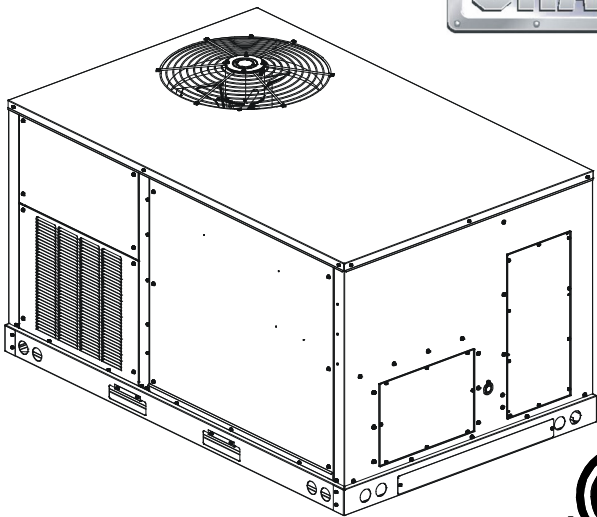


# PACKAGED AIR CONDITIONER AND HEAT PUMP UNIT 3-6 TON DIRECT DRIVE HIGH EFFICIENCY LIGHT COMMERCIAL DHC/DHH MODELS INSTALLATION INSTRUCTIONS



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

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



## 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.

**NOTE: THIS EQUIPMENT IS ONLY APPROVED FOR USE WITH R-32 REFRIGERANT.**



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



## INDEX

SAFETY INSTRUCTIONS.....	2
REPLACEMENT PARTS.....	3
GENERAL INFORMATION.....	3
UNIT LOCATION.....	5
CLEARANCES.....	6
ROOF CURB POST-INSTALLATION CHECKS.....	7
ROOF TOP DUCT CONNECTIONS.....	7
RIGGING DETAILS.....	7
ELECTRICAL WIRING.....	8
CIRCULATING AIR AND FILTERS.....	12
CONDENSATE DRAIN CONNECTION.....	12
STARTUP, ADJUSTMENTS, AND CHECKS.....	12
AIR FLOW ADJUSTMENTS.....	14
HEAT PUMP OPERATION.....	17
MAINTENANCE.....	18
APPENDIX A ELECTRICAL DATA.....	24
APPENDIX B UNIT DIMENSIONS.....	41
APPENDIX C AIR FLOW FOR ELECTRIC HEAT.....	42
WIRING DIAGRAMS.....	43
STARTUP CHECKLIST.....	64

## SAFETY INSTRUCTIONS



**RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION.**

These installation instructions cover the **outdoor** installation of single package heating and cooling units. See the Light Commercial Accessories Brochure for information regarding accessories.

**\*NOTE: PLEASE CONTACT YOUR DISTRIBUTOR OR VISIT OUR WEBSITE FOR THE LIGHT COMMERCIAL ACCESSORIES BROCHURE AND THE APPLICABLE SPECIFICATION SHEET REFERRED TO IN THIS MANUAL.**

### **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, minimum or maximum CFM and motor speed connections.

**Keep this literature in a safe place for future reference.**



### **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.**



### **WARNING**

**DO NOT CONNECT TO OR USE ANY DEVICE THAT IS NOT CERTIFIED BY DAIKIN 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**

**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.**



### **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 TEMPERATURE 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.**



### **WARNING**

**DO NOT USE MEANS TO ACCELERATE THE DEFROSTING PROCESS OR TO CLEAN, OTHER THAN THOSE RECOMMENDED BY THE MANUFACTURER. THE APPLIANCE SHALL BE STORED IN A ROOM WITHOUT CONTINUOUSLY OPERATING IGNITION SOURCES (FOR EXAMPLE: OPEN FLAMES, AN OPERATING GAS APPLIANCE OR AN OPERATING ELECTRIC HEATER). DO NOT PIERCE OR BURN. BE AWARE THAT REFRIGERANTS MAY NOT CONTAIN AN ODOR.**



### WARNING

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



### WARNING

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



### WARNING

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



### WARNING

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

## REPLACEMENT PARTS

### ORDERING PARTS

For shortages or damages, report to website [www.goodmanmfg.com/logistics-feedback](http://www.goodmanmfg.com/logistics-feedback). Also, when 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. For the location of your nearest distributor, see website [www.daikincomfort.com](http://www.daikincomfort.com) or contact:

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

## GENERAL INFORMATION



### 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.

Rated performance is achieved after 20 hours of operation. Rated performance is delivered at the specified airflow. See product specification sheet for light commercial models. Specification sheets can be found at [www.daikincomfort.com](http://www.daikincomfort.com) for Daikin brand products. Within the website, please select the light commercial products menu and then select the submenu for the type of product to be installed, such as air conditioners or heat pumps, to access a list of product pages that each contain links to that model's specification sheet.

To assure that your unit operates safely and efficiently, it must be installed, operated, and maintained in accordance with these installation and operating instructions, and all local codes. In situations where these conflict, local codes take precedence.

### QUALIFICATION OF WORKERS:

Personnel must be certified to service, work, and/or repair units with FLAMMABLE REFRIGERANTS. A certificate should document the competence and qualification achieved through training that included the substance of the following:

- Information about the explosion potential of FLAMMABLE REFRIGERANTS to show that flammables may be dangerous when handled without care.
- Information about POTENTIAL IGNITION SOURCES, especially those that are not obvious, such as lighters, light switches, vacuum cleaners, electric heaters.
- Information about the different safety concepts, including ventilated and unventilated areas.
- Information about refrigerant detectors, including function, operation, and service measures.
- Information about the concept of sealed components and sealed enclosures according to IEC 60079-15:2010.
- Information about the correct working procedures, including commissioning, maintenance, repair, decommissioning, and disposal procedures.

## EPA REGULATIONS

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

## 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 local codes. 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 output and voltage.

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

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.

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

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

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

Electronic leak detectors may be used to detect refrigerant leaks but, in the case of FLAMMABLE REFRIGERANTS, the sensitivity may not be adequate, or may need recalibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25 % maximum) is confirmed.

Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

If a leak is suspected, all naked flames shall be removed/ extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system.

**NOTE: VERIFY THAT THE VOLTAGE LISTED ON THE UNIT DATA PLATE MATCHES THE VOLTAGE SUPPLIED BY THE BUILDING UTILITIES.**

### UNIT LOCATION

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

**IMPORTANT NOTE: REMOVE WOOD SHIPPING RAILS PRIOR TO INSTALLATION OF THE UNIT.**

**NOTE: UNITS ARE DESIGNED FOR OUTDOOR INSTALLATION ONLY AT A MAX ALTITUDE OF 8,000 FEET ABOVE SEA LEVEL**

**NOTE: UNITS MAY BE INSTALLED IN HEAVY SNOW CLIMATES. ENSURE NO SNOW OBSTRUCTS OR COVERS THE UNIT, AS IT MAY AFFECT PERFORMANCE. REGULARLY CHECK FOR SNOW BUILDUP.**

**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.**

 <b>WARNING</b>
<b>THE APPLIANCE SHALL BE INSTALLED, OPERATED AND STORED IN A ROOM WITH A FLOOR AREA NOT LESS THAN THE MINIMUM ROOM AREA.</b>



$\geq 20.7 \text{ m}^2$   
 $222.3 \text{ ft}^2$

**MINIMUM ROOM AREA FIGURE**

**IMPORTANT NOTE: REFER TO THE ALTITUDE ADJUSTED ROOM AREA CALCULATION REFERENCED LATER IN THIS MANUAL.**

**NOTE: APPLIANCE IS SHIPPED FROM FACTORY FOR VERTICAL DUCT APPLICATION.**

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 and that are not covered by the warranty. Give this booklet to the user and explain it's provisions. The user should retain these instructions for future reference.

- 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.
- Allow minimum clearances from the enclosure for fire protection, proper operation, and service access (see unit clearances). These clearances must be permanently maintained.
- When the unit is heating, the temperature of the return air entering the unit must be a minimum of 55° 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.
- Adequate clearances from the unit to any adjacent public walkways, adjacent buildings, building openings or openable windows must be maintained in accordance with local 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:

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.**

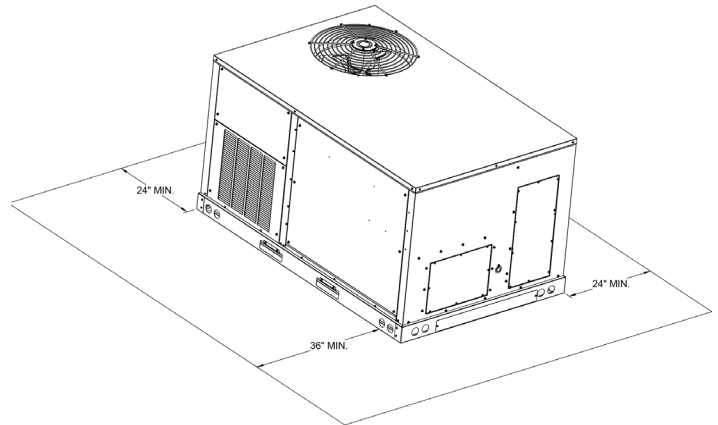


## CAUTION

**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 SUPERSEDES INFORMATION SHOWN.**

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

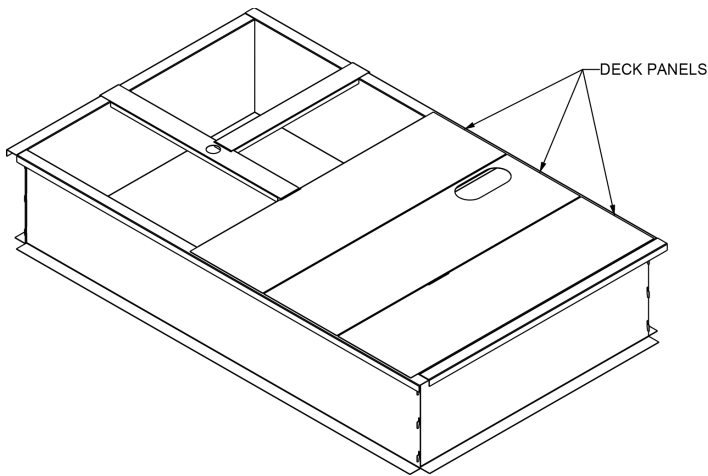
## CLEARANCES



## UNIT CLEARANCES

*\*In situations that have multiple units, a 36" minimum clearance is required between the condenser coils.*

Adequate clearance around the unit should be kept for safety, service, maintenance, and proper unit operation. A clearance of 48" is recommended on all sides of the unit to facilitate possible parts replacement, to allow service access and to insure proper ventilation and condenser airflow. The top of the unit should be completely unobstructed. If units are to be located under an overhang, there should be a minimum of 48" clearance and provisions made to deflect the warm discharge air out from the overhang. The unit should be installed remote from all building exhausts to inhibit ingestion of exhaust air into the unit 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.

**NOTE: IF FASTENERS ARE USED TO SECURE THE DUCT WORK TO THE CURB, THESE SHOULD BE INSTALLED HORIZONTALLY INTO THE FLANGES OF THE DUCT OPENING OF THE CURB.**



#### CAUTION

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

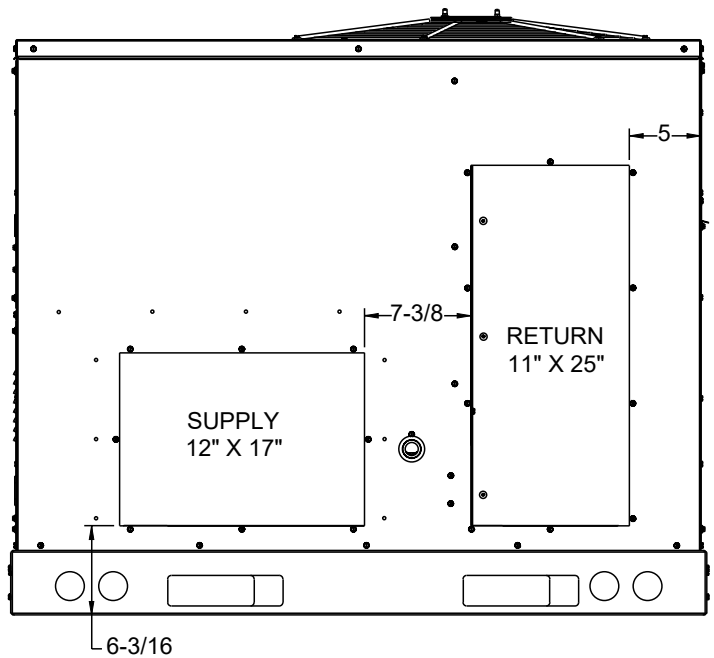
### ROOF TOP DUCT CONNECTIONS

Install all duct connections on the unit before placing the unit on rooftop.

#### HORIZONTAL DISCHARGE

Refer to IOD-7082 included in the literature pack for installing horizontal duct covers.

Flexible duct connectors between the unit and ducts are recommended. Insulate and weatherproof all external ductwork and joints as required and in accordance with local codes.



**HORIZONTAL DISCHARGE DUCT CONNECTIONS**

### 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

**IF UNITS ARE LIFTED TWO AT A TIME, THE FORK HOLES ON THE CONDENSER END OF THE UNIT MUST NOT BE USED. MINIMUM FORK LENGTH IS 42" TO PREVENT DAMAGE TO THE UNIT; HOWEVER, 48" IS RECOMMENDED.**

**PROVISIONS FOR FORKS HAVE BEEN INCLUDED IN THE UNIT BASE FRAME. NO OTHER FORK LOCATIONS ARE APPROVED.**



#### WARNING

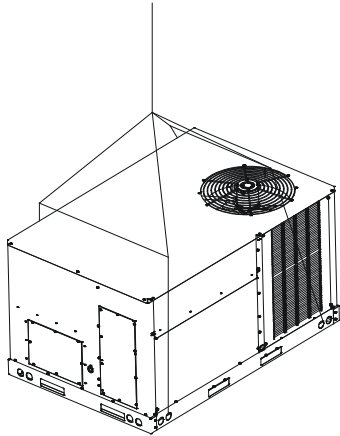
**TO PREVENT POSSIBLE EQUIPMENT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, THE FOLLOWING BULLET POINTS MUST BE OBSERVED WHEN INSTALLING THE UNIT.**

- 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".

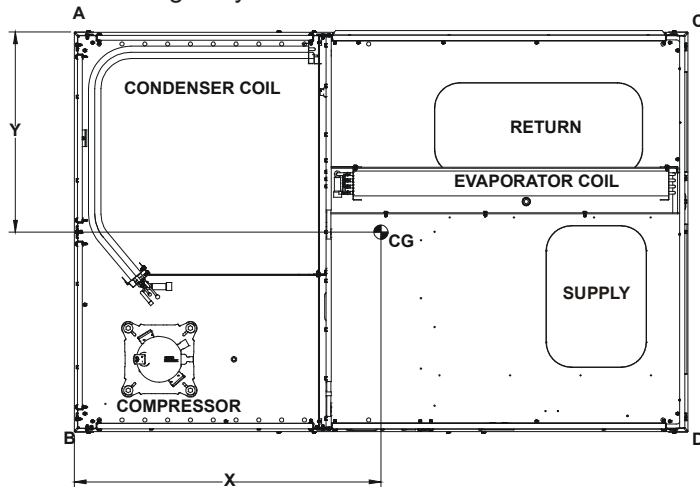
- Two spreader bars must span over the unit to prevent damage to the cabinet by the lift cables. Spreader bars must be of sufficient length so that cables do not come in contact with the unit during transport. Remove wood struts mounted beneath unit base frame before setting unit on roof curb. These 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.



To assist in determining rigging requirements, unit weights and center of gravity are shown as follows:



**CORNER AND CENTER OF GRAVITY LOCATIONS**

**NOTE: UNIT SHOULD BE LIFTED AT A POINT ABOVE CENTER OF GRAVITY.**

Model	Shipping Weight (lb)	Operating Weight (lb)	Corner Weights (lb)				X (in)	Y (in)
			A	B	C	D		
DHC036	595	537	119	160	123	135	35.5	26.5
DHC048	648	590	150	167	113	160	34.2	26.8
DHC060	664	606	158	166	105	177	34.4	27.4
DHC072	715	657	134	149	217	157	34.4	27.0
DHH036	653	595	92	224	173	106	34.6	26.8
DHH048	679	621	166	176	112	167	33.3	26.7
DHH060	688	630	150	194	165	121	33.5	27.6
DHH072	766	708	227	162	82	237	33.3	27.2

THE NUMBERS MAY SLIGHTLY VARY DEPENDING ON INSTALLED OPTIONS.

**DHC/DHH WEIGHTS TABLE**

 **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**

**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 first. Lower unit carefully onto roof mounting 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 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.**



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


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

To reduce the possibility of external ignition, all open flames or other heat sources must be extinguished, and all electrical power must be turned off prior to opening the terminal cover or removing the electrical plug and servicing the system.


Proper sealed system evacuation is required during servicing to maintain adequate internal system cleanliness while eliminating contaminants.


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

**NOTE: NEVER OPERATE THE COMPRESSOR IN A VACUUM OR IN REVERSE OPERATION.**

 **WARNING**

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




 **WARNING**

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

 **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.**

 **WARNING**

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

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

 **WARNING**

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

The main power supply wiring to the unit and low voltage wiring to accessory controls must be done in accordance with these instructions and prevailing local electrical codes. (National Electrical Code, NFPA 70, or the Canadian Electrical Code, CSA C22.1, Part 1).

The unit is factory wired for the voltage shown on the unit’s data plate. Refer to model nomenclature in Appendix A for voltage requirement for your unit.

**NOTE: IF SUPPLY VOLTAGE IS 208V, LEAD ON PRIMARY OF TRANSFORMER(S) MUST BE MOVED FROM THE 240V TO THE 208V TAP. REFER TO WIRING DIAGRAM ON UNIT FOR DETAILS.**

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

Main power wiring should be sized for the minimum circuit ampacity shown on the unit's dataplate. Size wires in accordance with the ampacity tables in the prevailing local electrical codes (National Electrical Code, NFPA 70, or the Canadian Electrical Code, CSA C22.1, Part 1). 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 RISK OF PROPERTY DAMAGE, PERSONAL INJURY OR FIRE, USE ONLY COPPER CONDUCTORS.**

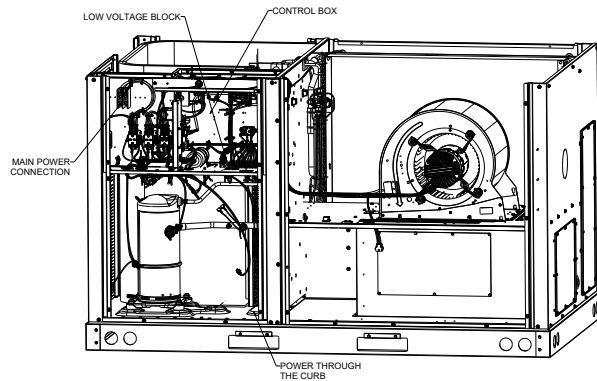
 **CAUTION**

**LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.**

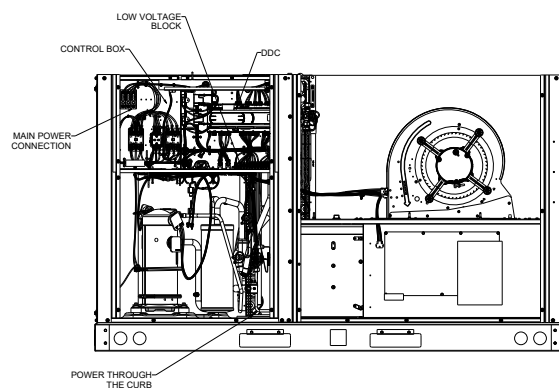
**NOTE: A WEATHER-TIGHT DISCONNECT SWITCH, PROPERLY SIZED FOR THE UNIT TOTAL LOAD, MUST BE FIELD OR FACTORY INSTALLED. AN EXTERNAL FIELD SUPPLIED DISCONNECT MAY BE MOUNTED ON THE EXTERIOR PANEL. SWITCH SHALL BE PROVIDED TO ENSURE ALL-POLE DISCONNECTION FROM THE SUPPLY MAINS.**

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

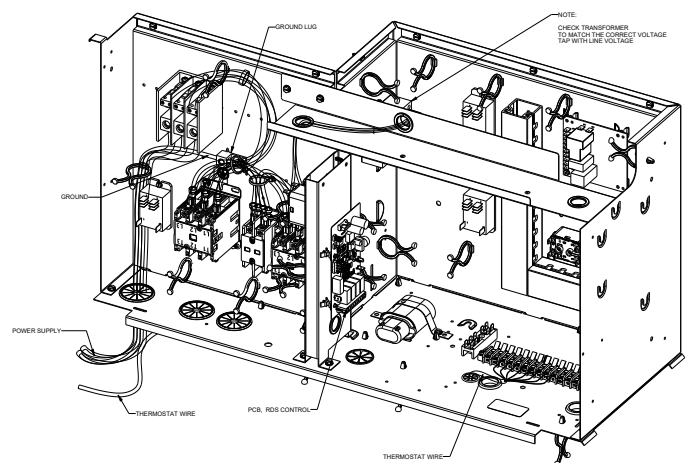
- Some disconnect switches are not fused. Protect the power leads at the point of distribution in accordance with the unit data plate.
- The unit must be electrically grounded in accordance with prevailing local electrical codes (National Electrical Code, NFPA 70, or the Canadian Electrical Code, CSA C22.1, Part 1). A ground lug is provided for this purpose. Do not use the ground lug for connecting a neutral conductor.
- Connect power wiring to the electrical power block, ground wire to ground lug, and thermostat wiring to terminal block (where applicable) within the main control box.



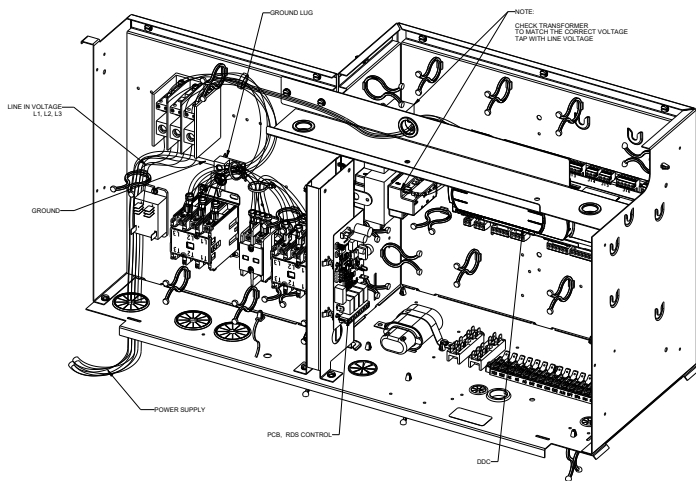
**HP/AC UNIT**



**HP/AC DDC UNIT**




**HP/AC Control Box**



### HP/AC DDC Control Box

**NOTE: COMPONENTS MAY VARY DEPENDING ON UNIT CONFIGURATION.**



**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 AND MAY CAUSE SEVERE DAMAGE TO THE UNIT ELECTRICAL COMPONENTS.**

#### AREAS WITHOUT CONVENIENCE OUTLET

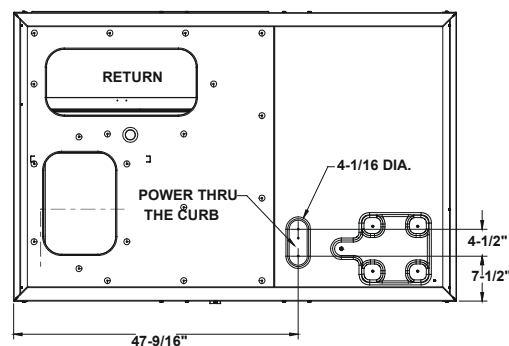
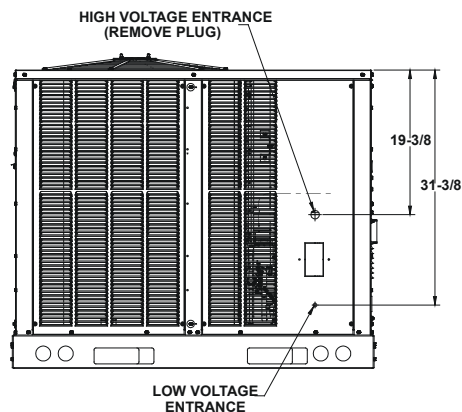
It is recommended that an independent 115V power source be brought to the vicinity of the roof top unit for portable lights and tools used by the service mechanic.

**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 condenser end of unit or through the roof curb. Install conduit connectors at the designated 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.

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 AND THRU CURB (BOTTOM VIEW OF UNIT)

#### LOW VOLTAGE CONTROL WIRING

1. A 24V thermostat must be installed for unit operation UNLESS THE DDC CONTROLS OPTION HAS BEEN INSTALLED. (REFER TO DDC QUICKSTART GUIDE)
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 installed device.
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 the low voltage control wires from sub-base terminals to the unit. Control wiring should enter through the condenser panel opening or through curb indicated in "Electrical Entrance" figure. 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 OR REMOTE SENSOR CONNECTIONS.**

## 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. False ceilings or drop ceilings may be used as a return air plenum.

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

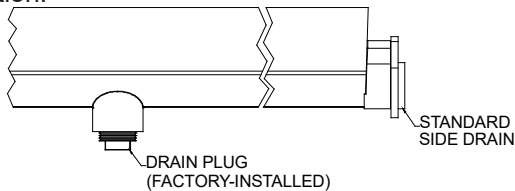
Ductwork dimensions are shown in the roof curb installation manual.

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

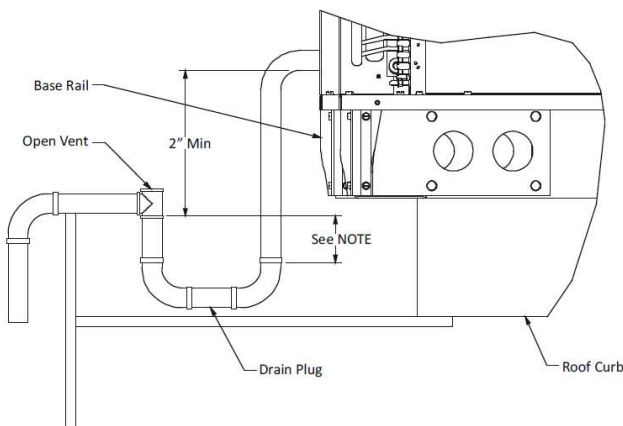
## CONDENSATE DRAIN CONNECTION

### CONDENSATE DRAIN CONNECTION

A 3/4" female NPT drain connection is supplied on the end of the unit and bottom of the drain pan for condensate piping. An external trap must be installed for proper condensate drainage. Hand tighten drain fitting to the drain connection.



### 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 3/4" drain line and fittings or larger. Do not operate without trap.

**NOTE: ALL THREADED CONNECTIONS SHOULD BE SEALED WITH THREAD SEALER TO PREVENT LEAKS.**

### 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.

### VERTICAL DRAIN

To use the bottom drain connection, remove the drain plug from the bottom connection and install it in the horizontal connection.

### 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 TESTS 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.**

**NOTE: BLOWER MOTOR ROTATION CAN NOT BE USED TO DETERMINE PROPER PHASING OF THE UNIT.**

Place manifold gage sets on the compressor suction and discharge lines and observe pressures. Suction pressure should drop and discharge pressure should increase. If this is not observed, disconnect electrical power to the unit, lock/tag-out, and swap line voltages L1 and L2.

### PRE-STARTUP INSTRUCTIONS

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.

**If horizontal duct is installed, duct covers must be removed before operating unit.**

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 and sensors are mounted and wired in accordance with installation instructions.
- All electric power, all gas, and the condensate drain installation have been made to each unit on the job. These main supply lines must be functional and capable of operating all units simultaneously.
- All 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. Re-tighten 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 A 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 Only

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

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%.

## 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.

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

High stage airflow setting to be between 300 and 500 CFM per ton, see Table below. For models with electric heat the total airflow must not be less than that required for operation of the electric heaters. See Appendix C for minimum airflow for specific electric heaters.

**NOTE: NEVER RUN CFM BELOW 300 CFM PER TON, EVAPORATOR FREEZING OR POOR UNIT PERFORMANCE IS POSSIBLE.**

### Changing Speed Taps

Adjust the CFM for the unit by changing the position of the low voltage leads on the terminal block TB1. Refer to Airflow manual for blower performance at each speed tap. The below tables show the allowable speed taps and the factory locations.

**NOTE: X\* DENOTES FACTORY SPEED TAP LOCATION. IF MORE THAN ONE LEAD IS ENERGIZED SIMULTANEOUSLY, THE MOTOR WILL RUN AT THE HIGHER TAP. FOR PROPER OPERATION, PU CANNOT SHARE A TAP WITH YL, BR CANNOT SHARE A TAP WITH WH, AND PU/BR SHOULD HAVE HIGHER SPEED SETTINGS THAN YL/WH, RESPECTIVELY.**

ALLOWABLE SPEED TAPS 3-6 TON STD STATIC AC					
ID MOTOR TAPS	T1	T2	T3	T4	T5
FAN (BK)	X*	-	-	-	-
COOLING STG 1 (YL)	X*	X	X	X	X
COOLING STG 2 (PU)	-	X	X*	X	X
E-HEAT STG 1 (WH)	-	X*	X	X	X
E-HEAT STG 2 (BR)	-	X	X*	X	X

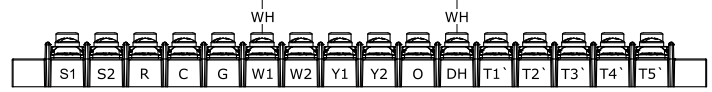
ALLOWABLE SPEED TAPS 3-6 TON STD STATIC HP					
ID MOTOR TAPS	T1	T2	T3	T4	T5
FAN (GR)	X*	-	-	-	-
COOLING/HEATING STG 1 (YL)	X*	X	X	X	X
COOLING/HEATING STG 2 (PU)	-	X	X*	X	X
E-HEAT STG 1 (WH)	-	X*	X	X	X
E-HEAT STG 2 (BR)	-	X	X*	X	X

**NOTE: FOR MOTORS WITH 10 SPEED TAPS, DH = 0VAC USES SPEED TAPS T1-T5 (FOR COOLING) AND DH = 24VAC USES T1`-T5` (FOR E-HEAT). IN E-HEAT MODE, W1 AUTOMATICALLY ENERGIZES DH.**

W1 NOT ENERGIZED = DH NOT ENERGIZED (T1-T5 ACTIVE)



W1 ENERGIZED = DH ENERGIZED (T1`-T5` ACTIVE)



ALLOWABLE SPEED TAPS 3-6 TON HIGH STATIC AC										
ID MOTOR TAPS	T1	T2	T3	T4	T5	T1'	T2'	T3'	T4'	T5'
FAN (BK)	X*	-	-	-	-	X	-	-	-	-
COOLING STG 1 (YL)	X*	X	X	X	X	-	-	-	-	-
COOLING STG 2 (PU)	-	X	X*	X	X	-	-	-	-	-
E-HEAT STG 1 (WH)	-	-	-	-	-	X*	X	X	X	X
E-HEAT STG 2 (BR)	-	-	-	-	-	-	X	X*	X	X

ALLOWABLE SPEED TAPS 3-6 TON HIGH STATIC HP										
ID MOTOR TAPS	T1	T2	T3	T4	T5	T1'	T2'	T3'	T4'	T5'
FAN (GR)	X*	-	-	-	-	X	-	-	-	-
COOLING/HEATING STG 1 (YL)	X*	X	X	X	X	-	-	-	-	-
COOLING/HEATING STG 2 (PU)	-	X	X*	X	X	-	X	X	X	X
E-HEAT STG 1 (WH)	-	-	-	-	-	X*	X	X	X	X
E-HEAT STG 2 (BR)	-	-	-	-	-	-	X	X*	X	X

**NOTE: ON UNITS WITH DDC CONTROLS INSTALLED, 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.**

### CHECKING SUBCOOLING

**SUBCOOLING = SAT LIQUID LINE TEMP  
- LIQUID LINE TEMP**

EXAMPLE:

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

To obtain the amount of subcooling, subtract 109°F from 120°F. The difference is 11° subcooling. The appropriate range for each model is available in the Unit Subcooling and Superheat table.

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

### CHECKING SUPERHEAT

**SUPERHEAT = SUCTION LINE TEMP  
- SAT SUCTION LINE TEMP**

EXAMPLE:

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

To obtain the amount of superheat, subtract 50.0 from 59.0°F. The difference is 9° Superheat. The appropriate range for each model is available in the Unit Subcooling and Superheat table.

### TXV SUPERHEAT ADJUSTMENT

**NOTE: SUPERHEAT ADJUSTMENTS SHOULD NOT BE MADE UNTIL INDOOR AMBIENT CONDITIONS HAVE STABILIZED AND CORRECT AIR FLOW (CFM) HAS BEEN VERIFIED. THIS COULD TAKE UP TO 24 HOURS DEPENDING ON INDOOR TEMPERATURE AND HUMIDITY. BEFORE CHECKING SUPERHEAT, RUN THE UNIT IN COOLING FOR 15-20 MINUTES OR UNTIL REFRIGERANT PRESSURE STABILIZES.**

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 TXV

**Single Stage Cooling Application:** Refer to the Unit Sub-Cooling and Superheat table.

**Two-Stage Cooling Application:** Run unit on Low Stage cooling and refer to Unit SubCooling and Superheat table.

1. Purge gauge lines. Connect service gauge manifold to access fittings. Run system at least 15 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. REFER TO TXV SUPERHEAT ADJUSTMENT REFERENCED IN THIS MANUAL.**
  - 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	Superheat (°F)	Subcooling (°F)	Expansion Device	Cooling Stage	Outdoor Ambient
DHC036	15-17	2-4	TXV	Low	82
DHC048	16-17	2-4	TXV	Low	82
DHC060	14-17	5-7	TXV	Low	82
DHC072	14-18	7-11	TXV	Low	82
DHH036	13-15	1-3	TXV	Low	82
DHH048	16-18	1-3	TXV	Low	82
DHH060	16-17	4-6	TXV	Low	82
DHH072	12-16	7-11	TXV	Low	82

### REFRIGERATION SYSTEM CHECKS

This unit is equipped with thermal expansion valves. Ensure the hold-down bolts on the compressor are secure and have not vibrated loose during shipment. Check that the vibration grommets have been installed and visually check all piping for damage and leaks and repair if necessary. The entire system has been factory charged and tested, making it unnecessary to field charge. Factory refrigerant charge is 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 the unit's nameplate specifications. This unit has been rated in the cooling mode at the AHRI rated conditions of: indoor (80°F db/67°F wb) and outdoor (95°F db). While operating at this condition, the superheat should range from 9°F to 11°F for each refrigeration circuit measured at the suction service port located near the compressor.

### START-UP PROCEDURE AND CHECKLIST



Begin with power turned off at all disconnects.

### AIR CONDITIONING START-UP PROCEDURE

1. Ensure the thermostat is set to OFF and Fan is set to Auto. On units with DDC controls installed, use Test/Balance Menu to force the unit to Vent Mode. This test bypasses internal delays.
2. Inspect all registers and set them to the normal open position.
3. Turn on the electrical supply at the disconnect.
4. Turn the fan switch to the "ON" position. The blower should operate at the selected speed. On units with DDC controls installed, use Test/Balance Menu to force the unit to Vent Mode. This test bypasses internal delays.

5. Turn the fan switch to “Auto” position. The blower should stop after a 60 second delay. On units with DDC controls installed, use Test/Balance Menu to force the unit to Off Mode. This test bypasses internal delays.
6. Set the thermostat to Cool mode and slowly lower the cooling temperature until the unit starts. The compressor, blower and fan should now be operating. Allow the unit to run 10 minutes, make sure cool air is being supplied by the unit. On units with DDC controls installed, use Test/Balance Menu to force the unit to Low Cool Mode or High Cool Mode. This test bypasses internal delays.
7. Check that the 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 the 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, this indicates that there is a phasing issue. Perform the following to correct:
  1. Turn power to the unit OFF.
  2. Switch any two leads of power supply at unit Single Point Power Block.
  3. Turn power to the unit ON.
  4. Perform step 7 again.
8. Turn the temperature setting to the highest position, stopping the unit. The indoor blower will continue to run for 60 seconds.
9. Turn the thermostat system switch to “OFF” and disconnect all power when servicing the unit. On units with DDC controls installed, use Test/Balance Menu to force the unit to Vent Mode. This test bypasses internal delays. Use Test/Balance Menu to disable Force Mode operation and allow the unit to return to normal operation.

**NOTE: THE COMPRESSOR HAS A 180 SECOND RE-START DELAY ON TIMER TO AVOID SHORT CYCLING.**

 <b>WARNING</b>	
<p><b>HIGH VOLTAGE!</b>  <b>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.</b></p>	

## HEAT PUMP START-UP PROCEDURE

1. Check the cooling mode for the heat pump in the same manner as above. The reversing valve is energized when the thermostat is placed in the cooling position. A clicking sound should be noticeable from the reversing valve. By lowering the temperature setting to call for cooling, the solenoid valve is energized. The compressor, blower and fan should then be running. After the cooling mode is checked out, turn the thermostat system switch to “OFF”. On units with DDC controls installed, use Test/Balance Menu to force the unit to Off Mode. This test bypasses internal delays.
2. Turn the thermostat system switch to “HEAT” and fan switch to “AUTO”. On units with DDC controls installed, use Test/Balance Menu to force the unit to Low Heat or High Heat Mode. This test bypasses internal delays.
3. Slowly raise the heating temperature setting. When the heating first stage makes contact, stop raising the temperature setting.. The compressor, blower and fan should now be running with the reversing valve in the deenergized (heating) position. After giving the unit time to settle out, make sure the unit is supplying heated air.
 

**NOTE: IF THE OUTDOOR AMBIENT IS ABOVE 80°F, THE UNIT MAY TRIP ON ITS HIGH PRESSURE CUT OUT WHEN ON HEATING. THE COMPRESSOR SHOULD STOP. THE HEATING CYCLE MUST BE THOROUGHLY CHECKED, SO POSTPONE THE TEST TO ANOTHER DAY WHEN CONDITIONS ARE MORE SUITABLE BUT-DO NOT FAIL TO TEST. IF THE OUTDOOR AMBIENT IS LOW AND THE UNIT OPERATES PROPERLY ON THE HEATING CYCLE, YOU MAY CHECK THE PRESSURE CUTOFF OPERATION BY BLOCKING OFF THE INDOOR RETURN AIR UNTIL THE UNIT TRIPS.**
4. Once the heating has been confirmed, raise the temperature setting until the second stage heating makes contact. Supplemental resistance heat, if installed should now come on. Make sure it operates properly.
5. For thermostats with emergency heat switch, set thermostat to Emergency Heat mode. The heat pump will stop, the blower will continue to run, all heaters will come on and the thermostat emergency heat light will come on. Confirm heaters operate normally. On units with DDC controls installed, use Test/Balance Menu to disable Force Mode operation and allow the unit to return to normal operation.

## FINAL SYSTEM CHECKS

1. Check to see if all supply and return air grilles are adjusted and the air distribution system is balanced for the best compromise between heating and cooling.
2. Check for air leaks in the ductwork. See Sections on Air Flow Adjustments.
3. Make sure the unit is free of “rattles”, and the tubing in the unit is free from excessive vibration. Also make sure tubes or lines and wires are not rubbing against each other or sheet metal surfaces or edges. If so, correct the trouble.

- Set the thermostat at the appropriate setting for cooling and heating or automatic changeover for normal use.
- Be sure the Owner is instructed on the unit operation, filter, servicing, correct thermostat operation, etc.

### REFRIGERATION PERFORMANCE CHECK

Check that compressor RLA corresponds to values shown in Appendix A. RLA draw can be much lower than values listed at low load conditions and low ambient condensing temperatures. Values in Appendix A may be slightly exceeded at high load conditions and high ambient condensing temperatures.

## HEAT PUMP OPERATION

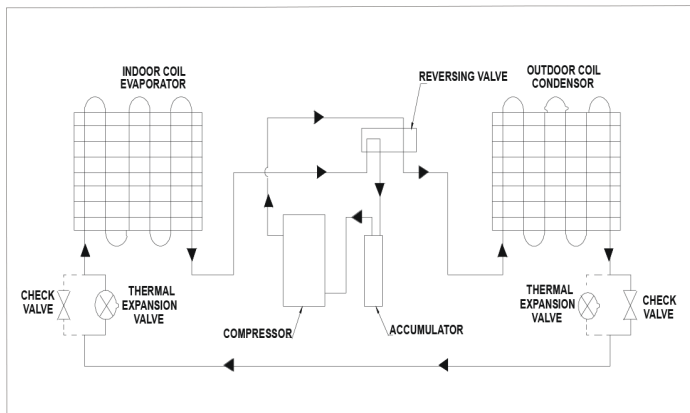
### COOLING CYCLE

When the heat pump is in the cooling cycle, it operates exactly as a Summer Air Conditioner unit. In this mode, all the charts and data for service that apply to summer air conditioning apply to the heat pump. Most apply on the heating cycle except the “condenser” becomes the “evaporator”, “evaporator” becomes “condenser”, “cooling” becomes “heating”.

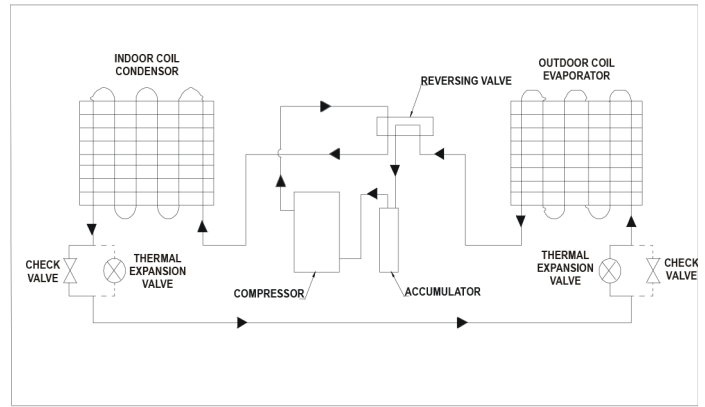
### HEATING CYCLE

The heat pump switches from cooling cycle by redirecting refrigerant flow through the refrigerant circuit external to the compressor. This is accomplished by the reversing valve. Hot discharge vapor from the compressor is directed to the indoor coil (evaporator on the cooling cycle) where the heat is removed, and the vapor condenses to liquid. It then goes through the expansion device to the outdoor coil (condenser on the cooling cycle) where the liquid is evaporated, and the vapor goes to the compressor.

The following figures show a schematic of a heat pump on the cooling cycle and the heating cycle. The heat pump is equipped with thermal expansion valves for the indoor and outdoor coils. It is also provided with a defrost control system.



COOLING



HEATING

### HEATING

When the heat pump is on the heating cycle, the outdoor coil is functioning as an evaporator. The temperature of the refrigerant in the outdoor coil must be below the temperature of the outdoor air in order to extract heat from the air. Thus, the greater the difference in the outdoor temperature and the outdoor coil temperature, the greater the heating capacity of the heat pump. This phenomenon is a characteristic of a heat pump. It is a good practice to provide supplementary heat for all heat pump installations in areas where the temperature drops below 45° F. It is also a good practice to provide sufficient supplementary heat to handle the entire heating requirement should there be a component failure of the heat pump, such as a compressor, or refrigerant leak, etc.

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

### LOW STAGE LOCK-OUT

**NOTE: ONLY 3-5T HEAT PUMP UNITS ARE EQUIPPED WITH THE LOW STAGE LOCK-OUT FEATURE.**

The outdoor system has a low stage lock-out feature. Below 39°F outdoor ambient, the system locks out low stage and operates only in high stage to provide maximum heating capacity.

## DEFROST CONTROL

During operation the Defrost signal to the circuit board is controlled by a temperature sensor, which is clamped to a feeder tube entering the outdoor coil. Defrost timing periods of 30,60 and 90 minutes may be selected by connecting the circuit board jumper to 30, 60 and 90 respectively. Accumulation of time for the timing period selected starts when the sensor contact closes (approximately 31°F), and when the wall thermostat calls for heat. At the end of the timing period, the unit's defrost cycle will be initiated provided the sensor contact remains closed. When the sensor contact opens (approximately 75°F), the defrost cycle is terminated and the timing period is reset. If the defrost cycle is not terminated due to the sensor temperature, a ten minute override interrupts the unit's defrost period.

## REFRIGERANT DETECTION SYSTEM (RDS)

### RDS FUNCTION

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

### RDS OPERATION

The mitigation system is controlled by a refrigerant sensor(s), which is secured to a designated location(s) for active monitoring. If a leak is detected, HVAC operation is disabled and the indoor blower fan is activated, providing airflow at or above the minimum required airflow to evacuate excess concentration. If a Zone Control system is installed in the ductwork attached to this system, the Zone controller must be powered through a Daikin Zoning/Accessory PCB to ensure that the Zoning Dampers open during mitigation mode to provide ventilation throughout all ducting. If the unit is installed with a communicating thermostat, the thermostat will display relevant alerts/information concerning mitigation mode. Once sensors read concentration levels below a safe threshold, a five-minute timer will initiate. Once the time is over, the unit will resume its normal operation. If the sensors detect another concentration excess, the unit will go back into mitigation mode and will repeat the same process.

## MAINTENANCE



### 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, SERVICER 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.**

The Self Contained Packaged Air Conditioner and Heat Pump should operate for many years without excessive service calls if the unit is installed properly. However it is recommended that the owner inspect the unit before a seasonal start up. The coils should be free of debris so adequate airflow is achieved. The return and supply registers should be free of any obstructions. The filters should be cleaned or replaced. These few steps will help to keep the product up time to a maximum. The Service section that follows should help in identifying problems if the unit does not operate properly.



### 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.**

## **FILTERS**

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.

### **CLEAN OUTSIDE COIL (QUALIFIED SERVICER ONLY)**

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. Any air blowing or water rinsing should be performed from inside out (opposite operating airflow direction) to prevent damage to the tube and fin coil.

### **CLEAN INDOOR COIL (QUALIFIED SERVICER ONLY)**

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

## **LUBRICATION**

The supply fan motors, the condenser fan motors and compressors are permanently lubricated.

## **FUNCTIONAL PARTS**

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

## **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.

## **RECOVERY**

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.

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

The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of the flammable refrigerant. If in doubt, the manufacturer should be consulted. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition.

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

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

## **CHARGING PROCEDURES**

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

- Ensure that contamination of different refrigerants does not occur when using charging equipment.
- Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate position according to the instructions.
- Ensure that the REFRIGERATING SYSTEM is earthed/grounded prior to charging the system with refrigerant.
- Extreme care shall be taken not to overfill the REFRIGERATING SYSTEM.

Prior to recharging the system, it shall be pressure- tested with the appropriate purging gas.

The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

**IMPORTANT NOTE: REFER TO THE STANDING PRESSURE TEST/LEAK DETECTION METHOD REFERENCED LATER IN THIS MANUAL.**

**NOTE: "EARTHING" IS DEFINED AS ACHIEVING AN EARTH GROUND BY CONNECTING THE EQUIPMENT'S SUPPLIED GROUNDING LUG TO THE EARTH. THIS SHOULD BE VERIFIED BY A CERTIFIED TECHNICIAN.**

**SERVICING MEASURES FOR THE REFRIGERANT DETECTION SYSTEM:**

Before servicing, identify the mode of operation of the system by reading the LED flashing pattern on the PCB within the control box and matching the LED flashing pattern with mode of operation in the REFRIGERANT DETECTION SYSTEM TROUBLESHOOTING GUIDE on the wiring diagram which is attached on the back side of the control box panel (RDS PCB Fault Code table). After identifying the mode of operation, take recommended actions as specified in the Recommended Actions for PCB LED Flashing Codes table.

REFRIGERANT SENSORS for REFRIGERANT DETECTION SYSTEMS shall only be replaced with sensors specified by the manufacturer. If REFRIGERANT SENSOR requires replacement, please replace with Sensata R32 Sensor PN#RGD-00ML12 (Daikin PN#SER2A08012).






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

**RDS PCB FAULT CODE TABLE**

# TROUBLESHOOTING CODE

LED TROUBLESHOOT STATUS					
	MODE	DEFINITION	LED FLASHING PATTERN	RECOMMENDED ACTIONS	NOTES
1	Normal Operation	No faults to report.	Slow LED flashing pattern (2 seconds on and 2 seconds off)	No actions needed.	
2	R32 Leak Alarm	R32 leak is currently being detected.	Fast LED Flashing Pattern	A technician will need to find the refrigerant leak and address it. Unit shall be thawed before servicing.	In terms of the controls, no action is needed. The controls and sensor are working fine.
3	Delay Mode	After R32 leak or alarm has been cleared, the unit will remain in alarm mode for 5 minutes before returning to normal operation.	LED will be on continuously	No action needed - If the system was previously experiencing an actual R32 Leak, the refrigerant can no longer be detected by the sensor meaning it's either gone and the system won't work anymore or there was a false alarm. If the system was experiencing a Fault, the fault is gone and the system will return to normal operation in 5 min.	After any alarm or fault, it is required to remain in R32 mitigation mode for 5 minutes.
4	System Verification Mode	Manual test run by contractor to simulate R32 Leak Alarm (test will last for 5 minutes max).	Fast LED Flashing Pattern	No actions needed.	To enter system verification test mode, press the button on the control 2 times within 5 seconds. The control will enter a simulated R32 Leak Alarm state and remain in that mode for 5 minutes. After 5 minutes, the control will return to Normal Operation automatically. If the contractor wants to end the test early they need to press the button one time.
5	Control Board Internal Fault	Control board has detected an issue with the R32 detection system.	LED will flash 2 times and then be off for 5 seconds, before repeating pattern	1) Unplug and plug the R32 sensor back in. Cycle power to the system. 2) If the control is in "Normal Operation" or "Delay Mode", there is no more issue. If not, continue with diagnostics 3) Unplug R32 sensor and leave unplugged. Cycle power to the system 4) If the control still displays "Control Board Internal Fault" (2 flash pattern), replace the control. If the control now displays "R32 Sensor Communication Fault" (3 flash pattern), replace the sensor.	This error could indicate an on board relay failure or a short with the sensor communications. A sensor communication short could occur on the board itself or external to the board. These steps will determine if the error is on the board or external to the board.
6	R32 Sensor Communication Fault	Control board does not have communications with R32 sensor.	LED will flash 3 times and then be off for 5 seconds, before repeating pattern	1) Unplug and plug the R32 sensor back in. Cycle power to the system. 2) If control is in "Normal Operation" or "Delay Mode", there is no more issue. If not, continue with diagnostics. 3) If the control still displays "R32 Sensor Communication Fault" (3 flash pattern), replace both the sensor and the PCB.	If the control cannot talk to the sensor there could be a problem with the sensor, a problem with the sensor harness or a problem internal to the control. The field will not be able to measure anything to reliably fix this error assuming the connector is properly secured to the control. Replacing both is the only option.
7	R32 Sensor Fault	R32 Sensor has reported an internal issue.	LED will flash 4 times and then be off for 5 seconds, before repeating pattern	Replace R32 sensor.	Communications to the sensor are perfectly fine. The sensor itself is reporting an internal fault.

## RECOMMENDED ACTIONS FOR PCB LED FLASHING CODES TABLE

	warning; flammable materials
	service indicator; read technical manual
	operator's manual; operating instructions
	warning; low burning velocity material
	UN GHS flame symbol

**MARKING SYMBOL TABLE**

## THE FOLLOWING INSTRUCTIONS ARE MANDATORY FOR A2L SYSTEMS AND SUPERSEDE OTHER INSTRUCTIONS

### WARNING

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

## STANDING PRESSURE TEST/ LEAK DETECTION METHOD

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

## DEEP VACUUM METHOD

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

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

## ACCESSORY INSTALLATION

### WARNING

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

# ALTITUDE ADJUSTMENT FACTOR TO CALCULATE MINIMUM ROOM AREA

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

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

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

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

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHC0361D	208/230/1/60	1	14.5	91.0	1	0.17	0.95	1	0.75	5.7	-	-	-	-	-	24.8/24.8	35/35
											-	-	-	9.6/8.7	-	34.4/33.5	45/45
											-	-	-	-	-	27.0/26.7	40/40
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	36.6/35.4	50/45
											-	-	-	-	-	29.7/33.2	35/35
											EH*D-1S05A	3.8/5.0	18.1/20.8	9.6/8.7	-	41.7/44.0	45/45
														-	2.2/1.9 (1.7/1.5)	32.4/35.5	40/40
														9.6/8.7	2.2/1.9 (1.7/1.5)	44.4/46.4	50/50
											EH*D-1S10A	7.5/10.0	36.1/41.7	-	-	52.3/59.2	60/60
														9.6/8.7	-	64.3/70.1	70/80
														-	2.2/1.9 (1.7/1.5)	55.0/61.6	60/70
											EH*D-1S15A	11.3/15.0	54.2/62.5	9.6/8.7	2.2/1.9 (1.7/1.5)	67.0/72.5	70/80
														-	-	74.8/85.3	80/90
														9.6/8.7	-	86.8/96.1	90/100
											-	-	-	-	-	77.6/87.6	80/90
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	89.6/98.5	90/100											
DHC0363D	208/230/3/60	1	9.2	82.0	1	0.17	0.95	1	0.75	5.7	-	-	-	-	-	18.1/18.1	25/25
											-	-	-	9.6/8.7	-	27.7/26.8	35/35
											-	-	-	-	-	20.3/20.0	25/25
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	29.9/28.7	35/35
											-	-	-	-	-	20.2/22.2	25/25
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	32.2/33.0	35/35
														-	2.2/1.9 (1.7/1.5)	22.9/24.5	25/25
														9.6/8.7	2.2/1.9 (1.7/1.5)	34.9/35.4	35/40
											EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	33.1/37.1	35/40
														9.6/8.7	-	45.1/48.0	50/50
														-	2.2/1.9 (1.7/1.5)	35.8/39.5	40/40
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	2.2/1.9 (1.7/1.5)	47.8/50.3	50/60
														-	-	46.2/52.2	50/60
														9.6/8.7	-	58.2/63.1	60/70
											-	-	-	-	-	49.0/54.6	50/60
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	61.0/65.5	70/70											
DHC0363W	208/230/3/60	1	9.2	82.0	1	0.17	0.95	1	1.2	5.0	-	-	-	-	-	17.4/17.4	25/25
											-	-	-	9.6/8.7	-	27.0/26.1	35/35
											-	-	-	-	-	19.6/19.3	25/25
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	29.2/28.0	35/35
											-	-	-	-	-	19.3/21.3	25/25
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	31.3/32.2	35/35
														-	2.2/1.9 (1.7/1.5)	22.0/23.7	25/25
														9.6/8.7	2.2/1.9 (1.7/1.5)	34.0/34.5	35/35
											EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	32.2/36.2	35/40
														9.6/8.7	-	44.2/47.1	45/50
														-	2.2/1.9 (1.7/1.5)	35.0/38.6	35/40
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	2.2/1.9 (1.7/1.5)	47.0/49.5	50/50
														-	-	45.3/51.4	50/60
														9.6/8.7	-	57.3/62.2	60/70
											-	-	-	-	-	48.1/53.7	50/60
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	60.1/64.6	70/70											
DHC0364D	460/3/60	1	4.2	44.3	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	8.2	15
											-	-	-	4.3	-	12.5	15
											-	-	-	-	-	9.1	15
											-	-	-	4.3	0.9 (0.5)	13.4	15
											-	-	-	-	-	10.6	15
											EH*D-4S05A	5.0	6.0	4.3	-	16.0	20
														-	0.9 (0.5)	11.8	15
														4.3	0.9 (0.5)	17.1	20
											EH*D-4S10A	10.0	12.0	-	-	18.2	20
														4.3	-	23.5	25
														-	0.9 (0.5)	19.3	20
											EH*D-4S15A	15.0	18.0	4.3	0.9 (0.5)	24.7	25
														-	-	25.7	30
														4.3	-	31.1	35
											-	-	-	-	-	26.8	30
-	-	-	4.3	0.9 (0.5)	32.2	35											

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHC0364W	460/3/60	1	4.2	44.3	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	8.2	15
											-	-	-	4.3	-	12.5	15
											-	-	-	-	0.9(0.5)	9.1	15
											-	-	-	4.3	0.9(0.5)	13.4	15
											EH*D-4S05A	5.0	6.0	-	-	10.6	15
														4.3	-	16.0	20
														-	0.9(0.5)	11.8	15
											EH*D-4S10A	10.0	12.0	4.3	-	18.2	20
														-	0.9(0.5)	23.5	25
														4.3	0.9(0.5)	24.7	25
											EH*D-4S15A	15.0	18.0	-	-	25.7	30
														4.3	-	31.1	35
														-	0.9(0.5)	26.8	30
											-	-	-	4.3	0.9(0.5)	32.2	35
											DHC0367D	575/3/60	1	3.7	28.7	1	0.17
-	-	-	3.5	-	10.5	15											
-	-	-	-	1.0	8.0	15											
-	-	-	3.5	1.0	11.5	15											
EH*D-7S05A	5.0	4.8	-	-	8.5	15											
			3.5	-	12.9	15											
			-	1.0	9.8	15											
EH*D-7S10A	10.0	9.6	3.5	1.0	14.1	15											
			-	-	14.5	15											
			3.5	-	18.9	20											
EH*D-7S15A	15.0	14.4	-	-	20.5	25											
			3.5	-	24.9	25											
			-	1.0	21.8	25											
3.5	1.0	26.2	30														
DHC0367W	575/3/60	1	3.7	28.7	1	0.17	0.39	1	1.2	2.0							
											-	-	-	3.5	-	10.5	15
											-	-	-	-	1.0	8.0	15
											-	-	-	3.5	1.0	11.5	15
											EH*D-7S05A	5.0	4.8	-	-	8.5	15
														3.5	-	12.9	15
														-	1.0	9.8	15
											EH*D-7S10A	10.0	9.6	3.5	1.0	14.1	15
														-	-	14.5	15
														3.5	-	18.9	20
											EH*D-7S15A	15.0	14.4	-	-	20.5	25
														3.5	-	24.9	25
														-	1.0	21.8	25
											3.5	1.0	26.2	30			
											DHC0481D	208/230/1/60	1	23.2	128	1	0.17
-	-	-	9.6/8.7	-	46.5/45.6	60/60											
-	-	-	-	2.2/1.9 (1.7/1.5)	39.1/38.8	60/60											
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	48.7/47.5	70/70											
EH*D-1S05A	3.8/5.0	18.1/20.8	-	-	36.9/36.9	60/60											
			9.6/8.7	-	46.5/45.6	60/60											
			-	2.2/1.9 (1.7/1.5)	39.1/38.8	60/60											
9.6/8.7	2.2/1.9 (1.7/1.5)	48.7/47.9	70/70														
EH*D-1S10A	7.5/10.0	36.1/41.7	-	-	53.8/60.7	60/70											
			9.6/8.7	-	65.8/71.6	70/80											
			-	2.2/1.9 (1.7/1.5)	56.5/63.1	60/70											
9.6/8.7	2.2/1.9 (1.7/1.5)	68.5/74.0	70/80														
EH*D-1S15A	11.3/15.0	54.2/62.5	-	-	76.3/86.8	80/90											
			9.6/8.7	-	88.3/97.6	90/100											
			-	2.2/1.9 (1.7/1.5)	79.1/89.1	80/90											
9.6/8.7	2.2/1.9 (1.7/1.5)	91.1/100	100/100														
EH*D-1S20A	15.0/20.0	72.2/83.3	-	-	98.9/113	100/125											
			9.6/8.7	-	111/124	125/125											
			-	2.2/1.9 (1.7/1.5)	102/115	110/125											
9.6/8.7	2.2/1.9 (1.7/1.5)	114/126	125/150														

## APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply												
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP											
DHC0483D	208/230/3/60	1	12.0	105	1	0.17	0.95	1	1.0	6.9	-	-	-	-	-	22.8/22.8	30/30											
											-	-	-	9.6/8.7	-	32.4/31.5	40/40											
											-	-	-	-	-	2.2/1.9 (1.7/1.5)	25.0/24.7	35/35										
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	34.6/33.4	45/40											
											EH*D-3S05A	3.8/5.0	10.4/12.0	-	-	22.8/23.7	30/30											
														9.6/8.7	-	33.7/34.5	40/40											
														-	2.2/1.9 (1.7/1.5)	25.0/26.0	35/35											
														9.6/8.7	2.2/1.9 (1.7/1.5)	36.4/36.9	45/40											
														-	-	34.6/38.6	35/40											
														9.6/8.7	-	46.6/49.5	50/50											
											EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	37.3/41.0	40/45											
														9.6/8.7	2.2/1.9 (1.7/1.5)	49.3/51.8	50/60											
														-	-	47.7/53.7	50/60											
														9.6/8.7	-	59.7/64.6	60/70											
														-	2.2/1.9 (1.7/1.5)	50.5/56.1	60/60											
														9.6/8.7	2.2/1.9 (1.7/1.5)	62.5/67.0	70/70											
											EH*D-3S15A	11.3/15.0	31.3/36.1	-	-	60.5/68.5	70/70											
														9.6/8.7	-	72.5/79.3	80/80											
														-	2.2/1.9 (1.7/1.5)	63.2/70.8	70/80											
														9.6/8.7	2.2/1.9 (1.7/1.5)	75.2/81.7	80/90											
														-	-	20.9/20.9	30/30											
														9.6/8.7	-	30.5/29.6	40/40											
											DHC0483W	208/230/3/60	1	12.0	105	1	0.17	0.95	1	1.2	5.0	-	-	-	-	-	20.9/20.9	30/30
																						-	-	-	9.6/8.7	-	30.5/29.6	40/40
-	-	-	-	-	2.2/1.9 (1.7/1.5)	23.1/22.8	30/30																					
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	32.7/31.5	40/40																						
EH*D-3S05A	3.8/5.0	10.4/12.0	-	-	20.9/21.3	30/30																						
			9.6/8.7	-	31.3/32.2	40/40																						
			-	2.2/1.9 (1.7/1.5)	23.1/23.7	30/30																						
			9.6/8.7	2.2/1.9 (1.7/1.5)	34.0/34.5	40/40																						
			-	-	32.2/36.2	35/40																						
			9.6/8.7	-	44.2/47.1	45/50																						
EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	35.0/38.6	35/40																						
			9.6/8.7	2.2/1.9 (1.7/1.5)	47.0/49.5	50/50																						
			-	-	45.3/51.4	50/60																						
			9.6/8.7	-	57.3/62.2	60/70																						
			-	2.2/1.9 (1.7/1.5)	48.1/53.7	50/60																						
			9.6/8.7	2.2/1.9 (1.7/1.5)	60.1/64.6	70/70																						
EH*D-3S15A	11.3/15.0	31.3/36.1	-	-	58.1/66.1	60/70																						
			9.6/8.7	-	70.1/77.0	80/80																						
			-	2.2/1.9 (1.7/1.5)	60.9/68.5	70/70																						
			9.6/8.7	2.2/1.9 (1.7/1.5)	72.9/79.3	80/80																						
			-	-	10.7	15																						
			4.3	-	15.0	20																						
DHC0484D	460/3/60	1	6.2	61.8	1	0.17	0.48	1	1.2	2.5												-	-	-	-	-	10.7	15
																						-	-	-	4.3	-	15.0	20
											-	-	-	-	0.9 (0.5)	11.6	15											
											-	-	-	4.3	0.9 (0.5)	15.9	20											
											EH*D-4S05A	5.0	6.0	-	-	10.7	15											
														4.3	-	16.0	20											
														-	0.9 (0.5)	11.8	15											
														4.3	0.9 (0.5)	17.1	20											
														-	-	18.2	20											
														4.3	-	23.5	25											
											EH*D-4S10A	10.0	12.0	-	-	19.3	20											
														4.3	0.9 (0.5)	24.7	25											
														-	-	25.7	30											
														4.3	-	31.1	35											
														-	0.9 (0.5)	26.8	30											
														4.3	0.9 (0.5)	32.2	35											
											EH*D-4S15A	15.0	18.0	-	-	33.2	35											
														4.3	-	38.6	40											
														-	0.9 (0.5)	34.3	35											
														4.3	0.9 (0.5)	39.7	40											
														-	-	33.2	35											
														4.3	-	38.6	40											

## APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply		
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP	
DHC0484W	460/3/60	1	6.2	61.8	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	10.7	15	
											-	-	-	4.3	-	15.0	20	
											-	-	-	-	-	0.9 (0.5)	11.6	15
											-	-	-	4.3	-	0.9 (0.5)	15.9	20
											-	-	-	-	-	-	10.7	15
											EH*D-4S05A	5.0	6.0	4.3	-	16.0	20	
														-	-	0.9 (0.5)	11.8	15
														4.3	-	0.9 (0.5)	17.1	20
														-	-	-	18.2	20
											EH*D-4S10A	10.0	12.0	4.3	-	23.5	25	
														-	-	0.9 (0.5)	19.3	20
														4.3	-	0.9 (0.5)	24.7	25
														-	-	-	25.7	30
											EH*D-4S15A	15.0	18.0	4.3	-	31.1	35	
														-	-	0.9 (0.5)	26.8	30
														4.3	-	0.9 (0.5)	32.2	35
														-	-	-	33.2	35
											EH*D-4S20A	20.0	24.1	4.3	-	38.6	40	
														-	-	0.9 (0.5)	34.3	35
														4.3	-	0.9 (0.5)	39.7	40
-	-	-	-	-														
DHC0487D	575/3/60	1	4.5	39.0	1	0.17	0.39	1	1.2	2.0	-	-	-	-	-	8.0	15	
											-	-	-	3.5	-	11.5	15	
											-	-	-	-	-	1.0	9.0	15
											-	-	-	3.5	-	1.0	12.5	15
											-	-	-	-	-	-	8.5	15
											EH*D-7S05A	5.0	4.8	3.5	-	12.9	15	
														-	-	1.0	9.8	15
														3.5	-	1.0	14.1	15
														-	-	-	14.5	15
											EH*D-7S10A	10.0	9.6	3.5	-	18.9	20	
														-	-	1.0	15.8	20
														3.5	-	1.0	20.2	25
														-	-	-	20.5	25
											EH*D-7S15A	15.0	14.4	3.5	-	24.9	25	
														-	-	1.0	21.8	25
														3.5	-	1.0	26.2	30
														-	-	-	26.6	30
											EH*D-7S20A	20.0	19.2	3.5	-	30.9	35	
														-	-	1.0	27.8	30
														3.5	-	1.0	32.2	35
-	-	-	-	-														
DHC0487W	575/3/60	1	4.5	39.0	1	0.17	0.39	1	1.2	2.0	-	-	-	-	-	8.0	15	
											-	-	-	3.5	-	11.5	15	
											-	-	-	-	-	1.0	9.0	15
											-	-	-	3.5	-	1.0	12.5	15
											-	-	-	-	-	-	8.5	15
											EH*D-7S05A	5.0	4.8	3.5	-	12.9	15	
														-	-	1.0	9.8	15
														3.5	-	1.0	14.1	15
														-	-	-	14.5	15
											EH*D-7S10A	10.0	9.6	3.5	-	18.9	20	
														-	-	1.0	15.8	20
														3.5	-	1.0	20.2	25
														-	-	-	20.5	25
											EH*D-7S15A	15.0	14.4	3.5	-	24.9	25	
														-	-	1.0	21.8	25
														3.5	-	1.0	26.2	30
														-	-	-	26.6	30
											EH*D-7S20A	20.0	19.2	3.5	-	30.9	35	
														-	-	1.0	27.8	30
														3.5	-	1.0	32.2	35
-	-	-	-	-														

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHC0601D	208/230/1/60	1	27.1	178	1	1/3	2.6	1	1.0	6.9	-	-	-	-	-	43.3/43.3	70/70
											-	-	-	9.6/8.7	-	52.9/52.0	80/70
											-	-	-	-	2.2/1.9 (1.7/1.5)	45.5/45.2	70/70
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	55.1/53.9	80/80
											-	-	-	-	-	43.3/43.3	70/70
											EH*D-1S05A	3.8/5.0	18.1/20.8	9.6/8.7	-	52.9/52.0	80/70
														-	2.2/1.9 (1.7/1.5)	45.5/45.2	70/70
														9.6/8.7	2.2/1.9 (1.7/1.5)	55.1/53.9	80/80
											EH*D-1S10A	7.5/10.0	36.1/41.7	-	-	53.8/60.7	70/70
														9.6/8.7	-	65.8/71.6	80/80
														-	2.2/1.9 (1.7/1.5)	56.5/63.1	70/70
											EH*D-1S15A	11.3/15.0	54.2/62.5	9.6/8.7	2.2/1.9 (1.7/1.5)	68.5/74.0	80/80
														-	-	76.3/86.8	80/90
														9.6/8.7	2.2/1.9 (1.7/1.5)	88.3/97.6	90/100
											EH*D-1S20A	15.0/20.0	72.2/83.3	-	-	79.1/89.1	80/90
9.6/8.7	2.2/1.9 (1.7/1.5)	91.1/100	100/100														
-	-	98.9/113	100/125														
-	-	-	9.6/8.7	-	111/124	125/125											
-	-	-	-	2.2/1.9 (1.7/1.5)	102/115	110/125											
9.6/8.7	2.2/1.9 (1.7/1.5)	114/126	125/150														
DHC0603D	208/230/3/60	1	15.2	140	1	1/3	2.6	1	1.0	6.9	-	-	-	-	-	28.5/28.5	40/40
											-	-	-	9.6/8.7	-	38.1/37.2	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	30.7/30.4	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	40.3/39.1	50/50
											-	-	-	-	-	28.5/28.5	40/40
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	38.1/37.2	50/50
														-	2.2/1.9 (1.7/1.5)	30.7/30.4	45/45
														9.6/8.7	2.2/1.9 (1.7/1.5)	40.3/39.1	50/50
											EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	34.6/38.6	40/40
														9.6/8.7	-	46.6/49.5	50/50
														-	2.2/1.9 (1.7/1.5)	37.3/41.0	45/45
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	2.2/1.9 (1.7/1.5)	49.3/51.8	50/60
														-	-	47.7/53.7	50/60
														9.6/8.7	-	59.7/64.6	60/70
											EH*D-3S20A	14.9/19.9	41.5/47.9	-	-	50.5/56.1	60/60
9.6/8.7	2.2/1.9 (1.7/1.5)	62.5/67.0	70/70														
-	-	60.5/68.5	70/70														
-	-	-	9.6/8.7	-	72.5/79.3	80/80											
-	-	-	-	2.2/1.9 (1.7/1.5)	63.2/70.8	70/80											
9.6/8.7	2.2/1.9 (1.7/1.5)	75.2/81.7	80/90														
DHC0603W	208/230/3/60	1	15.2	140	1	1/3	2.6	1	2.3	7.7	-	-	-	-	-	29.3/29.3	40/40
											-	-	-	9.6/8.7	-	38.9/38.0	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	31.5/31.2	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	41.1/39.9	50/50
											-	-	-	-	-	29.3/29.3	40/40
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	38.9/38.0	50/50
														-	2.2/1.9 (1.7/1.5)	31.5/31.2	45/45
														9.6/8.7	2.2/1.9 (1.7/1.5)	41.1/39.9	50/50
											EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	35.6/39.6	40/40
														9.6/8.7	-	47.6/50.5	50/60
														-	2.2/1.9 (1.7/1.5)	38.3/42.0	45/45
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	2.2/1.9 (1.7/1.5)	50.3/52.8	60/60
														-	-	48.7/54.7	50/60
														9.6/8.7	-	60.7/65.6	70/70
											EH*D-3S20A	14.9/19.9	41.5/47.9	-	-	51.5/57.1	60/60
9.6/8.7	2.2/1.9 (1.7/1.5)	63.5/68.0	70/70														
-	-	61.5/69.5	70/70														
-	-	-	9.6/8.7	-	73.5/80.3	80/90											
-	-	-	-	2.2/1.9 (1.7/1.5)	64.2/71.8	70/80											
9.6/8.7	2.2/1.9 (1.7/1.5)	76.2/82.7	80/90														

## APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHC0604D	460/3/60	1	7.4	54.7	1	0.33	1.6	1	1.2	2.5	-	-	-	-	-	13.3	20
											-	-	-	4.3	-	17.6	20
											-	-	-	-	0.9 (0.5)	14.2	20
											-	-	-	4.3	0.9 (0.5)	18.5	25
											-	-	-	-	-	13.3	20
											EH*D-4S05A	5.0	6.0	4.3	-	17.6	20
														-	0.9 (0.5)	14.2	20
											EH*D-4S10A	10.0	12.0	4.3	0.9 (0.5)	18.5	25
														-	-	18.2	20
											EH*D-4S15A	15.0	18.0	4.3	-	23.5	25
														-	0.9 (0.5)	19.3	20
											EH*D-4S20A	20.0	24.1	4.3	0.9 (0.5)	24.7	25
														-	-	25.7	30
											EH*D-4S15A	15.0	18.0	4.3	-	31.1	35
														-	0.9 (0.5)	26.8	30
											EH*D-4S20A	20.0	24.1	4.3	0.9 (0.5)	32.2	35
-	-	33.2	35														
EH*D-4S20A	20.0	24.1	4.3	-	38.6	40											
			-	0.9 (0.5)	34.3	35											
-	-	-	4.3	0.9 (0.5)	39.7	40											
DHC0604W	460/3/60	1	7.4	54.7	1	0.33	1.6	1	2.3	4.5	-	-	-	-	-	15.3	20
											-	-	-	4.3	-	19.6	25
											-	-	-	-	0.9 (0.5)	16.2	20
											-	-	-	4.3	0.9 (0.5)	20.5	25
											-	-	-	-	-	15.3	20
											EH*D-4S05A	5.0	6.0	4.3	-	19.6	25
														-	0.9 (0.5)	16.2	20
											EH*D-4S10A	10.0	12.0	4.3	0.9 (0.5)	20.5	25
														-	-	20.7	25
											EH*D-4S15A	15.0	18.0	4.3	-	26.0	30
														-	0.9 (0.5)	21.8	25
											EH*D-4S20A	20.0	24.1	4.3	0.9 (0.5)	27.2	30
														-	-	28.2	30
											EH*D-4S15A	15.0	18.0	4.3	-	33.6	35
														-	0.9 (0.5)	29.3	30
											EH*D-4S20A	20.0	24.1	4.3	0.9 (0.5)	34.7	35
-	-	35.7	40														
EH*D-4S20A	20.0	24.1	4.3	-	41.1	45											
			-	0.9 (0.5)	36.8	40											
-	-	-	4.3	0.9 (0.5)	42.2	45											
DHC0607D	575/3/60	1	5.6	47.8	1	1/3	1.14	1	1.2	2.0	-	-	-	-	-	10.2	15
											-	-	-	3.5	-	13.7	15
											-	-	-	-	1.0	11.2	15
											-	-	-	3.5	1.0	14.7	20
											-	-	-	-	-	10.2	15
											EH*D-7S05A	5.0	4.8	3.5	-	13.7	15
														-	1.0	11.2	15
											EH*D-7S10A	10.0	9.6	3.5	1.0	14.7	20
														-	-	14.5	15
											EH*D-7S15A	15.0	14.4	3.5	-	18.9	20
														-	1.0	15.8	20
											EH*D-7S20A	20.0	19.2	3.5	1.0	20.2	25
														-	-	20.5	25
											EH*D-7S15A	15.0	14.4	3.5	-	24.9	25
														-	1.0	21.8	25
											EH*D-7S20A	20.0	19.2	3.5	1.0	26.2	30
-	-	26.6	30														
EH*D-7S20A	20.0	19.2	3.5	-	30.9	35											
			-	1.0	27.8	30											
-	-	-	3.5	1.0	32.2	35											

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHC0607W	575/3/60	1	5.6	47.8	1	1/3	1.14	1	2.3	3.8	-	-	-	-	-	12.0	15
											-	-	-	3.5	-	15.5	20
											-	-	-	-	1.0	13.0	15
											-	-	-	3.5	1.0	16.5	20
											-	-	-	-	-	12.0	15
											EH*D-7S05A	5.0	4.8	3.5	-	15.5	20
											-	-	-	-	1.0	13.0	15
											-	-	-	3.5	1.0	16.5	20
											-	-	-	-	-	16.8	20
											EH*D-7S10A	10.0	9.6	3.5	-	21.2	25
											-	-	-	-	1.0	18.0	20
											-	-	-	3.5	1.0	22.4	25
											-	-	-	-	-	22.8	25
											EH*D-7S15A	15.0	14.4	3.5	-	27.2	30
											-	-	-	-	1.0	24.0	25
											-	-	-	3.5	1.0	28.4	30
-	-	-	-	-	28.8	30											
EH*D-7S20A	20.0	19.2	3.5	-	33.2	35											
-	-	-	-	1.0	30.1	35											
-	-	-	3.5	1.0	34.4	35											
DHC0723D	208/230/3/60	1	16.1	155	1	0.33	2.0	1	1.2	5.0	-	-	-	-	-	27.2/27.2	40/40
											-	-	-	9.6/8.7	-	36.8/35.9	50/50
											-	-	-	-	-	29.4/29.1	40/40
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	39.0/37.8	50/50
											-	-	-	-	-	27.2/27.2	40/40
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	36.8/35.9	50/50
											-	-	-	-	-	29.4/29.1	40/40
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	39.0/37.8	50/50
											-	-	-	-	-	32.2/36.2	40/40
											EH*D-3S10A	7.5/10.0	20.8/24.0	9.6/8.7	-	44.2/47.1	50/50
											-	-	-	-	-	35.0/38.6	40/40
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	47.0/49.5	50/50
											-	-	-	-	-	45.3/51.4	50/60
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	-	57.3/62.2	60/70
											-	-	-	-	-	48.1/53.7	50/60
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	60.1/64.6	70/70
											-	-	-	-	-	58.1/66.1	60/70
											EH*D-3S20A	14.9/19.9	41.5/47.9	9.6/8.7	-	70.1/77.0	80/80
											-	-	-	-	-	60.9/68.5	70/70
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	72.9/79.3	80/80
											-	-	-	-	-	84.4/96.5	90/100
											EH*D-3S30A	22.5/30.0	62.5/72.2	9.6/8.7	-	96.4/107	100/110
											-	-	-	-	-	87.2/98.8	90/100
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	99.2/110	100/110
DHC0723W	208/230/3/60	1	16.1	155	1	0.33	2.0	1	2.3	7.7	-	-	-	-	-	29.9/29.9	45/45
											-	-	-	9.6/8.7	-	39.5/38.6	50/50
											-	-	-	-	-	32.1/31.8	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	41.7/40.5	50/50
											-	-	-	-	-	29.9/29.9	45/45
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	39.5/38.6	50/50
											-	-	-	-	-	32.1/31.8	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	41.7/40.5	50/50
											-	-	-	-	-	35.6/39.6	45/45
											EH*D-3S10A	7.5/10.0	20.8/24.0	9.6/8.7	-	47.6/50.5	50/60
											-	-	-	-	-	38.3/42.0	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	50.3/52.8	60/60
											-	-	-	-	-	48.7/54.7	50/60
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	-	60.7/65.6	70/70
											-	-	-	-	-	51.5/57.1	60/60
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	63.5/68.0	70/70
											-	-	-	-	-	61.5/69.5	70/70
											EH*D-3S20A	14.9/19.9	41.5/47.9	9.6/8.7	-	73.5/80.3	80/90
											-	-	-	-	-	64.2/71.8	70/80
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	76.2/82.7	80/90
											-	-	-	-	-	87.8/99.8	90/100
											EH*D-3S30B	22.5/30.0	62.5/72.2	9.6/8.7	-	99.8/111	100/125
											-	-	-	-	-	90.6/102	100/110
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	103/113	110/125

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHC0724D	460/3/60	1	7.0	70.8	1	0.33	0.85	1	1.2	2.5	-	-	-	-	-	12.2	15
											-	-	-	4.3	-	16.5	20
											-	-	-	-	0.9 (0.5)	13.1	15
											-	-	-	4.3	0.9 (0.5)	17.4	20
											-	-	-	-	-	12.2	15
											EH*D-4S05A	5.0	6.0	4.3	-	16.5	20
											-	-	-	-	0.9 (0.5)	13.1	15
											-	-	-	4.3	0.9 (0.5)	17.4	20
											EH*D-4S10A	10.0	12.0	4.3	-	18.2	20
											-	-	-	4.3	-	23.5	25
											-	-	-	-	0.9 (0.5)	19.3	20
											-	-	-	4.3	0.9 (0.5)	24.7	25
											EH*D-4S15A	15.0	18.0	4.3	-	25.7	30
											-	-	-	-	-	31.1	35
											-	-	-	-	0.9 (0.5)	26.8	30
											-	-	-	4.3	0.9 (0.5)	32.2	35
											EH*D-4S20A	20.0	24.1	4.3	-	33.2	35
											-	-	-	-	-	38.6	40
											-	-	-	-	0.9 (0.5)	34.3	35
											-	-	-	4.3	0.9 (0.5)	39.7	40
											EH*D-4S30A	30.0	36.1	4.3	-	48.2	50
											-	-	-	-	-	53.6	60
											-	-	-	-	0.9 (0.5)	49.4	50
											-	-	-	4.3	0.9 (0.5)	54.7	60
DHC0724W	460/3/60	1	7.0	70.8	1	0.33	0.85	1	2.3	4.5	-	-	-	-	-	14.2	20
											-	-	-	4.3	-	18.5	25
											-	-	-	-	0.9 (0.5)	15.1	20
											-	-	-	4.3	0.9 (0.5)	19.4	25
											-	-	-	-	-	14.2	20
											EH*D-4S05A	5.0	6.0	4.3	-	18.5	25
											-	-	-	-	0.9 (0.5)	15.1	20
											-	-	-	4.3	0.9 (0.5)	19.6	25
											EH*D-4S10A	10.0	12.0	4.3	-	20.7	25
											-	-	-	4.3	-	26.0	30
											-	-	-	-	0.9 (0.5)	21.8	25
											-	-	-	4.3	0.9 (0.5)	27.2	30
											EH*D-4S15A	15.0	18.0	4.3	-	28.2	30
											-	-	-	-	-	33.6	35
											-	-	-	-	0.9 (0.5)	29.3	30
											-	-	-	4.3	0.9 (0.5)	34.7	35
											EH*D-4S20A	20.0	24.1	4.3	-	35.7	40
											-	-	-	-	-	41.1	45
											-	-	-	-	0.9 (0.5)	36.8	40
											-	-	-	4.3	0.9 (0.5)	42.2	45
											EH*D-4S30B	30.0	36.1	4.3	-	50.7	60
											-	-	-	-	-	56.1	60
											-	-	-	-	0.9 (0.5)	51.9	60
											-	-	-	4.3	0.9 (0.5)	57.2	60
DHC0727D	575/3/60	1	6.0	58.2	1	0.33	0.67	1	1.2	2.0	-	-	-	-	-	10.2	15
											-	-	-	3.5	-	13.7	15
											-	-	-	-	1.0	11.2	15
											-	-	-	3.5	1.0	14.7	20
											-	-	-	-	-	10.2	15
											EH*D-7S05A	5.0	4.8	3.5	-	13.7	15
											-	-	-	-	1.0	11.2	15
											-	-	-	3.5	1.0	14.7	20
											EH*D-7S10A	10.0	9.6	3.5	-	14.5	15
											-	-	-	3.5	-	18.9	20
											-	-	-	-	1.0	15.8	20
											-	-	-	3.5	1.0	20.2	25
											EH*D-7S15A	15.0	14.4	3.5	-	20.5	25
											-	-	-	-	-	24.9	25
											-	-	-	-	1.0	21.8	25
											-	-	-	3.5	1.0	26.2	30
											EH*D-7S20A	20.0	19.2	3.5	-	26.6	30
											-	-	-	-	-	30.9	35
											-	-	-	-	1.0	27.8	30
											-	-	-	3.5	1.0	32.2	35
											EH*D-7S30A	30.0	28.9	3.5	-	38.6	40
											-	-	-	-	-	43.0	45
											-	-	-	-	1.0	39.8	40
											-	-	-	3.5	1.0	44.2	45

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply												
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP											
DHC0727W	575/3/60	1	6.0	58.2	1	0.33	0.67	1	2.3	3.8	-	-	-	-	-	12.0	15											
											-	-	-	3.5	-	15.5	20											
											-	-	-	-	1.0	13.0	15											
											-	-	-	3.5	1.0	16.5	20											
											EH*D-7S05A	5.0	4.8	-	-	12.0	15											
														3.5	-	15.5	20											
														-	1.0	13.0	15											
														3.5	1.0	16.5	20											
											EH*D-7S10A	10.0	9.6	-	-	16.8	20											
														3.5	-	21.2	25											
														-	1.0	18.0	20											
														3.5	1.0	22.4	25											
											EH*D-7S15A	15.0	14.4	-	-	22.8	25											
														3.5	-	27.2	30											
														-	1.0	24.0	25											
														3.5	1.0	28.4	30											
											EH*D-7S20A	20.0	19.2	-	-	28.8	30											
														3.5	-	33.2	35											
														-	1.0	30.1	35											
														3.5	1.0	34.4	35											
EH*D-7S30B	30.0	28.9	-	-	40.8	45																						
			3.5	-	45.2	50																						
			-	1.0	42.1	45																						
			3.5	1.0	46.5	50																						
DHH0361D	208/230/1/60	1	14.5	91.0	1	0.17	0.95	1	0.75	5.7	-	-	-	-	-	24.8/24.8	35/35											
											-	-	-	9.6/8.7	-	34.4/33.5	45/45											
											-	-	-	-	2.2/1.9 (1.7/1.5)	27.0/26.7	40/40											
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	36.6/35.4	50/45											
											EH*D-1S05A	3.8/5.0	18.1/20.8	-	-	47.4/50.9	50/60											
														9.6/8.7	-	57.0/59.6	60/60											
														-	2.2/1.9 (1.7/1.5)	49.6/52.8	50/60											
														9.6/8.7	2.2/1.9 (1.7/1.5)	59.2/61.5	60/70											
											EH*D-1S10A	7.5/10.0	36.1/41.7	-	-	69.9/76.9	70/80											
														9.6/8.7	-	79.5/85.6	80/90											
														-	2.2/1.9 (1.7/1.5)	72.1/78.8	80/80											
														9.6/8.7	2.2/1.9 (1.7/1.5)	81.7/87.5	90/90											
											EH*D-1S15A	11.3/15.0	54.2/62.5	-	-	92.5/103	100/110											
														9.6/8.7	-	102/112	110/125											
														-	2.2/1.9 (1.7/1.5)	94.7/105	100/110											
														9.6/8.7	2.2/1.9 (1.7/1.5)	104/114	110/125											
											DHH0363D	208/230/3/60	1	9.2	82.0	1	0.17	0.95	1	0.75	5.7	-	-	-	-	-	18.1/18.1	25/25
																						-	-	-	9.6/8.7	-	27.7/26.8	35/35
																						-	-	-	-	2.2/1.9 (1.7/1.5)	20.3/20.0	25/25
																						-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	29.9/28.7	35/35
EH*D-3S05A	3.8/5.0	10.4/12.0	-	-	31.1/33.1	35/35																						
			9.6/8.7	-	40.7/41.8	45/45																						
			-	2.2/1.9 (1.7/1.5)	33.3/35.0	35/40																						
			9.6/8.7	2.2/1.9 (1.7/1.5)	42.9/43.7	45/45																						
EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	44.0/48.0	45/50																						
			9.6/8.7	-	53.6/56.7	60/60																						
			-	2.2/1.9 (1.7/1.5)	46.2/49.9	50/50																						
			9.6/8.7	2.2/1.9 (1.7/1.5)	55.8/58.6	60/60																						
EH*D-3S15A	11.3/15.0	31.3/36.1	-	-	57.2/63.2	60/70																						
			9.6/8.7	-	66.8/71.9	70/80																						
			-	2.2/1.9 (1.7/1.5)	59.4/65.1	60/70																						
			9.6/8.7	2.2/1.9 (1.7/1.5)	69.0/73.8	70/80																						
DHH0363W	208/230/3/60	1	9.2	82.0	1	0.17	0.95	1	1.2	5.0												-	-	-	-	-	17.4/17.4	25/25
																						-	-	-	9.6/8.7	-	27.0/26.1	35/35
																						-	-	-	-	2.2/1.9 (1.7/1.5)	19.6/19.3	25/25
																						-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	29.2/28.0	35/35
											EH*D-3S05A	3.8/5.0	10.4/12.0	-	-	30.4/32.4	35/35											
														9.6/8.7	-	40.0/41.1	45/45											
														-	2.2/1.9 (1.7/1.5)	32.6/34.3	35/40											
														9.6/8.7	2.2/1.9 (1.7/1.5)	42.2/43.0	45/45											
											EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	43.3/47.3	45/50											
														9.6/8.7	-	52.9/56.0	60/60											
														-	2.2/1.9 (1.7/1.5)	45.5/49.2	50/50											
														9.6/8.7	2.2/1.9 (1.7/1.5)	55.1/57.9	60/60											
											EH*D-3S15A	11.3/15.0	31.3/36.1	-	-	56.5/62.5	60/70											
														9.6/8.7	-	66.1/71.2	70/80											
														-	2.2/1.9 (1.7/1.5)	58.7/64.4	60/70											
														9.6/8.7	2.2/1.9 (1.7/1.5)	68.3/73.1	70/80											

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHH0364D	460/3/60	1	4.2	44.3	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	8.2	15
											-	-	-	4.3	-	12.5	15
											-	-	-	-	0.9 (0.5)	9.1	15
											-	-	-	4.3	0.9 (0.5)	13.4	15
											-	-	-	-	-	15.7	20
											EH*D-4S05A	5.0	6.0	4.3	-	20.0	20
														-	0.9 (0.5)	16.6	20
														4.3	0.9 (0.5)	20.9	25
											-	-	-	-	-	23.2	25
											EH*D-4S10A	10.0	12.0	4.3	-	27.5	30
														-	0.9 (0.5)	24.1	25
														4.3	0.9 (0.5)	28.4	30
											-	-	-	-	-	30.7	35
											EH*D-4S15A	15.0	18.0	4.3	-	35.0	40
														-	0.9 (0.5)	31.6	35
4.3	0.9 (0.5)	35.9	40														
DHH0364W	460/3/60	1	4.2	44.3	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	8.2	15
											-	-	-	4.3	-	12.5	15
											-	-	-	-	0.9 (0.5)	9.1	15
											-	-	-	4.3	0.9 (0.5)	13.4	15
											-	-	-	-	-	15.7	20
											EH*D-4S05A	5.0	6.0	4.3	-	20.0	20
														-	0.9 (0.5)	16.6	20
														4.3	0.9 (0.5)	20.9	25
											-	-	-	-	-	23.2	25
											EH*D-4S10A	10.0	12.0	4.3	-	27.5	30
														-	0.9 (0.5)	24.1	25
														4.3	0.9 (0.5)	28.4	30
											-	-	-	-	-	30.7	35
											EH*D-4S15A	15.0	18.0	4.3	-	35.0	40
														-	0.9 (0.5)	31.6	35
4.3	0.9 (0.5)	35.9	40														
DHH0367D	575/3/60	1	3.7	28.7	1	0.17	0.39	1	1.2	2.0	-	-	-	-	-	7.0	15
											-	-	-	3.5	-	10.5	15
											-	-	-	-	1.0	8.0	15
											-	-	-	3.5	1.0	11.5	15
											-	-	-	-	-	13.0	15
											EH*D-7S05A	5.0	4.8	3.5	-	16.5	20
														-	1.0	14.0	15
														3.5	1.0	17.5	20
											-	-	-	-	-	19.1	20
											EH*D-7S10A	10.0	9.6	3.5	-	22.6	25
														-	1.0	20.1	25
														3.5	1.0	23.6	25
											-	-	-	-	-	25.1	30
											EH*D-7S15A	15.0	14.4	3.5	-	28.6	30
														-	1.0	26.1	30
3.5	1.0	29.6	30														
DHH0367W	575/3/60	1	3.7	28.7	1	0.17	0.39	1	1.2	2.0	-	-	-	-	-	7.0	15
											-	-	-	3.5	-	10.5	15
											-	-	-	-	1.0	8.0	15
											-	-	-	3.5	1.0	11.5	15
											-	-	-	-	-	13.0	15
											EH*D-7S05A	5.0	4.8	3.5	-	16.5	20
														-	1.0	14.0	15
														3.5	1.0	17.5	20
											-	-	-	-	-	19.1	20
											EH*D-7S10A	10.0	9.6	3.5	-	22.6	25
														-	1.0	20.1	25
														3.5	1.0	23.6	25
											-	-	-	-	-	25.1	30
											EH*D-7S15A	15.0	14.4	3.5	-	28.6	30
														-	1.0	26.1	30
3.5	1.0	29.6	30														

## APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHH0481D	208/230/1/60	1	23.2	128	1	0.33	3.5	1	1	6.9	-	-	-	-	-	39.4/39.4	60/60
											-	-	-	9.6/8.7	-	49.0/48.1	70/70
											-	-	-	-	2.2/1.9 (1.7/1.5)	41.6/41.3	60/60
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	51.2/50.0	70/70
											EH*D-1S05A	3.8/5.0	18.1/20.8	-	-	62.0/65.5	80/80
														9.6/8.7	-	71.6/74.2	90/90
														-	2.2/1.9 (1.7/1.5)	64.2/67.4	80/80
														9.6/8.7	2.2/1.9 (1.7/1.5)	73.8/76.1	90/90
														-	-	84.6/91.5	90/100
														9.6/8.7	-	94.2/100	100/110
											EH*D-1S10A	7.5/10.0	36.1/41.7	-	-	86.8/93.4	100/100
														9.6/8.7	-	96.4/102	110/110
														-	2.2/1.9 (1.7/1.5)	107/118	110/125
														9.6/8.7	2.2/1.9 (1.7/1.5)	117/126	125/150
														-	-	109/119	110/125
														9.6/8.7	2.2/1.9 (1.7/1.5)	119/128	125/150
											EH*D-1S15A	11.3/15.0	54.2/62.5	-	-	130/144	150/150
														9.6/8.7	-	139/152	150/175
-	2.2/1.9 (1.7/1.5)	132/146	150/150														
9.6/8.7	2.2/1.9 (1.7/1.5)	142/154	150/175														
-	-	-	-														
9.6/8.7	-	-	-														
EH*D-1S20A	15.0/20.0	72.2/83.3	-	-	-	-											
			9.6/8.7	-	-	-											
			-	2.2/1.9 (1.7/1.5)	-	-											
			9.6/8.7	2.2/1.9 (1.7/1.5)	-	-											
			-	-	-	-											
			9.6/8.7	-	-	-											
DHH0483D	208/230/3/60	1	12.0	105	1	0.33	3.5	1	1.0	6.9	-	-	-	-	-	25.4/25.4	35/35
											-	-	-	9.6/8.7	-	35.0/34.1	45/45
											-	-	-	-	2.2/1.9 (1.7/1.5)	27.6/27.3	35/35
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	37.2/36.0	45/45
											EH*D-3S05A	3.8/5.0	10.4/12.0	-	-	38.4/40.4	45/45
														9.6/8.7	-	48.0/49.1	50/50
														-	2.2/1.9 (1.7/1.5)	40.6/42.3	45/50
														9.6/8.7	2.2/1.9 (1.7/1.5)	50.2/51.0	60/60
														-	-	51.3/55.3	60/60
														9.6/8.7	-	60.9/64.0	70/70
											EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	53.5/57.2	60/60
														9.6/8.7	-	63.1/65.9	70/70
														-	2.2/1.9 (1.7/1.5)	64.5/70.5	70/80
														9.6/8.7	2.2/1.9 (1.7/1.5)	74.1/79.2	80/80
														-	-	66.7/72.4	70/80
														9.6/8.7	2.2/1.9 (1.7/1.5)	76.3/81.1	80/90
											EH*D-3S15A	11.3/15.0	31.3/36.1	-	-	77.2/85.2	80/90
														9.6/8.7	-	86.8/93.9	90/100
-	2.2/1.9 (1.7/1.5)	79.4/87.1	80/90														
9.6/8.7	2.2/1.9 (1.7/1.5)	89.0/95.8	90/100														
-	-	-	-														
9.6/8.7	-	-	-														
EH*D-3S20A	14.9/19.9	41.5/47.9	-	-	-	-											
			9.6/8.7	-	-	-											
			-	2.2/1.9 (1.7/1.5)	-	-											
			9.6/8.7	2.2/1.9 (1.7/1.5)	-	-											
			-	-	-	-											
			9.6/8.7	-	-	-											
DHH0483W	208/230/3/60	1	12.0	105	1	0.33	3.5	1	1.2	5.0	-	-	-	-	-	23.5/23.5	35/35
											-	-	-	9.6/8.7	-	33.1/32.2	45/40
											-	-	-	-	2.2/1.9 (1.7/1.5)	25.7/25.4	35/35
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	35.3/34.1	45/45
											EH*D-3S05A	3.8/5.0	10.4/12.0	-	-	36.5/38.5	45/45
														9.6/8.7	-	46.1/47.2	50/50
														-	2.2/1.9 (1.7/1.5)	38.7/40.4	45/45
														9.6/8.7	2.2/1.9 (1.7/1.5)	48.3/49.1	50/50
														-	-	49.4/53.4	50/60
														9.6/8.7	-	59.0/62.1	60/70
											EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	51.6/55.3	60/60
														9.6/8.7	-	61.2/64.0	70/70
														-	2.2/1.9 (1.7/1.5)	62.6/68.6	70/70
														9.6/8.7	2.2/1.9 (1.7/1.5)	72.2/77.3	80/80
														-	-	64.8/70.5	70/80
														9.6/8.7	2.2/1.9 (1.7/1.5)	74.4/79.2	80/80
											EH*D-3S15A	11.3/15.0	31.3/36.1	-	-	75.3/83.3	80/90
														9.6/8.7	-	84.9/92.0	90/100
-	2.2/1.9 (1.7/1.5)	77.5/85.2	80/90														
9.6/8.7	2.2/1.9 (1.7/1.5)	87.1/93.9	90/100														
-	-	-	-														
9.6/8.7	-	-	-														
EH*D-3S20A	14.9/19.9	41.5/47.9	-	-	-	-											
			9.6/8.7	-	-	-											
			-	2.2/1.9 (1.7/1.5)	-	-											
			9.6/8.7	2.2/1.9 (1.7/1.5)	-	-											
			-	-	-	-											
			9.6/8.7	-	-	-											

## APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply		
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP	
DHH0484D	460/3/60	1	6.2	61.8	1	0.33	1.6	1	1.2	2.5	-	-	-	-	-	11.9	15	
											-	-	-	4.3	-	16.2	20	
											-	-	-	-	-	0.9 (0.5)	12.8	15
											-	-	-	4.3	-	0.9 (0.5)	17.1	20
											-	-	-	-	-	-	19.4	20
											EH*D-4S05A	5.0	6.0	4.3	-	23.7	25	
														-	-	0.9 (0.5)	20.3	25
														4.3	-	0.9 (0.5)	24.6	25
														-	-	-	26.9	30
											EH*D-4S10A	10.0	12.0	4.3	-	31.2	35	
														-	-	0.9 (0.5)	27.8	30
														4.3	-	0.9 (0.5)	32.1	35
														-	-	-	34.4	35
											EH*D-4S15A	15.0	18.0	4.3	-	38.7	40	
														-	-	0.9 (0.5)	35.3	40
														4.3	-	0.9 (0.5)	39.6	40
														-	-	-	41.9	45
											EH*D-4S20A	20.0	24.1	4.3	-	46.2	50	
														-	-	0.9 (0.5)	42.8	45
														4.3	-	0.9 (0.5)	47.1	50
-	-	-	-	-														
DHH0484W	460/3/60	1	6.2	61.8	1	0.33	1.6	1	1.2	2.5	-	-	-	-	-	11.9	15	
											-	-	-	4.3	-	16.2	20	
											-	-	-	-	-	0.9 (0.5)	12.8	15
											-	-	-	4.3	-	0.9 (0.5)	17.1	20
											-	-	-	-	-	-	19.4	20
											EH*D-4S05A	5.0	6.0	4.3	-	23.7	25	
														-	-	0.9 (0.5)	20.3	25
														4.3	-	0.9 (0.5)	24.6	25
														-	-	-	26.9	30
											EH*D-4S10A	10.0	12.0	4.3	-	31.2	35	
														-	-	0.9 (0.5)	27.8	30
														4.3	-	0.9 (0.5)	32.1	35
														-	-	-	34.4	35
											EH*D-4S15A	15.0	18.0	4.3	-	38.7	40	
														-	-	0.9 (0.5)	35.3	40
														4.3	-	0.9 (0.5)	39.6	40
														-	-	-	41.9	45
											EH*D-4S20A	20.0	24.1	4.3	-	46.2	50	
														-	-	0.9 (0.5)	42.8	45
														4.3	-	0.9 (0.5)	47.1	50
-	-	-	-	-														
DHH0487D	575/3/60	1	4.5	39	1	0.33	1.54	1	1.2	2.0	-	-	-	-	-	9.1	15	
											-	-	-	3.5	-	12.6	15	
											-	-	-	-	-	1.0	10.1	15
											-	-	-	3.5	-	1.0	13.6	15
											-	-	-	-	-	-	15.2	20
											EH*D-7S05A	5.0	4.8	3.5	-	18.7	20	
														-	-	1.0	16.2	20
														3.5	-	1.0	19.7	20
														-	-	-	21.2	25
											EH*D-7S10A	10.0	9.6	3.5	-	24.7	25	
														-	-	1.0	22.2	25
														3.5	-	1.0	25.7	30
														-	-	-	27.2	30
											EH*D-7S15A	15.0	14.4	3.5	-	30.7	35	
														-	-	1.0	28.2	30
														3.5	-	1.0	31.7	35
														-	-	-	33.2	35
											EH*D-7S20A	20.0	19.2	3.5	-	36.7	40	
														-	-	1.0	34.2	35
														3.5	-	1.0	37.7	40
-	-	-	-	-														

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHH0487W	575/3/60	1	4.5	39	1	0.33	1.54	1	1.2	2.0	-	-	-	-	-	9.1	15
											-	-	-	3.5	-	12.6	15
											-	-	-	-	1.0	10.1	15
											-	-	-	3.5	1.0	13.6	15
											-	-	-	-	-	15.2	20
											EH*D-7S05A	5.0	4.8	3.5	-	18.7	20
														-	1.0	16.2	20
											-	-	-	3.5	1.0	19.7	20
											-	-	-	-	-	21.2	25
											EH*D-7S10A	10.0	9.6	3.5	-	24.7	25
														-	1.0	22.2	25
											-	-	-	3.5	1.0	25.7	30
											-	-	-	-	-	27.2	30
											EH*D-7S15A	15.0	14.4	3.5	-	30.7	35
														-	1.0	28.2	30
											-	-	-	3.5	1.0	31.7	35
-	-	-	-	-	33.2	35											
EH*D-7S20A	20.0	19.2	3.5	-	36.7	40											
			-	1.0	34.2	35											
-	-	-	3.5	1.0	37.7	40											
DHH0601D	208/230/1/60	1	27.1	178	1	0.33	3.5	1	1.0	6.9	-	-	-	-	-	44.2/44.2	70/70
											-	-	-	9.6/8.7	-	53.8/52.9	80/80
											-	-	-	-	2.2/1.9 (1.7/1.5)	46.4/46.1	70/70
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	56.0/54.8	80/80
											-	-	-	-	-	66.8/70.3	80/90
											EH*D-1S05A	3.8/5.0	18.1/20.8	9.6/8.7	-	76.4/79.0	90/100
														-	2.2/1.9 (1.7/1.5)	69.0/72.2	90/90
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	78.6/80.9	100/100
											-	-	-	-	-	89.4/96.3	100/110
											EH*D-1S10A	7.5/10.0	36.1/41.7	9.6/8.7	-	99.0/105	110/110
														-	2.2/1.9 (1.7/1.5)	91.6/98.2	100/110
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	101/107	110/110
											-	-	-	-	-	112/122	125/125
											EH*D-1S15A	11.3/15.0	54.2/62.5	9.6/8.7	-	122/131	125/150
														-	2.2/1.9 (1.7/1.5)	114/124	125/125
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	124/133	125/150
-	-	-	-	-	135/148	150/150											
EH*D-1S20A	15.0/20.0	72.2/83.3	9.6/8.7	-	144/157	150/175											
			-	2.2/1.9 (1.7/1.5)	137/150	150/175											
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	146/159	150/175											
DHH0603D	208/230/3/60	1	15.2	140	1	0.33	3.5	1	1.0	6.9	-	-	-	-	-	29.4/29.4	40/40
											-	-	-	9.6/8.7	-	39.0/38.1	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	31.6/31.3	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	41.2/40.0	50/50
											-	-	-	-	-	42.4/44.4	50/50
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	52.0/53.1	60/60
														-	2.2/1.9 (1.7/1.5)	44.6/46.3	50/50
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	54.2/55.0	60/60
											-	-	-	-	-	55.3/59.3	60/60
											EH*D-3S10A	7.5/10.0	20.8/24.0	9.6/8.7	-	64.9/68.0	70/70
														-	2.2/1.9 (1.7/1.5)	57.5/61.2	60/70
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	67.1/69.9	70/70
											-	-	-	-	-	68.5/74.5	70/80
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	-	78.1/83.2	80/90
														-	2.2/1.9 (1.7/1.5)	70.7/76.4	80/80
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	80.3/85.1	90/90
-	-	-	-	-	81.2/89.2	90/90											
EH*D-3S20A	14.9/19.9	41.5/47.9	9.6/8.7	-	90.8/97.9	100/100											
			-	2.2/1.9 (1.7/1.5)	83.4/91.1	90/100											
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	93.0/99.8	100/100											

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHH0603W	208/230/3/60	1	15.2	140	1	0.33	3.5	1	2.3	7.7	-	-	-	-	-	30.2/30.2	45/45
											-	-	-	9.6/8.7	-	39.8/38.9	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	32.4/32.1	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	42.0/40.8	50/50
											-	-	-	-	-	43.2/45.2	50/50
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	52.8/53.9	60/60
														-	2.2/1.9 (1.7/1.5)	45.4/47.1	50/50
														9.6/8.7	2.2/1.9 (1.7/1.5)	55.0/55.8	60/60
											EH*D-3S10A	7.5/10.0	20.8/24.0	-	-	56.1/60.1	60/70
														9.6/8.7	-	65.7/68.8	70/70
														-	2.2/1.9 (1.7/1.5)	58.3/62.0	60/70
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	-	67.9/70.7	70/80
														-	2.2/1.9 (1.7/1.5)	69.3/75.3	70/80
														9.6/8.7	2.2/1.9 (1.7/1.5)	78.9/84.0	80/90
											EH*D-3S20A	14.9/19.9	41.5/47.9	-	-	81.1/85.9	90/90
														-	-	82.0/90.0	90/90
														9.6/8.7	-	91.6/98.7	100/100
											-	-	-	-	2.2/1.9 (1.7/1.5)	84.2/91.9	90/100
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	93.8/101	100/110											
DHH0604D	460/3/60	1	7.4	54.7	1	0.33	1.6	1	1.2	2.5	-	-	-	-	-	13.3	20
											-	-	-	4.3	-	17.6	20
											-	-	-	-	0.9 (0.5)	14.2	20
											-	-	-	4.3	0.9 (0.5)	18.5	25
											-	-	-	-	-	20.8	25
											EH*D-4S05A	5.0	6.0	4.3	-	25.1	30
														-	0.9 (0.5)	21.7	25
														4.3	0.9 (0.5)	26.0	30
											EH*D-4S10A	10.0	12.0	-	-	28.3	30
														4.3	-	32.6	35
														-	0.9 (0.5)	29.2	30
											EH*D-4S15A	15.0	18.0	4.3	0.9 (0.5)	33.5	35
														-	-	35.9	40
														4.3	-	40.2	45
											EH*D-4S20A	20.0	24.1	-	-	36.8	40
														4.3	0.9 (0.5)	41.1	45
														-	-	43.4	45
											-	-	-	4.3	-	47.7	50
-	-	-	-	0.9 (0.5)	44.3	45											
-	-	-	4.3	0.9 (0.5)	48.6	50											
DHH0604W	460/3/60	1	7.4	54.7	1	0.33	1.6	1	2.3	4.5	-	-	-	-	-	15.3	20
											-	-	-	4.3	-	19.6	25
											-	-	-	-	0.9 (0.5)	16.2	20
											-	-	-	4.3	0.9 (0.5)	20.5	25
											-	-	-	-	-	22.8	25
											EH*D-4S05A	5.0	6.0	4.3	-	27.1	30
														-	0.9 (0.5)	23.7	25
														4.3	0.9 (0.5)	28.0	30
											EH*D-4S10A	10.0	12.0	-	-	30.3	35
														4.3	-	34.6	35
														-	0.9 (0.5)	31.2	35
											EH*D-4S15A	15.0	18.0	4.3	0.9 (0.5)	35.5	40
														-	-	37.9	40
														4.3	-	42.2	45
											EH*D-4S20A	20.0	24.1	-	-	38.8	40
														4.3	0.9 (0.5)	43.1	45
														-	-	45.4	50
											-	-	-	4.3	-	49.7	50
-	-	-	-	0.9 (0.5)	46.3	50											
-	-	-	4.3	0.9 (0.5)	50.6	60											

# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHH0607D	575/3/60	1	5.6	47.8	1	0.33	1.54	1	1.2	2.0	-	-	-	-	-	10.6	15
											-	-	-	3.5	-	14.1	15
											-	-	-	-	1.0	11.6	15
											-	-	-	3.5	1.0	15.1	20
											-	-	-	-	-	16.6	20
											EH*D-7S05A	5.0	4.8	3.5	-	20.1	25
														-	1.0	17.6	20
											-	-	-	3.5	1.0	21.1	25
											-	-	-	-	-	22.6	25
											EH*D-7S10A	10.0	9.6	3.5	-	26.1	30
														-	1.0	23.6	25
											-	-	-	3.5	1.0	27.1	30
											-	-	-	-	-	28.6	30
											EH*D-7S15A	15.0	14.4	3.5	-	32.1	35
														-	1.0	29.6	30
											-	-	-	3.5	1.0	33.1	35
-	-	-	-	-	34.6	35											
EH*D-7S20A	20.0	19.2	3.5	-	38.1	40											
			-	1.0	35.6	40											
-	-	-	3.5	1.0	39.1	40											
DHH0607W	575/3/60	1	5.6	47.8	1	0.33	1.54	1	2.3	3.8	-	-	-	-	-	12.4	15
											-	-	-	3.5	-	15.9	20
											-	-	-	-	1.0	13.4	15
											-	-	-	3.5	1.0	16.9	20
											-	-	-	-	-	18.4	20
											EH*D-7S05A	5.0	4.8	3.5	-	21.9	25
														-	1.0	19.4	20
											-	-	-	3.5	1.0	22.9	25
											-	-	-	-	-	24.4	25
											EH*D-7S10A	10.0	9.6	3.5	-	27.9	30
														-	1.0	25.4	30
											-	-	-	3.5	1.0	28.9	30
											-	-	-	-	-	30.4	35
											EH*D-7S15A	15.0	14.4	3.5	-	33.9	35
														-	1.0	31.4	35
											-	-	-	3.5	1.0	34.9	35
-	-	-	-	-	36.4	40											
EH*D-7S20A	20.0	19.2	3.5	-	39.9	40											
			-	1.0	37.4	40											
-	-	-	3.5	1.0	40.9	45											
DHH0723D	208/230/3/60	1	16.1	155	1	0.33	2.0	1	1.2	5.0	-	-	-	-	-	27.2/27.2	40/40
											-	-	-	9.6/8.7	-	36.8/35.9	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	29.4/29.1	40/40
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	39.0/37.8	50/50
											-	-	-	-	-	40.2/42.2	50/50
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	49.8/50.9	60/60
														-	2.2/1.9 (1.7/1.5)	42.4/44.1	50/50
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	52.0/52.8	60/60
											-	-	-	-	-	53.1/57.1	60/60
											EH*D-3S10A	7.5/10.0	20.8/24.0	9.6/8.7	-	62.7/65.8	70/70
														-	2.2/1.9 (1.7/1.5)	55.3/59.0	60/60
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	64.9/67.7	70/70
											-	-	-	-	-	66.3/72.3	70/80
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	-	75.9/81.0	80/90
														-	2.2/1.9 (1.7/1.5)	68.5/74.2	70/80
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	78.1/82.9	80/90
-	-	-	-	-	79.0/87.0	80/90											
EH*D-3S20A	14.9/19.9	41.5/47.9	9.6/8.7	-	88.6/95.7	90/100											
			-	2.2/1.9 (1.7/1.5)	81.2/88.9	90/90											
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	90.8/97.6	100/100											
-	-	-	-	-	105/117	110/125											
EH*D-3S30A	22.5/30.0	62.5/72.2	9.6/8.7	-	115/126	125/150											
			-	2.2/1.9 (1.7/1.5)	108/119	110/125											
-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	117/128	125/150											

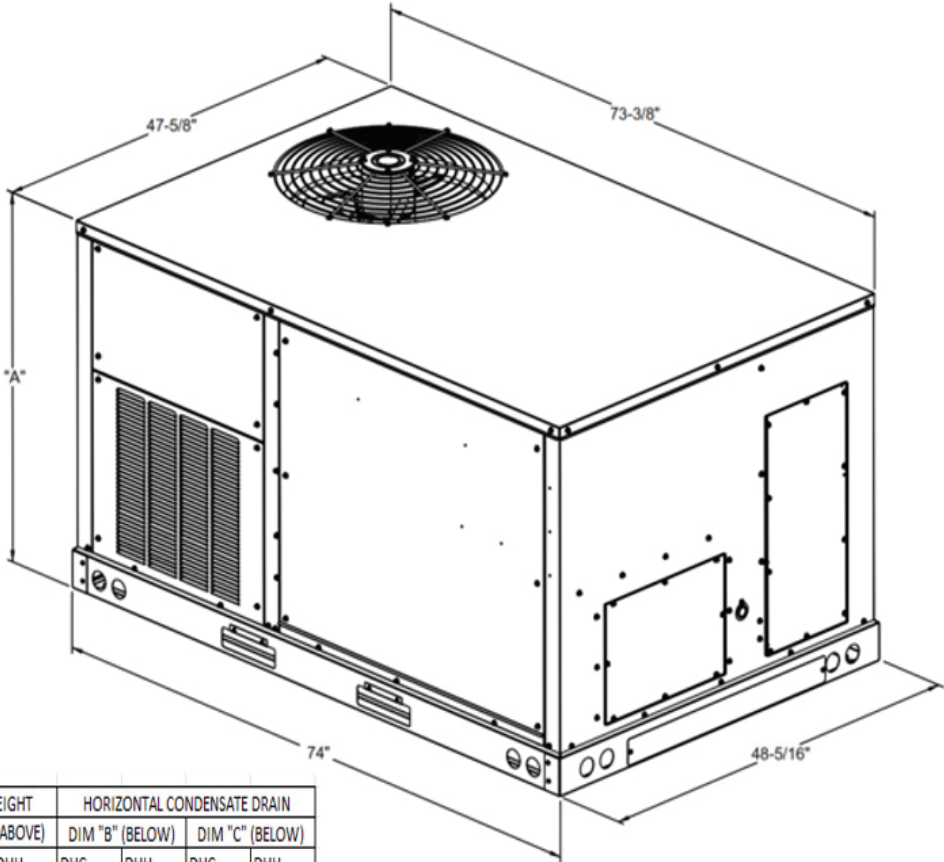
# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHH0723W	208/230/3/60	1	16.1	155	1	0.33	2.0	1	2.3	7.7	-	-	-	-	-	29.9/29.9	45/45
											-	-	-	9.6/8.7	-	39.5/38.6	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	32.1/31.8	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	41.7/40.5	50/50
											-	-	-	-	-	42.9/44.9	50/50
											EH*D-3S05A	3.8/5.0	10.4/12.0	9.6/8.7	-	52.5/53.6	60/60
														-	2.2/1.9 (1.7/1.5)	45.1/46.8	50/50
														9.6/8.7	2.2/1.9 (1.7/1.5)	54.7/55.5	60/60
														-	-	55.8/59.8	60/60
											EH*D-3S10A	7.5/10.0	20.8/24.0	9.6/8.7	-	65.4/68.5	70/70
														-	2.2/1.9 (1.7/1.5)	58.0/61.7	60/70
														9.6/8.7	2.2/1.9 (1.7/1.5)	67.6/70.4	70/80
														-	-	69.0/75.0	70/80
											EH*D-3S15A	11.3/15.0	31.3/36.1	9.6/8.7	-	78.6/83.7	80/90
														-	2.2/1.9 (1.7/1.5)	71.2/76.9	80/80
														9.6/8.7	2.2/1.9 (1.7/1.5)	80.8/85.6	90/90
														-	-	81.7/89.7	90/90
											EH*D-3S20A	14.9/19.9	41.5/47.9	9.6/8.7	-	91.3/98.4	100/100
														-	2.2/1.9 (1.7/1.5)	83.9/91.6	90/100
														9.6/8.7	2.2/1.9 (1.7/1.5)	93.5/100	100/110
-	-	108/120	110/125														
EH*D-3S30B	22.5/30.0	62.5/72.2	9.6/8.7	-	118/129	125/150											
			-	2.2/1.9 (1.7/1.5)	110/122	125/125											
			9.6/8.7	2.2/1.9 (1.7/1.5)	120/131	125/150											
			-	-	-	-											
DHH0724D	460/3/60	1	7.0	70.8	1	0.33	0.85	1	1.2	2.5	-	-	-	-	-	12.2	15
											-	-	-	4.3	-	16.5	20
											-	-	-	-	0.9 (0.5)	13.1	15
											-	-	-	4.3	0.9 (0.5)	17.4	20
											-	-	-	-	-	19.7	25
											EH*D-4S05A	5.0	6.0	4.3	-	24.0	25
														-	0.9 (0.5)	20.6	25
														4.3	0.9 (0.5)	24.9	30
														-	-	27.2	30
											EH*D-4S10A	10.0	12.0	4.3	-	31.5	35
														-	0.9 (0.5)	28.1	30
														4.3	0.9 (0.5)	32.4	35
														-	-	34.7	35
											EH*D-4S15A	15.0	18.0	4.3	-	39.0	40
														-	0.9 (0.5)	35.6	40
														4.3	0.9 (0.5)	39.9	40
														-	-	42.2	45
											EH*D-4S20A	20.0	24.1	4.3	-	46.5	50
														-	0.9 (0.5)	43.1	45
														4.3	0.9 (0.5)	47.4	50
-	-	57.3	60														
EH*D-4S30A	30.0	36.1	4.3	-	61.6	70											
			-	0.9 (0.5)	58.2	60											
			4.3	0.9 (0.5)	62.5	70											
			-	-	14.2	20											
DHH0724W	460/3/60	1	7.0	70.8	1	0.33	0.85	1	2.3	4.5	-	-	-	-	-	14.2	20
											-	-	-	4.3	-	18.5	25
											-	-	-	-	0.9 (0.5)	15.1	20
											-	-	-	4.3	0.9 (0.5)	19.4	25
											-	-	-	-	-	21.7	25
											EH*D-4S05A	5.0	6.0	4.3	-	26.0	30
														-	0.9 (0.5)	22.6	25
														4.3	0.9 (0.5)	26.9	30
														-	-	29.2	30
											EH*D-4S10A	10.0	12.0	4.3	-	33.5	35
														-	0.9 (0.5)	30.1	35
														4.3	0.9 (0.5)	34.4	35
														-	-	36.7	40
											EH*D-4S15A	15.0	18.0	4.3	-	41.0	45
														-	0.9 (0.5)	37.6	40
														4.3	0.9 (0.5)	41.9	45
														-	-	44.2	45
											EH*D-4S20A	20.0	24.1	4.3	-	48.5	50
														-	0.9 (0.5)	45.1	50
														4.3	0.9 (0.5)	49.4	50
-	-	59.3	60														
EH*D-4S30B	30.0	36.1	4.3	-	63.6	70											
			-	0.9 (0.5)	60.2	70											
			4.3	0.9 (0.5)	64.5	70											
			-	-	-	-											

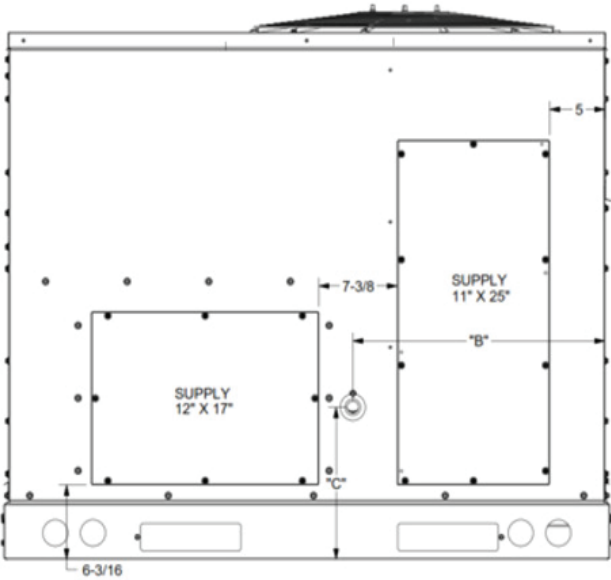
# APPENDIX A ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHH0727D	575/3/60	1	6.0	58.2	1	0.33	0.67	1	1.2	2.0	-	-	-	-	-	10.2	15
											-	-	-	3.5	-	13.7	15
											-	-	-	-	1.0	11.2	15
											-	-	-	3.5	1.0	14.7	20
											-	-	-	-	-	16.2	20
											EH*D-7S05A	5.0	4.8	3.5	-	19.7	20
														-	1.0	17.2	20
														3.5	1.0	20.7	25
											EH*D-7S10A	10.0	9.6	3.5	-	22.2	25
														-	1.0	25.7	30
														3.5	1.0	26.7	30
											EH*D-7S15A	15.0	14.4	-	-	28.2	30
														3.5	-	31.7	35
														-	1.0	29.2	30
											EH*D-7S20A	20.0	19.2	3.5	1.0	32.7	35
														-	-	34.2	35
														3.5	-	37.7	40
											EH*D-7S30A	30.0	28.9	-	1.0	35.2	40
														3.5	1.0	38.7	40
														-	-	46.3	50
											-	3.5	-	49.8	50		
											-	-	1.0	47.3	50		
											-	3.5	1.0	50.8	60		
											DHH0727W	575/3/60	1	6.0	58.2	1	0.33
-	-	-	3.5	-	15.5	20											
-	-	-	-	1.0	13.0	15											
-	-	-	3.5	1.0	16.5	20											
-	-	-	-	-	18.0	20											
EH*D-7S05A	5.0	4.8	3.5	-	21.5	25											
			-	1.0	19.0	20											
			3.5	1.0	22.5	25											
-	-	-	-	-	24.0	25											
EH*D-7S10A	10.0	9.6	3.5	-	27.5	30											
			-	1.0	25.0	30											
			3.5	1.0	28.5	30											
-	-	-	-	-	30.0	35											
EH*D-7S15A	15.0	14.4	3.5	-	33.5	35											
			-	1.0	31.0	35											
			3.5	1.0	34.5	35											
-	-	-	-	-	36.0	40											
EH*D-7S20A	20.0	19.2	3.5	-	39.5	40											
			-	1.0	37.0	40											
			3.5	1.0	40.5	45											
-	-	-	-	-	48.1	50											
EH*D-7S30B	30.0	28.9	3.5	-	51.6	60											
			-	1.0	49.1	50											
			3.5	1.0	52.6	60											

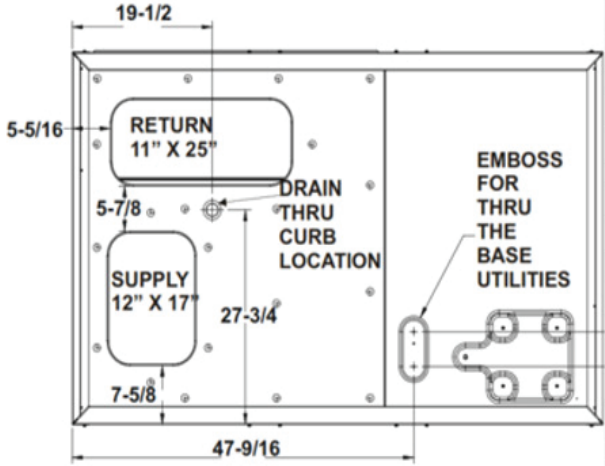
# APPENDIX B UNIT DIMENSIONS



Tonnage	UNIT HEIGHT		HORIZONTAL CONDENSATE DRAIN			
	DIM "A" (ABOVE)		DIM "B" (BELOW)		DIM "C" (BELOW)	
	DHC	DHH	DHC	DHH	DHC	DHH
3 TON	40"				15"	
4 TON	43-1/2"	43-1/2"	20"		8-1/8"	8-1/8"
5 TON						
6 TON	54"				15"	



**HORIZONTAL DISCHARGE**



**BOTTOM VIEW OF UNIT  
VERTICAL DISCHARGE**

**NOTE: REFER TO IOD-7082 INCLUDED IN THE LITERATURE PACK FOR INSTALLING HORIZONTAL DUCT COVERS.**

# APPENDIX C AIR FLOW FOR ELECTRIC HEAT

## AIR FLOW FOR ELECTRIC HEAT

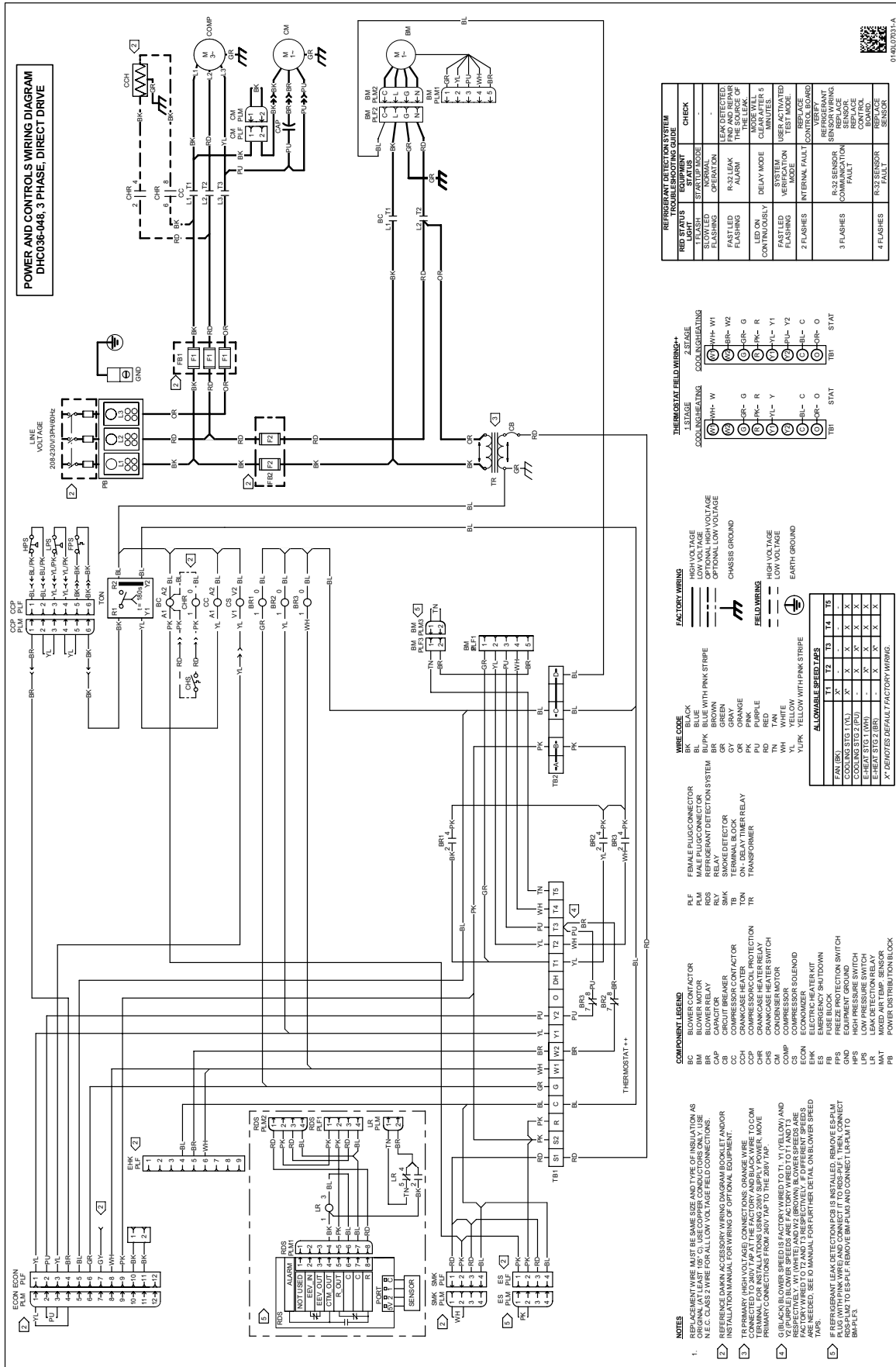
UNIT	HEATER KIT MODEL NUMBER	kW	MINIMUM CFM	MAXIMUM CFM
3 ton AC STD Static	EH*D-*S05A	5	1325	1500
	EH*D-*S10A	10		
	EH*D-*S15A	15		
3 ton HP STD Static	EH*D-*S05A	5		
	EH*D-*S10A	10		
	EH*D-*S15A	15		
3 ton AC HI Static	EH*D-*S05A	5		
	EH*D-*S10A	10		
	EH*D-*S15A	15		
3 ton HP HI Static	EH*D-*S05A	5		
	EH*D-*S10A	10		
	EH*D-*S15A	15		
4 ton AC STD Static	EH*D-*S05A	5	1600	2000
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
4 ton HP STD Static	EH*D-*S05A	5		
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
4 ton AC HI Static	EH*D-*S05A	5		
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
4 ton HP HI Static	EH*D-*S05A	5		
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
5 ton AC STD Static	EH*D-*S05A	5	1900	2500
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
5 ton HP STD Static	EH*D-*S05A	5		
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
5 ton AC HI Static	EH*D-*S05A	5		
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
5 ton HP HI Static	EH*D-*S05A	5		
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
6 ton AC/HP STD Static	EH*D-*S05A	5	2100	3000
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
	EH*D-*S30A	30		
6 ton AC/HP HI Static	EH*D-*S05A	5	2175	
	EH*D-*S10A	10		
	EH*D-*S15A	15		
	EH*D-*S20A	20		
	EH*D-*S30B	30		

HEATER KIT MODEL NUMBER NOMENCLATURE	
	EH X D - 3 S 15 A
	1,2 3 4 - 5 6 7,8 9
<b>Electric Heater</b>	
<b>Heater Type</b>	
X	Staged
S	SCR (modulating)
<b>Drive System</b>	
D	Direct Drive
<b>Voltage</b>	
1	208-230/1/60 Single phase 60 Hz
3	208-230/3/60 Three phase 60 Hz
4	460/3/60 Three phase 60 Hz
7	575/3/60 Three phase 60 Hz
<b>Chassis</b>	
S	Small
M	Medium
L	Large
<b>Kilowatt</b>	
05	05 KW
10	10 KW
15	15 KW
18	18 KW
20	20 KW
30	30 KW
<b>Limit Configuration</b>	
None	Line Break
A	Pilot duty Config 1
B	Pilot duty Config 2
C	Pilot duty Config 3
D	Pilot duty Config 4





**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.



POWER AND CONTROL WIRING DIAGRAM  
 DHC036-048, 3 PHASE, DIRECT DRIVE

REFRIGERANT DETECTION SYSTEM	REFRIGERANT DETECTION SYSTEM	REFRIGERANT DETECTION SYSTEM
LED STATUS	EQUIPMENT	CHUCK
1 FLASH	SYSTEM NORMAL	...
2 FLASHES	SYSTEM FLASHING	...
3 FLASHES	SYSTEM FLASHING	...
4 FLASHES	SYSTEM FLASHING	...

FACTORY WIRING	FIELD WIRING
High Voltage	High Voltage
Optional Low Voltage	Optional Low Voltage
Chassis Ground	Chassis Ground
Low Voltage	Low Voltage
Earth Ground	Earth Ground

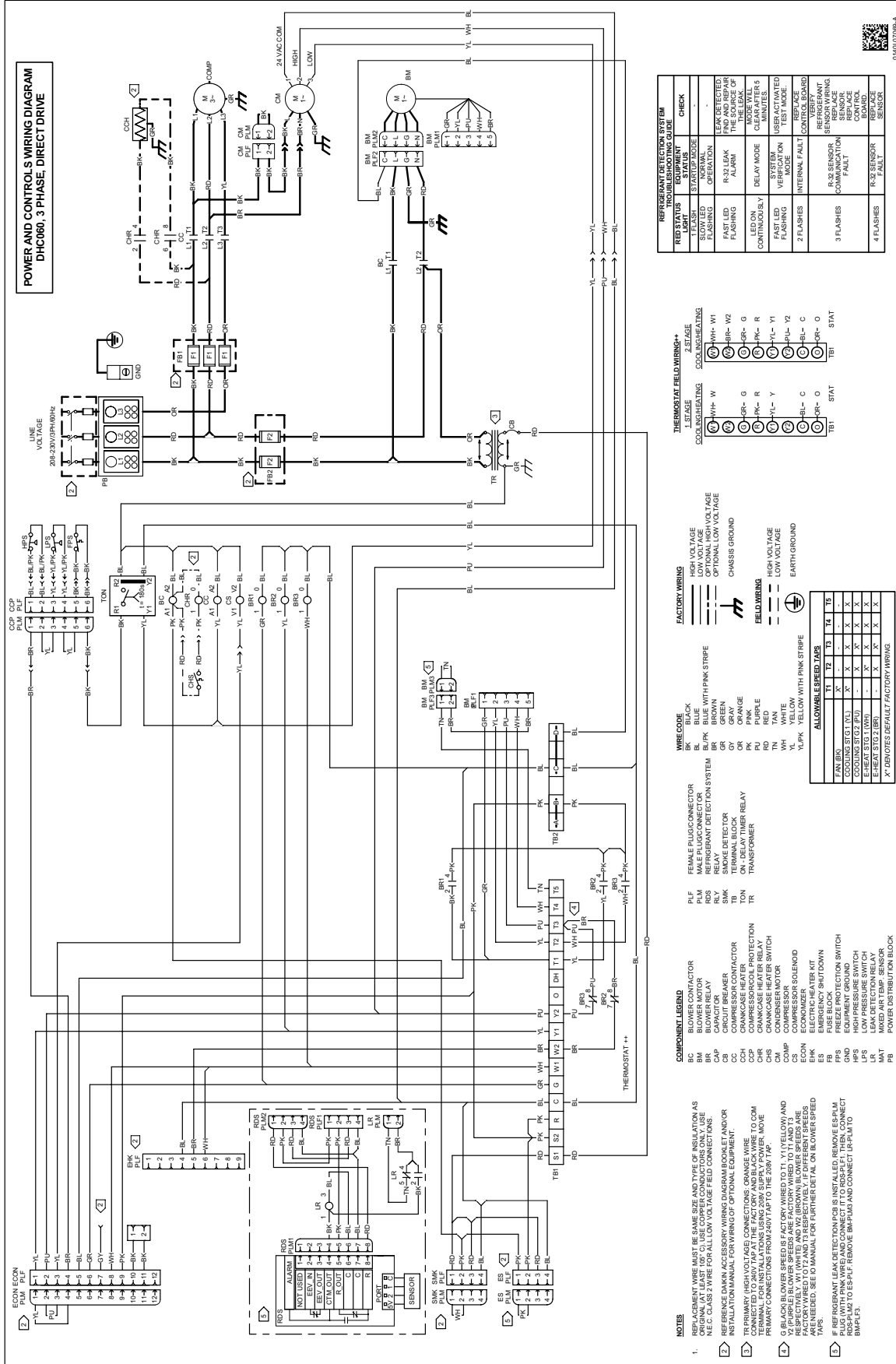
WIRE CODE	T1	T2	T3	T4	T5
FAN (BR)	X	X	X	X	X
COOLING STG 1 (BL)	X	X	X	X	X
E-HEAT STG 1 (WH)	X	X	X	X	X
E-HEAT STG 2 (BR)	X	X	X	X	X

COMPONENT LEGEND	COMPONENT LEGEND	COMPONENT LEGEND
BC BLOWER CONTACTOR	BC BLOWER CONTACTOR	BC BLOWER CONTACTOR
BR BLOWER RELAY	BR BLOWER RELAY	BR BLOWER RELAY
CAP CAPACITOR	CAP CAPACITOR	CAP CAPACITOR
CB CIRCUIT BREAKER	CB CIRCUIT BREAKER	CB CIRCUIT BREAKER
CH CRANKCASE HEATER	CH CRANKCASE HEATER	CH CRANKCASE HEATER
CP COMPRESSOR COIL PROTECTION	CP COMPRESSOR COIL PROTECTION	CP COMPRESSOR COIL PROTECTION
CS COMPRESSOR SOLENOID	CS COMPRESSOR SOLENOID	CS COMPRESSOR SOLENOID
CM CONDENSER MOTOR	CM CONDENSER MOTOR	CM CONDENSER MOTOR
ECON ECONOMIZER	ECON ECONOMIZER	ECON ECONOMIZER
EHR ELECTRIC HEATER KIT	EHR ELECTRIC HEATER KIT	EHR ELECTRIC HEATER KIT
FB FUSE BLOCK	FB FUSE BLOCK	FB FUSE BLOCK
FRS FREEZE PROTECTION SWITCH	FRS FREEZE PROTECTION SWITCH	FRS FREEZE PROTECTION SWITCH
HPS HIGH PRESSURE SWITCH	HPS HIGH PRESSURE SWITCH	HPS HIGH PRESSURE SWITCH
LR LOW PRESSURE SWITCH	LR LOW PRESSURE SWITCH	LR LOW PRESSURE SWITCH
MAT MATED AIR FLOW SENSOR	MAT MATED AIR FLOW SENSOR	MAT MATED AIR FLOW SENSOR
PB POWER DISTRIBUTION BLOCK	PB POWER DISTRIBUTION BLOCK	PB POWER DISTRIBUTION BLOCK

NOTES
1. REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL WIRE. USE NEAREST AVAILABLE WIRE SIZE. USE NEAREST AVAILABLE WIRE SIZE.
2. REFER TO THE FACTORY WIRING DIAGRAM BOOKLET AND/OR INSTALLATION MANUAL FOR WIRING OF OPTIONAL EQUIPMENT.
3. IF PRIMARY (HIGH VOLTAGE) CONNECTIONS, ORANGE WIRE CONNECTED TO 200V TAP AT THE FACTORY AND BLACK WIRE TO 200V TAP AT THE FACTORY, THE WIRE MUST BE CONNECTED TO THE 200V TAP AT THE FACTORY.
4. G/L (BLACK) BLOWER SPEED IS FACTORY WIRING TO T1, Y1 (YELLOW) AND Y2 (PURPLE) BLOWER SPEEDS ARE FACTORY WIRING TO T1 AND T2. FACTORY WIRING TO T3 AND T4 IS RESERVED FOR DIFFERENT SPEEDS. REFER TO THE FACTORY WIRING DIAGRAM FOR FURTHER DETAILS ON BLOWER SPEED TAP.
5. IF REFRIGERANT LEAK DETECTION (RLD) IS INSTALLED, REMOVE ES/PM PLUG (WITH PINK WIRE) AND CONNECT IT TO RSD-PL1. THEN CONNECT BMAPLX.

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.



POWER AND CONTROLS WIRING DIAGRAM  
 DHC060, 3 PHASE, DIRECT DRIVE

REFRIGERANT DETECTION SYSTEM TROUBLESHOOTING GUIDE	STATUS	CHECK
1 FLASH	STARTUP MODE	-
2 FLASH	LEAK DETECTED	LEAK DETECTED
3 FLASH	FAST LEAK	FAST LEAK
4 FLASH	ALARM	ALARM
5 FLASH	DELAY MODE	DELAY MODE
6 FLASH	VERIFICATION	VERIFICATION
7 FLASH	INTERNAL FAULT	INTERNAL FAULT
8 FLASH	REFRIGERANT SENSING	REFRIGERANT SENSING
9 FLASH	SENSOR CONTROL	SENSOR CONTROL
10 FLASH	REPLACE	REPLACE

WIRE CODE	WIRE COLOR	WIRE TYPE
BC	BLACK	BL
BR	BLUE	BL/PK
CA	CAPACITOR	GR
CC	COMPRESSOR	GR
CH	CRANKCASE HEATER	GR
CHS	CRANKCASE HEATER SWITCH	GR
CS	COMPRESSOR	GR
ECN	ECONOMIZER	GR
ES	EMERGENCY SHUT DOWN	GR
FB	FUSE BLOCK	GR
FP	FUSE	GR
GND	GROUND	GR
HPS	HIGH PRESSURE SWITCH	GR
LR	LOW REFRIGERANT	GR
LS	LOW SUCCTION PRESSURE	GR
MAT	MAT	GR
PH	PHASE	GR
PL	PLUG	GR
PLM	PLUMBER	GR
PLF	PLUMBER	GR
PLR	PLUMBER	GR
PLS	PLUMBER	GR
PLT	PLUMBER	GR
PLU	PLUMBER	GR
PLV	PLUMBER	GR
PLW	PLUMBER	GR
PLX	PLUMBER	GR
PLY	PLUMBER	GR
PLZ	PLUMBER	GR
PU	PURPLE	PU
RD	RED	RD
WH	WHITE	WH
YL	YELLOW	YL
YLPK	YELLOW WITH PINK STRIPE	YLPK

WIRE CODE	WIRE COLOR	WIRE TYPE
BC	BLACK	BL
BR	BLUE	BL/PK
CA	CAPACITOR	GR
CC	COMPRESSOR	GR
CH	CRANKCASE HEATER	GR
CHS	CRANKCASE HEATER SWITCH	GR
CS	COMPRESSOR	GR
ECN	ECONOMIZER	GR
ES	EMERGENCY SHUT DOWN	GR
FB	FUSE BLOCK	GR
FP	FUSE	GR
GND	GROUND	GR
HPS	HIGH PRESSURE SWITCH	GR
LR	LOW REFRIGERANT	GR
LS	LOW SUCCTION PRESSURE	GR
MAT	MAT	GR
PH	PHASE	GR
PL	PLUG	GR
PLM	PLUMBER	GR
PLF	PLUMBER	GR
PLR	PLUMBER	GR
PLS	PLUMBER	GR
PLT	PLUMBER	GR
PLU	PLUMBER	GR
PLV	PLUMBER	GR
PLW	PLUMBER	GR
PLX	PLUMBER	GR
PLY	PLUMBER	GR
PLZ	PLUMBER	GR
PU	PURPLE	PU
RD	RED	RD
WH	WHITE	WH
YL	YELLOW	YL
YLPK	YELLOW WITH PINK STRIPE	YLPK

WIRE CODE	WIRE COLOR	WIRE TYPE
BC	BLACK	BL
BR	BLUE	BL/PK
CA	CAPACITOR	GR
CC	COMPRESSOR	GR
CH	CRANKCASE HEATER	GR
CHS	CRANKCASE HEATER SWITCH	GR
CS	COMPRESSOR	GR
ECN	ECONOMIZER	GR
ES	EMERGENCY SHUT DOWN	GR
FB	FUSE BLOCK	GR
FP	FUSE	GR
GND	GROUND	GR
HPS	HIGH PRESSURE SWITCH	GR
LR	LOW REFRIGERANT	GR
LS	LOW SUCCTION PRESSURE	GR
MAT	MAT	GR
PH	PHASE	GR
PL	PLUG	GR
PLM	PLUMBER	GR
PLF	PLUMBER	GR
PLR	PLUMBER	GR
PLS	PLUMBER	GR
PLT	PLUMBER	GR
PLU	PLUMBER	GR
PLV	PLUMBER	GR
PLW	PLUMBER	GR
PLX	PLUMBER	GR
PLY	PLUMBER	GR
PLZ	PLUMBER	GR
PU	PURPLE	PU
RD	RED	RD
WH	WHITE	WH
YL	YELLOW	YL
YLPK	YELLOW WITH PINK STRIPE	YLPK

WIRE CODE	WIRE COLOR	WIRE TYPE
BC	BLACK	BL
BR	BLUE	BL/PK
CA	CAPACITOR	GR
CC	COMPRESSOR	GR
CH	CRANKCASE HEATER	GR
CHS	CRANKCASE HEATER SWITCH	GR
CS	COMPRESSOR	GR
ECN	ECONOMIZER	GR
ES	EMERGENCY SHUT DOWN	GR
FB	FUSE BLOCK	GR
FP	FUSE	GR
GND	GROUND	GR
HPS	HIGH PRESSURE SWITCH	GR
LR	LOW REFRIGERANT	GR
LS	LOW SUCCTION PRESSURE	GR
MAT	MAT	GR
PH	PHASE	GR
PL	PLUG	GR
PLM	PLUMBER	GR
PLF	PLUMBER	GR
PLR	PLUMBER	GR
PLS	PLUMBER	GR
PLT	PLUMBER	GR
PLU	PLUMBER	GR
PLV	PLUMBER	GR
PLW	PLUMBER	GR
PLX	PLUMBER	GR
PLY	PLUMBER	GR
PLZ	PLUMBER	GR
PU	PURPLE	PU
RD	RED	RD
WH	WHITE	WH
YL	YELLOW	YL
YLPK	YELLOW WITH PINK STRIPE	YLPK

WIRE CODE	WIRE COLOR	WIRE TYPE
BC	BLACK	BL
BR	BLUE	BL/PK
CA	CAPACITOR	GR
CC	COMPRESSOR	GR
CH	CRANKCASE HEATER	GR
CHS	CRANKCASE HEATER SWITCH	GR
CS	COMPRESSOR	GR
ECN	ECONOMIZER	GR
ES	EMERGENCY SHUT DOWN	GR
FB	FUSE BLOCK	GR
FP	FUSE	GR
GND	GROUND	GR
HPS	HIGH PRESSURE SWITCH	GR
LR	LOW REFRIGERANT	GR
LS	LOW SUCCTION PRESSURE	GR
MAT	MAT	GR
PH	PHASE	GR
PL	PLUG	GR
PLM	PLUMBER	GR
PLF	PLUMBER	GR
PLR	PLUMBER	GR
PLS	PLUMBER	GR
PLT	PLUMBER	GR
PLU	PLUMBER	GR
PLV	PLUMBER	GR
PLW	PLUMBER	GR
PLX	PLUMBER	GR
PLY	PLUMBER	GR
PLZ	PLUMBER	GR
PU	PURPLE	PU
RD	RED	RD
WH	WHITE	WH
YL	YELLOW	YL
YLPK	YELLOW WITH PINK STRIPE	YLPK

WIRE CODE	WIRE COLOR	WIRE TYPE
BC	BLACK	BL
BR	BLUE	BL/PK
CA	CAPACITOR	GR
CC	COMPRESSOR	GR
CH	CRANKCASE HEATER	GR
CHS	CRANKCASE HEATER SWITCH	GR
CS	COMPRESSOR	GR
ECN	ECONOMIZER	GR
ES	EMERGENCY SHUT DOWN	GR
FB	FUSE BLOCK	GR
FP	FUSE	GR
GND	GROUND	GR
HPS	HIGH PRESSURE SWITCH	GR
LR	LOW REFRIGERANT	GR
LS	LOW SUCCTION PRESSURE	GR
MAT	MAT	GR
PH	PHASE	GR
PL	PLUG	GR
PLM	PLUMBER	GR
PLF	PLUMBER	GR
PLR	PLUMBER	GR
PLS	PLUMBER	GR
PLT	PLUMBER	GR
PLU	PLUMBER	GR
PLV	PLUMBER	GR
PLW	PLUMBER	GR
PLX	PLUMBER	GR
PLY	PLUMBER	GR
PLZ	PLUMBER	GR
PU	PURPLE	PU
RD	RED	RD
WH	WHITE	WH
YL	YELLOW	YL
YLPK	YELLOW WITH PINK STRIPE	YLPK

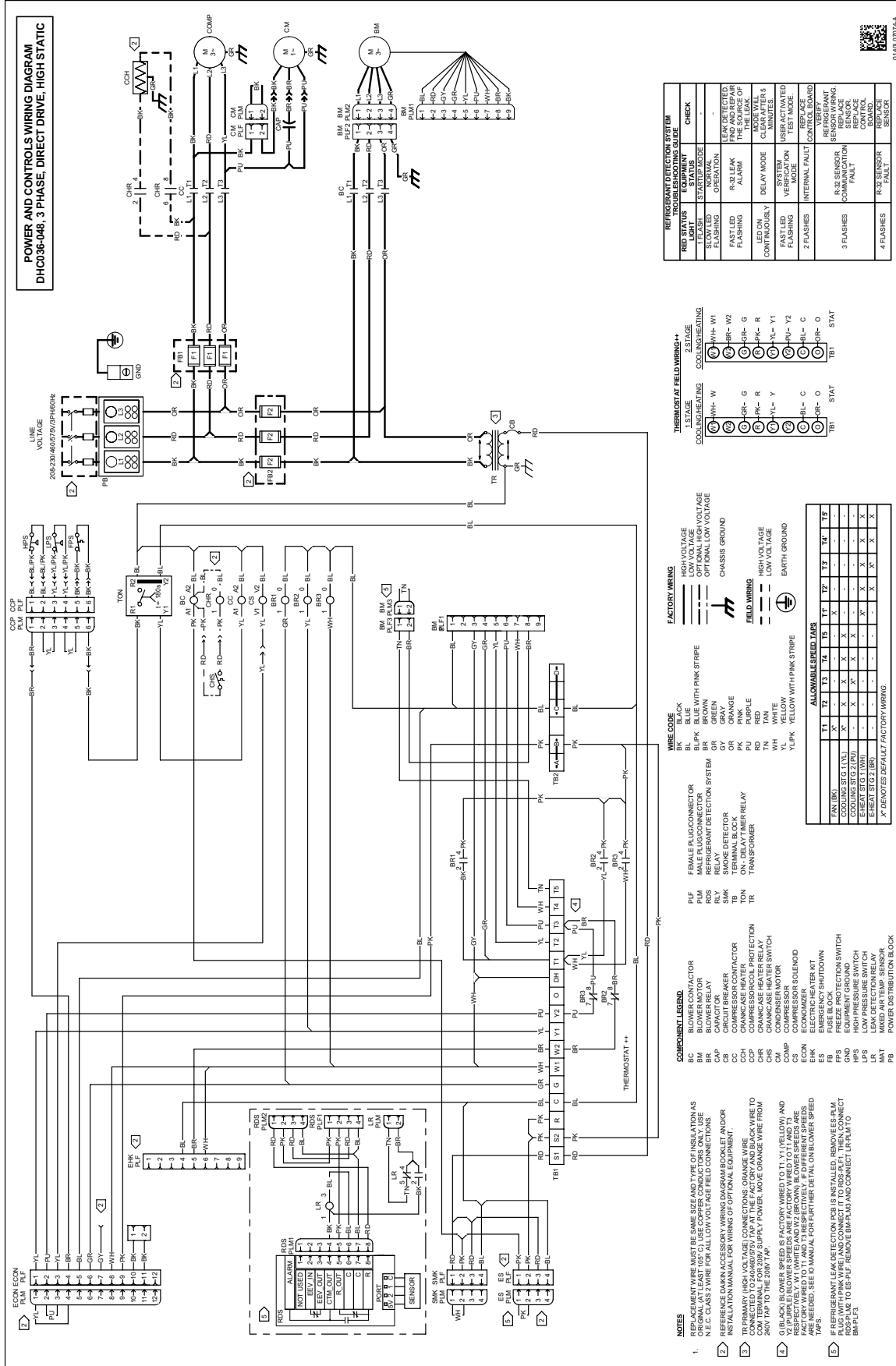
WIRE CODE	WIRE COLOR	WIRE TYPE
BC	BLACK	BL
BR	BLUE	BL/PK
CA	CAPACITOR	GR
CC	COMPRESSOR	GR
CH	CRANKCASE HEATER	GR
CHS	CRANKCASE HEATER SWITCH	GR
CS	COMPRESSOR	GR
ECN	ECONOMIZER	GR
ES	EMERGENCY SHUT DOWN	GR
FB	FUSE BLOCK	GR
FP	FUSE	GR
GND	GROUND	GR
HPS	HIGH PRESSURE SWITCH	GR
LR	LOW REFRIGERANT	GR
LS	LOW SUCCTION PRESSURE	GR
MAT	MAT	GR
PH	PHASE	GR
PL	PLUG	GR
PLM	PLUMBER	GR
PLF	PLUMBER	GR
PLR	PLUMBER	GR
PLS	PLUMBER	GR
PLT	PLUMBER	GR
PLU	PLUMBER	GR
PLV	PLUMBER	GR
PLW	PLUMBER	GR
PLX	PLUMBER	GR
PLY	PLUMBER	GR
PLZ	PLUMBER	GR
PU	PURPLE	PU
RD	RED	RD
WH	WHITE	WH
YL	YELLOW	YL
YLPK	YELLOW WITH PINK STRIPE	YLPK

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.



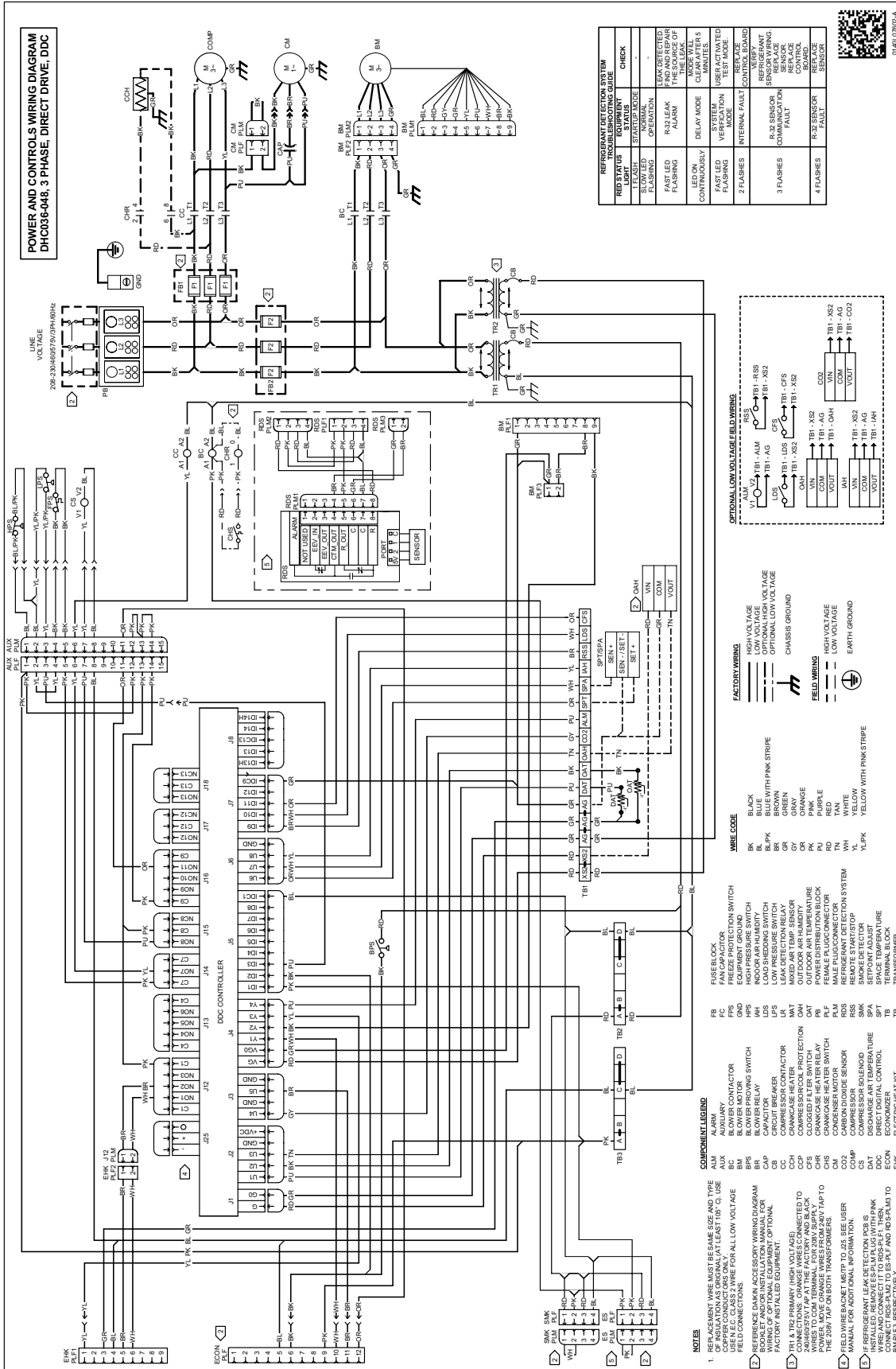
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.





**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.

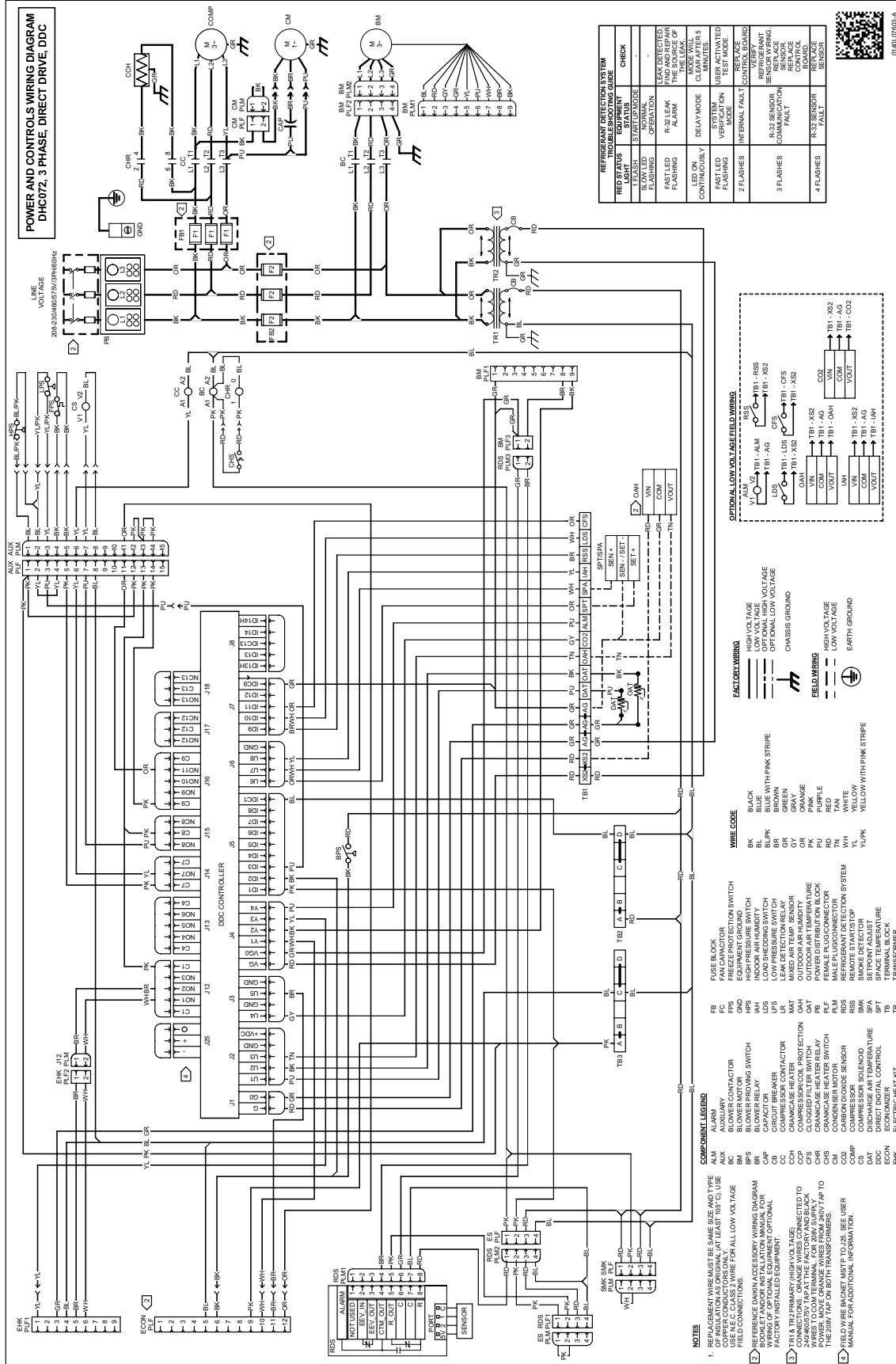








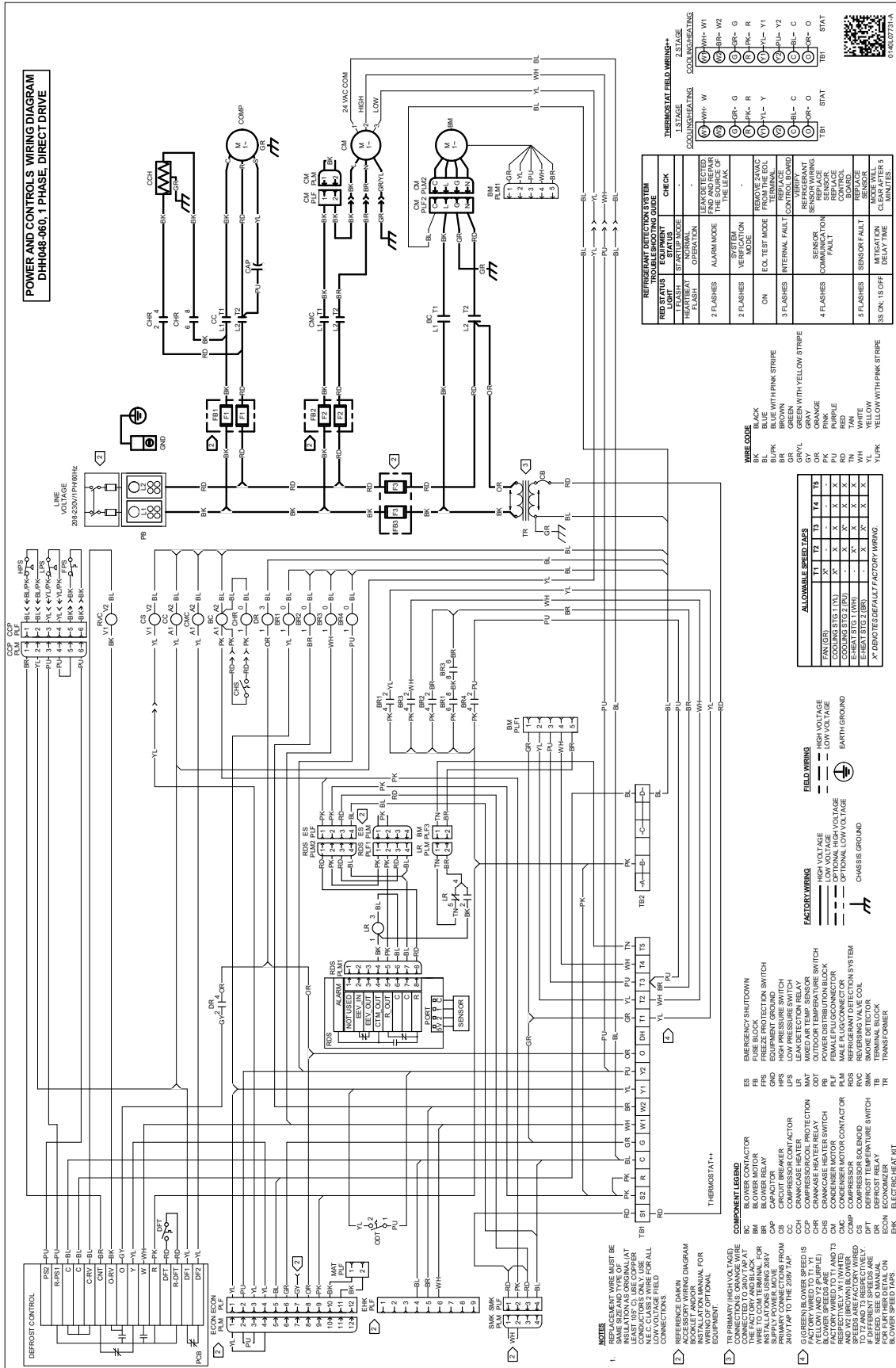
**WARNING**  
 HIGH VOLTAGE!  
 DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



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



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



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

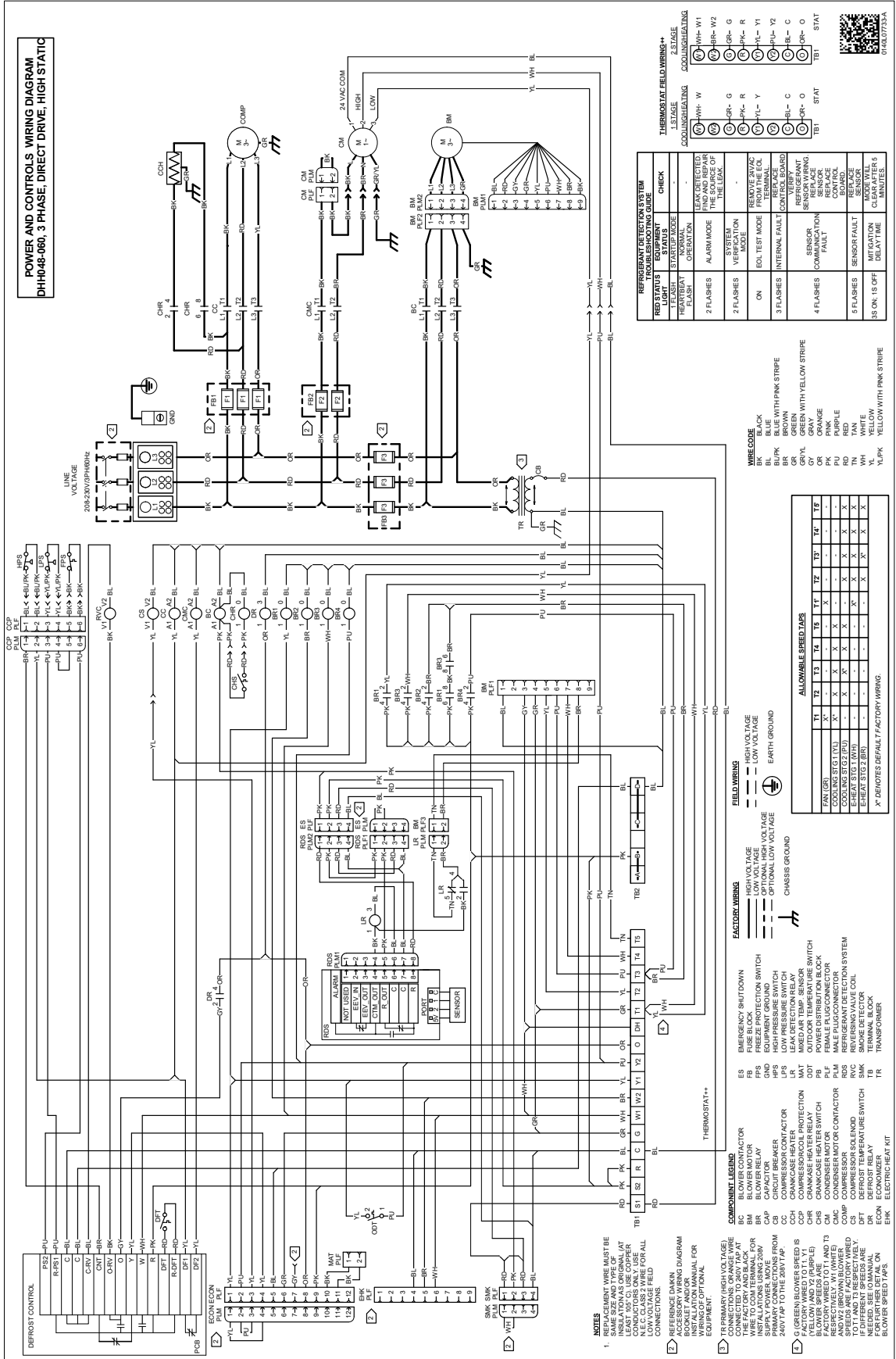








**WARNING**  
 HIGH VOLTAGE!  
 DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



POWER AND CONTROLS WIRING DIAGRAM  
 DHH048-060, 3 PHASE, DIRECT DRIVE, HIGH STATIC

**REFRIGERANT DETECTION SYSTEM**

REFRIGERANT DETECTION SYSTEM	BEHAVIOR	CHECK
1 FLASH	STARTUP MODE	LEAK DETECTED FROM THE COIL
2 FLASHES	ALARM MODE	LEAK DETECTED FROM THE LEAK
3 FLASHES	INTERNAL FAULT	REPAIR THE SOURCE OF THE LEAK
4 FLASHES	COMPONENT FAULT	REPLACE REFRIGERANT
5 FLASHES	SENSOR FAULT	REPLACE REFRIGERANT
6 FLASHES	MITIGATION DELAY TIME	REPLACE REFRIGERANT

**WIRE CODE**

BK	BLACK
BR	BROWN
BL	BLUE
BU	BUFF
BY	YELLOW
GR	GRAY
PK	PINK
PU	PURPLE
RD	RED
TR	TRANS-ORANGE
WH	WHITE
YL	YELLOW
YLPK	YELLOW WITH PINK STRIPE

**ALLOWABLE SPEEDTAPS**

	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
FAN (GR)	X	X	X	X	X	X	X	X	X	X	X	X
COOLING STG (Y)	X	X	X	X	X	X	X	X	X	X	X	X
COOLING STG (PU)	X	X	X	X	X	X	X	X	X	X	X	X
HEAT STG (BR)	X	X	X	X	X	X	X	X	X	X	X	X

**FACTORY WIRING**

- HIGH VOLTAGE
- LOW VOLTAGE
- OPTIONAL HIGH VOLTAGE
- CHASSIS GROUND

**COMPONENT LEGEND**

- ES EMERGENCY SHUTDOWN
- FB FUSE BLOCK
- FR FREEZE PROTECTION SWITCH
- HPB HIGH PRESSURE SWITCH
- LPS LOW PRESSURE SWITCH
- MAT MATED AIR TEMP. SENSOR
- ODT OUTDOOR TEMPERATURE SWITCH
- CHR CHAMBER HEATER RELAY
- CON COMPRESSOR CONTACTOR
- CMV COMPRESSOR MOTOR CONTACTOR
- PLM MALE PLUG CONNECTOR
- PLF FEMALE PLUG CONNECTOR
- CMV COMPRESSOR MOTOR CONTACTOR
- CON CONDENSER MOTOR CONTACTOR
- CMV COMPRESSOR MOTOR CONTACTOR
- CMV COMPRESSOR MOTOR CONTACTOR
- DFT DEFROST TEMPERATURE SWITCH
- DRN DEFROST RELAY
- EHK ELECTRIC HEAT KIT
- TRN TRANS-ORANGE

**NOTES**

1. INSULATION MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL AT CONNECTIONS ONLY. USE INSULATION FOR ALL LOW VOLTAGE FIELD CONNECTIONS.
2. REFERENCE MAIN WIRING DIAGRAM FOR WIRING OF OPTIONAL EQUIPMENT.
3. TR (PRIMARY HIGH VOLTAGE) WIRE MUST BE CONNECTED TO 240V TAP AT THE FACTORY WIRING FOR INSTALLATIONS USING 208V PRIMARY CONNECTIONS FROM 240V TAP TO THE 208V TAP.
4. G (GREEN BLOWER SPEED) IS WIRE WOUND TO T1 AND T3 (YELLOW AND Y2 (PURPLE) RESPECTIVELY. W1 (WHITE) IS WIRE WOUND TO T2. SPEEDS ARE FACTORY WOUND. IF DIFFERENT SPEEDS ARE REQUIRED, THE OPERATOR MUST REFER TO THE OPERATOR BLOWER SPEED TAPS.

**THERMOSTAT FIELD WIRING**

1 STAGE	2 STAGE
COOLING/HEATING	COOLING/HEATING
WH - W	WH - W1
BR - R	BR - R1
GR - G	GR - G1
PK - Y	PK - Y1
YL - Y	YL - Y1
BL - C	BL - C1
OR - O	OR - O1
TR - STAT	TR - STAT



0148.0735A

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











# Start-up Checklist

*\*Store in job file*

Date: \_\_\_\_\_ Location: \_\_\_\_\_  
Model Number: \_\_\_\_\_  
Serial Number: \_\_\_\_\_  
Technician: \_\_\_\_\_ Unit #: \_\_\_\_\_

## Pre Start-Up

*(Check each item as completed)*

- Verify all packaging material has been removed.
- Remove all shipping brackets per installation instructions.
- Verify the job site voltage agrees with the unit serial plate.
- Verify condensate connection is installed per installation instructions.
- Verify proper clearance around the unit for safety, service, maintenance and proper unit operation.
- Verify proper weatherproofing of all ductwork, roof curbs and electrical connections.
- Check 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

**THIS PAGE INTENTIONALLY LEFT BLANK**

**THIS PAGE INTENTIONALLY LEFT BLANK**

**THIS PAGE INTENTIONALLY LEFT BLANK**

**CUSTOMER FEEDBACK**

Daikin Comfort Technologies is very interested in all product comments.

Please fill out the feedback form on the following link:

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

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



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

©2025 Daikin Comfort Technologies Manufacturing, Inc.

19001 Kermier Rd., Waller, TX 77484

[www.daikincomfort.com](http://www.daikincomfort.com)