



Heating and Air Conditioning

## TECHNICAL GUIDE

### R-410A

### AFFINITY™ SERIES

### DNX MODELS

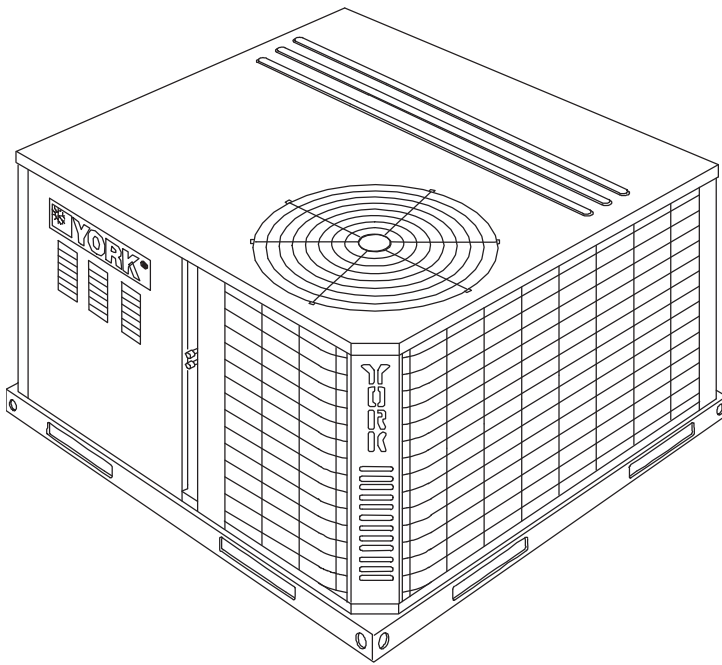
### 2 - 4 TON

### 60 Hertz

## Description

These York® Affinity™ packaged cooling/heating air conditioners are designed for outdoor installation. Only utility and duct connections are required at the point of installation.

The single or two stage gas-fired heaters have aluminized steel tubular heat exchangers and spark to pilot ignition. They are available in natural gas with field conversion to propane.



Tested in accordance with:



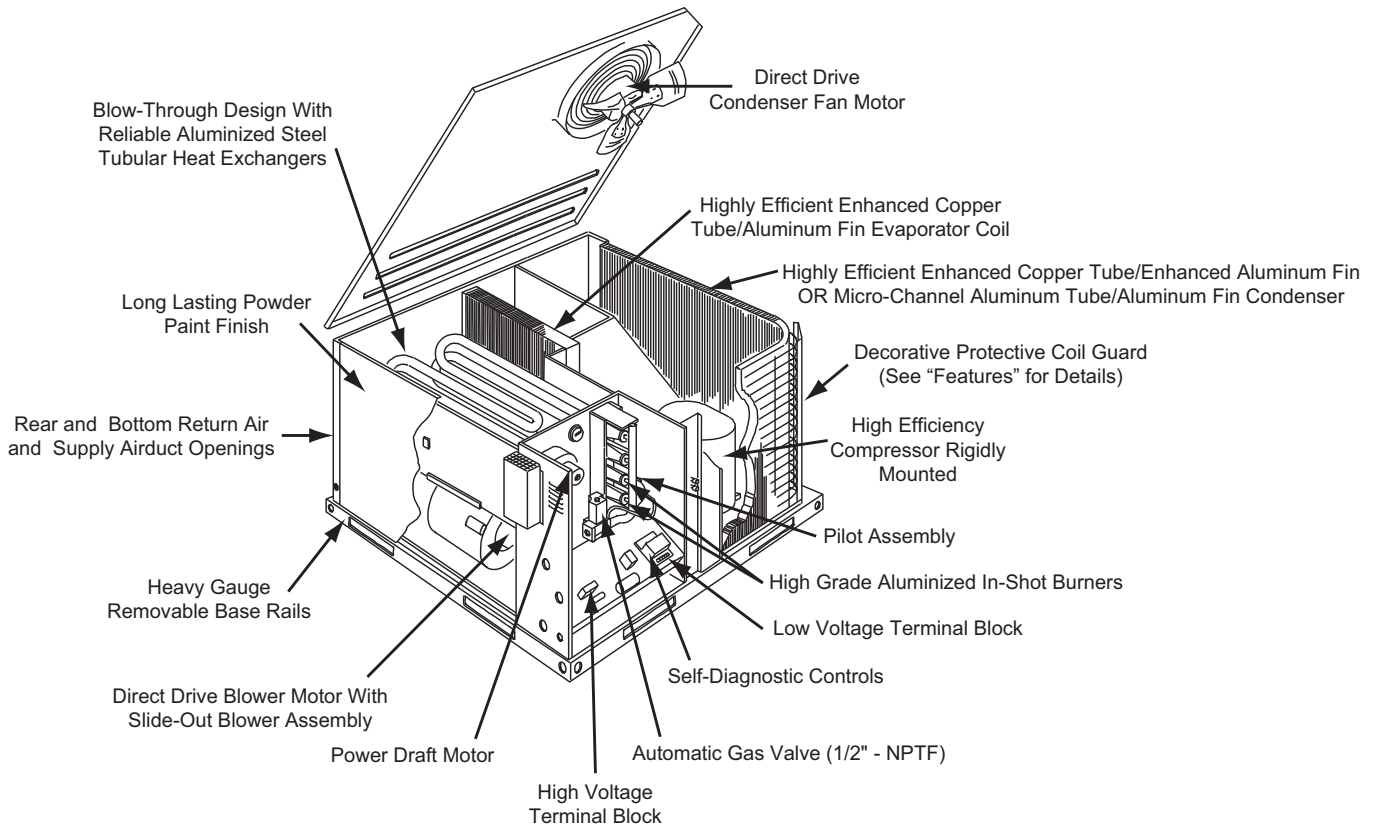
ISO 9001  
Certified Quality  
Management System

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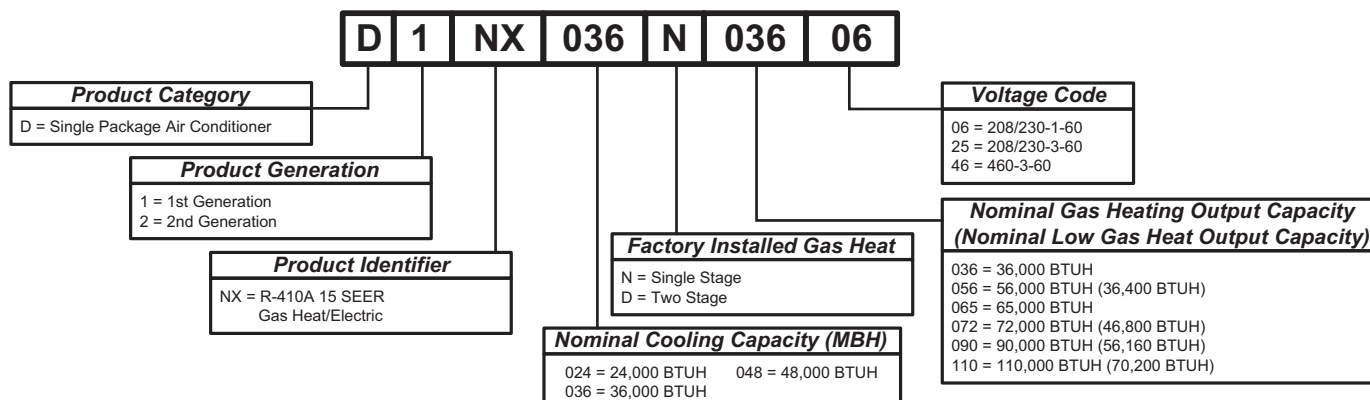
## Component Location

### Cooling/Gas Unit



## Nomenclature

### Cooling/Gas Unit



## Features and Benefits

### Standard Features

- **Operating Efficiency** - All gas units provide a minimum AFUE of 80% and SEERS of 15.0 to 16.5. All efficiencies exceed legislated minimum levels.
- **On Site Flexibility** - All model sizes share a common, compact design cabinet in a single footprint. The installer has the flexibility of setting one curb and placing the proper tonnage unit on that curb after the internal load has been determined. Field convertible duct connections from side shot to down shot allows the installer to have greater flexibility with less inventory.
- **Lower Installation Cost** - Installation time and costs are reduced by easy power and control wiring connections. The small base dimension means less space is required on the ground or roof, plus, the installer can fit this unit between the wheel wells of full size pick-up truck.

All units are completely wired, charged with R-410A and tested prior to shipment. Unique test stations using a new state of the art computerized process system are used to insure product quality. Refrigerant charge and component part numbers are verified via computers at assembly. Vital run test statistics such as system pressure, motor currents, air velocity and temperature, unit vibration, and gas system safeties are monitored and recorded by the system to insure unit performance.

Equal size, side supply and return duct connections allows easy hook-up of ducts to match low crawl spaces without transition pieces.

- **Utility Connections Made Easy** - Gas and electric utility knockouts are provided through the bottom as well as the side of the unit. Utility connections can be made quickly and with a minimum amount of field labor. A field supplied and field installed electrical disconnect switch must be installed.
- **Convertible Airflow Design** - The bottom duct openings are covered when they leave the factory ready to be used

for a side supply/side return application. If a bottom supply/bottom return application is desired, you simply remove the two panels from the bottom of the unit and place them in the side supply/side return duct openings. No panel cutting is required and no accessory panel is necessary. Convertible airflow design allows maximum field flexibility and minimum inventory.

- **Condensate Pan** - A non-corrosive, long-lasting, water-tight pan is positioned below the evaporator coil to collect and drain all condensate. Less collection of stagnate condensate will build-up. The condensate pan conforms to ASHRAE 62-89 standards (Ventilation for Acceptable Indoor Air Quality).
- **Condensate Drain** - The 3/4 inch NPTF connection is rigidly mounted to assure proper fit and leak tight seal.
- **Durable Finish** - The cabinet is made of pre-painted steel. The pre-treated galvanized steel provides a better paint to steel bond, which resists corrosion and rust creep. Special primer formulas and matted-textured finish insure less fading when exposed to sunlight.
- **Full Perimeter Base Rails** - The easily removable base rails provide a solid foundation for the entire unit and protects the unit during shipment. The rails provide fork lift access from all sides, and rigging holes are also provided so that an overhead crane can be used to place the units on a roof. On applications where the unit is placed on a pad, the base will keep the unit off the pad to deter corrosion. On applications where height is limited, the inch high base rails may be removed on location.
- **More Attractive Appearance** - A single piece Water Shed top cover containing a top discharge condenser fan arrangement requires less square footage on installation and provides a wider variety of installations. The one piece design adds greater water integrity. Rounded corners with water drip edges add to the attractive appearance. The cabinet panels have a non-fibrous insulation that will not release insulation fibers into conditioned area.

- **Top Discharge** - The top discharge condenser fan does not disrupt neighboring areas or dry-out vegetation surrounding the unit. The warm air from the top mounted fan is blown up away from the structure and any landscaping. This allows compact location on multi-unit applications.
- **Condenser Coil Grille** - All models utilize a stamped "Louvered" design which provides superior impact protection against smaller objects during transit and after installation.
- **Low Operating Sound Level** - The upward air flow carries the normal operating noise up and away from the living area. The rigid top panel effectively isolates any motor sound. Isolator mounted compressor and the rippled fins of the condenser coil muffle the normal fan motor and compressor operating sounds. The unique formed base pan also aids in sound alterations with it's Super-Structure design. This design strategically places embossments in the pan for optimum strength and rigidity.
- **Fan System** - All models operate over a wide range of design conditions with an electrically commutated fan motor. These units easily match all types of applications and provide greater on site flexibility to match comfort requirement. The cooling speed is factory set and can be field adjusted to a second speed. The heating speed is factory set to maintain mid point rise at the units heating input, but can be field adjusted. This allows maximum comfort conditions.
- **Simple Control Circuit** - A low voltage printed circuit board contains a diagnostic indicator light and a low voltage terminal strip. An additional set of pin connectors is also provided to simplify the field interface of external controls. Mate-n-lock plug connectors are used. The electrical control box is not located in the compressor compartment. The controls are mounted on a Control-Tilt control panel to allow the access cover to be removed for trouble shooting and maintenance without affecting the normal system operating pressures. All wiring internal to the unit is color/number coded.
- **Protected Compressor** - The compressor is internally protected against high pressure and temperature. This is accomplished by the simultaneous operation of high pressure relief valve and a temperature sensor which protect the compressor if undesirable operating conditions occur.
- **Pressure Switches** - High pressure and low pressure/loss of charge switches standard in all units. When abnormal conditions are sensed through the pressure switches, the unit will lock out preventing any further operation until reset or problem is corrected.
- **Exclusive Coil Design** - Grooved copper tubes and enhanced aluminum fin construction improves heat transfer for maximum efficiency and durability or Micro-Channel aluminum tube, aluminum fin for long lasting durability and efficient operation.
- **Heat Exchangers** - Are corrosion-resistant, aluminized-steel tubular construction to provide long-life, trouble-free operation. The unique blow-through design also assures that condensate does not collect in humid areas when in the cooling cycle. This adds to longer heat exchanger life and higher long term efficiencies.
- **Post Purge Induced Draft Combustion** - Exhausts combustion products from the heat exchanger upon completion of the heating cycle to prolong the heat exchanger life.
- **Self Diagnostic Fan Control Module** - Due to this self diagnostic control, less on site time is required to trouble shoot these units.
- **Spark To Pilot Ignition** - Provides faster heat delivery. This ignition is highly reliable, durable and eliminates nuisance lockouts.
- **Multi Port In-shot Burners** - No field adjustment is required to mix the air and gas. These burners are constructed of high-grade corrosion-resistant, aluminized-steel.
- **Low Maintenance** - Long life, permanently lubricated condenser and evaporator fan motor bearings need no annual maintenance adding greater reliability to the unit. Blower assembly can be easily cleaned by the unique Slip-Track slide-out blower assembly.
- **Secured Service Access Ports** - Protected, externally mounted, re-usable service access ports are provided on both the high and low lines for ease of evacuating and charging the system. No final field mounting required.
- **Easy Service Access** - A large, single panel covers the electrical and gas controls makes servicing easy. The blower compartment has an additional large panel with a built-in handle tab. Removing this panel will allow the blower assembly to slide-out for easy removal for maintenance and ease of trouble shooting.
- **Replacement Parts** - The installer requires no special training to replace any of the components of these units and does not need to maintain an inventory of unique parts.
- **System Integration** - Each unit has the internal ability to integrate an electronic air cleaner or humidifier to work in conjunction with the base unit.

### Field Installed Accessories

- **Low NOx Kit** - Kit includes all the necessary hardware and instructions to field convert units to reduce emissions to less than 40 nanogram per Joule. California requirement on single phase models only.
- **Propane Conversion Kit** - Kit includes burner orifices, gas valve conversion and installation instructions necessary to field convert unit from natural gas to propane.
- **High Altitude Conversion Kit (Natural Gas/Propane)** - Kit includes all necessary labels and instructions to field alter units with natural gas/propane for installations above 2000 feet. Burner orifices must be obtained from Source 1 Parts. Propane Conversion Kit must be obtained separately.
- **Economizer Down Discharge/Supply Kit** - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. Independent blade design insures proper

control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood, dry bulb sensor and relief damper. Separate field accessories of single enthalpy and dual enthalpy are also available. A built-in barometric relief of 25% is provided.

- **Single Enthalpy Sensor** - Sensor replaces dry bulb sensor standard in economizer kit. Provides improved economizer operation by sensing the dry bulb temperature from outdoors plus the enthalpy content of the outdoor air.
- **Dual Enthalpy Sensor** - Additional sensor to single enthalpy sensor. Sensor senses both the return air temperature dry bulb and humidity in conjunction with the single enthalpy to determine the most economical mix. Single Enthalpy sensor also required.
- **Hail Guard Kit** - Kit contains protective grilles made of expanded aluminum with full perimeter frame. Sloped hoods are also included to assure maximum protection.
- **Filter/Frame Kit (Single Phase Only)** - Kit contains the necessary hardware to field install return air filters into the base unit. Pre-cut filter racks and appropriate cleanable standard size filters are shipped in one kit. The filter rack is suitable for either 1" or 2" filters. (1" filter is supplied) This kit is available for single phase horizontal or vertical duct application only. Standard in all 3 Phase models.
- **Motorized Fresh Air Damper** - Designed for duct mounted side supply/return and unit mounted down supply/return applications. Damper capable of providing 0% through 50% of outdoor air (field supplied). Closes on power loss, includes hood and screen assembly.
- **Rectangle To Round Adapters** - Kit includes one supply and one return air rectangle to round duct adapter. Adapters are preformed and designed to fit over current duct openings on the base unit. Transition is from side square duct opening to 14" round duct opening.
- **Roof Curbs** - NRCA approved curbs provide proper fit to base unit for rooftop installations. Curbs are designed to be assembled through hinge pins in each corner. Kit also provides seal strip to assure a water tight seal. 8 and 14 inch high roof curbs are available.
- **Manual Outdoor Damper** - Provides 0% through 50% outdoor air capability (field adjustable). Designed for duct mounted side supply/return applications. Includes hood and screen assembly.
- **Wall Thermostat** - The units are designed to operate with 24-volt electronic and electro-mechanical thermostats. All units can operate with single stage heat/single stage cool thermostats - with or without the economizer.
- **Low Ambient Kit** - Kit provides necessary hardware to convert unit to operate in cooling cycle down to 0° F. Standard unit operation 45° F.
- **Transformer Kit** - Kit provides necessary hardware to provide single phase models from factory furnished 40 VA transformer capability to 75 VA transformer capability. (Required on installations with economizer or motorized damper.)

## Guide Specifications

### General

Units shall be manufactured by Unitary Products in an ISO 9001 certified facility. YORK's Affinity™ package units give you the flexibility and choices you need in today's market. These packaged cooling/heating air conditioners are designed for outdoor installation. Only utility and duct connections are required at the point of installation. The single or two stage gas fired heaters have aluminized steel tubular heat exchangers and spark to pilot ignition. They are available in natural gas with field conversion to propane.

### Description

Units shall be factory-assembled, single packaged, Electric Cooling/Gas Heating units, designed for outdoor mounted installation. For SEER ratings, refer to technical literature. They shall have built in, equal size, field convertible duct connections for down discharge supply/return or horizontal discharge supply/return. The units shall be factory wired, piped, charged with R-410A Refrigerant and factory tested prior to shipment. All unit wiring shall be both numbered and color coded. All units shall be manufactured in a facility certified to ISO 9001 standards, and the cooling performance shall be rated in accordance with DOE and ARI test procedures. The heating performance shall be rated to DOE and GAMA test procedures. Units shall be CSA listed and classified to ANSI Z21.47/CAN/CSA 2.3 standards and UL 1995/CAN/CSA No. 236-M90 conditions.

### Unit Cabinet

Unit cabinet shall be constructed of G-90, pre-paint textured steel, certified at 500 hours salt spray test per ASTM-B117 standards. The unit top shall be a single piece "Water Shed" design, with drip edges and no-seam corners to provide optimum water integrity. Unit shall have a rigidly mounted condenser coil guard to provide protection from objects and personnel after installation. Indoor blower section shall be insulated with up to 3/4" thick, aluminum, foil faced insulation, fastened to prevent insulation from entering the air stream. Cabinet panels shall be "large" size, easily removable for servicing and maintenance, with built-in lift handles. Unit shall be built on a formed, "Super-Structure" design base pan, with embossments at critical points to add strength, rigidity and aid in minimizing sound. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, for truck access and proper sealing on roof curb applications. Base rails shall be removable, when required, to lower unit height. Filters shall be furnished and be accessible through a removable access door, sealed airtight. Units vertical discharge and return duct configuration shall be designed to fit between standard 24" O.C. beams without modification to building structure, duct work and base unit. Condensate pan shall be internally sloped and conform to ASHRAE 62-89 self-draining standards, with 3/4" NPTF ridged mount connection.

**Indoor (Evaporator) Fan Assembly**

Fan shall be direct drive design. Fan wheel shall be double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant air volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. Fan assembly shall be "Slip Track" (slide-out) design for easy removal and cleaning.

**Outdoor (Condenser) Fan Assembly**

The outdoor fan shall be of the direct-driven propeller type, discharge air vertically, have aluminum blades riveted to corrosion resistant steel spider bracket and shall be statically balanced for smooth operation. The outdoor fan motor shall be totally enclosed with permanently lubricated bearings and internally protected against overload conditions.

**Refrigerant Components**Compressors:

- a. Shall be fully hermetic type, direct drive, internally protected with internal high-pressure relief and over temperature protection. The hermetic motor shall be suction gas cooled and have a voltage range of +/- 10% of the unit nameplate voltage.
- b. Shall have internal isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

Coils:

- a. Evaporator coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed.
- b. Evaporator coil shall be of the direct expansion, blow through design.
- c. Condenser coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed or Micro-Channel aluminum tube, aluminum fins.
- d. Condenser coil shall be draw through design.

Refrigerant Circuit and Refrigerant Safety Components shall include:

- a. Independent fixed orifice expansion devices.
- b. Filter/strainer to eliminate any foreign matter.

**Gas Heating Section (If Equipped)**

Heat exchanger and exhaust system shall be constructed of aluminized steel and shall be designed with induced draft combustion with post purge logic and redundant main gas valve. The heat exchanger shall be of the tubular type, constructed of T1-40 aluminized steel for corrosion resistance and allowing minimum mixed air entering temperature of 40 °F. Burners shall be of the in-shot type, constructed of aluminum-coated steel. All gas piping shall enter the unit cabinet at a single location through either the side or bottom, without any field modifications. An integrated control board shall provide timed control of evaporator fan functioning and burner ignition. Heating section shall be provided with the following minimum protection:

- a. Primary and auxiliary high-temperature limit switches.
- b. Induced draft pressure sensor.
- c. Flame roll out switch (manual reset).
- d. Flame proving controls.

## Physical Data

### DNX024-048 Single Stage Gas Heat

Component	Models						
	DNX024		DNX036		DNX048		
Nominal Tonnage	2.0		3.0		4.0		
<b>ARI COOLING PERFORMANCE</b>							
Gross Capacity @ ARI A point (Btu)	24.6		38.4		50.0		
ARI net capacity (Btu)	24.0		37.0		48.0		
EER	11.5		12.3		11.2		
SEER	15.0		16.5		15.0		
Nominal CFM	800		1275		1550		
System power (KW)	2.1		3.0		4.3		
Refrigerant type	R-410A		R-410A		R-410A		
Refrigerant charge (lb-oz)	7-8		9-12		9-8		
<b>ARI HEATING PERFORMANCE</b>							
Heating model	N036	N056	N065	N090	N065	N090	N110
Heat input (K Btu)	45	70	80	108	80	108	135
Heat output (K Btu)	36	56	64	87	64	87	108
AFUE %	80.0	80.0	80.0	80.0	80.0	80.0	80.0
Steady state efficiency (%)	80	80	80	80	80	80	80
No. burners	2	3	3	4	3	4	5
No. stages	1	1	1	1	1	1	1
Temperature Rise Range (°F)	25-55	30-60	25-55	45-75	25-55	35-65	45-75
Gas Limit Setting (°F)	140	160	140	160	150	170	160
Gas piping connection (in.)	1/2		1/2		1/2		
<b>DIMENSIONS (inches)</b>							
Length	49 1/8		49 1/8		49 1/8		
Width	47 1/4		47 1/4		47 1/4		
Height	33 1/2		41 1/2		41 1/2		
<b>OPERATING WT. (lbs.)</b>	440		480		500		
<b>COMPRESSORS</b>							
Type	Scroll 2-spd		Scroll 2-spd		Scroll 2-spd		
Quantity	1		1		1		
<b>CONDENSER COIL DATA</b>							
Face area (Sq. Ft.)	11.7		14.7		14.7		
Rows	2		2		2		
Fins per inch	20		20		20		
Tube diameter (in.)	3/8		3/8		3/8		
Circuitry Type	Interlaced		Interlaced		Interlaced		
<b>EVAPORATOR COIL DATA</b>							
Face area (Sq. Ft.)	3.4		4.4		4.4		
Rows	2		3		3		
Fins per inch	15		16		16		
Tube diameter	3/8		3/8		3/8		
Circuitry Type	Interlaced		Interlaced		Interlaced		
Refrigerant control	TXV		TXV		TXV		
<b>CONDENSER FAN DATA</b>							
Quantity	1		1		1		
Fan diameter (Inch)	22		22		22		
Type	Prop		Prop		Prop		
Drive type	Direct		Direct		Direct		
No. speeds	1		2		2		
Number of motors	1		1		1		
Motor HP each	1/4		1/3		1/3		
RPM	1100		900/1100		900/1100		
Nominal total CFM	2400		2400		3000		
<b>DIRECT DRIVE EVAP FAN DATA</b>							
Quantity	1		1		1		
Fan Size (Inch)	10 x 8		11 x 10		11 x 10		
Type	Centrifugal		Centrifugal		Centrifugal		
Motor HP each	1/2		1		1		
RPM	Variable		Variable		Variable		
Frame size	48		48		48		
<b>FILTERS</b>							
Quantity - Size	1 - 20 x 20 x 1		2 - 20 x 12 x 1		2 - 20 x 12 x 1		

## DNX024-048 Two Stage Gas Heat

Component	Models			
	DNX024	DNX036	DNX048	
Nominal Tonnage	2.0	3.0	4.0	
<b>ARI COOLING PERFORMANCE</b>				
Gross Capacity @ ARI A point (Btu)	24.6	38.4	50.0	
ARI net capacity (Btu)	24.0	37.0	48.0	
EER	11.5	12.3	11.2	
SEER	15.0	16.5	15.0	
Nominal CFM	800	1275	1550	
System power (KW)	2.1	3.0	4.3	
Refrigerant type	R-410A	R-410A	R-410A	
Refrigerant charge (lb-oz)	7-8	9-12	9-8	
<b>ARI HEATING PERFORMANCE</b>				
Heating model	D056	D090	D090	D110
Heat input (K Btu)	70/45.5	108/70.2	108/70.2	135/87.8
Heat output (K Btu)	56/36.4	87/56.2	87/56.2	108/70.2
AFUE %	80.0	80.0	80.0	80.0
Steady state efficiency (%)	80	80	80	80
No. burners	3	4	4	5
No. stages	2	2	2	2
Temperature Rise Range (°F)	30-60	45-75	35-65	45-75
Gas Limit Setting (°F)	160	175	170	160
Gas piping connection (in.)	1/2	1/2	1/2	
<b>DIMENSIONS (inches)</b>				
Length	49 1/8	49 1/8	49 1/8	
Width	47 1/4	47 1/4	47 1/4	
Height	33 1/2	41 1/2	41 1/2	
<b>OPERATING WT. (lbs.)</b>				
	440	480	500	
<b>COMPRESSORS</b>				
Type	Scroll 2-spd	Scroll 2-spd	Scroll 2-spd	
Quantity	1	1	1	
<b>CONDENSER COIL DATA</b>				
Face area (Sq. Ft.)	11.7	14.7	14.7	
Rows	2	2	2	
Fins per inch	20	20	20	
Tube diameter (in.)	3/8	3/8	3/8	
Circuitry Type	Interlaced	Interlaced	Interlaced	
<b>EVAPORATOR COIL DATA</b>				
Face area (Sq. Ft.)	3.4	4.4	4.4	
Rows	2	3	3	
Fins per inch	15	16	16	
Tube diameter	3/8	3/8	3/8	
Circuitry Type	Interlaced	Interlaced	Interlaced	
Refrigerant control	TXV	TXV	TXV	
<b>CONDENSER FAN DATA</b>				
Quantity	1	1	1	
Fan diameter (Inch)	22	22	22	
Type	Prop	Prop	Prop	
Drive type	Direct	Direct	Direct	
No. speeds	1	2	2	
Number of motors	1	1	1	
Motor HP each	1/4	1/3	1/3	
RPM	1100	900/1100	900/1100	
Nominal total CFM	2400	2400	3000	
<b>DIRECT DRIVE EVAP FAN DATA</b>				
Quantity	1	1	1	
Fan Size (Inch)	10 x 8	11 x 10	11 x 10	
Type	Centrifugal	Centrifugal	Centrifugal	
Motor HP each	1/2	1	1	
RPM	Variable	Variable	Variable	
Frame size	48	48	48	
<b>FILTERS</b>				
Quantity - Size	1 - 20 x 20 x 1	2 - 20 x 12 x 1	2 - 20 x 12 x 1	



**DNX Unit Limitations**

Size (Tons)	Model	Unit Voltage	Unit Limitations		
			Applied Voltage		Outdoor DB Temp
			Min	Max	Max (°F)
024 (2.0)	DNX	208/230-1-60	187	252	115
036 (3.0)	DNX	208/230-1-60	187	252	115
		208/230-3-60	187	252	115
		460-3-60	432	504	115
048 (4.0)	DNX	208/230-1-60	187	252	115
		208/230-3-60	187	252	115
		460-3-60	432	504	115

# Capacity Performance

## DNX024-048 Cooling Capacities

### DNX024 (2.0 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
CFM	WB (°F)	Net Capacity <sup>1</sup> (MBh)	Total Input (kW) <sup>2</sup>	Sensible Capacity (MBh)						Net Capacity <sup>1</sup> (MBh)	Total Input (kW) <sup>2</sup>	Sensible Capacity (MBh)					
				Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
				<b>75°F</b>						<b>85°F</b>							
600	77	24.9	1.2	11.4	8.7	9.0	-	-	-	23.6	1.3	11.9	10.1	8.3	-	-	
	72	22.8	1.1	16.1	13.0	11.8	9.7	-	-	21.4	1.3	15.6	13.4	11.2	9.0	-	
	67	20.8	1.1	20.8	17.3	14.7	12.1	9.5	-	19.2	1.3	19.2	16.7	14.0	11.4	8.7	
	62	18.3	1.1	18.3	18.3	17.7	13.7	9.8	5.8	17.2	1.3	17.2	17.2	16.9	12.8	8.8	
	57	19.5	1.0	19.5	19.5	19.4	15.1	10.9	6.6	17.8	1.2	17.8	17.8	17.7	13.5	9.3	
800	77	32.1	1.8	15.1	13.3	10.8	-	-	-	30.6	2.0	15.6	12.9	10.3	-	-	
	72	29.8	1.8	21.1	18.2	15.3	12.4	-	-	28.2	1.9	20.6	17.6	14.6	11.6	-	
	67	27.4	1.7	27.1	23.0	19.7	16.5	13.2	-	25.7	1.9	25.5	22.2	18.9	15.7	12.4	
	62	25.0	1.7	25.0	25.0	24.2	20.8	17.4	14.0	23.6	1.8	23.6	23.6	23.1	19.7	16.2	
	57	25.6	1.7	25.6	25.6	25.6	21.9	18.1	14.3	23.9	1.9	23.9	23.9	23.7	20.1	16.5	
				<b>95°F</b>						<b>105°F</b>							
600	77	22.3	1.5	12.5	11.4	7.6	-	-	-	20.1	1.7	13.0	8.7	6.8	-	-	
	72	19.9	1.5	15.1	13.7	10.5	8.2	-	-	18.0	1.7	14.5	11.4	9.8	7.4	-	
	67	17.6	1.4	17.6	16.0	13.4	10.7	8.0	-	15.9	1.6	15.9	14.1	12.7	9.1	5.6	
	62	16.1	1.4	16.1	16.1	16.1	11.9	7.7	3.6	14.6	1.6	14.6	14.6	15.1	10.8	5.9	
	57	16.1	1.4	16.1	16.1	15.9	11.8	7.7	3.6	14.9	1.6	14.9	14.7	14.6	11.2	7.8	
800	77	29.2	2.1	16.1	12.5	9.8	-	-	-	26.9	2.4	17.0	11.9	9.0	-	-	
	72	26.6	2.1	20.1	17.0	14.0	10.9	-	-	24.4	2.3	19.4	16.3	13.2	10.0	-	
	67	24.0	2.1	24.0	21.5	18.2	14.8	11.5	-	21.9	2.3	21.9	20.7	17.3	13.9	10.5	
	62	22.2	2.0	22.2	22.2	22.1	18.6	15.1	11.5	20.3	2.3	20.3	20.3	21.0	17.4	13.8	
	57	22.2	2.0	22.2	22.2	21.7	18.3	14.9	11.5	20.7	2.3	20.7	20.7	20.1	16.6	13.1	
				<b>115°F</b>													
600	77	18.0	1.9	13.5	6.0	6.0	-	-	-								
	72	16.1	1.9	13.9	9.0	9.0	6.6	-	-								
	67	14.3	1.8	14.3	12.1	12.1	7.6	3.1	-								
	62	13.1	1.8	13.1	13.1	14.1	9.7	4.1	1.0								
	57	13.8	1.8	13.8	13.3	13.3	10.5	7.8	5.1								
800	77	24.5	2.6	17.8	11.4	8.3	-	-	-								
	72	22.2	2.6	18.8	15.6	12.4	9.1	-	-								
	67	19.8	2.5	19.8	19.8	16.5	13.0	9.4	-								
	62	18.5	2.5	18.5	18.5	19.9	16.2	12.5	8.7								
	57	19.2	2.5	19.2	19.2	18.5	14.9	11.3	7.6								

1. These capacities are Net Capacities.
2. These ratings include the compressor, condenser fan and supply air blower motors.

**DNX036 (3.0 Ton)**

Air on Evaporator Coil		Temperature of Air on Condenser Coil																	
		Net Capacity <sup>1</sup> (MBh)	Total Input (kW) <sup>2</sup>	Sensible Capacity (MBh)						Net Capacity <sup>1</sup> (MBh)	Total Input (kW) <sup>2</sup>	Sensible Capacity (MBh)							
				Return Dry Bulb (°F)								Return Dry Bulb (°F)							
CFM	WB (°F)			90	85	80	75	70	65			90	85	80	75	70	65		
		<b>75°F</b>									<b>85°F</b>								
925	77	35.2	1.5	20.9	13.3	11.6	-	-	-	33.3	1.7	21.2	15.1	11.3	-	-	-		
	72	32.3	1.5	25.2	20.0	17.0	12.9	-	-	30.4	1.7	24.4	20.3	16.3	12.3	-	-		
	67	29.5	1.5	29.5	26.8	22.4	18.1	13.8	-	27.5	1.7	27.5	25.5	21.4	17.2	13.0	-		
	62	26.8	1.5	26.8	26.8	27.2	22.5	17.8	13.2	25.1	1.7	25.1	25.1	25.1	20.8	16.5	12.2		
	57	28.2	1.6	28.2	28.2	25.4	21.2	17.0	12.8	25.9	1.8	25.9	25.9	24.2	20.0	15.9	11.7		
1275	77	48.7	2.8	23.8	19.3	14.7	-	-	-	46.5	3.0	25.5	19.4	14.7	-	-	-		
	72	45.7	2.6	33.3	28.3	23.2	18.2	-	-	43.2	2.9	32.7	27.6	22.5	17.3	-	-		
	67	42.8	2.5	42.8	37.2	31.7	26.1	20.6	-	39.9	2.8	39.9	35.8	30.2	24.6	19.0	-		
	62	38.0	2.3	38.0	38.0	34.6	29.8	24.9	20.0	36.7	2.6	36.7	36.7	34.0	28.7	23.5	18.3		
	57	38.4	2.5	38.4	38.4	35.9	30.3	24.7	19.1	36.7	2.8	36.7	36.7	34.4	28.8	23.1	17.5		
		<b>95°F</b>									<b>105°F</b>								
925	77	31.5	1.9	21.5	17.0	11.0	-	-	-	29.0	2.2	21.9	13.1	10.1	-	-	-		
	72	28.5	1.9	23.6	20.7	15.6	11.7	-	-	26.2	2.2	22.7	17.3	14.8	10.9	-	-		
	67	25.6	1.9	25.6	24.3	20.3	16.2	12.2	-	23.4	2.2	23.4	21.5	19.5	15.4	11.3	-		
	62	23.4	1.9	23.4	23.4	23.0	19.1	15.1	11.2	21.5	2.2	21.5	21.5	21.3	17.3	12.3	9.4		
	57	23.6	1.9	23.6	23.6	22.9	18.8	14.8	10.7	22.3	2.2	22.3	21.6	21.3	17.2	13.2	9.2		
1275	77	44.4	3.2	27.2	19.4	14.7	-	-	-	41.3	3.5	27.9	18.8	13.7	-	-	-		
	72	40.7	3.1	32.1	26.9	21.7	16.5	-	-	37.8	3.4	31.1	25.9	20.7	15.4	-	-		
	67	37.0	3.1	37.0	34.3	28.7	23.1	17.4	-	34.3	3.4	34.3	33.0	27.6	22.0	16.3	-		
	62	35.4	2.9	35.4	35.4	33.3	27.7	22.1	16.5	32.4	3.3	32.4	32.4	31.4	25.6	19.8	14.1		
	57	35.0	3.0	35.0	35.0	32.9	27.2	21.6	15.9	33.0	3.3	33.0	33.0	31.1	25.4	19.6	13.9		
		<b>115°F</b>																	
925	77	26.5	2.4	22.3	9.2	9.2	-	-	-										
	72	23.9	2.4	21.8	14.0	14.0	10.1	-	-										
	67	21.3	2.4	21.3	18.7	18.7	14.6	10.4	-										
	62	19.6	2.4	19.6	19.6	19.6	15.6	9.6	7.7										
	57	21.0	2.4	21.0	19.7	19.7	15.7	11.7	7.6										
1275	77	38.3	3.8	28.6	18.1	12.8	-	-	-										
	72	35.0	3.8	30.2	24.9	19.6	14.4	-	-										
	67	31.7	3.7	31.7	31.7	26.5	20.8	15.2	-										
	62	29.5	3.6	29.5	29.5	29.5	23.5	17.6	11.6										
	57	30.9	3.6	30.9	30.9	29.4	23.5	17.7	11.8										

1. These capacities are Net Capacities.
2. These ratings include the compressor, condenser fan and supply air blower motors.

**DNX048 (4.0 Ton)**

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
CFM	WB (°F)	Net Capacity <sup>1</sup> (MBh)	Total Input (kW) <sup>2</sup>	Sensible Capacity (MBh)						Net Capacity <sup>1</sup> (MBh)	Total Input (kW) <sup>2</sup>	Sensible Capacity (MBh)					
				Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
				<b>75°F</b>						<b>85°F</b>							
1000	77	45.3	2.2	23.2	17.3	14.8	-	-	-	42.8	2.5	22.7	18.4	14.2	-	-	-
	72	42.0	2.2	29.7	24.2	20.6	16.0	-	-	39.6	2.5	28.9	24.3	19.8	15.2	-	-
	67	38.8	2.2	36.3	31.1	26.3	21.5	16.7	-	36.4	2.5	35.1	30.2	25.3	20.5	15.6	-
	62	34.4	2.2	34.4	34.4	31.7	27.3	22.8	18.4	32.4	2.5	32.4	32.4	30.7	26.2	21.7	17.2
	57	33.6	2.2	33.6	33.6	33.0	28.4	23.8	19.2	31.7	2.4	31.7	31.7	31.2	26.6	21.9	17.3
1550	77	64.7	3.9	31.1	26.6	20.8	-	-	-	60.7	4.2	31.0	25.2	19.4	-	-	-
	72	59.6	3.8	42.0	35.7	29.4	23.2	-	-	56.0	4.1	40.7	34.4	28.1	21.7	-	-
	67	54.5	3.7	52.9	44.9	38.1	31.2	24.4	-	51.2	4.0	50.4	43.6	36.8	29.9	23.1	-
	62	50.3	3.5	50.3	50.3	46.3	39.4	32.4	25.5	47.6	3.8	47.6	47.6	44.4	37.5	30.5	23.6
	57	48.8	3.5	48.8	48.8	48.3	41.5	34.7	27.9	46.5	3.7	46.5	46.5	46.3	39.3	32.3	25.4
				<b>95°F</b>						<b>105°F</b>							
1000	77	40.4	2.8	22.2	19.6	13.5	-	-	-	37.5	3.1	23.2	15.4	12.4	-	-	-
	72	37.2	2.8	28.1	24.4	18.9	14.4	-	-	34.3	3.1	27.2	20.6	17.9	13.2	-	-
	67	34.0	2.8	34.0	29.3	24.4	19.4	14.4	-	31.1	3.1	31.1	25.8	23.3	18.6	13.8	-
	62	30.5	2.7	30.5	30.5	29.6	25.0	20.5	15.9	28.0	3.1	28.0	28.0	27.7	23.1	18.1	13.8
	57	29.8	2.7	29.8	29.8	29.4	24.7	20.0	15.4	28.0	3.0	28.0	27.9	27.7	22.8	17.9	13.0
1550	77	56.8	4.5	30.9	23.8	17.9	-	-	-	52.1	4.9	32.0	22.7	16.7	-	-	-
	72	52.4	4.4	39.4	33.1	26.7	20.3	-	-	48.4	4.7	38.4	31.9	25.5	19.0	-	-
	67	48.0	4.3	48.0	42.3	35.5	28.6	21.8	-	44.8	4.6	44.8	41.2	34.2	27.2	20.2	-
	62	44.8	4.1	44.8	44.8	42.6	35.6	28.6	21.6	42.0	4.4	42.0	42.0	40.4	33.4	26.4	19.3
	57	44.3	4.0	44.3	44.3	44.3	37.1	30.0	22.8	41.9	4.4	41.9	41.9	41.0	33.9	26.7	19.6
				<b>115°F</b>													
1000	77	34.7	3.5	24.2	11.2	11.2	-	-	-								
	72	31.5	3.5	26.2	16.8	16.8	12.0	-	-								
	67	28.2	3.4	28.2	22.3	22.3	17.8	13.3	-								
	62	25.4	3.4	25.4	25.4	25.8	21.1	15.8	11.7								
	57	26.3	3.4	26.3	25.9	25.9	20.9	15.8	10.7								
1550	77	47.4	5.3	33.2	21.6	15.5	-	-	-								
	72	44.5	5.1	37.4	30.8	24.2	17.6	-	-								
	67	41.6	5.0	41.6	40.0	32.9	25.8	18.7	-								
	62	39.2	4.8	39.2	39.2	38.2	31.2	24.1	17.0								
	57	39.4	4.8	39.4	39.4	37.8	30.6	23.5	16.3								

1. These capacities are Net Capacities.
2. These ratings include the compressor, condenser fan and supply air blower motors.

## Airflow Performance

### Side Duct Application

#### DNX024-060

Size (Tons)	Model	Mode	Thermostat Input	Speed Tap	CFM	External Static Pressure (Inch Water Gauge)											
						0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0			
						Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts			
024 (2.0)	DNX	Cool	Low	Y1	COOL-A	600	100	122	145	169	194	221	249	279	310		
				Y1	COOL-B	450	65	81	100	122	147	176	208	243	281		
				Y1	COOL-C	530	81	100	121	145	170	197	226	258	291		
				Y1	COOL-D	680	127	151	176	202	228	256	284	313	342		
			High	Y1+Y2	COOL-A	800	177	204	232	261	290	320	350	382	414		
				Y1+Y2	COOL-B	600	100	122	145	169	194	221	249	279	310		
				Y1+Y2	COOL-C	700	134	159	184	211	238	265	293	323	352		
				Y1+Y2	COOL-D	900	229	258	288	319	351	385	420	457	494		
		Heat	N036	W1	HEAT-A	670	123	147	172	197	224	251	-	-	-		
				W1	HEAT-B	730	146	172	198	225	252	280	-	-	-		
				W1	HEAT-C	790	173	199	227	255	284	314	-	-	-		
				W1	HEAT-D	850	202	230	259	289	319	351	-	-	-		
			N056	W1	HEAT-A	940	253	281	312	344	378	-	-	-	-		
				W1	HEAT-B	975	274	303	334	368	403	-	-	-	-		
				W1	HEAT-C	1000	290	319	351	385	422	-	-	-	-		
				W1	HEAT-D	1050	324	353	386	422	461	-	-	-	-		
			D056	W1	HEAT-A	670	123	147	172	197	224	-	-	-	-		
				W1	HEAT-B	690	130	155	180	206	233	-	-	-	-		
				W1	HEAT-C	710	138	163	189	215	242	-	-	-	-		
				W1	HEAT-D	750	155	181	207	235	262	-	-	-	-		
				W1+W2	HEAT-A	940	253	281	312	344	378	-	-	-	-		
				W1+W2	HEAT-B	970	271	300	331	364	400	-	-	-	-		
				W1+W2	HEAT-C	1000	290	319	351	385	422	-	-	-	-		
				W1+W2	HEAT-D	1050	324	353	386	422	461	-	-	-	-		
		036 (3.0)	DNX	Cool	Low	Y1	COOL-A	900	198	233	272	313	358	406	458	512	569
						Y1	COOL-B	760	166	190	222	262	310	366	431	503	584
						Y1	COOL-C	830	180	210	245	286	332	384	441	503	571
						Y1	COOL-D	970	221	260	302	344	388	434	481	530	579
High	Y1+Y2				COOL-A	1250	361	408	454	501	548	594	640	687	733		
	Y1+Y2				COOL-B	1050	253	296	340	384	428	472	516	561	605		
	Y1+Y2				COOL-C	1150	302	348	394	439	484	528	571	615	657		
	Y1+Y2				COOL-D	1350	429	475	522	570	620	671	723	777	831		
Heat	N065			W1	HEAT-A	1200	330	377	423	469	515	560	-	-	-		
				W1	HEAT-B	1300	394	440	487	535	583	631	-	-	-		
				W1	HEAT-C	1400	467	511	558	607	659	713	-	-	-		
				W1	HEAT-D	1500	550	590	635	686	743	804	-	-	-		
	N090			W1	HEAT-A	1150	302	348	394	439	484	528	-	-	-		
				W1	HEAT-B	1225	345	392	439	485	531	577	-	-	-		
				W1	HEAT-C	1275	377	424	471	518	565	612	-	-	-		
				W1	HEAT-D	1350	429	475	522	570	620	671	-	-	-		
	D090			W1	HEAT-A	740	163	185	216	255	304	362	-	-	-		
				W1	HEAT-B	785	170	196	230	270	317	372	-	-	-		
				W1	HEAT-C	825	178	208	243	284	330	382	-	-	-		
				W1	HEAT-D	870	189	223	260	301	347	396	-	-	-		
				W1+W2	HEAT-A	1150	302	348	394	439	484	528	-	-	-		
				W1+W2	HEAT-B	1220	342	389	436	482	528	573	-	-	-		
				W1+W2	HEAT-C	1280	380	427	474	521	568	616	-	-	-		
				W1+W2	HEAT-D	1350	429	475	522	570	620	671	-	-	-		

**DNX024-060 (Continued)**

Size (Tons)	Model	Mode	Thermostat Input	Speed Tap	CFM	External Static Pressure (Inch Water Gauge)									
						0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
						Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	
048 (4.0)	DNX	Cool	Low	Y1	COOL-A	1030	237	280	323	367	411	455	499	543	588
				Y1	COOL-B	930	192	237	282	326	369	413	455	497	539
				Y1	COOL-C	1070	257	300	343	386	430	475	520	565	611
				Y1	COOL-D	1130	289	332	375	419	463	509	555	602	649
			High	Y1+Y2	COOL-A	1550	586	640	696	752	810	869	929	991	1053
				Y1+Y2	COOL-B	1400	466	513	561	611	663	715	770	826	882
				Y1+Y2	COOL-C	1600	630	687	745	804	864	926	988	1052	1116
				Y1+Y2	COOL-D	1700	723	787	851	916	982	1049	1116	1185	-
		Heat	N065	W1	HEAT-A	1200	330	373	416	461	507	554	-	-	-
				W1	HEAT-B	1300	394	439	484	531	579	629	-	-	-
				W1	HEAT-C	1400	466	513	561	611	663	715	-	-	-
				W1	HEAT-D	1500	544	596	648	702	758	815	-	-	-
			N090	W1	HEAT-A	1325	412	456	503	550	599	649	-	-	-
				W1	HEAT-B	1400	466	513	561	611	663	715	-	-	-
				W1	HEAT-C	1500	544	596	648	702	758	815	-	-	-
				W1	HEAT-D	1600	630	687	745	804	864	926	-	-	-
			D090	W1	HEAT-A	870	168	215	261	306	350	393	-	-	-
				W1	HEAT-B	920	188	233	278	322	366	409	-	-	-
				W1	HEAT-C	985	216	260	303	347	391	434	-	-	-
				W1	HEAT-D	1050	247	290	333	376	420	464	-	-	-
				W1+W2	HEAT-A	1330	415	460	506	554	603	653	-	-	-
				W1+W2	HEAT-B	1400	466	513	561	611	663	715	-	-	-
				W1+W2	HEAT-C	1500	544	596	648	702	758	815	-	-	-
				W1+W2	HEAT-D	1600	630	687	745	804	864	926	-	-	-
			N110	W1	HEAT-A	1450	504	553	604	656	-	-	-	-	-
				W1	HEAT-B	1500	544	596	648	702	-	-	-	-	-
				W1	HEAT-C	1600	630	687	745	804	-	-	-	-	-
				W1	HEAT-D	1700	723	787	851	916	-	-	-	-	-
			D110	W1	HEAT-A	940	196	241	285	329	-	-	-	-	-
				W1	HEAT-B	970	209	253	297	341	-	-	-	-	-
				W1	HEAT-C	1050	247	290	333	376	-	-	-	-	-
				W1	HEAT-D	1100	273	315	358	402	-	-	-	-	-
		W1+W2		HEAT-A	1450	504	553	604	656	-	-	-	-	-	
		W1+W2		HEAT-B	1500	544	596	648	702	-	-	-	-	-	
		W1+W2		HEAT-C	1600	630	687	745	804	-	-	-	-	-	
		W1+W2		HEAT-D	1700	723	787	851	916	-	-	-	-	-	

Bottom Duct Application

DNX024-060

Size (Tons)	Model	Mode	Thermostat Input	Speed Tap	CFM	External Static Pressure (Inch Water Gauge)									
						0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
						Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	
024 (2.0)	DNX	Cool	Low	Y1	COOL-A	600	100	122	145	169	194	221	249	279	310
				Y1	COOL-B	450	65	81	100	122	147	176	208	243	281
				Y1	COOL-C	530	81	100	121	145	170	197	226	258	291
				Y1	COOL-D	680	127	151	176	202	228	256	284	313	342
			High	Y1+Y2	COOL-A	800	177	204	232	261	290	320	350	382	414
				Y1+Y2	COOL-B	600	100	122	145	169	194	221	249	279	310
				Y1+Y2	COOL-C	700	134	159	184	211	238	265	293	323	352
				Y1+Y2	COOL-D	900	229	258	288	319	351	385	420	457	494
		Heat	N036	W1	HEAT-A	670	123	147	172	197	224	251	-	-	-
				W1	HEAT-B	730	146	172	198	225	252	280	-	-	-
				W1	HEAT-C	790	173	199	227	255	284	314	-	-	-
				W1	HEAT-D	850	202	230	259	289	319	351	-	-	-
			N056	W1	HEAT-A	940	253	281	312	344	378	-	-	-	-
				W1	HEAT-B	975	274	303	334	368	403	-	-	-	-
				W1	HEAT-C	1000	290	319	351	385	422	-	-	-	-
				W1	HEAT-D	1050	324	353	386	422	461	-	-	-	-
			D056	W1	HEAT-A	670	123	147	172	197	224	-	-	-	-
				W1	HEAT-B	690	130	155	180	206	233	-	-	-	-
				W1	HEAT-C	710	138	163	189	215	242	-	-	-	-
				W1	HEAT-D	750	155	181	207	235	262	-	-	-	-
				W1+W2	HEAT-A	940	253	281	312	344	378	-	-	-	-
				W1+W2	HEAT-B	970	271	300	331	364	400	-	-	-	-
				W1+W2	HEAT-C	1000	290	319	351	385	422	-	-	-	-
				W1+W2	HEAT-D	1050	324	353	386	422	461	-	-	-	-
036 (3.0)	DNX	Cool	Low	Y1	COOL-A	900	198	233	272	313	358	406	458	512	569
				Y1	COOL-B	760	166	190	222	262	310	366	431	503	584
				Y1	COOL-C	830	180	210	245	286	332	384	441	503	571
				Y1	COOL-D	970	221	260	302	344	388	434	481	530	579
			High	Y1+Y2	COOL-A	1250	361	408	454	501	548	594	640	687	733
				Y1+Y2	COOL-B	1050	253	296	340	384	428	472	516	561	605
				Y1+Y2	COOL-C	1150	302	348	394	439	484	528	571	615	657
				Y1+Y2	COOL-D	1350	429	475	522	570	620	671	723	777	831
		Heat	N065	W1	HEAT-A	1200	330	377	423	469	515	560	-	-	-
				W1	HEAT-B	1300	394	440	487	535	583	631	-	-	-
				W1	HEAT-C	1400	467	511	558	607	659	713	-	-	-
				W1	HEAT-D	1500	550	590	635	686	743	804	-	-	-
			N090	W1	HEAT-A	1150	302	348	394	439	484	528	-	-	-
				W1	HEAT-B	1225	345	392	439	485	531	577	-	-	-
				W1	HEAT-C	1275	377	424	471	518	565	612	-	-	-
				W1	HEAT-D	1350	429	475	522	570	620	671	-	-	-
			D090	W1	HEAT-A	740	163	185	216	255	304	362	-	-	-
				W1	HEAT-B	785	170	196	230	270	317	372	-	-	-
				W1	HEAT-C	825	178	208	243	284	330	382	-	-	-
				W1	HEAT-D	870	189	223	260	301	347	396	-	-	-
				W1+W2	HEAT-A	1150	302	348	394	439	484	528	-	-	-
				W1+W2	HEAT-B	1220	342	389	436	482	528	573	-	-	-
				W1+W2	HEAT-C	1280	380	427	474	521	568	616	-	-	-
				W1+W2	HEAT-D	1350	429	475	522	570	620	671	-	-	-

**DNX024-060 (Continued)**

Size (Tons)	Model	Mode	Thermostat Input	Speed Tap	CFM	External Static Pressure (Inch Water Gauge)									
						0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
						Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	
048 (4.0)	DNX	Cool	Low	Y1	COOL-A	1030	237	280	323	367	411	455	499	543	588
				Y1	COOL-B	930	192	237	282	326	369	413	455	497	539
				Y1	COOL-C	1070	257	300	343	386	430	475	520	565	611
				Y1	COOL-D	1130	289	332	375	419	463	509	555	602	649
			High	Y1+Y2	COOL-A	1550	586	640	696	752	810	869	929	991	1053
				Y1+Y2	COOL-B	1400	466	513	561	611	663	715	770	826	882
				Y1+Y2	COOL-C	1600	630	687	745	804	864	926	988	1052	1116
				Y1+Y2	COOL-D	1700	723	787	851	916	982	1049	1116	1185	-
		Heat	N065	W1	HEAT-A	1200	330	373	416	461	507	554	-	-	-
				W1	HEAT-B	1300	394	439	484	531	579	629	-	-	-
				W1	HEAT-C	1400	466	513	561	611	663	715	-	-	-
				W1	HEAT-D	1500	544	596	648	702	758	815	-	-	-
			N090	W1	HEAT-A	1325	412	456	503	550	599	649	-	-	-
				W1	HEAT-B	1400	466	513	561	611	663	715	-	-	-
				W1	HEAT-C	1500	544	596	648	702	758	815	-	-	-
				W1	HEAT-D	1600	630	687	745	804	864	926	-	-	-
			D090	W1	HEAT-A	870	168	215	261	306	350	393	-	-	-
				W1	HEAT-B	920	188	233	278	322	366	409	-	-	-
				W1	HEAT-C	985	216	260	303	347	391	434	-	-	-
				W1	HEAT-D	1050	247	290	333	376	420	464	-	-	-
				W1+W2	HEAT-A	1330	415	460	506	554	603	653	-	-	-
				W1+W2	HEAT-B	1400	466	513	561	611	663	715	-	-	-
				W1+W2	HEAT-C	1500	544	596	648	702	758	815	-	-	-
				W1+W2	HEAT-D	1600	630	687	745	804	864	926	-	-	-
			N110	W1	HEAT-A	1450	504	553	604	656	-	-	-	-	-
				W1	HEAT-B	1500	544	596	648	702	-	-	-	-	-
				W1	HEAT-C	1600	630	687	745	804	-	-	-	-	-
				W1	HEAT-D	1700	723	787	851	916	-	-	-	-	-
			D110	W1	HEAT-A	940	196	241	285	329	-	-	-	-	-
				W1	HEAT-B	970	209	253	297	341	-	-	-	-	-
				W1	HEAT-C	1050	247	290	333	376	-	-	-	-	-
				W1	HEAT-D	1100	273	315	358	402	-	-	-	-	-
				W1+W2	HEAT-A	1450	504	553	604	656	-	-	-	-	-
				W1+W2	HEAT-B	1500	544	596	648	702	-	-	-	-	-
				W1+W2	HEAT-C	1600	630	687	745	804	-	-	-	-	-
				W1+W2	HEAT-D	1700	723	787	851	916	-	-	-	-	-

**Additional Static Resistance**

Size (Tons)	Model	CFM	Wet Indoor Coil	Economizer <sup>1</sup>	Filter/Frame Kit	Electric Heat
024 (2.0)	DNX	500	0.01	0.00	0.01	-
		600	0.01	0.00	0.02	-
		700	0.01	0.00	0.04	-
		800	0.02	0.01	0.06	-
		900	0.03	0.01	0.08	-
		1000	0.04	0.01	0.10	-
		1100	0.05	0.01	0.13	-
		1200	0.06	0.02	0.16	-
036 (3.0)	DNX	700	0.01	0.00	0.04	-
		800	0.02	0.01	0.06	-
		900	0.03	0.01	0.08	-
		1000	0.04	0.01	0.10	-
		1100	0.05	0.01	0.13	-
		1200	0.06	0.02	0.16	-
		1300	0.07	0.03	0.17	-
		1400	0.08	0.04	0.18	-
048 (4.0)	DNQ	1100	0.02	0.02	0.04	-
		1200	0.03	0.02	0.04	-
		1300	0.04	0.02	0.05	-
		1400	0.05	0.03	0.05	-
		1500	0.06	0.04	0.06	-
		1600	0.07	0.04	0.07	-
		1700	0.07	0.04	0.08	-
		1800	0.08	0.04	0.09	-
		1900	0.09	0.05	0.10	-
		2000	0.09	0.05	0.11	-

1. 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 will deliver less CFM during full economizer operation.



## Gas Heat Minimum Supply Air

Size (Tons)	Model	Heat Size	Supply Air (CFM)			
			Cooling		Heating	
			Min	Max	Min	Max
024 (2.0)	DNX	N036	450	900	610	1330
		N056	450	900	860	1730
		D056	450	900	860	1730
036 (3.0)	DNX	N065	685	1350	1080	2370
		N090	685	1350	1070	1780
		D090	685	1350	1070	1780
048 (4.0)	DNX	N065	930	1700	1080	2370
		N090	930	1700	1230	2290
		D090	930	1700	1230	2290
		N110	930	1700	1330	2220
		D110	930	1700	1330	2220

## Indoor Blower Specifications

Size (Tons)	Model	Motor				
		HP	RPM	Eff.	SF	Frame
024 (2.0)	DNX	1/2	Variable	0.8	1.0	48
036 (3.0)	DNX	1	Variable	0.8	1.0	48
048 (4.0)	DNX	1	Variable	0.8	1.0	48

## Sound Performance

### Outdoor Sound Power Levels

Size (Tons)	Model	Sound Rating <sup>1</sup> dB (A)	Octave Band Centerline Frequency (Hz)						
			125	250	500	1000	2000	4000	8000
024 (2.0)	DNX	80	66	70.5	74	74.5	72.5	67.5	64.5
036 (3.0)	DNX	80	70.5	71	74.5	74	71	67.5	64
048 (4.0)	DNX	81	72.5	73	76	75.5	71	67.5	65

1. Rated in accordance with ARI 270 standard.

## Electrical Data

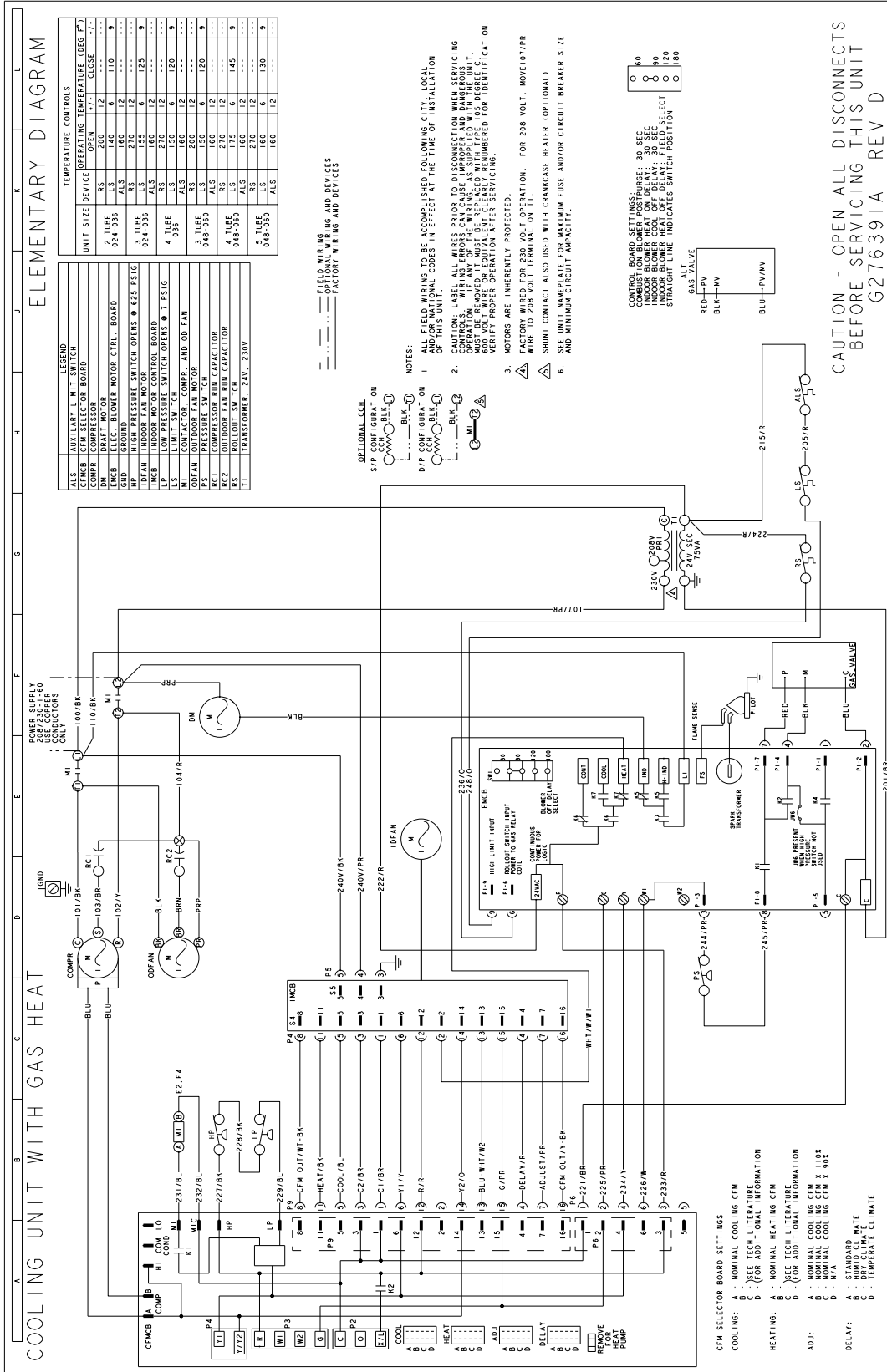
### DNX024-048 Gas Heat

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	MCA <sup>1</sup> (Amps)	Max Fuse <sup>2</sup> / Breaker <sup>3</sup> Size (Amps)
		RLA	LRA	MCC	FLA	FLA		
024 (2.0)	208/230-1-60	10.2	52	16	1.4	4.3	18.1	25
	208/230-3-60	16.6	82	26	0.9	9.1	30.7	40
036 (3.0)	208/230-3-60	11.1	58	17	0.9	9.1	23.8	30
	460-3-60	4.5	29	7	0.5	4.6	10.7	15
048 (4.0)	208/230-1-60	21.1	96	33	1.8	9.1	36.3	45
	208/230-3-60	13.4	88	21	1.8	9.1	26.7	35
	460-3-60	6.4	41	10	0.9	4.6	13.0	15

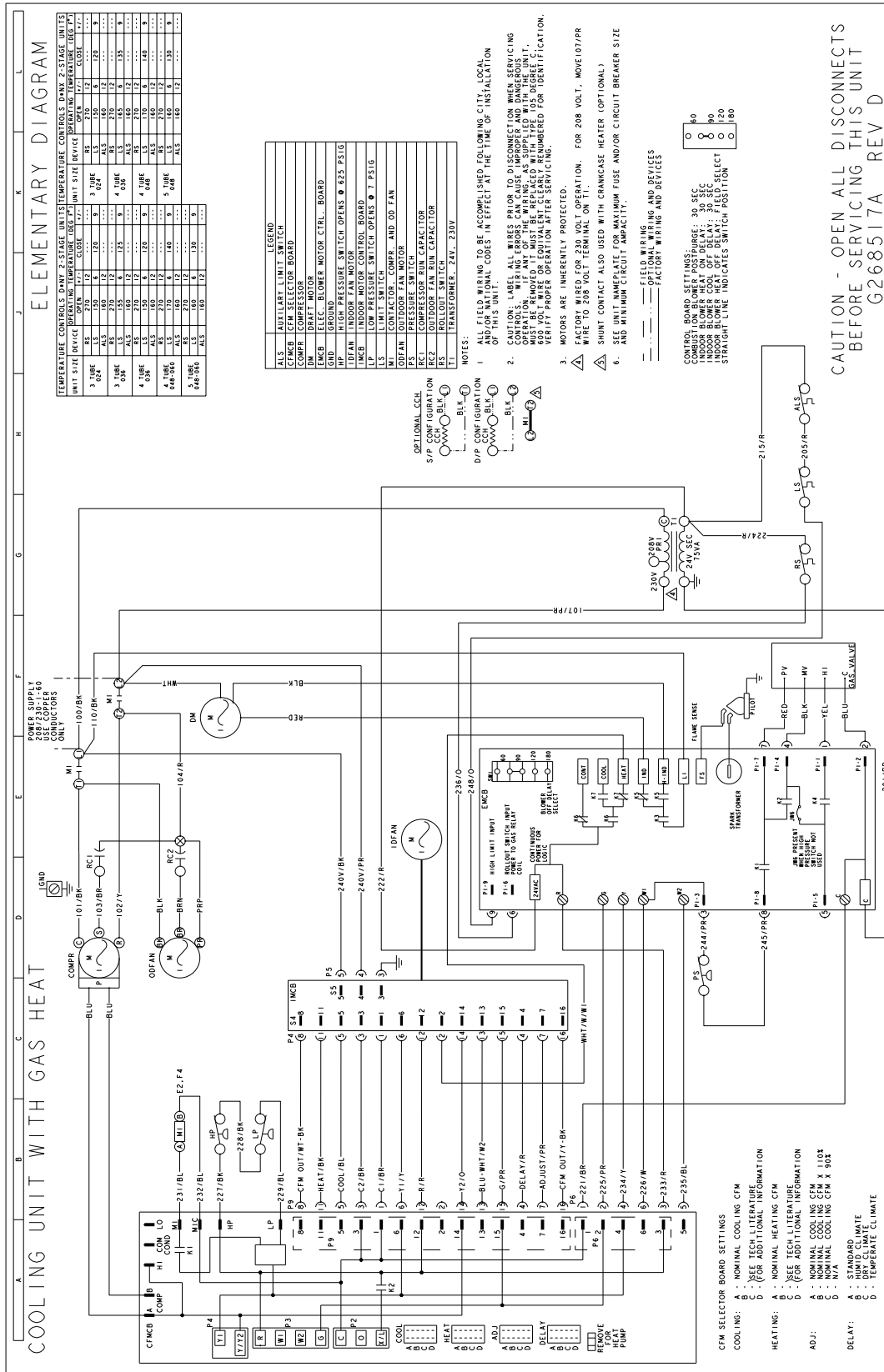
1. Minimum Circuit Ampacity.
2. Maximum Over Current Protection per standard UL 1995.
3. Fuse or HACR circuit breaker size installed at factory or field installed.

# Typical DNX024-048 Wiring Diagrams

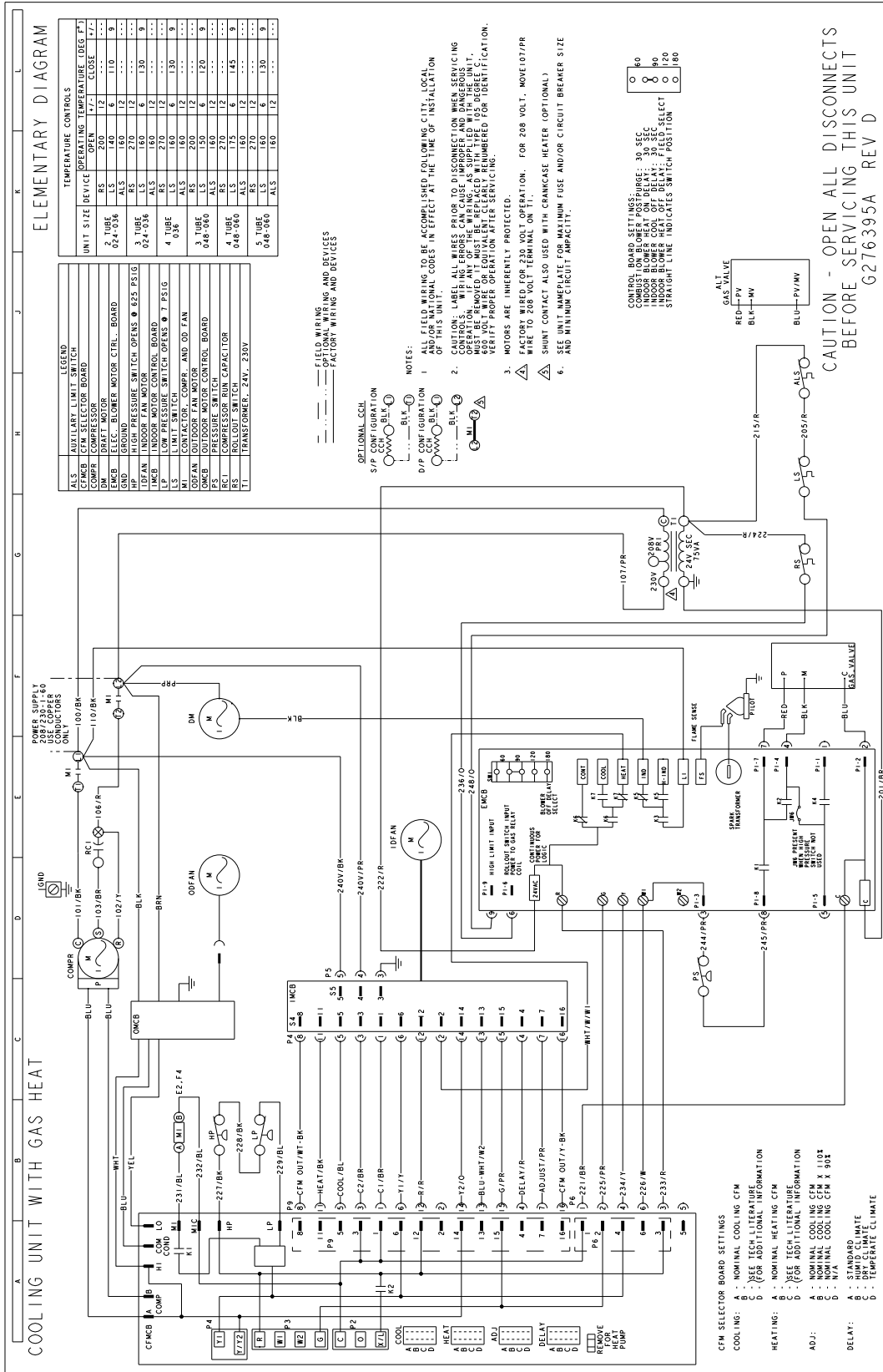
## Typical DNX024 Cooling Unit with Single Stage Gas Heat 208/230-1-60 volt Wiring Diagram



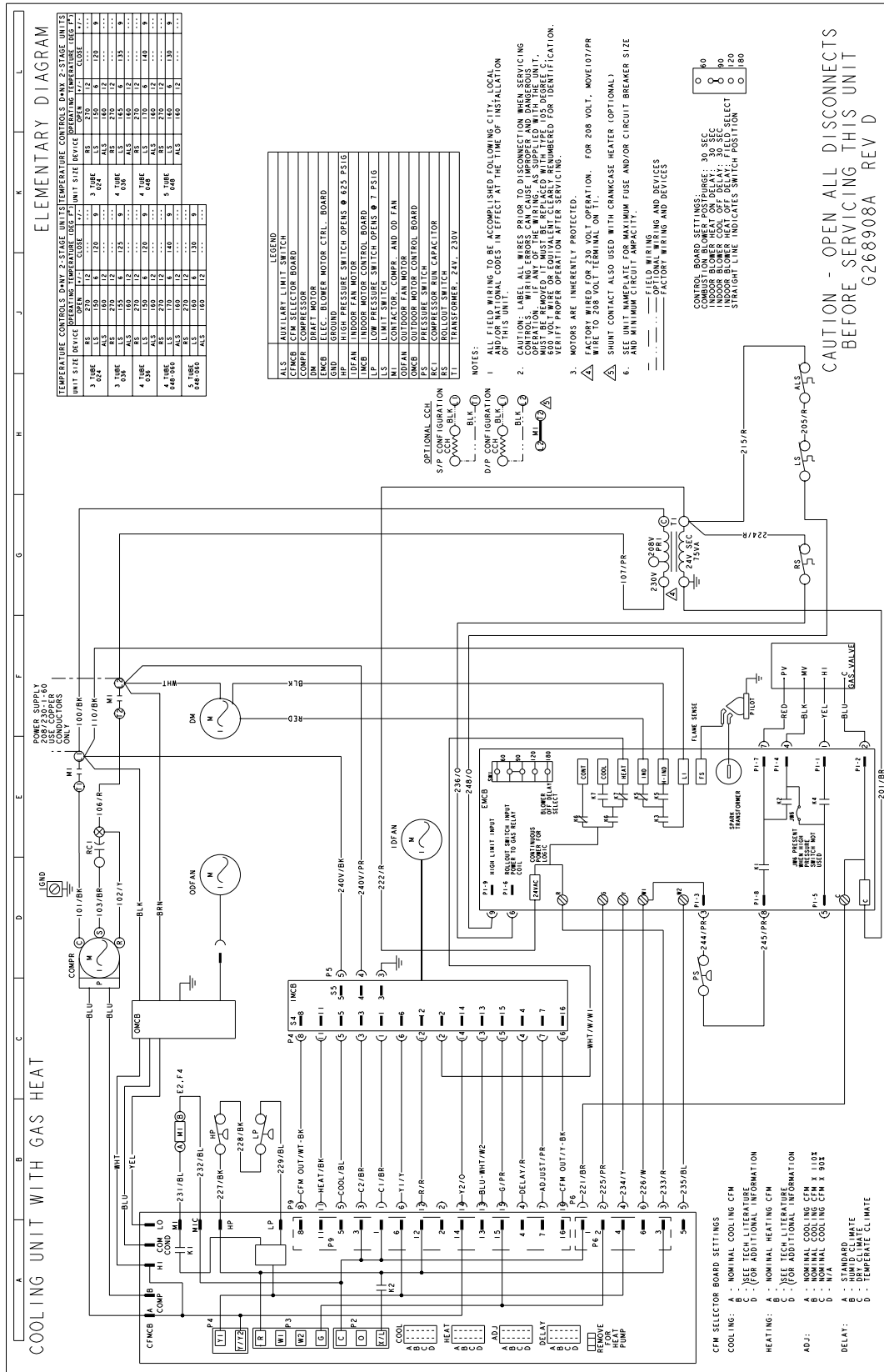
Typical DNX024 Cooling Unit with Two Stage Gas Heat 208/230-1-60 volt Wiring Diagram



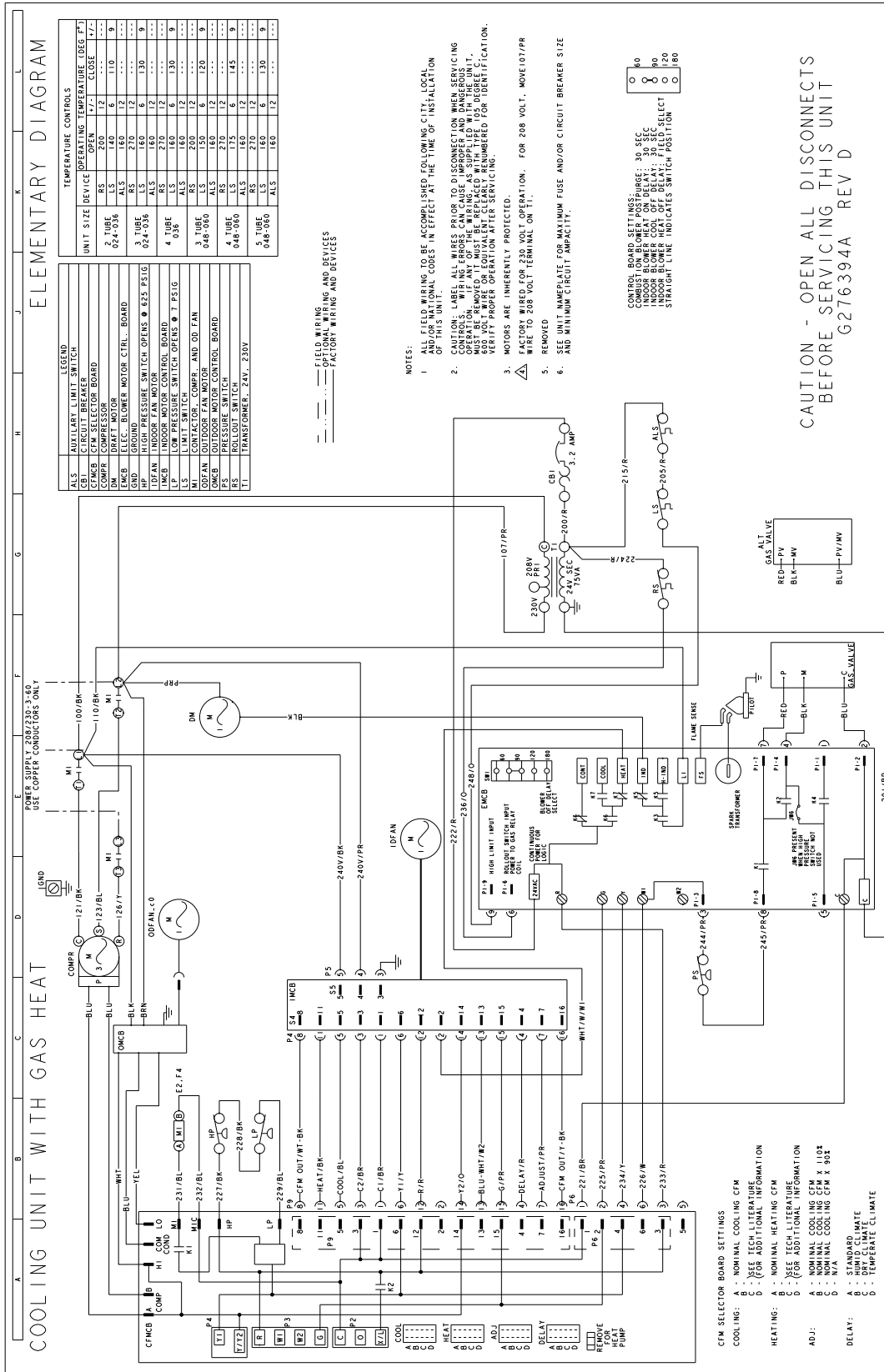
Typical DNX036-048 Cooling Unit with Single Stage Gas Heat 208/230-1-60 volt Wiring Diagram



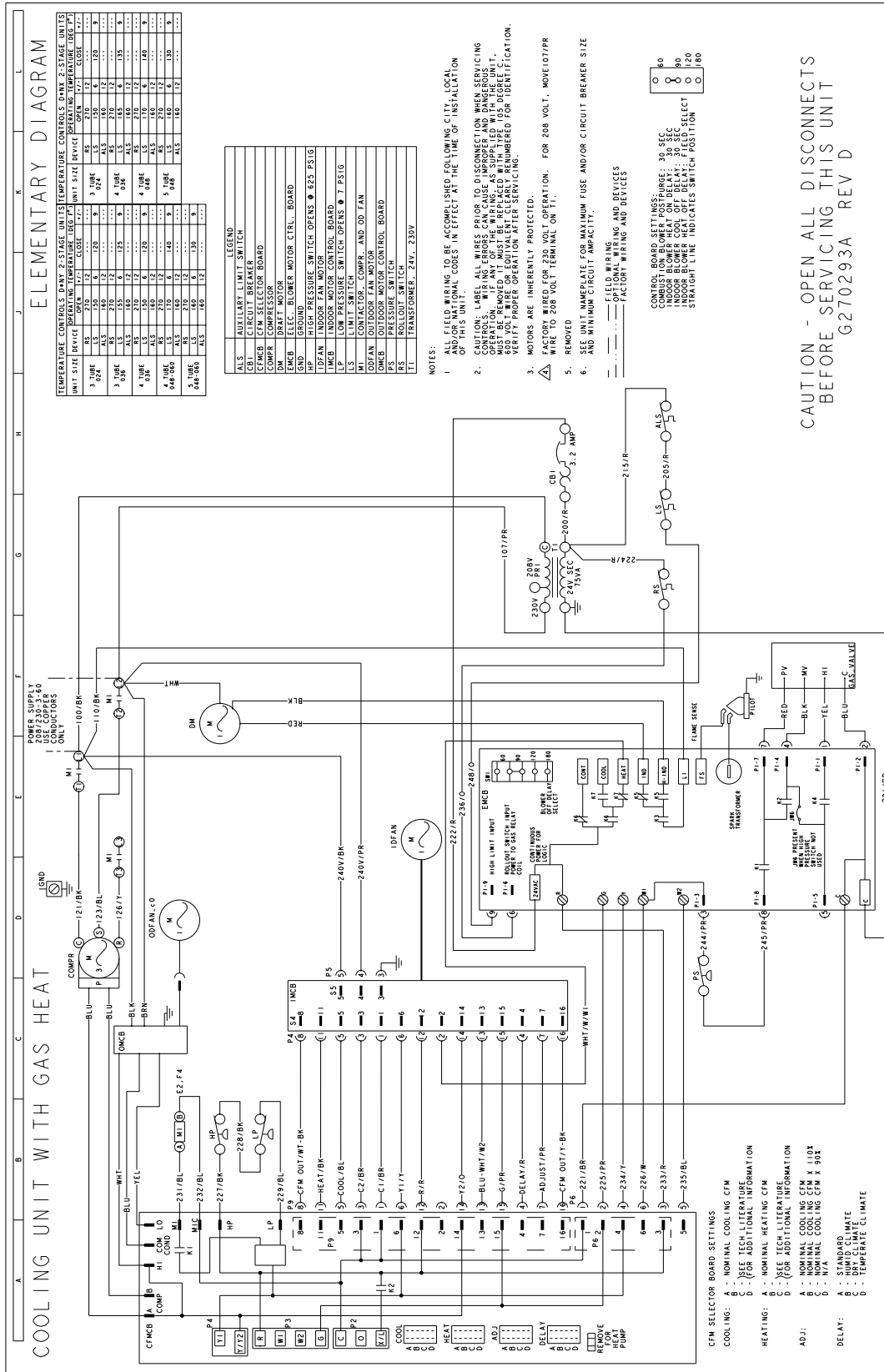
Typical DNX036-048 Cooling Unit with Two Stage Gas Heat 208/230-1-60 volt Wiring Diagram



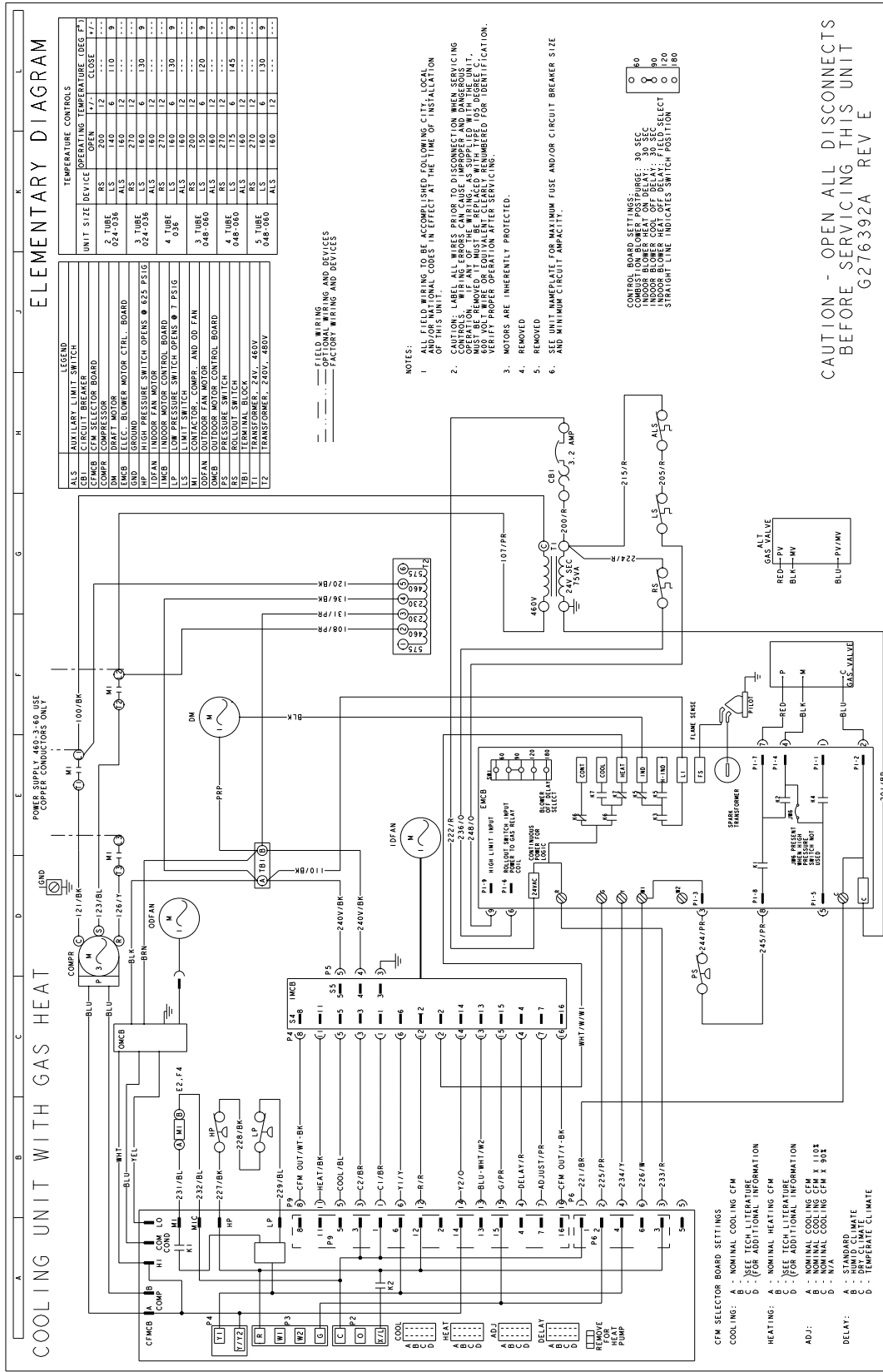
Typical DNX036-048 Cooling Unit with Single Stage Gas Heat 208/230-3-60 volt Wiring Diagram



# Typical DNX036-048 Cooling Unit with Two Stage Gas Heat 208/230-3-60 volt Wiring Diagram

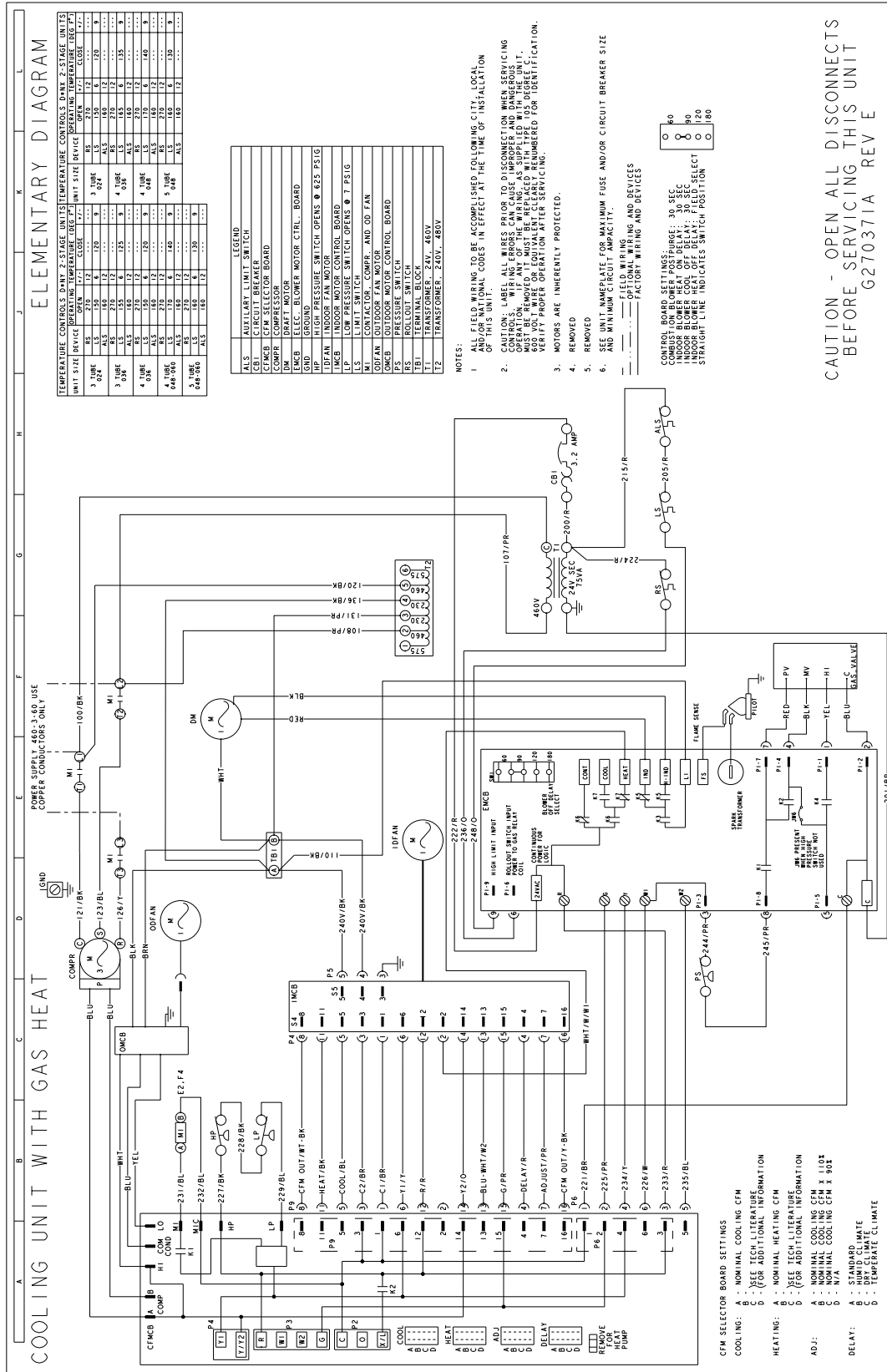


Typical DNX036-048 Cooling Unit with Single Stage Gas Heat 460-3-60 volt Wiring Diagram





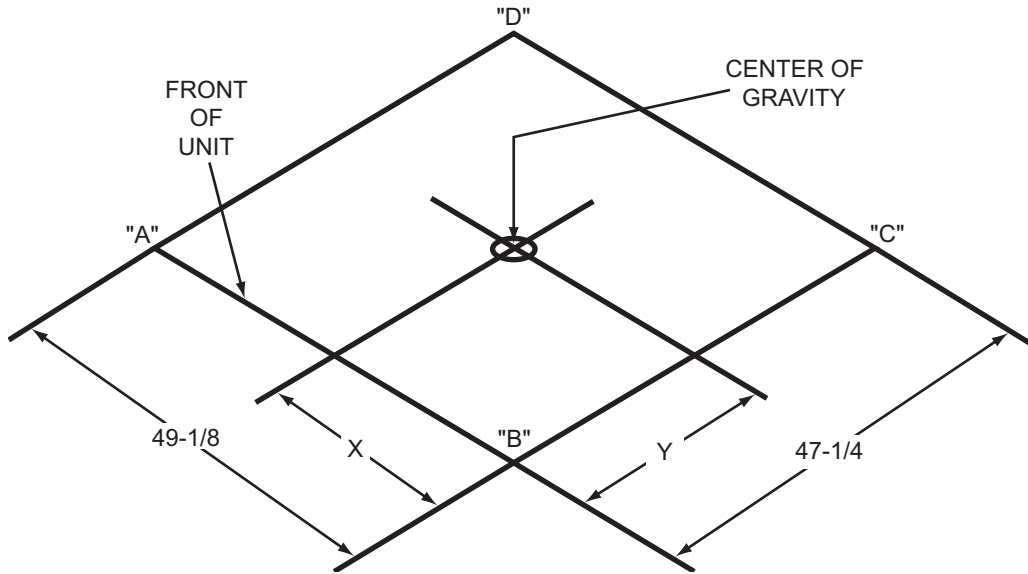
Typical DNX036-048 Cooling Unit with Two Stage Gas Heat 460-3-60 volt Wiring Diagram



## Weights and Dimensions

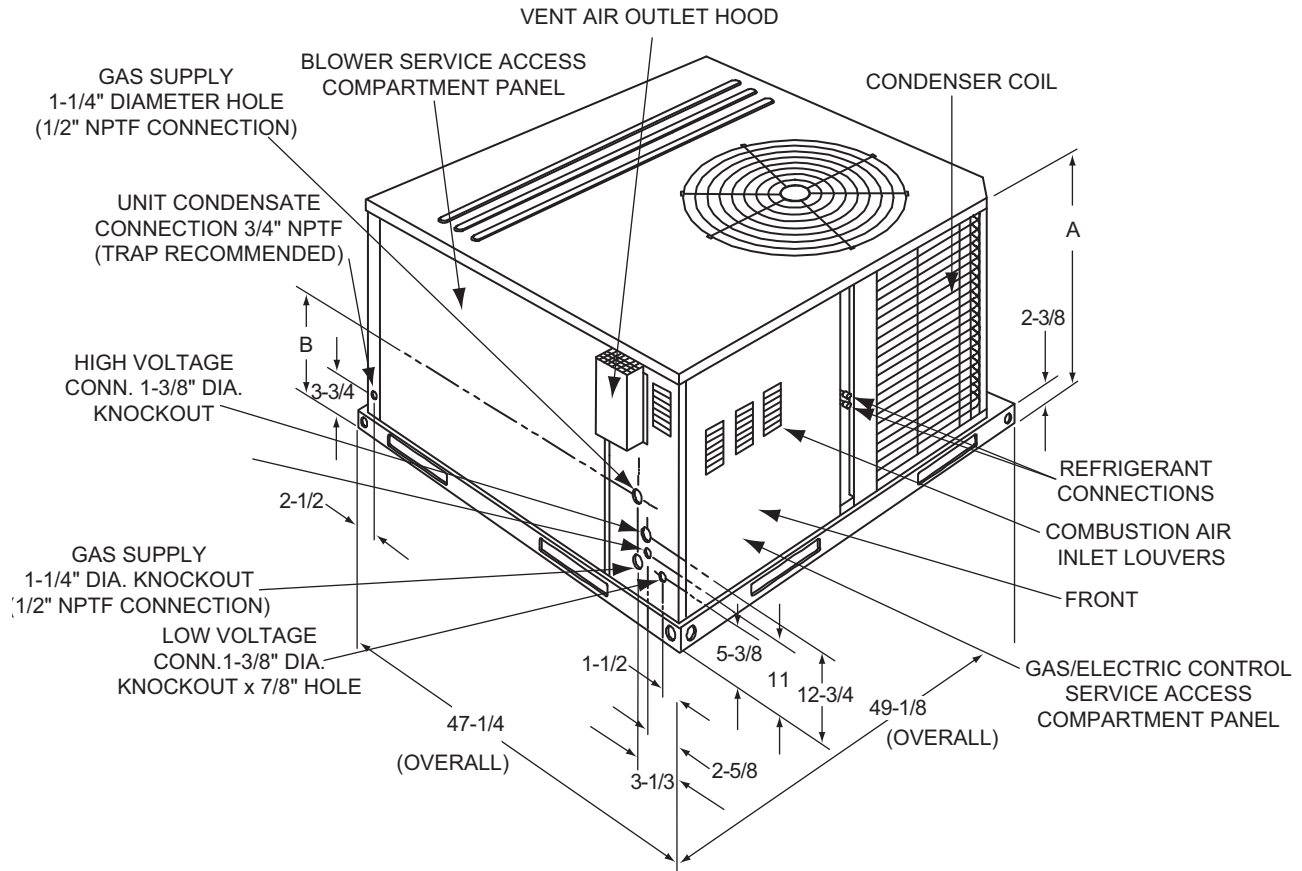
### DNX Unit Weights

#### Unit 4 Point Load Weight



Size (Tons)	Model	Weight (lbs.)		Center of Gravity		4 Point Load Location (lbs.)			
		Shipping	Operating	X	Y	A	B	C	D
024 (2.0)	DNX	445	440	20	24.5	127	93	93	127
036 (3.0)	DNX	485	480	20	24	136	98	103	143
048 (4.0)	DNX	505	500	20	24	142	102	107	149

**Gas Unit Dimensions**



**Gas Unit Dimensions**

Unit Size	Dimensions	
	"A"	"B"
024	33-1/2	18-1/4
036, 048	41-1/2	23-1/8

**Gas Unit Clearances<sup>1 2</sup>**

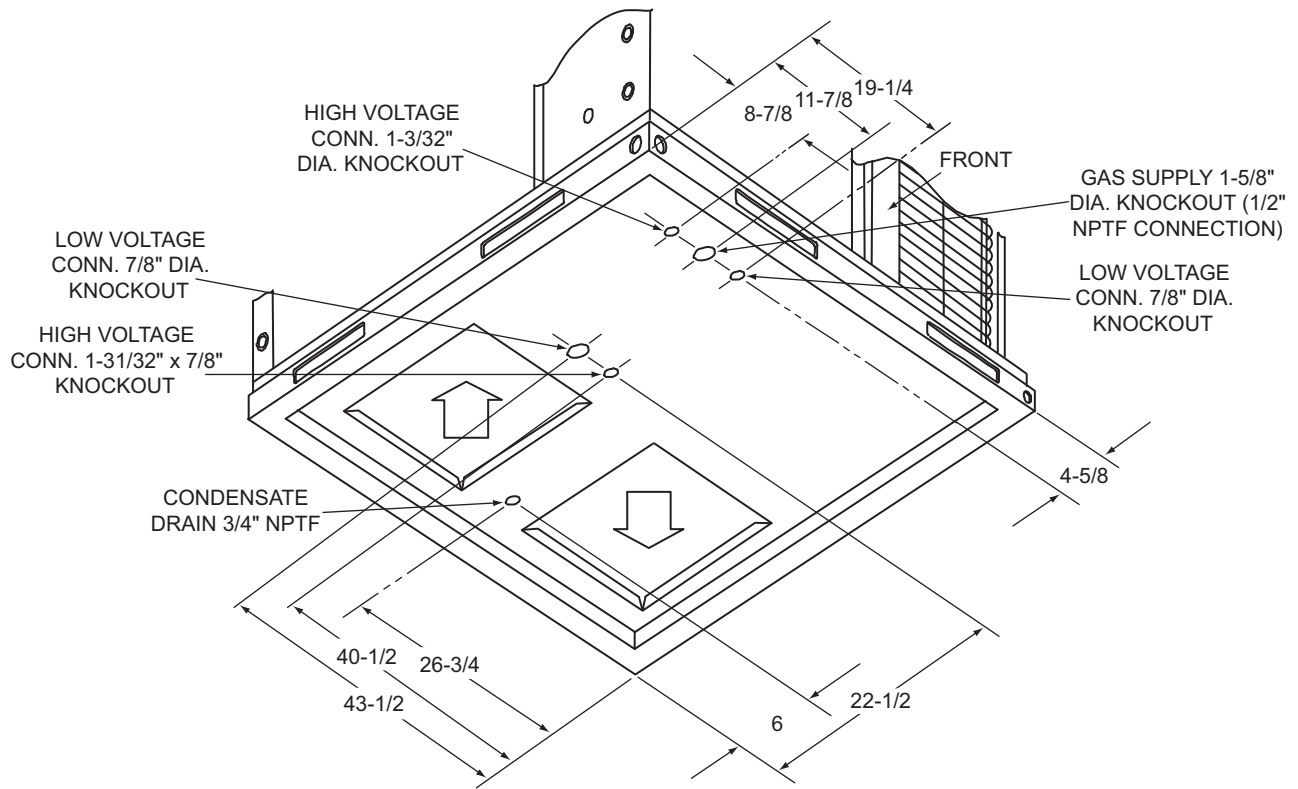
Direction	Distance (in.)	Direction	Distance (in.)
Top <sup>3</sup>	36	Right	12
Front	36	Left	24
Rear	0	Bottom <sup>4</sup>	0

1. A 1" clearance must be provided between any combustible material and the supply air duct work.
2. The products of combustion must not be allowed to accumulate within a confined space and recirculate.
3. Units must be installed outdoors. Over hanging structure or shrubs should not obscure condenser air discharge outlet.
4. Units may be installed on combustible floors made from wood or class A, B or C roof covering materials.

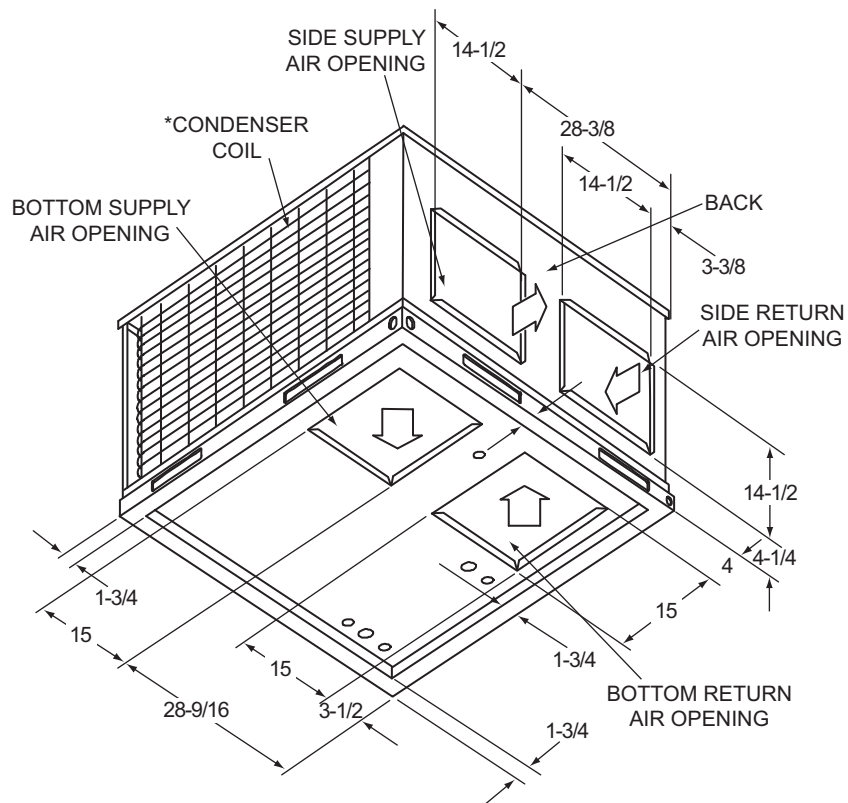
**Unit Accessory Weights**

Unit Accessory	Model	Weight (lbs.)	
		Shipping	Operating
Add Economizer	All	45	40

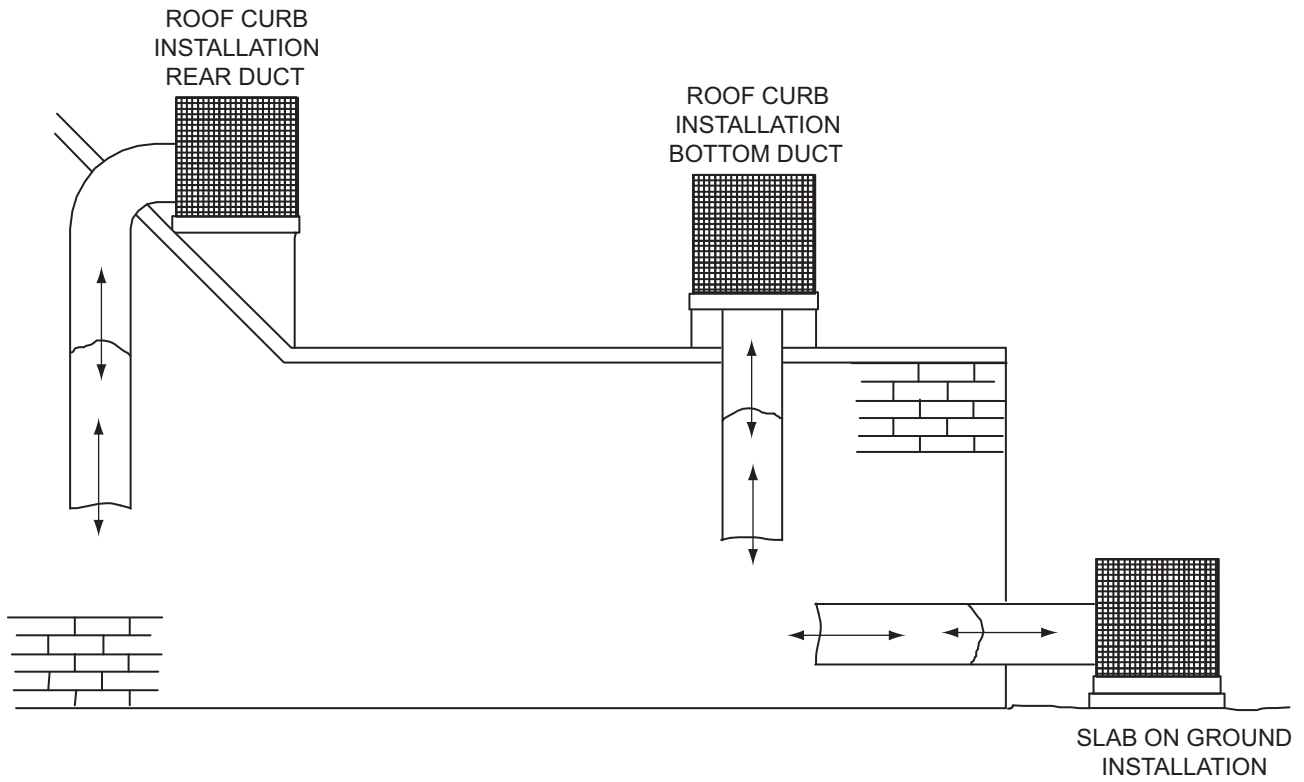
**Unit Dimensions Front and Bottom**



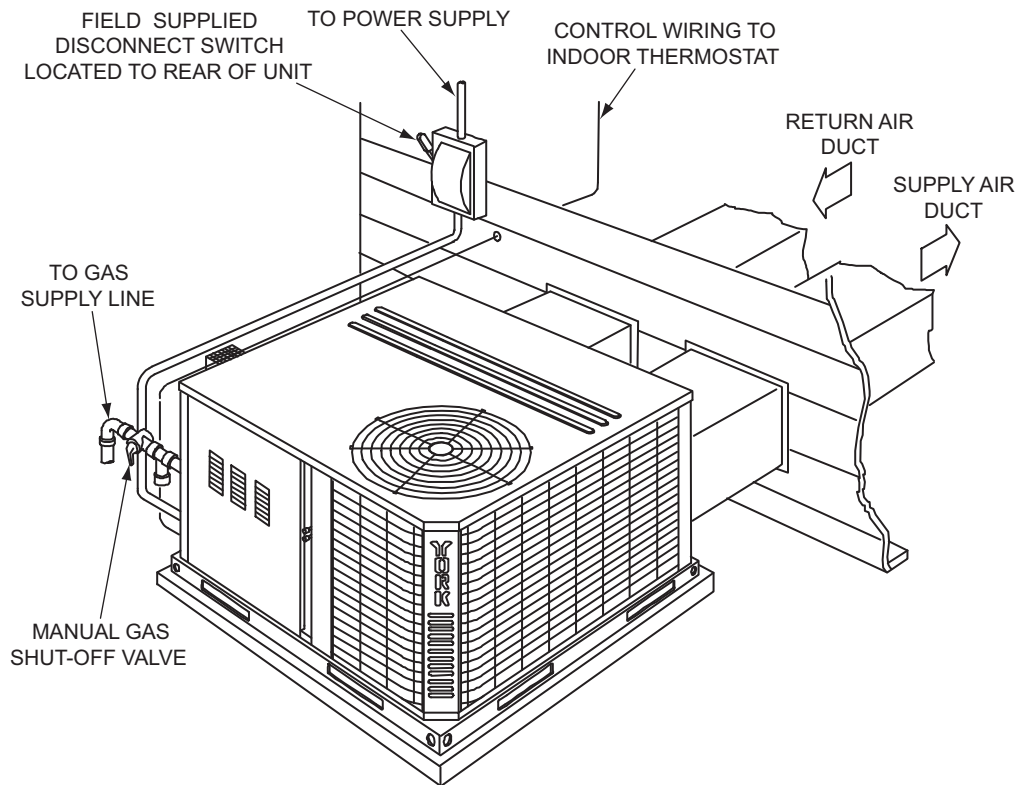
**Unit Dimensions Back and Bottom**



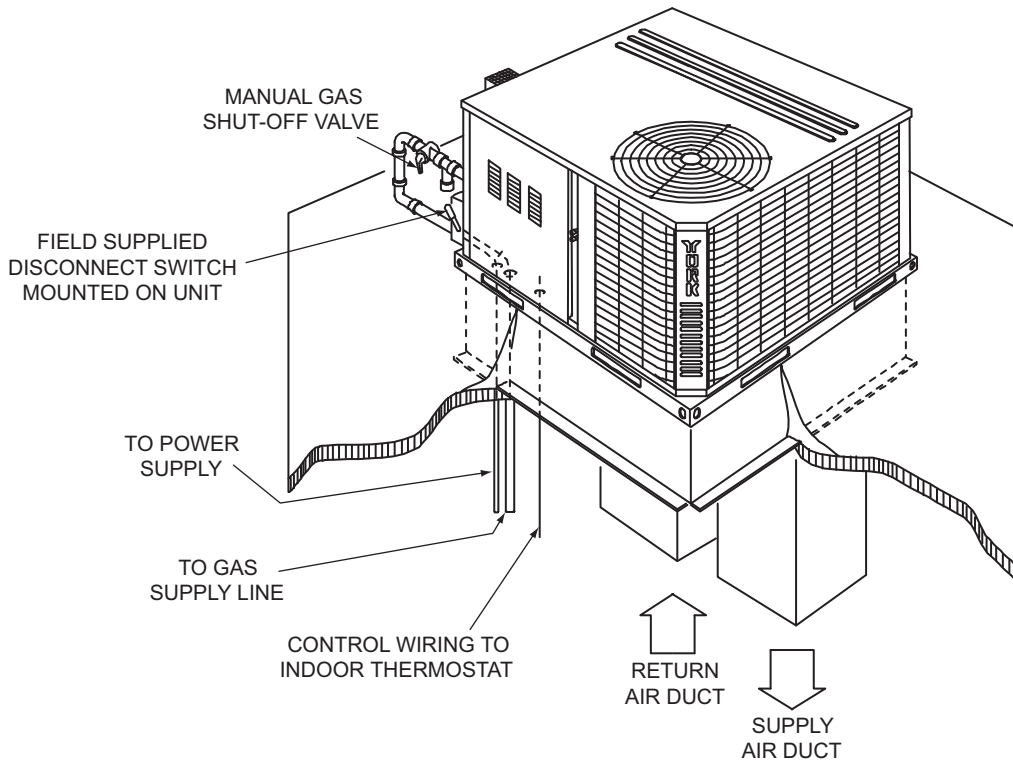
**Unit Typical Duct Applications**



**Unit Typical Slab on Ground Installation (Gas Model Shown)**

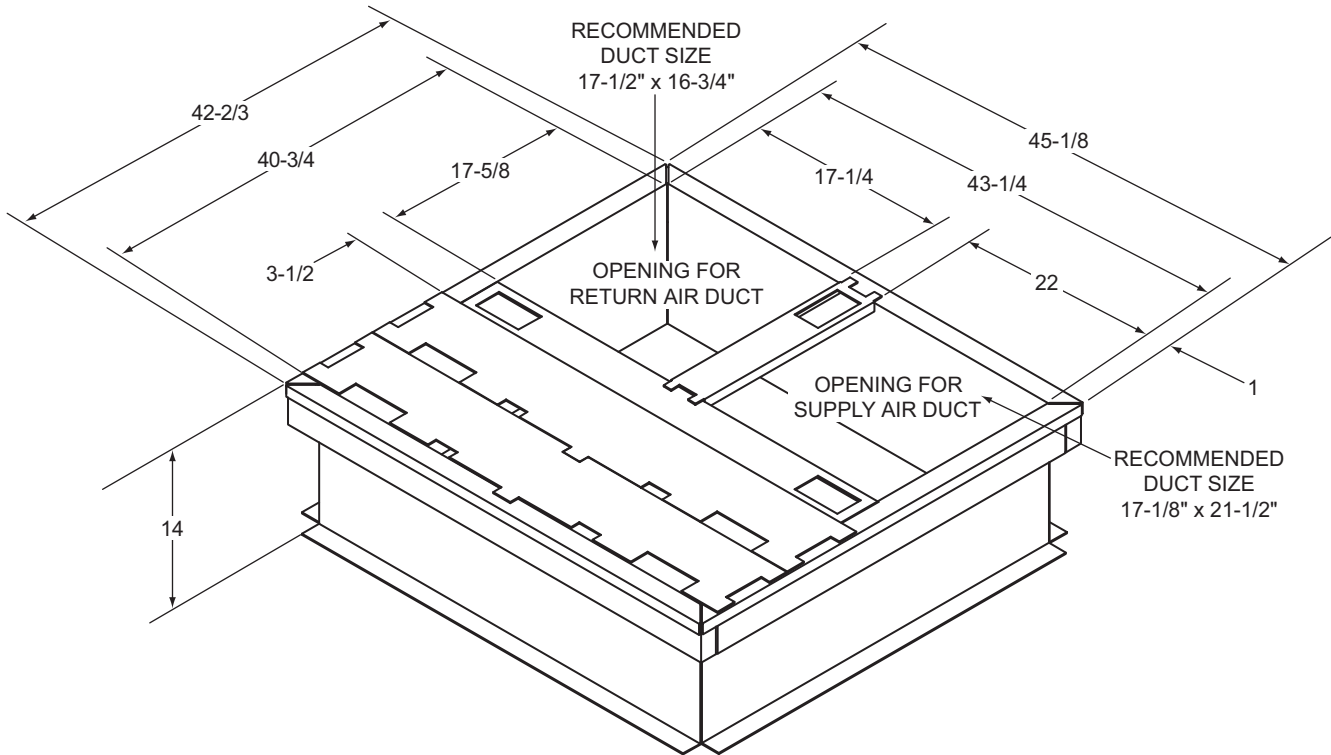


**Unit Typical Roof Curb Installation (Gas Model Shown)**

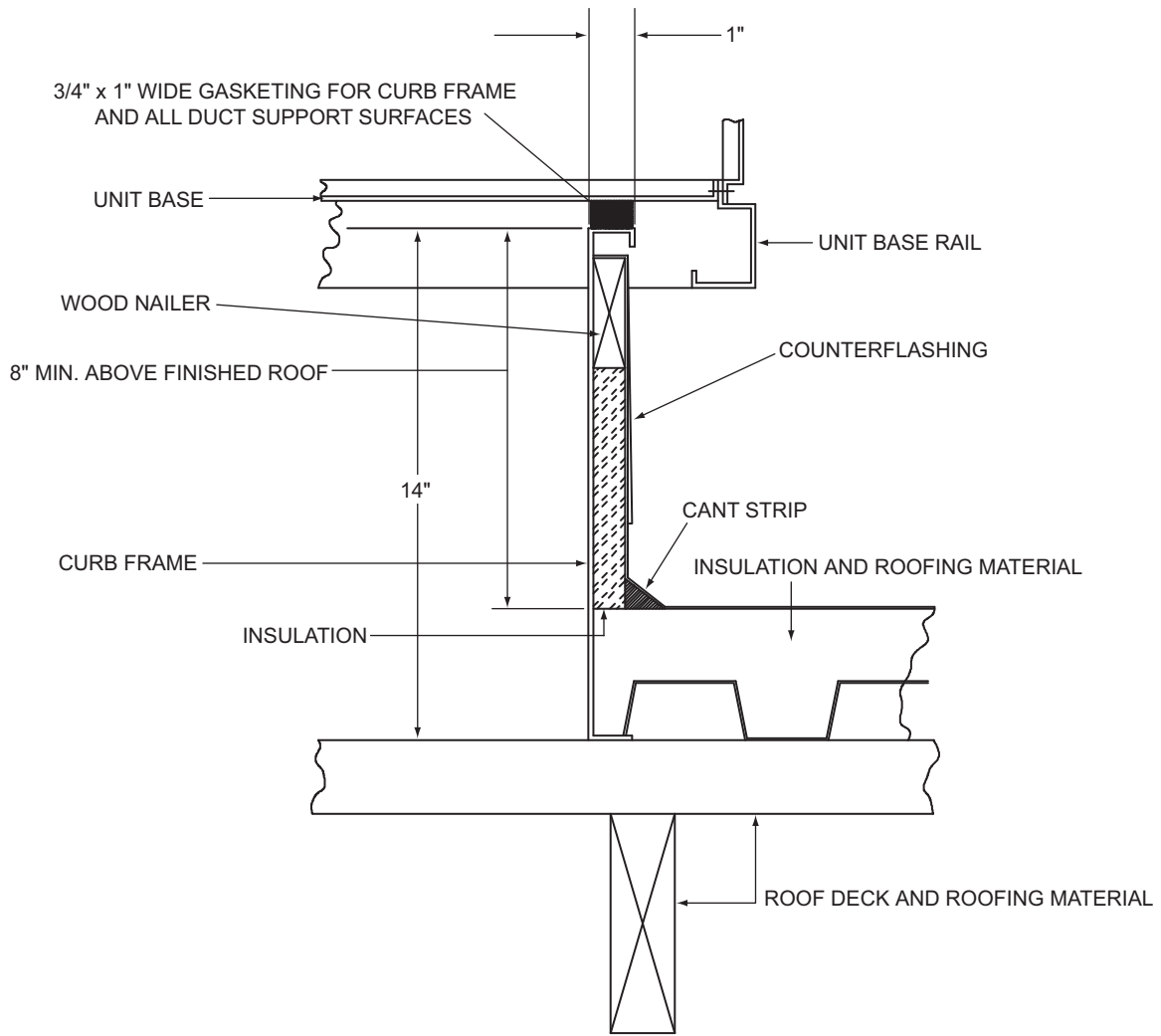


**Unit Accessory Dimensions**

**Roof Curb<sup>1</sup>**



1. 8" Roof Curb also available.

**Roof Curb Cross Section**

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