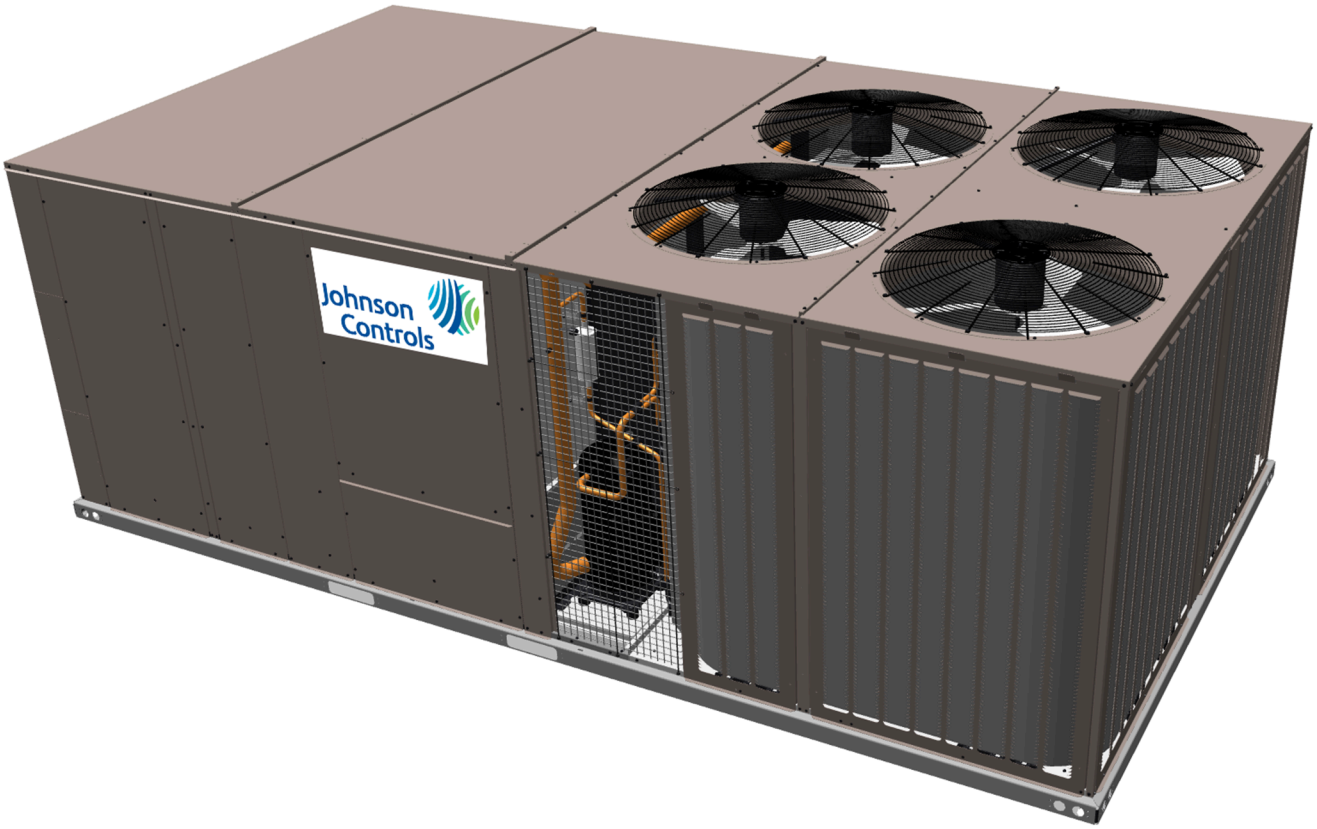
# Installation Manual: Johnson Controls Choice KD15 to KD28, Gen 1

## R-454B




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# General

## Certifications

Tested in accordance with:

## GoTemp Pro App

BHC Residential and Light Commercial LLC believes in empowering our customers with up-to-date, unit-specific information. Download the GoTemp Pro app, a powerful-comprehensive app designed for contractors on the jobsite, available now in the App Store for iOS and Google Play for Android. Use the App to scan the unique QR code on the unit rating plate for easy access to product information and resources such as nomenclature, technical guide, installation manual, wiring diagrams, parts list, product registration, warranty and much more. Simplify your tasks, save time, and stay ahead with the most comprehensive app built for professionals.

GoTemp Pro integrates functionality previously provided by CWa and MAP, allowing you to utilize the on-board communication card or simply plug in the CWCVT to enable Bluetooth connectivity.

## Safety considerations

This is a safety alert symbol. When you see this symbol on labels or in manuals, be alert to the potential for personal injury.

Understand and pay particular attention the signal words DANGER, WARNING or CAUTION.

DANGER indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

CAUTION indicates a potentially hazardous situation, which, if not avoided may result in minor or moderate injury. It is also used to alert against unsafe practices and hazards involving only property damage.

**WARNING**

Improper installation may create a condition where the operation of the product could cause personal injury or property damage. Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for assistance or for additional information, consult a qualified contractor, installer, or service agency.

**CAUTION**

This product must be installed in strict compliance with the installation instructions and any applicable local, state and national codes including, but not limited to building, electrical, and mechanical codes.

**WARNING**

This unit 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 they do not play with the unit. Cleaning and maintenance shall not be performed by children without supervision.

**WARNING**

Before you perform service or maintenance operations on the unit, turn off the main power switch to unit. Electrical shock could cause personal injury. Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency, or the gas supplier.

**WARNING**

Do not use any other means to clean or accelerate the defrosting process, use only what is recommended by the manufacturer. Store the appliance 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 have an odor.

**WARNING**

**ELECTRICAL SHOCK, FIRE, OR EXPLOSION HAZARD**

Failure to follow safety warnings exactly could result in dangerous operation, serious injury, death, or property damage.
Improper servicing could result in dangerous operation, serious injury, death, or property damage.
*Before servicing, disconnect all electrical power to the furnace.
*When servicing controls, label all wires prior to disconnecting. Reconnect the wires correctly.
*Verify proper operation after servicing.

**CAUTION**

R-454B is a mildly flammable refrigerant. Unit installation must comply with UL/CSA 60335-2-40, the installation and operations manuals available on Solution Navigator, the DS Solutions app, and documentation shipped with the unit.

**WARNING**

**Risk of fire**

This unit has over 4 lb of mildly flammable A2L refrigerant, which may require the installation of an RDS (Refrigerant Detection System) for specific applications. To determine if a specific application needs a field-installed RDS, use the RDS calculator on Solution Navigator or the DS Solutions App.

**CAUTION**

This system uses R-454B refrigerant, which is a mildly flammable refrigerant. Do not use any other refrigerant in this system. Gage sets, hoses, refrigerant containers, and recovery systems, must be designed to handle R-454B. If you are unsure, consult the equipment manufacturer. Failure to use R-454B compatible servicing equipment may result in property damage or injury.

**WARNING**

**FIRE OR EXPLOSION HAZARD**

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.
Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
WHAT TO DO IF YOU SMELL GAS:
- Do not try to light any appliance.
- Do not touch any electrical switch.
- Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

Installation and service must be performed by a qualified installer or service agency.

The installation and servicing of air conditioning equipment can be hazardous, due to the system pressure, a mildly flammable refrigerant, moving parts, and electrical components. Only qualified and trained service personnel must install, repair, or service this equipment. Untrained personnel can perform the basic maintenance functions such as cleaning coils and cleaning or replacing filters.

Observe all the precautions in the literature, labels, and tags that accompany the equipment whenever you work on air conditioning equipment. Follow all other applicable safety precautions and codes including ANSI Z223.1 or CSA-B149.1-latest edition.

Wear safety glasses and work gloves. Use a quenching cloth and have a fire extinguisher available during brazing operations.

ⓘ **Note:** This unit is classified as an appliance not accessible to the general public and should be installed only in locations not accessible to the general public. Locate appliances in a secured location with restricted access, at a level that is not less than 2.5 m, or in secured areas such as rooftops or machine rooms.

## Inspection

As soon as you receive a unit, you must inspect it for possible damage during transit. If damage is evident, note the extent of the damage on the carrier's freight bill. You must make a separate request for inspection by the carrier's agent in writing.

**⚠ CAUTION**

This product must be installed in strict compliance with the enclosed installation instructions and any applicable local, state, and national codes including, but not limited to, building, electrical, and mechanical codes.

The furnace and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing at pressures in excess of 1/2 PSIG. Pressures greater than 1/2 PSIG will cause gas valve damage resulting in a hazardous condition. If it is subjected to a pressure greater than 1/2 PSIG, the gas valve must be replaced.

The furnace must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSIG.

## Reference

Additional information is available in the following reference forms:

- Technical Guide 6434383
- General Installation 6434376
- Smart Equipment Control Quick Start Guide 1136326
- A2L Refrigerant Installation Manual 6651753

## Renewal parts

Contact your local Ducted Systems parts distribution center for authorized replacement parts.

## Approvals

The unit is certified by CSA as follows:

- For use as a cooling only unit, cooling unit with supplemental electric heat or a forced air furnace.
- For outdoor installation only.
- For installation on combustible material and may be installed directly on combustible flooring or, in the United States, on wood flooring or Class A, Class B, or Class C roof covering materials.
- For use with natural gas. The unit can be converted to LP with a kit.

**⚠ CAUTION**

This product must be installed in strict compliance with the enclosed installation instructions and any applicable local, state, and national codes including, but not limited to, building, electrical, and mechanical codes.

**⚠ WARNING**

Improper installation may create a condition where the operation of the product could cause personal injury or property damage.

- 

**⚠ CAUTION**

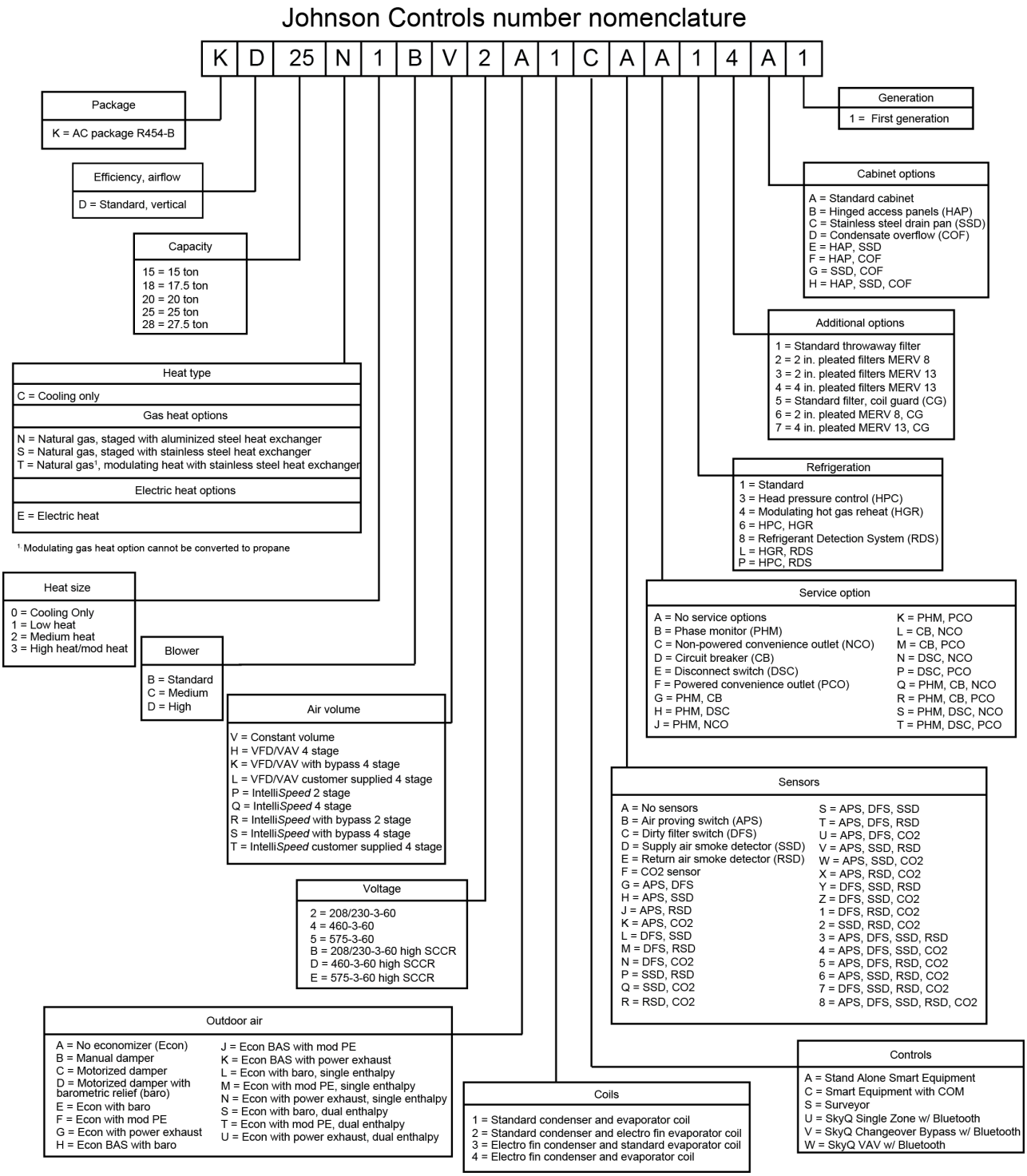
This system uses R-454B refrigerant, which is a mildly flammable refrigerant. Do not use any other refrigerant in this system.

**⚠ CAUTION**

Install this product only in locations not accessible to the general public. Appliances are to be located in a secured location with restricted access, such as machine rooms, rooftops, etc., at a level not less than 8.2 ft (2.5 m).

## Nomenclature

**Figure 1: Product nomenclature**



# Installation

## Installation safety information

Read the following instructions before you install this appliance. This is an outdoor combination heating and cooling unit. The installer must assure that these instructions are made available to the consumer. The installer must instruct the consumer to retain the instructions for future reference.

- Refer to the unit rating plate for the approved type of gas for this product.
- Install this unit only in a location and position as specified in the Location section.
- Never test for gas leaks with an open flame. Use commercially available soap solution made specifically for the detection of leaks when you check all connections.
- Always install the furnace to operate within the furnace's intended temperature-rise range with the duct system and within the allowable external static pressure range. This information is specified on the unit name/rating plate. See Adjustment of temperature rise.
- Do not use this equipment for the temporary heating of buildings or structures under construction.
- Provide adequate combustion and ventilation air to the furnace space as specified in the Clearances section.

**⚠ WARNING**

**FIRE OR EXPLOSION HAZARD**

Failure to follow the safety warning exactly could result in serious injury, death, or property damage. Never test for gas leaks with an open flame. Use a commercially available soap solution made specifically for the detection of leaks to check all connections. A fire or explosion may result causing property damage, personal injury, or loss of life.

## Limitations

You must install these units in accordance with national wiring regulations and the following standards.

### Requirements in the United States

- *National Electrical Code, ANSI/NFPA No. 70* - latest edition
- *National Fuel Gas Code, ANSI Z223.1* - latest edition
- *Gas-Fired Central Furnace Standard, ANSI Z21.47a.* - latest edition
- Local building codes
- Local gas utility requirements

### Requirements in Canada

- *Canadian Electrical Code, CSA C22.1*
- *Installation Codes, CSA - B149.1*
- Local plumbing and wastewater codes
- Other applicable local codes

See the application data found in this document and refer to the *A2L Refrigerant Installation Manual*.

After the installation is complete, you must adjust gas fired units to obtain a temperature rise in the range specified on the unit rating plate.

If components are added to a unit to meet local codes, they are installed at the dealer's and/or customer's expense.

Base the size of the unit for the proposed installation on the heat loss/heat gain calculation made according to the methods of the Air Conditioning Contractors of America (ACCA).

This furnace is not to be used for temporary heating of buildings or structures under construction.

**NOTICE**

The Smart Equipment control board used in this product can effectively operate the cooling system down to 0°F when this product is applied in a comfort cooling application for people. An economizer is typically included in this type of application. When you apply this product for process cooling applications, such as computer rooms or switchgear, call the applications department for Ducted Systems at 1-877-874-SERV for guidance. Additional accessories may be needed for stable operation at temperatures below 30°F.

## Unit components

**Figure 2: Component location**

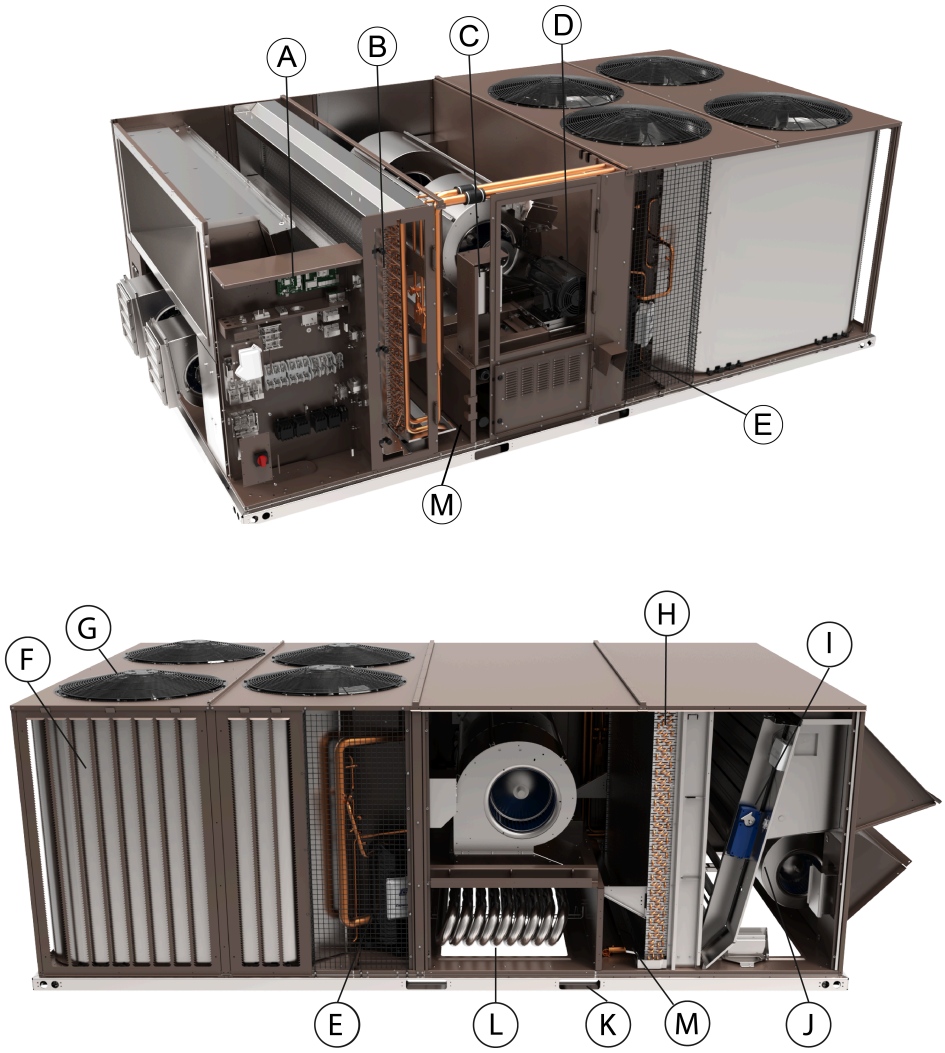



**Table 1: Component location table**

| Item | Description | Item | Description |
|---|---|---|---|
| A | Smart Equipment controls | H | Copper tube/aluminum fin evaporator coil |
| B | Filter access, 2 in. or 4 in. filter options | I | Optional economizer. Optional manual or motorized outside air dampers not shown. |
| C | Optional variable frequency drive | J | Optional powered exhaust. Optional barometric relief not shown. |
| D | Belt drive blower motor with dual centrifugal fan design | K | Full perimeter base rails with holes for overhead rigging |
| E | Scroll compressors in various arrangements to produce 2 or 4 stages of cooling depending on the selected model | L | Optional staged or modulating gas heat with aluminized or stainless steel heat exchanger. Optional electric heat not shown. |
| F | MicroChannel condenser coils | M | Refrigerant Leak Detection Sensor |
| G | Condenser fans | | |

## Unit limitations

**Table 2: KD15 to KD28 unit limitations**

| Unit voltage | Applied voltage | | Outdoor DB temperature |
|---|---|---|---|
| | Minimum | Maximum | Maximum (°F) |
| 208/230-3-60 | 180 | 254 | 125 |
| 460-3-60 | 416 | 508 | 125 |
| 575-3-60 | 520 | 635 | 125 |

## Location

Use the following guidelines to select a suitable location for these units:

- The unit is designed for outdoor installation only.
- Condenser coils must have an unlimited supply of air. Where a choice of location is possible, position the unit on either the north or the east side of the building.
- Suitable for mounting on a roof curb.
- For ground level installation, use a level concrete slab with a minimum thickness of 4 in. The length and width must be at least 6 in. greater than the unit base rails. Do not tie the slab to the building foundation.
- Roof structures must be able to support the weight of the unit and its options and accessories. The unit must be installed on a solid level roof curb or on an appropriate angle iron frame.

Maintain level tolerance to 1/2 in. across the entire width and length of the unit.

## Clearances

All units require particular clearances for correct operation and service. The installer must make provisions for adequate combustion and ventilation air in accordance with section 5.3 of Air for Combustion and Ventilation of the National Fuel Gas Code, ANSI Z223.1 – latest edition (in the U.S.A.), or Sections 7.2, 7.3, or 7.4 of Gas Installation Codes, CSA-B149.1 (in Canada) - latest edition, and/or applicable provisions of the local building codes. See the Unit clearances table for the clearances required for combustible construction, servicing, and proper unit operation.

Detailed unit clearances are available in the **weights and dimensions** section.

**WARNING**

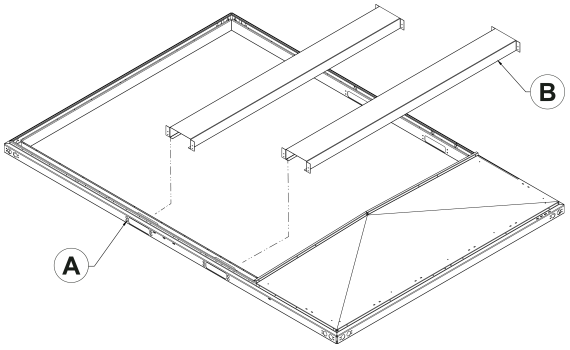
Do not permit overhanging structures or shrubs to obstruct the condenser air discharge outlet, combustion air inlet, or vent outlets.

## Removing the forklift tunnels

**Note:** Before placing a unit on a roof curb, you must remove the protective fork lift tunnels from the underside of the unit.

1. To remove the protective forklift tunnels, locate the fork pockets visible on the exterior of the unit base rail shown in Figure 3.

**Figure 3: Protective forklift tunnels**




| Item | Description |
|---|---|
| A | Example screw location |
| B | Fork tunnel |

2. Remove the 16 screws securing the fork tunnels to the unit base rail and remove the fork tunnels from the bottom of the unit as the unit is lifted.

   **Note:** You can discard the fork tunnels and screws after they are removed.

## Rigging and handling

Adhere to the following guidelines when rigging and handling the unit:

- Exercise care when you move the unit.
- Do no remove any packaging until the unit is near the place of installation.
- To rig the unit, attach chain or cable slings to the lifting holes provided in the base rails.
- You must use spreader bars across the top of the rail unit.
- The spreader bars must have a length that exceeds the largest dimension across the unit.

**CAUTION**

If a unit is installed on a roof curb other than a ducted systems roof curb, you must apply gasketing to all surfaces that come in contact with the unit underside.

**CAUTION**

Before lifting the unit, make sure that the unit weight is distributed equally on the rigging cables so that it lifts evenly.

Units may be moved or lifted with a forklift from the side only.
The length of the forks must be a minimum of 52 in.

**CAUTION**

All panels must be secured in place when the unit is lifted. The condenser coils must be protected from rigging cable damage with plywood or other suitable material.

# Weights and dimensions

**Figure 4: KD15 and KD18 physical dimensions**

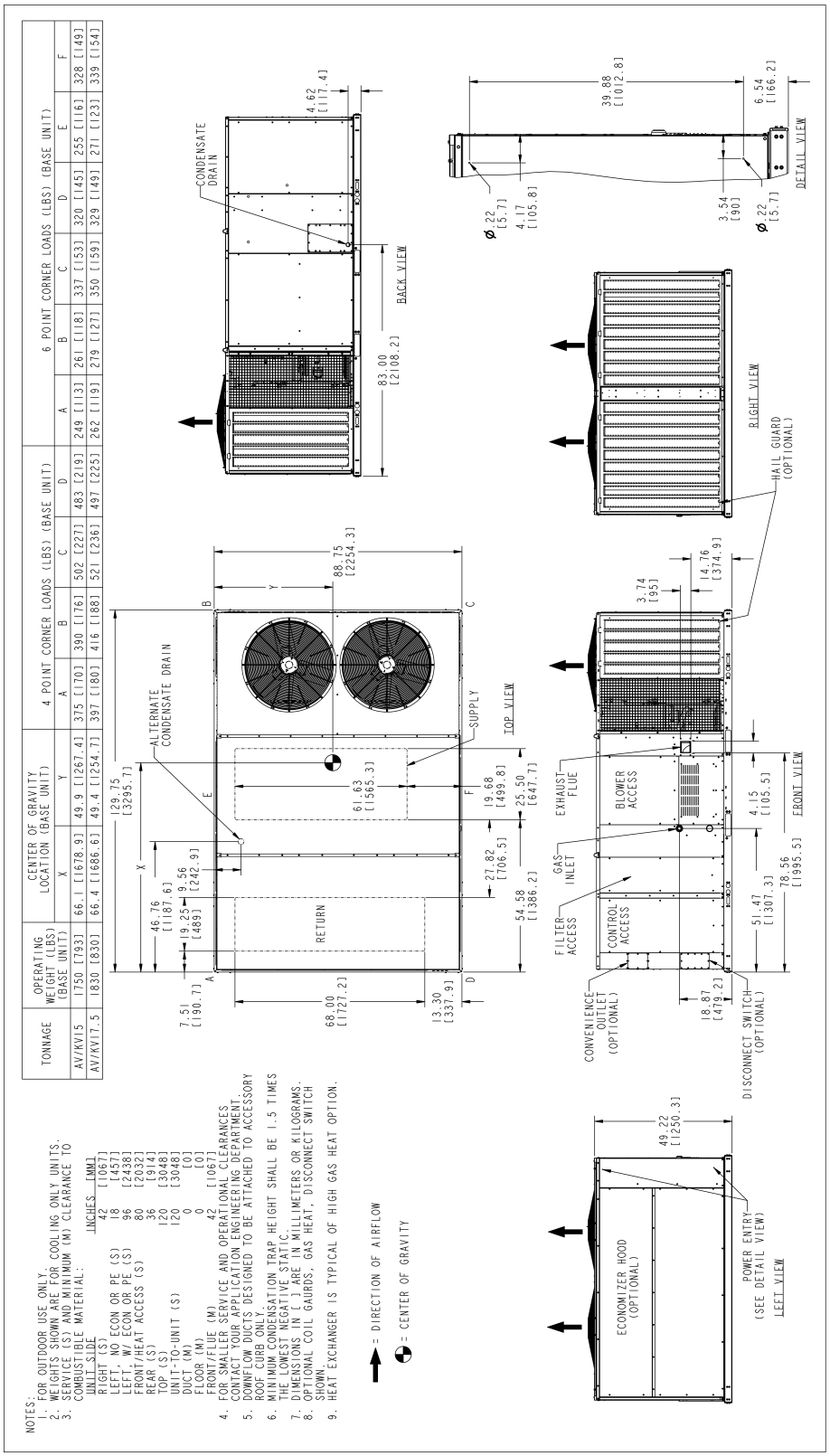


**Figure 5: KD20 physical dimensions**

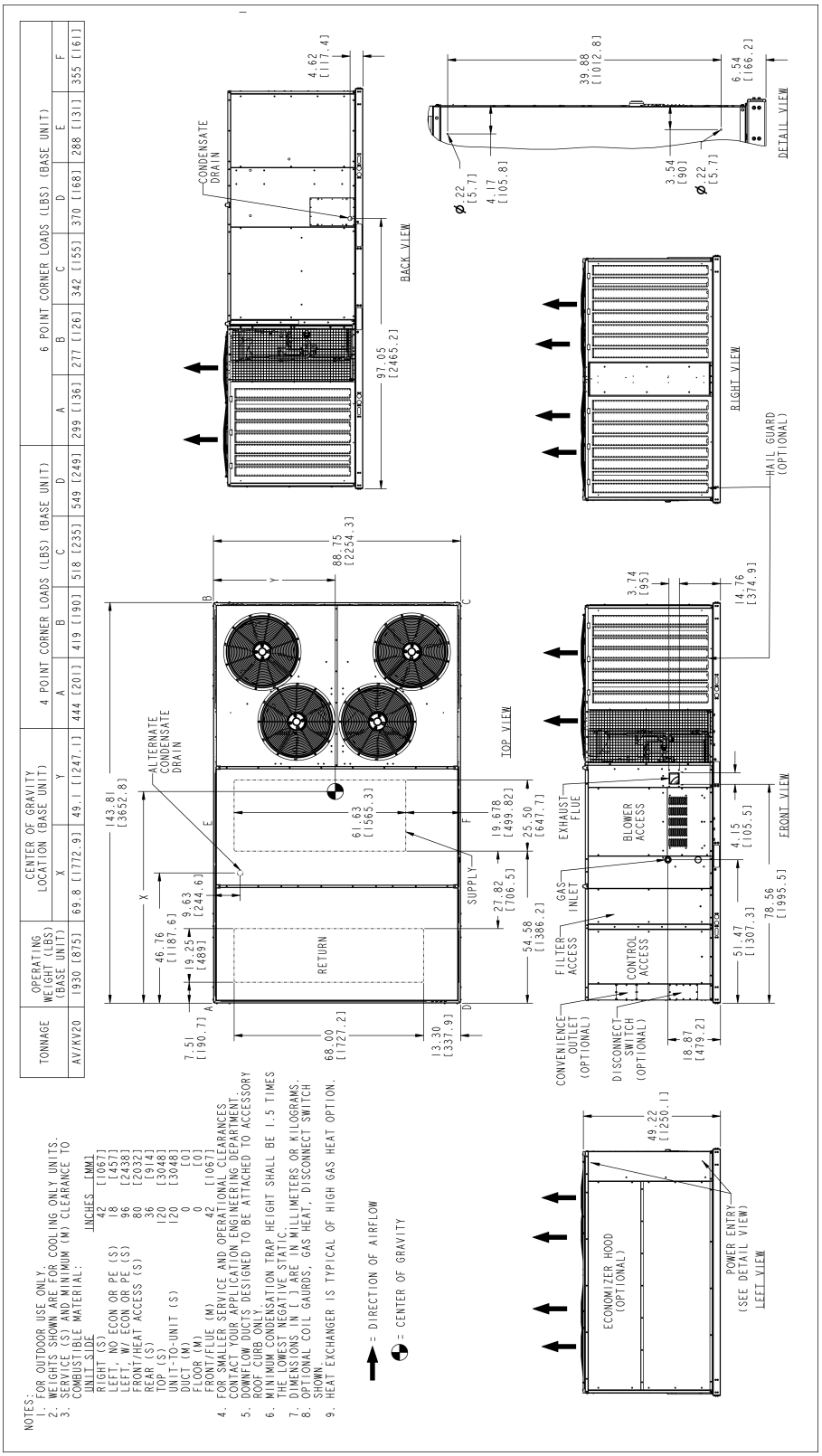


**Figure 6: KD25 physical dimensions**

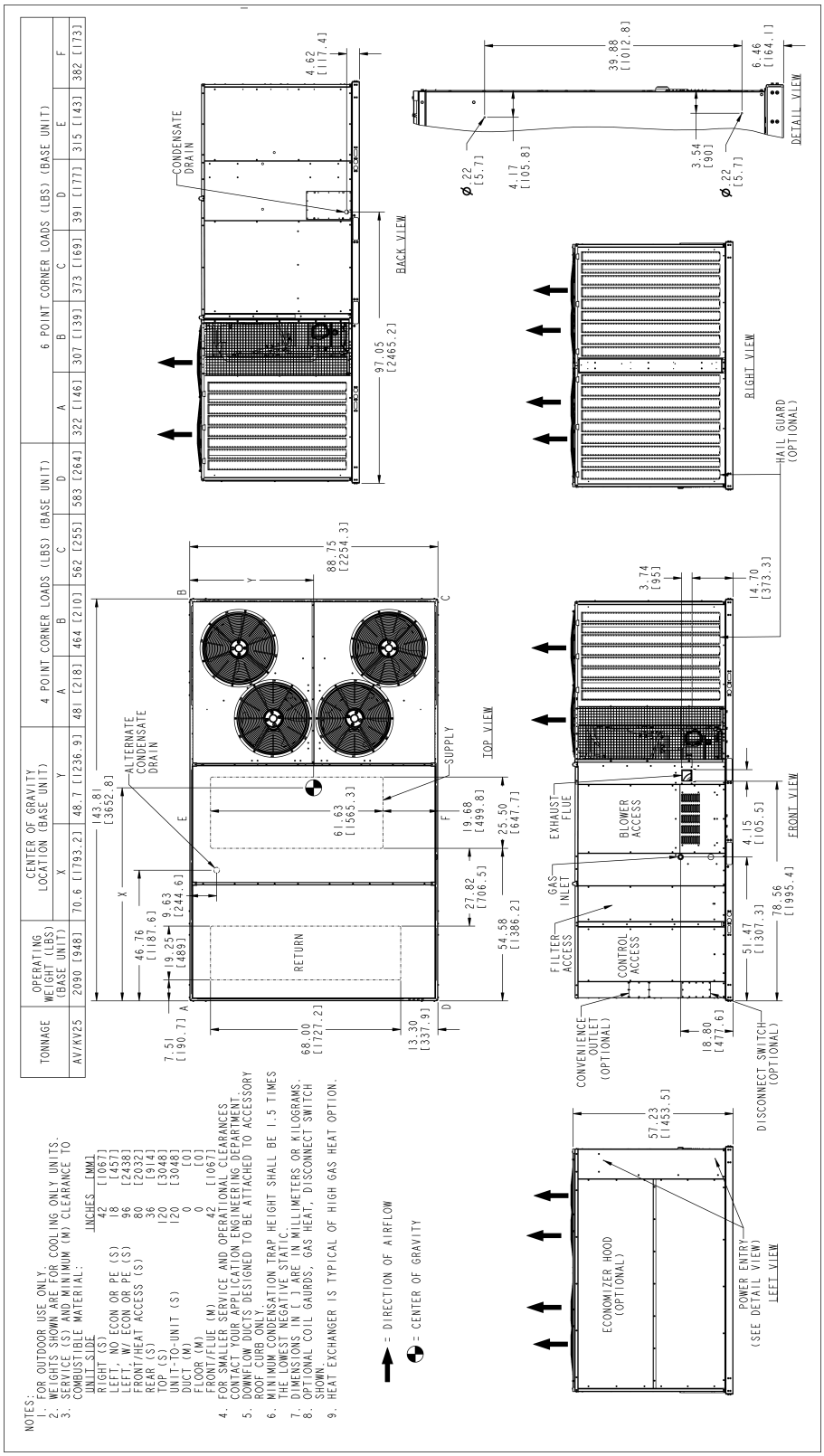
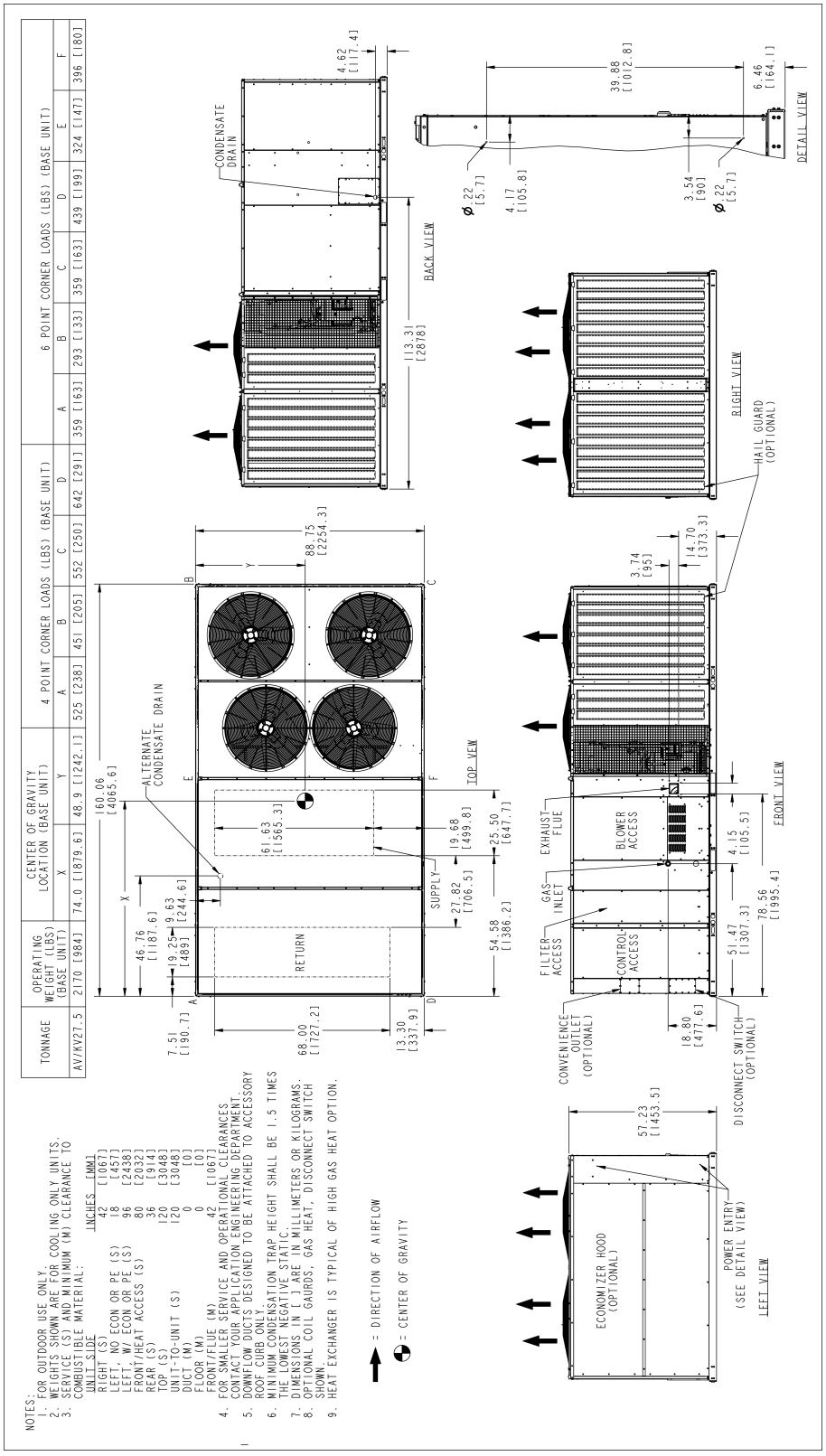
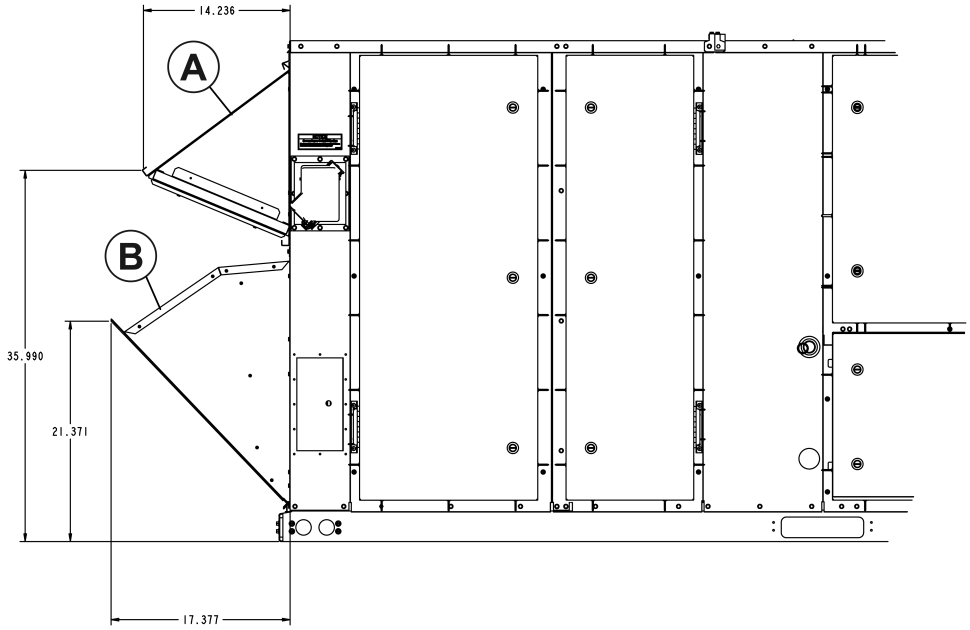


**Figure 7: KD28 physical dimensions**



## Rain hood dimensions

**Figure 8: Rain hood dimensions**




| Item | Description |
|---|---|
| A | Economizer, manual damper, and motorized damper rain hood |
| B | Power exhaust rain hood |

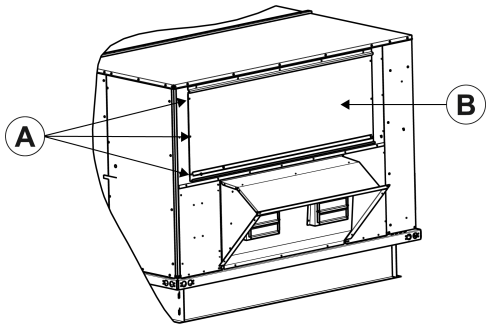
## Assembling the outdoor air hood

After a unit with an economizer, manual damper, or motorized damper is installed in the field, assemble the outside air hood.

To install the outdoor air hood, complete the following steps.

1. While transporting the unit, the hood top panel is used as a shipping cover attached to the unit exterior as shown in Figure 9.

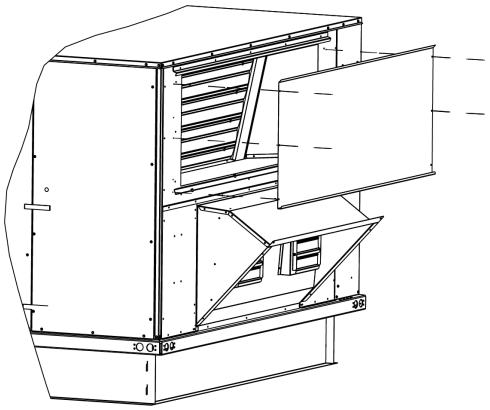
**Figure 9: Hood top panel**




| Item | Description |
|---|---|
| A | Corner screws |
| B | Hood top panel |

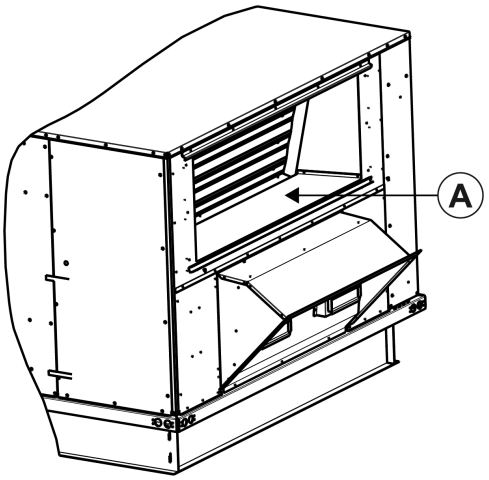
2. Remove the corner screws and the hood top panel as shown in Figure 9 and Figure 10. Keep both the screws and the top panel for use in a later step.

**Figure 10: Removing the corner screws**



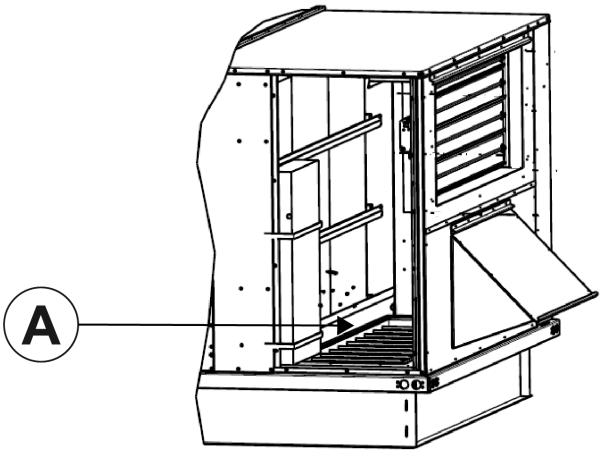
3. For units with an economizer, the additional outside air hood assembly parts are shipped behind the top panel removed in the previous step. This location is shown in Figure 11. For units with a manual or motorized damper, the additional outside air hood assembly parts are shipped in the return air section of the unit as shown in Figure 12.

**Figure 11: Economizer hood assembly parts**




| Item | Description |
|---|---|
| A | Economizer hood assembly parts shipping location |

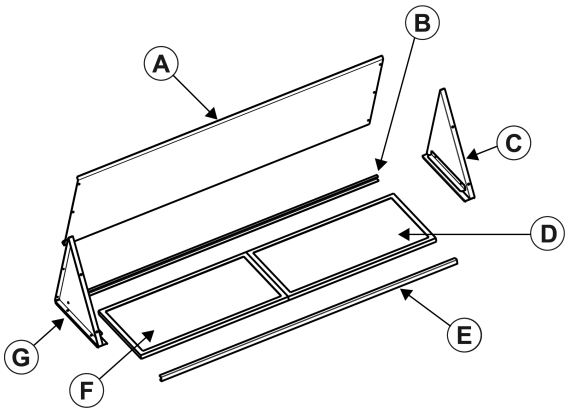
**Figure 12: Manual or motorized damper hood assembly parts**




| Item | Description |
|---|---|
| A | Manual or motorized damper hood assembly parts shipping location |

4. Before beginning assembly, check that you have all of the factory provided parts for the economizer outside air hood as shown in Figure 13.

**Figure 13: Economizer outside air hood parts**

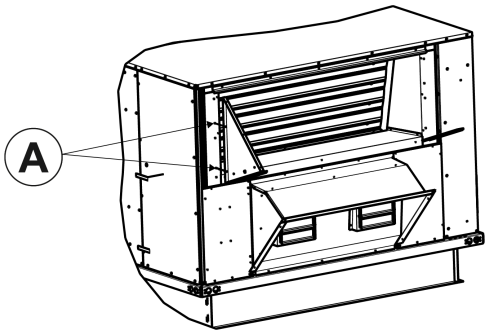



| Item | Description |
|---|---|
| A | Hood top panel |
| B | Filter channel 1 |
| C | Right side panel sub-assembly |
| D | Filter 1 |
| E | Filter channel 2 |
| F | Filter 2 |
| G | Left side panel sub-assembly |

5. Using two no. 10 screws from the hardware bag, fasten the left side panel sub-assembly on the unit as shown in Figure 14.

   ⓘ **Note:** Orient the flange at the bottom of the side panel and facing the center of the unit.

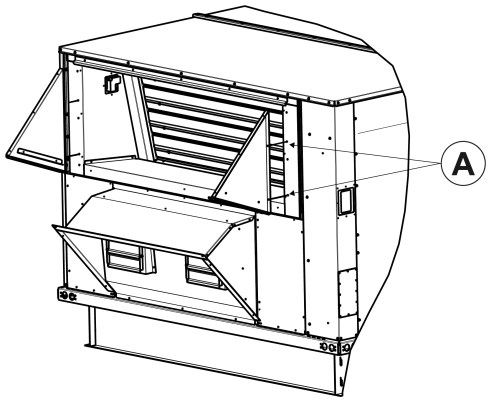
**Figure 14: Fastening the left side panel**




| Item | Description |
|---|---|
| A | Screws |

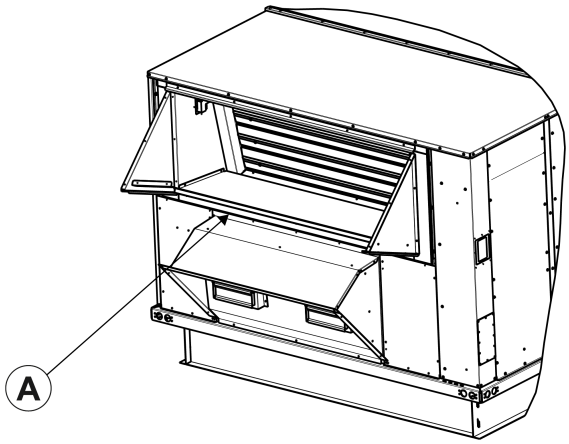
6. Using two no. 10 screws from the hardware bag, fasten the right side panel sub-assembly on the unit as shown in Figure 15. Note that the flange should be oriented at the bottom of the side panel and facing the center of the unit.

**Figure 15: Right side panel**




7. Before inserting the filter channel, ensure the open end of the channel is pointing away from the unit. The filters will be inserted into this opening. Insert filter channel 1 as shown in Figure 16. This should rest on top of the flange of both of the side panels installed in the previous step.

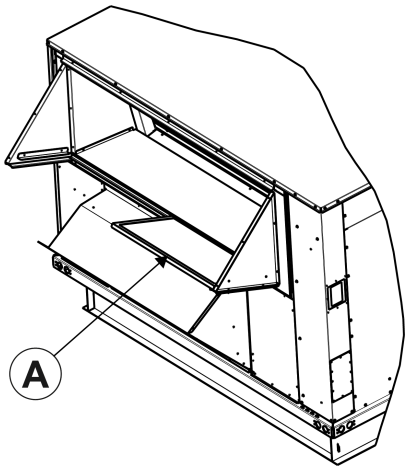
**Figure 16: Filter channel 1**




| Item | Description |
|---|---|
| A | Filter channel 1 |

8. Insert the first filter into the filter channel to rest with one edge inside of the filter channel and the other on top of the flange of the side panel. See the following figure.

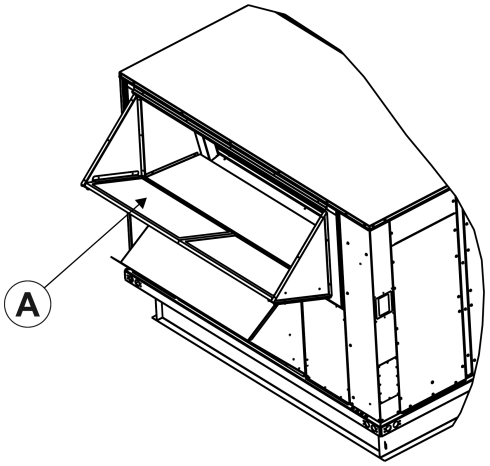
**Figure 17: Filter**




| Item | Description |
|---|---|
| A | Filter |

9. Insert the second filter into the filter channel in the same way the first filter was inserted in Step 8, and as shown in Figure 18.

**Figure 18: Filter**



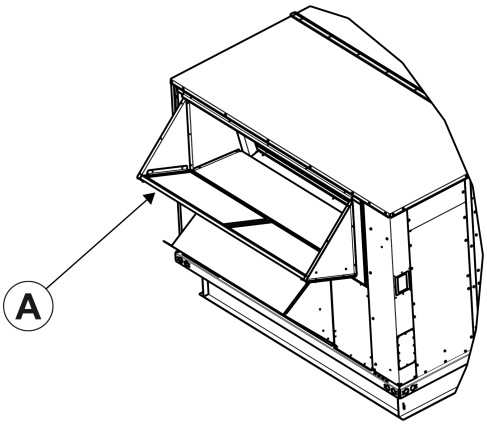

| Item | Description |
|---|---|
| A | Filter |

10. Insert filter channel 2 with the open end of the channel facing toward the unit and going over the end of the filters. See Figure 19.



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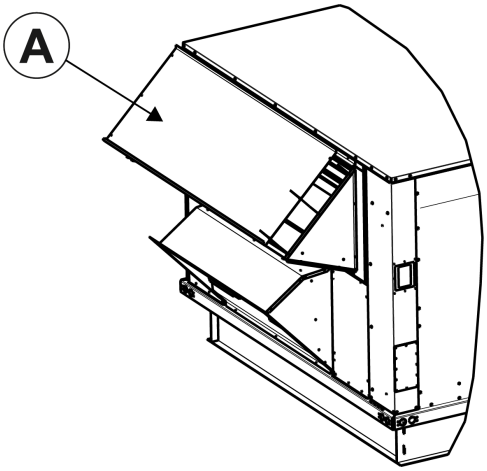
**Figure 19: Inserting filter channel 2**




| Item | Description |
|---|---|
| A | Filter channel 2 |

11. Taking the hood top panel removed in Step 2, hook the angled flange under the top bracket and then set on top of the side panels. Using the screws removed earlier, attach the top panel to the side panels as shown in Figure 20.

**Figure 20: Hood top panel**




| Item | Description |
|---|---|
| A | Hood top panel |

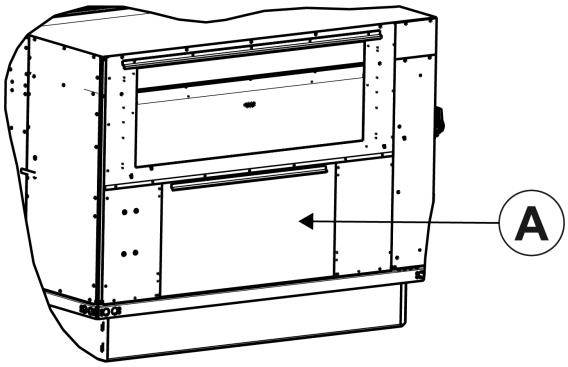
## Barometric relief hood assembly

After a unit with barometric relief is installed in the field, the barometric relief hood will need to be assembled.

To install the barometric relief hood, complete the following steps.

1. While transporting the unit, the hood top panel is used as a shipping cover attached to the unit exterior as shown in Figure 21.

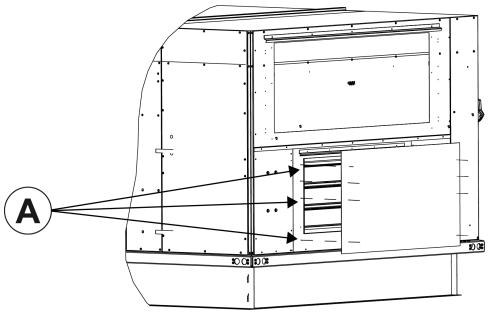
**Figure 21: Hood top panel**




| Item | Description |
|---|---|
| A | Hood top panel |

2. Remove the corner screws and the hood top panel as shown in Figure 22. Keep both the screws and the top panel for use in a later step.

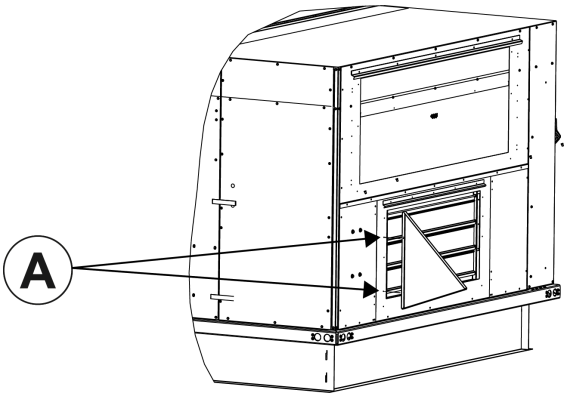
**Figure 22: Removing the corner screws**




| Item | Description |
|---|---|
| A | Corner Screws |

3. Unscrew the two triangular hood sides from inside the barometric relief assembly.
4. Using two of the No. 10 screws removed in step 3, fasten the left side panel sub-assembly on the unit as shown in Figure 23.

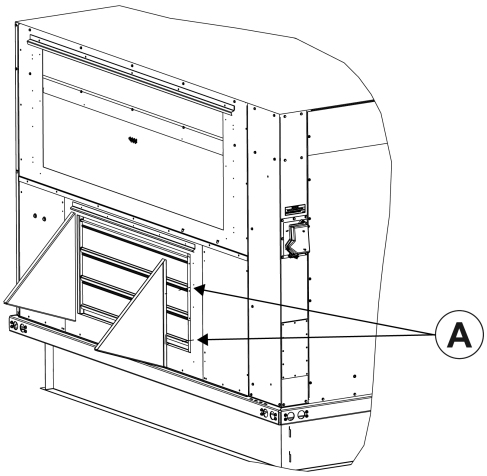
**Figure 23: Fastening the left side panel sub-assembly**




| Item | Description |
|---|---|
| A | Screws |

5. Using two of the No. 10 screws removed in step 3, fasten the right side panel sub-assembly on the unit as shown in Figure 24.

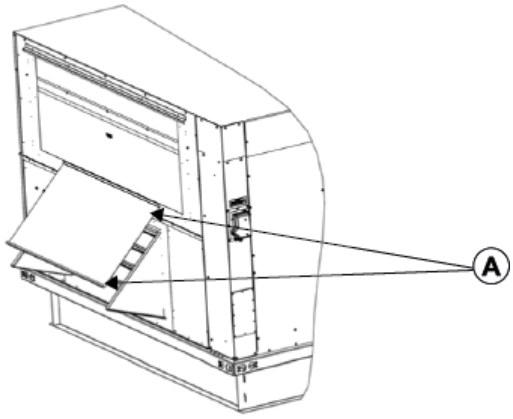
**Figure 24: Fastening the right side panel sub-assembly**




| Item | Description |
|---|---|
| A | Screws |

6. Taking the hood top panel removed in Step 2, hook the angled flange under the top bracket and then set on top of the side panels. Using the screws removed earlier, attach the top panel to the side panels as shown in Figure 25.

**Figure 25: Attaching the top panel**




| Item | Description |
|---|---|
| A | Screws |

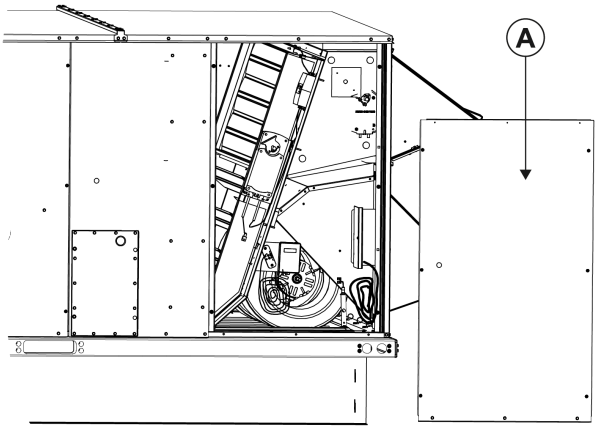
## Power exhaust fold out instructions

After the unit is installed in the field the power exhaust assembly requires field setup for operation.

To setup the power exhaust assembly, complete the following steps.

1. Remove the return air access panel shown in Figure 26.

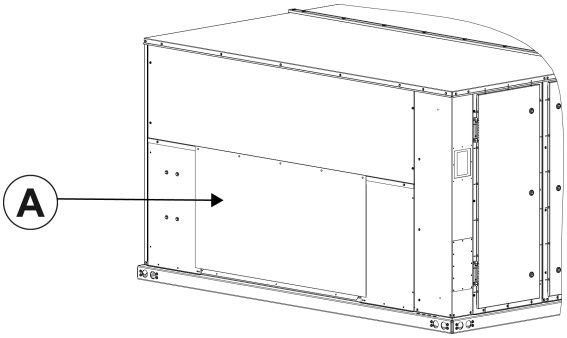
**Figure 26: Removing the access panel**




| Item | Description |
|---|---|
| A | Return air access panel |

2. Locate the power exhaust transit cover on the fresh air side of the unit as shown in Figure 27.

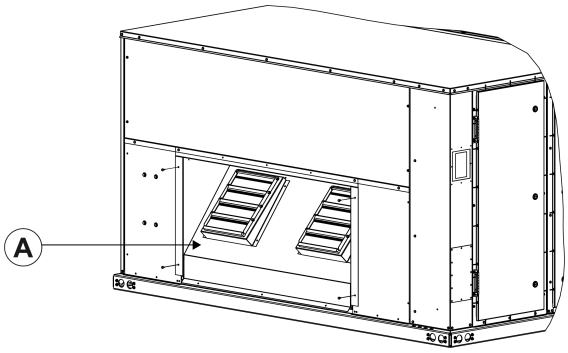
**Figure 27: Cover**




| Item | Description |
|---|---|
| A | Cover |

3. Remove the power exhaust transit cover by removing the screws at the top and bottom of the transit cover. Keep the screws for use in securing the power exhaust in a later step, the transit cover can be discarded.

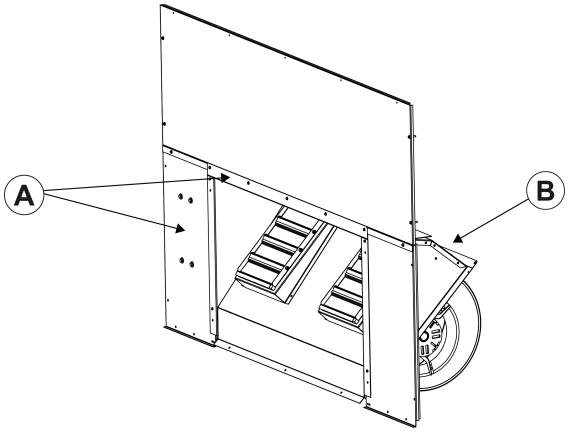
**Figure 28: Removing the power exhaust transit cover**




| Item | Description |
|---|---|
| A | Power Exhaust Assembly |

4. Before folding out the power exhaust assembly, ensure the wiring to the power exhaust motor is loose and not caught on internal components in the fresh air section of the unit. Visually locate the rear flange on the exhaust assembly shown in Figure 29, the mounting holes will need to be aligned with the through holes in the cabinet in the next steps.

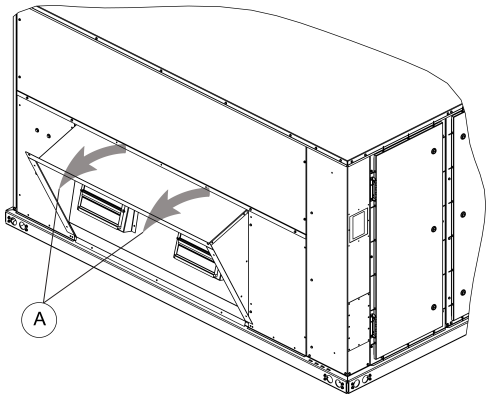
**Figure 29: Rear flange location**




| Item | Description |
|---|---|
| A | Cabinet Parts |
| B | Rear Flange |

5. From the outside of the unit, grabbing the top flange of the power exhaust assembly, pull the exhaust assembly away from the unit as shown in Figure 30. The assembly will rotate out and down using the base of the assembly as the pivot point.

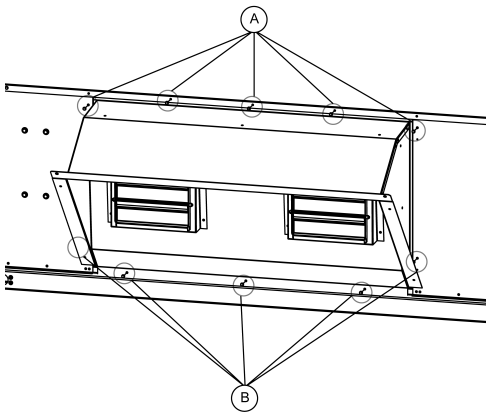
**Figure 30: Exhaust Assembly**




| Item | Description |
|---|---|
| A | Pull-out direction |

6. While keeping the power exhaust assembly pivoted in its operational position, match the holes on the rear flange of the power exhaust assembly that was located in Step 4 to the holes on the corresponding cabinet parts.
7. Use the screws removed in Step 3 to attach the cabinet frame to the power exhaust assembly in the locations shown in Figure 31.

**Figure 31: Flange screw locations**




| Item | Description |
|---|---|
| A | Top flange scew locations |
| B | Bottom flange scew locations |

8. Use caulk, gasket, or other sealing means to ensure a watertight seal around the power exhaust assembly.
9. For a constant volume power exhaust, replace the return air access panel removed in Step 1. The setup is now complete. For a modulating power exhaust, continue to the next section for setting the location of the building pressure sensor.

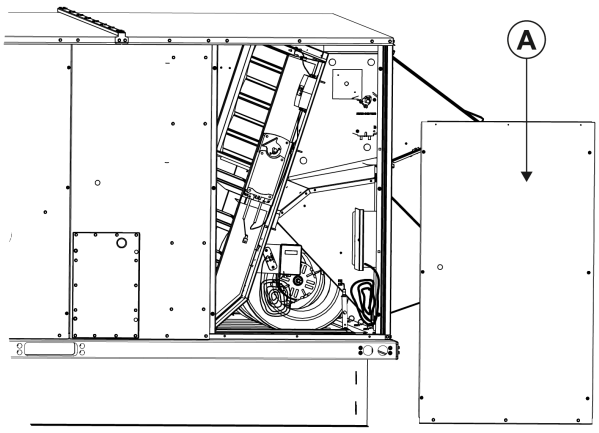
## Relocating the RA pressure sensor

Field locating of building pressure sensor for modulating power exhaust

Complete these additional steps after completing the previous steps for field setup of a factory installed modulating power exhaust.

1. If not already removed, remove the return air access panel shown in Figure 32.

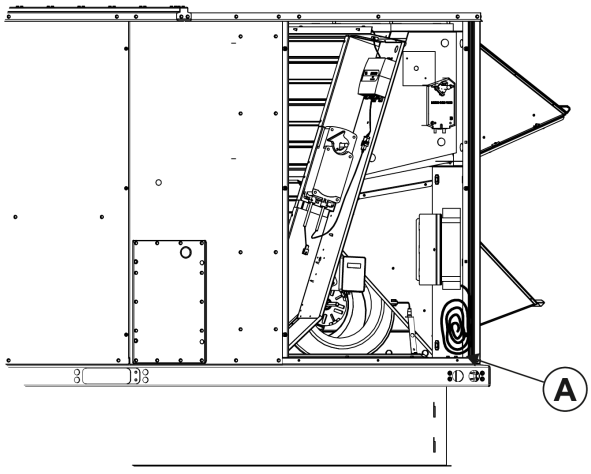
**Figure 32: Removing the access panel**




| Item | Description |
|---|---|
| A | Return air access panel |

2. The building pressure sensor and tubing are bundled from the factory and kept below the power exhaust control box as shown in Figure 33.

**Figure 33: Building pressure sensor and tubing**




| Item | Description |
|---|---|
| A | RA pressure sensor tube bundled |

3. Cut the wire ties holding the tubing in place for shipping.

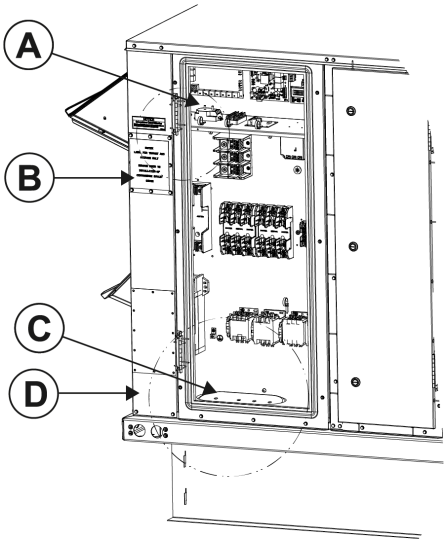
4. Lower the end of the tubing with the pressure sensor down into the return ductwork. Note that the provided sensor will negate the effects of return dynamic pressure to give a representative building pressure. If you require a different location for obtaining building pressure, you can route the tubing accordingly.
5. Use field-supplied gasket or other protective measures to keep the tube from rubbing on any sharp edges that could cut the tube over time.
6. Replace the return air compartment access panel.

## Pressure line connections for VAV

For VAV unit operation, field setup of the pressure lines is required to obtain readings of the supply duct pressure and building space pressure. Follow the instructions below to complete this setup.

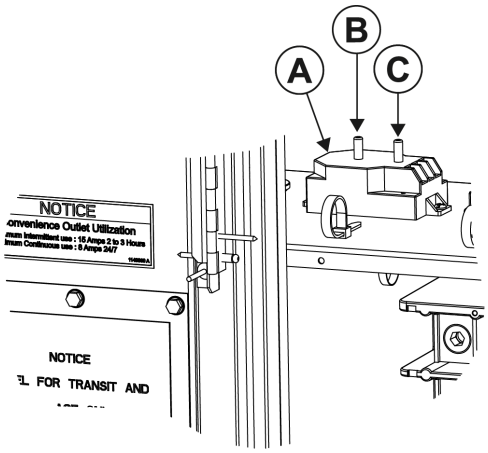
1. Open the control panel access door. The duct pressure sensor (DPS) will be located on the shelf as shown in Figure 34 and Figure 35.

**Figure 34: Control panel**




| Item | Description |
|---|---|
| A | Duct pressure sensor |
| B | See Figure 35 |
| C | Dimple embossment |
| D | See Figure 36 |

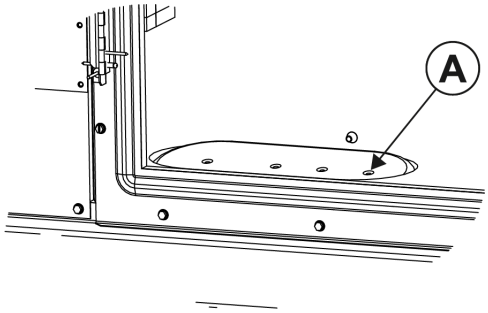
**Figure 35: Duct pressure sensor detail**




| Item | Description |
|---|---|
| A | DPS |
| B | High port |
| C | Low port |

2. For best results, use a pressure-transmitting tubing with 3/16 in. I.D. for tubing lengths of up to 100 feet, ¼ in. I.D. for tubing lengths up to 300 feet, and 3/8 in. I.D. for tubing lengths up to 900 feet.
3. Drill a hole in the dimpled embossment in the bottom of the control box shown in Figure 34 and Figure 36. Drill the hole in a size that will fit both the building pressure and supply-air pressure tubes. Use protective measures to ensure that the tubing will not develop a cut from contact with any sharp edges.

**Figure 36: Dimple embossment detail**

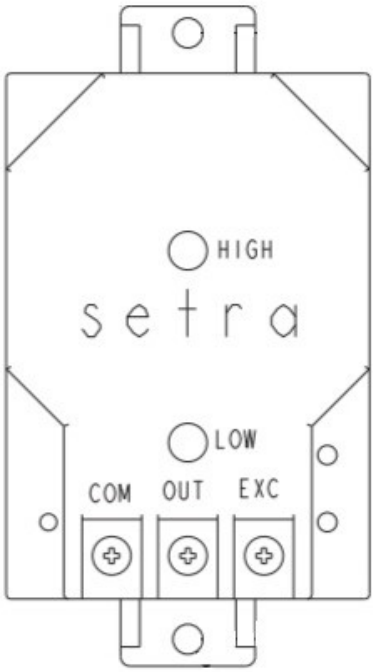



| Item | Description |
|---|---|
| A | Drill holes here pressure tubes |

4. Determine the length of tubing required to run from the DPS (identified in Step 1), down through the hole drilled in the embossment in the bottom of the control box, and to the desired location for obtaining the building pressure.

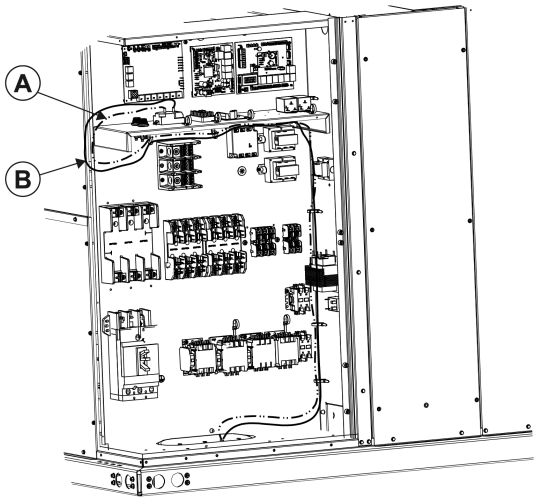
5. Connect the field-supplied tubing to the Low pressure port of the DPS. The Low and High ports can be identified by the sticker and embossment on the sensor and are shown in Figure 35 and Figure 37.

**Figure 37: DPS port locations**




6. Route the tubing through the control box and down through the hole drilled in the control box base embossment, as shown in Figure 38 .

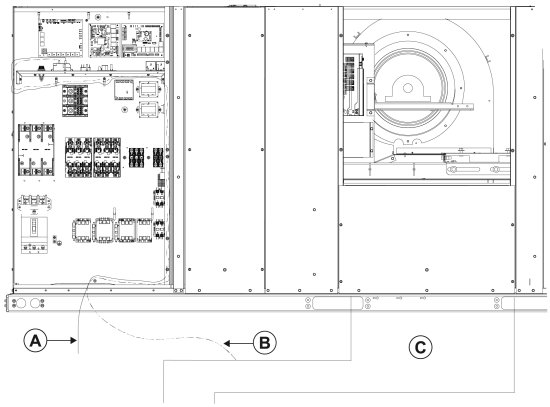
**Figure 38: Routing the tubing**




| Item | Description |
|---|---|
| A | High tube |
| B | Low tube |

7. After exiting the unit base, route the tubing to the desired location for obtaining a constant building pressure reading.
8. Determine the length of tubing required to run from the DPS (identified in Step 1), down through the hole drilled in the embossment in the bottom of the control box, and to the desired location for obtaining the supply-air duct pressure.
9. Connect the field-supplied tubing to the high pressure port of the DPS. The low and high ports can be identified by the sticker and embossment on the sensor and are shown in Figure 36 and Figure 37.
10. Following the same path as the building pressure tubing in Step 6, route the tubing through the control box and down through the hole drilled in the control box base embossment, as shown in Figure 38. Route both tubes along the cable straps and use wire ties to secure the tubes to the cable straps.
11. After exiting the unit base, route the tubing to a field-supplied static pressure tap in the supply duct located at a point where constant pressure is expected. An example of the full tubing routing can be seen in Figure 39.

**Figure 39: Routing the tubing**




| Item | Description |
|---|---|
| A | Low building pressure |
| B | High SA duct pressure |
| C | Supply air duct |

12. To prevent an unstable signal due to air turbulence, there should be no obstructions, turns, or VAV terminal boxes up- or down-stream of the sensing tube location for at least a distance of 6 to 10 times the duct diameter.

## Utilities entry

**Note:** Field-seal all entry holes to prevent rainwater entry into the building.

**Table 3: Utilities entry**

| Entry description | | Opening size diameter (in.) |
|---|---|---|
| Control wiring | Left | Field drilled[1] to maximum of 7/8 in. |
| | Bottom | Field drilled[1] to maximum of 7/8 in. |
| Power wiring | Left | Field drilled[1] to maximum of 3 in. |
| | Bottom | Field drilled[1] to maximum of 3 in. |
| Gas piping | Left [2,3] | 2 in. hole with 3/4 in. grommet |
| | Bottom[3] | 1 1/4 in. hole |
| Condensate drain | Front[4] | 1 1/2 in. hole |
| | Bottom[4] | 2 in. hole with 1 1/4 in. grommet |

**Note:**
1. Factory provided dimples show the hole location to facilitate the drilling of entry holes.
2. 3/4 in. NPT gas piping is required.
3. You must insert the piping through the factory-installed grommet for a watertight seal.
4. 1 in. NPT female connection piping is required.

## Refrigerant detection system

Choice refrigeration detection systems (RDS) includes two refrigerant leak detection sensors to protect the unit from any damage caused by the leakage of the mildly flammable R454B refrigerant.

Choice units provide an RDS as factory and field installed options.

The RDS sensor can detect a refrigerant leak according to UL60335-2-40 (edition 4.0) with an accuracy of +/- 5% LFL across the working range (0-25% LFL)

Mounting suggestions are as follows:

- Mounting holes are sized for #10 sheet metal screws.
- For optimal performance, put the sensor on a flat, smooth, surface.
- Connector location is crucial. Position the sensor as indicated in the mounting instructions.
- Do not position sensors in an open-up orientation because this prevents any condensation on the mounting surface from dripping onto the sensor membrane.
- Refer to the *A2L Refrigerant Installation Manual* for RDS operation and safety requirements.

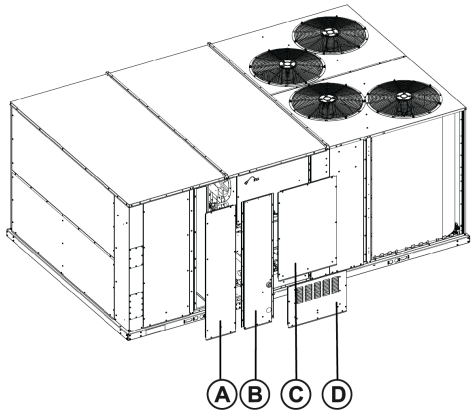


## Field mounting the RDS

### Mounting instructions for sensor 1

1. Remove or open the following section panels:
   - Filter
   - Blower
   - Heating section
   - Evaporator

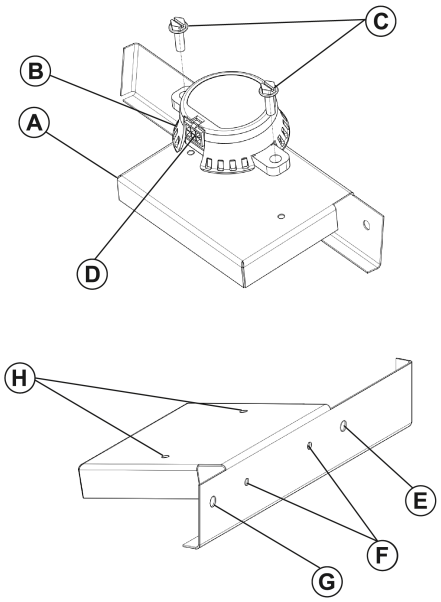
**Figure 40: Unit with section panels**




| Item | Description |
|---|---|
| A | Filter section panel |
| B | Evaporator section panel |
| C | Blower section panel |
| D | Heating section panel |

2. Use the bracket to install the RDS sensor 1. Secure the sub-assembly of the RDS sensor 1 and the bracket with two #10 screws as shown in Figure 41.

**Figure 41: Refrigerant detection sensor**



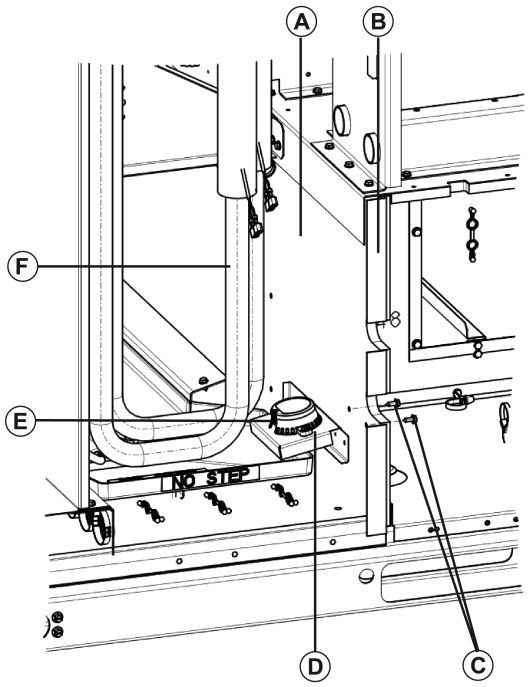

| Item | Description |
|---|---|
| A | RDS bracket |
| B | RDS sensor |
| C | Number 10 screws |
| D | RDS connector position |
| E | Sensor 2 location mounting holes |
| F | Sensor 1 location mounting holes |
| G | Sensor 2 location mounting holes |
| H | Sensor mounting holes |

3. Assemble the RDS sensor 1 and the bracket sub-assembly to the supply base pan, using the locating holes given on insulation.

   **Note:** The connector position for the RDS Sensor 1 is critical. The sensor position must be the same as shown in the sub-assembly, see Figure 41, Figure 42 and Figure 43

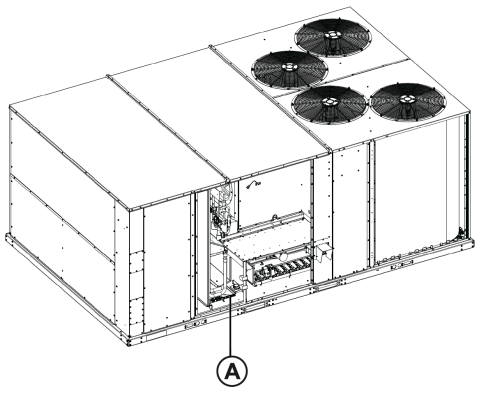
   Use two #10 screws to assemble the sub-assembly to the supply base pan.
   Mount the sub-assembly using the inner holes on the bracket. For the precise placement, see Figure 42
   Fasten the screws from the heating section toward the evaporator section.

**Figure 42: Assembly for RDS detail**




| Item | Description |
|---|---|
| A | Insulation |
| B | Supply base pan |
| C | Number 10 screws |
| D | RDS 1 Sub assembly |
| E | Connector position facing evaporator |
| F | Evaporator headers |

**Figure 43: RDS location**

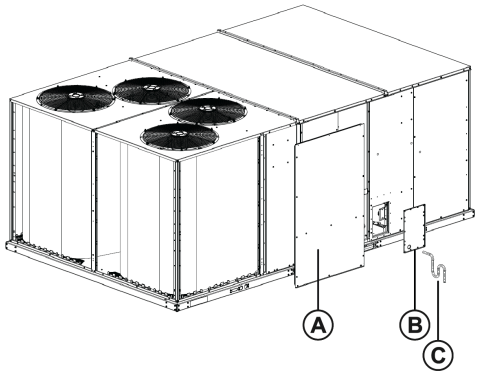



| Item | Description |
|---|---|
| A | RDS sensor location |

## Mounting Instructions for sensor 2

1. Remove the access patch plate and drain-pipe. If necessary, remove the blower section panel.

**Figure 44: Unit with access section panels**

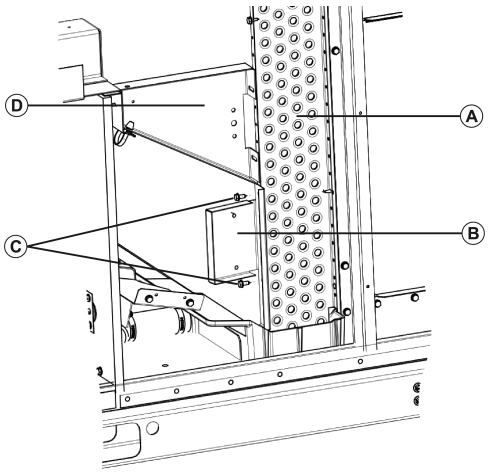



| Item | Description |
|---|---|
| A | Blower section panel |
| B | Access patch plate |
| C | Drainpipe |

2. Use the bracket to install RDS sensor 2. The sub-assembly of the RDS sensor 2 and the bracket requires two #10 screws, similar to the RDS sensor 1 sub-assembly, see Figure 41.
3. The sub-assembly of the RDS sensor 2 and the bracket must be placed below the evaporator coil support bracket to align with the locating holes. Use the outer holes on the bracket flange to connect the sub-assembly to the evaporator end sheet.

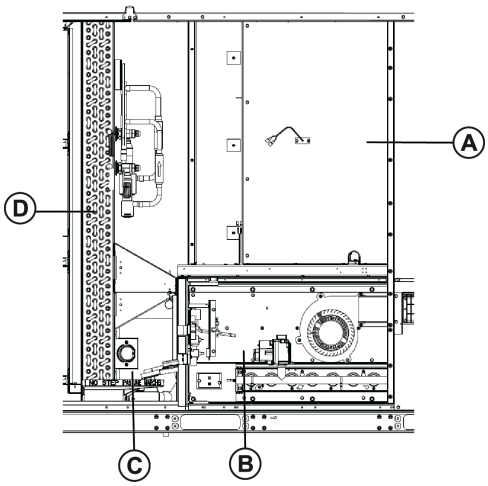
   Use two #10 screws to assemble the RDS sensor 2 and the bracket sub-assembly to the evaporator end sheet. See Figure 45

**Figure 45: RDS Sensor 2 assembly**




| Item | Description |
|---|---|
| A | Evaporator end sheet |
| B | RDS sensor 2 sub assembly |
| C | #10 screws |
| D | Evaporator coil support |

**Figure 46: RDS Sensor 2 assembly - front side view**




| Item | Description |
|---|---|
| A | Blower |
| B | Heating section |
| C | Sensor 2 inside position |
| D | Evaporator |

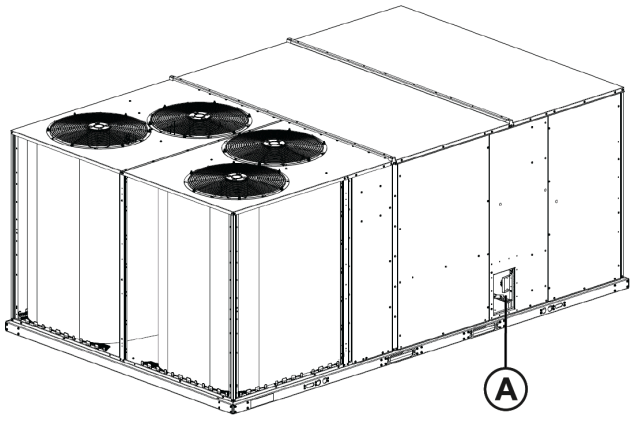
4. Position the RDS sensor 2 inside the unit facing toward the front side-panels. See Figure 47.

   Position the sensor inside the unit while you are assembling the RDS sensor 2 and the bracket sub-assembly. This positioning is critical for sensing the refrigerant leak.

   The refrigerant detection sensors have a common mounting bracket.

   **Note:** The connector position for RDS sensor 2 is critical. The sensor position must be the same as shown in the sub-assembly, see Figure 41 and Figure 47.

**Figure 47: RDS sensor 2 location**




| Item | Description |
|---|---|
| A | RDS sensor 2 sub assembly |



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## Connecting the RDS sensors wiring harness

1. When you have installed both RDS sensors, you must connect the harness. Route the harness from the UCB board connector points, see Figure 48, to RDS sensor 1, and from RDS sensor 1 to RDS sensor 2, see Figure 49, the highlighted routing direction.

**Figure 48: SSE board**

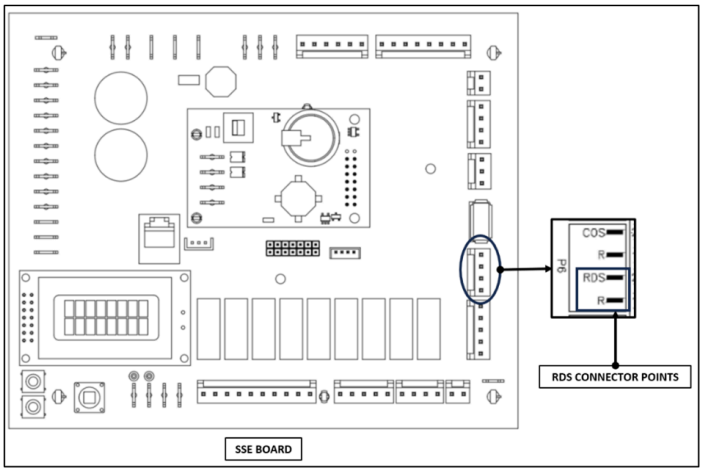
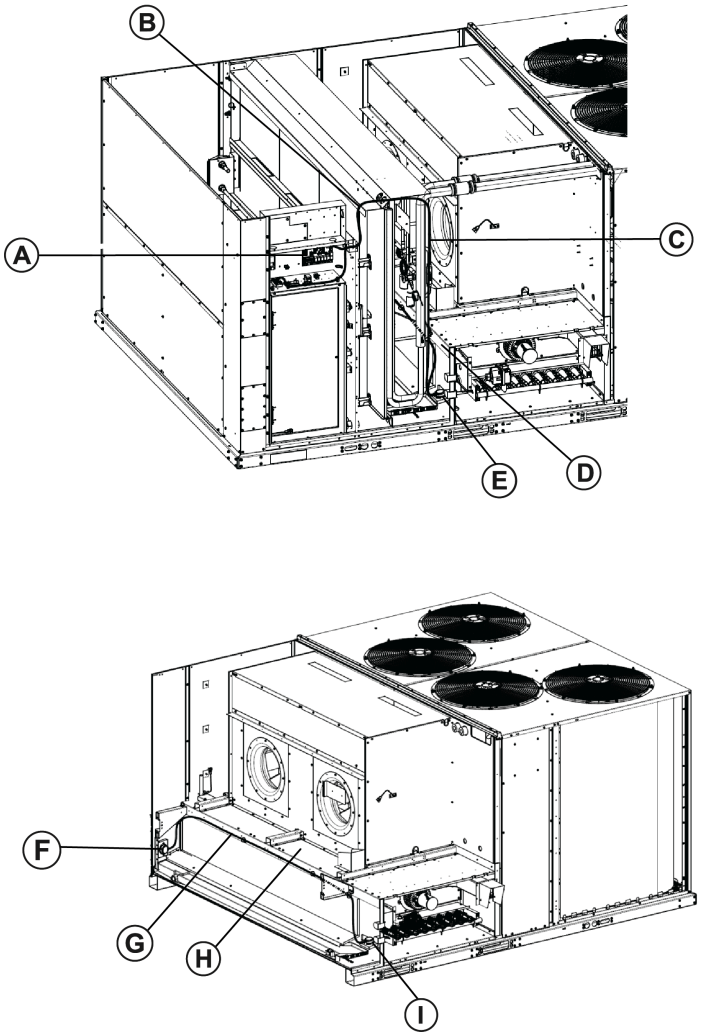



**Figure 49: RDS sensor routing**




| Item | Description |
|---|---|
| A | SSE board |
| B | RDS harness |
| C | Wire routing |
| D | Blower deck |
| E | RDS sensor 1 |
| F | RDS sensor 2 |
| G | RDS harness |
| H | Blower deck |
| I | RDS sensor 1 |

2. After you complete routing the harness, close all the panels removed in Step 1 and Step 4.

## Installing the condensate drain line

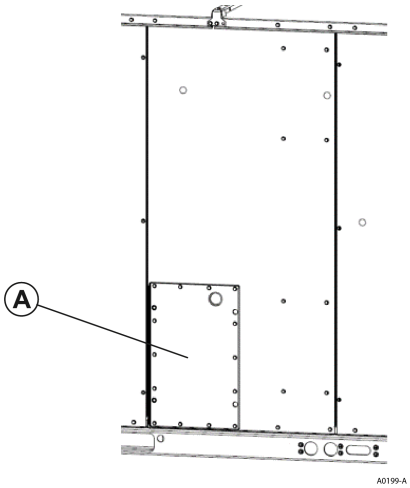
After a unit is installed in the field, the condensate drain line will need to be connected to the field supplied drain line. The orientation of the condensate drain connection is adjustable. The drain connection leaves the factory oriented to the rear

of the cabinet for a through the side connection. The drain connection can be reoriented downward through the base pan for piping inside the roof curb. Separate instructions are included in the following section for each orientation.

## Through the side condensate drain:

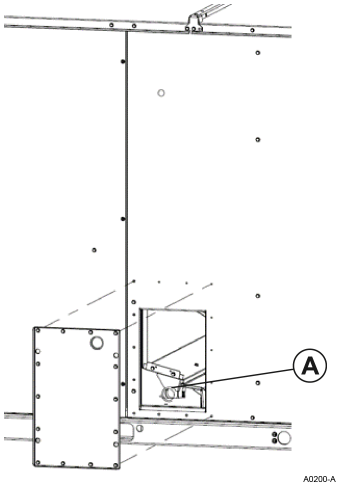
1. Remove the condensate drain line access patch plate shown in Figure 50 and Figure 51. Keep the screws for use in a later step.

**Figure 50: Access patch plate**




| Item | Description |
|---|---|
| A | Access patch plate |

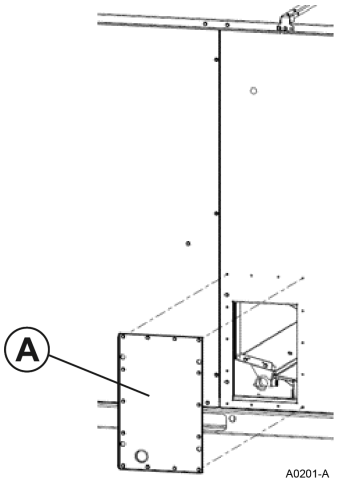
**Figure 51: Patch plate removal**




| Item | Description |
|---|---|
| A | Threaded elbow |

2. Rotate the patch plate 180° clockwise from its original orientation so that the drain line hole is in bottom left corner as shown in Figure 52.

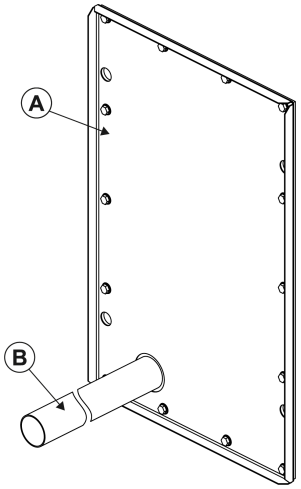
**Figure 52: Access patch plate rotated orientation**




| Item | Description |
|---|---|
| A | Access patch plate rotated orientation |

3. Pass the field-supplied condensate drain line through hole in the patch plate while it is detached from the unit. See Figure 53.

**Figure 53: Detached patch plate**

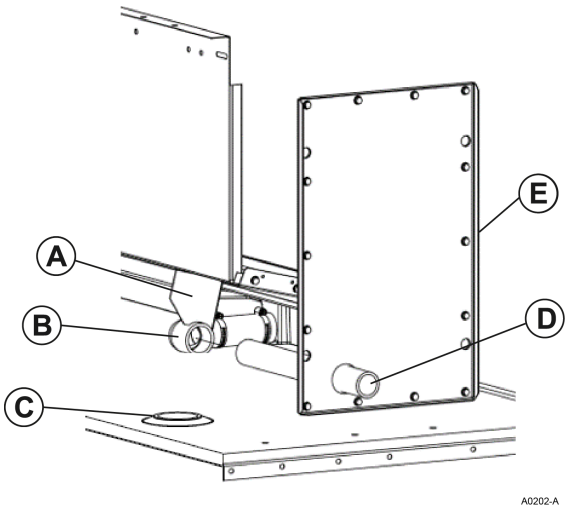



| Item | Description |
|---|---|
| A | Access patch plate |
| B | Condensate drain line |

4. Check that the plug C is fully inserted in the hole on the unit floor and the elbow is correctly secured and orientated using the elbow retaining bracket E. See Figure 54.
5. Connect the drain line to the 1 in. NPT female connection on the elbow located inside of the unit. Ensure that there is a correct seal between the drain line and the elbow. See Figure 54 for the component orientation.

**Note:** The condensate line should be supported external to the unit so it does not stress the internal connection

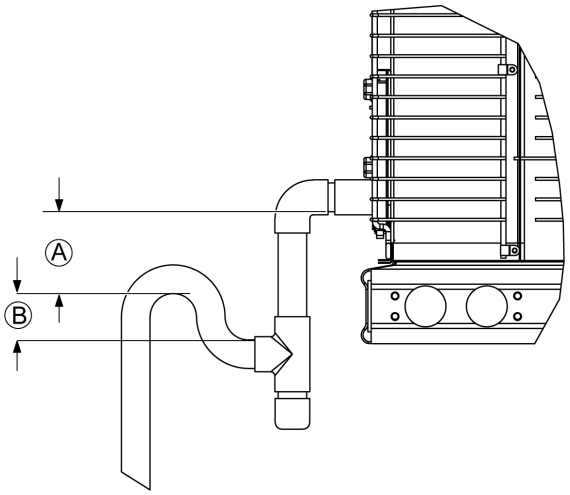
**Figure 54: Correct component orientation**




| Item | Description |
|---|---|
| A | Elbow retaining bracket |
| B | Threaded elbow |
| C | Plug |
| D | Drain line |
| E | Patch plate |

6. Trap the condensate drain line per Figure 55. The trap and drain lines should be protected from freezing and the plumbing must conform to local codes. Use a sealing compound on male pipe threads. The condensate line should be supported external to the unit so it does not stress the internal connection.

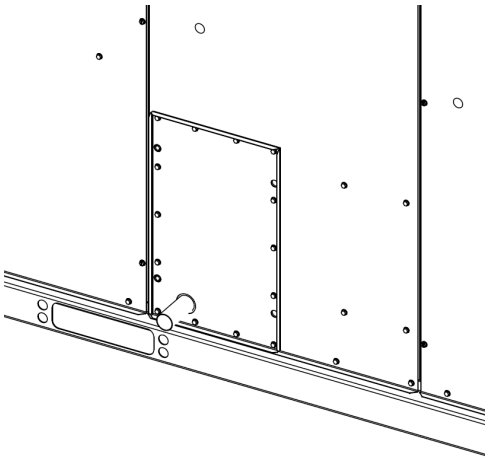
**Figure 55: Trap and drain lines**




| Item | Description |
|---|---|
| A | 3 in. minimum |
| B | 2 in. |

7. Using the screws that were removed in Step 1, attach the patch plate to the unit as shown in Figure 56. This will be in the same position the patch plate was rotated to in Step 2.

**Figure 56: Attaching the patch plate**

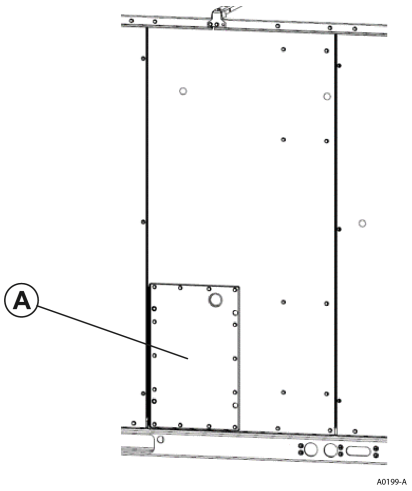


8. Use caulk, gasket, and/or other means to create a water-tight seal around the drain line where it passes through the patch plate to ensure no water enters the unit.
9. Ensure the drain line is installed horizontally level for proper drainage. If the drain line sags outside of the unit then the elbow/tube assembly inside lifts upward and do not allow proper drainage.

## Through the base condensate drain:

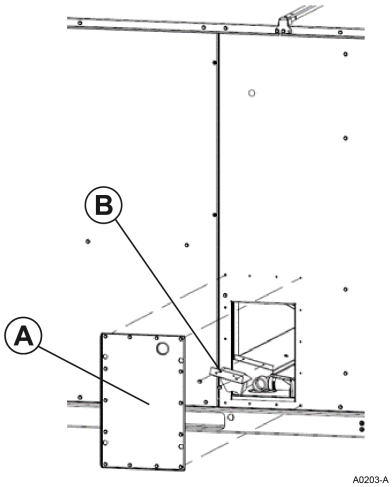
1. Remove the condensate drain line access patch plate shown in Figure 57 and the elbow retaining bracket as shown in Figure 58. Keep the screws for use in a later step.

**Figure 57: Access patch plate**




| Item | Description |
|---|---|
| A | Access patch plate |

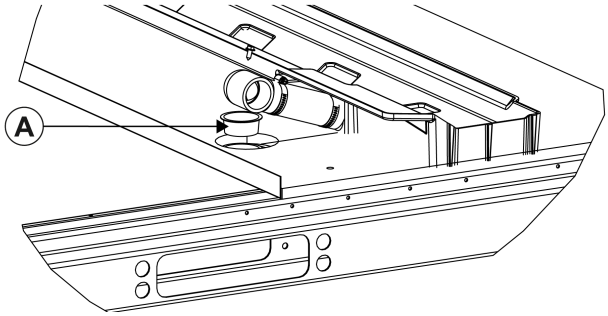
**Figure 58: Access patch plate and elbow retaining bracket**




| Item | Description |
|---|---|
| A | Access patch plate |
| B | Elbow retaining bracket |

2. Remove the plug from the grommet under the threaded elbow shown in Figure 58 and Figure 59.

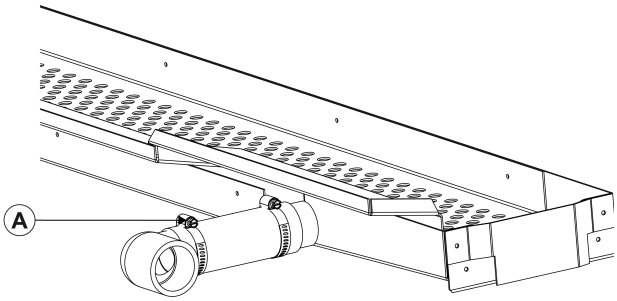
**Figure 59: Removing the plug**




| Item | Description |
|---|---|
| A | Plug |

3. Loosen the hose clamp holding the elbow to the hose. See Figure 60.

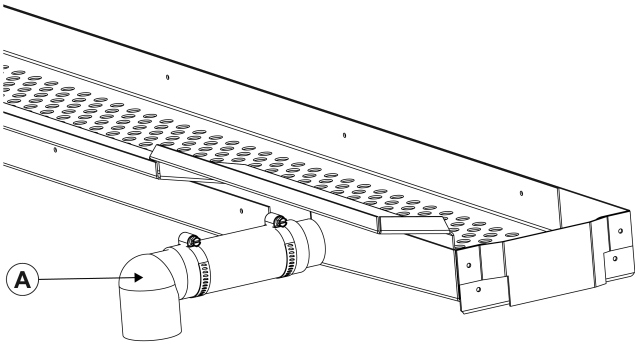
**Figure 60: Loosening the hose clamp**




| Item | Description |
|---|---|
| A | Clamp |

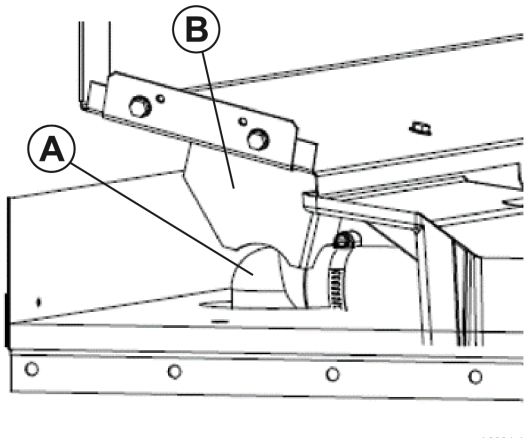
4. Rotate the elbow 90° so that the elbow points downward as shown in Figure 61. Push the elbow into the grommet as shown in Figure 62. Ensure that the hose from the drain pan to the elbow is horizontally level for proper drainage.

**Figure 61: Rotating the elbow**



| Item | Description |
|---|---|
| A | Elbow rotated by 90° |

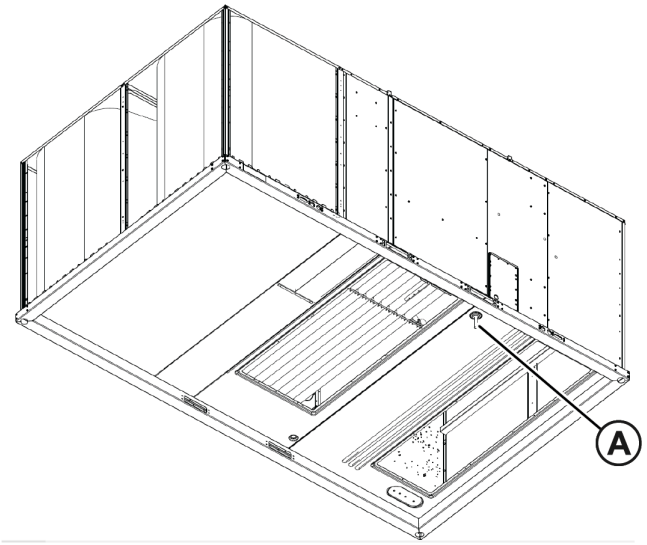
**Figure 62: Inserting the elbow**




| Item | Description |
|---|---|
| A | Elbow inserted into grommet |
| B | Elbow retaining bracket |

5. Tighten the hose clamp that you loosened in Step 3 to a maximum torque of 15 in-lb.
6. Secure the elbow firmly with the elbow retaining bracket as shown in Figure 62.
7. From below the unit, connect the field supplied drain line to the 1 in. NPT female connection on the elbow that is now sticking out of the grommet in the unit base pan. Ensure a proper seal is achieved between the drain line and the elbow. The through the base connection location can be seen in Figure 63.

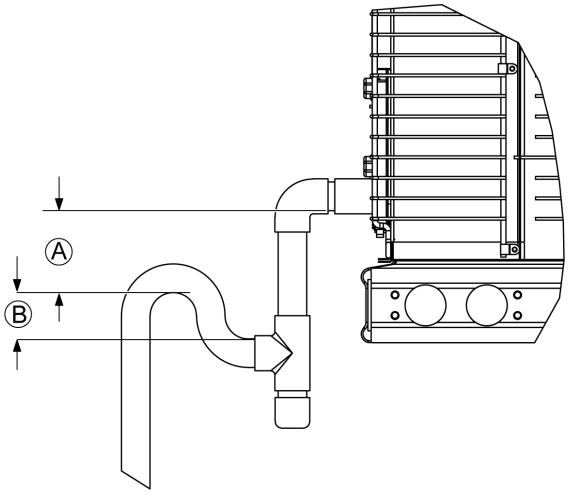
**Figure 63: Connecting the drain line**




| Item | Description |
|---|---|
| A | Field supplied pipe |

8. Route the field supplied drain line to the building exterior.
9. Trap the condensate drain line per Figure 64 .Protect the trap and drain lines from freezing. The plumbing must conform to local codes. Use a sealing compound on male pipe threads.

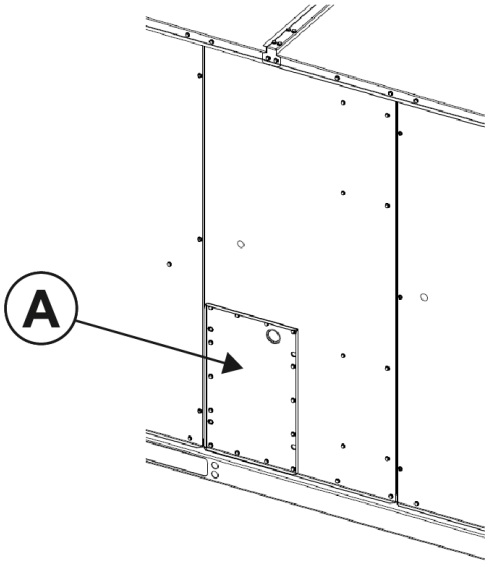
**Figure 64: Trap and drain lines**




| Item | Description |
|---|---|
| A | 3 in. minimum |
| B | 2 in. |

10. Using the screws that were removed in Step 1, replace the patch plate in its original orientation as shown in Figure 65.

**Figure 65: Access patch plate**



| Item | Description |
|---|---|
| A | Access patch plate |

## Accessory weights

**Table 4: Unit accessory weights**

| Unit accessory | Unit size | | | |
|---|---|---|---|---|
| | 15 to 17.5 ton | 20 ton | 25 ton | 27.5 ton |
| Economizer | 145 | 145 | 165 | 165 |
| Motorized damper | 65 | 65 | 75 | 75 |
| Power exhaust (CV, Std CFM) | 170 | 170 | 170 | 170 |
| Power exhaust (Mod, Std CFM) | 212 | 212 | 212 | 212 |
| Power exhaust (CV/Mod, Hi CFM) | 450 | 450 | 450 | 450 |
| Barometric damper | 50 | 50 | 50 | 50 |
| Electric heat,75 kW | 75 | 75 | 75 | 75 |
| Gas heat, largest | 155 | 155 | 155 | 155 |
| Hail guards | 80 | 86 | 107 | 132 |
| Wood skid and shipping brackets | 60 | 70 | 70 | 80 |
| Roof curb | 215 | 230 | 230 | 250 |

## Supply fan VFD weights

**Table 5: Supply fan VFD weights**

| Supply fan motor | 208/230V | 460V | 575V |
|---|---|---|---|
| 2.9 HP | 10 | 10 | 10 |
| 3.7 HP | 10 | 10 | 10 |
| 5.3 HP | 10 | 10 | 10 |
| 7.5 HP | 15 | 15 | 15 |
| 10 HP | 20 | 15 | 15 |
| 12 HP | 20 | 15 | 15 |

**Note:** Add 5 lb. to the supply fan VFD weights if there is a bypass.

## Roof curbs

The following figures show the roof curbs for the units. All dimensions are in inches.

Return air

Supply air

**Figure 66: 1RC0443 and 1RC0446 roof curb dimensions**

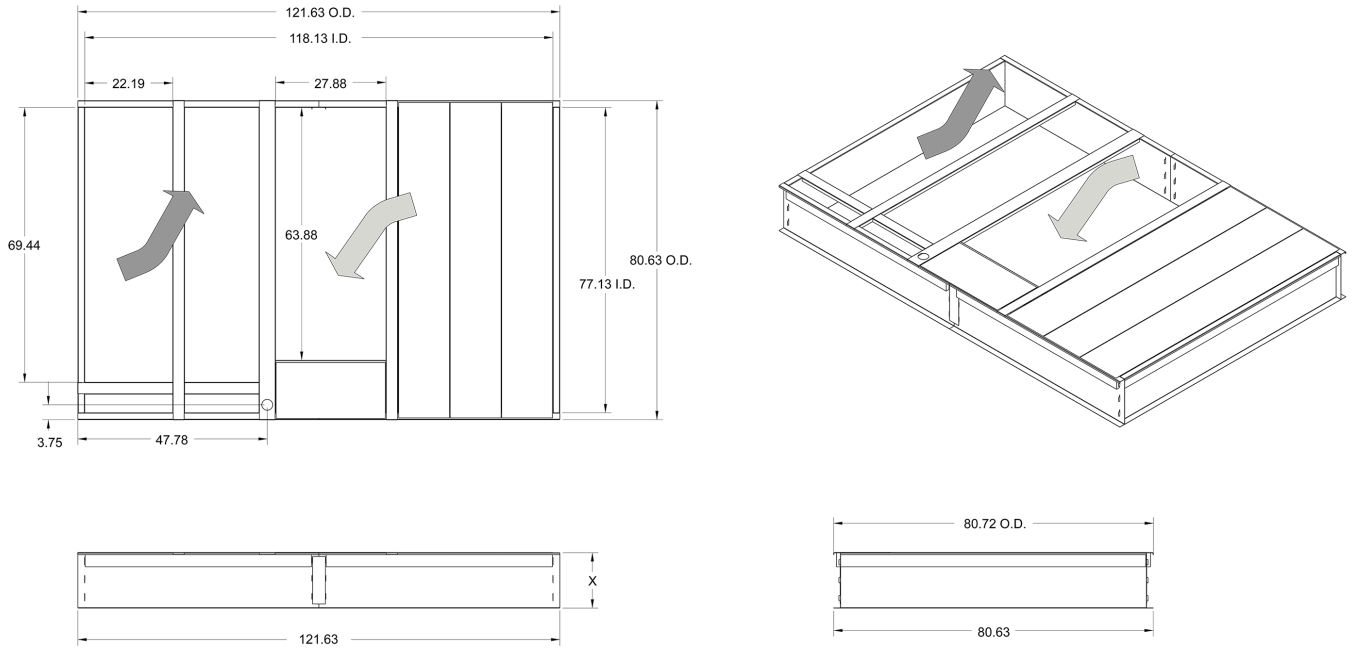



**Table 6: 1RC0443 and 1RC0446 dimensions**

| Roof curb | X measurement (in.) |
|---|---|
| 1RC0443 | 14 |
| 1RC0446 | 24 |

The following units are compatible with 1RC0443 and 1RC0446 roof curbs.

- KD15
- KD18

**Figure 67: 1RC0444 and 1RC0447 roof curb dimensions**

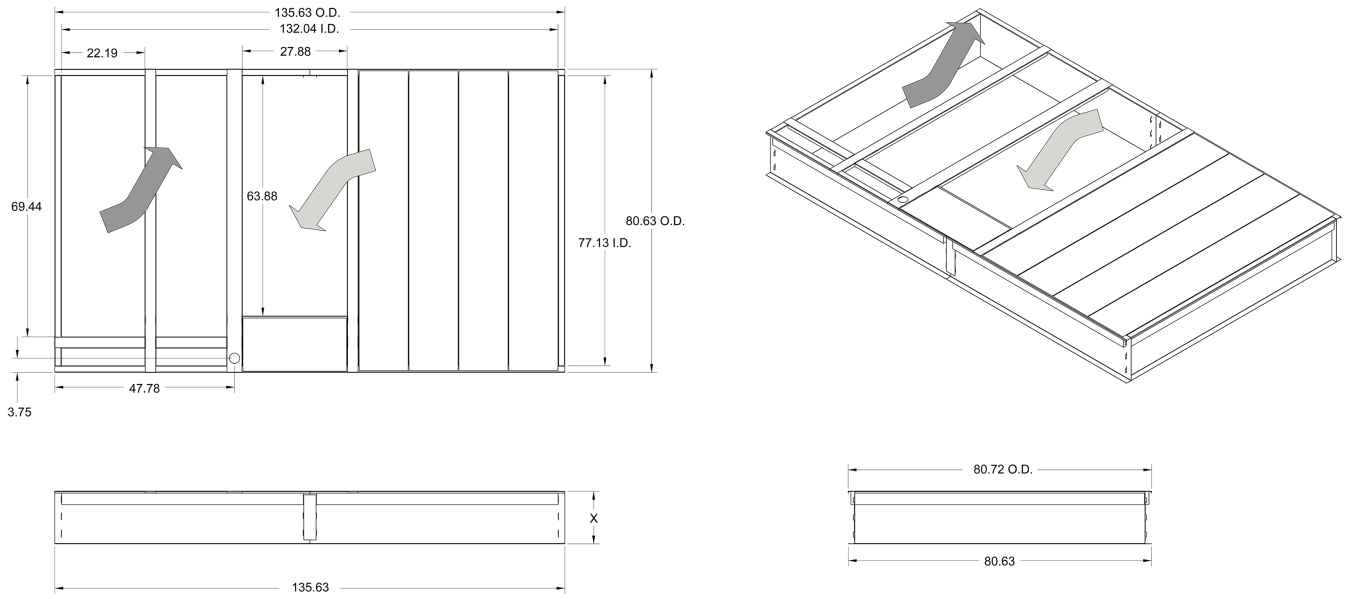



**Table 7: 1RC0444 and 1RC0447 dimensions**

| Roof curb | X measurement (in.) |
|---|---|
| 1RC0444 | 14 |
| 1RC0447 | 24 |

The following units are compatible with 1RC0444 and 1RC0447 roof curbs.

- KD20
- KD25

**Figure 68: 1RC0445 and 1RC0448 roof curb dimensions**

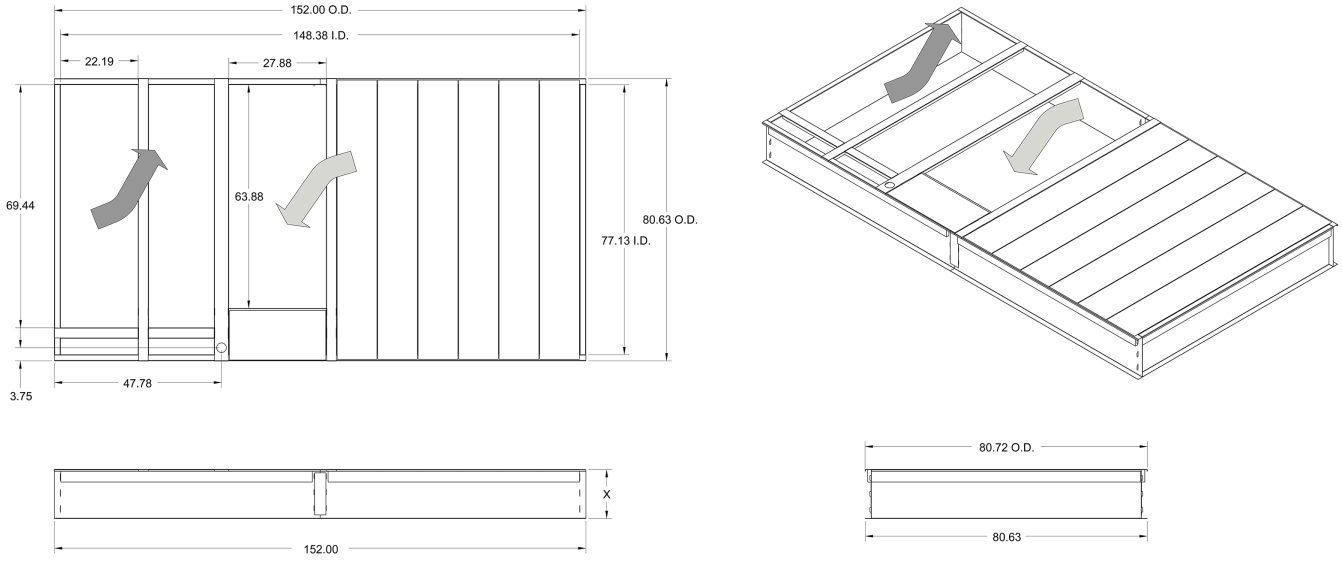


**Table 8: 1RC0445 and 1RC0448 dimensions**

| Roof curb | X measurement (in.) |
|---|---|
| 1RC0445 | 14 |
| 1RC0448 | 24 |

The following unit is compatible with 1RC0445 and 1RC0448 roof curbs.

- KD28

**Figure 69: Roof curb cutaway**

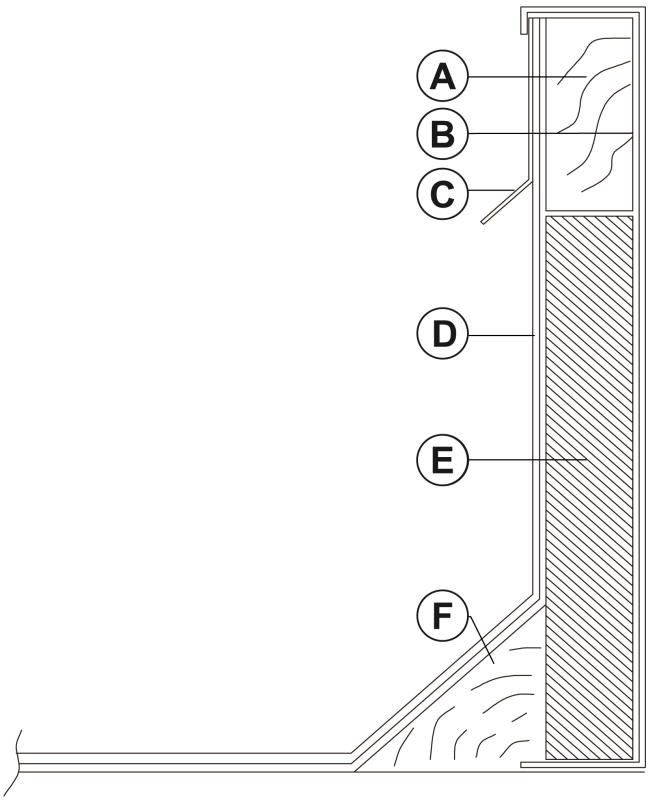



**Table 9: Roof curb cutaway components**

| Item | Description | Item | Description |
|---|---|---|---|
| A | Wood nailer | D | Roof felt (field supplied) |
| B | Curb frame | E | Rigid insulation (field supplied) |
| C | Counter flashing (field supplied) | F | Cant strip (field supplied) |

## Ductwork

You must design and size ductwork according to the methods in Manual D of the Air Conditioning Contractors of America (ACCA) or as recommended by any other recognized authority such as ASHRAE or SMACNA. When you design the duct system, apply the following recommendations:

- Use a closed return duct system. This does not preclude the use of economizers or outdoor fresh air intake.
- Make the supply and return air duct connections at the unit with flexible joints to minimize noise.
- Design the supply and return air duct systems for the CFM and static pressure requirements of the job. Do not size them to match the dimensions of the duct connections on the unit.

See the Duct openings section for information on the side and bottom air duct openings.

**Note:** In Canada, it is recommended that the outlet duct be fitted with a removable access panel. It is recommended that this opening is accessible when the unit is installed in service, and of such a size that smoke or reflected light can be observed inside the casing to indicate the presence of leaks in the heat exchanger. You must attach the cover in a manner adequate to prevent leakage.

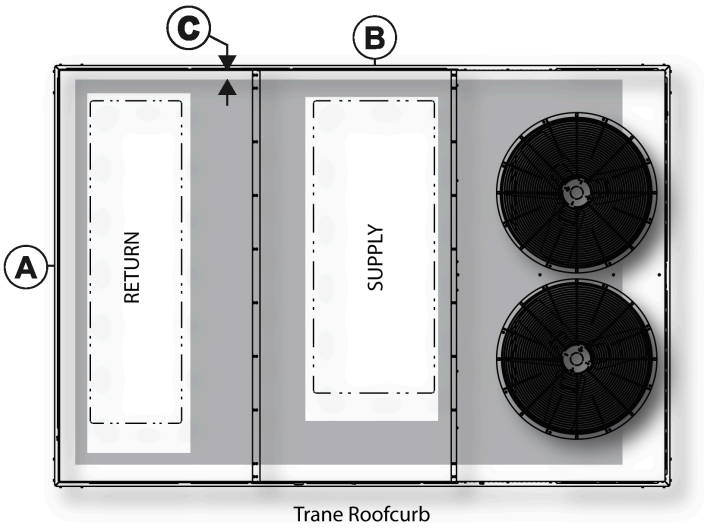
## Placing the equipment over a Trane curb

When using this product to directly replace select Trane branded equipment without a transition curb, the placement of the unit on the existing Trane roof curb is required to follow these placement guidelines. The unit will be slightly longer and wider than the existing roof curb with the actual dimensional difference varying depending on tonnage. When positioning the unit on the roof curb the extra length and width will be left to overhang on the unit's right side (condenser end) and front (side with control access).

To properly align the supply and return air openings with the roof curb, complete the following step.

1. Leave a 1/2 in. gap between the unit baserail and the roof curb on both the left side (fresh air side) and back of the unit. See Figure 70.

**Figure 70: Roof curb positioning**




| Item | Description |
|---|---|
| A | Left of Unit |
| B | Back of Unit |
| C | 1/2 in. Gap |

## Compressors

The scroll compressor used in this product is specifically designed to operate with R-454B refrigerant and cannot be interchanged.

**CAUTION**

This system uses R-454B refrigerant which is a mildly flammable refrigerant. Do not use any other refrigerant in this system.

The compressor also uses a polyolester oil (POE oil). This oil is extremely hygroscopic, meaning that it absorbs water readily. POE oil can absorb 15 times as much water as other oils designed for HCFC and CFC refrigerants. Take all the necessary precautions to avoid exposure of the oil to the atmosphere. Refer to the compressor nameplate or label for the correct oil grade.

**CAUTION**

Do not leave the system open to the atmosphere. Unit damage could occur due to moisture being absorbed by the POE oil in the system. This type of oil is highly susceptible to moisture absorption.

POE compressor lubricants are known to cause long term damage to some synthetic roofing materials.

**CAUTION**

Exposure, even if immediately cleaned up, may cause embrittlement (leading to cracking) to occur in one year or more. When you perform any service that may risk exposure of compressor oil to the roof, take precautions to protect the roofing.

Procedures that risk oil leakage include, but are not limited to the following:

- Compressor replacement
- Repairing refrigerant leaks
- Replacing refrigerant components such as the filter drier, pressure switch, metering device, four-way reversing valve, or coil

Units are shipped with compressor mountings that are factory-adjusted and ready for operation.

**CAUTION**

Do not loosen compressor mounting bolts.

## Filters

Units are provided with the selected 2 in. or 4 in. filter and can easily be converted in the field to accept either size in the standard filter rack.

Always install filters ahead of the evaporator coil. Keep the filters clean and replace them with filters of the same size and type. Dirty filters reduce the capacity of the unit and result in frosted coils or safety shutdown. See the physical data tables for the number and size of filters needed for the unit.

Do not operate the unit without filters correctly installed.

**CAUTION**

Ensure that panel latches are correctly positioned on the unit to maintain an airtight seal.

## Dirty filter switch pressure setting

If a factory-installed dirty filter switch is present, you can change the pressure setting of the switch using the adjustment screw that is accessible with the metal cover removed. A setting of 0.5 in. WC serves as a general starting point but will likely need to be adjusted for the specific application to detect the increased pressure drop associated with a dirty filter.

## Power and control wiring

Field wiring to the unit, fuses, and disconnects must conform to provisions of National Electrical Code (NEC), ANSI/NFPA No. 70 – Latest Edition (in U.S.A.), current Canadian Electrical Code C221, and/or local ordinances. You must electrically ground the unit in accordance with NEC and CEC as specified above and/or local codes.

Voltage tolerances must be maintained at the compressor terminals during starting and running conditions. The voltage tolerances are indicated on the unit rating plate and in the unit limitations table.

**CAUTION**

208/230-3-60 units control transformers are factory wired for 230 V power supply. Change the tap on the transformer for 208-3-60 operation. See the unit wiring diagram.

The internal wiring harnesses furnished with this unit are an integral part of the design certified unit. Field alteration to comply with electrical codes is not required.

If any of the wires supplied with the unit need to be replaced, you must replace them with the same type shown on the wiring diagram and the same minimum gauge as the replaced wire.

Use a disconnect with these units. Factory- and field-installed disconnects are available.

**CAUTION**

Avoid damage to internal components if you drill holes to install a disconnect.

**Note:** Not all local codes allow the installation of a disconnect on the unit. Confirm compliance with local code before you install a disconnect on the unit.

Electrical line must be sized properly to carry the load.

**Note:** Use copper conductors only.

Each unit must be wired with a separate branch circuit fed directly from the meter panel and properly fused.

See the Figure 71 following figures for typical field wiring. Refer to the appropriate unit wiring diagram mounted inside the control doors for control circuit and power wiring information.

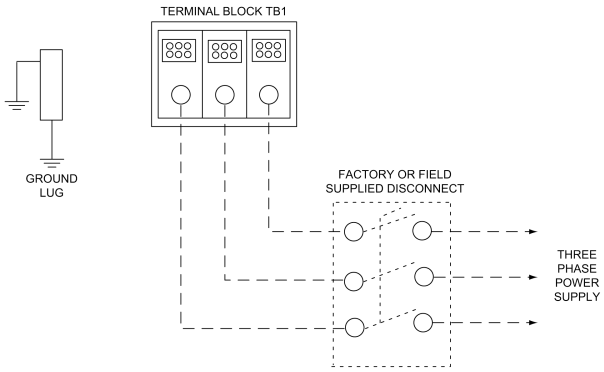
**CAUTION**

When you connect electrical power and control wiring to the unit, you must use water-proof connectors so that water or moisture cannot be drawn into the unit during normal operation. These water-proofing conditions also apply when you install a field-supplied disconnect switch.

## Power wiring detail

Units are factory wired for the voltage shown on the unit nameplate. See the electrical data tables to size power wiring, fuses, and the disconnect switch. Power wiring is brought into the unit through the side of the unit or the basepan inside the curb.

**Figure 71: Field wiring disconnect**




## Thermostat wiring

Install the thermostat on an inside wall approximately 56 in. above the floor. The thermostat must not be subject to drafts, sun exposure, or heat from electrical fixtures or appliances.

Follow the manufacturer's instructions enclosed with thermostat for the general installation procedure. Use color-coded, insulated wires to connect the thermostat to the unit. See the following table for control wire sizing and maximum length.

**Table 10: Control wire sizes**

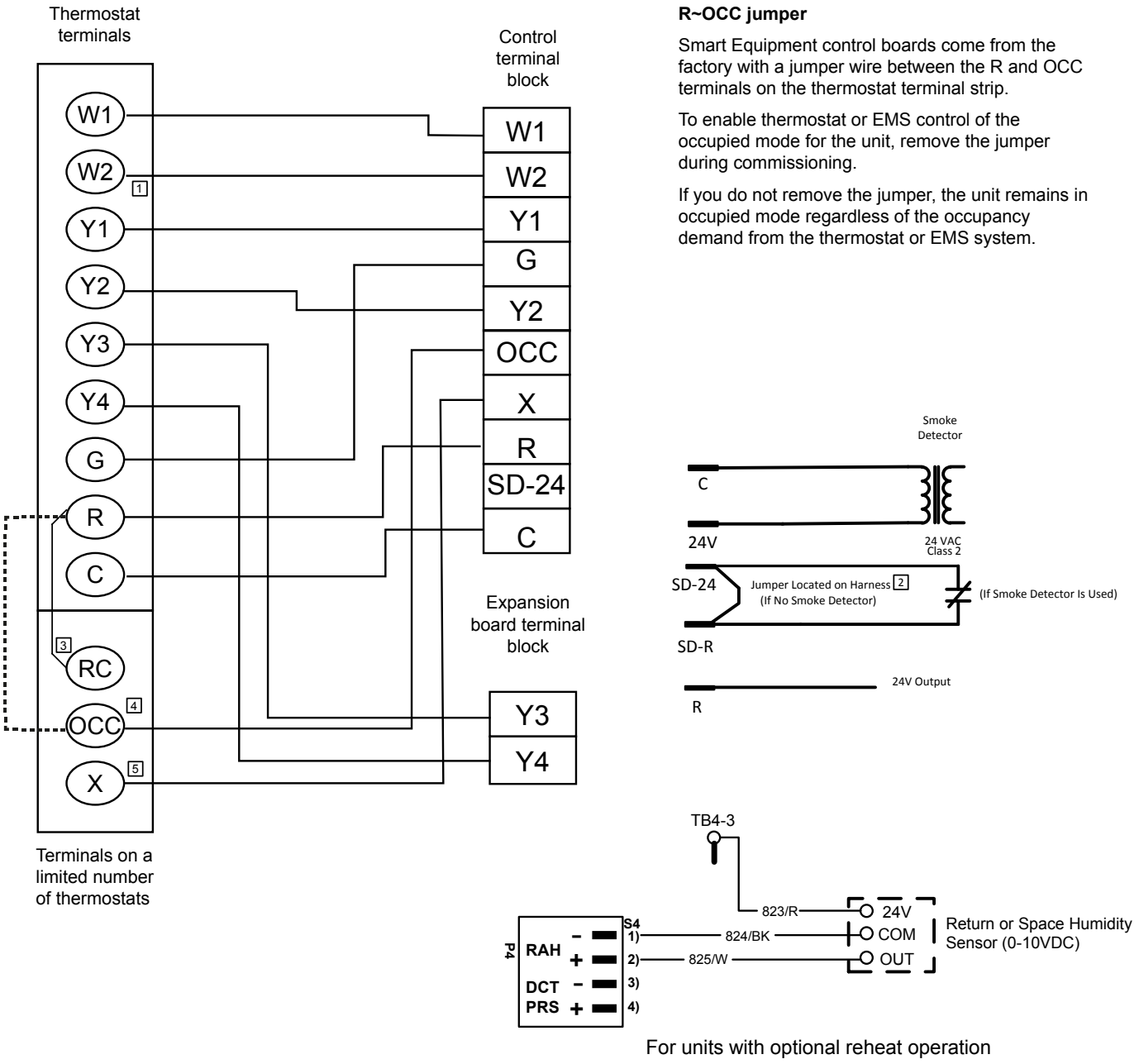
| Wire size | [1]Maximum length[1] |
|---|---|
| 18 AWG | 150 ft |

1 From the unit to the thermostat and back to the unit.

**CAUTION**

208/230-3-60 unit control transformer is factory wired for 230 V power supply. Change the tap on the transformer for 208-3-60 operation. See the unit wiring diagram.

**Figure 72: Typical electronic thermostat field wiring**




1 Second stage heating not required on single stage heating units.

2 Jumper is required if there is no Smoke Detector circuit.

3 Jumper is required for any combination of R, RC, or RH.

4 OCC is an output from the thermostat to indicate the Occupied condition.

5 X is an input to the thermostat to display Error Status conditions.

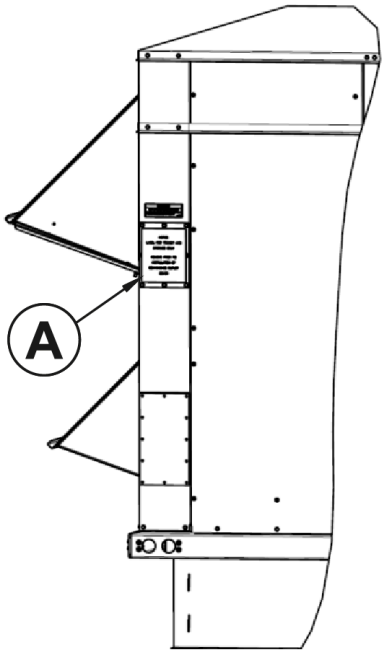
## Convenience outlet cover installation

For units with a powered or non-powered convenience outlet, the convenience outlet cover is required to be installed in the field after the unit is installed.

To install the convenience outlet cover, complete the following steps.

1. The unit will leave the factory with a transit label covering the convenience outlet receptacle as shown in Figure 73. Remove and discard the convenience outlet transit label.

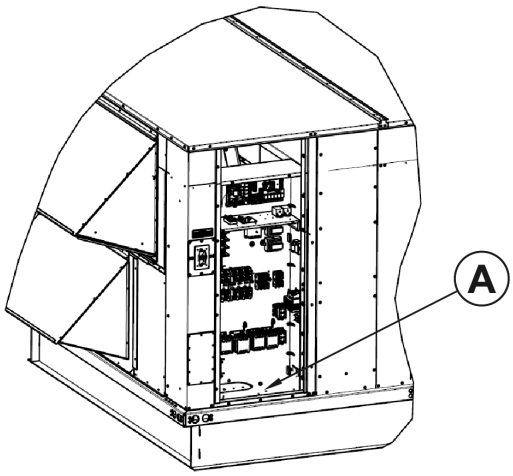
**Figure 73: Convenience outlet transit label**




| Item | Description |
|---|---|
| A | Convenience outlet transit label |

2. The convenience outlet cover will be shipped in the floor of the control box behind the high-voltage access panel as shown in Figure 74.

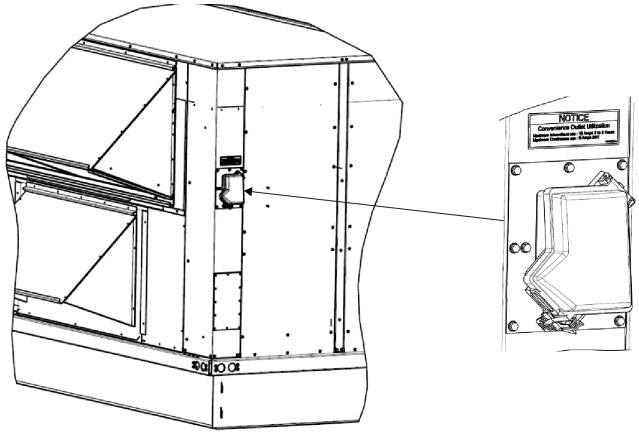
**Figure 74: Location of convenience outlet cover**




| Item | Description |
|---|---|
| A | Location of convenience outlet cover |

3. To mount the cover, follow the cover manufacturer's installation instructions that are provided with the cover. The final assembly should resemble Figure 75.

**Figure 75: Convenience outlet cover**



**CAUTION**

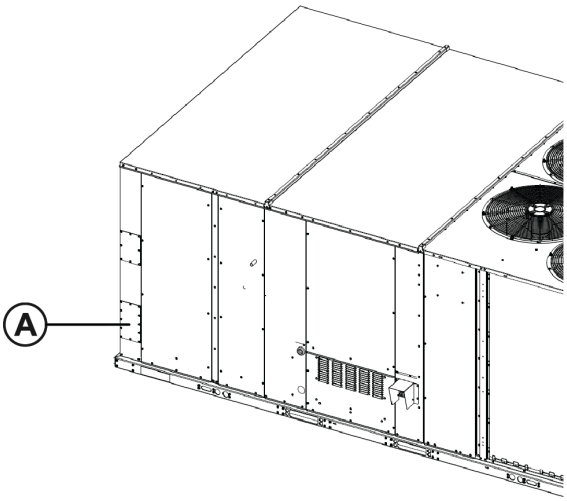
208/230-3-60 units with a factory-installed powered convenience outlet option are wired for 230v power supply. Change the tap on the transformer for 208-3-60 operation. See the unit wiring diagram.

## Installing the circuit breaker and service disconnect handle

For units with a circuit breaker or a service disconnect, you must install the disconnect handle in the field after the unit is installed.

1. The unit will leave the factory with a patch plate covering the disconnect switch as shown in Figure 76.

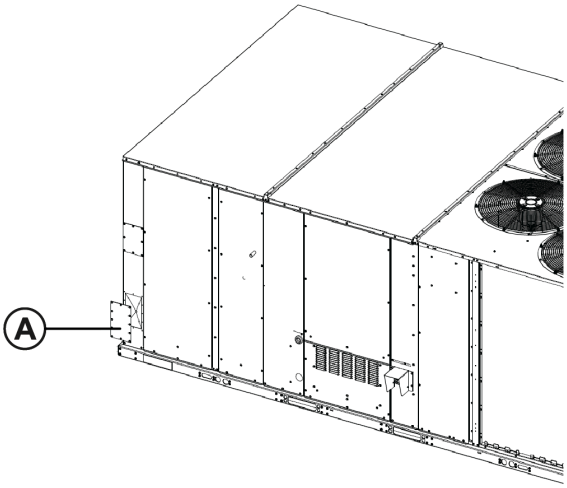
**Figure 76: Patch plate**




| Item | Description |
|---|---|
| A | Patch plate |

2. Remove the screws holding the patch plate to the unit cabinet as shown in Figure 77. Place the screws in a safe location to use in a later step. You can discard the patch plate.

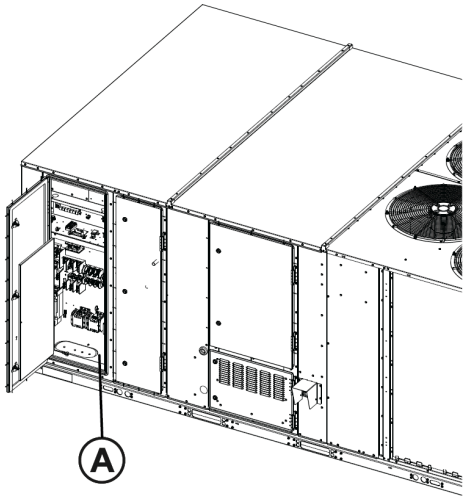
**Figure 77: Removing the patch plate**




| Item | Description |
|---|---|
| A | Patch plate |

3. The parts you need to complete the assembly are located in a box on the floor of the control box compartment, as shown in Figure 78. These parts include the permanent mounting plate with a hole for the disconnect handle, the disconnect handle, the handle manufacturer's installation instruction, and the additional parts to connect the handle to the disconnect switch.

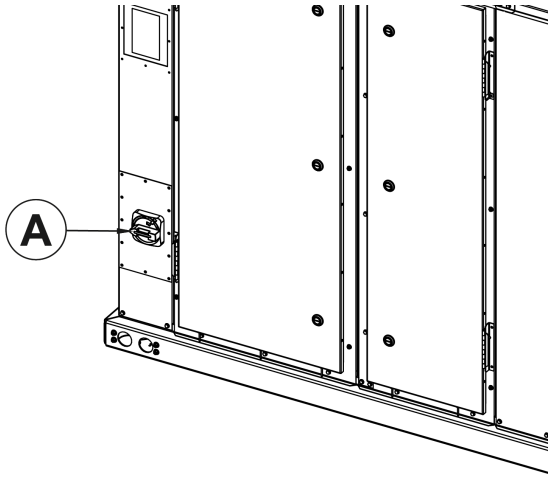
**Figure 78: Disconnect handle and assembly parts**




| Item | Description |
|---|---|
| A | Control box floor |

4. Attach the permanent mounting plate, gathered in Step 3, to the unit cabinet covering the opening that was created by removing the patch plate in Step 2. Attach the plate using the screws that you removed in step 2. Ensure that you attach the mounting plate with the hole aligned with the disconnect shaft.
5. To complete the field setup of the disconnect switch handle, follow the handle manufacturer's installation instructions that were included in the unit control box. These instructions show the installation of the disconnect handle and rod. The final assembly should resemble Figure 79.

**Figure 79: Disconnect handle**




| Item | Description |
|---|---|
| A | Disconnect handle |

## Electrical data

The following note applies to all electrical data tables.

- MCA = minimum circuit ampacity
- f/b = fuse/breaker
- Fuse is a dual element, time delay type
- Breaker is a HACR type per NEC

## VFD 2 stage standard static

### Table 11: KD15 to KD28 VFD 2 stage standard static without power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b size (A) | Min Disconnect Rating | | MCAw/ 120V trans | Max f/ b size w/ 120V trans | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 9.6 | None | - | - | - | 73.7 | 90 | 78 | 452 | 83.3 | 100 | 89 | 461 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 81.6 | 90 | 78 | 452 | 93.6 | 100 | 89 | 461 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 146.9 | 150 | 135 | 452 | 158.9 | 175 | 146 | 461 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 172.7 | 200 | 195 | 452 | 184.7 | 200 | 206 | 461 |
| | 230-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 8.7 | None | - | - | - | 73.7 | 90 | 78 | 459 | 82.4 | 100 | 88 | 468 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 88.6 | 90 | 82 | 459 | 99.5 | 100 | 92 | 468 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.5 | 175 | 148 | 459 | 171.4 | 175 | 158 | 468 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.4 | 225 | 214 | 459 | 200.3 | 225 | 224 | 468 |
| | 460-3-60 | 12.2 | 100 | 12.2 | 100 | 1.1 | 6.1 | 4.3 | None | - | - | - | 35.8 | 45 | 38 | 240 | 40.1 | 50 | 43 | 244 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 43.6 | 45 | 40 | 240 | 49.0 | 50 | 45 | 244 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 79.6 | 80 | 73 | 240 | 85.0 | 90 | 78 | 244 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.0 | 110 | 106 | 240 | 99.4 | 110 | 111 | 244 |
| | 575-3-60 | 9.3 | 72 | 9.3 | 72 | 0.9 | 4.9 | 3.5 | None | - | - | - | 27.6 | 35 | 29 | 174 | 31.1 | 40 | 33 | 178 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 34.9 | 35 | 32 | 174 | 39.3 | 40 | 36 | 178 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 63.6 | 70 | 59 | 174 | 68.0 | 70 | 63 | 178 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.2 | 90 | 85 | 174 | 79.6 | 90 | 89 | 178 |
| 18 (17.5) | 208-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 13.2 | 9.6 | None | - | - | - | 85.9 | 110 | 89 | 553 | 95.5 | 125 | 100 | 562 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 85.9 | 110 | 89 | 553 | 95.5 | 125 | 100 | 562 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 146.9 | 150 | 135 | 553 | 158.9 | 175 | 146 | 562 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 172.7 | 200 | 195 | 553 | 184.7 | 200 | 206 | 562 |
| | 230-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 13.2 | 8.7 | None | - | - | - | 85.9 | 110 | 89 | 561 | 94.6 | 125 | 99 | 569 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 88.6 | 110 | 89 | 561 | 99.5 | 125 | 99 | 569 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.5 | 175 | 148 | 561 | 171.4 | 175 | 158 | 569 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.4 | 225 | 214 | 561 | 200.3 | 225 | 224 | 569 |
| | 460-3-60 | 14.1 | 98 | 16.0 | 142 | 1.1 | 6.1 | 4.3 | None | - | - | - | 42.4 | 50 | 44 | 286 | 46.7 | 60 | 49 | 290 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 43.6 | 50 | 44 | 286 | 49.0 | 60 | 49 | 290 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 79.6 | 80 | 73 | 286 | 85.0 | 90 | 78 | 290 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.0 | 110 | 106 | 286 | 99.4 | 110 | 111 | 290 |
| | 575-3-60 | 11.5 | 84 | 14.1 | 103 | 0.9 | 4.9 | 3.5 | None | - | - | - | 35.8 | 45 | 37 | 231 | 39.3 | 50 | 41 | 235 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 35.8 | 45 | 37 | 231 | 39.3 | 50 | 41 | 235 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 63.6 | 70 | 59 | 231 | 68.0 | 70 | 63 | 235 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.2 | 90 | 85 | 231 | 79.6 | 90 | 89 | 235 |
| 20 (20) | 208-3-60 | 32.7 | 267 | 39.1 | 267 | 2.0 | 20.4 | 9.6 | None | - | - | - | 110.0 | 125 | 115 | 654 | 119.6 | 150 | 126 | 664 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 110.0 | 125 | 115 | 654 | 119.6 | 150 | 126 | 664 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 654 | 167.9 | 175 | 154 | 664 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 654 | 193.7 | 200 | 214 | 664 |
| | 230-3-60 | 32.7 | 267 | 39.1 | 267 | 2.3 | 20.4 | 8.7 | None | - | - | - | 111.2 | 150 | 117 | 656 | 119.9 | 150 | 127 | 664 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 111.2 | 150 | 117 | 656 | 119.9 | 150 | 127 | 664 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 656 | 180.4 | 200 | 166 | 664 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 656 | 209.3 | 225 | 232 | 664 |
| | 460-3-60 | 16.0 | 142 | 18.6 | 142 | 1.3 | 9.9 | 4.3 | None | - | - | - | 54.4 | 70 | 57 | 347 | 58.7 | 70 | 62 | 351 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 54.4 | 70 | 57 | 347 | 58.7 | 70 | 62 | 351 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 347 | 89.8 | 90 | 83 | 351 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 347 | 104.2 | 110 | 116 | 351 |
| | 575-3-60 | 14.1 | 103 | 15.4 | 103 | 1.0 | 7.7 | 3.5 | None | - | - | - | 45.1 | 60 | 47 | 255 | 48.6 | 60 | 51 | 259 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.1 | 60 | 47 | 255 | 48.6 | 60 | 51 | 259 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 255 | 71.5 | 80 | 66 | 259 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 255 | 83.1 | 90 | 92 | 259 |

## Table 11: KD15 to KD28 VFD 2 stage standard static without power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b size (A) | Min Disconnect Rating | | MCAw/ 120V trans | Max f/ b size w/ 120V trans | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 41.0 | 304 | 41.0 | 304 | 2.0 | 20.4 | 9.6 | None | - | - | - | 120.7 | 150 | 127 | 728 | 130.3 | 150 | 138 | 738 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 120.7 | 150 | 127 | 728 | 130.3 | 150 | 138 | 738 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 728 | 167.9 | 175 | 154 | 738 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 728 | 193.7 | 200 | 214 | 738 |
| | 230-3-60 | 41.0 | 304 | 41.0 | 304 | 2.3 | 20.4 | 8.7 | None | - | - | - | 121.9 | 150 | 128 | 730 | 130.6 | 150 | 138 | 738 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 121.9 | 150 | 128 | 730 | 130.6 | 150 | 138 | 738 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 730 | 180.4 | 200 | 166 | 738 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 730 | 209.3 | 225 | 232 | 738 |
| | 460-3-60 | 19.2 | 147 | 19.2 | 147 | 1.3 | 9.9 | 4.3 | None | - | - | - | 58.3 | 70 | 62 | 357 | 62.6 | 80 | 66 | 361 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 58.3 | 70 | 62 | 357 | 62.6 | 80 | 66 | 361 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 357 | 89.8 | 90 | 83 | 361 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 357 | 104.2 | 110 | 116 | 361 |
| | 575-3-60 | 16.7 | 122 | 16.7 | 122 | 1.0 | 7.7 | 3.5 | None | - | - | - | 49.3 | 60 | 52 | 293 | 52.8 | 60 | 56 | 297 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 49.3 | 60 | 52 | 293 | 52.8 | 60 | 56 | 297 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 293 | 71.5 | 80 | 66 | 297 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 293 | 83.1 | 90 | 92 | 297 |
| 28 (27.5) | 208-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 30.0 | 9.6 | None | - | - | - | 137.9 | 175 | 146 | 780 | 147.5 | 175 | 157 | 789 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 137.9 | 175 | 146 | 780 | 147.5 | 175 | 157 | 789 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.9 | 175 | 154 | 780 | 179.9 | 200 | 165 | 789 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.7 | 200 | 214 | 780 | 205.7 | 225 | 225 | 789 |
| | 230-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 30.0 | 8.7 | None | - | - | - | 137.9 | 175 | 146 | 780 | 146.6 | 175 | 156 | 788 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 137.9 | 175 | 146 | 780 | 146.6 | 175 | 156 | 788 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.5 | 200 | 167 | 780 | 192.4 | 200 | 177 | 788 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.4 | 225 | 233 | 780 | 221.3 | 225 | 243 | 788 |
| | 460-3-60 | 22.4 | 158 | 22.4 | 158 | 1.1 | 14.3 | 4.3 | None | - | - | - | 69.1 | 90 | 73 | 392 | 73.4 | 90 | 78 | 396 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 69.1 | 90 | 73 | 392 | 73.4 | 90 | 78 | 396 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 392 | 95.3 | 100 | 88 | 396 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 392 | 109.7 | 110 | 121 | 396 |
| | 575-3-60 | 18.6 | 136 | 18.6 | 136 | 0.9 | 11.5 | 3.5 | None | - | - | - | 57.0 | 70 | 60 | 329 | 60.5 | 70 | 64 | 332 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 57.0 | 70 | 60 | 329 | 60.5 | 70 | 64 | 332 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.9 | 80 | 66 | 329 | 76.3 | 80 | 70 | 332 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 83.5 | 90 | 93 | 329 | 87.9 | 90 | 97 | 332 |



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## Table 12: KD15 to KD28 VFD 2 stage standard static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 5.0 | 9.6 | None | - | - | - | 83.7 | 100 | 89 | 473 | 93.3 | 110 | 100 | 482 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 94.1 | 100 | 89 | 473 | 106.1 | 110 | 100 | 482 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.4 | 175 | 147 | 473 | 171.4 | 175 | 158 | 482 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.2 | 200 | 206 | 473 | 197.2 | 200 | 217 | 482 |
| | 230-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 5.0 | 8.7 | None | - | - | - | 83.7 | 100 | 89 | 480 | 92.4 | 110 | 99 | 489 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.1 | 110 | 93 | 480 | 112.0 | 125 | 103 | 489 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.0 | 175 | 159 | 480 | 183.9 | 200 | 169 | 489 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 201.9 | 225 | 226 | 480 | 212.8 | 225 | 236 | 489 |
| | 460-3-60 | 12.2 | 100 | 12.2 | 100 | 1.1 | 6.1 | 2.2 | 4.3 | None | - | - | - | 40.2 | 50 | 43 | 249 | 44.5 | 50 | 48 | 254 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.1 | 50 | 45 | 249 | 54.5 | 60 | 50 | 254 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.1 | 90 | 78 | 249 | 90.5 | 100 | 83 | 254 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 99.5 | 110 | 111 | 249 | 104.9 | 110 | 116 | 254 |
| | 575-3-60 | 9.3 | 72 | 9.3 | 72 | 0.9 | 4.9 | 1.5 | 3.5 | None | - | - | - | 30.6 | 35 | 33 | 181 | 34.1 | 40 | 37 | 184 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.6 | 40 | 36 | 181 | 43.0 | 45 | 40 | 184 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 181 | 71.8 | 80 | 66 | 184 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 181 | 83.4 | 90 | 93 | 184 |
| 18 (17.5) | 208-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 13.2 | 5.0 | 9.6 | None | - | - | - | 95.9 | 125 | 101 | 574 | 105.5 | 125 | 112 | 583 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 95.9 | 125 | 101 | 574 | 106.1 | 125 | 112 | 583 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.4 | 175 | 147 | 574 | 171.4 | 175 | 158 | 583 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.2 | 200 | 206 | 574 | 197.2 | 200 | 217 | 583 |
| | 230-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 13.2 | 5.0 | 8.7 | None | - | - | - | 95.9 | 125 | 101 | 582 | 104.6 | 125 | 111 | 590 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.1 | 125 | 101 | 582 | 112.0 | 125 | 111 | 590 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.0 | 175 | 159 | 582 | 183.9 | 200 | 169 | 590 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 201.9 | 225 | 226 | 582 | 212.8 | 225 | 236 | 590 |
| | 460-3-60 | 14.1 | 98 | 16.0 | 142 | 1.1 | 6.1 | 2.2 | 4.3 | None | - | - | - | 46.8 | 60 | 49 | 295 | 51.1 | 60 | 54 | 299 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.1 | 60 | 49 | 295 | 54.5 | 60 | 54 | 299 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.1 | 90 | 78 | 295 | 90.5 | 100 | 83 | 299 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 99.5 | 110 | 111 | 295 | 104.9 | 110 | 116 | 299 |
| | 575-3-60 | 11.5 | 84 | 14.1 | 103 | 0.9 | 4.9 | 1.5 | 3.5 | None | - | - | - | 38.8 | 50 | 41 | 237 | 42.3 | 50 | 45 | 241 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.8 | 50 | 41 | 237 | 43.0 | 50 | 45 | 241 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 237 | 71.8 | 80 | 66 | 241 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 237 | 83.4 | 90 | 93 | 241 |
| 20 (20) | 208-3-60 | 32.7 | 267 | 39.1 | 267 | 2.0 | 20.4 | 5.0 | 9.6 | None | - | - | - | 120.0 | 150 | 127 | 675 | 129.6 | 150 | 138 | 685 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 120.0 | 150 | 127 | 675 | 129.6 | 150 | 138 | 685 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 675 | 180.4 | 200 | 166 | 685 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 675 | 206.2 | 225 | 226 | 685 |
| | 230-3-60 | 32.7 | 267 | 39.1 | 267 | 2.3 | 20.4 | 5.0 | 8.7 | None | - | - | - | 121.2 | 150 | 128 | 677 | 129.9 | 150 | 138 | 685 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 121.2 | 150 | 128 | 677 | 129.9 | 150 | 138 | 685 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 677 | 192.9 | 200 | 177 | 685 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 677 | 221.8 | 225 | 244 | 685 |
| | 460-3-60 | 16.0 | 142 | 18.6 | 142 | 1.3 | 9.9 | 2.2 | 4.3 | None | - | - | - | 58.8 | 70 | 62 | 356 | 63.1 | 80 | 67 | 360 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 58.8 | 70 | 62 | 356 | 63.1 | 80 | 67 | 360 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 356 | 95.3 | 100 | 88 | 360 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 356 | 109.7 | 110 | 121 | 360 |
| | 575-3-60 | 14.1 | 103 | 15.4 | 103 | 1.0 | 7.7 | 1.5 | 3.5 | None | - | - | - | 48.1 | 60 | 51 | 262 | 51.6 | 60 | 55 | 265 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 48.1 | 60 | 51 | 262 | 51.6 | 60 | 55 | 265 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 262 | 75.3 | 80 | 69 | 265 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 262 | 86.9 | 90 | 96 | 265 |

## Table 12: KD15 to KD28 VFD 2 stage standard static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 41.0 | 304 | 41.0 | 304 | 2.0 | 20.4 | 5.0 | 9.6 | None | - | - | - | 130.7 | 150 | 138 | 749 | 140.3 | 175 | 150 | 759 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 130.7 | 150 | 138 | 749 | 140.3 | 175 | 150 | 759 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 749 | 180.4 | 200 | 166 | 759 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 749 | 206.2 | 225 | 226 | 759 |
| | 230-3-60 | 41.0 | 304 | 41.0 | 304 | 2.3 | 20.4 | 5.0 | 8.7 | None | - | - | - | 131.9 | 150 | 140 | 751 | 140.6 | 175 | 150 | 759 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 131.9 | 150 | 140 | 751 | 140.6 | 175 | 150 | 759 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 751 | 192.9 | 200 | 177 | 759 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 751 | 221.8 | 225 | 244 | 759 |
| | 460-3-60 | 19.2 | 147 | 19.2 | 147 | 1.3 | 9.9 | 2.2 | 4.3 | None | - | - | - | 62.7 | 80 | 67 | 366 | 67.0 | 80 | 72 | 370 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 62.7 | 80 | 67 | 366 | 67.0 | 80 | 72 | 370 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 366 | 95.3 | 100 | 88 | 370 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 366 | 109.7 | 110 | 121 | 370 |
| | 575-3-60 | 16.7 | 122 | 16.7 | 122 | 1.0 | 7.7 | 1.5 | 3.5 | None | - | - | - | 52.3 | 60 | 55 | 300 | 55.8 | 70 | 59 | 303 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 52.3 | 60 | 55 | 300 | 55.8 | 70 | 59 | 303 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 300 | 75.3 | 80 | 69 | 303 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 300 | 86.9 | 90 | 96 | 303 |
| 28 (27.5) | 208-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 30.0 | 5.0 | 9.6 | None | - | - | - | 147.9 | 175 | 157 | 801 | 157.5 | 200 | 168 | 810 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 147.9 | 175 | 157 | 801 | 157.5 | 200 | 168 | 810 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 180.4 | 200 | 166 | 801 | 192.4 | 200 | 177 | 810 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 206.2 | 225 | 226 | 801 | 218.2 | 225 | 237 | 810 |
| | 230-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 30.0 | 5.0 | 8.7 | None | - | - | - | 147.9 | 175 | 157 | 801 | 156.6 | 200 | 167 | 809 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 147.9 | 175 | 157 | 801 | 156.6 | 200 | 167 | 809 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 194.0 | 200 | 178 | 801 | 204.9 | 225 | 188 | 809 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.9 | 250 | 245 | 801 | 233.8 | 250 | 255 | 809 |
| | 460-3-60 | 22.4 | 158 | 22.4 | 158 | 1.1 | 14.3 | 2.2 | 4.3 | None | - | - | - | 73.5 | 90 | 78 | 401 | 77.8 | 100 | 83 | 405 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 73.5 | 90 | 78 | 401 | 77.8 | 100 | 83 | 405 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 401 | 100.8 | 110 | 93 | 405 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 110 | 121 | 401 | 115.2 | 125 | 126 | 405 |
| | 575-3-60 | 18.6 | 136 | 18.6 | 136 | 0.9 | 11.5 | 1.5 | 3.5 | None | - | - | - | 60.0 | 70 | 64 | 335 | 63.5 | 80 | 68 | 339 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 60.0 | 70 | 64 | 335 | 63.5 | 80 | 68 | 339 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.6 | 80 | 70 | 335 | 80.0 | 80 | 74 | 339 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 87.2 | 90 | 96 | 335 | 91.6 | 100 | 100 | 339 |

## Table 13: KD15 to KD28 VFD 2 stage standard static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 6.7 | 9.6 | None | - | - | - | 87.1 | 110 | 93 | 465 | 96.7 | 110 | 104 | 475 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 98.4 | 110 | 93 | 465 | 110.4 | 125 | 104 | 475 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 163.6 | 175 | 151 | 465 | 175.6 | 200 | 162 | 475 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.5 | 200 | 210 | 465 | 201.5 | 225 | 221 | 475 |
| | 230-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 6.7 | 8.7 | None | - | - | - | 87.1 | 110 | 93 | 472 | 95.8 | 110 | 103 | 481 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.4 | 110 | 97 | 472 | 116.3 | 125 | 107 | 481 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.3 | 200 | 163 | 472 | 188.1 | 200 | 173 | 481 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.2 | 225 | 229 | 472 | 217.0 | 225 | 239 | 481 |
| | 460-3-60 | 12.2 | 100 | 12.2 | 100 | 1.1 | 6.1 | 3.4 | 4.3 | None | - | - | - | 42.6 | 50 | 45 | 247 | 46.9 | 50 | 50 | 251 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.1 | 60 | 48 | 247 | 57.5 | 60 | 53 | 251 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.1 | 90 | 81 | 247 | 93.5 | 100 | 86 | 251 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 102.5 | 110 | 114 | 247 | 107.9 | 110 | 119 | 251 |
| | 575-3-60 | 9.3 | 72 | 9.3 | 72 | 0.9 | 4.9 | 2.7 | 3.5 | None | - | - | - | 33.0 | 40 | 35 | 180 | 36.5 | 45 | 39 | 183 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 41.6 | 45 | 38 | 180 | 46.0 | 50 | 42 | 183 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.4 | 80 | 65 | 180 | 74.8 | 80 | 69 | 183 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.0 | 90 | 91 | 180 | 86.4 | 90 | 95 | 183 |
| 18 (17.5) | 208-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 13.2 | 6.7 | 9.6 | None | - | - | - | 99.3 | 125 | 105 | 566 | 108.9 | 125 | 116 | 576 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 99.3 | 125 | 105 | 566 | 110.4 | 125 | 116 | 576 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 163.6 | 175 | 151 | 566 | 175.6 | 200 | 162 | 576 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.5 | 200 | 210 | 566 | 201.5 | 225 | 221 | 576 |
| | 230-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 13.2 | 6.7 | 8.7 | None | - | - | - | 99.3 | 125 | 105 | 574 | 108.0 | 125 | 115 | 583 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.4 | 125 | 105 | 574 | 116.3 | 125 | 115 | 583 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.3 | 200 | 163 | 574 | 188.1 | 200 | 173 | 583 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.2 | 225 | 229 | 574 | 217.0 | 225 | 239 | 583 |
| | 460-3-60 | 14.1 | 98 | 16.0 | 142 | 1.1 | 6.1 | 3.4 | 4.3 | None | - | - | - | 49.2 | 60 | 52 | 293 | 53.5 | 60 | 57 | 297 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.1 | 60 | 52 | 293 | 57.5 | 60 | 57 | 297 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.1 | 90 | 81 | 293 | 93.5 | 100 | 86 | 297 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 102.5 | 110 | 114 | 293 | 107.9 | 110 | 119 | 297 |
| | 575-3-60 | 11.5 | 84 | 14.1 | 103 | 0.9 | 4.9 | 2.7 | 3.5 | None | - | - | - | 41.2 | 50 | 43 | 236 | 44.7 | 50 | 47 | 240 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 41.6 | 50 | 43 | 236 | 46.0 | 50 | 47 | 240 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.4 | 80 | 65 | 236 | 74.8 | 80 | 69 | 240 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.0 | 90 | 91 | 236 | 86.4 | 90 | 95 | 240 |
| 20 (20) | 208-3-60 | 32.7 | 267 | 39.1 | 267 | 2.0 | 20.4 | 6.7 | 9.6 | None | - | - | - | 123.4 | 150 | 131 | 668 | 133.0 | 150 | 142 | 677 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 123.4 | 150 | 131 | 668 | 133.0 | 150 | 142 | 677 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 668 | 184.6 | 200 | 170 | 677 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 668 | 210.5 | 225 | 230 | 677 |
| | 230-3-60 | 32.7 | 267 | 39.1 | 267 | 2.3 | 20.4 | 6.7 | 8.7 | None | - | - | - | 124.6 | 150 | 132 | 669 | 133.3 | 150 | 142 | 678 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 124.6 | 150 | 132 | 669 | 133.3 | 150 | 142 | 678 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 669 | 197.1 | 200 | 181 | 678 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 669 | 226.0 | 250 | 248 | 678 |
| | 460-3-60 | 16.0 | 142 | 18.6 | 142 | 1.3 | 9.9 | 3.4 | 4.3 | None | - | - | - | 61.2 | 70 | 65 | 353 | 65.5 | 80 | 70 | 358 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 61.2 | 70 | 65 | 353 | 65.5 | 80 | 70 | 358 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 353 | 98.3 | 100 | 90 | 358 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 353 | 112.7 | 125 | 124 | 358 |
| | 575-3-60 | 14.1 | 103 | 15.4 | 103 | 1.0 | 7.7 | 2.7 | 3.5 | None | - | - | - | 50.5 | 60 | 54 | 261 | 54.0 | 60 | 58 | 264 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 50.5 | 60 | 54 | 261 | 54.0 | 60 | 58 | 264 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 261 | 78.3 | 80 | 72 | 264 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 261 | 89.9 | 90 | 99 | 264 |

## Table 13: KD15 to KD28 VFD 2 stage standard static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 41.0 | 304 | 41.0 | 304 | 2.0 | 20.4 | 6.7 | 9.6 | None | - | - | - | 134.1 | 175 | 142 | 742 | 143.7 | 175 | 153 | 751 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 134.1 | 175 | 142 | 742 | 143.7 | 175 | 153 | 751 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 742 | 184.6 | 200 | 170 | 751 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 742 | 210.5 | 225 | 230 | 751 |
| | 230-3-60 | 41.0 | 304 | 41.0 | 304 | 2.3 | 20.4 | 6.7 | 8.7 | None | - | - | - | 135.3 | 175 | 144 | 743 | 144.0 | 175 | 154 | 752 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 135.3 | 175 | 144 | 743 | 144.0 | 175 | 154 | 752 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 743 | 197.1 | 200 | 181 | 752 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 743 | 226.0 | 250 | 248 | 752 |
| | 460-3-60 | 19.2 | 147 | 19.2 | 147 | 1.3 | 9.9 | 3.4 | 4.3 | None | - | - | - | 65.1 | 80 | 69 | 363 | 69.4 | 80 | 74 | 368 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 65.1 | 80 | 69 | 363 | 69.4 | 80 | 74 | 368 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 363 | 98.3 | 100 | 90 | 368 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 363 | 112.7 | 125 | 124 | 368 |
| | 575-3-60 | 16.7 | 122 | 16.7 | 122 | 1.0 | 7.7 | 2.7 | 3.5 | None | - | - | - | 54.7 | 70 | 58 | 299 | 58.2 | 70 | 62 | 302 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 54.7 | 70 | 58 | 299 | 58.2 | 70 | 62 | 302 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 299 | 78.3 | 80 | 72 | 302 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 299 | 89.9 | 90 | 99 | 302 |
| 28 (27.5) | 208-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 30.0 | 6.7 | 9.6 | None | - | - | - | 151.3 | 175 | 161 | 793 | 160.9 | 200 | 172 | 803 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 151.3 | 175 | 161 | 793 | 160.9 | 200 | 172 | 803 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 184.6 | 200 | 170 | 793 | 196.6 | 200 | 181 | 803 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 210.5 | 225 | 230 | 793 | 222.5 | 225 | 241 | 803 |
| | 230-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 30.0 | 6.7 | 8.7 | None | - | - | - | 151.3 | 175 | 161 | 793 | 160.0 | 200 | 171 | 802 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 151.3 | 175 | 161 | 793 | 160.0 | 200 | 171 | 802 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 198.3 | 200 | 182 | 793 | 209.1 | 225 | 192 | 802 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 227.2 | 250 | 249 | 793 | 238.0 | 250 | 259 | 802 |
| | 460-3-60 | 22.4 | 158 | 22.4 | 158 | 1.1 | 14.3 | 3.4 | 4.3 | None | - | - | - | 75.9 | 90 | 81 | 399 | 80.2 | 100 | 86 | 403 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 75.9 | 90 | 81 | 399 | 80.2 | 100 | 86 | 403 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 98.4 | 100 | 91 | 399 | 103.8 | 110 | 95 | 403 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 112.8 | 125 | 124 | 399 | 118.2 | 125 | 129 | 403 |
| | 575-3-60 | 18.6 | 136 | 18.6 | 136 | 0.9 | 11.5 | 2.7 | 3.5 | None | - | - | - | 62.4 | 80 | 66 | 334 | 65.9 | 80 | 70 | 338 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 62.4 | 80 | 66 | 334 | 65.9 | 80 | 70 | 338 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 78.6 | 80 | 72 | 334 | 83.0 | 90 | 76 | 338 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.2 | 100 | 99 | 334 | 94.6 | 100 | 103 | 338 |

## VFD 2 stage medium static

### Table 14: KD15 to KD28 VFD 2 stage medium static without power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b size (A) | Min Disconnect Rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 9.6 | None | - | - | - | 73.7 | 90 | 78 | 463 | 83.3 | 100 | 89 | 472 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 81.6 | 90 | 78 | 463 | 93.6 | 100 | 89 | 472 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 146.9 | 150 | 135 | 463 | 158.9 | 175 | 146 | 472 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 172.7 | 200 | 195 | 463 | 184.7 | 200 | 206 | 472 |
| | 230-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 8.7 | None | - | - | - | 73.7 | 90 | 78 | 471 | 82.4 | 100 | 88 | 479 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 88.6 | 90 | 82 | 471 | 99.5 | 100 | 92 | 479 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.5 | 175 | 148 | 471 | 171.4 | 175 | 158 | 479 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.4 | 225 | 214 | 471 | 200.3 | 225 | 224 | 479 |
| | 460-3-60 | 12.2 | 100 | 12.2 | 100 | 1.1 | 6.1 | 4.3 | None | - | - | - | 35.8 | 45 | 38 | 246 | 40.1 | 50 | 43 | 250 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 43.6 | 45 | 40 | 246 | 49.0 | 50 | 45 | 250 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 79.6 | 80 | 73 | 246 | 85.0 | 90 | 78 | 250 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.0 | 110 | 106 | 246 | 99.4 | 110 | 111 | 250 |
| | 575-3-60 | 9.3 | 72 | 9.3 | 72 | 0.9 | 4.9 | 3.5 | None | - | - | - | 27.6 | 35 | 29 | 188 | 31.1 | 40 | 33 | 192 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 34.9 | 35 | 32 | 188 | 39.3 | 40 | 36 | 192 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 63.6 | 70 | 59 | 188 | 68.0 | 70 | 63 | 192 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.2 | 90 | 85 | 188 | 79.6 | 90 | 89 | 192 |
| 18 (17.5) | 208-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 20.4 | 9.6 | None | - | - | - | 93.1 | 125 | 98 | 583 | 102.7 | 125 | 109 | 592 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 93.1 | 125 | 98 | 583 | 102.7 | 125 | 109 | 592 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 583 | 167.9 | 175 | 154 | 592 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 583 | 193.7 | 200 | 214 | 592 |
| | 230-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 20.4 | 8.7 | None | - | - | - | 93.1 | 125 | 98 | 582 | 101.8 | 125 | 108 | 591 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 97.6 | 125 | 98 | 582 | 108.5 | 125 | 108 | 591 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 582 | 180.4 | 200 | 166 | 591 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 582 | 209.3 | 225 | 232 | 591 |
| | 460-3-60 | 14.1 | 98 | 16.0 | 142 | 1.1 | 9.9 | 4.3 | None | - | - | - | 46.2 | 60 | 49 | 297 | 50.5 | 60 | 53 | 301 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 48.4 | 60 | 49 | 297 | 53.8 | 60 | 53 | 301 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 297 | 89.8 | 90 | 83 | 301 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 297 | 104.2 | 110 | 116 | 301 |
| | 575-3-60 | 11.5 | 84 | 14.1 | 103 | 0.9 | 7.7 | 3.5 | None | - | - | - | 38.6 | 50 | 40 | 231 | 42.1 | 50 | 44 | 235 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.6 | 50 | 40 | 231 | 42.8 | 50 | 44 | 235 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 231 | 71.5 | 80 | 66 | 235 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 231 | 83.1 | 90 | 92 | 235 |
| 20 (20) | 208-3-60 | 32.7 | 267 | 39.1 | 267 | 2.0 | 20.4 | 9.6 | None | - | - | - | 110.0 | 125 | 115 | 654 | 119.6 | 150 | 126 | 664 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 110.0 | 125 | 115 | 654 | 119.6 | 150 | 126 | 664 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 654 | 167.9 | 175 | 154 | 664 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 654 | 193.7 | 200 | 214 | 664 |
| | 230-3-60 | 32.7 | 267 | 39.1 | 267 | 2.3 | 20.4 | 8.7 | None | - | - | - | 111.2 | 150 | 117 | 656 | 119.9 | 150 | 127 | 664 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 111.2 | 150 | 117 | 656 | 119.9 | 150 | 127 | 664 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 656 | 180.4 | 200 | 166 | 664 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 656 | 209.3 | 225 | 232 | 664 |
| | 460-3-60 | 16.0 | 142 | 18.6 | 142 | 1.3 | 9.9 | 4.3 | None | - | - | - | 54.4 | 70 | 57 | 347 | 58.7 | 70 | 62 | 351 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 54.4 | 70 | 57 | 347 | 58.7 | 70 | 62 | 351 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 347 | 89.8 | 90 | 83 | 351 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 347 | 104.2 | 110 | 116 | 351 |
| | 575-3-60 | 14.1 | 103 | 15.4 | 103 | 1.0 | 7.7 | 3.5 | None | - | - | - | 45.1 | 60 | 47 | 255 | 48.6 | 60 | 51 | 259 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.1 | 60 | 47 | 255 | 48.6 | 60 | 51 | 259 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 255 | 71.5 | 80 | 66 | 259 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 255 | 83.1 | 90 | 92 | 259 |

## Table 14: KD15 to KD28 VFD 2 stage medium static without power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b size (A) | Min Disconnect Rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 41.0 | 304 | 41.0 | 304 | 2.0 | 30.0 | 9.6 | None | - | - | - | 130.3 | 150 | 138 | 755 | 139.9 | 175 | 149 | 765 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 130.3 | 150 | 138 | 755 | 139.9 | 175 | 149 | 765 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.9 | 175 | 154 | 755 | 179.9 | 200 | 165 | 765 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.7 | 200 | 214 | 755 | 205.7 | 225 | 225 | 765 |
| | 230-3-60 | 41.0 | 304 | 41.0 | 304 | 2.3 | 30.0 | 8.7 | None | - | - | - | 131.5 | 150 | 139 | 757 | 140.2 | 175 | 149 | 766 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 131.5 | 150 | 139 | 757 | 140.2 | 175 | 149 | 766 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.5 | 200 | 167 | 757 | 192.4 | 200 | 177 | 766 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.4 | 225 | 233 | 757 | 221.3 | 225 | 243 | 766 |
| | 460-3-60 | 19.2 | 147 | 19.2 | 147 | 1.3 | 14.3 | 4.3 | None | - | - | - | 62.7 | 80 | 67 | 370 | 67.0 | 80 | 72 | 375 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 62.7 | 80 | 67 | 370 | 67.0 | 80 | 72 | 375 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 370 | 95.3 | 100 | 88 | 375 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 370 | 109.7 | 110 | 121 | 375 |
| | 575-3-60 | 16.7 | 122 | 16.7 | 122 | 1.0 | 11.5 | 3.5 | None | - | - | - | 53.1 | 60 | 56 | 302 | 56.6 | 70 | 60 | 306 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 53.1 | 60 | 56 | 302 | 56.6 | 70 | 60 | 306 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.9 | 80 | 66 | 302 | 76.3 | 80 | 70 | 306 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 83.5 | 90 | 93 | 302 | 87.9 | 90 | 97 | 306 |
| 28 (27.5) | 208-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 9.6 | None | - | - | - | 147.5 | 175 | 157 | 830 | 157.1 | 200 | 168 | 840 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 147.5 | 175 | 157 | 830 | 157.1 | 200 | 168 | 840 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 179.9 | 200 | 165 | 830 | 191.9 | 200 | 177 | 840 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 205.7 | 225 | 225 | 830 | 217.7 | 250 | 236 | 840 |
| | 230-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 8.7 | None | - | - | - | 147.5 | 175 | 157 | 830 | 156.2 | 200 | 167 | 839 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 147.5 | 175 | 157 | 830 | 156.2 | 200 | 167 | 839 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 193.5 | 200 | 178 | 830 | 204.4 | 225 | 188 | 839 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.4 | 250 | 244 | 830 | 233.3 | 250 | 254 | 839 |
| | 460-3-60 | 22.4 | 158 | 22.4 | 158 | 1.1 | 18.7 | 4.3 | None | - | - | - | 73.5 | 90 | 78 | 417 | 77.8 | 100 | 83 | 422 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 73.5 | 90 | 78 | 417 | 77.8 | 100 | 83 | 422 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 417 | 100.8 | 110 | 93 | 422 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 125 | 121 | 417 | 115.2 | 125 | 126 | 422 |
| | 575-3-60 | 18.6 | 136 | 18.6 | 136 | 0.9 | 14.2 | 3.5 | None | - | - | - | 59.7 | 70 | 63 | 352 | 63.2 | 80 | 67 | 355 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 59.7 | 70 | 63 | 352 | 63.2 | 80 | 67 | 355 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.3 | 80 | 69 | 352 | 79.6 | 80 | 73 | 355 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 86.9 | 100 | 96 | 352 | 91.2 | 100 | 100 | 355 |



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## Table 15: KD15 to KD28 VFD 2 stage medium static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 5.0 | 9.6 | None | - | - | - | 83.7 | 100 | 89 | 484 | 93.3 | 110 | 100 | 493 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 94.1 | 100 | 89 | 484 | 106.1 | 110 | 100 | 493 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.4 | 175 | 147 | 484 | 171.4 | 175 | 158 | 493 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.2 | 200 | 206 | 484 | 197.2 | 200 | 217 | 493 |
| | 230-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 5.0 | 8.7 | None | - | - | - | 83.7 | 100 | 89 | 492 | 92.4 | 110 | 99 | 500 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.1 | 110 | 93 | 492 | 112.0 | 125 | 103 | 500 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.0 | 175 | 159 | 492 | 183.9 | 200 | 169 | 500 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 201.9 | 225 | 226 | 492 | 212.8 | 225 | 236 | 500 |
| | 460-3-60 | 12.2 | 100 | 12.2 | 100 | 1.1 | 6.1 | 2.2 | 4.3 | None | - | - | - | 40.2 | 50 | 43 | 255 | 44.5 | 50 | 48 | 259 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.1 | 50 | 45 | 255 | 54.5 | 60 | 50 | 259 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.1 | 90 | 78 | 255 | 90.5 | 100 | 83 | 259 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 99.5 | 110 | 111 | 255 | 104.9 | 110 | 116 | 259 |
| | 575-3-60 | 9.3 | 72 | 9.3 | 72 | 0.9 | 4.9 | 1.5 | 3.5 | None | - | - | - | 30.6 | 35 | 33 | 194 | 34.1 | 40 | 37 | 198 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.6 | 40 | 36 | 194 | 43.0 | 45 | 40 | 198 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 194 | 71.8 | 80 | 66 | 198 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 194 | 83.4 | 90 | 93 | 198 |
| 18 (17.5) | 208-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 20.4 | 5.0 | 9.6 | None | - | - | - | 103.1 | 125 | 109 | 604 | 112.7 | 125 | 120 | 613 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 103.1 | 125 | 109 | 604 | 115.1 | 125 | 120 | 613 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 604 | 180.4 | 200 | 166 | 613 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 604 | 206.2 | 225 | 226 | 613 |
| | 230-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 20.4 | 5.0 | 8.7 | None | - | - | - | 103.1 | 125 | 109 | 603 | 111.8 | 125 | 119 | 612 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 110.1 | 125 | 109 | 603 | 121.0 | 125 | 119 | 612 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 603 | 192.9 | 200 | 177 | 612 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 603 | 221.8 | 225 | 244 | 612 |
| | 460-3-60 | 14.1 | 98 | 16.0 | 142 | 1.1 | 9.9 | 2.2 | 4.3 | None | - | - | - | 50.6 | 60 | 54 | 306 | 54.9 | 70 | 59 | 310 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 54 | 306 | 59.3 | 70 | 59 | 310 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 306 | 95.3 | 100 | 88 | 310 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 306 | 109.7 | 110 | 121 | 310 |
| | 575-3-60 | 11.5 | 84 | 14.1 | 103 | 0.9 | 7.7 | 1.5 | 3.5 | None | - | - | - | 41.6 | 50 | 44 | 237 | 45.1 | 50 | 48 | 241 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.1 | 50 | 44 | 237 | 46.5 | 50 | 48 | 241 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 237 | 75.3 | 80 | 69 | 241 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 237 | 86.9 | 90 | 96 | 241 |
| 20 (20) | 208-3-60 | 32.7 | 267 | 39.1 | 267 | 2.0 | 20.4 | 5.0 | 9.6 | None | - | - | - | 120.0 | 150 | 127 | 675 | 129.6 | 150 | 138 | 685 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 120.0 | 150 | 127 | 675 | 129.6 | 150 | 138 | 685 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 675 | 180.4 | 200 | 166 | 685 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 675 | 206.2 | 225 | 226 | 685 |
| | 230-3-60 | 32.7 | 267 | 39.1 | 267 | 2.3 | 20.4 | 5.0 | 8.7 | None | - | - | - | 121.2 | 150 | 128 | 677 | 129.9 | 150 | 138 | 685 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 121.2 | 150 | 128 | 677 | 129.9 | 150 | 138 | 685 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 677 | 192.9 | 200 | 177 | 685 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 677 | 221.8 | 225 | 244 | 685 |
| | 460-3-60 | 16.0 | 142 | 18.6 | 142 | 1.3 | 9.9 | 2.2 | 4.3 | None | - | - | - | 58.8 | 70 | 62 | 356 | 63.1 | 80 | 67 | 360 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 58.8 | 70 | 62 | 356 | 63.1 | 80 | 67 | 360 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 356 | 95.3 | 100 | 88 | 360 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 356 | 109.7 | 110 | 121 | 360 |
| | 575-3-60 | 14.1 | 103 | 15.4 | 103 | 1.0 | 7.7 | 1.5 | 3.5 | None | - | - | - | 48.1 | 60 | 51 | 262 | 51.6 | 60 | 55 | 265 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 48.1 | 60 | 51 | 262 | 51.6 | 60 | 55 | 265 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 262 | 75.3 | 80 | 69 | 265 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 262 | 86.9 | 90 | 96 | 265 |

## Table 15: KD15 to KD28 VFD 2 stage medium static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 41.0 | 304 | 41.0 | 304 | 2.0 | 30.0 | 5.0 | 9.6 | None | - | - | - | 140.3 | 175 | 150 | 776 | 149.9 | 175 | 161 | 786 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 140.3 | 175 | 150 | 776 | 149.9 | 175 | 161 | 786 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 180.4 | 200 | 166 | 776 | 192.4 | 200 | 177 | 786 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 206.2 | 225 | 226 | 776 | 218.2 | 225 | 237 | 786 |
| | 230-3-60 | 41.0 | 304 | 41.0 | 304 | 2.3 | 30.0 | 5.0 | 8.7 | None | - | - | - | 141.5 | 175 | 151 | 778 | 150.2 | 175 | 161 | 787 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 141.5 | 175 | 151 | 778 | 150.2 | 175 | 161 | 787 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 194.0 | 200 | 178 | 778 | 204.9 | 225 | 188 | 787 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.9 | 250 | 245 | 778 | 233.8 | 250 | 255 | 787 |
| | 460-3-60 | 19.2 | 147 | 19.2 | 147 | 1.3 | 14.3 | 2.2 | 4.3 | None | - | - | - | 67.1 | 80 | 72 | 380 | 71.4 | 90 | 77 | 384 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 67.1 | 80 | 72 | 380 | 71.4 | 90 | 77 | 384 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 380 | 100.8 | 110 | 93 | 384 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 110 | 121 | 380 | 115.2 | 125 | 126 | 384 |
| | 575-3-60 | 16.7 | 122 | 16.7 | 122 | 1.0 | 11.5 | 1.5 | 3.5 | None | - | - | - | 56.1 | 70 | 60 | 308 | 59.6 | 70 | 64 | 312 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 56.1 | 70 | 60 | 308 | 59.6 | 70 | 64 | 312 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.6 | 80 | 70 | 308 | 80.0 | 90 | 74 | 312 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 87.2 | 90 | 96 | 308 | 91.6 | 100 | 100 | 312 |
| 28 (27.5) | 208-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 5.0 | 9.6 | None | - | - | - | 157.5 | 200 | 168 | 851 | 167.1 | 200 | 179 | 861 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 157.5 | 200 | 168 | 851 | 167.1 | 200 | 179 | 861 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 192.4 | 200 | 177 | 851 | 204.4 | 225 | 188 | 861 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 218.2 | 250 | 237 | 851 | 230.2 | 250 | 248 | 861 |
| | 230-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 5.0 | 8.7 | None | - | - | - | 157.5 | 200 | 168 | 851 | 166.2 | 200 | 178 | 860 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 157.5 | 200 | 168 | 851 | 166.2 | 200 | 178 | 860 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 206.0 | 225 | 190 | 851 | 216.9 | 225 | 200 | 860 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 234.9 | 250 | 256 | 851 | 245.8 | 250 | 266 | 860 |
| | 460-3-60 | 22.4 | 158 | 22.4 | 158 | 1.1 | 18.7 | 2.2 | 4.3 | None | - | - | - | 77.9 | 100 | 83 | 426 | 82.2 | 100 | 88 | 431 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 77.9 | 100 | 83 | 426 | 82.2 | 100 | 88 | 431 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 100.9 | 110 | 93 | 426 | 106.3 | 110 | 98 | 431 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 115.3 | 125 | 126 | 426 | 120.7 | 125 | 131 | 431 |
| | 575-3-60 | 18.6 | 136 | 18.6 | 136 | 0.9 | 14.2 | 1.5 | 3.5 | None | - | - | - | 62.7 | 80 | 67 | 358 | 66.2 | 80 | 71 | 362 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 62.7 | 80 | 67 | 358 | 66.2 | 80 | 71 | 362 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 79.0 | 80 | 73 | 358 | 83.4 | 90 | 77 | 362 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.6 | 100 | 99 | 358 | 95.0 | 100 | 103 | 362 |

## Table 16: KD15 to KD28 VFD 2 stage medium static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 6.7 | 9.6 | None | - | - | - | 87.1 | 110 | 93 | 476 | 96.7 | 110 | 104 | 486 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 98.4 | 110 | 93 | 476 | 110.4 | 125 | 104 | 486 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 163.6 | 175 | 151 | 476 | 175.6 | 200 | 162 | 486 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.5 | 200 | 210 | 476 | 201.5 | 225 | 221 | 486 |
| | 230-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 13.2 | 6.7 | 8.7 | None | - | - | - | 87.1 | 110 | 93 | 484 | 95.8 | 110 | 103 | 493 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.4 | 110 | 97 | 484 | 116.3 | 125 | 107 | 493 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.3 | 200 | 163 | 484 | 188.1 | 200 | 173 | 493 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.2 | 225 | 229 | 484 | 217.0 | 225 | 239 | 493 |
| | 460-3-60 | 12.2 | 100 | 12.2 | 100 | 1.1 | 6.1 | 3.4 | 4.3 | None | - | - | - | 42.6 | 50 | 45 | 253 | 46.9 | 50 | 50 | 257 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.1 | 60 | 48 | 253 | 57.5 | 60 | 53 | 257 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.1 | 90 | 81 | 253 | 93.5 | 100 | 86 | 257 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 102.5 | 110 | 114 | 253 | 107.9 | 110 | 119 | 257 |
| | 575-3-60 | 9.3 | 72 | 9.3 | 72 | 0.9 | 4.9 | 2.7 | 3.5 | None | - | - | - | 33.0 | 40 | 35 | 193 | 36.5 | 45 | 39 | 197 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 41.6 | 45 | 38 | 193 | 46.0 | 50 | 42 | 197 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.4 | 80 | 65 | 193 | 74.8 | 80 | 69 | 197 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.0 | 90 | 91 | 193 | 86.4 | 90 | 95 | 197 |
| 18 (17.5) | 208-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 20.4 | 6.7 | 9.6 | None | - | - | - | 106.5 | 125 | 113 | 596 | 116.1 | 125 | 124 | 606 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 107.4 | 125 | 113 | 596 | 119.4 | 125 | 124 | 606 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 596 | 184.6 | 200 | 170 | 606 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 596 | 210.5 | 225 | 230 | 606 |
| | 230-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 20.4 | 6.7 | 8.7 | None | - | - | - | 106.5 | 125 | 113 | 595 | 115.2 | 125 | 123 | 604 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 114.4 | 125 | 113 | 595 | 125.3 | 150 | 123 | 604 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 595 | 197.1 | 200 | 181 | 604 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 595 | 226.0 | 250 | 248 | 604 |
| | 460-3-60 | 14.1 | 98 | 16.0 | 142 | 1.1 | 9.9 | 3.4 | 4.3 | None | - | - | - | 53.0 | 60 | 56 | 303 | 57.3 | 70 | 61 | 308 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.9 | 60 | 56 | 303 | 62.3 | 70 | 61 | 308 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 303 | 98.3 | 100 | 90 | 308 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 303 | 112.7 | 125 | 124 | 308 |
| | 575-3-60 | 11.5 | 84 | 14.1 | 103 | 0.9 | 7.7 | 2.7 | 3.5 | None | - | - | - | 44.0 | 50 | 47 | 236 | 47.5 | 60 | 51 | 240 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.1 | 50 | 47 | 236 | 49.5 | 60 | 51 | 240 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 236 | 78.3 | 80 | 72 | 240 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 236 | 89.9 | 90 | 99 | 240 |
| 20 (20) | 208-3-60 | 32.7 | 267 | 39.1 | 267 | 2.0 | 20.4 | 6.7 | 9.6 | None | - | - | - | 123.4 | 150 | 131 | 668 | 133.0 | 150 | 142 | 677 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 123.4 | 150 | 131 | 668 | 133.0 | 150 | 142 | 677 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 668 | 184.6 | 200 | 170 | 677 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 668 | 210.5 | 225 | 230 | 677 |
| | 230-3-60 | 32.7 | 267 | 39.1 | 267 | 2.3 | 20.4 | 6.7 | 8.7 | None | - | - | - | 124.6 | 150 | 132 | 669 | 133.3 | 150 | 142 | 678 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 124.6 | 150 | 132 | 669 | 133.3 | 150 | 142 | 678 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 669 | 197.1 | 200 | 181 | 678 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 669 | 226.0 | 250 | 248 | 678 |
| | 460-3-60 | 16.0 | 142 | 18.6 | 142 | 1.3 | 9.9 | 3.4 | 4.3 | None | - | - | - | 61.2 | 70 | 65 | 353 | 65.5 | 80 | 70 | 358 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 61.2 | 70 | 65 | 353 | 65.5 | 80 | 70 | 358 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 353 | 98.3 | 100 | 90 | 358 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 353 | 112.7 | 125 | 124 | 358 |
| | 575-3-60 | 14.1 | 103 | 15.4 | 103 | 1.0 | 7.7 | 2.7 | 3.5 | None | - | - | - | 50.5 | 60 | 54 | 261 | 54.0 | 60 | 58 | 264 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 50.5 | 60 | 54 | 261 | 54.0 | 60 | 58 | 264 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 261 | 78.3 | 80 | 72 | 264 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 261 | 89.9 | 90 | 99 | 264 |

## Table 16: KD15 to KD28 VFD 2 stage medium static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 41.0 | 304 | 41.0 | 304 | 2.0 | 30.0 | 6.7 | 9.6 | None | - | - | - | 143.7 | 175 | 153 | 769 | 153.3 | 175 | 164 | 778 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 143.7 | 175 | 153 | 769 | 153.3 | 175 | 164 | 778 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 184.6 | 200 | 170 | 769 | 196.6 | 200 | 181 | 778 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 210.5 | 225 | 230 | 769 | 222.5 | 225 | 241 | 778 |
| | 230-3-60 | 41.0 | 304 | 41.0 | 304 | 2.3 | 30.0 | 6.7 | 8.7 | None | - | - | - | 144.9 | 175 | 155 | 771 | 153.6 | 175 | 165 | 779 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 144.9 | 175 | 155 | 771 | 153.6 | 175 | 165 | 779 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 198.3 | 200 | 182 | 771 | 209.1 | 225 | 192 | 779 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 227.2 | 250 | 249 | 771 | 238.0 | 250 | 259 | 779 |
| | 460-3-60 | 19.2 | 147 | 19.2 | 147 | 1.3 | 14.3 | 3.4 | 4.3 | None | - | - | - | 69.5 | 80 | 74 | 377 | 73.8 | 90 | 79 | 381 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 69.5 | 80 | 74 | 377 | 73.8 | 90 | 79 | 381 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 98.4 | 100 | 91 | 377 | 103.8 | 110 | 95 | 381 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 112.8 | 125 | 124 | 377 | 118.2 | 125 | 129 | 381 |
| | 575-3-60 | 16.7 | 122 | 16.7 | 122 | 1.0 | 11.5 | 2.7 | 3.5 | None | - | - | - | 58.5 | 70 | 62 | 307 | 62.0 | 70 | 66 | 311 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 58.5 | 70 | 62 | 307 | 62.0 | 70 | 66 | 311 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 78.6 | 80 | 72 | 307 | 83.0 | 90 | 76 | 311 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.2 | 100 | 99 | 307 | 94.6 | 100 | 103 | 311 |
| 28 (27.5) | 208-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 6.7 | 9.6 | None | - | - | - | 160.9 | 200 | 172 | 843 | 170.5 | 200 | 183 | 853 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 160.9 | 200 | 172 | 843 | 170.5 | 200 | 183 | 853 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 196.6 | 200 | 181 | 843 | 208.6 | 225 | 192 | 853 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 222.5 | 250 | 241 | 843 | 234.5 | 250 | 252 | 853 |
| | 230-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 6.7 | 8.7 | None | - | - | - | 160.9 | 200 | 172 | 843 | 169.6 | 200 | 182 | 852 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 160.9 | 200 | 172 | 843 | 169.6 | 200 | 182 | 852 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 210.3 | 225 | 193 | 843 | 221.1 | 225 | 203 | 852 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 239.2 | 250 | 260 | 843 | 250.0 | 250 | 270 | 852 |
| | 460-3-60 | 22.4 | 158 | 22.4 | 158 | 1.1 | 18.7 | 3.4 | 4.3 | None | - | - | - | 80.3 | 100 | 86 | 424 | 84.6 | 100 | 91 | 428 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 80.3 | 100 | 86 | 424 | 84.6 | 100 | 91 | 428 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 103.9 | 110 | 96 | 424 | 109.3 | 110 | 101 | 428 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 118.3 | 125 | 129 | 424 | 123.7 | 125 | 134 | 428 |
| | 575-3-60 | 18.6 | 136 | 18.6 | 136 | 0.9 | 14.2 | 2.7 | 3.5 | None | - | - | - | 65.1 | 80 | 69 | 357 | 68.6 | 80 | 73 | 361 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 65.1 | 80 | 69 | 357 | 68.6 | 80 | 73 | 361 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 82.0 | 90 | 75 | 357 | 86.4 | 90 | 79 | 361 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 93.6 | 100 | 102 | 357 | 98.0 | 110 | 106 | 361 |

## VFD 2 stage high static

### Table 17: KD15 to KD28 VFD 2 stage high static without power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b size (A) | Min Disconnect Rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 20.4 | 9.6 | None | - | - | - | 80.9 | 100 | 86 | 493 | 90.5 | 110 | 97 | 502 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 90.6 | 100 | 86 | 493 | 102.6 | 110 | 97 | 502 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 493 | 167.9 | 175 | 154 | 502 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 493 | 193.7 | 200 | 214 | 502 |
| | 230-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 20.4 | 8.7 | None | - | - | - | 80.9 | 100 | 86 | 492 | 89.6 | 110 | 96 | 501 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 97.6 | 100 | 90 | 492 | 108.5 | 110 | 100 | 501 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 492 | 180.4 | 200 | 166 | 501 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 492 | 209.3 | 225 | 232 | 501 |
| | 460-3-60 | 12.2 | 100 | 12.2 | 100 | 1.1 | 9.9 | 4.3 | None | - | - | - | 39.6 | 50 | 42 | 257 | 43.9 | 50 | 47 | 261 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 48.4 | 50 | 45 | 257 | 53.8 | 60 | 49 | 261 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 257 | 89.8 | 90 | 83 | 261 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 257 | 104.2 | 110 | 116 | 261 |
| | 575-3-60 | 9.3 | 72 | 9.3 | 72 | 0.9 | 7.7 | 3.5 | None | - | - | - | 30.4 | 35 | 32 | 188 | 33.9 | 40 | 36 | 192 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.4 | 40 | 35 | 188 | 42.8 | 45 | 39 | 192 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 188 | 71.5 | 80 | 66 | 192 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 188 | 83.1 | 90 | 92 | 192 |
| 18 (17.5) | 208-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 30.0 | 9.6 | None | - | - | - | 102.7 | 125 | 109 | 610 | 112.3 | 125 | 120 | 619 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 102.7 | 125 | 109 | 610 | 114.6 | 125 | 120 | 619 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.9 | 175 | 154 | 610 | 179.9 | 200 | 165 | 619 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.7 | 200 | 214 | 610 | 205.7 | 225 | 225 | 619 |
| | 230-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 30.0 | 8.7 | None | - | - | - | 102.7 | 125 | 109 | 610 | 111.4 | 125 | 119 | 618 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 109.6 | 125 | 109 | 610 | 120.5 | 125 | 119 | 618 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.5 | 200 | 167 | 610 | 192.4 | 200 | 177 | 618 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.4 | 225 | 233 | 610 | 221.3 | 225 | 243 | 618 |
| | 460-3-60 | 14.1 | 98 | 16.0 | 142 | 1.1 | 14.3 | 4.3 | None | - | - | - | 50.6 | 60 | 54 | 310 | 54.9 | 70 | 59 | 315 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 54 | 310 | 59.3 | 70 | 59 | 315 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 310 | 95.3 | 100 | 88 | 315 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 310 | 109.7 | 110 | 121 | 315 |
| | 575-3-60 | 11.5 | 84 | 14.1 | 103 | 0.9 | 11.5 | 3.5 | None | - | - | - | 42.4 | 50 | 45 | 240 | 45.9 | 60 | 49 | 243 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 43.1 | 50 | 45 | 240 | 47.5 | 60 | 49 | 243 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.9 | 80 | 66 | 240 | 76.3 | 80 | 70 | 243 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 83.5 | 90 | 93 | 240 | 87.9 | 90 | 97 | 243 |
| 20 (20) | 208-3-60 | 32.7 | 267 | 39.1 | 267 | 2.0 | 30.0 | 9.6 | None | - | - | - | 119.6 | 150 | 126 | 681 | 129.2 | 150 | 137 | 691 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 119.6 | 150 | 126 | 681 | 129.2 | 150 | 137 | 691 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.9 | 175 | 154 | 681 | 179.9 | 200 | 165 | 691 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.7 | 200 | 214 | 681 | 205.7 | 225 | 225 | 691 |
| | 230-3-60 | 32.7 | 267 | 39.1 | 267 | 2.3 | 30.0 | 8.7 | None | - | - | - | 120.8 | 150 | 128 | 683 | 129.5 | 150 | 138 | 692 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 120.8 | 150 | 128 | 683 | 129.5 | 150 | 138 | 692 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.5 | 200 | 167 | 683 | 192.4 | 200 | 177 | 692 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.4 | 225 | 233 | 683 | 221.3 | 225 | 243 | 692 |
| | 460-3-60 | 16.0 | 142 | 18.6 | 142 | 1.3 | 14.3 | 4.3 | None | - | - | - | 58.8 | 70 | 62 | 360 | 63.1 | 80 | 67 | 365 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 58.8 | 70 | 62 | 360 | 63.1 | 80 | 67 | 365 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 360 | 95.3 | 100 | 88 | 365 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 360 | 109.7 | 110 | 121 | 365 |
| | 575-3-60 | 14.1 | 103 | 15.4 | 103 | 1.0 | 11.5 | 3.5 | None | - | - | - | 48.9 | 60 | 52 | 264 | 52.4 | 60 | 56 | 268 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 48.9 | 60 | 52 | 264 | 52.4 | 60 | 56 | 268 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.9 | 80 | 66 | 264 | 76.3 | 80 | 70 | 268 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 83.5 | 90 | 93 | 264 | 87.9 | 90 | 97 | 268 |

## Table 17: KD15 to KD28 VFD 2 stage high static without power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b size (A) | Min Disconnect Rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 41.0 | 304 | 41.0 | 304 | 2.0 | 39.6 | 9.6 | None | - | - | - | 139.9 | 175 | 149 | 806 | 149.5 | 175 | 160 | 815 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 139.9 | 175 | 149 | 806 | 149.5 | 175 | 160 | 815 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 179.9 | 200 | 165 | 806 | 191.9 | 200 | 177 | 815 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 205.7 | 225 | 225 | 806 | 217.7 | 250 | 236 | 815 |
| | 230-3-60 | 41.0 | 304 | 41.0 | 304 | 2.3 | 39.6 | 8.7 | None | - | - | - | 141.1 | 175 | 150 | 808 | 149.8 | 175 | 160 | 816 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 141.1 | 175 | 150 | 808 | 149.8 | 175 | 160 | 816 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 193.5 | 200 | 178 | 808 | 204.4 | 225 | 188 | 816 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.4 | 250 | 244 | 808 | 233.3 | 250 | 254 | 816 |
| | 460-3-60 | 19.2 | 147 | 19.2 | 147 | 1.3 | 18.7 | 4.3 | None | - | - | - | 67.1 | 80 | 72 | 396 | 71.4 | 90 | 77 | 400 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 67.1 | 80 | 72 | 396 | 71.4 | 90 | 77 | 400 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 396 | 100.8 | 110 | 93 | 400 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 125 | 121 | 396 | 115.2 | 125 | 126 | 400 |
| | 575-3-60 | 16.7 | 122 | 16.7 | 122 | 1.0 | 14.2 | 3.5 | None | - | - | - | 55.8 | 70 | 59 | 325 | 59.3 | 70 | 63 | 328 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 55.8 | 70 | 59 | 325 | 59.3 | 70 | 63 | 328 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.3 | 80 | 69 | 325 | 79.6 | 80 | 73 | 328 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 86.9 | 100 | 96 | 325 | 91.2 | 100 | 100 | 328 |
| 28 (27.5) | 208-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 9.6 | None | - | - | - | 147.5 | 175 | 157 | 890 | 157.1 | 200 | 168 | 900 |
| | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 147.5 | 175 | 157 | 890 | 157.1 | 200 | 168 | 900 |
| | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 179.9 | 200 | 165 | 890 | 191.9 | 200 | 177 | 900 |
| | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 205.7 | 225 | 225 | 890 | 217.7 | 250 | 236 | 900 |
| | 230-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 8.7 | None | - | - | - | 147.5 | 175 | 157 | 890 | 156.2 | 200 | 167 | 899 |
| | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 147.5 | 175 | 157 | 890 | 156.2 | 200 | 167 | 899 |
| | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 193.5 | 200 | 178 | 890 | 204.4 | 225 | 188 | 899 |
| | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.4 | 250 | 244 | 890 | 233.3 | 250 | 254 | 899 |
| | 460-3-60 | 22.4 | 158 | 22.4 | 158 | 1.1 | 18.7 | 4.3 | None | - | - | - | 73.5 | 90 | 78 | 447 | 77.8 | 100 | 83 | 452 |
| | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 73.5 | 90 | 78 | 447 | 77.8 | 100 | 83 | 452 |
| | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 447 | 100.8 | 110 | 93 | 452 |
| | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 125 | 121 | 447 | 115.2 | 125 | 126 | 452 |
| | 575-3-60 | 18.6 | 136 | 18.6 | 136 | 0.9 | 14.2 | 3.5 | None | - | - | - | 59.7 | 70 | 63 | 371 | 63.2 | 80 | 67 | 374 |
| | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 59.7 | 70 | 63 | 371 | 63.2 | 80 | 67 | 374 |
| | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.3 | 80 | 69 | 371 | 79.6 | 80 | 73 | 374 |
| | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 86.9 | 100 | 96 | 371 | 91.2 | 100 | 100 | 374 |



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## Table 18: KD15 to KD28 VFD 2 stage high static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 20.4 | 5.0 | 9.6 | None | - | - | - | 90.9 | 110 | 97 | 514 | 100.5 | 125 | 108 | 523 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 103.1 | 110 | 97 | 514 | 115.1 | 125 | 108 | 523 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 514 | 180.4 | 200 | 166 | 523 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 514 | 206.2 | 225 | 226 | 523 |
| | 230-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 20.4 | 5.0 | 8.7 | None | - | - | - | 90.9 | 110 | 97 | 513 | 99.6 | 110 | 107 | 522 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 110.1 | 125 | 101 | 513 | 121.0 | 125 | 111 | 522 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 513 | 192.9 | 200 | 177 | 522 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 513 | 221.8 | 225 | 244 | 522 |
| | 460-3-60 | 12.2 | 100 | 12.2 | 100 | 1.1 | 9.9 | 2.2 | 4.3 | None | - | - | - | 44.0 | 50 | 47 | 266 | 48.3 | 60 | 52 | 270 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 50 | 266 | 59.3 | 60 | 55 | 270 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 266 | 95.3 | 100 | 88 | 270 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 266 | 109.7 | 110 | 121 | 270 |
| | 575-3-60 | 9.3 | 72 | 9.3 | 72 | 0.9 | 7.7 | 1.5 | 3.5 | None | - | - | - | 33.4 | 40 | 36 | 194 | 36.9 | 45 | 40 | 198 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.1 | 45 | 39 | 194 | 46.5 | 50 | 43 | 198 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 194 | 75.3 | 80 | 69 | 198 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 194 | 86.9 | 90 | 96 | 198 |
| 18 (17.5) | 208-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 30.0 | 5.0 | 9.6 | None | - | - | - | 112.7 | 125 | 120 | 631 | 122.3 | 150 | 131 | 640 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 115.1 | 125 | 120 | 631 | 127.1 | 150 | 131 | 640 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 180.4 | 200 | 166 | 631 | 192.4 | 200 | 177 | 640 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 206.2 | 225 | 226 | 631 | 218.2 | 225 | 237 | 640 |
| | 230-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 30.0 | 5.0 | 8.7 | None | - | - | - | 112.7 | 125 | 120 | 631 | 121.4 | 150 | 130 | 639 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 122.1 | 125 | 120 | 631 | 133.0 | 150 | 130 | 639 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 194.0 | 200 | 178 | 631 | 204.9 | 225 | 188 | 639 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.9 | 250 | 245 | 631 | 233.8 | 250 | 255 | 639 |
| | 460-3-60 | 14.1 | 98 | 16.0 | 142 | 1.1 | 14.3 | 2.2 | 4.3 | None | - | - | - | 55.0 | 70 | 59 | 320 | 59.3 | 70 | 64 | 324 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 59.4 | 70 | 59 | 320 | 64.8 | 70 | 64 | 324 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 320 | 100.8 | 110 | 93 | 324 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 110 | 121 | 320 | 115.2 | 125 | 126 | 324 |
| | 575-3-60 | 11.5 | 84 | 14.1 | 103 | 0.9 | 11.5 | 1.5 | 3.5 | None | - | - | - | 45.4 | 50 | 48 | 246 | 48.9 | 60 | 52 | 250 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 46.9 | 50 | 48 | 246 | 51.3 | 60 | 52 | 250 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.6 | 80 | 70 | 246 | 80.0 | 90 | 74 | 250 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 87.2 | 90 | 96 | 246 | 91.6 | 100 | 100 | 250 |
| 20 (20) | 208-3-60 | 32.7 | 267 | 39.1 | 267 | 2.0 | 30.0 | 5.0 | 9.6 | None | - | - | - | 129.6 | 150 | 138 | 702 | 139.2 | 175 | 149 | 712 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 129.6 | 150 | 138 | 702 | 139.2 | 175 | 149 | 712 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 180.4 | 200 | 166 | 702 | 192.4 | 200 | 177 | 712 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 206.2 | 225 | 226 | 702 | 218.2 | 225 | 237 | 712 |
| | 230-3-60 | 32.7 | 267 | 39.1 | 267 | 2.3 | 30.0 | 5.0 | 8.7 | None | - | - | - | 130.8 | 150 | 139 | 704 | 139.5 | 175 | 149 | 713 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 130.8 | 150 | 139 | 704 | 139.5 | 175 | 149 | 713 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 194.0 | 200 | 178 | 704 | 204.9 | 225 | 188 | 713 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.9 | 250 | 245 | 704 | 233.8 | 250 | 255 | 713 |
| | 460-3-60 | 16.0 | 142 | 18.6 | 142 | 1.3 | 14.3 | 2.2 | 4.3 | None | - | - | - | 63.2 | 80 | 67 | 370 | 67.5 | 80 | 72 | 374 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 63.2 | 80 | 67 | 370 | 67.5 | 80 | 72 | 374 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 370 | 100.8 | 110 | 93 | 374 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 110 | 121 | 370 | 115.2 | 125 | 126 | 374 |
| | 575-3-60 | 14.1 | 103 | 15.4 | 103 | 1.0 | 11.5 | 1.5 | 3.5 | None | - | - | - | 51.9 | 60 | 55 | 270 | 55.4 | 70 | 59 | 274 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 51.9 | 60 | 55 | 270 | 55.4 | 70 | 59 | 274 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.6 | 80 | 70 | 270 | 80.0 | 90 | 74 | 274 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 87.2 | 90 | 96 | 270 | 91.6 | 100 | 100 | 274 |

## Table 18: KD15 to KD28 VFD 2 stage high static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 41.0 | 304 | 41.0 | 304 | 2.0 | 39.6 | 5.0 | 9.6 | None | - | - | - | 149.9 | 175 | 161 | 827 | 159.5 | 200 | 172 | 836 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 149.9 | 175 | 161 | 827 | 159.5 | 200 | 172 | 836 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 192.4 | 200 | 177 | 827 | 204.4 | 225 | 188 | 836 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 218.2 | 250 | 237 | 827 | 230.2 | 250 | 248 | 836 |
| | 230-3-60 | 41.0 | 304 | 41.0 | 304 | 2.3 | 39.6 | 5.0 | 8.7 | None | - | - | - | 151.1 | 175 | 162 | 829 | 159.8 | 200 | 172 | 837 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 151.1 | 175 | 162 | 829 | 159.8 | 200 | 172 | 837 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 206.0 | 225 | 190 | 829 | 216.9 | 225 | 200 | 837 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 234.9 | 250 | 256 | 829 | 245.8 | 250 | 266 | 837 |
| | 460-3-60 | 19.2 | 147 | 19.2 | 147 | 1.3 | 18.7 | 2.2 | 4.3 | None | - | - | - | 71.5 | 90 | 77 | 405 | 75.8 | 90 | 82 | 409 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 71.5 | 90 | 77 | 405 | 75.8 | 90 | 82 | 409 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 100.9 | 110 | 93 | 405 | 106.3 | 110 | 98 | 409 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 115.3 | 125 | 126 | 405 | 120.7 | 125 | 131 | 409 |
| | 575-3-60 | 16.7 | 122 | 16.7 | 122 | 1.0 | 14.2 | 1.5 | 3.5 | None | - | - | - | 58.8 | 70 | 63 | 331 | 62.3 | 70 | 67 | 335 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 58.8 | 70 | 63 | 331 | 62.3 | 70 | 67 | 335 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 79.0 | 80 | 73 | 331 | 83.4 | 90 | 77 | 335 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.6 | 100 | 99 | 331 | 95.0 | 100 | 103 | 335 |
| 28 (27.5) | 208-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 5.0 | 9.6 | None | - | - | - | 157.5 | 200 | 168 | 911 | 167.1 | 200 | 179 | 921 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 157.5 | 200 | 168 | 911 | 167.1 | 200 | 179 | 921 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 192.4 | 200 | 177 | 911 | 204.4 | 225 | 188 | 921 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 218.2 | 250 | 237 | 911 | 230.2 | 250 | 248 | 921 |
| | 230-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 5.0 | 8.7 | None | - | - | - | 157.5 | 200 | 168 | 911 | 166.2 | 200 | 178 | 920 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 157.5 | 200 | 168 | 911 | 166.2 | 200 | 178 | 920 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 206.0 | 225 | 190 | 911 | 216.9 | 225 | 200 | 920 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 234.9 | 250 | 256 | 911 | 245.8 | 250 | 266 | 920 |
| | 460-3-60 | 22.4 | 158 | 22.4 | 158 | 1.1 | 18.7 | 2.2 | 4.3 | None | - | - | - | 77.9 | 100 | 83 | 456 | 82.2 | 100 | 88 | 461 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 77.9 | 100 | 83 | 456 | 82.2 | 100 | 88 | 461 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 100.9 | 110 | 93 | 456 | 106.3 | 110 | 98 | 461 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 115.3 | 125 | 126 | 456 | 120.7 | 125 | 131 | 461 |
| | 575-3-60 | 18.6 | 136 | 18.6 | 136 | 0.9 | 14.2 | 1.5 | 3.5 | None | - | - | - | 62.7 | 80 | 67 | 377 | 66.2 | 80 | 71 | 381 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 62.7 | 80 | 67 | 377 | 66.2 | 80 | 71 | 381 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 79.0 | 80 | 73 | 377 | 83.4 | 90 | 77 | 381 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.6 | 100 | 99 | 377 | 95.0 | 100 | 103 | 381 |

## Table 19: KD15 to KD28 VFD 2 stage high static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 20.4 | 6.7 | 9.6 | None | - | - | - | 94.3 | 110 | 101 | 506 | 103.9 | 125 | 112 | 516 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 107.4 | 110 | 101 | 506 | 119.4 | 125 | 112 | 516 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 506 | 184.6 | 200 | 170 | 516 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 506 | 210.5 | 225 | 230 | 516 |
| | 230-3-60 | 25.0 | 190 | 25.0 | 190 | 2.1 | 20.4 | 6.7 | 8.7 | None | - | - | - | 94.3 | 110 | 101 | 505 | 103.0 | 125 | 111 | 514 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 114.4 | 125 | 105 | 505 | 125.3 | 150 | 115 | 514 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 505 | 197.1 | 200 | 181 | 514 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 505 | 226.0 | 250 | 248 | 514 |
| | 460-3-60 | 12.2 | 100 | 12.2 | 100 | 1.1 | 9.9 | 3.4 | 4.3 | None | - | - | - | 46.4 | 50 | 50 | 263 | 50.7 | 60 | 55 | 268 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.9 | 60 | 52 | 263 | 62.3 | 70 | 57 | 268 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 263 | 98.3 | 100 | 90 | 268 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 263 | 112.7 | 125 | 124 | 268 |
| | 575-3-60 | 9.3 | 72 | 9.3 | 72 | 0.9 | 7.7 | 2.7 | 3.5 | None | - | - | - | 35.8 | 45 | 39 | 193 | 39.3 | 45 | 43 | 197 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.1 | 50 | 42 | 193 | 49.5 | 50 | 46 | 197 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 193 | 78.3 | 80 | 72 | 197 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 193 | 89.9 | 90 | 99 | 197 |
| 18 (17.5) | 208-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 30.0 | 6.7 | 9.6 | None | - | - | - | 116.1 | 125 | 124 | 623 | 125.7 | 150 | 135 | 633 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 119.4 | 125 | 124 | 623 | 131.4 | 150 | 135 | 633 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 184.6 | 200 | 170 | 623 | 196.6 | 200 | 181 | 633 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 210.5 | 225 | 230 | 623 | 222.5 | 225 | 241 | 633 |
| | 230-3-60 | 27.6 | 203 | 32.7 | 267 | 2.1 | 30.0 | 6.7 | 8.7 | None | - | - | - | 116.1 | 125 | 124 | 623 | 124.8 | 150 | 134 | 632 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 126.4 | 150 | 124 | 623 | 137.3 | 150 | 134 | 632 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 198.3 | 200 | 182 | 623 | 209.1 | 225 | 192 | 632 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 227.2 | 250 | 249 | 623 | 238.0 | 250 | 259 | 632 |
| | 460-3-60 | 14.1 | 98 | 16.0 | 142 | 1.1 | 14.3 | 3.4 | 4.3 | None | - | - | - | 57.4 | 70 | 61 | 317 | 61.7 | 70 | 66 | 321 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 62.4 | 70 | 61 | 317 | 67.8 | 70 | 66 | 321 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 98.4 | 100 | 91 | 317 | 103.8 | 110 | 95 | 321 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 112.8 | 125 | 124 | 317 | 118.2 | 125 | 129 | 321 |
| | 575-3-60 | 11.5 | 84 | 14.1 | 103 | 0.9 | 11.5 | 2.7 | 3.5 | None | - | - | - | 47.8 | 60 | 51 | 245 | 51.3 | 60 | 55 | 249 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 49.9 | 60 | 51 | 245 | 54.3 | 60 | 55 | 249 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 78.6 | 80 | 72 | 245 | 83.0 | 90 | 76 | 249 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.2 | 100 | 99 | 245 | 94.6 | 100 | 103 | 249 |
| 20 (20) | 208-3-60 | 32.7 | 267 | 39.1 | 267 | 2.0 | 30.0 | 6.7 | 9.6 | None | - | - | - | 133.0 | 150 | 142 | 695 | 142.6 | 175 | 153 | 704 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 133.0 | 150 | 142 | 695 | 142.6 | 175 | 153 | 704 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 184.6 | 200 | 170 | 695 | 196.6 | 200 | 181 | 704 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 210.5 | 225 | 230 | 695 | 222.5 | 225 | 241 | 704 |
| | 230-3-60 | 32.7 | 267 | 39.1 | 267 | 2.3 | 30.0 | 6.7 | 8.7 | None | - | - | - | 134.2 | 150 | 143 | 697 | 142.9 | 175 | 153 | 705 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 134.2 | 150 | 143 | 697 | 142.9 | 175 | 153 | 705 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 198.3 | 200 | 182 | 697 | 209.1 | 225 | 192 | 705 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 227.2 | 250 | 249 | 697 | 238.0 | 250 | 259 | 705 |
| | 460-3-60 | 16.0 | 142 | 18.6 | 142 | 1.3 | 14.3 | 3.4 | 4.3 | None | - | - | - | 65.6 | 80 | 70 | 367 | 69.9 | 80 | 75 | 371 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 65.6 | 80 | 70 | 367 | 69.9 | 80 | 75 | 371 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 98.4 | 100 | 91 | 367 | 103.8 | 110 | 95 | 371 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 112.8 | 125 | 124 | 367 | 118.2 | 125 | 129 | 371 |
| | 575-3-60 | 14.1 | 103 | 15.4 | 103 | 1.0 | 11.5 | 2.7 | 3.5 | None | - | - | - | 54.3 | 60 | 58 | 269 | 57.8 | 70 | 62 | 273 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 54.3 | 60 | 58 | 269 | 57.8 | 70 | 62 | 273 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 78.6 | 80 | 72 | 269 | 83.0 | 90 | 76 | 273 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.2 | 100 | 99 | 269 | 94.6 | 100 | 103 | 273 |

## Table 19: KD15 to KD28 VFD 2 stage high static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 41.0 | 304 | 41.0 | 304 | 2.0 | 39.6 | 6.7 | 9.6 | None | - | - | - | 153.3 | 175 | 164 | 819 | 162.9 | 200 | 175 | 829 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 153.3 | 175 | 164 | 819 | 162.9 | 200 | 175 | 829 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 196.6 | 200 | 181 | 819 | 208.6 | 225 | 192 | 829 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 222.5 | 250 | 241 | 819 | 234.5 | 250 | 252 | 829 |
| | 230-3-60 | 41.0 | 304 | 41.0 | 304 | 2.3 | 39.6 | 6.7 | 8.7 | None | - | - | - | 154.5 | 175 | 166 | 821 | 163.2 | 200 | 176 | 830 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 154.5 | 175 | 166 | 821 | 163.2 | 200 | 176 | 830 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 210.3 | 225 | 193 | 821 | 221.1 | 225 | 203 | 830 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 239.2 | 250 | 260 | 821 | 250.0 | 250 | 270 | 830 |
| | 460-3-60 | 19.2 | 147 | 19.2 | 147 | 1.3 | 18.7 | 3.4 | 4.3 | None | - | - | - | 73.9 | 90 | 79 | 402 | 78.2 | 90 | 84 | 407 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 73.9 | 90 | 79 | 402 | 78.2 | 90 | 84 | 407 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 103.9 | 110 | 96 | 402 | 109.3 | 110 | 101 | 407 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 118.3 | 125 | 129 | 402 | 123.7 | 125 | 134 | 407 |
| | 575-3-60 | 16.7 | 122 | 16.7 | 122 | 1.0 | 14.2 | 2.7 | 3.5 | None | - | - | - | 61.2 | 70 | 66 | 330 | 64.7 | 80 | 70 | 334 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 61.2 | 70 | 66 | 330 | 64.7 | 80 | 70 | 334 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 82.0 | 90 | 75 | 330 | 86.4 | 90 | 79 | 334 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 93.6 | 100 | 102 | 330 | 98.0 | 110 | 106 | 334 |
| 28 (27.5) | 208-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 6.7 | 9.6 | None | - | - | - | 160.9 | 200 | 172 | 903 | 170.5 | 200 | 183 | 913 |
| | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 160.9 | 200 | 172 | 903 | 170.5 | 200 | 183 | 913 |
| | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 196.6 | 200 | 181 | 903 | 208.6 | 225 | 192 | 913 |
| | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 222.5 | 250 | 241 | 903 | 234.5 | 250 | 252 | 913 |
| | 230-3-60 | 44.2 | 315 | 44.2 | 315 | 2.1 | 39.6 | 6.7 | 8.7 | None | - | - | - | 160.9 | 200 | 172 | 903 | 169.6 | 200 | 182 | 912 |
| | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 160.9 | 200 | 172 | 903 | 169.6 | 200 | 182 | 912 |
| | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 210.3 | 225 | 193 | 903 | 221.1 | 225 | 203 | 912 |
| | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 239.2 | 250 | 260 | 903 | 250.0 | 250 | 270 | 912 |
| | 460-3-60 | 22.4 | 158 | 22.4 | 158 | 1.1 | 18.7 | 3.4 | 4.3 | None | - | - | - | 80.3 | 100 | 86 | 454 | 84.6 | 100 | 91 | 458 |
| | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 80.3 | 100 | 86 | 454 | 84.6 | 100 | 91 | 458 |
| | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 103.9 | 110 | 96 | 454 | 109.3 | 110 | 101 | 458 |
| | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 118.3 | 125 | 129 | 454 | 123.7 | 125 | 134 | 458 |
| | 575-3-60 | 18.6 | 136 | 18.6 | 136 | 0.9 | 14.2 | 2.7 | 3.5 | None | - | - | - | 65.1 | 80 | 69 | 376 | 68.6 | 80 | 73 | 380 |
| | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 65.1 | 80 | 69 | 376 | 68.6 | 80 | 73 | 380 |
| | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 82.0 | 90 | 75 | 376 | 86.4 | 90 | 79 | 380 |
| | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 93.6 | 100 | 102 | 376 | 98.0 | 110 | 106 | 380 |

## VFD 4 stage standard static

### Table 20: KD15 to KD28 VFD 4 stage standard static without power exhaust

| Size ton | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors each FL | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size A | Min disconnect rating | | MCA w/ 120V trans | Max f/ b size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 9.6 | None | - | - | - | 78.3 | 100 | 82 | 429 | 87.9 | 110 | 93 | 439 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 81.6 | 100 | 82 | 429 | 93.6 | 110 | 93 | 439 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 146.9 | 150 | 135 | 429 | 158.9 | 175 | 146 | 439 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 172.7 | 200 | 195 | 429 | 184.7 | 200 | 206 | 439 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 8.7 | None | - | - | - | 78.3 | 100 | 82 | 437 | 87.0 | 110 | 92 | 445 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 88.6 | 100 | 82 | 437 | 99.5 | 110 | 92 | 445 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.5 | 175 | 148 | 437 | 171.4 | 175 | 158 | 445 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.4 | 225 | 214 | 437 | 200.3 | 225 | 224 | 445 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 6.1 | 4.3 | None | - | - | - | 33.7 | 45 | 35 | 238 | 38.0 | 45 | 40 | 243 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 43.6 | 45 | 40 | 238 | 49.0 | 50 | 45 | 243 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 79.6 | 80 | 73 | 238 | 85.0 | 90 | 78 | 243 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.0 | 110 | 106 | 238 | 99.4 | 110 | 111 | 243 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 4.9 | 3.5 | None | - | - | - | 27.2 | 35 | 29 | 173 | 30.7 | 35 | 33 | 177 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 34.9 | 35 | 32 | 173 | 39.3 | 40 | 36 | 177 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 63.6 | 70 | 59 | 173 | 68.0 | 70 | 63 | 177 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.2 | 90 | 85 | 173 | 79.6 | 90 | 89 | 177 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.2 | 9.6 | None | - | - | - | 79.8 | 100 | 84 | 528 | 89.4 | 110 | 95 | 538 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 81.6 | 100 | 84 | 528 | 93.6 | 110 | 95 | 538 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 146.9 | 150 | 135 | 528 | 158.9 | 175 | 146 | 538 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 172.7 | 200 | 195 | 528 | 184.7 | 200 | 206 | 538 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.2 | 8.7 | None | - | - | - | 79.8 | 100 | 84 | 536 | 88.5 | 110 | 94 | 545 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 88.6 | 100 | 84 | 536 | 99.5 | 110 | 94 | 545 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.5 | 175 | 148 | 536 | 171.4 | 175 | 158 | 545 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.4 | 225 | 214 | 536 | 200.3 | 225 | 224 | 545 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 6.1 | 4.3 | None | - | - | - | 37.7 | 50 | 39 | 269 | 42.0 | 50 | 44 | 273 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 43.6 | 50 | 40 | 269 | 49.0 | 50 | 45 | 273 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 79.6 | 80 | 73 | 269 | 85.0 | 90 | 78 | 273 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.0 | 110 | 106 | 269 | 99.4 | 110 | 111 | 273 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 4.9 | 3.5 | None | - | - | - | 29.5 | 40 | 31 | 203 | 33.0 | 40 | 35 | 206 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 34.9 | 40 | 32 | 203 | 39.3 | 40 | 36 | 206 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 63.6 | 70 | 59 | 203 | 68.0 | 70 | 63 | 206 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.2 | 90 | 85 | 203 | 79.6 | 90 | 89 | 206 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 20.4 | 9.6 | None | - | - | - | 96.5 | 125 | 101 | 630 | 106.1 | 125 | 112 | 640 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 96.5 | 125 | 101 | 630 | 106.1 | 125 | 112 | 640 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 630 | 167.9 | 175 | 154 | 640 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 630 | 193.7 | 200 | 214 | 640 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 20.4 | 8.7 | None | - | - | - | 97.7 | 125 | 103 | 632 | 106.4 | 125 | 113 | 640 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 97.7 | 125 | 103 | 632 | 108.5 | 125 | 113 | 640 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 632 | 180.4 | 200 | 166 | 640 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 632 | 209.3 | 225 | 232 | 640 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 9.9 | 4.3 | None | - | - | - | 48.4 | 60 | 51 | 326 | 52.7 | 60 | 56 | 330 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 48.4 | 60 | 51 | 326 | 53.8 | 60 | 56 | 330 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 326 | 89.8 | 90 | 83 | 330 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 326 | 104.2 | 110 | 116 | 330 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 7.7 | 3.5 | None | - | - | - | 39.3 | 50 | 42 | 251 | 42.8 | 50 | 46 | 254 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 39.3 | 50 | 42 | 251 | 42.8 | 50 | 46 | 254 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 251 | 71.5 | 80 | 66 | 254 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 251 | 83.1 | 90 | 92 | 254 |

## Table 20: KD15 to KD28 VFD 4 stage standard static without power exhaust

| Size ton | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors each FL | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size A | Min disconnect rating | | MCA w/ 120V trans | Max f/ b size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 20.4 | 9.6 | None | - | - | - | 124.5 | 150 | 131 | 757 | 134.1 | 175 | 142 | 766 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 124.5 | 150 | 131 | 757 | 134.1 | 175 | 142 | 766 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 757 | 167.9 | 175 | 154 | 766 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 757 | 193.7 | 200 | 214 | 766 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 20.4 | 8.7 | None | - | - | - | 125.7 | 150 | 133 | 758 | 134.4 | 175 | 143 | 767 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 125.7 | 150 | 133 | 758 | 134.4 | 175 | 143 | 767 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 758 | 180.4 | 200 | 166 | 767 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 758 | 209.3 | 225 | 232 | 767 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 9.9 | 4.3 | None | - | - | - | 56.7 | 70 | 60 | 359 | 61.0 | 80 | 65 | 363 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.7 | 70 | 60 | 359 | 61.0 | 80 | 65 | 363 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 359 | 89.8 | 90 | 83 | 363 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 359 | 104.2 | 110 | 116 | 363 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 7.7 | 3.5 | None | - | - | - | 47.0 | 60 | 49 | 279 | 50.5 | 60 | 53 | 283 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 47.0 | 60 | 49 | 279 | 50.5 | 60 | 53 | 283 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 279 | 71.5 | 80 | 66 | 283 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 279 | 83.1 | 90 | 92 | 283 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.0 | 9.6 | None | - | - | - | 142.5 | 175 | 151 | 865 | 152.1 | 175 | 162 | 874 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 142.5 | 175 | 151 | 865 | 152.1 | 175 | 162 | 874 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.9 | 175 | 154 | 865 | 179.9 | 200 | 165 | 874 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.7 | 200 | 214 | 865 | 205.7 | 225 | 225 | 874 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.0 | 8.7 | None | - | - | - | 142.5 | 175 | 151 | 865 | 151.2 | 175 | 161 | 873 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 142.5 | 175 | 151 | 865 | 151.2 | 175 | 161 | 873 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.5 | 200 | 167 | 865 | 192.4 | 200 | 177 | 873 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.4 | 225 | 233 | 865 | 221.3 | 225 | 243 | 873 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 14.3 | 4.3 | None | - | - | - | 70.5 | 90 | 75 | 440 | 74.8 | 90 | 80 | 444 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 70.5 | 90 | 75 | 440 | 74.8 | 90 | 80 | 444 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 440 | 95.3 | 100 | 88 | 444 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 440 | 109.7 | 110 | 121 | 444 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 11.5 | 3.5 | None | - | - | - | 57.2 | 70 | 60 | 349 | 60.7 | 70 | 64 | 352 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 57.2 | 70 | 60 | 349 | 60.7 | 70 | 64 | 352 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.9 | 80 | 66 | 349 | 76.3 | 80 | 70 | 352 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 83.5 | 90 | 93 | 349 | 87.9 | 90 | 97 | 352 |

## Table 21: KD15 to KD28 VFD 4 stage standard static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors each FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size A | Min Disconnect Rating | | MCA w/ 120V trans A | Max f/ b Size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 5.0 | 9.6 | None | - | - | - | 88.3 | 110 | 94 | 450 | 97.9 | 125 | 105 | 460 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 94.1 | 110 | 94 | 450 | 106.1 | 125 | 105 | 460 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.4 | 175 | 147 | 450 | 171.4 | 175 | 158 | 460 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.2 | 200 | 206 | 450 | 197.2 | 200 | 217 | 460 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 5.0 | 8.7 | None | - | - | - | 88.3 | 110 | 94 | 458 | 97.0 | 110 | 104 | 466 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.1 | 110 | 94 | 458 | 112.0 | 125 | 104 | 466 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.0 | 175 | 159 | 458 | 183.9 | 200 | 169 | 466 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 201.9 | 225 | 226 | 458 | 212.8 | 225 | 236 | 466 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 6.1 | 2.2 | 4.3 | None | - | - | - | 38.1 | 45 | 40 | 248 | 42.4 | 50 | 45 | 252 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.1 | 50 | 45 | 248 | 54.5 | 60 | 50 | 252 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.1 | 90 | 78 | 248 | 90.5 | 100 | 83 | 252 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 99.5 | 110 | 111 | 248 | 104.9 | 110 | 116 | 252 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 4.9 | 1.5 | 3.5 | None | - | - | - | 30.2 | 35 | 32 | 180 | 33.7 | 40 | 36 | 183 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.6 | 40 | 36 | 180 | 43.0 | 45 | 40 | 183 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 180 | 71.8 | 80 | 66 | 183 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 180 | 83.4 | 90 | 93 | 183 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.2 | 5.0 | 9.6 | None | - | - | - | 89.8 | 110 | 95 | 549 | 99.4 | 125 | 106 | 559 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 94.1 | 110 | 95 | 549 | 106.1 | 125 | 106 | 559 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.4 | 175 | 147 | 549 | 171.4 | 175 | 158 | 559 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.2 | 200 | 206 | 549 | 197.2 | 200 | 217 | 559 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.2 | 5.0 | 8.7 | None | - | - | - | 89.8 | 110 | 95 | 557 | 98.5 | 125 | 105 | 566 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.1 | 110 | 95 | 557 | 112.0 | 125 | 105 | 566 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.0 | 175 | 159 | 557 | 183.9 | 200 | 169 | 566 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 201.9 | 225 | 226 | 557 | 212.8 | 225 | 236 | 566 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 6.1 | 2.2 | 4.3 | None | - | - | - | 42.1 | 50 | 45 | 278 | 46.4 | 50 | 49 | 283 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.1 | 50 | 45 | 278 | 54.5 | 60 | 50 | 283 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.1 | 90 | 78 | 278 | 90.5 | 100 | 83 | 283 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 99.5 | 110 | 111 | 278 | 104.9 | 110 | 116 | 283 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 4.9 | 1.5 | 3.5 | None | - | - | - | 32.5 | 40 | 34 | 209 | 36.0 | 45 | 38 | 213 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.6 | 40 | 36 | 209 | 43.0 | 45 | 40 | 213 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 209 | 71.8 | 80 | 66 | 213 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 209 | 83.4 | 90 | 93 | 213 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 20.4 | 5.0 | 9.6 | None | - | - | - | 106.5 | 125 | 113 | 651 | 116.1 | 125 | 124 | 661 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 106.5 | 125 | 113 | 651 | 116.1 | 125 | 124 | 661 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 651 | 180.4 | 200 | 166 | 661 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 651 | 206.2 | 225 | 226 | 661 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 20.4 | 5.0 | 8.7 | None | - | - | - | 107.7 | 125 | 114 | 653 | 116.4 | 125 | 124 | 661 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 110.1 | 125 | 114 | 653 | 121.0 | 125 | 124 | 661 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 653 | 192.9 | 200 | 177 | 661 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 653 | 221.8 | 225 | 244 | 661 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 9.9 | 2.2 | 4.3 | None | - | - | - | 52.8 | 60 | 56 | 335 | 57.1 | 70 | 61 | 339 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 56 | 335 | 59.3 | 70 | 61 | 339 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 335 | 95.3 | 100 | 88 | 339 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 335 | 109.7 | 110 | 121 | 339 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 7.7 | 1.5 | 3.5 | None | - | - | - | 42.3 | 50 | 45 | 257 | 45.8 | 50 | 49 | 260 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.3 | 50 | 45 | 257 | 46.5 | 50 | 49 | 260 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 257 | 75.3 | 80 | 69 | 260 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 257 | 86.9 | 90 | 96 | 260 |

## Table 21: KD15 to KD28 VFD 4 stage standard static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors each FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size A | Min Disconnect Rating | | MCA w/ 120V trans A | Max f/ b Size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 20.4 | 5.0 | 9.6 | None | - | - | - | 134.5 | 175 | 143 | 778 | 144.1 | 175 | 154 | 787 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 134.5 | 175 | 143 | 778 | 144.1 | 175 | 154 | 787 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 778 | 180.4 | 200 | 166 | 787 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 778 | 206.2 | 225 | 226 | 787 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 20.4 | 5.0 | 8.7 | None | - | - | - | 135.7 | 175 | 144 | 779 | 144.4 | 175 | 154 | 788 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 135.7 | 175 | 144 | 779 | 144.4 | 175 | 154 | 788 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 779 | 192.9 | 200 | 177 | 788 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 779 | 221.8 | 225 | 244 | 788 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 9.9 | 2.2 | 4.3 | None | - | - | - | 61.1 | 80 | 65 | 368 | 65.4 | 80 | 70 | 372 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 61.1 | 80 | 65 | 368 | 65.4 | 80 | 70 | 372 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 368 | 95.3 | 100 | 88 | 372 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 368 | 109.7 | 110 | 121 | 372 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 7.7 | 1.5 | 3.5 | None | - | - | - | 50.0 | 60 | 53 | 286 | 53.5 | 70 | 57 | 289 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 50.0 | 60 | 53 | 286 | 53.5 | 70 | 57 | 289 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 286 | 75.3 | 80 | 69 | 289 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 286 | 86.9 | 90 | 96 | 289 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.0 | 5.0 | 9.6 | None | - | - | - | 152.5 | 175 | 163 | 886 | 162.1 | 200 | 174 | 895 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 152.5 | 175 | 163 | 886 | 162.1 | 200 | 174 | 895 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 180.4 | 200 | 166 | 886 | 192.4 | 200 | 177 | 895 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 206.2 | 225 | 226 | 886 | 218.2 | 225 | 237 | 895 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.0 | 5.0 | 8.7 | None | - | - | - | 152.5 | 175 | 163 | 886 | 161.2 | 200 | 173 | 894 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 152.5 | 175 | 163 | 886 | 161.2 | 200 | 173 | 894 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 194.0 | 200 | 178 | 886 | 204.9 | 225 | 188 | 894 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.9 | 250 | 245 | 886 | 233.8 | 250 | 255 | 894 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 14.3 | 2.2 | 4.3 | None | - | - | - | 74.9 | 90 | 80 | 449 | 79.2 | 100 | 85 | 453 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 74.9 | 90 | 80 | 449 | 79.2 | 100 | 85 | 453 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 449 | 100.8 | 110 | 93 | 453 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 110 | 121 | 449 | 115.2 | 125 | 126 | 453 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 11.5 | 1.5 | 3.5 | None | - | - | - | 60.2 | 70 | 64 | 355 | 63.7 | 80 | 68 | 359 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 60.2 | 70 | 64 | 355 | 63.7 | 80 | 68 | 359 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.6 | 80 | 70 | 355 | 80.0 | 80 | 74 | 359 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 87.2 | 90 | 96 | 355 | 91.6 | 100 | 100 | 359 |



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## Table 22: KD15 to KD28 VFD 4 stage standard static with modulating power exhaust

| Size, ton | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors each FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size A | Min Disconnect Rating | | MCA w/ 120V trans A | Max f/ b Size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 6.7 | 9.6 | None | - | - | - | 91.7 | 110 | 98 | 443 | 101.3 | 125 | 109 | 452 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 98.4 | 110 | 98 | 443 | 110.4 | 125 | 109 | 452 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 163.6 | 175 | 151 | 443 | 175.6 | 200 | 162 | 452 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.5 | 200 | 210 | 443 | 201.5 | 225 | 221 | 452 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 6.7 | 8.7 | None | - | - | - | 91.7 | 110 | 98 | 450 | 100.4 | 125 | 108 | 459 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.4 | 110 | 98 | 450 | 116.3 | 125 | 108 | 459 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.3 | 200 | 163 | 450 | 188.1 | 200 | 173 | 459 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.2 | 225 | 229 | 450 | 217.0 | 225 | 239 | 459 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 6.1 | 3.4 | 4.3 | None | - | - | - | 40.5 | 50 | 43 | 245 | 44.8 | 50 | 48 | 250 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.1 | 60 | 48 | 245 | 57.5 | 60 | 53 | 250 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.1 | 90 | 81 | 245 | 93.5 | 100 | 86 | 250 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 102.5 | 110 | 114 | 245 | 107.9 | 110 | 119 | 250 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 4.9 | 2.7 | 3.5 | None | - | - | - | 32.6 | 40 | 35 | 179 | 36.1 | 45 | 39 | 182 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 41.6 | 45 | 38 | 179 | 46.0 | 50 | 42 | 182 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.4 | 80 | 65 | 179 | 74.8 | 80 | 69 | 182 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.0 | 90 | 91 | 179 | 86.4 | 90 | 95 | 182 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.2 | 6.7 | 9.6 | None | - | - | - | 93.2 | 110 | 99 | 542 | 102.8 | 125 | 110 | 551 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 98.4 | 110 | 99 | 542 | 110.4 | 125 | 110 | 551 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 163.6 | 175 | 151 | 542 | 175.6 | 200 | 162 | 551 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.5 | 200 | 210 | 542 | 201.5 | 225 | 221 | 551 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.2 | 6.7 | 8.7 | None | - | - | - | 93.2 | 110 | 99 | 550 | 101.9 | 125 | 109 | 558 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.4 | 110 | 99 | 550 | 116.3 | 125 | 109 | 558 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.3 | 200 | 163 | 550 | 188.1 | 200 | 173 | 558 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.2 | 225 | 229 | 550 | 217.0 | 225 | 239 | 558 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 6.1 | 3.4 | 4.3 | None | - | - | - | 44.5 | 50 | 47 | 276 | 48.8 | 60 | 52 | 280 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.1 | 60 | 48 | 276 | 57.5 | 60 | 53 | 280 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.1 | 90 | 81 | 276 | 93.5 | 100 | 86 | 280 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 102.5 | 110 | 114 | 276 | 107.9 | 110 | 119 | 280 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 4.9 | 2.7 | 3.5 | None | - | - | - | 34.9 | 45 | 37 | 208 | 38.4 | 45 | 41 | 212 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 41.6 | 45 | 38 | 208 | 46.0 | 50 | 42 | 212 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.4 | 80 | 65 | 208 | 74.8 | 80 | 69 | 212 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.0 | 90 | 91 | 208 | 86.4 | 90 | 95 | 212 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 20.4 | 6.7 | 9.6 | None | - | - | - | 109.9 | 125 | 117 | 644 | 119.5 | 150 | 128 | 653 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 109.9 | 125 | 117 | 644 | 119.5 | 150 | 128 | 653 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 644 | 184.6 | 200 | 170 | 653 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 644 | 210.5 | 225 | 230 | 653 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 20.4 | 6.7 | 8.7 | None | - | - | - | 111.1 | 125 | 118 | 645 | 119.8 | 150 | 128 | 654 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 114.4 | 125 | 118 | 645 | 125.3 | 150 | 128 | 654 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 645 | 197.1 | 200 | 181 | 654 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 645 | 226.0 | 250 | 248 | 654 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 9.9 | 3.4 | 4.3 | None | - | - | - | 55.2 | 70 | 59 | 332 | 59.5 | 70 | 64 | 337 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.9 | 70 | 59 | 332 | 62.3 | 70 | 64 | 337 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 332 | 98.3 | 100 | 90 | 337 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 332 | 112.7 | 125 | 124 | 337 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 7.7 | 2.7 | 3.5 | None | - | - | - | 44.7 | 50 | 48 | 256 | 48.2 | 60 | 52 | 259 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.1 | 50 | 48 | 256 | 49.5 | 60 | 52 | 259 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 256 | 78.3 | 80 | 72 | 259 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 256 | 89.9 | 90 | 99 | 259 |

## Table 22: KD15 to KD28 VFD 4 stage standard static with modulating power exhaust

| Size, ton | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors each FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size A | Min Disconnect Rating | | MCA w/ 120V trans A | Max f/ b Size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 20.4 | 6.7 | 9.6 | None | - | - | - | 137.9 | 175 | 147 | 770 | 147.5 | 175 | 158 | 780 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 137.9 | 175 | 147 | 770 | 147.5 | 175 | 158 | 780 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 770 | 184.6 | 200 | 170 | 780 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 770 | 210.5 | 225 | 230 | 780 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 20.4 | 6.7 | 8.7 | None | - | - | - | 139.1 | 175 | 148 | 771 | 147.8 | 175 | 158 | 780 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 139.1 | 175 | 148 | 771 | 147.8 | 175 | 158 | 780 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 771 | 197.1 | 200 | 181 | 780 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 771 | 226.0 | 250 | 248 | 780 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 9.9 | 3.4 | 4.3 | None | - | - | - | 63.5 | 80 | 68 | 366 | 67.8 | 80 | 72 | 370 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 63.5 | 80 | 68 | 366 | 67.8 | 80 | 72 | 370 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 366 | 98.3 | 100 | 90 | 370 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 366 | 112.7 | 125 | 124 | 370 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 7.7 | 2.7 | 3.5 | None | - | - | - | 52.4 | 60 | 55 | 285 | 55.9 | 70 | 59 | 288 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 52.4 | 60 | 55 | 285 | 55.9 | 70 | 59 | 288 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 285 | 78.3 | 80 | 72 | 288 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 285 | 89.9 | 90 | 99 | 288 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.0 | 6.7 | 9.6 | None | - | - | - | 155.9 | 200 | 167 | 878 | 165.5 | 200 | 178 | 888 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 155.9 | 200 | 167 | 878 | 165.5 | 200 | 178 | 888 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 184.6 | 200 | 170 | 878 | 196.6 | 200 | 181 | 888 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 210.5 | 225 | 230 | 878 | 222.5 | 225 | 241 | 888 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.0 | 6.7 | 8.7 | None | - | - | - | 155.9 | 200 | 167 | 878 | 164.6 | 200 | 177 | 887 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 155.9 | 200 | 167 | 878 | 164.6 | 200 | 177 | 887 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 198.3 | 200 | 182 | 878 | 209.1 | 225 | 192 | 887 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 227.2 | 250 | 249 | 878 | 238.0 | 250 | 259 | 887 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 14.3 | 3.4 | 4.3 | None | - | - | - | 77.3 | 90 | 82 | 447 | 81.6 | 100 | 87 | 451 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 77.3 | 90 | 82 | 447 | 81.6 | 100 | 87 | 451 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 98.4 | 100 | 91 | 447 | 103.8 | 110 | 95 | 451 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 112.8 | 125 | 124 | 447 | 118.2 | 125 | 129 | 451 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 11.5 | 2.7 | 3.5 | None | - | - | - | 62.6 | 80 | 67 | 354 | 66.1 | 80 | 71 | 358 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 62.6 | 80 | 67 | 354 | 66.1 | 80 | 71 | 358 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 78.6 | 80 | 72 | 354 | 83.0 | 90 | 76 | 358 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.2 | 100 | 99 | 354 | 94.6 | 100 | 103 | 358 |



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## VFD 4 stage medium static

### Table 23: KD15 to KD28 VFD 4 stage medium static without power exhaust

| Size, ton | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors each FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size A | Min disconnect rating | | MCA w/ 120V trans | Max f/ b size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 9.6 | None | - | - | - | 78.3 | 100 | 82 | 440 | 87.9 | 110 | 93 | 450 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 81.6 | 100 | 82 | 440 | 93.6 | 110 | 93 | 450 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 146.9 | 150 | 135 | 440 | 158.9 | 175 | 146 | 450 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 172.7 | 200 | 195 | 440 | 184.7 | 200 | 206 | 450 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 8.7 | None | - | - | - | 78.3 | 100 | 82 | 448 | 87.0 | 110 | 92 | 457 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 88.6 | 100 | 82 | 448 | 99.5 | 110 | 92 | 457 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.5 | 175 | 148 | 448 | 171.4 | 175 | 158 | 457 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.4 | 225 | 214 | 448 | 200.3 | 225 | 224 | 457 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 6.1 | 4.3 | None | - | - | - | 33.7 | 45 | 35 | 244 | 38.0 | 45 | 40 | 249 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 43.6 | 45 | 40 | 244 | 49.0 | 50 | 45 | 249 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 79.6 | 80 | 73 | 244 | 85.0 | 90 | 78 | 249 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.0 | 110 | 106 | 244 | 99.4 | 110 | 111 | 249 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 4.9 | 3.5 | None | - | - | - | 27.2 | 35 | 29 | 187 | 30.7 | 35 | 33 | 191 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 34.9 | 35 | 32 | 187 | 39.3 | 40 | 36 | 191 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 63.6 | 70 | 59 | 187 | 68.0 | 70 | 63 | 191 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.2 | 90 | 85 | 187 | 79.6 | 90 | 89 | 191 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 20.4 | 9.6 | None | - | - | - | 87.0 | 110 | 92 | 559 | 96.6 | 125 | 103 | 568 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 90.6 | 110 | 92 | 559 | 102.6 | 125 | 103 | 568 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 559 | 167.9 | 175 | 154 | 568 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 559 | 193.7 | 200 | 214 | 568 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 20.4 | 8.7 | None | - | - | - | 87.0 | 110 | 92 | 558 | 95.7 | 110 | 102 | 566 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 97.6 | 110 | 92 | 558 | 108.5 | 110 | 102 | 566 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 558 | 180.4 | 200 | 166 | 566 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 558 | 209.3 | 225 | 232 | 566 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 9.9 | 4.3 | None | - | - | - | 41.5 | 50 | 44 | 280 | 45.8 | 50 | 49 | 284 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 48.4 | 50 | 45 | 280 | 53.8 | 60 | 49 | 284 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 280 | 89.8 | 90 | 83 | 284 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 280 | 104.2 | 110 | 116 | 284 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 7.7 | 3.5 | None | - | - | - | 32.3 | 40 | 34 | 203 | 35.8 | 45 | 38 | 206 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.4 | 40 | 35 | 203 | 42.8 | 45 | 39 | 206 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 203 | 71.5 | 80 | 66 | 206 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 203 | 83.1 | 90 | 92 | 206 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 20.4 | 9.6 | None | - | - | - | 96.5 | 125 | 101 | 630 | 106.1 | 125 | 112 | 640 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 96.5 | 125 | 101 | 630 | 106.1 | 125 | 112 | 640 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 630 | 167.9 | 175 | 154 | 640 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 630 | 193.7 | 200 | 214 | 640 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 20.4 | 8.7 | None | - | - | - | 97.7 | 125 | 103 | 632 | 106.4 | 125 | 113 | 640 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 97.7 | 125 | 103 | 632 | 108.5 | 125 | 113 | 640 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 632 | 180.4 | 200 | 166 | 640 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 632 | 209.3 | 225 | 232 | 640 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 9.9 | 4.3 | None | - | - | - | 48.4 | 60 | 51 | 326 | 52.7 | 60 | 56 | 330 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 48.4 | 60 | 51 | 326 | 53.8 | 60 | 56 | 330 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 326 | 89.8 | 90 | 83 | 330 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 326 | 104.2 | 110 | 116 | 330 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 7.7 | 3.5 | None | - | - | - | 39.3 | 50 | 42 | 251 | 42.8 | 50 | 46 | 254 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 39.3 | 50 | 42 | 251 | 42.8 | 50 | 46 | 254 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 251 | 71.5 | 80 | 66 | 254 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 251 | 83.1 | 90 | 92 | 254 |

## Table 23: KD15 to KD28 VFD 4 stage medium static without power exhaust

| Size, ton | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors each FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size A | Min disconnect rating | | MCA w/ 120V trans | Max f/ b size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 30.0 | 9.6 | None | - | - | - | 134.1 | 175 | 142 | 784 | 143.7 | 175 | 153 | 793 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 134.1 | 175 | 142 | 784 | 143.7 | 175 | 153 | 793 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.9 | 175 | 154 | 784 | 179.9 | 200 | 165 | 793 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.7 | 200 | 214 | 784 | 205.7 | 225 | 225 | 793 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 30.0 | 8.7 | None | - | - | - | 135.3 | 175 | 144 | 786 | 144.0 | 175 | 154 | 794 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 135.3 | 175 | 144 | 786 | 144.0 | 175 | 154 | 794 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.5 | 200 | 167 | 786 | 192.4 | 200 | 177 | 794 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.4 | 225 | 233 | 786 | 221.3 | 225 | 243 | 794 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 14.3 | 4.3 | None | - | - | - | 61.1 | 80 | 65 | 373 | 65.4 | 80 | 70 | 377 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 61.1 | 80 | 65 | 373 | 65.4 | 80 | 70 | 377 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 373 | 95.3 | 100 | 88 | 377 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 373 | 109.7 | 110 | 121 | 377 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 11.5 | 3.5 | None | - | - | - | 50.8 | 60 | 54 | 288 | 54.3 | 70 | 58 | 292 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 50.8 | 60 | 54 | 288 | 54.3 | 70 | 58 | 292 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.9 | 80 | 66 | 288 | 76.3 | 80 | 70 | 292 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 83.5 | 90 | 93 | 288 | 87.9 | 90 | 97 | 292 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 9.6 | None | - | - | - | 152.1 | 175 | 162 | 915 | 161.7 | 200 | 173 | 925 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 152.1 | 175 | 162 | 915 | 161.7 | 200 | 173 | 925 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 179.9 | 200 | 165 | 915 | 191.9 | 200 | 177 | 925 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 205.7 | 225 | 225 | 915 | 217.7 | 250 | 236 | 925 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 8.7 | None | - | - | - | 152.1 | 175 | 162 | 915 | 160.8 | 200 | 172 | 924 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 152.1 | 175 | 162 | 915 | 160.8 | 200 | 172 | 924 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 193.5 | 200 | 178 | 915 | 204.4 | 225 | 188 | 924 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.4 | 250 | 244 | 915 | 233.3 | 250 | 254 | 924 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 18.7 | 4.3 | None | - | - | - | 74.9 | 90 | 80 | 465 | 79.2 | 100 | 85 | 470 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 74.9 | 90 | 80 | 465 | 79.2 | 100 | 85 | 470 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 465 | 100.8 | 110 | 93 | 470 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 125 | 121 | 465 | 115.2 | 125 | 126 | 470 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 14.2 | 3.5 | None | - | - | - | 59.9 | 70 | 63 | 372 | 63.4 | 80 | 68 | 375 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 59.9 | 70 | 63 | 372 | 63.4 | 80 | 68 | 375 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.3 | 80 | 69 | 372 | 79.6 | 80 | 73 | 375 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 86.9 | 100 | 96 | 372 | 91.2 | 100 | 100 | 375 |



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## Table 24: KD15 to KD28 VFD 4 stage medium static with on/off power exhaust

| Size, ton | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors each FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size A | Min Disconnect Rating | | MCA w/ 120V trans A | Max f/ b Size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 5.0 | 9.6 | None | - | - | - | 88.3 | 110 | 94 | 461 | 97.9 | 125 | 105 | 471 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 94.1 | 110 | 94 | 461 | 106.1 | 125 | 105 | 471 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.4 | 175 | 147 | 461 | 171.4 | 175 | 158 | 471 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.2 | 200 | 206 | 461 | 197.2 | 200 | 217 | 471 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 5.0 | 8.7 | None | - | - | - | 88.3 | 110 | 94 | 469 | 97.0 | 110 | 104 | 478 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.1 | 110 | 94 | 469 | 112.0 | 125 | 104 | 478 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.0 | 175 | 159 | 469 | 183.9 | 200 | 169 | 478 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 201.9 | 225 | 226 | 469 | 212.8 | 225 | 236 | 478 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 6.1 | 2.2 | 4.3 | None | - | - | - | 38.1 | 45 | 40 | 253 | 42.4 | 50 | 45 | 258 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.1 | 50 | 45 | 253 | 54.5 | 60 | 50 | 258 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.1 | 90 | 78 | 253 | 90.5 | 100 | 83 | 258 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 99.5 | 110 | 111 | 253 | 104.9 | 110 | 116 | 258 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 4.9 | 1.5 | 3.5 | None | - | - | - | 30.2 | 35 | 32 | 193 | 33.7 | 40 | 36 | 197 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.6 | 40 | 36 | 193 | 43.0 | 45 | 40 | 197 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 193 | 71.8 | 80 | 66 | 197 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 193 | 83.4 | 90 | 93 | 197 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 20.4 | 5.0 | 9.6 | None | - | - | - | 97.0 | 125 | 103 | 580 | 106.6 | 125 | 114 | 589 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 103.1 | 125 | 103 | 580 | 115.1 | 125 | 114 | 589 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 580 | 180.4 | 200 | 166 | 589 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 580 | 206.2 | 225 | 226 | 589 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 20.4 | 5.0 | 8.7 | None | - | - | - | 97.0 | 125 | 103 | 579 | 105.7 | 125 | 113 | 587 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 110.1 | 125 | 103 | 579 | 121.0 | 125 | 113 | 587 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 579 | 192.9 | 200 | 177 | 587 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 579 | 221.8 | 225 | 244 | 587 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 9.9 | 2.2 | 4.3 | None | - | - | - | 45.9 | 50 | 49 | 289 | 50.2 | 60 | 54 | 293 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 50 | 289 | 59.3 | 60 | 55 | 293 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 289 | 95.3 | 100 | 88 | 293 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 289 | 109.7 | 110 | 121 | 293 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 7.7 | 1.5 | 3.5 | None | - | - | - | 35.3 | 45 | 37 | 209 | 38.8 | 45 | 42 | 213 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.1 | 45 | 39 | 209 | 46.5 | 50 | 43 | 213 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 209 | 75.3 | 80 | 69 | 213 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 209 | 86.9 | 90 | 96 | 213 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 20.4 | 5.0 | 9.6 | None | - | - | - | 106.5 | 125 | 113 | 651 | 116.1 | 125 | 124 | 661 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 106.5 | 125 | 113 | 651 | 116.1 | 125 | 124 | 661 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 651 | 180.4 | 200 | 166 | 661 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 651 | 206.2 | 225 | 226 | 661 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 20.4 | 5.0 | 8.7 | None | - | - | - | 107.7 | 125 | 114 | 653 | 116.4 | 125 | 124 | 661 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 110.1 | 125 | 114 | 653 | 121.0 | 125 | 124 | 661 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 653 | 192.9 | 200 | 177 | 661 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 653 | 221.8 | 225 | 244 | 661 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 9.9 | 2.2 | 4.3 | None | - | - | - | 52.8 | 60 | 56 | 335 | 57.1 | 70 | 61 | 339 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 56 | 335 | 59.3 | 70 | 61 | 339 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 335 | 95.3 | 100 | 88 | 339 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 335 | 109.7 | 110 | 121 | 339 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 7.7 | 1.5 | 3.5 | None | - | - | - | 42.3 | 50 | 45 | 257 | 45.8 | 50 | 49 | 260 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.3 | 50 | 45 | 257 | 46.5 | 50 | 49 | 260 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 257 | 75.3 | 80 | 69 | 260 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 257 | 86.9 | 90 | 96 | 260 |

## Table 24: KD15 to KD28 VFD 4 stage medium static with on/off power exhaust

| Size, ton | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors each FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size A | Min Disconnect Rating | | MCA w/ 120V trans A | Max f/ b Size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 30.0 | 5.0 | 9.6 | None | - | - | - | 144.1 | 175 | 154 | 805 | 153.7 | 175 | 165 | 814 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 144.1 | 175 | 154 | 805 | 153.7 | 175 | 165 | 814 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 180.4 | 200 | 166 | 805 | 192.4 | 200 | 177 | 814 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 206.2 | 225 | 226 | 805 | 218.2 | 225 | 237 | 814 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 30.0 | 5.0 | 8.7 | None | - | - | - | 145.3 | 175 | 155 | 807 | 154.0 | 175 | 165 | 815 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 145.3 | 175 | 155 | 807 | 154.0 | 175 | 165 | 815 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 194.0 | 200 | 178 | 807 | 204.9 | 225 | 188 | 815 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.9 | 250 | 245 | 807 | 233.8 | 250 | 255 | 815 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 14.3 | 2.2 | 4.3 | None | - | - | - | 65.5 | 80 | 70 | 382 | 69.8 | 80 | 75 | 386 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 65.5 | 80 | 70 | 382 | 69.8 | 80 | 75 | 386 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 382 | 100.8 | 110 | 93 | 386 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 110 | 121 | 382 | 115.2 | 125 | 126 | 386 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 11.5 | 1.5 | 3.5 | None | - | - | - | 53.8 | 70 | 57 | 294 | 57.3 | 70 | 61 | 298 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 53.8 | 70 | 57 | 294 | 57.3 | 70 | 61 | 298 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.6 | 80 | 70 | 294 | 80.0 | 90 | 74 | 298 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 87.2 | 90 | 96 | 294 | 91.6 | 100 | 100 | 298 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 5.0 | 9.6 | None | - | - | - | 162.1 | 200 | 174 | 936 | 171.7 | 200 | 185 | 946 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 162.1 | 200 | 174 | 936 | 171.7 | 200 | 185 | 946 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 192.4 | 200 | 177 | 936 | 204.4 | 225 | 188 | 946 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 218.2 | 250 | 237 | 936 | 230.2 | 250 | 248 | 946 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 5.0 | 8.7 | None | - | - | - | 162.1 | 200 | 174 | 936 | 170.8 | 200 | 184 | 945 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 162.1 | 200 | 174 | 936 | 170.8 | 200 | 184 | 945 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 206.0 | 225 | 190 | 936 | 216.9 | 225 | 200 | 945 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 234.9 | 250 | 256 | 936 | 245.8 | 250 | 266 | 945 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 18.7 | 2.2 | 4.3 | None | - | - | - | 79.3 | 100 | 85 | 474 | 83.6 | 100 | 90 | 479 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 79.3 | 100 | 85 | 474 | 83.6 | 100 | 90 | 479 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 100.9 | 110 | 93 | 474 | 106.3 | 110 | 98 | 479 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 115.3 | 125 | 126 | 474 | 120.7 | 125 | 131 | 479 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 14.2 | 1.5 | 3.5 | None | - | - | - | 62.9 | 80 | 67 | 378 | 66.4 | 80 | 71 | 382 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 62.9 | 80 | 67 | 378 | 66.4 | 80 | 71 | 382 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 79.0 | 80 | 73 | 378 | 83.4 | 90 | 77 | 382 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.6 | 100 | 99 | 378 | 95.0 | 100 | 103 | 382 |



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## Table 25: KD15 to KD28 VFD 4 stage medium static with modulating power exhaust

| Size, ton | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors each FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size A | Min Disconnect Rating | | MCA w/ 120V trans A | Max f/ b Size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 6.7 | 9.6 | None | - | - | - | 91.7 | 110 | 98 | 453 | 101.3 | 125 | 109 | 463 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 98.4 | 110 | 98 | 453 | 110.4 | 125 | 109 | 463 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 163.6 | 175 | 151 | 453 | 175.6 | 200 | 162 | 463 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.5 | 200 | 210 | 453 | 201.5 | 225 | 221 | 463 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.2 | 6.7 | 8.7 | None | - | - | - | 91.7 | 110 | 98 | 462 | 100.4 | 125 | 108 | 470 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.4 | 110 | 98 | 462 | 116.3 | 125 | 108 | 470 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.3 | 200 | 163 | 462 | 188.1 | 200 | 173 | 470 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.2 | 225 | 229 | 462 | 217.0 | 225 | 239 | 470 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 6.1 | 3.4 | 4.3 | None | - | - | - | 40.5 | 50 | 43 | 251 | 44.8 | 50 | 48 | 255 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.1 | 60 | 48 | 251 | 57.5 | 60 | 53 | 255 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.1 | 90 | 81 | 251 | 93.5 | 100 | 86 | 255 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 102.5 | 110 | 114 | 251 | 107.9 | 110 | 119 | 255 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 4.9 | 2.7 | 3.5 | None | - | - | - | 32.6 | 40 | 35 | 192 | 36.1 | 45 | 39 | 196 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 41.6 | 45 | 38 | 192 | 46.0 | 50 | 42 | 196 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.4 | 80 | 65 | 192 | 74.8 | 80 | 69 | 196 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.0 | 90 | 91 | 192 | 86.4 | 90 | 95 | 196 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 20.4 | 6.7 | 9.6 | None | - | - | - | 100.4 | 125 | 107 | 572 | 110.0 | 125 | 118 | 582 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 107.4 | 125 | 107 | 572 | 119.4 | 125 | 118 | 582 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 572 | 184.6 | 200 | 170 | 582 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 572 | 210.5 | 225 | 230 | 582 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 20.4 | 6.7 | 8.7 | None | - | - | - | 100.4 | 125 | 107 | 571 | 109.1 | 125 | 117 | 580 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 114.4 | 125 | 107 | 571 | 125.3 | 150 | 117 | 580 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 571 | 197.1 | 200 | 181 | 580 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 571 | 226.0 | 250 | 248 | 580 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 9.9 | 3.4 | 4.3 | None | - | - | - | 48.3 | 60 | 52 | 287 | 52.6 | 60 | 57 | 291 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.9 | 60 | 52 | 287 | 62.3 | 70 | 57 | 291 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 287 | 98.3 | 100 | 90 | 291 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 287 | 112.7 | 125 | 124 | 291 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 7.7 | 2.7 | 3.5 | None | - | - | - | 37.7 | 45 | 40 | 208 | 41.2 | 50 | 44 | 212 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.1 | 50 | 42 | 208 | 49.5 | 50 | 46 | 212 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 208 | 78.3 | 80 | 72 | 212 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 208 | 89.9 | 90 | 99 | 212 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 20.4 | 6.7 | 9.6 | None | - | - | - | 109.9 | 125 | 117 | 644 | 119.5 | 150 | 128 | 653 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 109.9 | 125 | 117 | 644 | 119.5 | 150 | 128 | 653 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 644 | 184.6 | 200 | 170 | 653 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 644 | 210.5 | 225 | 230 | 653 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 20.4 | 6.7 | 8.7 | None | - | - | - | 111.1 | 125 | 118 | 645 | 119.8 | 150 | 128 | 654 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 114.4 | 125 | 118 | 645 | 125.3 | 150 | 128 | 654 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 645 | 197.1 | 200 | 181 | 654 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 645 | 226.0 | 250 | 248 | 654 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 9.9 | 3.4 | 4.3 | None | - | - | - | 55.2 | 70 | 59 | 332 | 59.5 | 70 | 64 | 337 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.9 | 70 | 59 | 332 | 62.3 | 70 | 64 | 337 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 332 | 98.3 | 100 | 90 | 337 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 332 | 112.7 | 125 | 124 | 337 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 7.7 | 2.7 | 3.5 | None | - | - | - | 44.7 | 50 | 48 | 256 | 48.2 | 60 | 52 | 259 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.1 | 50 | 48 | 256 | 49.5 | 60 | 52 | 259 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 256 | 78.3 | 80 | 72 | 259 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 256 | 89.9 | 90 | 99 | 259 |

## Table 25: KD15 to KD28 VFD 4 stage medium static with modulating power exhaust

| Size, ton | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors each FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size A | Min Disconnect Rating | | MCA w/ 120V trans A | Max f/ b Size w/ 120V trans A | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 30.0 | 6.7 | 9.6 | None | - | - | - | 147.5 | 175 | 158 | 797 | 157.1 | 175 | 169 | 807 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 147.5 | 175 | 158 | 797 | 157.1 | 175 | 169 | 807 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 184.6 | 200 | 170 | 797 | 196.6 | 200 | 181 | 807 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 210.5 | 225 | 230 | 797 | 222.5 | 225 | 241 | 807 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 30.0 | 6.7 | 8.7 | None | - | - | - | 148.7 | 175 | 159 | 799 | 157.4 | 175 | 169 | 808 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 148.7 | 175 | 159 | 799 | 157.4 | 175 | 169 | 808 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 198.3 | 200 | 182 | 799 | 209.1 | 225 | 192 | 808 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 227.2 | 250 | 249 | 799 | 238.0 | 250 | 259 | 808 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 14.3 | 3.4 | 4.3 | None | - | - | - | 67.9 | 80 | 73 | 379 | 72.2 | 90 | 78 | 384 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 67.9 | 80 | 73 | 379 | 72.2 | 90 | 78 | 384 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 98.4 | 100 | 91 | 379 | 103.8 | 110 | 95 | 384 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 112.8 | 125 | 124 | 379 | 118.2 | 125 | 129 | 384 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 11.5 | 2.7 | 3.5 | None | - | - | - | 56.2 | 70 | 60 | 293 | 59.7 | 70 | 64 | 297 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 56.2 | 70 | 60 | 293 | 59.7 | 70 | 64 | 297 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 78.6 | 80 | 72 | 293 | 83.0 | 90 | 76 | 297 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.2 | 100 | 99 | 293 | 94.6 | 100 | 103 | 297 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 6.7 | 9.6 | None | - | - | - | 165.5 | 200 | 178 | 928 | 175.1 | 200 | 189 | 938 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 165.5 | 200 | 178 | 928 | 175.1 | 200 | 189 | 938 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 196.6 | 200 | 181 | 928 | 208.6 | 225 | 192 | 938 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 222.5 | 250 | 241 | 928 | 234.5 | 250 | 252 | 938 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 6.7 | 8.7 | None | - | - | - | 165.5 | 200 | 178 | 928 | 174.2 | 200 | 188 | 937 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 165.5 | 200 | 178 | 928 | 174.2 | 200 | 188 | 937 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 210.3 | 225 | 193 | 928 | 221.1 | 225 | 203 | 937 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 239.2 | 250 | 260 | 928 | 250.0 | 250 | 270 | 937 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 18.7 | 3.4 | 4.3 | None | - | - | - | 81.7 | 100 | 88 | 472 | 86.0 | 100 | 92 | 476 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 81.7 | 100 | 88 | 472 | 86.0 | 100 | 92 | 476 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 103.9 | 110 | 96 | 472 | 109.3 | 110 | 101 | 476 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 118.3 | 125 | 129 | 472 | 123.7 | 125 | 134 | 476 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 14.2 | 2.7 | 3.5 | None | - | - | - | 65.3 | 80 | 70 | 377 | 68.8 | 80 | 74 | 381 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 65.3 | 80 | 70 | 377 | 68.8 | 80 | 74 | 381 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 82.0 | 90 | 75 | 377 | 86.4 | 90 | 79 | 381 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 93.6 | 100 | 102 | 377 | 98.0 | 110 | 106 | 381 |

## VFD 4 stage high static

### Table 26: KD15 to KD28 VFD 4 stage high static without power exhaust

| Size (ton) | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors (each) FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size (A) | Min disconnect rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 20.4 | 9.6 | None | - | - | - | 85.5 | 110 | 90 | 470 | 95.1 | 110 | 101 | 480 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 90.6 | 110 | 90 | 470 | 102.6 | 110 | 101 | 480 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.9 | 175 | 143 | 470 | 167.9 | 175 | 154 | 480 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.7 | 200 | 203 | 470 | 193.7 | 200 | 214 | 480 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 20.4 | 8.7 | None | - | - | - | 85.5 | 110 | 90 | 470 | 94.2 | 110 | 100 | 478 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 97.6 | 110 | 90 | 470 | 108.5 | 110 | 100 | 478 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 169.5 | 175 | 156 | 470 | 180.4 | 200 | 166 | 478 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 198.4 | 225 | 222 | 470 | 209.3 | 225 | 232 | 478 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 9.9 | 4.3 | None | - | - | - | 37.5 | 45 | 40 | 255 | 41.8 | 50 | 45 | 259 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 48.4 | 50 | 45 | 255 | 53.8 | 60 | 49 | 259 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 255 | 89.8 | 90 | 83 | 259 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 255 | 104.2 | 110 | 116 | 259 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 7.7 | 3.5 | None | - | - | - | 30.0 | 35 | 32 | 187 | 33.5 | 40 | 36 | 191 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.4 | 40 | 35 | 187 | 42.8 | 45 | 39 | 191 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.1 | 70 | 62 | 187 | 71.5 | 80 | 66 | 191 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.7 | 90 | 88 | 187 | 83.1 | 90 | 92 | 191 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 30.0 | 9.6 | None | - | - | - | 97.0 | 125 | 103 | 585 | 106.6 | 125 | 114 | 595 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 102.6 | 125 | 103 | 585 | 114.6 | 125 | 114 | 595 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.9 | 175 | 154 | 585 | 179.9 | 200 | 165 | 595 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.7 | 200 | 214 | 585 | 205.7 | 225 | 225 | 595 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 30.0 | 8.7 | None | - | - | - | 97.0 | 125 | 103 | 585 | 105.7 | 125 | 113 | 594 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 109.6 | 125 | 103 | 585 | 120.5 | 125 | 113 | 594 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.5 | 200 | 167 | 585 | 192.4 | 200 | 177 | 594 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.4 | 225 | 233 | 585 | 221.3 | 225 | 243 | 594 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 14.3 | 4.3 | None | - | - | - | 46.1 | 60 | 49 | 294 | 50.4 | 60 | 54 | 298 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 50 | 294 | 59.3 | 60 | 55 | 298 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 294 | 95.3 | 100 | 88 | 298 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 294 | 109.7 | 110 | 121 | 298 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 11.5 | 3.5 | None | - | - | - | 36.3 | 45 | 38 | 212 | 39.8 | 50 | 42 | 215 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 43.1 | 45 | 40 | 212 | 47.5 | 50 | 44 | 215 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.9 | 80 | 66 | 212 | 76.3 | 80 | 70 | 215 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 83.5 | 90 | 93 | 212 | 87.9 | 90 | 97 | 215 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 30.0 | 9.6 | None | - | - | - | 106.1 | 125 | 112 | 657 | 115.7 | 125 | 124 | 667 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 106.1 | 125 | 112 | 657 | 115.7 | 125 | 124 | 667 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.9 | 175 | 154 | 657 | 179.9 | 200 | 165 | 667 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.7 | 200 | 214 | 657 | 205.7 | 225 | 225 | 667 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 30.0 | 8.7 | None | - | - | - | 107.3 | 125 | 114 | 659 | 116.0 | 125 | 124 | 668 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 109.6 | 125 | 114 | 659 | 120.5 | 125 | 124 | 668 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.5 | 200 | 167 | 659 | 192.4 | 200 | 177 | 668 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.4 | 225 | 233 | 659 | 221.3 | 225 | 243 | 668 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 14.3 | 4.3 | None | - | - | - | 52.8 | 60 | 56 | 339 | 57.1 | 70 | 61 | 344 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 56 | 339 | 59.3 | 70 | 61 | 344 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 339 | 95.3 | 100 | 88 | 344 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 339 | 109.7 | 110 | 121 | 344 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 11.5 | 3.5 | None | - | - | - | 43.1 | 50 | 46 | 259 | 46.6 | 50 | 50 | 263 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 43.1 | 50 | 46 | 259 | 47.5 | 50 | 50 | 263 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.9 | 80 | 66 | 259 | 76.3 | 80 | 70 | 263 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 83.5 | 90 | 93 | 259 | 87.9 | 90 | 97 | 263 |

## Table 26: KD15 to KD28 VFD 4 stage high static without power exhaust

| Size (ton) | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors (each) FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size (A) | Min disconnect rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 39.6 | 9.6 | None | - | - | - | 143.7 | 175 | 153 | 834 | 153.3 | 175 | 164 | 844 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 143.7 | 175 | 153 | 834 | 153.3 | 175 | 164 | 844 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 179.9 | 200 | 165 | 834 | 191.9 | 200 | 177 | 844 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 205.7 | 225 | 225 | 834 | 217.7 | 250 | 236 | 844 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 39.6 | 8.7 | None | - | - | - | 144.9 | 175 | 155 | 836 | 153.6 | 175 | 165 | 845 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 144.9 | 175 | 155 | 836 | 153.6 | 175 | 165 | 845 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 193.5 | 200 | 178 | 836 | 204.4 | 225 | 188 | 845 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.4 | 250 | 244 | 836 | 233.3 | 250 | 254 | 845 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 18.7 | 4.3 | None | - | - | - | 65.5 | 80 | 70 | 398 | 69.8 | 80 | 75 | 402 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 65.5 | 80 | 70 | 398 | 69.8 | 80 | 75 | 402 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 398 | 100.8 | 110 | 93 | 402 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 125 | 121 | 398 | 115.2 | 125 | 126 | 402 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 14.2 | 3.5 | None | - | - | - | 53.5 | 70 | 57 | 311 | 57.0 | 70 | 61 | 314 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 53.5 | 70 | 57 | 311 | 57.0 | 70 | 61 | 314 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.3 | 80 | 69 | 311 | 79.6 | 80 | 73 | 314 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 86.9 | 100 | 96 | 311 | 91.2 | 100 | 100 | 314 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 9.6 | None | - | - | - | 152.1 | 175 | 162 | 975 | 161.7 | 200 | 173 | 985 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 152.1 | 175 | 162 | 975 | 161.7 | 200 | 173 | 985 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 179.9 | 200 | 165 | 975 | 191.9 | 200 | 177 | 985 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 205.7 | 225 | 225 | 975 | 217.7 | 250 | 236 | 985 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 8.7 | None | - | - | - | 152.1 | 175 | 162 | 975 | 160.8 | 200 | 172 | 984 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 152.1 | 175 | 162 | 975 | 160.8 | 200 | 172 | 984 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 193.5 | 200 | 178 | 975 | 204.4 | 225 | 188 | 984 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.4 | 250 | 244 | 975 | 233.3 | 250 | 254 | 984 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 18.7 | 4.3 | None | - | - | - | 74.9 | 90 | 80 | 495 | 79.2 | 100 | 85 | 500 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 74.9 | 90 | 80 | 495 | 79.2 | 100 | 85 | 500 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 495 | 100.8 | 110 | 93 | 500 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 125 | 121 | 495 | 115.2 | 125 | 126 | 500 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 14.2 | 3.5 | None | - | - | - | 59.9 | 70 | 63 | 391 | 63.4 | 80 | 68 | 394 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 59.9 | 70 | 63 | 391 | 63.4 | 80 | 68 | 394 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.3 | 80 | 69 | 391 | 79.6 | 80 | 73 | 394 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 86.9 | 100 | 96 | 391 | 91.2 | 100 | 100 | 394 |



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## Table 27: KD15 to KD28 VFD 4 stage high static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 20.4 | 5.0 | 9.6 | None | - | - | - | 95.5 | 110 | 102 | 491 | 105.1 | 125 | 113 | 501 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 103.1 | 110 | 102 | 491 | 115.1 | 125 | 113 | 501 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.4 | 175 | 155 | 491 | 180.4 | 200 | 166 | 501 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.2 | 200 | 215 | 491 | 206.2 | 225 | 226 | 501 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 20.4 | 5.0 | 8.7 | None | - | - | - | 95.5 | 110 | 102 | 491 | 104.2 | 125 | 112 | 499 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 110.1 | 125 | 102 | 491 | 121.0 | 125 | 112 | 499 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 182.0 | 200 | 167 | 491 | 192.9 | 200 | 177 | 499 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.9 | 225 | 234 | 491 | 221.8 | 225 | 244 | 499 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 9.9 | 2.2 | 4.3 | None | - | - | - | 41.9 | 50 | 45 | 264 | 46.2 | 50 | 50 | 268 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 50 | 264 | 59.3 | 60 | 55 | 268 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 264 | 95.3 | 100 | 88 | 268 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 264 | 109.7 | 110 | 121 | 268 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 7.7 | 1.5 | 3.5 | None | - | - | - | 33.0 | 40 | 35 | 193 | 36.5 | 45 | 39 | 197 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.1 | 45 | 39 | 193 | 46.5 | 50 | 43 | 197 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.9 | 80 | 65 | 193 | 75.3 | 80 | 69 | 197 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.5 | 90 | 92 | 193 | 86.9 | 90 | 96 | 197 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 30.0 | 5.0 | 9.6 | None | - | - | - | 107.0 | 125 | 114 | 606 | 116.6 | 125 | 125 | 616 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 115.1 | 125 | 114 | 606 | 127.1 | 150 | 125 | 616 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 180.4 | 200 | 166 | 606 | 192.4 | 200 | 177 | 616 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 206.2 | 225 | 226 | 606 | 218.2 | 225 | 237 | 616 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 30.0 | 5.0 | 8.7 | None | - | - | - | 107.0 | 125 | 114 | 606 | 115.7 | 125 | 124 | 615 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 122.1 | 125 | 114 | 606 | 133.0 | 150 | 124 | 615 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 194.0 | 200 | 178 | 606 | 204.9 | 225 | 188 | 615 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.9 | 250 | 245 | 606 | 233.8 | 250 | 255 | 615 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 14.3 | 2.2 | 4.3 | None | - | - | - | 50.5 | 60 | 54 | 303 | 54.8 | 60 | 59 | 307 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 59.4 | 60 | 55 | 303 | 64.8 | 70 | 60 | 307 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 303 | 100.8 | 110 | 93 | 307 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 110 | 121 | 303 | 115.2 | 125 | 126 | 307 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 11.5 | 1.5 | 3.5 | None | - | - | - | 39.3 | 50 | 42 | 218 | 42.8 | 50 | 46 | 221 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 46.9 | 50 | 43 | 218 | 51.3 | 60 | 47 | 221 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.6 | 80 | 70 | 218 | 80.0 | 90 | 74 | 221 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 87.2 | 90 | 96 | 218 | 91.6 | 100 | 100 | 221 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 30.0 | 5.0 | 9.6 | None | - | - | - | 116.1 | 125 | 124 | 678 | 125.7 | 150 | 135 | 688 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 116.1 | 125 | 124 | 678 | 127.1 | 150 | 135 | 688 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 180.4 | 200 | 166 | 678 | 192.4 | 200 | 177 | 688 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 206.2 | 225 | 226 | 678 | 218.2 | 225 | 237 | 688 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 30.0 | 5.0 | 8.7 | None | - | - | - | 117.3 | 150 | 125 | 680 | 126.0 | 150 | 135 | 689 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 122.1 | 150 | 125 | 680 | 133.0 | 150 | 135 | 689 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 194.0 | 200 | 178 | 680 | 204.9 | 225 | 188 | 689 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 222.9 | 250 | 245 | 680 | 233.8 | 250 | 255 | 689 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 14.3 | 2.2 | 4.3 | None | - | - | - | 57.2 | 70 | 61 | 349 | 61.5 | 70 | 66 | 353 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 59.4 | 70 | 61 | 349 | 64.8 | 70 | 66 | 353 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 95.4 | 100 | 88 | 349 | 100.8 | 110 | 93 | 353 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 109.8 | 110 | 121 | 349 | 115.2 | 125 | 126 | 353 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 11.5 | 1.5 | 3.5 | None | - | - | - | 46.1 | 50 | 49 | 266 | 49.6 | 60 | 53 | 269 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 46.9 | 50 | 49 | 266 | 51.3 | 60 | 53 | 269 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 75.6 | 80 | 70 | 266 | 80.0 | 90 | 74 | 269 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 87.2 | 90 | 96 | 266 | 91.6 | 100 | 100 | 269 |

## Table 27: KD15 to KD28 VFD 4 stage high static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 39.6 | 5.0 | 9.6 | None | - | - | - | 153.7 | 175 | 165 | 855 | 163.3 | 200 | 176 | 865 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 153.7 | 175 | 165 | 855 | 163.3 | 200 | 176 | 865 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 192.4 | 200 | 177 | 855 | 204.4 | 225 | 188 | 865 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 218.2 | 250 | 237 | 855 | 230.2 | 250 | 248 | 865 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 39.6 | 5.0 | 8.7 | None | - | - | - | 154.9 | 175 | 166 | 857 | 163.6 | 200 | 176 | 866 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 154.9 | 175 | 166 | 857 | 163.6 | 200 | 176 | 866 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 206.0 | 225 | 190 | 857 | 216.9 | 225 | 200 | 866 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 234.9 | 250 | 256 | 857 | 245.8 | 250 | 266 | 866 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 18.7 | 2.2 | 4.3 | None | - | - | - | 69.9 | 80 | 75 | 407 | 74.2 | 90 | 80 | 411 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 69.9 | 80 | 75 | 407 | 74.2 | 90 | 80 | 411 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 100.9 | 110 | 93 | 407 | 106.3 | 110 | 98 | 411 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 115.3 | 125 | 126 | 407 | 120.7 | 125 | 131 | 411 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 14.2 | 1.5 | 3.5 | None | - | - | - | 56.5 | 70 | 60 | 317 | 60.0 | 70 | 64 | 321 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 56.5 | 70 | 60 | 317 | 60.0 | 70 | 64 | 321 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 79.0 | 80 | 73 | 317 | 83.4 | 90 | 77 | 321 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.6 | 100 | 99 | 317 | 95.0 | 100 | 103 | 321 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 5.0 | 9.6 | None | - | - | - | 162.1 | 200 | 174 | 996 | 171.7 | 200 | 185 | 1006 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 162.1 | 200 | 174 | 996 | 171.7 | 200 | 185 | 1006 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 192.4 | 200 | 177 | 996 | 204.4 | 225 | 188 | 1006 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 218.2 | 250 | 237 | 996 | 230.2 | 250 | 248 | 1006 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 5.0 | 8.7 | None | - | - | - | 162.1 | 200 | 174 | 996 | 170.8 | 200 | 184 | 1005 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 162.1 | 200 | 174 | 996 | 170.8 | 200 | 184 | 1005 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 206.0 | 225 | 190 | 996 | 216.9 | 225 | 200 | 1005 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 234.9 | 250 | 256 | 996 | 245.8 | 250 | 266 | 1005 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 18.7 | 2.2 | 4.3 | None | - | - | - | 79.3 | 100 | 85 | 504 | 83.6 | 100 | 90 | 509 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 79.3 | 100 | 85 | 504 | 83.6 | 100 | 90 | 509 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 100.9 | 110 | 93 | 504 | 106.3 | 110 | 98 | 509 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 115.3 | 125 | 126 | 504 | 120.7 | 125 | 131 | 509 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 14.2 | 1.5 | 3.5 | None | - | - | - | 62.9 | 80 | 67 | 397 | 66.4 | 80 | 71 | 401 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 62.9 | 80 | 67 | 397 | 66.4 | 80 | 71 | 401 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 79.0 | 80 | 73 | 397 | 83.4 | 90 | 77 | 401 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.6 | 100 | 99 | 397 | 95.0 | 100 | 103 | 401 |



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## Table 28: KD15 to KD28 VFD 4 stage high static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 20.4 | 6.7 | 9.6 | None | - | - | - | 98.9 | 125 | 106 | 484 | 108.5 | 125 | 117 | 493 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 107.4 | 125 | 106 | 484 | 119.4 | 125 | 117 | 493 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 172.6 | 175 | 159 | 484 | 184.6 | 200 | 170 | 493 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 198.5 | 200 | 219 | 484 | 210.5 | 225 | 230 | 493 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 20.4 | 6.7 | 8.7 | None | - | - | - | 98.9 | 125 | 106 | 483 | 107.6 | 125 | 116 | 492 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 114.4 | 125 | 106 | 483 | 125.3 | 150 | 116 | 492 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 186.3 | 200 | 171 | 483 | 197.1 | 200 | 181 | 492 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 215.2 | 225 | 238 | 483 | 226.0 | 250 | 248 | 492 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 9.9 | 3.4 | 4.3 | None | - | - | - | 44.3 | 50 | 48 | 262 | 48.6 | 60 | 53 | 266 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.9 | 60 | 52 | 262 | 62.3 | 70 | 57 | 266 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 262 | 98.3 | 100 | 90 | 266 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 262 | 112.7 | 125 | 124 | 266 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 7.7 | 2.7 | 3.5 | None | - | - | - | 35.4 | 40 | 38 | 192 | 38.9 | 45 | 42 | 196 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.1 | 50 | 42 | 192 | 49.5 | 50 | 46 | 196 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 73.9 | 80 | 68 | 192 | 78.3 | 80 | 72 | 196 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.5 | 90 | 95 | 192 | 89.9 | 90 | 99 | 196 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 30.0 | 6.7 | 9.6 | None | - | - | - | 110.4 | 125 | 118 | 599 | 120.0 | 150 | 129 | 608 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 119.4 | 125 | 118 | 599 | 131.4 | 150 | 129 | 608 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 184.6 | 200 | 170 | 599 | 196.6 | 200 | 181 | 608 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 210.5 | 225 | 230 | 599 | 222.5 | 225 | 241 | 608 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 30.0 | 6.7 | 8.7 | None | - | - | - | 110.4 | 125 | 118 | 599 | 119.1 | 125 | 128 | 607 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 126.4 | 150 | 118 | 599 | 137.3 | 150 | 128 | 607 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 198.3 | 200 | 182 | 599 | 209.1 | 225 | 192 | 607 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 227.2 | 250 | 249 | 599 | 238.0 | 250 | 259 | 607 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 14.3 | 3.4 | 4.3 | None | - | - | - | 52.9 | 60 | 57 | 300 | 57.2 | 70 | 62 | 305 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 62.4 | 70 | 57 | 300 | 67.8 | 70 | 62 | 305 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 98.4 | 100 | 91 | 300 | 103.8 | 110 | 95 | 305 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 112.8 | 125 | 124 | 300 | 118.2 | 125 | 129 | 305 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 11.5 | 2.7 | 3.5 | None | - | - | - | 41.7 | 50 | 45 | 217 | 45.2 | 50 | 49 | 220 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 49.9 | 50 | 46 | 217 | 54.3 | 60 | 50 | 220 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 78.6 | 80 | 72 | 217 | 83.0 | 90 | 76 | 220 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.2 | 100 | 99 | 217 | 94.6 | 100 | 103 | 220 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 30.0 | 6.7 | 9.6 | None | - | - | - | 119.5 | 150 | 128 | 671 | 129.1 | 150 | 139 | 680 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 119.5 | 150 | 128 | 671 | 131.4 | 150 | 139 | 680 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 184.6 | 200 | 170 | 671 | 196.6 | 200 | 181 | 680 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 210.5 | 225 | 230 | 671 | 222.5 | 225 | 241 | 680 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 30.0 | 6.7 | 8.7 | None | - | - | - | 120.7 | 150 | 129 | 673 | 129.4 | 150 | 139 | 681 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 126.4 | 150 | 129 | 673 | 137.3 | 150 | 139 | 681 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 198.3 | 200 | 182 | 673 | 209.1 | 225 | 192 | 681 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 227.2 | 250 | 249 | 673 | 238.0 | 250 | 259 | 681 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 14.3 | 3.4 | 4.3 | None | - | - | - | 59.6 | 70 | 64 | 346 | 63.9 | 70 | 69 | 350 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 62.4 | 70 | 64 | 346 | 67.8 | 70 | 69 | 350 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 98.4 | 100 | 91 | 346 | 103.8 | 110 | 95 | 350 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 112.8 | 125 | 124 | 346 | 118.2 | 125 | 129 | 350 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 11.5 | 2.7 | 3.5 | None | - | - | - | 48.5 | 60 | 52 | 265 | 52.0 | 60 | 56 | 268 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 49.9 | 60 | 52 | 265 | 54.3 | 60 | 56 | 268 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 78.6 | 80 | 72 | 265 | 83.0 | 90 | 76 | 268 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.2 | 100 | 99 | 265 | 94.6 | 100 | 103 | 268 |

## Table 28: KD15 to KD28 VFD 4 stage high static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 39.6 | 6.7 | 9.6 | None | - | - | - | 157.1 | 175 | 169 | 847 | 166.7 | 200 | 180 | 857 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 157.1 | 175 | 169 | 847 | 166.7 | 200 | 180 | 857 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 196.6 | 200 | 181 | 847 | 208.6 | 225 | 192 | 857 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 222.5 | 250 | 241 | 847 | 234.5 | 250 | 252 | 857 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 39.6 | 6.7 | 8.7 | None | - | - | - | 158.3 | 175 | 170 | 849 | 167.0 | 200 | 180 | 858 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 158.3 | 175 | 170 | 849 | 167.0 | 200 | 180 | 858 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 210.3 | 225 | 193 | 849 | 221.1 | 225 | 203 | 858 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 239.2 | 250 | 260 | 849 | 250.0 | 250 | 270 | 858 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 18.7 | 3.4 | 4.3 | None | - | - | - | 72.3 | 90 | 78 | 405 | 76.6 | 90 | 83 | 409 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 72.3 | 90 | 78 | 405 | 76.6 | 90 | 83 | 409 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 103.9 | 110 | 96 | 405 | 109.3 | 110 | 101 | 409 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 118.3 | 125 | 129 | 405 | 123.7 | 125 | 134 | 409 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 14.2 | 2.7 | 3.5 | None | - | - | - | 58.9 | 70 | 63 | 316 | 62.4 | 70 | 67 | 320 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 58.9 | 70 | 63 | 316 | 62.4 | 70 | 67 | 320 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 82.0 | 90 | 75 | 316 | 86.4 | 90 | 79 | 320 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 93.6 | 100 | 102 | 316 | 98.0 | 110 | 106 | 320 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 6.7 | 9.6 | None | - | - | - | 165.5 | 200 | 178 | 988 | 175.1 | 200 | 189 | 998 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 165.5 | 200 | 178 | 988 | 175.1 | 200 | 189 | 998 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 196.6 | 200 | 181 | 988 | 208.6 | 225 | 192 | 998 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 222.5 | 250 | 241 | 988 | 234.5 | 250 | 252 | 998 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 39.6 | 6.7 | 8.7 | None | - | - | - | 165.5 | 200 | 178 | 988 | 174.2 | 200 | 188 | 997 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 165.5 | 200 | 178 | 988 | 174.2 | 200 | 188 | 997 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 210.3 | 225 | 193 | 988 | 221.1 | 225 | 203 | 997 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 239.2 | 250 | 260 | 988 | 250.0 | 250 | 270 | 997 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 18.7 | 3.4 | 4.3 | None | - | - | - | 81.7 | 100 | 88 | 502 | 86.0 | 100 | 92 | 506 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 81.7 | 100 | 88 | 502 | 86.0 | 100 | 92 | 506 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 103.9 | 110 | 96 | 502 | 109.3 | 110 | 101 | 506 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 118.3 | 125 | 129 | 502 | 123.7 | 125 | 134 | 506 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 14.2 | 2.7 | 3.5 | None | - | - | - | 65.3 | 80 | 70 | 396 | 68.8 | 80 | 74 | 400 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 65.3 | 80 | 70 | 396 | 68.8 | 80 | 74 | 400 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 82.0 | 90 | 75 | 396 | 86.4 | 90 | 79 | 400 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 93.6 | 100 | 102 | 396 | 98.0 | 110 | 106 | 400 |

## VFD customer supplied standard static

### Table 29: KD15 to KD28 VFD customer supplied standard static without power exhaust

| Size (ton) | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors (each) FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size (A) | Min disconnect rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 8.9 | 9.6 | None | - | - | - | 74.0 | 100 | 77 | 429 | 83.6 | 110 | 88 | 439 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 76.3 | 100 | 77 | 429 | 88.3 | 110 | 88 | 439 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 141.5 | 150 | 130 | 429 | 153.5 | 175 | 141 | 439 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 167.3 | 200 | 190 | 429 | 179.3 | 200 | 201 | 439 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 8.2 | 8.7 | None | - | - | - | 73.3 | 100 | 76 | 437 | 82.0 | 100 | 86 | 445 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 82.4 | 100 | 76 | 437 | 93.3 | 100 | 86 | 445 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 154.3 | 175 | 142 | 437 | 165.1 | 175 | 152 | 445 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 183.2 | 200 | 208 | 437 | 194.0 | 225 | 218 | 445 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 4.1 | 4.3 | None | - | - | - | 31.7 | 40 | 33 | 238 | 36.0 | 45 | 38 | 243 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 41.1 | 45 | 38 | 238 | 46.5 | 50 | 43 | 243 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 77.1 | 80 | 71 | 238 | 82.5 | 90 | 76 | 243 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 91.5 | 100 | 104 | 238 | 96.9 | 100 | 109 | 243 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 3.2 | 3.5 | None | - | - | - | 25.5 | 30 | 27 | 173 | 29.0 | 35 | 31 | 177 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 32.8 | 35 | 30 | 173 | 37.1 | 40 | 34 | 177 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 61.5 | 70 | 57 | 173 | 65.9 | 70 | 61 | 177 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 73.1 | 80 | 83 | 173 | 77.5 | 80 | 87 | 177 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 9.9 | 9.6 | None | - | - | - | 76.5 | 100 | 80 | 528 | 86.1 | 110 | 91 | 538 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 77.5 | 100 | 80 | 528 | 89.5 | 110 | 91 | 538 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 142.8 | 150 | 131 | 528 | 154.8 | 175 | 142 | 538 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 168.6 | 200 | 191 | 528 | 180.6 | 200 | 202 | 538 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 9.4 | 8.7 | None | - | - | - | 76.0 | 100 | 79 | 536 | 84.7 | 110 | 89 | 545 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 83.9 | 100 | 79 | 536 | 94.8 | 110 | 89 | 545 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 155.8 | 175 | 143 | 536 | 166.6 | 175 | 153 | 545 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 184.7 | 200 | 210 | 536 | 195.5 | 225 | 220 | 545 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 4.7 | 4.3 | None | - | - | - | 36.3 | 45 | 38 | 269 | 40.6 | 50 | 43 | 273 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 41.9 | 45 | 39 | 269 | 47.3 | 50 | 43 | 273 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 77.9 | 80 | 72 | 269 | 83.3 | 90 | 77 | 273 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 92.3 | 100 | 105 | 269 | 97.7 | 110 | 110 | 273 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 4.3 | 3.5 | None | - | - | - | 28.9 | 35 | 30 | 203 | 32.4 | 40 | 34 | 206 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 34.1 | 35 | 31 | 203 | 38.5 | 40 | 35 | 206 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 62.9 | 70 | 58 | 203 | 67.3 | 70 | 62 | 206 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 74.5 | 80 | 84 | 203 | 78.9 | 90 | 88 | 206 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 13.5 | 9.6 | None | - | - | - | 89.6 | 110 | 93 | 630 | 99.2 | 125 | 105 | 640 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 89.6 | 110 | 93 | 630 | 99.2 | 125 | 105 | 640 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 147.3 | 150 | 135 | 630 | 159.3 | 175 | 147 | 640 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 173.1 | 200 | 195 | 630 | 185.1 | 200 | 206 | 640 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 13.4 | 8.7 | None | - | - | - | 90.7 | 110 | 95 | 632 | 99.4 | 125 | 105 | 640 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 90.7 | 110 | 95 | 632 | 99.8 | 125 | 105 | 640 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.8 | 175 | 148 | 632 | 171.6 | 175 | 158 | 640 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.7 | 225 | 214 | 632 | 200.5 | 225 | 224 | 640 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 6.7 | 4.3 | None | - | - | - | 45.2 | 60 | 47 | 326 | 49.5 | 60 | 52 | 330 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 45.2 | 60 | 47 | 326 | 49.8 | 60 | 52 | 330 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 80.4 | 90 | 74 | 326 | 85.8 | 90 | 79 | 330 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.8 | 110 | 107 | 326 | 100.2 | 110 | 112 | 330 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 5.4 | 3.5 | None | - | - | - | 37.0 | 45 | 39 | 251 | 40.5 | 50 | 43 | 254 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 37.0 | 45 | 39 | 251 | 40.5 | 50 | 43 | 254 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 64.3 | 70 | 59 | 251 | 68.6 | 70 | 63 | 254 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.9 | 90 | 86 | 251 | 80.2 | 90 | 90 | 254 |

## Table 29: KD15 to KD28 VFD customer supplied standard static without power exhaust

| Size (ton) | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors (each) FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size (A) | Min disconnect rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 13.5 | 9.6 | None | - | - | - | 117.6 | 150 | 123 | 757 | 127.2 | 150 | 134 | 766 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 117.6 | 150 | 123 | 757 | 127.2 | 150 | 134 | 766 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 147.3 | 150 | 135 | 757 | 159.3 | 175 | 147 | 766 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 173.1 | 200 | 195 | 757 | 185.1 | 200 | 206 | 766 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 13.4 | 8.7 | None | - | - | - | 118.7 | 150 | 125 | 758 | 127.4 | 150 | 135 | 767 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 118.7 | 150 | 125 | 758 | 127.4 | 150 | 135 | 767 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.8 | 175 | 148 | 758 | 171.6 | 175 | 158 | 767 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.7 | 225 | 214 | 758 | 200.5 | 225 | 224 | 767 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 6.7 | 4.3 | None | - | - | - | 53.5 | 70 | 56 | 359 | 57.8 | 70 | 61 | 363 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.5 | 70 | 56 | 359 | 57.8 | 70 | 61 | 363 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 80.4 | 90 | 74 | 359 | 85.8 | 90 | 79 | 363 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.8 | 110 | 107 | 359 | 100.2 | 110 | 112 | 363 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 5.4 | 3.5 | None | - | - | - | 44.7 | 60 | 47 | 279 | 48.2 | 60 | 51 | 283 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 44.7 | 60 | 47 | 279 | 48.2 | 60 | 51 | 283 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 64.3 | 70 | 59 | 279 | 68.6 | 70 | 63 | 283 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.9 | 90 | 86 | 279 | 80.2 | 90 | 90 | 283 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 19.8 | 9.6 | None | - | - | - | 132.3 | 175 | 139 | 865 | 141.9 | 175 | 150 | 874 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 132.3 | 175 | 139 | 865 | 141.9 | 175 | 150 | 874 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.1 | 175 | 143 | 865 | 167.1 | 175 | 154 | 874 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.0 | 200 | 202 | 865 | 193.0 | 200 | 213 | 874 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 19.8 | 8.7 | None | - | - | - | 132.3 | 175 | 139 | 865 | 141.0 | 175 | 149 | 873 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 132.3 | 175 | 139 | 865 | 141.0 | 175 | 149 | 873 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 168.8 | 175 | 155 | 865 | 179.6 | 200 | 165 | 873 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 197.7 | 225 | 222 | 865 | 208.5 | 225 | 232 | 873 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 9.9 | 4.3 | None | - | - | - | 66.1 | 80 | 70 | 440 | 70.4 | 90 | 75 | 444 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 66.1 | 80 | 70 | 440 | 70.4 | 90 | 75 | 444 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 440 | 89.8 | 90 | 83 | 444 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 440 | 104.2 | 110 | 116 | 444 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 7.9 | 3.5 | None | - | - | - | 53.6 | 70 | 56 | 349 | 57.1 | 70 | 60 | 352 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 53.6 | 70 | 56 | 349 | 57.1 | 70 | 60 | 352 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 349 | 71.8 | 80 | 66 | 352 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 349 | 83.4 | 90 | 93 | 352 |



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## Table 30: KD15 to KD28 VFD customer supplied standard static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 8.9 | 5.0 | 9.6 | None | - | - | - | 84.0 | 110 | 89 | 450 | 93.6 | 110 | 100 | 460 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 88.8 | 110 | 89 | 450 | 100.8 | 110 | 100 | 460 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 154.0 | 175 | 142 | 450 | 166.0 | 175 | 153 | 460 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 179.8 | 200 | 201 | 450 | 191.8 | 200 | 212 | 460 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 8.2 | 5.0 | 8.7 | None | - | - | - | 83.3 | 110 | 88 | 458 | 92.0 | 110 | 98 | 466 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 94.9 | 110 | 88 | 458 | 105.8 | 110 | 98 | 466 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 166.8 | 175 | 153 | 458 | 177.6 | 200 | 163 | 466 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 195.7 | 225 | 220 | 458 | 206.5 | 225 | 230 | 466 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 4.1 | 2.2 | 4.3 | None | - | - | - | 36.1 | 45 | 38 | 248 | 40.4 | 50 | 43 | 252 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 46.6 | 50 | 43 | 248 | 52.0 | 60 | 48 | 252 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 82.6 | 90 | 76 | 248 | 88.0 | 90 | 81 | 252 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 97.0 | 110 | 109 | 248 | 102.4 | 110 | 114 | 252 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 3.2 | 1.5 | 3.5 | None | - | - | - | 28.5 | 35 | 30 | 180 | 32.0 | 40 | 34 | 183 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 36.5 | 40 | 34 | 180 | 40.9 | 45 | 38 | 183 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 65.3 | 70 | 60 | 180 | 69.6 | 70 | 64 | 183 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 76.9 | 80 | 87 | 180 | 81.2 | 90 | 91 | 183 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 9.9 | 5.0 | 9.6 | None | - | - | - | 86.5 | 110 | 91 | 549 | 96.1 | 110 | 102 | 559 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 90.0 | 110 | 91 | 549 | 102.0 | 110 | 102 | 559 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.3 | 175 | 143 | 549 | 167.3 | 175 | 154 | 559 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.1 | 200 | 203 | 549 | 193.1 | 200 | 214 | 559 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 9.4 | 5.0 | 8.7 | None | - | - | - | 86.0 | 110 | 91 | 557 | 94.7 | 110 | 101 | 566 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 96.4 | 110 | 91 | 557 | 107.3 | 110 | 101 | 566 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 168.3 | 175 | 155 | 557 | 179.1 | 200 | 165 | 566 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 197.2 | 225 | 221 | 557 | 208.0 | 225 | 231 | 566 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 4.7 | 2.2 | 4.3 | None | - | - | - | 40.7 | 50 | 43 | 278 | 45.0 | 50 | 48 | 283 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 47.4 | 50 | 44 | 278 | 52.8 | 60 | 49 | 283 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 83.4 | 90 | 77 | 278 | 88.8 | 90 | 82 | 283 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 97.8 | 110 | 110 | 278 | 103.2 | 110 | 115 | 283 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 4.3 | 1.5 | 3.5 | None | - | - | - | 31.9 | 40 | 34 | 209 | 35.4 | 45 | 38 | 213 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 37.9 | 40 | 35 | 209 | 42.3 | 45 | 39 | 213 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 66.6 | 70 | 61 | 209 | 71.0 | 80 | 65 | 213 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.2 | 90 | 88 | 209 | 82.6 | 90 | 92 | 213 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 13.5 | 5.0 | 9.6 | None | - | - | - | 99.6 | 125 | 105 | 651 | 109.2 | 125 | 116 | 661 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 99.6 | 125 | 105 | 651 | 109.2 | 125 | 116 | 661 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.8 | 175 | 147 | 651 | 171.8 | 175 | 158 | 661 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.6 | 200 | 207 | 651 | 197.6 | 200 | 218 | 661 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 13.4 | 5.0 | 8.7 | None | - | - | - | 100.7 | 125 | 106 | 653 | 109.4 | 125 | 116 | 661 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.4 | 125 | 106 | 653 | 112.3 | 125 | 116 | 661 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.3 | 175 | 159 | 653 | 184.1 | 200 | 169 | 661 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 202.2 | 225 | 226 | 653 | 213.0 | 225 | 236 | 661 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 6.7 | 2.2 | 4.3 | None | - | - | - | 49.6 | 60 | 53 | 335 | 53.9 | 60 | 58 | 339 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.9 | 60 | 53 | 335 | 55.3 | 60 | 58 | 339 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.9 | 90 | 79 | 335 | 91.3 | 100 | 84 | 339 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 100.3 | 110 | 112 | 335 | 105.7 | 110 | 117 | 339 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 5.4 | 1.5 | 3.5 | None | - | - | - | 40.0 | 50 | 42 | 257 | 43.5 | 50 | 46 | 260 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 40.0 | 50 | 42 | 257 | 43.6 | 50 | 46 | 260 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 68.0 | 70 | 63 | 257 | 72.4 | 80 | 67 | 260 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.6 | 90 | 89 | 257 | 84.0 | 90 | 93 | 260 |

## Table 30: KD15 to KD28 VFD customer supplied standard static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 13.5 | 5.0 | 9.6 | None | - | - | - | 127.6 | 150 | 135 | 778 | 137.2 | 175 | 146 | 787 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 127.6 | 150 | 135 | 778 | 137.2 | 175 | 146 | 787 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.8 | 175 | 147 | 778 | 171.8 | 175 | 158 | 787 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.6 | 200 | 207 | 778 | 197.6 | 200 | 218 | 787 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 13.4 | 5.0 | 8.7 | None | - | - | - | 128.7 | 150 | 136 | 779 | 137.4 | 175 | 146 | 788 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 128.7 | 150 | 136 | 779 | 137.4 | 175 | 146 | 788 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.3 | 175 | 159 | 779 | 184.1 | 200 | 169 | 788 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 202.2 | 225 | 226 | 779 | 213.0 | 225 | 236 | 788 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 6.7 | 2.2 | 4.3 | None | - | - | - | 57.9 | 70 | 61 | 368 | 62.2 | 80 | 66 | 372 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 57.9 | 70 | 61 | 368 | 62.2 | 80 | 66 | 372 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.9 | 90 | 79 | 368 | 91.3 | 100 | 84 | 372 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 100.3 | 110 | 112 | 368 | 105.7 | 110 | 117 | 372 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 5.4 | 1.5 | 3.5 | None | - | - | - | 47.7 | 60 | 50 | 286 | 51.2 | 60 | 54 | 289 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 47.7 | 60 | 50 | 286 | 51.2 | 60 | 54 | 289 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 68.0 | 70 | 63 | 286 | 72.4 | 80 | 67 | 289 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.6 | 90 | 89 | 286 | 84.0 | 90 | 93 | 289 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 19.8 | 5.0 | 9.6 | None | - | - | - | 142.3 | 175 | 151 | 886 | 151.9 | 175 | 162 | 895 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 142.3 | 175 | 151 | 886 | 151.9 | 175 | 162 | 895 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.6 | 175 | 154 | 886 | 179.6 | 200 | 165 | 895 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.5 | 200 | 214 | 886 | 205.5 | 225 | 225 | 895 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 19.8 | 5.0 | 8.7 | None | - | - | - | 142.3 | 175 | 151 | 886 | 151.0 | 175 | 161 | 894 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 142.3 | 175 | 151 | 886 | 151.0 | 175 | 161 | 894 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.3 | 200 | 167 | 886 | 192.1 | 200 | 177 | 894 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.2 | 225 | 233 | 886 | 221.0 | 225 | 243 | 894 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 9.9 | 2.2 | 4.3 | None | - | - | - | 70.5 | 90 | 75 | 449 | 74.8 | 90 | 80 | 453 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 70.5 | 90 | 75 | 449 | 74.8 | 90 | 80 | 453 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 449 | 95.3 | 100 | 88 | 453 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 449 | 109.7 | 110 | 121 | 453 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 7.9 | 1.5 | 3.5 | None | - | - | - | 56.6 | 70 | 60 | 355 | 60.1 | 70 | 64 | 359 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 56.6 | 70 | 60 | 355 | 60.1 | 70 | 64 | 359 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.1 | 80 | 65 | 355 | 75.5 | 80 | 69 | 359 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.7 | 90 | 92 | 355 | 87.1 | 90 | 96 | 359 |

## Table 31: KD15 to KD28 VFD customer supplied standard static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 8.9 | 6.7 | 9.6 | None | - | - | - | 87.4 | 110 | 93 | 443 | 97.0 | 110 | 104 | 452 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 93.0 | 110 | 93 | 443 | 105.0 | 110 | 104 | 452 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 158.3 | 175 | 146 | 443 | 170.3 | 175 | 157 | 452 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 184.1 | 200 | 205 | 443 | 196.1 | 200 | 216 | 452 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 8.2 | 6.7 | 8.7 | None | - | - | - | 86.7 | 110 | 92 | 450 | 95.4 | 110 | 102 | 459 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 99.1 | 110 | 92 | 450 | 110.0 | 110 | 102 | 459 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 171.0 | 175 | 157 | 450 | 181.9 | 200 | 167 | 459 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 199.9 | 225 | 224 | 450 | 210.8 | 225 | 234 | 459 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 4.1 | 3.4 | 4.3 | None | - | - | - | 38.5 | 50 | 41 | 245 | 42.8 | 50 | 46 | 250 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.6 | 50 | 46 | 245 | 55.0 | 60 | 51 | 250 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.6 | 90 | 79 | 245 | 91.0 | 100 | 84 | 250 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 100.0 | 110 | 112 | 245 | 105.4 | 110 | 117 | 250 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 3.2 | 2.7 | 3.5 | None | - | - | - | 30.9 | 40 | 33 | 179 | 34.4 | 40 | 37 | 182 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 39.5 | 40 | 36 | 179 | 43.9 | 45 | 40 | 182 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 68.3 | 70 | 63 | 179 | 72.6 | 80 | 67 | 182 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.9 | 90 | 89 | 179 | 84.2 | 90 | 93 | 182 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 9.9 | 6.7 | 9.6 | None | - | - | - | 89.9 | 110 | 95 | 542 | 99.5 | 125 | 106 | 551 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 94.3 | 110 | 95 | 542 | 106.3 | 125 | 106 | 551 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.5 | 175 | 147 | 542 | 171.5 | 175 | 158 | 551 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.3 | 200 | 206 | 542 | 197.3 | 200 | 217 | 551 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 9.4 | 6.7 | 8.7 | None | - | - | - | 89.4 | 110 | 95 | 550 | 98.1 | 125 | 105 | 558 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 100.6 | 110 | 95 | 550 | 111.5 | 125 | 105 | 558 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 172.5 | 175 | 159 | 550 | 183.4 | 200 | 169 | 558 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 201.4 | 225 | 225 | 550 | 212.3 | 225 | 235 | 558 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 4.7 | 3.4 | 4.3 | None | - | - | - | 43.1 | 50 | 46 | 276 | 47.4 | 60 | 51 | 280 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 50.4 | 60 | 46 | 276 | 55.8 | 60 | 51 | 280 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 86.4 | 90 | 79 | 276 | 91.8 | 100 | 84 | 280 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 100.8 | 110 | 113 | 276 | 106.2 | 110 | 118 | 280 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 4.3 | 2.7 | 3.5 | None | - | - | - | 34.3 | 45 | 36 | 208 | 37.8 | 45 | 40 | 212 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 40.9 | 45 | 38 | 208 | 45.3 | 50 | 42 | 212 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 69.6 | 70 | 64 | 208 | 74.0 | 80 | 68 | 212 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 81.2 | 90 | 91 | 208 | 85.6 | 90 | 95 | 212 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 13.5 | 6.7 | 9.6 | None | - | - | - | 103.0 | 125 | 109 | 644 | 112.6 | 125 | 120 | 653 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 103.0 | 125 | 109 | 644 | 112.6 | 125 | 120 | 653 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 164.0 | 175 | 151 | 644 | 176.0 | 200 | 162 | 653 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.8 | 200 | 211 | 644 | 201.8 | 225 | 222 | 653 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 13.4 | 6.7 | 8.7 | None | - | - | - | 104.1 | 125 | 110 | 645 | 112.8 | 125 | 120 | 654 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.6 | 125 | 110 | 645 | 116.5 | 125 | 120 | 654 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.5 | 200 | 163 | 645 | 188.4 | 200 | 173 | 654 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.4 | 225 | 230 | 645 | 217.3 | 225 | 240 | 654 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 6.7 | 3.4 | 4.3 | None | - | - | - | 52.0 | 60 | 55 | 332 | 56.3 | 70 | 60 | 337 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.9 | 60 | 55 | 332 | 58.3 | 70 | 60 | 337 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.9 | 90 | 82 | 332 | 94.3 | 100 | 87 | 337 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 103.3 | 110 | 115 | 332 | 108.7 | 110 | 120 | 337 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 5.4 | 2.7 | 3.5 | None | - | - | - | 42.4 | 50 | 45 | 256 | 45.9 | 50 | 49 | 259 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.4 | 50 | 45 | 256 | 46.6 | 50 | 49 | 259 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.0 | 80 | 65 | 256 | 75.4 | 80 | 69 | 259 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.6 | 90 | 92 | 256 | 87.0 | 90 | 96 | 259 |

## Table 31: KD15 to KD28 VFD customer supplied standard static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 13.5 | 6.7 | 9.6 | None | - | - | - | 131.0 | 150 | 139 | 770 | 140.6 | 175 | 150 | 780 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 131.0 | 150 | 139 | 770 | 140.6 | 175 | 150 | 780 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 164.0 | 175 | 151 | 770 | 176.0 | 200 | 162 | 780 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.8 | 200 | 211 | 770 | 201.8 | 225 | 222 | 780 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 13.4 | 6.7 | 8.7 | None | - | - | - | 132.1 | 150 | 140 | 771 | 140.8 | 175 | 150 | 780 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 132.1 | 150 | 140 | 771 | 140.8 | 175 | 150 | 780 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.5 | 200 | 163 | 771 | 188.4 | 200 | 173 | 780 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.4 | 225 | 230 | 771 | 217.3 | 225 | 240 | 780 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 6.7 | 3.4 | 4.3 | None | - | - | - | 60.3 | 70 | 64 | 366 | 64.6 | 80 | 69 | 370 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 60.3 | 70 | 64 | 366 | 64.6 | 80 | 69 | 370 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.9 | 90 | 82 | 366 | 94.3 | 100 | 87 | 370 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 103.3 | 110 | 115 | 366 | 108.7 | 110 | 120 | 370 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 5.4 | 2.7 | 3.5 | None | - | - | - | 50.1 | 60 | 53 | 285 | 53.6 | 70 | 57 | 288 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 50.1 | 60 | 53 | 285 | 53.6 | 70 | 57 | 288 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.0 | 80 | 65 | 285 | 75.4 | 80 | 69 | 288 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.6 | 90 | 92 | 285 | 87.0 | 90 | 96 | 288 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 19.8 | 6.7 | 9.6 | None | - | - | - | 145.7 | 175 | 155 | 878 | 155.3 | 175 | 166 | 888 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 145.7 | 175 | 155 | 878 | 155.3 | 175 | 166 | 888 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 171.9 | 175 | 158 | 878 | 183.9 | 200 | 169 | 888 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 197.7 | 200 | 218 | 878 | 209.7 | 225 | 229 | 888 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 19.8 | 6.7 | 8.7 | None | - | - | - | 145.7 | 175 | 155 | 878 | 154.4 | 175 | 165 | 887 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 145.7 | 175 | 155 | 878 | 154.4 | 175 | 165 | 887 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 185.5 | 200 | 171 | 878 | 196.4 | 200 | 181 | 887 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 214.4 | 225 | 237 | 878 | 225.3 | 250 | 247 | 887 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 9.9 | 3.4 | 4.3 | None | - | - | - | 72.9 | 90 | 77 | 447 | 77.2 | 90 | 82 | 451 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 72.9 | 90 | 77 | 447 | 77.2 | 90 | 82 | 451 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 447 | 98.3 | 100 | 90 | 451 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 447 | 112.7 | 125 | 124 | 451 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 7.9 | 2.7 | 3.5 | None | - | - | - | 59.0 | 70 | 62 | 354 | 62.5 | 80 | 66 | 358 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 59.0 | 70 | 62 | 354 | 62.5 | 80 | 66 | 358 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 74.1 | 80 | 68 | 354 | 78.5 | 80 | 72 | 358 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.7 | 90 | 95 | 354 | 90.1 | 100 | 99 | 358 |

## VFD customer supplied medium static

### Table 32: KD15 to KD28 VFD customer supplied medium static without power exhaust

| Size (ton) | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors (each) FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size (A) | Min disconnect rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 9.9 | 9.6 | None | - | - | - | 75.0 | 100 | 78 | 440 | 84.6 | 110 | 89 | 450 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 77.5 | 100 | 78 | 440 | 89.5 | 110 | 89 | 450 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 142.8 | 150 | 131 | 440 | 154.8 | 175 | 142 | 450 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 168.6 | 200 | 191 | 440 | 180.6 | 200 | 202 | 450 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 9.4 | 8.7 | None | - | - | - | 74.5 | 100 | 78 | 448 | 83.2 | 110 | 88 | 457 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 83.9 | 100 | 78 | 448 | 94.8 | 110 | 88 | 457 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 155.8 | 175 | 143 | 448 | 166.6 | 175 | 153 | 457 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 184.7 | 200 | 210 | 448 | 195.5 | 225 | 220 | 457 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 4.7 | 4.3 | None | - | - | - | 32.3 | 40 | 34 | 244 | 36.6 | 45 | 39 | 249 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 41.9 | 45 | 39 | 244 | 47.3 | 50 | 43 | 249 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 77.9 | 80 | 72 | 244 | 83.3 | 90 | 77 | 249 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 92.3 | 100 | 105 | 244 | 97.7 | 110 | 110 | 249 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 4.3 | 3.5 | None | - | - | - | 26.6 | 35 | 28 | 187 | 30.1 | 35 | 32 | 191 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 34.1 | 35 | 31 | 187 | 38.5 | 40 | 35 | 191 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 62.9 | 70 | 58 | 187 | 67.3 | 70 | 62 | 191 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 74.5 | 80 | 84 | 187 | 78.9 | 90 | 88 | 191 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.5 | 9.6 | None | - | - | - | 80.1 | 100 | 84 | 559 | 89.7 | 110 | 95 | 568 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 82.0 | 100 | 84 | 559 | 94.0 | 110 | 95 | 568 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 147.3 | 150 | 135 | 559 | 159.3 | 175 | 147 | 568 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 173.1 | 200 | 195 | 559 | 185.1 | 200 | 206 | 568 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.4 | 8.7 | None | - | - | - | 80.0 | 100 | 84 | 558 | 88.7 | 110 | 94 | 566 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 88.9 | 100 | 84 | 558 | 99.8 | 110 | 94 | 566 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.8 | 175 | 148 | 558 | 171.6 | 175 | 158 | 566 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.7 | 225 | 214 | 558 | 200.5 | 225 | 224 | 566 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 6.7 | 4.3 | None | - | - | - | 38.3 | 50 | 40 | 280 | 42.6 | 50 | 45 | 284 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 44.4 | 50 | 41 | 280 | 49.8 | 50 | 46 | 284 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 80.4 | 90 | 74 | 280 | 85.8 | 90 | 79 | 284 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.8 | 110 | 107 | 280 | 100.2 | 110 | 112 | 284 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 5.4 | 3.5 | None | - | - | - | 30.0 | 40 | 31 | 203 | 33.5 | 40 | 35 | 206 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 35.5 | 40 | 33 | 203 | 39.9 | 40 | 37 | 206 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 64.3 | 70 | 59 | 203 | 68.6 | 70 | 63 | 206 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.9 | 90 | 86 | 203 | 80.2 | 90 | 90 | 206 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 13.5 | 9.6 | None | - | - | - | 89.6 | 110 | 93 | 630 | 99.2 | 125 | 105 | 640 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 89.6 | 110 | 93 | 630 | 99.2 | 125 | 105 | 640 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 147.3 | 150 | 135 | 630 | 159.3 | 175 | 147 | 640 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 173.1 | 200 | 195 | 630 | 185.1 | 200 | 206 | 640 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 13.4 | 8.7 | None | - | - | - | 90.7 | 110 | 95 | 632 | 99.4 | 125 | 105 | 640 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 90.7 | 110 | 95 | 632 | 99.8 | 125 | 105 | 640 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.8 | 175 | 148 | 632 | 171.6 | 175 | 158 | 640 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.7 | 225 | 214 | 632 | 200.5 | 225 | 224 | 640 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 6.7 | 4.3 | None | - | - | - | 45.2 | 60 | 47 | 326 | 49.5 | 60 | 52 | 330 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 45.2 | 60 | 47 | 326 | 49.8 | 60 | 52 | 330 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 80.4 | 90 | 74 | 326 | 85.8 | 90 | 79 | 330 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.8 | 110 | 107 | 326 | 100.2 | 110 | 112 | 330 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 5.4 | 3.5 | None | - | - | - | 37.0 | 45 | 39 | 251 | 40.5 | 50 | 43 | 254 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 37.0 | 45 | 39 | 251 | 40.5 | 50 | 43 | 254 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 64.3 | 70 | 59 | 251 | 68.6 | 70 | 63 | 254 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.9 | 90 | 86 | 251 | 80.2 | 90 | 90 | 254 |

## Table 32: KD15 to KD28 VFD customer supplied medium static without power exhaust

| Size (ton) | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors (each) FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size (A) | Min disconnect rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 19.8 | 9.6 | None | - | - | - | 123.9 | 150 | 131 | 784 | 133.5 | 150 | 142 | 793 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 123.9 | 150 | 131 | 784 | 133.5 | 150 | 142 | 793 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.1 | 175 | 143 | 784 | 167.1 | 175 | 154 | 793 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.0 | 200 | 202 | 784 | 193.0 | 200 | 213 | 793 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 19.8 | 8.7 | None | - | - | - | 125.1 | 150 | 132 | 786 | 133.8 | 150 | 142 | 794 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 125.1 | 150 | 132 | 786 | 133.8 | 150 | 142 | 794 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 168.8 | 175 | 155 | 786 | 179.6 | 200 | 165 | 794 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 197.7 | 225 | 222 | 786 | 208.5 | 225 | 232 | 794 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 9.9 | 4.3 | None | - | - | - | 56.7 | 70 | 60 | 373 | 61.0 | 80 | 65 | 377 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.7 | 70 | 60 | 373 | 61.0 | 80 | 65 | 377 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 373 | 89.8 | 90 | 83 | 377 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 373 | 104.2 | 110 | 116 | 377 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 7.9 | 3.5 | None | - | - | - | 47.2 | 60 | 49 | 288 | 50.7 | 60 | 53 | 292 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 47.2 | 60 | 49 | 288 | 50.7 | 60 | 53 | 292 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 288 | 71.8 | 80 | 66 | 292 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 288 | 83.4 | 90 | 93 | 292 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 25.4 | 9.6 | None | - | - | - | 137.9 | 175 | 146 | 915 | 147.5 | 175 | 157 | 925 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 137.9 | 175 | 146 | 915 | 147.5 | 175 | 157 | 925 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 162.1 | 175 | 149 | 915 | 174.1 | 175 | 160 | 925 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 188.0 | 200 | 209 | 915 | 200.0 | 200 | 220 | 925 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 25.4 | 8.7 | None | - | - | - | 137.9 | 175 | 146 | 915 | 146.6 | 175 | 156 | 924 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 137.9 | 175 | 146 | 915 | 146.6 | 175 | 156 | 924 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 175.8 | 200 | 162 | 915 | 186.6 | 200 | 172 | 924 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 204.7 | 225 | 228 | 915 | 215.5 | 225 | 238 | 924 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 12.7 | 4.3 | None | - | - | - | 68.9 | 90 | 73 | 465 | 73.2 | 90 | 78 | 470 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 68.9 | 90 | 73 | 465 | 73.2 | 90 | 78 | 470 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 87.9 | 90 | 81 | 465 | 93.3 | 100 | 86 | 470 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 102.3 | 110 | 114 | 465 | 107.7 | 110 | 119 | 470 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 10.5 | 3.5 | None | - | - | - | 56.2 | 70 | 59 | 372 | 59.7 | 70 | 63 | 375 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 56.2 | 70 | 59 | 372 | 59.7 | 70 | 63 | 375 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.6 | 80 | 65 | 372 | 75.0 | 80 | 69 | 375 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.2 | 90 | 92 | 372 | 86.6 | 90 | 96 | 375 |

## Table 33: KD15 to KD28 VFD customer supplied medium static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 9.9 | 5.0 | 9.6 | None | - | - | - | 85.0 | 110 | 90 | 461 | 94.6 | 110 | 101 | 471 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 90.0 | 110 | 90 | 461 | 102.0 | 110 | 101 | 471 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.3 | 175 | 143 | 461 | 167.3 | 175 | 154 | 471 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.1 | 200 | 203 | 461 | 193.1 | 200 | 214 | 471 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 9.4 | 5.0 | 8.7 | None | - | - | - | 84.5 | 110 | 89 | 469 | 93.2 | 110 | 99 | 478 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 96.4 | 110 | 89 | 469 | 107.3 | 110 | 99 | 478 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 168.3 | 175 | 155 | 469 | 179.1 | 200 | 165 | 478 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 197.2 | 225 | 221 | 469 | 208.0 | 225 | 231 | 478 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 4.7 | 2.2 | 4.3 | None | - | - | - | 36.7 | 45 | 39 | 253 | 41.0 | 50 | 44 | 258 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 47.4 | 50 | 44 | 253 | 52.8 | 60 | 49 | 258 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 83.4 | 90 | 77 | 253 | 88.8 | 90 | 82 | 258 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 97.8 | 110 | 110 | 253 | 103.2 | 110 | 115 | 258 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 4.3 | 1.5 | 3.5 | None | - | - | - | 29.6 | 35 | 31 | 193 | 33.1 | 40 | 35 | 197 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 37.9 | 40 | 35 | 193 | 42.3 | 45 | 39 | 197 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 66.6 | 70 | 61 | 193 | 71.0 | 80 | 65 | 197 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 78.2 | 90 | 88 | 193 | 82.6 | 90 | 92 | 197 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.5 | 5.0 | 9.6 | None | - | - | - | 90.1 | 110 | 95 | 580 | 99.7 | 125 | 106 | 589 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 94.5 | 110 | 95 | 580 | 106.5 | 125 | 106 | 589 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.8 | 175 | 147 | 580 | 171.8 | 175 | 158 | 589 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.6 | 200 | 207 | 580 | 197.6 | 200 | 218 | 589 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.4 | 5.0 | 8.7 | None | - | - | - | 90.0 | 110 | 95 | 579 | 98.7 | 125 | 105 | 587 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.4 | 110 | 95 | 579 | 112.3 | 125 | 105 | 587 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.3 | 175 | 159 | 579 | 184.1 | 200 | 169 | 587 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 202.2 | 225 | 226 | 579 | 213.0 | 225 | 236 | 587 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 6.7 | 2.2 | 4.3 | None | - | - | - | 42.7 | 50 | 45 | 289 | 47.0 | 60 | 50 | 293 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.9 | 50 | 46 | 289 | 55.3 | 60 | 51 | 293 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.9 | 90 | 79 | 289 | 91.3 | 100 | 84 | 293 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 100.3 | 110 | 112 | 289 | 105.7 | 110 | 117 | 293 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 5.4 | 1.5 | 3.5 | None | - | - | - | 33.0 | 40 | 35 | 209 | 36.5 | 45 | 39 | 213 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 39.3 | 40 | 36 | 209 | 43.6 | 45 | 40 | 213 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 68.0 | 70 | 63 | 209 | 72.4 | 80 | 67 | 213 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.6 | 90 | 89 | 209 | 84.0 | 90 | 93 | 213 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 13.5 | 5.0 | 9.6 | None | - | - | - | 99.6 | 125 | 105 | 651 | 109.2 | 125 | 116 | 661 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 99.6 | 125 | 105 | 651 | 109.2 | 125 | 116 | 661 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.8 | 175 | 147 | 651 | 171.8 | 175 | 158 | 661 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.6 | 200 | 207 | 651 | 197.6 | 200 | 218 | 661 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 13.4 | 5.0 | 8.7 | None | - | - | - | 100.7 | 125 | 106 | 653 | 109.4 | 125 | 116 | 661 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.4 | 125 | 106 | 653 | 112.3 | 125 | 116 | 661 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.3 | 175 | 159 | 653 | 184.1 | 200 | 169 | 661 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 202.2 | 225 | 226 | 653 | 213.0 | 225 | 236 | 661 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 6.7 | 2.2 | 4.3 | None | - | - | - | 49.6 | 60 | 53 | 335 | 53.9 | 60 | 58 | 339 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.9 | 60 | 53 | 335 | 55.3 | 60 | 58 | 339 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.9 | 90 | 79 | 335 | 91.3 | 100 | 84 | 339 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 100.3 | 110 | 112 | 335 | 105.7 | 110 | 117 | 339 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 5.4 | 1.5 | 3.5 | None | - | - | - | 40.0 | 50 | 42 | 257 | 43.5 | 50 | 46 | 260 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 40.0 | 50 | 42 | 257 | 43.6 | 50 | 46 | 260 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 68.0 | 70 | 63 | 257 | 72.4 | 80 | 67 | 260 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.6 | 90 | 89 | 257 | 84.0 | 90 | 93 | 260 |

## Table 33: KD15 to KD28 VFD customer supplied medium static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 19.8 | 5.0 | 9.6 | None | - | - | - | 133.9 | 150 | 142 | 805 | 143.5 | 175 | 153 | 814 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 133.9 | 150 | 142 | 805 | 143.5 | 175 | 153 | 814 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.6 | 175 | 154 | 805 | 179.6 | 200 | 165 | 814 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.5 | 200 | 214 | 805 | 205.5 | 225 | 225 | 814 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 19.8 | 5.0 | 8.7 | None | - | - | - | 135.1 | 175 | 144 | 807 | 143.8 | 175 | 154 | 815 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 135.1 | 175 | 144 | 807 | 143.8 | 175 | 154 | 815 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.3 | 200 | 167 | 807 | 192.1 | 200 | 177 | 815 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.2 | 225 | 233 | 807 | 221.0 | 225 | 243 | 815 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 9.9 | 2.2 | 4.3 | None | - | - | - | 61.1 | 80 | 65 | 382 | 65.4 | 80 | 70 | 386 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 61.1 | 80 | 65 | 382 | 65.4 | 80 | 70 | 386 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 382 | 95.3 | 100 | 88 | 386 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 382 | 109.7 | 110 | 121 | 386 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 7.9 | 1.5 | 3.5 | None | - | - | - | 50.2 | 60 | 53 | 294 | 53.7 | 70 | 57 | 298 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 50.2 | 60 | 53 | 294 | 53.7 | 70 | 57 | 298 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.1 | 80 | 65 | 294 | 75.5 | 80 | 69 | 298 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.7 | 90 | 92 | 294 | 87.1 | 90 | 96 | 298 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 25.4 | 5.0 | 9.6 | None | - | - | - | 147.9 | 175 | 157 | 936 | 157.5 | 200 | 168 | 946 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 147.9 | 175 | 157 | 936 | 157.5 | 200 | 168 | 946 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 174.6 | 175 | 161 | 936 | 186.6 | 200 | 172 | 946 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 200.5 | 225 | 220 | 936 | 212.5 | 225 | 231 | 946 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 25.4 | 5.0 | 8.7 | None | - | - | - | 147.9 | 175 | 157 | 936 | 156.6 | 200 | 167 | 945 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 147.9 | 175 | 157 | 936 | 156.6 | 200 | 167 | 945 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 188.3 | 200 | 173 | 936 | 199.1 | 200 | 183 | 945 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 217.2 | 225 | 240 | 936 | 228.0 | 250 | 250 | 945 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 12.7 | 2.2 | 4.3 | None | - | - | - | 73.3 | 90 | 78 | 474 | 77.6 | 100 | 83 | 479 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 73.3 | 90 | 78 | 474 | 77.6 | 100 | 83 | 479 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 93.4 | 100 | 86 | 474 | 98.8 | 100 | 91 | 479 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.8 | 110 | 119 | 474 | 113.2 | 125 | 124 | 479 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 10.5 | 1.5 | 3.5 | None | - | - | - | 59.2 | 70 | 63 | 378 | 62.7 | 80 | 67 | 382 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 59.2 | 70 | 63 | 378 | 62.7 | 80 | 67 | 382 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 74.4 | 80 | 68 | 378 | 78.8 | 80 | 72 | 382 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 86.0 | 90 | 95 | 378 | 90.4 | 100 | 99 | 382 |

## Table 34: KD15 to KD28 VFD customer supplied medium static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 9.9 | 6.7 | 9.6 | None | - | - | - | 88.4 | 110 | 94 | 453 | 98.0 | 125 | 105 | 463 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 94.3 | 110 | 94 | 453 | 106.3 | 125 | 105 | 463 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.5 | 175 | 147 | 453 | 171.5 | 175 | 158 | 463 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.3 | 200 | 206 | 453 | 197.3 | 200 | 217 | 463 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 9.4 | 6.7 | 8.7 | None | - | - | - | 87.9 | 110 | 93 | 462 | 96.6 | 110 | 103 | 470 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 100.6 | 110 | 93 | 462 | 111.5 | 125 | 103 | 470 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 172.5 | 175 | 159 | 462 | 183.4 | 200 | 169 | 470 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 201.4 | 225 | 225 | 462 | 212.3 | 225 | 235 | 470 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 4.7 | 3.4 | 4.3 | None | - | - | - | 39.1 | 50 | 42 | 251 | 43.4 | 50 | 47 | 255 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 50.4 | 60 | 46 | 251 | 55.8 | 60 | 51 | 255 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 86.4 | 90 | 79 | 251 | 91.8 | 100 | 84 | 255 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 100.8 | 110 | 113 | 251 | 106.2 | 110 | 118 | 255 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 4.3 | 2.7 | 3.5 | None | - | - | - | 32.0 | 40 | 34 | 192 | 35.5 | 40 | 38 | 196 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 40.9 | 45 | 38 | 192 | 45.3 | 50 | 42 | 196 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 69.6 | 70 | 64 | 192 | 74.0 | 80 | 68 | 196 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 81.2 | 90 | 91 | 192 | 85.6 | 90 | 95 | 196 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.5 | 6.7 | 9.6 | None | - | - | - | 93.5 | 110 | 99 | 572 | 103.1 | 125 | 110 | 582 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 98.8 | 110 | 99 | 572 | 110.8 | 125 | 110 | 582 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 164.0 | 175 | 151 | 572 | 176.0 | 200 | 162 | 582 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.8 | 200 | 211 | 572 | 201.8 | 225 | 222 | 582 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 13.4 | 6.7 | 8.7 | None | - | - | - | 93.4 | 110 | 99 | 571 | 102.1 | 125 | 109 | 580 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.6 | 110 | 99 | 571 | 116.5 | 125 | 109 | 580 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.5 | 200 | 163 | 571 | 188.4 | 200 | 173 | 580 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.4 | 225 | 230 | 571 | 217.3 | 225 | 240 | 580 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 6.7 | 3.4 | 4.3 | None | - | - | - | 45.1 | 50 | 48 | 287 | 49.4 | 60 | 53 | 291 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.9 | 60 | 49 | 287 | 58.3 | 60 | 54 | 291 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.9 | 90 | 82 | 287 | 94.3 | 100 | 87 | 291 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 103.3 | 110 | 115 | 287 | 108.7 | 110 | 120 | 291 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 5.4 | 2.7 | 3.5 | None | - | - | - | 35.4 | 45 | 38 | 208 | 38.9 | 45 | 42 | 212 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.3 | 45 | 39 | 208 | 46.6 | 50 | 43 | 212 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.0 | 80 | 65 | 208 | 75.4 | 80 | 69 | 212 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.6 | 90 | 92 | 208 | 87.0 | 90 | 96 | 212 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 13.5 | 6.7 | 9.6 | None | - | - | - | 103.0 | 125 | 109 | 644 | 112.6 | 125 | 120 | 653 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 103.0 | 125 | 109 | 644 | 112.6 | 125 | 120 | 653 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 164.0 | 175 | 151 | 644 | 176.0 | 200 | 162 | 653 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.8 | 200 | 211 | 644 | 201.8 | 225 | 222 | 653 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 13.4 | 6.7 | 8.7 | None | - | - | - | 104.1 | 125 | 110 | 645 | 112.8 | 125 | 120 | 654 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.6 | 125 | 110 | 645 | 116.5 | 125 | 120 | 654 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.5 | 200 | 163 | 645 | 188.4 | 200 | 173 | 654 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.4 | 225 | 230 | 645 | 217.3 | 225 | 240 | 654 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 6.7 | 3.4 | 4.3 | None | - | - | - | 52.0 | 60 | 55 | 332 | 56.3 | 70 | 60 | 337 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.9 | 60 | 55 | 332 | 58.3 | 70 | 60 | 337 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.9 | 90 | 82 | 332 | 94.3 | 100 | 87 | 337 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 103.3 | 110 | 115 | 332 | 108.7 | 110 | 120 | 337 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 5.4 | 2.7 | 3.5 | None | - | - | - | 42.4 | 50 | 45 | 256 | 45.9 | 50 | 49 | 259 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.4 | 50 | 45 | 256 | 46.6 | 50 | 49 | 259 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.0 | 80 | 65 | 256 | 75.4 | 80 | 69 | 259 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.6 | 90 | 92 | 256 | 87.0 | 90 | 96 | 259 |

## Table 34: KD15 to KD28 VFD customer supplied medium static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 19.8 | 6.7 | 9.6 | None | - | - | - | 137.3 | 175 | 146 | 797 | 146.9 | 175 | 157 | 807 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 137.3 | 175 | 146 | 797 | 146.9 | 175 | 157 | 807 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 171.9 | 175 | 158 | 797 | 183.9 | 200 | 169 | 807 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 197.7 | 200 | 218 | 797 | 209.7 | 225 | 229 | 807 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 19.8 | 6.7 | 8.7 | None | - | - | - | 138.5 | 175 | 147 | 799 | 147.2 | 175 | 157 | 808 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 138.5 | 175 | 147 | 799 | 147.2 | 175 | 157 | 808 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 185.5 | 200 | 171 | 799 | 196.4 | 200 | 181 | 808 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 214.4 | 225 | 237 | 799 | 225.3 | 250 | 247 | 808 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 9.9 | 3.4 | 4.3 | None | - | - | - | 63.5 | 80 | 68 | 379 | 67.8 | 80 | 72 | 384 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 63.5 | 80 | 68 | 379 | 67.8 | 80 | 72 | 384 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 379 | 98.3 | 100 | 90 | 384 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 379 | 112.7 | 125 | 124 | 384 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 7.9 | 2.7 | 3.5 | None | - | - | - | 52.6 | 60 | 56 | 293 | 56.1 | 70 | 60 | 297 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 52.6 | 60 | 56 | 293 | 56.1 | 70 | 60 | 297 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 74.1 | 80 | 68 | 293 | 78.5 | 80 | 72 | 297 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.7 | 90 | 95 | 293 | 90.1 | 100 | 99 | 297 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 25.4 | 6.7 | 9.6 | None | - | - | - | 151.3 | 175 | 161 | 928 | 160.9 | 200 | 172 | 938 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 151.3 | 175 | 161 | 928 | 160.9 | 200 | 172 | 938 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 178.9 | 200 | 165 | 928 | 190.9 | 200 | 176 | 938 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 204.7 | 225 | 224 | 928 | 216.7 | 225 | 235 | 938 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 25.4 | 6.7 | 8.7 | None | - | - | - | 151.3 | 175 | 161 | 928 | 160.0 | 200 | 171 | 937 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 151.3 | 175 | 161 | 928 | 160.0 | 200 | 171 | 937 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 192.5 | 200 | 177 | 928 | 203.4 | 225 | 187 | 937 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 221.4 | 225 | 243 | 928 | 232.3 | 250 | 253 | 937 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 12.7 | 3.4 | 4.3 | None | - | - | - | 75.7 | 90 | 81 | 472 | 80.0 | 100 | 86 | 476 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 75.7 | 90 | 81 | 472 | 80.0 | 100 | 86 | 476 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 96.4 | 100 | 89 | 472 | 101.8 | 110 | 94 | 476 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 110.8 | 125 | 122 | 472 | 116.2 | 125 | 127 | 476 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 10.5 | 2.7 | 3.5 | None | - | - | - | 61.6 | 80 | 65 | 377 | 65.1 | 80 | 69 | 381 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 61.6 | 80 | 65 | 377 | 65.1 | 80 | 69 | 381 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 77.4 | 80 | 71 | 377 | 81.8 | 90 | 75 | 381 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 89.0 | 90 | 98 | 377 | 93.4 | 100 | 102 | 381 |



BHC Residential & Light Commercial LLC

## VFD customer supplied high static

### Table 35: KD15 to KD28 VFD customer supplied high static without power exhaust

| Size (ton) | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors (each) FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size (A) | Min disconnect rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.5 | 9.6 | None | - | - | - | 78.6 | 100 | 82 | 470 | 88.2 | 110 | 93 | 480 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 82.0 | 100 | 82 | 470 | 94.0 | 110 | 93 | 480 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 147.3 | 150 | 135 | 470 | 159.3 | 175 | 147 | 480 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 173.1 | 200 | 195 | 470 | 185.1 | 200 | 206 | 480 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.4 | 8.7 | None | - | - | - | 78.5 | 100 | 82 | 470 | 87.2 | 110 | 92 | 478 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 88.9 | 100 | 82 | 470 | 99.8 | 110 | 92 | 478 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 160.8 | 175 | 148 | 470 | 171.6 | 175 | 158 | 478 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 189.7 | 225 | 214 | 470 | 200.5 | 225 | 224 | 478 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 6.7 | 4.3 | None | - | - | - | 34.3 | 45 | 36 | 255 | 38.6 | 50 | 41 | 259 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 44.4 | 45 | 41 | 255 | 49.8 | 50 | 46 | 259 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 80.4 | 90 | 74 | 255 | 85.8 | 90 | 79 | 259 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 94.8 | 110 | 107 | 255 | 100.2 | 110 | 112 | 259 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 5.4 | 3.5 | None | - | - | - | 27.7 | 35 | 29 | 187 | 31.2 | 40 | 33 | 191 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 35.5 | 40 | 33 | 187 | 39.9 | 40 | 37 | 191 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 64.3 | 70 | 59 | 187 | 68.6 | 70 | 63 | 191 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 75.9 | 90 | 86 | 187 | 80.2 | 90 | 90 | 191 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 19.8 | 9.6 | None | - | - | - | 86.4 | 110 | 91 | 585 | 96.0 | 110 | 102 | 595 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 89.9 | 110 | 91 | 585 | 101.9 | 110 | 102 | 595 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.1 | 175 | 143 | 585 | 167.1 | 175 | 154 | 595 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.0 | 200 | 202 | 585 | 193.0 | 200 | 213 | 595 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 19.8 | 8.7 | None | - | - | - | 86.4 | 110 | 91 | 585 | 95.1 | 110 | 101 | 594 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 96.9 | 110 | 91 | 585 | 107.8 | 110 | 101 | 594 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 168.8 | 175 | 155 | 585 | 179.6 | 200 | 165 | 594 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 197.7 | 225 | 222 | 585 | 208.5 | 225 | 232 | 594 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 9.9 | 4.3 | None | - | - | - | 41.5 | 50 | 44 | 294 | 45.8 | 50 | 49 | 298 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 48.4 | 50 | 45 | 294 | 53.8 | 60 | 49 | 298 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 294 | 89.8 | 90 | 83 | 298 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 294 | 104.2 | 110 | 116 | 298 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 7.9 | 3.5 | None | - | - | - | 32.5 | 40 | 34 | 212 | 36.0 | 45 | 38 | 215 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 38.6 | 40 | 36 | 212 | 43.0 | 45 | 40 | 215 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 212 | 71.8 | 80 | 66 | 215 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 212 | 83.4 | 90 | 93 | 215 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 19.8 | 9.6 | None | - | - | - | 95.9 | 125 | 101 | 657 | 105.5 | 125 | 112 | 667 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 95.9 | 125 | 101 | 657 | 105.5 | 125 | 112 | 667 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 155.1 | 175 | 143 | 657 | 167.1 | 175 | 154 | 667 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 181.0 | 200 | 202 | 657 | 193.0 | 200 | 213 | 667 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 19.8 | 8.7 | None | - | - | - | 97.1 | 125 | 102 | 659 | 105.8 | 125 | 112 | 668 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 97.1 | 125 | 102 | 659 | 107.8 | 125 | 112 | 668 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 168.8 | 175 | 155 | 659 | 179.6 | 200 | 165 | 668 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 197.7 | 225 | 222 | 659 | 208.5 | 225 | 232 | 668 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 9.9 | 4.3 | None | - | - | - | 48.4 | 60 | 51 | 339 | 52.7 | 60 | 56 | 344 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 48.4 | 60 | 51 | 339 | 53.8 | 60 | 56 | 344 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 84.4 | 90 | 78 | 339 | 89.8 | 90 | 83 | 344 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 98.8 | 110 | 111 | 339 | 104.2 | 110 | 116 | 344 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 7.9 | 3.5 | None | - | - | - | 39.5 | 50 | 42 | 259 | 43.0 | 50 | 46 | 263 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 39.5 | 50 | 42 | 259 | 43.0 | 50 | 46 | 263 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 67.4 | 70 | 62 | 259 | 71.8 | 80 | 66 | 263 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.0 | 90 | 89 | 259 | 83.4 | 90 | 93 | 263 |

## Table 35: KD15 to KD28 VFD customer supplied high static without power exhaust

| Size (ton) | Nominal unit voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD fan motors (each) FLA | Supply blower motor FLA | 120V trans FLA | Electric heat option field installed kit | | | | MCA A | Max f/ b Size (A) | Min disconnect rating | | MCAw / 120V trans | Max f/ b size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 25.4 | 9.6 | None | - | - | - | 129.5 | 150 | 137 | 834 | 139.1 | 175 | 148 | 844 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 129.5 | 150 | 137 | 834 | 139.1 | 175 | 148 | 844 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 162.1 | 175 | 149 | 834 | 174.1 | 175 | 160 | 844 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 188.0 | 200 | 209 | 834 | 200.0 | 200 | 220 | 844 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 25.4 | 8.7 | None | - | - | - | 130.7 | 150 | 138 | 836 | 139.4 | 175 | 148 | 845 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 130.7 | 150 | 138 | 836 | 139.4 | 175 | 148 | 845 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 175.8 | 200 | 162 | 836 | 186.6 | 200 | 172 | 845 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 204.7 | 225 | 228 | 836 | 215.5 | 225 | 238 | 845 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 12.7 | 4.3 | None | - | - | - | 59.5 | 70 | 63 | 398 | 63.8 | 80 | 68 | 402 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 59.5 | 70 | 63 | 398 | 63.8 | 80 | 68 | 402 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 87.9 | 90 | 81 | 398 | 93.3 | 100 | 86 | 402 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 102.3 | 110 | 114 | 398 | 107.7 | 110 | 119 | 402 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 10.5 | 3.5 | None | - | - | - | 49.8 | 60 | 52 | 311 | 53.3 | 70 | 56 | 314 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 49.8 | 60 | 52 | 311 | 53.3 | 70 | 56 | 314 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 70.6 | 80 | 65 | 311 | 75.0 | 80 | 69 | 314 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.2 | 90 | 92 | 311 | 86.6 | 90 | 96 | 314 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.2 | 9.6 | None | - | - | - | 142.7 | 175 | 151 | 975 | 152.3 | 175 | 162 | 985 |
| | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 142.7 | 175 | 151 | 975 | 152.3 | 175 | 162 | 985 |
| | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 168.1 | 175 | 155 | 975 | 180.1 | 200 | 166 | 985 |
| | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 194.0 | 200 | 214 | 975 | 206.0 | 225 | 225 | 985 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.2 | 8.7 | None | - | - | - | 142.7 | 175 | 151 | 975 | 151.4 | 175 | 161 | 984 |
| | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 142.7 | 175 | 151 | 975 | 151.4 | 175 | 161 | 984 |
| | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.8 | 200 | 167 | 975 | 192.6 | 200 | 177 | 984 |
| | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.7 | 225 | 234 | 975 | 221.5 | 225 | 244 | 984 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 15.1 | 4.3 | None | - | - | - | 71.3 | 90 | 76 | 495 | 75.6 | 90 | 81 | 500 |
| | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 71.3 | 90 | 76 | 495 | 75.6 | 90 | 81 | 500 |
| | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 90.9 | 100 | 84 | 495 | 96.3 | 100 | 89 | 500 |
| | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 105.3 | 110 | 117 | 495 | 110.7 | 125 | 122 | 500 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 12.0 | 3.5 | None | - | - | - | 57.7 | 70 | 61 | 391 | 61.2 | 70 | 65 | 394 |
| | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 57.7 | 70 | 61 | 391 | 61.2 | 70 | 65 | 394 |
| | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 72.5 | 80 | 67 | 391 | 76.9 | 80 | 71 | 394 |
| | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 84.1 | 90 | 93 | 391 | 88.5 | 90 | 97 | 394 |



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## Table 36: KD15 to KD28 VFD customer supplied high static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.5 | 5.0 | 9.6 | None | - | - | - | 88.6 | 110 | 94 | 491 | 98.2 | 125 | 105 | 501 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 94.5 | 110 | 94 | 491 | 106.5 | 125 | 105 | 501 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 159.8 | 175 | 147 | 491 | 171.8 | 175 | 158 | 501 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 185.6 | 200 | 207 | 491 | 197.6 | 200 | 218 | 501 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.4 | 5.0 | 8.7 | None | - | - | - | 88.5 | 110 | 94 | 491 | 97.2 | 110 | 104 | 499 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 101.4 | 110 | 94 | 491 | 112.3 | 125 | 104 | 499 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 173.3 | 175 | 159 | 491 | 184.1 | 200 | 169 | 499 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 202.2 | 225 | 226 | 491 | 213.0 | 225 | 236 | 499 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 6.7 | 2.2 | 4.3 | None | - | - | - | 38.7 | 50 | 41 | 264 | 43.0 | 50 | 46 | 268 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 49.9 | 50 | 46 | 264 | 55.3 | 60 | 51 | 268 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 85.9 | 90 | 79 | 264 | 91.3 | 100 | 84 | 268 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 100.3 | 110 | 112 | 264 | 105.7 | 110 | 117 | 268 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 5.4 | 1.5 | 3.5 | None | - | - | - | 30.7 | 35 | 33 | 193 | 34.2 | 40 | 37 | 197 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 39.3 | 40 | 36 | 193 | 43.6 | 45 | 40 | 197 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 68.0 | 70 | 63 | 193 | 72.4 | 80 | 67 | 197 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 79.6 | 90 | 89 | 193 | 84.0 | 90 | 93 | 197 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 19.8 | 5.0 | 9.6 | None | - | - | - | 96.4 | 110 | 103 | 606 | 106.0 | 125 | 114 | 616 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 102.4 | 110 | 103 | 606 | 114.4 | 125 | 114 | 616 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.6 | 175 | 154 | 606 | 179.6 | 200 | 165 | 616 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.5 | 200 | 214 | 606 | 205.5 | 225 | 225 | 616 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 19.8 | 5.0 | 8.7 | None | - | - | - | 96.4 | 110 | 103 | 606 | 105.1 | 125 | 113 | 615 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 109.4 | 110 | 103 | 606 | 120.3 | 125 | 113 | 615 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.3 | 200 | 167 | 606 | 192.1 | 200 | 177 | 615 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.2 | 225 | 233 | 606 | 221.0 | 225 | 243 | 615 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 9.9 | 2.2 | 4.3 | None | - | - | - | 45.9 | 50 | 49 | 303 | 50.2 | 60 | 54 | 307 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 50 | 303 | 59.3 | 60 | 55 | 307 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 303 | 95.3 | 100 | 88 | 307 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 303 | 109.7 | 110 | 121 | 307 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 7.9 | 1.5 | 3.5 | None | - | - | - | 35.5 | 45 | 38 | 218 | 39.0 | 45 | 42 | 221 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.4 | 45 | 39 | 218 | 46.8 | 50 | 43 | 221 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.1 | 80 | 65 | 218 | 75.5 | 80 | 69 | 221 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.7 | 90 | 92 | 218 | 87.1 | 90 | 96 | 221 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 19.8 | 5.0 | 9.6 | None | - | - | - | 105.9 | 125 | 112 | 678 | 115.5 | 125 | 123 | 688 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 105.9 | 125 | 112 | 678 | 115.5 | 125 | 123 | 688 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 167.6 | 175 | 154 | 678 | 179.6 | 200 | 165 | 688 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 193.5 | 200 | 214 | 678 | 205.5 | 225 | 225 | 688 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 19.8 | 5.0 | 8.7 | None | - | - | - | 107.1 | 125 | 114 | 680 | 115.8 | 125 | 124 | 689 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 109.4 | 125 | 114 | 680 | 120.3 | 125 | 124 | 689 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 181.3 | 200 | 167 | 680 | 192.1 | 200 | 177 | 689 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 210.2 | 225 | 233 | 680 | 221.0 | 225 | 243 | 689 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 9.9 | 2.2 | 4.3 | None | - | - | - | 52.8 | 60 | 56 | 349 | 57.1 | 70 | 61 | 353 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 53.9 | 60 | 56 | 349 | 59.3 | 70 | 61 | 353 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 89.9 | 90 | 83 | 349 | 95.3 | 100 | 88 | 353 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 104.3 | 110 | 116 | 349 | 109.7 | 110 | 121 | 353 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 7.9 | 1.5 | 3.5 | None | - | - | - | 42.5 | 50 | 45 | 266 | 46.0 | 50 | 49 | 269 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.5 | 50 | 45 | 266 | 46.8 | 50 | 49 | 269 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.1 | 80 | 65 | 266 | 75.5 | 80 | 69 | 269 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.7 | 90 | 92 | 266 | 87.1 | 90 | 96 | 269 |

## Table 36: KD15 to KD28 VFD customer supplied high static with on/off power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 25.4 | 5.0 | 9.6 | None | - | - | - | 139.5 | 175 | 149 | 855 | 149.1 | 175 | 160 | 865 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 139.5 | 175 | 149 | 855 | 149.1 | 175 | 160 | 865 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 174.6 | 175 | 161 | 855 | 186.6 | 200 | 172 | 865 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 200.5 | 225 | 220 | 855 | 212.5 | 225 | 231 | 865 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 25.4 | 5.0 | 8.7 | None | - | - | - | 140.7 | 175 | 150 | 857 | 149.4 | 175 | 160 | 866 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 140.7 | 175 | 150 | 857 | 149.4 | 175 | 160 | 866 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 188.3 | 200 | 173 | 857 | 199.1 | 200 | 183 | 866 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 217.2 | 225 | 240 | 857 | 228.0 | 250 | 250 | 866 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 12.7 | 2.2 | 4.3 | None | - | - | - | 63.9 | 80 | 68 | 407 | 68.2 | 80 | 73 | 411 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 63.9 | 80 | 68 | 407 | 68.2 | 80 | 73 | 411 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 93.4 | 100 | 86 | 407 | 98.8 | 100 | 91 | 411 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.8 | 110 | 119 | 407 | 113.2 | 125 | 124 | 411 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 10.5 | 1.5 | 3.5 | None | - | - | - | 52.8 | 60 | 56 | 317 | 56.3 | 70 | 60 | 321 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 52.8 | 60 | 56 | 317 | 56.3 | 70 | 60 | 321 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 74.4 | 80 | 68 | 317 | 78.8 | 80 | 72 | 321 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 86.0 | 90 | 95 | 317 | 90.4 | 100 | 99 | 321 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.2 | 5.0 | 9.6 | None | - | - | - | 152.7 | 175 | 163 | 996 | 162.3 | 200 | 174 | 1006 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 152.7 | 175 | 163 | 996 | 162.3 | 200 | 174 | 1006 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 180.6 | 200 | 166 | 996 | 192.6 | 200 | 177 | 1006 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 206.5 | 225 | 226 | 996 | 218.5 | 225 | 237 | 1006 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.2 | 5.0 | 8.7 | None | - | - | - | 152.7 | 175 | 163 | 996 | 161.4 | 200 | 173 | 1005 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 152.7 | 175 | 163 | 996 | 161.4 | 200 | 173 | 1005 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 194.3 | 200 | 179 | 996 | 205.1 | 225 | 189 | 1005 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 223.2 | 250 | 245 | 996 | 234.0 | 250 | 255 | 1005 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 15.1 | 2.2 | 4.3 | None | - | - | - | 75.7 | 90 | 81 | 504 | 80.0 | 100 | 86 | 509 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 75.7 | 90 | 81 | 504 | 80.0 | 100 | 86 | 509 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 96.4 | 100 | 89 | 504 | 101.8 | 110 | 94 | 509 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 110.8 | 125 | 122 | 504 | 116.2 | 125 | 127 | 509 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 12.0 | 1.5 | 3.5 | None | - | - | - | 60.7 | 70 | 64 | 397 | 64.2 | 80 | 68 | 401 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 60.7 | 70 | 64 | 397 | 64.2 | 80 | 68 | 401 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 76.3 | 80 | 70 | 397 | 80.6 | 90 | 74 | 401 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 87.9 | 90 | 97 | 397 | 92.2 | 100 | 101 | 401 |



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## Table 37: KD15 to KD28 VFD customer supplied high static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 15 (15) | 208-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.5 | 6.7 | 9.6 | None | - | - | - | 92.0 | 110 | 98 | 484 | 101.6 | 125 | 109 | 493 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 98.8 | 110 | 98 | 484 | 110.8 | 125 | 109 | 493 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 164.0 | 175 | 151 | 484 | 176.0 | 200 | 162 | 493 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 189.8 | 200 | 211 | 484 | 201.8 | 225 | 222 | 493 |
| | 230-3-60 | 26.3 | 178.5 | 27.7 | 179 | | | 2.1 | 13.4 | 6.7 | 8.7 | None | - | - | - | 91.9 | 110 | 98 | 483 | 100.6 | 125 | 108 | 492 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 105.6 | 110 | 98 | 483 | 116.5 | 125 | 108 | 492 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 177.5 | 200 | 163 | 483 | 188.4 | 200 | 173 | 492 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 206.4 | 225 | 230 | 483 | 217.3 | 225 | 240 | 492 |
| | 460-3-60 | 11.0 | 95.3 | 11.5 | 103 | | | 1.1 | 6.7 | 3.4 | 4.3 | None | - | - | - | 41.1 | 50 | 44 | 262 | 45.4 | 50 | 49 | 266 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 52.9 | 60 | 49 | 262 | 58.3 | 60 | 54 | 266 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 88.9 | 90 | 82 | 262 | 94.3 | 100 | 87 | 266 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 103.3 | 110 | 115 | 262 | 108.7 | 110 | 120 | 266 |
| | 575-3-60 | 9.2 | 65 | 9.0 | 78 | | | 0.9 | 5.4 | 2.7 | 3.5 | None | - | - | - | 33.1 | 40 | 35 | 192 | 36.6 | 45 | 39 | 196 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 42.3 | 45 | 39 | 192 | 46.6 | 50 | 43 | 196 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 71.0 | 80 | 65 | 192 | 75.4 | 80 | 69 | 196 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 82.6 | 90 | 92 | 192 | 87.0 | 90 | 96 | 196 |
| 18 (17.5) | 208-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 19.8 | 6.7 | 9.6 | None | - | - | - | 99.8 | 125 | 107 | 599 | 109.4 | 125 | 118 | 608 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 106.6 | 125 | 107 | 599 | 118.6 | 125 | 118 | 608 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 171.9 | 175 | 158 | 599 | 183.9 | 200 | 169 | 608 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 197.7 | 200 | 218 | 599 | 209.7 | 225 | 229 | 608 |
| | 230-3-60 | 26.8 | 190.7 | 28.5 | 255 | | | 2.1 | 19.8 | 6.7 | 8.7 | None | - | - | - | 99.8 | 125 | 107 | 599 | 108.5 | 125 | 117 | 607 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 113.6 | 125 | 107 | 599 | 124.5 | 125 | 117 | 607 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 185.5 | 200 | 171 | 599 | 196.4 | 200 | 181 | 607 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 214.4 | 225 | 237 | 599 | 225.3 | 250 | 247 | 607 |
| | 460-3-60 | 12.5 | 100.2 | 13.5 | 123 | | | 1.1 | 9.9 | 3.4 | 4.3 | None | - | - | - | 48.3 | 60 | 52 | 300 | 52.6 | 60 | 57 | 305 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.9 | 60 | 52 | 300 | 62.3 | 70 | 57 | 305 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 300 | 98.3 | 100 | 90 | 305 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 300 | 112.7 | 125 | 124 | 305 |
| | 575-3-60 | 9.4 | 65 | 10.7 | 93.7 | | | 0.9 | 7.9 | 2.7 | 3.5 | None | - | - | - | 37.9 | 45 | 40 | 217 | 41.4 | 50 | 45 | 220 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.4 | 50 | 42 | 217 | 49.8 | 50 | 46 | 220 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 74.1 | 80 | 68 | 217 | 78.5 | 80 | 72 | 220 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.7 | 90 | 95 | 217 | 90.1 | 100 | 99 | 220 |
| 20 (20) | 208-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.0 | 19.8 | 6.7 | 9.6 | None | - | - | - | 109.3 | 125 | 116 | 671 | 118.9 | 150 | 127 | 680 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 109.3 | 125 | 116 | 671 | 118.9 | 150 | 127 | 680 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 171.9 | 175 | 158 | 671 | 183.9 | 200 | 169 | 680 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 197.7 | 200 | 218 | 671 | 209.7 | 225 | 229 | 680 |
| | 230-3-60 | 26.5 | 255 | 33.3 | 255 | | | 2.3 | 19.8 | 6.7 | 8.7 | None | - | - | - | 110.5 | 125 | 118 | 673 | 119.2 | 150 | 128 | 681 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 113.6 | 125 | 118 | 673 | 124.5 | 150 | 128 | 681 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 185.5 | 200 | 171 | 673 | 196.4 | 200 | 181 | 681 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 214.4 | 225 | 237 | 673 | 225.3 | 250 | 247 | 681 |
| | 460-3-60 | 14.0 | 123 | 15.4 | 140 | | | 1.3 | 9.9 | 3.4 | 4.3 | None | - | - | - | 55.2 | 70 | 59 | 346 | 59.5 | 70 | 64 | 350 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 56.9 | 70 | 59 | 346 | 62.3 | 70 | 64 | 350 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 92.9 | 100 | 85 | 346 | 98.3 | 100 | 90 | 350 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 107.3 | 110 | 119 | 346 | 112.7 | 125 | 124 | 350 |
| | 575-3-60 | 11.5 | 93.7 | 12.9 | 107.6 | | | 1.0 | 7.9 | 2.7 | 3.5 | None | - | - | - | 44.9 | 50 | 48 | 265 | 48.4 | 60 | 52 | 268 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 45.4 | 50 | 48 | 265 | 49.8 | 60 | 52 | 268 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 74.1 | 80 | 68 | 265 | 78.5 | 80 | 72 | 268 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 85.7 | 90 | 95 | 265 | 90.1 | 100 | 99 | 268 |

## Table 37: KD15 to KD28 VFD customer supplied high static with modulating power exhaust

| Size (ton) | Nominal Unit Voltage | Comp. 1 | | Comp. 2 | | Comp. 3 | | OD Fan Motors (each) FLA | Supply Blower Motor FLA | Pwr Exh Motor FLA | 120V trans FLA | Electric Heat Option Field Installed Kit | | | | MCA A | Max f/ b Size (A) | Min Disconnect Rating | | MCA w/ 120V trans (A) | Max f/ b Size w/ 120V trans (A) | Min disconnect rating/ 120V trans | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RLA | LRA | RLA | LRA | RLA | LRA | | | | | Model | kW | Stages | A | | | FLA | LRA | | | FLA | LRA |
| 25 (25) | 208-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.0 | 25.4 | 6.7 | 9.6 | None | - | - | - | 142.9 | 175 | 152 | 847 | 152.5 | 175 | 164 | 857 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 142.9 | 175 | 152 | 847 | 152.5 | 175 | 164 | 857 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 178.9 | 200 | 165 | 847 | 190.9 | 200 | 176 | 857 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 204.7 | 225 | 224 | 847 | 216.7 | 225 | 235 | 857 |
| | 230-3-60 | 22.4 | 166.2 | 41.0 | 304 | 22.4 | 166.2 | 2.3 | 25.4 | 6.7 | 8.7 | None | - | - | - | 144.1 | 175 | 154 | 849 | 152.8 | 175 | 164 | 858 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 144.1 | 175 | 154 | 849 | 152.8 | 175 | 164 | 858 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 192.5 | 200 | 177 | 849 | 203.4 | 225 | 187 | 858 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 221.4 | 225 | 243 | 849 | 232.3 | 250 | 253 | 858 |
| | 460-3-60 | 8.8 | 74.6 | 19.2 | 147 | 8.8 | 74.6 | 1.3 | 12.7 | 3.4 | 4.3 | None | - | - | - | 66.3 | 80 | 71 | 405 | 70.6 | 80 | 76 | 409 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 66.3 | 80 | 71 | 405 | 70.6 | 80 | 76 | 409 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 96.4 | 100 | 89 | 405 | 101.8 | 110 | 94 | 409 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 110.8 | 125 | 122 | 405 | 116.2 | 125 | 127 | 409 |
| | 575-3-60 | 7.2 | 54 | 16.7 | 122 | 7.2 | 54 | 1.0 | 10.5 | 2.7 | 3.5 | None | - | - | - | 55.2 | 70 | 59 | 316 | 58.7 | 70 | 63 | 320 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 55.2 | 70 | 59 | 316 | 58.7 | 70 | 63 | 320 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 77.4 | 80 | 71 | 316 | 81.8 | 90 | 75 | 320 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 89.0 | 90 | 98 | 316 | 93.4 | 100 | 102 | 320 |
| 28 (27.5) | 208-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.2 | 6.7 | 9.6 | None | - | - | - | 156.1 | 200 | 167 | 988 | 165.7 | 200 | 178 | 998 |
| | | | | | | | | | | | | 2EH04502525 | 18.8 | 1 | 52.1 | 156.1 | 200 | 167 | 988 | 165.7 | 200 | 178 | 998 |
| | | | | | | | | | | | | 2EH04505025 | 37.6 | 2 | 104.3 | 184.9 | 200 | 170 | 988 | 196.9 | 200 | 181 | 998 |
| | | | | | | | | | | | | 2EH04507525 | 56.3 | 2 | 156.2 | 210.7 | 225 | 230 | 988 | 222.7 | 225 | 241 | 998 |
| | 230-3-60 | 24.4 | 200 | 44.2 | 315 | 24.4 | 200 | 2.1 | 30.2 | 6.7 | 8.7 | None | - | - | - | 156.1 | 200 | 167 | 988 | 164.8 | 200 | 177 | 997 |
| | | | | | | | | | | | | 2EH04502525 | 23.0 | 1 | 57.7 | 156.1 | 200 | 167 | 988 | 164.8 | 200 | 177 | 997 |
| | | | | | | | | | | | | 2EH04505025 | 45.9 | 2 | 115.2 | 198.5 | 200 | 183 | 988 | 209.4 | 225 | 193 | 997 |
| | | | | | | | | | | | | 2EH04507525 | 68.9 | 2 | 172.9 | 227.4 | 250 | 249 | 988 | 238.3 | 250 | 259 | 997 |
| | 460-3-60 | 11.9 | 103 | 22.4 | 158 | 11.9 | 103 | 1.1 | 15.1 | 3.4 | 4.3 | None | - | - | - | 78.1 | 100 | 83 | 502 | 82.4 | 100 | 88 | 506 |
| | | | | | | | | | | | | 2EH04502546 | 23.0 | 1 | 28.8 | 78.1 | 100 | 83 | 502 | 82.4 | 100 | 88 | 506 |
| | | | | | | | | | | | | 2EH04505046 | 45.9 | 2 | 57.6 | 99.4 | 100 | 91 | 502 | 104.8 | 110 | 96 | 506 |
| | | | | | | | | | | | | 2EH04507546 | 68.9 | 2 | 86.4 | 113.8 | 125 | 125 | 502 | 119.2 | 125 | 129 | 506 |
| | 575-3-60 | 9.4 | 78 | 18.6 | 136 | 9.4 | 78 | 0.9 | 12.0 | 2.7 | 3.5 | None | - | - | - | 63.1 | 80 | 67 | 396 | 66.6 | 80 | 71 | 400 |
| | | | | | | | | | | | | 2EH04502558 | 23.0 | 1 | 23.0 | 63.1 | 80 | 67 | 396 | 66.6 | 80 | 71 | 400 |
| | | | | | | | | | | | | 2EH04505058 | 45.9 | 2 | 46.0 | 79.3 | 80 | 73 | 396 | 83.6 | 90 | 77 | 400 |
| | | | | | | | | | | | | 2EH04507558 | 68.9 | 2 | 69.1 | 90.9 | 100 | 99 | 396 | 95.2 | 100 | 104 | 400 |



BHC Residential & Light Commercial LLC

# Physical data

## Table 38: KD15 to KD18 physical data

| Component | Models | | | | | |
|---|---|---|---|---|---|---|
| | KD15 | | | KD18 | | |
| **Nominal Tonnage** | 15 | | | 17.5 | | |
| ARI cooling performance | 2 Stage | | 4 Stage | 2 Stage | | 4 Stage |
| Gross Capacity at ARI A point, Btu | 177,000 | | 178,000 | 205,000 | | 205,000 |
| ARI net capacity, Btu | 172,000 | | 174,000 | 200,000 | | 200,000 |
| EER | 11.1[1] / 10.9[2] | | 11.0[1] / 10.8[2] | 11.0[1] / 10.8[2] | | 11.0[1] / 10.8[2] |
| IEER with Intellispeed | 14.2[1] / 14.0[2] | | 14.8[1] / 14.6[2] | 14.2[1] / 14.0[2] | | 14.6[1] / 14.4[2] |
| IEER with VAV | NA | | 14.6[1] / 14.4[2] | NA | | 14.4[1] / 14.2[2] |
| CFM | 5210 | | 4750 | 5600 | | 5550 |
| System power, kW | 15.78 | | 16.13 | 18.52 | | 18.52 |
| Refrigerant type | R-454B | | R-454B | R-454B | | R-454B |
| **Refrigerant charge, lb-oz** | | | | | | |
| System 1 | 7 | | 7 | 9-8 | | 8-8 |
| System 2 | 7-6 | | 7-6 | 10-12 | | 9-4 |
| **ARI Heating Performance** | | | | | | |
| Heating Model | N(S)1 | N(S)3 | T3 | N(S)1 | N(S)3 | T3 |
| Heating Type | Stg. Low | Stg. High | Mod. High | Stg. Low | Stg. High | Mod. High |
| First stage heat input, K Btu | 165 | 300 | 140 | 165 | 300 | 140 |
| Second stage heat input (K Btu) | 220 | 400 | 400 | 220 | 400 | 400 |
| First stage Heat output (K Btu) | 134 | 243 | 113 | 134 | 243 | 113 |
| Second stage heat output,K Btu | 178 | 324 | 324 | 178 | 324 | 324 |
| AFUE, % | - | - | - | - | - | - |
| Steady state efficiency, % | 81 | 81 | 81 | 81 | 81 | 81 |
| No. burners | 5 | 9 | 9 | 5 | 9 | 9 |
| Number stages or turn down | 2 | 2 | 2.85 to 1 | 2 | 2 | 2.85 to 1 |
| Temperature Rise Range, °F | 15-45 | 35-65 | 35-65 | 15-45 | 30-65 | 30-65 |
| Gas Limit Setting,°F | 130 | 130 | 135 | 130 | 130 | 135 |
| Gas piping connection, in. | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| **Dimensions in.** | | | | | | |
| Length | 129-3/4 | | | | | |
| Width | 88-3/4 | | | | | |
| Height | 48-9/16 | | | | | |
| Operating weight, lb | 1750 | | | 1830 | | |
| Compressors | 2 Stage | | 4 Stage | 2 Stage | | 4 Stage |
| Type | Scroll | | Scroll | Scroll | | Scroll |
| Quantity | 2 | | 2 | 2 | | 2 |
| Unit Capacity Steps, % | 50 / 100 | | 34/50/84/100 | 50 / 100 | | 31/47/85/100 |
| **Condenser coil data** | | | | | | |
| Face area, sq ft | 22.1 | | | 22.1 | | |
| Type | MCHX | | | MCHX | | |
| Thickness, mm | 20 | | | 25 | | |
| FPI | 23 | | | 23 | | |
| Circuitry type | 2-Pass | | | 2-Pass | | |
| **Evaporator coil data** | | | | | | |
| Face area,sq ft | 22.0 | | | 22.0 | | |
| Rows | 3 | | | 4 | | |
| Fins per in. | 17 | | | 15 | | |
| Tube diameter | 3/8 | | | 3/8 | | |
| Circuitry type | Intertwined | | | Intertwined | | |
| Refrigerant control | TXV | | | TXV | | |
| **Condenser Fan Data** | | | | | | |
| Quantity | 2 | | | 2 | | |

## Table 38: KD15 to KD18 physical data

| Component | Models | | | | | |
|---|---|---|---|---|---|---|
| | KD15 | | | KD18 | | |
| **Nominal Tonnage** | **15** | | | **17.5** | | |
| Fan diameter, in. | 30 | | | 30 | | |
| Type | Prop | | | Prop | | |
| Drive type | Direct | | | Direct | | |
| Number of motors | 2 | | | 2 | | |
| Motor HP each | 1/2 | | | 1/2 | | |
| RPM | 850 | | | 850 | | |
| Nominal total CFM | 10,800 | | | 10,700 | | |
| **Belt drive evap fan data** | | | | | | |
| Quantity | 2 | | | 2 | | |
| Fan size, in. | 15x15 | | | 15x15 | | |
| Type | Centrifugal | | | Centrifugal | | |
| Static range | Std | Med | High | Std | Med | High |
| Motor sheave | 1VL44 | 1VL44 | 1VL50 | 1VL44 | 1VL50 | 1VL60 |
| Blower sheave | 1B5V90 | 1B5V74 | 1B5V66 | 1B5V86 | 1B5V74 | 1B5V74 |
| Belt | AX41 | AX41 | BX40 | AX41 | BX43 | BX43 |
| Motor HP each | 2.9 | 3.7 | 5.25 | 3.7 | 5.25 | 7.5 |
| RPM | 1745 | 1750 | 1750 | 1750 | 1750 | 1760 |
| Frame size | 56 | 56 | 145T | 56 | 145T | 213T |
| **Filters** | | | | | | |
| Quantity, size | 6 - (20 x 25 x 2)[3,4,5] | | | 6 - (20 x 25 x 2)[3,4,5] | | |
| | 6 - (20 x 25 x 4)[6] | | | 6 - (20 x 25 x 4)[6] | | |

**Note:**

1. Cooling only unit or cooling unit with electric heat
2. Cooling unit with gas heat
3. 2 in. throwaway, standard, Minimum Efficiency Reporting Value (MERV)
4. Optional 2 in. pleated, MERV 8
5. Optional 2 in. pleated, MERV 13
6. Optional 4 in. pleated, MERV 13

## Table 39: KD20 to KD28 physical data

| Component | Models | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | KD20 | | | KD25 | | | KD28 | | |
| Nominal tonnage | 20 | | | 25 | | | 27.5 | | |
| ARI cooling performance | 2 Stage | 4 Stage | | 2 Stage | 4 Stage | | 2 Stage | 4 Stage | |
| Gross Capacity at ARI A point, Btu | 245,000 | 247,000 | | 298,000 | 291,000 | | 333,000 | 333,000 | |
| ARI net capacity, Btu | 238,000 | 240,000 | | 286,000 | 280,000 | | 320,000 | 320,000 | |
| EER | 11.0[1] / 10.8[2] | 11.0[1] / 10.8[2] | | 10.2[1] / 10.0[2] | 10.2[1] / 10.0[2] | | 10.4[1] / 10.2[2] | 10.2[1] / 10.0[2] | |
| IEER with Intellispeed | 14.2[1] / 14.0[2] | 14.4[1] / 14.2[2] | | 14.0[1] / 13.8[2] | 14.4[1] / 14.2[2] | | 13.4[1] / 13.2[2] | 14.4[1] / 14.2[2] | |
| IEER with VAV | NA | 14.2[1] / 14.0[2] | | NA | 14.2[1] / 14.0[2] | | NA | 14.2[1] / 14.0[2] | |
| CFM | 6300 | 6500 | | 8250 | 8100 | | 8900 | 9100 | |
| System power, kW | 21.94 | 22.22 | | 28.60 | 27.79 | | 31.18 | 31.75 | |
| Refrigerant type | R-454B | R-454B | | R-454B | R-454B | | R-454B | R-454B | |
| **Refrigerant charge, lb-oz** | | | | | | | | | |
| System 1 | 10 | 9-12 | | 13-15 | 13-3 | | 14-4 | 13-4 | |
| System 2 | 10-12 | 9-12 | | 14-6 | 14-6 | | 14-8 | 14-8 | |
| **ARI Heating Performance** | | | | | | | | | |
| Heating Model | N(S)1 | N(S)3 | T3 | N(S)1 | N(S)3 | T3 | N(S)1 | N(S)3 | T3 |
| Heating type | Stg. Low | Stg. High | Mod. High | Stg. Low | Stg. High | Mod. High | Stg. Low | Stg. High | Mod. High |
| First stage heat input, K Btu | 165 | 300 | 140 | 165 | 300 | 140 | 165 | 300 | 140 |
| Second stage heat input, K Btu | 220 | 400 | 400 | 220 | 400 | 400 | 220 | 400 | 400 |
| First stage heat output, K Btu | 134 | 243 | 113 | 134 | 243 | 113 | 134 | 243 | 113 |
| Second stage heat output, K Btu | 178 | 324 | 324 | 178 | 324 | 324 | 178 | 324 | 324 |
| AFUE, % | - | - | - | - | - | - | - | - | - |
| Steady state efficiency, % | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| Number of burners | 5 | 9 | 9 | 5 | 9 | 9 | 5 | 9 | 9 |
| Number of stages or turn down | 2 | 2 | 2.85 to 1 | 2 | 2 | 2.85 to 1 | 2 | 2 | 2.85 to 1 |
| Temperature Rise Range, °F | 15-45 | 30-65 | 30-65 | 10-40 | 20-55 | 20-55 | 10-40 | 20-55 | 20-55 |
| Gas Limit Setting, °F | 130 | 130 | 135 | 130 | 130 | 135 | 130 | 130 | 135 |
| Gas piping connection, in. | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| **Dimensions in.** | | | | | | | | | |
| Length | 143-13/16" | | | 143-13/16" | | | 160-1/16" | | |
| Width | 88-3/4" | | | 88-3/4" | | | 88-3/4" | | |
| Height | 48-9/16" | | | 56-9/16" | | | 56-9/16" | | |
| Operating weight, lb | 1930 | | | 2090 | | | 2170 | | |
| Compressors | 2 Stage | 4 Stage | | 2 Stage | 4 Stage | | 2 Stage | 4 Stage | |
| Type | Scroll | Scroll | | Scroll | Scroll | | Scroll | Scroll | |
| Quantity | 2 | 2 | | 2 | 3 | | 2 | 3 | |
| Unit Capacity Steps, % | 46 / 100 | 31/46/85/100 | | 50 / 100 | 25/50/75/100 | | 50 / 100 | 25/50/75/100 | |
| **Condenser coil data** | | | | | | | | | |
| Face area, sq ft | 25.1 | | | 30.8 | | | 35.4 | | |
| Type | MCHX | | | MCHX | | | MCHX | | |
| Thickness,mm | 25 | | | 25 | | | 25 | | |
| FPI | 23 | | | 23 | | | 23 | | |
| Circuitry type | 2-Pass | | | 2-Pass | | | 2-Pass | | |
| Evaporator coil data | | | | | | | | | |
| Face area, sq ft | 22.0 | | | 26.0 | | | 26.0 | | |
| Rows | 4 | | | 4 | | | 4 | | |
| Fins per in. | 15 | | | 15 | | | 15 | | |
| Tube diameter | 3/8 | | | 3/8 | | | 3/8 | | |
| Circuitry type | Intertwined | | | Intertwined | | | Intertwined | | |
| Refrigerant control | TXV | | | TXV | | | TXV | | |
| **Condenser Fan Data** | | | | | | | | | |
| Quantity | 4 | | | 4 | | | 4 | | |
| Fan diameter, in. | 24 | | | 24 | | | 30 | | |
| Type | Prop | | | Prop | | | Prop | | |

## Table 39: KD20 to KD28 physical data

| Component | Models | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | KD20 | | | KD25 | | | KD28 | | |
| Drive type | Direct | | | Direct | | | Direct | | |
| Number of motors | 4 | | | 4 | | | 4 | | |
| Motor HP each | 1/2 | | | 1/2 | | | 1/2 | | |
| RPM | 1120 | | | 1120 | | | 850 | | |
| Nominal total CFM | 15,800 | | | 16,900 | | | 21,400 | | |
| **Belt drive evap fan data** | | | | | | | | | |
| Quantity | 2 | | | 2 | | | 2 | | |
| Fan size, in. | 15x15 | | | 15x15 | | | 15x15 | | |
| Type | Centrifugal | | | Centrifugal | | | Centrifugal | | |
| Static range | Std | Med | High | Std | Med | High | Std | Med | High |
| Motor sheave | 1VM50 | 1VM50 | 1VP60 | 1VM50 | 1VP60 | 1VP60 | 1VP71 | 1VP65 | 1VP71 |
| Blower sheave | 1B5V90 | 1B5V74 | 1B5V80 | 1B5V80 | 1B5V80 | 1B5V70 | 1B5V110 | 1B5V86 | 1B5V86 |
| Belt | BX43 | BX40 | BX43 | BX43 | BX43 | 5VX450 | BX50 | BX43 | 5VX450 |
| Motor HP each | 5.25 | 5.25 | 7.5 | 5.25 | 7.5 | 10 | 7.5 | 10 | 12 |
| RPM | 1750 | 1750 | 1765 | 1750 | 1760 | 1765 | 1760 | 1765 | 1765 |
| Frame size | 145T | 145T | 213T | 145T | 213T | 215T | 213T | 215T | 215T |
| **Filters** | | | | | | | | | |
| Quantity, size | 6 - (20 x 25 x 2)[3,4,5] | | | 9 - (16 x 25 x 2)[3,4,5] | | | 9 - (16 x 25 x 2)[3,4,5] | | |
| | 6 - (20 x 25 x 4)[6] | | | 9 - (16 x 25 x 4)[6] | | | 9 - (16 x 25 x 4)[6] | | |

**Note:**

1. Cooling only unit or cooling unit with electric heat
2. Cooling unit with gas heat
3. 2 in. throwaway, standard, Minimum Efficiency Reporting Value (MERV)
4. Optional 2 in. pleated, MERV 8
5. Optional 2 in. pleated, MERV 13
6. Optional 4 in. pleated, MERV 13

## Optional electric heat

The factory-installed heaters are wired for single point power supply. Bring the power supply only into the single point terminal block.

These CSA approved heaters are located in the central compartment of the unit with the heater elements extending in to the supply air chamber.

Fuses are supplied, where required, by the factory. See Table 40 for minimum CFM limitations. See the electrical data tables for electrical data.

**Table 40: Minimum Airflow Requirements**

| Minimum Airflow Requirements, up to 2 in. external static | | | |
|---|---|---|---|
| Unit tons | Heater kW | | |
| | 75 | 50 | 25 |
| 15 | 6000 | 4500 | 4500 |
| 17.5 | 6000 | 5250 | 5250 |
| 20 | 6000 | 6000 | 6000 |
| 25 | 7500 | 7500 | 7500 |
| 27.5 | 8250 | 8250 | 8250 |

All electric heat units shipped from the factory are equipped with RDS to protect the unit from any damage caused by refrigerant leakage.

Before you operate the unit, all field-installed electric heat units must have the RDS installed.

## Optional gas heat

The optional gas-fired heaters have aluminized-steel or optional stainless steel, tubular heat exchangers with spark ignition with proven pilot.

This unit is shipped from the factory for use with natural gas at elevations up to 2000 ft (610 m) above sea level. The unit may be field-converted for use with propane gas and/or elevations above 2000 ft with a listed conversion kit.

**Note:** Modulating furnaces, gas model T3, are **not certified** for use with propane and cannot be converted.

**Note:** Installation of this furnace at altitudes above 2000 ft (610 m) must be in accordance with local codes, or in the absence of local codes, the National Fuel Gas Code, ANSI Z223.1/NFPA 54 or National Standard of Canada, Natural Gas and Propane Installation Code, CSA B149.1.

**Table 41: Gas application data**

| Unit | | Input MBH | Output MBH | Temp. rise °F [1] |
|---|---|---|---|---|
| Size, ton | Heat size | | | |
| KD15 (15) | (N,S)1 | 220 | 178 | 15-45 |
| | (N,S)3 | 400 | 324 | 35-65 |
| | T3 | 400 | 324 | 35-65 |

**Table 41: Gas application data**

| Unit | | Input MBH | Output MBH | Temp. rise °F [1] |
|---|---|---|---|---|
| Size, ton | Heat size | | | |
| KD18 (17.5) | (N,S)1 | 220 | 178 | 15-45 |
| | (N,S)3 | 400 | 324 | 30-65 |
| | T3 | 400 | 324 | 30-65 |
| KD20 (20) | (N,S)1 | 220 | 178 | 15-45 |
| | (N,S)3 | 400 | 324 | 30-65 |
| | T3 | 400 | 324 | 30-65 |
| KD25 (25) | (N,S)1 | 220 | 178 | 10-40 |
| | (N,S)3 | 400 | 324 | 20-55 |
| | T3 | 400 | 324 | 20-55 |
| KD28 (27.5) | (N,S)1 | 220 | 178 | 10-40 |
| | (N,S)3 | 400 | 324 | 20-55 |
| | T3 | 400 | 324 | 20-55 |

1 On VAV units with a non-modulating furnace, individual VAV boxes must be full open within heating mode to ensure airflow falls in the temperature rise range.

On VAV units with a non-modulating furnace, individual VAV boxes must be full open in heating mode to ensure airflow falls within the temperature rise range.

**Table 42: Gas heat allowable air flow**

| Unit | | Supply air CFM | |
|---|---|---|---|
| Size, ton | Heat size | Min | Max |
| KD15 (15) | (N,S)1 | 3660 | 7500 |
| | (N,S)3 | 4620 | 7500 |
| | T3 | 3500 | 7500 |
| KD18 (17.5) | (N,S)1 | 3660 | 8750 |
| | (N,S)3 | 4620 | 8750 |
| | T3 | 3500 | 8750 |
| KD20 (20) | (N,S)1 | 3660 | 10000 |
| | (N,S)3 | 4620 | 10000 |
| | T3 | 3500 | 10000 |
| KD25 (25) | (N,S)1 | 4120 | 12500 |
| | (N,S)3 | 5450 | 12500 |
| | T3 | 5000 | 12500 |
| KD28 (27.5) | (N,S)1 | 4120 | 13750 |
| | (N,S)3 | 5450 | 13750 |
| | T3 | 5000 | 13750 |

## Gas piping

Proper sizing of gas piping depends on the cubic feet per hour of gas flow required, specific gravity of the gas, and the length of run.

Follow the *National Fuel Gas Code Z223.1 (in U.S.A.)* or the current *Gas Installation Codes CSA-B149.1 (in Canada)* in all

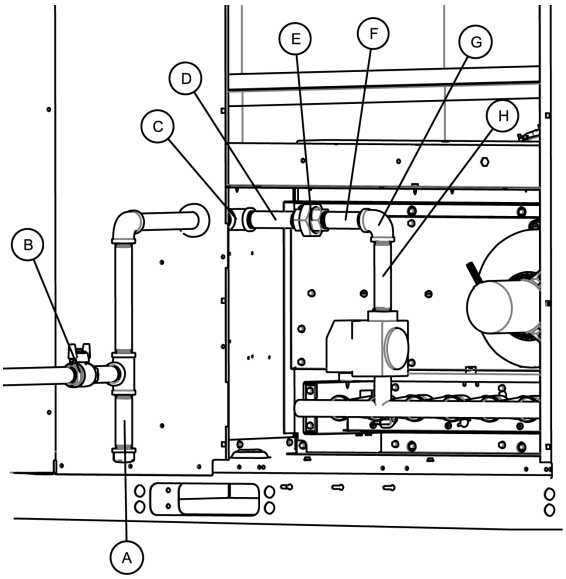
cases unless they are superseded by local codes or gas utility requirements.

See Table 43. The heating value of the gas may vary by locality. You must check the value with the local gas utility.

**Note:** There may be a local gas utility requirement specifying a minimum diameter for gas piping. All units require a 3/4 in. pipe connection at the entrance fitting. The supply line should not be sized smaller than the entrance fitting size.

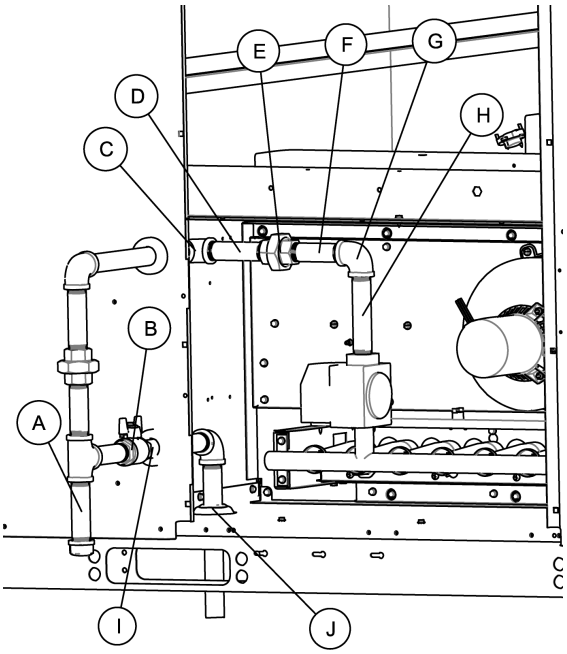
The following figures show the gas piping.

**Figure 80: Side entry gas piping**




| Item | Description |
|---|---|
| A | Sediment trap |
| B | Manual shut-off valve |
| C | 90° elbow |
| D | 4 ½ in. long nipple |
| E | Union |
| F | 4 in. long nipple |
| G | 90° elbow |
| H | 5 ½ in. long nipple |

**Figure 81: Bottom entry gas piping**




| Item | Description |
|---|---|
| A | Sediment trap |
| B | Manual shut-off valve |
| C | 90° elbow |
| D | 4 ½ in. long nipple |
| E | Union |
| F | 4 in. long nipple |
| G | 90° elbow |
| H | 5 ½ in. long nipple |
| I | Extra piping grommet (included) |
| J | Caulk between pipe and base pan hole to provide watertight seal |

**Table 43: Gas pipe sizing - capacity of pipe**

| Length of pipe (ft.) | Nominal iron pipe size | | |
|---|---|---|---|
| | 3/4 in. | 1 in. | 1-1/4 in. |
| 10 | 278 | 520 | 1050 |
| 20 | 190 | 350 | 730 |
| 30 | 152 | 285 | 590 |
| 40 | 130 | 245 | 500 |
| 50 | 115 | 215 | 440 |
| 60 | 105 | 195 | 400 |
| 70 | 96 | 180 | 370 |
| 80 | 90 | 170 | 350 |
| 90 | 84 | 160 | 320 |
| 100 | 79 | 150 | 305 |

ⓘ **Note:** Maximum capacity of pipe in cubic feet of gas per hour based upon a pressure drop of 0.3 in. W.C. and 0.6 specific gravity gas.

## Gas connection

The gas supply line can be routed within the space and roof curb with the exit through the unit's basepan. See the Physical dimensions for the gas piping inlet location. Typical supply piping arrangements are shown in the Gas piping section. All pipe nipples, fittings, and the gas cock are field supplied.

Apply the following gas piping recommendations.

- You must install a drip leg or sediment trap and a ground joint union in the gas piping.
- When required by local codes, install a manual shut-off valve outside of the unit.
- Use wrought iron or steel pipe for all gas lines. Apply pipe dope sparingly to male threads only.
- If local codes allow the use of a flexible gas appliance connector, always use a new listed connector. Do not use a connector which has previously serviced another gas appliance.

**⚠ WARNING**

Natural gas may contain some propane. Propane is an excellent solvent and will quickly dissolve white lead and most standard commercial compounds. A special pipe dope must be used when assembling wrought iron or steel pipe. Shellac based compounds such as Gaskolac or Stalastic, and compounds such as Rectorseal #5, Clydes's, or John Crane may be used.

- Clean all piping of dirt and scale. Hammer on the outside of the pipe and blow out loose particles. Before initial start-up, make sure that all gas lines external to the unit are purged of air.
- The gas supply must be a separate line and installed in accordance with all safety codes as prescribed under Limitations.
- You must install a 1/8 in. NPT plugged tapping, accessible for test gage connection, immediately upstream of the gas supply connection to the unit.
- After the gas connections are complete, open the main shut-off valve admitting normal gas pressure to the mains. Check all joints for leaks with soap solution or other material suitable for the purpose. Never use a flame.

**⚠ WARNING**

**FIRE OR EXPLOSION HAZARD**

Failure to follow the safety warning exactly could result in serious injury, death, or property damage. Never test for gas leaks with an open flame. Use a commercially available soap solution made specifically for the detection of leaks to check all connections. A fire or explosion may result causing property damage, personal injury, or loss of life.

**⚠ CAUTION**

The furnace and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing at pressures greater than 1/2 psig (3.5 kPa). Pressures greater than 1/2 psig (3.5 kPa) cause gas valve damage resulting in a hazardous condition. If the gas valve is subjected to a pressure greater than 1/2 psig (3.5 kPa), it must be replaced. The furnace must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).

**⚠ WARNING**

Threaded joints must be coated with a sealing compound that is resistant to the action of liquefied petroleum gases. Do not use Teflon tape.

## Propane units, tanks, and piping

All gas heat units are shipped from the factory equipped for natural gas use only. The unit can be converted in the field for use with propane gas with an accessory kit.

ⓘ **Note:** Modulating gas furnaces, gas model T3, are **not certified** for use with propane and cannot be converted.

All propane gas equipment must conform to the safety standards of the National Fire Protection Association.

For satisfactory operation, propane gas pressure must be at the correct inlet pressure at the unit under full load. Refer to the conversion kit instructions for the minimum and

maximum supply inlet pressure. Maintaining proper gas pressure depends on three main factors:

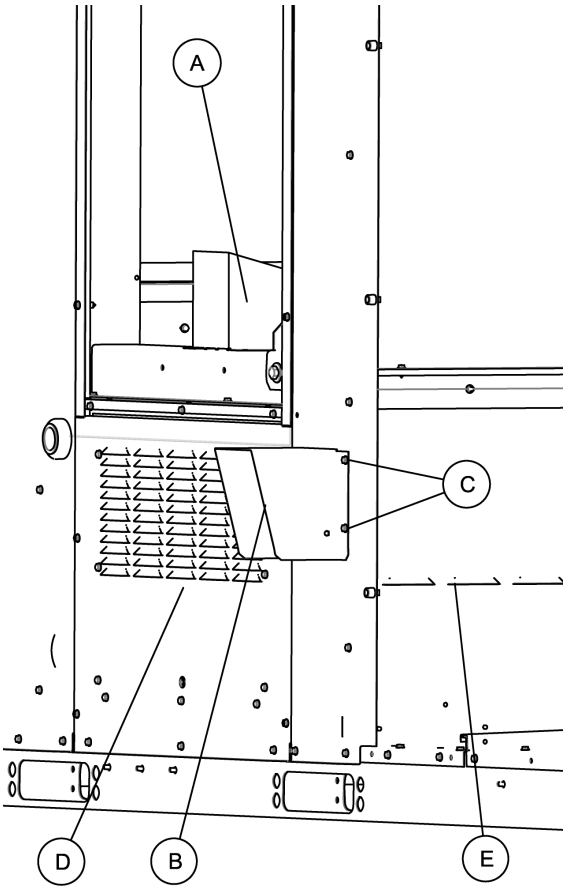
- The vaporization rate which depends on the temperature of the liquid and the wetted surface area of the containers.
- The proper pressure regulation. Two-stage regulation is recommended.
- The pressure drop in the lines between regulators and between the second stage regulator and the appliance. The pipe size required depends on the length of the pipe run and the total load of all appliances.

Complete information regarding tank sizing for vaporization, recommended regulator settings, and pipe sizing is available from most regulator manufacturers and propane gas suppliers.

## Combustion air intake and flue exhaust

Combustion air intake louvers are incorporated into the heating compartment right outside wall and access panel. The flue exhaust is discharged out the front of the unit. Remove the factory shipping label and the four screws that cover the exhaust opening. The flue exhaust hood is shipped in the blower compartment and must be installed over the discharge opening, as shown in Figure 82, using these four screws. If necessary, you can install a flue exhaust extension accessory in place of the hood.

**Figure 82: Flue exhaust hood detail**




| Item | Description |
|---|---|
| A | Flue exhaust hood (shipping location) |
| B | Flue exhaust hood (field-installed location) |
| C | Mounting screws, 4 x (included) |
| D | Combustion air intake louvers |
| E | Combustion air intake louvers |

## Options and accessories

The following sections describe options and accessories.

### Electric heat

Electric heaters are available as factory-installed options or field-installed accessories. These heaters mount in the heat compartment with the heating elements extending into the supply air chamber. All electric heaters are fused and intended for use with a single point power supply and refrigerant detection system.

### Motorized outdoor damper

The motorized outdoor damper can be a factory-installed option or a field-installed accessory. Field-installed motorized outdoor damper accessories include complete instructions for installation.

## Economizer sequences

Several functions can drive the economizer, including: minimum position, free cooling, economizer loading, and minimum outdoor air supply.

### Economizer minimum position

The economizer minimum position is set during occupied mode when outside air is not suitable for free cooling. The position of the damper is set proportionally between the economizer minimum position and the economizer minimum position low speed fan setpoints, in relationship to the VFD output percentage. On a constant volume single speed supply fan system, set both setpoints to the same value.

### Free cooling

Four types of free cooling options are available: dry bulb changeover, single enthalpy, dual enthalpy changeover, and auto.

### Dry bulb changeover

For dry bulb economizer operation, the outside air is suitable for free cooling if the outside air temperature is 1°F below the economizer OAT enable setpoint and 1°F below the return air temperature (RAT).

Free cooling is no longer available if the outside air temperature rises above either the economizer OAT enable setpoint or the return air temperature.

### Single enthalpy changeover

For single enthalpy economizer operation, the outside air is suitable for free cooling if the outside air enthalpy is at least

1 Btu/lb below the economizer outside air enthalpy setpoint and the outside air temperature is no greater than the RAT plus 9°F.

If the outside air temperature rises above the RAT plus 10°F, free cooling is no longer available. The outside air temperature must drop to no greater than RAT plus 9°F to enter free cooling again.

Free cooling is no longer available if the outside air enthalpy rises above the economizer outside air enthalpy setpoint.

### Dual enthalpy changeover

For dual enthalpy economizer operation, the outside air enthalpy must be lower than the return air enthalpy by 1 Btu/lb and the outside air temperature is no greater than the RAT plus 9°F.

### Auto

The control determines the type of free cooling changeover based on which sensors are present and reliable. Conditions include the following:

- Return and outside air dry bulb = dry bulb changeover
- Return and outside air dry bulb and outside air humidity = single enthalpy
- Return and outside air dry bulb and return and outside air humidity = dual enthalpy
- If either the return or outside air dry bulb sensors are unreliable, free cooling is not available

## Free cooling operation

When the control determines that the outside air is suitable, the first stage of cooling is always free cooling.

### Thermostat

In free cooling, with a thermostat input to Y1, the dampers modulate to control the supply air temperature to the economizer setpoint +/- 1°F (default 55°F).

If the thermostat provides an input to Y2 and the parameter COMPRESSORS OFF IN FREE COOLING is turned OFF, a compressor output energizes. The economizer dampers continue to modulate to control the supply air temperature to the economizer setpoint.

If the supply air temperature cannot be maintained within 5°F of the economizer setpoint, the first stage compressor (C1) is turned on. The second stage compressor (C2) is added as needed to keep the supply air temperature within the 5°F of the economizer setpoint.

### Sensor

In free cooling, with a demand from the zone/return sensor for the first stage of cooling, the dampers modulate to control the supply air temperature to the economizer setpoint +/- 1°F.

If the economizer output is at 100% and the SAT is greater than the economizer setpoint + 1°F, the control starts a 12 minute timer to energize a compressor output.

If at any time the economizer output drops below 100%, the timer stops and resets when the economizer output returns to 100%.

When a compressor output is turned ON, the economizer dampers continue to modulate to control the supply air temperature to the economizer setpoint.

At no time is a compressor output turned ON if the economizer output is less than 100%, even if the differential between zone (or return) temperature and the current cooling setpoint is great enough to demand more than one stage of cooling.

If the economizer output goes to minimum position and the SAT is less than economizer setpoint -1°F, the control starts a 12 minute timer to de-energize a compressor output.

If at any time the economizer output goes above the minimum position, the timer stops and resets when the economizer output returns to minimum position.

If the demand for cooling from the space/return is satisfied, the economizer output modulates to minimum position and the compressor outputs are de-energized as long as their minimum run timers have expired.

## Power exhaust

### Setpoints

- Economizer enable: ON
- Power exhaust enable: ON
- Modulating power exhaust: OFF
- Exhaust VFD installed: OFF
- Building pressure sensor enabled: OFF
- Econo damper position for exh fan: ON Percent
- Econo damper position for exh fan: OFF Percent

### Inputs

No inputs are present for non-modulating power exhaust.

### Outputs

- 2-10 VDC from ECON on the economizer expansion module
- 24 VAC from EX-FAN to energize the exhaust fan on the economizer expansion module

### Operation

Operation details include the following items:

- Compares the economizer output to the economizer damper position for exhaust fan on and off
- Energizes the exhaust fan when the economizer output is above the economizer damper position for exhaust fan on
- De-energizes the exhaust fan when the economizer output is below the economizer damper position for exhaust fan off

## Modulating power exhaust

### Set points and related data

The set points and related data include the following items:

- Power exhaust fan type (ExFType) variable frequency fan
- Building pressure setpoint (Bldg-Sp)
- Building pressure reading (Bldg-Pres)

### Inputs

The input for modulating power exhaust is: 0 to 5 VDC from building pressure sensor to terminal Bldg-Pres.

### Outputs

The outputs include the following items:

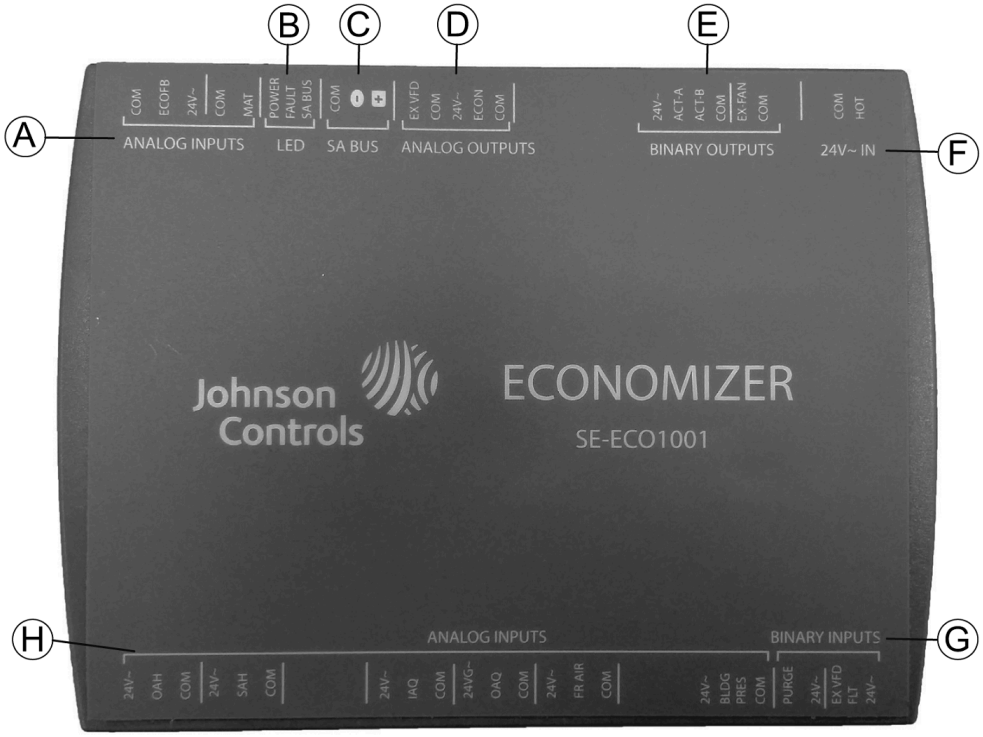
- 2 to 10 VDC from EX VFD for exhaust discharge damper modulation.
- 24 VAC from EX-FAN to energize exhaust fan.

### Operation

If the building pressure is above the building pressure setpoint, the exhaust output (EX VFD) increases. If the building pressure is below the building pressure set point, the exhaust output (EX VFD) decreases. The EX-FAN binary output energizes when the EX VFD analog output is greater than 2.16 VDC. The EX-FAN binary output de-energizes when the EX VFD analog output is less than or equal to 2.16 VDC. The rate of change of the analog output is determined by the deviation from the set point and the length of time away from set point.

## Smart Equipment economizer board

**Figure 83: SE-ECO1001 economizer controller**




The following tables describe the details of the economizer board. See the previous figure for connection locations.

**Table 44: Smart Equipment economizer board - analog inputs**

| Location | Board label | Cover label | Description | Function and comments |
|---|---|---|---|---|
| A | C | COM | 24 VAC common/0-10 VDC negative for economizer actuator position feedback | Connects through circuit trace to 24V~ IN pin COM |
| | IN2 | ECOFB | 0-10 VDC positive input from economizer actuator position feedback | The EconDampPos parameter reports input status (0-100%). Used to meet California Title 24 requirements for economizer actuator position feedback. |
| | R | 24V~ | 24 VAC hot supplied for economizer actuator position feedback | Connects through circuit trace to 24V~ IN pin HOT |
| | C | COM | Mixed air temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | The MAT parameter reports input status (°F/°C), 3.65 VDC reading MAT (+) to COM (–) with open circuit. Read-only use in current control revision. |
| | IN1 | MAT | | |

## Table 44: Smart Equipment economizer board - analog inputs

| Location | Board label | Cover label | Description | Function and comments |
|---|---|---|---|---|
| H | R | 24V~ | 24 VAC hot supplied for the outdoor air humidity sensor | Connects through circuit trace to 24V~ IN pin HOT |
| | IN3 | OAH | 0-10 VDC positive input from the Outdoor Air Humidity sensor | OAH parameter reports input status (0-100%H). Used in outdoor air enthalpy calculation for dual enthalpy economizer free cooling changeover. |
| | C | COM | 24 VAC common/0-10 VDC negative for the outdoor air humidity sensor | Connects through circuit trace to 24V~ IN pin COM |
| | R | 24V~ | 24 VAC hot supplied for the supply air humidity sensor | Connects through circuit trace to 24V~ IN pin HOT |
| | IN4 | SAH | 0-10 VDC positive input from the Supply Air Humidity sensor | SAH parameter reports input status (0-100%H). Unused in current control revision. |
| | C | COM | 24 VAC common/0-10 VDC negative for the supply air humidity sensor | Connects through circuit trace to 24V~ IN pin COM |
| | R | 24V~ | 24 VAC hot supplied for the indoor air quality sensor | Connects through circuit trace to 24V~ IN pin HOT |
| | IN5 | IAQ | 0-10 VDC positive input from the Indoor Air Quality sensor | IAQRange parameter sets the CO2 parts per million measured by the indoor air quality sensor when it outputs 10 VDC; IAQ parameter reports input status (0-5000ppm). Used for demand ventilation functions if the NetIAQ parameter indicates ?Unrel. |
| | C | COM | 24 VAC common/0-10 VDC negative for the indoor air quality sensor | Connects through circuit trace to 24V~ IN pin COM |
| | R | 24V~ | 24 VAC hot supplied for the outdoor air quality sensor | Connects through circuit trace to 24V~ IN pin HOT |
| | IN6 | OAQ | 0-10 VDC positive input from the Outdoor Air Quality sensor | OAQRange parameter sets the CO2 parts per million measured by the outdoor air quality sensor when it outputs 10 VDC; OAQ parameter reports input status (0-5000ppm). Used for demand ventilation function when DVent-Mode selection is Diff between IAQ and OAQ and the NetOAQ parameter indicates ?Unrel. |
| | C | COM | 24 VAC common/0-10 VDC negative for the outdoor air quality sensor | Connects through circuit trace to 24V~ IN pin COM |
| | R | 24V~ | 24 VAC hot supplied for the air monitoring station sensor | Connects through circuit trace to 24V~ IN pin HOT |
| | IN7 | FR AIR | 0-10 VDC positive input from the air monitoring station sensor | MOA-Range parameter sets the cubic feet per minute/liters per second measured by the air monitoring station sensor when it outputs 10 VDC; Fr Air parameter reports input status (0-50000CFM/23595lps). Used for economizer minimum position reset in speed-controlled indoor blower applications. |
| | C | COM | 24 VAC common/0-10 VDC negative for the air monitoring station sensor | Connects through circuit trace to 24V~ IN pin COM |
| | R | 24V~ | 24 VAC hot supplied for the building pressure sensor | Connects through circuit trace to 24V~ IN pin HOT |
| | IN8 | BLDG PRES | 0-5 VDC positive input from the Building Pressure sensor | BldgPres parameter reports input status (-.250-.250”/w/-.062-.062kPa). Used for modulating power exhaust functions when ExFType selection is Modulating Damper or Variable Frequency Fan. |
| | C | COM | 24 VAC common/0-5 VDC negative for the building pressure sensor | Connects through circuit trace to 24V~ IN pin COM |

## Table 45: Smart Equipment economizer board - LED details

| Location | Board label | Cover label | Description | Function and comments |
|---|---|---|---|---|
| B | POWER | POWER | Green UCB power indicator | Lit indicates 24 VAC is present at 24V~ IN COM and HOT pins |
| | FAULT | FAULT | Red networking error and firmware error indicator | 1/10th second on/off flashing indicates a networking error (polarity, addressing) or a firmware error (likely correctable with re-loading from USB flash drive) |
| | SA BUS | SA BUS | Green UCB SA bus communication transmission indicator | Lit/flickering indicates UCB-to-economizer board SA bus communication is currently active, off indicates the economizer board is awaiting SA bus communication |

### Table 46: Smart Equipment economizer board - SA bus details

| Location | Board label | Cover label | Description | Function and comments |
|---|---|---|---|---|
| [1]C[1] | C | COM | Common for SA BUS power and communication circuits | EconCtrlr parameter reports UCB-to-economizer board SA bus communication status. Negative of the SA BUS communication circuit to the UCB. Through the unit wiring harness, may continue on to the 4-stage board and/or fault detection and diagnostics board |
| | – | – | Communication for SA BUS devices | EconCtrlr parameter reports UCB-to-economizer board SA BUS communication status. Positive of the VDC (typically, a fluctuating 1.5 V to 3.5 V reading to C; at least 0.25 V lower than +) SA BUS communication circuit to the UCB. Through the unit wiring harness, may continue on to the 4-stage board and/or fault detection and diagnostics board |
| | + | + | Communication for SA BUS devices | EconCtrlr parameter reports UCB-to-economizer board SA BUS communication status. Positive of the VDC (typically, a fluctuating 1.5 V to 3.5 V reading to C; at least 0.25 V higher than –) SA BUS communication circuit to the UCB. Through the unit wiring harness, may continue on to the 4-stage board and/or fault detection and diagnostics board |

1 When wiring the unit and other devices using the SA Bus and FC Bus, see Cable type for FC buses and SA buses in order of preference.

### Table 47: Smart Equipment economizer board - analog outputs

| Location | Board label | Cover label | Description | Function and comments |
|---|---|---|---|---|
| D | J4 | EX VFD | 2-10 VDC positive output for the modulating power Exhaust fan Variable Frequency Drive/discharge damper modulating power exhaust actuator | ExFanVFD parameter reports output status (0-100%) when ExFType selection is Variable Frequency Fan; EAD-O parameter reports output status (0-100%) when ExFType selection is Modulating Damper. Used to ramp the power exhaust fan VFD/ position the discharge damper actuator. |
| | | COM | 24 VAC common/0-10 VDC negative for the power exhaust variable frequency drive/discharge damper modulating power exhaust actuator | Connects through circuit trace to 24V~ IN pin COM |
| | | 24V~ | 24 VAC hot supplied for the discharge damper modulating power exhaust actuator and economizer actuator | Connects through circuit trace to 24V~ IN pin HOT |
| | | ECON | 2-10 VDC output for the Economizer actuator | Econ parameter reports output status (0-100%). Used to position the economizer actuator for minimum position, free cooling, demand ventilation, cooling economizer loading and purge functions |
| | | COM | 24 VAC common/0-10 VDC negative for economizer actuator | Connects through circuit trace to 24V~ IN pin COM |

### Table 48: Smart Equipment economizer board - binary outputs

| Location | Board label | Cover label | Description | Function and comments |
|---|---|---|---|---|
| E | J3 | 24V~ | 24 VAC hot supplied for an incremental (floating control) economizer actuator | Connects through circuit trace to 24V~ IN pin HOT |
| | | ACT-A | 24 VAC hot outputs to position an incremental (floating control) economizer actuator | Unused in current control revision |
| | | ACT-B | 24 VAC return | Unused in current control revision |
| | | COM | 24 VAC common for an incremental (floating control) economizer actuator | Connects through circuit trace to 24V~ IN pin COM |
| | | EX-FAN | 24 VAC hot output to energize power exhaust fan contactor coil/VFD enable relay coil | ExFan parameter reports output status (Off-On) when ExFType selection is Non-Modulating, Modulating Damper or Variable Frequency Fan. Used to turn on/enable the power exhaust fan motor. |
| | | COM | 24 VAC common/0-10 VDC negative for economizer actuator | Connects through circuit trace to 24V~ IN pin COM |

### Table 49: Smart Equipment economizer board - 24 V~ IN connections

| Location | Board label | Cover label | Description | Function and comments |
|---|---|---|---|---|
| F | C | COM | 24 VAC transformer Common referenced to cabinet ground | 24 VAC common connection to power the economizer board. Connects through circuit traces to C/COM terminals and pins distributed on the economizer board. |
| | R | HOT | 24 VAC transformer HOT | 24 VAC hot connection to power the economizer board. Connects through circuit traces to R/24V~ terminals and pins distributed on the economizer board. |

**Table 50: Smart Equipment economizer board - binary inputs**

| Location | Board label | Cover label | Description | Function and comments |
|---|---|---|---|---|
| G | IN9 | PURGE | 24 VAC hot input from the PURGE dry contact | Purge parameter reports input status (False with 0 VAC input-True with 24 VAC input). When Purge status is True, heating and cooling operation is prevented, the indoor blower and power exhaust fan operate, the economizer actuator is positioned to 100%. |
| | | 24 V~ | 24 VAC hot supplied for the purge dry contact | Connects through circuit trace to 24V~ IN pin HOT |
| | IN10 | EX VFD FLT | 24 VAC hot input from the power Exhaust Variable Frequency Drive Fault contact | ExFanVFDFlt parameter reports input status (Normal with 0 VAC input-Alarm with 24 VAC input) when ExFType selection is Variable Frequency Fan. When ExFanVFDFlt status is Alarm, EX-FAN fan output is prevented. |
| | | 24 V~ | 24 VAC hot supplied for the power exhaust variable frequency drive fault contact | Connects through circuit trace to 24V~ IN pin HOT |

## Indoor air quality

Indoor air quality (IAQ) is regulated by an indoor sensor input. The IAQ sensor is connected to the economizer board through the IAQ analog input terminal and the associated COM and 24V~ inputs on the economizer board. Terminal IAQ accepts a 0 to +10 VDC signal with respect to the IAQ terminal. When the signal is below its setpoint, the actuator can modulate normally in accordance with the enthalpy and mixed air sensor inputs. When the IAQ signal exceeds its setpoint setting and there is no call for free cooling, the actuator is proportionately modulated from the 0 to 10 VDC signal, with 0 VDC corresponding to full closed and 10 VDC corresponding to full open. When there is no call for free cooling, the damper position is limited by the IAQ maximum damper position setting. When the signal exceeds its setpoint (demand control ventilation setpoint) setting and there is a call for free cooling, the actuator modulates from the minimum position to the full open position based on the highest call from either the mixed air sensor input or the IAQ voltage input.

- Optional $CO_2$ space sensor kit (wall mount) - part no. 2AQ04700724
- Optional $CO_2$ sensor kit (unit mount) - part no. 2AQ04700624

## Phasing

All units are properly phased at the factory. Check for proper compressor rotation. If the blower or compressors rotate in the incorrect direction at start-up, the electrical connection to the unit is misphased. Change the phasing of the field line connection at the factory or field supplied disconnect to obtain proper rotation. Scroll compressors operate in only one direction. The scroll is misphased if it is drawing low amperage, has similar suction and discharge pressures, or it produces a high noise level.

**⚠ CAUTION**

Scroll compressors require proper rotation to operate correctly. Units are properly phased at the factory. Do not change the internal wiring to make the blower condenser fans or compressor rotate correctly.

## Blower rotation

Check for proper supply air blower rotation. If the blower is rotating backwards, the line voltage at the unit point of power connection is misphased. See Phasing.

## Adjusting the belt tension

To adjust the belt tension complete the following steps.

1. Loosen the four sled bolts (A).

**Figure 84: Top View**

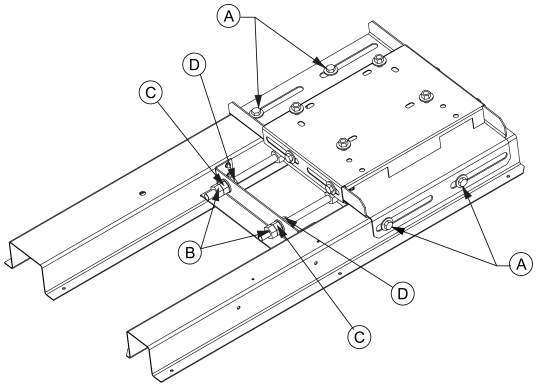
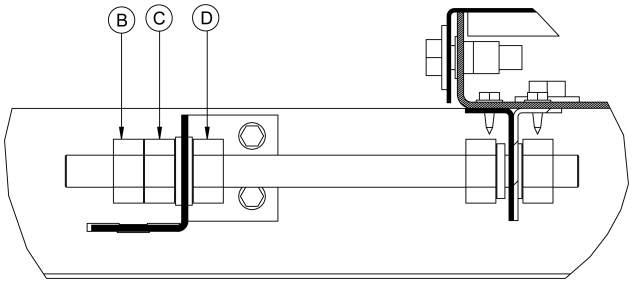



**Figure 85: Side View**






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2. Break lock between nuts (B) and (C).
3. Adjust belt tension via adjustment nuts:
   a. Clear nuts (C) away from bracket and turn adjustment nuts (D) against bracket to increase belt tension.
   b. Clear nuts (D) away from bracket and turn adjustment nuts (C) against bracket to decrease belt tension.

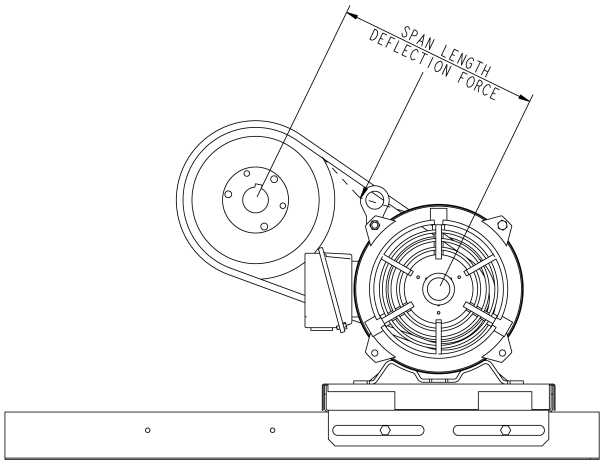
   **Note:** For two-belt applications, adjust the two nut/bolt assemblies so that equal tension is obtained for both belts.

   **Note:** New belts should be tensioned to the maximum deflection force recommended for the belt section. Table 51 contains the values to be used after break-in of new belts.

**CAUTION**

Check the belt tension at least two times during the first 24 hours of operation. After 24 hours of operation, retension to the recommended values in Table 51.

**Figure 86: Measuring Belt Tension**




4. Measure belt tension:
   a. Use a belt tension checker to apply a perpendicular force to one belt at the midpoint of the span as shown in the following figure. To determine the deflection distance from normal position, reference the adjacent belt (if applicable) or use a straight edge from sheave to sheave as a reference line.
   b. Increase applied force until a deflection distance of 0.2 inches is obtained and compare the measured deflection force against recommended deflection force in Table 51
   c. Adjust belt tension until recommended deflection force is measured.
5. After belt(s) have been tensioned properly, move all nuts (B, C, and D) against bracket and lock nut (B) against nut (C).
6. Tighten the four sled bolts (A).

**Table 51: Belt tension**

| Belt tension | | |
|---|---|---|
| **Application (ton and static)** | **Deflection force (lb)** | **Deflection distance (in.)** |
| 15 ton standard | 2.7 | 0.19 |
| 15 ton medium | 3.6 | 0.19 |
| 15 ton high | 5.2 | 0.19 |
| 17.5 ton standard | 3.7 | 0.19 |
| 17.5 ton medium | 5.3 | 0.19 |
| 17.5 ton high | 6.0 | 0.19 |
| 20 ton standard | 5.3 | 0.19 |
| 20 ton medium | 5.1 | 0.19 |
| 20 ton high | 6 | 0.19 |
| 25 ton standard | 5.3 | 0.19 |
| 25 ton medium | 6.1 | 0.19 |
| 25 ton high | 7.2 | 0.19 |
| 27.5 ton standard | 5.9 | 0.19 |
| 27.5 ton medium | 6.9 | 0.19 |
| 27.5 ton high | 7.5 | 0.19 |

## CFM static pressure and power-altitude and temperature corrections

Use the following information to assist in the application of the product at altitudes at or exceeding 1,000 ft above sea level.

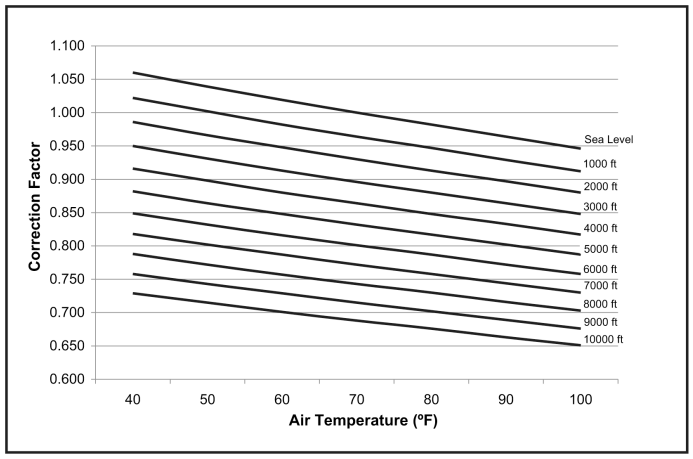
The air flow rates listed in the standard blower performance tables are based on standard air at sea level. As the altitude or temperature increases, the density of air decreases. In order to use the indoor blower tables for high altitude applications, certain corrections are necessary.

A centrifugal fan is a constant volume device. This means that, if the rpm remains constant, the CFM delivered is the same regardless of the density of the air. However, since the air at high altitude is less dense, less static pressure is generated and less power is required than a similar application at sea level. Air density correction factors are shown in the following table and figure.

**Table 52: Altitude or temperature correction factors**

| Air temp. | Altitude, ft | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1000 | 2000 | 3000 | 4000 | 5000 | 6000 | 7000 | 8000 | 9000 | 10000 |
| 40 | 1.060 | 1.022 | 0.986 | 0.950 | 0.916 | 0.882 | 0.849 | 0.818 | 0.788 | 0.758 | 0.729 |
| 50 | 1.039 | 1.002 | 0.966 | 0.931 | 0.898 | 0.864 | 0.832 | 0.802 | 0.772 | 0.743 | 0.715 |
| 60 | 1.019 | 0.982 | 0.948 | 0.913 | 0.880 | 0.848 | 0.816 | 0.787 | 0.757 | 0.729 | 0.701 |
| 70 | 1.000 | 0.964 | 0.930 | 0.896 | 0.864 | 0.832 | 0.801 | 0.772 | 0.743 | 0.715 | 0.688 |
| 80 | 0.982 | 0.947 | 0.913 | 0.880 | 0.848 | 0.817 | 0.787 | 0.758 | 0.730 | 0.702 | 0.676 |
| 90 | 0.964 | 0.929 | 0.897 | 0.864 | 0.833 | 0.802 | 0.772 | 0.744 | 0.716 | 0.689 | 0.663 |
| 100 | 0.946 | 0.912 | 0.880 | 0.848 | 0.817 | 0.787 | 0.758 | 0.730 | 0.703 | 0.676 | 0.651 |

**Figure 87: Altitude/temperature correction factors**




Use the following examples to assist in determining the airflow performance of the product at altitude.

**Example 1**

What are the corrected CFM, static pressure, and bhp at an elevation of 5,000 ft. if the blower performance data is 6,000 CFM, 1.5 IWC and 4.0 bhp?

**Solution 1**

At an elevation of 5,000 ft. the indoor blower will still deliver 6,000 CFM if the rpm is unchanged. However, you must use the supply air limitations table to determine the static pressure and bhp. Since no temperature data is given, we will assume an air temperature of 70°F. The airflow performance table shows the correction factor to be 0.832.

Corrected static pressure = 1.5 x 0.832 = 1.248 IWC

Corrected bhp = 4.0 x 0.832 = 3.328

**Example 2**

A system, located at 5,000 feet of elevation, is to deliver 6,000 CFM at a static pressure of 1.5 in. Use the unit blower tables to select the blower speed and the bhp requirement.

**Solution 2**

As in the previous example, no temperature information is given so 70°F is assumed.

The 1.5 in. static pressure given is at an elevation of 5,000 ft. The first step is to convert this static pressure to equivalent sea level conditions.

Sea level static pressure = 1.5 / .832 = 1.80 in.

Enter the blower table at 6,000 CFM and static pressure of 1.8 in. The rpm listed will be the same rpm needed at 5,000 ft.

Suppose that the corresponding bhp listed in the table is 3.2. You need to correct this value for elevation.

Bhp at 5,000 ft. = 3.2 x .832 = 2.66



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## Selecting the drive

1. Determine the required airflow.
2. Calculate or measure the amount of external static pressure.
3. With the operating point determined from the previous steps, locate this point on the appropriate supply air blower performance table. Linear interpolation may be necessary.
4. Note the RPM and BHP from the previous step and locate the appropriate motor and/or drive.
5. Review the BHP compared to the motor options available. Select the appropriate motor and/or drive.
6. Review the RPM range for the motor options available. Select the appropriate drive if multiple drives are available for the chosen motor.
7. Determine the turns open to obtain the required operation point.

**Example:**

1. 5100 CFM
2. 0.8 iwg
3. Using the supply air blower performance table below, the following data point was located: 781 RPM and 1.97 BHP.
4. Using the RPM selection table below, Size X and Model Y is found.
5. 1.97 BHP does not exceed the maximum continuous BHP rating of any of the 3 motor options, so all 3 motors are still eligible for selection.
6. 781 RPM falls within the range of the 3 HP drive.
7. Using the 3 HP motor, 3.5 turns open achieves 781 RPM.

**Table 53: Example supply air blower performance**

| Air flow (CFM) | Available external static pressure - IWG[1] | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | Standard 2 HP and drive | | | | Medium static 3 HP and drive | | | | | | | | High static 5 HP and drive | | | | | | | |
| 4500 | 575 | 0.74 | 636 | 1.07 | 697 | 1.39 | 759 | 1.71 | 821 | 2.02 | 881 | 2.30 | 941 | 2.56 | 998 | 2.78 | 1054 | 2.95 | 1106 | 3.08 |
| 4800 | 586 | 0.87 | 647 | 1.19 | 708 | 1.51 | 770 | 1.83 | 831 | 2.14 | 892 | 2.42 | 951 | 2.68 | 1009 | 2.90 | 1064 | 3.08 | 1117 | 3.20 |
| 5100 | 597 | 1.00 | 658 | 1.32 | 720 | 1.65 | 781 | 1.97 | 843 | 2.27 | 904 | 2.56 | 963 | 2.81 | 1021 | 3.03 | 1076 | 3.21 | 1129 | 3.33 |
| 5400 | 610 | 1.14 | 671 | 1.47 | 732 | 1.79 | 794 | 2.11 | 856 | 2.42 | 916 | 2.70 | 976 | 2.96 | 1033 | 3.18 | 1089 | 3.35 | 1141 | 3.48 |
| | | | | | | | | | | | | | | | High static 5 HP and field supplied drive | | | | | |

**Note:**

1. Blower performance includes gas heat exchangers and 2 in. filters. See the Static Resistance table for additional applications. See the RPM selection table to determine the required motor sheave setting and to determine the maximum continuous BHP. kW = BHP x 0.833

**Table 54: Example RPM selection**

| Model | HP | Max BHP | Motor sheave | Blower sheave | 6 turns open | 5 turns open | 4 turns open | 3 turns open | 2 turns open | 1 turn open | Fully closed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KD15 | 2.0 | 2.30 | 1VP40 | AK89 | N/A | 487 | 528 | 568 | 609 | 649 | 690 |
| | 3.0 | 3.45 | 1VP40 | BK77 | 656 | 705 | 753 | 802 | 851 | 899 | 948 |
| | 5.0 | 5.75 | 1VP60 | BK100 | 789 | 826 | 862 | 899 | 936 | 972 | 1009 |

# Airflow performance

## Table 55: KD15 bottom duct application

| Air flow (CFM) | Available external static pressure - IWG | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | Standard 2 HP and drive | | | | | | | | Medium static 3 HP and drive | | | | | | High static 5 HP and drive | | | | | |
| 3900 | 557 | 0.51 | 618 | 0.84 | 680 | 1.16 | 742 | 1.48 | 803 | 1.79 | 864 | 2.07 | 923 | 2.33 | 981 | 2.55 | 1036 | 2.72 | 1089 | 2.85 |
| 4200 | 566 | 0.63 | 626 | 0.95 | 688 | 1.28 | 750 | 1.59 | 811 | 1.90 | 872 | 2.19 | 931 | 2.44 | 989 | 2.66 | 1044 | 2.84 | 1097 | 2.96 |
| 4500 | 575 | 0.74 | 636 | 1.07 | 697 | 1.39 | 759 | 1.71 | 821 | 2.02 | 881 | 2.30 | 941 | 2.56 | 998 | 2.78 | 1054 | 2.95 | 1106 | 3.08 |
| 4800 | 586 | 0.87 | 647 | 1.19 | 708 | 1.51 | 770 | 1.83 | 831 | 2.14 | 892 | 2.42 | 951 | 2.68 | 1009 | 2.90 | 1064 | 3.08 | 1117 | 3.20 |
| 5100 | 597 | 1.00 | 658 | 1.32 | 720 | 1.65 | 781 | 1.97 | 843 | 2.27 | 904 | 2.56 | 963 | 2.81 | 1021 | 3.03 | 1076 | 3.21 | 1129 | 3.33 |
| 5400 | 610 | 1.14 | 671 | 1.47 | 732 | 1.79 | 794 | 2.11 | 856 | 2.42 | 916 | 2.70 | 976 | 2.96 | 1033 | 3.18 | 1089 | 3.35 | 1141 | 3.48 |
| 5700 | 624 | 1.30 | 684 | 1.62 | 746 | 1.95 | 808 | 2.26 | 869 | 2.57 | 930 | 2.86 | 989 | 3.11 | 1047 | 3.33 | 1102 | 3.51 | 1155 | 3.63 |
| 6000 | 638 | 1.47 | 699 | 1.79 | 760 | 2.11 | 822 | 2.43 | 884 | 2.74 | 944 | 3.02 | 1004 | 3.28 | 1061 | 3.50 | 1117 | 3.68 | 1169 | 3.80 |
| 6300 | 653 | 1.65 | 714 | 1.97 | 776 | 2.30 | 837 | 2.61 | 899 | 2.92 | 960 | 3.21 | 1019 | 3.46 | 1077 | 3.68 | 1132 | 3.86 | 1185 | 3.98 |
| 6600 | 669 | 1.84 | 730 | 2.17 | 792 | 2.49 | 854 | 2.81 | 915 | 3.12 | 976 | 3.40 | 1035 | 3.66 | 1093 | 3.88 | 1148 | 4.05 | 1201 | 4.18 |
| 6900 | 686 | 2.05 | 747 | 2.38 | 809 | 2.70 | 870 | 3.02 | 932 | 3.33 | 992 | 3.61 | 1052 | 3.87 | 1109 | 4.09 | 1165 | 4.26 | 1218 | 4.39 |
| 7200 | 704 | 2.28 | 764 | 2.60 | 826 | 2.92 | 888 | 3.24 | 949 | 3.55 | 1010 | 3.83 | 1069 | 4.09 | 1127 | 4.31 | 1182 | 4.49 | 1235 | 4.61 |
| 7500 | 722 | 2.51 | 783 | 2.84 | 844 | 3.16 | 906 | 3.48 | 967 | 3.79 | 1028 | 4.07 | 1087 | 4.33 | 1145 | 4.55 | 1200 | 4.72 | 1253 | 4.85 |

1. Blower performance includes gas heat exchangers and 2 in. filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.968

## Table 56: KD18 bottom duct application

| Air flow (CFM) | Available external static pressure - IWG | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | Standard static 3 HP and drive | | | | | | | | Med static 5 HP and drive | | | | | | | | High static 7.5 HP and drive | | | |
| 4600 | 625 | 0.59 | 679 | 1.00 | 735 | 1.37 | 790 | 1.70 | 845 | 2.00 | 900 | 2.28 | 954 | 2.56 | 1008 | 2.83 | 1062 | 3.11 | 1114 | 3.41 |
| 5000 | 635 | 0.78 | 690 | 1.19 | 745 | 1.56 | 801 | 1.89 | 856 | 2.19 | 911 | 2.47 | 965 | 2.75 | 1019 | 3.02 | 1072 | 3.30 | 1125 | 3.60 |
| 5400 | 648 | 1.00 | 703 | 1.41 | 758 | 1.77 | 813 | 2.10 | 868 | 2.40 | 923 | 2.69 | 977 | 2.96 | 1031 | 3.24 | 1085 | 3.52 | 1137 | 3.82 |
| 5800 | 662 | 1.24 | 716 | 1.65 | 771 | 2.01 | 827 | 2.34 | 882 | 2.64 | 937 | 2.93 | 991 | 3.20 | 1045 | 3.47 | 1099 | 3.76 | 1151 | 4.06 |
| 6200 | 677 | 1.50 | 732 | 1.91 | 787 | 2.27 | 842 | 2.60 | 897 | 2.91 | 952 | 3.19 | 1007 | 3.46 | 1061 | 3.74 | 1114 | 4.02 | 1167 | 4.32 |
| 6600 | 695 | 1.79 | 749 | 2.20 | 804 | 2.56 | 860 | 2.89 | 915 | 3.19 | 970 | 3.48 | 1024 | 3.75 | 1078 | 4.02 | 1131 | 4.31 | 1184 | 4.61 |
| 7000 | 714 | 2.10 | 768 | 2.51 | 824 | 2.87 | 879 | 3.20 | 934 | 3.50 | 989 | 3.79 | 1043 | 4.06 | 1097 | 4.34 | 1151 | 4.62 | 1203 | 4.92 |
| 7400 | 735 | 2.43 | 789 | 2.84 | 844 | 3.21 | 900 | 3.54 | 955 | 3.84 | 1010 | 4.12 | 1064 | 4.40 | 1118 | 4.67 | 1172 | 4.95 | 1224 | 5.25 |
| 7800 | 757 | 2.79 | 812 | 3.20 | 867 | 3.57 | 922 | 3.89 | 977 | 4.20 | 1032 | 4.48 | 1087 | 4.75 | 1141 | 5.03 | 1194 | 5.31 | 1247 | 5.61 |
| 8200 | 782 | 3.17 | 836 | 3.58 | 891 | 3.95 | 947 | 4.27 | 1002 | 4.58 | 1057 | 4.86 | 1111 | 5.13 | 1165 | 5.41 | 1219 | 5.69 | 1271 | 5.99 |
| 8600 | 808 | 3.57 | 862 | 3.98 | 918 | 4.35 | 973 | 4.67 | 1028 | 4.98 | 1083 | 5.26 | 1137 | 5.53 | 1191 | 5.81 | 1245 | 6.09 | 1297 | 6.39 |
| 9000 | 835 | 3.99 | 890 | 4.40 | 945 | 4.77 | 1000 | 5.10 | 1056 | 5.40 | 1111 | 5.68 | 1165 | 5.96 | 1219 | 6.23 | 1272 | 6.51 | 1325 | 6.81 |

1. Blower performance includes gas heat exchangers and 2 in. filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.929

## Table 57: KD20 bottom duct application

| Air Flow (CFM) | Available external static pressure - IWG | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | Standard static 5 HP and drive | | | | | | | | | | | | Medium static 7.5 HP and drive | | | | | | | |
| 5000 | 672 | 0.85 | 719 | 1.24 | 767 | 1.61 | 816 | 1.95 | 865 | 2.27 | 915 | 2.56 | 965 | 2.84 | 1016 | 3.09 | 1066 | 3.33 | 1117 | 3.55 |
| 5500 | 686 | 1.10 | 734 | 1.49 | 782 | 1.86 | 831 | 2.20 | 880 | 2.52 | 930 | 2.81 | 980 | 3.09 | 1030 | 3.34 | 1081 | 3.58 | 1132 | 3.80 |
| 6000 | 703 | 1.38 | 751 | 1.78 | 799 | 2.15 | 848 | 2.49 | 897 | 2.81 | 947 | 3.10 | 997 | 3.37 | 1047 | 3.63 | 1098 | 3.86 | 1149 | 4.09 |
| 6500 | 723 | 1.71 | 770 | 2.11 | 819 | 2.47 | 867 | 2.82 | 917 | 3.13 | 966 | 3.43 | 1017 | 3.70 | 1067 | 3.95 | 1118 | 4.19 | 1168 | 4.41 |
| 7000 | 745 | 2.08 | 792 | 2.47 | 841 | 2.84 | 889 | 3.19 | 939 | 3.50 | 988 | 3.79 | 1039 | 4.07 | 1089 | 4.32 | 1140 | 4.56 | 1190 | 4.78 |
| 7500 | 769 | 2.49 | 817 | 2.89 | 865 | 3.26 | 914 | 3.60 | 963 | 3.91 | 1013 | 4.21 | 1063 | 4.48 | 1113 | 4.73 | 1164 | 4.97 | 1215 | 5.20 |
| 8000 | 796 | 2.94 | 843 | 3.34 | 891 | 3.71 | 940 | 4.05 | 990 | 4.37 | 1039 | 4.66 | 1089 | 4.94 | 1140 | 5.19 | 1190 | 5.43 | 1241 | 5.65 |
| 8500 | 825 | 3.44 | 872 | 3.84 | 920 | 4.21 | 969 | 4.55 | 1018 | 4.87 | 1068 | 5.16 | 1118 | 5.44 | 1169 | 5.69 | 1219 | 5.93 | 1270 | 6.15 |
| 9000 | 855 | 3.99 | 903 | 4.39 | 951 | 4.75 | 1000 | 5.10 | 1049 | 5.41 | 1099 | 5.71 | 1149 | 5.98 | 1199 | 6.23 | 1250 | 6.47 | 1301 | 6.69 |
| 9500 | 888 | 4.57 | 936 | 4.97 | 984 | 5.34 | 1033 | 5.68 | 1082 | 6.00 | 1132 | 6.29 | 1182 | 6.56 | 1232 | 6.82 | 1283 | 7.05 | 1334 | 7.28 |
| 10000 | 923 | 5.20 | 971 | 5.59 | 1019 | 5.96 | 1068 | 6.30 | 1117 | 6.62 | 1167 | 6.91 | 1217 | 7.19 | 1267 | 7.44 | 1318 | 7.68 | 1368 | 7.90 |
| | | | | | High Static 7.5 HP & Drive | | | | | | | | | | | | | | | |

1. Blower performance includes gas heat exchangers and 2 in. filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP
3. kW = BHP x 0.929

## Table 58: KD25 bottom duct application

| Air flow (CFM) | Available external static pressure - IWG | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | | Standard static 5 HP and drive | | | | | | | | Medium static 7.5 HP and drive | | | | | | High static 10 HP and drive | | | |
| 6500 | 733 | 1.71 | 785 | 2.13 | 837 | 2.52 | 890 | 2.89 | 943 | 3.25 | 996 | 3.59 | 1048 | 3.92 | 1100 | 4.24 | 1151 | 4.56 | 1201 | 4.88 |
| 7000 | 756 | 2.10 | 808 | 2.52 | 860 | 2.91 | 913 | 3.29 | 965 | 3.64 | 1018 | 3.99 | 1071 | 4.32 | 1123 | 4.64 | 1174 | 4.96 | 1224 | 5.27 |
| 7500 | 780 | 2.53 | 832 | 2.95 | 884 | 3.34 | 937 | 3.72 | 990 | 4.07 | 1043 | 4.41 | 1095 | 4.75 | 1147 | 5.07 | 1198 | 5.39 | 1248 | 5.70 |
| 8000 | 807 | 2.99 | 858 | 3.41 | 911 | 3.80 | 963 | 4.17 | 1016 | 4.53 | 1069 | 4.87 | 1121 | 5.20 | 1173 | 5.53 | 1224 | 5.84 | 1274 | 6.16 |
| 8500 | 835 | 3.48 | 886 | 3.89 | 938 | 4.29 | 991 | 4.66 | 1044 | 5.02 | 1097 | 5.36 | 1149 | 5.69 | 1201 | 6.01 | 1252 | 6.33 | 1302 | 6.65 |
| 9000 | 864 | 3.99 | 916 | 4.41 | 968 | 4.80 | 1021 | 5.18 | 1074 | 5.53 | 1126 | 5.87 | 1179 | 6.20 | 1231 | 6.53 | 1282 | 6.85 | 1332 | 7.16 |
| 9500 | 895 | 4.53 | 947 | 4.95 | 999 | 5.34 | 1052 | 5.72 | 1105 | 6.07 | 1158 | 6.41 | 1210 | 6.75 | 1262 | 7.07 | 1313 | 7.39 | 1363 | 7.70 |
| 10000 | 928 | 5.10 | 980 | 5.52 | 1032 | 5.91 | 1085 | 6.28 | 1138 | 6.64 | 1190 | 6.98 | 1243 | 7.31 | 1295 | 7.64 | 1346 | 7.95 | 1396 | 8.27 |
| 10500 | 962 | 5.69 | 1014 | 6.11 | 1066 | 6.50 | 1119 | 6.87 | 1172 | 7.23 | 1225 | 7.57 | 1277 | 7.90 | 1329 | 8.23 | 1380 | 8.54 | 1430 | 8.86 |
| 11000 | 998 | 6.30 | 1050 | 6.72 | 1102 | 7.11 | 1155 | 7.49 | 1208 | 7.84 | 1260 | 8.18 | 1313 | 8.52 | 1365 | 8.84 | 1416 | 9.16 | 1466 | 9.47 |
| 11500 | 1035 | 6.94 | 1087 | 7.36 | 1139 | 7.75 | 1192 | 8.12 | 1245 | 8.48 | 1298 | 8.82 | 1350 | 9.15 | 1402 | 9.47 | 1453 | 9.79 | 1503 | 10.11 |
| 12000 | 1074 | 7.60 | 1125 | 8.01 | 1178 | 8.41 | 1230 | 8.78 | 1283 | 9.14 | 1336 | 9.48 | 1389 | 9.81 | 1440 | 10.13 | 1492 | 10.45 | 1542 | 10.77 |
| 12500 | 1114 | 8.27 | 1165 | 8.69 | 1218 | 9.08 | 1270 | 9.46 | 1323 | 9.81 | 1376 | 10.15 | 1428 | 10.49 | 1480 | 10.81 | 1531 | 11.13 | - | - |

1. Blower performance includes gas heat exchangers and 2 in. filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.929

## Table 59: KD28 bottom duct application

| Air flow (CFM) | Available external static pressure - IWG | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | | | | | | Standard static 7.5 HP and drive | | | | | | Medium static 10 HP and drive | | | | | | | |
| 7000 | 789 | 1.54 | 836 | 2.17 | 883 | 2.76 | 931 | 3.31 | 980 | 3.81 | 1029 | 4.28 | 1078 | 4.72 | 1126 | 5.12 | 1175 | 5.49 | 1222 | 5.83 |
| 7500 | 812 | 2.05 | 859 | 2.69 | 906 | 3.27 | 954 | 3.82 | 1003 | 4.33 | 1052 | 4.79 | 1101 | 5.23 | 1149 | 5.63 | 1197 | 6.00 | 1245 | 6.34 |
| 8000 | 836 | 2.61 | 883 | 3.24 | 930 | 3.83 | 979 | 4.37 | 1027 | 4.88 | 1076 | 5.35 | 1125 | 5.78 | 1174 | 6.18 | 1222 | 6.55 | 1269 | 6.90 |
| 8500 | 862 | 3.21 | 909 | 3.84 | 956 | 4.43 | 1005 | 4.97 | 1053 | 5.48 | 1102 | 5.95 | 1151 | 6.38 | 1200 | 6.78 | 1248 | 7.15 | 1295 | 7.50 |
| 9000 | 890 | 3.85 | 936 | 4.48 | 984 | 5.07 | 1032 | 5.62 | 1081 | 6.12 | 1130 | 6.59 | 1178 | 7.02 | 1227 | 7.42 | 1275 | 7.79 | 1323 | 8.14 |
| 9500 | 918 | 4.53 | 965 | 5.16 | 1013 | 5.75 | 1061 | 6.30 | 1109 | 6.80 | 1158 | 7.27 | 1207 | 7.70 | 1256 | 8.11 | 1304 | 8.48 | 1352 | 8.82 |
| 10000 | 949 | 5.25 | 995 | 5.89 | 1043 | 6.47 | 1091 | 7.02 | 1140 | 7.52 | 1189 | 7.99 | 1237 | 8.43 | 1286 | 8.83 | 1334 | 9.20 | 1382 | 9.54 |
| 10500 | 980 | 6.01 | 1027 | 6.65 | 1074 | 7.23 | 1123 | 7.78 | 1171 | 8.28 | 1220 | 8.75 | 1269 | 9.19 | 1318 | 9.59 | 1366 | 9.96 | 1413 | 11.10 |
| 11000 | 1013 | 6.81 | 1060 | 7.44 | 1107 | 8.03 | 1155 | 8.58 | 1204 | 9.08 | 1253 | 9.55 | 1302 | 9.98 | 1350 | 10.38 | 1399 | 10.75 | 1446 | 11.10 |
| 11500 | 1047 | 7.64 | 1094 | 8.27 | 1141 | 8.86 | 1189 | 9.41 | 1238 | 9.91 | 1287 | 10.38 | 1336 | 10.81 | 1384 | 11.21 | 1433 | 11.59 | 1480 | 11.93 |
| 12000 | 1082 | 8.51 | 1129 | 9.14 | 1177 | 9.73 | 1225 | 10.27 | 1273 | 10.78 | 1322 | 11.25 | 1371 | 11.68 | 1420 | 12.08 | 1468 | 12.45 | 1515 | 12.79 |
| 12500 | 1119 | 9.40 | 1165 | 10.04 | 1213 | 10.62 | 1261 | 11.17 | 1310 | 11.68 | 1359 | 12.14 | 1407 | 12.58 | 1456 | 12.98 | 1504 | 13.35 | - | - |
| 13000 | 1156 | 10.33 | 1203 | 10.97 | 1250 | 11.55 | 1299 | 12.10 | 1347 | 12.61 | 1396 | 13.07 | 1445 | 13.51 | - | - | - | - | - | - |
| 13500 | 1195 | 11.29 | 1241 | 11.93 | 1289 | 12.51 | 1337 | 13.06 | 1386 | 13.57 | - | - | - | - | - | - | - | - | - | - |
| 14000 | 1234 | 12.28 | 1281 | 12.92 | 1328 | 13.50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | High Static 12 HP & Drive | | | | | | | | | | | | | | | | | | | |

1. Blower performance includes gas heat exchangers and 2 in. filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.819

## Air balance

**CAUTION**

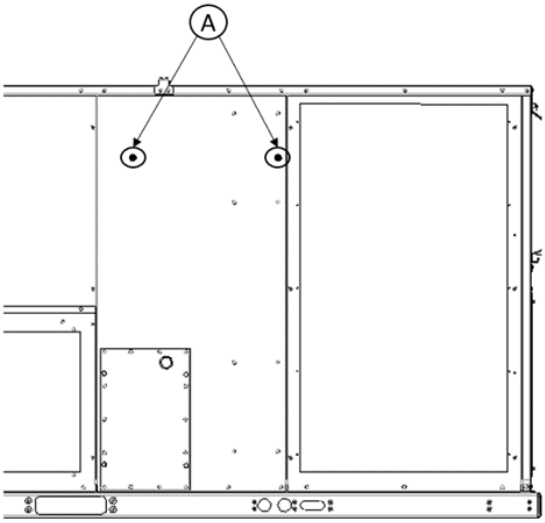
On these units verify that the blower drive is set to maximum output, exhaust dampers are closed, and individual space damper boxes are fully open.

Start the supply air blower motor. Adjust the resistances in both the supply and the return air duct systems to balance the air distribution throughout the conditioned space. The job specifications may require that this balancing be done by someone other than the equipment installer.

### Checking air quantity

1. Remove the dot plugs from the supply and return air access panels on the back side of the unit. See Figure 88.

**Figure 88: Dot plug location**




| Item | Description |
|---|---|
| A | Dot plug location |

2. Insert at least 8 in. of 1/4 in. tubing into each of these holes for sufficient penetration into the air flow on both sides of the indoor coil.

   **Note:** You must insert the tubes and hold them in a position perpendicular to the air flow so that velocity pressure does not affect the static pressure readings.

3. Use an inclined manometer to determine the pressure drop across the dry evaporator coil and filters. The moisture on an evaporator coil may vary greatly, measuring the pressure drop across a wet coil under field conditions could be inaccurate. To ensure that the coil is dry, deactivate the compressors while the test is being run.

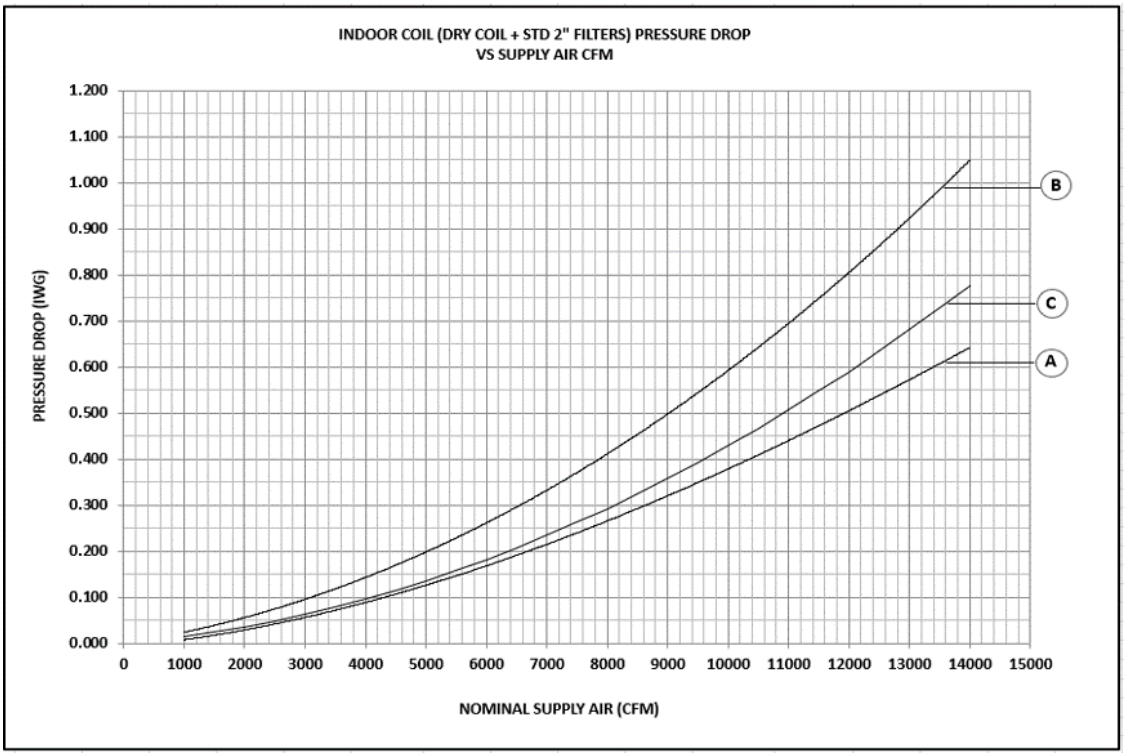
   **Note:** De-energize the compressors before taking any test measurements to ensure that the indoor coil is dry.

4. Use the pressure drop across a dry coil, to determine the actual CFM through the unit from the curve in the following figure.

**WARNING**

Failure to properly adjust the total system air quantity can result in extensive blower damage.

**Figure 89: Pressure drop**




| Item | Description |
|---|---|
| A | 15 ton |
| B | 17.5 to 20 ton |
| C | 25 to 27.5 ton |

## Supply air drive adjustment

The RPM of the supply air blower depends on the required CFM, the unit accessories or options, and the static resistances of both the supply and the return air duct systems. With this information, the RPM for the supply air blower and the motor pulley adjustment (turns open) can be determined from the blower performance data tables.

**⚠ CAUTION**

You must adjust the belt drive blower systems to the specific static and CFM requirements for the application. The belt drive blowers are not set at the factory for any specific static or CFM. You must adjust the blower speed and belt tension.Verify proper sheave alignment. Tighten the blower pulley and motor sheave set screws after these adjustments. Re-check the set screws after 10 to 12 hours of run time.

See the blower motor and drive data table.

Note the following:

- The supply air CFM must be within the limitations shown in the blower performance tables.
- You can adjust pulleys in half turn increments.
- Adjust the belt tension.
- Tighten the blower pulley and motor sheave set screws after any adjustments. Re-check the set screws after 10 to 12 hours run time.

**Note:**

- For cooling only models, add the cooling only value to the available static resistance in the respective blower performance tables.
- For models with electric heat, add the electric heat value for your heater size to the available static resistance in the respective blower performance tables.
- If the unit contains a reheat coil or economizer, deduct the corresponding value from the available external static pressure shown in the respective blower performance tables.

- The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct is less than 0.25 IWG, the unit delivers less CFM during full economizer operation.

**Table 60: Additional static resistance**

| Model | CFM | Cooling only | Reheat coil | Economizer | Electric heat kW | | | 4 in. MERV 13 | 2 in. MERV 8 | 2 in. MERV 13 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 25 | 50 | 75 | | | |
| KD15<br>KD18<br>KD20 | 4000 | 0.09 | 0.03 | 0.01 | 0 | 0.01 | 0.02 | 0.05 | 0.05 | 0.05 |
| | 5000 | 0.11 | 0.05 | 0.02 | 0.03 | 0.03 | 0.04 | 0.06 | 0.05 | 0.06 |
| | 6000 | 0.15 | 0.06 | 0.07 | 0.04 | 0.04 | 0.05 | 0.07 | 0.06 | 0.07 |
| | 7000 | 0.2 | 0.07 | 0.11 | 0.05 | 0.06 | 0.07 | 0.09 | 0.07 | 0.09 |
| | 8000 | 0.28 | 0.09 | 0.14 | 0.07 | 0.08 | 0.09 | 0.12 | 0.09 | 0.12 |
| | 9000 | 0.38 | 0.1 | 0.15 | 0.09 | 0.1 | 0.11 | 0.14 | 0.11 | 0.14 |
| | 10000 | 0.49 | 0.11 | 0.16 | 0.12 | 0.13 | 0.14 | 0.18 | 0.13 | 0.18 |
| KD25<br>KD28 | 7000 | 0.2 | 0.04 | 0.11 | 0.05 | 0.06 | 0.07 | 0.07 | 0.06 | 0.07 |
| | 8000 | 0.28 | 0.06 | 0.13 | 0.07 | 0.08 | 0.09 | 0.09 | 0.07 | 0.09 |
| | 9000 | 0.38 | 0.07 | 0.16 | 0.09 | 0.1 | 0.11 | 0.10 | 0.08 | 0.10 |
| | 10000 | 0.49 | 0.08 | 0.19 | 0.12 | 0.13 | 0.14 | 0.13 | 0.09 | 0.13 |
| | 11000 | 0.6 | 0.1 | 0.23 | 0.18 | 0.2 | 0.22 | 0.15 | 0.11 | 0.15 |
| | 12000 | 0.7 | 0.11 | 0.28 | 0.26 | 0.29 | 0.32 | 0.18 | 0.13 | 0.18 |
| | 13000 | 0.76 | 0.13 | 0.34 | 0.38 | 0.41 | 0.45 | 0.21 | 0.14 | 0.21 |
| | 14000 | 0.8 | 0.14 | 0.43 | 0.51 | 0.56 | 0.6 | 0.24 | 0.17 | 0.24 |

# Operation

The following sections describe the sequences of operation for the units.

## Cooling sequence of operation

### Compressor Operation

#### 2 Stage Cooling

This section assumes Free Cooling is not available.

1. Compressors are controlled by the Y1 through Y2 thermostat inputs. If the Lead/Lag function is turned OFF, a Y1 input energizes the C1 output. Thermostat Input into Y2 energizes the C2 output respectively.
2. The FAN output for indoor fan operation energizes with any cooling output after the Fan On Delay for Cool expires.
3. CN-FAN output energizes when either C1 or C2 is energized
4. A 30 second interstage delay occurs when multiple stages are requested. When the thermostat cooling inputs are lost and the minimum runtime expires, the compressor outputs stage off.

   ⓘ **Note:** A Y2 input without a Y1 input energizes C1 first and then C2 30 seconds later.

#### 4 Stage Cooling

This section assumes Free Cooling is not available.

1. Compressors are controlled by the Y1 through Y4 thermostat inputs. Y1 input energizes the C1 output. A Y2 input energizes the C3 output. A Y3 input de-energizes the C3 output and energizes the C2 output. A Y4 input energizes the C3 output.

   ⓘ **Note:** For 15 to 20 ton models, the C1 output energizes the first stage on the 2 stage compressor and the C3 output energizes the second stage on the 2 stage compressor. For 25 to 27.5 ton models, the C1 output energizes the first of the tandem compressors and the C3 output energizes the second of the tandem compressors.
2. The FAN output for indoor fan operation energizes with any cooling output after the Fan On Delay for Cool expires.
3. Both the CF1 and CF2 outputs energize when any compressor stage is energized.
4. A 30-second interstage delay occurs when multiple stages are requested. Compressor minimum off times are enforced while staging up and down. When the thermostat cooling inputs are lost and the minimum runtime expires, the compressor outputs stage off.
5. Staging down sequence:
   - Y1, Y2, Y3, Y4 – C1, C2, C3
   - Y1, Y2, Y3 (Y4 off) – C1, C2 (C3 off)
   - Y1, Y2 (Y3 off) – C2 (C1 off)
   - Y1 (Y2 off) – C1 on (C2 off)
   - All thermostat signals off – all stages off

### Continuous blower

When the room thermostat fan switch is set to ON, the supply air blower operates continuously.

### Intermittent blower

With the room thermostat fan switch set to AUTO and the system switch set to either the AUTO or HEAT settings, the blower is energized whenever a cooling or heating operation is requested. The blower is energized after any specified delay associated with the operation

When energized, the indoor blower has a minimum run time of 30 seconds. Additionally, the indoor blower has a delay of 10 seconds minimum off.

## Optional VAV startup and control

**⚠ CAUTION**

If the unit is operated with the manual bypass switch in the LINE (BYPASS) position and there are VAV boxes present in the duct system, then boxes must be driven to the full-open position using a customer-supplied power source to prevent over-pressurizing and possible damage to the ductwork.

For units with VFD and VAV control, you must put the unit into the occupied mode to start operation. The default setting for all VAV units is unoccupied. The installer must either keep the jumper wire between terminals R - OCC or use a network command from a BAS control system to switch between the unoccupied and occupied modes.

When placed into the occupied mode, the speed of the indoor blower motor is controlled by duct static pressure. The duct static setpoint (default = 1.5 in.WC) is the pressure that the VFD drive maintains when operating the unit in VAV mode. If the duct static pressure reaches or exceeds the high-limit setpoint (default = 4.5 in.WC), then the supply fan motor is shutdown.

The supply air temperature (SAT) is controlled by staging compressors on and off to satisfy the Operating Cooling Supply Air Temperature Setpoint. There are three factors that determine the resulting Operating Cooling Supply Air Temperature Setpoint:

1. VAV cooling supply air temp upper setpoint (default 60°F)
2. VAV cooling supply air temp lower setpoint (default 55°F)
3. VAV supply air temp reset setpoint (default 72°F)

When the return air temperature (RAT) is above the VAV supply air temperature reset setpoint the SAT is maintained at +/- 5 degrees of the VAV cooling supply air temperature lower setpoint.

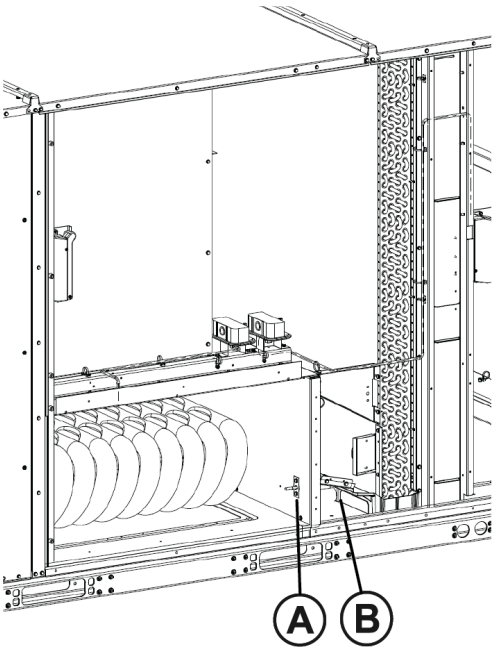
When the return air temperature (RAT) is below the VAV supply air temperature reset setpoint the SAT is maintained at +/- 5 degrees of the VAV cooling supply air temperature upper setpoint.

When the outdoor air condition is sufficient for free cooling, the economizer modulates to control the SAT to +/- 1 degrees of the operational setpoint.

## Supply air temperature sensor

The SAT sensor is mounted inside the discharge section as shown in Figure 90. The sensor is connected to UCB with harness 306” long. This length is intentionally provided so the sensor can be easily positioned further in the supply duct as needed. The extra length of the harness is bundled and can be accessed from location shown in Figure 90.

**Figure 90: SAT location**




| Callout | Description |
|---|---|
| A | SAT sensor |
| B | Extra wire bundle |

## Cooling operation errors

Each cooling system is monitored for operation outside of the intended parameters. Errors are handled as described below. All system errors override minimum run times for compressors.

ⓘ **Note:** The following components are needed to access the control points in the Smart Equipment control.

- Local LCD on the unit control board.

or

- Mobile Access Portal (MAP) Gateway (Portable).
  - Source 1 P/N S1-JC-MAP1810-OP
  - MAP Gateway Quick Start Guide P/N 24-10737-16
  - MAP Gateway Instruction P/N 24-10737-8

## High-pressure limit switch

During cooling operation, if a high-pressure limit switch opens, the UCB de-energizes the associated compressor, initiates the ASCD (anti-short cycle delay), and stops the associated condenser fan(s). If the call for cooling is still present and high-pressure switch is closed at the conclusion of the ASCD, the UCB re-energizes the halted compressor. If a high-pressure switch opens three times within two hours of operation, the UCB locks out the associated compressor and the condenser fan(s) are de-energized.

## Low-pressure limit switch

The low-pressure limit switch is not monitored during the initial 30 seconds of a cooling system's operation. For the following 30 seconds, the UCB monitors the low-pressure switch to ensure it closes. If the low-pressure switch fails to close after the 30- second monitoring phase, the UCB de-energizes the associated compressor, initiates the ASCD, and stops the associated condenser fan(s). If the LPS is still open after the ASCD, the compressor is not to be energized for 30 seconds. The second and third times that the UCB sees an open LPS counts towards the three occurrences that cause a UCB lock-out.

When the low-pressure switch is proven (closed during the 30- second monitor period described above), the UCB monitors the low-pressure limit switch for any openings. If the low-pressure switch opens for greater than 5 seconds, the UCB de-energizes the associated compressor, initiates the ASCD, and stops the associated condenser fan(s).

If the call for cooling is still present at the conclusion of the ASCD, the UCB re-energizes the halted compressor.

If a low-pressure switch opens three times within one hour of operation, the UCB locks out the associated compressor and the associated condenser fan(s) are deenergized.

## Evaporator low limit

The evaporator low limit sensor is located on the suction line at the evaporator coil.

During cooling operation, if the evaporator low limit sensor (EC1, EC2) detects a temperature below 26°F (default), the UCB de-energizes the associated compressor, initiates the ASCD, and stops the associated condenser fan(s). If the call for cooling is still present at the conclusion of the ASCD, the UCB re-energizes the halted compressor. If the UCB detects the evaporator low limit sensor (EC1, EC2) falling below 26°F (default) three times within two hours of operation, the UCB locks out the associated compressor and the associated condenser fan(s) are de-energized.

## Low ambient cooling

To determine when to operate in low ambient mode, the UCB has an outdoor air temperature sensor (OAT) with a low ambient setpoint at 45°F (default).

The high efficiency units have a user adjustable cooling OAT cutout setpoint at 0°F per circuit (45°F is default).

If Cooling OAT Cutout Enable is set to yes, the compressor operation is not permitted if the OAT is less than the Cooling OAT Cutout. High efficiency units should have the Cooling OAT Cutout Enable set to Yes, and the Cooing OAT Cutout setpoint set to 0°F. The upper range of this adjustable limit is 100°F.

If Cooling OAT Cutout Enable is set to no, the compressors cycle 10 minutes on and 5 minutes off. If the OAT is less than the low ambient 10 on 5 off setpoint (LowAmb10On5OffSp) setpoint. This option is available, but not necessary with units having modulating condenser fans (high efficiency models).

All condenser fans on Choice Ultra-High Efficiency units are equipped with ECM motors as standard, allowing them to modulate based on the saturated discharge temperature. This helps to keep the unit running during low ambient conditions.

If the circuit's saturated discharge temperature is not stable and a modulating condenser fan is installed on that circuit, then the effective OAT Cooling Enable setpoint for that circuit will be the maximum of the user setpoint and 60°F. Effectively that means that the OAT Cooling Enable setpoint will be at least 60°F when the saturated discharge temperature is unreliable, and a modulating condenser fan is installed.

When operating in this mode, if the variable speed compressor operates outside of operating envelope limits, the compressor is operated and protected as described in the envelope control section.

When operating in this mode, an evaporator low limit sensor (EC1, EC2) temperature below 26ºF, the UCB de-energizes the associated compressor. If the call for cooling is still present at the end of the ASCD and the evaporator temperature sensor (EC1, EC2) temperature is above 26°F, the unit resumes operation.

### Safety controls

The unit control board monitors the following inputs for each cooling system:

1. An evaporator low limit sensor (EC1, EC2) to protect against low evaporator temperatures due to a low airflow or a low return air temperature, set at 26°F. The sensor is located on the suction line at the evaporator coil.
2. A high-pressure switch to protect against excessive discharge pressures due to a blocked condenser coil or a condenser motor failure. The switch opens at 625 ± 10 psig.
3. A low-pressure switch to protect against loss of refrigerant charge. The switch opens at 50 ± 5 psig.

The above pressure switches are hard soldered to the unit. The refrigeration systems are independently monitored and controlled. On any fault, only the associated system is affected by any safety/preventive action. The other refrigerant system continues in operation unless it is affected by the fault as well.

The unit control board monitors the temperature limit switch of electric heat units and the temperature limit switch and the gas valve of gas furnace units.

### Compressor protection

In addition to the external pressure switches, the compressors also have inherent (internal) protection. If there is an abnormal temperature rise in a compressor, the protector opens to shut down the compressor. The UCB incorporates features to minimize compressor wear and damage. An anti-short cycle delay (ASCD) is used to prevent operation of a compressor too soon after its previous run. Additionally, a minimum run time is imposed any time a compressor is energized.

The ASCD is initiated on unit start-up and on any compressor reset or lock-out.

### Reset

Remove the call for cooling by raising thermostat setting higher than the conditioned space temperature.

## Reheat sequence of operation

### Dehumidification (hot gas reheat)

The rooftop unit can have an optional hot gas reheat (HGRH) system factory installed. HGRH is utilized to help dehumidify the interior space.

- This is accomplished by controlling the compressors to the evaporator leaving air setpoint, which is typically set lower than the active DAT cooling setpoint
- The colder air allows for more moisture removal from the discharge air
- The discharge air then passes through the HGRH coil, which adds heat to the discharge air
- Reheating the air allows dehumidification of the space while preventing over-cooling, which keeps building personnel comfortable

The HGRH system is always on refrigeration circuit #2. The HGRH system uses a 3-way modulating valve controlled by a stepper motor.

The HGRH coil is located after the evaporator coil in the airstream.

There is a solenoid installed on the outlet of the HGRH coil. This HGRH bleed solenoid valve allows excess refrigerant and oil to bleed back into the suction line when HGRH operation is not needed.

### Modulating HGRH 3-way stepper valve

The refrigerant flow is modulated using a 3-way modulating valve. This valve is closed when there is no demand for HGRH. When a demand for HGRH exists, the 3-way valve opens. In HGRH mode, the 3-way valve has a minimum position of 40% for all models and a maximum position of 65% for 15, 25, and 27.5 ton models, and a maximum position of 70% for 17.5 and 20 ton models. For all models, the valve is allowed to open

up to 100% if not meeting the requirement after running at maximum position for 1 min .

### Condenser fan control

In the HGRH mode, the system 2 condenser fans are off when OAT drops to 55.0°F or below, for all models.

### Hot gas reheat valve

The HGRH bleed valve is a normally open valve that is piped between the HGRH coil and the compressor system 2 suction line. The HGRH bleed valve prevents refrigerant and oil from being trapped in the HGRH coils when HGRH is inactive.

The HGRH valve is open when there is no demand for HGRH. Once a demand for HGRH exists, the HGRH bleed valve closes.

After the demand for HGRH is satisfied, the unit controller starts a 5 minute timer. When the 5 minute timer expires, the HGRH bleed valve opens.

## Electric heating sequence of operations

The following sequence describes the operation of the electric heat section.

**CAUTION**

For units with VFD and electric heat, the speed of the indoor blower motor continues to be controlled by duct static pressure via the VAV control board. If there are VAV boxes present in the duct system, the boxes must be driven to the full-open position using a customer-supplied power source to ensure adequate airflow across the heating elements.

### Single-stage heating

This applies only to the 25 kW heater. All other heaters must use a two-stage thermostat.

- When there is a call for heat by the thermostat, the heater contactor (HC1) and the blower motor are energized. For 208/230 V units, the HC1 and HC2 contactors are energized.
- The thermostat cycles the electric heat to satisfy the heating requirements of the conditioned space.

### Two-stage heating

This applies to all heaters, except the 25 kW heater.

- When there is a call for heat by the thermostat, for 460V and 575V units the heater contactor (HC1) and the blower motor are energized. For 208/230 V units the HC1 and HC2 contactors and the blower motor are energized.
- If the second stage of heat is required, for 460V and 575V units the HC2 contactor and the blower motor are energized. For 208/230V units with a 50 kW heater, the HC3 contactor and blower motor are energized. For 208/230V units with a 75 kW heather, the HC3 and HC4 contactors and the blower motor are energized.
- The thermostat cycles the electric heat to satisfy the heating requirements of the conditioned space.

  **Note:** All electric heaters are provided with single use backup protection limits. These deenergize the heaters if the primary limit fails to open or the contactors fail to open in a failure mode. When the backup limit trips it will need to be replaced for the heater to be operational again.

## Electric heat operation errors

### Temperature limit

If the UCB senses zero volts from the high temperature limit, the indoor blower motor is immediately energized.

The limit is monitored at all times when the unit is in an operational mode where the electric heaters may be turned on.

If the temperature limit opens three times within one hour, it locks on the indoor blower.

## Electric heat safety controls

The UCB monitors the temperature limit switch of electric heat units.

The control circuit includes the following safety controls:

### Temperature limit switch

**Temperature limit switch (LS1A, LS1B)**

This control is located inside the heater compartment and is set to open at 180°F for 12.5 ton unit, and 140°F for other units. These temperature limit switches reset automatically. The limit switch operates when a high temperature condition, caused by inadequate supply air flow occurs, this shuts down the heater and energizing the blower.

**Temperature limit switch (LS2A, LS2B)**

This control is located inside the heater compartment and is set to open at 220°F for 12.5 ton unit, and 180°F for other units. These temperature limit switches are single use limit and de-energize the heaters if the primary limit fails to open or the contactors fail to open in a failure mode. When the backup limit trips it will need to be replaced for the heater to be operational again.

### Reset

Removes the call for heating by lowering the thermostat setting lower than the conditioned space temperature.

## Gas heat sequence of operation

1. When the thermostat calls for the first stage of heating, the low-voltage control circuit from R to W1 is complete. If the outdoor air temperature is above the adjustable balance point (default 40°F) the unit operates in heat pump heating (compressors). If the outdoor air temperature is below the balance point the unit operates in gas heating. For gas heat, a call for heat passes through the UCB to the Ignition Control Board (ICB).
2. When the pre-ignition process is complete the ignition module energizes the gas valve and provides a 24 V input to the MV terminal on the UCB.
3. The FAN ON HEAT DELAY timer starts as soon as 24 V is present on MV terminal. When the timer expires the FAN output for the indoor fan operation energizes. If 24 V is not received on the MV terminal within 6 minutes, an alarm appears and the fan output energizes immediately and remains On until the alarm clears.
4. When the thermostat heat inputs are lost and the 120 second Minimum Heat Run Timers have expired, heating outputs stage off. The FAN OFF HEAT DELAY timer starts when 24 V is removed from the MV terminal. When the timer expires, the FAN output for the indoor fan operation de-energizes.

   ⓘ **Note:** If 24 V is lost on the MV terminal during the same heat cycle, an alarm appears and the fan output energizes and remains on until 24 V is present again on the MV terminal.

   ⓘ **Note:** If 24 V is present on the MV terminal without a call for heat, an alarm triggers and the fan output energizes. If this condition occurs for 6 minutes an alarm triggers, and remains, until the alarm condition is cleared.
5. At any time, if 24 V is lost on the LIMIT terminal, the FAN output for indoor fan operation is energized. If 24 V is lost on the LIMIT input 3 times in 1 hour, an alarm appears and the FAN output is energized. The heating H2 outputs are de-energized until the alarm is cleared.

## Additional heating operation for modulating furnaces

### Normal heating

The modulating furnace control (MFC) is circuited between the UCB and ignition control board (ICB). The MFC determines the appropriate heat level demand to send to the ICB. When the MFC receives a W1 input (H2 output from the UCB), the MFC maintains the added value of W1 SAT plus W2 SAT ADDED VALUE pin selections. The MFC sends heat level demands to the ICB through a serial communication signal.

### Air tempering mode

In air tempering mode, the MFC tries to maintain neutral supply air temperature to the conditioned air space when it senses cold incoming mixed air. This condition is typically created when there is a fresh outside air demand in cold ambient conditions.

If the air tempering pin jumper is set to any value other than OFF, the MFC initiates furnace operation if the mixed air temperature (MAT) sensor input reading is 3°F below the selected value. The MFC then adjusts the heat demand level to control the supply air temperature (SAT) to the selected value.

To operate Air Tempering, air proving switch (APS) input must be on, W1/W2 heat call from the UCB must be off, and all compressor inputs must have been off for 10 minutes. If the MFC has been in tempering mode (heating) for 10 minutes and the SAT reading is 5°F or more above the air tempering selected value, heating is ended. If all conditions for Air Tempering are still met, it re-initiates after a 10 minute minimum off delay.

## Two-stage gas heat ignition control board function

### Ignition control board on standby

The Ignition Control Board (ICB) has all outputs de-energized and monitors the thermostat and flame sense. The ICB resets ignition trial and flame loss counters. The ICB begins a call for heat when W1 is energized at the Unit Control Board (UCB).

### Pressure switch proving

The ICB energizes the induced draft motor and waits for the low pressure switch to close. When the low pressure switch closes, the control begins a Pre-purge period. If the call for heat is lost, the control de-energizes the inducer without post-purge and returns to standby.

If the low pressure switch does not close within 10 seconds of inducer energizing, the control flashes 2 on the LED. If the pressure switch does not close within 5 minutes of inducer energizing, the control shuts off the inducer for 30 seconds, then energizes the inducer for another 5 minutes try to close the pressure switch. This cycle continues indefinitely until either the pressure switch is proved closed, or the call for heat ends.

### Pre-purge

The ICB monitors the low pressure switch and ensures it remains closed during pre-purge. If the pressure switch opens, the control returns to pressure switch proving mode. The control waits for a 15 seconds pre-purge period, and then begins the ignition trial.

### Ignition trial period

When the ICB energizes the main gas valve, the second stage gas valve and the spark outputs for a 10 second ignition trial. The control de-energizes the spark when a flame is sensed and enters a flame stabilization period.

If a flame is not established within the ignition trial period, the control de-energizes the spark and gas valve and checks

for the maximum number of ignition trials. The ICB has a maximum number of three ignition trials. If the control has attempted the maximum number of ignition trials in the same call for heat without flame, the control locks out flashing 4 on the LED. If the control has attempted less than maximum ignition trials, it begins an inter-purge period before attempting another ignition trial.

If the call for heat is lost during an ignition trial period, the control immediately de-energizes spark and gas. The control runs the inducer motor through a post purge period before de-energizing.

If the pressure switch is lost during an ignition trial period, the control immediately de-energizes spark and gas. The control begins pressure switch proving before an inter-purge and re-ignition attempt.

## Flame stabilization period

If a flame is detected during the Ignition Trial Period, the ICB then enters the flame stabilization period. If a flame is not detected in 2 seconds, the main valve is de-energized and a retry operation begins. The flame stabilization period lasts 10 seconds. A flame detection must be lost for 2 seconds during flame stabilization for the main valve to be de-energized. When the flame stabilization period has ended, a loss of flame detection for 3/4 seconds results in the main valve being de-energized.

If a flame is lost during the flame stabilization period, the control counts it as a flame loss and retries ignition or locks out as described in Low heat section.

## Main burner operation

### High heat warm-up

Upon receiving W1 (H2 from the UCB board), the gas heat ignition control turns on high heat for the normal 1 minute warmup and flame stabilization period.

### High heat

After the high heat warm-up, the gas heat ignition control remains in high heat until the heat call ends. The ICB keeps the main gas valve and induced draft motor energized while continuously monitoring the call for heat, low pressure switch and flame status.

If the call for heat (W1) is lost, the control de-energizes the gas valve and begins post purge.

If the low pressure switch opens, the control deenergizes the gas valve and begins pressure switch proving mode.

If the flame is lost, the control de-energizes the gas valve within 2 seconds and counts the flame loss. If a flame is lost more than five times within the same call for heat, the control locks out flashing 5 on the LED. If the flame is lost less than five times, the control attempts reignition after a 30 second inter-purge period

## Post purge

The ICB runs the induced draft motor for a 5 second post-purge period, then de-energizes the inducer. If a call for heat occurs during post-purge, the control finishes the post-purge, drops inducer out to re-prove open pressure switch before continuing with the heat cycle.

## Lockout

While in lockout, the ICB keeps the main gas valve and induced draft motor de-energized.

Lockouts due to failed ignition or flame losses may be reset by removing the call for heat (W1) for more than 1 seconds, but less than 20 seconds, or by removing power from the control for over 1/4 seconds. The control automatically resets lockout after 60 minutes.

Lockouts due to detected internal control faults reset after 60 minutes or power interruption.

## High temperature limit switch

If the high temperature limit switch is open the control runs the inducer, de-energizes the gas valve, and flashes 6 on the LED. When the high temperature switch closes, the control restarts the ignition sequence beginning with pre-purge.

If the high temperature limit is open for more than 6 minutes continuously during a call for heat, it is assumed that the main blower has failed and the control enters a hard lockout and flashes a 9 on the LED. During the hard lockout, the control continues to run the inducer as long as the limit switch is open. If the limit switch closes again in this hard lockout condition, the inducer runs a post-purge and then shuts off. The control remains locked out until power is removed and does not reset automatically.

## Roll-out switch

If the roll-out switch opens for more than 1/4 seconds, the ICB runs the inducer for a post-purge period, immediately de-energizes the gas valve, and flashes 7 on the LED.

If the roll-out switch closes, the control remains locked out until power is removed or W is removed. Roll-out switch lockout does not reset automatically.

## Power interruptions

Power interruptions less than 0.80 seconds do not cause the ICB to interrupt the heat sequence. Power interruptions over 1/4 seconds cause the control reset lockout and ignition trial counters. Power interruptions of any duration do not cause lockout or any operation requiring manual intervention.

## Flame present with gas off

If a flame is sensed for longer than 2 seconds during a period when the gas valve should be closed, the ICB enters lockout. The control turns on the inducer blower while the flame is present.

## Welded gas valve relay response

If either or both Main and Second Stage Gas valve outputs are sensed to be off for more than 1 second when commanded to be **ON**, the ICB shuts off all outputs and enters lockout.

If the Main valve output is sensed to be energized for more than 1 second when commanded to be off, the control de-energizes the induced draft motor (if flame is not present) to attempt to open the pressure switch to de-energize the gas valve. If the main gas valve is still sensed as energized after the inducer has been off for 15 seconds, the control re-energizes the inducer to attempt to vent the unburned gas. In either case, the control locks out.

## Modulating gas heat ignition control board function

### Ignition control board on standby

The ignition control board (ICB) has all outputs de-energized and monitors the communications port and flame sense. The ICB resets ignition trial and flame loss counters. The ICB begins a call for heat when a communicated demand level is requested from the modulating furnace control (MFC) on the RS485 port.

### Call for heat

The ICB checks to see if the pressure switch is open and the RPM sensor input indicates that the inducer motor is not currently active. If the pressure switch is closed or the RPM sensor detects that the inducer is active, the ICB flashes 3 on the LED and waits indefinitely for it to become inactive. When the inducer is sensed as inactive, the ICB begins an air flow proving period. If the call for heat is lost, the ICB goes back to Standby.

### Air flow proving

The ICB energizes the induced draft motor and waits for the low pressure switch to close and for the RPM sensor to provide a feedback signal of at least a level of 500 RPM. When the low pressure switch closes and the RPM sensor indicates at least 500 RPM, the control begins a pre-purge period. If the call for heat is lost, the control de-energizes the inducer without post-purge and returns to standby. If the low pressure switch does not close and the RPM sensor does not reach 500 RPM within 10 seconds of the inducer energizing, the control flashes 2 on the LED. If the pressure switch does not close and the RPM sensor does not indicate at least 500 RPM within 5 minutes of inducer energizing, the control shuts off the inducer for 30 seconds, then energizes the inducer for another 5 minutes to try to close the pressure switch and reach 500 RPM. This cycle continues indefinitely until either the airflow is proven, or the call for heat ends.

### Pre-purge

The ICB monitors the low pressure switch and RPM sensor to ensure air flow remains present during pre-purge. If the pressure switch opens or the RPM sensor drops under 500 RPM, the control goes back to pressure switch proving mode. The control waits for a 30 second pre-purge period, then begins the ignition trial.

### Ignition trial period

The ICB energizes the main gas valve and spark outputs for a 10 second ignition trial. The control de-energizes the spark when flame is sensed and enters a flame stabilization period. If a flame is not established within the ignition trial period, the control de-energizes the spark and gas valves and checks for maximum number of ignition trials.

The ICB has a maximum number of 3 ignition trials. If the control has attempted the maximum number of ignition trials within the same call for heat without flame, the control locks out flashing 4 on the LED. If the control has attempted less than the maximum ignition trials, it begins an inter-purge period before attempting another ignition trial.

If the call for heat is lost during an ignition trial period, the control immediately de-energizes the spark and gas. The control runs the inducer motor through a post purge period before de-energizing.

If the pressure switch is lost during an ignition trial period, the control immediately de-energizes the spark and gas. The control begins pressure switch proving before an inter-purge and re-ignition attempt.

If the rpm sensor indicates a loss of air flow during an ignition trial period, the control de-energizes the spark and gas after the 10 second ignition period. The control begins air flow proving before an inter-purge and re-ignition attempt.

### Flame stabilization period

If a flame is detected during the ignition trial period, the ICB then enters the flame stabilization period. If a flame is not detected in 3 seconds (+/-1 second), the main valve is de-energized and a retry operation begins. The flame stabilization period lasts 10 seconds. Flame detection must be lost for 3 seconds (+/-1 second) during flame stabilization for the main valve to be de-energized. When the flame stabilization period has ended, a loss of flame detection within 1 seconds to 2 seconds results in the main valve being de-energized. If flame is lost during the flame stabilization period, the control counts it as a flame loss and retries ignition, or locks out as described in the Steady heat section.

### Main burner operation

**High heat warm-up**

The ICB runs high heat for the first 30 seconds following flame stabilization period regardless of demand. If high heat is not requested at the end of this 30 second period the control reduces the high gas output and steps the inducer to a lower speed requested by the demand level. If high heat is requested the control remains on high heat.

**Steady heat**

The ICB keeps the main gas valve and induced draft motor energized while continuously monitoring the call for heat, low pressure switch, RPM sensor, and flame status. If the call for heat demand is lost, the control de-energizes the gas valve and begins post purge. If the low pressure switch opens or the inducer motor RPM sensor drops below 500

RPM, the control de-energizes the gas valve and begins pressure switch proving mode. If the flame is lost, the control de-energizes the gas valve within 2 seconds and counts the flame loss. If the flame is lost more than 5 times within the same call for heat, the control locks out flashing 5 on the LED. If the flame is lost less than 5 times, the control attempts re-ignition after a 30 second inter-purge period.

### Post purge

The ICB runs the induced draft motor for a 5 second post-purge period, then de-energizes the inducer. If a call for heat occurs during post-purge, the control finishes the post-purge, drops inducer out to re-prove air flow before continuing with the heat cycle.

### Lockout

While in lockout, the ICB keeps the main gas valve and induced draft motor de-energized. Lockouts due to failed ignition or flame losses can be reset by removing the call for heat (communicated demand) for more than 1 second, but less than 20 seconds, or by removing power from the control for over 1/4 seconds. The control automatically resets lockout after 60 minutes. Lockouts due to detected internal control faults resets after 60 minutes or power interruption.

### High temperature limit switch

Any time the high temperature limit switch is open the ICB runs the inducer, de-energize the gas valve, and flash 6 on the LED. When the high temperature switch closes, the control restarts the ignition sequence beginning with pre-purge. If the high temperature limit is open for more than 6 minutes continuously during a call for heat, it is assumed that the main blower has failed and the control enters a hard lockout and flash a 9 on the LED. During the hard lockout, the control continues to run the inducer as long as the limit switch is open. If the limit switch recloses in this hard lockout condition, the inducer runs a post purge and then shutoff. The control remains locked out until power is removed and does not reset automatically.

### Roll-out switch

If the roll-out switch opens for more than 1/4 seconds, the ICB runs the inducer for a post-purge period, immediately de-energizes the gas valve, and flashes 7 on the LED. If the roll-out switch closes, the control remains locked out until the power is removed or the demand is removed. The roll-out switch lockout does not reset automatically.

### Power interruptions

Power interruptions less than 80mS do not cause a change in operating mode. Power interruptions more than 100 mS may cause the ICB to interrupt its current operational mode and re-start the operational sequence. Power interruptions of any duration are not to cause lockout or any operation requiring manual intervention to recover.

### Flame present with gas off

If a flame is sensed for longer than 2 seconds during a period when the gas valve should be closed, the ICB enters lockout. The control turns on the inducer blower while the flame is present.

### Welded gas valve relay response

If the main gas valve output is sensed to be off for more than 1 second when commanded to be on, the ICB shuts off all outputs and enters lockout. If the main valve output is sensed to be energized for more than 1 second when commanded to be off, the control de-energizes the induced draft motor (if flame is not present) to attempt to open the pressure switch to de-energize the gas valve. If the main gas valve is still sensed as energized after the inducer has been off for 10 seconds, the control re-energizes the inducer to attempt to vent the unburned gas. In either case, the control locks out.

## Cooling start-up

The following sections describe the cooling start-up procedures.

### Cooling pre-start checklist

When the installation is complete, perform the following checks:

1. Check the electrical supply voltage being supplied. Verify that it is the same as the voltage listed on the unit nameplate.
2. Set the room thermostat to the off position.
3. Turn on the electrical power to the unit.
4. Set the room thermostat fan switch to on.
5. Check the indoor blower rotation.

   If the blower rotation is in the wrong direction, see Phasing section.

   a. Check the blower drive belt tension.
6. Check the unit supply air (CFM).
7. Measure the evaporator fan motor's amp draw.
8. Set the room thermostat fan switch to off.
9. Turn off electrical power to the unit.

### Operating the unit

1. Turn on the electrical power to the unit.
2. Set the room thermostat setting lower than the room temperature.

   First stage compressors energize after the built-in time delay of 5 minutes.

   Additional stages of cooling will be energized by the thermostat if needed.

### Post-start checklist

1. Verify proper system pressures for both circuits.
2. Measure the temperature drop across the evaporator coil.

3. Measure the system amperage draw across all legs of the three-phase power wires.
4. Measure the condenser fan amperage draw.

## Gas heat start-up

The following sections describe the gas heat start-up procedures.

### Gas heat pre-start checklist

When the installation is complete, perform the following checks.

1. Check the type of gas supply. Verify that it is the same as the gas supply listed on the unit nameplate.
2. Verify that the combustion air intake and flue exhaust are free of any debris or obstruction.
3. Verify that the hood is installed over the flue exhaust discharge opening.
4. For modulating furnaces, set the System Selection bottom pin jumper to COMMISSION on the Modulating Furnace Control to properly check the input rate and manifold pressure.

## Operating instructions

**CAUTION**

This furnace is equipped with an automatic re-ignition system. DO NOT attempt to manually light the burners.

### Lighting the main burners

1. Turn off the electrical power to unit.
2. Set the room thermostat to the lowest setting.
3. Turn the gas valve switch to the ON position.
4. Turn on the electrical power to the unit.
5. Set the room thermostat to the required temperature. If the set temperature on the thermostat is above room temperature, the main burners ignite.

## Gas heat post-start checklist

After the entire control circuit has been energized and the heating section is operating, perform the following checks:

1. Check for gas leaks in the unit piping and the supply piping.

**WARNING**

**FIRE OR EXPLOSION HAZARD**

Failure to follow the safety warning exactly could result in serious injury, death, or property damage. Never test for gas leaks with an open flame. Use a commercially available soap solution made specifically for the detection of leaks to check all connections. A fire or explosion may result causing property damage, personal injury, or loss of life.

2. Check for the correct manifold gas pressures, input rates, and air temperature rise. See Checking gas heat input section.
3. Check the supply gas pressure. It must be within the limits shown on the rating nameplate.

**Note:** You must check the supply pressure with all gas appliances in the building at full fire. The standby gas pressure must never exceed 13 in. or the operating pressure drop below the minimum as specified on the unit rating plate. If the gas pressure is outside these limits, contact the local gas utility or propane supplier for corrective action.

**Table 61: Natural gas inputs and pressures**

| Gas Model | Gas Input (MBH) | | Manifold Pressure (in. w.c.) | | Supply Pressure (in. w.c.) | |
|---|---|---|---|---|---|---|
| | Normal | Reduced | Normal | Reduced | Min | Max |
| (N,S)1 | 220 | 165 | 3.5 | 2.1 | 4.5 | 10.5 |
| (N,S)3 | 400 | 300 | 3.5 | 2.1 | 4.8 | 10.5 |
| T3 | 400 | 140 | 3.5 | 0.6 | 5.0 | 10.5 |

**Note:** Propane inputs and pressures are provided in the listed conversion kit instructions.

**Note:** Modulating furnaces, gas model T3, are **not certified** for use with propane and cannot be converted.

## Shutting down the unit

1. Set the thermostat to the lowest temperature setting.
2. Turn off all electrical power to unit.
3. Open the gas heat access panel.
4. Turn the gas valve switch to the OFF position.
5. For modulating furnaces, when commissioning is complete return the System Selection bottom pin jumper to NORM OPERATION on the Modulating Furnace Control.

## Checking gas heat input

For two-stage and modulating furnaces, input rate should be checked at full input and minimum input. The intended input for each furnace is shown in the physical data tables and on the unit rating plate. The table applies to units operating on 60 Hz power only.

**Important**

If this is a modulating furnace, the Modulating Furnace Control board must be in COMMISSION mode on the System Selection pin jumper when checking input rate. Otherwise, the furnace input will fluctuate automatically and not maintain a steady rate. In COMMISSION mode, a second stage thermostat call will run the furnace at full input and a first stage call will run at minimum input.

### To determine the rate of gas flow at second stage (full input)

To determine the rate of gas flow at second stage (full input):

1. Turn off all other gas appliances connected to the gas meter.
2. Turn on the furnace and make sure the thermostat is calling for Second stage (100% input) heat.
3. Measure the time needed for one revolution of the hand on the lowest increment dial on the meter. A typical gas meter has a 1/2 $ft^3$ or a 1 $ft^3$ test dial.
4. Using the number of seconds it takes for one revolution of the dial, calculate the cubic feet of gas consumed per hour.
5. If necessary, adjust the high pressure regulator as discussed in the section Manifold gas pressure adjustment. **Be sure not to over-fire the furnace on second stage.** If in doubt, it is better to leave the second stage of the furnace slightly under-fired. Repeat Step 1 to Step 5.

### To determine the rate of gas flow at first stage (minimum input)

1. Turn off all other gas appliances connected to the gas meter.
2. Turn on the furnace and make sure the thermostat is calling for first stage (minimum input) heat.
3. Even when the thermostat is calling for first stage heat, the unit will light on second stage and will run on second stage for 1 minute. Allow this one-minute time period to expire and be certain the unit is running on first stage.
4. Measure the time taken for one revolution of the hand on the lowest increment dial on the meter. A typical gas meter has a 1/2 or a 1 $ft^3$ test dial.
5. Using the number of seconds it takes for one revolution of the dial, calculate the cubic feet of gas consumed per hour (See example below).
6. If necessary, adjust the low pressure regulator as discussed in the section Manifold Gas Pressure Adjustment. **Be sure not to under-fire the furnace on first stage.** If in doubt, it is better to leave the first stage of the furnace slightly over-fired. Repeat Steps 1 to 6.

## Manifold gas pressure adjustment

### Two stage

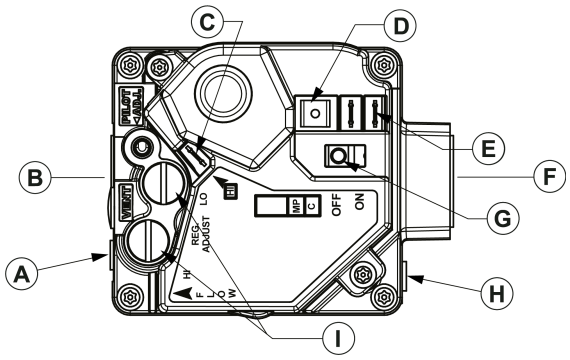
This gas furnace has two heat stages. Therefore, the gas valve has two adjustment screws located under two cover screws. The second stage adjustment screw is adjacent to the HI marking on the valve and the first stage adjustment screw is located adjacent to the LO marking on the valve.

**Manifold pressure adjustment procedure.**

Adjust the second stage first, then adjust the first stage pressure. See the in the physical data tables or the unit rating plate.

1. Turn off all power to the unit.
2. Using the outlet pressure port on the gas valve, connect a manometer to monitor the manifold pressure.
3. Remove the cover screws covering the HI and LO pressure adjustment screws.
4. Turn on the power to the unit.
5. Set the thermostat to call for second stage heat and start the furnace.
6. If necessary, using a screwdriver, turn the second stage adjustment screw (adjacent to the HI marking on the valve) clockwise to increase manifold pressure or counterclockwise to decrease manifold pressure.
7. After the high manifold pressure has been checked, you can adjust the thermostat to call for first stage heat.
8. If necessary, using a screwdriver, turn the first stage adjustment screw (adjacent to the LO marking on the valve) clockwise to increase manifold pressure or counterclockwise to decrease manifold pressure.
9. After you have checked the pressure, replace the cover screws covering the HI and LO pressure adjustment screws.

**Figure 91: Two Stage Gas Valve**




| Item | Description |
|---|---|
| A | Outlet pressure tap 1/8 in. - 27 NPT |
| B | Outlet |
| C | 3/16 in. x .032 in. thk. male spade terminal - 2nd stage coil |
| D | External jumper |
| E | 1/4 in. x .032 in. thk. male spade terminals (2) - common |
| F | Inlet |
| G | On/Off switch |
| H | Inlet pressure tap 1/8 in. - 27 NPT |
| I | Regulator cover screws (reg. adj. beneath these screws) |

## Modulating gas furnace

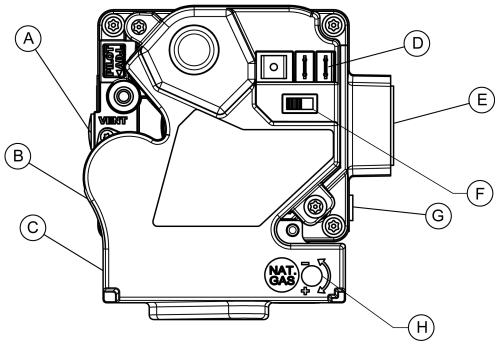
This gas furnace is a fully modulating system. The modulating furnace requires manifold pressure adjustment at both the highest setting (100%, full input) and lowest setting (35%, minimum input) of the gas valve to ensure it regulates correctly across the full range. Both settings are adjusted by a single Rotary DIP Switch on the valve. See Figure 92).

**Important:** The Modulating Furnace Control (MFC) board must be in COMMISSION mode on the System Selection pin jumper when checking input rate. Otherwise, the manifold pressure fluctuates automatically and does not maintain a steady rate. In COMMISSION mode, the MFC maintains a 100% (full input) heat demand with a second stage thermostat call and a 35% (minimum input) heat demand with a first stage call.

1. Turn off all power to the unit.
2. Using the outlet pressure port on the gas valve, connect a manometer to monitor the manifold pressure.
3. Remove the plastic cap covering the pressure adjustment rotary DIP switch.
4. Turn on power to the unit.
5. Set thermostat to call for second stage heat and start furnace.
6. If necessary, using a small flat-head screwdriver, turn the rotary DIP switch clockwise to increase manifold pressure or counterclockwise to decrease manifold pressure.

   **Note:** When adjusting the rotary DIP switch, wait 1 second between steps to allow the software to register the change. If a change is not registered, the offset returns to its original setting.
7. After you have checked the manifold pressure at its highest setting, adjust the thermostat to call for the first stage heat to set the manifold pressure at its lowest setting.
8. Wait at least one minute for the furnace to step down to its lowest setting and adjust the manifold pressure, if necessary, using the same procedure in Step 6.
9. After you have checked the pressure, replace the plastic cap covering the rotary DIP switch.

**Figure 92: Gas valve**




| Item | Description |
|---|---|
| A | Outlet |
| B | Outlet pressure tap, 1/8 in. – 27 NPT |
| C | 5 pin plug (modulator) |
| D | 1/4 in. x 0.032 in. thk male spade terminals (2) – main and common |
| E | Inlet |
| F | On/Off switch |
| G | Inlet pressure tap, 1/8 in. – 27 NPT |
| H | Regulator cap (regulator adjustment rotary dip switch beneath) |

## Adjustment of temperature rise

The temperature rise (the difference of temperature between the mixed air entering the furnace and the heated air leaving the furnace) must lie within the range shown on the unit rating plate and the data in the physical data tables when the unit is operating as full input.

Air temperature rise should be determined when the furnace is firing at full input. Two stage furnaces require a second stage thermostat call. Modulating furnaces require a second



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stage thermostat call and the Modulating Furnace Control must be in COMMISSION mode to maintain full input.

After the temperature rise has been determined, you can calculate the CFM using the following formula:

$$CFM = \text{Btu Input} \cdot \frac{0.8}{(1.08 \cdot \Delta°F)}$$

After about 20 minutes of operation, determine the furnace temperature rise. Take readings of both the return air and the heated air in the ducts (about 6 feet from the furnace) where they will not be affected by radiant heat. Increase the blower CFM to decrease the temperature rise; decrease the blower CFM to increase the rise (See supply air drive adjustment).

**Note:** Each gas heat exchanger size has a minimum allowable CFM. Below this CFM, the limit will open.

## Burners, orifices inspection, and servicing

Before checking or changing burners or orifices, **close main manual shut-off valve and shut off all power to the unit**.

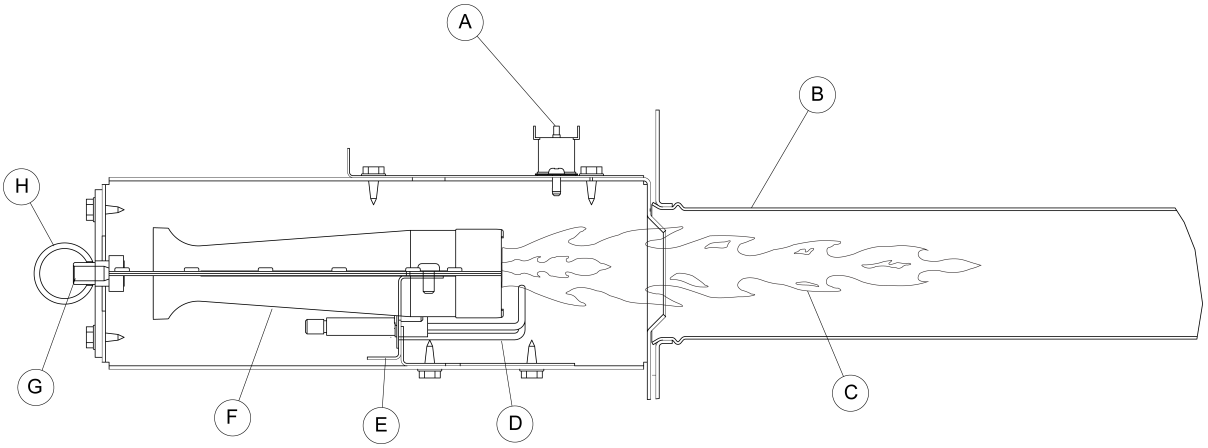
1. Open the union fitting just upstream of the unit gas valve and downstream from the main manual shut-off valve in the gas supply line.
2. Remove the screws holding each end of the manifold to the manifold supports.
3. Disconnect the wiring to the gas valve. Remove the manifold and gas valve assembly. The orifices can now be inspected or replaced.

   To service burners, complete step 4.
4. Remove the heat shield on top of the manifold supports. Burners are now accessible for inspection or replacement.

   **Note:** Reverse the previous procedure to replace the assemblies.

When reassembling, ensure that the burners are level and sit at the rear of the gas orifice.

**Figure 93: Typical Flame**




| Item | Description |
|---|---|
| A | Roll out switch |
| B | Heat exchanger tube |
| C | Burner flame (blue only) |
| D | Ignitor |
| E | Burner bracket |
| F | Burner |
| G | Orifice |
| H | Manifold |

## Charging the unit

### Table 63: KD15 charging table, system 1

| Air Flow Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 114 | 53 | 281 | 81 | 33 |
| | 85 | 115 | 54 | 324 | 91 | 32 |
| | 95 | 117 | 55 | 369 | 100 | 31 |
| 300 Cfm/ton 80/67 | 75 | 125 | 58 | 287 | 84 | 28 |
| | 85 | 127 | 59 | 330 | 93 | 27 |
| | 95 | 128 | 60 | 377 | 102 | 26 |
| 300 Cfm/ton 80/72 | 75 | 137 | 63 | 294 | 86 | 23 |
| | 85 | 139 | 64 | 338 | 95 | 22 |
| | 95 | 141 | 65 | 386 | 104 | 22 |
| 300 Cfm/ton 75/62 | 75 | 113 | 53 | 282 | 81 | 28 |
| | 85 | 115 | 54 | 324 | 90 | 27 |
| | 95 | 117 | 55 | 370 | 100 | 27 |
| 400 Cfm/ton 80/62 | 75 | 120 | 56 | 284 | 83 | 29 |
| | 85 | 122 | 57 | 326 | 92 | 28 |
| | 95 | 124 | 58 | 371 | 102 | 27 |
| 400 Cfm/ton 80/67 | 75 | 132 | 61 | 292 | 84 | 24 |
| | 85 | 133 | 62 | 335 | 93 | 23 |
| | 95 | 135 | 62 | 382 | 102 | 23 |
| 400 Cfm/ton 80/72 | 75 | 143 | 65 | 298 | 86 | 19 |
| | 85 | 145 | 66 | 343 | 95 | 19 |
| | 95 | 147 | 67 | 392 | 104 | 18 |
| 400 Cfm/ton 75/62 | 75 | 120 | 56 | 286 | 81 | 24 |
| | 85 | 121 | 57 | 329 | 90 | 24 |
| | 95 | 123 | 58 | 375 | 100 | 23 |

### Table 64: KD15 charging table, system 2

| Air Flow, Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 114 | 53 | 279 | 82 | 33 |
| | 85 | 116 | 54 | 321 | 92 | 32 |
| | 95 | 118 | 55 | 366 | 101 | 31 |
| 300 Cfm/ton 80/67 | 75 | 125 | 58 | 285 | 85 | 28 |
| | 85 | 127 | 59 | 328 | 94 | 27 |
| | 95 | 129 | 60 | 374 | 103 | 26 |
| 300 Cfm/ton 80/72 | 75 | 137 | 63 | 292 | 87 | 23 |
| | 85 | 139 | 64 | 336 | 96 | 22 |
| | 95 | 141 | 65 | 383 | 105 | 22 |
| 300 Cfm/ton 75/62 | 75 | 114 | 53 | 280 | 82 | 28 |
| | 85 | 115 | 54 | 322 | 91 | 27 |
| | 95 | 117 | 55 | 368 | 100 | 27 |
| 400 Cfm/ton 80/62 | 75 | 121 | 56 | 282 | 84 | 29 |
| | 85 | 122 | 57 | 324 | 94 | 28 |
| | 95 | 124 | 58 | 369 | 104 | 27 |
| 400 Cfm/ton 80/67 | 75 | 132 | 61 | 289 | 85 | 24 |
| | 85 | 133 | 62 | 333 | 94 | 23 |
| | 95 | 135 | 62 | 379 | 104 | 23 |
| 400 Cfm/ton 80/72 | 75 | 144 | 66 | 296 | 88 | 19 |
| | 85 | 145 | 66 | 341 | 96 | 19 |
| | 95 | 147 | 67 | 389 | 105 | 18 |
| 400 Cfm/ton 75/62 | 75 | 120 | 56 | 284 | 82 | 24 |
| | 85 | 121 | 57 | 327 | 91 | 24 |
| | 95 | 123 | 58 | 373 | 101 | 23 |

### Table 65: KD18 charging table, system 1

| Air Flow, Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 116 | 54 | 280 | 89 | 33 |
| | 85 | 117 | 55 | 322 | 97 | 32 |
| | 95 | 119 | 56 | 368 | 106 | 31 |
| 300 Cfm/ton 80/67 | 75 | 127 | 59 | 286 | 90 | 28 |
| | 85 | 129 | 60 | 330 | 99 | 27 |
| | 95 | 131 | 61 | 376 | 109 | 26 |
| 300 Cfm/ton 80/72 | 75 | 139 | 64 | 294 | 93 | 23 |
| | 85 | 141 | 65 | 338 | 101 | 22 |
| | 95 | 143 | 66 | 385 | 110 | 21 |
| 300 Cfm/ton 75/62 | 75 | 115 | 54 | 281 | 87 | 28 |
| | 85 | 117 | 55 | 324 | 96 | 27 |
| | 95 | 119 | 56 | 369 | 105 | 27 |
| 400 Cfm/ton 80/62 | 75 | 123 | 57 | 284 | 90 | 29 |
| | 85 | 124 | 58 | 326 | 99 | 28 |
| | 95 | 126 | 59 | 371 | 109 | 27 |
| 400 Cfm/ton 80/67 | 75 | 134 | 62 | 291 | 91 | 24 |
| | 85 | 136 | 63 | 334 | 100 | 23 |
| | 95 | 138 | 64 | 381 | 109 | 23 |
| 400 Cfm/ton 80/72 | 75 | 146 | 67 | 299 | 93 | 19 |
| | 85 | 148 | 68 | 343 | 102 | 19 |
| | 95 | 150 | 69 | 390 | 111 | 18 |
| 400 Cfm/ton 75/62 | 75 | 122 | 57 | 285 | 89 | 24 |
| | 85 | 124 | 58 | 328 | 97 | 24 |
| | 95 | 126 | 59 | 374 | 106 | 23 |

### Table 66: KD18 charging table, system 2

| Air Flow, Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 115 | 54 | 306 | 92 | 33 |
| | 85 | 117 | 55 | 352 | 102 | 32 |
| | 95 | 119 | 56 | 401 | 111 | 31 |
| 300 Cfm/ton 80/67 | 75 | 126 | 59 | 314 | 96 | 28 |
| | 85 | 128 | 60 | 360 | 105 | 27 |
| | 95 | 130 | 61 | 411 | 113 | 26 |
| 300 Cfm/ton 80/72 | 75 | 138 | 64 | 323 | 99 | 23 |
| | 85 | 140 | 65 | 370 | 107 | 22 |
| | 95 | 142 | 66 | 422 | 116 | 21 |
| 300 Cfm/ton 75/62 | 75 | 115 | 54 | 307 | 91 | 28 |
| | 85 | 116 | 55 | 353 | 100 | 27 |
| | 95 | 118 | 56 | 403 | 110 | 27 |
| 400 Cfm/ton 80/62 | 75 | 122 | 57 | 310 | 95 | 29 |
| | 85 | 123 | 58 | 355 | 105 | 28 |
| | 95 | 126 | 59 | 404 | 114 | 27 |
| 400 Cfm/ton 80/67 | 75 | 133 | 62 | 320 | 96 | 24 |
| | 85 | 134 | 63 | 367 | 105 | 23 |
| | 95 | 136 | 63 | 417 | 114 | 23 |
| 400 Cfm/ton 80/72 | 75 | 145 | 66 | 329 | 99 | 19 |
| | 85 | 147 | 67 | 377 | 107 | 19 |
| | 95 | 148 | 68 | 429 | 116 | 18 |
| 400 Cfm/ton 75/62 | 75 | 121 | 57 | 313 | 92 | 24 |
| | 85 | 122 | 58 | 359 | 101 | 24 |
| | 95 | 124 | 58 | 409 | 110 | 23 |

### Table 67: KD20 charging table, system 1

| Air Flow, Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 111 | 53 | 259 | 76 | 33 |
| | 85 | 113 | 54 | 299 | 85 | 33 |
| | 95 | 114 | 55 | 343 | 94 | 32 |
| 300 Cfm/ton 80/67 | 75 | 121 | 58 | 263 | 78 | 28 |
| | 85 | 123 | 59 | 305 | 87 | 28 |
| | 95 | 125 | 60 | 349 | 96 | 27 |
| 300 Cfm/ton 80/72 | 75 | 133 | 62 | 268 | 79 | 24 |
| | 85 | 135 | 63 | 311 | 88 | 23 |
| | 95 | 137 | 64 | 356 | 97 | 22 |
| 300 Cfm/ton 75/62 | 75 | 110 | 53 | 260 | 76 | 29 |
| | 85 | 112 | 54 | 301 | 84 | 28 |
| | 95 | 114 | 55 | 345 | 94 | 27 |
| 400 Cfm/ton 80/62 | 75 | 117 | 56 | 262 | 77 | 29 |
| | 85 | 119 | 57 | 303 | 86 | 28 |
| | 95 | 121 | 58 | 346 | 95 | 28 |
| 400 Cfm/ton 80/67 | 75 | 129 | 61 | 267 | 79 | 24 |
| | 85 | 130 | 62 | 309 | 87 | 24 |
| | 95 | 132 | 62 | 353 | 96 | 23 |
| 400 Cfm/ton 80/72 | 75 | 140 | 65 | 272 | 81 | 20 |
| | 85 | 142 | 66 | 315 | 89 | 19 |
| | 95 | 144 | 67 | 360 | 98 | 18 |
| 400 Cfm/ton 75/62 | 75 | 117 | 56 | 263 | 76 | 24 |
| | 85 | 119 | 57 | 304 | 85 | 24 |
| | 95 | 121 | 58 | 349 | 94 | 23 |

### Table 68: KD20 charging table system 2

| Air Flow, Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 110 | 55 | 270 | 80 | 33 |
| | 85 | 115 | 54 | 316 | 89 | 33 |
| | 95 | 117 | 55 | 362 | 98 | 32 |
| 300 Cfm/ton 80/67 | 75 | 125 | 58 | 278 | 82 | 28 |
| | 85 | 127 | 59 | 322 | 91 | 28 |
| | 95 | 129 | 60 | 368 | 100 | 27 |
| 300 Cfm/ton 80/72 | 75 | 137 | 63 | 284 | 84 | 24 |
| | 85 | 139 | 64 | 329 | 93 | 23 |
| | 95 | 141 | 65 | 376 | 102 | 22 |
| 300 Cfm/ton 75/62 | 75 | 114 | 53 | 274 | 79 | 29 |
| | 85 | 115 | 54 | 317 | 89 | 28 |
| | 95 | 117 | 55 | 363 | 98 | 27 |
| 400 Cfm/ton 80/62 | 75 | 121 | 57 | 276 | 81 | 29 |
| | 85 | 122 | 57 | 319 | 90 | 28 |
| | 95 | 124 | 58 | 364 | 100 | 28 |
| 400 Cfm/ton 80/67 | 75 | 132 | 61 | 283 | 82 | 24 |
| | 85 | 133 | 62 | 327 | 92 | 24 |
| | 95 | 135 | 63 | 373 | 101 | 23 |
| 400 Cfm/ton 80/72 | 75 | 144 | 66 | 289 | 85 | 20 |
| | 85 | 145 | 67 | 334 | 93 | 19 |
| | 95 | 147 | 67 | 382 | 103 | 18 |
| 400 Cfm/ton 75/62 | 75 | 120 | 56 | 278 | 80 | 24 |
| | 85 | 121 | 57 | 321 | 89 | 24 |
| | 95 | 123 | 58 | 368 | 98 | 23 |

### Table 69: KD25 charging table system 1

| Air Flow, Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 115 | 55 | 280 | 82 | 33 |
| | 85 | 117 | 56 | 322 | 92 | 32 |
| | 95 | 119 | 57 | 368 | 102 | 31 |
| 300 Cfm/ton 80/67 | 75 | 126 | 60 | 285 | 85 | 28 |
| | 85 | 128 | 60 | 329 | 94 | 27 |
| | 95 | 130 | 61 | 376 | 104 | 26 |
| 300 Cfm/ton 80/72 | 75 | 138 | 64 | 291 | 87 | 23 |
| | 85 | 141 | 65 | 336 | 96 | 22 |
| | 95 | 143 | 66 | 384 | 106 | 22 |
| 300 Cfm/ton 75/62 | 75 | 115 | 55 | 280 | 82 | 28 |
| | 85 | 117 | 56 | 324 | 92 | 27 |
| | 95 | 119 | 57 | 371 | 101 | 27 |
| 400 Cfm/ton 80/62 | 75 | 122 | 58 | 283 | 84 | 28 |
| | 85 | 124 | 59 | 325 | 94 | 28 |
| | 95 | 126 | 60 | 372 | 103 | 27 |
| 400 Cfm/ton 80/67 | 75 | 133 | 62 | 289 | 86 | 24 |
| | 85 | 135 | 63 | 333 | 95 | 23 |
| | 95 | 137 | 64 | 381 | 104 | 23 |
| 400 Cfm/ton 80/72 | 75 | 145 | 67 | 295 | 88 | 19 |
| | 85 | 147 | 68 | 341 | 97 | 19 |
| | 95 | 149 | 69 | 390 | 106 | 18 |
| 400 Cfm/ton 75/62 | 75 | 121 | 57 | 284 | 83 | 24 |
| | 85 | 123 | 58 | 328 | 92 | 23 |
| | 95 | 125 | 59 | 375 | 102 | 23 |

### Table 70: KD25 charging table system 2

| Air Flow, Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 115 | 55 | 280 | 80 | 33 |
| | 85 | 117 | 55 | 324 | 89 | 32 |
| | 95 | 119 | 57 | 369 | 99 | 31 |
| 300 Cfm/ton 80/67 | 75 | 126 | 59 | 285 | 82 | 28 |
| | 85 | 128 | 60 | 330 | 91 | 27 |
| | 95 | 130 | 61 | 377 | 101 | 26 |
| 300 Cfm/ton 80/72 | 75 | 138 | 64 | 292 | 84 | 23 |
| | 85 | 141 | 65 | 336 | 93 | 22 |
| | 95 | 143 | 66 | 385 | 102 | 22 |
| 300 Cfm/ton 75/62 | 75 | 115 | 54 | 281 | 80 | 28 |
| | 85 | 117 | 55 | 325 | 89 | 27 |
| | 95 | 119 | 56 | 371 | 98 | 27 |
| 400 Cfm/ton 80/62 | 75 | 122 | 58 | 284 | 81 | 28 |
| | 85 | 124 | 59 | 327 | 90 | 28 |
| | 95 | 126 | 59 | 373 | 100 | 27 |
| 400 Cfm/ton 80/67 | 75 | 134 | 63 | 289 | 83 | 24 |
| | 85 | 136 | 63 | 335 | 92 | 23 |
| | 95 | 138 | 64 | 382 | 101 | 23 |
| 400 Cfm/ton 80/72 | 75 | 146 | 67 | 296 | 85 | 19 |
| | 85 | 148 | 68 | 343 | 93 | 19 |
| | 95 | 150 | 69 | 391 | 103 | 18 |
| 400 Cfm/ton 75/62 | 75 | 122 | 57 | 285 | 80 | 24 |
| | 85 | 124 | 58 | 329 | 89 | 23 |
| | 95 | 126 | 59 | 376 | 99 | 23 |

### Table 71: KD28 charging table system 1

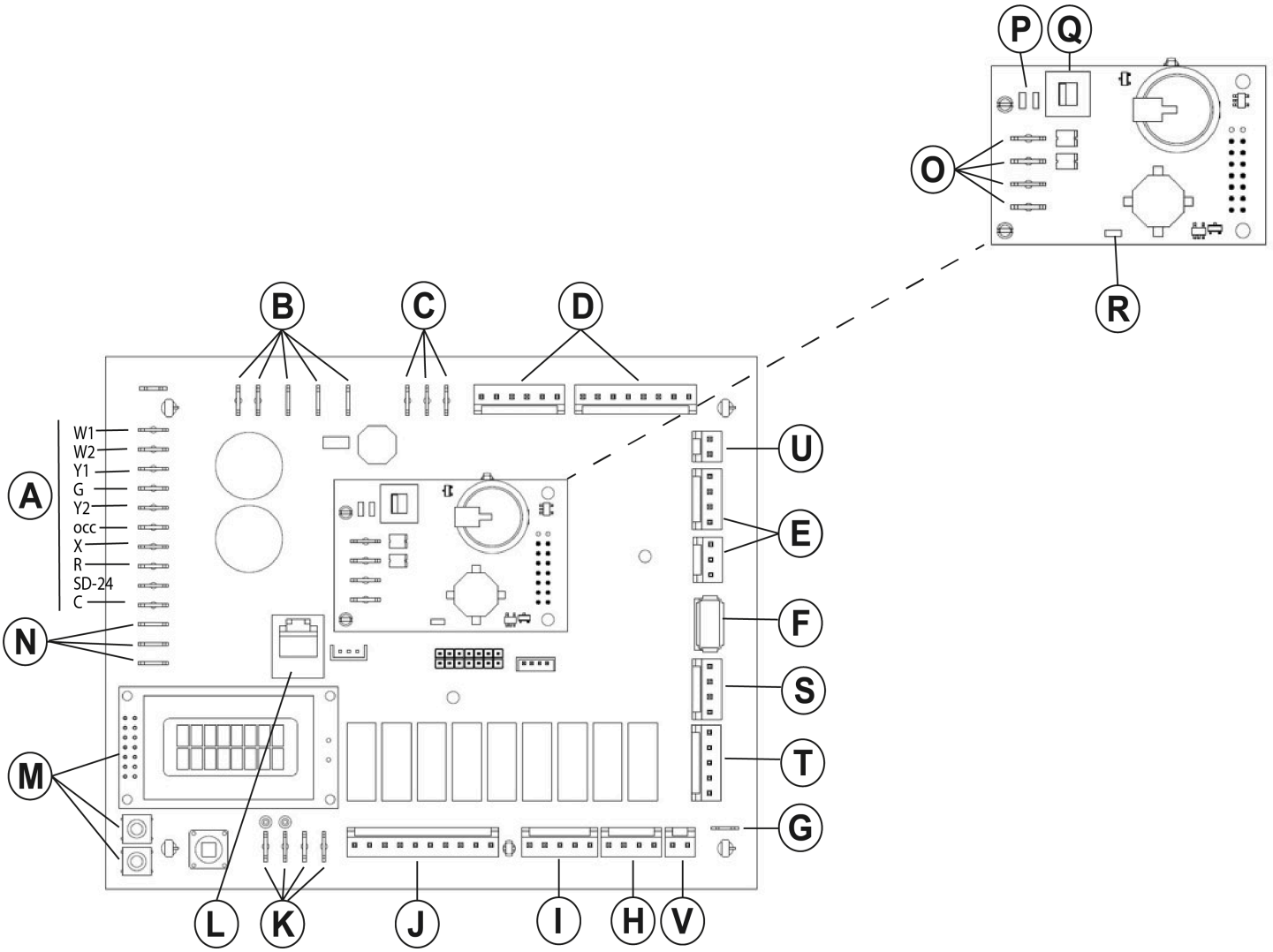
| Air Flow, Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 110 | 52 | 267 | 80 | 33 |
| | 85 | 112 | 53 | 310 | 89 | 32 |
| | 95 | 114 | 54 | 356 | 99 | 31 |
| 300 Cfm/ton 80/67 | 75 | 120 | 57 | 272 | 81 | 28 |
| | 85 | 122 | 58 | 315 | 91 | 27 |
| | 95 | 124 | 59 | 361 | 101 | 27 |
| 300 Cfm/ton 80/72 | 75 | 132 | 61 | 276 | 83 | 23 |
| | 85 | 134 | 62 | 320 | 93 | 23 |
| | 95 | 136 | 63 | 368 | 102 | 22 |
| 300 Cfm/ton 75/62 | 75 | 109 | 52 | 268 | 79 | 28 |
| | 85 | 111 | 53 | 311 | 89 | 28 |
| | 95 | 113 | 54 | 357 | 99 | 27 |
| 400 Cfm/ton 80/62 | 75 | 117 | 55 | 270 | 81 | 29 |
| | 85 | 118 | 56 | 312 | 90 | 28 |
| | 95 | 120 | 57 | 358 | 100 | 27 |
| 400 Cfm/ton 80/67 | 75 | 127 | 59 | 275 | 82 | 24 |
| | 85 | 129 | 60 | 318 | 92 | 23 |
| | 95 | 131 | 61 | 365 | 101 | 23 |
| 400 Cfm/ton 80/72 | 75 | 138 | 64 | 280 | 84 | 19 |
| | 85 | 140 | 65 | 324 | 93 | 19 |
| | 95 | 142 | 66 | 372 | 103 | 18 |
| 400 Cfm/ton 75/62 | 75 | 116 | 55 | 271 | 80 | 24 |
| | 85 | 117 | 55 | 315 | 89 | 24 |
| | 95 | 119 | 56 | 361 | 99 | 23 |

### Table 72: KD28 charging table system 2

| Air Flow, Indoor DB/WB | Outdoor DB °F | Suction Pressure psig | Suction Temp °F | Liquid Pressure psig | Liquid Temp °F | Delta T, Indoor DB, °F |
|---|---|---|---|---|---|---|
| 300 Cfm/ton 80/62 | 75 | 110 | 52 | 273 | 79 | 33 |
| | 85 | 112 | 53 | 316 | 89 | 32 |
| | 95 | 114 | 54 | 362 | 99 | 31 |
| 300 Cfm/ton 80/67 | 75 | 121 | 57 | 277 | 81 | 28 |
| | 85 | 123 | 58 | 321 | 91 | 27 |
| | 95 | 126 | 59 | 369 | 100 | 27 |
| 300 Cfm/ton 80/72 | 75 | 133 | 62 | 282 | 84 | 23 |
| | 85 | 135 | 63 | 327 | 93 | 23 |
| | 95 | 138 | 64 | 375 | 102 | 22 |
| 300 Cfm/ton 75/62 | 75 | 110 | 52 | 274 | 79 | 28 |
| | 85 | 112 | 53 | 317 | 88 | 28 |
| | 95 | 114 | 54 | 363 | 98 | 27 |
| 400 Cfm/ton 80/62 | 75 | 117 | 55 | 276 | 80 | 29 |
| | 85 | 119 | 56 | 319 | 90 | 28 |
| | 95 | 121 | 57 | 366 | 100 | 27 |
| 400 Cfm/ton 80/67 | 75 | 129 | 60 | 281 | 82 | 24 |
| | 85 | 131 | 61 | 325 | 91 | 23 |
| | 95 | 132 | 62 | 373 | 101 | 23 |
| 400 Cfm/ton 80/72 | 75 | 141 | 65 | 285 | 84 | 19 |
| | 85 | 143 | 66 | 331 | 93 | 19 |
| | 95 | 145 | 67 | 380 | 103 | 18 |
| 400 Cfm/ton 75/62 | 75 | 117 | 55 | 277 | 80 | 24 |
| | 85 | 119 | 56 | 321 | 89 | 24 |
| | 95 | 121 | 57 | 367 | 99 | 23 |

## Smart Equipment unit control board

**Figure 94: Unit control board**




The following tables describe the details of the UCB, see the previous figure for the connection locations.

### Table 73: Smart Equipment UCB - thermostat connection strip

| Location | Label | Description | Function and comments |
|---|---|---|---|
| A | W1 | 1st stage heating request, 24 VAC input switched from R | Not effective for cooling-only units |
| | W2 | 2nd stage heating request, 24 VAC input switched from R | Not effective for cooling-only units or units with single-stage heat sections |
| | Y1 | 1st stage cooling request, 24 VAC input switched from R | |
| | Y2 | 2nd stage cooling request, 24 VAC input switched from R | Visible in the display menu when the #ClgStgs parameter is set for 2 or more, also effective for economizer free cooling supply air temperature reset when the #ClgStgs parameter is set for one or more |
| | G | Continuous indoor blower request, 24 VAC input switched from R | |
| | OCC | Occupancy request, 24 VAC input switched from R | Must have the OccMode parameter set for external to be effective |
| | X | Hard lockout indicator, 24 volt output to a light thermostat LED | |
| | R | 24 VAC hot for thermostat switching and power | If field-added external accessories for unit shutdown are used, 24 VAC hot return from smoke detector, condensate overflow or user shutdown relay switching in series |
| | SD-24 | If field-added external accessories for unit shutdown are used, 24 VAC hot out for smoke detector, condensate overflow, or user shutdown relay switching in series. | Unit wiring harness jumper plug for factory shutdown accessories must be removed if the switching of field-added external accessories for unit shutdown are wired between the thermostat connection strip SD-24 and R. |
| | C | 24 VAC common for thermostat power | |
| | + | MOD BUS | Future |
| | - | MOD BUS | Future |
| | C | MOD BUS | Future |

### Table 74: Smart Equipment UCB - limit, 24 VAC power, and shutdown connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| B | LIMIT | Monitored 24 VAC input through heat section limit switch(es) | If voltage is absent, indicating the heat section is over-temperature, the UCB turns on the indoor blower. |
| | C | 24 VAC, 75 VA transformer Common referenced to cabinet ground | Connects through circuit traces to thermostat connection strip C and indoor blower VFD pin C. |
| | 24V | 24 VAC, 75 VA transformer hot | Powers the UCB microprocessor, that connects through circuit trace to the SD 24 terminal. |
| | SD 24 | 24 VAC hot out for factory accessory smoke detector, condensate overflow and/or user shutdown relay switching in series | Connects through the circuit trace to the thermostat connection strip SD-24. A wiring harness jumper plug connecting SD 24 to SD R is in place if the factory accessories for unit shutdown are not used - this jumper plug must be removed if the switching of field-added external accessories for unit shutdown are wired between the thermostat connection strip SD-24 and R. |
| | SD R | 24 VAC hot return from factory accessory smoke detector, condensate overflow and user shutdown relay switching in series | Connects through the circuit trace to the R terminal on the upper left of the board. |
| | R | 24 VAC hot for switched inputs to the UCB | Connects through the circuit trace to the thermostat connection strip R terminal, right FAN OVR pin, right HPS1 pin, right HPS2 pin, lower DFS pin and lower APS pin. |

### Table 75: Smart Equipment UCB - space temperature sensor connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| C | ST | Space Temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor. | Positive of VDC circuit, 3.625 VDC reading to COM with open circuit, is effective if the thermostat only control parameter is set to OFF, space sensor override momentary shorts ST to COM to initiate and terminate temporary occupancy. |
| | COM | Common for ST and SSO inputs | Negative of VDC circuit for ST and SSO inputs. |
| | SSO | Space Sensor Offset input from 0 to 20KΩ potentiometer | Positive of VDC circuit (3.625 VDC reading to COM with open circuit), 10KΩ/2.5 VDC is 0°F offset, 0Ω/0 VDC is maximum above offset and 20KΩ/3.4 VDC is maximum below offset from active space temperature setpoint |

### Table 76: Smart Equipment UCB - temperature sensor connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| D | SAT+ | Supply Air Temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for operation; 3.625 VDC reading SAT+ to SAT– with open circuit. Used in heat/cool staging cutouts, free cooling operation, demand ventilation operation, comfort ventilation operation, economizer loading operation, VAV cooling operation, hydronic heat operation. |
| | RAT+ | Return Air Temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for operation; 3.625 VDC reading RAT+ to RAT– with open circuit. Used in return air enthalpy calculation. Substitutes for space temperature if no other space temperature input is present. |
| | OAT+ | Outside Air Temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for operation but may be a communicated value; 3.625 VDC reading OAT+ to OAT– with open circuit. Used in heat/cool cutouts, low ambient cooling determination, dry bulb free cooling changeover, outside air enthalpy calculation, economizer loading operation, heat pump demand defrost calculation. |
| | CC1+ | #1 refrigerant circuit Condenser Coil temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for heat pump units, not required for A/C units; 3.625 VDC reading CC1+ to CC1– with open circuit. Used in heat pump demand defrost calculation. |
| | EC1+ | #1 refrigerant circuit Evaporator Coil temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for operation; 3.625 VDC reading EC1+ to EC1– with open circuit. Used in suction line temperature safety. |
| | CC2+ | #2 refrigerant circuit Condenser Coil temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for 2-compressor heat pump units, not required for 2-compressor A/C units, not active for 1-compressor units; 3.625 VDC reading CC2+ to CC2– with open circuit. Used in heat pump demand defrost calculation. |
| | EC2+ | #2 refrigerant circuit Evaporator Coil temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for operation of 2-compressor units, not active for 1-compressor units; 3.625 VDC reading EC2+ to EC2– with open circuit. Used in suction line temperature safety. |

### Table 77: Smart Equipment UCB - pinned connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| E | RAH+ | Return Air Humidity input from 0-10 VDC @ 0-100% RH sensor | Input required for reheat units, optional in all other units, may be a communicated value. Used in return air enthalpy calculation, temperature/humidity setpoint reset, reheat operation. |
| | DCT PRS+ | Supply Duct Pressure input from 0-5 VDC @ 0-5" w.c. sensor | Input required for variable air volume units. Used in VAV indoor blower operation. |
| | C | Common for the VFD output | Negative of the VDC circuit for the VFD output |
| | VFD | 2-10 VDC (0-100%) output for the indoor blower Variable Frequency Drive | Output is active with indoor blower operation. For CV units: this output provides stepped IntelliSpeed control of the indoor blower VFD based on fan-only, cooling stage and heating stage outputs. For VAV units: this output provides control of the indoor blower VFD based on supply duct static pressure input and setpoint. |
| | VFDFLT | 24 VAC hot input from the normally open VFD alarm contact | The VFD alarm contact switches from R within the unit wiring harness. 24 VAC input results in unit shutdown and a "VFD fault" alarm |

### Table 78: Smart Equipment UCB - USB connector

| Location | Label | Description | Function and comments |
|---|---|---|---|
| F | J10 | Type A female Universal Serial Bus connector | Used for backup, restoration, and copying of board parameters as well as board software updating through a flash drive |
| | J15 | Factory wired SA Bus connector | |

### Table 79: Smart Equipment UCB - 24 V terminal

| Location | Label | Description | Function and comments |
|---|---|---|---|
| G | 24V FOR OUTPUTS | 24 VAC hot for H1, H2, CN-FAN, AUX HGR, FAN C1 and C2 output relay contact switching | Output relay circuitry is isolated from other UCB components and the 24 VAC hot source may be from a second transformer in the unit |

### Table 80: Smart Equipment UCB - heat section connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| H | H1 | 24 VAC hot output for heat section stage 1 | Not effective for cooling-only units. Output if demand is present and permissions allow one stage or two stages of heat section operation |
| | H2 | 24 VAC hot output for heat section stage 2 | Not effective for cooling-only units or units with single-stage heat sections. Output if demand is present and permissions allow two stages of heat section operation |
| | MV | 24 VAC hot input confirming heat section operation | Sourced from gas valve in gas heat units or first stage heat contactor in electric heat units. Input within 5 minutes from initiation of H1 output initiates the "Heat On Fan Delay" timer, loss of input following the termination of H1 output initiates the "Heat On Fan Delay" timer, no input within 5 minutes from initiation of H1 output initiates an "Ignition Failure" alarm, input for longer than 5 minutes without H1 output initiates a "Gas Valve Mis-wire" alarm |

### Table 81: Smart Equipment UCB - pin cooling and fan output

| Location | Label | Description | Function and comments |
|---|---|---|---|
| I | CN-FAN | 24 VAC hot output for the condenser fan contactor coil | Output with either C1 or C2 output; interrupted during defrost cycle for heat pump units |
| | AUX HGR | 24 VAC hot output for hot gas reheat components | Effective only for reheat units, output with reheat operation |
| | FAN | 24 VAC hot output for indoor blower contactor coil/indoor blower VFD enable relay coil | Output with heat/cool operation, G input or schedule demand |
| | C1 | 24 VAC hot output for compressor 1 | If demand is present and permissions allow compressor 1 operation; output with compressor cooling, comfort ventilation cooling, reheat or heat pump heating demands |
| | C2 | 24 VAC hot output for compressor 2 | Not effective for one stage compressor UCBs. If demand is present and permissions allow compressor 2 operation; output with compressor cooling, comfort ventilation cooling or heat pump heating demands |

### Table 82: Smart Equipment UCB - refrigerant circuit safety switch and indoor blower overload connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| J | HPS1 (right pin) | 24 VAC hot out for refrigerant circuit 1 High Pressure Switch | Connects through circuit trace to the R terminal |
| | HPS1 (left pin) | 24 VAC hot return from refrigerant circuit 1 High Pressure Switch | Input is only considered if C1 output is needed; input must be present to allow C1 output. Three HPS1 trips in a two hour period cause a “High Pressure Switch 1 Lockout” and C1 output is then prevented until alarm reset. Connects through circuit trace to the right LPS1 pin. |
| | LPS1 (right pin) | 24 VAC hot out for refrigerant circuit 1 Low Pressure Switch | Connects through circuit trace to the left HSP1 pin |
| | LPS1 (left pin) | 24 VAC hot return from refrigerant circuit 1 Low Pressure Switch | Input is only considered after 30 seconds of C1 output; afterwards, input must be present to allow C1 output. Three LPS1 trips in a one hour period cause a “Low Pressure Switch 1 Lockout” and C1 output is then prevented until alarm reset. |
| | HPS2 (right pin) | 24 VAC hot out for refrigerant circuit 2 High Pressure Switch | Not effective for one stage compressor UCBs. Connects through circuit trace to the R terminal |
| | HPS2 (left pin) | 24 VAC hot return from refrigerant circuit 2 High Pressure Switch | Not effective for one stage compressor UCBs. Input is only considered if C2 output is needed; input must be present to allow C1 output. Three HPS2 trips in a two hour period cause a “High Pressure Switch 1 Lockout” and C2 output is then prevented until alarm reset. Connects through circuit trace to the right LPS2 pin. |
| | LPS2 (right pin) | 24 VAC hot out for refrigerant circuit 2 Low Pressure Switch | Not effective for one stage compressor UCBs. Connects through circuit trace to the left HSP2 pin |
| | LPS2 (left pin) | 24 VAC hot return from refrigerant circuit 2 Low Pressure Switch | Not effective for one stage compressor UCBs. Input is only considered after 30 seconds of C2 output; afterwards, input must be present to allow C2 output. Three LPS2 trips in a one hour period cause a “Low Pressure Switch 2 Lockout” and C2 output is then prevented until alarm reset. |
| | FAN OVR (right pin) | 24 VAC hot out for indoor blower FAN Overload relay contact/ motor protector switch | Connects through circuit trace to the R terminal |
| | FAN OVR (left pin) | 24 VAC hot return from indoor blower FAN Overload relay contact/motor protector switch | Input is only considered if FAN output is needed; input must be present to allow FAN output and unit operation. One FAN OVR trip lasting longer than 5 minutes or three FAN OVR trips in a two hour period cause a “Fan Overload Lockout” and unit operation is then prevented until alarm reset. |

## Table 83: Smart Equipment UCB - SA BUS connections

| Location | Label | Description | Function and comments[1] |
|---|---|---|---|
| K | PWR | Power for SA (“Sensor-Actuator”) BUS devices | Also incorporated in the J8 6-pin phone jack connector at the left-center of the board. Positive of the 15 VDC (reading to C) circuit for powering an optional netstat and/or Multi Touch gateway |
| | C | Common for SA BUS power and communication circuits | Also incorporated in the J8 6-pin phone jack connector at the left-center of the board. Negative of the SA BUS circuits |
| | – | Communication for SA BUS devices | Also incorporated in the J8 6-pin phone jack connector at the left-center of the board. Positive of the VDC (typically, a fluctuating 1.5 to 3.5 volts reading to C; at least 0.25 volts lower than +) SA BUS communication circuit to optional economizer board, 4-stage board, fault detection and diagnostics board, netstat and/or Multi Touch gateway |
| | + | Communication for SA BUS devices | Also incorporated in the J8 6-pin phone jack connector at the left-center of the board. Positive of the VDC (typically, a fluctuating 1.5 to 3.5 volts reading to C; at least 0.25 volts higher than –) SA BUS communication circuit to optional economizer board, 4-stage board, fault detection and diagnostics board, netstat and/or Multi Touch gateway |
| L | J8 | 6-pin phone jack connector | Incorporates the SA BUS terminals for convenience/alternate connection of SA BUS devices, primarily used for temporary service connection of the Multi Touch gateway |

**Note:**
1. When wiring unit and other devices using the SA Bus and FC Bus, see Cable type for FC buses and SA buses in order of preference.

## Table 84: Smart Equipment UCB - user interface

| Location | Label | Description | Function and comments |
|---|---|---|---|
| M | Display | On-board, 2-line x 8-character back-lit display | On-board display, buttons and joystick allow access to UCB, economizer, 4-stage and FDD board parameters |
| | ENTER | Button for display menu acknowledgment and navigation | |
| | CANCEL | Button for display menu navigation and zeroing of active compressor ASCD timer | |
| | JOY | 4-way Joystick for display menu navigation | |

## Table 85: Smart Equipment UCB - LEDs

| Location | Label | Description | Function and comments |
|---|---|---|---|
| N | POWER | Green UCB power indicator | Lit indicates 24 VAC is present at C and 24V terminals |
| | FAULT | Red hard lockout, networking error and firmware error indicator | 1/2 second on/off flashing indicates one or more alarm is currently active, 1/10th second on/off flashing indicates a networking error (polarity, addressing) or a firmware error (likely correctable with re-loading from USB flash drive) |
| | SA BUS | Green UCB SA bus communication transmission indicator | Lit/flickering indicates UCB SA bus communication is currently active, off indicates the UCB is awaiting SA bus communication |

## Table 86: Smart Equipment UCB - optional communication sub-board

| Location | Label | Description | Function and comments |
|---|---|---|---|
| O<br>Terminal FC BUS connections | FC+ | FC (“Field Connected”) BUS BACnet MSTP communication | Positive of the VDC (typically, a fluctuating 1.5 to 3.5 volts reading to COM; at least 0.25 volts higher than –) FC bus BACnet MSTP communication circuit |
| | FC– | FC (“Field Connected”) BUS BACnet MSTP communication | Positive of the VDC (typically, a fluctuating 1.5 to 3.5 volts reading to COM; at least 0.25 volts lower than +) FC bus BACnet MSTP communication circuit |
| | COM | Common for the FC (“Field Connected”) BUS BACnet MSTP communication circuit | Negative of the VDC FC bus BACnet MSTP communication circuit |
| | SHLD | Shield for the FC (“Field Connected”) BUS BACnet MSTP communication circuit | Earth ground reference of the cable to prevent interference on the FC bus BACnet MSTP communication circuit |
| Q | EOL switch | End Of Line selector switch for the FC BUS BACnet MSTP communication circuit | ON selected only for the UCB that is the terminus of the FC bus BACnet MSTP communication cable to prevent signal “bounce-back” |
| P | EOL | Green End Of Line indicator | Lit indicates the EOL switch is selected ON |
| | FC BUS | Green FC bus communication transmission indicator | Lit/flickering indicates outgoing UCB FC bus communication is currently active, off indicates the UCB is awaiting incoming FC bus communication |
| R | ISO PWR | Green communication board Isolated Power indicator | Lit indicates the UCB is supplying power to the communication sub-board |

### Table 87: Smart Equipment UCB - pinned connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| S | COS | Condensate Overflow Switch | COS is 24V input that senses the switch is closed if 24V is present. Binary Input – just senses 24V on/off. If COS opens, the compressor outputs are disabled. When COS is closed, compressors run normally. COS can be enabled/disabled by a menu option on the control board. |
| | R | R pin is 24V supply to the switch | Connects through circuit trace to the R terminal |
| | RDS | Refrigerant Detection System or Switch | If the switch opens, the control shuts off all outputs, except the indoor blower. Energizes the indoor blower, if it was off at the time. If the switch re-closes, there will be a five minute delay, then return to normal operation. For products without an RDS, these pins must be jumpered. There are no menu options to turn this function off. |
| | R | R pin is 24V supply to the Sensor | Connects through circuit trace to the R terminal |

### Table 88: Smart Equipment UCB - pinned connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| T | DFS (upper pin) | 24 VAC hot return from Dirty Filter Switch | Optional input; switch closure for greater than 15 seconds during indoor blower operation initiates a notification alarm |
| | DFS (lower pin) | 24 VAC hot out for Dirty Filter Switch | Connects through circuit trace to the R terminal |
| | APS (upper pin) | 24 VAC hot return from Air Proving Switch | When this optional input is enabled: the air proving switch must close within 30 seconds of initiation of indoor blower operation and not open for greater than 10 seconds during indoor blower operation to allow heat/cool operation and prevent an “APS open” alarm; the air proving switch must open within 30 seconds of termination of indoor blower operation to prevent an “APS stuck closed” notification alarm |
| | APS (lower pin) | 24 VAC hot out for Air Proving Switch | Connects through circuit trace to the R terminal |

### Table 89: Smart Equipment UCB - pinned connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| U | AI1 + | Not used | Not used |
| | AI1 - | Not used | Not used |

### Table 90: Smart Equipment UCB - pinned connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| V | BO1 | Not used | Not used |
| | BO2 | Not used | Not used |

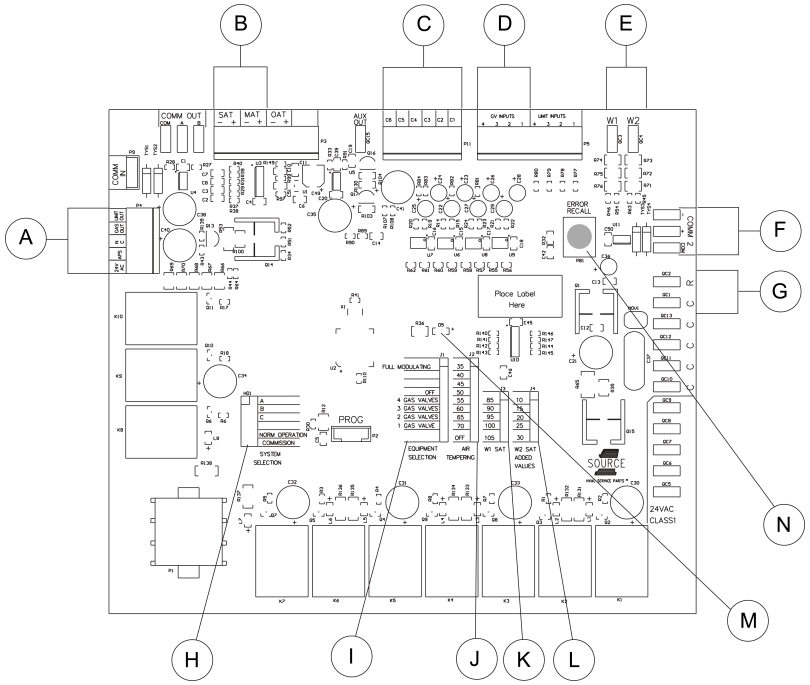
### Table 91: Smart Equipment UCB - Unique Equipment Identifier (UEI) settings

| Unique Equipment Identifier | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | Tonnage | 2-stage compressor layout | | UEI* | 4-stage compressor layout | | UEI* |
| | | Circuit 1 | Circuit 2 | | Circuit 1 | Circuit 2 | |
| KV/KD/LV/LD | 15 | 1 | 1 | 0 | 2 | 1 | 3 |
| | 18 | 1 | 1 | 0 | 2 | 1 | 3 |
| | 20 | 1 | 1 | 0 | 2 | 1 | 3 |
| | 25 | 1 | 1 | 0 | Tandem | 1 | 4 |
| | 28 | 1 | 1 | 0 | Tandem | 1 | 4 |

| Enum Member | Configuration description in SSE |
|---|---|
| UEI=0 | Standard |
| UEI=3 | 2-stage Cir 1, Single Cir 2 |
| UEI=4 | Tandem Cir 1, Single Cir 2 |
| UEI=6 | Single ModCir with 2-stage Cir 2 |
| UEI=7 | Single ModCir with Single Cir 2 |

## Modulating furnace control

### Figure 95: Modulating furnace control board




### Table 92: Modulating furnace control board details

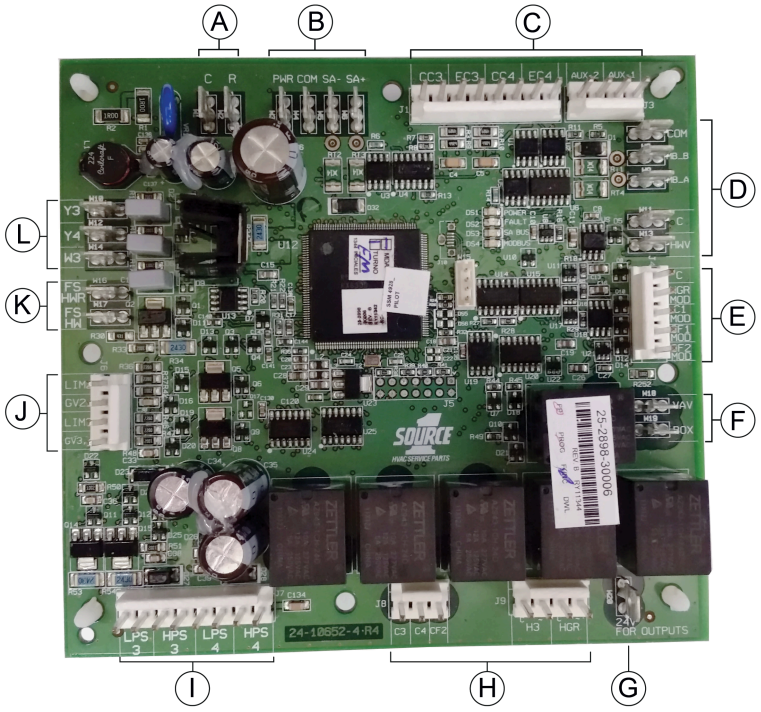
| | Description | | Function and comments |
|---|---|---|---|
| A | APS | 24 VAC hot return from Air Proving Switch | Air Proving Switch input verifies indoor airflow operation. During Normal Heating, if APS input (closed switch) is not received within 2 min of heat call, LED alarm flashes **5** but does not interrupt heat demand output. APS input is required to operate Air Tempering. |
| | NC | Not used | Not used |
| | GAS OUT | 24 VAC output confirming heat section operation | Sends gas valve operation signal to UCB. During Normal Heating, when GV INPUT is received the MFC immediately outputs gas signal to UCB. In Air Tempering, the MFC does not output gas signal to the UCB; this is to avoid UCB alarm (Air Tempering operates without thermostat heating call from UCB). |
| B | SAT+ | Supply Air Temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Senses temperature of air leaving heat section. Input required for normal operation; 5.0 VDC reading SAT+ to SAT– with open circuit. Used in Normal Heating and Air Tempering to adjust heat demand output to maintain target supply air temperature. If MFC receives invalid SAT input (indicating bad thermistor) during Normal Heating, heat demand defaults to 35% heat output (lowest level). MFC will not operate Air Tempering with invalid SAT input. LED alarm flashes **3** with invalid SAT. |
| | MAT+ | Mixed Air Temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Senses temperature of air entering heat section. 5.0 VDC reading SAT+ to SAT– with open circuit. Used in Normal Heating to limit air temperature rise (SAT minus MAT) to a maximum of 65°F. Used in Air Tempering to determine if MAT is below value on **AIR TEMPERING** pin selection. The MFC does not operate Air Tempering with invalid MAT input. LED alarm flashes **4** with invalid MAT. |
| C | C1 through C6 | Compressor signals, 24 VAC inputs (not all used) | Sourced from compressor control voltage signals. Monitors all compressors in the unit. If any compressors are on, the LED flashes 6 (non-fault condition) and the MFC does not operate Air Tempering. |
| D | GV INPUTS, 1 | 24 VAC input confirming heat section operation | Sourced from main gas valve ON signal. Used in MFC logic for **GAS OUT** output. If GV INPUT is not received within 5 min of heat demand output, LED alarm flashes **2** but does not interrupt heat demand output. |

## Table 92: Modulating furnace control board details

| | Description | | Function and comments |
|---|---|---|---|
| E | W1 | 1st stage heating request, 24 VAC input from H1 on UCB | With W1 input only from the UCB, the MFC adjusts heat demand level to maintain supply air temperature value on **W1 SAT** pin selection. |
| | W2 | 2nd stage heating request, 24 VAC input from H2 on UCB | With W2 input (plus W1) from the UCB, the MFC adjusts heat demand level to maintain supply air temperature of the added value of **W1 SAT** plus **W2 SAT ADDED VALUE** pin selections. |
| F | COMM 2, - | Communication for ignition control | Heat call and demand level to ignition control. Negative of the VDC (typically, a fluctuating 1.5 V to 3.5 V reading to C; at least 0.25 V lower than +). |
| | COMM 2, + | Communication for ignition control | Heat call and demand level to ignition control. Positive of the VDC (typically, a fluctuating 1.5 V to 3.5 V reading to C; at least 0.25 V lower than -). |
| | COMM, COM | Common for ignition control communication circuit | |
| G | R | 24 VAC hot for MFC board power | |
| | C | 24 VAC common for MFC board power | |
| H | SYSTEM SELECTION (2 jumper pins) | System and operating mode pin selections | There are 2 jumpers for this pin bank. **A** and **NORM OPERATION** yields normal operation. **A** and **COMMISSION** is for rating the furnace and adjusting manifold pressure; automated modulation is bypassed, W1 input outputs a steady 35% (lowest) heat demand, W1 and W2 input outputs a steady 100% (highest) heat demand. **(BLANK)** and **COMMISSION** step through an auto-sequence routine with a W1 or W1 and W2 input. |
| I | EQUIPMENT SELECTION (2 jumper pins) | Equipment type pin selections | There are 2 jumpers for this pin bank. **FULL MODULATING** and **1 GAS VALVE** should always be selected for this system. |
| J | AIR TEMPERING (1 jumper pin) | Air Tempering pin selection. | Used to select whether the Air Tempering function is allowed to operate. If jumper is set to any value other than **OFF**, the MFC initiates furnace operation if the MAT sensor input reading is 3°F below the selected value. To operate Air Tempering, APS input must be on, W1/W2 heat call from UCB must be off, and all compressor inputs must have been off for 10 min. If MFC has been in tempering mode (heating) for 10 min and SAT reading is 5°F or more above the Air Tempering selected value, heating is ended. If all conditions for Air Tempering are still met, it is re-initiated after a 10 min minimum off delay. |
| K | W1 SAT (1 jumper pin) | W1 SAT setpoint pin selection. | With W1 input only from the UCB, the MFC adjusts heat demand level to maintain supply air temperature value on **W1 SAT** pin selection. |
| L | W2 SAT ADDED VALUE (1 jumper pin) | W2 SAT Added Value setpoint pin selection. | With W2 input (plus W1) from the UCB, the MFC adjusts heat demand level to maintain supply air temperature of the added value of **W1 SAT** plus **W2 SAT ADDED VALUE** pin selections. |
| M | LED Light | LED status or alarm code | Flash count corresponds to status or fault condition. |
| N | ERROR RECALL (Button) | Error recall button | When pushed, the last 5 alarms are flashed by the LED. The most recent is flashed first, followed by the next most recent, and continuing until all the alarms stored (5 maximum) are flashed. |

## Four-stage board

**Figure 96: Four-stage board**




The following tables describe the details of the four-stage board, see the previous figure for the connection locations.

**Table 93: Four-stage board - power and communication terminals**

| Location | Label | Description | Function and comments |
|---|---|---|---|
| A | C | 24VAC common for 4-stage board power | |
| | R | 24VAC hot for 4-stage board power | |
| B | PWR | Sensor Actuator (SA) Bus Power for SA bus devices | Not used on 4-stage board |
| | COM | Common for SA BUS power and communication circuits | Negative of the SA BUS circuits |
| | SA- | Communication for SA BUS devices | Negative of the VDC (typically, a fluctuating 1.5 to 3.5 volts reading to C; at least 0.25 volts lower than +) SA BUS communication circuit to optional economizer board, 4-stage board, fault detection and diagnostics board, netstat and/or MAP Gateway |
| | SA+ | Communication for SA BUS devices | Positive of the VDC (typically, a fluctuating 1.5 to 3.5 volts reading to C; at least 0.25 volts higher than –) SA BUS communication circuit to optional economizer board, 4-stage board, fault detection and diagnostics board, netstat and/or MAP Gateway |

**Table 94: Four-stage board - temperature sensor connections**

| Location | Label | Description | Function and comments |
|---|---|---|---|
| C | CC3+ | #3 refrigerant circuit Condenser Coil temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for heat pump units, not required for A/C units; 3.625 VDC reading CC3+ to CC3– with open circuit. Used in heat pump demand defrost calculation. |
| | EC3+ | #3 refrigerant circuit Evaporator Coil temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for operation; 3.625 VDC reading EC3+ to EC3– with open circuit. Used in suction line temperature safety. |
| | CC4+ | #4 refrigerant circuit Condenser Coil temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for heat pump units, not required for A/C units; 3.625 VDC reading CC4+ to CC4– with open circuit. Used in heat pump demand defrost calculation. |
| C | EC4+ | #4 refrigerant circuit Evaporator Coil temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Input required for operation; 3.625 VDC reading EC4+ to EC4– with open circuit. Used in suction line temperature safety. |
| | AUX-2+ | Not used | Not used |
| | AUX-1+ | Not used | Not used |

### Table 95: Four-stage board - quick connect

| Location | Label | Description | Function and comments |
|---|---|---|---|
| D | COM | Common for Modbus connection to staged heat board | Future |
| | MB_B | Terminal B for Modbus connection to staged heat board | Future |
| | MB_A | Terminal A for Modbus connection to staged heat board | Future |
| | C | Common for HW Valve connection | 0-10VDC |
| | HWV | Analog out for HW Valve | 0-10VDC |
| F | VAV | VAV box Common relay contact | Used to interlock the VAV boxes with RTU morning warm-up |
| | BOX | VAV box normally open relay contact | Used to interlock the VAV boxes with RTU morning warm-up |

### Table 96: Four-stage board - harness connectors

| Location | Label | Description | Function and comments |
|---|---|---|---|
| E | C | Common for analog outputs | Future |
| | HGR MOD | 0-10VDC analog output for hot gas reheat | Future |
| | C1 MOD | 0-10VDC analog output for C1 modulation | Future |
| | CF1 MOD | 0-10VDC analog output for Condenser Fan 1 modulation | Future |
| | CF2 MOD | 0-10VDC analog output for Condenser Fan 2 modulation | Future |

### Table 97: Four-stage board - outputs and cool and heat section connections

| Location | Label | Description | Function and comments |
|---|---|---|---|
| G | 24V FOR OUTPUTS | 24 VAC hot for C3, C4, CF2, H3, and HGR | Output relay circuitry is isolated from other 4-stage components and the 24 VAC hot source may be from a second transformer in the unit |
| H | C3 | 24 VAC hot output for compressor 3 | If demand is present and permissions allow compressor 3 operation |
| | C4 | 24 VAC hot output for compressor 4 | If demand is present and permissions allow compressor 4 operation |
| | CF2 | 24 VAC hot output for the condenser fan contactor coil | Output with either C3 or C4 output. |
| | H3 | 24 VAC hot output for heat section stage 3 | Not effective for cooling-only units. Output if demand is present and permissions allow heat section operation |
| | HGR | 24 VAC hot output for hot gas reheat | Future |

### Table 98: Four-stage board - refrigerant circuit safety switches

| Location | Label | Description | Function and comments |
|---|---|---|---|
| I | LPS3 (right pin) | 24 VAC hot out for refrigerant circuit 3 Low Pressure Switch | Connects through circuit trace to the left HSP3 pin |
| | LPS3 (left pin) | 24 VAC hot return from refrigerant circuit 3 Low Pressure Switch | Input is only considered after 30 seconds of C3 output; afterwards, input must be present to allow C3 output. Three LPS3 trips in a one hour period cause a “Low Pressure Switch 3 Lockout” and C3 output is then prevented until alarm reset. |
| | HPS3 (right pin) | 24 VAC hot out for refrigerant circuit 3 High Pressure Switch | Connects through circuit trace to the R terminal |
| | HPS3 (left pin) | 24 VAC hot return from refrigerant circuit 3 High Pressure Switch | Input is only considered if C3 output is needed; input must be present to allow C3 output. Three HPS3 trips in a two hour period cause a “High Pressure Switch 3 Lockout” and C3 output is then prevented until alarm reset. Connects through circuit trace to the right LPS3 pin. |
| | LPS4 (right pin) | 24 VAC hot out for refrigerant circuit 4 Low Pressure Switch | Connects through circuit trace to the left HSP4 pin |
| | LPS4 (left pin) | 24 VAC hot return from refrigerant circuit 4 Low Pressure Switch | Input is only considered after 30 seconds of C4 output; afterwards, input must be present to allow C4 output. Three LPS4 trips in a one hour period cause a “Low Pressure Switch 4 Lockout” and C4 output is then prevented until alarm reset. |
| | HPS4 (right pin) | 24 VAC hot out for refrigerant circuit 4 High Pressure Switch | Connects through circuit trace to the R terminal |
| | HPS4 (left pin) | 24 VAC hot return from refrigerant circuit 4 High Pressure Switch | Input is only considered if C4 output is needed; input must be present to allow C4 output. Three HPS4 trips in a two hour period cause a “High Pressure Switch 4 Lockout” and C4 output is then prevented until alarm reset. Connects through circuit trace to the right LPS4 pin. |

### Table 99: Four-stage board - heat safety circuit

| Location | Label | Description | Function and comments |
|---|---|---|---|
| J | LIM2 | Monitored 24 VAC input through heat section limit switches | If voltage is absent, indicating the heat section is over temperature, the UCB turns on the indoor blower |
| | GV2 | 24 VAC hot input confirming heat section operation | Sourced from gas valve 2 in gas heat units or second stage heat contactor in electric heat units. Input within 5 minutes from initiation of H2 output initiates the Heat On Fan Delay timer, loss of input following the termination of H2 output initiates the Heat On Fan Delay timer, no input within 5 minutes from initiation of H2 output initiates an Ignition Failure alarm, input for longer than 5 minutes without H2 output initiates a Gas Valve Mis-wire alarm |
| | LIM3 | Monitored 24 VAC input through heat section limit switches | If voltage is absent, indicating the heat section is over temperature, the UCB turns on the indoor blower |
| | GV3,4 | 24 VAC hot input confirming heat section operation | |

### Table 100: Four-stage board - hot water safety quick connects and thermostat inputs

| Location | Label | Description | Function and comments |
|---|---|---|---|
| K | FS HWR | Flow switch for Hydronic heat – 24VAC hot output | Flow switch interlock for hot water coil |
| | FS HW | Flow switch for Hydronic heat – 24VAC hot return | Flow switch interlock for hot water coil |
| L | Y3 | 3rd stage cooling request, 24 VAC input switched from R | Visible in the display menu when the #ClgStgs parameter is set to 4, also effective for economizer free cooling supply air temperature reset when the #ClgStgs parameter is set to 4 |
| | Y4 | 4th stage cooling request, 24 VAC input switched from R | Visible in the display menu when the #ClgStgs parameter is set to 4, also effective for economizer free cooling supply air temperature reset when the #ClgStgs parameter is set to 4 |
| | W3 | 3rd stage heating request, 24 VAC input switched from R | Not effective for cooling-only units |

## Cable specifications

### Table 101: Cable type for FC buses and SA buses in order of preference

| Bus and cable type | Non-plenum applications | | Plenum applications | |
|---|---|---|---|---|
| | Part number | O.D. | Part number | O.D. |
| [1]FC Bus: 22 AWG stranded, 3-wire twisted shielded cable[1] | Anixter: CBL-22/3-FC-PVC Belden®: B5501FE | 0.138 in. | Anixter: CBL-22/3-FC-PLN Belden: B6501FE | 0.140 in. |
| SA Bus (Terminal Block): 22 AWG stranded, 4-wire, 2 twisted-pair shielded cable | Anixter: CBL-22/2P-SA-PVC Belden: B5541FE | 0.209 in. | Anixter: CBL-22/2P-SA-PLN Belden: B6541FE | 0.206 in. |
| SA Bus (Modular Jack): [2]26 AWG solid 6-wire, 3 twisted-pair cable[2] | — | — | Anixter preassembled: CBL-NETWORK25 CBL-NETWORK50 CBL-NETWORK75 CBL-NETWORK100 | 0.15 in. |
| FC Bus: 22 AWG stranded, 3-wire twisted non-shielded cable | Belden: B5501UE | 0.135 in. | Belden: B6501UE | 0.131 in. |
| SA Bus (Terminal Block): 22 AWG stranded, 4-wire, 2 twisted-pair non-shielded cable | Belden: B5541UE | 0.206 in. | Belden: B6541UE | 0.199 in. |

1 Use 3-wire for FC bus and 4-wire, 2 twisted-pair for SA bus, 22 AWG stranded, shielded cable. A 22 gauge cable offers the best performance for various baud rates, cable distances, and number of trunk devices primarily due to lower conductor-to-conductor capacitance. Shielded cable offers better overall electrical noise immunity than non-shielded cable. Observe the shield grounding requirements.

2 Use 26 AWG solid, 6-wire (3 twisted pairs) cable as the best fit for fabricating modular cables with the modular jack housing assembly. Be sure the cable you use fits the modular jack housing. The preassembled cables that are available from Anixter (Part No. CBL-NETWORKxxx) use 24 gauge wire.

# Modulating furnace control

**Figure 97: Modulating furnace control board**

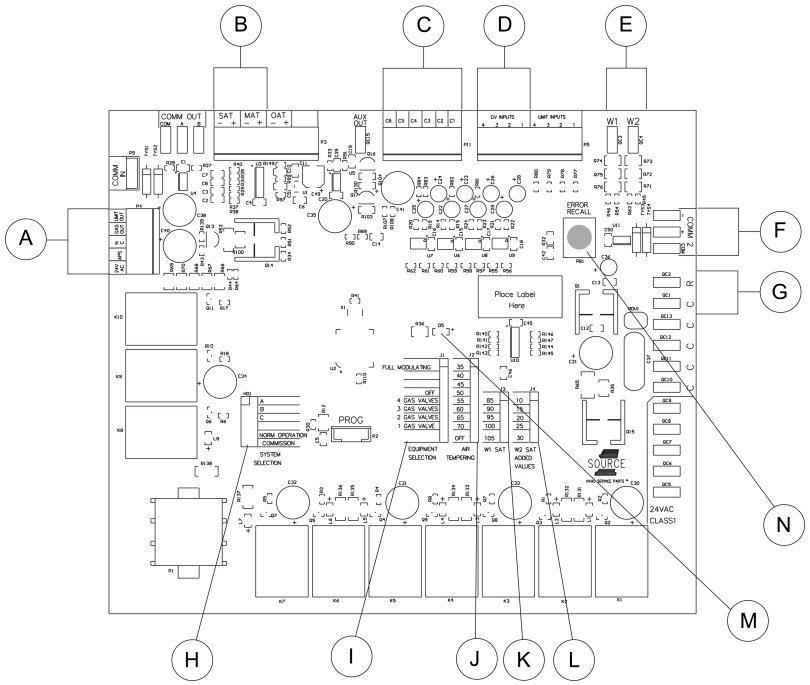



**Table 102: Modulating furnace control board details**

| | Description | | Function and comments |
|---|---|---|---|
| A | APS | 24 VAC hot return from Air Proving Switch | Air Proving Switch input verifies indoor airflow operation. During Normal Heating, if APS input (closed switch) is not received within 2 min of heat call, LED alarm flashes **5** but does not interrupt heat demand output. APS input is required to operate Air Tempering. |
| | NC | Not used | Not used |
| | GAS OUT | 24 VAC output confirming heat section operation | Sends gas valve operation signal to UCB. During Normal Heating, when GV INPUT is received the MFC immediately outputs gas signal to UCB. In Air Tempering, the MFC does not output gas signal to the UCB; this is to avoid UCB alarm (Air Tempering operates without thermostat heating call from UCB). |
| B | SAT+ | Supply Air Temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Senses temperature of air leaving heat section. Input required for normal operation; 5.0 VDC reading SAT+ to SAT– with open circuit. Used in Normal Heating and Air Tempering to adjust heat demand output to maintain target supply air temperature. If MFC receives invalid SAT input (indicating bad thermistor) during Normal Heating, heat demand defaults to 35% heat output (lowest level). MFC will not operate Air Tempering with invalid SAT input. LED alarm flashes **3** with invalid SAT. |
| | MAT+ | Mixed Air Temperature sensor input from 10KΩ @ 77°F, Type III negative temperature coefficient thermistor | Senses temperature of air entering heat section. 5.0 VDC reading SAT+ to SAT– with open circuit. Used in Normal Heating to limit air temperature rise (SAT minus MAT) to a maximum of 65°F. Used in Air Tempering to determine if MAT is below value on **AIR TEMPERING** pin selection. The MFC does not operate Air Tempering with invalid MAT input. LED alarm flashes **4** with invalid MAT. |
| C | C1 through C6 | Compressor signals, 24 VAC inputs (not all used) | Sourced from compressor control voltage signals. Monitors all compressors in the unit. If any compressors are on, the LED flashes 6 (non-fault condition) and the MFC does not operate Air Tempering. |
| D | GV INPUTS, 1 | 24 VAC input confirming heat section operation | Sourced from main gas valve ON signal. Used in MFC logic for **GAS OUT** output. If GV INPUT is not received within 5 min of heat demand output, LED alarm flashes **2** but does not interrupt heat demand output. |

## Table 102: Modulating furnace control board details

| | Description | | Function and comments |
|---|---|---|---|
| E | W1 | 1st stage heating request, 24 VAC input from H1 on UCB | With W1 input only from the UCB, the MFC adjusts heat demand level to maintain supply air temperature value on **W1 SAT** pin selection. |
| | W2 | 2nd stage heating request, 24 VAC input from H2 on UCB | With W2 input (plus W1) from the UCB, the MFC adjusts heat demand level to maintain supply air temperature of the added value of **W1 SAT** plus **W2 SAT ADDED VALUE** pin selections. |
| F | COMM 2, - | Communication for ignition control | Heat call and demand level to ignition control. Negative of the VDC (typically, a fluctuating 1.5 V to 3.5 V reading to C; at least 0.25 V lower than +). |
| | COMM 2, + | Communication for ignition control | Heat call and demand level to ignition control. Positive of the VDC (typically, a fluctuating 1.5 V to 3.5 V reading to C; at least 0.25 V lower than -). |
| | COMM, COM | Common for ignition control communication circuit | |
| G | R | 24 VAC hot for MFC board power | |
| | C | 24 VAC common for MFC board power | |
| H | SYSTEM SELECTION (2 jumper pins) | System and operating mode pin selections | There are 2 jumpers for this pin bank. **A** and **NORM OPERATION** yields normal operation. **A** and **COMMISSION** is for rating the furnace and adjusting manifold pressure; automated modulation is bypassed, W1 input outputs a steady 35% (lowest) heat demand, W1 and W2 input outputs a steady 100% (highest) heat demand. **(BLANK)** and **COMMISSION** step through an auto-sequence routine with a W1 or W1 and W2 input. |
| I | EQUIPMENT SELECTION (2 jumper pins) | Equipment type pin selections | There are 2 jumpers for this pin bank. **FULL MODULATING** and **1 GAS VALVE** should always be selected for this system. |
| J | AIR TEMPERING (1 jumper pin) | Air Tempering pin selection. | Used to select whether the Air Tempering function is allowed to operate. If jumper is set to any value other than **OFF**, the MFC initiates furnace operation if the MAT sensor input reading is 3°F below the selected value. To operate Air Tempering, APS input must be on, W1/W2 heat call from UCB must be off, and all compressor inputs must have been off for 10 min. If MFC has been in tempering mode (heating) for 10 min and SAT reading is 5°F or more above the Air Tempering selected value, heating is ended. If all conditions for Air Tempering are still met, it is re-initiated after a 10 min minimum off delay. |
| K | W1 SAT (1 jumper pin) | W1 SAT setpoint pin selection. | With W1 input only from the UCB, the MFC adjusts heat demand level to maintain supply air temperature value on **W1 SAT** pin selection. |
| L | W2 SAT ADDED VALUE (1 jumper pin) | W2 SAT Added Value setpoint pin selection. | With W2 input (plus W1) from the UCB, the MFC adjusts heat demand level to maintain supply air temperature of the added value of **W1 SAT** plus **W2 SAT ADDED VALUE** pin selections. |
| M | LED Light | LED status or alarm code | Flash count corresponds to status or fault condition. |
| N | ERROR RECALL (Button) | Error recall button | When pushed, the last 5 alarms are flashed by the LED. The most recent is flashed first, followed by the next most recent, and continuing until all the alarms stored (5 maximum) are flashed. |

# Start-up & Service Data Instruction

## Commercial Package Units

**3.0 To 50.0 tons**

### Start-up Checklist

Date: _____

Job Name: _____

Customer Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Model Number: _____ Serial Number: _____

Qualified Start-up Technician: _____ Signature: _____

HVAC Contractor: _____ Phone: _____

Address: _____

Contractor's E-mail Address: _____

Electrical Contractor: _____ Phone: _____

Distributor Name: _____ Phone: _____

### Warranty Statement

BHC Residential & Light Commercial LLC is confident that this equipment will operate to the owner's satisfaction if the proper procedures are followed and checks are made at initial start-up. This confidence is supported by the 30 day dealer protection coverage portion of our standard warranty policy which states that BHC Residential & Light Commercial LLC will cover parts and labor on new equipment start-up failures that are caused by a defect in factory workmanship or material, for a period of 30 days from installation. Refer to the current standard warranty policy and warranty manual for details.

In the event that communication with BHC Residential & Light Commercial LLC is required regarding technical and/or warranty concerns, all parties to the discussion should have a copy of the equipment start-up sheet for reference. A copy of the original start-up sheet should be filed with the Technical Services Department.

The packaged unit is available in constant or variable air volume versions with a large variety of custom options and accessories available. Therefore, some variation in the startup procedure will exist depending upon the products capacity, control system, options and accessories installed.

This start-up sheet covers all startup check points common to all package equipment. In addition it covers essential startup check points for a number of common installation options. Depending upon the particular unit being started not all sections of this startup sheet will apply. Complete those sections applicable and use the notes section to record any additional information pertinent to your particular installation.

Warranty claims are to be made through the distributor from whom the equipment was purchased.

### Equipment Startup

**Use the local LCD or GoTemp Pro mobile application to complete the start-up.**

**A copy of the completed start-up sheet should be kept on file by the distributor providing the equipment and a copy sent to:**

BHC Residential & Light Commercial LLC
Technical Services Department
5005 York Drive
Norman, OK 73069

1034349-UCL-L-0426

## Safety Warnings

The inspections and recording of data outlined in this procedure are required for start-up of BHC Residential & Light Commercial LLC' packaged products. Industry recognized safety standards and practices must be observed at all times. General industry knowledge and experience are required to assure technician safety. It is the responsibility of the technician to assess all potential dangers and take all steps warranted to perform the work in a safe manner. By addressing those potential dangers, prior to beginning any work, the technician can perform the work in a safe manner with minimal risk of injury.

**⚠WARNING**

Lethal voltages are present during some start-up checks. Extreme caution must be used at all times.

**⚠WARNING**

Moving parts may be exposed during some startup checks. Extreme caution must be used at all times.

**NOTE:** Read and review this entire document before beginning any of the startup procedures.

## Design Application Information

This information will be available from the specifying engineer who selected the equipment. If the system is a VAV system the CFM will be the airflow when the remote VAV boxes are in the full open position and the frequency drive is operating at 60 HZ. **Do not proceed with the equipment start-up without the design CFM information.**

Design Supply Air CFM: _____ Design Return Air CFM:_____

Design Outdoor Air CFM At Minimum Position: _____

Total External Static Pressure: _____

Supply Static Pressure: _____

Return Static Pressure: _____

Design Building Static Pressure: _____

Outside Air Dilution: Economizer Position Percentage: _____ CFM: _____

Supply Gas Pressure After Regulator W/o Heat Active _____ Inches_____

ADDITIONAL APPLICATION NOTES FROM SPECIFYING ENGINEER:

## Reference

| General Inspection | Completed | See Notes |
|---|---|---|
| Unit inspected for shipping, storage, or rigging damage | ☐ | ☐ |
| Unit installed with proper clearances | ☐ | ☐ |
| Unit installed within slope limitations | ☐ | ☐ |
| Refrigeration system checked for gross leaks (presence of oil) | ☐ | ☐ |
| Terminal screws and wiring connections checked for tightness | ☐ | ☐ |
| Filters installed correctly and clean | ☐ | ☐ |
| Economizer hoods installed in operating position | ☐ | ☐ |
| Condensate drain trapped properly, refer to Installation Manual | ☐ | ☐ |
| Economizer damper linkage tight | ☐ | ☐ |
| Gas Heat vent hood installed | ☐ | ☐ |
| All field wiring (power and control) complete | ☐ | ☐ |

| Air Moving Inspection | Completed | See Notes |
|---|---|---|
| Alignment of drive components | ☐ | ☐ |
| Belt tension adjusted properly | ☐ | ☐ |
| Blower pulleys tight on shaft, bearing set screws tight, wheel tight to shaft | ☐ | ☐ |
| Pressure switch or transducer tubing installed properly | ☐ | ☐ |

| Exhaust Inspection Powered ☐ Barometric Relief ☐ | Completed | See Notes |
|---|---|---|
| Check hub for tightness | ☐ | ☐ |
| Check fan blade for clearance | ☐ | ☐ |
| Check for proper rotation | ☐ | ☐ |
| Check for proper mounting (screen faces towards unit) | ☐ | ☐ |
| Prove operation by increasing minimum setting on economizer | ☐ | ☐ |

| Economizer Inspection Standard ☐ BAS ☐ | Completed | See Notes |
|---|---|---|
| $CO_2$ sensor installed Yes ☐ No ☐ | ☐ | ☐ |
| Check economizer setting (Reference Smart Equipment Control Board LCD menu location) | ☐ | ☐ |
| Prove economizer open/close through Smart Equipment Board Setting | ☐ | ☐ |

| Reheat Mode Normal ☐ or Alternate ☐ Not Applicable ☐ |
|---|
| Humidity Sensor (2SH0401) _____ |

## Operating Measurements - Air Flow

| Fan operates with proper rotation (All VFD equipped units with the optional Manual Bypass must be phased for correct blower rotation with the Bypass switch set in the LINE position) ID Fans ☐ Exh. Fans ☐ Cond. Fans ☐ | |
|---|---|
| Pressure drop across dry evaporator coil (At maximum design CFM) [1] | IWC |
| External Static Pressure | IWC |
| Return Static Pressure | IWC |
| Supply Static Pressure | IWC |
| Supply Air CFM Using Dry Coil Chart | CFM |
| Final Adjusted Supply Air CFM[2] | CFM |

1. Consult the proper airflow to pressure drop table to obtain the actual airflow at the measured pressure differential.
2. Was a motor pulley adjustment or change required to obtain the correct airflow?
   Was it necessary to increase of decrease the airflow to meet the design conditions?
   If the motor pulley size was changed, measure the outside diameters of the motor and blower pulleys and record those diameters here;

Blower Motor HP _____ FLA_____ RPM_____

Pulley Pitch Diameter _____Turns Out_____ Final Turns Out_____

Blower Pulley Pitch Diameter _____ Fixed Sheave_____

## Electrical Data

T1 - T2 _____ Volts T2 - T3 _____ Volts

Control Voltage _____ Volts T1 - T3 _____ Volts

| Device | Nameplate | Measured List All Three Amperages |
|---|---|---|
| Supply Fan Motor[1, 2] | AMPS | AMPS |
| Exhaust Motor (Dampers 100%) | AMPS | AMPS |
| Condenser Fan #1 | AMPS | AMPS |
| Condenser Fan #2 (if equipped) | AMPS | AMPS |
| Condenser Fan #3 (if equipped) | AMPS | AMPS |
| Condenser Fan #4 (if equipped) | AMPS | AMPS |
| Compressor #1 | AMPS | AMPS |
| Compressor #2 (if equipped) | AMPS | AMPS |
| Compressor #3 (if equipped) | AMPS | AMPS |
| Compressor #4 (if equipped) | AMPS | AMPS |

1. VAV units with heat section - simulate heat call to drive VAV boxes and VFD/IGV to maximum design airflow position.
2. VAV units without heat section - VAV boxes must be set to maximum design airflow position.

## Refrigerant Safeties

| Action | Completed | See Notes |
|---|---|---|
| Prove Compressor Rotation (3 phase only) by gauge pressure | ☐ | ☐ |
| Prove High Pressure Safety, All Systems | ☐ | ☐ |
| Prove Low Pressure Safety, All Systems | ☐ | ☐ |

## Refrigerant Detection System (RDS) Safety Test

| Action | Completed | See Notes |
|---|---|---|
| Does the System have a Refrigerant Detection System (RDS) installed for R-454B? | ☐ | ☐ |
| Does Control Board Show any RDS alarms? | ☐ | ☐ |
| Are all available RDS Sensors pulsing with a green light? | ☐ | ☐ |
| **Caution do not continue until any RDS alarms are resolved** | | |
| Prove Refrigerant Detection System Alarm Mitigation (Heating Units) – Shuts Down Active Heat Call[1] | ☐ | ☐ |
| Prove Refrigerant Detection System Alarm Mitigation (Cooling Mode) – Shuts Down Active Cooling Call[1] | ☐ | ☐ |

1. Complete the above steps by pulling the J1 harness off the UCB during an active call for heat/cooling

## Operating Measurements - Cooling

| Stage | Discharge Pressure | Discharge Temp. | Liquid Line Temp.[1] | Subcooling[2] | Suction Pressure | Suction Temp. | Superheat |
|---|---|---|---|---|---|---|---|
| First | # | ° | ° | ° | # | ° | ° |
| Second (if equipped) | # | ° | ° | ° | # | ° | ° |
| Third (if equipped) | # | ° | ° | ° | # | ° | ° |
| Fourth (if equipped) | # | ° | ° | ° | # | ° | ° |
| Reheat 1st Stage | # | ° | ° | ° | # | ° | ° |

1. Liquid temperature should be taken before filter/drier.
2. Subtract 10 psi from discharge pressure for estimated liquid line pressure

| | | | | | |
|---|---|---|---|---|---|
| Outside air temperature | _____ | °F db | _____ | °F wb | _____ %RH |
| Return Air Temperature | _____ | °F db | _____ | °F wb | _____ %RH |
| Mixed Air Temperature | _____ | °F db | _____ | °F wb | _____ %RH |
| Supply Air Temperature | _____ | °F db | _____ | °F wb | _____ %RH |



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## Operating Measurements - Gas Heating

Fuel Type: ☐ Natural Gas ☐ LP Gas

| Action | | Completed | See Notes |
|---|---|---|---|
| Check for gas leaks | | ☐ | ☐ |
| Prove Ventor Motor Operation | | ☐ | ☐ |
| Prove Primary Safety Operation | | ☐ | ☐ |
| Prove Auxiliary Safety Operation | | ☐ | ☐ |
| Prove Rollout Switch Operation | | ☐ | ☐ |
| Prove Smoke Detector Operation | | ☐ | ☐ |
| Manifold Pressure | Stage 1 | IWC | ☐ |
| | Stage 2 (If Equipped) | IWC | ☐ |
| | Stage 3 (If Equipped) | IWC | ☐ |
| Supply gas pressure at full fire | | IWC | ☐ |
| Check temperature rise[1] | ☐ measured at full fire | °F | ☐ |

1. Input X Eff. (BTU output)
   1.08 X Temp. Rise

## Operating Measurements Electric Heating

Heater kW _____kW Heater Voltage, Nameplate _____ Volts

Heater Model Number: _____

Serial Number: _____

| Heater | Nameplate | Measured List All Three Amperages | | |
|---|---|---|---|---|
| Stage 1 | _____AMPS | _____AMPS | _____AMPS | _____AMPS |
| Stage 2 | _____AMPS | _____AMPS | _____AMPS | _____AMPS |
| Stage 3 | _____AMPS | _____AMPS | _____AMPS | _____AMPS |
| Stage 4 | _____AMPS | _____AMPS | _____AMPS | _____AMPS |
| Checked Heater Limit | | | Yes ☐ | No ☐ |
| Air Moving Switch Installed? | | | Yes ☐ | No ☐ |

## Operating Measurements - Staging Controls

| Verify Proper Operation of Heating/Cooling Staging Controls | |
|---|---|
| Create a cooling demand at the Thermostat, BAS System or Smart Equipment<br>Verify that cooling/economizer stages are energized. | ☐ |
| Create a heating demand at the Thermostat, BAS System or Smart Equipment<br>Verify that heating stages are energized. | ☐ |
| **Verify Proper Operation of the Variable Frequency Drive (If Required)** | |
| Verify that motor speed modulates with duct pressure change. | ☐ |





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## Final - Inspection

| | |
|---|---|
| Verify that all operational control set points have been set to desired value<br>Scroll through all setpoints and change as may be necessary to suit the occupant requirements. | ☐ |
| Verify that all option parameters are correct<br>Scroll through all option parameters and ensure that all installed options are enabled in the software and all others are disabled in the software. (Factory software settings should match the installed options) | ☐ |
| Verify that all access panels have been closed and secured | ☐ |
| Save a backup file from the unit control board onto a USB flash drive. | ☐ |

### Observed Product Deficiencies & Concerns:

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