WEATHERMAKER®
50AJ,AK,AW,AY020-060
Single Package Rooftop Units
Electric Cooling with Electric Heat Option
with Scroll Compressor
and *COMFORT*LINK™ Controls

Installation Instructions

CONTENTS

SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform the basic maintenance functions of cleaning coils and filters and replacing filters. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves. Use quenching cloth for unbrazing operations. Have fire extinguishers available for all brazing operations.

⚠ WARNING

Before performing service or maintenance operations on unit, turn off main power switch to unit. Electrical shock could cause personal injury.

⚠ WARNING

1. Improper installation, adjustment, alteration, service, or maintenance can cause property damage, personal injury, or loss of life.
2. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

INSTALLATION

Step 1 — Provide Unit Support

⚠ CAUTION

1. All panels must be in place when rigging or damage to unit may occur.
2. Unit is not designed for handling by fork truck.

ROOF CURB — For vertical discharge units, assemble or install accessory roof curb in accordance with instructions shipped with this accessory. See Fig. 1-4. Install insulation, cant strips, roofing, and counter flashing as shown. Ductwork can be installed to roof curb before unit is set in place. Curb should be level. This is necessary to permit unit drain to function properly. Unit leveling tolerance is shown in Fig. 1-4. Refer to Accessory Roof Curb Installation Instructions for additional information as required. When accessory roof curb is used, unit may be installed on class A, B, or C roof covering material.

IMPORTANT: The gasketing of the unit to the roof curb is critical for a watertight seal. Install gasket with the roof curb as shown in Fig. 1-4. Improperly applied gasket can also result in air leaks and poor unit performance.

ALTERNATE UNIT SUPPORT — When the preferred curb or slab mount cannot be used, support unit with sleepers on perimeter, using unit curb support area. If sleepers cannot be used, support long sides of unit (refer to Fig. 5-10) with a minimum number of 4-in. x 4-in. pads spaced as follows: 50AJ,AK,AW,AY020-035 units require 3 pads on each side; 50AJ,AK,AW,AY036-050 units require 4 pads on each side; 50AJ,AK,AW,AY051 and 060 units require 6 pads on each side. Unit may sag if supported by corners only.

Step 2 — Rig and Place Unit — Inspect unit for transportation damage. See Tables 1-6 for physical data and specifications. File any claim with transportation agency.

Do not drop unit; keep upright. Use spreader bars over unit to prevent sling or cable damage. This unit must be handled with a crane and can not be handled by a fork truck. Level by using unit frame as a reference; leveling tolerance is shown in Fig. 1-4. See Fig. 11 for additional information. Unit operating weight is shown in Tables 2-5.

NOTE: On retrofit jobs, ductwork may be attached to the old unit instead of a roof curb. Be careful not to damage ductwork when removing old unit. Attach existing ductwork to roof curb instead of unit.

Four lifting lugs are provided on the unit base rails as shown in Fig. 5-11. Refer to rigging instructions on unit.

POSITIONING — Maintain clearance, per Fig. 5-11, around and above unit to provide minimum distance from combustible materials, proper airflow, and service access.

Do not install unit in an indoor location. Do not locate unit air inlets near exhaust vents or other sources of contaminated air.

Although unit is weatherproof, guard against water from higher level runoff and overhangs.

ROOF MOUNT — Check building codes for weight distribution requirements. See Fig. 12. Unit operating weight are shown in Tables 2-5.

Step 3 — Field Fabricate Ductwork — Secure all ducts to building structure. Use flexible duct connectors between unit and ducts as required. Insulate and weatherproof all external ductwork, joints, and roof openings with counter flashing and mastic in accordance with applicable codes.

NOTE: Due to width of the horizontal supply and return ductwork, provisions should be made for servicing of the outdoor air filters (i.e., catwalk over ductwork).

Ducts passing through an unconditioned space must be insulated and covered with a vapor barrier. Outlet grilles must not lie directly below unit discharge. The return duct must have a 90-degree elbow before opening into the building space if the unit is equipped with power exhaust.

To attach ductwork to roof curb, insert duct approximately 10 to 11 in. up into roof curb. Connect ductwork to 14-gage roof curb material with sheet metal screws driven from inside the duct.

Follow AMCA (Air Movement and Control Association) guidelines relating to ductwork connections to the unit. These guidelines recommend a minimum $2^1/_2$ equivalent duct diameters of straight duct connected to supply air inlet and outlet openings before any transitions, fittings, dampers, etc. Failure to adhere to these guidelines may result in system effects which can impact the unit's ability to achieve published performance.

⚠ WARNING

For vertical supply and return units, tools or parts could drop into ductwork and cause an injury. Install a 90-degree elbow turn in the supply and return ductwork between the unit and the conditioned space. If a 90-degree elbow cannot be installed, then a grille of sufficient strength and density should be installed to prevent objects from falling into the conditioned space.

Step 4 — Make Unit Duct Connections

50AJ AND AK UNITS — Unit is shipped for thru-the-bottom duct connections. Field-fabricated ductwork should be **attached to the roof curb**. Supply and return duct dimensions are shown in Fig. 5-7. Air distribution is shown in Fig. 13. Refer to installation instructions shipped with roof curb for more information.

50AW AND AY UNITS — Remove shipping covers from supply and return air openings. Attach field-supplied ductwork to unit. Connect to the unit with a single duct for **all** supply openings and with a single duct for all return openings. Splitting of the airflow into branch ducts should not be done at the unit. Sufficient duct length should be used prior to branching to ensure the air temperatures are well mixed within the ductwork. See Fig. 8-10 for duct opening dimensions. Secure all ducts to building structure. Air distribution is shown in Fig. 8-10 and Fig. 14.

Install accessory barometric relief or power exhaust in the field-fabricated return ductwork. Refer to Step 8 — Position Power Exhaust/Barometric Relief Damper Hood section on page 48 for more information.

Instructions continued on page 20.

NOTES:
1. Unless otherwise specified, all dimensions are to outside of part.
2. Roof curb accessory CRRFCURB005A00 is shipped disassembled.
3. All roof curb parts are to be 14 ga. galvanized steel.
4. Units with electric heat must be installed with a 90 degree elbow on the supply duct prior to any supply take offs or branches.
5. Dimensions in [ ] are in millimeters. All other dimensions are in inches.

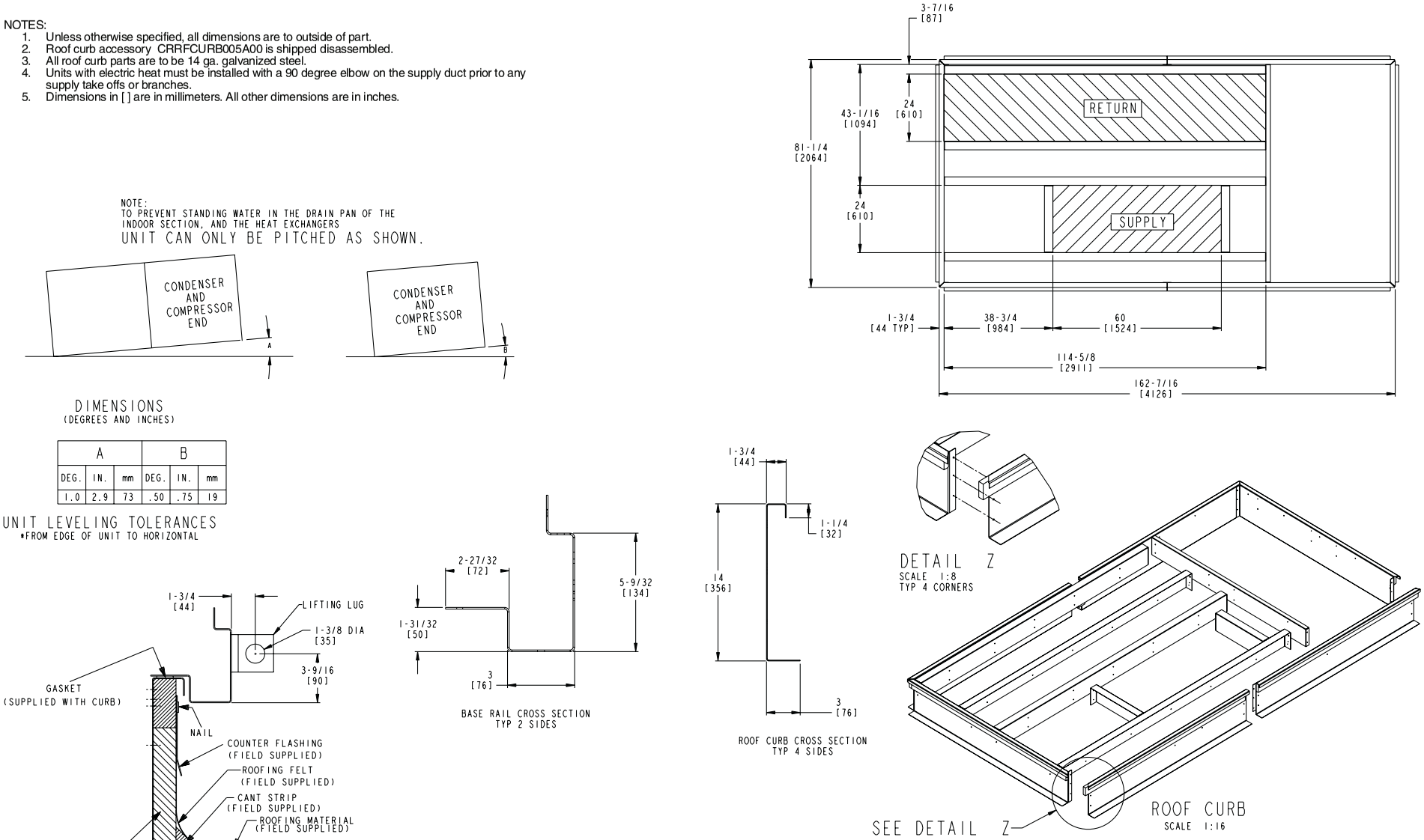


Fig. 1 — Roof Curb — 50AJ,AK020-035 Units

NOTES:
1. Unless otherwise specified, all dimensions are to outside of part.
2. Roof curb accessory CRRFCURB006A00 is shipped disassembled.
3. All roofcurb parts are to be 14 ga. galvanized steel.
4. Units with electric heat must be installed with a 90 degree elbow on the supply duct prior to any supply take offs or branches.
5. Dimensions in [ ] are in millimeters. All other dimensions are in inches.

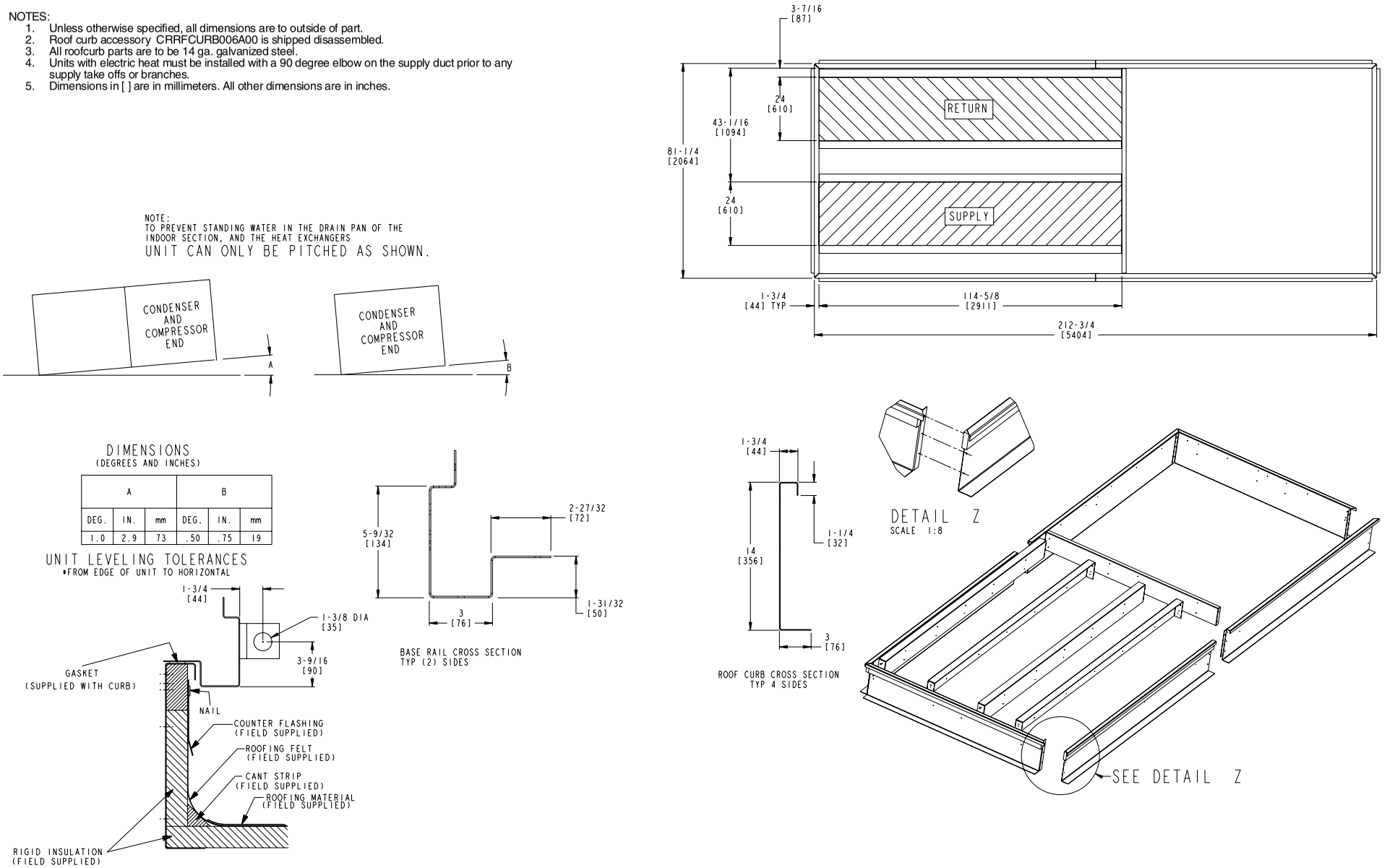
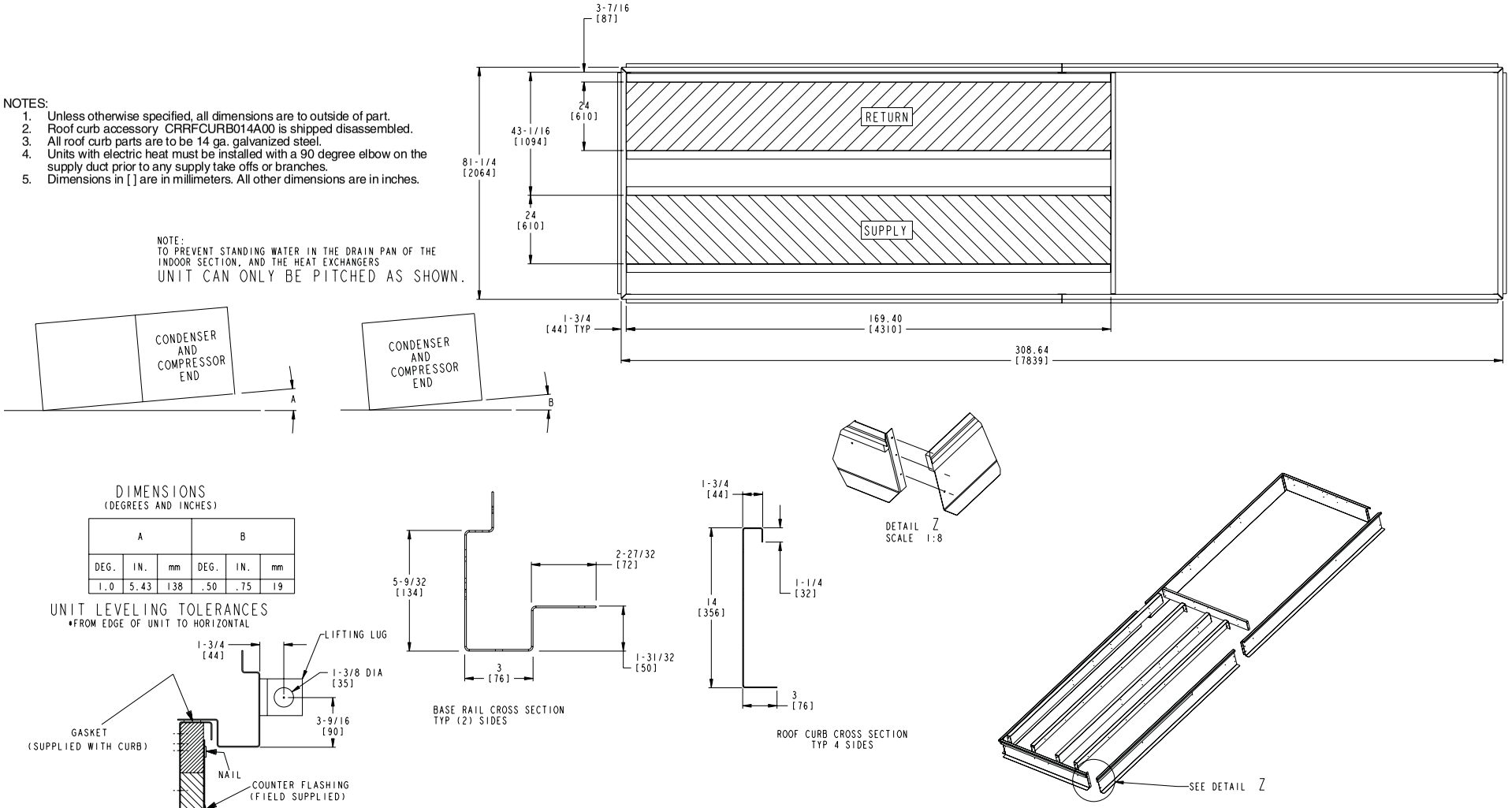


Fig. 2 — Roof Curb — 50AJ,AK036-050 Units

NOTES:
1. Unless otherwise specified, all dimensions are to outside of part.
2. Roof curb accessory CRRFCURB014A00 is shipped disassembled.
3. All roof curb parts are to be 14 ga. galvanized steel.
4. Units with electric heat must be installed with a 90 degree elbow on the supply duct prior to any supply take offs or branches.
5. Dimensions in [ ] are in millimeters. All other dimensions are in inches.

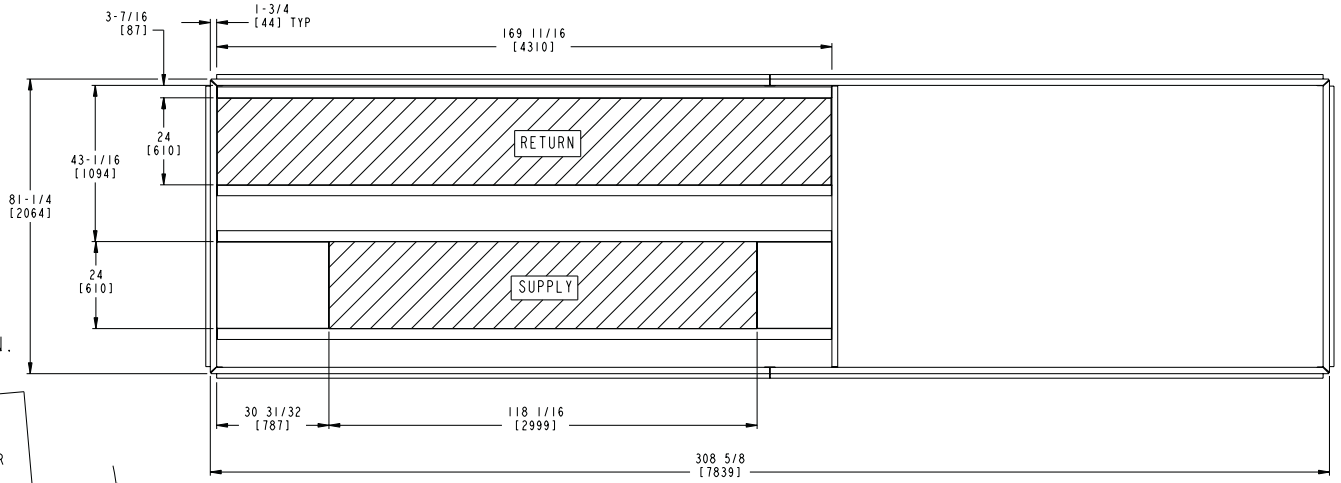


A			B		
DEG.	IN.	mm	DEG.	IN.	mm
1.0	5.43	138	.50	.75	19

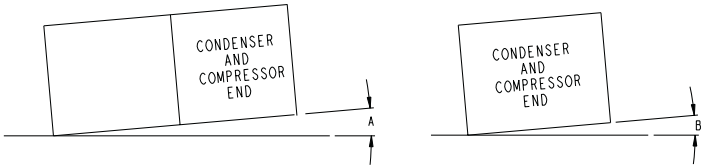
Fig. 3 — Roof Curb — 50AJ,AK051 and 060 Units

NOTES:

1. Unless otherwise specified, all dimensions are to outside of part.
2. Roof curb accessory CRRFCURB009A00 is shipped disassembled.
3. All roof curb parts are to be 14 ga. galvanized steel.
4. Units with electric heat must be installed with a 90 degree elbow on the supply duct prior to any supply take offs or branches.
5. Dimensions in [ ] are in millimeters. All other dimensions are in inches.



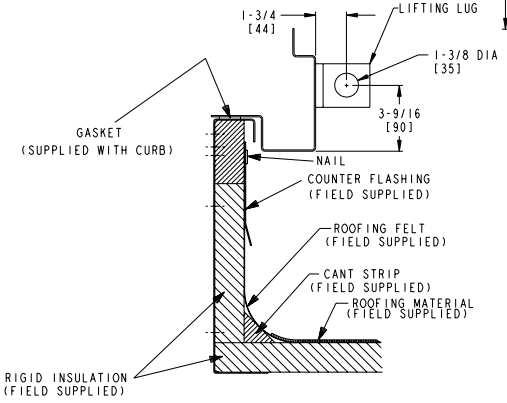
NOTE:
TO PREVENT STANDING WATER IN THE DRAIN PAN OF THE INDOOR SECTION, AND THE HEAT EXCHANGERS
UNIT CAN ONLY BE PITCHED AS SHOWN.

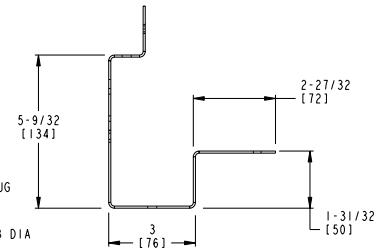


DIMENSIONS
(DEGREES AND INCHES)

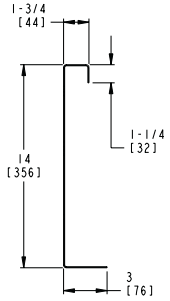
A			B		
DEG.	IN.	mm	DEG.	IN.	mm
1.0	5.43	138	.50	.75	19

UNIT LEVELING TOLERANCES
*FROM EDGE OF UNIT TO HORIZONTAL

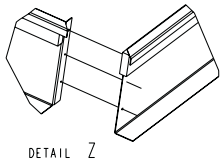




BASE RAIL CROSS SECTION
TYP (2) SIDES



ROOF CURB CROSS SECTION
TYP 4 SIDES



DETAIL Z
SCALE 1:8

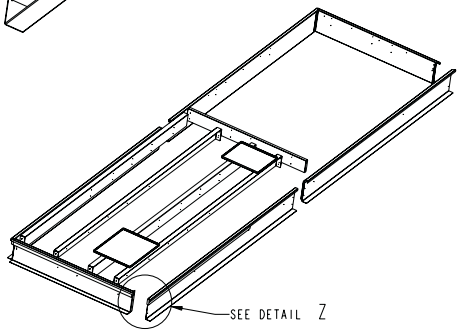


Fig. 4 — Reduced Supply Duct Opening — Roof Curb — 50AJ,AK051 and 060 Units

NOTES:

1. Weights include economizer.
2. ⊕ center of gravity.
3. Unit clearances:
   Top of units: no overhang
   Condenser coil: 4' - 0" [1219]
   Economizer side: 6' - 0" [1829]
   Heat side: 4' - 0" [1219]
   Filter access side: 10' - 0" [3048] (for removal of evaporator coil)
4. For smaller service and operational clearances, contact Carrier application engineering department.
5. Bottom ducts are designed to be attached to accessory roof curb. If unit is mounted on dunnage, it is recommended that the ducts be supported by cross braces as done on accessory roof curb.
6. Dimensions in [ ] are in millimeters. All other dimensions are in inches.

UNIT SIZE	OPERATING WEIGHT *	A	B	CORNER WEIGHT (LB)			
	LB	FT-IN.	FT-IN.	1	2	3	4
50AJ/AK020	4607	5'-10 7/8"	3'- 6"	945	1035	1373	1254
50AJ/AK025	4680	5'- 8"	3'- 7 7/8"	962	967	1379	1373
50AJ/AK027	4873	5'- 8"	3'- 7 7/8"	1002	1006	1436	1429
50AJ/AK030	5023	5'- 8"	3'- 7 5/8"	1026	1044	1490	1463
50AJ/AK035	5229	5'- 8 1/4"	3' - 10 1/2"	878	783	1683	1885

UNIT SIZE	OPERATING WEIGHT *	A	B	CORNER WEIGHT (kg)			
	kg	MM	MM	1	2	3	4
50AJ/AK020	2090	[1801]	[1067]	429	469	623	569
50AJ/AK025	2123	[1727]	[1115]	436	438	625	623
50AJ/AK027	2210	[1727]	[1115]	454	457	651	648
50AJ/AK030	2278	[1727]	[1107]	465	474	676	664
50AJ/AK035	2372	[1735]	[1181]	398	355	763	855

* OPERATING WEIGHT INCLUDES LARGEST INDOOR FAN MOTOR, CU/AL COILS, MODULATING POWER EXHAUST (VARIABLE AIR VOLUME), AND VARIABLE FREQUENCY DRIVE (VARIABLE AIR VOLUME).

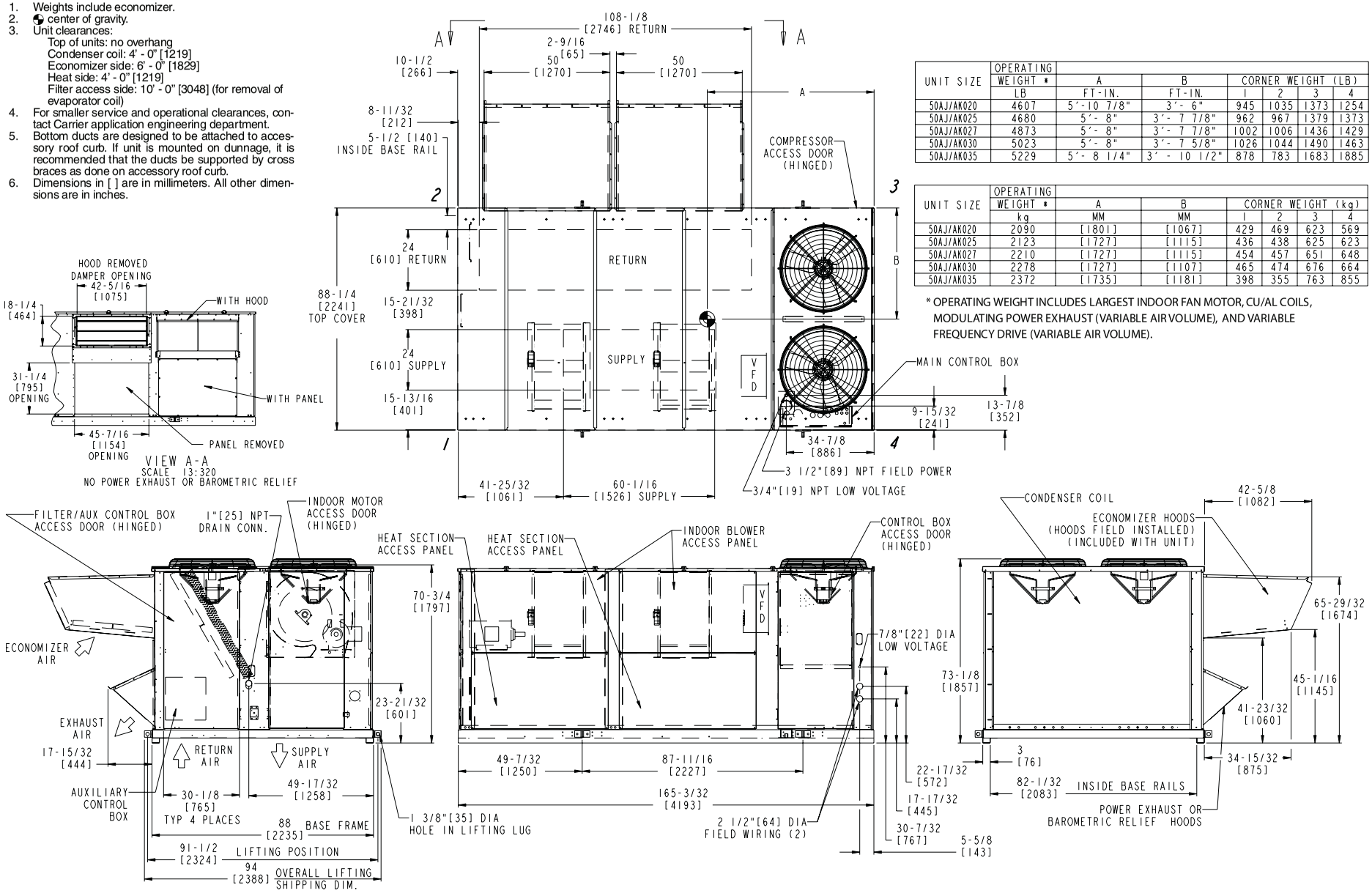


Fig. 5 — Base Unit Dimensions — 50AJ,AK020-035

NOTES:
1. Weights include economizer.
2. ⊕ center of gravity.
3. Unit clearances:
   Top of units: no overhang
   Condenser coil: 4' - 0" [1219]
   Economizer side: 6' - 0" [1829]
   Heat side: 4' - 0" [1219]
   Filter access side: 10' - 0" [3048] (for removal of evaporator coil)
4. For smaller service and operational clearances, contact Carrier application engineering department.
5. Bottom ducts are designed to be attached to accessory roof curb. If unit is mounted on dunnage, it is recommended that the ducts be supported by cross braces as done on accessory roof curb.
6. Dimensions in [ ] are in millimeters. All other dimensions are in inches.

UNIT SIZE	OPERATING WEIGHT *	A	B	CORNER WEIGHT (LB)			
	LB	FT-IN	FT-IN	1	2	3	4
50AJ/AK036	5609	7'- 9 1/4"	3' - 9 3/8"	1256	1181	1538	1635
50AJ/AK040	5769	7'- 6 3/4"	3' - 10 1/2"	1287	1149	1572	1761
50AJ/AK041	5885	7' - 5"	3' - 9 5/8"	1262	1174	1662	1786
50AJ/AK050	6338	7'- 5 1/4"	3' - 10 1/8"	1378	1252	1766	1943

UNIT SIZE	OPERATING WEIGHT *	A	B	CORNER WEIGHT (kg)			
	kg	MM	MM	1	2	3	4
50AJ/AK036	2544	2372	1152	569	536	698	742
50AJ/AK040	2617	2306	1181	584	521	713	799
50AJ/AK041	2669	2261	1158	572	533	754	810
50AJ/AK050	2875	2266	1171	625	568	801	881

* OPERATING WEIGHT INCLUDES LARGEST INDOOR FAN MOTOR, CU/AL COILS, MODULATING POWER EXHAUST (VARIABLE AIR VOLUME), AND VARIABLE FREQUENCY DRIVE (VARIABLE AIR VOLUME).

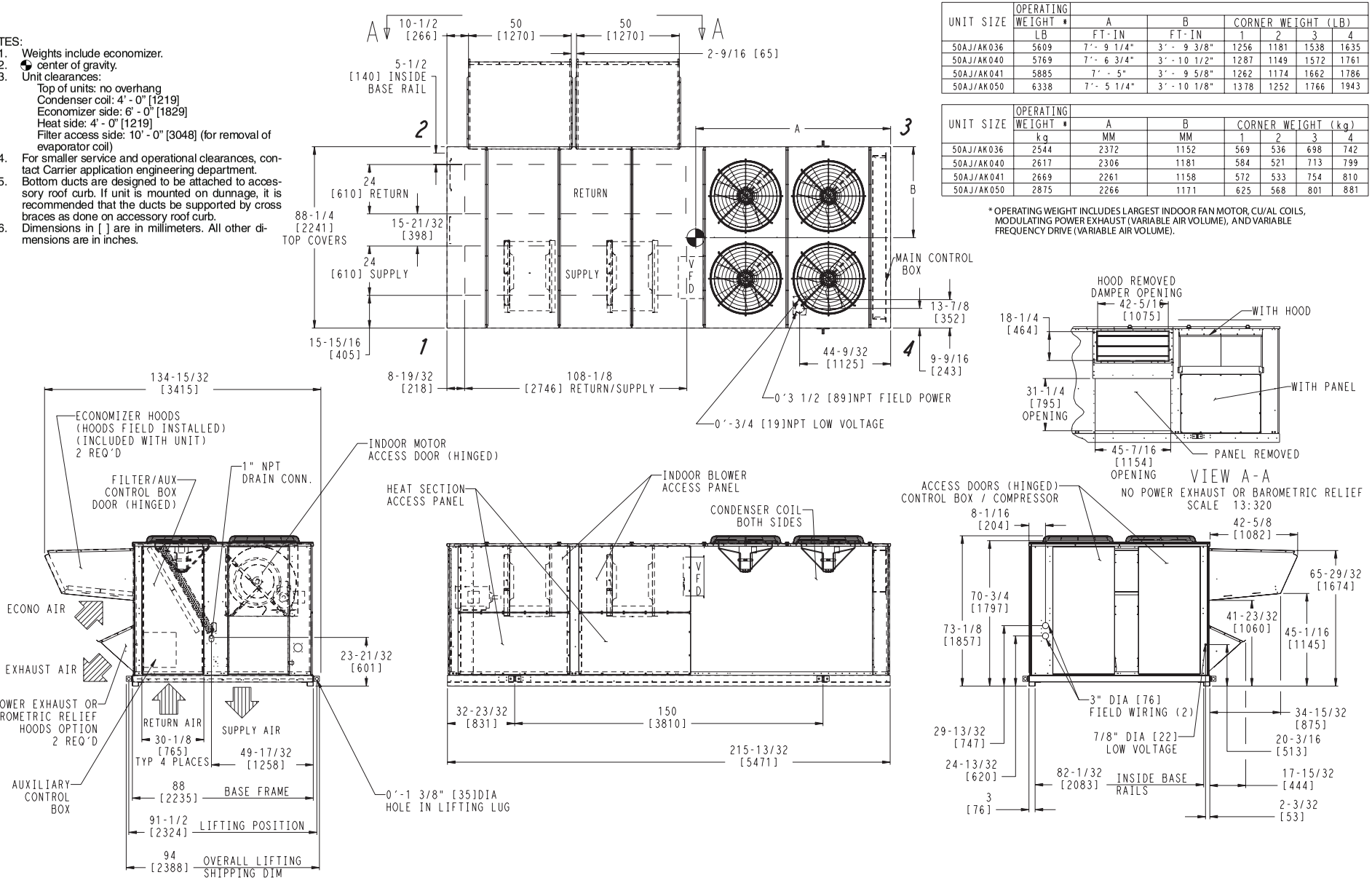


Fig. 6 — Base Unit Dimensions — 50AJ,AK036-050

FOR CENTERS OF GRAVITY, OPERATING AND CORNER WEIGHTS, SEE FIG. 11

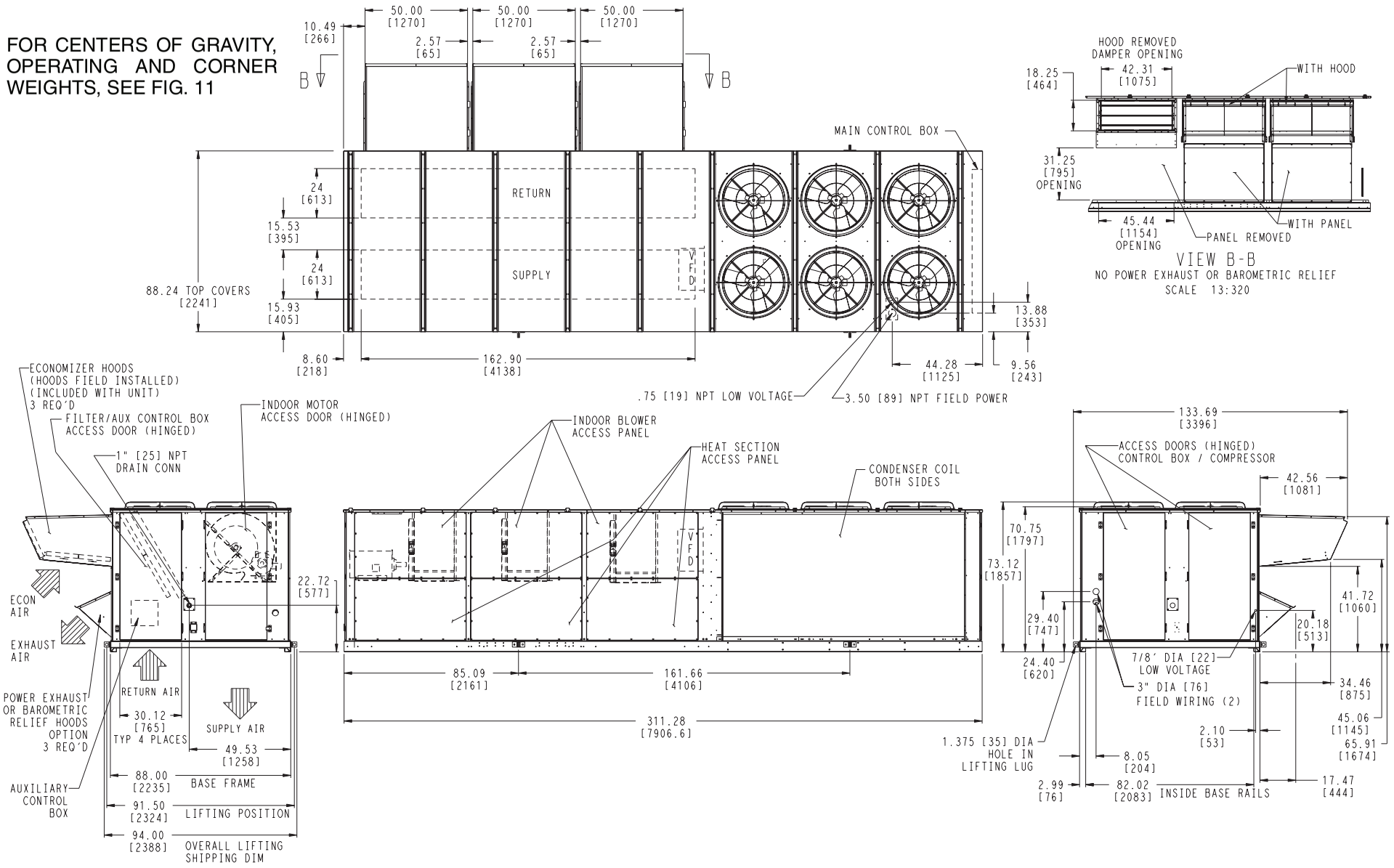


Fig. 7 — Base Unit Dimensions — 50AJ,AK051 and 060

NOTES:
1. Weights include economizer.
2. ⊕ center of gravity.
3. Unit clearances:
   Top of units: no overhang
   Condenser coil: 4' - 0" [1219]
   Economizer side: 6' - 0" [1829]
   Heat side: 4' - 0" [1219]
   Filter access side: 10' - 0" [3048] (for removal of evaporator coil)
4. For smaller service and operational clearances, contact Carrier application engineering department.
5. Dimensions in [ ] are in millimeters. All other dimensions are in inches.

UNIT SIZE	OPERATING WEIGHT *	A	B	CORNER WEIGHT (LB)			
	LB	FT-IN.	FT-IN.	1	2	3	4
50AW/AY020	4685	5'- 10 7/8"	3'- 6"	961	1052	1397	1275
50AW/AY025	4758	5'- 8"	3'-7 7/8"	978	983	1402	1395
50AW/AY027	4951	5'- 8"	3'-7 7/8"	1018	1023	1459	1452
50AW/AY030	5101	5'- 8"	3'-7 5/8"	1042	1061	1513	1486
50AW/AY035	5422	5'-8 1/4"	3'- 10 1/2"	910	812	1745	1955

UNIT SIZE	OPERATING WEIGHT *	A	B	CORNER WEIGHT (kg)			
	kg	MM	MM	1	2	3	4
50AW/AY020	2125	[1801]	[1067]	436	477	634	578
50AW/AY025	2158	[1727]	[1115]	444	446	636	633
50AW/AY027	2246	[1727]	[1115]	462	464	662	659
50AW/AY030	2314	[1727]	[1107]	472	481	686	674
50AW/AY035	2459	[1735]	[1181]	413	368	791	887

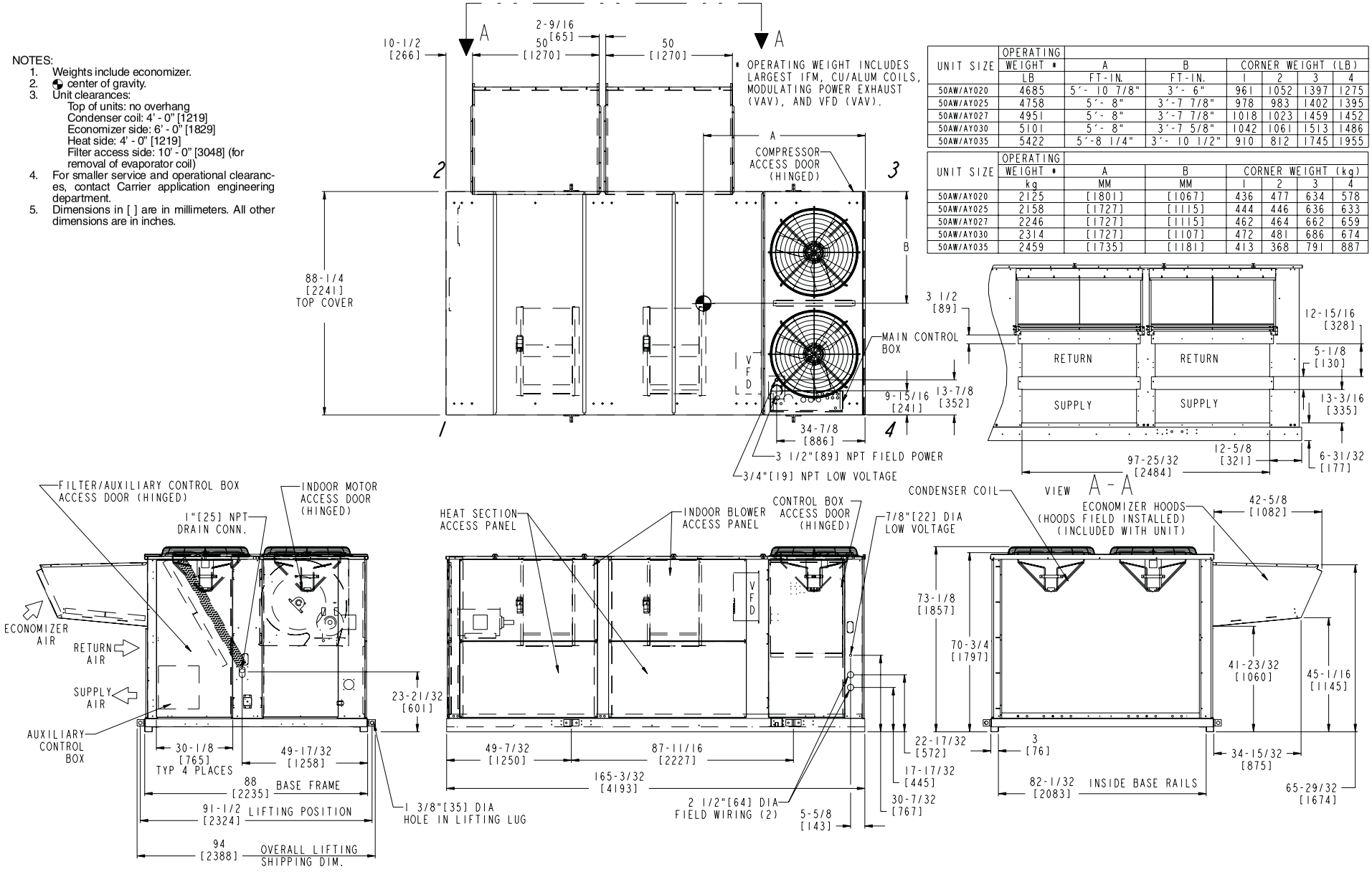


Fig. 8 — Base Unit Dimensions — 50AW,AY020-035

UNIT SIZE	OPERATING WEIGHT *	A	B	CORNER WEIGHT (LB)			
	LB	FT-IN	FT-IN	1	2	3	4
50AW/AY036	5802	7′- 9 1/4"	3′- 9 3/8"	1299	1219	1590	1694
50AW/AY040	5962	7′- 6 3/4"	3′- 10 1/2"	1330	1187	1624	1820
50AW/AY041	6078	7′- 5"	3′- 9 5/8"	1305	1213	1715	1845
50AW/AY050	6531	7′- 5 1/4"	3′- 10 1/8"	1419	1290	1820	2002

UNIT SIZE	OPERATING WEIGHT *	A	B	CORNER WEIGHT (kg)			
	kg	MM	MM	1	2	3	4
50AW/AY036	2632	2370	1153	589	553	721	768
50AW/AY040	2704	2306	1181	604	539	737	825
50AW/AY041	2757	2262	1159	592	550	778	837
50AW/AY050	2962	2266	1171	644	585	825	908

* OPERATING WEIGHT INCLUDES LARGEST INDOOR FAN MOTOR, CU/AL COILS, MODULATING POWER EXHAUST (VARIABLE AIR VOLUME), AND VARIABLE FREQUENCY DRIVE (VARIABLE AIR VOLUME).

NOTES:
1. Weights include economizer.
2. ⊕ center of gravity.
3. Unit clearances:
   Top of units: no overhang
   Condenser coil: 4′ - 0" [1219]
   Economizer side: 6′ - 0" [1829]
   Heat side: 4′ - 0" [1219]
   Filter access side: 10′ - 0" [3048] (for removal of evaporator coil)
4. For smaller service and operational clearances, contact Carrier application engineering department.
5. Dimensions in [ ] are in millimeters. All other dimensions are in inches.

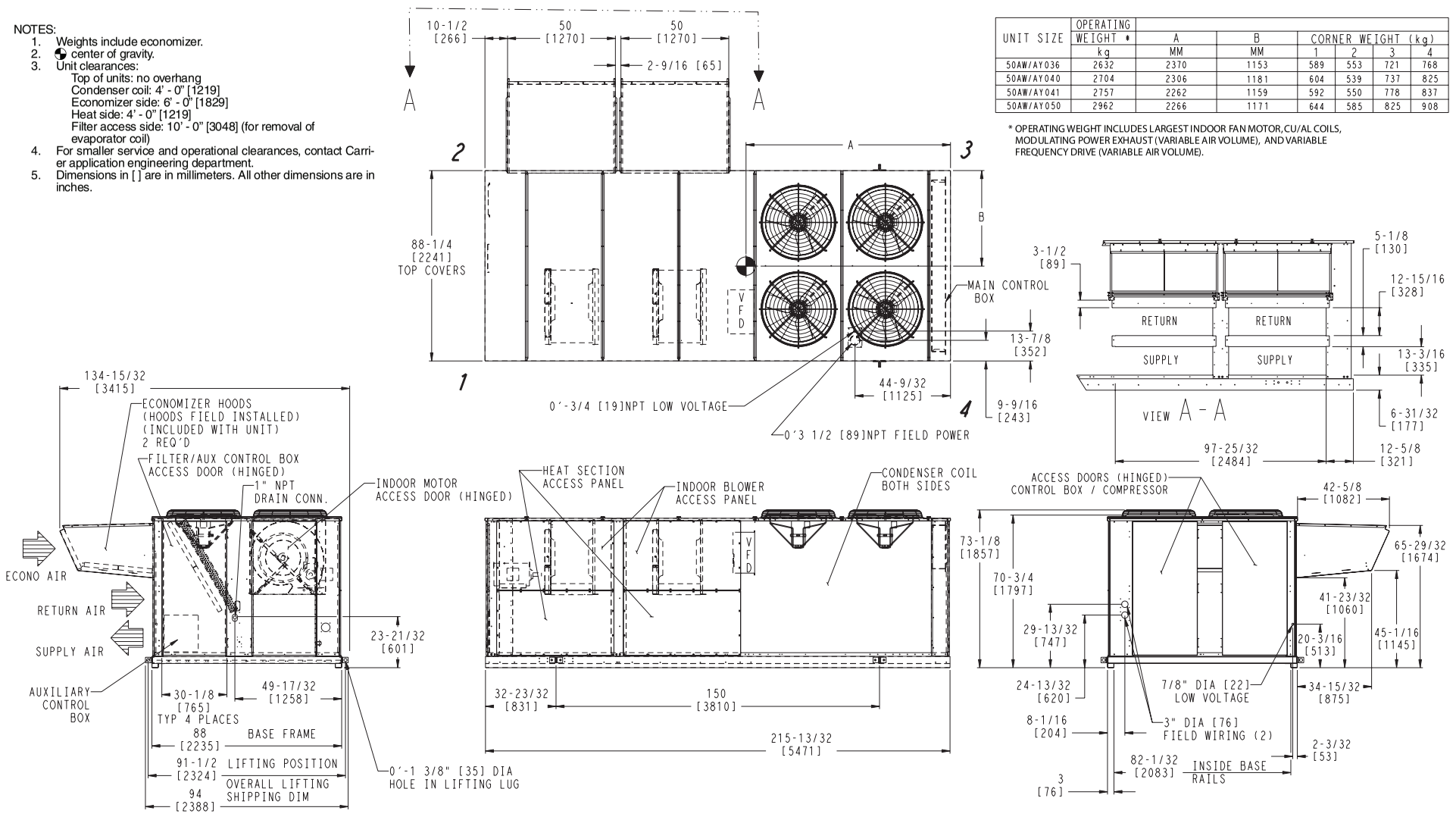


Fig. 9 — Base Unit Dimensions — 50AW,AY036-050

FOR CENTERS OF GRAVITY, OPERATING AND CORNER WEIGHTS, SEE FIG. 11

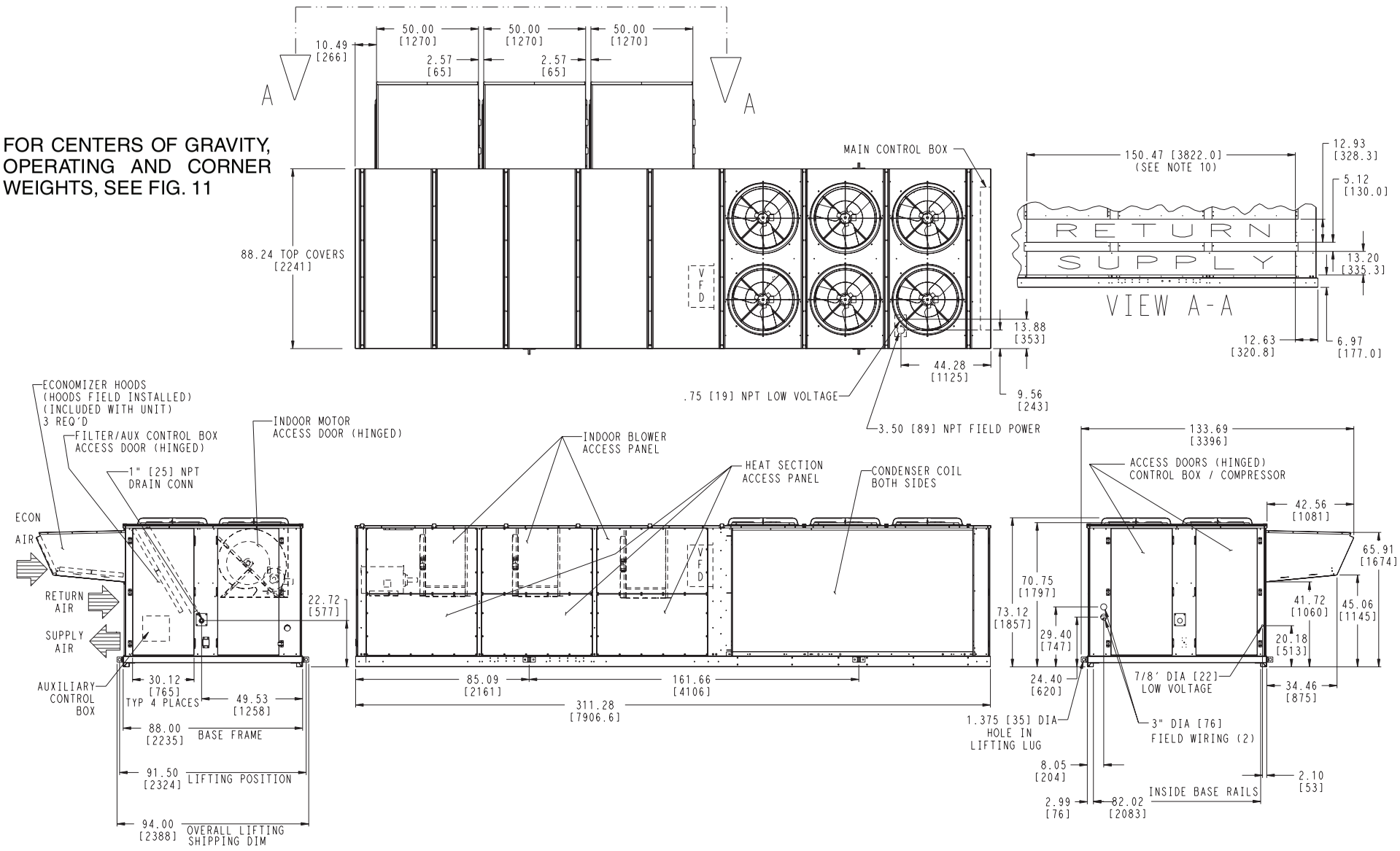


Fig. 10 — Base Unit Dimensions — 50AW,AY051 and 060

NOTES:
1. Weights include economizer or outdoor air damper.
2. ✣ center of gravity.
3. Unit clearances:
   Top of units: no overhang
   Condenser coil: 4' - 0" [1219]
   Economizer side: 6' - 0" [1829]
   Heat side: 4' - 0" [1219]
   Filter access side: 10' - 0" [3048] (for removal of evaporator coil)
4. For smaller service and operational clearances, contact Carrier application engineering department.
5. Bottom ducts are designed to be attached to accessory roof curb. If unit is mounted on dunnage, it is recommended that the ducts be supported by cross braces as done on accessory roof curb.
6. Base unit weights include outdoor air hoods and filters (indoor fan motor is not included). Add indoor fan motor, FIOPs, and accessories for total operating weight.
7. VAV motor weights include indoor motor, VFD, VFD transducer, and associated wiring.
8. Dimensions in [ ] are in millimeters. All other dimensions are in inches.
9. For side-supply/return applications, a single return and supply ductwork connection is recommended for covering all three return and all three supply openings. The entire area around the duct openings is available for a 1.5" duct flange attachment.

BASE UNIT WEIGHTS (SEE NOTE 7) LB (Kg)	
	051
50AJ/AK	6984 (3168)
50AW/AY	7199 (3265)
	060
50AJ/AK	7148 (3242)
50AW/AY	7363 (3340)
OPTIONS / ACCESSORIES (SEE NOTE 7)	
BAROMETRIC RELIEF	450 (204)
NON MOD. POWER EXHAUST	675 (306)
MOD. POWER EXHAUST	725 (329)
ELECTRIC HEAT	165 (75)
CU.FIN COND COIL	651 (295)

UNIT SIZE	CENTER OF GRAVITY				% OF TOTAL WEIGHT AT EACH CORNER			
	FT-IN.		MILLIMETERS					
	A	B	A	B	1	2	3	4
50AJ/AK 051 50AW/AY 051	10'- 6"	3'- 8 5/8"	3200	1133	20.5	19.9	29.4	30.2
50AJ/AK 060 50AW/AY 060	10'- 3 5/8"	3'- 8 5/8"	3139	1133	20.1	19.6	29.7	30.6

LEGEND

CV — Constant Volume
FIOP — Factory-Installed Option
IFM — Indoor Fan Motor
VAV — Volume Air Volume
VFD — Variable Frequency Drive

		CV MOTOR WEIGHTS LB. (Kg)		VAV MOTOR WEIGHTS LB. (Kg) (SEE NOTE 7)	
		HIGH EFFC'Y IFM	PREMIUM EFFC'Y IFM	HIGH EFFC'Y IFM	PREMIUM EFFC'Y IFM
25 HP (18.65 kW)	230/460	240 (109)	309 (140)	377 (171)	446 (202)
	575	240 (109)	319 (145)	375 (170)	454 (206)
30 HP (22.38 kW)	230/460	283 (128)	355 (161)	480 (218)	552 (250)
	575	283 (128)	359 (163)	418 (190)	494 (224)
40 HP (29.84 kW)	230/460	372 (169)	415 (188)	637 (289)	680 (308)
	575	372 (169)	410 (186)	587 (266)	625 (284)
20 HP (14.92 kW)	230/460	212 (96)	250 (113)	348 (158)	386 (175)
	575	212 (96)	258 (117)	304 (138)	350 (159)

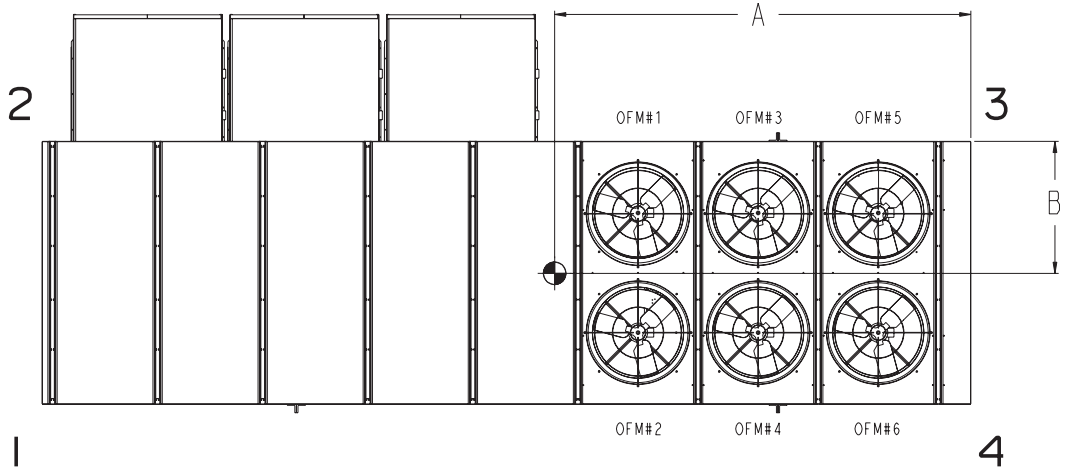


Fig. 11 — Center of Gravity and Weights — 50AJ,AK,AW,AY051,060

Table 1 — Physical Data — 50AJ,AK,AW,AY Units

UNIT 50AJ,AK,AW,AY	020			025			027			030		
NOMINAL CAPACITY (tons)	20			25			27			30		
BASE UNIT OPERATING WEIGHT (lb)	See Base Unit Weights Table											
COMPRESSOR												
Quantity...Type (Ckt 1, Ckt 2)	2…SR*782AT/1…SR*782AE			1…SR*812AT, 1…SR*942AT/1…SR*942AE			2...SR*942AT/1…SR*942AE			2…SR*782AT/2…SR*812AT		
Number of Refrigerant Circuits	2			2			2			2		
Oil (oz) (Ckt 1, Ckt 2)	Precharged			Precharged			Precharged			Precharged		
REFRIGERANT TYPE	R-22											
Operating Charge (lb-oz)												
Circuit 1	26-8			33-8			35-8			29-0		
Circuit 2	14-0			17-8			20-0			30-8		
CONDENSER COIL*	Internally Enhanced, 3/8″ Copper Tubes, Aluminum Lanced, Aluminum Pre-Coated, or Copper Plate Fins											
Quantity	1			1			1			1		
Rows...Fins/in.	2...15			3...15			3...15			4...15		
Total Face Area (sq ft)	33.3			33.3			33.3			33.3		
CONDENSER FAN	Propeller Type											
Nominal Cfm	17,200			15,850			15,850			14,500		
Quantity...Diameter (in.)	2...30			2...30			2...30			2...30		
Motor Hp	1			1			1			1		
EVAPORATOR COIL	Internally Enhanced Copper Tubes, Aluminum Plate Fins with Intertwined Circuits											
Tube Size (in.)	3/8			3/8			3/8			3/8		
Rows...Fins/in.	3...15			3...15			4...15			4...15		
Total Face Area (sq ft)	31.7			31.7			31.7			31.7		
EVAPORATOR FAN	Centrifugal Type											
Quantity...Size (in.)	2...20 X 15			2...20 X 15			2...20 X 15			2...20 X 15		
Type Drive	Belt			Belt			Belt			Belt		
Nominal Cfm	8,000			10,000			11,000			12,000		
Motor Hp	5	10	15	5	10	15	10	15	20	10	15	20
Motor Frame Size	184T	215T	254T	184T	215T	254T	215T	254T	256T	215T	254T	256T
Motor Bearing Type		Ball			Ball			Ball			Ball	
Maximum Allowable Rpm		1200			1200			1200			1200	
Motor Pulley Pitch Diameter (in.)	4.8	4.4	5.7	4.8	6.1	5.5	4.4	4.9	5.9	4.4	5.7	5.9
Nominal Motor Shaft Diameter (in.)	1 1/8	1 3/8	1 5/8	1 1/8	1 3/8	1 5/8	1 3/8	1 5/8	1 5/8	1 3/8	1 5/8	1 5/8
Fan Pulley Pitch Diameter (in.)	12.4	8.6	9.1	12.4	11.1	8.7	9.4	8.1	8.7	9.5	9.1	8.7
Nominal Fan Shaft Diameter (in.)		1 15/16			1 15/16			1 15/16			1 15/16	
Belt Quantity	1	1	2	1	1	2	2	2	2	2	2	2
Belt Type	BX56	BX50	5VX530	BX56	5VX570	5VX530	BX50	5VX530	5VX530	BX50	5VX530	5VX530
Belt Length (in.)	56	63	53	56	57	53	50	50	53	50	53	53
Pulley Center Line Distance (in.)	16.0-18.7	15.6-18.4	15.0-17.9	15.6-18.4	15.6-18.4	15.0-17.9	15.6-18.4	15.0-17.9	15.0-17.9	15.6-18.4	15.0-17.9	15.0-17.9
Factory Speed Setting (rpm)	717	924	1096	773	962	1106	848	1059	1187	856	1096	1187
HIGH-PRESSURE SWITCH (psig)												
Cutout	426			426			426			426		
Reset (Auto.)	320			320			320			320		
MIXED-AIR FILTERS												
Quantity...Size (in.) Standard	10...20 x 24 x 2			10...20 x 24 x 2			10...20 x 24 x 2			10...20 x 24 x 2		
Pleated	5... 20 x 20 x 4			5...20 x 20 x 4			5...20 x 20 x 4			5...20 x 20 x 4		
	5...20 x 24 x 4			5...20 x 24 x 4			5...20 x 24 x 4			5...20 x 24 x 4		
OUTDOOR-AIR FILTERS												
Quantity...Size (in.)	8...16 x 25 x 2 4...20 x 25 x 2											
POWER EXHAUST	Direct Drive, Single-Phase Motors (Factory-Wired for High Speed Operation), Forward-Curved Fan Wheels with Backdraft Dampers on Each Fan Housing											
Motor, Quantity...Hp	4...1											
Fan, Diameter...Width (in.)	11 x 10											

LEGEND

Al — Aluminum
Cu — Copper

*Sizes 020-040: Circuit 1 uses the lower portion of condenser coil, Circuit 2 uses the upper portion.
Sizes 050-060: Circuit 1 uses the left condenser coil, Circuit 2 the right. All units have intertwined evaporator coils.

Table 1 — Physical Data — 50AJ,AK,AW,AY Units (cont)

UNIT 50AJ,AK,AW,AY	035			036			040			041		
NOMINAL CAPACITY (tons)	35			35			40			40		
BASE UNIT OPERATING WEIGHT (lb)	See Base Unit Weights Table											
COMPRESSOR												
Quantity...Type (Ckt 1, Ckt 2)	1…SR*812AT, 1…SR*942AT/2…SR*942AT			1…SR*812AT, 1…SR*942AT/ 2…SR*942AT			2…SR*942AT/2…SM125			2...SR*942AT/2...SM125		
Number of Refrigerant Circuits	2			2			2			2		
Oil (oz) (Ckt 1, Ckt 2)	Precharged			Precharged			Precharged			Precharged		
REFRIGERANT TYPE	R-22											
Operating Charge (lb-oz)												
Circuit 1	33-0			36-0			36-0			47-0		
Circuit 2	38-0			58-0			47-0			47-0		
CONDENSER COIL*	Internally Enhanced, 3/8″ Copper Tubes, Aluminum Lanced, Aluminum Pre-Coated, or Copper Plate Fins											
Quantity	1			2			2			2		
Rows...Fins/in.	4...15			2...15/4…15			2...15/4…15			4…15/4...15		
Total Face Area (sq ft)	33.3			66.7			66.7			66.7		
CONDENSER FAN	Propeller Type											
Nominal Cfm	14,500			30,000			30,000			30,000		
Quantity...Diameter (in.)	2...30			4...30			4...30			4...30		
Motor Hp	1			1			1			1		
EVAPORATOR COIL	Internally Enhanced Copper Tubes, Aluminum Plate Fins with Intertwined Circuits											
Tube Size (in.)	1/2			1/2			1/2			1/2		
Rows...Fins/in.	6...16			4...17			4...16			4...17		
Total Face Area (sq ft)	31.3			31.3			31.3			31.3		
EVAPORATOR FAN	Centrifugal Type											
Quantity...Size (in.)	2...20 X 15			2...20 X 15			2...20 X 15			2...20 X 15		
Type Drive	Belt			Belt			Belt			Belt		
Nominal Cfm	14,000			14,000			16,000			16,000		
Motor Hp	15	20	25	15	20	25	15	20	25	15	20	25
Motor Frame Size	254T	256T	284T	254T	256T	284T	254T	256T	284T	254T	256T	284T
Motor Bearing Type		Ball			Ball			Ball			Ball	
Maximum Allowable Rpm		1300			1300			1300			1300	
Motor Pulley Pitch Diameter (in.)	5.1	5.7	6.2	5.3	5.7	7.5	5.3	5.7	7.5	5.3	5.7	6.5
Nominal Motor Shaft Diameter (in.)	1 5/8	1 5/8	1 7/8	1 5/8	1 5/8	1 7/8	1 5/8	1 5/8	1 7/8	1 57/8	1 57/8	1 71/8
Fan Pulley Pitch Diameter (in.)	8.7	8.7	8.7	9.5	9.5	11.1	9.5	9.5	11.1	9.5	9.5	11.1
Nominal Fan Shaft Diameter (in.)		1 15/16			1 15/16			1 15/16			1 15/16	
Belt Quantity	2	2	2	2	2	2	2	2	2	2	2	2
Belt Type	5VX500	5VX530	5VX550	5VX530	5VX550	5VX590	5VX530	5VX550	5VX590	5VX530	5VX550	5VX590
Belt Length (in.)	50	53	55	53	55	59	53	55	59	53	55	59
Pulley Center Line Distance (in.)	15.0-17.9	15.0-17.9	15.0-17.9	15.0-17.9	15.0-17.9	14.6-17.6	15.0-17.9	15.0-17.9	14.6-17.6	15.0-17.9	15.0-17.9	14.6-17.6
Factory Speed Setting (rpm)	1025	1147	1247	976	1050	1182	976	1050	1182	976	1050	1182
HIGH-PRESSURE SWITCH (psig)												
Cutout	426			426			426			426		
Reset (Auto.)	320			320			320			320		
MIXED-AIR FILTERS												
Quantity...Size (in.) Standard	10...20 x 24 x 2			10...20 x 24 x 2			10...20 x 24 x 2			10...20 x 24 x 2		
Pleated	5...20 x 20 x 4 5...20 x 24 x 4			5...20 x 20 x 4 5...20 x 24 x 4			5...20 x 20 x 4 5...20 x 24 x 4			5...20 x 20 x 4 5...20 x 24 x 4		
OUTDOOR-AIR FILTERS												
Quantity...Size (in.)	8...16 x 25 x 2 4...20 x 25 x 2											
POWER EXHAUST	Direct Drive, Single-Phase Motors (Factory-Wired for High Speed Operation), Forward-Curved Fan Wheels with Backdraft Dampers on Each Fan Housing											
Motor, Quantity...Hp	4...1											
Fan, Diameter...Width (in.)	11 x 10											

LEGEND

Al — Aluminum
Cu — Copper

*Sizes 020-040: Circuit 1 uses the lower portion of condenser coil, Circuit 2 uses the upper portion.
Sizes 041-060: Circuit 1 uses the left condenser coil, Circuit 2 the right. All units have intertwined evaporator coils.

Table 1 — Physical Data — 50AJ,AK,AW,AY Units (cont)

UNIT 50AJ,AK,AW,AY	050			051					060			
NOMINAL CAPACITY (tons)	50			50					60			
BASE UNIT OPERATING WEIGHT (lb)	See Base Unit Weights Table											
COMPRESSOR												
Quantity...Type (Ckt 1, Ckt 2)	2…SM125/1…SM125, 1…SM175			2...SM125/2...SM125					1...SM160,1...SM175/ 1...SM160,1...SM175			
Number of Refrigerant Circuits	2			2					2			
Oil (oz) (Ckt 1, Ckt 2)	Precharged			Precharged					Precharged			
REFRIGERANT TYPE	R-22											
Operating Charge (lb-oz)												
Circuit 1	64-4			98-0					81-0			
Circuit 2	58-8			98-0					81-0			
CONDENSER COIL*	Internally Enhanced, 3/8″ Copper Tubes, Aluminum Lanced, Aluminum Pre-Coated, or Copper Plate Fins											
Quantity	2			2					2			
Rows...Fins/in.	4...15			4...15					4…15			
Total Face Area (sq ft)	66.7			100					100			
CONDENSER FAN	Propeller Type											
Nominal Cfm	25,600			38,400					38,400			
Quantity...Diameter (in.)	4...30			6...30					6...30			
Motor Hp	1			1					1			
EVAPORATOR COIL	Internally Enhanced Copper Tubes, Aluminum Plate Fins with Intertwined Circuits											
Tube Size (in.)	1/2			1/2					1/2			
Rows...Fins/in.	6...16			4...16					4...17			
Total Face Area (sq ft)	31.3			48.1					48.1			
EVAPORATOR FAN	Centrifugal Type											
Quantity...Size (in.)	2...20 X 15			3...20 X 15					3...20 X 15			
Type Drive	Belt			Belt					Belt			
Nominal Cfm	20,000			20,000					24,000			
Motor Hp	20	25	30	20	25	30	40 (High Eff.)	40 (Prem. Eff.)	25	30	40 (High Eff.)	40 (Prem. Eff.)
Motor Frame Size	256T	284T	286T	256T	284T	286T	324T	324T	284T	286T	324T	324T
Motor Bearing Type	Ball			Ball					Ball			
Maximum Allowable Rpm	1300			1200					1200			
Motor Pulley Pitch Diameter (in.)	5.7	6.2	6.7	5.9	5.3	5.9	6.5	9.5	5.3	5.9	6.5	9.5
Nominal Motor Shaft Diameter (in.)	1 5/8	1 7/8	1 7/8	1 5/8	1 7/8	1 7/8	2 1/8	2 1/8	1 7/8	1 7/8	2 1/8	2 1/8
Fan Pulley Pitch Diameter (in.)	9.5	9.5	9.5	11.1	9.1	9.5	9.5	13.7	9.1	9.5	9.5	13.7
Nominal Fan Shaft Diameter (in.)	1 15/16			1 15/16					1 15/16			
Belt Quantity	2	2	2	2	3	3	3	2	3	3	3	2
Belt Type	5VX550	5VX570	5VX570	5VX560	5VX530	5VX550	5V570	5VX650	5VX530	5VX550	5VX570	5VX650
Belt Length (in.)	55	57	57	56	53	55	57	65	53	55	57	65
Pulley Center Line Distance (in.)	15.0-17.9	14.6-17.6	14.6-17.6	15.0-17.9	15.2-17.5	14.7-17.2	14.2-17.0	14.2-17.0	15.2-17.5	14.7-17.2	14.2-17.0	14.2-17.0
Factory Speed Setting (rpm)	1050	1142	1234	930	1019	1087	1197	1197	1019	1087	1197	1197
HIGH-PRESSURE SWITCH (psig)												
Cutout	426			426					426			
Reset (Auto.)	320			320					320			
MIXED-AIR FILTERS												
Quantity...Size (in.) Standard	10...20 x 24 x 2			16...20 x 24 x 2					16...20 x 24 x 2			
Pleated	5...20 x 20 x 4 5...20 x 24 x 4			8...20 x 20 x 4 8...20 x 24 x 4					8...20 x 20 x 4 8...20 x 24 x 4			
OUTDOOR-AIR FILTERS												
Quantity...Size (in.)	8...16 x 25 x 2 4...20 x 25 x 2			12...16 x 25 x 2 6...20 x 25 x 2					12...16 x 25 x 2 6...20 x 25 x 2			
POWER EXHAUST	Direct Drive, Single-Phase Motors (Factory-Wired for High Speed Operation), Forward-Curved Fan Wheels with Backdraft Dampers on Each Fan Housing											
Motor, Quantity...Hp	4...1			6...1					6...1			
Fan, Diameter...Width (in.)	11 x 10			11 x 10					11 x 10			

LEGEND

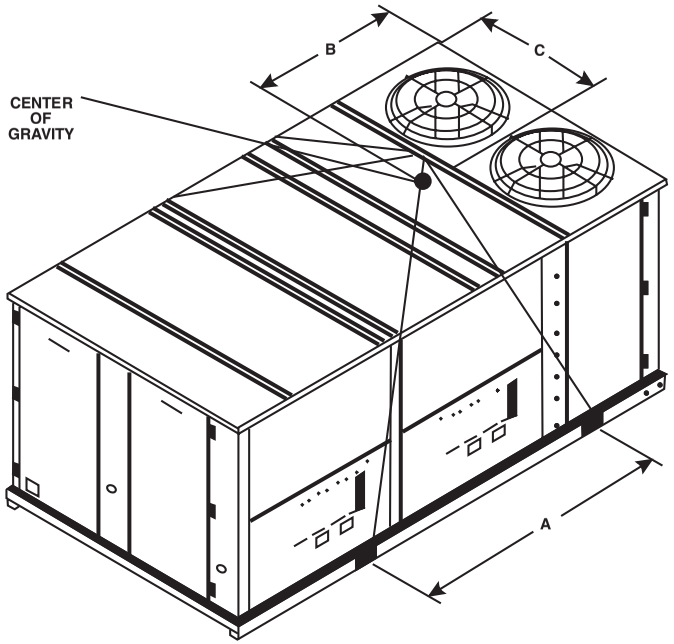
Al — Aluminum
Cu — Copper

*Sizes 020-040: Circuit 1 uses the lower portion of condenser coil, Circuit 2 uses the upper portion.
Sizes 041-060: Circuit 1 uses the left condenser coil, Circuit 2 the right. All units have intertwined evaporator coils.

⚠ CAUTION - NOTICE TO RIGGERS:

ALL PANELS MUST BE IN PLACE WHEN RIGGING.

NOTE: Rig with four cables and spread with two 92 inch (2337 MM) spreader bars. Maintain a distance of 74 inches (1880 MM) from top of unit to eyehook.



NOTE:
Add 312 lb (142 kg) for export crating. (020-035 units)
Add 346 lb (157 kg) for export crating. (036-050 units)
Add 588 lb (266 kg) for export crating. (051 and 060 units)
Add 220 lb (100 kg) for copper condenser coil. (020-035 units)
Add 380 lb (172 kg) for copper condenser coil. (036-050 units)
Add 651 lb (295 kg) for copper condenser coil. (051 and 060 units)

UNIT	WEIGHT		A		B		C	
	LB	KG	INCHES	MM	INCHES	MM	INCHES	MM
50AJ/AK020	4607	2090	87.7	2227	70.9	1801	42.0	1067
48AJ/AKD020	4697	2131	87.7	2227	71.9	1826	42.5	1080
48AJ/AKE020	4777	2167	87.7	2227	72.8	1849	41.0	1041
50AW/AY020	4685	2125	87.7	2227	70.9	1801	42.0	1067
48AW/AYD020	4737	2149	87.7	2227	71.9	1826	42.5	1080
48AW/AYE020	4817	2185	87.7	2227	72.8	1849	41.0	1041
50AJ/AK025	4680	2123	87.7	2227	68.0	1727	43.9	1115
48AJ/AKD025	4770	2164	87.7	2227	69.1	1755	44.3	1125
48AJ/AKE025	4850	2200	87.7	2227	69.6	1768	44.6	1133
50AW/AY025	4758	2158	87.7	2227	68.0	1727	43.9	1115
48AW/AYD025	4810	2182	87.7	2227	69.1	1755	44.3	1125
48AW/AYE025	4890	2218	87.7	2227	69.6	1768	44.6	1133
50AJ/AK027	4873	2210	87.7	2227	68.0	1727	43.9	1115
48AJ/AKD027	4963	2251	87.7	2227	69.1	1755	44.3	1125
48AJ/AKE027	5043	2287	87.7	2227	69.6	1768	44.6	1133
50AW/AY027	4951	2246	87.7	2227	68.0	1727	43.9	1115
48AW/AYD027	5003	2269	87.7	2227	69.1	1755	44.3	1125
48AW/AYE027	5083	2306	87.7	2227	69.6	1768	44.6	1133
50AJ/AK030	5023	2278	87.7	2227	68.0	1727	43.6	1107
48AJ/AKD030	5113	2319	87.7	2227	69.1	1755	44.0	1118
48AJ/AKE030	5193	2356	87.7	2227	69.6	1768	44.3	1125
50AW/AY030	5101	2314	87.7	2227	68.0	1727	43.6	1107
48AW/AYD030	5153	2337	87.7	2227	69.1	1755	44.0	1118
48AW/AYE030	5233	2374	87.7	2227	69.6	1768	44.3	1125
50AJ/AK035	5229	2372	87.7	2227	68.3	1735	46.5	1181
48AJ/AKD035	5434	2465	87.7	2227	69.4	1763	46.9	1191
48AJ/AKE035	5594	2537	87.7	2227	70.0	1778	47.2	1199
50AW/AY035	5422	2459	87.7	2227	68.3	1735	46.5	1181
48AW/AYD035	5474	2483	87.7	2227	69.4	1763	46.9	1191
48AW/AYE035	5634	2556	87.7	2227	70.0	1778	47.2	1199
50AJ/AK036	5609	2544	87.7	2227	93.4	2372	45.3	1152
48AJ/AKD036	5814	2637	87.7	2227	94.8	2409	45.8	1163
48AJ/AKE036	5974	2710	87.7	2227	96.3	2446	46.1	1172
50AW/AY036	5802	2632	87.7	2227	93.3	2370	45.4	1153
48AW/AYD036	5854	2655	87.7	2227	94.8	2408	45.8	1163
48AW/AYE036	6014	2728	87.7	2227	96.3	2446	46.1	1172
50AJ/AK040	5769	2617	87.7	2227	90.8	2306	46.5	1181
48AJ/AKD040	5974	2710	87.7	2227	92.3	2344	46.9	1191
48AJ/AKE040	6134	2782	87.7	2227	93.8	2383	47.2	1199
50AW/AY040	5962	2704	87.7	2227	90.8	2306	46.5	1181
48AW/AYD040	6014	2728	87.7	2227	92.3	2344	46.9	1191
48AW/AYE040	6174	2801	87.7	2227	93.8	2383	47.2	1199
50AJ/AK041	5885	2669	87.7	2227	89.0	2261	45.6	1158
48AJ/AKD041	6090	2762	87.7	2227	90.5	2300	46.0	1169
48AJ/AKE041	6250	2835	87.7	2227	92.1	2338	46.3	1177
50AW/AY041	6078	2757	87.7	2227	89.1	2262	45.6	1159
48AW/AYD041	6130	2781	87.7	2227	90.6	2300	46.0	1169
48AW/AYE041	6290	2853	87.7	2227	92.1	2339	46.3	1177
50AJ/AK050	6338	2875	87.7	2227	89.2	2266	46.1	1171
48AJ/AKD050	6543	2968	87.7	2227	90.7	2304	46.5	1181
48AJ/AKE050	6703	3040	87.7	2227	92.2	2342	46.8	1189
50AW/AY050	6531	2962	87.7	2227	89.2	2266	46.1	1171
48AW/AYD050	6583	2986	87.7	2227	90.7	2304	46.5	1181
48AW/AYE050	6743	3059	87.7	2227	92.2	2342	46.8	1189
50AJ/AK051	8544	3876	161.7	4106	126.0	3200	44.6	1133
48AJ/AKD051	8674	3935	161.7	4106	133.2	3383	46.6	1185
48AJ/AKE051	8914	4043	161.7	4106	140.2	3562	48.7	1237
50AW/AY051	8759	3973	161.7	4106	125.9	3198	44.6	1133
48AW/AYD051	8714	3953	161.7	4106	133.2	3382	46.6	1185
48AW/AYE051	8964	4066	161.7	4106	140.2	3562	48.7	1237
50AJ/AK060	8708	3950	161.7	4106	123.6	3139	44.6	1133
48AJ/AKD060	8838	4009	161.7	4106	130.7	3320	46.6	1184
48AJ/AKE060	9078	4118	161.7	4106	137.7	3498	48.6	1234
50AW/AY060	8923	4047	161.7	4106	123.6	3139	44.6	1133
48AW/AYD060	8878	4027	161.7	4106	130.7	3320	46.6	1184
48AW/AYE060	9128	4140	161.7	4106	137.7	3498	48.6	1234

Fig. 12 — Rigging Information

Table 2 — Base Unit Weights

UNIT	BASE UNIT WEIGHTS — lb										
	020	025	027	030	035	036	040	041	050	051	060
50AJ,AK	3642	3715	3832	3982	4120	4500	4660	4776	5131	6984	7148
50AW,AY	3720	3793	3910	4060	4313	4693	4853	4969	5324	7199	7363

Table 3 — Option and Accessory Weights

OPTION/ ACCESSORY	OPTION/ACCESSORY WEIGHTS — lb										
	020	025	027	030	035	036	040	041	050	051	060
Barometric Relief	300	300	300	300	300	300	300	300	300	450	450
Power Exhaust	450	450	450	450	450	450	300	450	450	675	675
Mod. Power Exhaust	500	500	500	500	500	500	500	500	500	725	725
Electric Heat	110	110	110	110	110	110	110	110	110	165	165
Cu Tubing/Cu Fin Condenser Coil	220	220	220	220	285	380	285	380	380	651	651
Outdoor Air Hood Crate and Packaging (Less Hoods' Weight)	45	45	45	45	45	45	45	45	45	45	45
	(Packaging Only)				(Packaging Only)						
Outdoor Air Hoods/Filters	170	170	170	170	170	170	170	170	170	255	255
Hail Guard	73	73	73	73	73	146	146	146	146	219	219
Roof Curb (14-in.)	365	365	365	365	410	410	410	410	410	540	585

Table 4 — Constant Volume Fan Motor Weights

CV MOTOR WEIGHTS — lb			
MOTOR HP	UNIT VOLTAGE	HIGH EFFICIENCY IFM	PREMIUM EFFICIENCY IFM
5	230/460	78	94
	575	78	92
10	230/460	118	164
	575	118	156
15	230/460	150	217
	575	150	220
20	230/460	212	250
	575	212	258
25	230/460	240	309
	575	240	319
30	230/460	283	355
	575	283	359
40	230/460	372	415
	575	372	410

Table 5 — Variable Air Volume Fan Motor Weights

VAV MOTOR WEIGHTS — lb			
MOTOR HP	UNIT VOLTAGE	HIGH EFFICIENCY IFM	PREMIUM EFFICIENCY IFM
5	230/460	125	141
	575	163	177
10	230/460	204	250
	575	204	242
15	230/460	238	305
	575	240	310
20	230/460	348	386
	575	304	350
25	230/460	377	446
	575	375	454
30	230/460	480	552
	575	418	494
40	230/460	637	680
	575	587	625

LEGEND AND NOTES FOR TABLES 2-5

LEGEND

Cu — Copper
CV — Constant Volume
FIOP — Factory-Installed Option
HP — Horsepower
IFM — Indoor Fan Motor
VAV — Variable Air Volume
VFD — Variable Frequency Drive

NOTES:
1. Base unit weight includes outdoor-air hoods. Base unit weight does NOT include indoor-fan motor. ADD indoor-fan motor, FIOPs, and accessories for TOTAL operating weight.
2. The VAV motor weights include indoor fan motor and the VFD (variable frequency drive), VFD transducers, and associated wiring.

Table 6 — Evaporator Fan Motor Data

UNIT SIZE 50AJ,AK, AW,AY	MOTOR HP	MOTOR SHAFT DIA. (in.)	FAN SHAFT SPEED (rpm)	MOTOR SHEAVE (P/N)	MOTOR SHEAVE PITCH DIAMETER (in.)	BUSHING DIAMETER (in.)	FAN SHEAVE (P/N)	FAN SHEAVE PITCH DIAMETER (in.)	BUSHING DIAMETER (in.)	BELT (Quantity) (P/N)	BELT TENSION (lb at .25 in.)
020	5	1.125	717	BK55	4.8	NONE - 1.125	1B5V124	12.4	B - 1.9375	BX56	8
	10	1.375	924	2BK50	4.4	NONE - 1.375	2B5V86	8.6	B - 1.9375	BX50	8
	15	1.625	1096	2B5V56	5.7	B - 1.625	2B5V90	9.1	B - 1.9375	(2) 5VX530	9
025	5	1.125	773	BK55	4.8	NONE - 1.125	1B5V124	12.4	B - 1.9375	BX56	8
	10	1.375	962	1B5V60	6.1	H - 1.375	1B5V110	11.1	B - 1.9375	5VX570	11
	15	1.625	1106	2B5V54	5.5	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX530	9
027	10	1.375	848	2BK50	4.4	NONE - 1.375	2B5V94	9.4	B - 1.9375	(2) BX50	8
	15	1.625	1059	2B5V56	5.7	B - 1.625	2B5V90	9.1	B - 1.9375	(2) 5VX530	10
	20	1.625	1187	2B5V58	5.9	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX530	11
030	10	1.375	856	2BK50	4.4	H - 1.375	2B5V94	9.5	B - 1.9375	(2) BX50	8
	15	1.625	1096	2B5V56	5.7	B - 1.625	2B5V90	9.1	B - 1.9375	(2) 5VX530	9
	20	1.625	1187	2B5V58	5.9	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX530	11
035	15	1.625	1025	2B5V50	5.1	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX500	9
	20	1.625	1147	2B5V56	5.7	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX530	10
	25	1.875	1247	2B5V62	6.2	B - 1.875	2B5V86	8.7	B - 1.9375	(2) 5VX530	11
036	15	1.625	976	2B5V52	5.3	B - 1.625	2B5V94	9.5	B - 1.9375	(2) 5VX530	10
	20	1.625	1050	2B5V56	5.7	B - 1.625	2B5V94	9.5	B - 1.9375	(2) 5VX550	11
	25	1.875	1182	2B5V74	7.5	B - 1.875	2B5V110	11.1	B - 1.9375	(2) 5VX590	11
040	15	1.625	976	2B5V52	5.3	B - 1.625	2B5V94	9.5	B - 1.9375	(2) 5VX530	10
	20	1.625	1050	2B5V56	5.7	B - 1.625	2B5V94	9.5	B - 1.9375	(2) 5VX550	11
	25	1.875	1182	2B5V74	7.5	B - 1.875	2B5V110	11.1	B - 1.9375	(2) 5VX590	11
041	15	1.625	976	2B5V52	5.3	B - 1.625	2B5V94	9.5	B - 1.9375	(2) 5VX530	10
	20	1.625	1050	2B5V56	5.7	B - 1.625	2B5V94	9.5	B - 1.9375	(2) 5VX550	11
	25	1.875	1182	2B5V74	7.5	B - 1.875	2B5V110	11.1	B - 1.9375	(2) 5VX590	11
050	20	1.625	1050	2B5V56	5.7	B - 1.625	2B5V94	9.5	B - 1.9375	(2) 5VX550	10
	25	1.875	1142	2B5V62	6.2	B - 1.875	2B5V94	9.5	B - 1.9375	(2) 5VX570	11
	30	1.875	1234	2B5V66	6.7	B - 1.875	2B5V94	9.5	B - 1.9375	(2) 5VX570	13
051	20	1.625	930	2B5V58	5.9	B - 1.625	2B5V110	11.1	B - 1.9375	(2) 5VX560	11
	25	1.875	1019	3B5V52	5.3	B - 1.875	3B5V90	9.1	B - 1.9375	(3) 5VX530	12
	30	1.875	1087	3B5V58	5.9	B - 1.875	3B5V94	9.5	B - 1.9375	(3) 5VX550	12
	40 High	2.125	1197	3B5V64	6.5	B - 2.125	3B5V94	9.5	B - 1.9375	(3) 5VX570	14
	40 Prem.	2.125	1197	2B5V94	9.5	B - 2.125	2B5V136	13.7	B - 1.9375	(2) 5VX650	15
060	25	1.875	1019	3B5V52	5.3	B - 1.875	3B5V90	9.1	B - 1.9375	(3) 5VX530	12
	30	1.875	1087	3B5V58	5.9	B - 1.875	3B5V94	9.5	B - 1.9375	(3) 5VX550	12
	40 High	2.125	1197	3B5V64	6.5	B - 2.125	3B5V94	9.5	B - 1.9375	(3) 5VX570	14
	40 Prem.	2.125	1197	2B5V94	9.5	B - 2.125	2B5V136	13.7	B - 1.9375	(2) 5VX650	15

NOTES:
1. Motor shaft speed is 1750 rpm. The fan shaft diameter is $1^{15}/_{16}$ inches.
2. All indoor fan motors meet the minimum efficiency requirements as established by the Energy Policy Act of 1992 (EPACT), effective October 24, 1997.

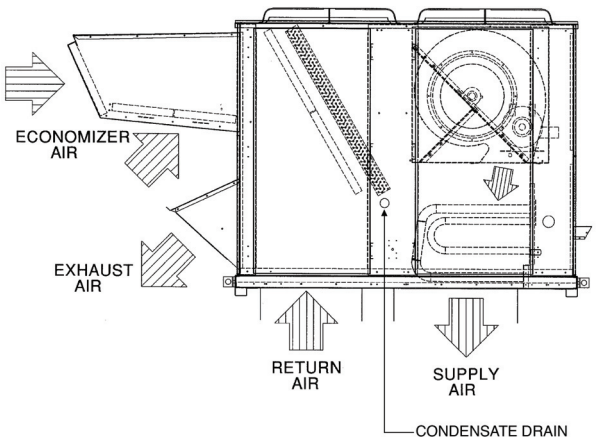


Fig. 13 — Air Distribution — Thru-the-Bottom

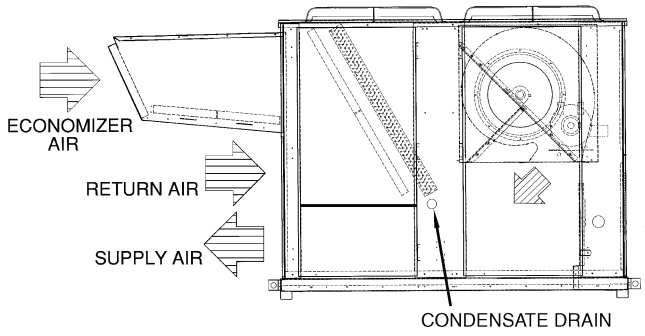


Fig. 14 — Air Distribution — Thru-the-Side

Step 5 — Trap Condensate Drain — See Fig. 5-10 for drain location. Condensate drain is open to atmosphere and must be trapped. Install a trapped drain at the drain location. One 1-in. FPT coupling is provided inside the unit evaporator section for condensate drain connection. A trap at least 4-in. deep must be used. See Fig. 15. Trap must be installed to prevent freeze-up.

Condensate pans are sloped so that water will completely drain from the condensate pan to comply with indoor air quality guidelines. The condensate drain pans are not insulated.

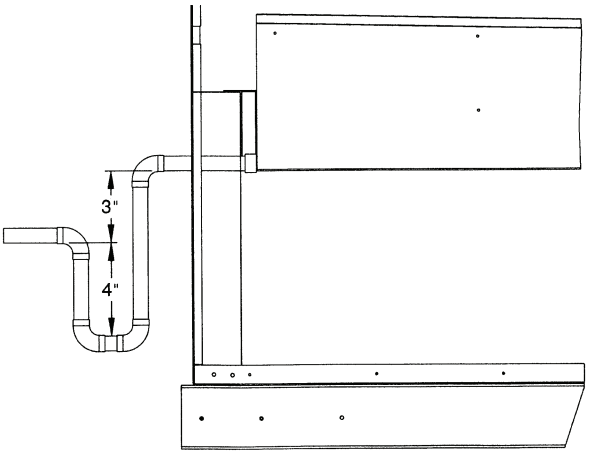


Fig. 15 — Condensate Drain Trap Piping Details (Typical Roof Curb or Slab Mount Shown)

Step 6 — Make Electrical Connections

POWER WIRING — Units are factory wired for the voltage shown on the unit nameplate.

Provide a unit safety disconnect switch in the main power supply to each unit (see Fig. 16). Select switch size and mounting location in accordance with applicable local codes or National Electrical Code (NEC). If combining the functions of safety disconnect with maximum overcurrent protection (MOCP) fuses ("fused disconnect"), coordinate safety switch size with MOCP size data as marked on unit informative plate.

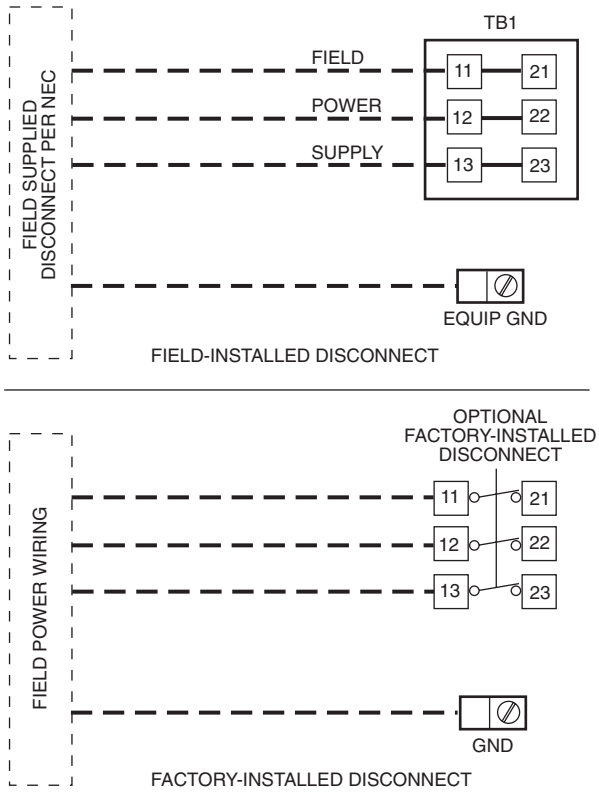
Unit may be equipped with optional factory-installed nonfused disconnect switch (see Fig. 16). Provide maximum overcurrent protection devices (fuses or UL489 rated breakers, per local codes) in branch circuit wiring remote from unit. Observe requirements of NEC Article 440. Install service switch upstream of remote fuses if required.

The main power terminal block is suitable for use with aluminum or copper wire. See Fig. 16. Units have circuit breakers for compressors, fan motors, and control circuit. If required by local codes, provide an additional disconnect switch. Unit must be electrically grounded in accordance with local codes, or in absence of local codes, with NEC, ANSI (American National Standards Institute) C1-latest year.

FIELD POWER SUPPLY — Unit is factory wired for voltage shown on unit nameplate. See Tables 7A and 7B for electrical data.

Field wiring can be brought into the unit from bottom (through basepan and roof curb) or through side of unit (corner post next to control box).

A $3^1/_2$-in. NPT coupling for field power wiring and a $^3/_4$-in. NPT coupling for 24-v control wiring are provided in basepan. In the side post, there are two $2^1/_2$-in. (50A020-035) or 3-in. (50A036-060) knockouts for the field power wiring. See Fig. 5-10. If control wiring is to be brought in through the side of unit, a $^7/_8$-in. diameter hole is provided in the condenser side post next to the control box.



LEGEND

GND — Ground
NEC — National Electrical Code
TB — Terminal Block

Fig. 16 — Field Power Wiring Connections

Do not route control wiring in the same conduit as power wiring.

If disconnect box is mounted to corner post, be careful not to drill or screw into the condenser coil.

Routing Through Bottom of Unit — If wiring is brought in through bottom of unit, use field-supplied watertight conduit to route power wiring through the $3^1/_2$-in. diameter hole provided in the unit basepan.

Install conduit connector in unit basepan as shown in Fig. 5-10. Route power and ground lines through connector to terminal connections in unit control box as shown on unit wiring diagram and Fig. 16.

Use strain relief going into control box through $3^5/_8$-in. diameter hole provided. After wires are in unit control box, connect to power terminal block (see Power Wiring section on this page).

Low-voltage wiring must be run in watertight conduit from the basepan to control box and through $^7/_8$-in. diameter hole provided in bottom of unit control box. Field-supplied strain relief must be used going into the box. After wiring is in control box, make connections to proper terminals on terminal blocks (see Field Control Wiring section on page 44).

Routing Through Side of Unit — Route power wiring in field-supplied watertight conduit into unit through $2^1/_2$-in. (size 020-035 units) or 3-in. (size 036-060 units) hole.

Use field-supplied strain relief going into control box through $3^5/_8$-in. diameter hole provided. After wires are in unit control box, connect to power terminal block (see Power Wiring section on this page).

Bring low-voltage control wiring through the 7/8-in. diameter hole provided in the condenser section side post. Use strain relief going into 7/8-in. diameter hole in bottom of unit control box.

After wiring is in control box, make connection to proper terminals on terminal blocks (see Field Control Wiring section on page 44).

IMPORTANT: The VAV (variable air volume) units use variable frequency drives, which generate and can radiate radio frequency energy. If units are not installed and used in accordance with these instructions, they may cause radio interference. They have been tested and found to comply with limits of a Class A computing device as defined by FCC (Federal Communications Commission) regulations, Subpart J of Part 15, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

⚠ WARNING

The unit must be electrically grounded in accordance with local codes and NEC ANSI/NFPA 70 (National Fire Protection Association). Electrical shock could cause personal injury.

Affix crankcase heater sticker (located in the installers packet) to unit disconnect switch.

Voltage to compressor terminals during compressor operation must be within the voltage range indicated on the unit nameplate. Phases must be balanced within 2%.

Use the formula in Tables 7A and 7B to determine the percentage of voltage imbalance.

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

Unit failure as a result of operation on improper line voltage or excessive phase imbalance constitutes abuse and may cause damage to electrical components.

LEGEND AND NOTES FOR TABLES 7A AND 7B

LEGEND

FLA — Full Load Amps
HACR — Heating, Air Conditioning and Refrigeration
LRA — Locked Rotor Amps
MCA — Minimum Circuit Amps
MOCP — Maximum Overcurrent Protection
NEC — National Electrical Code
RLA — Rated Load Amps

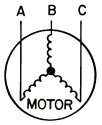
*Fuse or HACR circuit breaker per NEC.

NOTES:
1. In compliance with NEC requirements for multi motor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. The Canadian units may be fuse or circuit breaker.
2. **Unbalanced 3-Phase Supply Voltage**
   Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percent of voltage imbalance.

   % Voltage imbalance

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

   Example: Supply voltage is 460-3-60.



AB = 452 v
BC = 464 v
AC = 455 v

$$\text{Average Voltage} = \frac{452 + 464 + 455}{3}$$

$$= \frac{1371}{3}$$

$$= 457$$

Determine maximum deviation from average voltage.
(AB) 457 – 452 = 5 v
(BC) 464 – 457 = 7 v
(AC) 457 – 455 = 2 v

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{7}{457}$$

$$= 1.53\%$$

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

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

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Convenience Outlet

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
020	208	187	229	23	184	23	184	23	184	—	—	2	6.5 (ea)	5	16.7	—	— 75.1 150.1	— 27 54	104.5 114.8 171.0	125 125 175
																23.6	— 75.1 150.1	— 27 54	128.1 144.3 200.5	150 150 225
														10	30.8	—	— 75.1 150.1	— 27 54	120.5 132.4 188.6	125 150 200
																23.6	— 75.1 150.1	— 27 54	144.1 161.9 218.1	150 175 225
														15	46.2	—	— 75.1 150.1	— 27 54	139.8 151.6 207.9	175 175 250
																23.6	— 75.1 150.1	— 27 54	163.4 181.1 237.4	200 200 250
	230	207	253	23	184	23	184	23	184	—	—	2	6.6 (ea)	5	15.2	—	— 86.6 173.2	— 36 72	103.2 127.3 192.2	125 150 200
																23.6	— 86.6 173.2	— 36 72	126.8 156.8 221.7	150 175 225
														10	28.0	—	— 86.6 173.2	— 36 72	117.2 143.3 208.2	125 150 225
																23.6	— 86.6 173.2	— 36 72	140.8 172.8 237.7	150 175 250
														15	42.0	—	— 86.6 173.2	— 36 72	134.7 160.8 225.7	175 175 250
																23.6	— 86.6 173.2	— 36 72	158.3 190.3 255.2	200 200 300
	460	414	508	10.2	90	10.2	90	10.2	90	—	—	2	3.3 (ea)	5	7.6	—	— 43.3 86.6	— 36 72	47.4 63.6 96.1	50 70 100
																12.6	— 43.3 86.6	— 36 72	60.0 79.4 111.9	70 80 125
														10	14.0	—	— 43.3 86.6	— 36 72	54.7 71.6 104.1	60 80 110
																12.6	— 43.3 86.6	— 36 72	67.3 87.4 119.9	80 90 125
														15	21.0	—	— 43.3 86.6	— 36 72	63.5 80.4 112.9	80 90 125
																12.6	— 43.3 86.6	— 36 72	76.1 96.1 128.6	90 100 150
	575	518	632	9	73	9	73	9	73	—	—	2	2.6 (ea)	5	6.1	—	— 34.6 69.3	— 36 72	40.6 50.9 76.9	50 60 80
																9.6	— 34.6 69.3	— 36 72	50.2 66.6 92.7	60 70 100
														10	11.0	—	— 34.6 69.3	— 36 72	46.0 57.0 83.1	50 60 90
																9.6	— 34.6 69.3	— 36 72	55.6 69.0 95.1	60 70 100
														15	17.0	—	— 34.6 69.3	— 36 72	53.1 64.5 90.6	70 70 100
																9.6	— 34.6 69.3	— 36 72	63.1 76.5 102.6	80 80 110

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
025	208	187	229	21.8	184	25.6	190	25.6	190	—	—	2	6.5 (ea)	5	16.7	—	— 75.1 150.1	— 27 54	109.1 114.8 171.0	125 125 175
																23.6	— 75.1 150.1	— 27 54	132.7 144.3 200.5	150 150 225
														10	30.8	—	— 75.1 150.1	— 27 54	124.5 132.4 188.6	150 150 200
																23.6	— 75.1 150.1	— 27 54	148.1 161.9 218.1	175 175 225
														15	46.2	—	— 75.1 150.1	— 27 54	143.8 151.6 207.9	175 175 250
																23.6	— 75.1 150.1	— 27 54	167.4 181.1 237.4	200 200 250
	230	207	253	21.8	184	25.6	190	25.6	190	—	—	2	6.6 (ea)	5	15.2	—	— 86.6 173.2	— 36 72	107.8 127.3 192.2	125 150 200
																23.6	— 86.6 173.2	— 36 72	131.4 156.8 221.7	150 175 225
														10	28.0	—	— 86.6 173.2	— 36 72	121.2 143.3 208.2	125 150 225
																23.6	— 86.6 173.2	— 36 72	144.8 172.8 237.7	150 175 250
														15	42.0	—	— 86.6 173.2	— 36 72	138.7 160.8 225.7	175 175 250
																23.6	— 86.6 173.2	— 36 72	162.3 190.3 255.2	200 200 300
	460	414	508	11	90	13.5	95	13.5	95	—	—	2	3.3 (ea)	5	7.6	—	— 43.3 86.6	— 36 72	55.6 63.6 96.1	60 70 110
																12.6	— 43.3 86.6	— 36 72	68.2 79.4 111.9	80 80 125
														10	14.0	—	— 43.3 86.6	— 36 72	62.1 71.6 104.1	70 80 110
																12.6	— 43.3 86.6	— 36 72	74.7 87.4 119.9	80 90 125
														15	21.0	—	— 43.3 86.6	— 36 72	70.9 80.4 112.9	90 90 125
																12.6	— 43.3 86.6	— 36 72	83.5 96.1 128.6	100 100 150
	575	518	632	9	73	10.2	75	10.2	75	—	—	2	2.6 (ea)	5	6.1	—	— 34.6 69.3	— 36 72	43.3 50.9 76.9	50 60 80
																9.6	— 34.6 69.3	— 36 72	52.9 62.9 88.9	60 70 90
														10	11.0	—	— 34.6 69.3	— 36 72	48.4 57.0 83.1	50 60 90
																9.6	— 34.6 69.3	— 36 72	58.0 69.0 95.1	70 70 100
														15	17.0	—	— 34.6 69.3	— 36 72	55.9 69.0 95.1	70 70 100
																9.6	— 34.6 69.3	— 36 72	65.5 76.5 102.6	80 80 110

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
027	208	187	229	25.6	190	25.6	190	25.6	190	—	—	2	6.5 (ea)	10	30.8	—	— 75.1 150.1	— 27 54	128.3 132.4 188.6	150 150 200
																23.6	— 75.1 150.1	— 27 54	151.9 161.9 218.1	175 175 225
														15	46.2	—	— 75.1 150.1	— 27 54	147.6 151.6 207.9	175 175 250
																23.6	— 75.1 150.1	— 27 54	171.2 181.1 237.4	200 200 250
														20	59.4	—	— 75.1 150.1	— 27 54	164.1 168.1 224.4	200 200 250
																23.6	— 75.1 150.1	— 27 54	187.7 197.6 253.9	225 225 300
	230	207	253	25.6	190	25.6	190	25.6	190	—	—	2	6.6 (ea)	10	28.0	—	— 86.6 173.2	— 36 72	125.0 143.3 208.2	150 150 225
																23.6	— 86.6 173.2	— 36 72	148.6 172.8 237.7	150 175 250
														15	42.0	—	— 86.6 173.2	— 36 72	142.5 160.8 225.7	175 175 250
																23.6	— 86.6 173.2	— 36 72	166.1 190.3 255.2	200 200 300
														20	54.0	—	— 86.6 173.2	— 36 72	157.5 175.8 240.7	200 200 250
																23.6	— 86.6 173.2	— 36 72	181.1 205.3 270.2	225 225 300
	460	414	508	13.5	85	13.5	85	13.5	95	—	—	2	3.3 (ea)	10	14.0	—	— 43.3 86.6	— 36 72	64.6 71.6 104.1	70 80 110
																12.6	— 43.3 86.6	— 36 72	77.2 87.4 119.9	90 90 125
														15	21.0	—	— 43.3 86.6	— 36 72	73.4 80.4 112.9	90 90 125
																12.6	— 43.3 86.6	— 36 72	86.0 96.1 128.6	100 100 150
														20	27.0	—	— 43.3 86.6	— 36 72	80.9 87.9 120.4	100 100 125
																12.6	— 43.3 86.6	— 36 72	93.5 103.6 136.1	110 110 150
	575	518	632	10.2	75	10.2	75	10.2	75	—	—	2	2.6 (ea)	10	11.0	—	— 34.6 69.3	— 36 72	49.6 57.0 83.1	60 60 90
																12.6	— 34.6 69.3	— 36 72	62.6 72.8 98.8	70 80 100
														15	17.0	—	— 34.6 69.3	— 36 72	57.1 64.5 90.6	70 70 100
																12.6	— 34.6 69.3	— 36 72	69.7 80.3 106.3	80 90 110
														20	22.0	—	— 34.6 69.3	— 36 72	63.3 70.8 96.8	80 80 110
																12.6	— 34.6 69.3	— 36 72	75.9 86.5 112.6	90 90 125

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
030	208	187	229	23	184	23	184	21.8	184	21.8	184	2	6.5 (ea)	10	30.8	—	— 75.1 150.1	— 27 54	141.1 141.1 188.6	150 150 200
																23.6	— 75.1 150.1	— 27 54	164.7 164.7 218.1	175 175 225
														15	46.2	—	— 75.1 150.1	— 27 54	160.4 160.4 207.9	200 200 250
																23.6	— 75.1 150.1	— 27 54	184.0 184.0 237.4	225 225 250
														20	59.4	—	— 75.1 150.1	— 27 54	176.9 176.9 224.4	225 225 250
																23.6	— 75.1 150.1	— 27 54	200.5 200.5 253.9	250 250 300
	230	207	253	23	184	23	184	21.8	184	21.8	184	2	6.6 (ea)	10	28.0	—	— 86.6 173.2	— 36 72	137.8 143.3 208.2	150 150 225
																23.6	— 86.6 173.2	— 36 72	161.4 172.8 237.7	175 175 250
														15	42.0	—	— 86.6 173.2	— 36 72	155.3 160.8 225.7	175 175 250
																23.6	— 86.6 173.2	— 36 72	178.9 190.3 255.2	200 200 300
														20	54.0	—	— 86.6 173.2	— 36 72	170.3 175.8 240.7	200 200 250
																23.6	— 86.6 173.2	— 36 72	193.9 205.3 270.2	225 225 300
	460	414	508	10.2	90	10.2	90	11	90	11	90	2	3.3 (ea)	10	14.0	—	— 43.3 86.6	— 36 72	66.5 71.6 104.1	80 80 110
																12.6	— 43.3 86.6	— 36 72	79.1 87.4 119.9	90 90 125
														15	21.0	—	— 43.3 86.6	— 36 72	75.3 80.4 112.9	90 90 125
																12.6	— 43.3 86.6	— 36 72	87.9 96.1 128.6	100 100 150
														20	27.0	—	— 43.3 86.6	— 36 72	82.8 87.9 120.4	100 100 125
																12.6	— 43.3 86.6	— 36 72	95.4 103.6 136.1	110 110 150
	575	518	632	9	73	9	73	9	73	9	73	2	2.6 (ea)	10	11.0	—	— 34.6 69.3	— 36 72	55.0 57.0 83.1	60 60 90
																12.6	— 34.6 69.3	— 36 72	68.0 72.8 98.8	80 80 100
														15	17.0	—	— 34.6 69.3	— 36 72	62.5 64.5 90.6	70 70 100
																12.6	— 34.6 69.3	— 36 72	75.1 80.3 106.3	90 90 110
														20	22.0	—	— 34.6 69.3	— 36 72	68.7 70.8 96.8	90 90 110
																12.6	— 34.6 69.3	— 36 72	81.3 86.5 112.6	100 100 125

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
035	208	187	229	21.8	184	25.6	190	25.6	190	25.6	190	2	6.5 (ea)	15	46.2	—	— 75.1 150.1	— 27 54	169.4 169.4 207.9	200 200 250
																23.6	— 75.1 150.1	— 27 54	193.0 193.0 237.4	225 225 250
														20	59.4	—	— 75.1 150.1	— 27 54	185.9 185.9 224.4	225 225 250
																23.6	— 75.1 150.1	— 27 54	209.5 209.5 253.9	250 250 300
														25	74.8	—	— 75.1 150.1	— 27 54	205.1 205.1 243.6	250 250 300
																23.6	— 75.1 150.1	— 27 54	228.7 228.7 273.1	300 300 300
	230	207	253	21.8	184	25.6	190	25.6	190	25.6	190	2	6.6 (ea)	15	42.0	—	— 86.6 173.2	— 36 72	164.3 164.3 225.7	200 200 250
																23.6	— 86.6 173.2	— 36 72	187.9 190.3 255.2	225 225 300
														20	54.0	—	— 86.6 173.2	— 36 72	179.3 179.3 240.7	225 225 250
																23.6	— 86.6 173.2	— 36 72	202.9 205.3 270.2	250 250 300
														25	68.0	—	— 86.6 173.2	— 36 72	196.8 196.8 258.2	250 250 300
																23.6	— 86.6 173.2	— 36 72	220.4 222.8 287.7	250 250 300
	460	414	508	11	90	13.5	95	13.5	95	13.5	95	2	3.3 (ea)	15	21.0	—	— 43.3 86.6	— 36 72	84.4 84.4 112.9	100 100 125
																12.6	— 43.3 86.6	— 36 72	97.0 97.0 128.6	110 110 150
														20	27.0	—	— 43.3 86.6	— 36 72	91.9 91.9 120.4	110 110 125
																12.6	— 43.3 86.6	— 36 72	104.5 104.5 136.1	125 125 150
														25	34.0	—	— 43.3 86.6	— 36 72	100.6 100.6 129.1	125 125 150
																12.6	— 43.3 86.6	— 36 72	113.2 113.2 144.9	125 125 175
	575	518	632	9	73	10.2	75	10.2	75	10.2	75	2	2.6 (ea)	15	17.0	—	— 34.6 69.3	— 36 72	66.1 66.1 90.6	80 80 100
																12.6	— 34.6 69.3	— 36 72	78.7 80.3 106.3	90 90 110
														20	22.0	—	— 34.6 69.3	— 36 72	72.3 72.3 96.8	90 90 110
																12.6	— 34.6 69.3	— 36 72	84.9 86.5 112.6	100 100 125
														25	27.0	—	— 34.6 69.3	— 36 72	78.6 78.6 103.1	100 100 125
																12.6	— 34.6 69.3	— 36 72	91.2 92.8 118.8	110 110 125

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Optional Convenience Outlet (cont)

UNIT SIZE	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
036	208	187	229	21.8	184	25.6	190	25.6	190	25.6	190	4	6.5 (ea)	15	46.2	—	— 75.1 150.1	— 27 54	182.4 182.4 207.9	225 225 250
																23.6	— 75.1 150.1	— 27 54	206.0 206.0 237.4	250 250 250
														20	59.4	—	— 75.1 150.1	— 27 54	198.9 198.9 224.4	250 250 250
																23.6	— 75.1 150.1	— 27 54	222.5 222.5 253.9	250 250 300
														25	74.8	—	— 75.1 150.1	— 27 54	218.1 218.1 243.6	250 250 300
																23.6	— 75.1 150.1	— 27 54	241.7 241.7 273.1	300 300 300
	230	207	253	21.8	184	25.6	190	25.6	190	25.6	190	4	6.6 (ea)	15	42.0	—	— 86.6 173.2	— 36 72	177.5 177.5 225.7	200 200 250
																23.6	— 86.6 173.2	— 36 72	201.1 201.1 255.2	225 225 300
														20	54.0	—	— 86.6 173.2	— 36 72	192.5 192.5 240.7	225 225 250
																23.6	— 86.6 173.2	— 36 72	216.1 216.1 270.2	250 250 300
														25	68.0	—	— 86.6 173.2	— 36 72	210.0 210.0 258.2	250 250 300
																23.6	— 86.6 173.2	— 36 72	233.6 233.6 287.7	300 300 300
	460	414	508	11	90	13.5	95	13.5	95	13.5	95	4	3.3 (ea)	15	21.0	—	— 43.3 86.6	— 36 72	91.0 91.0 112.9	110 110 125
																12.6	— 43.3 86.6	— 36 72	103.6 103.6 128.6	110 110 150
														20	27.0	—	— 43.3 86.6	— 36 72	98.5 98.5 120.4	125 125 125
																12.6	— 43.3 86.6	— 36 72	111.1 111.1 136.1	125 125 150
														25	34.0	—	— 43.3 86.6	— 36 72	107.2 107.2 129.1	125 125 150
																12.6	— 43.3 86.6	— 36 72	119.8 119.8 144.9	150 150 175
	575	518	632	9	73	10.2	75	10.2	75	10.2	75	4	2.6 (ea)	15	17.0	—	— 34.6 69.3	— 36 72	71.3 71.3 90.6	80 80 100
																9.6	— 34.6 69.3	— 36 72	80.9 80.9 102.6	90 90 110
														20	22.0	—	— 34.6 69.3	— 36 72	77.5 77.5 96.8	90 90 110
																9.6	— 34.6 69.3	— 36 72	87.1 87.1 108.8	100 100 125
														25	27.0	—	— 34.6 69.3	— 36 72	83.8 83.8 103.1	110 110 125
																9.6	— 34.6 69.3	— 36 72	93.4 93.4 115.1	110 110 125

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
040	208	187	229	25.6	190	25.6	190	34.3	265	34.3	265	4	6.5 (ea)	15	46.2	—	— 75.1 150.1	— 27 54	203.6 203.6 207.9	225 225 250
																23.6	— 75.1 150.1	— 27 54	227.2 227.2 237.4	250 250 250
														20	59.4	—	— 75.1 150.1	— 27 54	220.1 220.1 224.4	250 250 250
																23.6	— 75.1 150.1	— 27 54	243.7 243.7 253.9	300 300 300
														25	74.8	—	— 75.1 150.1	— 27 54	239.3 239.3 243.6	300 300 300
																23.6	— 75.1 150.1	— 27 54	262.9 262.9 273.1	300 300 300
	230	207	253	25.6	190	25.6	190	34.3	265	34.3	265	4	6.6 (ea)	15	42.0	—	— 86.6 173.2	— 36 72	198.7 198.7 225.7	225 225 250
																23.6	— 86.6 173.2	— 36 72	222.3 222.3 255.2	250 250 300
														20	54.0	—	— 86.6 173.2	— 36 72	213.7 213.7 240.7	250 250 250
																23.6	— 86.6 173.2	— 36 72	237.3 237.3 270.2	250 250 300
														25	68.0	—	— 86.6 173.2	— 36 72	231.2 231.2 258.2	250 250 300
																23.6	— 86.6 173.2	— 36 72	254.8 254.8 287.7	300 300 300
	460	414	508	13.5	95	13.5	95	16	120	16	120	4	3.3 (ea)	15	21.0	—	— 43.3 86.6	— 36 72	98.5 98.5 112.9	110 110 125
																12.6	— 43.3 86.6	— 36 72	111.1 111.1 128.6	125 125 150
														20	27.0	—	— 43.3 86.6	— 36 72	106.0 106.0 120.4	125 125 125
																12.6	— 43.3 86.6	— 36 72	118.6 118.6 136.1	125 125 150
														25	34.0	—	— 43.3 86.6	— 36 72	114.7 114.7 129.1	125 125 150
																12.6	— 43.3 86.6	— 36 72	127.3 127.3 144.9	150 150 175
	575	518	632	10.2	75	10.2	75	12.9	80	12.9	80	4	2.6 (ea)	15	17.0	—	— 34.6 69.3	— 36 72	77.9 77.9 90.6	90 90 100
																12.6	— 34.6 69.3	— 36 72	90.5 90.5 106.3	100 100 110
														20	22.0	—	— 34.6 69.3	— 36 72	84.1 84.1 96.8	100 100 110
																12.6	— 34.6 69.3	— 36 72	96.7 96.7 112.6	110 110 125
														25	27.0	—	— 34.6 69.3	— 36 72	90.4 90.4 103.1	110 110 125
																12.6	— 34.6 69.3	— 36 72	103.0 103.0 118.8	125 125 125

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Optional Convenience Outlet (cont)

UNIT SIZE	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
041	208	187	229	25.6	190	25.6	190	34.3	265	34.3	265	4	6.5 (ea)	15	46.2	—	— 75.1 150.1	— 27 54	203.6 203.6 207.9	225 225 250
																23.6	— 75.1 150.1	— 27 54	227.2 227.2 237.4	250 250 250
														20	59.4	—	— 75.1 150.1	— 27 54	220.1 220.1 224.4	250 250 250
																23.6	— 75.1 150.1	— 27 54	243.7 243.7 253.9	300 300 300
														25	74.8	—	— 75.1 150.1	— 27 54	239.3 239.3 243.6	300 300 300
																23.6	— 75.1 150.1	— 27 54	262.9 262.9 273.1	300 300 300
	230	207	253	25.6	190	25.6	190	34.3	265	34.3	265	4	6.6 (ea)	15	42.0	—	— 86.6 173.2	— 36 72	198.7 198.7 225.7	225 225 250
																23.6	— 86.6 173.2	— 36 72	222.3 222.3 255.2	250 250 300
														20	54.0	—	— 86.6 173.2	— 36 72	213.7 213.7 240.7	250 250 250
																23.6	— 86.6 173.2	— 36 72	237.3 237.3 270.2	250 250 300
														25	68.0	—	— 86.6 173.2	— 36 72	231.2 231.2 258.2	250 250 300
																23.6	— 86.6 173.2	— 36 72	254.8 254.8 287.7	300 300 300
	460	414	508	13.5	95	13.5	95	16	120	16	120	4	3.3 (ea)	15	21.0	—	— 43.3 86.6	— 36 72	98.5 98.5 112.9	110 110 125
																12.6	— 43.3 86.6	— 36 72	111.1 111.1 128.6	125 125 150
														20	27.0	—	— 43.3 86.6	— 36 72	106.0 106.0 120.4	125 125 125
																12.6	— 43.3 86.6	— 36 72	118.6 118.6 136.1	125 125 150
														25	34.0	—	— 43.3 86.6	— 36 72	114.7 114.7 129.1	125 125 150
																12.6	— 43.3 86.6	— 36 72	127.3 127.3 144.9	150 150 175
	575	518	632	10.2	75	10.2	75	12.9	80	12.9	80	4	2.6 (ea)	15	17.0	—	— 34.6 69.3	— 36 72	77.9 77.9 90.6	90 90 100
																9.6	— 34.6 69.3	— 36 72	87.5 87.5 102.6	100 100 110
														20	22.0	—	— 34.6 69.3	— 36 72	84.1 84.1 96.8	100 100 110
																9.6	— 34.6 69.3	— 36 72	93.7 93.7 108.8	110 110 125
														25	27.0	—	— 34.6 69.3	— 36 72	90.4 90.4 103.1	110 110 125
																9.6	— 34.6 69.3	— 36 72	100.0 100.0 115.1	125 125 125

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
050	208	187	229	34.3	265	34.3	265	34.3	265	47	380	4	6.5 (ea)	20	59.0	—	— 75.1 150.1	— 27 54	250.2 250.2 250.2	300 300 300
																23.6	— 75.1 150.1	— 27 54	273.8 273.8 273.8	300 300 300
														25	75.0	—	— 75.1 150.1	— 27 54	269.4 269.4 269.4	300 300 300
																23.6	— 75.1 150.1	— 27 54	293.0 293.0 293.0	350 350 350
														30	88.0	—	— 75.1 150.1	— 27 54	285.9 285.9 285.9	350 350 350
																23.6	— 75.1 150.1	— 27 54	309.5 309.5 309.5	350 350 350
	230	207	253	34.3	265	34.3	265	34.3	265	47	380	4	6.6 (ea)	20	54.0	—	— 86.6 173.2	— 36 72	243.8 243.8 243.8	250 250 250
																23.6	— 86.6 173.2	— 36 72	267.4 267.4 270.2	300 300 300
														25	68.0	—	— 86.6 173.2	— 36 72	261.3 261.3 261.3	300 300 300
																23.6	— 86.6 173.2	— 36 72	284.9 284.9 287.7	350 350 350
														30	80.0	—	— 86.6 173.2	— 36 72	276.3 276.3 276.3	350 350 350
																23.6	— 86.6 173.2	— 36 72	299.9 299.9 302.7	350 350 350
	460	414	508	16	120	16	120	16	120	22.4	175	4	3.3 (ea)	20	27.0	—	— 43.3 86.6	— 36 72	117.4 117.4 120.4	125 125 125
																12.6	— 43.3 86.6	— 36 72	130.0 130.0 136.1	150 150 150
														25	34.0	—	— 43.3 86.6	— 36 72	126.1 126.1 129.1	150 150 150
																12.6	— 43.3 86.6	— 36 72	138.7 138.7 144.9	150 150 175
														30	40.0	—	— 43.3 86.6	— 36 72	133.6 133.6 136.6	150 150 175
																12.6	— 43.3 86.6	— 36 72	146.2 146.2 152.4	175 175 175
	575	518	632	12.9	80	12.9	80	12.9	80	18.6	140	4	2.6 (ea)	20	22.0	—	— 34.6 69.3	— 36 72	95.2 95.2 96.8	110 110 110
																12.6	— 34.6 69.3	— 36 72	107.8 107.8 112.6	125 125 125
														25	27.0	—	— 34.6 69.3	— 36 72	101.5 101.5 103.1	125 125 125
																12.6	— 34.6 69.3	— 36 72	114.1 114.1 118.8	125 125 125
														30	32.0	—	— 34.6 69.3	— 36 72	107.7 107.7 109.3	125 125 125
																12.6	— 34.6 69.3	— 36 72	120.3 120.3 125.1	150 150 150

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Optional Convenience Outlet (cont)

UNIT SIZE	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
051	208	187	229	34.3	265	34.3	265	34.3	265	34.3	265	6	6.5 (ea)	20	59.4	—	— 112.6 225.2	— 41 81	250.5 250.5 299.5	300 300 350
																35.4	— 112.6 225.2	— 41 81	285.9 285.9 343.7	300 300 350
														25	74.8	—	— 112.6 225.2	— 41 81	269.7 269.7 318.7	300 300 350
																35.4	— 112.6 225.2	— 41 81	305.1 305.1 363.0	350 350 400
														30	88	—	— 112.6 225.2	— 41 81	286.2 286.2 335.2	350 350 400
																35.4	— 112.6 225.2	— 41 81	321.6 321.6 379.5	400 400 450
														40	114	—	— 112.6 225.2	— 41 81	318.7 318.7 367.7	400 400 450
																35.4	— 112.6 225.2	— 41 81	354.1 354.1 412.0	450 450 500
	230	207	253	34.3	265	34.3	265	34.3	265	34.3	265	6	6.6 (ea)	20	54	—	— 129.9 259.8	— 54 108	244.3 244.3 327.3	250 250 350
																35.4	— 129.9 259.8	— 54 108	279.7 279.7 371.6	300 300 400
														25	68	—	— 129.9 259.8	— 54 108	261.8 261.8 344.8	300 300 400
																35.4	— 129.9 259.8	— 54 108	297.2 297.2 389.1	350 350 400
														30	80	—	— 129.9 259.8	— 54 108	276.8 276.8 359.8	350 350 400
																35.4	— 129.9 259.8	— 54 108	312.2 312.2 404.1	350 350 450
														40	104	—	— 129.9 259.8	— 54 108	306.8 306.8 389.8	400 400 450
																35.4	— 129.9 259.8	— 54 108	342.2 342.2 434.1	400 400 500
	460	414	508	16	120	16	120	16	120	16	120	6	3.3 (ea)	20	27	—	— 65.0 129.9	— 54 108	117.6 117.6 163.7	125 125 175
																18.9	— 65.0 129.9	— 54 108	136.5 136.5 187.3	150 150 200
														25	34	—	— 65.0 129.9	— 54 108	126.3 126.3 172.4	150 150 200
																18.9	— 65.0 129.9	— 54 108	145.2 145.2 196.0	175 175 225
														30	40	—	— 65.0 129.9	— 54 108	133.8 133.8 179.9	150 150 200
																18.9	— 65.0 129.9	— 54 108	152.7 152.7 203.5	175 175 225
														40	52	—	— 65.0 129.9	— 54 108	148.8 148.8 194.9	200 200 225
																18.9	— 65.0 129.9	— 54 108	167.7 167.7 218.5	200 200 250
	575	518	632	12.9	80	12.9	80	12.9	80	12.9	80	6	2.6 (ea)	20	22	—	— 65.0 129.9	— 54 108	94.7 94.7 157.4	110 110 175
																14.4	— 65.0 129.9	— 54 108	109.1 110.5 175.4	125 125 200
														25	27	—	— 65.0 129.9	— 54 108	101.0 101.0 163.7	125 125 175
																14.4	— 65.0 129.9	— 54 108	115.4 116.8 181.7	125 125 200
														30	32	—	— 65.0 129.9	— 54 108	107.2 107.2 169.9	125 125 200
																14.4	— 65.0 129.9	— 54 108	121.6 123.0 187.9	150 150 200
														40	41	—	— 65.0 129.9	— 54 108	118.5 118.5 181.2	150 150 200
																14.4	— 65.0 129.9	— 54 108	132.9 134.3 199.2	150 150 225

See Legend and Notes on page 21.

Table 7A — Electrical Data — 50AJ,AK,AW,AY Units without Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2										
		Min	Max	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	kW	MCA	MOCP*
060	208	187	229	40.8	265	47	380	40.8	265	47	380	6	6.5 (ea)	25	74.8	—	— 112.6 225.2	— 41 81	308.1 308.1 318.7	350 350 350
																35.4	— 112.6 225.2	— 41 81	343.5 343.5 363.0	400 400 400
														30	88.0	—	— 112.6 225.2	— 41 81	324.6 324.6 335.2	400 400 400
																35.4	— 112.6 225.2	— 41 81	360.0 360.0 379.5	400 400 450
														40	114.0	—	— 112.6 225.2	— 41 81	357.1 357.1 367.7	450 450 450
																35.4	— 112.6 225.2	— 41 81	392.5 392.5 412.0	500 500 500
	230	207	253	40.8	265	47	380	40.8	265	47	380	6	6.6 (ea)	25	68.0	—	— 129.9 259.8	— 54 108	300.2 300.2 344.8	350 350 400
																35.4	— 129.9 259.8	— 54 108	335.6 335.6 389.1	400 400 400
														30	80.0	—	— 129.9 259.8	— 54 108	315.2 315.2 359.8	350 350 400
																35.4	— 129.9 259.8	— 54 108	350.6 350.6 404.1	400 400 450
														40	104.0	—	— 129.9 259.8	— 54 108	345.2 345.2 389.8	400 400 450
																35.4	— 129.9 259.8	— 54 108	380.6 380.6 434.1	450 450 500
	460	414	508	20.2	135	22.4	175	20.2	135	22.4	175	6	3.3 (ea)	25	34.0	—	— 65.0 129.9	— 54 108	147.5 147.5 172.4	175 175 200
																18.9	— 65.0 129.9	— 54 108	166.4 166.4 196.0	200 200 225
														30	40.0	—	— 65.0 129.9	— 54 108	155.0 155.0 179.9	175 175 200
																18.9	— 65.0 129.9	— 54 108	173.9 173.9 203.5	200 200 225
														40	52.0	—	— 65.0 129.9	— 54 108	170.0 170.0 194.9	200 200 225
																18.9	— 65.0 129.9	— 54 108	188.9 188.9 218.5	225 225 250
	575	518	632	16.6	120	18.6	140	16.6	120	18.6	140	6	2.6 (ea)	25	27.0	—	— 65.0 129.9	— 54 108	119.8 119.8 163.7	125 125 175
																18.9	— 65.0 129.9	— 54 108	138.7 138.7 187.3	150 150 200
														30	32.0	—	— 65.0 129.9	— 54 108	126.0 126.0 169.9	150 150 200
																18.9	— 65.0 129.9	— 54 108	144.9 144.9 193.5	175 175 200
														40	41.0	—	— 65.0 129.9	— 54 108	137.3 137.3 181.2	175 175 200
																18.9	— 65.0 129.9	— 54 108	156.2 156.2 204.8	175 175 225

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2											
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	FLA	kW	MCA	MOCP*
020	208	187	229	23	184	23	184	23	184	—	—	2	6.5 (ea)	5	16.7	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	111.5 123.5 179.7	125 125 200
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	135.2 153.0 209.2	150 175 225
														10	30.8	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	127.5 141.1 197.4	150 150 225
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	151.1 170.6 226.9	175 175 250
														15	46.2	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	146.8 160.4 216.6	175 175 250
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	170.4 189.9 246.1	200 200 250
	230	207	253	23	184	23	184	23	184	—	—	2	6.6 (ea)	5	15.2	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	110.2 136.0 201.0	125 150 225
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	133.9 165.5 230.5	150 175 250
														10	28.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	124.2 152.0 217.0	150 175 225
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	147.8 181.5 246.5	175 200 250
														15	42.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	141.7 169.5 234.5	175 175 250
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	165.3 199.0 264.0	200 200 300
	460	414	508	10.2	90	10.2	90	10.2	90	—	—	2	3.3 (ea)	5	7.6	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	50.9 68.0 100.5	60 70 110
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	64.1 83.8 116.2	70 90 125
														10	14.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	58.2 76.0 108.5	70 80 110
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	70.8 91.8 124.2	80 100 125
														15	21.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	67.0 84.8 117.2	80 90 125
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	79.6 100.5 133.0	100 110 150
	575	518	632	9	73	9	73	9	73	—	—	2	2.6 (ea)	5	6.1	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	43.1 54.0 80.1	50 60 90
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	52.8 66.0 92.1	60 70 100
														10	11.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	48.5 60.1 86.2	50 70 90
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	58.1 72.1 98.2	60 80 100
														15	17.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	56.0 67.6 93.7	70 70 110
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	65.6 79.6 105.7	80 80 110

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2											
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	FLA	kW	MCA	MOCP*
025	208	187	229	21.8	184	25.6	190	25.6	190	—	—	2	6.5 (ea)	5	16.7	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	116.1 123.5 179.7	125 125 200
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	139.7 153.0 209.2	150 175 225
														10	30.8	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	131.5 141.1 197.4	150 150 225
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	155.1 170.6 226.9	175 175 250
														15	46.2	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	150.8 160.4 216.6	175 175 250
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	174.4 189.9 246.1	200 200 250
	230	207	253	21.8	184	25.6	190	25.6	190	—	—	2	6.6 (ea)	5	15.2	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	114.8 136.0 201.0	125 150 225
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	138.4 165.5 230.5	150 175 250
														10	28.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	128.2 152.0 217.0	150 175 225
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	151.8 181.5 246.5	175 200 250
														15	42.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	145.7 169.5 234.5	175 175 250
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	169.3 199.0 264.0	200 200 300
	460	414	508	11	90	13.5	95	13.5	95	—	—	2	3.3 (ea)	5	7.6	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	59.1 68.0 100.5	70 70 110
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	71.7 83.8 116.2	80 90 125
														10	14.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	65.6 76.0 108.5	70 80 110
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	78.2 91.8 124.2	90 100 125
														15	21.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	74.4 84.8 117.2	90 90 125
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	87.0 100.5 133.0	100 110 150
	575	518	632	9	73	10.2	75	10.2	75	—	—	2	2.6 (ea)	5	6.9	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	46.6 55.0 81.1	50 60 90
																6.1	2.5 2.5 2.5	— 34.6 69.3	— 36 72	52.7 62.6 88.7	60 70 90
														10	11.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	50.9 60.1 86.2	60 70 90
																6.1	2.5 2.5 2.5	— 34.6 69.3	— 36 72	57.0 67.8 93.8	60 70 100
														15	17.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	58.4 67.6 93.7	70 70 110
																6.1	2.5 2.5 2.5	— 34.6 69.3	— 36 72	64.5 75.3 101.3	80 80 110

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2											
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	FLA	kW	MCA	MOCP*
027	208	187	229	25.6	190	25.6	190	25.6	190	—	—	2	6.5 (ea)	10	30.8	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	135.3 141.1 197.4	150 150 225
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	158.9 170.6 226.9	175 175 250
														15	46.2	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	154.6 160.4 216.6	200 200 250
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	178.2 189.9 246.1	200 200 250
														20	59.4	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	171.1 176.9 233.1	225 225 250
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	194.7 206.4 262.6	250 250 300
	230	207	253	25.6	190	25.6	190	25.6	190	—	—	2	6.6 (ea)	10	28.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	132.0 152.0 217.0	150 175 225
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	155.6 181.5 246.5	175 200 250
														15	42.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	149.5 169.5 234.5	175 175 250
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	173.1 199.0 264.0	200 200 300
														20	54.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	164.5 184.5 249.5	200 200 300
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	188.1 214.0 279.0	225 225 300
	460	414	508	13.5	95	13.5	95	13.5	95	—	—	2	3.3 (ea)	10	14.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	68.1 76.0 108.5	80 80 110
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	80.7 91.8 124.2	90 100 125
														15	21.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	76.9 84.8 117.2	90 90 125
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	89.5 100.5 133.0	110 110 150
														20	27.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	84.4 92.3 124.7	110 110 150
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	97.0 108.0 140.5	110 110 150
	575	518	632	10.2	75	10.2	75	10.2	75	—	—	2	2.6 (ea)	10	11.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	52.1 60.1 86.2	60 70 90
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	61.7 72.1 98.2	70 80 100
														15	17.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	59.6 67.6 93.7	70 70 110
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	69.2 79.6 105.7	80 80 110
														20	22.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	65.8 73.9 99.9	80 80 110
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	75.4 85.9 111.9	90 90 125

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2											
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	FLA	kW	MCA	MOCP*
030	208	187	229	23	184	23	184	23	184	23	184	2	6.5 (ea)	10	30.8	—	7.0	—	—	148.1	175
																	7.0	75.1	27	148.1	175
																	7.0	150.1	54	197.4	225
																23.6	7.0	—	—	171.7	200
																	7.0	75.1	27	171.7	200
																	7.0	150.1	54	226.9	250
														15	46.2	—	7.0	—	—	167.4	200
																	7.0	75.1	27	167.4	200
																	7.0	150.1	54	216.6	250
																23.6	7.0	—	—	191.0	225
																	7.0	75.1	27	191.0	225
																	7.0	150.1	54	246.1	250
														20	59.4	—	7.0	—	—	183.9	225
																	7.0	75.1	27	183.9	225
																	7.0	150.1	54	233.1	250
																23.6	7.0	—	—	207.5	250
																	7.0	75.1	27	207.5	250
																	7.0	150.1	54	262.6	300
	230	207	253	23	184	23	184	23	184	23	184	2	6.6 (ea)	10	28.0	—	7.0	—	—	144.8	150
																	7.0	86.6	36	152.0	175
																	7.0	173.2	72	217.0	225
																23.6	7.0	—	—	168.4	175
																	7.0	86.6	36	181.5	200
																	7.0	173.2	72	246.5	250
														15	42.0	—	7.0	—	—	162.3	200
																	7.0	86.6	36	169.5	200
																	7.0	173.2	72	234.5	250
																23.6	7.0	—	—	185.9	225
																	7.0	86.6	36	199.0	225
																	7.0	173.2	72	264.0	300
														20	54.0	—	7.0	—	—	177.3	225
																	7.0	86.6	36	184.5	225
																	7.0	173.2	72	249.5	300
																23.6	7.0	—	—	200.9	250
																	7.0	86.6	36	214.0	250
																	7.0	173.2	72	279.0	300
	460	414	508	10.2	90	10.2	90	10.2	90	10.2	90	2	3.3 (ea)	10	14.0	—	3.5	—	—	70.0	80
																	3.5	43.3	36	76.0	80
																	3.5	86.6	72	108.5	110
																12.6	3.5	—	—	82.6	90
																	3.5	43.3	36	91.8	100
																	3.5	86.6	72	124.2	125
														15	21.0	—	3.5	—	—	78.8	90
																	3.5	43.3	36	84.8	90
																	3.5	86.6	72	117.2	125
																12.6	3.5	—	—	91.4	110
																	3.5	43.3	36	100.5	110
																	3.5	86.6	72	133.0	150
														20	27.0	—	3.5	—	—	86.3	110
																	3.5	43.3	36	92.3	110
																	3.5	86.6	72	124.7	150
																12.6	3.5	—	—	98.9	125
																	3.5	43.3	36	108.0	125
																	3.5	86.6	72	140.5	150
	575	518	632	9	73	9	73	9	73	9	73	2	2.6 (ea)	10	11.0	—	2.5	—	—	57.5	60
																	2.5	34.6	36	60.1	70
																	2.5	69.3	72	86.2	90
																9.6	2.5	—	—	67.1	70
																	2.5	34.6	36	72.1	80
																	2.5	69.3	72	98.2	100
														15	17.0	—	2.5	—	—	65.0	80
																	2.5	34.6	36	67.6	80
																	2.5	69.3	72	93.7	110
																9.6	2.5	—	—	74.6	90
																	2.5	34.6	36	79.6	90
																	2.5	69.3	72	105.7	110
														20	22.0	—	2.5	—	—	71.2	90
																	2.5	34.6	36	73.9	90
																	2.5	69.3	72	99.9	110
																9.6	2.5	—	—	80.8	100
																	2.5	34.6	36	85.9	100
																	2.5	69.3	72	111.9	125

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2											
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	FLA	kW	MCA	MOCP*
035	208	187	229	21.8	184	25.6	190	25.6	190	25.6	190	2	6.5 (ea)	15	46.2	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	176.4 176.4 216.6	200 200 250
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	200.0 200.0 246.1	225 225 250
														20	59.4	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	192.9 192.9 233.1	250 250 250
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	216.5 216.5 262.6	250 250 300
														25	74.8	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	212.1 212.1 252.4	250 250 300
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	235.7 235.7 281.9	300 300 300
	230	207	253	21.8	184	25.6	190	25.6	190	25.6	190	2	6.6 (ea)	15	42.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	171.3 171.3 234.5	200 200 250
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	194.9 199.0 264.0	225 225 300
														20	54.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	186.3 186.3 249.5	225 225 300
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	209.9 214.0 279.0	250 250 300
														25	68.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	203.8 203.8 267.0	250 250 300
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	227.4 231.5 296.5	250 250 350
	460	414	508	11	90	13.5	95	13.5	95	13.5	95	2	3.3 (ea)	15	21.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	87.9 87.9 117.2	100 100 125
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	100.5 100.5 133.0	110 110 150
														20	27.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	95.4 95.4 124.7	110 110 150
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	108.0 108.0 140.5	125 125 150
														25	34.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	104.1 104.1 133.5	125 125 150
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	116.7 116.8 149.2	150 150 175
	575	518	632	9	73	10.2	75	10.2	75	10.2	75	2	2.6 (ea)	15	17.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	68.6 68.6 93.7	80 80 110
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	78.2 79.6 105.7	90 90 110
														20	22.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	74.8 74.8 99.9	90 90 110
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	84.4 85.9 111.9	100 100 125
														25	27.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	81.1 81.1 106.2	100 100 125
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	90.7 92.1 118.2	110 110 125

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET		OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2												
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	LRA	FLA	kW	MCA	MOCP*
036	208	187	229	21.8	184	25.6	190	25.6	190	25.6	190	4	6.5 (ea)	15	46.2	—	7.0	—	—	—	189.4	225
																	7.0	—	75.1	27	189.4	225
																	7.0	—	150.1	54	216.6	250
																23.6	7.0	—	—	—	213.0	250
																	7.0	—	75.1	27	213.0	250
																	7.0	—	150.1	54	246.1	250
														20	59.4	—	7.0	—	—	—	205.9	250
																	7.0	—	75.1	27	205.9	250
																	7.0	—	150.1	54	233.1	250
																23.6	7.0	—	—	—	229.5	250
																	7.0	—	75.1	27	229.5	250
																	7.0	—	150.1	54	262.6	300
														25	74.8	—	7.0	—	—	—	225.1	250
																	7.0	—	75.1	27	225.1	250
																	7.0	—	150.1	54	252.4	300
																23.6	7.0	—	—	—	248.7	300
																	7.0	—	75.1	27	248.7	300
																	7.0	—	150.1	54	281.9	300
	230	207	253	21.8	184	25.6	190	25.6	190	25.6	190	4	6.6 (ea)	15	42.0	—	7.0	—	—	—	184.5	225
																	7.0	—	86.6	36	184.5	225
																	7.0	—	173.2	72	234.5	250
																23.6	7.0	—	—	—	208.1	250
																	7.0	—	86.6	36	208.1	250
																	7.0	—	173.2	72	264.0	300
														20	54.0	—	7.0	—	—	—	199.5	250
																	7.0	—	86.6	36	199.5	250
																	7.0	—	173.2	72	249.5	300
																23.6	7.0	—	—	—	223.1	250
																	7.0	—	86.6	36	223.1	250
																	7.0	—	173.2	72	279.0	300
														25	68.0	—	7.0	—	—	—	217.0	250
																	7.0	—	86.6	36	217.0	250
																	7.0	—	173.2	72	267.0	300
																23.6	7.0	—	—	—	240.6	300
																	7.0	—	86.6	36	240.6	300
																	7.0	—	173.2	72	296.5	350
	460	414	508	11	90	13.5	95	13.5	95	13.5	95	4	3.3 (ea)	15	21.0	—	3.5	—	—	—	94.5	110
																	3.5	—	43.3	36	94.5	110
																	3.5	—	86.6	72	117.2	125
																12.6	3.5	—	—	—	107.1	125
																	3.5	—	43.3	36	107.1	125
																	3.5	—	86.6	72	133.0	150
														20	27.0	—	3.5	—	—	—	102.0	125
																	3.5	—	43.3	36	102.0	125
																	3.5	—	86.6	72	124.7	150
																12.6	3.5	—	—	—	114.6	125
																	3.5	—	43.3	36	114.6	125
																	3.5	—	86.6	72	140.5	150
														25	34.0	—	3.5	—	—	—	110.7	125
																	3.5	—	43.3	36	110.7	125
																	3.5	—	86.6	72	133.5	150
																12.6	3.5	—	—	—	123.3	150
																	3.5	—	43.3	36	123.3	150
																	3.5	—	86.6	72	149.2	175
	575	518	632	9	73	10.2	75	10.2	75	10.2	75	4	2.6 (ea)	15	17.0	—	2.5	—	—	—	73.8	90
																	2.5	—	34.6	36	73.8	90
																	2.5	—	69.3	72	93.7	110
																9.6	2.5	—	—	—	83.4	100
																	2.5	—	34.6	36	83.4	100
																	2.5	—	69.3	72	105.7	110
														20	22.0	—	2.5	—	—	—	80.0	100
																	2.5	—	34.6	36	80.0	100
																	2.5	—	69.3	72	99.9	110
																9.6	2.5	—	—	—	89.6	110
																	2.5	—	34.6	36	89.6	110
																	2.5	—	69.3	72	111.9	125
														25	27.0	—	2.5	—	—	—	86.3	110
																	2.5	—	34.6	36	86.3	110
																	2.5	—	69.3	72	106.2	125
																9.6	2.5	—	—	—	95.9	110
																	2.5	—	34.6	36	95.9	110
																	2.5	—	69.3	72	118.2	125

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2											
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	FLA	kW	MCA	MOCP*
040	208	187	229	25.6	190	25.6	190	34.3	265	34.3	265	4	6.5 (ea)	15	46.2	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	210.6 210.6 216.6	250 250 250
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	234.2 234.2 246.1	250 250 250
														20	59.4	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	227.1 227.1 233.1	250 250 250
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	250.7 250.7 262.6	300 300 300
														25	74.8	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	246.3 246.3 252.4	300 300 300
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	269.9 269.9 281.9	300 300 300
	230	207	253	25.6	190	25.6	190	34.3	265	34.3	265	4	6.6 (ea)	15	42.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	205.7 205.7 234.5	225 225 250
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	229.3 229.3 264.0	250 250 300
														20	54.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	220.7 220.7 249.5	250 250 300
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	244.3 244.3 279.0	250 250 300
														25	68.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	238.2 238.2 267.0	300 300 300
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	261.8 261.8 296.5	300 300 350
	460	414	508	13.5	95	13.5	95	16	120	16	120	4	3.3 (ea)	15	21.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	102.0 102.0 117.2	110 110 125
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	114.6 114.6 133.0	125 125 150
														20	27.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	109.5 109.5 124.7	125 125 150
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	122.1 122.1 140.5	125 125 150
														25	34.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	118.2 118.2 133.5	150 150 150
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	130.8 130.8 149.2	150 150 175
	575	518	632	10.2	75	10.2	75	12.9	80	12.9	80	4	2.6 (ea)	15	17.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	80.4 80.4 93.7	90 90 110
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	90.0 90.0 105.7	100 100 110
														20	22.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	86.6 86.6 99.9	100 100 110
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	96.2 96.2 111.9	110 110 125
														25	27.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	92.9 92.9 106.2	110 110 125
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	102.5 102.5 118.2	125 125 125

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET		OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2												
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	LRA	FLA	kW	MCA	MOCP*
041	208	187	229	25.6	190	25.6	190	34.3	265	34.3	265	4	6.5 (ea)	15	46.2	—	7.0 7.0 7.0	— — —	— 75.1 150.1	— 27 54	210.6 210.6 216.6	250 250 250
																23.6	7.0 7.0 7.0	— — —	— 75.1 150.1	— 27 54	234.2 234.2 246.1	250 250 250
														20	59.4	—	7.0 7.0 7.0	— — —	— 75.1 150.1	— 27 54	227.1 227.1 233.1	250 250 250
																23.6	7.0 7.0 7.0	— — —	— 75.1 150.1	— 27 54	250.7 250.7 262.6	300 300 300
														25	74.8	—	7.0 7.0 7.0	— — —	— 75.1 150.1	— 27 54	246.3 246.3 252.4	300 300 300
																23.6	7.0 7.0 7.0	— — —	— 75.1 150.1	— 27 54	269.9 269.9 281.9	300 300 300
	230	207	253	25.6	190	25.6	190	34.3	265	34.3	265	4	6.6 (ea)	15	42.0	—	7.0 7.0 7.0	— — —	— 86.6 173.2	— 36 72	205.7 205.7 234.5	225 225 250
																23.6	7.0 7.0 7.0	— — —	— 86.6 173.2	— 36 72	229.3 229.3 264.0	250 250 300
														20	54.0	—	7.0 7.0 7.0	— — —	— 86.6 173.2	— 36 72	220.7 220.7 249.5	250 250 300
																23.6	7.0 7.0 7.0	— — —	— 86.6 173.2	— 36 72	244.3 244.3 279.0	250 250 300
														25	68.0	—	7.0 7.0 7.0	— — —	— 86.6 173.2	— 36 72	238.2 238.2 267.0	300 300 300
																23.6	7.0 7.0 7.0	— — —	— 86.6 173.2	— 36 72	261.8 261.8 296.5	300 300 350
	460	414	508	13.5	95	13.5	95	16	120	16	120	4	3.3 (ea)	15	21.0	—	3.5 3.5 3.5	— — —	— 43.3 86.6	— 36 72	102.0 102.0 117.2	110 110 125
																12.6	3.5 3.5 3.5	— — —	— 43.3 86.6	— 36 72	114.6 114.6 133.0	125 125 150
														20	27.0	—	3.5 3.5 3.5	— — —	— 43.3 86.6	— 36 72	109.5 109.5 124.7	125 125 150
																12.6	3.5 3.5 3.5	— — —	— 43.3 86.6	— 36 72	122.1 122.1 140.5	125 125 150
														25	34.0	—	3.5 3.5 3.5	— — —	— 43.3 86.6	— 36 72	118.2 118.2 133.5	150 150 150
																12.6	3.5 3.5 3.5	— — —	— 43.3 86.6	— 36 72	130.8 130.8 149.2	150 150 175
	575	518	632	10.2	75	10.2	75	12.9	80	12.9	80	4	2.6 (ea)	15	17.0	—	2.5 2.5 2.5	— — —	— 34.6 69.3	— 36 72	80.4 80.4 93.7	90 90 110
																9.6	2.5 2.5 2.5	— — —	— 34.6 69.3	— 36 72	90.0 90.0 105.7	100 100 110
														20	22.0	—	2.5 2.5 2.5	— — —	— 34.6 69.3	— 36 72	86.6 86.6 99.9	100 100 110
																9.6	2.5 2.5 2.5	— — —	— 34.6 69.3	— 36 72	96.2 96.2 111.9	110 110 125
														25	27.0	—	2.5 2.5 2.5	— — —	— 34.6 69.3	— 36 72	92.9 92.9 106.2	110 110 125
																9.6	2.5 2.5 2.5	— — —	— 34.6 69.3	— 36 72	102.5 102.5 118.2	125 125 125

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2											
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	FLA	kW	MCA	MOCP*
050	208	187	229	34.3	265	34.3	265	34.3	265	47	380	4	6.5 (ea)	20	59.0	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	257.2 257.2 257.2	300 300 300
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	280.8 280.8 280.8	300 300 300
														25	75.0	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	276.4 276.4 276.4	350 350 350
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	300.0 300.0 300.0	350 350 350
														30	88.0	—	7.0 7.0 7.0	— 75.1 150.1	— 27 54	292.9 292.9 292.9	350 350 350
																23.6	7.0 7.0 7.0	— 75.1 150.1	— 27 54	316.5 316.5 316.5	400 400 400
	230	207	253	34.3	265	34.3	265	34.3	265	47	380	4	6.6 (ea)	20	54.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	250.8 250.8 250.8	300 300 300
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	274.4 274.4 279.0	300 300 300
														25	68.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	268.3 268.3 268.3	300 300 300
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	291.9 291.9 296.5	350 350 350
														30	80.0	—	7.0 7.0 7.0	— 86.6 173.2	— 36 72	283.3 283.3 283.3	350 350 350
																23.6	7.0 7.0 7.0	— 86.6 173.2	— 36 72	306.9 306.9 311.5	350 350 350
	460	414	508	16	120	16	120	16	120	22.4	175	4	3.3 (ea)	20	27.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	120.9 120.9 124.7	125 125 150
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	133.5 133.5 140.5	150 150 150
														25	34.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	129.6 129.6 133.5	150 150 150
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	142.2 142.2 149.2	175 175 175
														30	40.0	—	3.5 3.5 3.5	— 43.3 86.6	— 36 72	137.1 137.1 141.0	175 175 175
																12.6	3.5 3.5 3.5	— 43.3 86.6	— 36 72	149.7 149.7 156.7	175 175 175
	575	518	632	12.9	80	12.9	80	12.9	80	18.6	140	4	2.6 (ea)	20	22.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	97.7 97.7 99.9	110 110 110
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	107.3 107.3 111.9	125 125 125
														25	27.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	104.0 104.0 106.2	125 125 125
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	113.6 113.6 118.2	125 125 125
														30	32.0	—	2.5 2.5 2.5	— 34.6 69.3	— 36 72	110.2 110.2 112.4	125 125 125
																9.6	2.5 2.5 2.5	— 34.6 69.3	— 36 72	119.8 119.8 124.4	150 150 150

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET		OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2												
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	LRA	FLA	kW	MCA	MOCP*
051	208	187	229	34.3	265	34.3	265	34.3	265	34.3	265	6	6.5 (ea)	20	59.4	—	7.0 7.0 7.0	— — —	— 112.6 225.2	— 41 81	257.5 257.5 308.2	300 300 350
																35.4	7.0 7.0 7.0	— — —	— 112.6 225.2	— 41 81	292.9 292.9 352.5	350 350 400
														25	74.8	—	7.0 7.0 7.0	— — —	— 112.6 225.2	— 41 81	276.7 276.7 327.5	350 350 400
																35.4	7.0 7.0 7.0	— — —	— 112.6 225.2	— 41 81	312.1 312.1 371.7	350 350 400
														30	88	—	7.0 7.0 7.0	— — —	— 112.6 225.2	— 41 81	293.2 293.2 344.0	350 350 400
																35.4	7.0 7.0 7.0	— — —	— 112.6 225.2	— 41 81	328.6 328.6 388.2	400 400 450
														40	114	—	7.0 7.0 7.0	— — —	— 112.6 225.2	— 41 81	325.7 325.7 376.5	400 400 450
																35.4	7.0 7.0 7.0	— — —	— 112.6 225.2	— 41 81	361.1 361.1 420.7	450 450 500
	230	207	253	34.3	265	34.3	265	34.3	265	34.3	265	6	6.6 (ea)	20	54	—	7.0 7.0 7.0	— — —	— 129.9 259.8	— 54 108	251.3 251.3 336.1	300 300 350
																35.4	7.0 7.0 7.0	— — —	— 129.9 259.8	— 54 108	286.7 286.7 380.3	300 300 400
														25	68	—	7.0 7.0 7.0	— — —	— 129.9 259.8	— 54 108	268.8 268.8 353.6	300 300 400
																35.4	7.0 7.0 7.0	— — —	— 129.9 259.8	— 54 108	304.2 304.2 397.8	350 350 450
														30	80	—	7.0 7.0 7.0	— — —	— 129.9 259.8	— 54 108	283.8 283.8 368.6	350 350 400
																35.4	7.0 7.0 7.0	— — —	— 129.9 259.8	— 54 108	319.2 319.2 412.8	350 350 450
														40	104	—	7.0 7.0 7.0	— — —	— 129.9 259.8	— 54 108	313.8 313.8 398.6	400 400 500
																35.4	7.0 7.0 7.0	— — —	— 129.9 259.8	— 54 108	349.2 349.2 442.8	450 450 500
	460	414	508	16	120	16	120	16	120	16	120	6	3.3 (ea)	20	27	—	3.5 3.5 3.5	— — —	— 65.0 129.9	— 54 108	121.1 121.1 168.0	125 125 175
																18.9	3.5 3.5 3.5	— — —	— 65.0 129.9	— 54 108	140.0 140.0 191.7	150 150 200
														25	34	—	3.5 3.5 3.5	— — —	— 65.0 129.9	— 54 108	129.8 129.8 176.8	150 150 200
																18.9	3.5 3.5 3.5	— — —	— 65.0 129.9	— 54 108	148.7 148.7 200.4	175 175 225
														30	40	—	3.5 3.5 3.5	— — —	— 65.0 129.9	— 54 108	137.3 137.3 184.3	175 175 200
																18.9	3.5 3.5 3.5	— — —	— 65.0 129.9	— 54 108	156.2 156.2 207.9	175 175 225
														40	52	—	3.5 3.5 3.5	— — —	— 65.0 129.9	— 54 108	152.3 152.3 199.3	200 200 250
																18.9	3.5 3.5 3.5	— — —	— 65.0 129.9	— 54 108	171.2 171.2 222.9	200 200 250
	575	518	632	12.9	80	12.9	80	12.9	80	12.9	80	6	2.6 (ea)	20	22	—	2.5 2.5 2.5	— — —	— 65.0 129.9	— 54 108	97.2 97.2 160.5	110 110 175
																14.4	2.5 2.5 2.5	— — —	— 65.0 129.9	— 54 108	111.6 113.6 178.5	125 125 200
														25	27	—	2.5 2.5 2.5	— — —	— 65.0 129.9	— 54 108	103.5 103.5 166.8	125 125 175
																14.4	2.5 2.5 2.5	— — —	— 65.0 129.9	— 54 108	117.9 119.9 184.8	125 125 200
														30	32	—	2.5 2.5 2.5	— — —	— 65.0 129.9	— 54 108	109.7 109.7 173.0	125 125 200
																14.4	2.5 2.5 2.5	— — —	— 65.0 129.9	— 54 108	124.1 126.1 191.0	150 150 200
														40	41	—	2.5 2.5 2.5	— — —	— 65.0 129.9	— 54 108	121.0 121.0 184.3	150 150 200
																14.4	2.5 2.5 2.5	— — —	— 65.0 129.9	— 54 108	135.4 137.4 202.3	175 175 225

See Legend and Notes on page 21.

Table 7B — Electrical Data — 50AJ,AK,AW,AY Units with Convenience Outlet (cont)

UNIT SIZE 50A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	CONVENIENCE OUTLET	OPTIONAL ELECTRIC HEAT		POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2											
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	FLA	FLA	kW	MCA	MOCP*
060	208	187	229	40.8	265	47	380	40.8	265	47	380	6	6.5 (ea)	25	75.0	—	7.0 7.0 7.0	— 112.6 225.2	— 41 81	315.1 315.1 327.5	350 350 400
																35.4	7.0 7.0 7.0	— 112.6 225.2	— 41 81	350.5 350.5 371.7	400 400 400
														30	88.0	—	7.0 7.0 7.0	— 112.6 225.2	— 41 81	331.6 331.6 344.0	400 400 400
																35.4	7.0 7.0 7.0	— 112.6 225.2	— 41 81	367.0 367.0 388.2	450 450 450
														40	114.0	—	7.0 7.0 7.0	— 112.6 225.2	— 41 81	364.1 364.1 376.5	450 450 450
																35.4	7.0 7.0 7.0	— 112.6 225.2	— 41 81	399.5 399.5 420.7	500 500 500
	230	207	253	40.8	265	47	380	40.8	265	47	380	6	6.6 (ea)	25	68.0	—	7.0 7.0 7.0	— 129.9 259.8	— 54 108	307.2 307.2 353.6	350 350 400
																35.4	7.0 7.0 7.0	— 129.9 259.8	— 54 108	342.6 342.6 397.8	400 400 450
														30	80.0	—	7.0 7.0 7.0	— 129.9 259.8	— 54 108	322.2 322.2 368.6	400 400 400
																35.4	7.0 7.0 7.0	— 129.9 259.8	— 54 108	357.6 357.6 412.8	400 400 450
														40	104.0	—	7.0 7.0 7.0	— 129.9 259.8	— 54 108	352.2 352.2 398.6	450 450 500
																35.4	7.0 7.0 7.0	— 129.9 259.8	— 54 108	387.6 387.6 442.8	450 450 500
	460	414	508	20.2	135	22.4	175	20.2	135	22.4	175	6	3.3 (ea)	25	34.0	—	3.5 3.5 3.5	— 65.0 129.9	— 54 108	151.0 151.0 176.8	175 175 200
																18.9	3.5 3.5 3.5	— 65.0 129.9	— 54 108	169.9 169.9 200.4	200 200 225
														30	40.0	—	3.5 3.5 3.5	— 65.0 129.9	— 54 108	158.5 158.5 184.3	175 175 200
																18.9	3.5 3.5 3.5	— 65.0 129.9	— 54 108	177.4 177.4 207.9	200 200 225
														40	52.0	—	3.5 3.5 3.5	— 65.0 129.9	— 54 108	173.5 173.5 199.3	225 225 250
																18.9	3.5 3.5 3.5	— 65.0 129.9	— 54 108	192.4 192.4 222.9	225 225 250
	575	518	632	16.6	120	18.6	140	16.6	120	18.6	140	6	2.6 (ea)	25	27.0	—	2.5 2.5 2.5	— 65.0 129.9	— 54 108	122.3 122.3 166.8	125 125 175
																14.4	2.5 2.5 2.5	— 65.0 129.9	— 54 108	136.7 136.7 184.8	150 150 200
														30	32.0	—	2.5 2.5 2.5	— 65.0 129.9	— 54 108	128.5 128.5 173.0	150 150 200
																14.4	2.5 2.5 2.5	— 65.0 129.9	— 54 108	142.9 142.9 191.0	150 150 200
														40	41.0	—	2.5 2.5 2.5	— 65.0 129.9	— 54 108	139.8 139.8 184.3	175 175 200
																14.4	2.5 2.5 2.5	— 65.0 129.9	— 54 108	154.2 154.2 202.3	175 175 225

See Legend and Notes on page 21.

IMPORTANT: On 208/230-v units, transformers 1-5 are wired for 230-v. If 208/230-v unit is to be run with 208-v power supply, the transformers must be rewired as follows:

For transformer 1 move the black wires connected to terminal H2 and connect it to terminal H3.

For transformers 2-4, that are used for the 24 volt control circuits, connect as follows:

1. Remove cap from red (208 v) wire.
2. Remove cap from spliced orange (230 v) wire. Disconnect orange wire from black unit power wire.
3. Cap orange wire.
4. Splice red wire and black unit power wire. Cap wires.

If the unit is equipped with the optional convenience outlet connect the yellow wire to H2 on transformer 5.

IMPORTANT: BE CERTAIN UNUSED WIRES ARE CAPPED. Failure to do so may damage the transformers.

FIELD CONTROL WIRING — The 50A Series units support a large number of control options that can impact the field control wiring. Refer to Fig. 17-19.

The control options that the unit can provide relate to the following parameters:

- CV (constant volume), VAV (variable air volume) or 3V™ (variable volume variable temperature) control operation.
- Standalone with a thermostat (CV) or with a space sensor (CV and VAV)
- Network application with CCN (Carrier Comfort Network®) or other networks
- Demand ventilation with CO_2 sensor
- Economizer and economizer with changeover control
- Building and duct static pressure control
- Fire shutdown and smoke control
- Diagnostics and monitoring

For constant volume applications a thermostat (T-Stat) or space temperature sensor (SPT) will be required.

T-STAT (Conventional Thermostat) — Unit can be controlled with a Carrier-approved accessory electro-mechanical or electronic thermostat that has two stages of cooling, two stages of heating control and an output for indoor fan control. It may also include time of day scheduling or use the scheduling routines built into the *Comfort*Link™ controls.

Install thermostat according to the installation instructions included with accessory thermostat. Locate thermostat assembly on a solid interior wall in the conditioned space to sense average temperature.

Route thermostat cable or equivalent single leads of colored wire from subbase terminals through conduit into unit to low voltage connection in the main control box. For thermostat TB4 connections see Fig. 17.

NOTE: For wire runs up to 50 ft, use no. 18 AWG (American Wire Gage) insulated wire (35 C minimum). For 50 to 75 ft, use no. 16 AWG insulated wire (35 C minimum). For over 75 ft, use no. 14 AWG insulated wire (35 C Minimum). All wire larger than no. 18 AWG cannot be directly connected at the thermostat and will require a junction box and splice at the thermostat. Set heat anticipator settings as follows:

SIZE	STAGE 1 (W1) ON	STAGE 2 (W1 AND W2) ON
020-050	0.24	0.13
051, 060	0.36	0.13

Settings may be changed slightly to provide a greater degree of comfort for a particular installation.

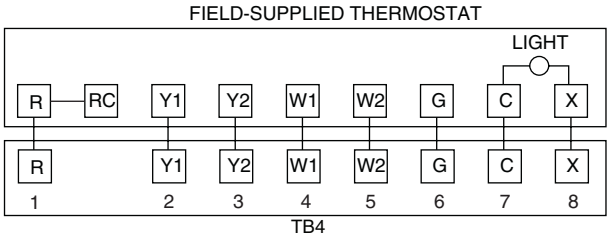


Fig. 17 — Field Control Thermostat Wiring

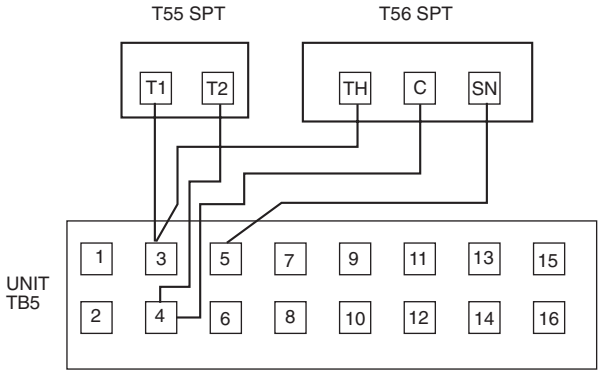


Fig. 18 — Space Temperature Sensor Wiring

SPT (Space Temperature Sensor) — For constant volume applications the *Comfort*Link controls can also be used with T55 and T56 space temperature sensors that use a 10K thermistor. The T56 sensor also has the capability for a configurable temperature set point offset at the thermostat. For variable air volume applications only the T55 sensor can be used.

Install sensor according to the installation instructions included with accessory sensor. Locate sensor assembly on a solid interior wall in the conditioned space to sense average temperature.

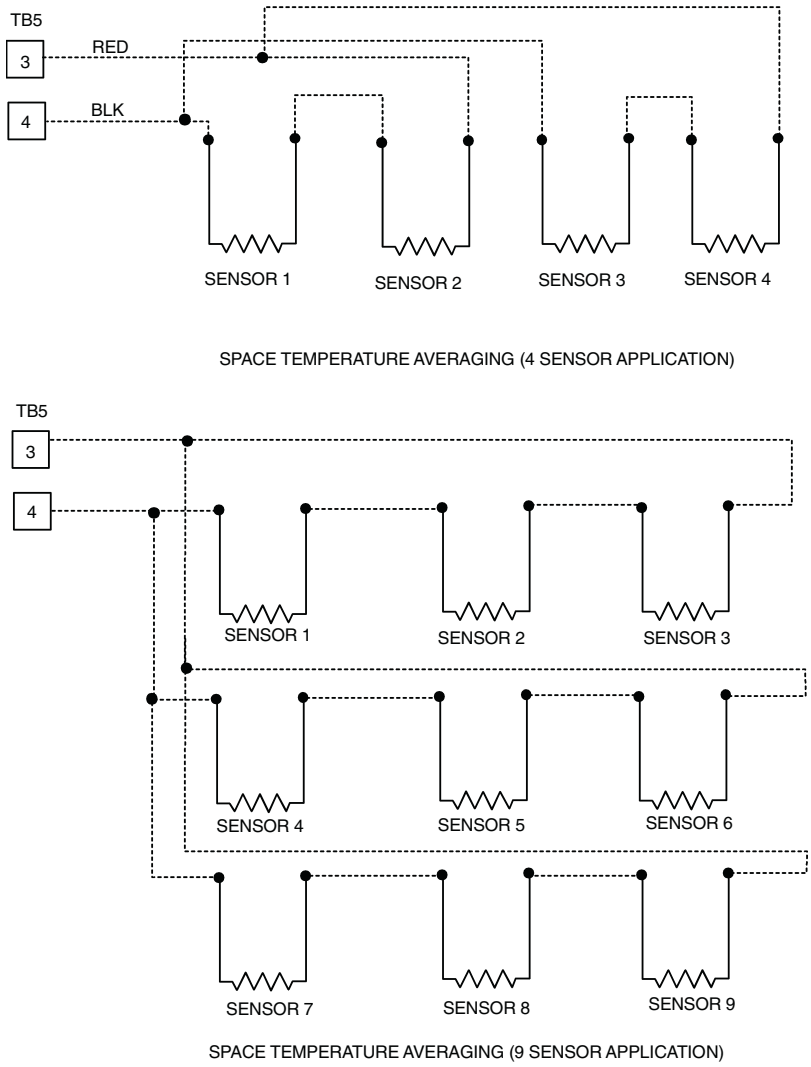
Run wiring to the space sensor as shown in Fig. 18.

Note that when the remote sensor is used, the red jumper wires provided must be connected from TB4 terminal 4 to 5 and TB4 terminal 5 to 1.

Both the T55 and T56 have a CCN communications port and this should be wired to the CCN Communications TB3 board if it is desired to have access to the CCN through the sensor. If more than one T55 sensor is being used and averaged, sensors must be wired in multiples of 4 or 9 as shown in Fig. 19.

T58 Communicating Thermostat — Carrier also has a fully communicating thermostat which, if used, will be wired to the CCN communication connections on TB3 as described in the Carrier Comfort Network Interface section below.

Carrier Comfort Network (CCN) Interface — The rooftop units can be connected to the CCN interface. The communication bus wiring is supplied and installed in the field. Wiring consists of shielded, 3-conductor cable with drain wire. The system elements are connected to the communication bus in a daisy chain arrangement. The positive pin of each system element communication connector must be wired to the positive pins of the system element on either side of it, the negative pins must be wired to the negative pins, and the signal pins must be wired to signal ground pins. Wiring connections for CCN should be made at the TB3 terminal block using the screw terminals. The TB3 board also contains an RJ14 CCN plug that can be used to connect a field service computer or other CCN device. There is also an RJ14 LEN (local equipment network) connection that is used to connect a Navigator™ display or download software.



NOTE: Use T55 sensor only.

Fig. 19 — Space Temperature Averaging Wiring

Conductors and drain wire must be 20 AWG minimum stranded, tinned copper. Individual conductors must be insulated with PVC, PVC/nylon, vinyl, Teflon, or polyethylene. An aluminum/polyester 100% foil shield and an outer jacket of PVC, PVC/nylon, chrome vinyl, or Teflon with a minimum operating temperature range of –4 F to 140 F is required. Table 8 lists cables that meet the requirements.

Table 8 — CCN Connection Approved Shield Cable

MANUFACTURER	CABLE PART NO.
Alpha	2413 or 5463
American	A22503
Belden	8772
Columbia	02525

IMPORTANT: When connecting to CCN communication bus to system elements, use color coding system for the entire network to simplify installation and checkout. See Table 9.

Table 9 — Color Code Recommendations

SIGNAL TYPE	CCN BUS CONDUCTOR INSULATION COLOR	CCN PLUG PIN NO.
Positive (+)	RED	1
Ground	WHITE	2
Negative (–)	BLACK	3

If a cable with a different color scheme is selected, a similar color code should be adopted for the entire network. At each system element, the shields of the communication bus cables must be tied together. If the communication bus is entirely within one building, the resulting continuous shield must be connected to a ground at one point only. If the communication bus cable exits from one building and enters another, the shields must be connected to grounds at the lightning suppressor in each building where the cable enters or exits the building (one point per building only).

To connect the unit to the network:

1. Turn off power to the control box.
2. Cut the CCN wire and strip the ends of the red (+), white (ground), and black (–) conductors. (If a different network color scheme is used, substitute appropriate colors.)
3. Remove the 3-pin male plug from the base control board in the main control box, and connect the wires as follows:
   a. Insert and secure the red (+) wire to terminal 1 of the 3-pin plug.
   b. Insert and secure the white (ground) wire to terminal 2 of the 3-pin plug.
   c. Insert and secure the black (–) wire to terminal 3 of the 3-pin plug.
4. Insert the plug into the existing 3-pin mating connector on the base module in the main control box.

VAV Units with Heat — For variable air volume units that will use heat, the variable air volume terminals should be interlocked with the unit at TB5 terminals 1 and 2 as shown on the wiring diagram.

Demand Ventilation — The unit can be equipped with a CO_2 sensor for use in demand ventilation. This can be factory supplied and will be mounted in the return duct. It can also be field supplied and mounted in the return duct or in the space. Connect the field-installed 4 to 20 mA sensor to TB5 terminals 6 and 7. Do not remove the factory-installed 182-ohm resistor.

If an outdoor IAQ (indoor air quality) sensor is used then it should be wired to terminals 11 and 12 on TB6. This will require the use of the optional controls expansion module.

Remote IAQ Override — If the control is being used with non Carrier building management system it supports the use of the remote IAQ override switch. This should be connected to TB6 terminal 13 and 14. Use of this will require the optional controls expansion module.

Remote Economizer Position Control — The *Comfort*Link™ controls will normally control the position of the economizer, but it can also support field control of the economizer position through a 4 to 20 mA signal. If this is used it should be connected to TB5 terminal 6 and 7. If the signal is a 4 to 20 mA signal then leave the 182-ohm resistor in place.

Remote Economizer Enable — If the control is being used with other building management systems and the system will control the enabling and disabling of the economizer free cooling this switch input can be connected to TB6 terminals 1 and 2. Note that the controls also support integrated economizer changeover using outdoor dry bulb, differential dry bulb, outdoor enthalpy and differential enthalpy.

Remote Occupancy Switch — For interface to other building management systems the control also supports a switch input for remote occupancy signals. This wiring can be connected to terminal TB6 terminal 1 and 3.

Remote Economizer Minimum Position Control — If the *Comfort*Link controller is controlling the economizer, but a remote minimum position is required then an external 100K potentiometer should be connected to TB5 terminal 6 and 7. Remove the factory-installed 182-ohm resistor.

Smoke Sensor Interface — The *Comfort*Link controls include an optional factory-installed return air smoke detector. Remote alarm circuits can be wired to TB5 terminal 8 and 9.

Fire Shutdown and Smoke Control — The controller supports interface to fire and smoke control systems and allows for the following system overrides from remote switch inputs.

- Fire Shutdown — Connect to TB6 terminals 8 and 9.
- Smoke Pressurization — Connect to TB6 terminal 12 and 13. This requires the use of the optional controls expansion module.
- Smoke Evacuation — Connect to TB6 terminal 12 and 14. This requires the use of the optional controls expansion module.
- Smoke Purge — Connect to TB6 terminal 12 and 15. This requires the use of the optional controls expansion module.

Demand Limiting — The control can also be used with demand limiting control from remote building management systems. If a two-stage system is going to be used with redline limiting where the machine is not allowed to increase load and load shed where the load is decreased to a configurable limit in capacity then these can be connected to TB6 terminals 4 and 5 and 5 and 6. This requires use of the controls expansion module.

Step 7 — Make Outdoor-Air Inlet Adjustments

ECONOMIZER AND FIXED OUTDOOR AIR DAMPER — Hoods are used on all units with economizer or adjustable self-closing fixed outdoor air damper.

NOTE: If accessory power exhaust or barometric relief packages are being added to the unit, install power exhaust or barometric relief before installing economizer hoods.

Economizer Hood Assembly — The economizer hood is shipped in a package secured to the outside of the unit. The hood assemblies must be field-assembled. The 50AW,AY units are side supply and side return. The return duct limits access to economizer filters from below.

The 50AJ,AK,AW,AY020-050 units have two hoods on every unit. The 50AJ,AK,AW,AY051 and 060 units have 3 hoods on every unit.

NOTE: Before assembly of the economizer hood, check along the outer edges of the economizer assembly for any seal strip protruding past the flanges. Trim the excess seal strip so that it is flush with the economizer assembly flanges.

Perform the following procedure to assemble the economizer hood.

1. Apply black seal strip (provided) to outside top-edge of hood sides. Wrap seal strip over edge to cover top flange (6 hood sides). Make sure seal strip covers screw holes. Allow strip to overhang $^1/_8$-in. past the end opposite the mounting flange. See Fig. 20.
2. Assemble hood sides, top, and cross member with gasketed screws provided. See Fig. 21.
3. Attach 15 green speed clips (provided) to hood top.
4. Apply black seal strip (provided) to mounting flanges of hood sides being sure to cover mounting holes. See Fig. 22.
5. Apply black seal strip (provided) to back of hood top mounting flange. Seal strip of hood top mounting flange must press tightly against seal strip of hood side mounting flanges. See Fig. 23.
6. Add gray foam strip (provided) to cross members on bottom tray. See Fig. 24.
7. Attach gray foam strip (provided) to block-off baffle on outer face of flange. See Fig. 25.
8. Remove the screws on each end and along top of damper assembly of unit. Remove top 4 screws on each side of filter panel under damper assembly. Set hood assembly in place and attach to unit using these screws.
9. Remove screws along bottom of damper assembly. Locate and mount block-off baffle using these screws.
10. Assemble 2 filter tracks side-by-side with the assembled ends together.
11. Attach one mounting angle to the assembled end of the filter track. See Fig. 26.
12. Attach 9 green speed clips (provided) to hood side panels. Engagement section of clip faces up and towards the outside of the hood side panels.
13. Attach remaining mounting angle to other end of the filter track with no. 10 screws provided.
14. Place filter track assembly in bottom of hood and attaching to hood with speed clips and gasketed screws provided.

NOTE: Be sure the filters are installed with the airflow in the correct direction.

15. Attach black seal strip (provided) to filter cover. Seal strip should be applied centered over the holes of the one flange, making sure to fully cover holes and centered over the other large flange. See Fig. 27.
16. Slide two 20 x 25-in. filters into cross members of hood assembly. Attach filter cover over filters with screws and speed clips provided.

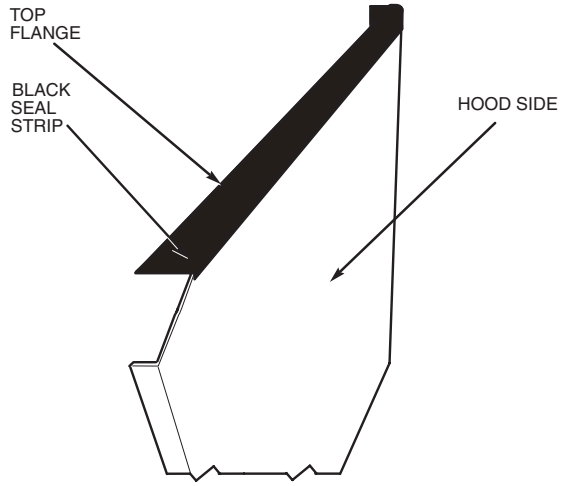


Fig. 20 — Adding Seal Strip to Top of Hood Sides

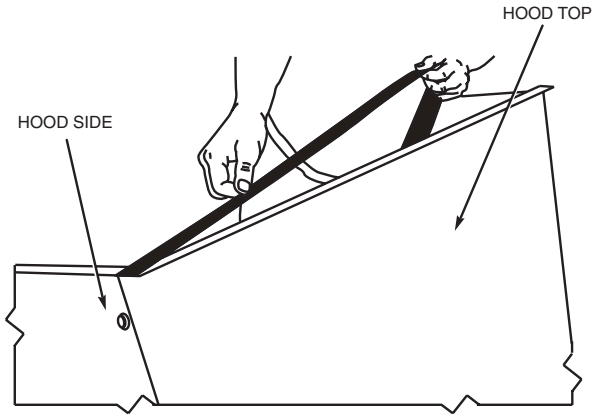


Fig. 23 — Adding Seal Strip to Back of Hood Top Mounting Flange

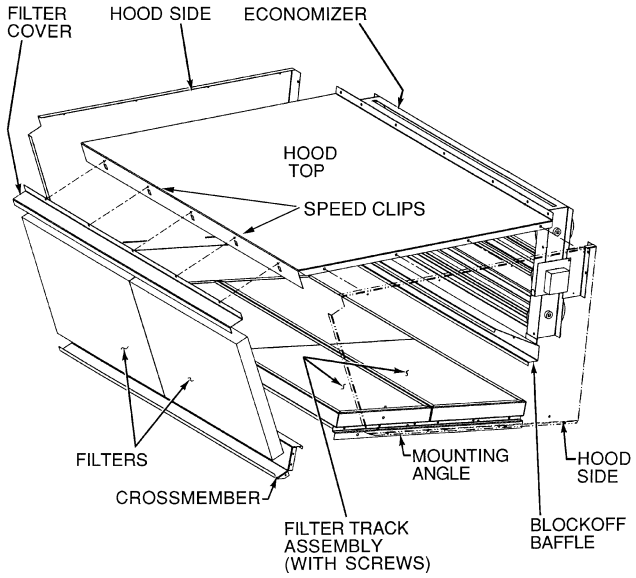


Fig. 21 — Economizer Hood Assembly (Right Side/Center Economizer Hood Shown)

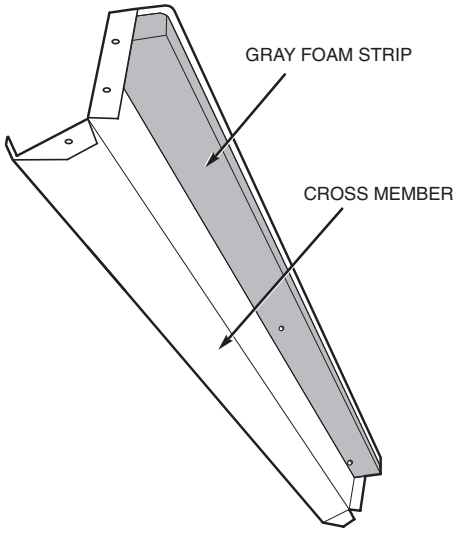


Fig. 24 — Adding Foam Strip to Cross Member

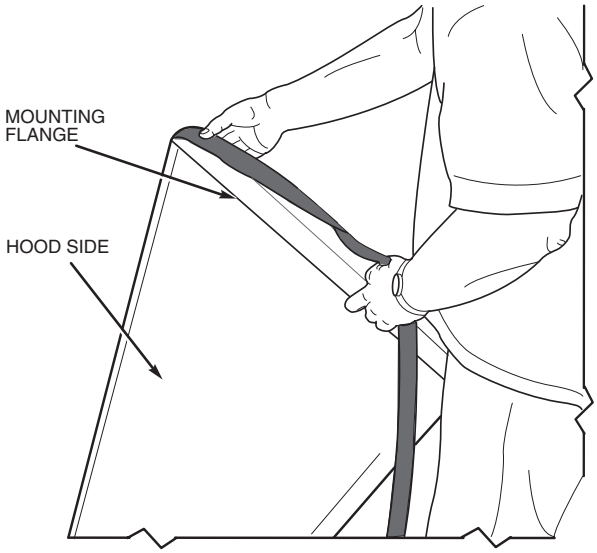


Fig. 22 — Adding Seal Strip to Sides of Hood Top Mounting Flange

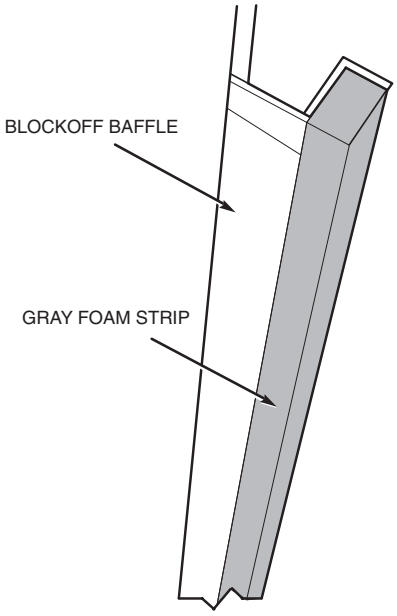


Fig. 25 — Adding Seal Strip to Block-Off Baffle

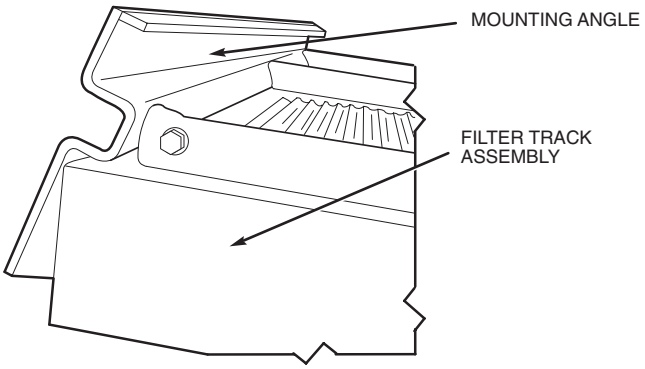


Fig. 26 — Mounting Angle Attached to Filter Track Assembly

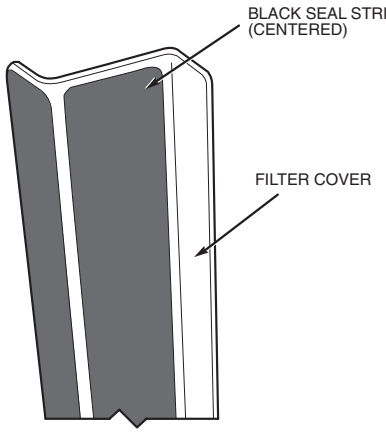


Fig. 27 — Attaching Seal Strip to Filter Cover

Step 8 — Position Power Exhaust/Barometric Relief Damper Hood — All units are shipped with the hoods folded inside the unit in a shipping position. For 50AJ and AK units the hood must be tilted out once the unit is installed. On 50AW and AY units (designed for horizontal supply and return), the assemblies will have to be relocated to return ductwork. See Fig. 28 for dimensions and details.

All electrical connections have been made and adjusted at the factory. The power exhaust blowers and barometric relief dampers are shipped assembled and tilted back into the unit for shipping. Brackets and extra screws are shipped in shrink wrap around the dampers. If ordered, each unit will have 4 (50AJ,AK,AW,AY020-050 units) or 6 (50AJ,AK,AW,AY051 and 060 units) power exhaust blowers and motors or barometric relief dampers.

1. Remove 9 screws holding each damper assembly in place. See Fig. 29. Each damper assembly is secured with 3 screws on each side and 3 screws along the bottom. Save screws.

⚠ CAUTION

Be careful when tilting blower assembly. Hoods and blowers are heavy and can cause injury if dropped.

2. Pivot each damper assembly outward until edges of damper assembly rest against inside wall of unit.
3. Secure each damper assembly to unit with 6 screws across top (3 screws provided) and bottom (3 screws from Step 1) of damper.
4. With screws saved from Step 1, install brackets on each side of damper assembly.

Remove tape from damper blades.

Step 9 — Route Static Pressure Sensors

VAV DUCT PRESSURE TRANSDUCER — The VAV duct pressure transducer (VAV inverter pressure transducer) is located behind the filter access door on the lower inner panel. See Fig. 30. A section of field-supplied $^1/_4$-in. plastic tubing must be run from the high pressure tap on the differential pressure switch and connected to a field-supplied tap in the supply-air duct. The tap is usually located $^2/_3$ of the way out on the main supply duct. Remove plug button in panel to route tubing.

BUILDING PRESSURE TRANSDUCER — The building pressure transducer (modulating power exhaust pressure transducer) is located behind the filter access door on the lower inner panel. See Fig. 30. A section of field-supplied $^1/_4$-in. plastic tubing must be run from the high pressure tap on the differential pressure switch to the conditioned space. The pressure tube must be terminated in the conditioned space where a constant pressure is required. This location is usually in an entrance lobby so that the building exterior doors will open and close properly. Remove plug button in panel to route tubing.

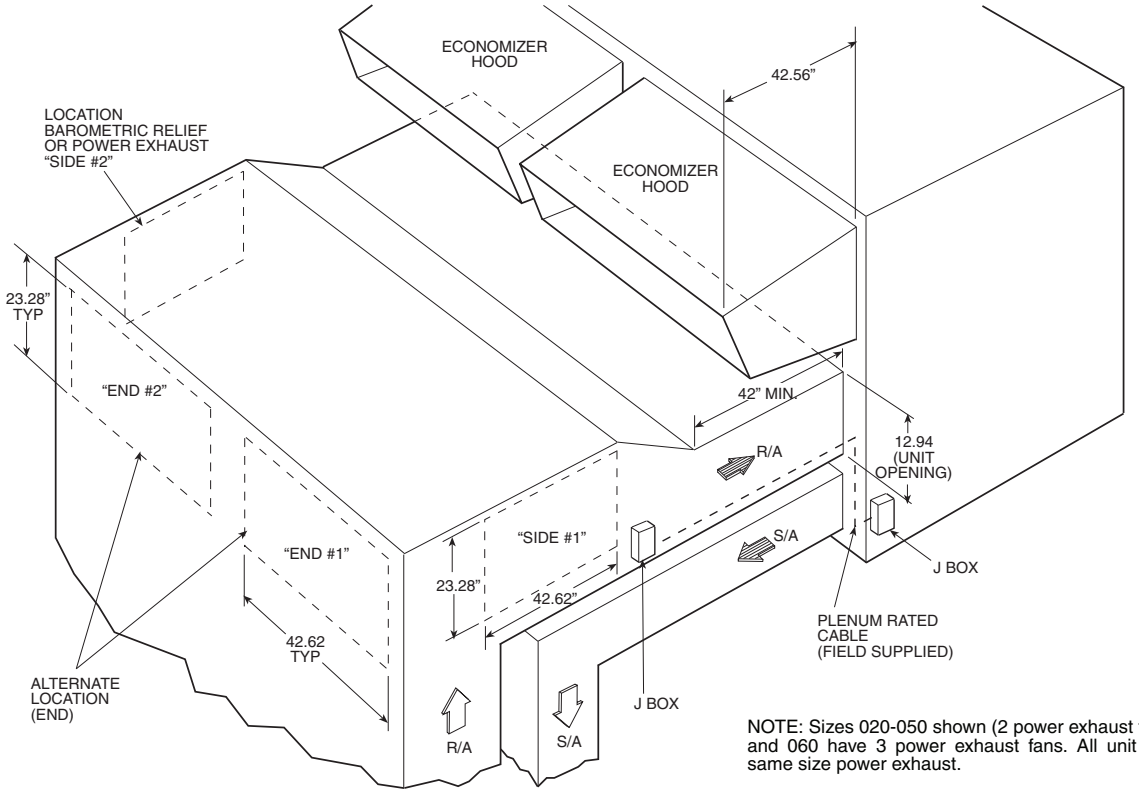
The low pressure tap is factory-routed to the atmosphere. For a positive-pressure building, route the high tap to building air and low tap to atmosphere. For a negative-pressure building, route the high tap to atmosphere and the low tap to building air.

Step 10 — Install All Accessories — After all the factory-installed options have been adjusted, install all field-installed accessories. Refer to the accessory installation instructions included with each accessory.

The 50A Series units have a large number of factory-installed options which were previously available only as accessories. Some of the available options can also be installed in the field if needed. In most cases the units have been pre-wired so that the accessories can be easily installed. Instructions are shipped with each accessory. Configuration of the controls for these accessories as well as the factory-installed options can be found in the Controls, Start-up, Operation, Service and Troubleshooting book. The following is a list of some of the common accessories:

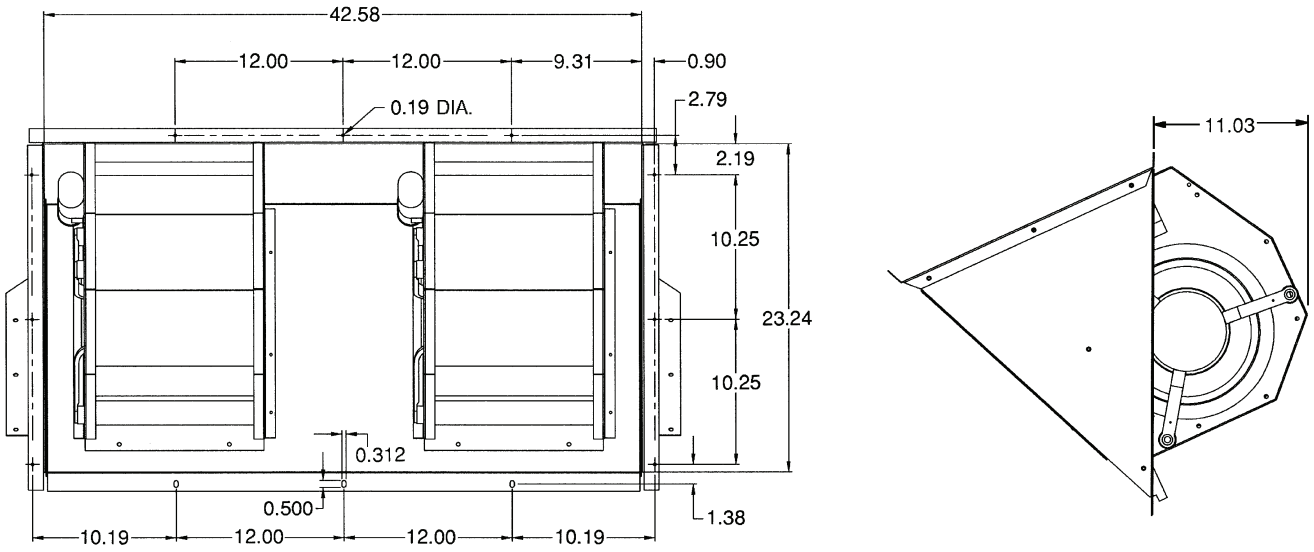
- Thermostats and space temperature sensors
- Accessory barometric relief damper
- Accessory power exhaust
- Non-modulating to modulating power exhaust
- Condenser coil hail guards
- Outdoor humidity sensor (used for economizer enthalpy changeover)
- Return air humidity sensors (used for economizer differential enthalpy changeover)
- Return air smoke detector
- Controls expansion module (used for interface to building management systems, not typically needed on system with Carrier Comfort Network® [CCN] devices)
- Plugged filter sensor
- Motormaster® V low ambient head pressure control

IMPORTANT: Carrier recommends the installation of field-fabricated wind baffles on all vertically orientated condenser coils when operating in environments with prevailing winds of more than 5 mph and where temperatures drop below 32 F. See the Motormaster accessory installation guide for instructions.



NOTE: Sizes 020-050 shown (2 power exhaust fans). Sizes 051 and 060 have 3 power exhaust fans. All unit sizes have the same size power exhaust.

Fig. 28 — Side Return Air Conversion



NOTES:
1. Unless otherwise specified, all dimensions are to outside of part.
2. Dimensions are in inches.
3. On 50AW,AY units, accessory barometric relief or power exhaust must be mounted in the field-supplied return ductwork.

Fig. 29 — Barometric Relief Damper and Power Exhaust Mounting Details

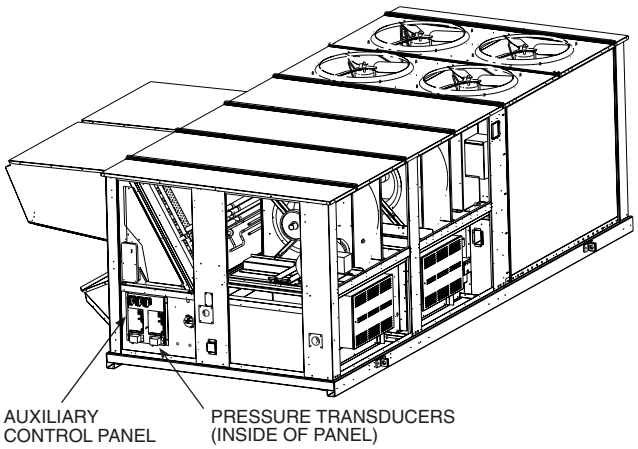


Fig. 30 — Pressure Transducer Locations

Step 11 — Field Modifications

DUCTWORK

Bottom Return Units (50AJ and AK) Field-Modified for Side Return — The 50AJ and AK units with bottom return air connections may be field-modified to accommodate side return air connections.

IMPORTANT: The following section is a guideline and not a comprehensive procedure to field modify the units. The installing contractor must provide some design initiative. Field-conversion is complex and is not recommended. Units with electric heat must not be converted because of potential heating mode operating problems.

Conversion to horizontal return requires that the bottom return openings of the unit must be sealed with airtight panels capable of supporting the weight of a person. The return ductwork connection locations on the side of the unit are higher than normal (31-in. high). Unit-mounted power exhaust or barometric relief cannot be used because of return air ductwork will cover the power exhaust or barometric relief installation locations. Power exhaust or barometric relief may be installed in the return air ductwork.

To convert the unit, perform the following:

1. Seal the bottom return openings of the unit with airtight panels capable of supporting the weight of a person.
2. Remove the panels located below the economizer outdoor-air dampers. These openings will be used for the return-air ductwork. There are 2 panels on 50AJ,AK020-050 units. There are 3 panels on 50AJ,AK051 and 060 and units. These openings are normally used for power exhaust or barometric relief.
3. Run the return air ductwork up to the openings. One single duct is recommended to connect to the unit over the return air openings. See Fig. 31. The return duct must incorporate a minimum $^3/_4$-in. flange for connection to the unit cabinet. The unit does not have duct flanges for this conversion.

Side Supply and Return Units (50AW,AY) with Field-Installed Power Exhaust in Return Duct — Space must be available in the return duct to mount the power exhaust fan (gravity relief) modules. Dimensions and suggested locations are shown in Fig. 28. These instructions are a guideline and not a comprehensive procedure. The design contractor must provide some design initiative.

The wiring harness that is provided with the power exhaust accessory is not long enough for the fan modules to be mounted in the return air duct. Field-supplied wiring must be spliced into the harness. Use a junction box at each splice. The wiring may be run in the return duct as shown in Fig. 28, or externally in conduit. A service access panel will be needed near each power exhaust fan.

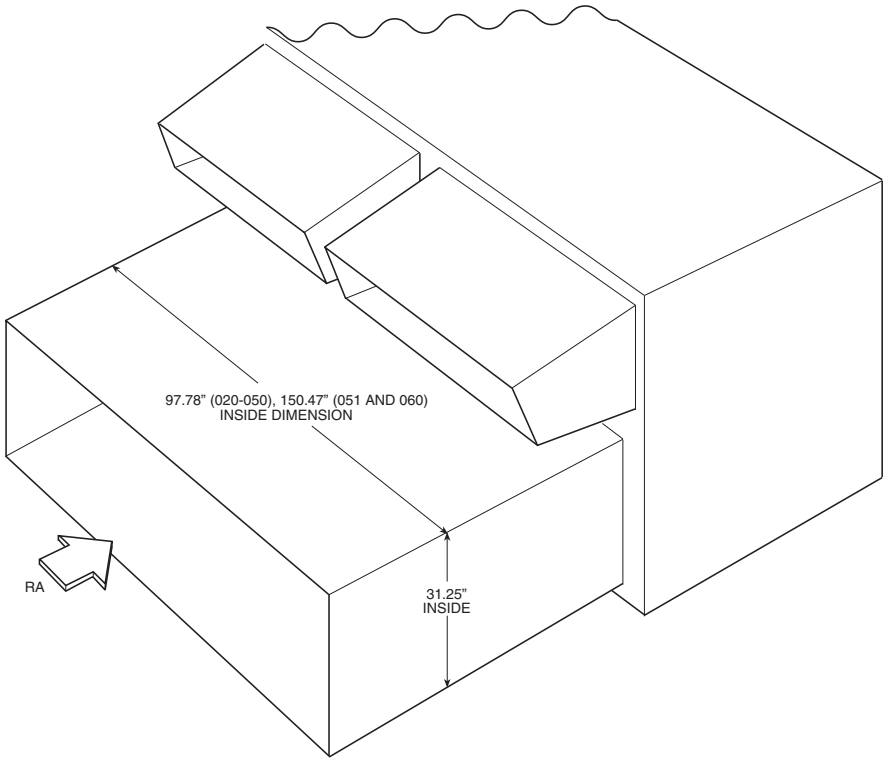


Fig. 31 — Side Return Duct Dimensions