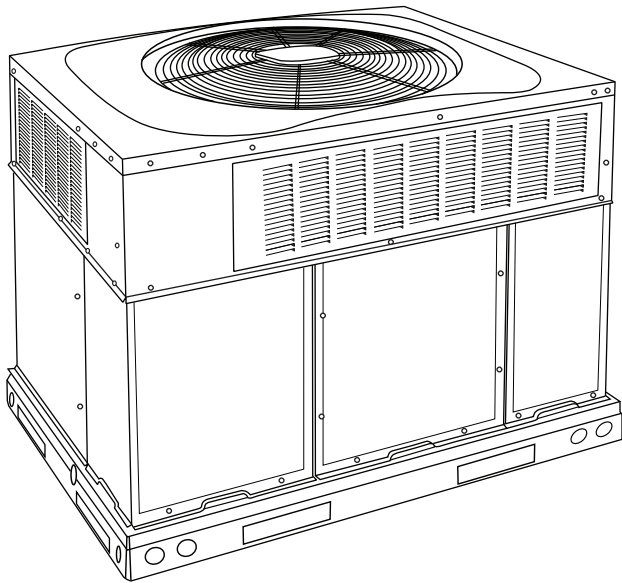


**48VG – A and 48VG – E
Performance™ 16 SEER 2–Stage Packaged Air
Conditioner and Gas Furnace System with Puron®
(R–410A) Refrigerant
Single and Three Phase
2 to 5 Nominal Tons (Sizes 24–60)**



Product Data



A09033

Fig. 1 - Unit 48VG

Single-Packaged Products with Energy-Saving Features and Puron® refrigerant.

- 15.0 to 16.0 SEER
- 12.0 - 12.5 EER
- 81% AFUE (Single phase models)
- Meets Energy Star requirements
- Direct Spark Ignition
- Factory-Installed TXV
- Multi-speed ECM Blower Motor-Standard
- Sound Levels as low as 72dBA
- Two Stage Cooling
- Two Stage Heating (208/230 VAC models)
- Dehumidification Feature
- Cabinet air leakage of 2.0% or less at .5 in. W.C. when tested in accordance with ASHRAE standard 193. (Low leak FIOP models only.)

FEATURES/BENEFITS

One-piece heating and cooling units with low sound levels, easy installation, low maintenance, and dependable performance.

Puron Refrigerant is Carrier's unique refrigerant designed to help protect the environment. Puron is an HFC refrigerant which does not contain chlorine that can harm the ozone layer. Puron refrigerant is in service in millions of systems proving highly reliable, environmentally sound performance.

Easy Installation

Factory-assembled package is a compact, fully self-contained, combination gas heating/electric cooling unit that is prewired, pre-piped, and pre-charged for minimum installation expense. These units are available in a variety of standard and optional heating/cooling size combinations with voltage options to meet residential and light commercial requirements. Units are lightweight and install easily on a rooftop or at ground level. The high tech composite base eliminates rust problems associated with ground level applications.

Innovative Unit Base Design

On the inside a high-tech composite material will not rust and incorporates a sloped drain pan which improves drainage and helps inhibit mold, algae and bacterial growth. On the outside metal base rails provide added stability as well as easier handling and rigging.

Convertible duct configuration

Unit is designed for use in either downflow or horizontal applications. Each unit is converted from horizontal to downflow and includes two horizontal duct covers. Downflow operation is provided in the field to allow vertical ductwork connections. The basepan seals on the bottom openings to ensure a positive seal in the vertical airflow mode.

Efficient operation

High-efficiency design offers SEER (Seasonal Energy Efficiency Ratios) of 15.0 to 16.0, 12.0 to 12.5 EER, and AFUE (Annual Fuel Utilization Efficiency) ratings as high as 81%.

Energy-saving, direct spark ignition saves gas by operating only when the room thermostat calls for heating. Standard units are furnished with natural gas controls. A low-cost field installed kit for propane conversion is available for all units.

Low NOx units are designed for California installations and meet 40 ng/J NOx emissions. Can be installed in air quality management districts with a 40 ng/J NOx emissions requirement.

Durable, dependable components

Compressors have two stages of cooling and are designed for high efficiency. Each compressor is hermetically sealed against contamination to help promote longer life and dependable operation. Each compressor also has vibration isolation to provide quieter operation. All compressors have internal high pressure and overcurrent protection.

Monoport inshot burners produce precise air-to-gas mixture, which provides for clean and efficient combustion. The large monoport on the inshot (or injection type) burners seldom, if ever, requires cleaning. All gas furnace components are accessible in one compartment.

Turbo-tubular™ heat exchangers are constructed of aluminized steel for corrosion resistance and optimum heat transfer for improved efficiency. The tubular design permits hot gases to make multiple passes across the path of the supply air.

In addition, dimples located on the heat exchanger walls force the hot gases to stay in close contact with the walls, improving heat transfer.

Stainless steel heat exchanger available as factory installed option.

Multi-speed ECM Blower Motor is standard on all models.

High Efficiency 2-Speed Inducer Motor on single phase models.

Direct-drive PSC (Permanent Split Capacitor) condenser-fan motors are designed to help reduce energy consumption and provide for cooling operation down to 40°F (4.4°C) outdoor temperature. Motormaster® II low ambient kit is available as a field-installed accessory.

Thermostatic Expansion Valve - A hard shutoff, balance port TXV maintains a constant superheat at the evaporator exit (cooling cycle) resulting in higher overall system efficiency.

Refrigerant system is designed to provide dependability. Liquid filter driers are used to promote clean, unrestricted operation. Each unit leaves the factory with a full refrigerant charge. Refrigerant service connections make checking operating pressures easier.

High and Low Pressure Switches provide added reliability for the compressor.

Indoor and Outdoor coils are computer-designed for optimum heat transfer and efficiency. The indoor coil is fabricated from copper tube and aluminum fins and is located inside the unit for protection against damage. The outdoor coil is internally mounted on the top tier of the unit.

Low sound ratings ensure a quiet indoor and outdoor environment with sound ratings as low as 72dBA.

Dehumidification Feature

This unit has independent fan speeds for low stage cooling and high stage cooling. In addition, 208/230 VAC models have the field-selectable capability to run an enhanced dehumidification ('DHUM') speed on high stage cooling (as low as 320CFM per ton). Coupled with the improved dehumidification associated with low stage cooling, the DHUM speed allows for a complete dehumidification solution independent of cooling stage. 208/230 VAC models also have independent fan speeds for low stage gas heating and high stage gas heating. The dehumidification control must open the control circuit on humidity rise above the dehumidification set point.

Heating

- Reliable direct spark ignition system
- Inducer motors with ball bearings
- Low stage heating delivers 65% of high-stage capacity (208/230 VAC models)

Easy to service cabinets provide easy 3-panel accessibility to serviceable components during maintenance and installation. The basepan with integrated drain pan provides easy ground level installation with mounting pad. A nesting feature ensures a positive basepan to roof curb seal when the unit is roof mounted. A convenient 3/4-in. (19.05 mm) wide perimeter flange makes frame mounting on a rooftop easy.

Standard horizontal metal duct covers with insulation come with the unit and cover the horizontal duct openings. These can be left in place if the units are converted to downflow.

Integrated Gas Control (IGC) board provides safe and efficient control of heating and simplifies trouble-shooting through its built-in diagnostic function.

Cabinets are constructed of heavyduty, phosphated, zinc-coated prepainted steel capable of withstanding 500 hours in salt spray. Interior surfaces of the evaporator/heat exchanger compartment are insulated with foil-faced insulation, which keeps the conditioned air from being affected by the outdoor ambient temperature and provides improved indoor air quality. (Conforms to American Society of Heating, Refrigeration and Air Conditioning Engineers 62.2.) The sloped drain pan minimizes standing water in the drain. An external drain is provided.

Louvered grille provides hail and vandalism protection for the coil.

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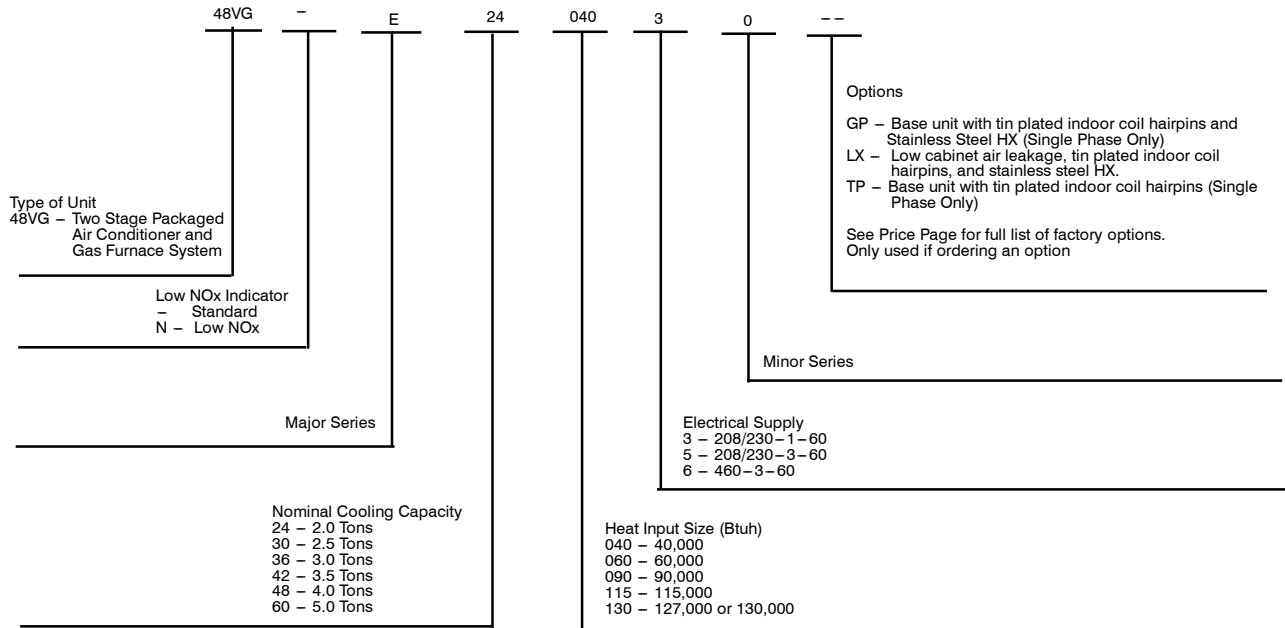
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MODEL NUMBER NOMENCLATURE



48VG



For California Residents:

For installation in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 14ng/J NOx emission limit, and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.

AHRI* CAPACITIES

Cooling Capacities and Efficiencies

Unit Size	Nominal Tons	Standard CFM (High / Low Stage)	Net Cooling Capacities - Btuh (High Stage)	EER @A**	SEER†
24	2	800 / 600	23000	12.0	15.0
30	2-1/2	1000 / 750	29000	12.0	15.0
36	3	1200 / 900	35400	12.5	16.0
42	3-1/2	1400 / 1050	42000	12.5	16.0
48	4	1600 / 1200	47500	12.3	16.0
60	5	1750 / 1200	57000	12.3	16.0

LEGEND

dB—Sound Levels (decibels)

db—Dry Bulb

SEER—Seasonal Energy Efficiency Ratio

wb—Wet Bulb

COP—Coefficient of Performance

* Air Conditioning, Heating & Refrigeration Institute.

**At "A" conditions—80°F (26.7°C) indoor db/67°F (19.4°C) indoor wb & 95°F (35°C) outdoor db.

† Rated in accordance with U.S. Government DOE Department of Energy test procedures and/or AHRI Standards 210/240.

Notes:

1. Ratings are net values, reflecting the effects of circulating fan heat. Ratings are based on:

Cooling Standard: 80°F (26.7°C) db, 67°F wb (19.4°C) indoor entering—air temperature and 95°F db (35°C) outdoor entering—air temperature.

2. Before purchasing this appliance, read important energy cost and efficiency information available from AHRI directory.org.

**Heating Capacities and Efficiencies
208/230 VAC Models Single Phase**

UNIT SIZE	HEATING INPUT (BTUH) HIGH/LOW	OUTPUT CAPACITY (BTUH) HIGH / LOW	TEMPERATURE RISE RANGE HIGH °F (°C)	TEMPERATURE RISE RANGE LOW °F (°C)	AFUE (%)
24040 30040	40,000 / 26,000	33,000 / 22,000	25-55 (14-31)	25-55 (14-31)	81.0
24060 30060 36060 42060	60,000 / 39,000	49,000 / 32,000	25-55 (14-31)	25-55 (14-31)	81.0
36090 42090 48090 60090	90,000 / 58,500	74,000 / 48,000	35-65 (19-36)	35-65 (19-36)	81.0
48115 60115	115,000 / 75,000	94,000 / 62,000	30-60 (17-33)	30-60 (17-33)	81.0
48130 60130	127,000 / 84,500	104,000 / 70,000	35-65 (19-36)	35-65 (19-36)	81.0

LEGEND

AFUE – Annual Fuel Utilization Efficiency

NOTE: Before purchasing this appliance, read important energy cost and efficiency information available from AHRIdirectory.org.

208/230 VAC Models 3-Phase

UNIT SIZE	HEATING INPUT (BTUH) HIGH/LOW	OUTPUT CAPACITY (BTUH) HIGH / LOW	TEMPERATURE RISE RANGE HIGH °F (°C)	TEMPERATURE RISE RANGE LOW °F (°C)	AFUE (%)
24040 30040	40,000 / 26,000	32,000 / 21,000	20-50 (11-28)	15-45 (8-25)	78.0
24060 30060 36060 42060	60,000 / 39,000	49,000 / 31,000	25-55 (14-31)	25-55 (14-31)	78.6
36090 42090 48090 60090	90,000 / 58,500	74,000 / 47,000	35-65 (19-36)	35-65 (19-36)	79.2
48115 60115	115,000 / 75,000	93,000 / 61,000	30-60 (17-33)	30-60 (17-33)	80.1
48130 60130	130,000 / 84,500	103,000 / 68,000	35-65 (19-36)	35-65 (19-36)	80.0

LEGEND

AFUE – Annual Fuel Utilization Efficiency

NOTE: Before purchasing this appliance, read important energy cost and efficiency information available from AHRIdirectory.org.

460V Models

UNIT SIZE	HEATING INPUT (Btuh)	OUTPUT CAPACITY (Btuh)	TEMPERATURE RISE RANGE °F (°C)	AFUE (%)
36060 42060	60,000	47,000 47,000	25-55 (13.9-30.6)	78.5 78.5
36090 42090 48090 60090	90,000	73,000	35-65 (19.4-36.1)	80.4
48115 60115	115,000	93,000	30-60 (16.7-33.3)	80.3
48130 60130	130,000	103,000	35-65 (19.4-36.1)	78.9

LEGEND

AFUE—Annual Fuel Utilization Efficiency

NOTE: Before purchasing this appliance, read important energy cost and efficiency information available from AHRIdirectory.org.

48VCG

A-Weighted Sound Power Level (dBA)

Unit Size	Sound Ratings (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
24	73	60.0	62.5	68.5	68.5	64.0	60.0	53.0
30	77	57.5	67.0	73.5	72.0	67.0	61.0	52.5
36	73	62.5	65.5	67.5	68.0	65.5	60.0	52.5
42	73	60.5	63.5	68.0	68.0	66.0	60.5	53.0
48	72	60.0	63.5	66.0	67.0	63.5	58.5	49.5
60	75	69.0	67.0	69.0	68.0	65.0	61.5	54.0

NOTE: Tested in accordance with AHRI Standard 270–1995 (not listed in AHRI).

PHYSICAL DATA

UNIT SIZE	24040	24060	30040	30060	36060	36090	42060	42090
NOMINAL CAPACITY (ton)	2	2	2–1/2	2–1/2	3	3	3–1/2	3–1/2
SHIPPING WEIGHT** lb.	352	352	359	359	455	455	455	455
SHIPPING WEIGHT** (kg)	160	160	163	163	206	206	206	206
COMPRESSORS	2–Stage Scroll							
Quantity	1							
REFRIGERANT (R–410A)								
Quantity lb.	6.4	6.4	8.3	8.3	8.1	8.1	8.7	8.7
Quantity (kg)	2.9	2.9	3.8	3.8	3.7	3.7	3.9	3.9
REFRIGERANT METERING DEVICE	TXV							
OUTDOOR COIL								
Rows...Fins/in.	1..21	1...21	2...21	2...21	2...21	2...21	2...21	2...21
Face Area (sq ft)	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
OUTDOOR FAN								
Nominal CFM	2500	2500	2700	2700	3000	3000	3000	3000
Diameter in.	24	24	24	24	26	26	26	26
Diameter (mm)	609.6	609.6	609.6	609.6	600.4	600.4	660.4	660.4
Motor Hp (Rpm)	1/10 (810)	1/10 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)
INDOOR COIL								
Rows...Fins/in.	3...17	3...17	3...17	3...17	3...17	3...17	3...17	3...17
Face Area (sq ft)	3.7	3.7	3.7	3.7	4.7	4.7	4.7	4.7
INDOOR BLOWER								
Nominal Low Stage Cooling Airflow (Cfm)	600	600	750	750	900	900	1050	1050
Nominal High Stage Cooling Airflow (Cfm)	800	800	1000	1000	1200	1200	1400	1400
Size in.	10x10	10x10	10x10	10x10	11x10	11x10	11x10	11x10
Size (mm.)	254x254	254x254	254x254	254x254	279.4x254	279.4x254	279.4x254	279.4x254
Motor HP (RPM)	1/2 (1050)	1/2 (1050)	1/2 (1050)	1/2 (1050)	3/4 (1000)	3/4 (1000)	3/4 (1075)	3/4 (1075)
FURNACE SECTION*								
Burner Orifice No. (Qty...Drill Size)	2...44	3...44	2...44	3...44	208/230 VAC Models 3...44	3...38	208/230 VAC Models 3...44	3...38
Natural Gas (Factory Installed)	2...55	3...55	2...55	3...55	3...55	3...53	3...55	3...53
Propane Gas					460 VAC Models 2...38 2...53		460 VAC Models 2...38 2...53	
HIGH-PRESSURE SWITCH (psig) Cut-out Reset (Auto)	650 +/- 15 420 +/- 25							
LOSS-OF-CHARGE / LOW-PRESSURE SWITCH (psig) cut-out Reset (auto)	50 +/- 7 95 +/- 7							
DUCT RETURN–AIR FILTERS†‡								
Throwaway Size in. (mm)	20x20x1 508x508x25	20x24x1 508x610x25			24x30x1 610x762x25			

*Based on altitude of 0 to 2000 ft (0–610 m).

† Required filter sizes shown are based on the larger of the AHRI (Air Conditioning Heating and Refrigeration Institute) rated cooling airflow or the heating airflow velocity of 300 ft/minute for throwaway type. Air filter pressure drop for non–standard filters must not exceed 0.08 IN. W.C.

‡ If using accessory filter rack refer to the filter rack installation instructions for correct filter sizes and quantity.

48VG

PHYSICAL DATA (CONT)

UNIT SIZE	48090	48115	48130	60090	60115	60130
NOMINAL CAPACITY (ton)	4	4	4	5	5	5
SHIPPING WEIGHT lb	500	500	500	520	520	520
SHIPPING WEIGHT kg	227	227	227	236	236	236
COMPRESSORS	2-Stage Scroll					
Quantity	1					
REFRIGERANT (R-410A)						
Quantity lb	10.8	10.8	10.8	12.1	12.1	12.1
Quantity (kg.)	4.9	4.9	4.9	5.5	5.5	5.5
REFRIGERANT METERING DEVICE	TXV					
OUTDOOR COIL						
Rows...Fins/in.	2...21	2...21	2...21	2...21	2...21	2...21
Face Area (sq ft)	19.4	19.4	19.4	21.4	21.4	21.4
OUTDOOR FAN						
Nominal Cfm	3300	3300	3300	3600	3600	3600
Diameter in.	26	26	26	26	26	26
Diameter (mm)	660.4	660.4	660.4	660.4	660.4	660.4
Motor Hp (Rpm)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)
INDOOR COIL						
Rows...Fins/in.	3...17	3...17	3...17	3...17	3...17	3...17
Face Area (sq ft)	5.7	5.7	5.7	5.7	5.7	5.7
INDOOR BLOWER						
Nominal Low Stage Cooling Airflow (Cfm)	1200	1200	1200	1200	1200	1200
Nominal High Stage Cooling Airflow (Cfm)	1600	1600	1600	1750	1750	1750
Size in.	11x10	11x10	11x10	11x10	11x10	11x10
Size (mm)	279.4x254	279.4x254	279.4x254	279.4x254	279.4x254	279.4x254
Motor HP (RPM)	1.0 (1075)	1.0 (1075)	1.0 (1075)	1.0 (1075)	1.0 (1075)	1.0 (1075)
FURNACE SECTION*						
Burner Orifice No. (Qty...Drill Size)						
Natural Gas (Factory Installed)	3...38	3...33	3...31	3...38	3...33	3...31
Propane Gas	3...53	3...51	3...49	3...53	3...51	3...49
HIGH-PRESSURE SWITCH (psig) Cut-out Reset (Auto)	650 +/- 15 420 +/- 25					
LOSS-OF-CHARGE / LOW-PRESSURE SWITCH (psig) cut-out Reset (auto)	50 +/- 7 95 +/- 7					
DUCT RETURN-AIR FILTERS Throwaway†‡ in. (mm)	24x36x1 610x914x25					

*Based on altitude of 0 to 2000 ft (0-610 m).

† Required filter sizes shown are based on the larger of the AHRI (Air Conditioning Heating and Refrigeration Institute) rated cooling airflow or the heating airflow velocity of 300 ft/minute for throwaway type. Air filter pressure drop for non-standard filters must not exceed 0.08 IN. W.C.

‡ If using accessory filter rack refer to the filter rack installation instructions for correct filter sizes and quantity.

OPTIONS AND ACCESSORIES

ITEM	DESCRIPTION	FACTORY INSTALLED OPTION	FIELD INSTALLED ACCESSORY
Coil Options	Base unit with tin plated indoor coil hairpins	X	
Compressor Start Kit	Compressor Start Kit assists compressor start-up by providing additional starting torque on single phase units only.		X
Corporate Thermostats	Thermostats provide control for the system heating and cooling functions.		X
Crankcase Heater	Crankcase Heater provides anti-floodback protection for low-load cooling applications.		X*
Economizer	Vertical Economizer with Jade Honeywell W7220 Controller, Honeywell communicating actuator, and dry bulb sensor. (Contact MicroMetl Customer Service at 1-800-662-4822 to order.)		X
	Horizontal Economizer with Jade Honeywell W7220 Controller, Honeywell communicating actuator, and dry bulb sensor. (Contact MicroMetl Customer Service at 1-800-662-4822 to order.)		X
Filter Rack	Filter Rack features easy installation, serviceability, and high-filtering performance for vertical applications. Includes 1-in. filter.		X
Flat Roof Curb	14-in. (356 mm) Flat Roof Curb is available for roof mounted applications.		X
Flue Discharge Deflector	Directs flue gas exhaust 90 degrees upward from current discharge.		X
Heat Exchanger	Stainless Steel Heat Exchanger	X	
High Altitude Propane Conversion Kit	High Altitude Propane Conversion Kit is for use at 2001 to 6000 ft. (611 – 1829 m) above sea level. Kit consists of propane gas orifices that compensate for gas heat operation at high altitude.		X
Low Ambient Kit	Low Ambient Kit (Motormaster II Control) allows the use of mechanical cooling down to outdoor temperatures as low as 0°F (-18°C) when properly installed.		X
Manual Outside Air Damper	Manual Outside Air Damper includes hood and filter rack with adjustable damper blade for up to 25% outdoor air.		X
Natural to Propane Gas Conversion Kit	Natural to Propane Gas Conversion Kit allows for conversion from natural gas to propane gas (0–2000 ft) (0–610 m)		X
Propane to Natural Gas Conversion Kit	Propane to Natural Gas Conversion Kit allows for conversion from propane to natural gas for altitudes of 0–2000 ft (0–610 m)		X
Low Cabinet Air Leakage	Cabinet air leakage of 2.0% or less at .5 in. W.C. when tested in accordance with ASHRAE standard 193.	X	
Square-to-Round Duct Transition Kit	Square-to-Round Duct Transition Kit enable 24–48 size units to be fitted to 14 in. (356 mm) round ductwork.		X
Time Guard II	Automatically prevents the compressor from restarting for at least 4 minutes and 45 seconds after shutdown of the compressor. Not required when a corporate programmable thermostat is applied or with a RTU-MP control.		X

*Refer to Price Page for application detail.

48VG

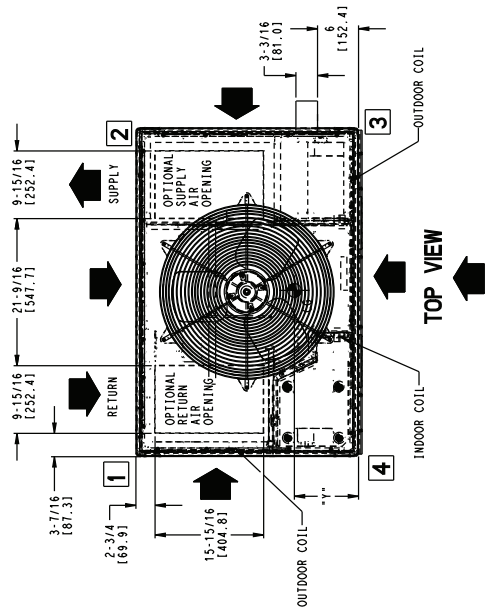
UNIT DIMENSIONS - 48VG 24-30

48VG

UNIT	ELECTRICAL CHARACTERISTICS	UNIT WT. LB	UNIT HEIGHT IN/MM	CENTER OF GRAVITY IN/MM		
				X	Y	Z
48VG1-/M1E24(040/060)30*	208/230-1-60	344	44-1/8 [1121]	22-13/16 [579.4]	15-5/16 [388.9]	15-13/16 [401.6]
48VG1-/M1E30(040/060)30*	208/230-1-60	351	44-1/8 [1121]	22-13/16 [579.4]	15-5/16 [388.9]	16-5/8 [422.3]
48VG1-/M1A30(040/060)50*	208/230-3-60	351	44-1/8 [1121]	22-13/16 [579.4]	15-5/16 [388.9]	16-5/8 [422.3]

UNIT	CORNER WEIGHT LB/KG			
	"1"	"2"	"3"	"4"
48VG1-/M1E24(040/060)30*	208/230 87.9	39.9	77.6	35.2
48VG1-/M1E30(040/060)30*	208/230 89.7	40.7	79.0	35.8
48VG1-/M1A30(040/060)50*	208/230 89.7	40.7	79.0	35.8

NOTE: 1. ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT ECONOMIZER.
2. * - INDICATES ALL TOP CODES FOR THE MODELS LISTED.



REQUIRED CLEARANCES TO COMBUSTIBLE MATL.

TOP OF UNIT..... 14 [355.6] INCHES [MM]

DUCT SIDE OF UNIT..... 2 [50.8]

SIDE OPPOSITE DUCTS..... 14 [355.6]

BOTTOM OF UNIT..... 1/2 [12.7]

FLUE PANEL..... 36 [914.4]

NEC REQUIRED CLEARANCES.

BETWEEN UNITS, POWER ENTRY SIDE..... 42 [1066.8] INCHES [MM]

UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE..... 42 [1066.8]

UNIT AND UNGROUNDED SURFACES, OTHER SIDE..... 36 [914.4]

GROUNDED SURFACES, POWER ENTRY SIDE..... 42 [1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICING

EVAP. COIL ACCESS SIDE..... 36 [914.4] INCHES [MM]

POWER ENTRY SIDE..... 42 [1066.8]

(EXCEPT FOR NEC REQUIREMENTS)

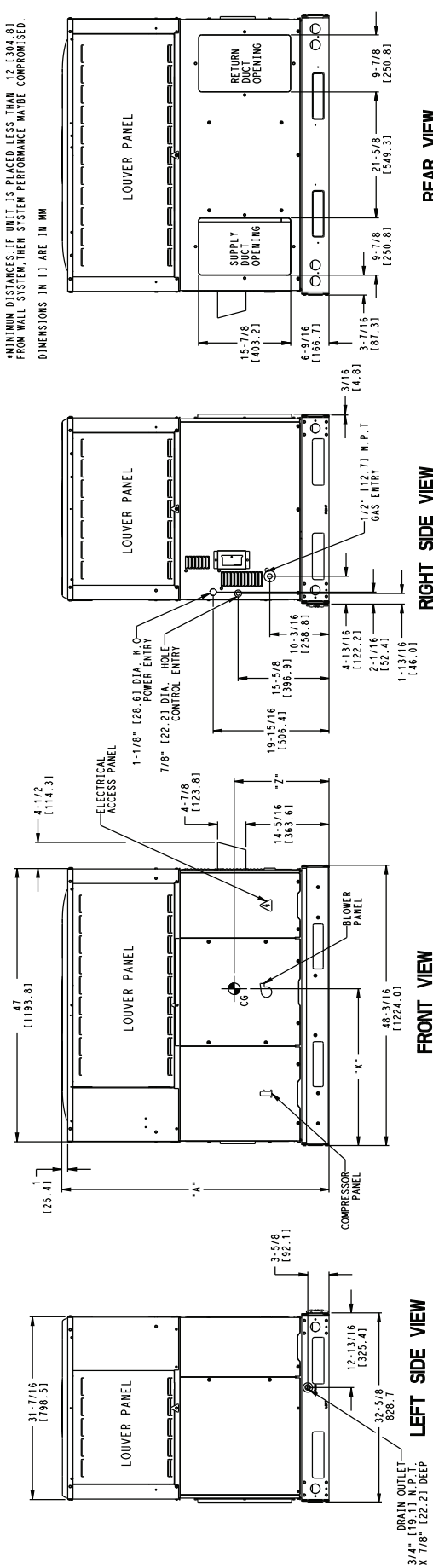
UNIT TOP..... 48 [1219.2]

SIDE OPPOSITE DUCTS..... 36 [914.4]

DUCT PANEL..... 12 [304.8]

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 [304.8] FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.

DIMENSIONS IN () ARE IN MM



344823-4

UNIT DIMENSIONS - 48VG 36-60

REQUIRED CLEARANCES TO COMBUSTIBLE INTL.

TOP OF UNIT.....	12 (304.8)
SIDE OF UNIT.....	12 (304.8)
SIDE OPPOSITE DUCTS.....	14 (355.6)
BOTTOM OF UNIT.....	1/2 (12.7)
FLUE PANEL.....	36 (914.4)

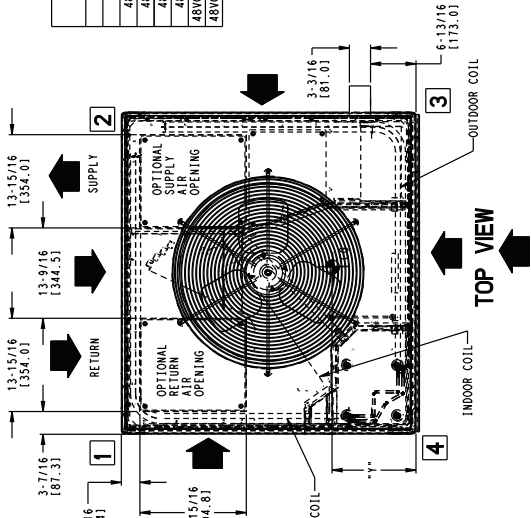
REQ. REQUIRED CLEARANCES

BETWEEN UNITS, POWER ENTRY SIDE.....	11 (279.4)
UNIT AND UNGROUND SURFACES, POWER ENTRY SIDE.....	34 (863.6)
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUND SURFACES, POWER ENTRY SIDE.....	42 (1066.8)

REQUIRED CLEARANCE FOR OPERATION AND SERVICE

EVAP. COIL ACCESS SIDE.....	36 (914.0)
(EXCEPT FOR SIDE REQUIREMENTS).....	42 (1066.8)
UNIT TOP.....	48 (1219.2)
SIDE OPPOSITE DUCTS.....	36 (914.0)
DUCT PANEL.....	12 (304.8)

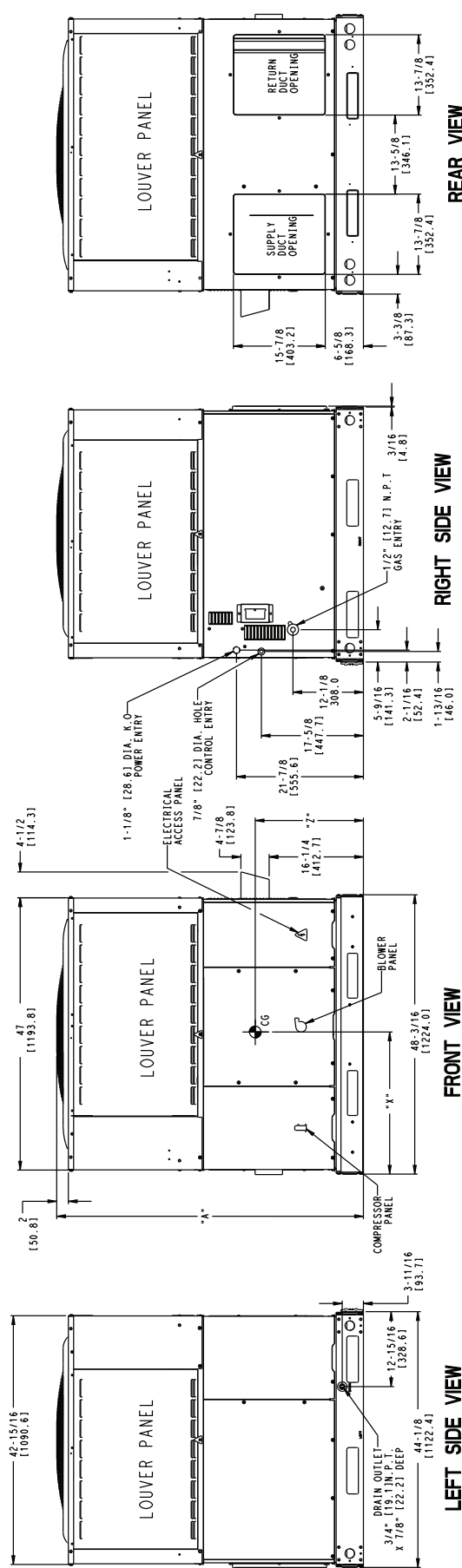
*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 (304.8) FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.
DIMENSIONS IN () ARE IN MM



UNIT	ELECTRICAL CHARACTERISTICS	UNIT WT.		UNIT HEIGHT IN/MM		CENTER OF GRAVITY IN/MM					
		LB	KG	"A"	"B"	X	Y	Z			
48VG/-/N1E36(080/090)30*	208/230-1-60	447	202.8	44-3/4	1137	22-13/16	579.4	18	457.2	17-1/8	435.0
48VG/-/N1E42(060/090)30*	208/230-1-60	447	202.8	44-3/4	1137	22-13/16	579.4	18	457.2	17-1/8	435.0
48VG/-/N1E48(090/115/130)30*	208/230-1-60	492	223.2	50-3/4	1289	22-13/16	579.4	18	457.2	17-3/8	441.3
48VG/-/N1E60(080/115/130)30*	208/230-1-60	512	232.2	52-3/4	1340	22-13/16	579.4	18	457.2	17-5/8	447.7
48VG/-/N1A36(080/090)15(6)0*	208/230-3-60-460-3	447	202.8	44-3/4	1137	22-13/16	579.4	18	457.2	17-1/8	435.0
48VG/-/N1A42(080/090)15(6)0*	208/230-3-60-460-3	447	202.8	44-3/4	1137	22-13/16	579.4	18	457.2	17-1/8	435.0
48VG/-/N1A48(090/115/130)15(6)0*	208/230-3-60-460-3	492	223.2	50-3/4	1289	22-13/16	579.4	18	457.2	17-3/8	441.3
48VG/-/N1A60(090/115/130)15(6)0*	208/230-3-60-460-3	512	232.2	52-3/4	1340	22-13/16	579.4	18	457.2	17-5/8	447.7

UNIT	CORNER WEIGHT LB/KG		
	"1"	"2"	"3"
48VG/-/N1E36(080/090)30*	97.5	44.3	86.4
48VG/-/N1E42(060/090)30*	97.5	44.2	86.5
48VG/-/N1E48(090/115/130)30*	107.0	48.5	95.3
48VG/-/N1E60(080/115/130)30*	110.9	50.3	98.6
48VG/-/N1A36(080/090)15(6)0*	97.5	44.3	86.4
48VG/-/N1A42(080/090)15(6)0*	97.5	44.2	86.5
48VG/-/N1A48(090/115/130)15(6)0*	107.0	48.5	95.3
48VG/-/N1A60(090/115/130)15(6)0*	110.9	50.3	98.6

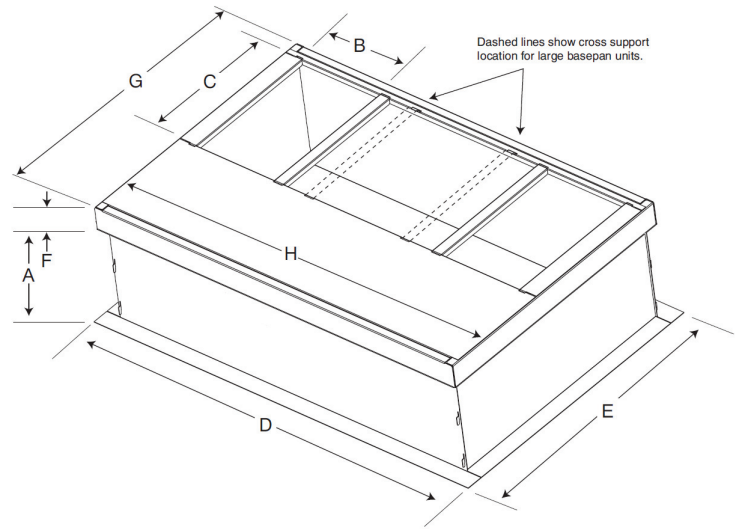
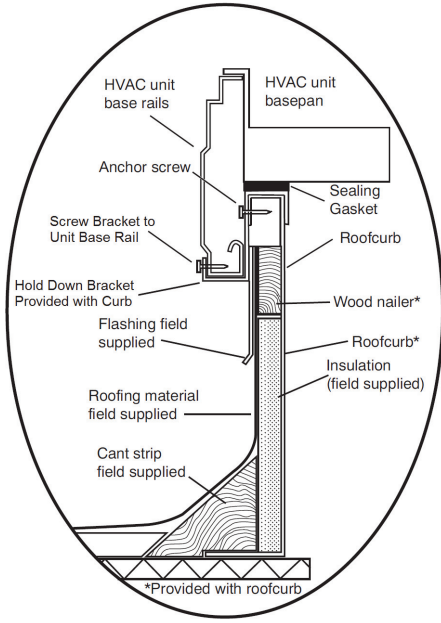
NOTE: 1. ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT ECONOMIZER.
2. * - INDICATES ALL FLOP COILS FOR THE MODELS LISTED.



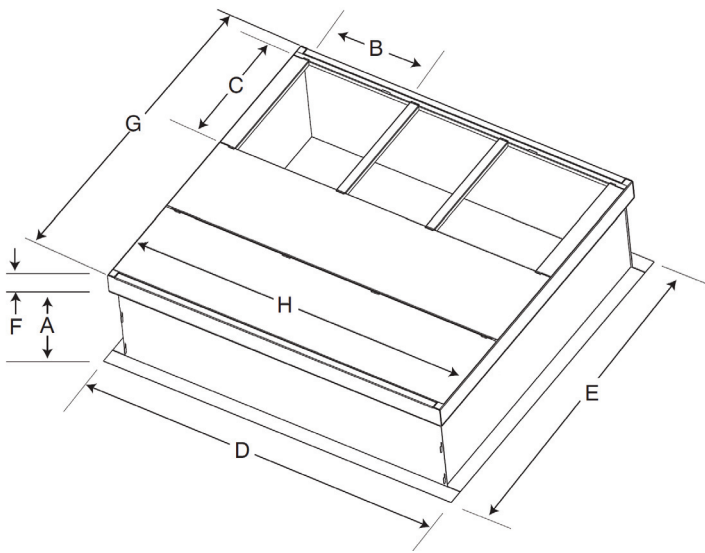
344825-4

48VG

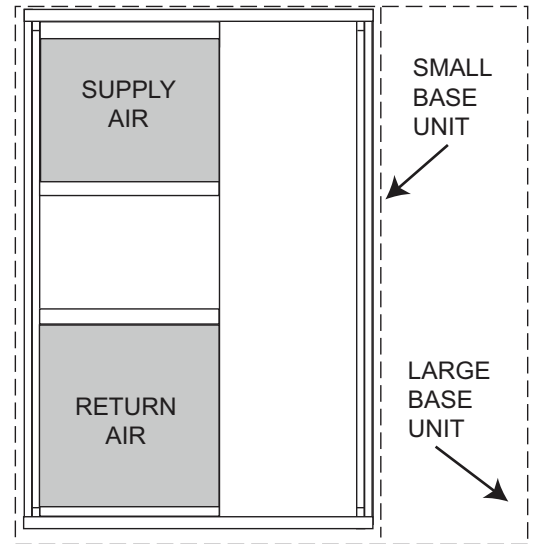
ACCESSORY DIMENSIONS



SMALL/COMMON CURB



LARGE CURB



UNIT PLACEMENT ON COMMON CURB

SMALL OR LARGE BASE UNIT

A180216

UNIT SIZE	CATALOG NUMBER	A IN. (mm)	B (small / common base) IN. (mm)*	B (large base) IN. (mm)*	C IN. (mm)	D IN. (mm)	E IN. (mm)	F IN. (mm)	G IN. (mm)	H IN. (mm)
Small or Large	CPRFCURB011B00	14 (356)	10 (254)	14 (356)	16 (406)	47.8 (1214)	32.4 (822)	2.7 (69)	30.6 (778)	46.1 (1170)
Large	CPRFCURB013B00	14 (356)	14 (356)				43.9 (1116)		42.2 (1072)	

* Part Number CPRFCURB011B00 can be used on both small and large basepan units. The cross supports must be located based on whether the unit is a small basepan or a large basepan.

NOTES:

1. Roof curb must be set up for unit being installed.
2. Seal strip must be applied, as required, to unit being installed.
3. Roof curb is made of 16-gauge steel.
4. Attach ductwork to curb (flanges of duct rest on curb).
5. Insulated panels: 1-in. (25.4 mm) thick fiberglass 1 lb. density.

SELECTION PROCEDURE (WITH EXAMPLE)

1. Determine cooling and heating requirements at design conditions:

Given:

Required Cooling Capacity (TC) 34,000 Btuh
Sensible Heat Capacity (SHC) 25,000 Btuh
Required Heating Capacity 60,000 Btuh
Condenser Entering Air Temperature 95°F (35°C)
Indoor-Air Temperature . 80°F (26°C)edb 67°F (19°C)ewb
Evaporator Air Quantity 1200 CFM
External Static Pressure 0.100 IN. W.C.
Electrical Characteristics 208-1-60

2. Select unit based on required cooling capacity.

Enter Net Cooling Capacities table at condenser entering temperature of 95°F (35°C). Unit 036 at 1200 cfm and 67°F (19°C) ewb (entering wet bulb) will provide a total capacity of 34,200 Btuh and a SHC of 27,400 Btuh. Calculate SHC correction, if required, using Note 4 under Cooling Capacities tables.

3. Select heating capacity of unit to provide design condition requirement.

In the Heating Capacities and Efficiencies table, note that the unit 036090 (208/230 VAC) will provide 74,000 Btuh with an input of 90,000 Btuh in high stage and will provide 48,000 Btuh of heating in low stage.

4. Determine fan speed and power requirements at design conditions.

Before entering the air delivery tables, calculate the total static pressure required. From the given example, the Wet Coil Pressure Drop Table, and the Filter Pressure Drop Table:

External Static Pressure	0.100 IN. W.C
Filter	0.07 IN. W.C
Wet Coil Pressure Drop	<u>0.180</u> IN. W.C
Total Static Pressure	0.287 IN. W.C

Enter the table for Dry Coil Air Delivery—Horizontal and Downflow Discharge. At .287 IN. W.C. ESP, the closest speed to 1200 CFM is Med-Hi (orange wire), which delivers 1267 CFM at .3 in ESP.

5. Select unit that corresponds to power source available.

The Electrical Data Table shows that the unit is designed to operate at 208-1-60.

48VG

PERFORMANCE DATA

024 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																							
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)								
		CFM	EWB °F (°C)	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW							
525	57 (13.8)	17.82	17.82	1.08	1.08	16.44	16.44	1.24	1.24	15.06	15.06	1.41	1.41	13.67	13.67	1.60	1.60	12.27	12.27	1.81	1.81	10.86	10.86	2.04	2.04
	62 (16.6)	18.21	16.78	1.07	1.07	16.66	15.16	1.24	1.24	15.11	15.05	1.41	1.41	13.69	13.69	1.60	1.60	12.28	12.28	1.81	1.81	10.88	10.88	2.04	2.04
	63* (17.2)	18.58	13.61	1.07	1.07	16.98	12.24	1.23	1.23	15.39	10.90	1.41	1.41	13.80	9.59	1.60	1.60	12.20	8.32	1.82	1.82	10.62	7.10	2.05	2.05
	67 (19.4)	19.95	14.13	1.04	1.04	18.24	12.71	1.21	1.21	16.54	11.34	1.39	1.39	14.83	10.00	1.58	1.58	13.13	8.69	1.80	1.80	11.44	7.44	2.03	2.03
	72 (22.2)	21.87	11.42	1.01	1.01	20.00	10.22	1.18	1.18	18.14	9.05	1.36	1.36	16.28	7.92	1.56	1.56	14.42	6.82	1.78	1.78	12.59	5.78	2.01	2.01
600	57 (13.8)	18.60	18.60	1.08	1.08	17.14	17.14	1.24	1.24	15.68	15.68	1.42	1.42	14.21	14.21	1.61	1.61	12.73	12.73	1.82	1.82	11.25	11.25	2.05	2.05
	62 (16.6)	18.65	18.61	1.08	1.08	17.17	17.17	1.24	1.24	15.71	15.71	1.42	1.42	14.23	14.23	1.61	1.61	12.75	12.75	1.82	1.82	11.27	11.27	2.05	2.05
	63* (17.2)	18.96	14.57	1.08	1.08	17.31	13.11	1.24	1.24	15.67	11.69	1.42	1.42	14.03	10.31	1.61	1.61	12.39	8.97	1.83	1.83	10.77	7.67	2.06	2.06
	67 (19.4)	20.34	15.15	1.05	1.05	18.58	13.66	1.22	1.22	16.82	12.20	1.40	1.40	15.06	10.77	1.60	1.60	13.31	9.39	1.81	1.81	11.59	8.05	2.04	2.04
	72 (22.2)	22.29	12.08	1.02	1.02	20.35	10.81	1.19	1.19	18.43	9.59	1.37	1.37	16.52	8.40	1.57	1.57	14.61	7.26	1.79	1.79	12.73	6.17	2.02	2.02
675	57 (13.8)	19.26	19.26	1.09	1.09	17.73	17.73	1.25	1.25	16.20	16.20	1.42	1.42	14.66	14.66	1.62	1.62	13.11	13.11	1.83	1.83	11.57	11.57	2.06	2.06
	62 (16.6)	19.29	19.29	1.09	1.09	17.75	17.75	1.25	1.25	16.22	16.22	1.42	1.42	14.68	14.68	1.62	1.62	13.13	13.13	1.83	1.83	11.59	11.59	2.06	2.06
	63* (17.2)	19.25	15.50	1.09	1.09	17.56	13.97	1.25	1.25	15.88	12.47	1.43	1.43	14.21	11.01	1.63	1.63	12.53	9.59	1.84	1.84	10.89	8.21	2.07	2.07
	67 (19.4)	20.64	16.16	1.06	1.06	18.83	14.58	1.23	1.23	17.03	13.03	1.41	1.41	15.24	11.53	1.61	1.61	13.45	10.06	1.82	1.82	11.70	8.65	2.05	2.05
	72 (22.2)	22.59	12.71	1.03	1.03	20.61	11.39	1.20	1.20	18.64	10.12	1.39	1.39	16.69	8.88	1.58	1.58	14.74	7.68	1.80	1.80	12.83	6.55	2.03	2.03

See Legend and Notes on Page 24.

PERFORMANCE DATA (CONT)

024 High Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW	
700	57 (13.8)	23.89	23.89	1.55	22.22	22.22	1.70	20.54	20.54	1.87	18.86	18.86	2.05	17.17	17.17	15.50	15.50	2.26	2.48
	62 (16.6)	24.55	21.58	1.55	22.62	20.64	1.71	20.72	19.69	1.87	18.89	18.89	2.05	17.20	17.20	15.52	15.52	2.26	2.48
	63* (17.2)	25.02	17.56	1.56	23.05	16.72	1.71	21.08	15.86	1.87	19.13	15.01	2.06	17.19	14.15	15.30	13.30	2.26	2.48
	67 (19.4)	26.85	18.20	1.57	24.72	17.34	1.73	22.61	16.48	1.89	20.50	15.61	2.07	18.42	14.75	16.39	13.89	2.27	2.49
	72 (22.2)	29.38	14.76	1.60	27.04	13.97	1.75	24.71	13.17	1.92	22.42	12.38	2.10	20.14	11.59	17.91	10.81	2.30	2.52
	57 (13.8)	24.94	24.94	1.57	23.16	23.16	1.73	21.38	21.38	1.90	19.59	19.59	2.08	17.81	17.81	16.04	16.04	2.28	2.51
	62 (16.6)	25.14	23.30	1.58	23.20	23.20	1.73	21.41	21.41	1.90	19.62	19.62	2.08	17.83	17.83	16.06	16.06	2.28	2.51
800	63* (17.2)	25.56	18.77	1.58	23.51	17.89	1.73	21.48	17.00	1.90	19.46	16.11	2.08	17.46	15.22	15.51	14.34	2.28	2.50
	67 (19.4)	27.40	19.50	1.60	25.19	18.60	1.75	23.00	17.70	1.92	20.83	16.80	2.10	18.68	15.89	16.60	15.00	2.30	2.52
	72 (22.2)	29.94	15.58	1.62	27.52	14.76	1.78	25.12	13.94	1.95	22.74	13.12	2.13	20.40	12.31	18.12	11.50	2.33	2.54
	57 (13.8)	25.82	25.82	1.60	23.95	23.95	1.76	22.08	22.08	1.92	20.20	20.20	2.11	18.33	18.33	16.48	16.48	2.31	2.53
900	62 (16.6)	25.86	25.86	1.60	23.98	23.98	1.76	22.11	22.11	1.92	20.23	20.23	2.11	18.35	18.35	16.50	16.50	2.31	2.53
	63* (17.2)	25.97	19.95	1.60	23.86	19.03	1.75	21.77	18.11	1.92	19.70	17.18	2.10	17.66	16.25	15.68	15.32	2.30	2.52
	67 (19.4)	27.81	20.76	1.62	25.54	19.83	1.77	23.30	18.89	1.94	21.07	17.95	2.12	18.88	17.01	16.76	16.07	2.32	2.54
	72 (22.2)	30.37	16.37	1.64	27.89	15.53	1.80	25.42	14.69	1.97	22.99	13.85	2.15	20.59	13.01	18.26	12.18	2.35	2.56

See Legend and Notes on Page 24.



PERFORMANCE DATA (CONT)

030 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		CFM	EWB ° F (° C)	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	
655	57 (13.8)	22.30	22.30	20.19	1.43	20.19	20.19	18.10	1.49	18.10	18.10	16.02	16.02	1.57	13.97	13.97	11.95	11.95	1.60
	62 (16.6)	22.91	20.51	17.72	1.43	20.54	15.01	1.53	16.05	16.05	13.99	13.99	1.57	13.99	13.99	11.97	11.97	1.60	
	63* (17.2)	23.36	16.69	14.35	1.43	20.94	12.09	1.53	16.21	9.92	13.91	7.86	1.56	15.00	8.21	11.68	5.91	1.60	
	67 (19.4)	25.19	17.36	14.93	1.41	22.57	12.60	1.51	17.47	10.36	15.00	8.21	1.55	16.68	6.47	12.60	6.19	1.59	
	72 (22.2)	27.74	14.14	12.08	1.38	24.84	10.11	1.49	19.22	8.24	16.51	6.47	1.54	14.51	14.51	13.88	4.82	1.58	
750	57 (13.8)	23.33	23.33	21.08	1.45	21.08	18.87	1.54	16.70	16.68	14.51	14.51	1.58	14.53	14.53	12.39	12.39	1.61	
	62 (16.6)	23.49	22.18	21.12	1.45	21.12	18.90	1.54	16.70	16.70	14.53	14.53	1.58	14.53	14.53	12.39	12.39	1.61	
	63* (17.2)	23.87	17.87	15.38	1.45	21.36	12.98	1.55	16.48	10.67	14.12	8.46	1.58	15.21	8.87	11.84	6.38	1.61	
	67 (19.4)	25.72	18.62	16.04	1.43	23.00	13.55	1.53	17.75	11.16	15.21	8.87	1.57	16.72	6.88	12.76	6.70	1.60	
	72 (22.2)	28.29	14.94	12.78	1.40	25.30	10.72	1.51	19.51	8.75	17.18	17.18	1.55	14.92	14.92	14.03	5.14	1.59	
840	57 (13.8)	24.14	24.14	21.79	1.47	21.79	19.48	1.56	17.18	17.18	14.94	14.94	1.59	14.94	14.94	12.71	12.71	1.62	
	62 (16.6)	24.18	24.18	21.82	1.46	21.82	19.50	1.56	17.21	17.21	14.94	14.94	1.59	14.94	14.94	12.72	12.72	1.62	
	63* (17.2)	24.24	18.95	16.32	1.47	21.66	13.79	1.56	16.68	11.35	14.28	9.02	1.60	16.86	7.26	11.96	6.80	1.63	
	67 (19.4)	26.09	19.78	17.06	1.45	23.31	14.43	1.55	17.95	11.90	15.36	9.47	1.59	16.86	7.26	12.87	7.16	1.62	
	72 (22.2)	28.69	15.67	13.42	1.42	25.62	11.27	1.53	19.71	9.21	16.86	7.26	1.57	14.12	14.12	5.44	5.44	1.61	

See Legend and Notes on Page 24.

PERFORMANCE DATA (CONT)

030 High Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW	
875	57 (13.8)	30.54	1.97	28.11	2.15	25.68	2.35	23.24	2.57	20.78	2.83	18.33	2.83	18.33	3.12				
	62 (16.6)	31.60	1.98	28.82	2.15	26.06	2.35	23.34	2.57	20.81	2.83	18.36	2.83	18.36	3.12				
	63* (17.2)	32.20	1.98	29.34	2.16	26.51	2.36	23.69	2.58	20.88	2.83	18.12	2.83	18.12	3.11				
	67 (19.4)	34.66	2.01	31.55	2.19	28.49	2.38	25.45	2.60	22.42	2.85	19.45	2.85	19.45	3.13				
	72 (22.2)	38.04	2.05	34.61	2.22	31.23	2.42	27.87	2.64	24.55	2.89	21.31	2.89	21.31	3.16				
1000	57 (13.8)	31.92	2.01	29.32	2.19	26.74	2.39	24.16	2.61	21.55	2.87	18.97	2.87	18.97	3.15				
	62 (16.6)	32.39	2.01	29.52	2.19	26.78	2.39	24.19	2.61	21.58	2.87	18.99	2.87	18.99	3.15				
	63* (17.2)	32.92	2.02	29.95	2.19	27.01	2.39	24.10	2.61	21.21	2.86	18.37	2.86	18.37	3.14				
	67 (19.4)	35.39	2.04	32.18	2.22	29.00	2.42	25.86	2.64	22.74	2.88	19.70	2.88	19.70	3.16				
	72 (22.2)	38.82	2.08	35.26	2.26	31.76	2.46	28.30	2.67	24.87	2.92	21.55	2.92	21.55	3.19				
1125	57 (13.8)	33.07	2.05	30.34	2.23	27.63	2.43	24.91	2.65	22.18	2.90	19.49	2.90	19.49	3.19				
	62 (16.6)	33.13	2.05	30.38	2.23	27.67	2.43	24.94	2.65	22.21	2.90	19.51	2.90	19.51	3.19				
	63* (17.2)	33.47	2.05	30.41	2.23	27.40	2.42	24.41	2.64	21.46	2.89	18.57	2.89	18.57	3.17				
	67 (19.4)	35.96	2.08	32.64	2.25	29.39	2.45	26.17	2.67	21.16	2.91	19.90	2.91	19.90	3.19				
	72 (22.2)	39.41	2.12	35.75	2.29	32.16	2.49	28.60	2.71	25.11	2.95	21.72	2.95	21.72	3.22				

See Legend and Notes on Page 24.



PERFORMANCE DATA (CONT)

036 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Syst KW	Total Sens	Capacity MBtuh	Total Syst KW	Total Sens	Capacity MBtuh	Total Syst KW	Total Sens	Capacity MBtuh	Total Syst KW	Total Sens	Capacity MBtuh	Total Syst KW	Total Sens	Capacity MBtuh	Total Syst KW	Total Sens
785	57 (13.8)	25.86	1.54	23.52	23.52	21.19	1.74	18.89	18.89	16.59	1.84	16.59	16.59	14.33	14.33	1.93	14.33	14.33	2.02
	62 (16.6)	26.33	1.54	23.73	22.02	21.23	1.74	18.92	18.92	16.62	1.84	16.62	16.62	14.35	14.35	1.93	14.35	14.35	2.02
	63* (17.2)	26.84	1.53	24.16	17.75	15.63	1.74	18.93	13.59	16.37	1.84	16.37	11.61	13.88	9.71	1.94	13.88	9.71	2.03
	67 (19.4)	28.92	1.51	26.02	18.48	16.30	1.72	20.39	14.19	17.65	1.82	17.65	12.15	14.97	10.19	1.92	14.97	10.19	2.02
	72 (22.2)	31.81	1.48	28.62	14.85	13.00	1.70	22.43	11.22	19.42	1.80	19.42	9.51	16.49	7.89	1.90	16.49	7.89	2.00
	57 (13.8)	27.03	1.55	24.55	24.55	22.09	1.75	19.65	19.65	17.23	1.85	17.23	17.23	14.84	14.84	1.94	14.84	14.84	2.03
	62 (16.6)	27.07	1.55	24.59	24.59	22.12	1.75	19.68	19.68	17.25	1.85	17.25	17.25	14.86	14.86	1.94	14.86	14.86	2.03
900	63* (17.2)	27.41	1.55	24.64	19.06	16.82	1.75	19.25	14.64	16.63	1.85	16.63	12.53	14.08	10.51	1.95	14.08	10.51	2.04
	67 (19.4)	29.51	1.53	26.52	19.89	17.58	1.74	20.72	15.32	17.90	1.84	17.90	13.15	15.16	11.05	1.94	15.16	11.05	2.03
	72 (22.2)	32.43	1.50	29.14	15.74	13.80	1.71	22.76	11.93	19.67	1.82	19.67	10.14	16.67	8.43	1.92	16.67	8.43	2.01
	57 (13.8)	27.98	1.56	25.37	25.37	22.80	1.76	20.25	20.25	17.72	1.86	17.72	17.72	15.24	15.24	1.95	15.24	15.24	2.04
1010	62 (16.6)	28.02	1.56	25.41	25.41	22.83	1.66	20.28	20.28	17.75	1.86	17.75	17.75	15.25	15.25	1.95	15.25	15.25	2.04
	63* (17.2)	27.84	1.56	24.99	20.28	17.92	1.67	19.49	15.62	16.82	1.87	16.82	13.38	14.28	14.28	1.96	14.28	14.28	2.05
	67 (19.4)	29.94	1.54	26.88	21.21	18.76	1.65	20.96	16.38	18.09	1.85	18.09	14.07	15.32	11.82	1.95	15.32	11.82	2.04
	72 (22.2)	32.87	1.51	29.50	16.57	14.55	1.62	22.99	12.60	19.84	1.83	19.84	10.73	16.79	8.94	1.93	16.79	8.94	2.02

See Legend and Notes on Page 24.

PERFORMANCE DATA (CONT)

036 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW
1050	57 (13.8)	35.86	35.86	2.29	33.72	33.72	2.51	31.52	31.52	2.76	29.26	29.26	3.03	26.89	26.89	3.34	24.47	24.47	3.69
	62 (16.6)	36.94	33.14	2.30	34.42	31.53	2.52	31.86	29.88	2.76	29.31	29.31	3.03	26.93	26.93	3.34	24.51	24.51	3.69
	63* (17.2)	37.62	27.02	2.31	35.04	25.57	2.53	32.41	24.12	2.77	29.71	22.66	3.03	26.94	21.18	3.34	24.13	19.71	3.69
	67 (19.4)	40.43	28.03	2.34	37.63	26.55	2.56	34.79	25.07	2.80	31.86	23.58	3.07	28.87	22.07	3.37	25.86	20.58	3.71
	72 (22.2)	44.31	22.80	2.39	41.22	21.45	2.61	38.07	20.10	2.85	34.86	18.73	3.11	31.58	17.37	3.41	28.28	16.02	3.75
	57 (13.8)	37.44	37.44	2.33	35.15	35.15	2.55	32.81	32.81	2.80	30.39	30.39	3.07	27.88	27.88	3.38	25.31	25.31	3.73
	62 (16.6)	37.84	35.72	2.34	35.28	35.09	2.56	32.85	32.85	2.80	30.43	30.43	3.07	27.92	27.92	3.38	25.34	25.34	3.73
1200	63* (17.2)	38.44	28.86	2.34	35.75	27.35	2.56	33.01	25.83	2.80	30.22	24.30	3.07	27.35	22.75	3.37	24.48	21.21	3.71
	67 (19.4)	41.27	30.00	2.38	38.37	28.45	2.59	35.40	26.90	2.83	32.38	25.34	3.10	29.29	23.77	3.40	26.20	22.20	3.74
	72 (22.2)	45.20	24.05	2.43	41.98	22.65	2.64	38.71	21.25	2.88	35.39	19.85	3.15	32.00	18.44	3.45	28.62	17.05	3.79
	57 (13.8)	38.77	38.77	2.37	36.36	36.36	2.59	33.88	33.88	2.84	31.33	31.33	3.11	28.69	28.69	3.42	26.00	26.00	3.76
	62 (16.6)	38.82	38.82	2.37	36.40	36.40	2.59	33.92	33.92	2.84	31.37	31.37	3.11	28.72	28.72	3.42	26.03	26.03	3.76
	63* (17.2)	39.08	30.63	2.38	36.30	29.05	2.59	33.49	27.48	2.83	30.61	25.88	3.10	27.68	24.26	3.40	24.75	22.63	3.74
	67 (19.4)	41.92	31.90	2.41	38.92	30.29	2.63	35.87	28.67	2.86	32.77	27.04	3.13	29.62	25.40	3.43	26.47	23.74	3.77
72 (22.2)	45.86	25.24	2.46	42.55	23.81	2.68	39.20	22.37	2.92	35.78	20.92	3.18	32.32	19.48	3.48	28.86	18.05	3.81	

See Legend and Notes on Page 24.

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PERFORMANCE DATA (CONT)

042 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW	
915	57 (13.8)	30.96	1.93	28.67	28.67	1.98	26.33	26.33	2.01	23.93	23.93	2.04	21.48	21.48	2.05	19.01	19.01	2.03	
	62 (16.6)	31.67	1.93	29.07	26.30	1.97	26.44	26.27	2.01	23.97	23.97	2.04	21.51	21.51	2.05	19.03	19.03	2.03	
	63* (17.2)	32.30	1.92	29.63	21.25	1.97	26.89	18.92	2.01	24.12	16.63	2.04	21.31	14.41	2.05	18.51	12.28	2.04	
	67 (19.4)	34.88	1.90	31.98	22.15	1.94	29.02	19.73	1.98	26.03	17.38	2.01	23.01	15.09	2.03	20.00	12.89	2.02	
	72 (22.2)	38.48	1.87	35.25	17.89	1.91	31.99	15.82	1.95	28.70	13.81	1.98	25.38	11.87	1.99	22.08	10.03	1.98	
	57 (13.8)	32.40	1.95	29.96	29.96	2.00	27.47	27.47	2.03	24.92	24.92	2.05	22.32	22.32	2.06	19.70	19.70	2.04	
1050	62 (16.6)	32.52	1.95	30.01	30.01	1.99	27.51	27.51	2.03	24.96	24.96	2.05	22.35	22.35	2.06	19.73	19.73	2.04	
	63* (17.2)	33.02	1.95	30.24	22.82	1.99	27.41	20.34	2.03	24.54	17.91	2.06	21.65	15.55	2.07	18.77	13.28	2.06	
	67 (19.4)	35.63	1.93	32.61	23.83	1.97	29.55	21.26	2.01	26.46	18.75	2.03	23.35	16.31	2.04	20.26	13.96	2.03	
	72 (22.2)	39.26	1.89	35.92	18.95	1.93	32.54	16.78	1.97	29.14	14.67	2.00	25.72	12.64	2.01	22.33	10.70	1.99	
	57 (13.8)	33.57	1.98	31.00	31.00	2.01	28.38	28.38	2.05	25.70	25.70	2.07	22.99	22.99	2.07	20.25	20.25	2.05	
	62 (16.6)	33.62	1.98	31.04	31.04	2.01	28.42	28.42	2.05	25.74	25.74	2.07	23.02	23.02	2.07	20.27	20.27	2.05	
1180	63* (17.2)	33.55	1.98	30.68	24.28	2.02	27.77	21.66	2.05	24.85	19.10	2.08	21.90	16.60	2.09	18.99	18.84	2.07	
	67 (19.4)	36.17	1.95	33.07	25.40	1.99	29.92	22.69	2.03	26.76	20.04	2.05	23.60	17.46	2.06	20.46	14.94	2.05	
	72 (22.2)	39.84	1.92	36.39	19.94	1.96	32.92	17.68	1.99	29.44	15.49	2.02	25.95	13.37	2.02	22.49	11.34	2.01	

See Legend and Notes on Page 24.

PERFORMANCE DATA (CONT)

042 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW
1225	57 (13.8)	44.10	44.10	2.67	40.87	40.87	37.59	37.59	3.27	34.28	34.28	3.63	30.95	30.95	27.68	27.68	4.03	4.47	
	62 (16.6)	45.47	38.57	2.68	41.76	36.75	38.02	34.87	3.28	34.34	34.34	3.63	31.00	31.00	27.72	27.72	4.03	4.47	
	63* (17.2)	46.30	31.46	2.69	42.48	29.82	38.64	28.16	3.28	34.81	26.49	3.64	31.02	24.81	27.34	23.17	4.03	4.46	
	67 (19.4)	49.63	32.58	2.71	45.48	30.90	41.33	29.20	3.32	37.21	27.50	3.67	33.12	25.80	29.18	24.14	4.06	4.49	
	72 (22.2)	54.17	26.44	2.75	49.61	24.90	45.06	23.34	3.36	40.53	21.79	3.72	36.05	20.23	31.74	18.73	4.11	4.54	
	57 (13.8)	45.98	45.98	2.72	42.52	42.52	39.03	39.03	3.33	35.52	35.52	3.69	32.01	32.01	28.56	28.56	4.08	4.52	
	62 (16.6)	46.52	41.52	2.73	42.71	42.37	39.08	39.08	3.33	35.57	35.57	3.69	32.04	32.04	28.59	28.59	4.08	4.52	
1400	63* (17.2)	47.25	33.56	2.73	43.28	31.84	39.30	30.11	3.33	35.35	28.36	3.68	31.44	26.61	27.67	24.89	4.07	4.50	
	67 (19.4)	50.58	34.83	2.76	46.29	33.07	42.00	31.30	3.36	37.75	29.52	3.72	33.55	27.75	29.50	26.00	4.11	4.54	
	72 (22.2)	55.17	27.86	2.79	50.45	26.26	45.74	24.65	3.41	41.08	23.05	3.76	36.47	21.45	32.06	19.90	4.16	4.59	
	57 (13.8)	47.54	47.54	2.77	43.89	43.89	40.22	40.22	3.38	36.54	36.54	3.74	32.86	32.86	29.26	29.26	4.13	4.57	
	62 (16.6)	47.60	47.60	2.77	43.95	43.95	40.27	40.27	3.38	36.59	36.59	3.74	32.90	32.90	29.29	29.29	4.14	4.57	
1575	63* (17.2)	47.97	35.58	2.77	43.88	33.79	39.80	31.99	3.37	35.76	30.17	3.72	31.76	28.34	27.94	26.51	4.12	4.55	
	67 (19.4)	51.31	37.00	2.80	46.89	35.17	42.50	33.33	3.40	38.15	31.48	3.76	33.86	29.62	29.75	27.77	4.15	4.58	
	72 (22.2)	55.92	29.22	2.84	51.07	27.57	46.25	25.93	3.45	41.47	24.28	3.81	36.77	22.64	32.27	21.05	4.20	4.63	

See Legend and Notes on Page 24.



PERFORMANCE DATA (CONT)

048 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		EWB °F (°C)	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	
1050	57 (13.8)	35.18	2.15	32.65	2.21	30.08	2.26	27.45	2.29	24.76	2.29	22.01	2.29	22.01	2.29	22.01	2.26		
	62 (16.6)	35.89	2.14	32.99	2.21	30.13	2.26	27.49	2.29	24.80	2.29	22.04	2.29	22.04	2.29	22.04	2.25		
	63* (17.2)	36.62	2.14	33.64	2.21	30.61	2.26	27.55	2.29	24.45	2.29	21.33	2.29	21.33	2.29	21.33	2.26		
	67 (19.4)	39.58	2.11	36.35	2.19	33.07	2.24	29.78	2.28	26.42	2.28	23.06	2.28	23.06	2.28	23.06	2.25		
	72 (22.2)	43.68	2.08	40.10	2.16	36.50	2.22	32.85	2.26	29.17	2.26	25.49	2.26	25.49	2.26	25.49	2.24		
	57 (13.8)	36.76	2.18	34.07	2.25	31.32	2.29	28.53	2.32	25.68	2.32	22.77	2.32	22.77	2.32	22.77	2.28		
1200	62 (16.6)	36.82	2.18	34.12	2.25	31.37	2.29	28.58	2.32	25.71	2.32	22.80	2.32	22.80	2.32	22.80	2.28		
	63* (17.2)	37.37	2.18	34.28	2.25	31.15	2.30	27.99	2.32	24.79	2.32	21.59	2.32	21.59	2.32	21.59	2.29		
	67 (19.4)	40.36	2.15	37.01	2.23	33.63	2.28	30.21	2.31	26.77	2.31	23.32	2.31	23.32	2.31	23.32	2.28		
	72 (22.2)	44.51	2.12	40.80	2.20	37.07	2.26	33.30	2.29	29.52	2.29	25.74	2.29	25.74	2.29	25.74	2.26		
	57 (13.8)	37.76	2.21	34.95	2.27	32.10	2.32	29.20	2.34	26.23	2.34	23.23	2.34	23.23	2.34	23.23	2.30		
	62 (16.6)	37.81	2.21	35.00	2.27	32.15	2.32	29.24	2.34	26.27	2.34	23.26	2.34	23.26	2.34	23.26	2.30		
1310	63* (17.2)	37.81	2.21	34.64	2.28	31.45	2.32	28.23	2.35	24.98	2.35	21.76	2.35	21.76	2.35	21.76	2.31		
	67 (19.4)	40.80	2.19	37.39	2.26	33.93	2.31	30.46	2.33	26.96	2.33	23.47	2.33	23.47	2.33	23.47	2.29		
	72 (22.2)	44.98	2.15	41.19	2.23	37.37	2.28	33.55	2.31	29.70	2.31	25.85	2.31	25.85	2.31	25.85	2.28		

See Legend and Notes on Page 24.

PERFORMANCE DATA (CONT)

048 High Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		CFM	EWB °F (°C)	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW		
1400	57 (13.8)	48.89	48.89	3.11	45.66	45.66	3.41	42.38	42.38	3.75	39.05	39.05	4.13	35.68	35.68	4.55	32.30	32.30	4.99
	62 (16.6)	50.28	43.47	3.12	46.51	41.71	3.42	42.75	39.90	3.76	39.11	39.11	4.13	35.73	35.73	4.55	32.34	32.34	4.99
	63* (17.2)	51.23	35.39	3.13	47.37	33.80	3.43	43.48	32.17	3.77	39.57	30.53	4.14	35.65	28.86	4.54	31.78	27.20	4.98
	67 (19.4)	55.12	36.75	3.16	50.93	35.12	3.46	46.72	33.47	3.80	42.50	31.80	4.17	38.27	30.11	4.58	34.10	28.42	5.02
	72 (22.2)	60.49	29.87	3.21	55.87	28.34	3.51	51.22	26.80	3.84	46.58	25.25	4.22	41.93	23.68	4.62	37.37	22.12	5.06
	57 (13.8)	51.01	51.01	3.18	47.56	47.56	3.48	44.07	44.07	3.83	40.53	40.53	4.20	36.95	36.95	4.62	33.37	33.37	5.06
	62 (16.6)	51.47	46.83	3.18	47.65	47.65	3.49	44.13	44.13	3.83	40.59	40.59	4.20	37.00	37.00	4.62	33.41	33.41	5.06
1600	63* (17.2)	52.30	37.79	3.19	48.28	36.13	3.49	44.24	34.44	3.83	40.20	32.73	4.20	36.15	30.99	4.60	32.18	29.26	5.04
	67 (19.4)	56.21	39.32	3.23	51.86	37.62	3.53	47.50	35.90	3.86	43.13	34.16	4.23	38.77	32.40	4.64	34.50	30.65	5.07
	72 (22.2)	61.65	31.49	3.27	56.85	29.91	3.57	52.04	28.32	3.91	47.24	26.72	4.28	42.45	25.11	4.68	37.76	23.52	5.11
	57 (13.8)	52.37	52.37	3.23	48.78	48.78	3.54	45.15	45.15	3.88	41.47	41.47	4.25	37.75	37.75	4.66	34.04	34.04	5.11
	62 (16.6)	52.45	52.45	3.23	48.85	48.85	3.54	45.21	45.21	3.88	41.52	41.52	4.26	37.79	37.79	4.66	34.08	34.08	5.11
1750	63* (17.2)	52.92	39.53	3.24	48.81	37.82	3.54	44.68	36.08	3.87	40.56	34.32	4.24	36.44	32.53	4.65	32.42	30.72	5.08
	67 (19.4)	56.86	41.19	3.27	52.41	39.44	3.57	47.95	37.67	3.91	43.50	35.88	4.28	39.06	34.07	4.68	34.73	32.25	5.12
	72 (22.2)	62.33	32.67	3.32	57.41	31.06	3.62	52.50	29.43	3.95	47.61	27.80	4.32	42.73	26.16	4.72	37.97	24.55	5.15

See Legend and Notes on Page 24.



PERFORMANCE DATA (CONT)

060 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																		
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)			
		CFM	EWB °F (°C)	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW		
1200	57 (13.8)	42.50	41.54	41.54	2.61	41.54	41.54	2.64	40.36	40.36	38.87	38.87	2.59	37.03	37.03	34.82	34.82	2.49	2.49	2.34
	62 (16.6)	43.53	38.49	38.49	2.61	40.55	40.24	2.63	38.94	38.94	38.94	38.94	2.59	37.09	37.09	34.87	34.87	2.49	2.49	2.34
	63* (17.2)	44.37	31.12	31.12	2.61	41.20	29.70	2.63	39.14	28.21	28.21	28.21	2.59	36.69	26.66	33.85	25.05	2.49	2.49	2.34
	67 (19.4)	47.96	32.46	32.46	2.59	44.50	31.00	2.62	42.28	29.49	29.49	29.49	2.58	39.65	27.93	36.60	26.30	2.49	2.49	2.33
	72 (22.2)	52.94	27.58	26.23	2.56	51.15	24.86	2.60	46.63	23.45	23.45	23.45	2.57	43.75	21.98	40.44	20.47	2.48	2.48	2.33
1370	57 (13.8)	44.36	43.29	43.29	2.67	41.98	41.98	2.68	40.36	40.36	40.36	40.36	2.63	38.36	38.36	35.98	35.98	2.53	2.53	2.37
	62 (16.6)	44.59	43.36	43.36	2.67	42.05	42.05	2.68	40.42	40.42	40.42	40.42	2.63	38.42	38.42	36.03	36.03	2.53	2.53	2.37
	63* (17.2)	45.25	33.28	33.28	2.67	41.88	31.80	2.68	39.71	30.26	30.26	30.26	2.63	37.17	28.64	34.23	26.95	2.53	2.53	2.37
	67 (19.4)	48.88	34.77	34.77	2.65	45.19	33.26	2.67	42.87	31.70	31.70	31.70	2.62	40.13	30.07	36.99	28.37	2.53	2.53	2.37
	72 (22.2)	53.90	27.69	27.69	2.62	49.80	26.28	2.65	47.23	24.83	24.83	24.83	2.61	44.23	23.32	40.79	21.77	2.52	2.52	2.36
1545	57 (13.8)	45.96	44.78	44.78	2.73	43.35	43.35	2.73	41.59	41.59	41.59	41.59	2.67	39.46	39.46	36.92	36.92	2.57	2.57	2.40
	62 (16.6)	46.03	44.84	44.84	2.73	43.41	43.41	2.73	41.65	41.65	41.65	41.65	2.67	39.51	39.51	36.97	36.97	2.57	2.57	2.40
	63* (17.2)	45.92	35.42	35.42	2.73	42.38	33.88	2.73	40.14	32.27	32.27	32.27	2.68	37.53	30.58	34.57	34.35	2.57	2.57	2.41
	67 (19.4)	49.57	37.08	37.08	2.71	45.71	35.51	2.72	43.29	33.88	33.88	33.88	2.67	40.48	32.18	37.28	30.36	2.57	2.57	2.40
	72 (22.2)	54.62	29.14	29.14	2.69	50.31	27.69	2.71	47.64	26.20	26.20	26.20	2.66	44.54	24.66	40.98	23.08	2.56	2.56	2.39

See Legend and Notes on Page 24.

PERFORMANCE DATA (CONT)

060 High Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW	
1750	57 (13.8)	58.66	3.81	55.57	4.17	52.33	4.58	48.92	5.04	45.32	5.57	41.58	6.16						
	62 (16.6)	59.85	3.82	51.25	4.17	52.25	4.58	48.99	5.05	45.37	5.57	41.63	6.16						
	63* (17.2)	60.83	3.82	41.43	4.18	39.70	4.58	49.10	5.04	44.88	5.56	40.58	6.13						
	67 (19.4)	65.32	3.86	43.05	4.22	41.30	4.63	52.61	5.10	48.03	5.62	43.40	6.20						
	72 (22.2)	71.52	3.90	34.50	4.27	32.84	4.69	57.48	5.17	52.44	5.70	47.35	6.29						
	57 (13.8)	60.99	3.90	57.68	4.26	54.22	4.68	50.58	5.15	46.74	5.68	42.79	6.27						
2000	62 (16.6)	61.23	3.90	57.75	4.26	54.29	4.68	50.64	5.15	46.80	5.68	42.83	6.27						
	63* (17.2)	61.92	3.91	44.25	4.26	42.45	4.67	49.76	5.13	45.40	5.65	41.00	6.22						
	67 (19.4)	66.43	3.94	46.10	4.30	44.27	4.72	53.27	5.19	48.55	5.71	43.81	6.29						
	72 (22.2)	72.71	3.98	36.40	4.35	34.70	4.78	58.16	5.26	52.95	5.79	47.73	6.37						
	57 (13.8)	62.91	3.99	59.42	4.35	55.76	4.77	51.93	5.25	47.89	5.78	43.74	6.37						
	62 (16.6)	62.99	3.99	59.49	4.36	55.83	4.77	51.99	5.25	47.94	5.78	43.79	6.37						
2250	63* (17.2)	62.73	3.99	46.95	4.35	45.08	4.76	50.24	5.22	45.80	5.73	41.35	6.30						
	67 (19.4)	67.27	4.02	49.01	4.39	47.12	4.80	53.75	5.27	48.94	5.80	44.15	6.38						
	72 (22.2)	73.56	4.06	38.24	4.43	36.50	4.86	58.61	5.34	53.29	5.87	47.96	6.46						

See Legend and Notes on Page 24.



PERFORMANCE DATA (CONT)

* At 75°F (24°C) entering dry bulb – Tennessee Valley Authority (TVA) rating conditions; all others at 80°F (27°C) dry bulb.

LEGEND

BF— Bypass Factor
 edb— Entering Dry – Bulb
 Ewb— Entering Wet – Bulb
 kW — Total Unit Power Input
 SHC— Sensible Heat Capacity (1000 Btuh)
 TC — Total Capacity (1000 Btuh) (net)
 rh—Relative Humidity

COOLING NOTES:

1. Ratings are net; they account for the effects of the evaporator—fan motor power and heat.
2. Direct interpolation is permissible. Do not extrapolate.
3. The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{Sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

$$t_{lwb} = \text{Wet-bulb temperature corresponding to enthalpy air leaving evaporator coil } (h_{lwb})$$

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

4. The SHC is based on 805 F (26.6°C) edb temperature of air entering evaporator coil. Below 80°F (26.6°C) edb, subtract (corr factor x cfm) from SHC.

Above 80° F (26.6° C) edb, add (corr factor x cfm) to SHC.

Correction Factor = $1.10 \times (1 + \text{BF}) \times (\text{edb} - 80)$.

5. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA (CONT)

GAS ADJUSTMENT

Natural Gas Orifice Sizes and Manifold Pressure 208/230VAC Models

Nameplate Input, High Stage (Btu/hr)		ALTITUDE OF INSTALLATION (FT. [m] ABOVE SEA LEVEL) U.S.A.*				
		0 to 2000 [0 to 610]	2001 to 3000* [610 to 914]	3001 to 4000 [915 to 1219]	4001 to 5000 [1220 to 1524]	5001 to 6000 [1524 to 1829]
40000	Orifice No. (Qty)	44 (2)	45 (2)†	48 (2)†	48 (2)†	48 (2)†
	Manifold Press. High / Low (in. W.C.)	3.2 / 1.4	3.2 / 1.4	3.8 / 1.6	3.5 / 1.5	3.2 / 1.4
60000	Orifice No. (Qty)	44 (3)	45 (3)†	48 (3)†	48 (3)†	48 (3)†
	Manifold Press. High / Low (in. W.C.)	3.2 / 1.4	3.2 / 1.4	3.8 / 1.6	3.5 / 1.5	3.2 / 1.4
90000	Orifice No. (Qty)	38 (3)	41 (3)†	41 (3)†	42 (3)†	42 (3)†
	Manifold Press. High / Low (in. W.C.)	3.6 / 1.6	3.8 / 1.6	3.4 / 1.5	3.4 / 1.5	3.2 / 1.4
115000	Orifice No. (Qty)	33 (3)	36 (3)†	36 (3)†	36 (3)†	38 (3)†
	Manifold Press. High / Low (in. W.C.)	3.8 / 1.7	3.8 / 1.7	3.6 / 1.6	3.3 / 1.4	3.6 / 1.5
127000 (1-Phase)	Orifice No. (Qty)	31 (3)	31 (3)	33 (3)†	33 (3)†	34 (3)†
	Manifold Press. High / Low (in. W.C.)	3.7 / 1.7	3.2 / 1.4	3.5 / 1.6	3.2 / 1.4	3.2 / 1.4
130000 (3-Phase)	Orifice No. (Qty)	31 (3)	31 (3)	33 (3)†	33 (3)†	34 (3)†
	Manifold Press. High / Low (in. W.C.)	3.8 / 1.7	3.2 / 1.4	3.7 / 1.6	3.4 / 1.4	3.3 / 1.4

48V/G

Natural Gas Orifice Sizes and Manifold Pressure 460V

Nameplate Input (Btu/hr)		ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A.*				
		0 to 2000 (0-610 m)	2001 to 3000* (611 to 914 m)	3001 to 4000 (915 to 1219 m)	4001 to 5000 (1220 to 1524 m)	5001 to 6000 (1524 to 1829 m)
60000	Orifice No. (Qty)	38 (2)	41 (2)†	41 (2)†	42 (2)†	42 (2)†
	Manifold Press. (in. W.C.)	3.6	3.8	3.4	3.4	3.2
90000	Orifice No. (Qty)	38 (3)	41 (3)†	41 (3)†	42 (3)†	42 (3)†
	Manifold Press. (in. W.C.)	3.6	3.8	3.4	3.4	3.2
115000	Orifice No. (Qty)	33 (3)	36 (3)†	36 (3)†	36 (3)†	38 (3)†
	Manifold Press. (in. W.C.)	3.8	3.8	3.6	3.3	3.6
130000	Orifice No. (Qty)	31 (3)	31 (3)	33 (3)†	33 (3)†	34 (3)†
	Manifold Press. (in. W.C.)	3.8	3.2	3.7	3.4	3.3

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft, use U.S.A. column 2001 to 3000 ft (610 to 914 m).

† Orifices available through your distributor.

NOTE: Orifice sizes and manifold pressure settings are based on natural gas with a heating value of 1025 Btu/ft³ and a specific gravity of .6.

Propane Gas Orifice Sizes and Manifold Pressure 208/230VAC Models

Nameplate Input, High Stage (Btu/hr)		ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A.*†				
		0 to 2000 [0 to 610]	2001 to 3000* [610 to 914]	3001 to 4000 [915 to 1219]	4001 to 5000 [1220 to 1524]	5001 to 6000 [1524 to 1829]
40000	Orifice No. (Qty)	55 (2)	56 (2)	56 (2)	56 (2)	56 (2)
	Manifold Press. High / Low (in. W.C.)	10.0/5.0	11.0/6.0	11.0/5.5	11.0/5.0	10.7/4.8
60000	Orifice No. (Qty)	55 (3)	56 (3)	56 (3)	56 (3)	56 (3)
	Manifold Press. High / Low (in. W.C.)	10.0/5.0	11.0/6.0	11.0/5.5	11.0/5.0	10.7/4.8
90000	Orifice No. (Qty)	53 (3)	54 (3)	54 (3)	54 (3)	54 (3)
	Manifold Press. High / Low (in. W.C.)	10.0/5.4	11.0/6.4	11.0/5.9	11.0/5.4	11.0/5.0
115000	Orifice No. (Qty)	51 (3)	52 (3)	52 (3)	53 (3)	53 (3)
	Manifold Press. High / Low (in. W.C.)	10.0/5.4	11.0/5.0	10.6/4.8	11.0/6.1	11.0/5.5
127000 (1-Phase) or 130000 (3-Phase)	Orifice No. (Qty)	49 (3)	50 (3)	51 (3)	52 (3)	52 (3)
	Manifold Press. High / Low (in. W.C.)	10.0/5.4	11.0/4.8	11.0/4.9	11.0/5.2	11.0/5.0

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft, use U.S.A. column 2001 to 3000 ft (610 to 914 m).

† Use Kit No. CPLPCONV013C00 (0-2000 ft [0-610 m] above sea level). Use Kit No. CPLPCONV014C00 (2001-6000 ft [611-1829 m] above sea level).

PERFORMANCE DATA (CONT)

Propane Gas Orifice Sizes and Manifold Pressure

460V

Nameplate Input (Btu/hr)		ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A.*				
		0 to 2000 (0–610 m)	2001 to 3000* (611 to 914 m)	3001 to 4000 (915 to 1219 m)	4001 to 5000 (1220 to 1524 m)	5001 to 6000 (1524 to 1829 m)
60000	Orifice No. (Qty)	53 (2)	54 (2)	54 (2)	54 (2)	54 (2)
	Manifold Press. (IN. W.C.)	10.0	11.0	11.0	11.0	11.0
90000	Orifice No. (Qty)	53 (3)	54 (3)	54 (3)	54 (3)	54 (3)
	Manifold Press. (IN. W.C.)	10.0	11.0	11.0	11.0	11.0
115000	Orifice No. (Qty)	51 (3)	52 (3)	52 (3)	53 (3)	53 (3)
	Manifold Press. (IN. W.C.)	10.0	11.0	10.6	11.0	11.0
130000	Orifice No. (Qty)	49 (3)	50 (3)	51 (3)	52 (3)	52 (3)
	Manifold Press. (IN. W.C.)	10.0	11.0	11.0	11.0	11.0

In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

†Use Kit No. CPLPCONV013(B,C)00 (0–2000 ft [0–610 m] above sea level). Use Kit No. CPLPCONV014(B,C)00 (2001–6000 ft [611–1829 m] above sea level).

High Altitude Compensation: Natural Gas

208/230VAC Models

Nameplate Input, High Stage (Btu/hr)	Rated Heating Input (Btu/hr), Natural Gas at Installation Altitude Above Sea Level, U.S.A.*									
	0 to 2000 ft 0 to 610 m		2001 to 3000 ft* 610 to 914 m		3001 to 4000 ft 915 to 1219 m		4001 to 5000 ft 1220 to 1524 m		5001 to 6000 ft 1524 to 1829 m	
	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage
40000	40000	26000	36000	23400	34400	22300	32800	21300	31200	20300
60000	60000	39000	54000	35100	51600	33500	49200	32000	46800	30400
90000	90000	58500	81000	52700	77400	50300	73800	48000	70200	45600
115000	115000	75000	103500	67500	98900	64500	94300	61500	89700	58500
127000 (1–Phase)	127000	84500	114300	76100	109200	72700	104100	69300	99100	65900
130000 (3–Phase)	130000	84500	117000	76100	111800	72700	106600	69300	101400	65900

High Altitude Compensation, Natural Gas

460V

Nameplate Input (Btu/hr)	Rated Heating Input (Btu/hr), Natural Gas at Installation Altitude Above Sea Level, U.S.A.*				
	0 to 2000 ft (0–610 m)	2001 to 3000 ft* (611 to 914 m)	3001 to 4000 ft (915 to 1219 m)	4001 to 5000 ft (1220 to 1524 m)	5001 to 6000 ft (1524 to 1829 m)
60000	60000	54000	51600	49200	46800
90000	90000	81000	77400	73800	70200
115000	115000	103500	98900	94300	89700
130000	130000	117000	111800	106600	101400

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above Sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

High Altitude Compensation: Propane Gas

208/230VAC Models

Nameplate Input, High Stage (Btu/hr)	Rated Heating Input (Btu/hr), LP Gas at Installation Altitude Above Sea Level, U.S.A.*									
	0 to 2000 ft 0 to 610 m		2001 to 3000 ft* 610 to 914 m		3001 to 4000 ft 915 to 1219 m		4001 to 5000 ft 1220 to 1524 m		5001 to 6000 ft 1524 to 1829 m	
	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage
40000	38000	26000	31700	23400	31700	22300	31700	21300	31200	20300
60000	57000	39000	47500	35100	47500	33500	47500	32000	46800	30400
90000	79000	58500	68900	52700	68900	50300	68600	48000	68600	45600
115000	103000	75000	100400	67500	98900	64500	83000	61500	83000	58500
127000 (1–Phase) or 130000 (3–Phase)	116000	84500	115500	76100	111800	72700	101300	69300	100400	65900

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

High Altitude Compensation, Propane Gas 460V

Nameplate Input (Btu/hr)	Rated Heating Input (Btu/hr), Propane Gas at Installation Altitude Above Sea Level, U.S.A.*				
	0 to 2000 ft (0–610 m)	2001 to 3000 ft* (611 to 914 m)	3001 to 4000 ft (915 to 1219 m)	4001 to 5000 ft (1220 to 1524 m)	5001 to 6000 ft (1524 to 1829 m)
60000	53000	45900	45900	45800	45800
90000	79000	68900	68900	68600	68600
115000	103000	100400	98900	83000	83000
130000	116000	115500	111800	101300	100400

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)													
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1				
24040	25 – 55°F Low Stage, 25 – 55°F High Stage	Low ³	Blue	Low Stage Gas Heating Alternate Low Stage Cooling	CFM	714	525	--	--	--	--	--	--	--	--	--		
					BHP	0.08	0.07	--	--	--	--	--	--	--	--	--	--	
					Low Stage Heat Rise °F (°C)	27 (15)	37 (21)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	689	597	489	352	--	--	--	--	--	--	--	--	--
					BHP	0.08	0.06	0.06	0.05	--	--	--	--	--	--	--	--	--
	25 – 55°F Low Stage, 25 – 55°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating	Low Stage Heat Rise °F (°C)	28 (16)	33 (18)	40 (22)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					High Stage Heat Rise °F (°C)	43 (24)	50 (28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					CFM	743	694	628	563	497	426	300	--	--	--	--	--	
					BHP	0.12	0.13	0.13	0.13	0.14	0.15	0.15	--	--	--	--	--	
					Low Stage Heat Rise °F (°C)	26 (15)	28 (16)	31 (17)	35 (19)	39 (22)	46 (25)	NA	NA	NA	NA	NA	NA	
					High Stage Heat Rise °F (°C)	40 (22)	43 (24)	48 (26)	53 (30)	NA	NA	NA	NA	NA	NA	NA	NA	
25 – 55°F Low Stage, 25 – 55°F High Stage	Medium ⁴	Red	High Stage Gas Heating Alternate Low Stage Gas Heating	CFM	921	829	754	663	582	485	371	--	--	--	--			
				BHP	0.14	0.14	0.15	0.16	0.17	0.17	0.18	--	--	--	--			
				Low Stage Heat Rise °F (°C)	33 (18)	36 (20)	40 (22)	45 (25)	51 (29)	NA	NA	NA	NA	NA	NA			
				High Stage Heat Rise °F (°C)	40 (22)	43 (24)	48 (26)	53 (30)	NA	NA	NA	NA	NA	NA	NA			
				CFM	1291	1206	1142	1081	1017	951	888	823	753	688	668			
				BHP	0.31	0.32	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.37	0.37			
25 – 55°F Low Stage, 25 – 55°F High Stage	High	Black	High Static, High Stage Cooling Only	High Stage Cooling Alternate High Stage Gas Heating	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
				High Stage Heat Rise °F (°C)	33 (18)	36 (20)	40 (22)	45 (25)	51 (29)	NA	NA	NA	NA	NA	NA			
				CFM	1291	1206	1142	1081	1017	951	888	823	753	688				
				BHP	0.31	0.32	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.37				
				High Stage Heat Rise °F (°C)	40 (22)	43 (24)	48 (26)	53 (30)	NA	NA	NA	NA	NA	NA	NA			

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

"High Static, High Stage Cooling" – Only to be used for high stage cooling function (Not allowed for any gas heating function)

1 Factory-shipped low stage cooling speed

2 Factory-shipped high stage cooling speed

3 Factory-shipped low stage gas heating speed

4 Factory-shipped high stage gas heating speed

Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed.
"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)																
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1							
24060	25 – 55°F Low Stage, 25 – 55°F High Stage	Low ³	Blue	Low Stage Gas Heating Alternate Low Stage Cooling	CFM	714	525	--	--	--	--	--	--	--	--	--	--				
					BHP	0.08	0.07	--	--	--	--	--	--	--	--	--	--	--	--		
					Low Stage Heat Rise °F (°C)	41 (23)	55 (31)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	689	597	489	352	--	--	--	--	--	--	--	--	--	--	--	--
					BHP	0.08	0.06	0.06	0.05	--	--	--	--	--	--	--	--	--	--	--	--
	25 – 55°F Low Stage, 25 – 55°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating	Low Stage Heat Rise °F (°C)	43 (24)	49 (27)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
					CFM	921	829	754	663	582	485	371	--	--	--	--	--	--	--	--	
					BHP	0.14	0.14	0.15	0.16	0.17	0.17	0.18	--	--	--	--	--	--	--	--	
					Low Stage Heat Rise °F (°C)	32 (18)	36 (20)	39 (22)	44 (25)	51 (28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	49 (27)	55 (30)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25 – 55°F Low Stage, 25 – 55°F High Stage	Medium ²	Red	High Stage Cooling Alternate High Stage Gas Heating Alternate Low Stage Gas Heating	CFM	1229	1171	1105	1049	980	913	838	775	679	516	--	--	--				
				BHP	0.28	0.30	0.30	0.31	0.32	0.33	0.33	0.34	0.34	0.34	0.33	--	--	--			
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	NA	NA	NA	NA	NA	NA	NA	NA		
				CFM	1291	1206	1142	1081	1017	951	888	823	753	688	633	568	--	--	--		
				BHP	0.31	0.32	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.37	0.37	0.37	--	--	--		
25 – 55°F Low Stage, 25 – 55°F High Stage	Med – High ⁴	Orange	High Stage Gas Heating Alternate High Stage Cooling	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
				High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	NA	NA	NA	NA	NA	NA				
				CFM	1291	1206	1142	1081	1017	951	888	823	753	688	633	568	--	--			
				BHP	0.31	0.32	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.37	0.37	0.37	--	--			
				High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	NA	NA	NA	NA	NA	NA	NA			
				CFM	1291	1206	1142	1081	1017	951	888	823	753	688	633	568	--	--			

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

"High Static, High Stage Cooling" – Only to be used for high stage cooling function (Not allowed for any gas heating function)

1 Factory-shipped low stage cooling speed

2 Factory-shipped high stage cooling speed

3 Factory-shipped low stage gas heating speed

4 Factory-shipped high stage gas heating speed

Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed.

"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)												
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1			
30040	25 – 55°F Low Stage, 25 – 55°F High Stage	Low ³	Blue	Low Stage Gas Heating Alternate Low Stage Cooling	CFM	714	525	--	--	--	--	--	--	--	--	--	
					BHP	0.08	0.07	--	--	--	--	--	--	--	--	--	
					Low Stage Heat Rise °F (°C)	27 (15)	37 (21)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					CFM	831	765	670	586	466	299	--	--	--	--	--	
					BHP	0.11	0.12	0.12	0.13	0.13	0.14	--	--	--	--	--	
	25 – 55°F Low Stage, 25 – 55°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	NA	26 (14)	29 (16)	33 (19)	42 (23)	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	36 (20)	39 (22)	45 (25)	51 (28)	NA	NA	NA	NA	NA	NA		
					CFM	831	765	670	586	466	299	--	--	--	--	--	
					BHP	0.11	0.12	0.12	0.13	0.13	0.14	--	--	--	--	--	
					Low Stage Heat Rise °F (°C)	NA	26 (14)	29 (16)	33 (19)	42 (23)	NA	NA	NA	NA	NA	NA	
					High Stage Heat Rise °F (°C)	36 (20)	39 (22)	45 (25)	51 (28)	NA	NA	NA	NA	NA	NA	NA	
25 – 55°F Low Stage, 25 – 55°F High Stage	Medium ⁴	Red	High Stage Gas Heating Alternate Low Stage Cooling Alternate Low Stage Gas Heating	CFM	1139	1069	1012	937	870	786	724	626	512	381			
				BHP	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.27	0.27	0.28			
				Low Stage Heat Rise °F (°C)	NA	26 (14)	29 (16)	33 (19)	42 (23)	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	36 (20)	39 (22)	45 (25)	51 (28)	NA	NA	NA	NA	NA	NA	NA		
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629			
				BHP	0.53	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.37	0.35			
25 – 55°F Low Stage, 25 – 55°F High Stage	Med – High ²	Orange	High Stage Cooling Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	26 (15)	28 (16)	30 (16)	32 (18)	34 (19)	38 (21)	41 (23)	48 (27)	NA	NA			
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629			
				BHP	0.53	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.37	0.35			
				High Stage Heat Rise °F (°C)	26 (15)	28 (16)	30 (16)	32 (18)	34 (19)	38 (21)	41 (23)	48 (27)	NA	NA			
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629			

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

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1 Factory-shipped low stage cooling speed

2 Factory-shipped high stage cooling speed

3 Factory-shipped low stage gas heating speed

4 Factory-shipped high stage gas heating speed

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"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)													
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1				
30060	25 – 55°F Low Stage, 25 – 55°F High Stage	Low ³	Blue	Low Stage Gas Heating Alternate Low Stage Cooling	CFM	714	525	--	--	--	--	--	--	--	--	--		
					BHP	0.08	0.07	--	--	--	--	--	--	--	--	--	--	
					Low Stage Heat Rise °F (°C)	41 (23)	55 (31)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	831	765	670	586	466	299	--	--	--	--	--	--	--
					BHP	0.11	0.12	0.12	0.13	0.13	0.14	--	--	--	--	--	--	--
	25 – 55°F Low Stage, 25 – 55°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating	Low Stage Heat Rise °F (°C)	35 (20)	38 (21)	44 (24)	50 (28)	NA	NA	NA	NA	NA	NA	NA		
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
					CFM	1139	1069	1012	937	870	786	724	626	512	381			
					BHP	0.22	0.23	0.24	0.24	0.25	0.26	0.26	0.27	0.27	0.28			
					Low Stage Heat Rise °F (°C)	26 (14)	28 (15)	29 (16)	31 (17)	34 (19)	37 (21)	41 (23)	47 (26)	NA	NA			
					High Stage Heat Rise °F (°C)	40 (22)	42 (23)	45 (25)	48 (27)	52 (29)	NA	NA	NA	NA	NA			
25 – 55°F Low Stage, 25 – 55°F High Stage	Medium ²	Red	High Stage Cooling Alternate Low Stage Gas Heating Alternate High Stage Gas Heating	CFM	1229	1171	1105	1049	980	913	838	775	679	516				
				BHP	0.28	0.30	0.30	0.31	0.32	0.33	0.33	0.34	0.34	0.33				
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
				High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	NA	NA	NA				
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629				
				BHP	0.53	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.37	0.35				
25 – 55°F Low Stage, 25 – 55°F High Stage	Med – High ⁴	Orange	High Stage Gas Heating Alternate High Stage Cooling	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
				High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	NA	NA					
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629				
				BHP	0.53	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.37	0.35				
				High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	NA	NA					
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629				
25 – 55°F Low Stage, 25 – 55°F High Stage	High	Black	High Static, High Stage Cooling Only	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA					
				High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	NA	NA					
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629				
				BHP	0.53	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.37	0.35				
				High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	NA	NA					
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629				

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

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² Factory-shipped high stage cooling speed

³ Factory-shipped low stage gas heating speed

⁴ Factory-shipped high stage gas heating speed

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DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)												
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1			
36060	25 – 55°F Low Stage, 25 – 55°F High Stage	Low ³	Blue	Low Stage Gas Heating	CFM	694	624	533	460	383	328	--	--	--	--	--	
					BHP	0.05	0.05	0.06	0.07	0.07	0.08	--	--	--	--	--	
					Low Stage Heat Rise °F (°C)	42 (24)	47 (26)	55 (31)	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	934	864	810	745	698	649	571	525	486	428		
					BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17		
	25 – 55°F Low Stage, 25 – 55°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating	Low Stage Heat Rise °F (°C)	32 (18)	34 (19)	36 (20)	39 (22)	42 (23)	45 (25)	52 (29)	NA	NA	NA	NA	
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					CFM	1213	1169	1110	1065	1016	964	923	878	820	777		
					BHP	0.16	0.17	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25		
					Low Stage Heat Rise °F (°C)	NA	25 (14)	27 (15)	28 (15)	29 (16)	31 (17)	32 (18)	34 (19)	36 (20)	38 (21)		
					High Stage Heat Rise °F (°C)	37 (21)	39 (21)	41 (23)	42 (24)	45 (25)	47 (26)	49 (27)	51 (29)	55 (31)	NA		
25 – 55°F Low Stage, 25 – 55°F High Stage	Med – High ²	Orange	High Stage Cooling Alternate High Stage Gas Heating	CFM	1251	1198	1149	1104	1066	1017	970	932	892	859			
				BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29			
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	36 (20)	38 (21)	39 (22)	41 (23)	42 (24)	44 (25)	47 (26)	49 (27)	51 (28)	54 (30)			
				CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106			
				BHP	0.30	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.40	0.41			

Notes:

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"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)											
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
36090	35 – 65°F Low Stage, 35 – 65°F High Stage	Low ³	Blue	Low Stage Gas Heating Alternate Low Stage Cooling	CFM	882	737	665	608	542	496	437	395	339	288	
					BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	
					Low Stage Heat Rise °F (°C)	50 (28)	60 (33)	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	934	864	810	745	698	649	571	525	486	428	
					BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	
	35 – 65°F Low Stage, 35 – 65°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating	Low Stage Heat Rise °F (°C)	47 (26)	51 (29)	55 (30)	60 (33)	64 (35)	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1251	1198	1149	1104	1066	1017	970	932	892	839	
					BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
					Low Stage Heat Rise °F (°C)	35 (20)	37 (21)	39 (21)	40 (22)	42 (23)	44 (24)	46 (25)	48 (26)	50 (28)	53 (29)	
					High Stage Heat Rise °F (°C)	54 (30)	57 (31)	59 (33)	61 (34)	64 (35)	NA	NA	NA	NA	NA	
35 – 65°F Low Stage, 35 – 65°F High Stage	Medium ²	Red	High Stage Cooling Alternate Low Stage Gas Heating Alternate High Stage Gas Heating	CFM	1359	1311	1267	1224	1187	1140	1095	1058	1019	973		
				BHP	0.25	0.26	0.27	0.28	0.29	0.31	0.31	0.33	0.34	0.35		
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	55 (31)	57 (32)	60 (33)	62 (34)	64 (36)	NA	NA		
				CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106		
				BHP	0.30	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.40	0.41		
35 – 65°F Low Stage, 35 – 65°F High Stage	Med – High ⁴	Orange	High Stage Gas Heating Alternate High Stage Cooling	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	55 (31)	57 (32)	60 (33)	62 (34)	64 (36)	NA	NA		
				CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106		
				BHP	0.30	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.40	0.41		
				High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	55 (31)	57 (32)	60 (33)	62 (34)	64 (36)	NA	NA		
				CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106		
BHP	0.30	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.40	0.41						

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

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Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed.

"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)												
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1			
42060	25 – 55°F Low Stage, 25 – 55°F High Stage	Low ³	Blue	Low Stage Gas Heating	CFM	694	624	533	460	383	328	--	--	--	--	--	
					BHP	0.05	0.05	0.06	0.07	0.07	0.08	--	--	--	--	--	
					Low Stage Heat Rise °F (°C)	42 (24)	47 (26)	55 (31)	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1076	1026	972	918	872	827	771	714	666	611		
					BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.18	0.20	0.21	0.22		
	25 – 55°F Low Stage, 25 – 55°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating	Low Stage Heat Rise °F (°C)	27 (15)	29 (16)	30 (17)	32 (18)	34 (19)	36 (20)	38 (21)	41 (23)	44 (25)	48 (27)		
					High Stage Heat Rise °F (°C)	42 (23)	44 (24)	47 (26)	49 (27)	52 (29)	55 (30)	NA	NA	NA	NA		
					CFM	1213	1169	1110	1065	1016	964	923	878	820	777		
					BHP	0.16	0.17	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25		
					Low Stage Heat Rise °F (°C)	NA	25 (14)	27 (15)	28 (15)	29 (16)	31 (17)	32 (18)	34 (19)	36 (20)	38 (21)		
					High Stage Heat Rise °F (°C)	37 (21)	39 (21)	41 (23)	42 (24)	45 (25)	47 (26)	49 (27)	51 (29)	55 (31)	NA		
25 – 55°F Low Stage, 25 – 55°F High Stage	Medium ⁴	Red	High Stage Gas Heating Alternate High Stage Cooling Alternate Low Stage Gas Heating	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094			
				BHP	0.29	0.30	0.31	0.32	0.33	0.35	0.36	0.37	0.38	0.39			
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	31 (17)	32 (18)	33 (18)	34 (19)	35 (20)	36 (20)	37 (21)	39 (22)	40 (22)	41 (23)			
				CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303			
				BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53			
25 – 55°F Low Stage, 25 – 55°F High Stage	Med – High ²	Orange	High Stage Cooling Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
				CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303			
				BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53			
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

"High Static, High Stage Cooling" – Only to be used for high stage cooling function (Not allowed for any gas heating function)

¹ Factory-shipped low stage cooling speed

² Factory-shipped high stage cooling speed

³ Factory-shipped low stage gas heating speed

⁴ Factory-shipped high stage gas heating speed

Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed.
"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)											
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
42090	35 – 65°F Low Stage, 35 – 65°F High Stage	Low ³	Blue	Low Stage Gas Heating Alternate Low Stage Cooling	CFM	882	737	665	608	542	496	437	395	339	288	
					BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	
					Low Stage Heat Rise °F (°C)	50 (28)	60 (33)	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1076	1026	972	918	872	827	771	714	666	611	
					BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.18	0.20	0.21	0.22	
	35 – 65°F Low Stage, 35 – 65°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating	Low Stage Heat Rise °F (°C)	41 (23)	43 (24)	46 (25)	48 (27)	51 (28)	54 (30)	58 (32)	62 (35)	NA	NA	
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					CFM	1359	1311	1267	1224	1187	1140	1095	1058	1019	973	
					BHP	0.25	0.26	0.27	0.28	0.29	0.31	0.31	0.33	0.34	0.35	
					Low Stage Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	37 (21)	39 (22)	41 (23)	42 (23)	44 (24)	46 (25)	
					High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	55 (31)	57 (32)	60 (33)	62 (34)	64 (36)	NA	NA	
35 – 65°F Low Stage, 35 – 65°F High Stage	Medium ⁴	Red	High Stage Gas Heating Alternate High Stage Cooling Alternate Low Stage Gas Heating	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094		
				BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39		
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303		
				BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53		
35 – 65°F Low Stage, 35 – 65°F High Stage	Med – High ²	Orange	High Stage Cooling Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	46 (26)	47 (26)	49 (27)	51 (28)	52 (29)	54 (30)	55 (31)	57 (32)	59 (33)	61 (34)		
				CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303		
				BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53		
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

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² Factory-shipped high stage cooling speed

³ Factory-shipped low stage gas heating speed

⁴ Factory-shipped high stage gas heating speed

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"NA" = Not allowed for particular gas heating speed



DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
48090	35 – 65°F Low Stage, 35 – 65°F High Stage	Low ³	Blue	Low Stage Gas Heating	CFM	903	820	749	702	645	581	534	468	432	382
					BHP	0.11	0.12	0.12	0.13	0.14	0.14	0.16	0.17	0.18	
					Low Stage Heat Rise °F (°C)	49 (27)	54 (30)	59 (33)	63 (35)	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
					BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
	35 – 65°F Low Stage, 35 – 65°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	35 (19)	36 (20)	38 (21)	40 (22)	42 (23)	43 (24)	46 (25)	47 (26)	50 (28)	53 (29)
					High Stage Heat Rise °F (°C)	53 (30)	55 (31)	58 (32)	61 (34)	63 (35)	64 (35)	NA	NA	NA	NA
					CFM	1386	1336	1304	1259	1230	1186	1147	1102	1052	1022
					BHP	0.32	0.33	0.34	0.35	0.36	0.37	0.39	0.39	0.40	0.42
					Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	49 (27)	51 (28)	52 (29)	54 (30)	55 (31)	57 (32)	59 (33)	62 (34)	64 (36)	NA
35 – 65°F Low Stage, 35 – 65°F High Stage	Medium ⁴	Red	High Stage Gas Heating Alternate High Stage Cooling	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356	
				BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	47 (26)	49 (27)	50 (28)	
				CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67	
35 – 65°F Low Stage, 35 – 65°F High Stage	Med – High ²	Orange	High Stage Cooling Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	47 (26)	49 (27)		
				CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	47 (26)	49 (27)	50 (28)	
35 – 65°F Low Stage, 35 – 65°F High Stage	High	Black	High Static, High Stage Cooling Only	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	47 (26)	49 (27)	50 (28)	
				CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67	

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

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1 Factory-shipped low stage cooling speed

2 Factory-shipped high stage cooling speed

3 Factory-shipped low stage gas heating speed

4 Factory-shipped high stage gas heating speed

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"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
48115	30 – 60°F Low Stage, 30 – 60°F High Stage	Low ¹	Blue	Low Stage Cooling Alternate Low Stage Gas Heating	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
					BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
					Low Stage Heat Rise °F (°C)	45 (25)	46 (26)	48 (27)	51 (28)	53 (30)	55 (31)	58 (32)	60 (33)	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895
					BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32
	30 – 60°F Low Stage, 30 – 60°F High Stage	Med – Low ³	Pink	Low Stage Gas Heating Alternate Low Stage Cooling Alternate High Stage Cooling	Low Stage Heat Rise °F (°C)	42 (24)	44 (24)	46 (25)	48 (26)	50 (28)	52 (29)	54 (30)	57 (31)	60 (33)	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
					BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
					Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30 – 60°F Low Stage, 30 – 60°F High Stage	Medium ²	Red	High Stage Cooling Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	51 (29)	52 (29)	54 (30)	55 (31)	56 (31)	58 (32)	59 (33)	60 (34)	NA		
				High Stage Heat Rise °F (°C)	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	
				CFM	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67	
				BHP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	47 (26)	47 (26)	49 (27)	49 (27)	50 (28)	51 (28)	52 (29)	53 (30)	55 (30)	57 (31)	
30 – 60°F Low Stage, 30 – 60°F High Stage	Med – High ⁴	Orange	High Stage Gas Heating Alternate High Stage Cooling	CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	47 (26)	47 (26)	49 (27)	49 (27)	50 (28)	51 (28)	52 (29)	53 (30)	55 (30)	57 (31)	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

"High Static, High Stage Cooling" – Only to be used for high stage cooling function (Not allowed for any gas heating function)

1 Factory-shipped low stage cooling speed

2 Factory-shipped high stage cooling speed

3 Factory-shipped low stage gas heating speed

4 Factory-shipped high stage gas heating speed

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"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
48130	35 – 65°F Low Stage, 35 – 65°F High Stage	Low ¹	Blue	Low Stage Cooling Alternate Low Stage Gas Heating	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
					BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
					Low Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	57 (32)	60 (33)	62 (34)	65 (36)	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895
					BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32
	35 – 65°F Low Stage, 35 – 65°F High Stage	Med – Low ³	Pink	Low Stage Gas Heating Alternate Low Stage Cooling Alternate High Stage Cooling	Low Stage Heat Rise °F (°C)	48 (26)	49 (27)	51 (29)	54 (30)	56 (31)	58 (32)	61 (34)	64 (35)	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
					BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
					Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	57 (32)	58 (32)	59 (33)	61 (34)	62 (34)	64 (35)	65 (36)	NA	NA	NA
35 – 65°F Low Stage, 35 – 65°F High Stage	Medium ²	Red	High Stage Cooling Alternate High Stage Gas Heating	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
35 – 65°F Low Stage, 35 – 65°F High Stage	Med – High ⁴	Orange	High Stage Gas Heating Alternate High Stage Cooling	Low Stage Heat Rise °F (°C)	52 (29)	52 (29)	54 (30)	54 (30)	56 (31)	56 (31)	58 (32)	59 (33)	61 (34)	63 (35)	
				High Stage Heat Rise °F (°C)	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	52 (29)	52 (29)	54 (30)	54 (30)	56 (31)	56 (31)	58 (32)	59 (33)	61 (34)	63 (35)	

Notes:

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DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
60090	35 – 65°F Low Stage, 35 – 65°F High Stage	Low ³	Blue	Low Stage Gas Heating	CFM	903	820	749	702	645	581	534	468	432	382
					BHP	0.11	0.12	0.12	0.13	0.14	0.14	0.16	0.17	0.18	
					Low Stage Heat Rise °F (°C)	49 (27)	54 (30)	59 (33)	63 (35)	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
					BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
	35 – 65°F Low Stage, 35 – 65°F High Stage	Med – Low ¹	Pink	Low Stage Cooling Alternate Low Stage Gas Heating Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	35 (19)	36 (20)	38 (21)	40 (22)	42 (23)	43 (24)	46 (25)	47 (26)	50 (28)	53 (29)
					High Stage Heat Rise °F (°C)	53 (30)	55 (31)	58 (32)	61 (34)	63 (35)	64 (35)	NA	NA	NA	NA
					CFM	1386	1336	1304	1259	1230	1186	1147	1102	1052	1022
					BHP	0.32	0.33	0.34	0.35	0.36	0.37	0.39	0.39	0.40	0.42
					Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (20)	36 (20)	37 (21)	39 (21)	40 (22)	42 (23)	43 (24)
					High Stage Heat Rise °F (°C)	49 (27)	51 (28)	52 (29)	54 (30)	55 (31)	57 (32)	59 (33)	62 (34)	64 (36)	NA
35 – 65°F Low Stage, 35 – 65°F High Stage	Medium ⁴	Red	High Stage Gas Heating Alternate Low Stage Gas Heating	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	36 (20)	37 (20)	38 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)	44 (25)	
				CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643	
				BHP	0.62	0.63	0.66	0.67	0.69	0.70	0.71	0.73	0.74	0.72	
35 – 65°F Low Stage, 35 – 65°F High Stage	Med – High ²	Orange	High Stage Cooling Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	36 (20)	37 (20)	38 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)		
				CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643	
				BHP	0.62	0.63	0.66	0.67	0.69	0.70	0.71	0.73	0.74	0.72	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	36 (20)	37 (20)	38 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)	44 (25)	

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

"High Static, High Stage Cooling" – Only to be used for high stage cooling function (Not allowed for any gas heating function)

1 Factory-shipped low stage cooling speed

2 Factory-shipped high stage cooling speed

3 Factory-shipped low stage gas heating speed

4 Factory-shipped high stage gas heating speed

Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed.

"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
60115	30 – 60°F Low Stage, 30 – 60°F High Stage	Low ¹	Blue	Low Stage Cooling Alternate Low Stage Gas Heating	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
					BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
					Low Stage Heat Rise °F (°C)	45 (25)	46 (26)	48 (27)	51 (28)	53 (30)	55 (31)	58 (32)	60 (33)	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895
					BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32
	30 – 60°F Low Stage, 30 – 60°F High Stage	Med – Low ³	Pink	Low Stage Gas Heating Alternate Low Stage Cooling	Low Stage Heat Rise °F (°C)	42 (24)	44 (24)	46 (25)	48 (26)	50 (28)	52 (29)	54 (30)	57 (31)	60 (33)	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
					BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
					Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30 – 60°F Low Stage, 30 – 60°F High Stage	Medium ⁴	Red	High Stage Gas Heating Alternate High Stage Cooling	Low Stage Heat Rise °F (°C)	51 (29)	52 (29)	54 (30)	55 (31)	56 (31)	58 (32)	59 (33)	60 (34)	NA		
				High Stage Heat Rise °F (°C)	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				CFM	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63	
				BHP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	46 (26)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	54 (30)	55 (31)	57 (31)	
30 – 60°F Low Stage, 30 – 60°F High Stage	Med – High ²	Orange	High Stage Cooling Alternate High Stage Gas Heating	CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

"High Static, High Stage Cooling" – Only to be used for high stage cooling function (Not allowed for any gas heating function)

¹ Factory-shipped low stage cooling speed

² Factory-shipped high stage cooling speed

³ Factory-shipped low stage gas heating speed

⁴ Factory-shipped high stage gas heating speed

Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed.
"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT.)

Unit	Heating Rise Range	Motor Speed	Wire Color	Allowable Functions	External Static Pressure (in. WC)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
60130	35 – 65°F Low Stage, 35 – 65°F High Stage	Low ¹	Blue	Low Stage Cooling Alternate Low Stage Gas Heating	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
					BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
					Low Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	57 (32)	60 (33)	62 (34)	65 (36)	NA	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895
					BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32
	35 – 65°F Low Stage, 35 – 65°F High Stage	Med – Low ³	Pink	Low Stage Gas Heating Alternate Low Stage Cooling	Low Stage Heat Rise °F (°C)	48 (26)	49 (27)	51 (29)	54 (30)	56 (31)	58 (32)	61 (34)	64 (35)	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
					BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
					Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	57 (32)	58 (32)	59 (33)	61 (34)	62 (34)	64 (35)	65 (36)	NA	NA	NA
35 – 65°F Low Stage, 35 – 65°F High Stage	Medium ⁴	Red	High Stage Gas Heating Alternate High Stage Cooling	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
35 – 65°F Low Stage, 35 – 65°F High Stage	Med – High ²	Orange	High Stage Cooling Alternate High Stage Gas Heating	Low Stage Heat Rise °F (°C)	51 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	59 (33)	61 (34)	63 (35)	
				High Stage Heat Rise °F (°C)	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes:

*Air delivery values are without air filter and are for dry coil (See Wet Coil Pressure Drop Table)

"High Static, High Stage Cooling" – Only to be used for high stage cooling function (Not allowed for any gas heating function)

¹ Factory-shipped low stage cooling speed

² Factory-shipped high stage cooling speed

³ Factory-shipped low stage gas heating speed

⁴ Factory-shipped high stage gas heating speed

Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed.

"NA" = Not allowed for particular gas heating speed

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)															
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1						
36060	25 - 55°F Low Stage, 25 - 55°F High Stage	Low ³	Blue	CFM	694	624	533	460	383	328	---	---	---	---	---	---			
				BHP	0.05	0.05	0.06	0.07	0.07	0.08	---	---	---	---	---	---			
				Low Stage Heat Rise °F (°C)	41 (23)	46 (25)	54 (30)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	934	864	810	745	698	649	571	525	486	428	---	---	---	---	
				BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	---	---	---	---	
		Med-Low ¹	Pink	Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	31 (17)	33 (18)	35 (20)	38 (21)	41 (23)	44 (24)	50 (28)	54 (30)	NA	NA	NA		
						High Stage Heat Rise °F (°C)	48 (26)	52 (29)	55 (31)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						CFM	1213	1169	1110	1065	1016	964	923	878	820	777	---	---	---
						BHP	0.16	0.17	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25	---	---	---
						Low Stage Heat Rise °F (°C)	NA	NA	26 (14)	27 (15)	28 (16)	30 (16)	31 (17)	33 (18)	35 (19)	37 (20)	---	---	---
						High Stage Heat Rise °F (°C)	37 (20)	38 (21)	40 (22)	42 (23)	44 (24)	46 (26)	48 (27)	51 (28)	54 (30)	NA	---	---	---
Med-High ²	Orange	Med-High ²	Orange	CFM	1251	1198	1149	1104	1066	1017	970	932	892	839	---	---			
				BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	---	---			
				Low Stage Heat Rise °F (°C)	NA	NA	25 (14)	26 (14)	27 (15)	28 (16)	29 (16)	31 (17)	32 (18)	34 (19)	---	---			
				High Stage Heat Rise °F (°C)	36 (20)	37 (21)	39 (22)	40 (22)	42 (23)	44 (24)	46 (25)	48 (27)	50 (28)	53 (29)	---	---			
				CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106	---	---			
				BHP	0.30	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.40	0.41	---	---			
High	Black	High	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 (14)	26 (14)				
				High Stage Heat Rise °F (°C)	30 (17)	31 (17)	32 (18)	33 (18)	34 (19)	35 (20)	37 (20)	38 (21)	39 (22)	40 (22)	---	---			
				CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106	---	---			

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)										
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
36090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	1097	971	823	747	669	636	558	513	456	412
				BHP	0.12	0.11	0.10	0.11	0.12	0.13	0.13	0.14	0.15	0.16
				Low Stage Heat Rise °F (°C)	39 (22)	44 (25)	52 (29)	58 (32)	64 (36)	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	61 (34)	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	934	864	810	745	698	649	571	525	486	428
				BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17
		Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	46 (26)	50 (28)	53 (29)	58 (32)	62 (34)	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1251	1198	1149	1104	1066	1017	970	932	892	839
				BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
				Low Stage Heat Rise °F (°C)	NA	36 (20)	37 (21)	39 (22)	40 (22)	42 (23)	44 (25)	46 (26)	48 (27)	51 (28)
				High Stage Heat Rise °F (°C)	54 (30)	56 (31)	59 (33)	61 (34)	63 (35)	NA	NA	NA	NA	NA
Med-High ⁴	Orange	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094		
		BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39		
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	46 (26)	48 (26)	49 (27)	51 (28)	52 (29)	54 (30)	56 (31)	58 (32)	60 (33)	62 (34)		
		CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106		
		BHP	0.30	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.40	0.41		
High	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	46 (26)	47 (26)	49 (27)	50 (28)	52 (29)	53 (30)	55 (31)	57 (32)	59 (33)	61 (34)		



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)														
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1					
42060	25 - 55°F Low Stage, 25 - 55°F High Stage	Low ³	Blue	CFM	694	624	533	460	383	328	---	---	---	---	---	---		
				BHP	0.05	0.05	0.06	0.07	0.07	0.08	---	---	---	---	---	---	---	
				Low Stage Heat Rise °F (°C)	41 (23)	46 (25)	54 (30)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1076	1026	972	918	872	827	771	714	666	611	---	---	---	---
				BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.18	0.20	0.21	0.22	---	---	---	---
		Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	27 (15)	28 (15)	29 (16)	31 (17)	33 (18)	35 (19)	37 (21)	40 (22)	43 (24)	---	---	---	---	
				High Stage Heat Rise °F (°C)	41 (23)	43 (24)	46 (25)	48 (27)	51 (28)	54 (30)	NA	NA	NA	NA	NA	NA	NA	
				CFM	1213	1169	1110	1065	1016	964	923	878	820	777	---	---	---	
				BHP	0.16	0.17	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25	---	---	---	
				Low Stage Heat Rise °F (°C)	NA	NA	26 (14)	27 (15)	28 (16)	30 (16)	31 (17)	33 (18)	35 (19)	37 (20)	---	---	---	
				High Stage Heat Rise °F (°C)	37 (20)	38 (21)	40 (22)	42 (23)	44 (24)	46 (26)	48 (27)	51 (28)	54 (30)	NA	---	---	---	
Med-High ²	Orange	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094	---	---				
		BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39	---	---				
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 (15)	26 (15)				
		High Stage Heat Rise °F (°C)	31 (17)	31 (17)	32 (18)	34 (18)	35 (19)	36 (20)	37 (20)	38 (21)	39 (22)	41 (23)	---	---				
		CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303	---	---				
		BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53	---	---				
High	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
		High Stage Heat Rise °F (°C)	27 (15)	28 (16)	29 (16)	29 (16)	30 (17)	31 (17)	32 (18)	32 (18)	33 (18)	34 (19)	---	---				

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)										
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
42090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	1097	971	823	747	669	636	558	513	456	412
				BHP	0.12	0.11	0.10	0.11	0.12	0.13	0.13	0.14	0.15	0.16
				Low Stage Heat Rise °F (°C)	39 (22)	44 (25)	52 (29)	58 (32)	64 (36)	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	61 (34)	NA	NA	NA	NA	NA	NA	NA	NA	NA
		BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.18	0.20	0.21	0.22		
		Low Stage Heat Rise °F (°C)	40 (22)	42 (23)	44 (25)	47 (26)	49 (27)	52 (29)	56 (31)	60 (33)	64 (36)	NA		
		High Stage Heat Rise °F (°C)	63 (35)	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		CFM	1251	1198	1149	1104	1066	1017	970	932	892	839		
		BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29		
		Low Stage Heat Rise °F (°C)	NA	36 (20)	37 (21)	39 (22)	40 (22)	42 (23)	44 (25)	46 (26)	48 (27)	51 (28)		
		High Stage Heat Rise °F (°C)	54 (30)	56 (31)	59 (33)	61 (34)	63 (35)	NA	NA	NA	NA	NA		
		CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094		
BHP	0.29	0.30	0.31	0.32	248. 59	0.35	0.36	0.37	0.38	0.39				
Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
High Stage Heat Rise °F (°C)	46 (26)	48 (26)	49 (27)	51 (28)	52 (29)	54 (30)	56 (31)	58 (32)	60 (33)	62 (34)				
CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303				
BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53				
Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
High Stage Heat Rise °F (°C)	41 (23)	42 (24)	43 (24)	44 (25)	45 (25)	47 (26)	48 (27)	49 (27)	50 (28)	52 (29)				



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)											
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
48090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	1067	904	703	587	501	449	380	340	---	---	---
				BHP	0.12	0.10	0.09	0.09	0.09	0.10	0.11	0.12	---	---	
				Low Stage Heat Rise °F (°C)	40 (22)	48 (26)	61 (34)	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	63 (35)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
		Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	NA	35 (19)	36 (20)	38 (21)	40 (22)	42 (23)	44 (25)	46 (27)	48 (28)		
				High Stage Heat Rise °F (°C)	53 (29)	55 (30)	57 (32)	60 (33)	63 (35)	NA	NA	NA	NA		
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	
				Low Stage Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	38 (21)	39 (22)	41 (23)	43 (24)	45 (25)	48 (27)	
				High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	57 (31)	59 (33)	62 (34)	64 (36)	NA	NA	NA	
Med-High ²	Orange	High	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356		
			BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55		
			Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
			High Stage Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	47 (26)	48 (27)	50 (28)		
			CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532		
			BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67		
High	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		High Stage Heat Rise °F (°C)	36 (20)	37 (20)	38 (21)	38 (21)	39 (22)	40 (22)	41 (23)	43 (24)	44 (24)				

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)										
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
48115	30 - 60°F Low Stage, 30 - 60°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
				Low Stage Heat Rise °F	44	45	47	50	52	54	57	59	NA	NA
				(°C)	(24)	(25)	(26)	(28)	(29)	(30)	(32)	(33)	NA	NA
				High Stage Heat Rise °F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				(°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-Low ³	Pink	CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	
				Low Stage Heat Rise °F	42	43	45	47	49	51	53	56	59	NA
				(°C)	(23)	(24)	(25)	(26)	(27)	(28)	(30)	(31)	(33)	NA
				High Stage Heat Rise °F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				(°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Medium ²	Red	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356		
		BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55		
		Low Stage Heat Rise °F	33	34	35	35	36	37	38	39	40	41		
		(°C)	(18)	(19)	(19)	(20)	(20)	(21)	(21)	(22)	(22)	(23)		
		High Stage Heat Rise °F	52	53	54	55	56	58	59	NA	NA	NA		
		(°C)	(29)	(29)	(30)	(31)	(31)	(32)	(33)	NA	NA	NA		
Med-High	Orange	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532		
		BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67		
		Low Stage Heat Rise °F	30	30	31	31	32	33	34	34	35	36		
		(°C)	(17)	(17)	(17)	(17)	(18)	(18)	(19)	(19)	(20)	(20)		
		High Stage Heat Rise °F	47	47	49	49	51	51	53	53	55	57		
		(°C)	(26)	(26)	(27)	(27)	(28)	(28)	(29)	(30)	(31)	(32)		
High ⁴	Black	CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528		
		BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68		
		Low Stage Heat Rise °F	NA	NA	30	31	31	32	33	34	35	37		
		(°C)	NA	NA	(17)	(17)	(17)	(18)	(18)	(19)	(19)	(20)		
		High Stage Heat Rise °F	45	46	47	48	49	50	51	52	54	57		
		(°C)	(25)	(25)	(26)	(27)	(27)	(28)	(28)	(29)	(30)	(32)		



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)												
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1			
48130	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839		
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29		
				Low Stage Heat Rise °F (°C)	49 (27)	51 (28)	53 (30)	56 (31)	59 (33)	61 (34)	64 (36)	NA	NA	NA		
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895		
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32		
		Med-Low ³	Pink	Medium ²	Red	Low Stage Heat Rise °F (°C)	47 (26)	48 (27)	51 (28)	53 (29)	55 (31)	57 (32)	60 (33)	63 (35)	NA	NA
						High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
						BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
						Low Stage Heat Rise °F (°C)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)
						High Stage Heat Rise °F (°C)	57 (32)	58 (29)	59 (30)	61 (34)	62 (35)	64 (35)	65(3 6)	NA	NA	NA
Med-High	Orange	High ⁴	Black	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532		
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67		
				Low Stage Heat Rise °F (°C)	NA	NA	35 (20)	35 (20)	36 (20)	37 (20)	38 (21)	39 (21)	40 (22)	41 (23)		
				High Stage Heat Rise °F (°C)	52 (29)	52 (29)	54 (30)	54 (30)	56 (31)	56 (31)	58 (32)	59 (33)	61 (34)	63 (35)		
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528		
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68		
High ⁴	Black	High ⁴	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (19)	35 (20)	36 (20)	37 (21)	38 (21)	39 (22)	41 (23)		
				High Stage Heat Rise °F (°C)	50 (28)	50 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	60 (33)	63 (35)		

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)											
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
60090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	1067	904	703	587	501	449	380	340	---	---	---
				BHP	0.12	0.10	0.09	0.09	0.09	0.10	0.11	0.12	---	---	
				Low Stage Heat Rise °F (°C)	40 (22)	48 (26)	61 (34)	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	63 (35)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
		Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	NA	35 (19)	36 (20)	38 (21)	40 (22)	44 (23)	46 (25)	48 (27)	51 (28)		
				High Stage Heat Rise °F (°C)	53 (29)	55 (30)	57 (32)	60 (33)	63 (35)	NA	NA	NA	NA		
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	
				Low Stage Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	38 (21)	39 (22)	41 (23)	43 (24)	45 (25)	48 (27)	
				High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	57 (31)	59 (33)	62 (34)	64 (36)	NA	NA	NA	
Med-High ²	Orange	High	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532		
			BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63		
			Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
			High Stage Heat Rise °F (°C)	36 (20)	37 (20)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)		
			CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643		
			BHP	0.62	0.63	0.66	0.67	0.69	0.70	0.71	0.73	0.74	0.72		
High	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		High Stage Heat Rise °F (°C)	NA	NA	NA	35 (20)	36 (20)	37 (20)	38 (21)	39 (22)	41 (23)				
		CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532			

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)										
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
60115	30 - 60°F Low Stage, 30 - 60°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
				Low Stage Heat Rise °F	44	45	47	50	52	54	57	59	NA	NA
				(°C)	(24)	(25)	(26)	(28)	(29)	(30)	(32)	(33)	NA	NA
				High Stage Heat Rise °F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				(°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-Low ³	Pink	CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32
				Low Stage Heat Rise °F	42	43	45	47	49	51	53	56	59	NA
				(°C)	(23)	(24)	(25)	(26)	(27)	(28)	(30)	(31)	(33)	NA
				High Stage Heat Rise °F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				(°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Medium	Red	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356		
		BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55		
		Low Stage Heat Rise °F	33	34	35	35	36	37	38	39	40	41		
		(°C)	(18)	(19)	(19)	(20)	(20)	(21)	(21)	(22)	(22)	(23)		
		High Stage Heat Rise °F	52	53	54	55	56	58	59	NA	NA	NA		
		(°C)	(29)	(29)	(30)	(31)	(31)	(32)	(33)	NA	NA	NA		
Med-High ²	Orange	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532		
		BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63		
		Low Stage Heat Rise °F	30	30	31	32	32	33	34	35	36	36		
		(°C)	(17)	(17)	(17)	(18)	(18)	(18)	(19)	(19)	(20)	(20)		
		High Stage Heat Rise °F	46	47	48	49	50	51	53	54	55	57		
		(°C)	(26)	(26)	(27)	(27)	(28)	(29)	(29)	(30)	(31)	(32)		
High ⁴	Black	CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528		
		BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68		
		Low Stage Heat Rise °F	NA	NA	30	31	31	32	33	34	35	37		
		(°C)	NA	NA	(17)	(17)	(17)	(18)	(18)	(19)	(19)	(20)		
		High Stage Heat Rise °F	45	46	47	48	49	50	51	52	54	57		
		(°C)	(25)	(25)	(26)	(27)	(27)	(28)	(28)	(29)	(29)	(30)		

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)												
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1			
60130	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839		
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29		
				Low Stage Heat Rise °F (°C)	49 (27)	51 (28)	53 (30)	56 (31)	59 (33)	61 (34)	64 (36)	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895		
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32		
	Med-Low ³	Pink	Medium	Red	Low Stage Heat Rise °F (°C)	47 (26)	48 (27)	51 (28)	53 (29)	55 (31)	57 (32)	60 (33)	63 (35)	NA	NA	
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356	
					BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55	
					Low Stage Heat Rise °F (°C)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	
					High Stage Heat Rise °F (°C)	57 (32)	58 (32)	59 (33)	61 (34)	62 (35)	64 (36)	65 (36)	NA	NA	NA	
Med-High ²	Orange	Med-High ²	Orange	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532		
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63		
				Low Stage Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	36 (20)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)		
				High Stage Heat Rise °F (°C)	51 (28)	52 (29)	53 (30)	54 (30)	55 (31)	57 (31)	58 (32)	59 (33)	61 (34)	63 (35)		
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528		
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68		
High ⁴	Black	High ⁴	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (19)	35 (20)	36 (20)	37 (21)	38 (21)	39 (22)	41 (23)		
				High Stage Heat Rise °F (°C)	50 (28)	50 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	60 (33)	63 (35)		

Notes:

- 1 Factory-shipped low stage cooling speed
 - 2 Factory-shipped high stage cooling speed
 - 3 Factory-shipped low stage gas heating speed
 - 4 Factory-shipped high stage gas heating speed
- Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed
- *NA = Not allowed for particular heating speed

DRY COIL AIR DELIVERY* - HORIZONTAL DISCHARGE -460 VAC MODELS

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)									
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
36060	25 - 55°F	Low ¹	Blue	CFM	934	864	810	745	698	649	571	525	486	428
				Heat Rise °F (°C)	48 (26)	51 (29)	55 (30)	NA	NA	NA	NA	NA	NA	NA
		Med-Low	Pink	CFM	1076	1026	972	918	872	827	771	714	666	611
				Heat Rise °F (°C)	41 (23)	43 (24)	46 (25)	48 (27)	51 (28)	54 (30)	57 (31)	60 (32)	63 (33)	66 (34)
		Medium ³	Red	CFM	1213	1169	1110	1065	1016	964	923	878	820	777
				Heat Rise °F (°C)	37 (20)	38 (21)	40 (22)	42 (23)	44 (24)	46 (26)	48 (27)	51 (28)	54 (30)	57 (31)
		Med-High ²	Orange	CFM	1251	1198	1149	1104	1066	1017	970	932	892	839
				Heat Rise °F (°C)	36 (20)	37 (21)	39 (22)	40 (22)	42 (24)	44 (25)	46 (26)	48 (27)	51 (28)	53 (29)
		High	Black	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094
				Heat Rise °F (°C)	31 (17)	31 (17)	32 (18)	33 (19)	35 (19)	36 (20)	37 (20)	38 (21)	39 (22)	41 (23)
Low ¹	Blue	CFM	934	864	810	745	698	649	571	525	486	428		
		Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
36090	35 - 65°F	Med-Low	Pink	CFM	1076	1026	972	918	872	827	771	714	666	611
				Heat Rise °F (°C)	63 (35)	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Medium	Red	CFM	1213	1169	1110	1065	1016	964	923	878	820	777
				Heat Rise °F (°C)	56 (31)	58 (32)	61 (34)	64 (35)	NA	NA	NA	NA	NA	NA
		Med-High ²	Orange	CFM	1251	1198	1149	1104	1066	1017	970	932	892	839
				Heat Rise °F (°C)	54 (30)	57 (32)	59 (33)	62 (34)	64 (35)	NA	NA	NA	NA	NA
		High ³	Black	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094
				Heat Rise °F (°C)	47 (26)	48 (27)	50 (28)	51 (28)	53 (29)	54 (30)	56 (31)	58 (32)	60 (33)	62 (35)
		Low ¹	Blue	CFM	1076	1026	972	918	872	827	771	714	666	611
				Heat Rise °F (°C)	41 (23)	43 (24)	46 (25)	48 (27)	51 (28)	54 (30)	57 (31)	60 (32)	63 (33)	66 (34)
Med-Low	Pink	CFM	1213	1169	1110	1065	1016	964	923	878	820	777		
		Heat Rise °F (°C)	37 (20)	38 (21)	40 (22)	42 (23)	44 (24)	46 (26)	48 (27)	51 (28)	54 (30)	57 (31)		
Medium ³	Red	CFM	1251	1198	1149	1104	1066	1017	970	932	892	839		
		Heat Rise °F (°C)	36 (20)	37 (21)	39 (22)	40 (22)	42 (24)	44 (25)	46 (26)	48 (27)	51 (28)	53 (29)		
Med-High ²	Orange	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094		
		Heat Rise °F (°C)	31 (17)	31 (17)	32 (18)	33 (19)	35 (19)	36 (20)	37 (20)	38 (21)	39 (22)	41 (23)		
High	Black	CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303		
		Heat Rise °F (°C)	27 (15)	28 (16)	29 (16)	29 (16)	30 (17)	31 (17)	32 (18)	33 (18)	34 (18)	34 (19)		

DRY COIL AIR DELIVERY* - HORIZONTAL DISCHARGE - 460 VAC MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
42090	35 - 65°F	Low ¹	Blue	CFM	1076	1026	972	918	872	827	771	714	666	611	
				Heat Rise °F	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				(°C)	(35)										
		Med-Low	Pink	CFM	1213	1169	1110	1065	1016	964	923	878	820	777	
				Heat Rise °F	56	58	61	64	NA	NA	NA	NA	NA	NA	NA
				(°C)	(31)	(32)	(34)	(35)							
		Medium	Red	CFM	1251	1198	1149	1104	1066	1017	970	932	892	839	
				Heat Rise °F	54	57	59	62	64	NA	NA	NA	NA	NA	NA
				(°C)	(30)	(32)	(33)	(34)	(35)						
		Med-High ²	Orange	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094	
				Heat Rise °F	47	48	50	51	53	54	56	58	60	62	
				(°C)	(26)	(27)	(28)	(28)	(29)	(30)	(31)	(32)	(33)	(35)	
High ³	Black	CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303			
		Heat Rise °F	42	43	44	45	46	47	48	50	51	52			
		(°C)	(23)	(24)	(24)	(25)	(25)	(26)	(27)	(28)	(28)	(29)			
Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839			
		Heat Rise °F	54	55	58	61	64	NA	NA	NA	NA	NA	NA		
		(°C)	(30)	(31)	(32)	(34)	(35)								
Med-Low ³	Pink	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027				
		Heat Rise °F	47	49	51	53	55	57	60	63	68	NA			
		(°C)	(26)	(27)	(28)	(29)	(31)	(32)	(33)	(35)	(35)				
Medium ²	Red	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356			
		Heat Rise °F	40	41	42	43	44	45	46	47	49	50			
		(°C)	(22)	(23)	(23)	(24)	(25)	(26)	(26)	(27)	(27)	(28)			
Med-High	Orange	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532			
		Heat Rise °F	37	37	38	38	40	40	41	42	43	44			
		(°C)	(20)	(21)	(21)	(21)	(22)	(22)	(23)	(23)	(24)	(25)			
High	Black	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785				
		Heat Rise °F	NA	NA	NA	NA	NA	35	36	37	38				
		(°C)						(19)	(20)	(20)	(21)				
Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839			
		Heat Rise °F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		(°C)													
Med-Low	Pink	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027				
		Heat Rise °F	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		(°C)	(33)												
Medium ²	Red	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356			
		Heat Rise °F	51	52	53	55	56	57	59	60	60	NA	NA		
		(°C)	(28)	(29)	(30)	(30)	(31)	(32)	(33)	(33)	(33)				
Med-High	Orange	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532			
		Heat Rise °F	47	47	48	48	50	51	52	53	55	56			
		(°C)	(26)	(26)	(27)	(27)	(28)	(28)	(29)	(29)	(30)	(31)			
High ³	Black	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785				
		Heat Rise °F	40	41	42	43	44	45	46	46	48				
		(°C)	(22)	(23)	(23)	(24)	(24)	(25)	(25)	(26)	(26)				



DRY COIL AIR DELIVERY* - HORIZONTAL DISCHARGE - 460 VAC MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
48130	35 - 65°F	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-Low	Pink	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027		
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Medium ²	Red	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356	
				Heat Rise °F (°C)	57 (32)	58 (32)	60 (33)	61 (34)	62 (35)	64 (36)	NA	NA	NA	NA	NA
		Med-High	Orange	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	
				Heat Rise °F (°C)	52 (29)	52 (28)	54 (30)	54 (30)	56 (31)	57 (32)	58 (32)	58 (32)	59 (33)	61 (34)	63 (35)
		High ³	Black	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785		
				Heat Rise °F (°C)	45 (25)	46 (26)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	51 (28)	52 (29)	54 (30)	
60090	35 - 65°F	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				Heat Rise °F (°C)	54 (30)	55 (31)	58 (32)	61 (34)	64 (35)	NA	NA	NA	NA	NA	NA
		Med-Low ³	Pink	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027		
				Heat Rise °F (°C)	47 (26)	49 (27)	51 (28)	53 (29)	55 (31)	57 (32)	60 (33)	63 (35)	NA	NA	
		Medium ²	Red	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				Heat Rise °F (°C)	36 (20)	37 (21)	38 (21)	39 (21)	39 (22)	40 (22)	41 (23)	42 (24)	43 (25)	44 (25)	
		Med-High	Orange	CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643	
				Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	36 (20)	37 (21)	38 (21)	39 (21)	40 (22)	41 (23)	
		High	Black	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785		
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	35 (19)	36 (20)	37 (20)	38 (21)		
60115	30 - 60°F	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-Low	Pink	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027		
				Heat Rise °F (°C)	60 (33)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Medium ²	Red	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				Heat Rise °F (°C)	46 (26)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	53 (30)	55 (31)	56 (31)	
		Med-High	Orange	CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643	
				Heat Rise °F (°C)	43 (24)	43 (24)	44 (24)	45 (25)	46 (26)	47 (26)	48 (27)	49 (27)	50 (28)	52 (29)	
		High ³	Black	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785		
				Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	44 (25)	46 (26)	46 (26)	48 (27)	48 (27)	

DRY COIL AIR DELIVERY* - HORIZONTAL DISCHARGE - 460 VAC MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
60130	35 - 65°F	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				Heat Rise °F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				(°C)	1445	1389	1341	1281	1236	1189	1139	1072	1027		
		Med-Low	Pink	CFM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				Heat Rise °F	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				(°C)	51	52	53	55	56	57	58	60	61	63	
		Medium ²	Red	CFM	(28)	(29)	(30)	(30)	(31)	(32)	(32)	(33)	(33)	(34)	(35)
				Heat Rise °F	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643	
				(°C)	48	48	49	50	51	52	53	55	56	59	
		Med-High	Orange	CFM	(26)	(27)	(27)	(28)	(29)	(29)	(30)	(30)	(31)	(31)	(33)
				Heat Rise °F	2131	2088	2065	2013	1982	1941	1888	1860	1785		
				(°C)	45	46	47	48	49	50	51	52	54		
High ³	Black	CFM	(25)	(26)	(26)	(27)	(27)	(28)	(28)	(29)	(29)	(30)			
		Heat Rise °F													
		(°C)													

Notes:

- 1 Factory-shipped low stage cooling speed
- 2 Factory-shipped high stage cooling speed
- 3 Factory-shipped low gas heating speed
- "NA" = Not allowed for particular heating speed

WET COIL PRESSURE DROP (IN. W.C.)

UNIT SIZE	STANDARD CFM (SCFM)																
	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
24	0.03	0.04	0.04	0.05	0.06												
30				0.05	0.06	0.07	0.08	0.11									
36				0.06	0.06	0.09	0.10	0.11	0.14								
42					0.05	0.05	0.06	0.07	0.08	0.08	0.09	0.09	0.11				
48							0.04	0.06	0.09	0.10	0.10	0.11	0.12	0.13	0.14		
60										0.06	0.07	0.01	0.08	0.09	0.10	0.12	0.13

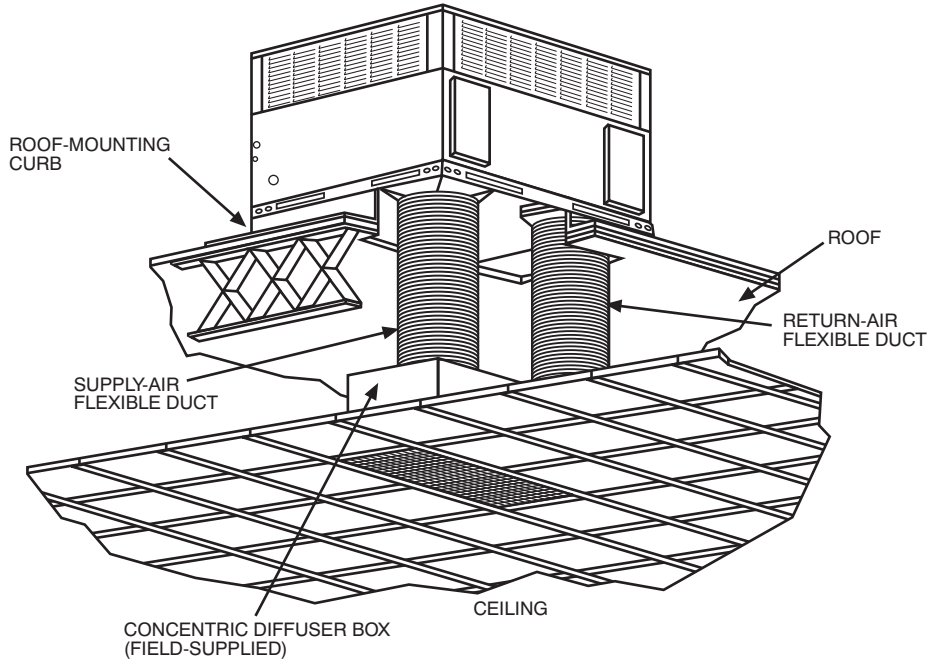
ECONOMIZER WITH 1-IN. FILTER PRESSURE DROP (IN. W.C.)

FILTER SIZE IN. (MM)	COOLING TONS	STANDARD CFM (SCFM)																
		600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
600-1400 CFM 12x20x1+12x20x1 (305x508x25+305x508x25)	2.0,	-	-	0.09	0.14	0.16	0.18	0.25	0.28	0.30	-	-	-	-	-	-	-	-
	2.5																	
1200-1800 CFM 16x24x1+14x24x1 (406x610x25+356x610x25)	3.0,	-	-	-	-	-	-	0.10	0.11	0.12	0.13	0.14	0.16	0.16	-	-	-	-
	3.5																	
1500-2200 CFM 16x24x1+18x24x1 (406x610x25+457x610x25)	4.0,	-	-	-	-	-	-	-	-	-	0.15	0.17	0.18	0.20	0.21	0.22	0.23	0.23
	5.0																	

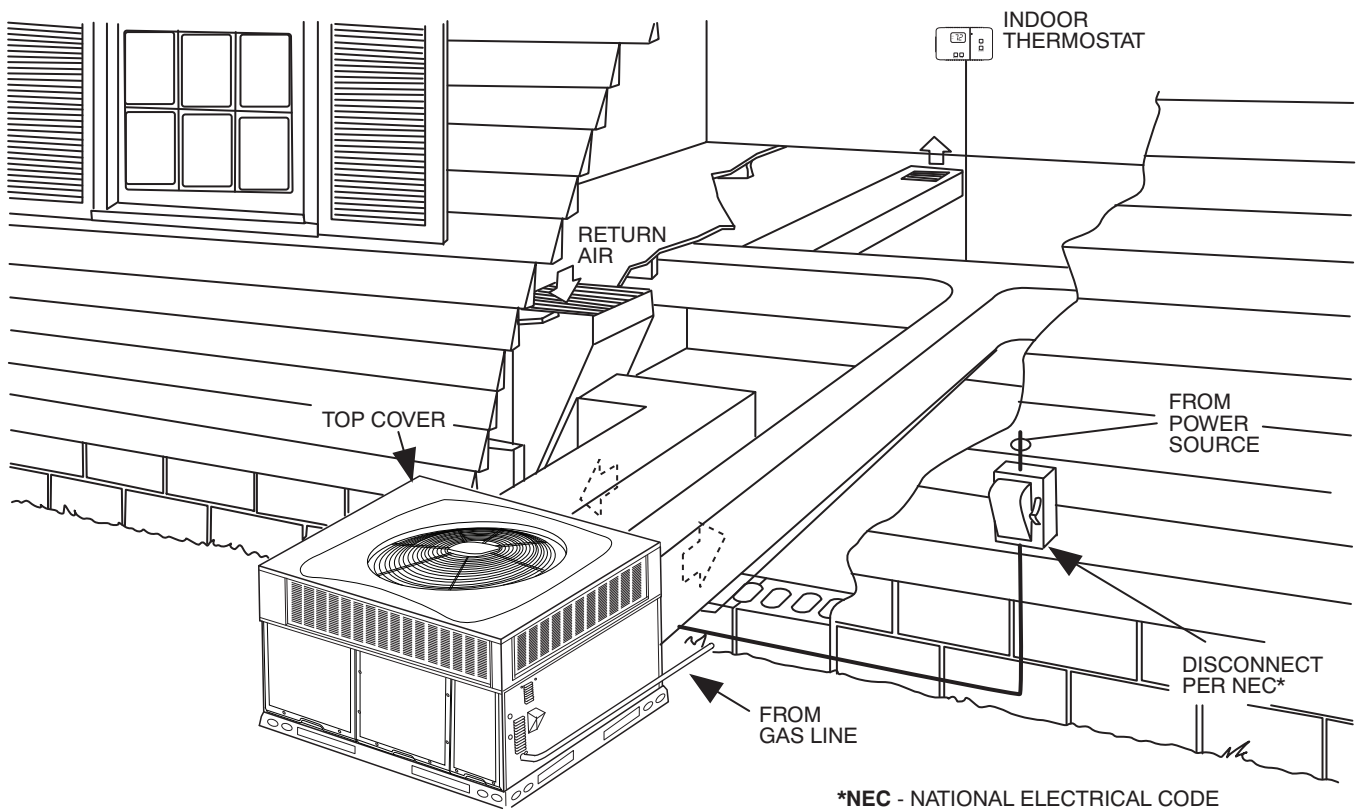
FILTER PRESSURE DROP TABLE (IN. W.C.)

FILTER SIZE IN. (MM)	COOLING TONS	STANDARD CFM (SCFM)																
		600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
600-1400 CFM 12x20x1+12x20x1 (305x508x25+305x508x25)	2.0,	0.03	0.05	0.06	0.08	0.10	0.11	0.13	0.14	0.16	-	-	-	-	-	-	-	-
	2.5																	
1200-1800 CFM 16x24x1+14x24x1 (406x610x25+356x610x25)	3.0,	-	-	-	-	-	-	0.07	0.08	0.09	0.09	0.10	0.11	0.12	-	-	-	-
	3.5																	
1500-2200 CFM 16x24x1+18x24x1 (406x610x25+457x610x25)	4.0,	-	-	-	-	-	-	-	-	-	0.04	0.06	0.08	0.10	0.11	0.13	0.14	0.15
	5.0																	

TYPICAL PIPING AND WIRING



A09233



*NEC - NATIONAL ELECTRICAL CODE

A09234

48VG

APPLICATION DATA

Condensate trap — A 2-in. (50.8 mm) condensate trap must be field supplied.

Ductwork — Secure downflow discharge ductwork to roof curb. For horizontal discharge applications, attach ductwork to unit with flanges.

To convert a unit to downflow discharge — Units are equipped with factory-installed inserts in the down-flow openings. Removal of the inserts is similar to removing an electrical knock-out. Use the duct cover to seal the horizontal discharge openings in the unit. Units installed in horizontal discharge orientation do not require duct covers.

Airflow — Units are draw-thru in the cooling mode and blow-thru in the heating mode.

Maximum cooling airflow — To minimize the possibility of condensate blow-off from the evaporator, airflow through the units should not exceed 450 cfm per ton.

Minimum cooling airflow — Minimum cooling airflow is 350 cfm per ton.

Minimum ambient cooling operation temperature — All standard units have a minimum ambient operating temperature of 40°F (4°C). With accessory low ambient temperature kit, units can operate at temperatures down to 0°F (-17°C).

Minimum temperature — Air entering the heat exchanger in heating mode must be a minimum of 55°F (13°C) continuous and a maximum of 80°F (27°C) continuous.

ELECTRICAL DATA

UNIT	NOMINAL	VOLTAGE RANGE		COMPRESSOR		OFM	IFM	IDM	POWER SUPPLY	
		MIN	MAX	RLA	LRA	FLA	FLA	FLA	MCA	MOCPP
2404030 2406030	208/230-1-60	197	253	11.7	58.3	0.7	4.1	.27	19.4	30
3004030 3006030	208/230-1-60	197	253	13.1	73.0	1.2	4.1	.27	21.7	30
3004050 3006050	208/230-3-60	197	253	8.7	58.0	1.2	4.1	.21	16.2	20
3606030 3609030	208/230-1-60	197	253	15.3	83.0	1.2	6.0	.27	26.3	40
3606050 3609050	208/230-3-60	197	253	11.6	73.0	1.2	6.0	.21	21.7	30
3606060 3609060	460-3-60	414	506	5.7	38.0	0.53	3.2	.65 .33	10.8	15
4206030 4209030	208/230-1-60	197	253	17.9	96.0	1.2	6.0	.27	29.6	45
4206050 4209050	208/230-3-60	197	253	14.2	88.0	1.2	6.0	.21	25.0	35
4206060 4209060	460-3-60	414	506	6.2	44.0	0.53	3.2	.65 .33	11.5	15
4809030 4811530 4813030	208/230-1-60	197	253	21.2	104.0	1.2	7.6	.27	35.3	50
4809050 4811550 4813050	208/230-3-60	197	253	14.0	83.1	1.2	7.6	.21 .50 .50	26.3	40
4809060 4811560 4813060	460-3-60	414	506	6.4	41.0	0.53	4.0	.33 .65 .30	12.5	15
6009030 6011530 6013030	208/230-1-60	197	253	28.8	152.9	1.2	7.6	.27	44.8	60
6009050 6011550 6013050	208/230-3-60	197	253	16.2	110.0	1.2	7.6	.21 .50 .50	29.1	40
6009060 6011560 6013060	460-3-60	414	506	7.6	52.0	.053	4.0	.33 .65 .30	14.0	20

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ELECTRICAL DATA (CONT)

LEGEND

- FLA - Full Load Amps
- IDM - Inducer Motor
- IFM - Indoor Fan Motor
- LRA - Locked Rotor Amps
- MCA - Minimum Circuit Amps
- MOCP - Maximum Over Current Protection
- OFM - Outdoor Fan Motor
- RLA - Rated Load Amps

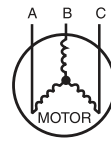
NOTES:

1. In compliance with NEC (National Electrical Code) requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be Power Supply fuse or circuit breaker.
2. Minimum wire size is based on 60 C copper wire. If other than 60 C wire is used, or if length exceeds wire length in table, determine size from NEC.
3. Unbalanced 3-Phase Supply Voltage
Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance

% Voltage imbalance

$$= 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

EXAMPLE: Supply voltage is 230-3-60.



AB = 228 v
BC = 231 v
AC = 227 v

$$\begin{aligned} \text{Average Voltage} &= \frac{228 + 231 + 227}{3} \\ &= \frac{686}{3} \\ &= 229 \end{aligned}$$

Determine maximum deviation from average voltage.

(AB) 229 - 228 = 1 v
(BC) 231 - 229 = 2 v
(AC) 229 - 227 = 2 v

Maximum deviation is 2 v.

Determine percent of voltage imbalance

$$\begin{aligned} \% \text{ Voltage Imbalance} &= 100 \times \frac{2}{229} \\ &= 0.8\% \end{aligned}$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

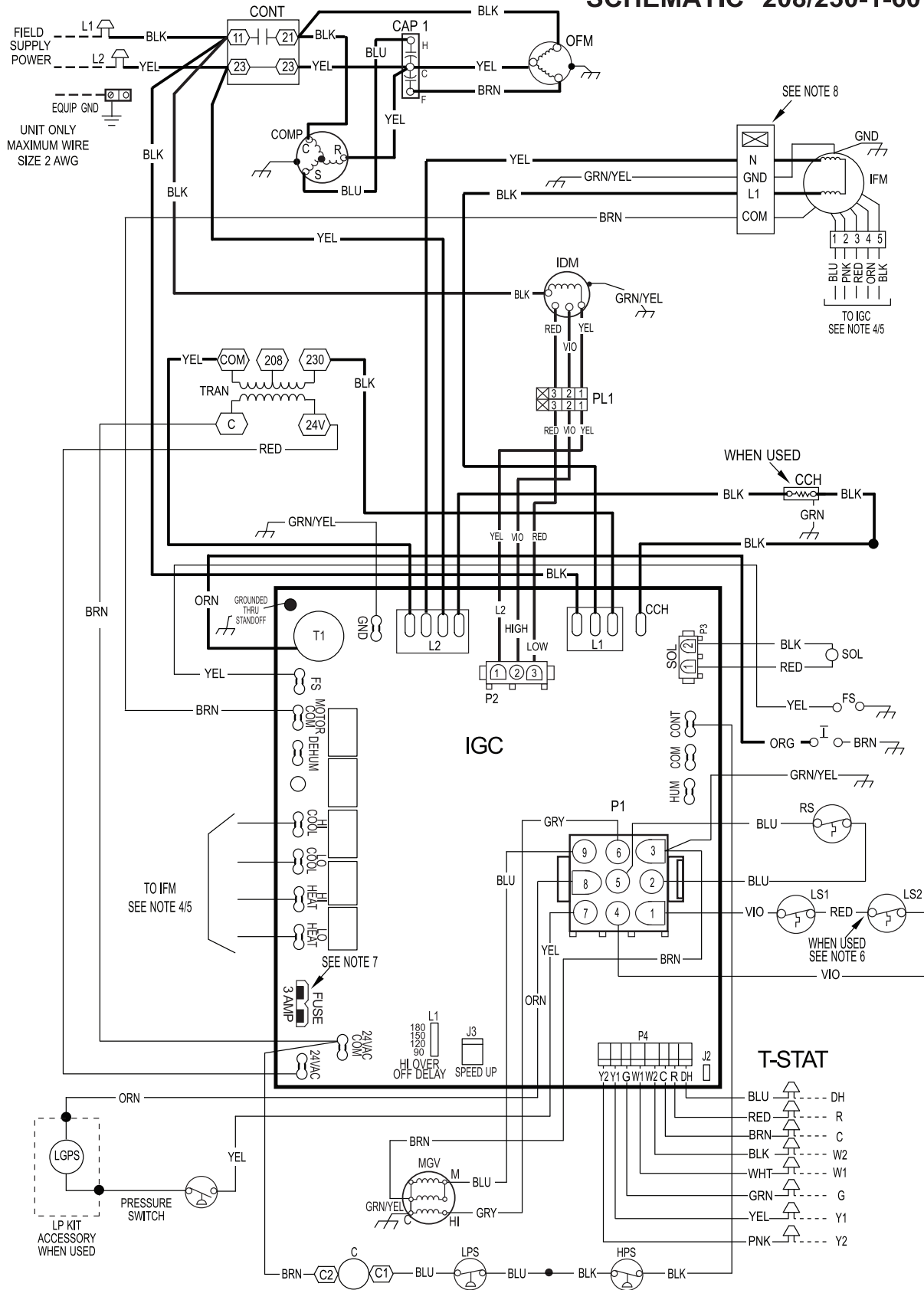
IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

CONNECTION WIRING SCHEMATIC 208/230-1-60

CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC 208/230-1-60



48VDC

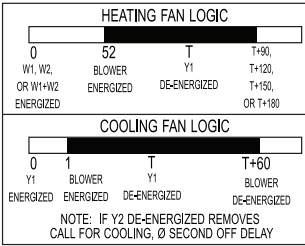
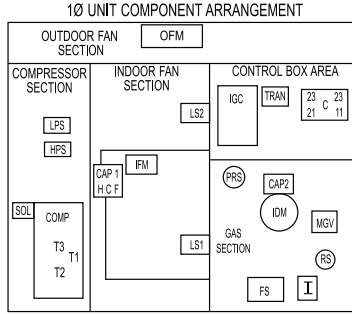
LADDER WIRING SCHEMATIC 208/230-1-60

LADDER WIRING DIAGRAM

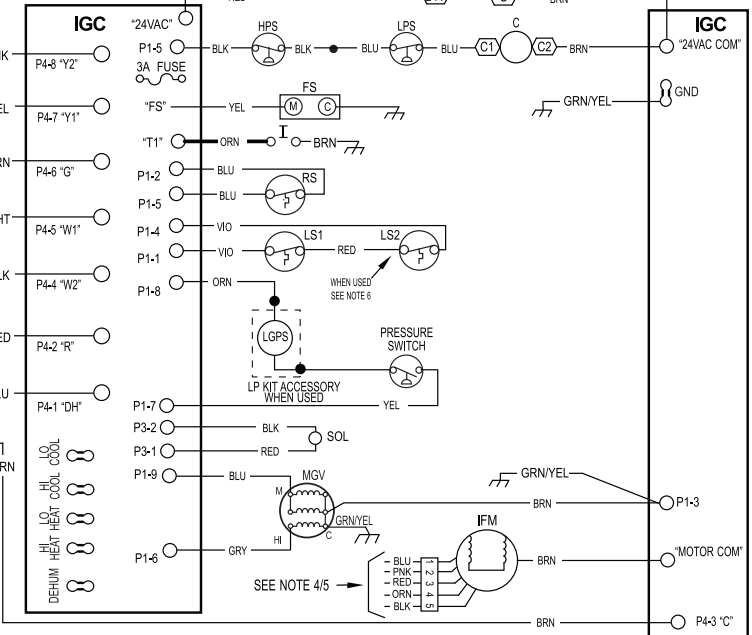
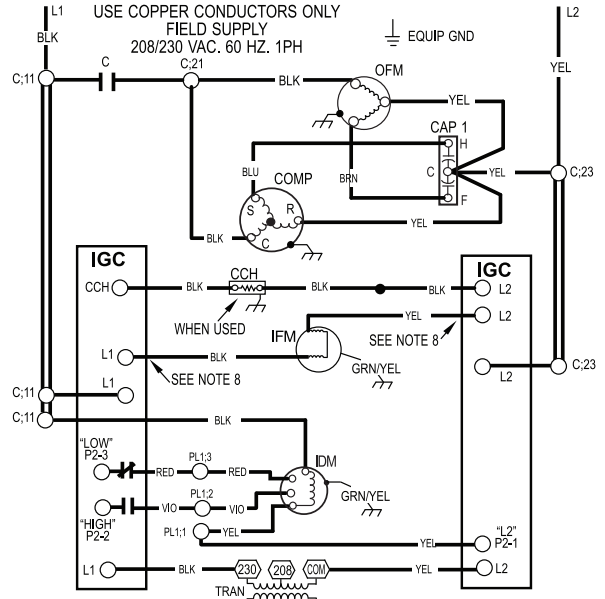
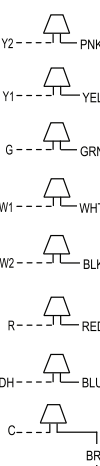
DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

48VG

LEGEND		
	FIELD SPLICE	EQUIP
	TERMINAL (MARKED)	FS
	TERMINAL (UNMARKED)	GND
	SPLICE	HPS
	SPLICE (MARKED)	I
	FACTORY LO VOLTAGE	IDM
	FIELD CONTROL WIRING	IFM
	FIELD POWER WIRING	IGC
	ACCESSORY OR OPTIONAL WIRING	LGPS
	FACTORY HI VOLTAGE	LPS
C	CONTACTOR	LS1
CAP1	CAPACITOR, COMP	LS2
CAP2	CAPACITOR, INDUCER	MGV
CCH	CRANKCASE HEATER	OFM
COMP	COMPRESSOR MOTOR	OT
		PL1
		PL2
		RS
		SOL
		TRAN
		T-STAT
		EQUIPMENT
		FLAME SENSOR
		GROUND
		HIGH PRESSURE SWITCH
		IGNITOR
		INDUCED DRAFT MOTOR
		INDOOR FAN MOTOR
		INTERGRATED GAS UNIT CONTROLLER
		LOW GAS PRESSURE SWITCH (WHEN USED)
		LOW PRESSURE SWITCH
		PRIMARY LIMIT SWITCH
		SECONDARY LIMIT SWITCH
		MAIN GAS VALVE
		OUTDOOR FAN MOTOR
		QUADRUPLE TERMINAL
		IGC TO INDUCER MOTOR PLUG
		INDUCER MOTOR PLUG
		ROLLOUT SWITCH
		COMPRESSOR SOLENOID
		TRANSFORMER
		THERMOSTAT



T-STAT



- NOTES:**
- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED THEY MUST BE REPLACED WITH THE SAME WIRE OR IT'S EQUIVALENT.
 - SEE PRE-SALE LITERATURE FOR THERMOSTATS.
 - USE 75 DEGREES C COPPER CONDUCTORS FOR FIELD INSTALLATION.
 - REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION FOR IFM.
 - SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT.
 - ON SOME MODELS LS1 AND LS2 ARE WIRED IN SERIES. ON OTHER MODELS ONLY LS1 IS USED.
 - THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 2570003.
 - DO NOT DISCONNECT PLUG UNDER LOAD.
 - N.E.C. CLASS 2, 24V.



48VG500093 REV. A



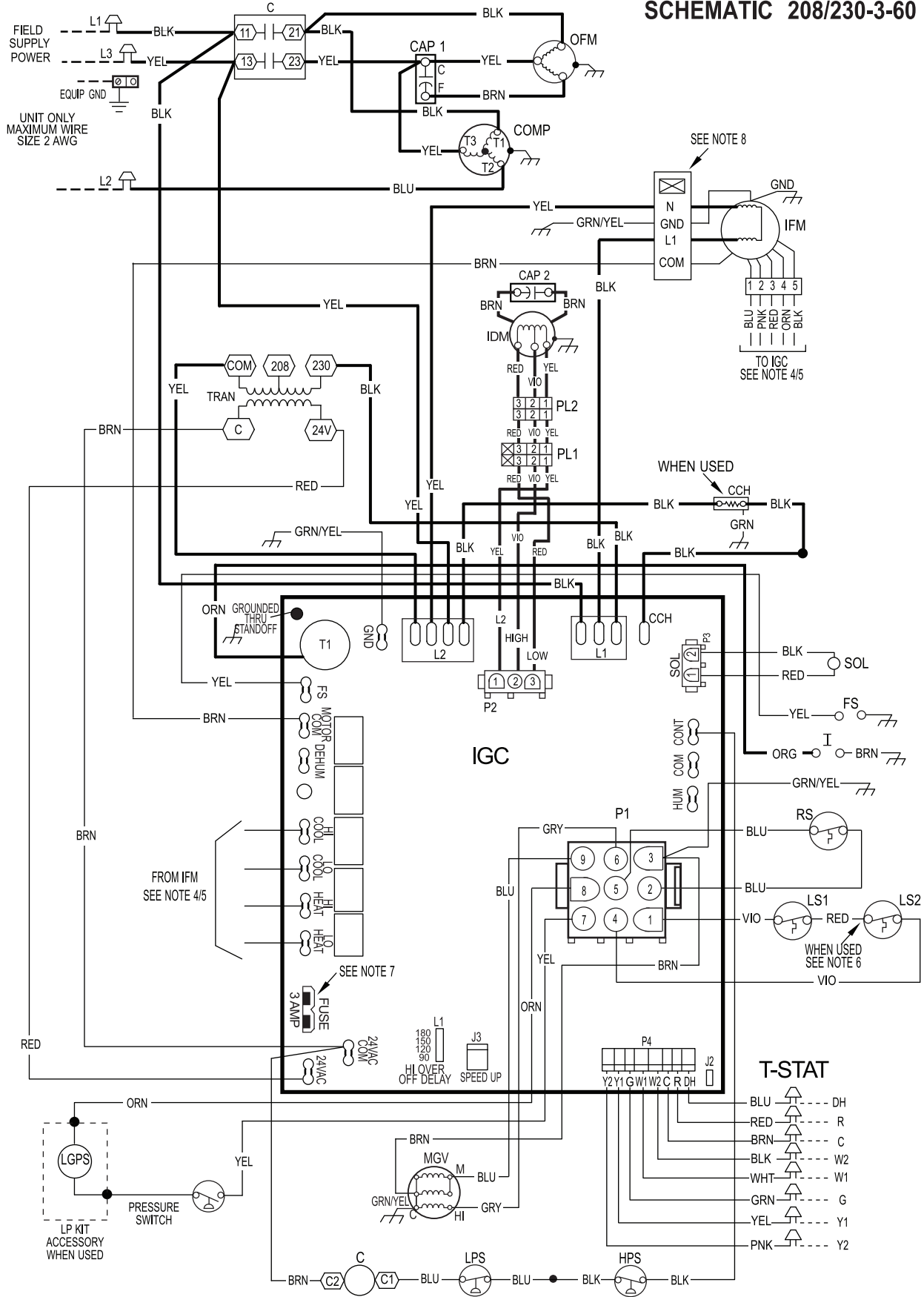
A14594

CONNECTION WIRING SCHEMATIC GAS INPUTS 40, 60, 90 KBTU/HR 208/230-3-60

CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC 208/230-3-60



48VVG

LADDER WIRING SCHEMATIC GAS INPUTS 40, 60, 90 KBTU/HR 208/230-3-60

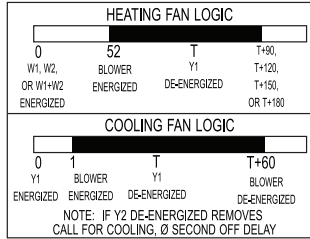
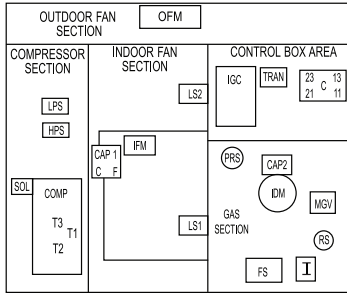
LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

48VG

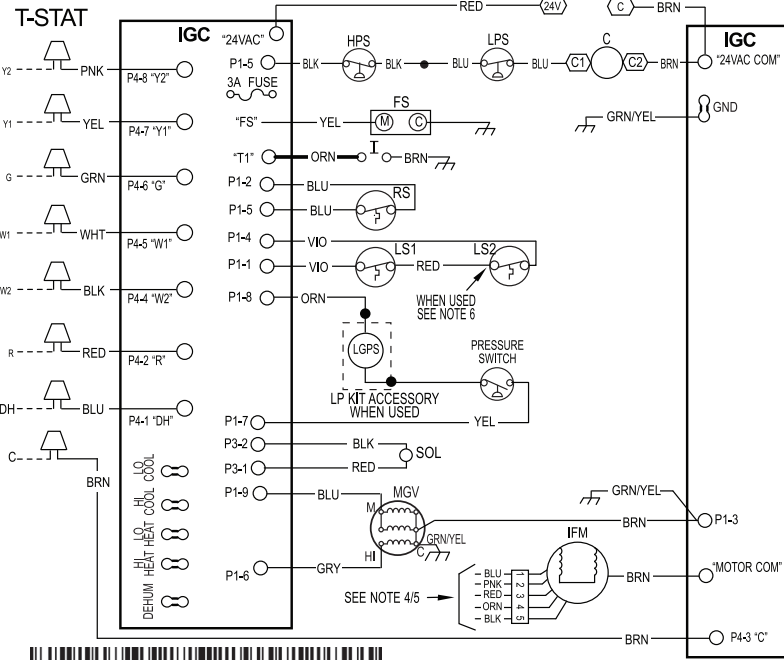
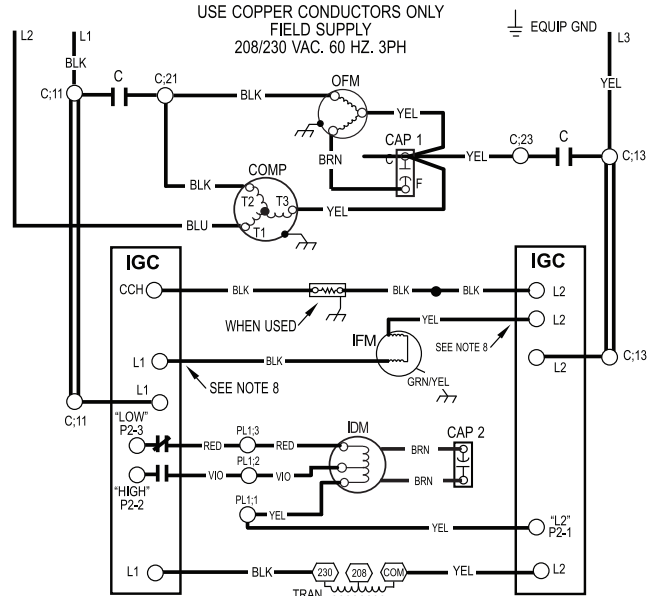
LEGEND		
	FIELD SPLICE	EQUIP
	TERMINAL (MARKED)	FS
	TERMINAL (UNMARKED)	GND
	SPLICE	HPS
	SPLICE (MARKED)	IDM
	FACTORY LO VOLTAGE	IFM
	FIELD CONTROL WIRING	IGC
	FIELD POWER WIRING	LGPS
	ACCESSORY OR OPTIONAL WIRING	LPS
	FACTORY HI VOLTAGE	LS1
	CONTACTOR	LS2
	CAPACITOR, COMP	MGV
	CAPACITOR, INDUCER	OFM
	CRANKCASE HEATER	OT
	COMPRESSOR MOTOR	PL1
		PL2
		RS
		SOL
		TRAN
		T-STAT
		EQUIPMENT
		FLAME SENSOR
		GROUND
		HIGH PRESSURE SWITCH
		IGNITOR
		INDUCED DRAFT MOTOR
		INDOOR FAN MOTOR
		INTERGRATED GAS UNIT CONTROLLER
		LOW GAS PRESSURE SWITCH (WHEN USED)
		LOW PRESSURE SWITCH
		PRIMARY LIMIT SWITCH
		SECONDARY LIMIT SWITCH
		MAIN GAS VALVE
		OUTDOOR FAN MOTOR
		QUADRUPLE TERMINAL
		IGC TO INDUCER MOTOR PLUG
		INDUCER MOTOR PLUG
		ROLLOUT SWITCH
		COMPRESSOR SOLENOID
		TRANSFORMER
		THERMOSTAT

3Ø UNIT COMPONENT ARRANGEMENT



NOTES:

- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED THEY MUST BE REPLACED WITH THE SAME WIRE OR ITS EQUIVALENT.
- SEE PRE-SALE LITERATURE FOR THERMOSTATS.
- USE 75 DEGREES C COPPER CONDUCTORS FOR FIELD INSTALLATION.
- REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION FOR IFM.
- SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT.
- ON SOME MODELS LS1 AND LS2 ARE WIRED IN SERIES. ON OTHER MODELS ONLY LS1 IS USED.
- THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 257003.
- DO NOT DISCONNECT PLUG UNDER LOAD.
- N.E.C. CLASS 2, 24V.



48VG500005 REV. D



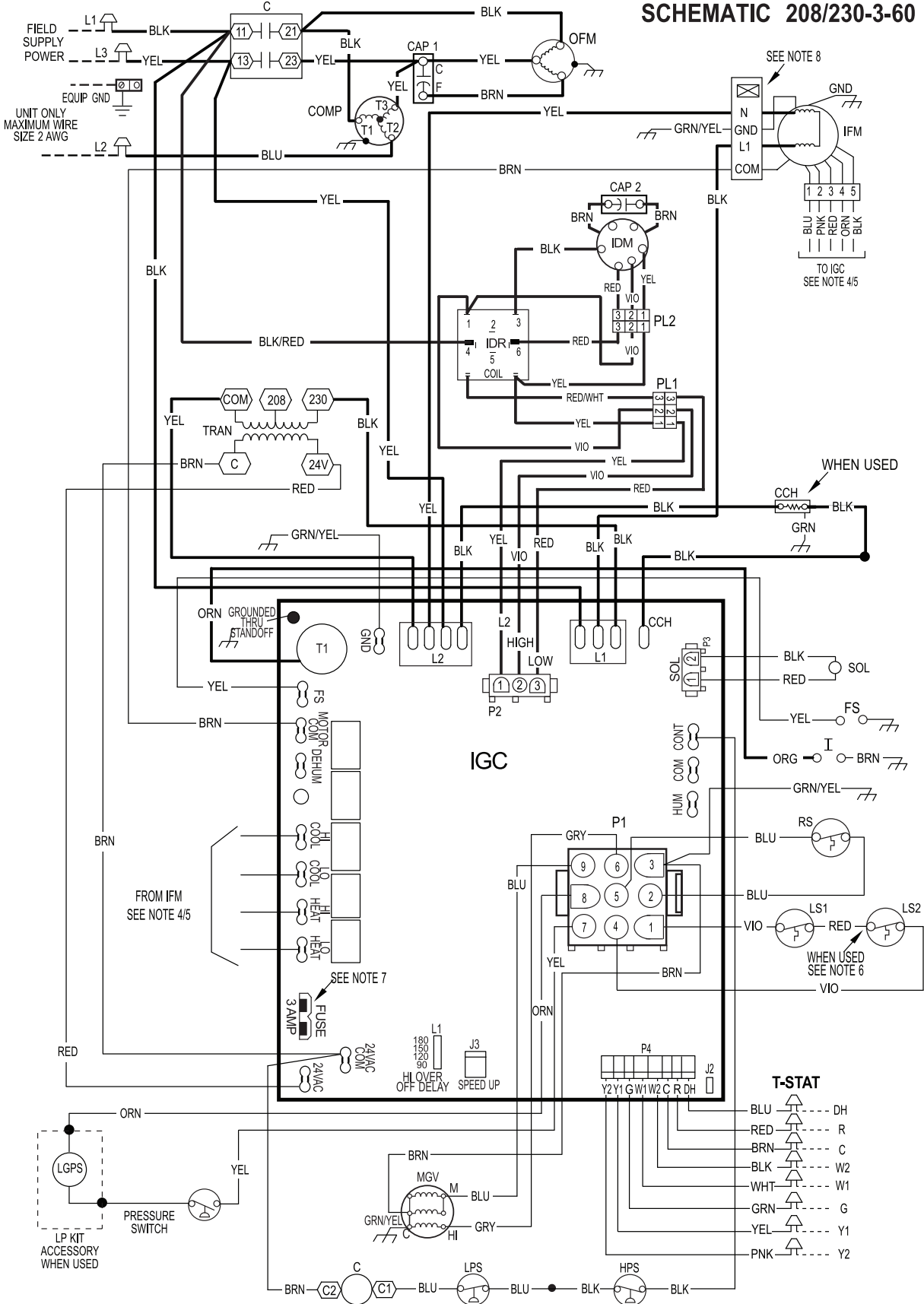
A14616

CONNECTION WIRING SCHEMATIC GAS INPUTS 115, 130 208/230-3-60

CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC 208/230-3-60



48VIG

LADDER WIRING SCHEMATIC GAS INPUTS 115, 130 208/230-3-60

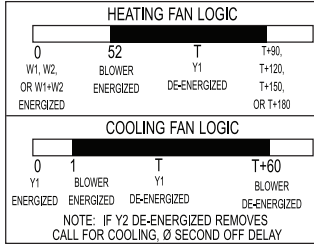
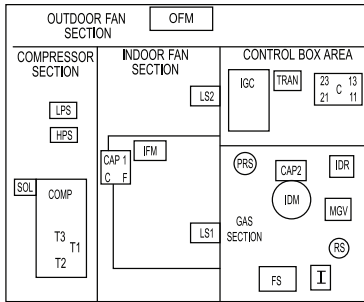
LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

LEGEND

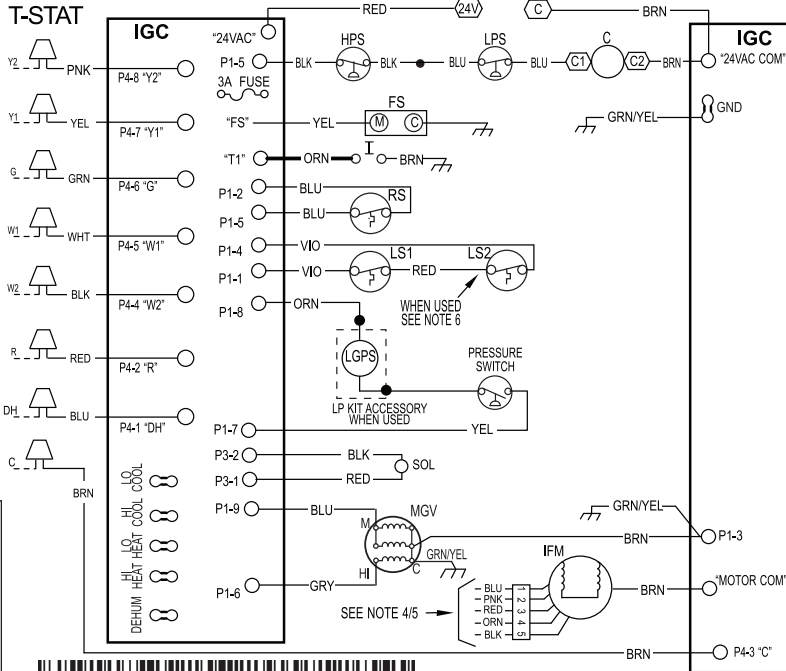
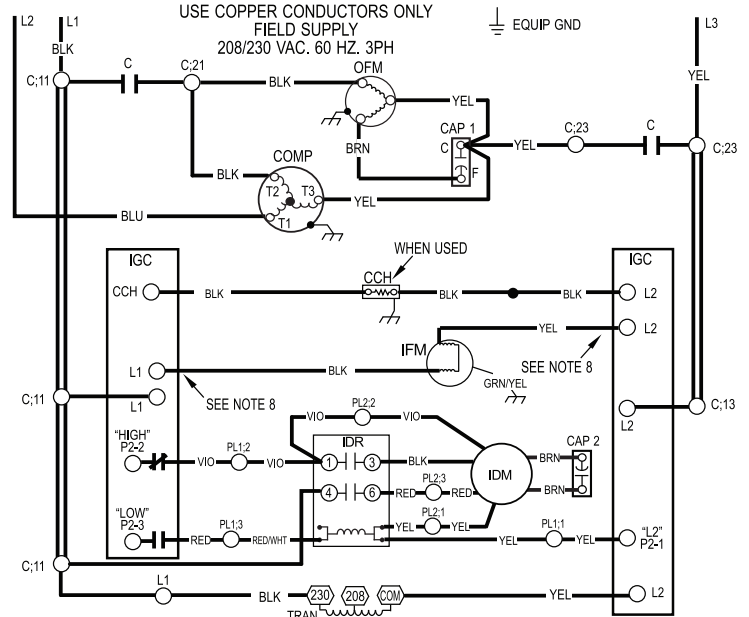
△	FIELD SPLICE	EQUIP	EQUIPMENT
○	TERMINAL (MARKED)	FS	FLAME SENSOR
○	TERMINAL (UNMARKED)	GND	GROUND
•	SPLICE	HPS	HIGH PRESSURE SWITCH
○	SPLICE (MARKED)	I	IGNITOR
---	FACTORY LO VOLTAGE	IDM	INDUCED DRAFT MOTOR
---	FIELD CONTROL WIRING	IDR	INDUCER RELAY
---	FIELD POWER WIRING	IFM	INDOOR FAN MOTOR
---	ACCESSORY OR OPTIONAL WIRING	IGC	INTERGRATED GAS UNIT CONTROLLER
---	FACTORY HI VOLTAGE	LGPS	LOW GAS PRESSURE SWITCH (WHEN USED)
C	CONTACTOR	LPS	LOW PRESSURE SWITCH
CAP1	CAPACITOR, COMP	LS1	PRIMARY LIMIT SWITCH
CAP2	CAPACITOR, INDUCER	LS2	SECONDARY LIMIT SWITCH
CCH	CRANKCASE HEATER	MGV	MAIN GAS VALVE
COMP	COMPRESSOR MOTOR	OFM	OUTDOOR FAN MOTOR
		OT	QUADRUPLE TERMINAL
		PL1	IGC TO INDUCER MOTOR PLUG
		PL2	INDUCER MOTOR PLUG
		RS	ROLLOUT SWITCH
		SOL	COMPRESSOR SOLENOID
		TRAN	TRANSFORMER
		T-STAT	THERMOSTAT

30 UNIT COMPONENT ARRANGEMENT



NOTES:

- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED THEY MUST BE REPLACED WITH THE SAME WIRE OR IT'S EQUIVALENT.
- SEE PRE-SALE LITERATURE FOR THERMOSTATS.
- USE 75 DEGREES C COPPER CONDUCTORS FOR FIELD INSTALLATION.
- REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION FOR IFM.
- SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT.
- ON SOME MODELS LS1 AND LS2 ARE WIRED IN SERIES. ON OTHER MODELS ONLY LS1 IS USED.
- THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 257003.
- DO NOT DISCONNECT PLUG UNDER LOAD.
- N.E.C. CLASS 2, 24V.



48VG500049 REV. D

48VG500049 REV. D



A14617

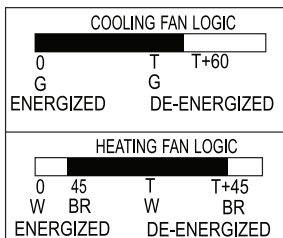
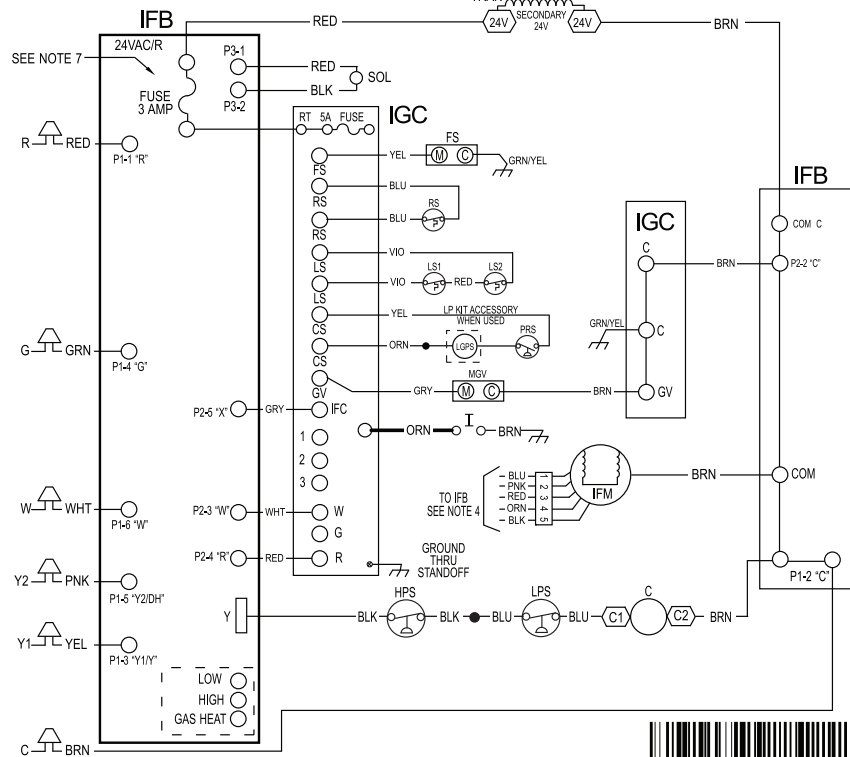
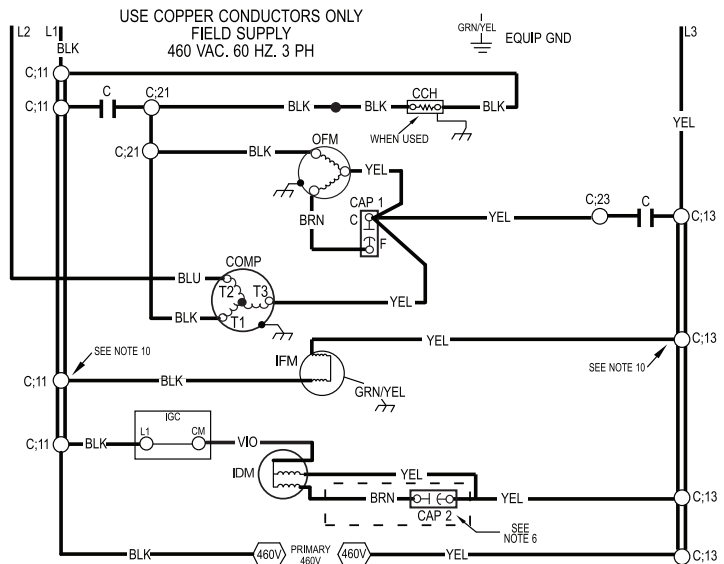
48VG

LADDER WIRING DIAGRAM 460-3-60

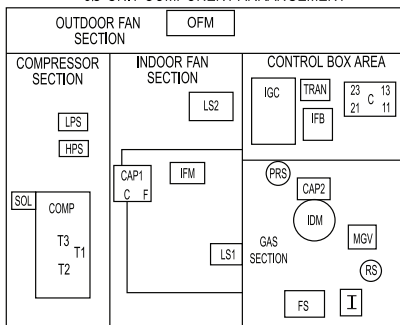
LADDER WIRING DIAGRAM DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

48VG

LEGEND			
	FIELD SPLICE	FS	FLAME SENSOR
	TERMINAL (MARKED)	GND	GROUND
	TERMINAL (UNMARKED)	HPS	HIGH PRESSURE SWITCH
	SPLICE	I	IGNITOR
	SPLICE (MARKED)	IFB	INDOOR FAN BOARD
	FACTORY LO VOLTAGE	IGC	INTERGRATED GAS UNIT CONTROLLER
	FIELD CONTROL WIRING	IDM	INDUCED DRAFT MOTOR
	FIELD POWER WIRING	IFM	INDOOR FAN MOTOR
	ACCESSORY OR OPTIONAL WIRING	LGPS	LOW GAS PRESSURE SWITCH
	FACTORY HI VOLTAGE	LPS	LOW PRESSURE SWITCH
	CONTACTOR	LS1	PRIMARY LIMIT SWITCH
	CAPACITOR, COMP	LS2	SECONDARY LIMIT SWITCH
	CAPACITOR, INDUCER	MGV	MAIN GAS VALVE
	COMPRESSOR MOTOR	OFM	OUTDOOR FAN MOTOR
	CRANK CASE HEATER	PRS	PRESSURE SWITCH
	EQUIPMENT	QT	QUADRUPLE TERMINAL
		RS	ROLLOUT SWITCH
		SOL	COMPRESSOR SOLENOID
		TRAN	TRANSFORMER
		T-STAT	THERMOSTAT



3Ø UNIT COMPONENT ARRANGEMENT



NOTES:

- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, THEY MUST BE REPLACED WITH THE SAME WIRE OR IT'S EQUIVALENT.
- SEE PRE SALE LITERATURE FOR THERMOSTAT.
- USE 75 DEGREE COPPER CONDUCTORS FOR FIELD INSTALLATION.
- SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT.
- LS2 USED ON SMALL CHASSIS ONLY.
- INDUCER CAPACITOR AND WIRING ON CERTAIN MODELS ONLY. IF CAP2 IS PRESENT, YELLOW WIRES FROM CONTACTOR AND IDM CONNECT ON SAME SIDE OF CAP2.
- THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 287003.
- THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 257005.
- ON SOME MODELS LS1 AND LS2 ARE WIRED IN SERIES. ON OTHER MODELS ONLY LS1 IS USED.
- DO NOT DISCONNECT PLUG UNDER LOAD.



48VG500006 REV. -



48VG500006 REV. -

CONTROLS

Operating sequence

208/230 VAC Models:

On a call for low stage heating, terminal W1 on the thermostat is energized. On a call for high stage heating both terminals W1 and W2 are energized. Regardless of the stage of the heating call, the induced-draft motor is turned on to high speed for a 15 sec pre-purge time. After the pre-purge, when the pressure switch senses that sufficient combustion air is being moved by the induced-draft motor, the ignition sequence begins. The IGC will energize the sparker and the low stage gas valve solenoid. Upon sensing flame, the IGC will check the heating call. If W2 is not energized, the IGC will drop the induced-draft motor to low speed and maintain the gas valve on low stage. If W2 is energized, the IGC will maintain the induced-draft motor on high speed and energize the high stage gas valve solenoid. Thirty sec after flame is sensed the IGC will turn on the evaporator fan motor. If W2 is not energized, the evaporator fan motor will run on low heat speed. If W2 is energized, the evaporator fan motor will run on high heat speed. After the call for heat is satisfied, the IGC will run the evaporator fan motor an additional field-selectable time of 90, 120, 150, or 180 sec before shutting the evaporator fan motor off.

460 VAC Models:

On a call for heating, terminal W of the thermostat is energized, starting the induced-draft motor. When the pressure switch senses that the induced-draft motor is moving sufficient combustion air, the ignition sequence begins. This function is performed by the integrated gas unit controller (IGC). The indoor (evaporator)-fan motor is energized 45 sec after flame is established. When the thermostat is satisfied and W is de-energized, the burners stop firing and the indoor (evaporator) fan motor shuts off after a 45-sec time-off delay. Please note that the IGC has the capability to automatically reduce the indoor fan motor on delay and increase the indoor fan motor off delay in the event of high duct static and/or partially-clogged filter.

Cooling — When the system thermostat calls for cooling, 24 V is supplied to the “Y1/Y” and “G” terminals of the thermostat. This completes the circuit to the contactor coil (C) and indoor (evaporator) fan relay (IFR). The normally open contacts of energized C close and complete the circuit through compressor motor (COMP) to outdoor (condenser) fan motor (OFM). Both motors start instantly. The set of normally open contacts of energized IFR close and complete the circuit through IFM. The IFM starts instantly.

On the loss of the thermostat call for cooling, 24 V is removed from both the “Y1/Y” and “G” terminals (provided the fan switch is in the “AUTO” position) de-energizing the compressor contactor and opening the contacts supplying power to compressor/OFM. After a 60-second delay, the IFM shuts off. If the thermostat fan selector switch is in the “ON” position, the IFM will run continuously.

NOTE: On units with a Time Guard® II device: Once the compressor has started and then stopped, it cannot be restarted again until 5 minutes have elapsed.

GUIDE SPECIFICATIONS

Packaged Gas Heating/Electric Cooling Units Constant Volume Application

HVAC Guide Specifications

Size Range: **2 to 5 Tons, Nominal Cooling
40,000 to 130,000 Btuh,
Nominal Heating Input**

SYSTEM DESCRIPTION

Outdoor rooftop or ground mounted air conditioner and gas furnace system utilizing a two-stage scroll compressor for cooling duty. Unit shall discharge supply air vertically or horizontally as shown on contract drawings. Outdoor fan/coil section shall have a draw-thru design with vertical discharge for minimum sound levels.

QUALITY ASSURANCE

- A. Unit shall be rated in accordance with AHRI Standards 210/240 and 270-1995.
- B. Unit shall be designed in accordance with UL Standard 1995 and ANSI Z 21.47.
- C. Unit shall be manufactured in a facility registered to ISO 9001 manufacturing quality standard.
- D. Unit shall be UL listed and c-UL certified as a total package for safety requirements.
- E. Roof curb shall be designed to conform to NRCA Standards.
- F. Insulation and adhesives shall meet NFPA 90.1 requirements for flame spread and smoke generation.
- G. Cabinet insulation shall meet ASHRAE Standard 62.2.

DELIVERY, STORAGE AND HANDLING

Unit shall be stored and handled per manufacturer's recommendations.

Part 2 — Products

EQUIPMENT

A. General:

Factory-assembled, single-piece, heating and cooling unit. Contained within the enclosure shall be all factory wiring, piping, controls, refrigerant charge with R-410A refrigerant, and special features required prior to field start-up.

B. Unit Cabinet:

1. Unit cabinet shall be constructed of phosphated, zinc-coated, pre-painted steel capable of with-standing 500 hours in salt spray.
2. Normal service shall be through 3 removable cabinet panels.
3. The unit shall be constructed on a rust proof unit base that has an externally trapped, integrated sloped drain.
4. Evaporator fan compartment top surface shall be insulated with a minimum 1/2-in. (12.7 mm) thick, flexible fiberglass insulation, coated on the air side and retained by adhesive and mechanical means. The evaporator wall sections will be insulated with a minimum semi-rigid foil-faced board capable of being wiped clean. Aluminum foil-faced fiberglass insulation shall be used in the entire indoor air cavity section.
5. Unit shall have a field-supplied condensate trap.

C. Fans:

1. The evaporator fan shall be a multi-speed, direct-drive, as shown on equipment drawings.
2. Fan wheel shall be made from steel, be double-inlet type with forward curved blades with corrosion resistant finish. Fan wheel shall be dynamically balanced.
3. Condenser fan shall be direct drive propeller type with aluminum blades riveted to corrosion resistant steel spiders, be dynamically balanced, and discharge air vertically.

D. Compressor:

1. Fully hermetic compressors with factory-installed vibration isolation.
2. Two-stage scroll compressors shall be standard on all units.

E. Coils:

Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed. Tube sheet openings shall be belled to prevent tube wear.

F. Heating Section:

1. Induced-draft combustion type with energy saving direct spark ignition system and redundant main gas valve.
2. Induced-draft motors shall provide adequate airflow for combustion.
3. The heat exchangers shall be constructed of aluminized steel for corrosion resistance.
4. Burners shall be of the in-shot type constructed of aluminum coated steel.
5. All gas piping and electric power shall enter the unit cabinet at a single location.

G. Refrigerant Components:

Refrigerant expansion device shall be of the TXV (thermostatic expansion valve) type.

H. Filters:

Filter section shall consist of field-installed, throwaway, 1-in. (25 mm) thick fiberglass filters of commercially available sizes.

I. Controls and Safeties:

1. Unit controls shall be complete with a self-contained low voltage control circuit.
2. Compressors shall incorporate a solid-state compressor protector that provides reset capability.

J. Operating Characteristics:

1. Unit shall be capable of starting and running at 125°F (51°C) ambient outdoor temperature per maximum load criteria of AHRI Standard 210.
2. Compressor with standard controls shall be capable of operation down to 40°F (4°C) ambient outdoor temperature.
3. Units shall be provided with fan time delay to prevent cold air delivery before the heat exchanger warms up.
4. Unit shall be provided with fan time delay after the thermostat is satisfied.

K. Electrical Requirements:

All unit power wiring shall enter the unit cabinet at a single location.

L. Motors:

1. Compressor motors shall be of the refrigerant-cooled type with line-break thermal and current overload protection.
2. All fan motors shall have permanently lubricated bearings, and inherent, automatic reset, thermal overload protection.
3. Condenser fan motor shall be totally enclosed.
4. Evaporator Fan Motor to be multi-speed ECM blower motor.

M. Compressor Protection:

Solid-state control shall protect compressor by preventing "short cycling."

GUIDE SPECIFICATIONS (CONT)

N. Low NOx:

Shall provide NOx reduction to meet 40 ng/J NOx emissions requirements as shipped from the factory.

O. Special Option/Kits Available:

1. Coil Options

Base unit with tin plated indoor coil hairpins available as a factory installed option.

2. Compressor Start Kit (single phase units only):

Shall provide additional starting torque for single-phase compressors.

3. Corporate Thermostat:

To provide for one-stage heating and cooling in addition manual or automatic changeover and indoor fan control.

4. Crankcase Heater Kit:

Shall provide anti-floodback protection for low-load cooling applications.

5. Economizer for two-stage operation:

(Horizontal and Vertical with Jade Honeywell W7220 controller, Honeywell communicating actuator, and dry bulb sensor. (Contact MicroMetl Customer Service at 1-800-662-4822 to order.)

NOTE: The enhanced dehumidification feature on high stage cooling does not support use of an economizer.

a. Economizer controls capable of providing free cooling using outside air.

b. Equipped with low leakage dampers not to exceed 3% leakage, at 1.0 IN. W.C. pressure differential.

c. Spring return motor shuts off outdoor damper on power failure.

6. Filter Rack Kit:

Shall provide filter mounting for downflow applications. Offered as a field installed accessory.

7. Flat Roof Curb Kit:

Curbs shall have seal strip and a wood nailer for flashing and shall be installed per manufacturer's instructions.

8. Flue Discharge Deflector Kit

Directs flue gas exhaust; 90 degrees upward from current discharge.

9. Heat Exchanger Option

Stainless Steel Heat Exchanger available as a factory installed option.

10. High Altitude Propane Conversion Kit:

Shall consist of all required hardware to convert to propane gas heat operation at 2001 to 6000 ft (611 to 1829 m) above sea level.

11. Low Ambient Package Kit:

Shall consist of a solid-state control and condenser coil temperature sensor for controlling condenser-fan motor operation, which shall allow unit to operate down to 0°F (-18°C) outdoor ambient temperature when properly installed.

12. Manual Outdoor Air Damper Kit:

Package shall consist of damper, birdscreen, and rainhood which can be preset to admit outdoor air for year-round ventilation.

13. Natural-to-Propane Conversion Kit:

Shall be complete with all required hardware to convert to propane gas operation at 10.0 IN. W.C. manifold pressure.

14. Propane-to-Natural Conversion Kit

Shall be complete with all hardware to convert to natural gas at standard altitude (0 to 2000 ft [0 to 610 m] above sea level).

15. Cabinet air leakage of 2.0% or less at .5 in. W.C. when tested in accordance with ASHRAE standard 193. Available as a factory installed option.

16. Square-To-Round Duct Transitions Kit (24-48 models):

Shall have the ability to convert the supply and return openings from rectangular to round.

