat is adjusted, it is recommended to check unit subcooling at the condenser coil liquid line. See Figure 14: DESIGN SUPERHEAT AND SUBCOOLING table for targets on each model.

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.

Design Superheat & Subcooling					
Model	Circuit	Superheat ± 2°F	Subcooling ± 1°F	Expansion Device	Outdoor Ambient (°F)
DFG180	1	8	14	TXV	95
DFG180	2	8	12	TXV	95
DFG240	1	8	9	TXV	95
DFG240	2	8	6	TXV	95
DFG300	1	10	7	TXV	95
DFG300	2	10	7	TXV	95

NORMAL SEQUENCE OF OPERATION - COOLING

REFRIGERATION SEQUENCE CHECK

With the disconnect switch open, remove the field connected thermostat wire from terminal R on TB1 terminal block. Place a jumper across terminals R and G, and across R and Y on TB1 terminal block. Close the disconnect switch. The following operational sequence should be observed.

1. Current through primary winding of transformer TRANS1 energizes the 24-volt control circuit.
2. To simulate a mechanical call for cooling from the wall thermostat, place a jumper across terminals R and Y1 of terminal block TB1.
3. **UNIT WITH ECONOMIZER OPTION:** The compressor circuit is interlocked through terminals 3 and 4 of the economizer module. If the outdoor air enthalpy (temperature and humidity) is not suitable for cooling, the economizer terminals will be closed permitting compressor to be energized.
4. The blower contactor closes its contacts L1, L2 and L3 to T1, T2 and T3 to provide power to the supply fan motor.
5. Compressor contactor closes its contacts L1, L2 and L3 to T1, T2 and T3 to provide power to the compressor motor COMP 1; COMP 2, if conditions are correct. In addition, contactor C1 closes its contact L3 to T3, energizing the condenser fan motor.



WARNING

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

6. Check that each compressor is operating correctly. The scroll compressors in these units MUST operate in the proper rotation. To ensure the compressors are operating in the correct direction, check the compressor discharge line pressure or temperature after each compressor is started. The discharge pressure and discharge line temperature should increase. If this does not occur and the compressor is producing an exceptional amount of noise, perform the following checks.
 - Ensure all compressors are operating in the proper direction. If a single motor is operating backwards, check the power wiring for that motor and correct any leads that have been interchanged at the contactor or at the motor.

7. With all safety devices closed, the system will continue cooling operation until the thermostat is satisfied.
8. Disconnecting the jumper wire between R and Y1 and Y2 and between R and G on TB1 terminal block will simulate a satisfied thermostat. The compressors will cycle off and IIC (pin 12) will initiate its time delay cycle. The compressor and the supply fan will cycle off.
9. After a time delay of approximately 3 minutes, the compressor control circuits will be ready to respond to a subsequent call for cooling from the wall thermostat.
10. Open disconnect switch. Reconnect the field thermostat wire at terminal R on terminal block TB1.

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 OR INSTALLING 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. Examine gas furnaces (see below and the User's Information Manual).
12. Check condenser fans and tighten set screws.

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.

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.

CLEAN OUTSIDE 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 MCHC performance. For every installed Danfoss MCHC, service records must be documented.



CAUTION

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

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 MCHC 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.

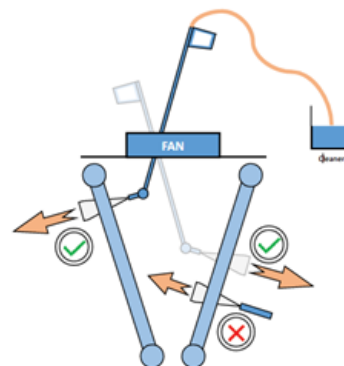


FIGURE 1

Highest pressure of cleaning equipment shall not exceed 15 bar, 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 water gun 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 shall over 15° (see figure 3).

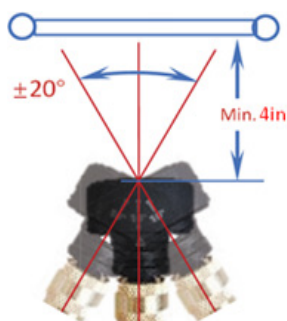


FIGURE 2



FIGURE 3

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 AND VOIDS THE PRODUCT WARRANTY. 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.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - STANDARD

DFC1803D Standard Static						
Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	3198	422	434	0.19	0.20
	0.4	2752	503	498	0.23	0.22
	0.6	2055	609	564	0.27	0.25
	0.8	1372	674	648	0.30	0.29
	1	-	-	-	-	-
	1.2	-	-	-	-	-
T2	0.2	4368	496	509	0.35	0.35
	0.4	3945	567	568	0.39	0.40
	0.6	3374	654	626	0.46	0.44
	0.8	3899	714	696	0.50	0.48
	1	2318	761	751	0.53	0.52
	1.2	1766	791	826	0.55	0.57
T3	0.2	5124	544	558	0.50	0.51
	0.4	4716	609	613	0.56	0.56
	0.6	4222	685	667	0.63	0.61
	0.8	3643	741	728	0.68	0.67
	1	3264	788	778	0.72	0.71
	1.2	2756	827	845	0.76	0.77
T4	0.2	7370	685	705	1.33	1.37
	0.4	7008	733	750	1.43	1.46
	0.6	6703	779	791	1.52	1.54
	0.8	6574	826	829	1.61	1.61
	1	6021	873	868	1.70	1.69
	1.2	5643	928	911	1.80	1.77
T5	0.2	7626	702	722	1.27	1.31
	0.4	7265	749	766	1.36	1.39
	0.6	6970	793	806	1.44	1.46
	0.8	4105	837	843	1.51	1.53
	1	6316	882	881	1.60	1.59
	1.2	5955	936	922	1.69	1.67
T6	0.2	7227	677	695	1.11	1.14
	0.4	6858	726	741	1.19	1.22
	0.6	6540	774	783	1.27	1.29
	0.8	6188	820	823	1.35	1.35
	1	-	-	-	-	-
	1.2	-	-	-	-	-
T7	0.2	7431	690	709	1.19	1.22
	0.4	7065	738	754	1.27	1.30
	0.6	6760	784	795	1.35	1.37
	0.8	6423	829	833	1.43	1.44
	1	6084	875	872	1.51	1.51
	1.2	-	-	-	-	-
T8	0.2	7669	705	724	1.29	1.32
	0.4	7308	751	769	1.37	1.41
	0.6	7016	795	809	1.45	1.48
	0.8	6696	839	846	1.53	1.55
	1	6366	884	883	1.62	1.61
	1.2	6007	938	923	1.71	1.69
T9	0.2	7783	712	732	1.34	1.38
	0.4	7424	758	776	1.42	1.46
	0.6	7138	800	815	1.50	1.53
	0.8	6826	843	851	1.59	1.60
	1	6501	888	888	1.67	1.67
	1.2	6149	942	928	1.77	1.74
T10	0.2	7885	719	739	1.38	1.42
	0.4	7527	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	6620	892	893	1.72	1.72
	1.2	6275	946	932	1.82	1.79

DFC2403D Standard Static						
Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	4426	504	521	0.29	0.30
	0.4	4019	574	579	0.33	0.33
	0.6	3466	660	636	0.38	0.37
	0.8	2911	717	701	0.41	0.40
	1	2424	772	756	0.44	0.43
	1.2	1881	809	825	0.47	0.47
T2	0.2	5830	591	608	0.62	0.64
	0.4	5453	649	659	0.68	0.69
	0.6	5056	711	707	0.75	0.74
	0.8	4597	771	757	0.81	0.80
	1	4141	832	803	0.88	0.85
	1.2	3702	867	861	0.91	0.91
T3	0.2	6929	659	677	0.98	1.00
	0.4	6571	709	724	1.05	1.07
	0.6	6269	756	765	1.12	1.13
	0.8	5883	815	806	1.21	1.19
	1	5461	876	845	1.30	1.25
	1.2	5096	910	895	1.35	1.32
T4	0.2	9133	798	821	2.08	2.14
	0.4	8793	837	860	2.19	2.25
	0.6	8538	871	895	2.28	2.34
	0.8	8286	912	929	2.38	2.43
	1	7991	947	960	2.48	2.51
	1.2	7739	984	992	2.57	2.59
T5	0.2	9371	813	837	2.26	2.33
	0.4	9030	852	875	2.37	2.43
	0.6	8756	888	912	2.47	2.53
	0.8	8516	924	946	2.57	2.63
	1	8245	953	977	2.65	2.71
	1.2	8000	990	1007	2.75	2.80
T6	0.2	7986	725	745	1.42	1.46
	0.4	7641	769	787	1.51	1.54
	0.6	7394	805	824	1.58	1.61
	0.8	7076	860	859	1.68	1.68
	1	-	-	-	-	-
	1.2	-	-	-	-	-
T7	0.2	8329	746	767	1.59	1.64
	0.4	7987	789	808	1.68	1.73
	0.6	7748	823	844	1.76	1.80
	0.8	7450	875	878	1.87	1.87
	1	7096	925	911	1.98	1.95
	1.2	-	-	-	-	-
T8	0.2	8663	768	789	1.78	1.83
	0.4	8323	808	829	1.88	1.92
	0.6	8083	842	865	1.95	2.01
	0.8	7806	890	898	2.06	2.08
	1	7473	935	930	2.17	2.16
	1.2	7204	970	966	2.25	2.24
T9	0.2	9133	798	821	2.08	2.14
	0.4	8793	837	860	2.19	2.25
	0.6	8538	871	895	2.28	2.34
	0.8	8286	912	929	2.38	2.43
	1	7991	947	960	2.48	2.51
	1.2	7739	984	992	2.57	2.59
T10	0.2	9371	813	837	2.26	2.33
	0.4	9030	852	875	2.37	2.43
	0.6	8756	888	912	2.47	2.53
	0.8	8516	924	946	2.57	2.63
	1	8245	953	977	2.65	2.71
	1.2	8000	990	1007	2.75	2.80

NOTES:

High static airflow requires installation of high static kit.

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

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - STANDARD

DFC3003D Standard Static						
Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	5835	605	594	0.57	0.56
	0.4	5496	659	654	0.63	0.62
	0.6	5095	706	736	0.67	0.70
	0.8	4723	757	785	0.72	0.75
	1	4182	836	848	0.79	0.81
	1.2	3784	874	884	0.83	0.84
T2	0.2	7123	669	647	0.91	0.88
	0.4	6801	717	701	0.97	0.95
	0.6	6439	761	761	1.03	1.03
	0.8	6144	808	813	1.10	1.10
	1	5766	864	877	1.17	1.19
	1.2	5416	902	921	1.22	1.25
T3	0.2	8988	809	767	1.66	1.58
	0.4	8693	847	810	1.74	1.67
	0.6	8401	885	843	1.82	1.73
	0.8	8197	923	892	1.90	1.83
	1	7998	954	951	1.96	1.96
	1.2	7722	988	1000	2.03	2.06
T4	0.2	10778	1051	980	3.13	2.92
	0.4	10516	1077	1007	3.21	3.00
	0.6	10323	1106	1027	3.30	3.06
	0.8	10162	1132	1061	3.37	3.16
	1	10002	1152	1097	3.44	3.27
	1.2	9806	1179	1132	3.52	3.38
T5	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
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	2.68	2.40
	0.4	9735	1110	999	2.75	2.47
	0.6	9559	1138	1027	2.82	2.54
	0.8	9379	1162	1056	2.88	2.61
	1	9201	1187	1086	2.94	2.69
	1.2	9006	1212	1120	3.00	2.77
T9	0.2	10398	1123	1008	3.04	2.73
	0.4	10203	1149	1034	3.11	2.80
	0.6	10034	1176	1060	3.18	2.87
	0.8	9863	1199	1087	3.24	2.94
	1	9698	1222	1116	3.30	3.02
	1.2	9516	1245	1147	3.37	3.10
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:

High static airflow requires installation of high static kit.

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

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DFC1803D High Static													
Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2	Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	6622	626	626	0.25	0.25	T6	0.2	8163	925	854	1.33	1.23
	0.4	6195	666	667	0.27	0.27		0.4	7902	953	880	1.37	1.27
	0.6	5791	709	706	0.28	0.28		0.6	7642	979	913	1.41	1.31
	0.8	5392	749	748	0.30	0.30		0.8	7399	1006	944	1.45	1.36
	1	4960	789	792	0.31	0.32		1	7146	1033	976	1.49	1.41
	1.2	4503	836	836	0.33	0.33		1.2	6893	1061	1010	1.53	1.45
	1.4	3515	956	911	0.38	0.36		1.4	6626	1090	1047	1.57	1.51
	1.6	2887	998	978	0.40	0.39		1.6	6349	1122	1082	1.61	1.56
	1.8	2360	1047	1020	0.42	0.41		1.8	6035	1154	1118	1.66	1.61
	2	1807	1082	1067	0.43	0.43		2	5765	1184	1148	1.70	1.65
T2	2.2	1305	1109	1103	0.44	0.44	T7	2.2	5401	1215	1189	1.75	1.71
	0.2	6622	626	626	0.25	0.25		0.2	9129	805	800	2.63	1.63
	0.4	6195	666	667	0.27	0.27		0.4	8806	840	837	2.75	1.71
	0.6	5791	709	706	0.28	0.28		0.6	8519	876	873	2.86	1.78
	0.8	5392	749	748	0.30	0.30		0.8	8224	912	910	2.98	1.86
	1	4960	789	792	0.31	0.32		1	7951	946	942	3.09	1.92
	1.2	4503	836	836	0.33	0.33		1.2	7659	981	977	3.21	1.99
	1.4	3515	956	911	0.38	0.36		1.4	7312	1022	1015	3.34	2.07
	1.6	2887	998	978	0.40	0.39		1.6	6930	1063	1053	3.47	2.15
	1.8	2360	1047	1020	0.42	0.41		1.8	6530	1109	1090	3.62	2.22
T3	2	1807	1082	1067	0.43	0.43	T8	2	6154	1150	1128	3.76	2.30
	2.2	1305	1109	1103	0.44	0.44		2.2	5715	1196	1168	3.91	2.38
	0.2	8201	738	736	0.84	0.84		0.2	9286	816	811	2.67	1.65
	0.4	7841	776	774	0.89	0.88		0.4	8969	851	848	2.78	1.73
	0.6	7516	814	811	0.93	0.93		0.6	8688	886	884	2.90	1.80
	0.8	7185	852	849	0.97	0.97		0.8	8398	923	920	3.02	1.88
	1	6864	887	885	1.01	1.01		1	8132	956	952	3.12	1.94
	1.2	6517	926	923	1.06	1.05		1.2	7849	990	987	3.24	2.01
	1.4	5970	991	973	1.13	1.11		1.4	7530	1028	1022	3.36	2.08
	1.6	5502	1033	1020	1.18	1.16		1.6	7162	1068	1059	3.49	2.16
T4	1.8	5050	1082	1059	1.24	1.21	T9	1.8	6771	1114	1096	3.64	2.23
	2	4609	1122	1101	1.28	1.26		2	6407	1155	1134	3.78	2.31
	2.2	4136	1164	1141	1.33	1.30		2.2	5974	1201	1173	3.93	2.39
	0.2	8778	780	776	1.12	1.12		0.2	9405	825	820	2.70	1.67
	0.4	8441	816	813	1.17	1.17		0.4	9091	860	856	2.81	1.75
	0.6	8141	852	850	1.23	1.22		0.6	8815	894	892	2.92	1.82
	0.8	7832	889	887	1.28	1.28		0.8	8529	930	928	3.04	1.89
	1	7543	924	921	1.33	1.32		1	8268	963	960	3.15	1.96
	1.2	7231	960	957	1.38	1.38		1.2	7991	997	994	3.26	2.03
	1.4	6814	1009	998	1.45	1.44		1.4	7692	1033	1028	3.38	2.10
T5	1.6	6401	1051	1039	1.51	1.50	T10	1.6	7334	1073	1064	3.51	2.17
	1.8	5980	1098	1077	1.58	1.55		1.8	6951	1118	1100	3.65	2.24
	2	5580	1139	1117	1.64	1.61		2	6595	1159	1138	3.79	2.32
	2.2	5126	1184	1157	1.70	1.67		2.2	6168	1205	1177	3.94	2.40
	0.2	9286	816	811	1.40	1.39		0.2	9495	831	826	2.72	1.68
	0.4	8969	851	848	1.46	1.46		0.4	9185	866	862	2.83	1.76
	0.6	8688	886	884	1.52	1.52		0.6	8911	901	898	2.94	1.83
	0.8	8398	923	920	1.58	1.58		0.8	8629	936	934	3.06	1.90
	1	8132	956	952	1.64	1.63		1	8371	969	965	3.17	1.97
	1.2	7849	990	987	1.70	1.69		1.2	8098	1003	999	3.28	2.04
	1.4	7530	1028	1022	1.76	1.75		1.4	7814	1037	1033	3.39	2.11
	1.6	7162	1068	1059	1.83	1.82		1.6	7464	1076	1068	3.52	2.18
	1.8	6771	1114	1096	1.91	1.88		1.8	7086	1121	1104	3.66	2.25
	2	6407	1155	1134	1.98	1.95		2	6737	1162	1141	3.80	2.33
	2.2	5974	1201	1173	2.06	2.01		2.2	6314	1208	1180	3.95	2.41

NOTES:

High static airflow requires installation of high static kit.

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

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DFC2403D High Static													
Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2	Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	6412	631	616	0.71	0.69	T6	0.2	9125	822	779	1.74	1.65
	0.4	6081	683	673	0.77	0.76		0.4	8832	860	821	1.82	1.74
	0.6	5697	729	745	0.82	0.84		0.6	8546	898	852	1.90	1.80
	0.8	5360	778	796	0.88	0.90		0.8	8348	935	901	1.98	1.91
	1	4895	846	859	0.95	0.97		1	8158	964	958	2.04	2.03
	1.2	4519	884	900	1.00	1.01		1.2	7887	998	1007	2.11	2.13
	1.4	4139	927	948	1.04	1.07		1.4	7592	1029	1063	2.18	2.25
	1.6	3635	987	981	1.11	1.10		1.6	7272	1072	1109	2.27	2.35
	1.8	3278	1034	1012	1.16	1.14		1.8	-	-	-	-	-
	2	2968	1070	1043	1.21	1.18		2	-	-	-	-	-
	2.2	2662	1098	1083	1.24	1.22		2.2	-	-	-	-	-
T2	0.2	6797	651	632	0.81	0.79	T7	0.2	9412	852	805	1.91	1.81
	0.4	6471	700	688	0.88	0.86		0.4	9124	888	845	1.99	1.90
	0.6	6099	746	753	0.93	0.94		0.6	8851	925	874	2.08	1.96
	0.8	5784	793	804	0.99	1.00		0.8	8663	960	920	2.15	2.07
	1	5368	855	868	1.07	1.08		1	8490	987	976	2.22	2.19
	1.2	5006	893	911	1.12	1.14		1.2	8232	1020	1024	2.29	2.30
	1.4	4638	934	962	1.17	1.20		1.4	7947	1050	1079	2.36	2.42
	1.6	4160	992	997	1.24	1.25		1.6	7646	1090	1124	2.45	2.52
	1.8	3810	1039	1029	1.30	1.29		1.8	7366	1129	1155	2.53	2.59
	2	3510	1076	1060	1.34	1.33		2	7134	1168	1186	2.62	2.66
	2.2	3192	1106	1099	1.38	1.37		2.2	-	-	-	-	-
T3	0.2	9468	859	811	1.95	1.84	T8	0.2	9695	885	834	2.10	1.98
	0.4	9181	894	850	2.03	1.93		0.4	9412	919	871	2.19	2.07
	0.6	8911	930	878	2.11	1.99		0.6	9153	954	897	2.27	2.13
	0.8	8724	966	925	2.19	2.10		0.8	8974	988	942	2.35	2.24
	1	8554	992	980	2.25	2.22		1	8814	1013	995	2.41	2.37
	1.2	8298	1025	1027	2.33	2.33		1.2	8568	1045	1042	2.48	2.48
	1.4	8015	1054	1082	2.39	2.45		1.4	8293	1073	1095	2.55	2.60
	1.6	7718	1094	1128	2.48	2.56		1.6	8010	1111	1140	2.64	2.71
	1.8	7441	1133	1158	2.57	2.63		1.8	7743	1148	1170	2.73	2.78
	2	7210	1171	1189	2.66	2.70		2	7518	1186	1201	2.82	2.86
	2.2	6884	1209	1218	2.74	2.76		2.2	7200	1223	1229	2.91	2.92
T4	0.2	9881	909	854	2.24	2.11	T9	0.2	9881	909	854	2.29	2.16
	0.4	9602	941	890	2.32	2.20		0.4	9602	941	890	2.38	2.25
	0.6	9353	976	915	2.41	2.26		0.6	9353	976	915	2.46	2.31
	0.8	9179	1008	959	2.49	2.37		0.8	9179	1008	959	2.55	2.42
	1	9025	1032	1009	2.55	2.49		1	9025	1032	1009	2.61	2.55
	1.2	8787	1063	1055	2.62	2.60		1.2	8787	1063	1055	2.68	2.66
	1.4	8519	1090	1107	2.69	2.73		1.4	8519	1090	1107	2.75	2.79
	1.6	8248	1127	1151	2.78	2.84		1.6	8248	1127	1151	2.85	2.91
	1.8	7989	1163	1181	2.87	2.92		1.8	7989	1163	1181	2.94	2.98
	2	7770	1199	1211	2.96	2.99		2	7770	1199	1211	3.03	3.06
	2.2	7460	1237	1239	3.05	3.06		2.2	7460	1237	1239	3.12	3.13
T5	0.2	10268	963	902	2.58	2.41	T10	0.2	10268	963	902	2.58	2.05
	0.4	9996	993	935	2.66	2.50		0.4	9996	993	935	2.66	2.12
	0.6	9769	1025	957	2.74	2.56		0.6	9769	1025	957	2.74	2.17
	0.8	9604	1055	997	2.82	2.67		0.8	9604	1055	997	2.82	2.26
	1	9456	1077	1042	2.88	2.79		1	9456	1077	1042	2.88	2.37
	1.2	9235	1106	1084	2.96	2.90		1.2	9235	1106	1084	2.96	2.46
	1.4	8983	1132	1133	3.03	3.03		1.4	8983	1132	1133	3.03	2.57
	1.6	8736	1164	1175	3.11	3.14		1.6	8736	1164	1175	3.11	2.67
	1.8	8496	1197	1204	3.20	3.22		1.8	8496	1197	1204	3.20	2.73
	2	8288	1232	1233	3.29	3.30		2	8288	1232	1233	3.29	2.80
	2.2	8001	1267	1259	3.39	3.37		2.2	8001	1267	1259	3.39	2.86

NOTES:

High static airflow requires installation of high static kit.

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

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DFC3003D High Static													
Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2	Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	7629	701	674	1.07	1.03	T6	0.2	10268	963	902	2.58	2.41
	0.4	7314	746	725	1.14	1.11		0.4	9996	993	935	2.66	2.50
	0.6	6969	789	777	1.21	1.19		0.6	9769	1025	957	2.74	2.56
	0.8	6701	833	829	1.28	1.27		0.8	9604	1055	997	2.82	2.67
	1	6380	882	892	1.35	1.37		1	9456	1077	1042	2.88	2.79
	1.2	6049	919	939	1.41	1.44		1.2	9235	1106	1084	2.96	2.90
	1.4	5706	956	994	1.46	1.52		1.4	8983	1132	1133	3.03	3.03
	1.6	5285	1010	1035	1.55	1.58		1.6	8736	1164	1175	3.11	3.14
	1.8	4952	1055	1066	1.62	1.63		1.8	8496	1197	1204	3.20	3.22
	2	4673	1094	1098	1.68	1.68		2	8288	1232	1233	3.29	3.30
T2	2.2	4339	1128	1134	1.73	1.74		2.2	8001	1267	1259	3.39	3.37
	0.2	7900	719	690	1.17	1.12	T7	0.2	10626	1022	955	2.95	2.75
	0.4	7588	763	739	1.24	1.20		0.4	10361	1049	984	3.03	2.84
	0.6	7253	805	787	1.31	1.28		0.6	10156	1080	1004	3.11	2.90
	0.8	6999	848	839	1.38	1.37		0.8	9995	1107	1040	3.19	3.00
	1	6706	893	902	1.45	1.47		1	9842	1127	1079	3.25	3.11
	1.2	6386	929	949	1.51	1.55		1.2	9638	1155	1117	3.33	3.22
	1.4	6051	966	1005	1.57	1.64		1.4	9402	1179	1160	3.40	3.35
	1.6	5649	1018	1048	1.66	1.71		1.6	9176	1207	1199	3.48	3.46
	1.8	5322	1063	1079	1.73	1.76		1.8	8958	1236	1227	3.57	3.54
	2	5050	1102	1111	1.79	1.81		2	8760	1269	1255	3.66	3.62
T3	2.2	4712	1137	1146	1.85	1.87		2.2	8502	1302	1280	3.76	3.69
	0.2	9468	859	811	1.95	1.84	T8	0.2	10979	1092	1017	3.41	3.17
	0.4	9181	894	850	2.03	1.93		0.4	10723	1116	1042	3.48	3.25
	0.6	8911	930	878	2.11	1.99		0.6	10544	1144	1062	3.57	3.31
	0.8	8724	966	925	2.19	2.10		0.8	10382	1168	1093	3.65	3.41
	1	8554	992	980	2.25	2.22		1	10209	1190	1123	3.71	3.51
	1.2	8298	1025	1027	2.33	2.33		1.2	10023	1216	1155	3.79	3.60
	1.4	8015	1054	1082	2.39	2.45		1.4	9804	1237	1191	3.86	3.72
	1.6	7718	1094	1128	2.48	2.56		1.6	9598	1261	1225	3.93	3.82
	1.8	7441	1133	1158	2.57	2.63		1.8	9406	1285	1252	4.01	3.91
	2	7210	1171	1189	2.66	2.70	T9	2	9218	1314	1278	4.10	3.99
T4	2.2	6884	1209	1218	2.74	2.76		2.2	9000	1344	1301	4.19	4.06
	0.2	9881	909	854	2.24	2.11		0.2	11348	1185	1101	4.05	3.76
	0.4	9602	941	890	2.32	2.20		0.4	11101	1206	1120	4.11	3.82
	0.6	9353	976	915	2.41	2.26		0.6	10956	1230	1142	4.20	3.90
	0.8	9179	1008	959	2.49	2.37		0.8	10785	1250	1165	4.27	3.97
	1	9025	1032	1009	2.55	2.49		1	10567	1275	1183	4.35	4.04
	1.2	8787	1063	1055	2.62	2.60		1.2	10402	1298	1205	4.43	4.11
	1.4	8519	1090	1107	2.69	2.73		1.4	10203	1317	1230	4.49	4.20
	1.6	8248	1127	1151	2.78	2.84		1.6	10015	1335	1257	4.56	4.29
	1.8	7989	1163	1181	2.87	2.92	T10	1.8	9858	1353	1281	4.62	4.37
T5	2	7770	1199	1211	2.96	2.99		2	9682	1376	1305	4.70	4.45
	2.2	7460	1237	1239	3.05	3.06		2.2	9524	1400	1326	4.78	4.52
	0.2	10259	962	901	2.57	2.41		0.2	11679	1301	1205	4.88	4.52
	0.4	9987	992	934	2.65	2.49		0.4	11444	1317	1219	4.94	4.57
	0.6	9759	1024	956	2.73	2.55		0.6	11337	1338	1246	5.02	4.67
	0.8	9594	1054	996	2.81	2.66		0.8	11145	1353	1257	5.07	4.71
	1	9446	1075	1041	2.87	2.78		1	10847	1386	1260	5.20	4.72
	1.2	9224	1105	1084	2.95	2.89		1.2	10703	1405	1267	5.27	4.75
	1.4	8972	1131	1132	3.02	3.02		1.4	10526	1421	1277	5.33	4.79
	1.6	8724	1163	1175	3.11	3.14		1.6	10353	1432	1291	5.37	4.84
	1.8	8484	1196	1203	3.19	3.21		1.8	10238	1441	1313	5.40	4.93
	2	8276	1231	1233	3.29	3.29		2	10074	1457	1333	5.47	5.00
	2.2	7988	1267	1259	3.38	3.36		2.2	10002	1473	1353	5.52	5.07

NOTES:

High static airflow requires installation of high static kit.

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

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DFG1803WL, DFG1804WL, DFG1807WL
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	523	453	29	0.52	0.44	601	577	30	0.52	0.49	679	646	31	0.56	0.53
3900	545	472	29	0.50	0.42	621	586	30	0.52	0.48	695	655	31	0.57	0.53
4200	568	491	30	0.49	0.42	642	597	31	0.53	0.49	713	664	32	0.60	0.56
4500	592	510	31	0.49	0.42	662	608	32	0.55	0.51	730	674	34	0.64	0.59
4800	615	529	32	0.52	0.45	683	620	34	0.60	0.54	749	686	35	0.70	0.64
5100	639	549	33	0.56	0.48	705	633	35	0.66	0.59	768	697	37	0.78	0.71
5400	663	569	35	0.62	0.54	727	647	37	0.74	0.65	788	710	39	0.87	0.79
5700	688	589	37	0.70	0.60	750	661	39	0.83	0.73	808	724	41	0.98	0.88
6000	713	609	39	0.80	0.68	773	677	41	0.94	0.83	829	738	43	1.11	0.99
6300	738	630	41	0.91	0.78	796	693	44	1.07	0.94	851	753	46	1.25	1.11
6600	763	651	44	1.04	0.89	820	710	46	1.22	1.06	873	770	49	1.41	1.25
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
3600	754	733	32	0.63	0.61	820	789	33	0.70	0.68	876	850	35	0.80	0.80
3900	767	739	33	0.65	0.63	831	795	34	0.75	0.73	886	859	36	0.87	0.86
4200	781	746	34	0.70	0.67	842	803	36	0.81	0.78	897	868	38	0.94	0.93
4500	797	753	36	0.76	0.72	855	811	37	0.88	0.85	908	878	39	1.04	1.02
4800	812	762	37	0.84	0.79	868	819	39	0.97	0.93	921	887	41	1.14	1.11
5100	829	771	39	0.93	0.87	882	828	41	1.08	1.02	935	897	44	1.26	1.22
5400	847	782	41	1.03	0.96	898	838	43	1.20	1.12	949	907	46	1.39	1.33
5700	865	793	43	1.16	1.06	914	848	46	1.33	1.24	965	916	48	1.54	1.46
6000	884	805	46	1.30	1.18	932	859	48	1.48	1.37	981	926	51	1.70	1.60
6300	904	817	49	1.45	1.31	950	871	51	1.65	1.51	999	936	54	1.87	1.75
6600	924	831	52	1.62	1.46	969	883	54	1.83	1.66	1017	946	57	2.06	1.90

MODELS: DFG1803WL, DFG1804WL, DFG1807WL
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	783	762	25	0.60	0.57	824	797	26	0.65	0.62	850	845	20	0.32	0.34	928	929	23	0.51	0.53
4500	798	780	25	0.59	0.57	839	812	26	0.64	0.62	876	864	22	0.41	0.43	949	943	25	0.61	0.61
4800	813	794	26	0.57	0.55	854	827	27	0.63	0.61	901	883	24	0.52	0.52	970	958	26	0.71	0.71
5100	786	753	20	0.28	0.29	854	824	23	0.44	0.44	926	903	26	0.63	0.63	991	973	28	0.82	0.81
5400	818	781	22	0.40	0.40	883	848	25	0.57	0.56	950	921	28	0.76	0.74	1011	987	31	0.95	0.93
5700	850	808	25	0.54	0.52	911	872	28	0.71	0.68	973	940	30	0.89	0.86	1031	1002	33	1.08	1.05
6000	880	834	27	0.68	0.65	938	895	30	0.85	0.82	996	958	33	1.04	1.00	1051	1016	35	1.22	1.18
6300	909	859	30	0.83	0.78	965	918	33	1.01	0.96	1019	976	35	1.19	1.14	1070	1031	37	1.38	1.32
6600	938	884	33	0.99	0.93	990	940	35	1.17	1.11	1041	994	38	1.35	1.29	1089	1046	40	1.54	1.48
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	1010	989	26	0.71	0.70	1076	1049	28	0.89	0.87	1124	1092	30	1.04	1.01	1173	1161	33	1.22	1.21
4500	1025	1002	27	0.80	0.78	1088	1060	30	0.99	0.96	1134	1103	32	1.13	1.10	1183	1167	34	1.32	1.31
4800	1041	1015	29	0.90	0.88	1100	1072	32	1.09	1.06	1145	1113	34	1.24	1.21	1193	1173	36	1.43	1.41
5100	1056	1028	31	1.01	0.99	1113	1083	33	1.20	1.17	1157	1124	35	1.36	1.32	1203	1180	38	1.55	1.52
5400	1072	1041	33	1.13	1.10	1125	1094	35	1.33	1.29	1168	1135	37	1.49	1.45	1213	1187	40	1.68	1.65
5700	1088	1054	35	1.27	1.23	1138	1106	37	1.46	1.42	1180	1146	39	1.63	1.58	1224	1194	42	1.82	1.78
6000	1103	1067	37	1.41	1.36	1151	1117	40	1.61	1.56	1192	1156	41	1.78	1.73	1235	1201	44	1.98	1.93
6300	1119	1080	40	1.56	1.51	1164	1128	42	1.76	1.71	1205	1167	44	1.94	1.88	1246	1209	46	2.14	2.08
6600	1135	1093	42	1.73	1.66	1178	1139	44	1.93	1.87	1217	1178	46	2.11	2.04	1257	1217	48	2.32	2.25

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DFG1803DM, DFG1803DH, DFG1804DM, DFG1804DH, DFG1807DM, DFG1807DH
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	523	453	29	0.52	0.44	601	577	30	0.52	0.49	679	646	31	0.56	0.53
3900	545	472	29	0.50	0.42	621	586	30	0.52	0.48	695	655	31	0.57	0.53
4200	568	491	30	0.49	0.42	642	597	31	0.53	0.49	713	664	32	0.60	0.56
4500	592	510	31	0.49	0.42	662	608	32	0.55	0.51	730	674	34	0.64	0.59
4800	615	529	32	0.52	0.45	683	620	34	0.60	0.54	749	686	35	0.70	0.64
5100	639	549	33	0.56	0.48	705	633	35	0.66	0.59	768	697	37	0.78	0.71
5400	663	569	35	0.62	0.54	727	647	37	0.74	0.65	788	710	39	0.87	0.79
5700	688	589	37	0.70	0.60	750	661	39	0.83	0.73	808	724	41	0.98	0.88
6000	713	609	39	0.80	0.68	773	677	41	0.94	0.83	829	738	43	1.11	0.99
6300	738	630	41	0.91	0.78	796	693	44	1.07	0.94	851	753	46	1.25	1.11
6600	763	651	44	1.04	0.89	820	710	46	1.22	1.06	873	770	49	1.41	1.25
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
3600	754	733	32	0.63	0.61	820	789	33	0.70	0.68	876	850	35	0.80	0.80
3900	767	739	33	0.65	0.63	831	795	34	0.75	0.73	886	859	36	0.87	0.86
4200	781	746	34	0.70	0.67	842	803	36	0.81	0.78	897	868	38	0.94	0.93
4500	797	753	36	0.76	0.72	855	811	37	0.88	0.85	908	878	39	1.04	1.02
4800	812	762	37	0.84	0.79	868	819	39	0.97	0.93	921	887	41	1.14	1.11
5100	829	771	39	0.93	0.87	882	828	41	1.08	1.02	935	897	44	1.26	1.22
5400	847	782	41	1.03	0.96	898	838	43	1.20	1.12	949	907	46	1.39	1.33
5700	865	793	43	1.16	1.06	914	848	46	1.33	1.24	965	916	48	1.54	1.46
6000	884	805	46	1.30	1.18	932	859	48	1.48	1.37	981	926	51	1.70	1.60
6300	904	817	49	1.45	1.31	950	871	51	1.65	1.51	999	936	54	1.87	1.75
6600	924	831	52	1.62	1.46	969	883	54	1.83	1.66	1017	946	57	2.06	1.90

MODELS: DFG1803WM, DFG1803WH, DFG1804WM, DFG1804WH, DFG1807WM, DFG1807WH
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	880	825	23	0.64	0.61	967	907	26	0.71	0.68	850	845	20	0.32	0.34	928	929	23	0.51	0.53
4500	906	855	25	0.66	0.62	984	923	28	0.73	0.69	876	864	22	0.41	0.43	949	943	25	0.61	0.61
4800	933	874	28	0.67	0.63	1002	940	30	0.75	0.71	901	883	24	0.52	0.52	970	958	26	0.71	0.71
5100	786	753	20	0.28	0.29	854	824	23	0.44	0.44	926	903	26	0.63	0.63	991	973	28	0.82	0.81
5400	818	781	22	0.40	0.40	883	848	25	0.57	0.56	950	921	28	0.76	0.74	1011	987	31	0.95	0.93
5700	850	808	25	0.54	0.52	911	872	28	0.71	0.68	973	940	30	0.89	0.86	1031	1002	33	1.08	1.05
6000	880	834	27	0.68	0.65	938	895	30	0.85	0.82	996	958	33	1.04	1.00	1051	1016	35	1.22	1.18
6300	909	859	30	0.83	0.78	965	918	33	1.01	0.96	1019	976	35	1.19	1.14	1070	1031	37	1.38	1.32
6600	938	884	33	0.99	0.93	990	940	35	1.17	1.11	1041	994	38	1.35	1.29	1089	1046	40	1.54	1.48
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	1010	989	26	0.71	0.70	1076	1049	28	0.89	0.87	1124	1092	30	1.04	1.01	1173	1161	33	1.22	1.21
4500	1025	1002	27	0.80	0.78	1088	1060	30	0.99	0.96	1134	1103	32	1.13	1.10	1183	1167	34	1.32	1.31
4800	1041	1015	29	0.90	0.88	1100	1072	32	1.09	1.06	1145	1113	34	1.24	1.21	1193	1173	36	1.43	1.41
5100	1056	1028	31	1.01	0.99	1113	1083	33	1.20	1.17	1157	1124	35	1.36	1.32	1203	1180	38	1.55	1.52
5400	1072	1041	33	1.13	1.10	1125	1094	35	1.33	1.29	1168	1135	37	1.49	1.45	1213	1187	40	1.68	1.65
5700	1088	1054	35	1.27	1.23	1138	1106	37	1.46	1.42	1180	1146	39	1.63	1.58	1224	1194	42	1.82	1.78
6000	1103	1067	37	1.41	1.36	1151	1117	40	1.61	1.56	1192	1156	41	1.78	1.73	1235	1201	44	1.98	1.93
6300	1119	1080	40	1.56	1.51	1164	1128	42	1.76	1.71	1205	1167	44	1.94	1.88	1246	1209	46	2.14	2.08
6600	1135	1093	42	1.73	1.66	1178	1139	44	1.93	1.87	1217	1178	46	2.11	2.04	1257	1217	48	2.32	2.25

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DFC1803D, DFC1804D, DFC1807D
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: DFC1803W, DFC1804W, DFC1807W
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	765	758	36	0.76	0.75	761	770	20	1.89	0.54	836	838	22	1.77	0.60	994	948	27	2.26	0.81
4500	764	754	36	0.74	0.73	774	782	21	1.87	0.54	846	847	23	1.76	0.61	990	949	28	2.25	0.82
4800	760	759	36	0.74	0.72	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: DFG2403WL, DFG2404WL, DFG2407WL
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	638	574	31	0.47	0.42	710	648	33	0.59	0.53	774	716	34	0.70	0.65
5200	677	607	33	0.58	0.52	743	676	35	0.71	0.64	743	676	37	0.84	0.77
5600	715	640	36	0.72	0.64	777	704	38	0.85	0.77	777	704	40	0.99	0.91
6000	753	672	39	0.87	0.77	811	733	41	1.02	0.92	811	733	43	1.16	1.06
6400	791	705	42	1.04	0.92	846	762	45	1.20	1.08	846	762	47	1.36	1.24
6800	828	737	46	1.23	1.09	880	791	48	1.40	1.26	880	791	50	1.57	1.43
7200	865	770	50	1.43	1.28	915	821	52	1.63	1.46	915	821	54	1.80	1.63
7600	902	802	54	1.66	1.48	950	852	56	1.87	1.68	950	852	58	2.05	1.86
8000	938	834	58	1.91	1.70	985	883	60	2.13	1.91	985	883	62	2.32	2.10
8400	974	866	62	2.18	1.94	1020	914	65	2.41	2.16	1020	914	67	2.61	2.36
8800	1010	898	66	2.47	2.20	1055	946	69	2.71	2.43	1055	946	72	2.92	2.64
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4800	831	778	36	0.83	0.78	883	831	38	0.96	0.91	933	879	40	1.11	1.05
5200	857	797	39	0.97	0.91	907	849	41	1.12	1.05	956	897	43	1.27	1.20
5600	884	818	42	1.14	1.05	932	868	44	1.29	1.20	980	916	46	1.46	1.36
6000	912	840	45	1.32	1.22	958	888	47	1.48	1.38	1005	936	49	1.66	1.54
6400	940	863	49	1.52	1.40	985	910	51	1.69	1.57	1031	957	53	1.88	1.74
6800	970	888	52	1.74	1.60	1013	934	54	1.92	1.77	1059	979	56	2.11	1.96
7200	1001	914	56	1.98	1.81	1043	958	58	2.17	1.99	1087	1003	60	2.37	2.18
7600	1033	941	60	2.24	2.04	1074	984	62	2.43	2.23	1116	1028	65	2.64	2.43
8000	1066	969	64	2.52	2.29	1106	1011	67	2.72	2.48	1146	1053	69	2.93	2.69
8400	1100	999	69	2.82	2.56	1139	1040	71	3.02	2.75	1177	1080	73	3.23	2.97
8800	1135	1030	74	3.13	2.84										

MODELS: DFG2403WL, DFG2404WL, DFG2407WL
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	881	830	35	0.98	0.93	937	886	36	1.12	1.06	990	947	38	1.26	1.21	1039	1000	39	1.41	1.37
6000	907	849	37	1.11	1.03	960	905	38	1.25	1.18	1012	965	40	1.41	1.35	1060	1016	41	1.57	1.51
6400	934	869	39	1.25	1.16	985	924	40	1.40	1.31	1034	984	42	1.57	1.49	1082	1033	44	1.74	1.66
6800	962	890	41	1.41	1.30	1010	944	43	1.57	1.47	1058	1003	45	1.75	1.66	1104	1050	46	1.93	1.83
7200	991	913	44	1.59	1.47	1037	966	45	1.76	1.64	1083	1023	47	1.95	1.84	1128	1068	49	2.14	2.02
7600	1020	936	47	1.79	1.65	1064	988	48	1.97	1.83	1109	1044	50	2.17	2.03	1152	1087	52	2.36	2.22
8000	1050	960	50	2.02	1.85	1092	1010	51	2.20	2.03	1135	1065	53	2.40	2.24	1178	1106	55	2.60	2.44
8400	1080	986	53	2.26	2.07	1121	1034	54	2.45	2.26	1163	1086	56	2.66	2.47	1204	1126	58	2.86	2.67
8800	1112	1012	56	2.53	2.30	1151	1059	58	2.72	2.50	1191	1108	60	2.93	2.71					
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	1088	1050	41	1.58	1.53	1136	1099	42	1.74	1.69	1182	1143	44	1.91	1.85	1227	1186	46	2.09	2.03
6000	1109	1065	43	1.74	1.68	1156	1113	45	1.91	1.84	1202	1158	46	2.09	2.02	1246	1201	48	2.28	2.20
6400	1130	1081	46	1.92	1.84	1176	1128	47	2.10	2.01	1222	1173	49	2.29	2.20	1265	1216	50	2.48	2.39
6800	1152	1097	48	2.12	2.02	1197	1143	50	2.30	2.20	1243	1188	51	2.50	2.39	1285	1231	53	2.70	2.59
7200	1174	1114	51	2.33	2.22	1219	1159	52	2.52	2.39	1263	1203	54	2.72	2.59	1304	1246	56	2.93	2.80
7600	1198	1132	54	2.56	2.42	1241	1175	55	2.75	2.60	1284	1218	57	2.96	2.81	1323	1261	59	3.17	3.02
8000	1222	1150	57	2.81	2.64	1263	1191	58	3.00	2.83	1305	1234	60	3.21	3.04	1343	1276	62	3.43	3.26
8400	1246	1169	60	3.07	2.88	1286	1208	61	3.27	3.06										
8800																				

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DFG2403DM, DFG2403DH, DFG2404DM, DFG2404DH, DFG2407DM, DFG2407DH

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	638	574	31	0.47	0.42	710	648	33	0.59	0.53	774	716	34	0.70	0.65
5200	677	607	33	0.58	0.52	743	676	35	0.71	0.64	743	676	37	0.84	0.77
5600	715	640	36	0.72	0.64	777	704	38	0.85	0.77	777	704	40	0.99	0.91
6000	753	672	39	0.87	0.77	811	733	41	1.02	0.92	811	733	43	1.16	1.06
6400	791	705	42	1.04	0.92	846	762	45	1.20	1.08	846	762	47	1.36	1.24
6800	828	737	46	1.23	1.09	880	791	48	1.40	1.26	880	791	50	1.57	1.43
7200	865	770	50	1.43	1.28	915	821	52	1.63	1.46	915	821	54	1.80	1.63
7600	902	802	54	1.66	1.48	950	852	56	1.87	1.68	950	852	58	2.05	1.86
8000	938	834	58	1.91	1.70	985	883	60	2.13	1.91	985	883	62	2.32	2.10
8400	974	866	62	2.18	1.94	1020	914	65	2.41	2.16	1020	914	67	2.61	2.36
8800	1010	898	66	2.47	2.20	1055	946	69	2.71	2.43	1055	946	72	2.92	2.64
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4800	831	778	36	0.83	0.78	883	831	38	0.96	0.91	933	879	40	1.11	1.05
5200	857	797	39	0.97	0.91	907	849	41	1.12	1.05	956	897	43	1.27	1.20
5600	884	818	42	1.14	1.05	932	868	44	1.29	1.20	980	916	46	1.46	1.36
6000	912	840	45	1.32	1.22	958	888	47	1.48	1.38	1005	936	49	1.66	1.54
6400	940	863	49	1.52	1.40	985	910	51	1.69	1.57	1031	957	53	1.88	1.74
6800	970	888	52	1.74	1.60	1013	934	54	1.92	1.77	1059	979	56	2.11	1.96
7200	1001	914	56	1.98	1.81	1043	958	58	2.17	1.99	1087	1003	60	2.37	2.18
7600	1033	941	60	2.24	2.04	1074	984	62	2.43	2.23	1116	1028	65	2.64	2.43
8000	1066	969	64	2.52	2.29	1106	1011	67	2.72	2.48	1146	1053	69	2.93	2.69
8400	1100	999	69	2.82	2.56	1139	1040	71	3.02	2.75	1177	1080	73	3.23	2.97
8800	1135	1030	74	3.13	2.84										

MODELS: DFG2403WM, DFG2403WH, DFG2404WM, DFG2404WH, DFG2407WM, DFG2407WH

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	881	830	35	0.98	0.93	937	886	36	1.12	1.06	990	947	38	1.26	1.21	1039	1000	39	1.41	1.37
6000	907	849	37	1.11	1.03	960	905	38	1.25	1.18	1012	965	40	1.41	1.35	1060	1016	41	1.57	1.51
6400	934	869	39	1.25	1.16	985	924	40	1.40	1.31	1034	984	42	1.57	1.49	1082	1033	44	1.74	1.66
6800	962	890	41	1.41	1.30	1010	944	43	1.57	1.47	1058	1003	45	1.75	1.66	1104	1050	46	1.93	1.83
7200	991	913	44	1.59	1.47	1037	966	45	1.76	1.64	1083	1023	47	1.95	1.84	1128	1068	49	2.14	2.02
7600	1020	936	47	1.79	1.65	1064	988	48	1.97	1.83	1109	1044	50	2.17	2.03	1152	1087	52	2.36	2.22
8000	1050	960	50	2.02	1.85	1092	1010	51	2.20	2.03	1135	1065	53	2.40	2.24	1178	1106	55	2.60	2.44
8400	1080	986	53	2.26	2.07	1121	1034	54	2.45	2.26	1163	1086	56	2.66	2.47	1204	1126	58	2.86	2.67
8800	1112	1012	56	2.53	2.30	1151	1059	58	2.72	2.50	1191	1108	60	2.93	2.71					
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	1088	1050	41	1.58	1.53	1136	1099	42	1.74	1.69	1182	1143	44	1.91	1.85	1227	1186	46	2.09	2.03
6000	1109	1065	43	1.74	1.68	1156	1113	45	1.91	1.84	1202	1158	46	2.09	2.02	1246	1201	48	2.28	2.20
6400	1130	1081	46	1.92	1.84	1176	1128	47	2.10	2.01	1222	1173	49	2.29	2.20	1265	1216	50	2.48	2.39
6800	1152	1097	48	2.12	2.02	1197	1143	50	2.30	2.20	1243	1188	51	2.50	2.39	1285	1231	53	2.70	2.59
7200	1174	1114	51	2.33	2.22	1219	1159	52	2.52	2.39	1263	1203	54	2.72	2.59	1304	1246	56	2.93	2.80
7600	1198	1132	54	2.56	2.42	1241	1175	55	2.75	2.60	1284	1218	57	2.96	2.81	1323	1261	59	3.17	3.02
8000	1222	1150	57	2.81	2.64	1263	1191	58	3.00	2.83	1305	1234	60	3.21	3.04	1343	1276	62	3.43	3.26
8400	1246	1169	60	3.07	2.88	1286	1208	61	3.27	3.06										
8800																				

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DFC2403D, DFC2404D, DFC2407D

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: DFC2403W, DFC2404W, DFC2407W

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	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 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

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Optional Power Exhaust	Optional Power Exhaust (Modulating)	Power Supply												
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP											
DFC1803D	208/230/3/60	2	25	164	3	0.33	2	2	3.5	10.9	-	-	-	-	-	-	84.0/84.0	100/100											
											-	-	-	-	4.8	-	88.8/88.8	110/110											
											-	-	-	-	-	-	13.9	97.9/97.9	110/110										
											-	-	-	9.6/8.7	-	-	93.6/92.7	110/110											
											-	-	-	9.6/8.7	4.8	-	98.4/97.5	110/110											
											-	-	-	9.6/8.7	-	13.9	108/107	125/125											
											-	-	-	-	-	-	102/114	110/125											
											-	-	-	-	4.8	-	108/120	110/125											
											-	-	-	-	-	13.9	120/131	125/150											
											EH**-3L30	21.6/28.8	60.0/69.3	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											
														-	-	-	140/157	150/175											
														-	4.8	-	146/163	150/175											
											EH**-3L45	32.5/43.2	90.1/104	-	-	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											
														-	-	-	177/166	200/175											
											EH**-3L60	43.3/57.6	120/139	-	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											
											DFC1803W	208/230/3/60	2	25	164	3	0.33	2	2	5	14.5	-	-	-	-	-	-	91.2/91.2	110/110
-	-	-	-	4.8	-	96.0/96.0	110/110																						
-	-	-	-	-	-	13.9	105/105	125/125																					
-	-	-	9.6/8.7	-	-	101/99.9	125/110																						
-	-	-	9.6/8.7	4.8	-	106/105	125/125																						
-	-	-	9.6/8.7	-	13.9	115/114	125/125																						
EH**-3L30	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																						
EH**-3L45	32.5/43.2	90.1/104	9.6/8.7	-	13.9	141/151	150/175																						
			-	-	-	149/166	150/175																						
			-	4.8	-	155/172	175/175																						
			-	-	13.9	166/184	175/200																						
			9.6/8.7	-	-	161/177	175/200																						
EH**-3L60	43.3/57.6	120/139	9.6/8.7	4.8	-	167/183	175/200																						
			9.6/8.7	-	13.9	178/194	200/200																						
			-	-	-	186/175	200/175																						
			-	4.8	-	192/181	200/200																						
			-	-	13.9	204/192	225/200																						
DFC1804D	460/3/60	2	12.2	100	3	0.33	0.85	2	3.5	7.2												-	-	-	-	-	-	44.4	50
																						-	-	-	-	2.4	-	46.8	50
																						-	-	-	-	-	8.1	52.5	60
																						-	-	-	4.3	-	-	48.7	60
											-	-	-	4.3	2.4	-	51.1	60											
											-	-	-	4.3	-	8.1	56.8	60											
											EH**-4L30	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											
											EH**-4L45	43.2	52	4.3	-	8.1	76.8	80											
														-	-	-	83.0	90											
														-	2.4	-	86.0	90											
														-	-	8.1	93.1	100											
														4.3	-	-	88.3	90											
											EH**-4L60	57.6	69.3	4.3	2.4	-	91.3	100											
														4.3	-	8.1	98.5	100											
														-	-	-	87.3	90											
														-	2.4	-	90.3	100											
														-	-	8.1	97.4	100											
											DFC1804W	460/3/60	2	12.2	100	3	0.33	0.85	2	5	10.6	-	-	-	-	-	-	51.2	60
																						-	-	-	-	2.4	-	53.6	60
																						-	-	-	-	-	8.1	59.3	70
																						-	-	-	4.3	-	-	55.5	60
-	-	-	4.3	2.4	-	57.9	70																						
-	-	-	4.3	-	8.1	63.6	70																						
EH**-4L30	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																						
EH**-4L45	43.2	52	4.3	-	8.1	85.3	90																						
			-	-	-	91.5	100																						
			-	2.4	-	94.5	100																						
			-	-	8.1	102	110																						
			4.3	-	-	96.8	100																						
EH**-4L60	57.6	69.3	4.3	2.4	-	99.8	100																						
			4.3	-	8.1	107	110																						
			-	-	-	95.8	100																						
			-	2.4	-	98.8	100																						
			-	-	8.1	106	110																						
EH**-4L60	57.6	69.3	4.3	-	-	101	110																						
			4.3	2.4	-	104	110																						
			4.3	-	-	111	125																						
			-	-	-	111	125																						
			-	-	-	111	125																						

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Optional Power Exhaust	Optional Power Exhaust (Modulating)	Power Supply												
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP											
DFC1807D	575/3/60	2	9	78	3	0.33	0.67	2	3.5	5	-	-	-	-	-	-	32.2	40											
											-	-	-	-	2	-	34.2	40											
											-	-	-	-	-	-	8.3	40.5	45										
											-	-	-	3.5	-	-	35.7	40											
											-	-	-	3.5	2	-	37.7	45											
											-	-	-	3.5	-	8.3	44.0	50											
											-	-	-	-	-	-	47.1	50											
											-	-	-	-	2	-	49.6	50											
											-	-	-	-	-	8.3	57.5	60											
											-	-	-	3.5	-	-	51.5	60											
											-	-	-	3.5	2	-	54.0	60											
											-	-	-	3.5	-	8.3	61.9	70											
											-	-	-	-	-	-	64.5	70											
											-	-	-	-	2	-	67.0	70											
											-	-	-	-	-	8.3	74.8	80											
											-	-	-	3.5	-	-	68.8	70											
											-	-	-	3.5	2	-	71.3	80											
											-	-	-	3.5	-	8.3	79.2	80											
											-	-	-	-	-	-	67.9	70											
											-	-	-	-	2	-	70.4	80											
											-	-	-	-	-	8.3	78.3	80											
											-	-	-	3.5	-	-	72.3	80											
											-	-	-	3.5	2	-	74.8	80											
											-	-	-	3.5	-	8.3	82.7	90											
DFC1807W	575/3/60	2	9	78	3	0.33	0.67	2	5	7.2	-	-	-	-	-	-	36.6	45											
											-	-	-	-	2	-	38.6	45											
											-	-	-	-	-	8.3	44.9	50											
											-	-	-	3.5	-	-	40.1	45											
											-	-	-	3.5	2	-	42.1	50											
											-	-	-	3.5	-	8.3	48.4	50											
											-	-	-	-	-	-	52.6	60											
											-	-	-	-	2	-	55.1	60											
											-	-	-	-	-	8.3	63.0	70											
											-	-	-	3.5	-	-	57.0	60											
											-	-	-	3.5	2	-	59.5	60											
											-	-	-	3.5	-	8.3	67.4	70											
											-	-	-	-	-	-	70.0	70											
											-	-	-	-	2	-	72.5	80											
											-	-	-	-	-	8.3	80.3	90											
											-	-	-	3.5	-	-	74.3	80											
											-	-	-	3.5	2	-	76.8	80											
											-	-	-	3.5	-	8.3	84.7	90											
											-	-	-	-	-	-	73.4	80											
											-	-	-	-	2	-	75.9	80											
											-	-	-	-	-	8.3	83.8	90											
											-	-	-	3.5	-	-	77.8	80											
											-	-	-	3.5	2	-	80.3	90											
											-	-	-	3.5	-	8.3	88.2	90											
											DFC2403D	208/230/3/60	2	28.2	240	4	0.5	2.7	2	3.5	10.9	-	-	-	-	-	-	96.1/96.1	110/110
																						-	-	-	-	4.8	-	101/101	125/125
																						-	-	-	-	-	13.9	110/110	125/125
																						-	-	-	9.6/8.7	-	-	106/105	125/125
																						-	-	-	9.6/8.7	4.8	-	110/110	125/125
																						-	-	-	9.6/8.7	-	13.9	120/119	125/125
-	-	-	-	-	-	102/114	110/125																						
-	-	-	-	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																						
-	-	-	-	-	-	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																						
-	-	-	-	-	-	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																						
-	-	-	-	-	-	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																						
DFC2403W	208/230/3/60	2	28.2	240	4	0.5	2.7	2	5	14.5	-	-	-	-	-	-	103/103	125/125											
											-	-	-	-	4.8	-	108/108	125/125											
											-	-	-	-	-	13.9	117/117	125/125											
											-	-	-	9.6/8.7	-	-	113/112	125/125											
											-	-	-	9.6/8.7	4.8	-	118/117	125/125											
											-	-	-	9.6/8.7	-	13.9	127/126	150/150											
											-	-	-	-	-	-	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											
											-	-	-	-	-	-	149/166	150/175											
											-	-	-	-	4.8	-	155/172	175/175											
											-	-	-	9.6/8.7	-	13.9	166/184	175/200											
											-	-	-	9.6/8.7	4.8	-	161/177	175/200											
											-	-	-	9.6/8.7	-	-	167/183	175/200											
											-	-	-	9.6/8.7	-	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

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APPENDIX B ELECTRICAL DATA

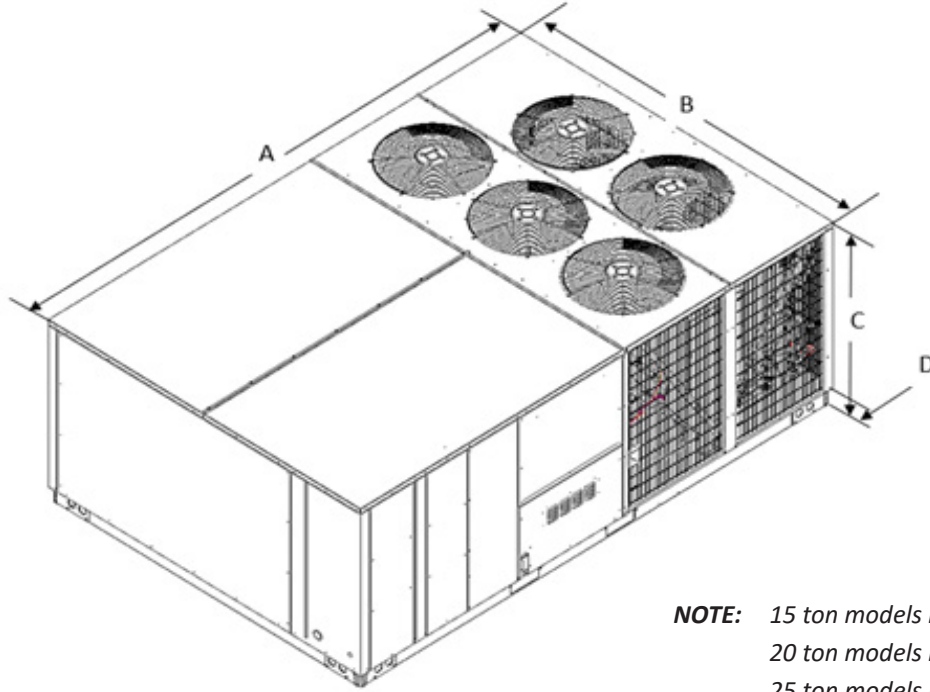
Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Optional Power Exhaust	Optional Power Exhaust (Modulating)	Power Supply														
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP													
DFC3003D	208/230/3/60	2	48.1	245	5	0.5	2.7	2	5	14.5	-	-	-	-	-	-	151/151	175/175													
											-	-	-	-	4.8	-	-	155/155	200/200												
											-	-	-	-	-	-	13.9	-	165/165	200/200											
											-	-	-	9.6/8.7	-	-	-	160/159	200/200												
											-	-	-	9.6/8.7	4.8	-	-	165/164	200/200												
											-	-	-	9.6/8.7	-	-	13.9	-	174/173	200/200											
											EH**-3L30	21.6/28.8	60.0/69.3	-	-	-	-	-	151/151	175/175											
														-	4.8	-	-	155/155	200/200												
														-	-	-	13.9	-	165/165	200/200											
														9.6/8.7	-	-	-	160/159	200/200												
														9.6/8.7	4.8	-	-	165/164	200/200												
														9.6/8.7	-	13.9	-	174/173	200/200												
											EH**-3L45	32.5/43.2	90.1/104	-	-	-	-	-	151/166	175/175											
														-	4.8	-	-	155/172	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												
														9.6/8.7	-	13.9	-	178/194	200/200												
											EH**-3L60	43.3/57.6	120/139	-	-	-	-	-	186/175	200/175											
														-	4.8	-	-	192/181	200/200												
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														9.6/8.7	-	-	-	204/192	225/200												
														9.6/8.7	4.8	-	-	198/186	200/200												
														9.6/8.7	-	-	-	204/192	225/200												
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														-	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												
											DFC3003W	208/230/3/60	2	48.1	245	5	0.5	2.7	2	5	14.5	-	-	-	-	-	-	151/151	175/175		
																						-	-	-	-	4.8	-	-	155/155	200/200	
																						-	-	-	-	-	-	13.9	-	165/165	200/200
																						-	-	-	9.6/8.7	-	-	-	160/159	200/200	
																						-	-	-	9.6/8.7	4.8	-	-	165/164	200/200	
																						-	-	-	9.6/8.7	-	-	13.9	-	174/173	200/200
EH**-3L30	21.6/28.8	60.0/69.3	-	-	-	-	-	151/151	175/175																						
			-	4.8	-	-	155/155	200/200																							
			-	-	-	13.9	-	165/165	200/200																						
			9.6/8.7	-	-	-	160/159	200/200																							
			9.6/8.7	4.8	-	-	165/164	200/200																							
			9.6/8.7	-	13.9	-	174/173	200/200																							
EH**-3L45	32.5/43.2	90.1/104	-	-	-	-	-	151/166	175/175																						
			-	4.8	-	-	155/172	200/200																							
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EH**-3L60	43.3/57.6	120/139	-	-	-	-	-	186/175	200/175																						
			-	4.8	-	-	192/181	200/200																							
			-	-	-	13.9	-	192/181	200/200																						
			9.6/8.7	-	-	-	204/192	225/200																							
			9.6/8.7	4.8	-	-	198/186	200/200																							
			9.6/8.7	-	-	-	204/192	225/200																							
EH**-3L75	54.1/72.0	150/173	-	-	-	-	-	186/209	200/225																						
			-	4.8	-	-	192/215	200/225																							
			-	-	-	13.9	-	204/227	225/250																						
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			9.6/8.7	4.8	-	-	204/226	225/250																							
			9.6/8.7	-	13.9	-	216/238	225/250																							
DFC3004D	460/3/60	2	18.6	125	5	0.5	1.4	2	5	10.6												-	-	-	-	-	-	70.0	80		
																						-	-	-	-	2.4	-	-	72.4	90	
																						-	-	-	-	-	-	8.1	-	78.1	90
																						-	-	-	4.3	-	-	-	74.3	90	
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														-	2.4	-	-	72.8	90												
														-	-	-	8.1	-	79.9	90											
														4.3	-	-	-	75.2	90												
														4.3	2.4	-	-	78.2	90												
														4.3	-	8.1	-	85.3	100												
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														-	-	-	8.1	-	102	110											
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														4.3	-	8.1	-	107	110												
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														-	2.4	-	-	98.8	100												
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														4.3	-	-	-	101	110												
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														-	-	-	8.1	-	123	125											
														4.3	-	-	-	118	125												
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APPENDIX B ELECTRICAL DATA

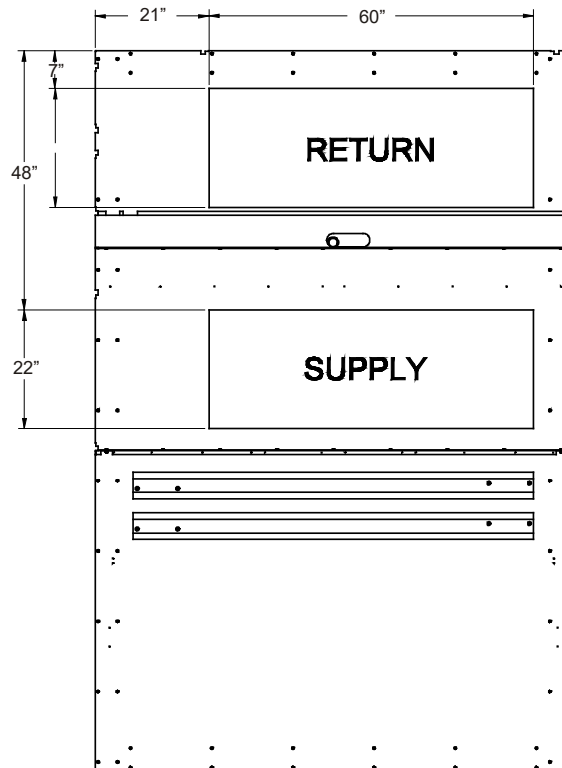
Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Optional Power Exhaust	Optional Power Exhaust (Modulating)	Power Supply													
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP												
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											-	-	-	-	-	2.4	-	72.4	90											
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														4.3	2.4	-	-	78.2	90											
														4.3	-	8.1	-	85.3	100											
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														-	2.4	-	-	94.5	100											
														-	-	8.1	-	102	110											
														4.3	-	-	-	96.8	100											
														4.3	2.4	-	-	99.8	100											
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														-	2.4	-	-	98.8	100											
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														-	-	-	-	113	125											
														-	2.4	-	-	116	125											
														-	-	8.1	-	123	125											
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																									-	2	-	-	55.1	60
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3.5	2	-	-	59.5	70																									
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			-	-	8.3	-	80.3	90																						
			3.5	-	-	-	74.3	80																						
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			-	-	-	-	87.3	90																						
			-	2	-	-	89.8	90																						
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														3.5	-	-	-	57.0	70											
														3.5	2	-	-	59.5	70											
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														-	2	-	-	72.5	80											
														-	-	8.3	-	80.3	90											
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			-	-	-	-	73.4	80																						
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			3.5	-	8.3	-	88.2	90																						
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3.5	-	-	-	74.3	80																									
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			-	2	-	-	89.8	90																						
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			3.5	-	8.3	-	88.2	90																						
			-	-	-	-	87.3	90																						
			-	2	-	-	89.8	90																						
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EH**-7L60	57.6	55.4	3.5	2	-	76.8	80																							
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			-	-	8.3	-	83.8	90																						
EH**-7L75	72	69.3	3.5	-	-	77.8	80																							
			3.5	2	-	80.3	90																							
			3.5	-	8.3	-	88.2	90																						
			-	-	-	-	87.3	90																						
			-	2	-	-	89.8	90																						
DFC3007W	575/3/60	2	14.7	100	5	0.5	1	2	5	7.2	-	-	-	-	-	-	52.6	60												
											-	-	-	-	2	-	54.6	60												
											-	-	-	-	-	8.3	60.9	70												
											-	-	-	3.5	-	-	56.1	70												
											-	-	-	3.5	2	-	58.1	70												
											-	-	-	3.5	-	8.3	64.4	70												
											EH**-7L30	28.8	27.7	-	-	-	-	52.6	60											
														-	2	-	-	55.1	60											
														-	-	8.3	-	63.0	70											
														3.5	-	-	-	57.0	70											
														3.5	2	-	-	59.5	70											
											EH**-7L45	43.2	41.6	3.5	-	8.3	67.4	70												
														-	-	-	-	70.0	70											
														-	2	-	-	72.5	80											
														-	-	8.3	-	80.3	90											
3.5	-	-	-	74.3	80																									
EH**-7L60	57.6	55.4	3.5	2	-	76.8	80																							
			3.5	-	8.3	-	84.7	90																						
			-	-	-	-	73.4	80																						
			-	2	-	-	75.9	80																						
			-	-	8.3	-	83.8	90																						
EH**-7L75	72	69.3	3.5	-	-	77.8	80																							
			3.5	2	-	80.3	90																							
			3.5	-	8.3	-	88.2	90																						
			-	-	-	-	87.3	90																						
			-	2	-	-	89.8	90																						
DFC3007W	575/3/60	2	14.7	100	5	0.5	1	2	5	7.2	-	-	-	-	-	-	52.6	60												
											-	-	-	-	2	-	54.6	60												
											-	-	-	-	-	8.3	60.9	70												
											-	-	-	3.5	-	-	56.1	70												
											-	-	-	3.5	2	-	58.1	70												
											-	-	-	3.5	-	8.3	64.4	70												
											EH**-7L30	28.8	27.7	-	-	-	-	52.6	60											
														-	2	-	-	55.1	60											
														-	-															

APPENDIX C UNIT DIMENSIONS

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"



NOTE: 15 ton models have 3 fans.
20 ton models have 4 fans
25 ton models have 5 fans



VERTICAL DISCHARGE (TOP VIEW)

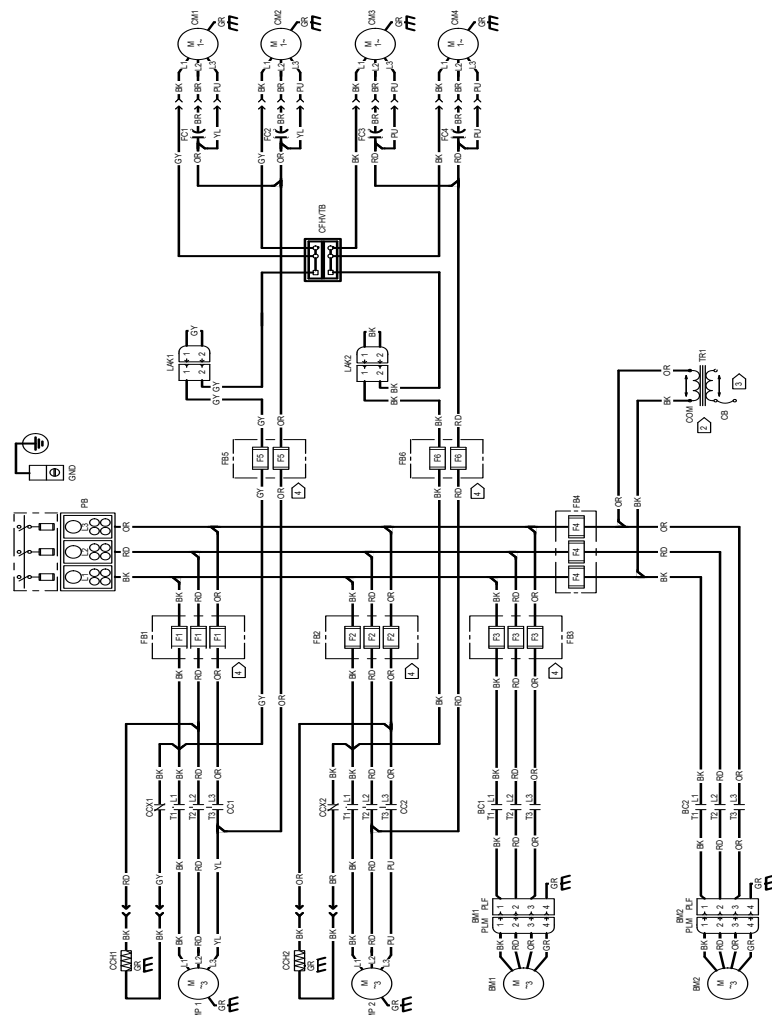


HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

WARNING

POWER WIRING DIAGRAM
DFC240**

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 CONDUCTIONS ONLY. USE C.E. CAVS 2 WIRE FOR ALL LOW VOLTAGE FIELD CONNECTIONS.
2. THIRY NINE (39) WIRE CONNECTIONS. RED WIRES CONNECTED TO JARVISHEAT 7.4 IN THE FACTORY AND BLACK WIRES TO CONTROL TERMINAL. FOR 20 AMP FUSE, MOVE RED WIRES FROM 20 AMP TO THE 30 AMP FUSE ON BOTH TRANSFORMERS.
3. SEE CONTROL DIAGRAM FOR CONTROL TRANSFORMER LOW VOLTAGE CONNECTIONS.
4. FUSE BLOCKS ARE OPTIONAL.

COMPONENT LEGEND

[illegible]

WIRE CODE

BLACK
BLUE
BLUE WITH PINK STRIPE
BROWN
GREEN
GRAY
ORANGE
PINK
PURPLE
RED
TAN
WHITE
YELLOW
YELLOW WITH PINK STRIPE

OF INDIAN HISTORY AND ETHNOLOGY

FACTORY WIRING

— HIGH VOLTAGE
- - - OPTIONAL HIGH VOLTAGE
— LOW VOLTAGE
- - - OPTIONAL LOW VOLTAGE

— CHASSIS GROUND

ONLINE JOURNAL

FIELD WIRING

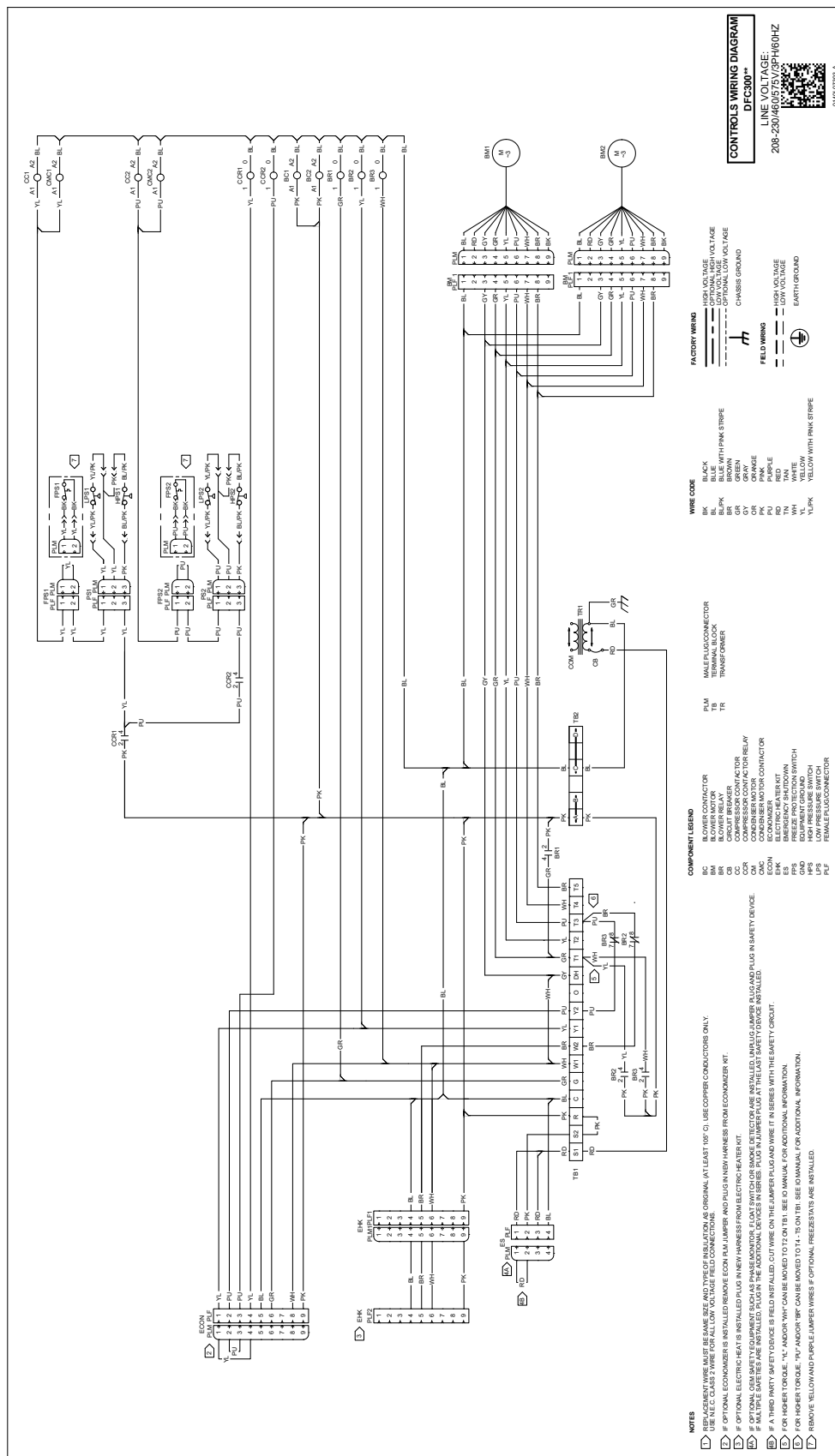
— — — — —	HIGH VOLTAGE
- - - - -	LOW VOLTAGE
(Symbol)	EARTH GROUND

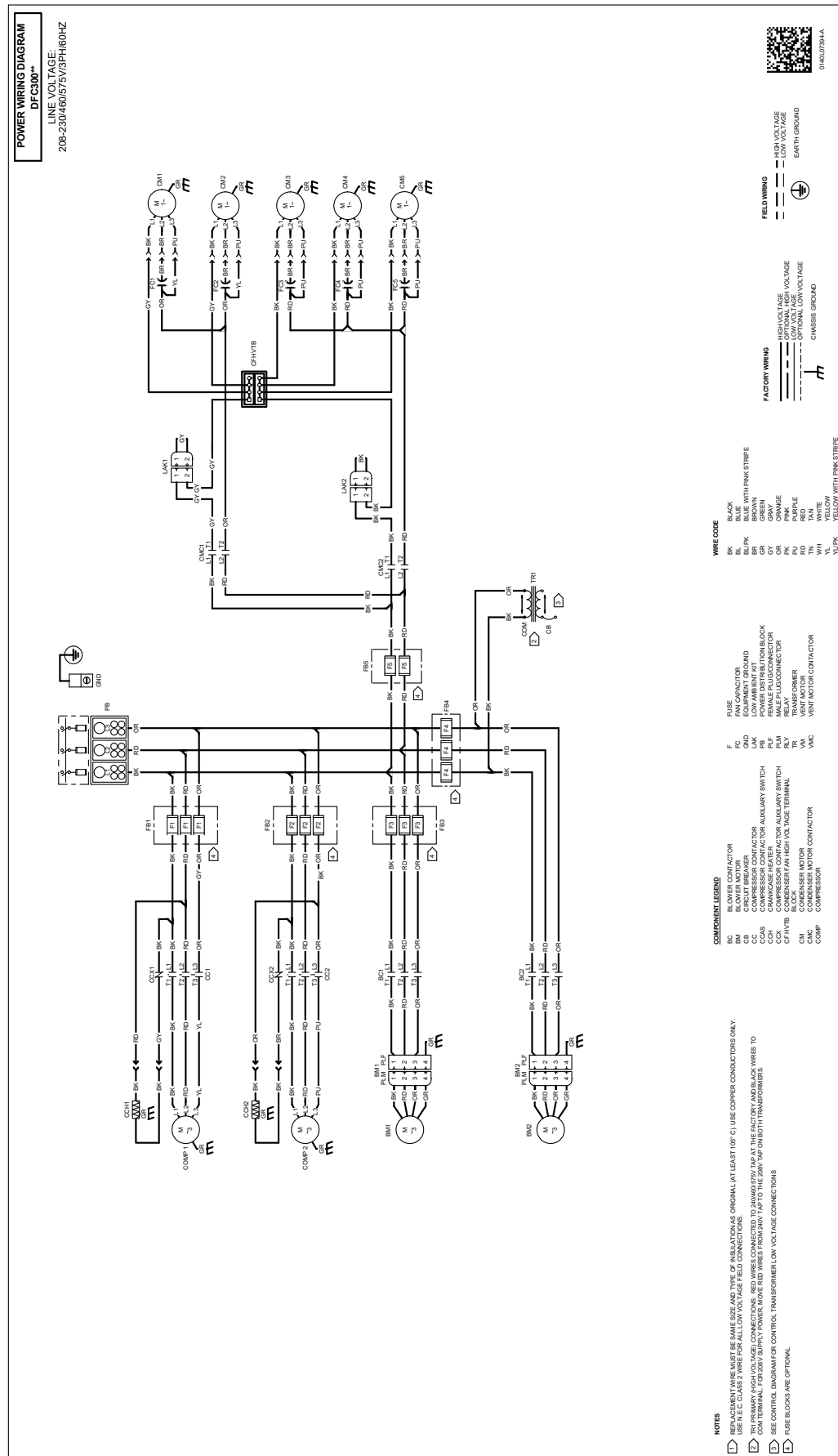


01401 07392-A

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.

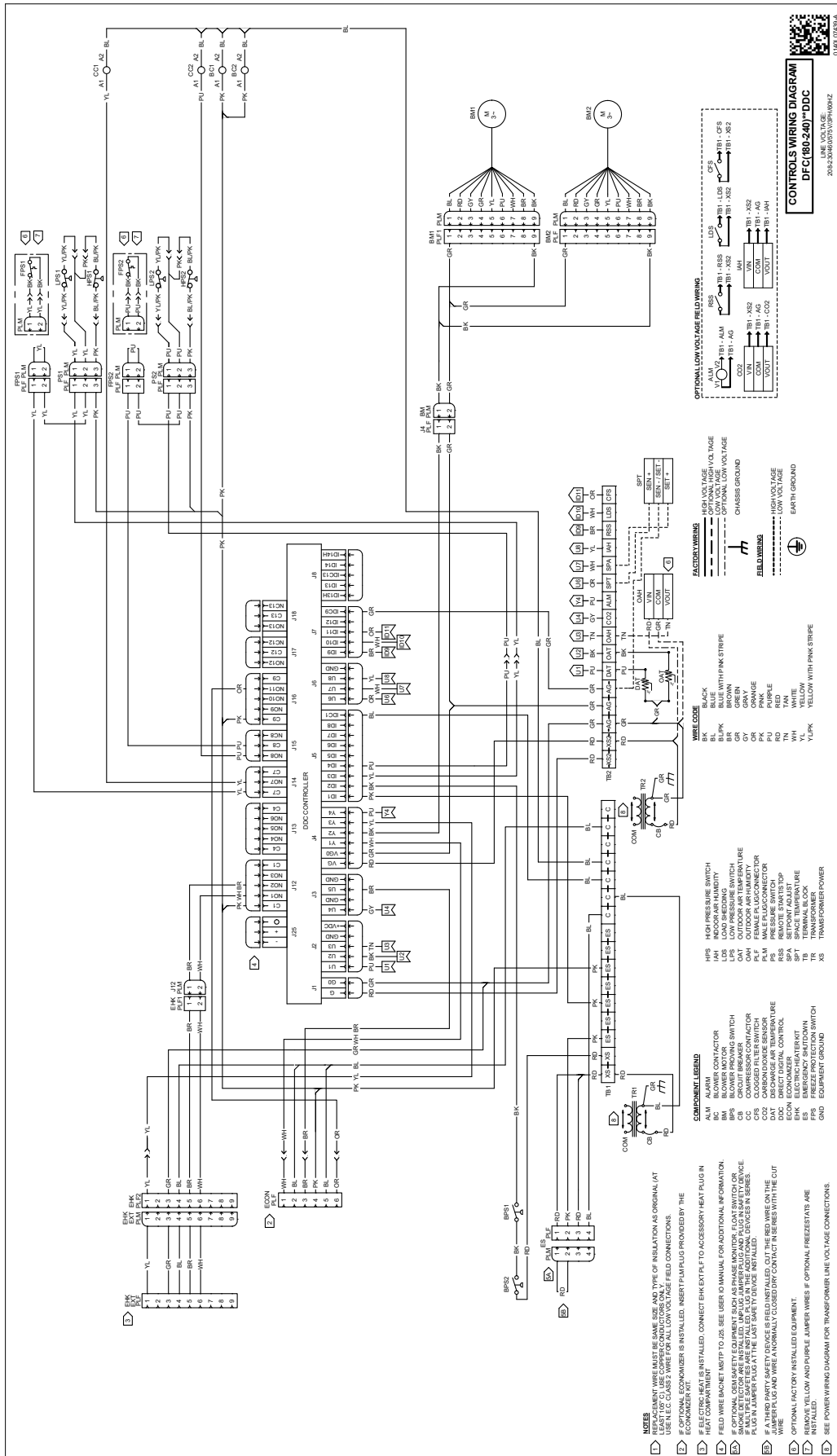






HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

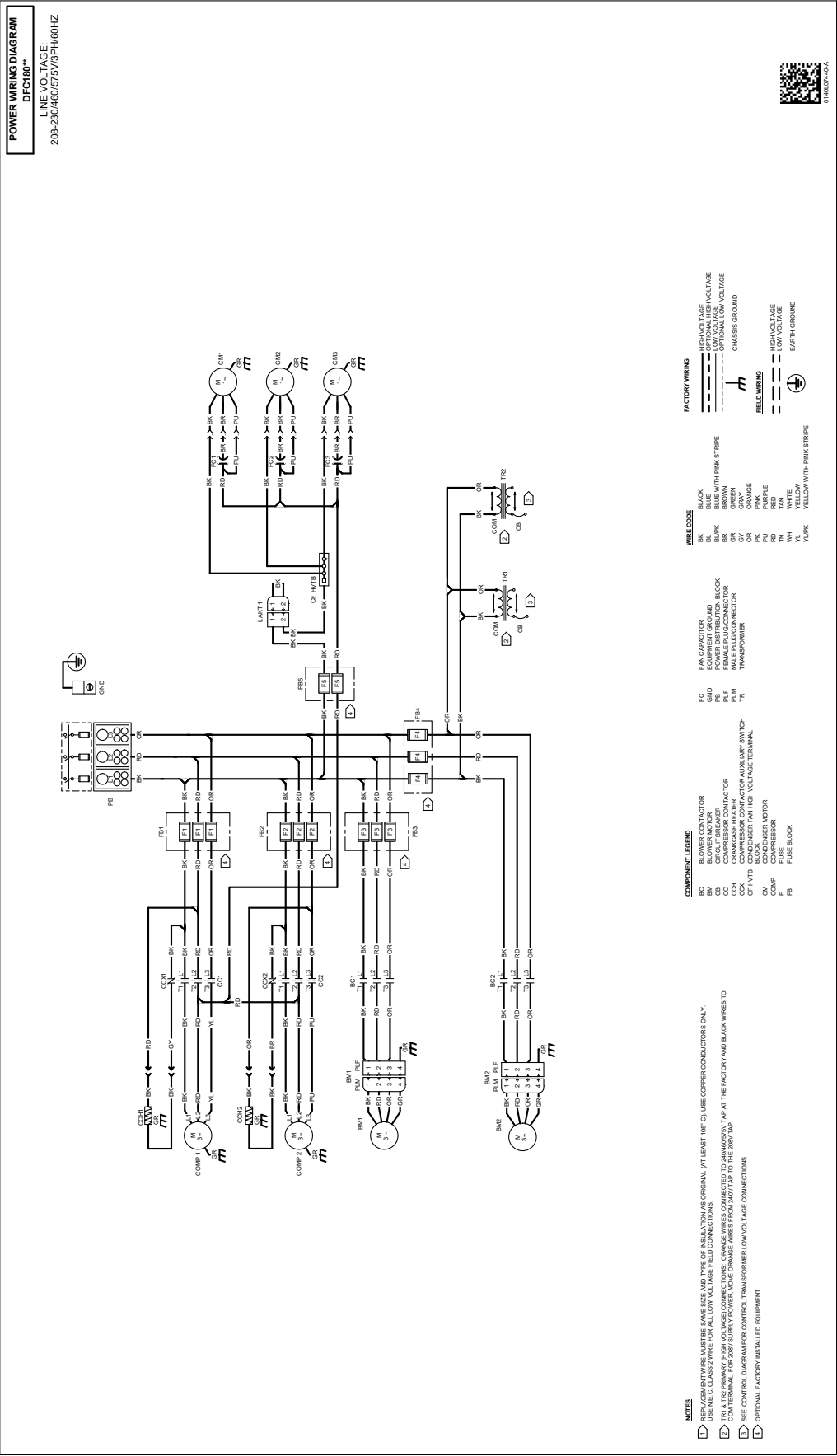
WARNING



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

**WARNING**

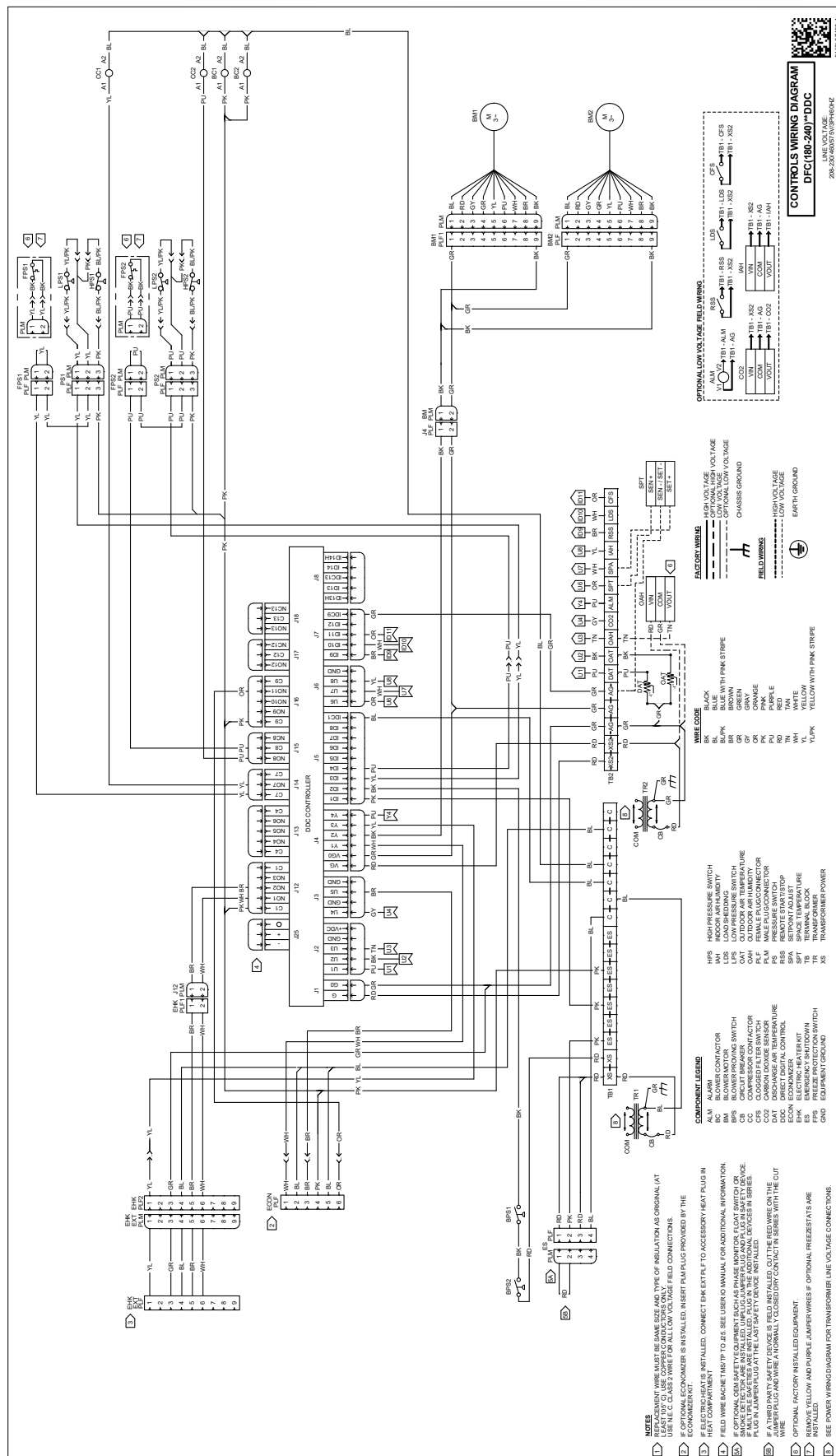
HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



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



WARNING

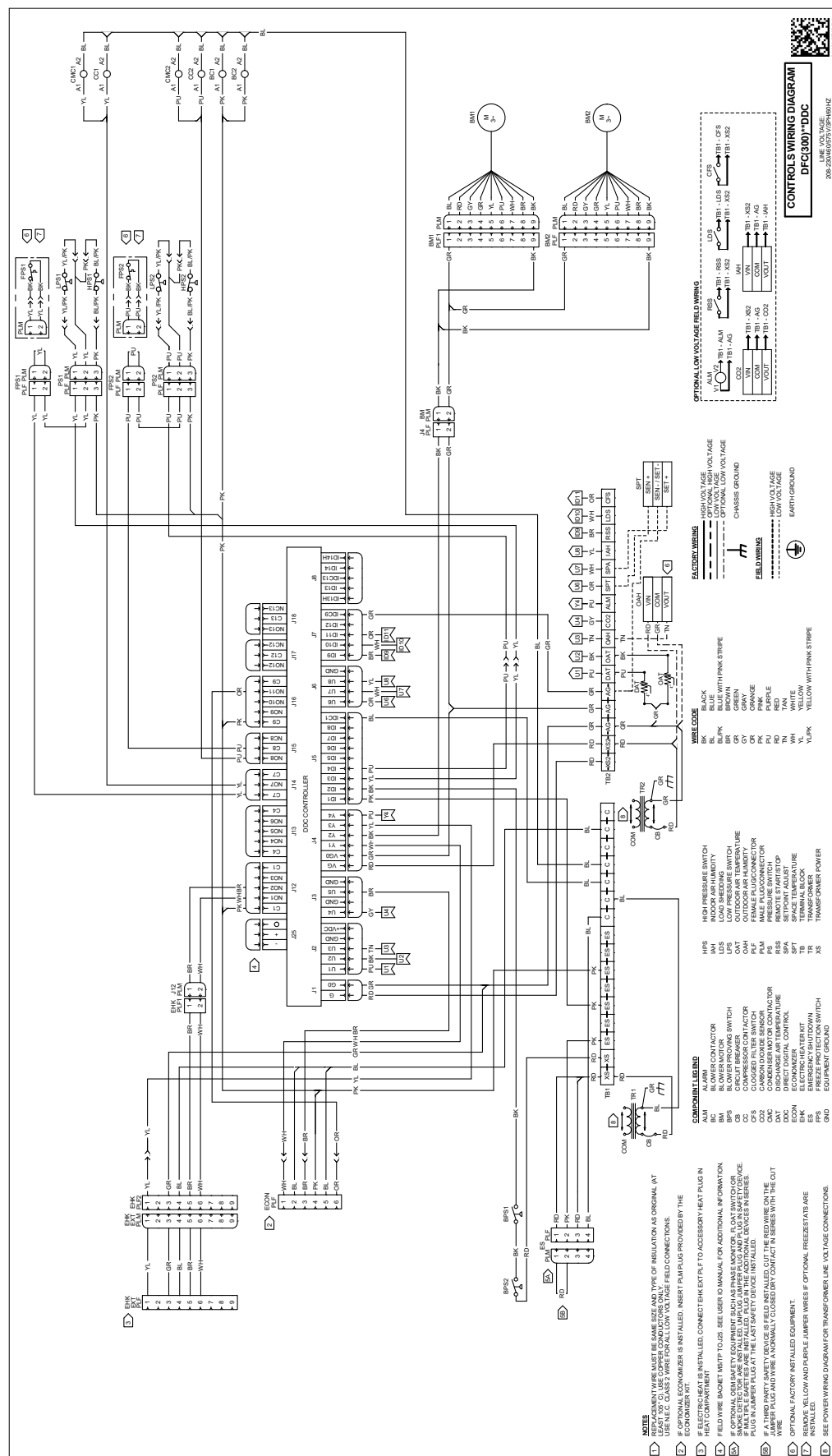


Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

[illegible]

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

WARNING

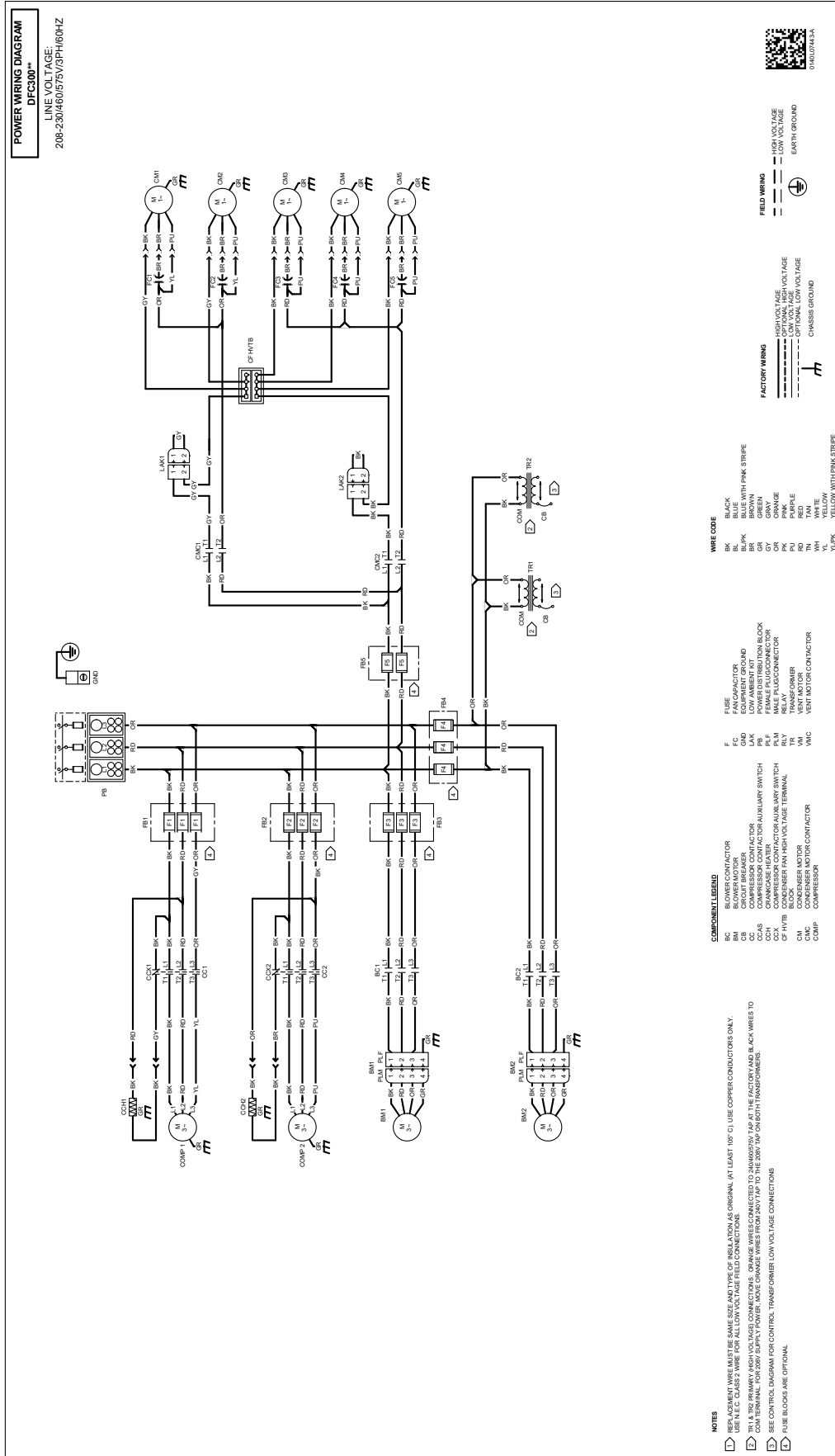


Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

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.





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 that the flue screen is in place.
- ☐ Check gas piping for leaks.
- ☐ Verify gas pressure to the unit is within the range specified on the serial plate.
- ☐ Check to ensure that all fans, pulleys and wheels are secure.
- ☐ Check for proper belt tension and alignment per installation instructions.
- ☐ 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.



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	_____	IN. W.C.		
Gas Manifold Pressure	_____	IN. W.C. (Low Fire)	_____	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

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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.

