



TECHNICAL GUIDE

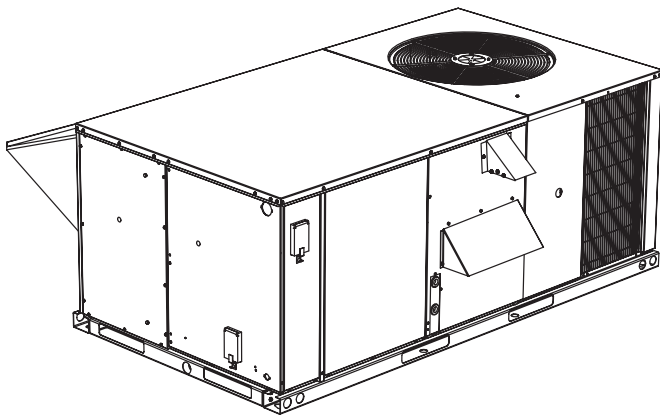
SERIES 5

SINGLE PACKAGE GAS/ELECTRIC UNITS AND SINGLE PACKAGE AIR CONDITIONERS

J03, 04 & 05 DJ

3, 4 & 5 NOMINAL TONS

13.00 to 13.50 SEER



DESCRIPTION

Johnson Controls Series 5 J**DJ models are convertible single package air conditioners with a common cabinet and a common roof curb for the 3, 4 and 5 ton sizes. The units were designed for light commercial and commercial applications. They can easily be installed on a roof curb, slab, roof jack or frame.

All units include:

- Powder Paint finish that meets ASTM-B-117 750 hour salt spray standards
- Permanently lubricated motors
- Bottom or side air discharge configuration capability (field convertible)
- Manufactured under the quality standards of ISO9001
- Copper tube/aluminum fin coils
- Easy access to all components
- Rigging holes in base rails for lifting
- Fork lift slots on three sides
- Single point power connection
- Direct Drive or Belt Drive Blower with high static drive option
- Complete factory package - tested, charged and wired
- CSA agency listing on all units

WARRANTY

- Factory Limited Parts Warranty
- One-year parts warranty
- A Five-year parts warranty on the compressor and electric heat elements.
- Ten-year parts warranty on the gas-fired heat exchangers.

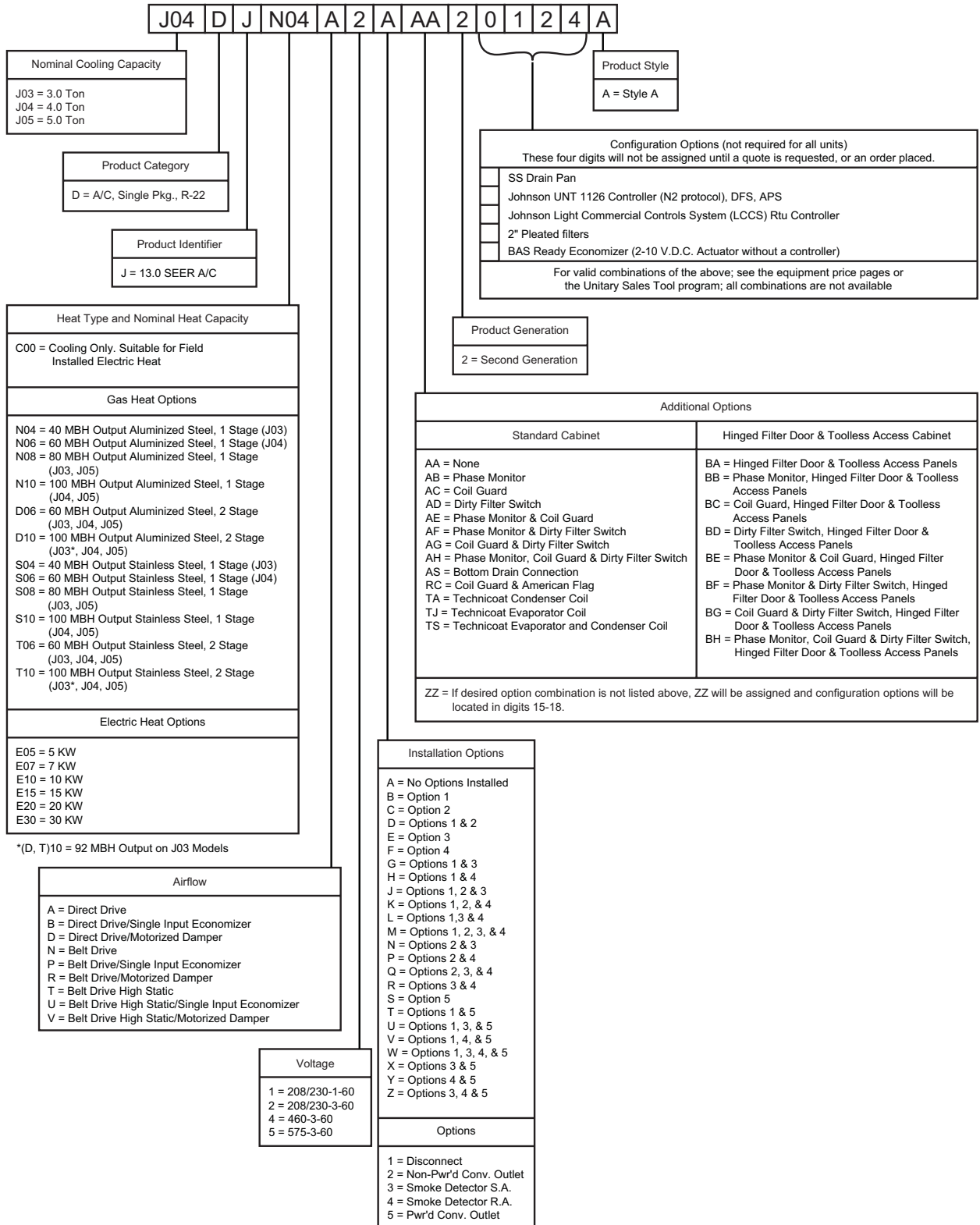


TABLE OF CONTENTS

DESCRIPTION	1	<u>Tbl. #</u>	<u>Pg. #</u>
PRODUCT NOMENCLATURE	3	14 J05DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED INLET)	13
FEATURES	4	15 J05DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED DISCHARGE)	13
FACTORY-INSTALLED OPTIONS	6	16 J03DJ COOLING CAPACITIES (3 TON)	14
FIELD-INSTALLED ACCESSORIES	6	17 J04DJ COOLING CAPACITIES (4 TON)	15
GUIDE SPECIFICATIONS	42	18 J05DJ COOLING CAPACITIES (5 TON)	16
LIST OF FIGURES			
<u>Fig. #</u>	<u>Pg. #</u>	19 SUPPLY AIR BLOWER PERFORMANCE (J03DJ BELT DRIVE) - SIDE DUCT APPLICATION	17
1 UNIT CUTAWAY	5	20 SUPPLY AIR BLOWER PERFORMANCE (J03DJ BELT DRIVE) - BOTTOM DUCT APPLICATION	17
2 TYPICAL FIELD POWER & CONTROL WIRING	35	21 SUPPLY AIR BLOWER PERFORMANCE (J04DJ BELT DRIVE) - SIDE DUCT APPLICATION	17
3 UNIT DIMENSIONS (3 - 5 TON COOLING ONLY/ELECTRIC HEAT) FRONT VIEW	36	22 SUPPLY AIR BLOWER PERFORMANCE (J04DJ BELT DRIVE) - BOTTOM DUCT APPLICATION	18
4 UNIT DIMENSIONS (3 - 5 TON COOLING/GAS HEAT) FRONT VIEW	36	23 SUPPLY AIR BLOWER PERFORMANCE (J05DJ BELT DRIVE) - SIDE DUCT APPLICATION	18
5 UNIT WITH ECONOMIZER RAINHOOD	37	24 SUPPLY AIR BLOWER PERFORMANCE (J05DJ BELT DRIVE) - BOTTOM DUCT APPLICATION	18
6 UNIT WITH FIXED OUTDOOR AIR/MOTORIZED DAMPER RAINHOOD	37	25 SUPPLY AIR BLOWER PERFORMANCE (J03 THRU 05 DJ DIRECT DRIVE) SIDE DUCT APPLICATION	19
7 UNIT DIMENSIONS (REAR VIEW)	38	26 SUPPLY AIR BLOWER PERFORMANCE (J03 THRU 05 DJ DIRECT DRIVE) BOTTOM DUCT APPLICATION	19
8 DISCONNECT/BLOWER ACCESS LOCATION	38	27 BELT DRIVE RPM SELECTION	19
9 TYPICAL APPLICATIONS	39	28 BELT DRIVE BLOWER MOTOR AND DRIVE DATA	20
10 FOUR AND SIX POINT LOADING	40	29 STATIC RESISTANCES	20
11 ROOF CURB DIMENSIONS	41	30 ELECTRIC HEAT CFM LIMITATIONS	21
LIST OF TABLES			
<u>Tbl. #</u>	<u>Pg. #</u>	31 ELECTRICAL DATA - J03 THRU 05 DJ DIRECT DRIVE W/O POWERED CONVENIENCE OUTLET	22
1 CAPACITY RATINGS - (ARI 210/240)	7	32 ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE W/O POWERED CONVENIENCE OUTLET	24
2 GAS HEAT RATINGS	7	33 ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE HIGH STATIC W/O POWERED CONVENIENCE OUTLET	26
3 2 STAGE GAS HEAT RATINGS	7	34 ELECTRICAL DATA - J03 THRU 05 DJ DIRECT DRIVE W/POWERED CONVENIENCE OUTLET	28
4 J03DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED INLET)	8	35 ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE WITH POWERED CONVENIENCE OUTLET	30
5 J03DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED DISCHARGE)	8	36 ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE HIGH STATIC WITH POWERED CONVENIENCE OUTLET	32
6 J03DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED INLET)	9	37 PHYSICAL DATA J**DJ	34
7 J03DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED DISCHARGE)	9	38 ELECTRIC HEAT CORRECTION FACTORS	34
8 J04DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED INLET)	10	39 VOLTAGE LIMITATIONS	34
9 J04DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED DISCHARGE)	10	40 UTILITIES ENTRY	38
10 J04DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED INLET)	11	41 MINIMUM CLEARANCES	38
11 J04DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED DISCHARGE)	11	42 4 AND 6 POINT LOADS WEIGHT DISTRIBUTION J**DJ	40
12 J05DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED INLET)	12	43 CENTER OF GRAVITY	40
13 J05DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED DISCHARGE)	12	44 OPERATING WEIGHTS J**DJ (LBS.)	41

PRODUCT NOMENCLATURE

3-5 Ton Series 5 Model Number Nomenclature



FEATURES

All Series 5 J**DJ models are available with a wide variety of factory-mounted options such as stainless steel heat exchangers, electric heaters, phase monitor, convenience outlet, dirty filter switch, disconnect switch, smoke detectors, and coil guard to make them suitable for almost every application.

All units are self-contained and assembled on full perimeter base rails with forklift holes on three sides and holes for overhead rigging. Every unit is completely piped, wired, charged and tested at the factory to simplify the field installation and to provide years of dependable operation.

All models (including those with an economizer) are suitable for either bottom or horizontal duct connections. For bottom duct, remove the sheet metal panels from the supply and return air openings through the base of the unit. For horizontal duct, remove the supply and return air panels on the rear of the unit.

All models are available with these “factory mounted” outdoor air damper options:

- Single enthalpy economizer
- Motorized outdoor air damper

Supply air blowers are equipped with either a direct drive or belt drive that can be adjusted to meet the exact requirements of the job.

All compressors are equipped with internal pressure relief. Every refrigerant circuit includes a liquid line filter-drier, a high pressure switch and a suction line with a freeze-stat and low pressure/loss of charge switch to protect all system components.

- **Advanced Controls** - Unit control boards have standardized a number of features previously available only as options or by utilizing additional controls.
 - **Low Ambient** - An integrated low-ambient control allows all units to operate in the cooling mode down to 0°F outdoor ambient without additional assistance. Optionally, the control board can be programmed to lockout the compressors when the outdoor air temperature is low or when free cooling is available.
 - **Anti-Short Cycle Protection** - To aid compressor life, an anti-short cycle delay is incorporated into the standard controls. Compressor reliability is further ensured by programmable minimum run times. For testing, the anti short cycle delay can be temporarily overridden with the push of a button.
 - **Fan Delays** - Fan on and fan off delays are fully programmable and are independent of one another. All units are programmed with default values based upon their configuration of cooling and heat.

- **Safety Monitoring** - The control board monitors the high and low-pressure switches, the freeze-stats, the gas valve, if applicable, and the temperature limit switch on gas heat units. The unit control board will alarm on ignition failures, compressor lockouts and repeated limit switch trips.
- **Nuisance Trip Protection** - To prevent nuisance trouble calls, the control board uses a “three strikes, you’re out” philosophy. The high and low-pressure switches and the freeze-stats must trip three times within two hours before the unit control board will lock out the compressor.
- **On Board Diagnostics** - Each alarm will energize a trouble light on the thermostat, if so equipped, and flash an alarm code on the control board LED. Each high and low-pressure switch alarm as well as each freeze-stat alarm has its own flash code. The control board saves the five most recent alarms in memory, and these alarms can be reviewed at any time. Alarms and programmed values are retained through the loss of power.

All units have long lasting powder paint cabinets with 750 hour salt spray test approval under ASTM-B117 procedures.

All models are CSA listed.

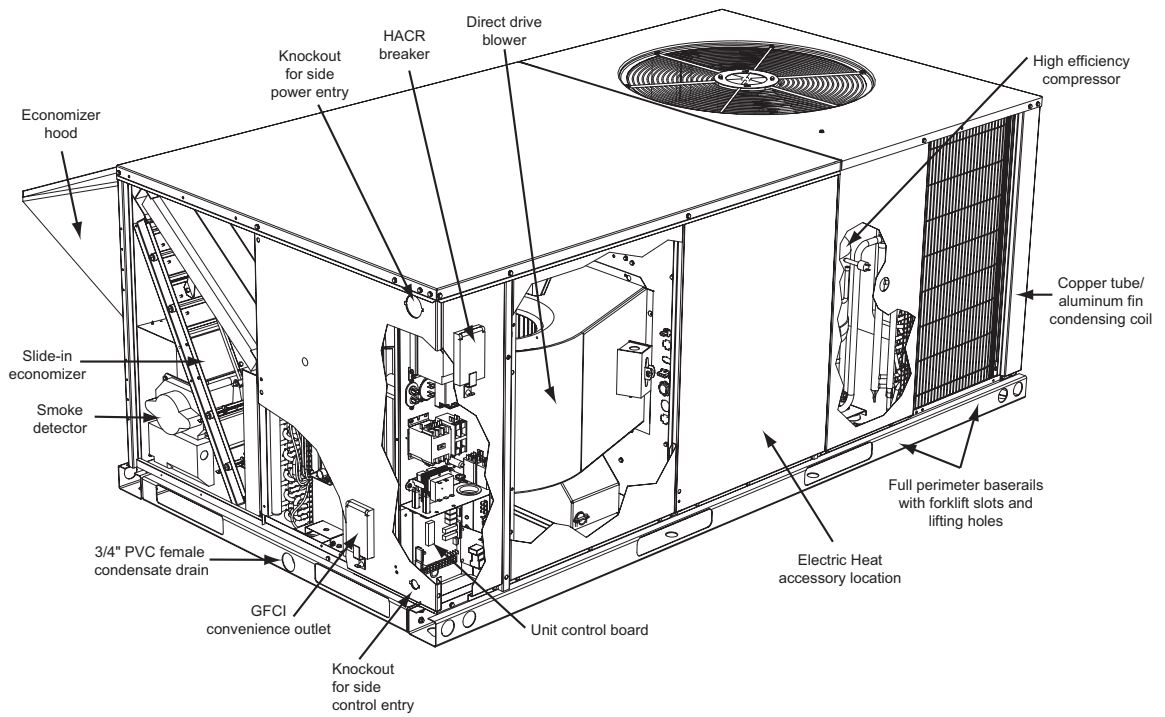
- **Warranty** - All models include a one-year limited parts warranty on the complete unit. Compressors and electric heater elements carry a five-year warranty. Gas heat exchangers carry a 10-year parts warranty.
- **Gas Heat Operation** - All single phase models with gas heat have minimum annual fuel utilization efficiency (AFUE) of 80%. All three phase models with gas heat have minimum steady state efficiency of 80%. Each section includes a durable heat exchanger with aluminized steel or optional stainless steel tubes, a redundant gas valve, spark ignition, power venting, an ignition module for 100% shut-off and all of the safety controls required to meet the latest ANSI standards.

The gas supply piping can be routed into the heating compartment through a hole in the base pan of the unit or through a knockout in the piping panel on the front of the unit.

- **Electric Heat Operation** - All electric heat models are wired for a single power source and include a bank of nickel chromium elements mounted at the discharge of the supply air blower to provide a high velocity and uniform distribution of air across the heating elements. Every element is fully protected against excessive temperature by thermal limit switches.

The power supply wiring can be routed into the control box through a threaded pipe connection (field supplied) in the base pan of the unit or through a knockout in the wiring panel on the side of the unit.

Gas/Electric



Electric/Electric and Heat Pump

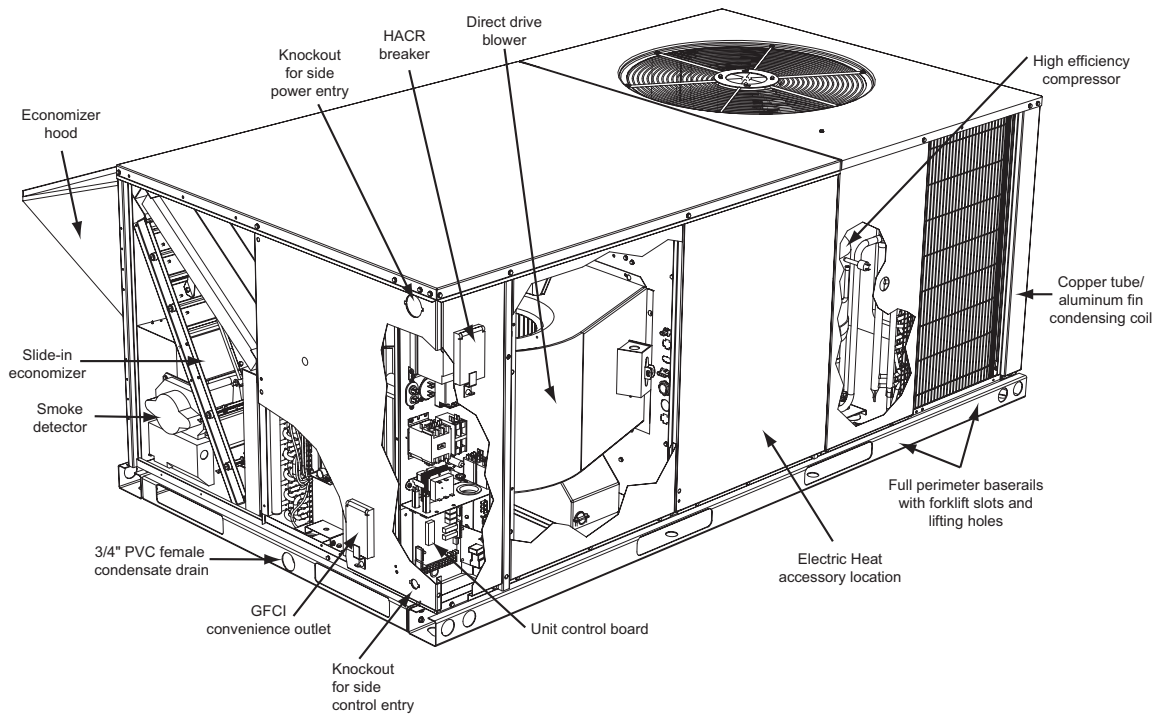


FIGURE 1 - UNIT CUTAWAY

FACTORY-INSTALLED OPTIONS

- **SINGLE INPUT ELECTRONIC ENTHALPY ECONOMIZERS** - Includes a slide-in / plug-in damper assembly with fully modulating spring-return motor actuator capable of introducing up to 100% outdoor air with nominal 1% leakage type dampers.

The enthalpy system contains one sensor that monitors the outdoor air and determines when the air is cool enough and dry enough to provide free cooling.

The rainhood is painted to match the basic unit and must be field-assembled before installing.

- **MOTORIZED OUTDOOR AIR INTAKE DAMPER** - Includes a slide-in / plug-in damper assembly with a 2-position, spring return motor actuator which opens to a pre-set position whenever the supply air blower is operating and will drive fully closed when the blower unit shuts down.
The rain hood is painted to match the basic unit and must be field assembled before installing.
- **PHENOLIC COATED EVAPORATOR AND CONDENSER COILS** - Special coating process that utilizes Technicoat 10-1™ processes. Coating is applied by total immersion of the complete coil for maximum protection.
- **ELECTRIC HEATERS** - Wired for single point power supply. These nickel chromium heater elements are provided with limit and automatic reset capability to prevent operation at excessive temperatures.
- **FILTER OPTIONS** - Standard units are shipped with 1" throw-away filters installed. 2" pleated filters are offered as a factory installed option.
- **CONVENIENCE OUTLET** - This 110 volt outlet can be "powered" by the unit with a stepdown transformer or the unit may be ordered with a "non-powered" convenience outlet that can be wired in the field.
- **DISCONNECT SWITCH** - For gas heat units and cooling units with electric heat, a HACR breaker sized to the unit is provided. For cooling only units, a switch sized to the largest electric heat available for the particular unit is provided. Factory installed option only.
- **SMOKE DETECTORS** - (supply air & return air) The smoke detectors stop operation of the unit by interrupting power to the control board if smoke is detected within the air compartment.
- **COIL GUARD** - Customers can purchase a coil guard kit to protect the condenser coil from damage. This is not a hail guard kit.

WARNING

Factory installed Smoke Detectors in the Return Air, may be subjected to freezing temperatures during "off" times due to Out Side Air infiltration. These Smoke Detectors have an operational limit of 32°F to 131°F. Smoke Detectors installed in areas that could be out side those limitations will have to be moved to prevent having false alarms.

- **STAINLESS STEEL HEAT EXCHANGER** - For applications in corrosive environments, this option provides a full stainless steel heat exchanger assembly.
- **STAINLESS STEEL DRAIN PAN** - An optional rust-proof stainless steel drain pan is available to provide years of trouble-free operation in corrosive environments.
- **BOTTOM DRAIN CONNECTION** - An optional bottom drain connection is available for inside the curb connections for applications in cold environments to reduce freezing drain lines.
- **PHASE MONITORS** - Designed to prevent unit damage. The phase monitor will shut the unit down in an out-of-phase condition.
- **DIRTY FILTER SWITCH** - This kit includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high pressure drop across the filters. Factory installed option or field installed accessory.
- **HIGH STATIC DRIVE OPTION** - May include a belt, blower pulley, motor pulley or a motor change to enhance blower performance.
- **HINGED FILTER DOOR/"TOOLLESS" BLOWER AND ACCESS PANELS** (not hinged) - This option allows for easy access and maintenance.
NOTE: Knobs are shipped inside the unit to prevent shipping damage. These must be field installed for tool-less operation.

CONTROL OPTIONS

- **Johnson Light Commercial System (LCCS)** - Provides rooftop system integration for LCCS single zone, change-over bypass and VAV systems.
- **Johnson UNT 1126 Rooftop Controller** - N2 protocol with air proving and dirty filter sensors. Hardware contains generic application logic; field engineering and/or modification may be required.

FIELD-INSTALLED ACCESSORIES

- **SINGLE INPUT ELECTRONIC ENTHALPY ECONOMIZERS** - Includes a slide-in / plug-in damper assembly with fully modulating spring-return motor actuator capable of introducing up to 100% outdoor air with nominal 1% leakage type dampers.
The enthalpy system contains one sensor that monitors the outdoor air and determines when the air is cool enough and dry enough to provide free cooling.
The rainhood is painted to match the basic unit and must be field-assembled before installing.
- **MOTORIZED OUTDOOR AIR INTAKE DAMPER** - Includes a slide-in / plug-in damper assembly with a 2-position, spring return motor actuator which opens to some pre-set position whenever the supply air blower is operating and will drive fully closed when the blower unit shuts down.

The rain hood is painted to match the basic unit and must be field assembled before installing.

- **ELECTRIC HEATERS** wired for single point power supply. These nickel chromium heater elements are provided with limit and automatic reset capability to prevent operation at excessive temperatures.
- **ROOF CURBS** - Eight and fourteen-inch high roof curbs provide a water-tight seal between the unit and the finished roof. These full perimeter curbs meet the requirements of the National Roofing Contractors Association (NRCA) and are shipped knocked-down for field assembly.
Roof curbs are designed to fit inside the base rails of the unit and include both a wood nailing strip and duct hanger supports.
- **HIGH ALTITUDE NATURAL GAS** - Burner orifices and pilot orifices are provided for proper furnace operation at altitudes up to 6,000 feet.
- **PROPANE** - Burner orifices, pilot orifices and gas valve parts are provided to convert a natural gas furnace to propane.
- **HIGH ALTITUDE PROPANE** - Burner orifices and pilot orifices are provided for proper furnace operation at altitudes up to 6,000 feet. This accessory supplements the basic propane conversion kit.
- **LOW NOX KIT** - Required to reduce the emission of nitrogen oxides below 40 nano grams per joule.
- **POWER EXHAUST** - Our single input economizer options are available with power exhaust. Whenever the outdoor air intake dampers are opened for free cooling, the exhaust fan will be energized to prevent the conditioned space from being over-pressurized during economizer operation.

The power exhaust option can only be used on bottom duct configurations.

- **BAROMETRIC RELIEF DAMPER** - This damper accessory can be used to relieve internal building air pressure on units with an economizer without power exhaust. This accessory includes a rain hood, a bird screen and a fully assembled damper. With bottom duct connections, the damper should be mounted over the opening in the return air panel. With horizontal ductwork, the accessory should be mounted on the return air duct.
- **ENTHALPY ACCESSORY CONTROL KIT** - This kit contains the required components to convert a single enthalpy economizer to dual enthalpy.
- **BURGLAR BARS** - Mount in the supply and return openings to prevent entry into the duct work.
- **FLUE EXHAUST EXTENSION KIT** - In locations with wind or weather conditions which may interfere with proper exhausting of furnace combustion products, this kit can be installed to prevent the flue exhaust from entering nearby fresh air intakes.
- **CO₂ SENSOR** - Senses CO₂ levels and automatically overrides the economizer when levels rise above the present limits.
- **COIL GUARD** - Customers can purchase a coil guard kit to protect the condenser coil from damage. This is not a hail guard kit.
- **HAIL GUARD** - Hail Guard kit is available to prevent unit from hail damage. This is a sloped hood that fits above the coil.
- **GAS PIPING KIT** - This kit supplies all necessary fittings and shut off valve.

TABLE 1: CAPACITY RATINGS - (ARI 210/240)¹

MODEL	MBH	EER ²	SEER ³	CFM	SOUND RATING (Db) ⁴
J03DJ	35.8	11.65	13.50	1200	84
J04DJ	46.5	11.75	13.45	1600	83
J05DJ	60.0	11.20	13.0	1700	81

1. 80/67°F Indoor and 95°F outdoor.
2. EER = Energy Efficiency Ratio at full load - the cooling capacity in Btu's per hour (Btuh) divided by the power input in watts, expressed in Btuh per watt (Btuh/watt).
3. SEER = Seasonal Energy Efficiency Ratio.
4. Rated in accordance with ARI 270 Standard.

TABLE 2: GAS HEAT RATINGS¹

MODEL	MBH INPUT	MBH OUTPUT	AFUE (%)	TEMP RISE °F
J03DJN04	50	40	80.9	15 - 45
J03DJN08	100	80	80.5	45 - 75
J04DJN06	75	60	80.9	25 - 70
J04DJN10	125	100	80.3	45 - 75
J05DJN08	100	80	80.5	25 - 55
J05DJN10	125	100	80.3	35 - 75

1. All units are single-stage heating.

TABLE 3: 2 STAGE GAS HEAT RATINGS

MODEL ¹	MBH INPUT		MBH OUTPUT		STEADY STATE EFFICIENCY		RISE		MINIMUM HEATING AIRFLOW (CFM)
	1 ST STAGE	2 ND STAGE	1 ST STAGE	2 ND STAGE	1 ST STAGE	2 ND STAGE	MIN.	MAX.	
J03DJD06	45	75	35.8	60.8	79.4	81.1	35	70	790
J03DJD10	69	115	55.2	92	80.0	80.2	55	90	950
J04DJD06	45	75	35.7	60.8	79.4	81.1	25	70	790
J04DJD10	75	125	60.4	100.6	80.5	80.5	45	75	1230
J05DJD06	45	75	35.8	60.8	79.4	81.1	20	55	1010
J05DJD10	75	125	60.4	100.6	80.5	80.5	35	75	1230

1. Models are 3Ø only.

TABLE 4: J03DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED INLET)

UNIT DESCRIPTION / MODEL CONFIGURATION	J03DJ / 3 Ton / Belt Drive							
	Horizontal Ducted Inlet							
Indoor Blower Speed (RPM)	630		631		879		885	
Blower Static Pressure (IWG)	0.2		0.3		0.2		0.7	
Airflow (CFM)	1116		928		1979		1020	
Blower Motor BHP	0.41		0.37		0.76		0.53	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	80	82	80	82	78	83	81	85
125	76	77	76	77	82	83	81	82
250	56	59	56	60	60	61	58	60
500	50	50	49	50	54	54	51	52
1000	40	43	39	42	49	50	44	45
2000	41	42	40	42	49	49	43	44
4000	41	41	41	41	49	49	41	41
8000	45	45	45	45	47	47	45	45

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.

2. Cooling Operation – ID blower, compressor and outdoor fan operating.

3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).

4. Test duct termination is flush with reverberation room wall.

5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 5: J03DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED DISCHARGE)

UNIT DESCRIPTION / MODEL CONFIGURATION	J03DJ / 3 Ton / Belt Drive							
	Horizontal Ducted Discharge							
Indoor Blower Speed (RPM)	630		631		879		885	
Blower Static Pressure (IWG)	0.2		0.3		0.2		0.7	
Airflow (CFM)	1116		928		1979		1020	
Blower Motor BHP	0.41		0.37		0.76		0.53	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	80	84	80	83	85	87	84	87
125	74	77	74	76	80	82	80	83
250	58	61	58	61	68	68	63	65
500	48	51	47	50	58	58	53	54
1000	41	45	39	43	55	55	49	50
2000	39	41	37	39	53	53	46	47
4000	41	41	38	38	55	55	49	49
8000	45	45	44	44	52	53	47	47

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.

2. Cooling Operation – ID blower, compressor and outdoor fan operating.

3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).

4. Test duct termination is flush with reverberation room wall.

5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 6: J03DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED INLET)

UNIT DESCRIPTION / MODEL CONFIGURATION	J03DJ / 3 Ton / Belt Drive							
	Vertical Ducted Inlet							
Indoor Blower Speed (RPM)	632		632		881		883	
Blower Static Pressure (IWG)	0.2		0.3		0.2		0.7	
Airflow (CFM)	1069		870		1903		917	
Blower Motor BHP	0.36		0.33		0.71		0.49	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	78	82	78	82	80	85	80	84
125	70	75	70	74	71	80	71	79
250	55	60	55	60	59	61	58	62
500	47	50	47	50	52	53	49	52
1000	40	43	39	43	50	51	45	46
2000	37	40	37	39	45	46	41	43
4000	36	37	36	37	45	46	40	40
8000	44	44	44	44	45	47	44	44

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.

2. Cooling Operation – ID blower, compressor and outdoor fan operating.

3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).

4. Test duct termination is flush with reverberation room wall.

5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 7: J03DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED DISCHARGE)

UNIT DESCRIPTION / MODEL CONFIGURATION	J03DJ / 3 Ton / Belt Drive							
	Vertical Ducted Discharge							
Indoor Blower Speed (RPM)	632		632		881		883	
Blower Static Pressure (IWG)	0.2		0.3		0.2		0.7	
Airflow (CFM)	1069		870		1903		917	
Blower Motor BHP	0.36		0.33		0.71		0.49	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	80	83	80	83	83	86	82	85
125	78	79	77	78	80	83	79	82
250	55	60	54	59	63	63	58	62
500	48	51	46	50	58	59	52	53
1000	41	44	39	43	54	55	48	49
2000	37	40	35	38	50	50	42	44
4000	38	39	36	37	52	53	44	44
8000	44	45	44	44	49	50	45	45

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.

2. Cooling Operation – ID blower, compressor and outdoor fan operating.

3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).

4. Test duct termination is flush with reverberation room wall.

5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 8: J04DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED INLET)

UNIT DESCRIPTION / MODEL CONFIGURATION	J04DJ / 4 Ton / Belt Drive							
	Horizontal Ducted Inlet							
Indoor Blower Speed (RPM)	766		769		1077		1087	
Blower Static Pressure (IWG)	0.2		0.5		0.4		1.0	
Airflow (CFM)	1484		993		2270		1406	
Blower Motor BHP	0.67		0.54		1.24		0.90	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	74	97	74	95	77	90	77	90
125	70	86	69	86	73	78	72	77
250	53	58	52	57	60	61	58	61
500	49	55	47	54	54	56	51	53
1000	42	42	38	39	50	55	45	45
2000	40	44	38	43	48	51	45	46
4000	38	44	36	41	48	52	43	45
8000	42	43	42	44	45	48	44	45

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.

2. Cooling Operation – ID blower, compressor and outdoor fan operating.

3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).

4. Test duct termination is flush with reverberation room wall.

5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 9: J04DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED DISCHARGE)

UNIT DESCRIPTION / MODEL CONFIGURATION	J04DJ / 4 Ton / Belt Drive							
	Horizontal Ducted Discharge							
Indoor Blower Speed (RPM)	766		769		1077		1087	
Blower Static Pressure (IWG)	0.2		0.5		0.4		1.0	
Airflow (CFM)	1484		993		2270		1406	
Blower Motor BHP	0.67		0.54		1.24		0.90	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	77	97	75	95	84	91	82	91
125	72	86	69	85	81	83	78	80
250	60	62	57	59	71	71	66	67
500	53	56	49	54	60	61	55	56
1000	47	47	42	43	58	59	52	52
2000	45	46	40	43	54	55	50	50
4000	46	47	40	42	57	58	52	52
8000	47	47	45	45	54	54	48	49

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.

2. Cooling Operation – ID blower, compressor and outdoor fan operating.

3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).

4. Test duct termination is flush with reverberation room wall.

5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 10: J04DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED INLET)

UNIT DESCRIPTION / MODEL CONFIGURATION	J04DJ / 4 Ton / Belt Drive							
	Vertical Ducted Inlet							
Indoor Blower Speed (RPM)	791		794		1084		1095	
Blower Static Pressure (IWG)	0.2		0.5		0.2		1.0	
Airflow (CFM)	1408		1000		2336		1275	
Blower Motor BHP	0.54		0.42		1.12		0.73	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	76	95	77	93	80	91	79	91
125	68	84	67	82	76	84	73	80
250	54	57	52	56	63	61	57	59
500	48	53	46	53	54	57	50	53
1000	43	44	40	41	52	52	47	47
2000	40	43	38	42	49	51	44	46
4000	38	43	36	40	49	54	43	45
8000	43	43	43	43	45	47	44	44

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.
2. Cooling Operation – ID blower, compressor and outdoor fan operating.
3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).
4. Test duct termination is flush with reverberation room wall.
5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 11: J04DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED DISCHARGE)

UNIT DESCRIPTION / MODEL CONFIGURATION	J04DJ / 4 Ton / Belt Drive							
	Vertical Ducted Discharge							
Indoor Blower Speed (RPM)	791		794		1084		1095	
Blower Static Pressure (IWG)	0.2		0.5		0.2		1.0	
Airflow (CFM)	1408		1000		2336		1275	
Blower Motor BHP	0.54		0.42		1.12		0.73	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	78	95	77	93	85	92	82	91
125	73	84	72	82	84	87	78	82
250	56	58	53	56	68	68	60	61
500	51	54	48	53	61	62	54	55
1000	46	46	43	44	57	57	50	50
2000	42	44	38	42	53	54	46	48
4000	43	45	39	41	55	57	49	50
8000	44	44	43	43	52	52	46	47

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.
2. Cooling Operation – ID blower, compressor and outdoor fan operating.
3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).
4. Test duct termination is flush with reverberation room wall.
5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 12: J05DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED INLET)

UNIT DESCRIPTION / MODEL CONFIGURATION	J05DJ / 5 Ton / Belt Drive							
	Horizontal Ducted Inlet							
Indoor Blower Speed (RPM)	840		845		1166		1188	
Blower Static Pressure (IWG)	0.2		0.6		0.3		1.3	
Airflow (CFM)	1695		1100		2618		1323	
Blower Motor BHP	0.67		0.50		1.51		0.80	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	77	84	77	84	81	85	79	84
125	71	71	72	73	74	75	71	72
250	57	58	55	56	66	66	60	61
500	53	53	51	51	60	60	55	54
1000	50	50	45	46	60	59	53	51
2000	49	49	43	44	58	58	50	49
4000	49	49	42	43	59	59	47	47
8000	49	49	48	48	54	53	47	47

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.
2. Cooling Operation – ID blower, compressor and outdoor fan operating.
3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).
4. Test duct termination is flush with reverberation room wall.
5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 13: J05DJ INDOOR SOUND POWER LEVELS (HORIZONTAL DUCTED DISCHARGE)

UNIT DESCRIPTION / MODEL CONFIGURATION	J05DJ / 5 Ton / Belt Drive							
	Horizontal Ducted Discharge							
Indoor Blower Speed (RPM)	840		845		1166		1188	
Blower Static Pressure (IWG)	0.2		0.6		0.3		1.3	
Airflow (CFM)	1695		1100		2618		1323	
Blower Motor BHP	0.67		0.50		1.51		0.80	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	82	87	79	88	88	89	82	87
125	75	76	72	74	82	83	78	78
250	69	69	66	66	79	79	73	73
500	64	64	60	60	72	72	66	66
1000	59	60	55	56	68	68	61	61
2000	55	55	50	50	65	65	57	57
4000	58	58	52	52	68	68	60	60
8000	55	55	49	49	66	67	56	56

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.
2. Cooling Operation – ID blower, compressor and outdoor fan operating.
3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).
4. Test duct termination is flush with reverberation room wall.
5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 14: J05DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED INLET)

UNIT DESCRIPTION / MODEL CONFIGURATION	J05DJ / 5 Ton / Belt Drive							
	Vertical Ducted Inlet							
Indoor Blower Speed (RPM)	834		840		1171		1194	
Blower Static Pressure (IWG)	0.2		0.6		0.2		1.3	
Airflow (CFM)	1525		1019		2624		1256	
Blower Motor BHP	0.61		0.44		1.43		0.83	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	77	86	79	88	81	86	83	87
125	69	70	70	72	71	73	72	72
250	56	63	56	58	64	72	63	69
500	50	52	48	49	57	59	53	56
1000	48	51	44	45	57	58	49	52
2000	43	47	39	41	54	57	47	50
4000	47	49	40	41	55	61	47	52
8000	46	47	44	45	51	57	47	49

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.
2. Cooling Operation – ID blower, compressor and outdoor fan operating.
3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).
4. Test duct termination is flush with reverberation room wall.
5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 15: J05DJ INDOOR SOUND POWER LEVELS (VERTICAL DUCTED DISCHARGE)

UNIT DESCRIPTION / MODEL CONFIGURATION	J05DJ / 5 Ton / Belt Drive							
	Vertical Ducted Discharge							
Indoor Blower Speed (RPM)	834		840		1171		1194	
Blower Static Pressure (IWG)	0.2		0.6		0.2		1.3	
Airflow (CFM)	1525		1019		2624		1256	
Blower Motor BHP	0.61		0.44		1.43		0.83	
Octave Center Freq.	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)	ID Blower Only (dB)	Cooling Operation ² (dB)
63	83	88	82	88	91	91	85	88
125	78	78	75	76	85	85	79	79
250	66	67	62	62	77	78	70	72
500	59	60	54	54	70	70	61	61
1000	57	58	51	51	68	68	57	58
2000	51	52	45	45	62	63	52	53
4000	54	54	47	47	65	66	55	56
8000	52	52	46	47	65	66	52	53

1. Tested in accordance with ARI Standard 260. Refer to 2001 Standard for Sound Rating of Ducted Air Moving and Conditioning Equipment.
2. Cooling Operation – ID blower, compressor and outdoor fan operating.
3. Test Duct Dimension: 12 in. wide x 18 in. high x 8 ft. long (0.30m x 0.46m x 2.44m).
4. Test duct termination is flush with reverberation room wall.
5. Duct end (sound reflection) correction: (11, 6, 3, 1, 0, 0, 0, 0) dB at (63, 125, 250, 500, 1k, 4k, 8k) Hz.

TABLE 16: J03DJ COOLING CAPACITIES (3 TON)

Air on Evaporator Coil		Temperature of Air on Condenser Coil																	
		75°F									85°F								
		CFM	WB (°F)	Total Cap. ¹ (MBH)	Total ² Input (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)						Total Cap. ¹ (MBH)	Total ² Input (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)					
86	83					80	77	74	71	68	86			83	80	77	74	71	68
900	72	44	2.3	24	21	19	16	14	-	-	41	2.5	23	20	18	15	12	-	-
	67	42	2.3	30	28	25	23	20	18	15	38	2.5	29	26	24	21	18	16	13
	62	40	2.3	40	35	33	30	28	25	23	35	2.5	35	32	30	27	25	22	20
	57	39	2.3	39	37	35	32	30	27	25	35	2.5	35	34	31	28	26	23	21
1050	72	44	2.2	26	23	20	17	14	-	-	42	2.5	25	22	19	16	13	-	-
	67	42	2.3	33	30	27	24	21	18	15	39	2.5	31	28	25	22	19	16	13
	62	40	2.3	40	38	35	32	29	26	23	35	2.5	35	34	32	29	26	23	20
	57	39	2.3	39	38	37	34	31	28	25	35	2.5	35	35	33	30	27	24	21
1200	72	44	2.2	28	25	21	18	14	-	-	43	2.5	27	24	20	17	13	-	-
	67	43	2.3	35	32	28	25	21	18	14	40	2.5	34	31	27	24	20	17	13
	62	40	2.3	40	40	37	33	30	26	23	36	2.5	36	36	34	31	27	24	20
	57	39	2.3	39	39	39	36	32	29	25	36	2.5	36	36	36	32	29	25	22
1350	72	45	2.2	30	26	22	18	14	-	-	43	2.5	29	25	21	17	13	-	-
	67	43	2.3	37	33	29	25	21	18	14	40	2.5	36	32	28	24	20	16	12
	62	41	2.3	41	41	39	35	31	27	23	37	2.5	37	37	36	32	28	24	20
	57	40	2.3	40	40	40	36	32	28	24	36	2.5	36	36	36	32	28	24	20
1500	72	46	2.3	32	27	23	18	14	-	-	44	2.5	31	27	22	18	13	-	-
	67	44	2.3	40	35	31	26	22	17	13	41	2.5	39	34	30	25	21	16	12
	62	42	2.3	42	42	42	37	33	28	24	37	2.5	37	37	37	33	28	24	19
	57	41	2.3	41	41	36	32	27	23	19	37	2.5	37	37	32	28	23	19	
		95°F									105°F								
900	72	38	2.7	21	19	16	14	11	-	-	35	3.0	20	17	15	12	10	-	-
	67	35	2.7	27	24	22	19	17	14	12	31	2.9	25	23	20	18	15	12	10
	62	30	2.7	30	29	27	24	22	19	17	27	3.0	27	26	24	21	19	16	14
	57	30	2.7	30	30	27	25	22	19	17	27	3.0	27	27	25	22	20	17	15
1050	72	39	2.7	24	21	18	15	12	-	-	36	3.0	22	19	16	13	10	-	-
	67	36	2.7	30	27	24	21	18	15	12	32	2.9	28	25	22	19	16	13	10
	62	31	2.7	31	31	30	26	23	20	17	28	2.9	28	28	26	23	20	17	14
	57	31	2.7	31	31	30	27	24	21	18	28	2.9	28	28	27	24	21	18	15
1200	72	41	2.7	26	23	19	16	12	-	-	37	2.9	25	21	18	14	11	-	-
	67	37	2.7	33	30	26	23	19	16	12	33	2.8	31	28	24	21	17	14	10
	62	32	2.7	32	32	32	29	25	22	18	29	2.9	29	29	29	25	22	18	15
	57	32	2.7	32	32	32	29	25	22	18	29	2.9	29	29	30	26	23	19	16
1350	72	41	2.7	28	24	20	16	12	-	-	37	3.0	27	23	19	15	11	-	-
	67	37	2.7	35	31	27	23	19	15	11	33	2.9	32	29	25	21	17	13	9
	62	32	2.7	32	32	32	28	24	20	16	29	2.9	29	29	29	25	21	17	13
	57	33	2.7	33	33	33	29	25	21	17	29	2.9	29	29	30	26	22	18	14
1500	72	42	2.7	30	26	21	17	12	-	-	37	3.1	28	24	20	15	11	-	-
	67	38	2.7	38	33	29	24	20	15	11	33	2.9	33	31	27	22	18	13	9
	62	33	2.7	33	33	33	28	24	19	15	29	3.0	29	29	29	24	20	15	11
	57	33	2.7	33	33	33	29	24	20	15	29	3.0	29	29	29	25	20	16	11
		115°F									125°F								
900	72	32	3.3	18	16	13	11	8	-	-	28	3.7	17	14	12	9	7	-	-
	67	27	3.1	23	21	18	16	13	11	8	24	3.3	22	19	17	14	11	9	6
	62	24	3.2	24	23	21	18	16	13	11	21	3.5	21	20	18	15	13	10	8
	57	25	3.2	25	25	23	20	17	15	12	22	3.5	22	22	20	18	15	13	10
1050	72	32	3.3	21	18	15	12	9	-	-	29	3.5	19	16	13	10	7	-	-
	67	28	3.0	26	23	20	17	14	11	8	24	3.2	24	22	18	15	12	9	6
	62	25	3.1	25	24	23	20	17	14	11	21	3.4	21	21	20	17	14	11	8
	57	25	3.1	25	25	25	22	19	16	13	22	3.4	22	22	22	19	16	13	10
1200	72	33	3.2	23	20	16	13	9	-	-	29	3.4	21	18	14	11	7	-	-
	67	29	3.0	29	26	22	19	15	12	8	25	3.1	25	24	20	17	13	10	6
	62	25	3.1	25	25	25	22	18	15	11	22	3.3	22	22	22	18	15	11	8
	57	26	3.1	26	26	27	24	20	17	13	22	3.3	22	22	22	21	18	14	11
1350	72	33	3.3	25	21	17	13	9	-	-	29	3.6	23	19	15	11	7	-	-
	67	29	3.1	29	27	23	19	15	11	8	24	3.2	24	24	21	17	13	10	6
	62	25	3.2	25	25	25	21	17	13	9	21	3.4	21	21	21	17	13	9	5
	57	26	3.2	26	26	26	22	18	14	10	22	3.4	22	22	22	19	15	11	7
1500	72	33	3.4	27	22	18	13	9	-	-	28	3.8	25	20	16	11	7	-	-
	67	28	3.2	28	28	25	20	16	11	7	24	3.4	24	24	23	18	14	9	5
	62	25	3.3	25	25	25	20	16	11	7	21	3.6	21	21	21	16	12	7	3
	57	25	3.3	25	25	25	21	16	12	8	22	3.6	22	22	22	17	13	8	4

1. The capacities are gross ratings. For net capacity, deduct indoor blower motor, MBH=3.415 x kW. Refer to the appropriate Blower Performance table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

TABLE 17: J04DJ COOLING CAPACITIES (4 TON)

Air on Evaporator Coil		Temperature of Air on Condenser Coil																	
		75°F									85°F								
		CFM	WB (°F)	Total Cap. ¹ (MBH)	Total Input (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)						Total Cap. ¹ (MBH)	Total Input (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)					
86	83					80	77	74	71	68	86			83	80	77	74	71	68
1200	72	58	2.8	32	28	25	22	18	-	-	54	3.1	30	27	23	20	17	-	-
	67	57	2.8	43	39	36	32	29	26	22	51	3.1	40	36	33	29	26	23	19
	62	53	2.8	53	47	44	40	37	33	30	47	3.0	47	44	41	37	34	30	27
	57	51	2.8	51	51	49	45	42	38	35	46	3.0	46	46	43	39	36	32	29
1400	72	58	2.8	34	30	26	22	18	-	-	55	3.1	33	29	25	21	17	-	-
	67	56	2.8	45	41	37	33	29	25	21	52	3.1	43	39	35	31	27	23	19
	62	53	2.8	53	50	46	41	37	33	29	48	3.0	48	46	43	39	35	31	27
	57	51	2.8	51	51	51	47	43	39	34	46	3.0	46	46	45	41	37	33	29
1600	72	57	2.8	36	32	27	22	18	-	-	55	3.1	36	31	26	22	17	-	-
	67	56	2.8	48	43	39	34	29	25	20	52	3.1	46	42	37	32	28	23	18
	62	53	2.8	53	53	47	43	38	33	29	48	3.1	48	48	46	41	36	32	27
	57	51	2.8	51	51	53	48	43	39	34	47	3.0	47	47	48	43	39	34	29
1800	72	57	2.8	39	33	28	23	17	-	-	55	3.1	38	33	28	22	17	-	-
	67	56	2.8	52	46	40	35	30	24	19	52	3.1	49	44	39	34	28	23	18
	62	53	2.8	53	53	50	45	39	34	29	48	3.1	48	48	47	41	36	31	25
	57	51	2.8	51	51	52	46	41	36	30	47	3.1	47	47	47	42	37	31	26
2000	72	57	2.8	41	35	29	23	17	-	-	55	3.1	41	35	29	23	17	-	-
	67	55	2.8	55	48	42	36	30	24	18	52	3.1	52	47	41	35	29	23	17
	62	52	2.8	52	52	52	46	40	34	28	48	3.1	48	48	48	42	36	30	24
	57	50	2.8	50	50	50	44	38	32	26	46	3.1	46	46	46	40	34	28	23
		95°F									105°F								
1200	72	50	3.3	29	25	22	18	15	-	-	45	3.7	27	23	20	16	13	-	-
	67	45	3.4	37	33	30	27	23	20	16	39	3.7	34	31	27	24	21	17	14
	62	41	3.3	41	41	37	34	31	27	24	36	3.6	36	36	33	29	26	22	19
	57	40	3.3	40	40	37	33	30	26	23	35	3.6	35	35	32	29	25	22	19
1400	72	52	3.4	32	28	24	20	16	-	-	47	3.7	30	26	22	18	14	-	-
	67	47	3.4	41	37	33	29	25	20	16	41	3.7	38	34	30	26	22	18	14
	62	42	3.3	42	42	41	37	33	29	24	37	3.6	37	37	36	32	28	24	20
	57	42	3.3	42	42	40	36	32	28	24	37	3.6	37	37	35	31	27	23	19
1600	72	54	3.4	35	30	26	21	16	-	-	49	3.7	33	28	24	19	14	-	-
	67	49	3.4	45	40	35	31	26	21	17	43	3.7	41	37	33	28	24	19	14
	62	44	3.3	44	44	44	39	35	30	25	39	3.6	39	39	39	34	30	25	20
	57	43	3.3	43	43	43	39	34	29	25	39	3.6	39	39	39	34	29	25	20
1800	72	53	3.4	38	33	27	22	17	-	-	49	3.7	36	31	25	20	15	-	-
	67	48	3.4	46	43	38	32	27	22	16	43	3.7	42	39	35	30	24	19	14
	62	44	3.3	44	44	44	38	33	28	22	39	3.6	39	39	39	33	28	23	17
	57	43	3.3	43	43	43	38	32	27	22	38	3.7	38	38	38	33	27	22	17
2000	72	53	3.4	41	35	29	23	17	-	-	48	3.7	39	33	27	21	15	-	-
	67	48	3.4	48	46	40	34	28	22	16	42	3.7	42	41	37	31	25	19	14
	62	43	3.3	43	43	43	37	31	25	19	38	3.7	38	38	38	32	26	20	14
	57	42	3.3	42	42	42	37	31	25	19	38	3.7	38	38	38	32	26	20	14
		115°F									125°F								
1200	72	40	4.0	25	21	18	14	11	-	-	35	4.3	23	19	16	13	9	-	-
	67	34	3.9	32	28	25	21	18	15	11	28	4.2	28	26	22	19	15	12	9
	62	31	3.9	31	31	28	25	21	18	14	26	4.2	26	26	23	20	16	13	10
	57	30	3.9	30	30	28	24	21	17	14	25	4.2	25	25	23	20	16	13	9
1400	72	42	4.0	28	24	20	16	12	-	-	38	4.3	26	22	18	14	10	-	-
	67	36	4.0	35	32	28	24	20	16	11	30	4.3	30	29	25	21	17	13	9
	62	32	3.9	32	32	31	27	23	19	15	28	4.2	28	28	26	22	18	14	10
	57	32	3.9	32	32	31	27	23	19	15	27	4.3	27	27	26	22	18	14	10
1600	72	45	4.0	31	27	22	17	13	-	-	40	4.3	29	25	20	15	11	-	-
	67	38	4.0	38	35	30	26	21	16	12	32	4.3	32	32	28	23	19	14	9
	62	34	3.9	34	34	34	30	25	20	16	29	4.2	29	29	29	25	20	15	11
	57	34	4.0	34	34	34	29	25	20	15	29	4.3	29	29	29	24	20	15	10
1800	72	44	4.0	34	29	24	18	13	-	-	39	4.4	32	27	22	16	11	-	-
	67	37	4.0	37	36	33	27	22	17	11	31	4.3	31	31	30	25	20	14	9
	62	34	4.0	34	34	34	28	23	18	12	29	4.3	29	29	29	23	18	13	8
	57	33	4.0	33	33	33	28	23	17	12	29	4.3	29	29	29	23	18	13	7
2000	72	43	4.1	37	31	25	19	13	-	-	39	4.4	35	29	23	17	11	-	-
	67	36	4.0	36	36	35	29	23	17	11	31	4.3	31	31	31	27	21	15	9
	62	33	4.0	33	33	33	27	21	15	9	28	4.3	28	28	28	22	16	10	4
	57	33	4.0	33	33	33	27	21	15	9	28	4.3	28	28	28	22	16	10	4

1. The capacities are gross ratings. For net capacity, deduct indoor blower motor, MBH=3.415 x kW. Refer to the appropriate Blower Performance table for the kW of the supply air blower motor.
 2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

TABLE 18: J05DJ COOLING CAPACITIES (5 TON)

Air on Evaporator Coil		Temperature of Air on Condenser Coil																																	
		75°F									85°F																								
		CFM	WB (°F)	Total Cap. ¹ (MBH)	Total ² Input (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)						Total Cap. ¹ (MBH)	Total ² Input (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)																					
86	83					80	77	74	71	68	86			83	80	77	74	71	68																
1500	72	73.9	3.7	39.9	35.6	31.3	27.0	22.8	-	-	69.2	4.3	38.6	34.3	30.1	25.8	21.5	-	-																
	67	67.1	3.7	50.5	46.3	42.0	37.7	33.4	29.2	24.9	63.1	4.2	48.9	44.6	40.4	36.1	31.8	27.5	23.2																
	62	60.7	3.6	60.7	55.2	50.9	46.7	42.4	38.1	33.8	57.6	4.1	57.6	53.6	49.4	45.1	40.8	36.5	32.3																
	57	57.7	3.7	57.7	57.7	54.1	49.8	45.5	41.3	37.0	55.4	4.2	55.4	55.4	51.6	47.4	43.1	38.8	34.5																
1750	72	76.2	3.7	44.3	39.2	34.1	29.1	24.0	-	-	71.3	4.3	42.9	37.8	32.7	27.7	22.6	-	-																
	67	69.2	3.7	55.9	50.9	45.8	40.8	35.7	30.6	25.6	65.0	4.2	54.1	49.0	44.0	38.9	33.9	28.8	23.8																
	62	62.7	3.7	62.7	59.9	55.6	50.5	45.4	40.4	35.3	59.4	4.1	59.4	57.4	53.8	48.7	43.7	38.6	33.6																
	57	59.6	3.7	59.6	59.6	59.0	53.9	48.9	43.8	38.8	57.0	4.2	57.0	57.0	56.3	51.2	46.2	41.1	36.1																
2000	72	78.6	3.7	48.7	42.8	37.0	31.2	25.3	-	-	73.4	4.3	47.1	41.3	35.4	29.6	23.8	-	-																
	67	71.4	3.7	61.3	55.5	49.6	43.8	38.0	32.1	26.3	66.9	4.2	59.2	53.4	47.6	41.8	35.9	30.1	24.3																
	62	64.6	3.7	64.6	64.6	60.2	54.3	48.5	42.7	36.9	61.1	4.2	61.1	61.1	58.2	52.4	46.6	40.7	34.9																
	57	61.4	3.7	61.4	61.4	63.9	58.1	52.2	46.4	40.6	58.7	4.2	58.7	58.7	60.9	55.1	49.2	43.4	37.6																
2250	72	79.1	3.7	52.5	45.8	39.2	32.5	25.9	-	-	73.8	4.3	50.9	44.2	37.6	30.9	24.3	-	-																
	67	71.9	3.7	66.8	59.2	52.6	45.9	39.3	32.6	26.0	67.3	4.2	63.5	57.1	50.5	43.8	37.2	30.5	23.9																
	62	65.0	3.7	65.0	65.0	62.8	56.2	49.5	42.9	36.3	61.4	4.2	61.4	61.4	60.0	53.4	46.7	40.1	33.4																
	57	61.8	3.7	61.8	61.8	63.1	56.4	49.8	43.1	36.5	59.0	4.2	59.0	59.0	60.1	53.5	46.8	40.2	33.6																
2500	72	79.6	3.8	56.3	48.8	41.4	33.9	26.5	-	-	74.2	4.3	54.6	47.2	39.7	32.3	24.8	-	-																
	67	72.3	3.7	72.3	62.9	55.5	48.0	40.6	33.1	25.7	67.7	4.3	67.7	60.8	53.3	45.9	38.4	31.0	23.5																
	62	65.5	3.7	65.5	65.5	65.5	58.0	50.6	43.1	35.7	61.8	4.2	61.8	61.8	61.8	54.3	46.9	39.4	32.0																
	57	62.2	3.7	62.2	62.2	62.2	54.8	47.3	39.9	32.4	59.3	4.2	59.3	59.3	59.3	51.9	44.4	37.0	29.5																
95°F																		105°F																	
1500	72	64.6	4.8	37.4	33.1	28.8	24.5	20.2	-	-	61.3	5.4	35.6	31.3	27.0	22.8	18.5	-	-																
	67	59.2	4.7	47.3	43.0	38.7	34.4	30.2	25.9	21.6	55.7	5.3	45.6	41.3	37.0	32.7	28.4	24.2	19.9																
	62	54.6	4.6	54.6	52.1	47.8	43.5	39.3	35.0	30.7	51.5	5.3	51.5	50.0	45.8	41.5	37.2	32.9	28.6																
	57	53.0	4.7	53.0	53.0	49.2	44.9	40.7	36.4	32.1	50.4	5.3	50.4	50.4	46.5	42.2	38.0	33.7	29.4																
1750	72	66.4	4.8	41.5	36.4	31.3	26.3	21.2	-	-	62.7	5.4	39.5	34.4	29.4	24.3	19.3	-	-																
	67	60.8	4.7	52.2	47.2	42.1	37.1	32.0	27.0	21.9	57.0	5.3	50.3	45.3	40.2	35.2	30.1	25.1	20.0																
	62	56.1	4.6	56.1	54.8	52.0	47.0	41.9	36.9	31.8	52.7	5.3	52.7	52.0	49.7	44.7	39.6	34.6	29.5																
	57	54.5	4.7	54.5	54.5	53.6	48.5	43.4	38.4	33.3	51.6	5.3	51.6	51.6	50.6	45.5	40.5	35.4	30.4																
2000	72	68.2	4.8	45.6	39.7	33.9	28.1	22.2	-	-	64.1	5.4	43.4	37.6	31.7	25.9	20.1	-	-																
	67	62.5	4.7	57.2	51.4	45.5	39.7	33.9	28.1	22.2	58.3	5.3	55.1	49.3	43.4	37.6	31.8	25.9	20.1																
	62	57.6	4.7	57.6	57.6	56.3	50.4	44.6	38.8	32.9	53.9	5.3	53.9	53.9	53.7	47.9	42.1	36.2	30.4																
	57	55.9	4.7	55.9	55.9	57.9	52.1	46.2	40.4	34.6	52.8	5.3	52.8	52.8	54.6	48.8	43.0	37.1	31.3																
2250	72	68.5	4.8	49.3	42.6	36.0	29.3	22.7	-	-	64.2	5.4	47.1	40.5	33.9	27.2	20.6	-	-																
	67	62.8	4.8	60.1	55.0	48.4	41.7	35.1	28.4	21.8	58.4	5.4	56.8	52.8	46.3	39.7	33.1	26.4	19.8																
	62	57.8	4.7	57.8	57.8	57.2	50.5	43.9	37.2	30.6	54.0	5.3	54.0	54.0	53.9	47.3	40.6	34.0	27.3																
	57	56.2	4.7	56.2	56.2	57.2	50.5	43.9	37.2	30.6	52.8	5.3	52.8	52.8	53.8	47.1	40.5	33.9	27.2																
2500	72	68.8	4.9	53.0	45.5	38.1	30.6	23.2	-	-	64.3	5.5	50.9	43.4	36.0	28.5	21.1	-	-																
	67	63.0	4.8	63.0	58.6	51.2	43.7	36.3	28.8	21.4	58.5	5.4	58.5	56.3	49.2	41.8	34.3	26.9	19.4																
	62	58.1	4.7	58.1	58.1	58.1	50.6	43.2	35.7	28.3	54.1	5.3	54.1	54.1	54.1	46.6	39.2	31.7	24.3																
	57	56.4	4.8	56.4	56.4	56.4	49.0	41.5	34.1	26.6	52.9	5.4	52.9	52.9	52.9	45.5	38.0	30.6	23.1																
115°F																		125°F																	
1500	72	57.9	6.0	33.8	29.5	25.3	21.0	16.7	-	-	54.6	6.7	32.0	27.8	23.5	19.2	14.9	-	-																
	67	52.2	6.0	43.8	39.6	35.3	31.0	26.7	22.5	18.2	48.7	6.6	42.1	37.8	33.6	29.3	25.0	20.7	16.5																
	62	48.5	5.9	48.5	48.0	43.7	39.4	35.1	30.9	26.6	45.4	6.6	45.4	45.4	41.6	37.3	33.1	28.8	24.5																
	57	47.8	5.9	47.8	47.8	43.8	39.6	35.3	31.0	26.7	45.2	6.6	45.2	45.2	41.1	36.9	32.6	28.3	24.0																
1750	72	59.0	6.0	37.5	32.5	27.4	22.4	17.3	-	-	55.3	6.7	35.6	30.5	25.5	20.4	15.4	-	-																
	67	53.1	6.0	48.4	43.4	38.3	33.3	28.2	23.1	18.1	49.3	6.6	46.5	41.5	36.4	31.3	26.3	21.2	16.2																
	62	49.3	5.9	49.3	49.1	47.4	42.4	37.3	32.3	27.2	46.0	6.5	46.0	46.0	45.1	40.1	35.0	30.0	24.9																
	57	48.7	5.9	48.7	48.7	47.6	42.5	37.5	32.4	27.4	45.8	6.6	45.8	45.8	44.6	39.6	34.5	29.4	24.4																
2000	72	60.0	6.0	41.3	35.4	29.6	23.8	17.9	-	-	55.9	6.6	39.1	33.3	27.4	21.6	15.8	-	-																
	67	54.1	5.9	53.0	47.2	41.3	35.5	29.7	23.8	18.0	49.9	6.5	49.9	45.1	39.2	33.4	27.6	21.7	15.9																
	62	50.2	5.9	50.2	50.2	51.2	45.3	39.5	33.7	27.9	46.5	6.5	46.5	46.5	46.5	42.8	37.0	31.1	25.3																
	57	49.6	5.9	49.6	49.6	51.4	45.5	39.7	33.9	28.0	46.4	6.5	46.4	46.4	46.4	42.2	36.4	30.6	24.7																
2250	72	59.9	6.1	45.0	38.4	31.7	25.1	18.5	-	-	55.7	6.7	42.9	36.3	29.6	23.0	16.3	-	-																
	67	54.0	6.0	53.5	50.6	44.3	37.7	31.0	24.4	17.8	49.7	6.6	49.7	48.3	42.3	35.7	29.0	22.4	15.7																
	62	50.2	5.9	50.2	50.2	50.6	44.0	37.3	30.7	24.1	46.3	6.6	46.3	46.3	46.3	40.7	34.1	27.4	20.8																
	57	49.5	6.0	49.5	49.5	50.4	43.7	37.1	30.5	23.8	46.1	6.6	46.1	46.1	46.1	40.4	33.7	27.1	20.4																
2500	72	59.9	6.1	48.8	41.3	33.9	26.4	19.0	-	-	55.4	6.7	46.7	39.2	31.8	24.3	16.9	-	-																
	67	53.9	6.0	53.9	53.9	47.3	39.9	32.4	25.0	17.5	49.4	6.6	49.4	49.4	45.4	37.9	30.5	23.0	15.6																
	62	50.1	6.0	50.1	50.1	50.1	42.6	35.2	27.7	20.3	46.1	6.6	46.1	46.1	46.1	38.6	31.2	23.7	16.3																
	57	49.4	6.0	49.4	49.4	49.4	42.0	34.5	27.1	19.6	45.9	6.6	45.9	45.9	45.9	38.5	31.0	23.6	16.1																

1. The capacities are gross ratings. For net capacity, deduct indoor blower motor, MBH=3.415 x kW. Refer to the appropriate Blower Performance table for the kW of the supply air blower motor.
2. These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

TABLE 19: SUPPLY AIR BLOWER PERFORMANCE (J03DJ BELT DRIVE) - SIDE DUCT APPLICATION

Air Flow (CFM)	Available External Static Pressure - IWG ¹																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Supplied Drive				Standard Drive Option						High Static Drive Option									
800	634	0.34	735	0.39	828	0.45	914	0.52	995	0.59	1070	0.67	1140	0.75	1207	0.83	1270	0.92	1332	1.00
1000	659	0.39	760	0.45	853	0.51	939	0.57	1019	0.65	1094	0.72	1165	0.80	1232	0.89	1295	0.97	1356	1.06
1200	685	0.47	786	0.52	879	0.58	965	0.65	1045	0.72	1120	0.80	1191	0.88	1258	0.96	1321	1.05	1382	1.13
1400	716	0.57	816	0.62	909	0.68	995	0.75	1076	0.82	1151	0.90	1221	0.98	1288	1.06	1352	1.15	1413	1.23
1600	752	0.69	852	0.75	945	0.81	1032	0.88	1112	0.95	1187	1.03	1258	1.11	1324	1.19	1388	1.27	1449	1.36
																				FS ⁴

1. Blower performance includes gas heat exchangers and 1" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.
4. Field Supplied Drive.

TABLE 20: SUPPLY AIR BLOWER PERFORMANCE (J03DJ BELT DRIVE) - BOTTOM DUCT APPLICATION

Air Flow (CFM)	Available External Static Pressure - IWG ¹																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Supplied Drive				Standard Drive Option						High Static Drive Option									
800	613	0.35	724	0.40	826	0.46	920	0.53	1007	0.60	1089	0.67	1165	0.75	1237	0.83	1306	0.91	1372	1.00
1000	640	0.40	751	0.46	853	0.52	947	0.58	1034	0.65	1116	0.73	1192	0.80	1264	0.89	1333	0.97	1399	1.05
1200	669	0.48	779	0.53	881	0.59	975	0.65	1063	0.73	1144	0.80	1220	0.88	1293	0.96	1361	1.04	1427	1.13
1400	702	0.57	812	0.63	914	0.69	1009	0.75	1096	0.82	1177	0.90	1254	0.98	1326	1.06	1394	1.14	1460	1.22
1600	741	0.70	852	0.75	954	0.81	1048	0.88	1135	0.95	1217	1.02	1293	1.10	1365	1.18	1434	1.26	1500	1.35
																				Field Supplied Drive

1. Blower performance includes gas heat exchangers and 1" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

TABLE 21: SUPPLY AIR BLOWER PERFORMANCE (J04DJ BELT DRIVE) - SIDE DUCT APPLICATION

Air Flow (CFM)	Available External Static Pressure - IWG ¹																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Supplied Drive				Standard Drive Option						High Static Drive Option									
1000	703	0.39	786	0.47	866	0.54	942	0.62	1016	0.71	1087	0.79	1155	0.88	1221	0.98	1284	1.07	1345	1.17
1200	733	0.44	817	0.52	896	0.60	973	0.68	1047	0.76	1118	0.85	1186	0.94	1252	1.03	1315	1.12	1376	1.22
1400	770	0.52	853	0.60	933	0.67	1010	0.76	1083	0.84	1154	0.93	1222	1.02	1288	1.11	1352	1.20	1413	1.30
1600	811	0.64	895	0.71	974	0.79	1051	0.87	1125	0.96	1196	1.04	1264	1.13	1330	1.23	1393	1.32	1454	1.42
1800	857	0.80	940	0.87	1020	0.95	1097	1.03	1171	1.11	1242	1.20	1310	1.29	1375	1.38	1439	1.48	1500	1.58
2000	907	1.00	990	1.07	1070	1.15	1146	1.23	1220	1.31	1291	1.40	1359	1.49	1425	1.58	1488	1.68	1550	1.77
																				FS ⁴

1. Blower performance includes gas heat exchangers and 1" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.
4. Field Supplied Drive.

TABLE 22: SUPPLY AIR BLOWER PERFORMANCE (J04DJ BELT DRIVE) - BOTTOM DUCT APPLICATION

Air Flow (CFM)	Available External Static Pressure - IWG ¹																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Supplied Drive						Standard Drive Option						High Static Drive Option							
1000	688	0.40	779	0.47	866	0.55	949	0.63	1029	0.71	1107	0.80	1181	0.88	1253	0.97	1322	1.07	1388	1.16
1200	722	0.45	812	0.53	899	0.60	983	0.68	1063	0.76	1140	0.85	1215	0.93	1286	1.03	1355	1.12	1422	1.21
1400	761	0.53	852	0.60	939	0.68	1022	0.76	1103	0.84	1180	0.92	1254	1.01	1326	1.10	1395	1.20	1462	1.29
1600	807	0.65	897	0.72	984	0.79	1068	0.87	1148	0.95	1225	1.04	1300	1.13	1371	1.22	1440	1.31	1507	1.40
1800	856	0.80	947	0.87	1034	0.95	1118	1.02	1198	1.11	1275	1.19	1349	1.28	1421	1.37	1490	1.46	1557	1.56
2000	910	0.99	1001	1.06	1088	1.14	1172	1.22	1252	1.30	1329	1.39	1403	1.47	1475	1.56	1544	1.66	1611	1.75
	Field Supplied Drive																			

1. Blower performance includes gas heat exchangers and 1" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

TABLE 23: SUPPLY AIR BLOWER PERFORMANCE (J05DJ BELT DRIVE) - SIDE DUCT APPLICATION

Air Flow (CFM)	Available External Static Pressure - IWG ¹																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Supplied Drive						Standard Drive Option						High Static Drive Option							
1200	733	0.44	817	0.52	896	0.60	973	0.68	1047	0.76	1118	0.85	1186	0.94	1252	1.03	1315	1.12	1376	1.22
1400	770	0.52	853	0.60	933	0.67	1010	0.76	1083	0.84	1154	0.93	1222	1.02	1288	1.11	1352	1.20	1413	1.30
1600	811	0.64	895	0.71	974	0.79	1051	0.87	1125	0.96	1196	1.04	1264	1.13	1330	1.23	1393	1.32	1454	1.42
1800	857	0.80	940	0.87	1020	0.95	1097	1.03	1171	1.11	1242	1.20	1310	1.29	1375	1.38	1439	1.48	1500	1.58
2000	907	1.00	990	1.07	1070	1.15	1146	1.23	1220	1.31	1291	1.40	1359	1.49	1425	1.58	1488	1.68	1550	1.77
2200	960	1.24	1043	1.31	1123	1.39	1199	1.47	1273	1.55	1344	1.64	1412	1.73	1478	1.82	1541	1.92	1602	2.01
2400	1015	1.51	1099	1.59	1178	1.66	1255	1.74	1329	1.83	1400	1.92	1468	2.01	1534	2.10	1597	2.19	1658	2.29
2600	1074	1.83	1157	1.90	1237	1.98	1314	2.06	1387	2.14	1458	2.23	-	-	-	-	-	-	-	-

1. Blower performance includes gas heat exchangers and 1" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

TABLE 24: SUPPLY AIR BLOWER PERFORMANCE (J05DJ BELT DRIVE) - BOTTOM DUCT APPLICATION

Air Flow (CFM)	Available External Static Pressure - IWG ¹																			
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Supplied Drive						Standard Drive Option						High Static Drive Option							
1200	722	0.45	812	0.53	899	0.60	983	0.68	1063	0.76	1140	0.85	1215	0.93	1286	1.03	1355	1.12	1422	1.21
1400	761	0.53	852	0.60	939	0.68	1022	0.76	1103	0.84	1180	0.92	1254	1.01	1326	1.10	1395	1.20	1462	1.29
1600	807	0.65	897	0.72	984	0.79	1068	0.87	1148	0.95	1225	1.04	1300	1.13	1371	1.22	1440	1.31	1507	1.40
1800	856	0.80	947	0.87	1034	0.95	1118	1.02	1198	1.11	1275	1.19	1349	1.28	1421	1.37	1490	1.46	1557	1.56
2000	910	0.99	1001	1.06	1088	1.14	1172	1.22	1252	1.30	1329	1.39	1403	1.47	1475	1.56	1544	1.66	1611	1.75
2200	968	1.23	1059	1.30	1146	1.37	1229	1.45	1309	1.53	1387	1.62	1461	1.71	1533	1.80	1602	1.89	1668	1.99
2400	1029	1.50	1119	1.57	1206	1.65	1290	1.72	1370	1.81	1448	1.89	1522	1.98	1593	2.07	1663	2.16	1729	2.26
2600	1093	1.81	1183	1.88	1270	1.95	1354	2.03	1434	2.11	1511	2.20	1586	2.29	-	-	-	-	-	-
	Field Supplied Drive																			

1. Blower performance includes gas heat exchangers and 1" filters. See STATIC RESISTANCE table for additional applications.
2. See RPM SELECTION table to determine desired motor sheave setting and to determine the maximum continuous BHP.
3. kW = BHP x 0.932.

TABLE 25: SUPPLY AIR BLOWER PERFORMANCE (J03 THRU 05 DJ DIRECT DRIVE) SIDE DUCT APPLICATION

UNIT TONNAGE	MOTOR ¹ SPEED	AVAILABLE EXTERNAL STATIC PRESSURE - IWG ²																	
		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
		CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
3 ³	HI	1582	320	1538	335	1496	349	1458	363	1418	376	1381	390	1338	403	1298	417	1255	430
	MED/HI	1488	263	1440	276	1396	290	1354	303	1309	316	1263	329	1214	343	1158	358	1085	374
	MED	1339	208	1292	221	1247	234	1201	246	1152	258	1102	272	1036	288	967	303	924	313
	MED/LOW	1233	171	1184	183	1135	195	1082	207	1026	220	957	235	895	248	-	-	-	-
	LOW	1081	130	997	134	935	145	863	158	-	-	-	-	-	-	-	-	-	-
4 ³	HI	2056	636	2017	696	1978	714	1942	734	1906	749	1864	764	1815	769	1728	743	1582	685
	MED/HI	1866	539	1832	557	1795	571	1754	585	1722	602	1679	619	1636	638	1582	653	1508	639
	MED	1680	408	1641	426	1594	438	1558	455	1517	472	1469	490	1415	505	1370	521	1337	536
	MED/LOW	1582	362	1541	380	1495	391	1465	406	1426	423	1377	440	1326	455	1292	469	1247	485
	LOW	1300	223	1258	237	1202	247	-	-	-	-	-	-	-	-	-	-	-	-
5 ³	HI	2256	883	2258	931	2247	950	2223	964	2182	979	2125	971	2044	940	1958	898	1864	854
	MED/HI	2145	771	2127	784	2119	808	2089	826	2051	844	2014	859	1965	861	1896	843	1801	806
	MED	2020	637	1999	656	1985	675	1947	696	1910	715	1876	730	1832	740	1793	756	1725	748
	MED/LOW	1757	413	1713	432	1677	451	1639	468	1597	479	1559	497	1521	513	1472	523	-	-
	LOW	1570	327	1536	339	1499	356	-	-	-	-	-	-	-	-	-	-	-	-

1. Factory set on medium speed tap.
2. Includes allowances for a wet evaporator coil, 1" filters, and the heat exchangers. Refer to STATIC RESISTANCES Table for resistance values.
3. Side Duct application (230 Volts)

TABLE 26: SUPPLY AIR BLOWER PERFORMANCE (J03 THRU 05 DJ DIRECT DRIVE) BOTTOM DUCT APPLICATION

UNIT TONNAGE	MOTOR ¹ SPEED	AVAILABLE EXTERNAL STATIC PRESSURE - IWG ²																	
		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
		CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
3 ³	HI	1527	320	1485	335	1445	349	1408	363	1370	376	1334	390	1292	403	1254	417	1213	430
	MED/HI	1437	263	1391	276	1349	290	1308	303	1265	316	1221	329	1174	343	1120	358	1049	374
	MED	1293	208	1248	221	1205	234	1161	246	1114	258	1065	272	1002	288	935	303	894	313
	MED/LOW	1191	171	1144	183	1097	195	1046	207	992	220	926	235	866	248	-	-	-	-
	LOW	1045	130	964	134	904	145	-	-	-	-	-	-	-	-	-	-	-	-
4 ³	HI	1985	636	1947	696	1909	714	1875	734	1840	749	1800	764	1752	769	1668	743	1528	685
	MED/HI	1802	539	1768	557	1733	571	1694	585	1662	602	1621	619	1580	638	1528	653	1456	639
	MED	1622	408	1585	426	1539	438	1505	455	1465	472	1419	490	1367	505	1324	521	1291	536
	MED/LOW	1528	362	1489	380	1444	391	1415	406	1377	423	1330	440	1281	455	1248	469	1205	485
	LOW	1256	223	1216	237	1161	247	-	-	-	-	-	-	-	-	-	-	-	-
5 ³	HI	2177	883	2179	931	2169	950	2145	964	2106	979	2051	971	1973	940	1890	898	1800	854
	MED/HI	2071	771	2053	784	2045	808	2016	826	1980	844	1944	859	1897	861	1830	843	1739	806
	MED	1950	637	1929	656	1916	675	1880	696	1844	715	1811	730	1768	740	1731	756	1665	748
	MED/LOW	1697	413	1654	432	1619	451	1583	468	1542	479	1506	497	1469	513	-	-	-	-
	LOW	1516	327	1484	339	1448	356	-	-	-	-	-	-	-	-	-	-	-	-

1. Factory set on medium speed tap.
2. Includes allowances for a wet evaporator coil, 1" filters, and the heat exchangers. Refer to STATIC RESISTANCES Table for resistance values.
3. Bottom Duct application (230 Volts)

TABLE 27: BELT DRIVE RPM SELECTION

Size (Tons)	HP	Max BHP	Motor Sheave	Blower Sheave	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Fully Closed
J03	1.5	1.73	1VL44	AK64	805	865	920	980	1035	1095
(3)	1.5	1.73	1VP56	AK66	1115	1170	1225	1280	1335	1390
J04	1.5	1.73	1VL44	AK56	930	995	1060	1130	1195	1260
(4)	1.5	1.73	1VP56	AK61	1210	1270	1330	1390	1455	1515
J05	1.5	1.73	1VL44	AK56	930	995	1060	1130	1195	1260
(5)	2	2.3	1VP56	AK56	1325	1395	1460	1525	1590	1660

TABLE 28: BELT DRIVE BLOWER MOTOR AND DRIVE DATA

Size (Tons)	Motor					Motor Sheave			Blower Sheave			Belt
	HP	RPM	Eff.	SF	Frame	Datum Dia. (in.)	Bore (in.)	Model	Datum Dia. (in.)	Bore (in.)	Model	
J03DJ	1-1/2	1725	0.8	1.15	56	2.8 - 3.8	7/8	1VL44	6.0	1	AK64	A37
	1-1/2	1725	0.8	1.15	56	4.0 - 5.0	7/8	1VP56	6.2	1	AK66	A39
J04DJ	1-1/2	1725	0.8	1.15	56	2.8 - 3.8	7/8	1VL44	5.2	1	AK56	A36
	1-1/2	1725	0.8	1.15	56	4.0 - 5.0	7/8	1VP56	5.7	1	AK61	A38
J05DJ	1-1/2	1725	0.8	1.15	56	2.8 - 3.8	7/8	1VL44	5.2	1	AK56	A36
	2	1725	0.8	1.15	56	4.0 - 5.0	7/8	1VP56	5.2	1	AK56	A38

TABLE 29: STATIC RESISTANCES

DESCRIPTION	RESISTANCE, IWG											
	CFM											
	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	
ECONOMIZER ^{1,3}	0.07	0.08	0.09	0.11	0.13	0.15	0.17	0.20	0.23	0.26	0.29	0.30
ELECTRIC HEATERS ¹	7-15KW	0.04	0.05	0.06	0.07	0.08	0.10	0.12	0.14	0.16	0.19	0.22
	20-30KW	0.06	0.07	0.08	0.09	0.11	0.13	0.15	0.17	0.20	0.23	0.26
COOLING ONLY ²	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.23	0.26	0.29	0.32	

1. Deduct these resistance values from the available external static pressure shown in SUPPLY AIR BLOWER PERFORMANCE Tables.
2. Add these resistance values to the available static resistance values on SUPPLY AIR BLOWER PERFORMANCE Tables.
3. The pressure through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct system is less than 0.25 IWG, the unit will deliver less CFM during full economizer operation.

Drive Selection

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

Example

1. 19000 CFM
2. 5.4 iwg
3. Using the supply air blower performance table below, the following data point was located: 1150 RPM & 36 BHP.
4. Using the RPM selection table below, Size X and Model Y is found.
5. 36 BHP exceeds the maximum continuous BHP rating of the 30 HP motor. The 40 HP motor is required.
6. 1150 RPM is within the range of the 30 & 40 HP drives, but step 5 requires the 40 HP motor.
7. Using the 40 HP motor and drive, 5.5 turns open will achieve 1150 RPM.

Example Supply Air Blower Performance

Air Flow (CFM)	Available External Static Pressure - IWG																			
	3.0		3.4		3.8		4.2		4.6		5.0		5.4		5.8		6.2		6.6	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	30 HP & Field Supplied Drive						Standard 30 HP & Drive						Alternate 40 HP & Drive							
18000	800	10.00	850	14.00	900	18.00	950	22.00	1000	26.00	1050	30.00	1100	34.00	1150	38.00	1200	42.00	1250	46.00
19000	850	12.00	900	16.00	950	20.00	1000	24.00	1050	28.00	1100	32.00	1150	36.00	1200	40.00	1250	44.00	1300	48.00
20000	900	14.00	950	18.00	1000	22.00	1050	26.00	1100	30.00	1150	34.00	1200	38.00	1250	42.00	1300	46.00	1350	50.00
21000	950	16.00	1000	20.00	1050	24.00	1100	28.00	1150	32.00	1200	36.00	1250	40.00	1300	44.00	1350	48.00	1400	52.00

Table X: RPM Selection

Size (Tons)	Model	HP	Max BHP	Motor Sheave	Blower Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Fully Closed
X	Y	30	34.50	1VL51	BK99	1000	1025	1045	1060	1110	1150	N/A
		40	46.00	1VL63	BK67	1125	1175	1250	1325	1400	1475	N/A

Altitude/Temperature Correction Factors

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

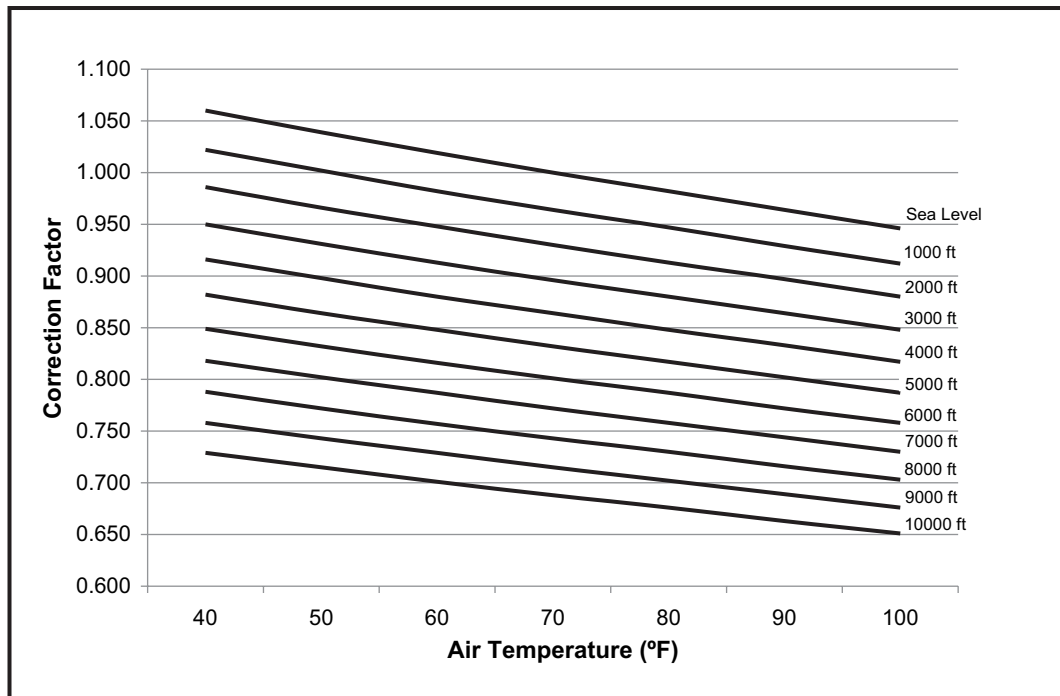


TABLE 30: ELECTRIC HEAT CFM LIMITATIONS

Size (Tons)	Voltage	Minimum Supply Air (CFM)					
		Heater kW					
		5	7	10	15	20	30
J03	208/230-1-60	900	900	900	900	900	-
	208/230-3-60	900	900	900	900	900	-
	460-3-60	-	900	900	900	900	-
	600-3-60	-	-	900	900	900	-
J04	208/230-1-60	1200	1200	1200	1200	1200	-
	208/230-3-60	1200	1200	1200	1200	1200	-
	460-3-60	-	1200	1200	1200	1200	-
	600-3-60	-	-	1200	1200	1200	-
J05	208/230-1-60	1500	1500	1500	1500	1500	1500
	208/230-3-60	1500	1500	1500	1500	1500	1500
	460-3-60	-	1500	1500	1500	1500	1500
	600-3-60	-	-	1500	1500	1500	1500

TABLE 31: ELECTRICAL DATA - J03 THRU 05 DJ DIRECT DRIVE W/O POWERED CONVENIENCE OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J03 (3.0)	208-1-60	11.3	68.0	17.5	2.3	6.0	0.0	None	-	-	-	22.4	30
								E05	4.0	1	19.2	31.5	35
								E07	5.6	1	26.9	41.2	45
								E10	8.0	1	38.5	55.6	60
								E15	11.9	2	57.2	79.0	80
	230-1-60	11.3	68.0	17.5	2.3	6.0	0.0	None	-	-	-	22.4	30
								E05	5.3	1	23.0	35.1	40
								E07	7.5	1	32.6	46.6	50
								E10	10.6	1	46.1	62.7	70
								E15	15.9	2	69.1	90.3	100
	208-3-60	8.3	68.0	13.0	2.3	6.0	0.0	None	-	-	-	18.7	25
								E05	4.0	1	11.1	21.4	25
								E07	5.6	1	15.5	26.9	30
								E10	8.0	1	22.2	35.3	40
								E15	11.9	2	33.0	48.8	50
	230-3-60	8.3	68.0	13.0	2.3	6.0	0.0	None	-	-	-	18.7	25
								E05	5.3	1	13.3	23.4	25
								E07	7.5	1	18.8	30.1	35
								E10	10.6	1	26.6	39.4	40
								E15	15.9	2	39.9	55.3	60
J04 (4.0)	208-1-60	15.4	86.0	24.0	2.3	7.6	0.0	None	-	-	-	29.1	35
								E05	4.0	1	19.2	33.5	40
								E07	5.6	1	26.9	43.2	45
								E10	8.0	1	38.5	57.6	60
								E15	11.9	2	57.2	81.0	90
	230-1-60	15.4	86.0	24.0	2.3	7.6	0.0	None	-	-	-	29.1	35
								E05	5.3	1	23.0	37.1	40
								E07	7.5	1	32.6	48.6	50
								E10	10.6	1	46.1	64.7	70
								E15	15.9	2	69.1	92.3	100
	208-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30
								E05	4.0	1	11.1	24.3	30
								E07	5.6	1	15.5	28.9	35
								E10	8.0	1	22.2	37.3	40
								E15	11.9	2	33.0	50.8	60
	230-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30
								E05	5.3	1	13.3	25.4	35
								E07	7.5	1	18.8	32.1	35
								E10	10.6	1	26.6	41.4	45
								E15	15.9	2	39.9	57.3	60
230-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30	
							E05	5.3	1	13.3	25.4	35	
							E07	7.5	1	18.8	32.1	35	
							E10	10.6	1	26.6	41.4	45	
							E15	15.9	2	39.9	57.3	60	
230-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30	
							E05	5.3	1	13.3	25.4	35	
							E07	7.5	1	18.8	32.1	35	
							E10	10.6	1	26.6	41.4	45	
							E15	15.9	2	39.9	57.3	60	
230-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30	
							E05	5.3	1	13.3	25.4	35	
							E07	7.5	1	18.8	32.1	35	
							E10	10.6	1	26.6	41.4	45	
							E15	15.9	2	39.9	57.3	60	
230-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30	
							E05	5.3	1	13.3	25.4	35	
							E07	7.5	1	18.8	32.1	35	
							E10	10.6	1	26.6	41.4	45	
							E15	15.9	2	39.9	57.3	60	
230-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30	
							E05	5.3	1	13.3	25.4	35	
							E07	7.5	1	18.8	32.1	35	
							E10	10.6	1	26.6	41.4	45	
							E15	15.9	2	39.9	57.3	60	
230-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30	
							E05	5.3	1	13.3	25.4	35	
							E07	7.5	1	18.8	32.1	35	
							E10	10.6	1	26.6	41.4	45	
							E15	15.9	2	39.9	57.3	60	
230-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30	
							E05	5.3	1	13.3	25.4	35	
							E07	7.5	1	18.8	32.1	35	
							E10	10.6	1	26.6	41.4	45	
							E15	15.9	2	39.9	57.3	60	
230-3-60	11.5	84.0	18.0	2.3	7.6	0.0	None	-	-	-	24.3	30	
							E05	5.3	1	13.3	25.4	35	
							E07	7.5	1	18.8	32.1	35	
							E10	10.6	1	26.6	41.4	45	
							E15	15.9	2	39.9	57.3	60	

TABLE 31: ELECTRICAL DATA - J03 THRU 05 DJ DIRECT DRIVE W/O POWERED CONVENIENCE OUTLET (CONT)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J05 (5.0)	208-1-60	28.8	145.0	45.0	2.3	7.6	0.0	None	-	-	-	45.9	50
								E05	4.0	1	19.2	45.9	50
								E07	5.6	1	26.9	45.9	50
								E10	8.0	1	38.5	57.6	60
								E15	11.9	2	57.2	81.0	90
								E20	15.9	2	76.4	105.1	110
	230-1-60	28.8	145.0	45.0	2.3	7.6	0.0	None	-	-	-	45.9	50
								E05	5.3	1	23.0	45.9	50
								E07	7.5	1	32.6	48.6	50
								E10	10.6	1	46.1	64.7	70
								E15	15.9	2	69.1	92.3	100
								E20	21.2	2	92.2	119.9	125
	208-3-60	17.3	123.0	27.0	2.3	7.6	0.0	None	-	-	-	31.5	35
								E05	4.0	1	11.1	31.5	35
								E07	5.6	1	15.5	31.5	35
								E10	8.0	1	22.2	37.3	40
								E15	11.9	2	33.0	50.8	60
								E20	15.9	2	44.1	64.7	70
	230-3-60	17.3	123.0	27.5	2.3	7.6	0.0	None	-	-	-	31.5	35
								E05	5.3	1	13.3	31.5	35
								E07	7.5	1	18.8	32.1	35
								E10	10.6	1	26.6	41.4	45
								E15	15.9	2	39.9	57.3	60
								E20	21.2	2	53.2	73.2	80
E30	29.6	2	74.3	98.5	100								

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 32: ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE W/O POWERED CONVENIENCE OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J03 (3.0)	208-1-60	11.3	68.0	17.5	2.3	7.6	0.0	None	-	-	-	24.0	30
								E05	4.0	1	19.2	33.5	35
								E07	5.6	1	26.9	43.2	45
								E10	8.0	1	38.5	57.6	60
								E15	11.9	2	57.2	81.0	90
								E20	15.9	2	76.4	105.1	110
	230-1-60	11.3	68.0	17.5	2.3	7.6	0.0	None	-	-	-	24.0	30
								E05	5.3	1	23.0	37.1	40
								E07	7.5	1	32.6	48.6	50
								E10	10.6	1	46.1	64.7	70
								E15	15.9	2	69.1	92.3	100
								E20	21.2	2	92.2	119.9	125
	208-3-60	8.3	68.0	13.0	2.3	5.2	0.0	None	-	-	-	17.9	25
								E05	4.0	1	11.1	20.4	25
								E07	5.6	1	15.5	25.9	30
								E10	8.0	1	22.2	34.3	35
								E15	11.9	2	33.0	47.8	50
								E20	15.9	2	44.1	61.7	70
	230-3-60	8.3	68.0	13.0	2.3	5.2	0.0	None	-	-	-	17.9	25
								E05	5.3	1	13.3	22.4	25
								E07	7.5	1	18.8	29.1	30
								E10	10.6	1	26.6	38.4	40
								E15	15.9	2	39.9	54.3	60
								E20	21.2	2	53.2	70.2	80
460-3-60	5.1	34.0	8.0	1.3	2.6	0.0	None	-	-	-	10.3	15	
							E07	6.8	1	8.5	13.5	15	
							E10	10.1	1	12.7	18.4	20	
							E15	13.6	2	17.1	23.7	25	
							E20	19.5	2	24.5	32.6	35	
							None	-	-	-	7.0	15	
575-3-60	3.2	26.0	5.0	1.3	2.0	0.0	E10	10.6	1	10.6	15.2	20	
							E15	15.9	1	16.0	21.6	25	
							E20	21.2	2	21.3	28.0	30	
							None	-	-	-	7.0	15	
J04 (4.0)	208-1-60	15.4	86.0	24.0	2.3	7.6	0.0	None	-	-	-	29.1	35
								E05	4.0	1	19.2	33.5	40
								E07	5.6	1	26.9	43.2	45
								E10	8.0	1	38.5	57.6	60
								E15	11.9	2	57.2	81.0	90
								E20	15.9	2	76.4	105.1	110
	230-1-60	15.4	86.0	24.0	2.3	7.6	0.0	None	-	-	-	29.1	35
								E05	5.3	1	23.0	37.1	40
								E07	7.5	1	32.6	48.6	50
								E10	10.6	1	46.1	64.7	70
								E15	15.9	2	69.1	92.3	100
								E20	21.2	2	92.2	119.9	125
	208-3-60	11.5	84.0	18.0	2.3	5.2	0.0	None	-	-	-	21.9	30
								E05	4.0	1	11.1	21.9	30
								E07	5.6	1	15.5	25.9	30
								E10	8.0	1	22.2	34.3	35
								E15	11.9	2	33.0	47.8	50
								E20	15.9	2	44.1	61.7	70
	230-3-60	11.5	84.0	18.0	2.3	5.2	0.0	None	-	-	-	21.9	30
								E05	5.3	1	13.3	22.4	30
								E07	7.5	1	18.8	29.1	30
								E10	10.6	1	26.6	38.4	40
								E15	15.9	2	39.9	54.3	60
								E20	21.2	2	53.2	70.2	80
460-3-60	5.8	42.0	9.0	1.3	2.6	0.0	None	-	-	-	11.1	15	
							E07	6.8	1	8.5	13.5	15	
							E10	10.1	1	12.7	18.4	20	
							E15	13.6	2	17.1	23.7	25	
							E20	19.5	2	24.5	32.6	35	
							None	-	-	-	9.4	15	
575-3-60	5.1	34.0	8.0	1.3	2.0	0.0	E10	10.6	1	10.6	15.2	20	
							E15	15.9	1	16.0	21.6	25	
							E20	21.2	2	21.3	28.0	30	
							None	-	-	-	9.4	15	

TABLE 32: ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE W/O POWERED CONVENIENCE OUTLET (CONT)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J05 (5.0)	208-1-60	28.8	145.0	45.0	2.3	7.6	0.0	None	-	-	-	45.9	50
								E05	4.0	1	19.2	45.9	50
								E07	5.6	1	26.9	45.9	50
								E10	8.0	1	38.5	57.6	60
								E15	11.9	2	57.2	81.0	90
								E20	15.9	2	76.4	105.1	110
	230-1-60	28.8	145.0	45.0	2.3	7.6	0.0	None	-	-	-	45.9	50
								E05	5.3	1	23.0	45.9	50
								E07	7.5	1	32.6	48.6	50
								E10	10.6	1	46.1	64.7	70
								E15	15.9	2	69.1	92.3	100
								E20	21.2	2	92.2	119.9	125
	208-3-60	17.3	123.0	27.0	2.3	5.2	0.0	None	-	-	-	29.1	30
								E05	4.0	1	11.1	29.1	30
								E07	5.6	1	15.5	29.1	30
								E10	8.0	1	22.2	34.3	35
								E15	11.9	2	33.0	47.8	50
								E20	15.9	2	44.1	61.7	70
	230-3-60	17.3	123.0	27.0	2.3	5.2	0.0	None	-	-	-	29.1	30
								E05	5.3	1	13.3	29.1	30
								E07	7.5	1	18.8	29.1	30
								E10	10.6	1	26.6	38.4	40
								E15	15.9	2	39.9	54.3	60
								E20	21.2	2	53.2	70.2	80
	460-3-60	9.6	70.0	15.0	1.3	2.6	0.0	None	-	-	-	15.9	20
								E07	6.8	1	8.5	15.9	20
								E10	10.1	1	12.7	18.4	20
								E15	13.6	2	17.1	23.7	25
E20								19.5	2	24.5	32.6	35	
E30								28.8	2	36.1	46.6	50	
575-3-60	7.4	53.0	11.5	1.3	2.0	0.0	None	-	-	-	12.3	15	
							E10	10.6	1	10.6	15.2	20	
							E15	15.9	1	16.0	21.6	25	
							E20	21.2	2	21.3	28.0	30	
							E30	30.4	2	30.5	39.1	40	

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 33: ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE HIGH STATIC W/O POWERED CONVENIENCE OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)							
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps									
J03 (3.0)	208-1-60	11.3	68.0	17.5	2.3	7.6	0.0	None	-	-	-	24.0	30							
								E05	4.0	1	19.2	33.5	35							
								E07	5.6	1	26.9	43.2	45							
								E10	8.0	1	38.5	57.6	60							
								E15	11.9	2	57.2	81.0	90							
								E20	15.9	2	76.4	105.1	110							
	230-1-60	11.3	68.0	17.5	2.3	7.6	0.0	None	-	-	-	24.0	30							
								E05	5.3	1	23.0	37.1	40							
								E07	7.5	1	32.6	48.6	50							
								E10	10.6	1	46.1	64.7	70							
								E15	15.9	2	69.1	92.3	100							
								E20	21.2	2	92.2	119.9	125							
	208-3-60	8.3	68.0	13.0	2.3	5.2	0.0	None	-	-	-	17.9	25							
								E05	4.0	1	11.1	20.4	25							
								E07	5.6	1	15.5	25.9	30							
								E10	8.0	1	22.2	34.3	35							
								E15	11.9	2	33.0	47.8	50							
								E20	15.9	2	44.1	61.7	70							
	230-3-60	8.3	68.0	13.0	2.3	5.2	0.0	None	-	-	-	17.9	25							
								E05	5.3	1	13.3	22.4	25							
								E07	7.5	1	18.8	29.1	30							
								E10	10.6	1	26.6	38.4	40							
								E15	15.9	2	39.9	54.3	60							
								E20	21.2	2	53.2	70.2	80							
460-3-60	5.1	34.0	8.0	1.3	2.6	0.0	None	-	-	-	10.3	15								
							E07	6.8	1	8.5	13.5	15								
							E10	10.1	1	12.7	18.4	20								
							E15	13.6	2	17.1	23.7	25								
							E20	19.5	2	24.5	32.6	35								
							None	-	-	-	7.0	15								
575-3-60	3.2	26.0	5.0	1.3	2.0	0.0	E10	10.6	1	10.6	15.2	20								
							E15	15.9	1	16.0	21.6	25								
							E20	21.2	2	21.3	28.0	30								
							J04 (4.0)	208-1-60	15.4	86.0	24.0	2.3	7.6	0.0	None	-	-	-	29.1	35
															E05	4.0	1	19.2	33.5	40
															E07	5.6	1	26.9	43.2	45
E10	8.0	1	38.5	57.6	60															
E15	11.9	2	57.2	81.0	90															
E20	15.9	2	76.4	105.1	110															
230-1-60	15.4	86.0	24.0	2.3	7.6	0.0		None	-	-	-	29.1	35							
								E05	5.3	1	23.0	37.1	40							
								E07	7.5	1	32.6	48.6	50							
								E10	10.6	1	46.1	64.7	70							
								E15	15.9	2	69.1	92.3	100							
								E20	21.2	2	92.2	119.9	125							
208-3-60	11.5	84.0	18.0	2.3	5.2	0.0		None	-	-	-	21.9	30							
								E05	4.0	1	11.1	21.9	30							
								E07	5.6	1	15.5	25.9	30							
								E10	8.0	1	22.2	34.3	35							
								E15	11.9	2	33.0	47.8	50							
								E20	15.9	2	44.1	61.7	70							
230-3-60	11.5	84.0	18.0	2.3	5.2	0.0		None	-	-	-	21.9	30							
								E05	5.3	1	13.3	22.4	30							
								E07	7.5	1	18.8	29.1	30							
								E10	10.6	1	26.6	38.4	40							
								E15	15.9	2	39.9	54.3	60							
								E20	21.2	2	53.2	70.2	80							
460-3-60	5.8	42.0	9.0	1.3	2.6	0.0	None	-	-	-	11.1	15								
							E07	6.8	1	8.5	13.5	15								
							E10	10.1	1	12.7	18.4	20								
							E15	13.6	2	17.1	23.7	25								
							E20	19.5	2	24.5	32.6	35								
							None	-	-	-	9.4	15								
575-3-60	5.1	34.0	8.0	1.3	2.0	0.0	E10	10.6	1	10.6	15.2	20								
							E15	15.9	1	16.0	21.6	25								
							E20	21.2	2	21.3	28.0	30								

TABLE 33: ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE HIGH STATIC W/O POWERED CONVENIENCE OUTLET (CONT)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J05 (5.0)	208-3-60	17.3	123.0	27.0	2.3	8.2	0.0	None	-	-	-	32.1	35
								E05	4.0	1	11.1	32.1	35
								E07	5.6	1	15.5	32.1	35
								E10	8.0	1	22.2	38.0	40
								E15	11.9	2	33.0	51.5	60
								E20	15.9	2	44.1	65.4	70
	230-3-60	17.3	123.0	27.0	2.3	8.2	0.0	None	-	-	-	32.1	35
								E05	5.3	1	13.3	32.1	35
								E07	7.5	1	18.8	32.8	35
								E10	10.6	1	26.6	42.1	45
								E15	15.9	2	39.9	58.1	60
								E20	21.2	2	53.2	74.0	80
	460-3-60	9.6	70.0	15.0	1.3	4.1	0.0	None	-	-	-	17.4	20
								E07	6.8	1	8.5	17.4	20
								E10	10.1	1	12.7	20.3	25
								E15	13.6	2	17.1	25.6	30
								E20	19.5	2	24.5	34.4	35
								E30	28.8	2	36.1	48.4	50
	575-3-60	7.4	53.0	11.5	1.3	3.6	0.0	None	-	-	-	13.9	15
								E10	10.6	1	10.6	17.2	20
								E15	15.9	1	16.0	23.6	25
								E20	21.2	2	21.3	30.0	30
								E30	30.4	2	30.5	41.1	45

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 34: ELECTRICAL DATA - J03 THRU 05 DJ DIRECT DRIVE W/POWERED CONVENIENCE OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J03 (3.0)	208-1-60	11.3	68.0	17.5	2.3	6.0	10.0	None	-	-	-	32.4	40
								E05	4.0	1	19.2	44.0	45
								E07	5.6	1	26.9	53.7	60
								E10	8.0	1	38.5	68.1	70
								E15	11.9	2	57.2	91.5	100
								E20	15.9	2	76.4	115.6	125
	230-1-60	11.3	68.0	17.5	2.3	6.0	10.0	None	-	-	-	32.4	40
								E05	5.3	1	23.0	47.6	50
								E07	7.5	1	32.6	59.1	60
								E10	10.6	1	46.1	75.2	80
								E15	15.9	2	69.1	102.8	110
								E20	21.2	2	92.2	130.4	150
	208-3-60	8.3	68.0	13.0	2.3	6.0	10.0	None	-	-	-	29.1	35
								E05	4.0	1	11.1	33.9	35
								E07	5.6	1	15.5	39.4	40
								E10	8.0	1	22.2	47.8	50
								E15	11.9	2	33.0	61.3	70
								E20	15.9	2	44.1	75.2	80
	230-3-60	8.3	68.0	13.0	2.3	6.0	10.0	None	-	-	-	29.1	35
								E05	5.3	1	13.3	35.9	40
								E07	7.5	1	18.8	42.6	45
								E10	10.6	1	26.6	51.9	60
								E15	15.9	2	39.9	67.8	70
								E20	21.2	2	53.2	83.7	90
J04 (4.0)	208-1-60	15.4	86.0	24.0	2.3	7.6	10.0	None	-	-	-	39.1	50
								E05	4.0	1	19.2	46.0	50
								E07	5.6	1	26.9	55.7	60
								E10	8.0	1	38.5	70.1	80
								E15	11.9	2	57.2	93.5	100
								E20	15.9	2	76.4	117.6	125
	230-1-60	15.4	86.0	24.0	2.3	7.6	10.0	None	-	-	-	39.1	50
								E05	5.3	1	23.0	49.6	50
								E07	7.5	1	32.6	61.1	70
								E10	10.6	1	46.1	77.2	80
								E15	15.9	2	69.1	104.8	110
								E20	21.2	2	92.2	132.4	150
	208-3-60	11.5	84.0	18.0	2.3	7.6	10.0	None	-	-	-	34.3	45
								E05	4.0	1	11.1	35.9	45
								E07	5.6	1	15.5	41.4	45
								E10	8.0	1	22.2	49.8	50
								E15	11.9	2	33.0	63.3	70
								E20	15.9	2	44.1	77.2	80
	230-3-60	11.5	84.0	18.0	2.3	7.6	10.0	None	-	-	-	34.3	45
								E05	5.3	1	13.3	37.9	45
								E07	7.5	1	18.8	44.6	45
								E10	10.6	1	26.6	53.9	60
								E15	15.9	2	39.9	69.8	70
								E20	21.2	2	53.2	85.7	90

TABLE 34: ELECTRICAL DATA - J03 THRU 05 DJ DIRECT DRIVE W/POWERED CONVENIENCE OUTLET (CONT)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J05 (5.0)	208-1-60	28.8	145.0	45.0	2.3	7.6	10.0	None	-	-	-	55.9	60
								E05	4.0	1	19.2	55.9	60
								E07	5.6	1	26.9	55.9	60
								E10	8.0	1	38.5	70.1	80
								E15	11.9	2	57.2	93.5	100
								E20	15.9	2	76.4	117.6	125
	230-1-60	28.8	145.0	45.0	2.3	7.6	10.0	None	-	-	-	55.9	60
								E05	5.3	1	23.0	55.9	60
								E07	7.5	1	32.6	61.1	70
								E10	10.6	1	46.1	77.2	80
								E15	15.9	2	69.1	104.8	110
								E20	21.2	2	92.2	132.4	150
	208-3-60	17.3	123.0	27.0	2.3	7.6	10.0	None	-	-	-	41.5	45
								E05	4.0	1	11.1	41.5	45
								E07	5.6	1	15.5	41.5	45
								E10	8.0	1	22.2	49.8	50
								E15	11.9	2	33.0	63.3	70
								E20	15.9	2	44.1	77.2	80
	230-3-60	17.3	123.0	27.0	2.3	7.6	10.0	None	-	-	-	41.5	45
								E05	5.3	1	13.3	41.5	45
								E07	7.5	1	18.8	44.6	45
								E10	10.6	1	26.6	53.9	60
								E15	15.9	2	39.9	69.8	70
								E20	21.2	2	53.2	85.7	90
							E30	29.6	2	74.3	111.0	125	

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 35: ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE WITH POWERED CONVENIENCE OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J03 (3.0)	208-1-60	11.3	68.0	17.5	2.3	7.6	10.0	None	-	-	-	34.0	45
								E05	4.0	1	19.2	46.0	50
								E07	5.6	1	26.9	55.7	60
								E10	8.0	1	38.5	70.1	80
								E15	11.9	2	57.2	93.5	100
								E20	15.9	2	76.4	117.6	125
	230-1-60	11.3	68.0	17.5	2.3	7.6	10.0	None	-	-	-	34.0	45
								E05	5.3	1	23.0	49.6	50
								E07	7.5	1	32.6	61.1	70
								E10	10.6	1	46.1	77.2	80
								E15	15.9	2	69.1	104.8	110
								E20	21.2	2	92.2	132.4	150
	208-3-60	8.3	68.0	13.0	2.3	5.2	10.0	None	-	-	-	28.3	35
								E05	4.0	1	11.1	32.9	35
								E07	5.6	1	15.5	38.4	40
								E10	8.0	1	22.2	46.8	50
								E15	11.9	2	33.0	60.3	70
								E20	15.9	2	44.1	74.2	80
	230-3-60	8.3	68.0	13.0	2.3	5.2	10.0	None	-	-	-	28.3	35
								E05	5.3	1	13.3	34.9	40
								E07	7.5	1	18.8	41.6	45
								E10	10.6	1	26.6	50.9	60
								E15	15.9	2	39.9	66.8	70
								E20	21.2	2	53.2	82.7	90
460-3-60	5.1	34.0	8.0	1.3	2.6	5.0	None	-	-	-	15.3	20	
							E07	6.8	1	8.5	19.7	20	
							E10	10.1	1	12.7	24.7	25	
							E15	13.6	2	17.1	29.9	30	
							E20	19.5	2	24.5	38.8	40	
							None	-	-	-	11.2	15	
575-3-60	3.2	26.0	5.0	1.3	2.0	4.0	E10	10.6	1	10.6	20.2	25	
							E15	15.9	1	16.0	26.6	30	
							E20	21.2	2	21.3	33.0	35	
							None	-	-	-	11.2	15	
							E10	10.6	1	10.6	20.2	25	
							E15	15.9	1	16.0	26.6	30	
J04 (4.0)	208-1-60	15.4	86.0	24.0	2.3	7.6	10.0	None	-	-	-	39.1	50
								E05	4.0	1	19.2	46.0	50
								E07	5.6	1	26.9	55.7	60
								E10	8.0	1	38.5	70.1	80
								E15	11.9	2	57.2	93.5	100
								E20	15.9	2	76.4	117.6	125
	230-1-60	15.4	86.0	24.0	2.3	7.6	10.0	None	-	-	-	39.1	50
								E05	5.3	1	23.0	49.6	50
								E07	7.5	1	32.6	61.1	70
								E10	10.6	1	46.1	77.2	80
								E15	15.9	2	69.1	104.8	110
								E20	21.2	2	92.2	132.4	150
	208-3-60	11.5	84.0	18.0	2.3	5.2	10.0	None	-	-	-	31.9	40
								E05	4.0	1	11.1	32.9	40
								E07	5.6	1	15.5	38.4	40
								E10	8.0	1	22.2	46.8	50
								E15	11.9	2	33.0	60.3	70
								E20	15.9	2	44.1	74.2	80
	230-3-60	11.5	84.0	18.0	2.3	5.2	10.0	None	-	-	-	31.9	40
								E05	5.3	1	13.3	34.9	40
								E07	7.5	1	18.8	41.6	45
								E10	10.6	1	26.6	50.9	60
								E15	15.9	2	39.9	66.8	70
								E20	21.2	2	53.2	82.7	90
460-3-60	5.8	42.0	9.0	1.3	2.6	5.0	None	-	-	-	16.1	20	
							E07	6.8	1	8.5	19.7	20	
							E10	10.1	1	12.7	24.7	25	
							E15	13.6	2	17.1	29.9	30	
							E20	19.5	2	24.5	38.8	40	
							None	-	-	-	13.4	15	
575-3-60	5.1	34.0	8.0	1.3	2.0	4.0	E10	10.6	1	10.6	20.2	25	
							E15	15.9	1	16.0	26.6	30	
							E20	21.2	2	21.3	33.0	35	
							None	-	-	-	13.4	15	

TABLE 35: ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE WITH POWERED CONVENIENCE OUTLET (CONT)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J05 (5.0)	208-1-60	28.8	145.0	45.0	2.3	7.6	10.0	None	-	-	-	55.9	60
								E05	4.0	1	19.2	55.9	60
								E07	5.6	1	26.9	55.9	60
								E10	8.0	1	38.5	70.1	80
								E15	11.9	2	57.2	93.5	100
								E20	15.9	2	76.4	117.6	125
	230-1-60	28.8	145.0	45.0	2.3	7.6	10.0	None	-	-	-	55.9	60
								E05	5.3	1	23.0	55.9	60
								E07	7.5	1	32.6	61.1	70
								E10	10.6	1	46.1	77.2	80
								E15	15.9	2	69.1	104.8	110
								E20	21.2	2	92.2	132.4	150
	208-3-60	17.3	123.0	27.0	2.3	5.2	10.0	None	-	-	-	39.1	40
								E05	4.0	1	11.1	39.1	40
								E07	5.6	1	15.5	39.1	40
								E10	8.0	1	22.2	46.8	50
								E15	11.9	2	33.0	60.3	70
								E20	15.9	2	44.1	74.2	80
	230-3-60	17.3	123.0	27.0	2.3	5.2	10.0	None	-	-	-	39.1	40
								E05	5.3	1	13.3	39.1	40
								E07	7.5	1	18.8	41.6	45
								E10	10.6	1	26.6	50.9	60
								E15	15.9	2	39.9	66.8	70
								E20	21.2	2	53.2	82.7	90
	460-3-60	9.6	70.0	15.0	1.3	2.6	5.0	None	-	-	-	20.9	25
								E07	6.8	1	8.5	20.9	25
								E10	10.1	1	12.7	24.7	25
								E15	13.6	2	17.1	29.9	30
E20								19.5	2	24.5	38.8	40	
E30								28.8	2	36.1	52.8	60	
575-3-60	7.4	53.0	11.5	1.3	2.0	4.0	None	-	-	-	16.3	20	
							E10	10.6	1	10.6	20.2	25	
							E15	15.9	1	16.0	26.6	30	
							E20	21.2	2	21.3	33.0	35	
							E30	30.4	2	30.5	44.1	45	

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 36: ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE HIGH STATIC WITH POWERED CONVENIENCE OUTLET

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J03 (3.0)	208-1-60	11.3	68.0	17.5	2.3	7.6	10.0	None	-	-	-	34.0	45
								E05	4.0	1	19.2	46.0	50
								E07	5.6	1	26.9	55.7	60
								E10	8.0	1	38.5	70.1	80
								E15	11.9	2	57.2	93.5	100
								E20	15.9	2	76.4	117.6	125
	230-1-60	11.3	68.0	17.5	2.3	7.6	10.0	None	-	-	-	34.0	45
								E05	5.3	1	23.0	49.6	50
								E07	7.5	1	32.6	61.1	70
								E10	10.6	1	46.1	77.2	80
								E15	15.9	2	69.1	104.8	110
								E20	21.2	2	92.2	132.4	150
	208-3-60	8.3	68.0	13.0	2.3	5.2	10.0	None	-	-	-	28.3	35
								E05	4.0	1	11.1	32.9	35
								E07	5.6	1	15.5	38.4	40
								E10	8.0	1	22.2	46.8	50
								E15	11.9	2	33.0	60.3	70
								E20	15.9	2	44.1	74.2	80
	230-3-60	8.3	68.0	13.0	2.3	5.2	10.0	None	-	-	-	28.3	35
								E05	5.3	1	13.3	34.9	40
								E07	7.5	1	18.8	41.6	45
								E10	10.6	1	26.6	50.9	60
								E15	15.9	2	39.9	66.8	70
								E20	21.2	2	53.2	82.7	90
460-3-60	5.1	34.0	8.0	1.3	2.6	5.0	None	-	-	-	15.3	20	
							E07	6.8	1	8.5	19.7	20	
							E10	10.1	1	12.7	24.7	25	
							E15	13.6	2	17.1	29.9	30	
							E20	19.5	2	24.5	38.8	40	
							None	-	-	-	-	-	
575-3-60	3.2	26.0	5.0	1.3	2.0	4.0	None	-	-	-	11.2	15	
							E10	10.6	1	10.6	20.2	25	
							E15	15.9	1	16.0	26.6	30	
							E20	21.2	2	21.3	33.0	35	
							None	-	-	-	-	-	
							None	-	-	-	-	-	
J04 (4.0)	208-1-60	15.4	86.0	24.0	2.3	7.6	10.0	None	-	-	-	39.1	50
								E05	4.0	1	19.2	46.0	50
								E07	5.6	1	26.9	55.7	60
								E10	8.0	1	38.5	70.1	80
								E15	11.9	2	57.2	93.5	100
								E20	15.9	2	76.4	117.6	125
	230-1-60	15.4	86.0	24.0	2.3	7.6	10.0	None	-	-	-	39.1	50
								E05	5.3	1	23.0	49.6	50
								E07	7.5	1	32.6	61.1	70
								E10	10.6	1	46.1	77.2	80
								E15	15.9	2	69.1	104.8	110
								E20	21.2	2	92.2	132.4	150
	208-3-60	11.5	84.0	18.0	2.3	5.2	10.0	None	-	-	-	31.9	40
								E05	4.0	1	11.1	32.9	40
								E07	5.6	1	15.5	38.4	40
								E10	8.0	1	22.2	46.8	50
								E15	11.9	2	33.0	60.3	70
								E20	15.9	2	44.1	74.2	80
	230-3-60	11.5	84.0	18.0	2.3	5.2	10.0	None	-	-	-	31.9	40
								E05	5.3	1	13.3	34.9	40
								E07	7.5	1	18.8	41.6	45
								E10	10.6	1	26.6	50.9	60
								E15	15.9	2	39.9	66.8	70
								E20	21.2	2	53.2	82.7	90
460-3-60	5.8	42.0	9.0	1.3	2.6	5.0	None	-	-	-	16.1	20	
							E07	6.8	1	8.5	19.7	20	
							E10	10.1	1	12.7	24.7	25	
							E15	13.6	2	17.1	29.9	30	
							E20	19.5	2	24.5	38.8	40	
							None	-	-	-	-	-	
575-3-60	5.1	34.0	8.0	1.3	2.0	4.0	None	-	-	-	13.4	15	
							E10	10.6	1	10.6	20.2	25	
							E15	15.9	1	16.0	26.6	30	
							E20	21.2	2	21.3	33.0	35	
							None	-	-	-	-	-	
							None	-	-	-	-	-	

TABLE 36: ELECTRICAL DATA - J03 THRU 05 DJ BELT DRIVE HIGH STATIC WITH POWERED CONVENIENCE OUTLET (CONT)

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Pwr Conv Outlet	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC	FLA	FLA	FLA	Model	kW	Stages	Amps		
J05 (5.0)	208-3-60	17.3	123.0	27.0	2.3	8.2	10.0	None	-	-	-	42.1	45
								E05	4.0	1	11.1	42.1	45
								E07	5.6	1	15.5	42.2	45
								E10	8.0	1	22.2	50.5	60
								E15	11.9	2	33.0	64.0	70
								E20	15.9	2	44.1	77.9	80
	230-3-60	17.3	123.0	27.0	2.3	8.2	10.0	None	-	-	-	42.1	45
								E05	5.3	1	13.3	42.1	45
								E07	7.5	1	18.8	45.3	50
								E10	10.6	1	26.6	54.6	60
								E15	15.9	2	39.9	70.6	80
								E20	21.2	2	53.2	86.5	90
	460-3-60	9.6	70.0	15.0	1.3	4.1	5.0	None	-	-	-	22.4	25
								E07	6.8	1	8.5	22.4	25
								E10	10.1	1	12.7	26.6	30
								E15	13.6	2	17.1	31.8	35
								E20	19.5	2	24.5	40.7	45
								E30	28.8	2	36.1	54.7	60
	575-3-60	7.4	53.0	11.5	1.3	3.6	4.0	None	-	-	-	17.9	20
								E10	10.6	1	10.6	22.2	25
								E15	15.9	1	16.0	28.6	30
								E20	21.2	2	21.3	35.0	35
								E30	30.4	2	30.5	46.1	50

1. Minimum Circuit Ampacity.
2. Dual Element, Time Delay Type.
3. HACR type per NEC.

TABLE 37: PHYSICAL DATA J**DJ

MODELS		J03	J04	J05
EVAPORATOR BLOWER	Centrifugal Blower (Dia. x Wd. in.)	12 X 10	12 X 10	12 X 10
	Fan Motor HP (Direct Drive)	3/4	1	1
	Fan Motor HP (Belt Drive)	1 1/2	1 1/2	1 1/2
	Fan Motor HP (Belt Drive High Static)	1 1/2	1 1/2	2
EVAPORATOR COIL	Rows Deep	3	4	4
	Fins Per Inch	13	13	13
	Face Area (Ft. ²)	5.1	5.1	5.1
CONDENSER FANS	Propeller Dia. (in.)	24	24	24
	Fan Motor HP	1/2	1/2	1/2
	Nom. CFM	4200	4200	4200
CONDENSER COILS	Rows Deep	2	2	2
	Fins Per Inch	18	18	18
	Face Area (Ft. ²)	17.1	17.1	17.1
COMPRESSOR	Quantity	1	1	1
	Type	Recip.	Recip.	Scroll
AIR FILTERS	Quantity Per Unit (15" X 20" X 1" or 2")	2	2	2
	Quantity Per Unit (14" X 25" X 1" or 2")	1	1	1
	Total Face Area (Ft. ²)	6.3	6.3	6.3
CHARGE	Refrigerant 22 (lbs./oz.)	9/4	9/8	11/8

TABLE 38: ELECTRIC HEAT CORRECTION FACTORS

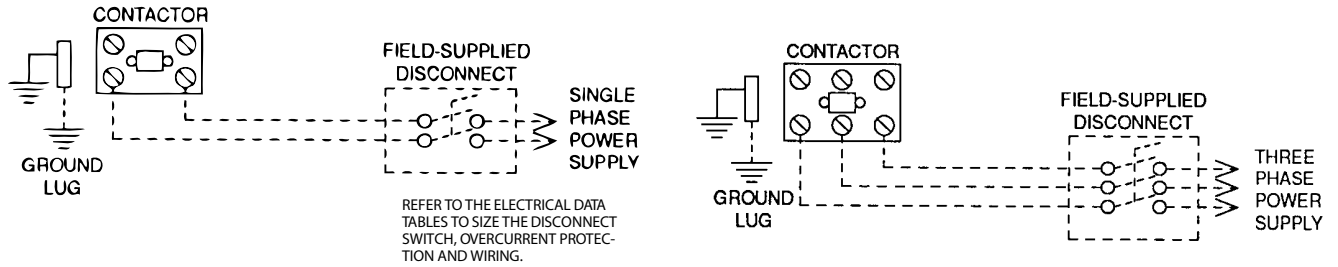
NOMINAL VOLTAGE	VOLTAGE	kw CAP. MULTIPLIER
208	208	1.00
240	230	0.92
480	460	0.92
600	575	0.92

TABLE 39: VOLTAGE LIMITATIONS¹

POWER SUPPLY	VOLTAGE	
	MIN.	MAX.
208/230-1-60	187	252
208/230-3-60	187	252
460-3-60	432	504
575-3-60	540	630

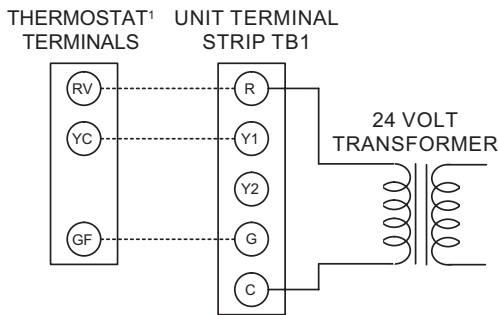
1. Utilization Range "A" in accordance with ARI Standard 110.

TYPICAL POWER WIRING



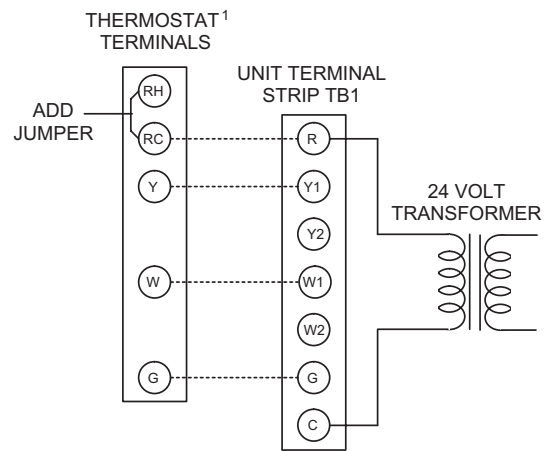
TYPICAL CONTROL WIRING

COOLING ONLY (24 VOLT THERMOSTAT)



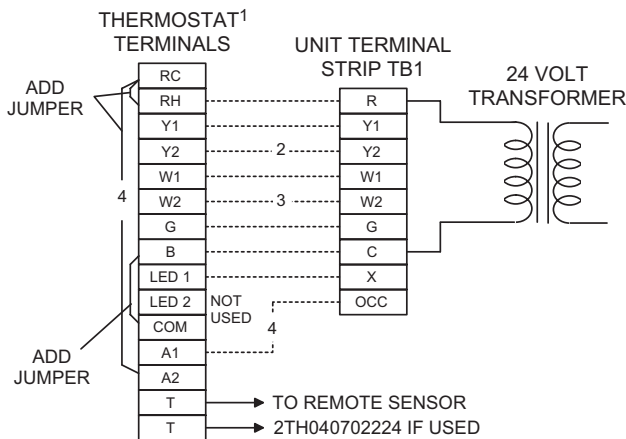
¹24 VOLT THERMOSTAT 2TH07701024. TO CONTROL THE ECONOMIZER ON SECOND STAGE COOLING, USE THE THERMOSTAT 2TH0401224.

COOLING / HEATING (24 VOLT THERMOSTAT)



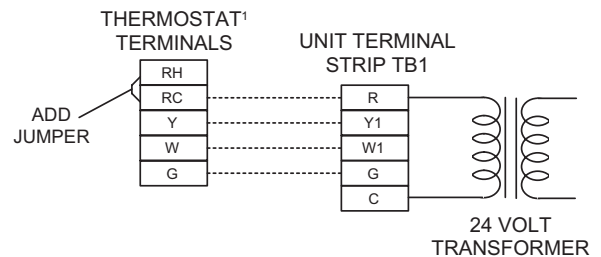
¹24 VOLT THERMOSTAT 2ET07701024. TO CONTROL THE ECONOMIZER ON THE SECOND STAGE COOLING OR TO HAVE AN ELECTRIC HEAT ACCESSORY WITH TWO STAGES OF HEAT, USE THERMOSTAT 2TH0471024.

COOLING / HEATING (ELECTRONIC THERMOSTAT) MULTI STAGE



¹ ELECTRONIC PROGRAMMABLE THERMOSTAT 2ET04700224 (INCLUDES SUBBASE).
² SECOND STAGE COOLING IS NOT REQUIRED ON UNITS LESS ECONOMIZER.
³ SECOND STAGE HEATING IS ONLY REQUIRED ON UNITS WITH A TWO STAGE ELECTRIC HEATER OR 2 STAGE GAS HEAT.
⁴ REMOVE JUMPER J2 FROM TERMINALS 4 AND 9 ON JUMPER PLUG CONNECTOR P6 ON UNITS WITH ECONOMIZER. TERMINALS A1 AND A2 PROVIDE A RELAY OUT-PUT TO CLOSE THE OUTDOOR ECONOMIZER DAMPERS WHEN THE THERMOSTAT SWITCHES TO THE SET-BACK POSITION.

COOLING / HEATING (ELECTRONIC THERMOSTAT) SINGLE STAGE



¹ELECTRONIC PROGRAMMABLE THERMOSTAT 2ET07701024 (INCLUDES SUBBASE). TO CONTROL THE ECONOMIZER ON SECOND STAGE COOLING, USE THERMOSTAT 2TH04700224.

FIGURE 2 - TYPICAL FIELD POWER & CONTROL WIRING

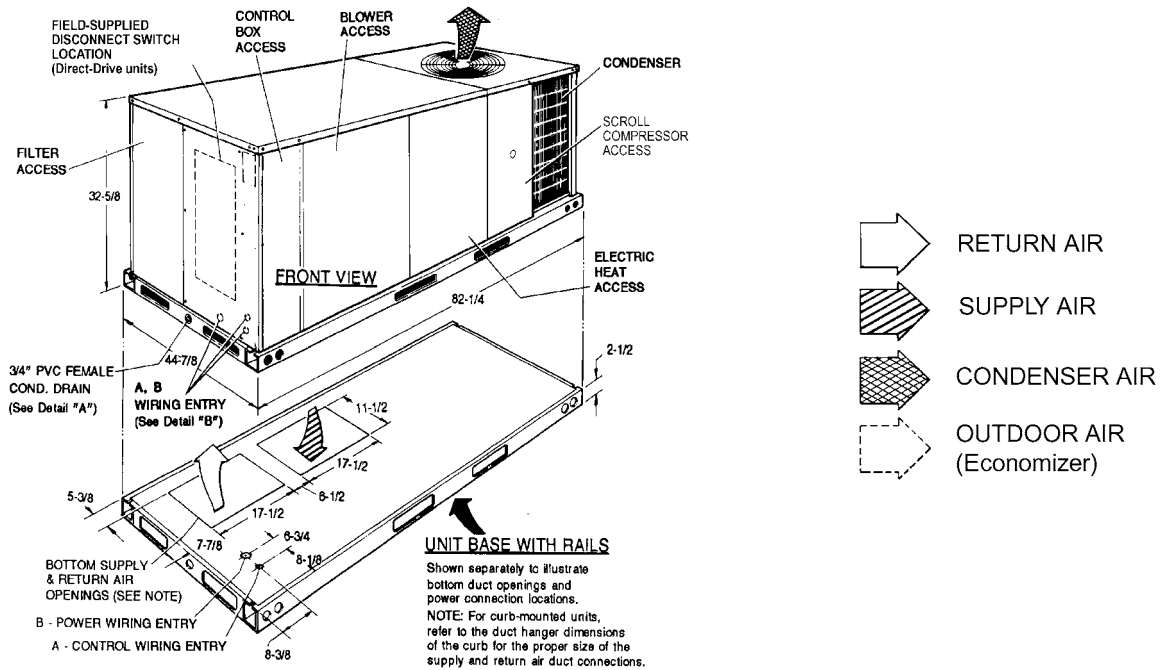


FIGURE 3 - UNIT DIMENSIONS (3 - 5 TON COOLING ONLY/ELECTRIC HEAT) FRONT VIEW

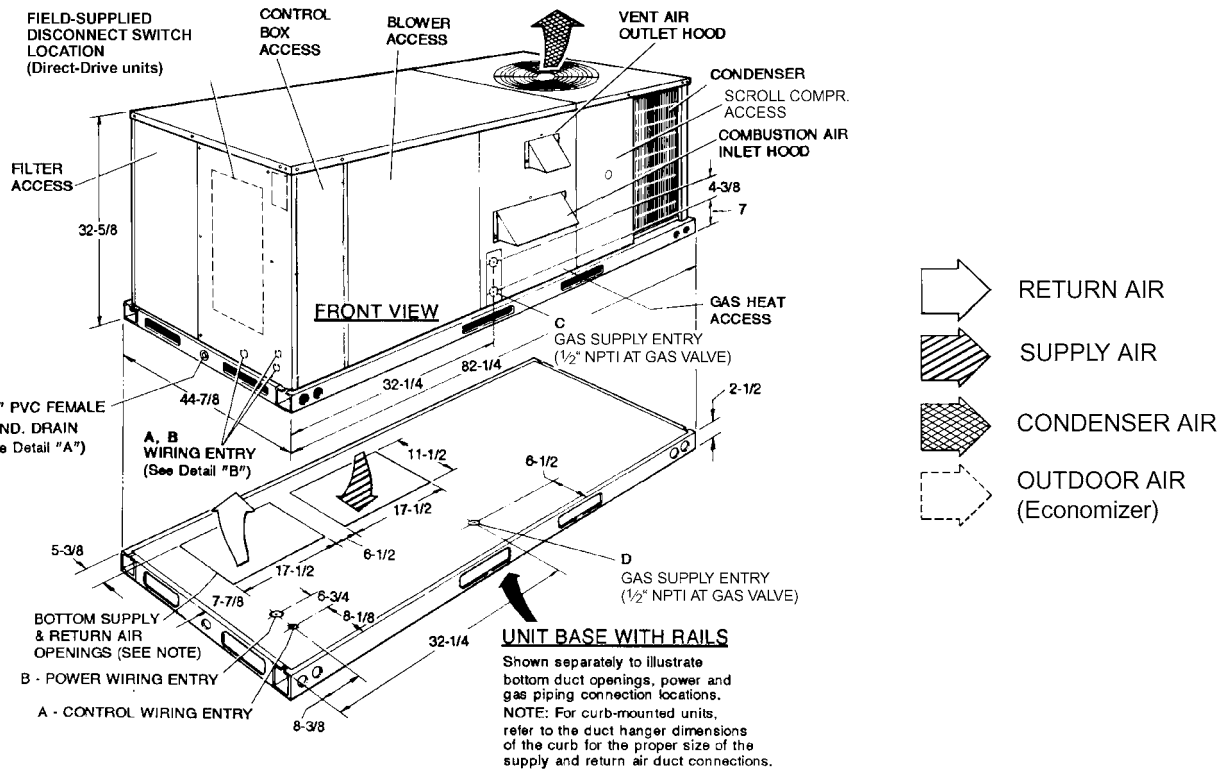


FIGURE 4 - UNIT DIMENSIONS (3 - 5 TON COOLING/GAS HEAT) FRONT VIEW

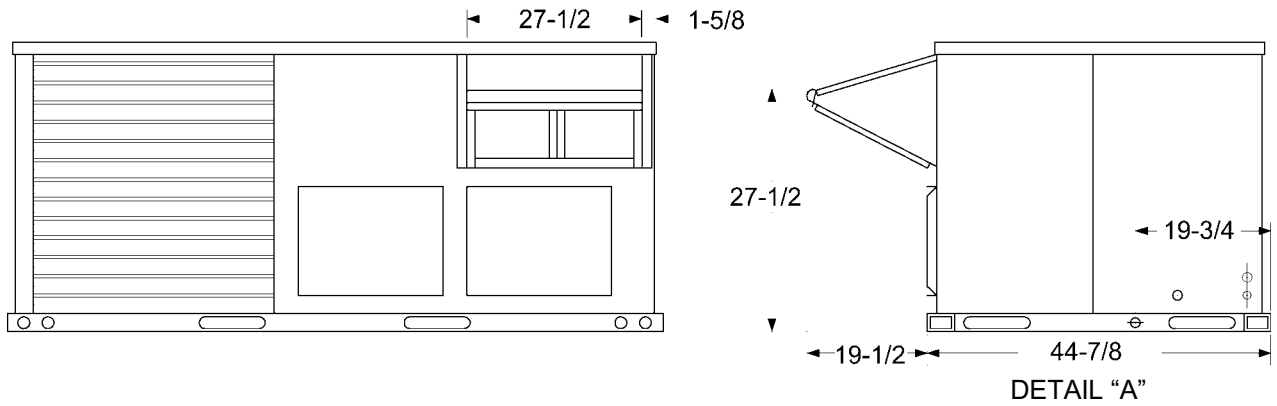
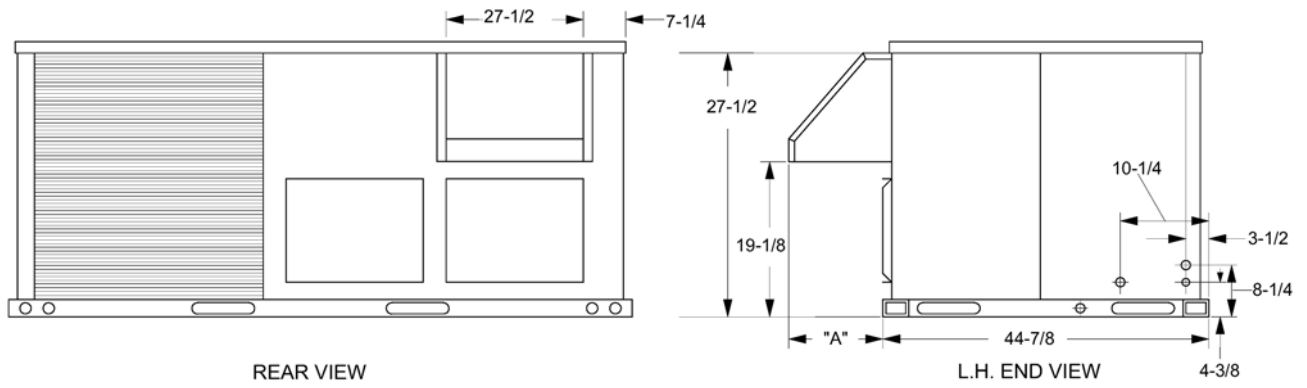


FIGURE 5 - UNIT WITH ECONOMIZER RAINHOOD



DIMENSION "A"	
FIXED OUTDOOR AIR DAMPER	12
MOTORIZED DAMPER	16-1/2

DETAIL "B"

FIGURE 6 - UNIT WITH FIXED OUTDOOR AIR/MOTORIZED DAMPER RAINHOOD

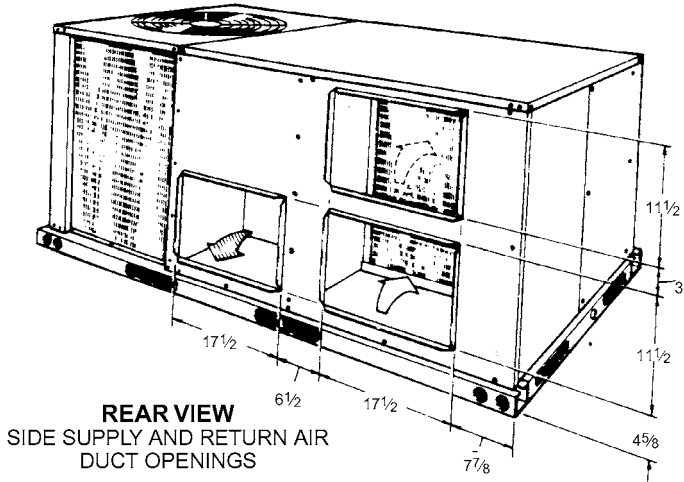


FIGURE 7 - UNIT DIMENSIONS (REAR VIEW)

DUCT COVERS - Units are shipped with all air duct openings covered.

For side duct applications;

1. Remove and discard the supply and return air duct covers.
2. Connect ductwork to duct flanges on the rear of the unit.

For bottom duct applications;

1. Remove the side supply air duct cover to gain access to the bottom supply air knockout panel.
2. Remove and discard the bottom knockout panel.
3. Replace the side duct cover.
4. With filter section access panel removed from the unit, remove and discard the bottom return air knockout panel.
5. Replace the filter access panel.

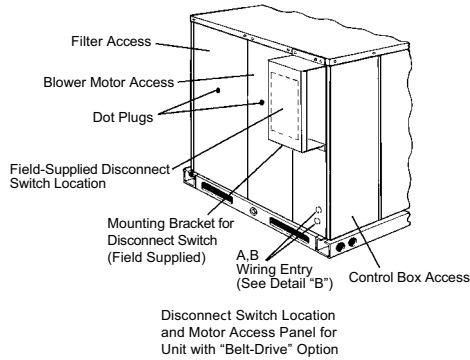


FIGURE 8 - DISCONNECT/BLOWER ACCESS LOCATION

TABLE 41: MINIMUM CLEARANCES

LOCATION	CLEARANCE
Front	24" (Cooling/Electric Heat)
	32" (Gas Heat)
Rear	12" (Less Economizer)
	36" (With Economizer or Fixed Air/Motorized Damper)
Left Side (Filter Access)	24" (Less Economizer)
Right Side (Cond. Coil)	36" (With Economizer)
Below Unit ¹	24"
Above Unit ²	0"
	72" (For Condenser Air Discharge)

TABLE 40: UTILITIES ENTRY

HOLE	OPENING SIZE (DIA.)	USED FOR
A	7/8" KO ¹	Control Wiring ²
		Side
B	2" KO ¹	Power Wiring
		Side
C	1-5/8" KO	Gas Piping (Front)
D	1-1/2" KO	Gas Piping (Bottom)

1. Opening in the bottom to the unit can be located by the side in the insulation.
2. Do not remove the 2" knockout ring.

1. Units may be installed on combustible floors made from wood or class A, B, or C roof covering material.
2. Units must be installed outdoors. Overhanging structures or shrubs should not obstruct condenser air discharge outlet.

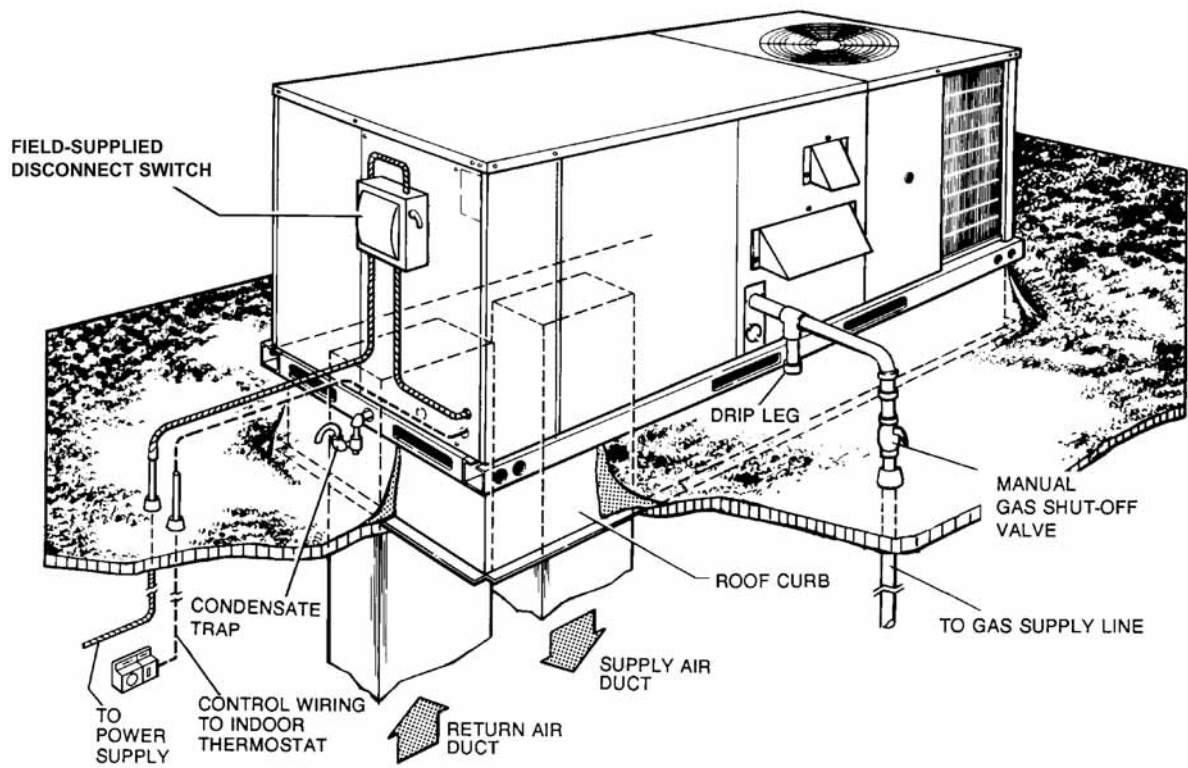
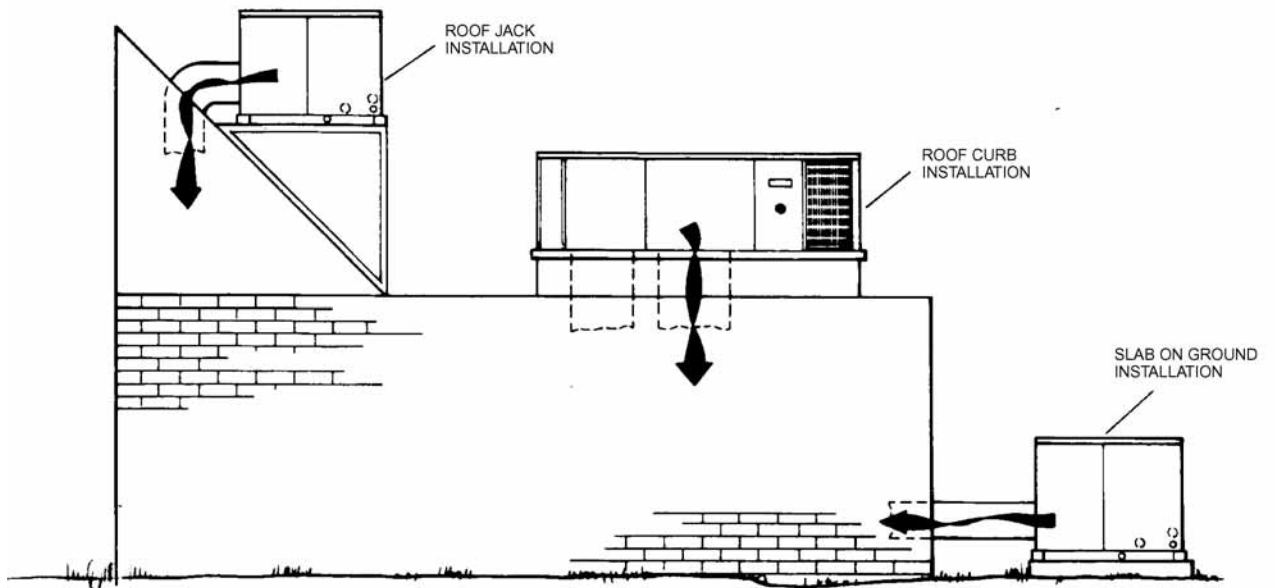


FIGURE 9 - TYPICAL APPLICATIONS

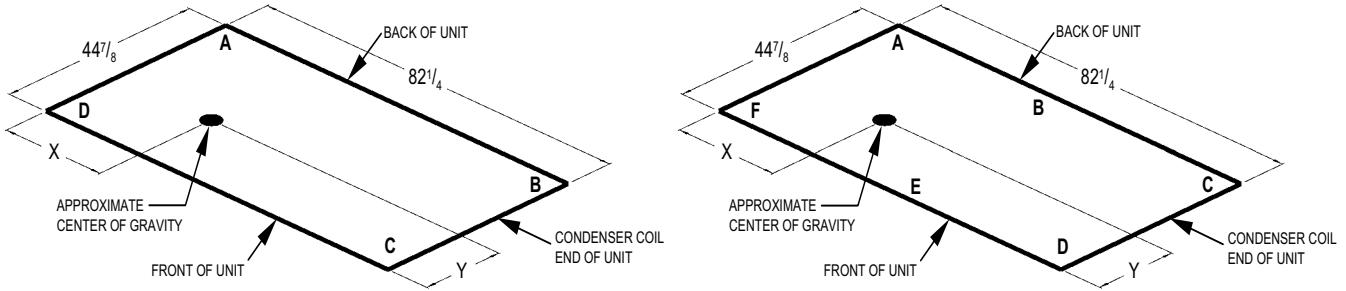


FIGURE 10 -FOUR AND SIX POINT LOADING

TABLE 42: 4 AND 6 POINT LOADS WEIGHT DISTRIBUTION JDJ**

UNIT	TOTAL	4-Point Loading (lb)				6-Point Loading (lb)					
		A	B	C	D	A	B	C	D	E	F
J03DJ Cooling/ Electric	575	132	125	155	164	89	85	82	102	106	110
J03DJN04	615	141	133	166	175	95	91	88	110	114	118
J03DJD06	625	143	135	168	178	96	93	89	111	115	120
J03DJN08	635	145	138	171	181	98	94	91	113	117	122
J03DJD10	645	148	140	174	184	99	96	92	115	119	124
J04DJ Cooling/ Electric	585	134	127	158	167	90	87	84	104	108	112
J04DJ(D,N)06	635	145	138	171	181	98	94	91	113	117	122
J04DJ(D,N)10	655	150	142	177	187	101	97	94	117	121	125
J05DJ Cooling/ Electric	590	135	128	159	168	91	88	84	105	109	113
J05DJD06	640	147	139	173	182	99	95	92	114	118	123
J05DJN08	650	149	141	175	185	100	97	93	116	120	125
J05DJ(D,N)10	660	151	143	178	188	102	98	95	118	122	126

TABLE 43: CENTER OF GRAVITY

DIMENSION	3 - 5 TON
X	40"
Y	20"

GUIDE SPECIFICATIONS

GENERAL

Series 5 J**DJ units shall be manufactured by Johnson Controls in an ISO 9001 certified facility.

DW units are convertible single package units. Although the units are primarily designed for curb mounting on a roof, they can also be slab-mounted at ground level or set on steel beams above a finished roof. Cooling only, cooling with gas heat and cooling with electric heat models are available with a wide variety of factory-mounted options and field-installed accessories to make them suitable for almost every application. All units are self-contained and assembled on full perimeter base rails with holes in the four corners for overhead rigging. Every unit is completely piped, wired, charged and tested at the factory to simplify the field installation and to provide years of dependable operation. All models (including those with an economizer) are suitable for either bottom or horizontal duct connections. Models with power exhaust are suitable for bottom duct connections only. For bottom duct, remove the sheet metal panels from the supply and return air openings through the base of the unit. For horizontal duct, remove the supply and return air panels on the rear of the unit.

All non-Scroll compressors include crankcase heaters and all compressors have internal pressure relief. Every refrigerant circuit includes a liquid line filter-drier, a discharge line high pressure switch and a suction line with a freeze-stat and low pressure/loss of charge switch. The unit control circuit includes a 75 VA transformer, a 24-volt circuit breaker and a relay board with a compressor lockout circuit, a terminal strip for thermostat wiring, plus an additional set of pin connectors to simplify the interface of additional field controls. All models are CSA listed. All models include a 1-year limited warranty on the complete unit. Compressors and electric heater elements carry a 5-year warranty. Aluminum steel and Stainless steel tubular heat exchangers carry a 10-year warranty.

DESCRIPTION

Units shall be factory-assembled, single packaged, Electric Cooling/Gas Heat, Electric Cooling/Optional Electric Heat and designed for outdoor mounted installation.

The 3 ton, 4 ton and 5 ton units shall have minimum SEER rating of 13. They shall have built-in field convertible duct connections for down discharge supply/return or horizontal discharge supply/return, and be available with factory installed options or field installed accessories. The units shall be factory wired, piped, charged with R-22 refrigerant and factory tested prior to shipment. All unit wiring shall be both numbered and color coded. All units the cooling performance shall be rated in accordance with DOE and ARI test procedures. Units shall be CSA listed, classified to ANSI Z21.47, UL 1995/CSA No. 236 standards.

UNIT CABINET

Unit cabinet shall be constructed of a combination of G60 and G90 galvanized steel, with exterior surfaces coated with a non-chalking, powered paint finish, certified at 750 hours salt spray test per ASTM B117 standards. Indoor blower section shall be insulated with a minimum 1/2" thick insulation, coated on the airside. Aluminum foil faced insulation shall be used in the furnace compartment and be fastened with ridged fasteners to prevent insulation from entering the air stream. Cabinet panels shall be "large" size, easily removable for servicing and maintenance. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging and proper sealing on roof curb applications. Disposable 1" filters shall be furnished and be accessible through a removable access door, sealed airtight. Units filter track shall be designed to accommodate either 1" or 2" filters. Fan performance measuring ports shall be provided on the outside of the cabinet to allow accurate air measurements of evaporator fan performance without removing panels or creating air bypass of the coils. Condensate pan shall be internally sloped and conform to ASHRAE 62-89 self-draining standards. Condensate connection shall be a minimum of 3/4" I.D. female and be a ridged mount connection.

INDOOR (EVAPORATOR) FAN ASSEMBLY

The indoor fan shall be a factory installed direct drive or belt drive assembly that includes an adjustable pitch motor pulley. Job site selected (B.H.P.) brake horsepower shall not exceed the motors nameplate horsepower rating, plus the service factor. Units shall be designed not to operate above service factor. Fan wheel shall be double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant air volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance.

OUTDOOR (CONDENSER) FAN ASSEMBLY

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

REFRIGERANT COMPONENTS

Compressor:

- a. Shall be internally protected with internal high-pressure relief and over temperature protection.
- b. Shall have internal spring isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

Coils:

- a. Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed. Special Phenolic coating shall be available as a factory option.
- b. Evaporator and Condenser coils shall be of the direct expansion, draw-thru, design.

Refrigerant Circuit and Refrigerant Safety Components shall include:

- a. Independent fixed-orifice or thermally operated expansion devices.
- b. Filter drier/strainer to eliminate any moisture or foreign matter.
- c. Accessible service gage connections on both suction and liquid lines to charge, evacuate, and measure refrigerant pressure during any necessary servicing or troubleshooting, without losing charge.
- d. The refrigeration system shall provide at least 15°F of sub-cooling at design conditions.

UNIT CONTROLS

- a. Unit shall be complete with self-contained low-voltage control circuit protected by a resettable circuit breaker on the 24-volt transformer side.
- b. Unit shall incorporate a lockout circuit which provides reset capability at the space thermostat or base unit, should any of the following standard safety devices trip and shut off compressor.
- c. Loss-of-charge/Low-pressure switch.
- d. High-pressure switch.
- e. Freeze-protection thermostat, evaporator coil.
- f. Unit shall incorporate "AUTO RESET" compressor over temperature, over current protection.
- g. Unit shall operate with conventional thermostat designs and have a low voltage terminal strip for easy hook-up.
- h. Unit control board shall have on-board diagnostics and fault code display.
- i. Standard controls shall include anti-short cycle and low voltage protection, and permit cooling operation down to 0°F.
- j. Control board shall monitor each refrigerant safety switch independently.
- k. Control board shall retain last 5 fault codes in non volatile memory which will not be lost in the event of a power loss.

GAS HEATING SECTION (SINGLE OR 2 STAGE)

Shall be designed with induced draft combustion with post purge logic, energy saving direct spark ignition, and redun-

dant main gas valve. Venter wheel shall be constructed of stainless steel for corrosion resistance. The heat exchanger shall be of the tubular type, constructed of T1-40 aluminized steel for corrosion resistance and allowing minimum mixed air entering temperature of 25°F. Burners shall be of the inshot type, constructed of aluminum coated steel and contain air mixture adjustments. All gas piping shall enter the unit cabinet at a single location through either the side or curb without any field modifications. Integrated control boards shall provide timed control of evaporator fan functioning and burner ignition. Heating section shall be provided with the following minimum protection:

- a. Primary and auxiliary high-temperature limit switches.
- b. Induced draft motor speed sensor.
- c. Flame roll out switch.
- d. Flame proving controls.
- e. If any of the above safety devices trip, a LED (light-emitting diode) indicator shall flash a diagnostic code that indicates which safety switch has tripped.

ELECTRIC HEATING SECTION

An electric heating section, with nickel chromium elements, shall be provided in a range of 5 thru 30 KW, offering two stages of capacity - 16 KW and above on 208/230 volt heaters and 20 KW and above on 460 and 575 volt heaters. The heating section shall have a primary limit control(s) and automatic reset to prevent the heating element system from operating at an excessive temperature. The heating section assembly shall slide out of the unit for easy maintenance and service. Units with Electric Heating shall be wired for a single point power supply with branch circuit fusing (where required).

UNIT OPERATING CHARACTERISTICS

- a. Unit shall be capable of starting and running at 125°F outdoor temperature, exceeding maximum load criteria of ARI Standard 210/240. The compressor, with standard controls, shall be capable of operation down to 0°F outdoor temperature. Unit shall be provided with fan time delay to prevent cold air delivery before heat exchanger warms up (Gas heat only).

ELECTRICAL REQUIREMENTS

All unit power wiring shall enter unit cabinet at a single factory provided location and be capable of side or bottom entry, to minimize roof penetrations and avoid unit field modifications. Separate side and bottom openings shall be provided for the control wiring.

STANDARD LIMITED WARRANTIES

- Compressor 5 Years
- Heat Exchanger 10 Years
- Electric Heat Element 5 Years
- Other Parts 1 Year

OPTIONAL OUTDOOR AIR (Shall be made available by either/or):

- **ELECTRONIC ENTHALPY AUTOMATIC ECONOMIZER**- Outdoor and return air dampers that are interlocked and positioned by a fully-modulating, spring return damper actuator. The maximum leakage rate for the outdoor air intake dampers shall not exceed 2% when dampers are fully closed and operating against a pressure differential of 0.5 IWG. A unit-mounted potentiometer shall be provided to adjust the outdoor and return air damper assembly to take in CFM of outdoor air to meet the minimum ventilation requirement of the conditioned space during normal operation. During economizer operation, a mixed-air temperature control shall modulate the outdoor and return air damper assembly to prevent the supply air temperature from dropping below 55°F. Changeover from compressor to economizer operation shall be provided by an integral electronic enthalpy control that feeds input into the basic module. The outdoor intake opening shall be covered with a rain hood that matches the exterior of the unit. Water eliminator/filters shall be provided. Simultaneous economizer/compressor operation is also possible. Dampers shall fully close on power loss.
- **MOTORIZED OUTDOOR AIR DAMPERS** - Outdoor air dampers are positioned by a 2-position, spring-return damper actuator. The maximum leakage rate for the outdoor air intake dampers shall not exceed 2% when dampers are fully closed and operating against a pressure differential of 0.5 IWG. A unit-mounted potentiometer shall be provided to adjust the outdoor damper assembly to take in the design CFM of outdoor air to meet the ventilation requirements of the conditioned space during normal operation. Whenever the indoor fan motor is energized, the dampers open up to one of two pre-selected positions - regardless of the outdoor air enthalpy. Dampers return to the fully closed position when the indoor fan motor is de-energized. Dampers shall fully close on power loss.

OTHER PRE-ENGINEERED ACCESSORIES AVAILABLE

- **ROOF CURB** - 14"and 8" high, full perimeter curb with wood nailer (shipped knocked-down).
- **BAROMETRIC RELIEF DAMPER** - Contains a rain hood, air inlet screen, exhaust damper and mounting hardware. Used to relieve internal air pressure through the unit.
- **PROPANE CONVERSION KIT** - Contains new orifices and gas valve parts to convert from natural to L.P. gas. One per unit required.
- **HIGH ALTITUDE - NATURAL GAS** - Contains orifices required for applications between 2000 and 6000 feet altitude.
- **HIGH ALTITUDE - PROPANE GAS** - Contains orifices required for applications between 2000 and 6000 feet altitude. Must be used with propane conversion kit.

- **LOW NOX** - Required to reduce the emission of nitrogen oxides below 40 nanograms per joule.
- **GAS PIPING** - Contains 1/2" pipe nipples, fittings and gas cock (including panel assess gaskets) required for bottom gas supply connection with external shut off.
- **POWER EXHAUST OPTION** - To work in conjunction with economizers.
- **ELECTRIC HEATERS**
- **ECONOMIZER/MOTORIZED DAMPER RAIN HOOD** - Contains all hood panels and the hardware for assembling.
- **MANUAL OUTDOOR AIR DAMPER**
- **COIL GUARD KIT** - Guard for cooling coil.
- **HAIL GUARD**
- **FLUE EXHAUST EXTENSION**

OTHER FACTORY INSTALLED OPTIONS

- **POWER EXHAUST OPTION** - To work in conjunction with economizers.
- **STAINLESS STEEL HEAT EXCHANGER**
- **STAINLESS STEEL DRAIN PAN**
- **BOTTOM DRAIN CONNECTION**
- **TECHNICOAT PHENOLIC COATED CONDENSER AND EVAPORATOR COIL**
- **ELECTRONIC SINGLE ENTHALPY ECONOMIZER**
- **DIRTY FILTER SWITCH**
- **PHASE MONITOR**
- **COIL GUARD**
- **POWERED GFI CONVENIENCE OUTLET**
- **NON-POWERED GFI CONVENIENCE OUTLET**
- **BAS READY ECONOMIZER (2-10 V.D.C. ACTUATOR WITHOUT A CONTROLLER)**
- **HINGED FILTER DOOR ACCESS AND TOOLESS ACCESS PANELS**
- **2" PLEATED FILTERS**
- **DISCONNECT SWITCH**
- **SUPPLY AIR SMOKE DETECTOR**
- **RETURN AIR SMOKE DETECTOR**
- **HIGH STATIC DRIVE OPTION** - May include a belt, blower pulley, motor pulley or a motor change to enhance blower performance.

CONTROL OPTIONS

- **JOHNSON LIGHT COMMERCIAL SYSTEM (LCCS)** - Provides rooftop system integration for LCCS single zone, change-over bypass and VAV systems.
- **JOHNSON UNT 1126 ROOFTOP CONTROLLER** - N2 protocol with air proving and dirty filter sensors. Hardware contains generic application logic; field engineering and/or modification may be required.