

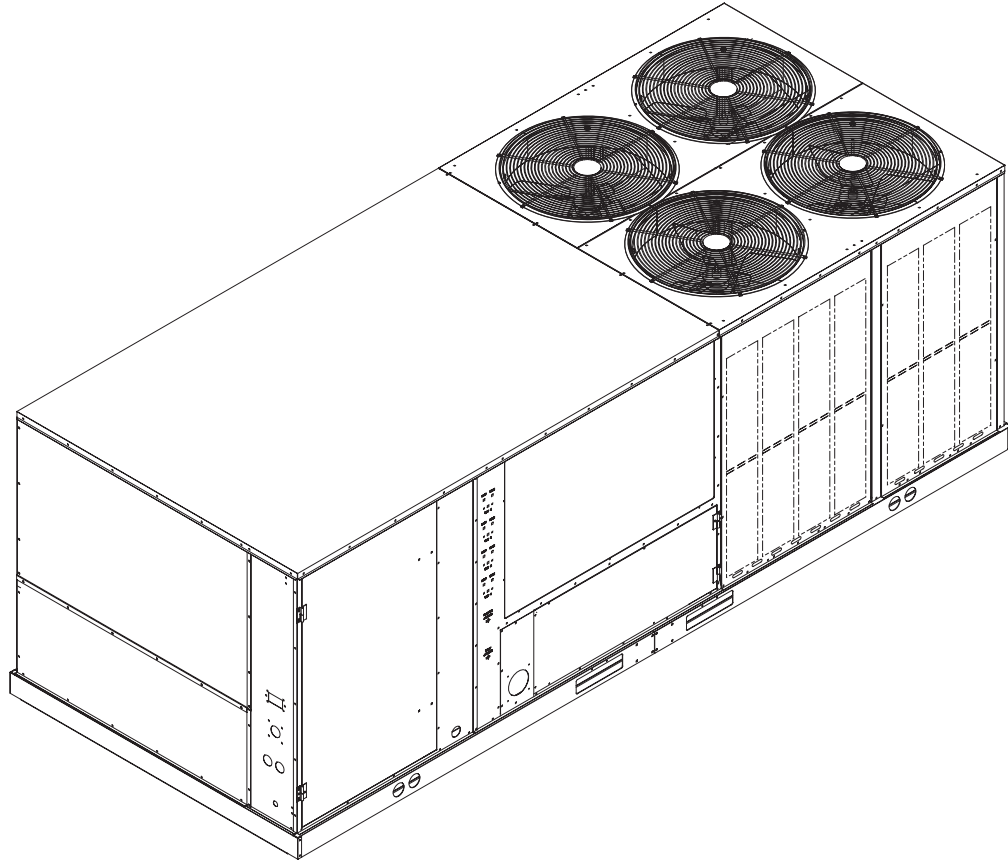
INSTALLATION INSTRUCTIONS

FOR PACKAGE AIR CONDITIONERS

RLKB SERIES 15, 20 & 25 TON [52.8, 70.3, 87.9 kW]

RLMB SERIES 15 & 20 TON [52.8, 70.3 kW]

RLNB SERIES 15 TON [52.8 kW]



RECOGNIZE THIS SYMBOL AS AN INDICATION OF IMPORTANT SAFETY INFORMATION!

▲ WARNING

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED, LICENSED SERVICE PERSONNEL FOR PROPER INSTALLATION, ADJUSTMENT AND OPERATION OF THIS UNIT. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING INSTALLATION OR OPERATION. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN IMPROPER INSTALLATION, ADJUSTMENT, SERVICE OR MAINTENANCE POSSIBLY RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



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for Certification



ISO 9002

DO NOT DESTROY THIS MANUAL

PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE BY A SERVICEMAN

[] INDICATES METRIC CONVERSIONS

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II. INTRODUCTION

This booklet contains the installation and operating instructions for your package air conditioner. There are a few precautions that should be taken to derive maximum satisfaction from it. Improper installation can result in unsatisfactory operation or dangerous conditions.

Read this booklet and any instructions packaged with separate equipment required to make up the system prior to installation. Give this booklet to the owner and explain its provisions. The owner should retain this booklet for future reference.

▲ WARNING

PROPOSITION 65: THIS APPLIANCE CONTAINS FIBERGLASS INSULATION. RESPIRABLE PARTICLES OF FIBERGLASS ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

▲ WARNING

THE MANUFACTURER'S WARRANTY DOES NOT COVER ANY DAMAGE OR DEFECT TO THE AIR CONDITIONER CAUSED BY THE ATTACHMENT OR USE OF ANY COMPONENTS, ACCESSORIES OR DEVICES (OTHER THAN THOSE AUTHORIZED BY THE MANUFACTURER) INTO, ONTO OR IN CONJUNCTION WITH THE AIR CONDITIONER. YOU SHOULD BE AWARE THAT THE USE OF UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES MAY ADVERSELY AFFECT THE OPERATION OF THE AIR CONDITIONER AND MAY ALSO ENDANGER LIFE AND PROPERTY. THE MANUFACTURER DISCLAIMS ANY RESPONSIBILITY FOR SUCH LOSS OR INJURY RESULTING FROM THE USE OF SUCH UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES.

▲ WARNING

DISCONNECT ALL POWER TO THE UNIT BEFORE STARTING MAINTENANCE. FAILURE TO DO SO CAN RESULT IN SEVERE ELECTRICAL SHOCK OR DEATH.

III. CHECKING PRODUCT RECEIVED

Upon receiving unit, inspect it for any shipping damage. Claims for damage, either apparent or concealed should be filed immediately with the shipping company. Check condensing unit model number, electrical characteristics and accessories to determine if they are correct. Check system components (evaporator coil, condensing unit, evaporator blower, etc.) to make sure they are properly matched.

IV. EQUIPMENT PROTECTION FROM THE ENVIRONMENT

The metal parts of this unit may be subject to rust or deterioration in adverse environmental conditions. This oxidation could shorten the equipment's useful life. Salt spray, fog or mist in seacoast areas, sulphur or chlorine from lawn watering systems, and various chemical contaminants from industries such as paper mills and petroleum refineries are especially corrosive.

If the unit is to be installed in an area where contaminants are likely to be a problem, special attention should be given to the equipment location and exposure.

1. Avoid having lawn sprinkler heads spray direction on the unit cabinet.
2. In coastal areas, locate the unit on the side of the building away from the waterfront.
3. Shielding provided by a fence or shrubs may give some protection.

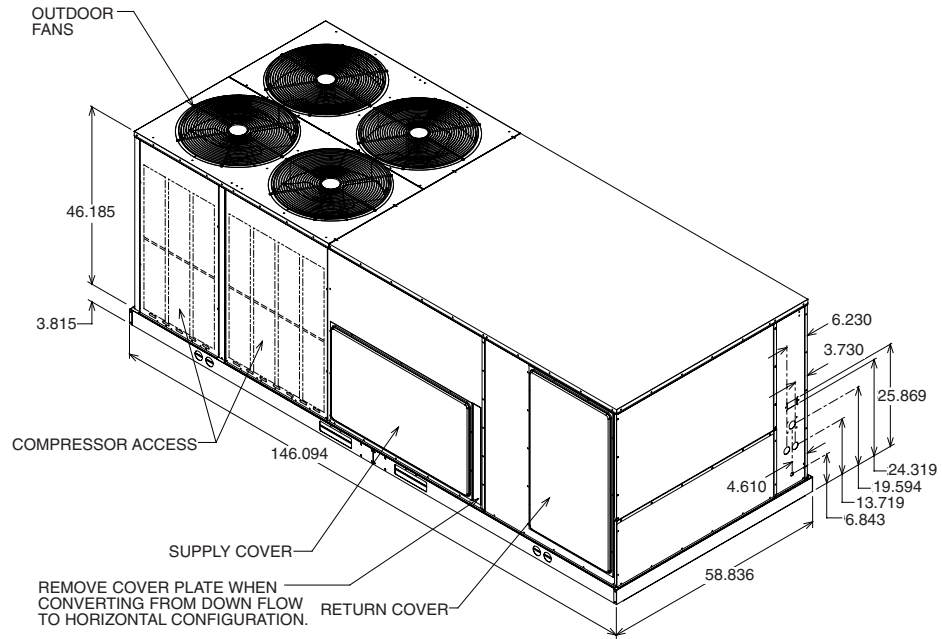
Regular maintenance will reduce the buildup of contaminants and help to protect the unit's finish.

1. Frequent washing of the cabinet, fan blade and coil with fresh water will remove most of the salt or other contaminants that build up on the unit.
2. Regular cleaning and waxing of the cabinet with a good automobile polish will provide some protection.
3. A good liquid cleaner may be used several times a year to remove matter that will not wash off with water.

Several different types of protective coatings are offered in some areas. These coatings may provide some benefit, but the effectiveness of such coating materials cannot be verified by the equipment manufacturer.

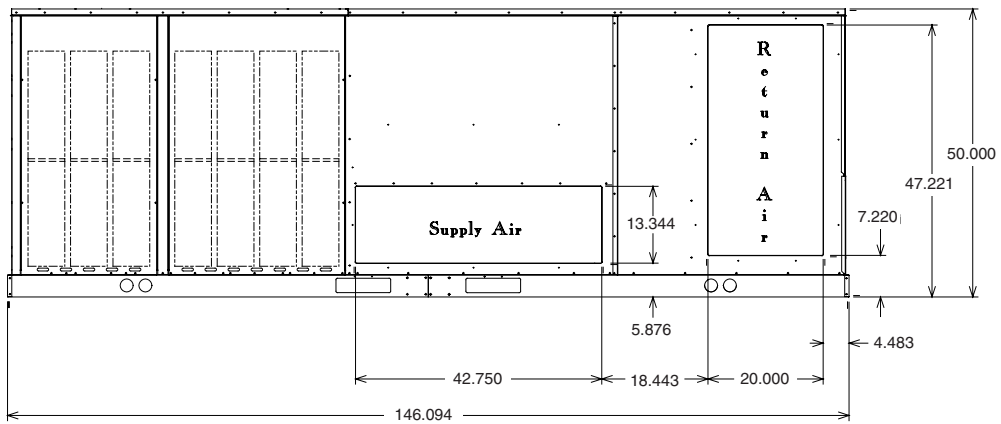
The best protection is frequent cleaning, maintenance and minimal exposure to contaminants.

**FIGURE 3
UNIT DIMENSIONS**



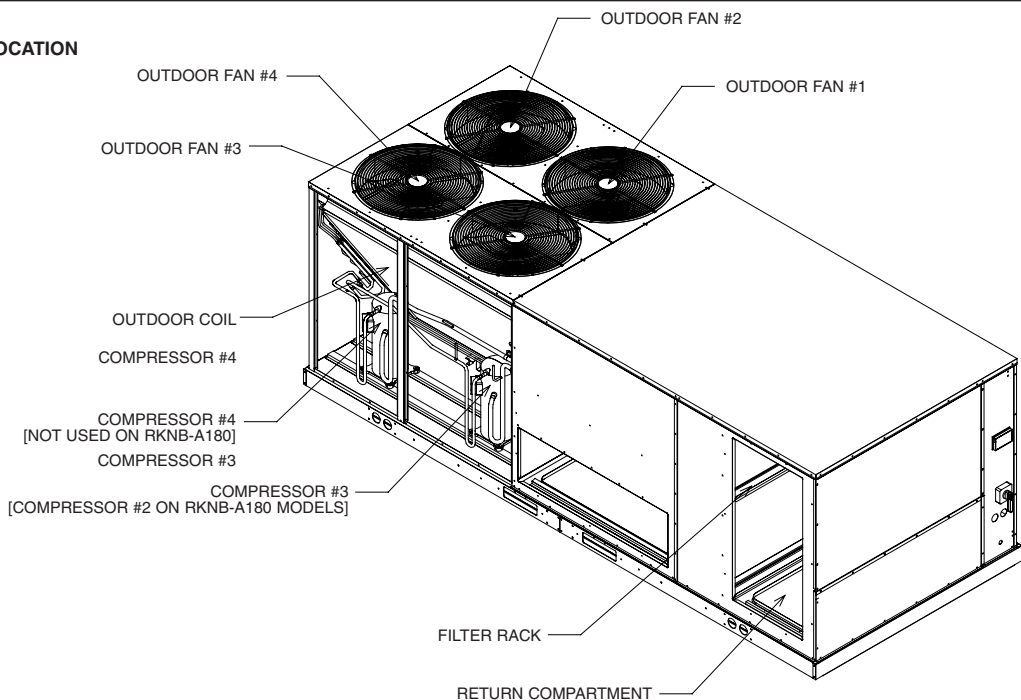
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**FIGURE 4
UNIT DIMENSIONS**



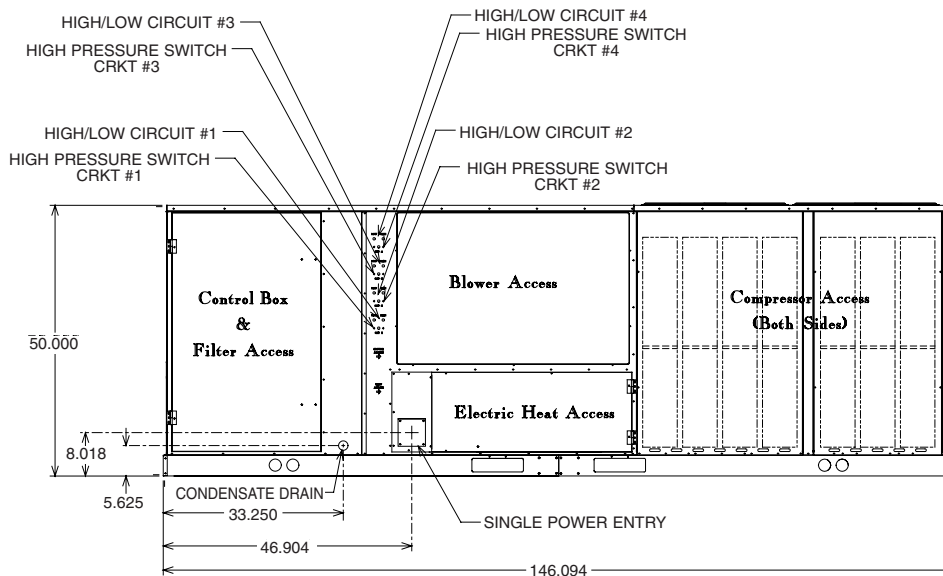
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**FIGURE 5
COMPONENT LOCATION**



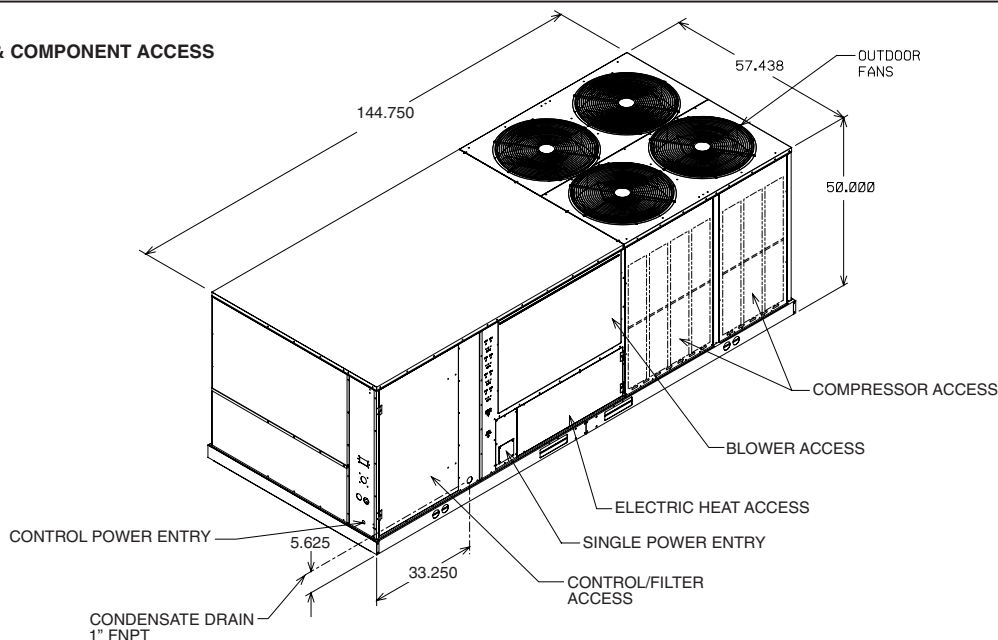
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FIGURE 6
UNIT DIMENSIONS & COMPONENT ACCESS



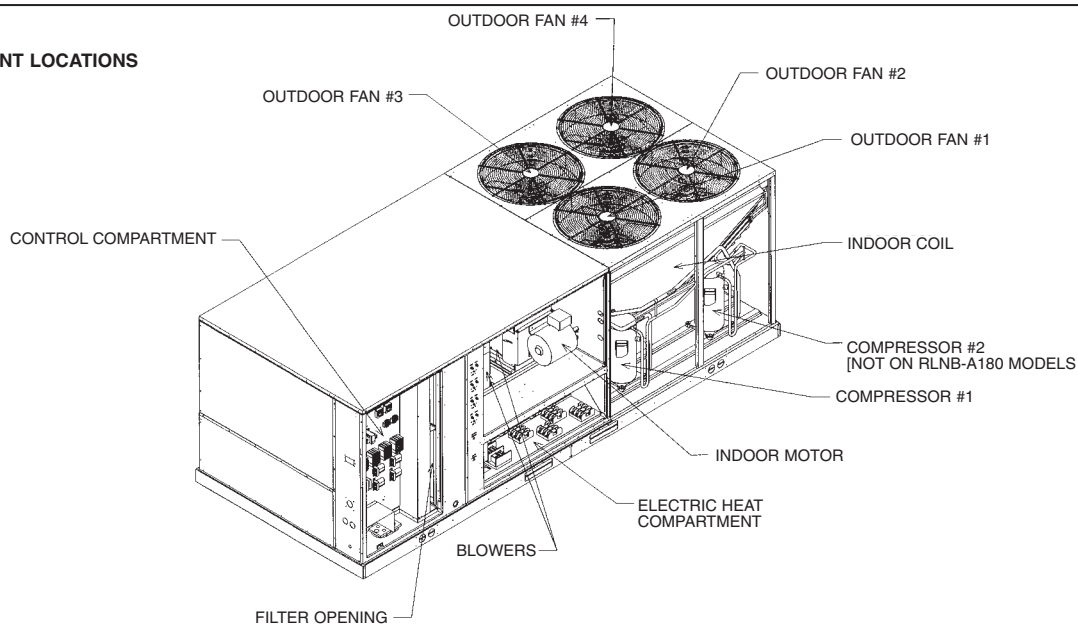
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FIGURE 7
UNIT DIMENSIONS & COMPONENT ACCESS



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FIGURE 8
INTERNAL COMPONENT LOCATIONS



A0886-32

GENERAL DATA - RLKB

Model RLKB- Series	A180CL	A180CM	A180DL	A180DM
Cooling Performance¹				CONTINUED →
Gross Cooling Capacity Btu [kW]	188,000 [55.1]	188,000 [55.1]	188,000 [55.1]	188,000 [55.1]
EER/SEER ²	9/NA	9/NA	9/NA	9/NA
Nominal CFM/ARI Rated CFM [L/s]	6000/6000 [2831/2831]	6000/6000 [2831/2831]	6000/6000 [2831/2831]	6000/6000 [2831/2831]
ARI Net Cooling Capacity Btu [kW]	180,000 [52.7]	180,000 [52.7]	180,000 [52.7]	180,000 [52.7]
Net Sensible Capacity Btu [kW]	134,000 [39.3]	134,000 [39.3]	134,000 [39.3]	134,000 [39.3]
Net Latent Capacity Btu [kW]	46,000 [13.5]	46,000 [13.5]	46,000 [13.5]	46,000 [13.5]
Integrated Part Load Value ³	9.9	9.9	9.9	9.9
Net System Power kW	20	20	20	20
Compressor				
No./Type	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll
Outdoor Sound Rating (dB)⁴	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	36 [3.34]	36 [3.34]	36 [3.34]	36 [3.34]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]
Refrigerant Control	Capillary Tubes	Capillary Tubes	Capillary Tubes	Capillary Tubes
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
No. Motors/HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1	1
Motor HP	3	5	3	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	184	56	184
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	82/72 [2325/2041]	82/72 [2325/2041]	82/72 [2325/2041]	82/72 [2325/2041]
Weights				
Net Weight lbs. [kg]	1589 [720]	1619 [734]	1589 [720]	1619 [734]
Ship Weight lbs. [kg]	1809 [821]	1839 [834]	1809 [821]	1839 [834]

GENERAL DATA - RLKB

Model RLKB- Series	A180YL	A180YM
Cooling Performance¹		
Gross Cooling Capacity Btu [kW]	188,000 [55.1]	188,000 [55.1]
EER/SEER ²	9/NA	9/NA
Nominal CFM/ARI Rated CFM [L/s]	6000/6000 [2831/2831]	6000/6000 [2831/2831]
ARI Net Cooling Capacity Btu [kW]	180,000 [52.7]	180,000 [52.7]
Net Sensible Capacity Btu [kW]	134,000 [39.3]	134,000 [39.3]
Net Latent Capacity Btu [kW]	46,000 [13.5]	46,000 [13.5]
Integrated Part Load Value ³	9.9	9.9
Net System Power kW	20	20
Compressor		
No./Type	4/Copeland Scroll	4/Copeland Scroll
Outdoor Sound Rating (dB)⁴		
	91	91
Outdoor Coil—Fin Type		
Tube Type	Louvered	Louvered
Tube Type	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	36 [3.34]	36 [3.34]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]
Indoor Coil—Fin Type		
Tube Type	Louvered	Louvered
Tube Type	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	4 / 13 [5]	4 / 13 [5]
Refrigerant Control	Capillary Tubes	1669 [757] Capillary Tubes
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type		
	Propeller	Propeller
No. Used/Diameter in. [mm]	4/24 [609.6]	4/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1
CFM [L/s]	16000 [7550]	16000 [7550]
No. Motors/HP	4 at 1/3 HP	4 at 1/3 HP
Motor RPM	1075	1075
Indoor Fan—Type		
	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable
No. Motors	1	1
Motor HP	3	5
Motor RPM	1725	1725
Motor Frame Size	56	184
Filter—Type		
	Disposable	Disposable
Furnished	Yes	Yes
(No.) Size Recommended in. [mm]	(3)2x18x18 [51x457x457]	(3)2x18x18 [51x457x457]
	(3)2x18x24 [51x457x610]	(3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	82/72 [2325/2041]	82/72 [2325/2041]
Weights		
Net Weight lbs. [kg]	1589 [720]	1619 [734]
Ship Weight lbs. [kg]	1809 [821]	1839 [834]

GENERAL DATA - RLKB

Model RLKB- Series	A240CL	A240CM	A240DL	A240DM
Cooling Performance¹				CONTINUED →
Gross Cooling Capacity Btu [kW]	242,000 [70.9]	242,000 [70.9]	242,000 [70.9]	242,000 [70.9]
EER/SEER ²	8.7/NA	8.7/NA	8.7/NA	8.7/NA
Nominal CFM/ARI Rated CFM [L/s]	7600/7400 [3586/3492]	7600/7400 [3586/3492]	7600/7400 [3586/3492]	7600/7400 [3586/3492]
ARI Net Cooling Capacity Btu [kW]	228,000 [66.8]	228,000 [66.8]	228,000 [66.8]	228,000 [66.8]
Net Sensible Capacity Btu [kW]	164,000 [48.1]	164,000 [48.1]	164,000 [48.1]	164,000 [48.1]
Net Latent Capacity Btu [kW]	64,000 [18.8]	64,000 [18.8]	64,000 [18.8]	64,000 [18.8]
Integrated Part Load Value ³	8.8	8.8	8.8	8.8
Net System Power kW	26.2	26.2	26.2	26.2
Compressor				
No./Type	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll
Outdoor Sound Rating (dB)⁴	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	36 [3.34]	36 [3.34]	36 [3.34]	36 [3.34]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]
Refrigerant Control	Capillary Tubes	Capillary Tubes	Capillary Tubes	Capillary Tubes
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
No. Motors/HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1	1
Motor HP	5	7.5	5	7.5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	184	213	184	213
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	77/72 [2183/2041]	77/72 [2183/2041]	77/72 [2183/2041]	77/72 [2183/2041]
Weights				
Net Weight lbs. [kg]	1667 [756]	1688 [765]	1667 [756]	1688 [765]
Ship Weight lbs. [kg]	1887 [856]	1908 [866]	1887 [856]	1908 [866]

GENERAL DATA - RLKB

Model RLKB- Series	A240YL	A240YM	A300CL	A300CM
Cooling Performance¹				CONTINUED →
Gross Cooling Capacity Btu [kW]	242,000 [70.9]	242,000 [70.9]	300,000 [87.9]	300,000 [87.9]
EER/SEER ²	8.7/NA	8.7/NA	8.9/NA	8.9/NA
Nominal CFM/ARI Rated CFM [L/s]	7600/7400 [3586/3492]	7600/7400 [3586/3492]	9400/8400 [4436/3964]	9400/8400 [4436/3964]
ARI Net Cooling Capacity Btu [kW]	228,000 [66.8]	228,000 [66.8]	282,000 [82.6]	282,000 [82.6]
Net Sensible Capacity Btu [kW]	164,000 [48.1]	164,000 [48.1]	194,000 [56.8]	194,000 [56.8]
Net Latent Capacity Btu [kW]	64,000 [18.8]	64,000 [18.8]	88,000 [25.8]	88,000 [25.8]
Integrated Part Load Value ³	8.8	8.8	9	9
Net System Power kW	26.2	26.2	31.7	31.7
Compressor				
No./Type	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll
Outdoor Sound Rating (dB)⁴	91	91	92	92
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	36 [3.34]	36 [3.34]	36 [3.34]	36 [3.34]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	2 / 22 [9]	2 / 22 [9]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]
Refrigerant Control	Capillary Tubes	Capillary Tubes	Capillary Tubes	Capillary Tubes
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
No. Motors/HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/2 HP	4 at 1/2 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1	1
Motor HP	5	7.5	5	7.5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	184	213	184	213
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	77/72 [2183/2041]	77/72 [2183/2041]	128/121 [3629/3430]	128/121 [3629/3430]
Weights				
Net Weight lbs. [kg]	1667 [756]	1688 [765]	1820 [826]	1841 [835]
Ship Weight lbs. [kg]	1887 [856]	1908 [866]	2040 [925]	2061 [935]

GENERAL DATA - RLKB

Model RLKB- Series	A300DL	A300DM	A300YL	A300YM
Cooling Performance¹				
Gross Cooling Capacity Btu [kW]	300,000 [87.9]	300,000 [87.9]	300,000 [87.9]	300,000 [87.9]
EER/SEER ²	8.9/NA	8.9/NA	8.9/NA	8.9/NA
Nominal CFM/ARI Rated CFM [L/s]	9400/8400 [4436/3964]	9400/8400 [4436/3964]	9400/8400 [4436/3964]	9400/8400 [4436/3964]
ARI Net Cooling Capacity Btu [kW]	282,000 [82.6]	282,000 [82.6]	282,000 [82.6]	282,000 [82.6]
Net Sensible Capacity Btu [kW]	194,000 [56.8]	194,000 [56.8]	194,000 [56.8]	194,000 [56.8]
Net Latent Capacity Btu [kW]	88,000 [25.8]	88,000 [25.8]	88,000 [25.8]	88,000 [25.8]
Integrated Part Load Value ³	9	9	9	9
Net System Power kW	31.7	31.7	31.7	31.7
Compressor				
No./Type	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll
Outdoor Sound Rating (dB)⁴				
	92	92	92	92
Outdoor Coil—Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
Tube Size in. [mm] OD	Rifled	Rifled	Rifled	Rifled
Face Area sq. ft. [sq. m]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Rows / FPI [FPcm]	36 [3.34]	36 [3.34]	36 [3.34]	36 [3.34]
	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
Indoor Coil—Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
Tube Size in. [mm]	Rifled	Rifled	Rifled	Rifled
Face Area sq. ft. [sq. m]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Rows / FPI [FPcm]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Refrigerant Control	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]
Drain Connection No./Size in. [mm]	Capillary Tubes	2061 [935] Capillary Tubes	Capillary Tubes	Capillary Tubes
	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
Motor RPM	4 at 1/2 HP	4 at 1/2 HP	4 at 1/2 HP	4 at 1/2 HP
	1075	1075	1075	1075
Indoor Fan—Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type/No. Speeds	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]
No. Motors	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
Motor HP	1	1	1	1
Motor RPM	5	7.5	5	7.5
Motor Frame Size	1725	1725	1725	1725
	184	213	184	213
Filter—Type				
Furnished	Disposable	Disposable	Disposable	Disposable
(No.) Size Recommended in. [mm]	Yes	Yes	Yes	Yes
	(3)2x18x18 [51x457x457]	(3)2x18x18 [51x457x457]	(3)2x18x18 [51x457x457]	(3)2x18x18 [51x457x457]
	(3)2x18x24 [51x457x610]	(3)2x18x24 [51x457x610]	(3)2x18x24 [51x457x610]	(3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]				
	128/121 [3629/3430]	128/121 [3629/3430]	128/121 [3629/3430]	128/121 [3629/3430]
Weights				
Net Weight lbs. [kg]	1820 [826]	1841 [835]	1820 [826]	1841 [835]
Ship Weight lbs. [kg]	2040 [925]	2061 [935]	2040 [925]	2061 [935]

GENERAL DATA - RLMB

Model RLMB- Series	A180CL	A180CM	A180DL	A180DM
Cooling Performance¹				CONTINUED →
Gross Cooling Capacity Btu [kW]	188,000 [55.1]	188,000 [55.1]	188,000 [55.1]	188,000 [55.1]
EER/SEER ²	10.2/NA	10.2/NA	10.2/NA	10.2/NA
Nominal CFM/ARI Rated CFM [L/s]	6000/6000 [2831/2831]	6000/6000 [2831/2831]	6000/6000 [2831/2831]	6000/6000 [2831/2831]
ARI Net Cooling Capacity Btu [kW]	180,000 [52.7]	180,000 [52.7]	180,000 [52.7]	180,000 [52.7]
Net Sensible Capacity Btu [kW]	134,000 [39.3]	134,000 [39.3]	134,000 [39.3]	134,000 [39.3]
Net Latent Capacity Btu [kW]	46,000 [13.5]	46,000 [13.5]	46,000 [13.5]	46,000 [13.5]
Integrated Part Load Value ³	10.4	10.4	10.4	10.4
Net System Power kW	17.6	17.6	17.6	17.6
Compressor				
No./Type	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll
Outdoor Sound Rating (dB)⁴	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	36 [3.34]	36 [3.34]	36 [3.34]	36 [3.34]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]
Refrigerant Control	Capillary Tubes	Capillary Tubes	Capillary Tubes	Capillary Tubes
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
No. Motors/HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1	1
Motor HP	3	5	3	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	184	56	184
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	82/72 [2325/2041]	82/72 [2325/2041]	82/72 [2325/2041]	82/72 [2325/2041]
Weights				
Net Weight lbs. [kg]	1589 [720]	1619 [734]	1589 [720]	1619 [734]
Ship Weight lbs. [kg]	1809 [821]	1839 [834]	1809 [821]	1839 [834]

GENERAL DATA - RLMB

Model RLMB- Series	A180YL	A180YM	A240CL	A240CM
Cooling Performance¹				CONTINUED →
Gross Cooling Capacity Btu [kW]	188,000 [55.1]	188,000 [55.1]	246,000 [72.1]	246,000 [72.1]
EER/SEER ²	10.2/NA	10.2/NA	9.7/NA	9.7/NA
Nominal CFM/ARI Rated CFM [L/s]	6000/6000 [2831/2831]	6000/6000 [2831/2831]	7700/7400 [3634/3492]	7700/7400 [3634/3492]
ARI Net Cooling Capacity Btu [kW]	180,000 [52.7]	180,000 [52.7]	232,000 [68]	232,000 [68]
Net Sensible Capacity Btu [kW]	134,000 [39.3]	134,000 [39.3]	168,000 [49.2]	168,000 [49.2]
Net Latent Capacity Btu [kW]	46,000 [13.5]	46,000 [13.5]	64,000 [18.8]	64,000 [18.8]
Integrated Part Load Value ³	10.4	10.4	9.9	9.9
Net System Power kW	17.6	17.6	23.9	23.9
Compressor				
No./Type	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll
Outdoor Sound Rating (dB)⁴	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	36 [3.34]	36 [3.34]	36 [3.34]	36 [3.34]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	2 / 22 [9]	2 / 22 [9]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]
Refrigerant Control	Capillary Tubes	Capillary Tubes	Capillary Tubes	Capillary Tubes
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
No. Motors/HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1	1
Motor HP	3	5	5	7.5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	184	184	213
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	82/72 [2325/2041]	82/72 [2325/2041]	72/72 [2183/2041]	72/72 [2183/2041]
Weights				
Net Weight lbs. [kg]	1589 [720]	1619 [734]	1667 [756]	1688 [765]
Ship Weight lbs. [kg]	1809 [821]	1839 [834]	1887 [856]	1908 [866]

GENERAL DATA - RLMB

Model RLMB- Series	A240DL	A240DM	A240YL	A240YM
Cooling Performance¹				
Gross Cooling Capacity Btu [kW]	246,000 [72.1]	246,000 [72.1]	246,000 [72.1]	246,000 [72.1]
EER/SEER ²	9.7/NA	9.7/NA	9.7/NA	9.7/NA
Nominal CFM/ARI Rated CFM [L/s]	7700/7400 [3634/3492]	7700/7400 [3634/3492]	7700/7400 [3634/3492]	7700/7400 [3634/3492]
ARI Net Cooling Capacity Btu [kW]	232,000 [68]	232,000 [68]	232,000 [68]	232,000 [68]
Net Sensible Capacity Btu [kW]	168,000 [49.2]	168,000 [49.2]	168,000 [49.2]	168,000 [49.2]
Net Latent Capacity Btu [kW]	64,000 [18.8]	64,000 [18.8]	64,000 [18.8]	64,000 [18.8]
Integrated Part Load Value ³	9.9	9.9	9.9	9.9
Net System Power kW	23.9	23.9	23.9	23.9
Compressor				
No./Type	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll	4/Copeland Scroll
Outdoor Sound Rating (dB)⁴				
	91	91	91	91
Outdoor Coil—Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
Tube Size in. [mm] OD	Rifled	Rifled	Rifled	Rifled
Face Area sq. ft. [sq. m]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Rows / FPI [FPcm]	36 [3.34]	36 [3.34]	36 [3.34]	36 [3.34]
	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
Indoor Coil—Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
Tube Size in. [mm]	Rifled	Rifled	Rifled	Rifled
Face Area sq. ft. [sq. m]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Rows / FPI [FPcm]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Refrigerant Control	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]
Drain Connection No./Size in. [mm]	Capillary Tubes	1738 [788] Capillary Tubes	Capillary Tubes	Capillary Tubes
	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
Motor RPM	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP
	1075	1075	1075	1075
Indoor Fan—Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type/No. Speeds	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]	2/18x9 [457.2x228.6]
No. Motors	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
Motor HP	1	1	1	1
Motor RPM	5	7.5	5	7.5
Motor Frame Size	1725	1725	1725	1725
	184	213	184	213
Filter—Type				
Furnished	Disposable	Disposable	Disposable	Disposable
(No.) Size Recommended in. [mm]	Yes	Yes	Yes	Yes
	(3)2x18x18 [51x457x457]	(3)2x18x18 [51x457x457]	(3)2x18x18 [51x457x457]	(3)2x18x18 [51x457x457]
	(3)2x18x24 [51x457x610]	(3)2x18x24 [51x457x610]	(3)2x18x24 [51x457x610]	(3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]				
	77/72 [2183/2041]	77/72 [2183/2041]	77/72 [2183/2041]	77/72 [2183/2041]
Weights				
Net Weight lbs. [kg]	1667 [756]	1688 [765]	1667 [756]	1688 [765]
Ship Weight lbs. [kg]	1887 [856]	1908 [866]	1887 [856]	1908 [866]

GENERAL DATA - RLNB

Model RLNB-Series	A180CL	A180CM	A180DL	A180DM
Cooling Performance¹				CONTINUED →
Gross Cooling Capacity Btu [kW]	188,000 [55.1]	188,000 [55.1]	188,000 [55.1]	188,000 [55.1]
EER/SEER ²	11.5/NA	11.5/NA	11.5/NA	11.5/NA
Nominal CFM/ARI Rated CFM [L/s]	6000/5500 [2831/2596]	6000/5500 [2831/2596]	6000/5500 [2831/2596]	6000/5500 [2831/2596]
ARI Net Cooling Capacity Btu [kW]	176,000 [51.5]	176,000 [51.5]	176,000 [51.5]	176,000 [51.5]
Net Sensible Capacity Btu [kW]	129,000 [37.8]	129,000 [37.8]	129,000 [37.8]	129,000 [37.8]
Net Latent Capacity Btu [kW]	47,000 [13.8]	47,000 [13.8]	47,000 [13.8]	47,000 [13.8]
Integrated Part Load Value ³	12.1	12.1	12.1	12.1
Net System Power kW	17.6	17.6	17.6	17.6
Compressor				
No./Type	2/Copeland Scroll	2/Copeland Scroll	2/Copeland Scroll	2/Copeland Scroll
Outdoor Sound Rating (dB)⁵	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	36 [3.34]	36 [3.34]	36 [3.34]	36 [3.34]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]	4 / 13 [5]
Refrigerant Control	Capillary Tubes	Capillary Tubes	Capillary Tubes	Capillary Tubes
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
No. Motors/HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/15x15 [381x381]	2/15x15 [381x381]	2/15x15 [381x381]	2/15x15 [381x381]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1	1
Motor HP	3	5	3	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	184	56	184
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	211/210 [5982/5954]	211/210 [5982/5954]	211/210 [5982/5954]	211/210 [5982/5954]
Weights				
Net Weights lbs. [kg]	1525 [692]	1550 [703]	1525 [692]	1550 [703]
Ship Weights lbs. [kg]	1745 [792]	1770 [803]	1745 [792]	1770 [803]

GENERAL DATA - RLNB

Model RLNB-Series	A180YL	A180YM
Cooling Performance¹		
Gross Cooling Capacity Btu [kW]	188,000 [55.1]	188,000 [55.1]
EER/SEER ²	11.5/NA	11.5/NA
Nominal CFM/ARI Rated CFM [L/s]	6000/5500 [2831/2596]	6000/5500 [2831/2596]
ARI Net Cooling Capacity Btu [kW]	176,000 [51.5]	176,000 [51.5]
Net Sensible Capacity Btu [kW]	129,000 [37.8]	129,000 [37.8]
Net Latent Capacity Btu [kW]	47,000 [13.8]	47,000 [13.8]
Integrated Part Load Value ³	12.1	12.1
Net System Power kW	17.6	17.6
Compressor		
No./Type	2/Copeland Scroll	2/Copeland Scroll
Outdoor Sound Rating (dB)⁵		
	91	91
Outdoor Coil—Fin Type		
Tube Type	Louvered	Louvered
Tube Size in. [mm] OD	Rifled	Rifled
Face Area sq. ft. [sq. m]	0.375 [9.5]	0.375 [9.5]
Rows / FPI [FPcm]	36 [3.34]	36 [3.34]
	2 / 22 [9]	2 / 22 [9]
Indoor Coil—Fin Type		
Tube Type	Louvered	Louvered
Tube Type	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	4 / 13 [5]	4 / 13 [5]
Refrigerant Control	Capillary Tubes	Capillary Tubes
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type		
No. Used/Diameter in. [mm]	Propeller	Propeller
Drive Type/No. Speeds	4/24 [609.6]	4/24 [609.6]
CFM [L/s]	Direct/1	Direct/1
No. Motors/HP	16000 [7550]	16000 [7550]
Motor RPM	4 at 1/3 HP	4 at 1/3 HP
	1075	1075
Indoor Fan—Type		
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal
Drive Type/No. Speeds	2/15x15 [381x381]	2/15x15 [381x381]
No. Motors	Belt/Variable	Belt/Variable
Motor HP	1	1
Motor RPM	3	5
Motor Frame Size	1725	1725
	56	184
Filter—Type		
Furnished	Disposable	Disposable
(NO.) Size Recommended in. [mm x mm x mm]	Yes	Yes
	(3)2x18x18 [51x457x457]	(3)2x18x18 [51x457x457]
	(3)2x18x24 [51x457x610]	(3)2x18x24 [51x457x610]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]		
	211/210 [5982/5954]	211/210 [5982/5954]
Weights		
Net Weights lbs. [kg]	1525 [692]	1550 [703]
Ship Weights lbs. [kg]	1745 [792]	1770 [803]

ELECTRICAL DATA - RLNB

Model No. RLNB-	Unit Information				Evaporator Fan					
	Unit Operating Voltage Range	Minimum Circuit Ampacity	Minimum Overcurrent Protection Device Size	Maximum Overcurrent Protection Device Size	No.	Volts	Phase	HP	Amps (FLA)	Amps (LRA)
A180CL	187-253	72/72	80/80	90/90	1	208/230	3	3	11.5	74.5
A180CM	187-253	75/75	80/80	90/90	1	208/230	3	5	17.4	82.6
A180DL	414-506	42	45	50	1	460	3	3	7	38.1
A180DM	414-506	45	45	50	1	460	3	5	10	41.3
A180YL	518-632	35	35	45	1	575	3	3	8	20
A180YM	518-632	35	35	45	1	575	3	5	8	33

Model No. RLNB-	Compressor Motor							Condenser Motor					
	No.	Volts	Phase	HP ²	RPM	Amps ¹ (RLA)	Amps ¹ (LRA)	No.	Volts	Phase	HP ²	Amps ¹ (FLA)	Amps ¹ (LRA)
A180CL	2	200/240	3	6 3/4	3450	22.4/22.4	164/164	4	208/230	1	1/3	2.4	4.7
A180CM	2	200/240	3	6 3/4	3450	22.4/22.4	164/164	4	208/230	1	1/3	2.4	4.7
A180DL	2	460	3	6 3/4	3450	11.8	100	4	460	1	1/3	2	2.4
A180DM	2	460	3	6 3/4	3450	11.8	100	4	460	1	1/3	2	2.4
A180YL	2	575	3	6 3/4	3450	10.2	78	4	575	1	1/3	1	1.5
A180YM	2	575	3	6 3/4	3450	10.2	78	4	575	1	1/3	1	1.5

ELECTRICAL DATA - RLKB

Model No. RLKB-	Unit Information				Evaporator Fan					
	Unit Operating Voltage Range	Minimum Circuit Ampacity	Minimum Overcurrent Protection Device Size	Maximum Overcurrent Protection Device Size	No.	Volts	Phase	HP	Amps (FLA)	Amps (LRA)
A180CL	187-253	74/74	80/80	80/80	1	208/230	3	3	11.5	74.5
A180CM	187-253	77/77	80/80	80/80	1	208/230	3	5	14.7	82.6
A180DL	414-506	43/43	45/45	45/45	1	460	3	3	7	38.1
A180DM	414-506	46/46	50/50	50/50	1	460	3	5	10	41.3
A180YL	518-633	34/34	35/35	35/35	1	575	3	3	8	20
A180YM	518-633	34/34	35/35	35/35	1	575	3	5	8	33
A240CL	187-253	100/100	110/110	110/110	1	208/230	3	5	14.7	82.6
A240CM	187-253	108/108	125/125	125/125	1	208/230	3	7.5	22.3	136
A240DL	414-506	58/58	60/60	60/60	1	460	3	5	10	41.3
A240DM	414-506	59/59	60/60	60/60	1	460	3	7.5	11.2	68
A240YL	518-633	45/45	50/50	50/50	1	575	3	5	8	33
A240YM	518-633	46/46	50/50	50/50	1	575	3	7.5	8.8	53.8
A300CL	187-253	114/114	125/125	125/125	1	208/230	3	5	14.7	82.6
A300CM	187-253	122/122	125/125	125/125	1	208/230	3	7.5	22.3	136
A300DL	414-506	61	70	70	1	460	3	5	10	41.3
A300DM	414-506	62	70	70	1	460	3	7.5	11.2	68
A300YL	518-633	49	50	50	1	575	3	5	8	33
A300YM	518-633	49	50	50	1	575	3	7.5	8.8	53.8

Model No. RLKB-	Compressor Motor							Condenser Motor					
	No.	Volts	Phase	HP ¹	RPM	Amps ² (RLA)	Amps ² (LRA)	No.	Volts	Phase	HP ¹	Amps ² (FLA)	Amps ² (LRA)
A180CL	4	200/240	3	3 1/2	3450	12.4/12.4	88/88	4	208/230	1	1/3	2.4	4.7
A180CM	4	200/240	3	3 1/2	3450	12.4/12.4	88/88	4	208/230	1	1/3	2.4	4.7
A180DL	4	460	3	3 1/2	3450	6.4	44	4	460	1	1/3	2	2.4
A180DM	4	460	3	3 1/2	3450	6.4	44	4	460	1	1/3	2	2.4
A180YL	4	575	3	3 1/2	3450	5	34	4	575	1	1/3	1	1.5
A180YM	4	575	3	3 1/2	3450	5	34	4	575	1	1/3	1	1.5
A240CL	4	200/240	3	4 3/4	3450	17.8/17.8	124/124	4	208/230	1	1/3	2.4	4.7
A240CM	4	200/240	3	4 3/4	3450	17.8/17.8	124/124	4	208/230	1	1/3	2.4	4.7
A240DL	4	460	3	4 3/4	3450	9.3	59.6	4	460	1	1/3	2	2.4
A240DM	4	460	3	4 3/4	3450	9.3	59.6	4	460	1	1/3	2	2.4
A240YL	4	575	3	4 3/4	3450	7.7	49.4	4	575	1	1/3	1	1.5
A240YM	4	575	3	4 3/4	3450	7.7	49.4	4	575	1	1/3	1	1.5
A300CL	4	200/240	3	6	3450	21/21	156/156	4	208/230	1	1/2	2.3	5.6
A300CM	4	200/240	3	6	3450	21/21	156/156	4	208/230	1	1/2	2.3	5.6
A300DL	4	460	3	6	3450	10.4	75	4	460	1	1/2	1.5	2.9
A300DM	4	460	3	6	3450	10.4	75	4	460	1	1/2	1.5	2.9
A300YL	4	575	3	6	3450	8.5	54	4	575	1	1/2	1	2.2
A300YM	4	575	3	6	3450	8.5	54	4	575	1	1/2	1	2.2

1. Horsepower Per Compressor.
2. Amp Draw Per Motor. Multiply Value By Number of Motors to Determine Total Amps.

Model No. RLMB-	Unit Information				Evaporator Fan					
	Unit Operating Voltage Range	Minimum Circuit Ampacity	Minimum Overcurrent Protection Device Size	Maximum Overcurrent Protection Device Size	No.	Volts	Phase	HP	Amps (FLA)	Amps (LRA)
A180CL	187-253	74/74	80/80	80/80	1	208/230	3	3	11.5	74.5
A180CM	187-253	77/77	80/80	80/80	1	208/230	3	5	14.7	82.6
A180DL	414-506	43/43	45/45	45/45	1	460	3	3	7	38.1
A180DM	414-506	46/46	50/50	50/50	1	460	3	5	10	41.3
A180YL	518-633	34/34	35/35	35/35	1	575	3	3	8	20
A180YM	518-633	34/34	35/35	35/35	1	575	3	5	8	33
A240CL	187-253	100/100	110/110	110/110	1	208/230	3	5	14.7	82.6
A240CM	187-253	108/108	110/110	110/110	1	208/230	3	7.5	22.3	136
A240DL	414-506	58/58	60/60	60/60	1	460	3	5	10	41.3
A240DM	414-506	59/59	60/60	60/60	1	460	3	7.5	11.2	68
A240YL	518-633	45/45	45/45	45/45	1	575	3	5	8	33
A240YM	518-633	46/46	50/50	50/50	1	575	3	7.5	8.8	53.8

Model No. RLMB-	Compressor Motor							Condenser Motor					
	No.	Volts	Phase	HP ¹	RPM	Amps ² (RLA)	Amps ² (LRA)	No.	Volts	Phase	HP ¹	Amps ² (FLA)	Amps ² (LRA)
A180CL	4	200/240	3	3 1/2	3450	12.4/12.4	88/88	4	208/230	1	1/3	2.4	4.7
A180CM	4	200/240	3	3 1/2	3450	12.4/12.4	88/88	4	208/230	1	1/3	2.4	4.7
A180DL	4	460	3	3 1/2	3450	6.4	44	4	460	1	1/3	2	2.4
A180DM	4	460	3	3 1/2	3450	6.4	44	4	460	1	1/3	2	2.4
A180YL	4	575	3	3 1/2	3450	5	34	4	575	1	1/3	1	1.5
A180YM	4	575	3	3 1/2	3450	5	34	4	575	1	1/3	1	1.5
A240CL	4	200/240	3	4 3/4	3450	17.5/17.5	123/123	4	208/230	1	1/3	2.4	4.7
A240CM	4	200/240	3	4 3/4	3450	17.5/17.5	123/123	4	208/230	1	1/3	2.4	4.7
A240DL	4	460	3	4 3/4	3450	9.3	62	4	460	1	1/3	2	2.4
A240DM	4	460	3	4 3/4	3450	9.3	62	4	460	1	1/3	2	2.4
A240YL	4	575	3	4 3/4	3450	7.7	50	4	575	1	1/3	1	1.5
A240YM	4	575	3	4 3/4	3450	7.7	50	4	575	1	1/3	1	1.5

1. Horsepower Per Compressor.
2. Amp Draw Per Motor. Multiply Value By Number of Motors to Determine Total Amps.

V. INSTALLATION

A. GENERAL

1. PRE-INSTALLATION CHECK-POINTS

Before attempting any installation, the following points should be carefully considered:

- a. Structural strength of supporting members.
(rooftop installation)
- b. Clearances and provision for servicing.
- c. Power supply and wiring.
- d. Air duct connections.
- e. Drain facilities and connections.
- f. Location for minimum noise.

2. LOCATION

These units are designed for outdoor installations. They can be mounted on a slab or rooftop. They are not to be installed within any part of a structure such as an attic, crawl space, closet, or any other place where condenser air flow is restricted or other than outdoor ambient conditions prevail. Since the application of the units is of the outdoor type, it is important to consult your local code authorities at the time the first installation is made.

B. OUTSIDE SLAB INSTALLATION (Typical outdoor slab installations are shown in Figures 9 and 10.)

1. Select a location where external water drainage cannot collect around the unit.
2. Provide a level concrete slab extending 3" beyond all four sides of the unit. The slab should be sufficient above grade to prevent ground water from entering the unit.
IMPORTANT: To prevent transmission of noise or vibration, slab should not be connected to building structure.
3. The location of the unit should be such as to provide proper access for inspection and servicing.
4. Locate unit where operating sounds will not disturb owner or neighbors.
5. Locate unit so roof runoff water does not pour directly on the unit. Provide gutter or other shielding at roof level. Do not locate unit in an area where excessive snow drifting may occur or accumulate.

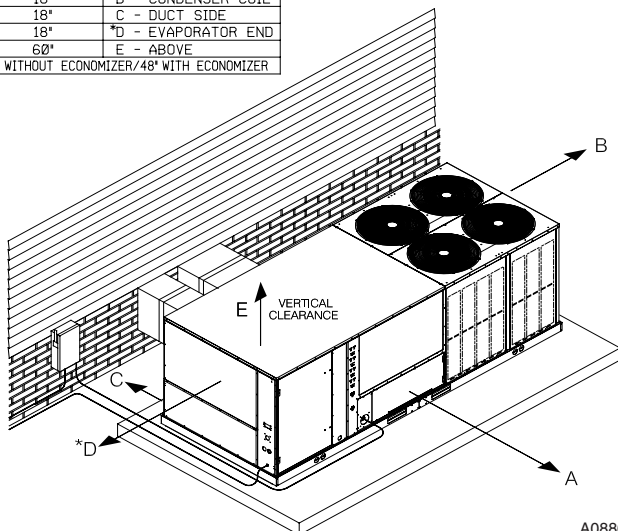
C. CLEARANCES

The following minimum clearances must be observed for proper unit performance and serviceability.

FIGURE 9
PACKAGED AIR CONDITIONER
OUTSIDE SLAB INSTALLATION, BASEMENT OR CRAWL SPACE
DISTRIBUTION SYSTEM

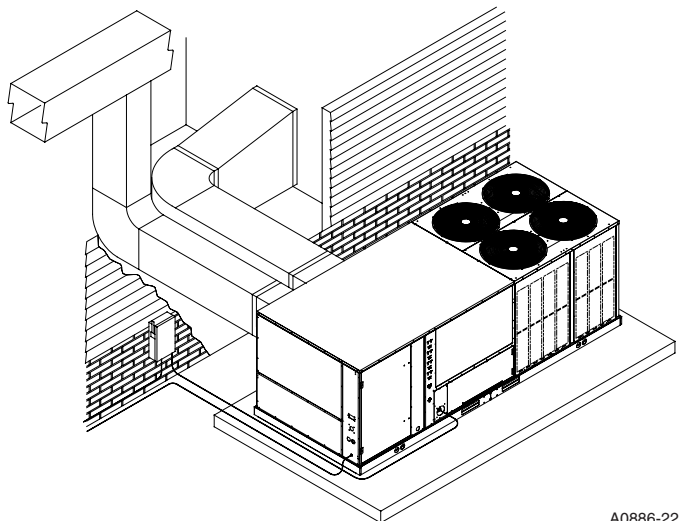
RECOMMENDED CLEARANCE	LOCATION
48"	A - FRONT
18"	B - CONDENSER COIL
18"	C - DUCT SIDE
18"	*D - EVAPORATOR END
60"	E - ABOVE

* WITHOUT ECONOMIZER/48" WITH ECONOMIZER



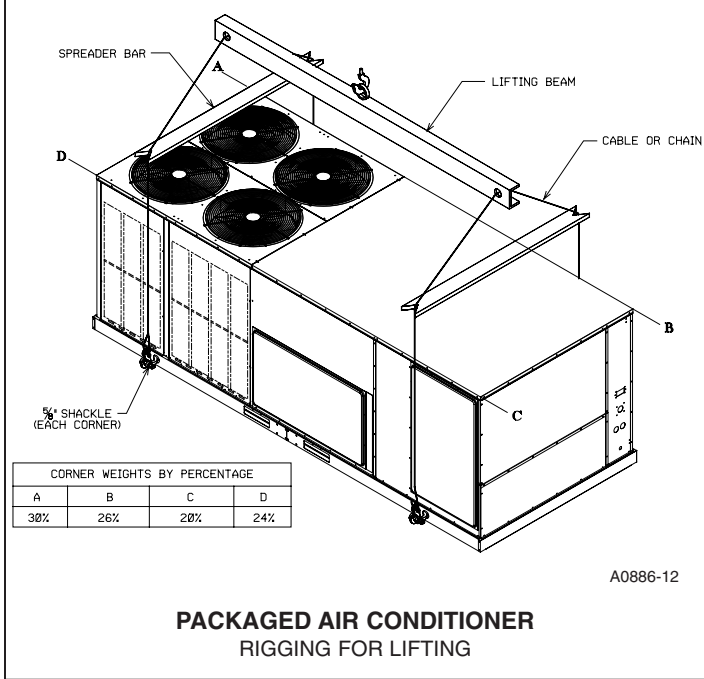
A0886-23

FIGURE 10
PACKAGED AIR CONDITIONER
OUTSIDE SLAB INSTALLATION, CLOSET DISTRIBUTION SYSTEM. SLAB
FLOOR CONSTRUCTION



A0886-22

FIGURE 11



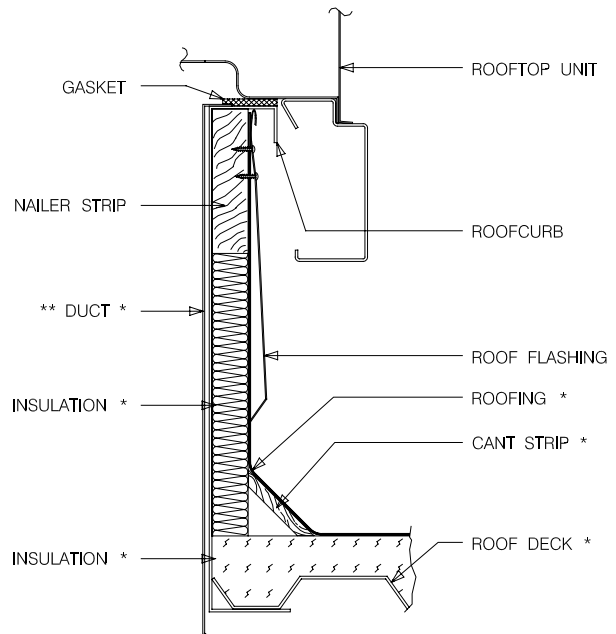
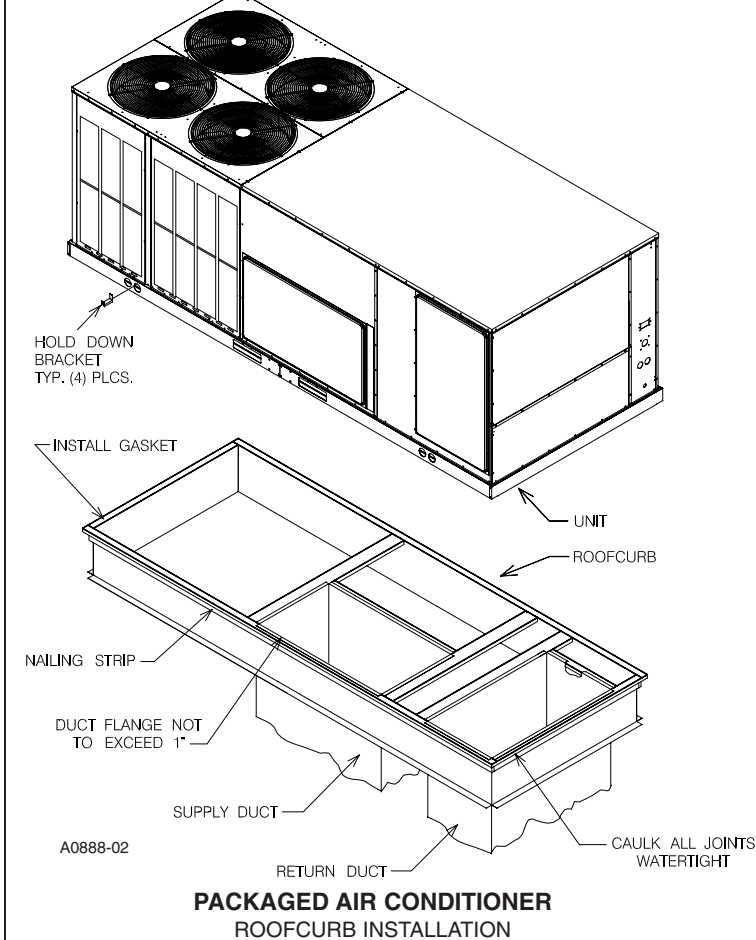
1. Provide 48" minimum clearance at the front of the unit. Provide 18" minimum clearance at all other sides of the unit.
2. Provide 60" minimum clearance between top of unit and maximum 3 foot overhang.
3. Unit is design certified for application on combustible flooring with 0" minimum clearance.
4. See Figure 9 for illustration of minimum installation-service clearances.

D. ROOFTOP INSTALLATION

1. Before locating the unit on the roof, make sure that the strength of the roof and beams is adequate at that point to support the weight involved. This is very important and user's responsibility.
2. For rigging and roofcurb details, see Figures 11 and 12. Use field-furnished spreaders.
3. For roofcurb assembly, see Roofcurb Installation Instructions.
4. If the roofcurb is not used, provisions for disposing of condensate water runoff must be provided.
5. The unit should be placed on a solid and level roofcurb or platform of adequate strength. See Figure 13.
6. The location of the unit on the roof should be such as to provide proper access for inspection and servicing.

IMPORTANT: If unit will not be put into service immediately, cover supply and return openings to prevent excessive condensation.

FIGURE 12



* BY CONTRACTOR

** FOR INSTALLATION OF DUCT AS SHOWN, USE RECOMMENDED DUCT SIZES FROM ROOFCURB INSTALLATION INSTRUCTIONS. FOR DUCT FLANGE ATTACHMENT TO UNIT, SEE UNIT INSTALLATION INSTRUCTIONS FOR RECOMMENDED DUCT SIZES.

A0888-02

VI. DUCTWORK

Ductwork should be fabricated by the installing contractor in accordance with local codes and NFPA90A. Industry manuals may be used as a guide when sizing and designing the duct system - contact Air Conditioning Contractors of America, 1513 16th St. N.W., Washington, D.C. 20036.

The unit should be placed as close to the space to be air conditioned as possible allowing clearance dimensions as indicated. Ducts should be run as directly as possible to supply and return outlets. Use of non-flammable waterproof flexible connectors on both supply and return connections at the unit to reduce noise transmission is recommended.

It is preferable to install the unit on the roof of the structure if the registers or diffusers are located on the wall or in the ceiling. A slab installation could be considered when the registers are low on a wall or in the floor.

On ductwork exposed to outside air conditions of temperature and humidity, use a minimum of 2" of insulation and a vapor barrier. Distribution system in attic, furred space or crawl space should be insulated with at least 2" of insulation with vapor barrier. One-half to 1" thickness of insulation is usually sufficient for ductwork inside the air conditioned space.

Balancing dampers should be provided for each branch duct in the supply system. Ductwork should be properly supported from the structure.

When installing ductwork, consider the following items:

1. Noncombustible flexible connectors should be used between ductwork and unit to reduce noise and vibration transmission into the ductwork.
2. When auxiliary heaters are installed, use noncombustible flexible connectors and clearance to combustible material of 0" for the first 3 feet of discharge duct. Clearance to unit top and side is 0".

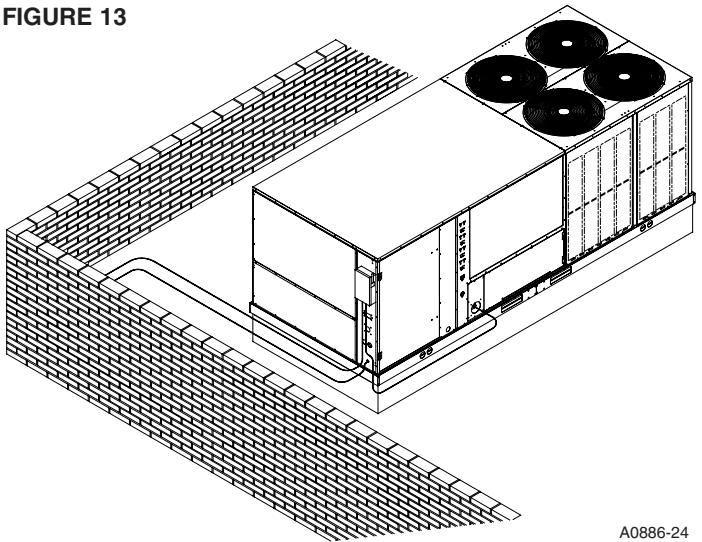
VII. FILTERS

This unit is provided with 3 - 18" x 18" x 2" and 3 - 18" x 24" x 2" disposable filters. When replacing filters, ensure they are inserted fully to the back to prevent bypass. See Figure 8.

Recommended supplier of this filter is Glassfloss Industries, Inc. or

AAF International
 215 Central Avenue
 P.O. Box 35690
 Louisville, KY 40232
 Phone: 1-800-501-3146
 Part #: 54-42541-01 (18" x 18" x 2")
 54-42541-03 (18" x 24" x 2")

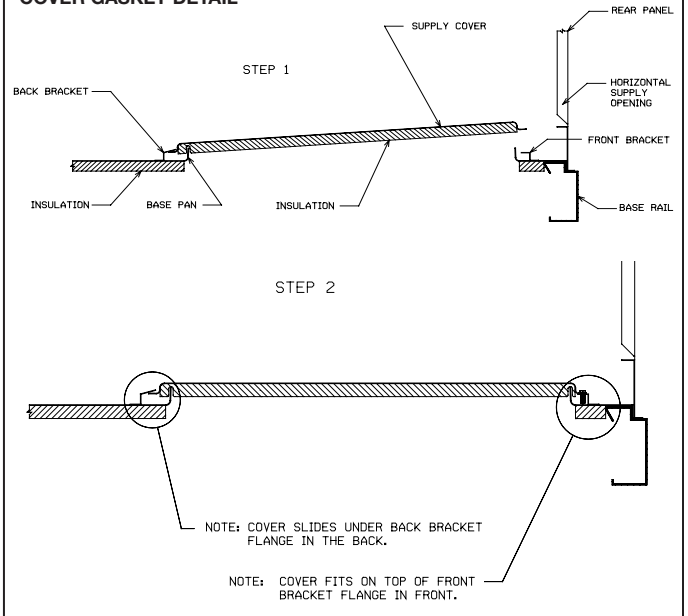
FIGURE 13



A0886-24

PACKAGED AIR CONDITIONER
 FLAT ROOFTOP INSTALLATION, ATTIC OR DROP CEILING
 DISTRIBUTION SYSTEM. MOUNTED ON
 ROOFCURB. CURB MUST BE LEVEL

FIGURE 14
 COVER GASKET DETAIL



VIII. COVER PANEL INSTALLATION/ CONVERSION PROCEDURE

DOWNFLOW TO HORIZONTAL

1. Remove the screws and covers from the outside of the supply and return sections. Also remove and discard cover plate. See Figure 3.
2. Install the covers over the bottom supply and return openings, painted side up, inserting the **leading flange under the bracket provided**. Place the **back flange to top of the front bracket provided**. See Figure 14.
3. Secure the return and supply cover to front bracket with two (2) screws.

IX. CONDENSATE DRAIN

The condensate drain connection of the evaporator is 1" nominal male pipe thread. **IMPORTANT: Install a condensate trap to ensure proper condensate drainage. See Figure 15.**

X. ELECTRICAL WIRING

Field wiring must comply with the National Electrical Code* and local ordinances that may apply.

*C.E.C. in Canada

A. POWER WIRING

1. This unit incorporates single-point electrical connections for the unit and electric heat accessory.
2. It is important that proper electrical power is available to the unit. Voltage should not vary more than 10% from the values marked on the unit rating plate. Phase voltages must be balanced within 3%.
3. Install a branch circuit disconnect within sight of the unit. See Figure 16. Use the unit rating plate or Tables A, B, C, and D to determine the required size.
4. The branch circuit wire must be sized in accordance with the National Electrical Code (C.E.C. in Canada) and local ordinances that may apply using the minimum circuit ampacity found on the unit rating plate.
5. Field-installed power wiring must be run through grounded rain-tight conduit attached to the unit power entry panel and connected as follows:

UNITS WITHOUT ELECTRIC HEAT - Connect power wiring to the power terminal block located on the left side of the electric heat compartment. Connect the ground wire to the adjacent ground lug.

UNITS WITH FACTORY INSTALLED ELECTRIC HEAT - Connect power wiring to the power terminal block located on the electric heater kit. Connect the ground wire to the adjacent ground lug. **DO NOT** connect aluminum wiring directly to the electric heater terminal block. Wiring to the unit contactors is factory-connected.

6. For field installation of an electric heater kit, follow the instructions below. Refer to the information supplied with the kit.

FIGURE 15
CONDENSATE DRAIN

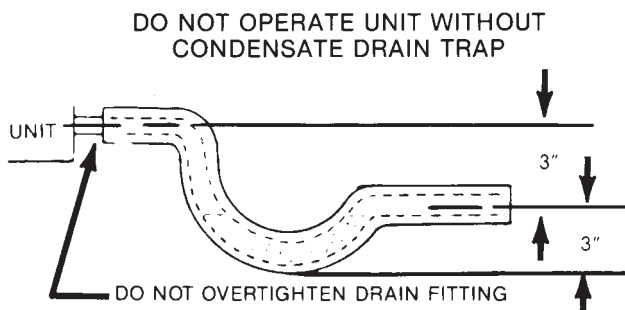
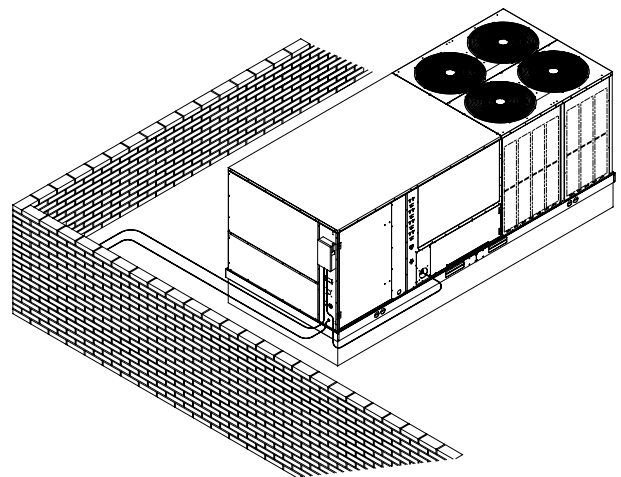


FIGURE 16
BRANCH CIRCUIT DISCONNECT LOCATION



- a. Removing screws as required, open heater access door and detach adjacent power entry panel.
- b. Remove unit contactor wires (1L1, 1L2, 1L3) from unit terminal block on the left side of the electric heat compartment. Remove and discard the terminal block and the adjacent ground lug.
- c. Remove the heater kit block-off panel and install the heater kit in its place using the screws previously removed.
- d. Connect the unit contactor wires (1L1, 1L2, 1L3) to the compressor fuse block on the heater kit.
- e. Re-install the power entry panel & run conduit and the proper size field wiring through the opening in the panel.
- f. Connect field wiring to the power terminal block located on the electric heater kit. Connect ground wire to the adjacent ground lug.
- g. Connect heater kit control plug to the receptacle on the control wiring harness.
- h. Close heater access door and secure with screws previously removed.

B. CONTROL WIRING (Class II)

1. Low voltage wiring should not be run in conduit with power wiring.
2. Control wiring is routed through the 7/8" hole in the unit side panel. See Figure 7. Use a minimum #18 AWG thermostat wire. For wire lengths exceeding 50', use #16 AWG thermostat wire. Connect the control wiring to the low voltage terminal block located below the unit control box.
3. It is necessary that only approved thermostats be used. Please contact your distributor for part number information. See Table for a list of recommended thermostats.

Recommended Thermostats for 15, 20, & 25 Ton Package Air Conditioner				
Type	Stages	Manufacturer	Model	Universal Parts Part Number
Manual Changeover	3 heat/2 cool	Honeywell	T874D1959 w/Q674B1075 sub-base	41-21444-01 41-21441-01
Programmable	3 heat/2 cool	White-Rodgers	1F91-7	41-21015-04
Programmable	3 heat/2 cool	Robertshaw	09710	41-23971-01

4. Figure 18 shows representative low voltage connection diagrams. Read your thermostat installation instructions for any special requirements for your specific thermostat.

NOTE — Units installed in Canada require that an outdoor thermostat (30,000 min. cycles of endurance) be installed and be wired with C.E.C. Class I wiring.

D. INTERNAL WIRING

1. A diagram of the internal wiring of this unit is located on the inside of the electrical access panel. If any of the original wire, as supplied with the appliance must be replaced, the wire gauge and insulation must be the same as original wiring.

E. GROUNDING

GROUNDING MAY ALSO BE ACCOMPLISHED BY GROUNDING THE POWER LINE CONDUIT TO THE UNIT. MAKE SURE THE CONDUIT NUT LOCKING TEETH HAVE PIERCED THE INSULATING PAINT FILM OF THE SIDE PANEL.

F. THERMOSTAT

The thermostat should be mounted on an inside wall about five feet above the floor in a location where it will not be affected by unconditioned air, sun, or drafts from open doors or other sources. READ installation instructions in heat pump thermostat package CAREFULLY because each has some different wiring requirements.


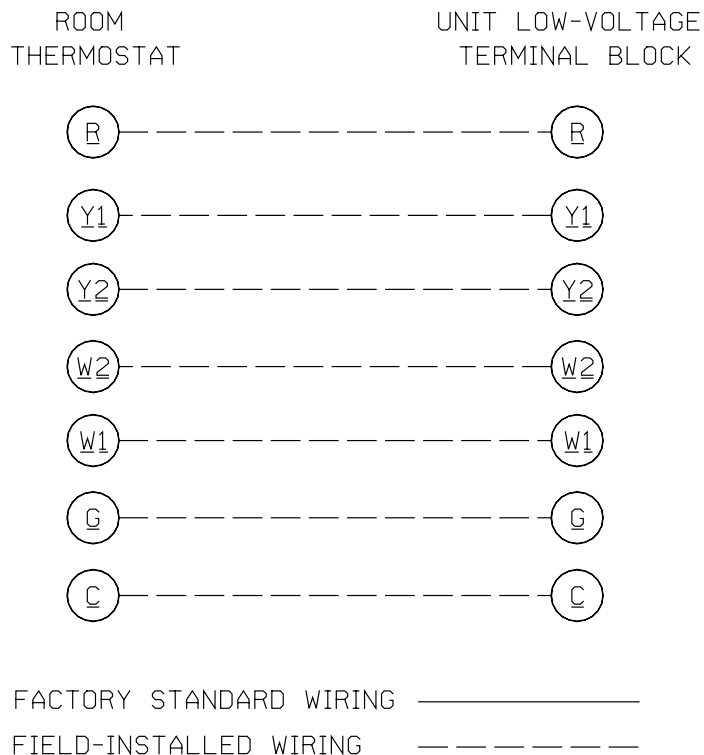
 WARNING
<p>THE UNIT MUST BE PERMANENTLY GROUNDED. A GROUNDING LUG IS PROVIDED IN THE ELECTRIC HEAT ACCESS AREA FOR A GROUND WIRE. FAILURE TO GROUND THIS UNIT CAN RESULT IN FIRE OR ELECTRICAL SHOCK CAUSING PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH.</p>

FIGURE 17



A0823-01

XI. INDOOR AIR FLOW DATA

Belt-drive blower models have motor sheaves set for proper CFM at a typical external static. See Tables E and F for blower performance.

XII. CRANKCASE HEAT (OPTIONAL)

Crankcase heat is not required on scroll type compressors, but may be desirable under certain conditions. Wires have been provided for the addition of crankcase heaters (see wiring diagrams).

FIGURE 18

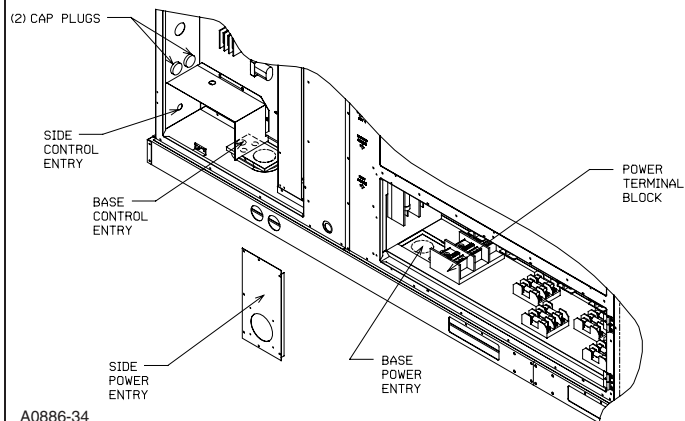
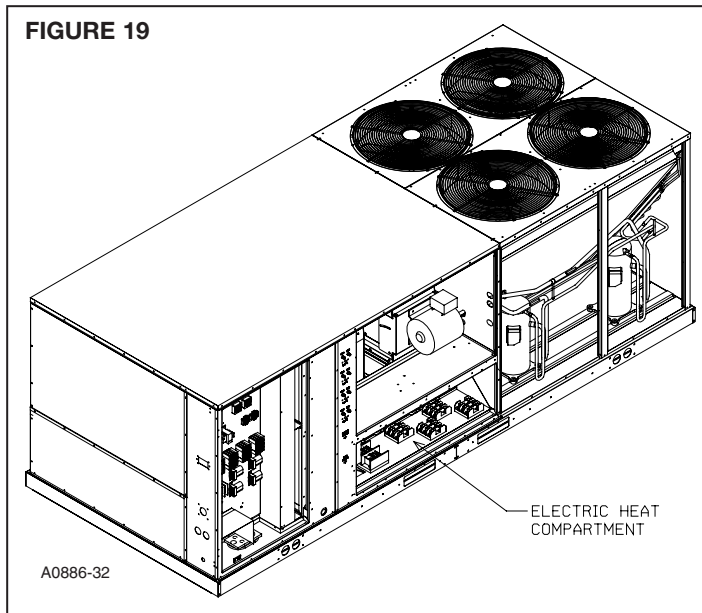


FIGURE 19



AIR-FLOW PERFORMANCE – 15 TON MODELS TABLE E

15 TON PACKAGE UNIT - 60 Hz

E.S.P. - Inches of Water

STD CFM	E.S.P. - Inches of Water																																										
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0																							
	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS																							
4800	—	—	—	631	951	670	1238	689	1382	709	1525	728	1669	747	1812	767	1956	786	2100	806	2243	899	1949	912	2128	924	2307	937	2486	950	2665	963	2844	976	3023								
5000	—	—	—	647	1194	666	1482	705	1625	725	1769	744	1912	764	2056	783	2199	802	2343	822	2487	908	2254	921	2433	933	2612	946	2791	959	2970	972	3149	985	3329								
5200	—	—	—	644	1294	663	1438	682	1581	702	1725	721	1869	741	2012	760	2156	780	2299	799	2443	818	2586	904	2380	917	2559	929	2738	942	2917	955	3097	968	3276	981	3455	994	3634				
5400	—	—	—	640	1394	660	1538	679	1681	698	1825	718	1968	737	2112	757	2256	776	2399	796	2543	815	2686	900	2506	913	2685	926	2864	936	3044	951	3223	964	3402	977	3581	990	3760	1003	3939		
5600	637	1494	656	1638	676	1781	695	1925	714	2068	734	2212	753	2355	773	2499	792	2643	812	2786	896	2632	909	2812	922	2991	935	3170	947	3349	960	3528	973	3707	986	3886	999	4065	1012	4245			
5800	653	1738	672	1881	692	2025	711	2168	731	2312	750	2455	769	2599	789	2742	808	2886	892	2759	905	2938	918	3117	931	3296	944	3475	956	3654	969	3833	982	4012	995	4192	1008	4371	1021	4550			
6000	669	1981	688	2125	708	2268	727	2412	747	2555	766	2699	785	2842	805	2986	888	2885	901	3064	914	3243	927	3422	940	3601	953	3780	965	3960	978	4139	991	4318	1004	4497	1017	4876	—	—			
6200	685	2224	704	2368	724	2512	743	2655	763	2799	782	2942	801	3086	821	3229	897	3190	910	3369	923	3548	936	3727	949	3907	962	4086	974	4265	987	4444	1000	4623	1013	4802	—	—	—	—			
6400	701	2468	720	2611	740	2755	759	2899	779	3042	798	3186	817	3329	893	3316	906	3495	919	3675	932	3854	945	4033	958	4212	971	4391	983	4570	996	4749	1009	4928	—	—	—	—	—				
6600	717	2711	736	2855	756	2998	775	3142	795	3286	814	3429	889	3442	920	3622	915	3801	928	3980	941	4159	954	4338	967	4517	980	4696	992	4876	1005	5055	—	—	—	—	—	—	—				
6800	733	2955	752	3098	772	3242	791	3385	811	3529	885	3569	898	3748	911	3927	924	4106	937	4285	950	4464	963	4643	976	4823	989	5002	—	—	—	—	—	—	—	—	—	—	—	—			
7000	749	3198	768	3342	788	3485	807	3629	881	3695	894	3874	907	4053	902	4232	933	4411	946	4591	959	4770	972	4949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7200	765	3442	784	3585	804	3729	877	3821	890	4000	903	4179	916	4358	929	4538	942	4717	955	4896	968	5075	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

DRIVE PACKAGE	L		M			
MOTOR HP	3.0		5			
BLOWER SHEAVE	BK-90		BK-72			
MOTOR SHEAVE	1VP-44		1VP-44			
TURNS OPEN	1	2	3	4	5	6
RPM	823	787	750	710	670	629

DRIVE PACKAGE	M					
MOTOR HP	5					
BLOWER SHEAVE	BK-72					
MOTOR SHEAVE	1VP-44					
TURNS OPEN	1.5	2	3	4	5	6
RPM	1022	1017	1006	933	860	786

COMPONENT RESISTANCE TABLE	
CFM	WET COIL DOWNFLOW
4800	0.020
5200	0.040
5600	0.060
6000	0.080
6400	0.100
6800	0.125
7200	0.150

- NOTES:
1. Factory sheave settings shown in bold type.
 2. Do not set sheave below minimum turns open shown.
 3. Re-adjustment of sheave required to achieve rated airflow at ARI minimum E.S.P.
 4. Drive data shown is for horizontal airflow with dry coil. Add component resistance to duct resistance to determine total E.S.P.

TABLE F. AIR-FLOW DATA 20 & 25 TON MODELS

STD CFM	20 TON PACKAGE UNIT - 60 Hz																																							
	E.S.P. - Inches of Water																																							
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0																				
RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS	RPM	WATTS																			
6400	701	2468	720	2611	740	2755	759	2899	779	3042	798	3186	817	3329	837	3473	856	3616	876	3760	895	3904	915	4048	934	4191	953	4335	972	4478	991	4621	1010	4764	1029	4907	1048	5050		
6600	717	2711	736	2855	756	2998	775	3142	795	3286	814	3429	834	3573	853	3716	872	3860	891	3998	911	4159	934	4338	957	4517	976	4696	995	4876	1015	5055	1034	5234	1053	5413	1072	5592	1091	5771
6800	733	2955	752	3098	772	3242	791	3385	811	3529	830	3673	850	3816	869	3960	888	4106	907	4255	926	4404	946	4563	965	4722	984	4881	1003	5040	1022	5198	1041	5356	1060	5514	1079	5672	1098	5830
7000	749	3198	768	3342	788	3485	807	3629	827	3772	846	3916	866	4060	885	4203	904	4356	923	4500	942	4644	961	4792	980	4936	1000	5084	1019	5232	1038	5379	1057	5526	1076	5674	1095	5821	1114	5968
7200	765	3442	784	3585	804	3729	823	3872	843	4016	862	4160	882	4303	901	4448	920	4596	939	4744	958	4892	977	5039	996	5184	1015	5328	1034	5472	1053	5616	1072	5760	1091	5904	1110	6048	1129	6192
7400	781	3685	801	3829	820	3972	839	4116	859	4259	878	4403	897	4544	916	4692	935	4840	954	5024	973	5172	992	5319	1011	5466	1030	5614	1049	5758	1068	5902	1087	6046	1106	6190	1125	6334	1144	6478
7600	797	3929	817	4072	836	4216	855	4359	875	4503	894	4648	913	4792	932	4896	951	5040	970	5184	989	5328	1008	5472	1027	5616	1046	5760	1065	5904	1084	6048	1103	6192	1122	6336	1141	6480		
7800	813	4172	833	4316	852	4459	871	4603	891	4746	910	4896	929	5040	948	5184	967	5328	986	5472	1005	5616	1024	5760	1043	5904	1062	6048	1081	6192	1100	6336	1119	6480	1138	6624	1157	6768		
8000	829	4415	849	4559	868	4703	888	4847	907	4992	926	5095	945	5236	964	5384	983	5528	1002	5672	1021	5816	1040	5964	1059	6108	1078	6256	1097	6352	1116	6496	1135	6640	1154	6784	1173	6928		
8200	845	4659	865	4802	885	4946	904	5090	923	5184	942	5328	961	5472	980	5616	999	5760	1018	5904	1037	6048	1056	6192	1075	6336	1094	6480	1113	6624	1132	6768	1151	6912	1170	7056	1189	7200		
8400	861	4902	881	5046	901	5190	920	5334	939	5478	958	5624	977	5760	996	5896	1015	6048	1034	6200	1053	6352	1072	6504	1091	6656	1110	6808	1129	6960	1148	7112	1167	7264	1186	7416	1205	7568		
8600	877	5146	897	5290	917	5434	936	5578	956	5722	975	5866	994	6010	1013	6154	1032	6298	1051	6442	1070	6586	1089	6730	1108	6874	1127	7022	1146	7166	1165	7310	1184	7454	1203	7598	1222	7742		
8800	893	5390	913	5534	933	5678	952	5822	971	5966	990	6110	1009	6254	1028	6398	1047	6542	1066	6686	1085	6830	1104	6974	1123	7118	1142	7262	1161	7406	1180	7550	1199	7694	1218	7838	1237	7982		
9000	909	5634	929	5778	949	5922	968	6066	987	6210	1006	6360	1025	6504	1044	6648	1063	6792	1082	6936	1101	7080	1120	7224	1139	7368	1158	7512	1177	7656	1196	7800	1215	7944	1234	8088	1253	8232		
9200	925	5878	945	6022	965	6166	984	6310	1003	6460	1022	6604	1041	6748	1060	6896	1079	7032	1098	7176	1117	7320	1136	7464	1155	7608	1174	7752	1193	7896	1212	8040	1231	8184	1250	8328	1269	8472		
9400	941	6122	961	6266	981	6410	1000	6560	1019	6654	1038	6800	1057	6944	1076	7088	1095	7232	1114	7376	1133	7520	1152	7664	1171	7808	1190	7952	1209	8096	1228	8240	1247	8384	1266	8528	1285	8672		
9600	957	6366	977	6510	997	6654	1016	6800	1035	6948	1054	7092	1073	7236	1092	7380	1111	7524	1130	7668	1149	7812	1168	7956	1187	8100	1206	8244	1225	8388	1244	8532	1263	8676	1282	8820	1301	8964		

DRIVE PACKAGE		M					
MOTOR HP		7.5					
BLOWER SHEAVE		BK-90					
MOTOR SHEAVE		1VP-60					
TURNS OPEN		1	2	3	4	5	6
RPM		1102	1075	1047	1006	964	922

DRIVE PACKAGE		L					
MOTOR HP		5.0					
BLOWER SHEAVE		BK-95					
MOTOR SHEAVE		1VP-50					
TURNS OPEN		1	2	3	4	5	6
RPM		882	846	810	773	736	700

DRIVE PACKAGE		DOWNFLOW	
CFM		6400	0.100
		6800	0.125
		7200	0.150
		7600	0.175
		8000	0.200
		8400	0.225
		8800	0.250
		9200	0.275
		9600	0.300

NOTES:
 1. Factory sheave settings shown in bold type.
 2. Do not set sheave below minimum turns open shown.
 3. Re-adjustment of sheave required to achieve rated airflow at ARI minimum E.S.P.
 4. Drive data shown is for horizontal airflow with dry coil. Add component resistance to duct resistance to determine total E.S.P.

XIII. PRE-START CHECK

1. Is unit properly located and slightly slanted toward indoor condensate drain?
2. Is ductwork insulated, weatherproofed, with proper spacing to combustible materials?
3. Is air free to travel to and from outdoor coil? (See Figure 5.)
4. Is the wiring correct, tight, and according to unit wiring diagram?
5. Is unit grounded?
6. Are field supplied air filters in place and clean?
7. Do the outdoor fan and indoor blower turn freely without rubbing, and are they tight on the motor shafts?

XIV. STARTUP

1. Turn thermostat to "OFF," turn "on" power supply at disconnect switch.
2. Turn temperature setting as high as it will go.
3. Turn fan switch to "ON."
4. Indoor blower should run. Be sure it is running in the right direction.
5. Turn fan switch to "AUTO." Turn system switch to "COOL" and turn temperature setting below room temperature. Unit should run in cooling mode.
6. Is outdoor fan operating correctly in the right direction?
7. Is compressor running correctly.

Record the following after the unit has run some time.

- A. Operating Mode _____
- B. Discharge Pressures (High) _____ PSIG
- C. Vapor Pressure at Compressors (Low) _____ PSIG
- D. Vapor Line Temperature at Compressors _____ °F.
- E. Indoor Dry Bulb _____ °F.
- F. Indoor Wet Bulb _____ °F.
- G. Outdoor Dry Bulb _____ °F.
- H. Outdoor Wet Bulb _____ °F.
- I. Voltage at Contactor _____ Volts
- J. Current at Contactors _____ Amps
- K. Model Number _____
- L. Serial Number _____
- M. Location _____
- N. Owner _____
- O. Date _____

8. Turn thermostat system switch to "HEAT." Unit compressors should stop. Raise temperature setting to above room temperature. Unit should run in heating mode and auxiliary heaters, if installed, should come on.
9. Check the refrigerant charge using the instructions located on unit charging chart. Replace service port caps. Service port cores are for system access only and will leak if not tightly capped.
10. Adjust discharge air grilles and balance system.
11. Check ducts for condensation and air leaks.
12. Check unit for tubing and sheet metal rattles.
13. Instruct the owner on operation and maintenance.
14. Leave "INSTALLATION" and "USE AND CARE" instructions with owner

XV. OPERATION

COOLING MODE

With thermostat in the cool mode, fan auto and the room temperature higher than the thermostat setting:

- A. Indoor blower contactor is energized through thermostat contact (G).
- B. Compressor contactors are energized through thermostat contacts (Y1) & (Y2) and high pressure controls.
- C. Economizer enthalpy control (if installed) controls operation of first-stage cooling and positions fresh air damper to maintain mixed air temperature. Second-stage cooling operates normally as required by second stage of thermostats.
- D. The system will continue in cooling operation as long as all safety controls are closed, until the thermostat is satisfied.

HEATING MODE

With thermostat in the heat mode, fan auto and the room temperature lower than the thermostat setting the indoor blower contactor is energized through thermostat contact (G).

▲ WARNING

ONLY ELECTRIC HEATER KITS SUPPLIED BY THIS MANUFACTURER AS DESCRIBED IN THIS PUBLICATION HAVE BEEN DESIGNED, TESTED, AND EVALUATED BY A NATIONALLY RECOGNIZED SAFETY TESTING AGENCY FOR USE WITH THIS UNIT. USE OF ANY OTHER MANUFACTURED ELECTRIC HEATERS INSTALLED WITHIN THIS UNIT MAY CAUSE HAZARDOUS CONDITIONS RESULTING IN PROPERTY DAMAGE, FIRE, BODILY INJURY OR DEATH.

XVI. AUXILIARY HEAT

In the heating mode, the thermostat will energize one or more supplementary resistance heaters.

REPLACEMENT PARTS

Contact your local distributor for a complete parts list.

CHARGE INFORMATION

Refer to the appropriate charge chart on the unit, or in this booklet.

TROUBLESHOOTING

Refer to the troubleshooting chart included in this manual.

WIRING DIAGRAMS

Refer to the appropriate wiring diagram included in this manual.

VII. HEATER KIT CHARACTERISTICS
TABLE G. AUXILIARY HEATER KITS CHARACTERISTICS AND APPLICATION
(15, 20 & 25 TON MODELS)

UNIT MODEL NUMBER RLKB-	HEATER KIT MODEL NO. RXJJ-	HEATER KW	HEATER KIT FLA	UNIT MIN. CKT. AMPACITY	MAX. FUSE OR CKT. BKR. SIZE (CKT. BKR. MUST BE HACR TYPE FOR USA)
A180CL	NONE*	—	—	74/74	80/80
	CD20C	14.4/19.2	40.0/46.2	74/74	80/80
	CD40C	28.8/38.4	79.9/92.4	115/130	125/150
	CD60C	43.2/57.6	119.9/138.6	165/188	175/200
	CD75C	54.0/72.0	149.9/173.3	202/231	225/250
A180DL	NONE*	—	—	43	45
	CD20D	19.2	23.1	43	45
	CD40D	38.4	46.2	67	70
	CD60D	57.6	69.3	96	100
	CD75D	72.0	86.6	117	125
A180YL	NONE*	—	—	34	35
	CD20Y	19.2	18.5	34	35
	CD40Y	38.4	37.0	57	60
	CD60Y	57.6	55.4	80	80
	CD75Y	72.0	69.3	97	100
A180CM	NONE*	—	—	77/77	80/80
	CD20C	14.4/19.2	40.0/46.2	77/77	80/80
	CD40C	28.8/38.4	79.9/92.4	119/134	125/150
	CD60C	43.2/57.6	119.9/138.6	169/192	175/200
	CD75C	54.0/72.0	149.9/173.2	206/235	225/250
A180DM	NONE*	—	—	46	50
	CD20D	19.2	23.1	46	50
	CD40D	38.4	46.2	71	80
	CD60D	57.6	69.3	100	100
	CD75D	72.0	86.6	121	125
A180YM	NONE*	—	—	34	35
	CD20Y	19.2	18.5	34	35
	CD40Y	38.4	37.0	57	60
	CD60Y	57.6	55.4	80	80
	CD75Y	72.0	69.3	97	100
A240CL	NONE*	—	—	100/100	110/110
	CD20C	14.4/19.2	40.0/46.2	100/100	110/110
	CD40C	28.8/38.4	79.9/92.4	119/134	125/150
	CD60C	43.2/57.6	119.9/138.6	169/192	175/200
	CD75C	54.0/72.0	149.9/173.2	206/235	225/250
A240DL	NONE*	—	—	58	60
	CD20D	19.2	23.1	58	60
	CD40D	38.4	46.2	71	80
	CD60D	57.6	69.3	100	100
	CD75D	72.0	86.6	121	125
A240YL	NONE*	—	—	45	50
	CD20Y	19.2	18.5	45	50
	CD40Y	38.4	37.0	57	60
	CD60Y	57.6	55.4	80	80
	CD75Y	72.0	69.3	97	100
A240CM	NONE*	—	—	108/108	125/125
	CD20C	14.4/19.2	40.0/46.2	108/108	125/125
	CD40C	28.8/38.4	79.9/92.4	128/144	150/150
	CD60C	43.2/57.6	119.9/138.6	178/202	200/225
	CD75C	54.0/72.0	149.9/173.2	216/245	225/250
A240DM	NONE*	—	—	59	60
	CD20D	19.2	23.1	59	60
	CD40D	38.4	46.2	72	80
	CD60D	57.6	69.3	101	110
	CD75D	72.0	86.6	123	125
A240YM	NONE*	—	—	46	50
	CD20Y	19.2	18.5	46	50
	CD40Y	38.4	37.0	58	60
	CE60Y	57.6	55.4	81	90
	CD75Y	72.0	69.3	98	100

VII. HEATER KIT CHARACTERISTICS

**TABLE G (CONTINUED). AUXILIARY HEATER KITS CHARACTERISTICS AND APPLICATION
(15, 20 & 25 TON MODELS)**

UNIT MODEL NUMBER RLKB-	HEATER KIT MODEL NO. RXJJ-	HEATER KW	HEATER KIT FLA	UNIT MIN. CKT. AMPACITY	MAX. FUSE OR CKT. BKR. SIZE (CKT. BKR. MUST BE HACR TYPE FOR USA)
A300CL	NONE*	—	—	114/114	125/125
	CD20C	14.4/19.2	40.0/46.2	114/114	125/125
	CD40C	28.8/38.4	79.9/92.4	119/134	125/150
	CD60C	43.2/57.6	119.9/138.6	169/192	175/200
	CD75C	54.0/72.0	149.9/173.2	206/235	225/250
A300DL	NONE*	—	—	61	70
	CD20D	19.2	23.1	61	70
	CD40D	38.4	46.2	71	80
	CD60D	57.6	69.3	100	100
	CD75D	72.0	86.6	121	125
A300YL	NONE*	—	—	43	50
	CD20Y	19.2	18.5	43	50
	CD40Y	38.4	37.0	57	60
	CD60Y	57.6	55.4	80	80
	CD75Y	72.0	69.3	97	100
A300CM	NONE*	—	—	122/122	125/125
	CD20C	14.4/19.2	40.0/46.2	122/122	125/125
	CD40C	28.8/38.4	79.9/92.4	128/144	125/150
	CD60C	43.2/57.6	119.9/138.6	178/202	200/225
	CD75C	54.0/72.0	149.9/173.2	216/245	225/250
A300DM	NONE*	—	—	62	70
	CD20D	19.2	23.1	62	70
	CD40D	38.4	46.2	72	80
	CD60D	57.6	69.3	101	110
	CD75D	72.0	86.6	123	125
A300YM	NONE*	—	—	43	50
	CD20Y	19.2	18.5	43	50
	CD40Y	38.4	37.0	58	60
	CE60Y	57.6	55.4	81	90
	CD75Y	72.0	69.3	98	100

VII. HEATER KIT CHARACTERISTICS

**TABLE G (CONTINUED). AUXILIARY HEATER KITS CHARACTERISTICS AND APPLICATION
(15, 20 & 25 TON MODELS)**

UNIT MODEL NUMBER RLMB-	HEATER KIT MODEL NO. RXJJ-	HEATER KW	HEATER KIT FLA	UNIT MIN. CKT. AMPACITY	MAX. FUSE OR CKT. BKR. SIZE (CKT. BKR. MUST BE HACR TYPE FOR USA)
A180CL	NONE*	—	—	74/74	80/80
	CD20C	14.4/19.2	40.0/46.2	74/74	80/90
	CD40C	28.8/38.4	79.9/92.4	115/130	125/150
	CD60C	43.2/57.6	119.9/138.6	165/183	175/200
	CD75C	54.0/72.0	149.9/173.3	202/231	225/250
A180DL	NONE*	—	—	43	45
	CD20D	19.2	23.1	43	45
	CD40D	38.4	46.2	67	70
	CD60D	57.6	69.3	96	100
	CD75D	72.0	86.6	117	125
A180YL	NONE*	—	—	34	35
	CD20Y	19.2	18.5	34	35
	CD40Y	38.4	37.0	57	60
	CD60Y	57.6	55.4	80	80
	CD75Y	72.0	69.3	97	100
A180CM	NONE*	—	—	77/77	80/80
	CD20C	14.4/19.2	40.0/46.2	77/77	80/80
	CD40C	28.8/38.4	79.9/92.4	119/134	125/150
	CD60C	43.2/57.6	119.9/138.6	169/192	175/200
	CD75C	54.0/72.0	149.9/173.2	206/235	225/250
A180DM	NONE*	—	—	46	50
	CD20D	19.2	23.1	46	50
	CD40D	38.4	46.2	71	80
	CD60D	57.6	69.3	100	110
	CD75D	72.0	86.6	121	125
A180YM	NONE*	—	—	34	35
	CD20Y	19.2	18.5	34	35
	CD40Y	38.4	37.0	57	60
	CD60Y	57.6	55.4	80	80
	CD75Y	72.0	69.3	97	100
A240CL	NONE*	—	—	99/99	110/110
	CD20C	14.4/19.2	40.0/46.2	99/99	110/110
	CD40C	28.8/38.4	79.9/92.4	119/134	125/150
	CD60C	43.2/57.6	119.9/138.6	169/192	175/200
	CD75C	54.0/72.0	149.9/173.2	206/235	225/250
A240DL	NONE*	—	—	57	60
	CD20D	19.2	23.1	57	60
	CD40D	38.4	46.2	71	80
	CD60D	57.6	69.3	100	110
	CD75D	72.0	86.6	121	125
A240YL	NONE*	—	—	43	50
	CD20Y	19.2	18.5	43	50
	CD40Y	38.4	37.0	57	60
	CD60Y	57.6	55.4	80	80
	CD75Y	72.0	69.3	97	100
A240CM	NONE*	—	—	107/107	110/110
	CD20C	14.4/19.2	40.0/46.2	107/107	110/110
	CD40C	28.8/38.4	79.9/92.4	128/144	125/175
	CD60C	43.2/57.6	119.9/138.6	178/202	200/225
	CD75C	54.0/72.0	149.9/173.2	216/245	225/300
A240DM	NONE*	—	—	58	60
	CD20D	19.2	23.1	58	60
	CD40D	38.4	46.2	72	80
	CD60D	57.6	69.3	101	110
	CD75D	72.0	86.6	123	125
A240YM	NONE*	—	—	43	50
	CD20Y	19.2	18.5	43	50
	CD40Y	38.4	37.0	58	60
	CE60Y	57.6	55.4	81	90
	CD75Y	72.0	69.3	98	100

VIII. HEATER KIT CHARACTERISTICS

**TABLE G (CONTINUED). AUXILIARY HEATER KITS CHARACTERISTICS AND APPLICATION
(15, 20 & 25 TON MODELS)**

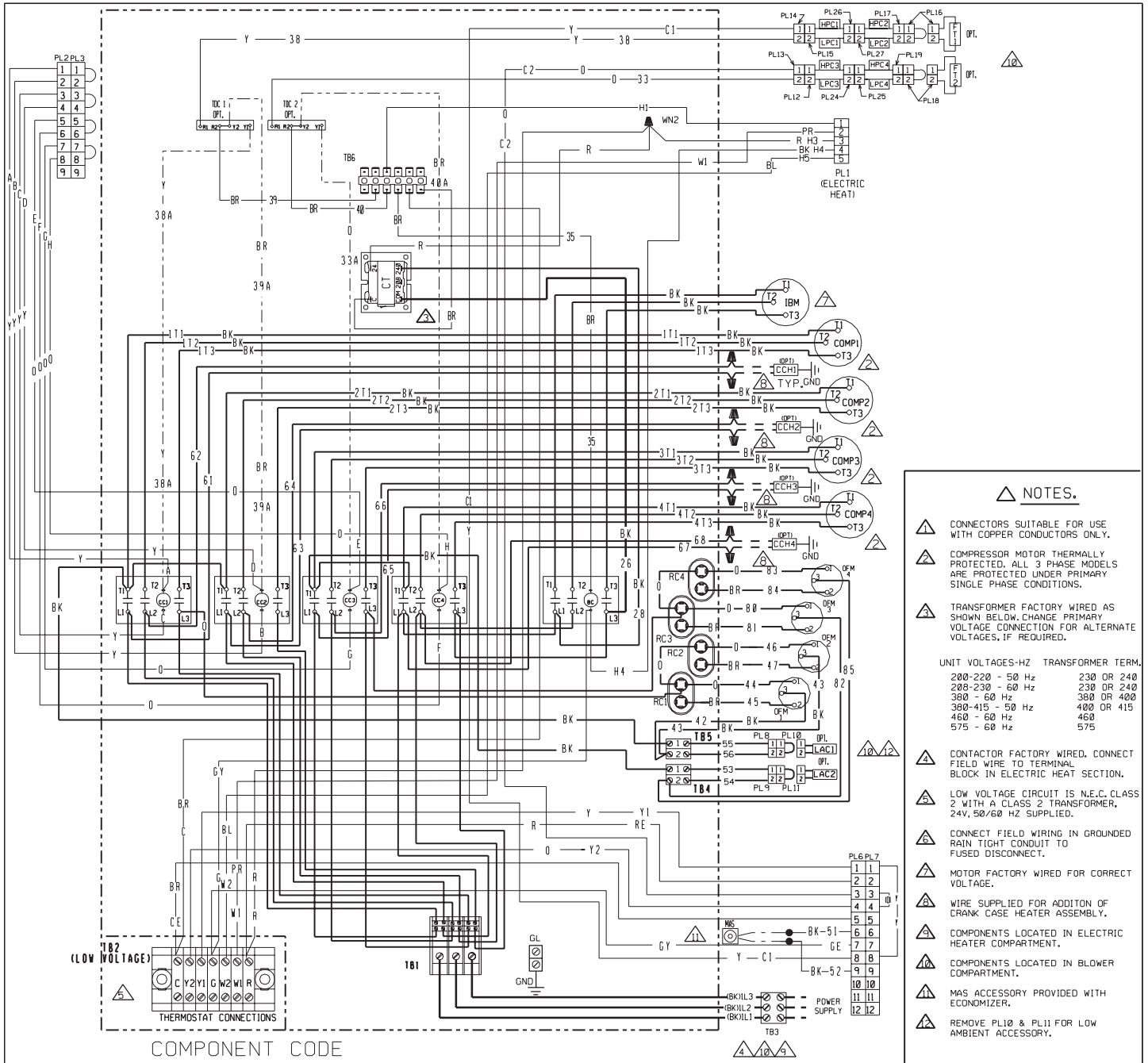
UNIT MODEL NUMBER RLNB-	HEATER KIT MODEL NO. RXJJ-	HEATER KW	HEATER KIT FLA	UNIT MIN. CKT. AMPACITY	MAX. FUSE OR CKT. BKR. SIZE (CKT. BKR. MUST BE HACR TYPE FOR USA)
A180CL	NONE	—	—	72/72	90/90
	CD20C	14.4/19.2	40.0/46.2	72/73	90/90
	CD40C	28.8/38.4	79.9/92.4	115/130	125/150
	CD60C	43.2/57.6	119.9/138.6	165/188	175/200
	CD75C	54.0/72.0	149.9/173.2	202/231	225/250
A180DL	NONE	—	—	42	50
	CD20D	19.2	23.1	42	50
	CD40D	38.4	46.2	67	70
	CD60D	57.6	69.3	96	100
	CD75D	72.0	86.6	117	125
A180YL	NONE	—	—	35	45
	CD20Y	19.2	18.5	35	45
	CD40Y	38.4	37.0	57	60
	CD60Y	57.6	55.4	80	80
	CD75Y	72.0	69.3	97	100
A180CM	NONE	—	—	75/75	90/90
	CD20C	14.4/19.2	40.0/46.2	75/77	90/90
	CD40C	28.8/38.4	79.9/92.4	119/134	125/150
	CD60C	43.2/57.6	119.9/138.6	169/192	175/200
	CD75C	54.0/72.0	149.9/173.2	206/235	225/250
A180DM	NONE	—	—	45	50
	CD20D	19.2	23.1	45	50
	CD40D	38.4	46.2	71	80
	CD60D	57.6	69.3	100	100
	CD75D	72.0	86.6	121	125
A180YM	NONE	—	—	35	45
	CD20Y	19.2	18.5	35	45
	CD40Y	38.4	37.0	57	60
	CD60Y	57.6	55.4	80	80
	CD75Y	72.0	69.3	97	100

TROUBLE SHOOTING CHART

▲ WARNING

DISCONNECT ALL POWER TO UNIT BEFORE SERVICING. CONTACTOR MAY BREAK ONLY ONE SIDE. FAILURE TO SHUT OFF POWER CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

SYMPTOM	POSSIBLE CAUSE	REMEDY
Unit will not run	<ul style="list-style-type: none"> • Power off or loose electrical connection • Thermostat out of calibration-set too high • Defective contactor • Blown fuses • Transformer defective • High pressure control open (if provided) • Interconnecting low voltage wiring damaged 	<ul style="list-style-type: none"> • Check for correct voltage at compressor contactor in control box • Reset • Check for 24 volts at contactor coil - replace if contacts are open • Replace fuses • Check wiring-replace transformer • Reset-also see high head pressure remedy- • Replace thermostat wiring
Condenser fan runs, compressor doesn't	<ul style="list-style-type: none"> • Run capacitor defective (single phase only) • Loose connection • Compressor stuck, grounded or open motor winding open internal overload. • Low voltage condition 	<ul style="list-style-type: none"> • Replace • Check for correct voltage at compressor - check & tighten all connections • Wait at least 2 hours for overload to reset. If still open, replace the compressor. At compressor terminals, voltage must be within 10% of rating plate volts when unit is operating.
Insufficient cooling	<ul style="list-style-type: none"> • Improperly sized unit • Improper airflow • Incorrect refrigerant charge • Air, non-condensibles or moisture in system • Incorrect voltage 	<ul style="list-style-type: none"> • Recalculate load • Check - should be approximately 400 CFM per ton. • Charge per procedure attached to unit service panel. • Recover refrigerant, evacuate & recharge, add filter drier • At compressor terminals, voltage must be within 10% of rating plate volts when unit is operating.
Compressor short cycles	<ul style="list-style-type: none"> • Incorrect voltage • Defective overload protector • Refrigerant undercharge 	<ul style="list-style-type: none"> • At compressor terminals, voltage must be \pm 10% of nameplate marking when unit is operating. • Replace - check for correct voltage • Add refrigerant
Registers sweat	<ul style="list-style-type: none"> • Low evaporator airflow 	<ul style="list-style-type: none"> • Increase speed of blower or reduce restriction - replace air filter
High head-low vapor pressures	<ul style="list-style-type: none"> • Restriction in liquid line, expansion device or filter drier • Flow check piston size too small • Incorrect capillary tubes • TXV does not open 	<ul style="list-style-type: none"> • Remove or replace defective component • Change to correct size piston • Change coil assembly • Replace TXV
High head-high or normal vapor pressure - Cooling mode	<ul style="list-style-type: none"> • Dirty condenser coil • Refrigerant overcharge • Condenser fan not running • Air or non-condensibles in system 	<ul style="list-style-type: none"> • Clean coil • Correct system charge • Repair or replace • Recover refrigerant, evacuate & recharge
High head-high or normal vapor pressure - Heating mode	<ul style="list-style-type: none"> • Low air flow - condenser coil • Refrigerant overcharge • Air or non-condensibles in system • Dirty condenser coil 	<ul style="list-style-type: none"> • Check filters - correct to speed • Correct system charge • Recover refrigerant, evacuate & recharge • Check filter - clean coil
Low head-high vapor pressures	<ul style="list-style-type: none"> • Defective Compressor valves 	<ul style="list-style-type: none"> • Replace compressor
Low vapor - cool compressor - iced evaporator coil	<ul style="list-style-type: none"> • Low evaporator airflow • Operating below 65°F outdoors • Moisture in system • TXV limiting refrigerant flow 	<ul style="list-style-type: none"> • Increase speed of blower or reduce restriction - replace air filter • Add Low Ambient Kit • Recover refrigerant - evacuate & recharge - add filter drier • Replace TXV
High vapor pressure	<ul style="list-style-type: none"> • Excessive load • Defective compressor 	<ul style="list-style-type: none"> • Recheck load calculation • Replace
Fluctuating head & vapor pressures	<ul style="list-style-type: none"> • TXV hunting • Air or non-condensibles in system 	<ul style="list-style-type: none"> • Check TXV bulb clamp - check air distribution on coil - replace TXV • Recover refrigerant, evacuate & recharge
Gurgle or pulsing noise at expansion device or liquid line	<ul style="list-style-type: none"> • Air or non-condensibles in system 	<ul style="list-style-type: none"> • Recover refrigerant, evacuate & recharge



- ### NOTES.
- ⚠ CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
 - ⚠ COMPRESSOR MOTOR THERMALLY PROTECTED. ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
 - ⚠ TRANSFORMER FACTORY WIRED AS SHOWN BELOW. CHANGE PRIMARY VOLTAGE CONNECTION FOR ALTERNATE VOLTAGES, IF REQUIRED.
- UNIT VOLTAGES-HZ TRANSFORMER TERM.
- | | |
|-----------------|------------|
| 200-220 - 50 Hz | 230 OR 240 |
| 208-230 - 60 Hz | 230 OR 240 |
| 380 - 60 Hz | 380 OR 400 |
| 380-415 - 50 Hz | 400 OR 415 |
| 460 - 60 Hz | 460 |
| 575 - 60 Hz | 575 |
- ⚠ CONTACTOR FACTORY WIRED. CONNECT FIELD WIRE TO TERMINAL BLOCK IN ELECTRIC HEAT SECTION.
 - ⚠ LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER, 24V, 50/60 HZ SUPPLIED.
 - ⚠ CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO FUSED DISCONNECT.
 - ⚠ MOTOR FACTORY WIRED FOR CORRECT VOLTAGE.
 - ⚠ WIRE SUPPLIED FOR ADDITION OF CRANK CASE HEATER ASSEMBLY.
 - ⚠ COMPONENTS LOCATED IN ELECTRIC HEATER COMPARTMENT.
 - ⚠ COMPONENTS LOCATED IN BLOWER COMPARTMENT.
 - ⚠ MAS ACCESSORY PROVIDED WITH ECONOMIZER.
 - ⚠ REMOVE PL10 & PL11 FOR LOW AMBIENT ACCESSORY.

DWG. NO. 90-42520-03	BC	BLOWER CONTACTOR	RC	RUN CAPACITOR
	CC	COMPRESSOR CONTACTOR	TB	TERMINAL BLOCK
REV 05	CT	CRANKCASE HEATER	TDC	TIME DELAY CONTROL
	COMP	COMPRESSOR	WN	WIRE NUT
	FT	FREEZE STAT		
	GL	GROUND LUG		
	GND	GROUND		
	HPC	HIGH PRESSURE CONTROL		
	IBM	INDOOR BLOWER MOTOR		
	LAC	LOW AMBIENT COOLING CONTROL		
	MAS	MIXED AIR SENSOR		
	OFM	OUTDOOR FAN MOTOR		
	OPT	OPTIONAL FAN MOTOR		
	PL	PLUG		
	LPC	LOW PRESSURE CONTROL		

WIRING INFORMATION

LINE VOLTAGE
 -FACTORY STANDARD _____
 -FACTORY OPTION - - - - -
 -FIELD INSTALLED - - - - -

LOW VOLTAGE
 -FACTORY STANDARD _____
 -FACTORY OPTION - - - - -
 -FIELD INSTALLED - - - - -

REPLACEMENT WIRE
 -MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105° C MIN.)
 WARNING
 -CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND LOCAL CODES AS APPLICABLE.

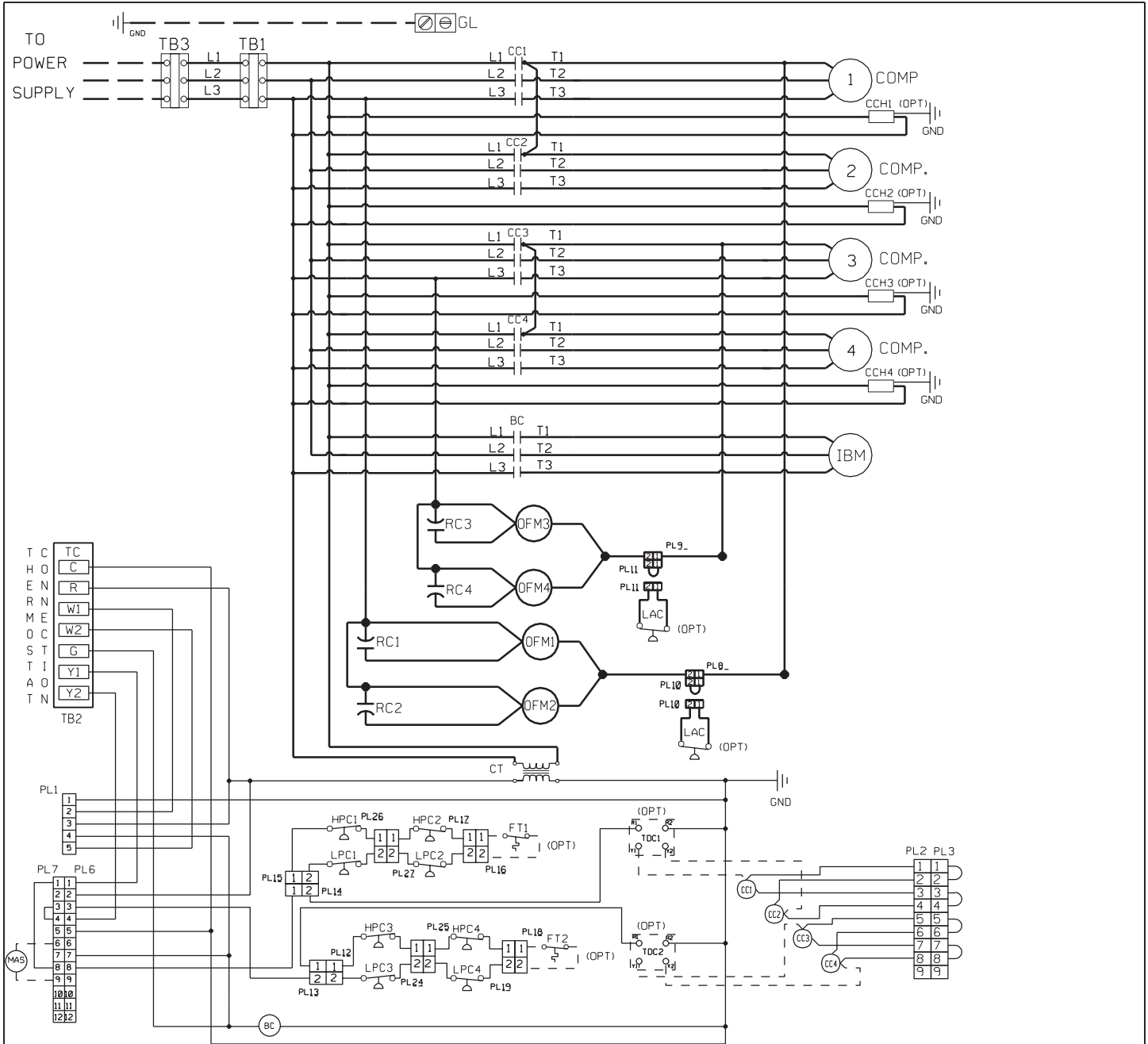
WIRE COLOR CODE

BK	BLACK	O	ORANGE
BR	BROWN	PR	PURPLE
BL	BLUE	R	RED
G	GREEN	W	WHITE
GY	GRAY	Y	YELLOW

WIRING DIAGRAM PACKAGED A/C

208-230V, 3PH, 60HZ. / 460V, 3PH, 60HZ.
 575V, 3PH, 60 HZ.
 380-415V, 3PH, 50HZ. / 200-220V, 3PH, 50HZ.

DR. BY	APP. BY	DATE	DWG. NO.	REV
JHB		8-26-99	90-42520-03	05



DWG. NO. 90-42520-04 REV. 03

BC	BLOWER MOTOR CONTACTOR
CC	COMPRESSOR CONTACTOR
CCH	CRANKSPACE HEATER
COMP	COMPRESSOR
CT	CONTROL TRANSFORMER
FT	FREEZE STAT
GL	GROUND LUG
GND	GROUND
HPC	HIGH PRESSURE CONTROL
IBM	INDOOR BLOWER MOTOR
LAC	LOW AMBIENT CONTROL
LPC	LOW PRESSURE CONTROL
MAS	MIXED AIR SENSOR
OFM	OUTDOOR FAN MOTOR
OPT	OPTIONAL
PL	PLUG
RC	RUN CAPACITOR
TB	TERMINAL BLOCK
TDC	TIME DELAY CONTROL

WIRING INFORMATION

LINE VOLTAGE
 -FACTORY STANDARD _____
 -FACTORY OPTION _____
 -FIELD INSTALLED - - - - -

LOW VOLTAGE
 -FACTORY STANDARD _____
 -FACTORY OPTION _____
 -FIELD INSTALLED - - - - -

REPLACEMENT WIRE
 -MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105° C MIN.)

WARNING
 -CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND LOCAL CODES AS APPLICABLE.

WIRE COLOR CODE

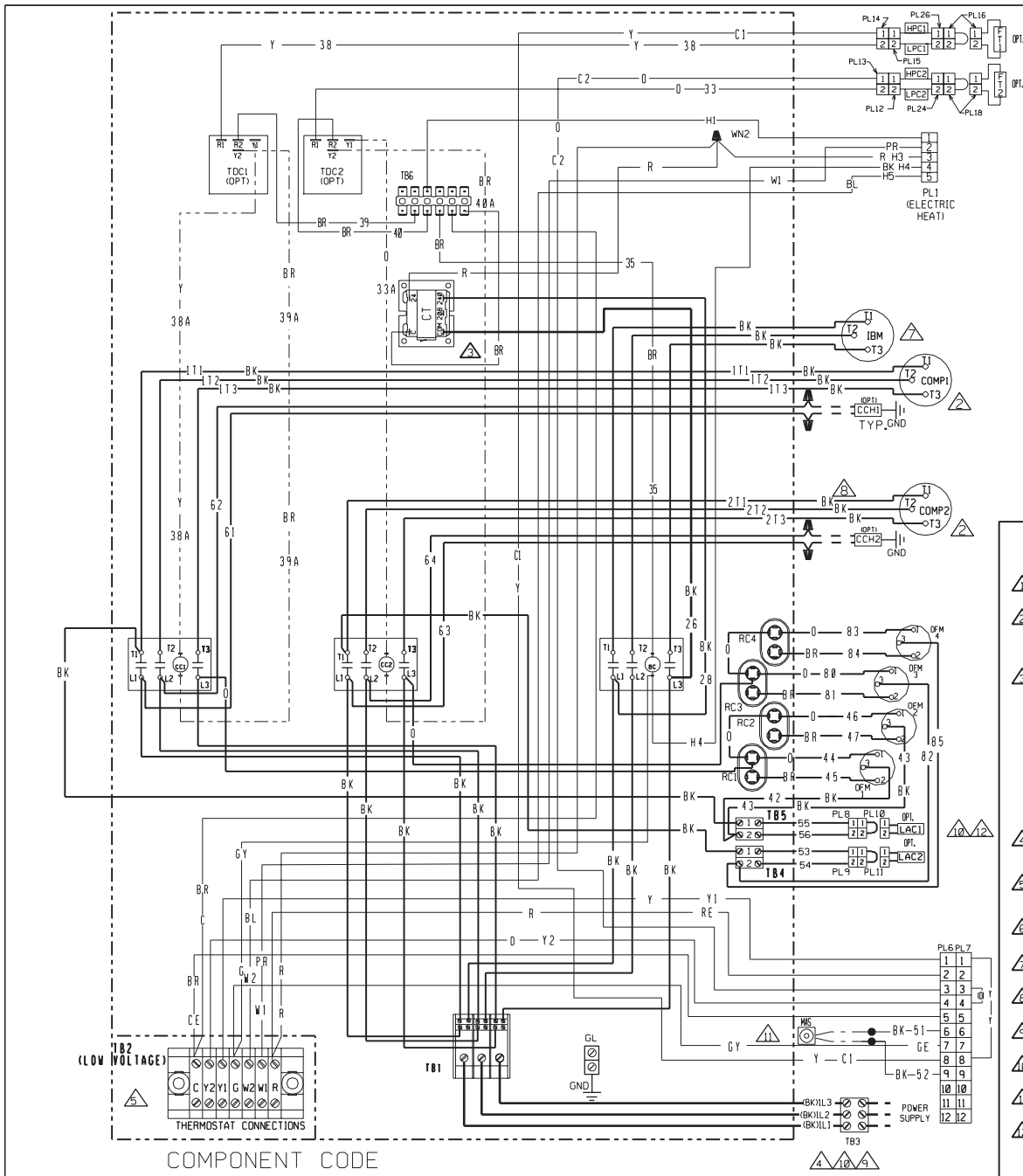
BK__BLACK	O___ORANGE
BR__BROWN	PR__PURPLE
BL__BLUE	R___RED
G___GREEN	W___WHITE
GY__GRAY	Y___YELLOW

WIRING SCHEMATIC

PACKAGED A/C

208-230V, 3PH, 60HZ. / 460V, 3PH, 60HZ.
 575V, 3PH, 60 HZ.
 380-415V, 3PH, 50HZ. / 200-220V, 3PH, 50HZ.

DR. BY	APP. BY	DATE	DWG. NO.	REV
JHB		6-23-98	90-42520-04	03



- NOTES.**
- ⚠ CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
 - ⚠ COMPRESSOR MOTOR THERMALLY PROTECTED. ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
 - ⚠ TRANSFORMER FACTORY WIRED AS SHOWN BELOW. CHANGE PRIMARY VOLTAGE CONNECTION FOR ALTERNATE VOLTAGES, IF REQUIRED.
- | UNIT VOLTAGES-HZ | TRANSFORMER TERM. |
|------------------|-------------------|
| 200-220 - 50 Hz | 230 OR 240 |
| 208-230 - 60 Hz | 230 OR 240 |
| 380 - 50 Hz | 380 OR 400 |
| 380-415 - 50 Hz | 400 OR 415 |
| 460 - 60 Hz | 460 |
| 575 - 60 Hz | 575 |
- ⚠ CONTACTOR FACTORY WIRED. CONNECT FIELD WIRE TO TERMINAL BLOCK IN ELECTRIC HEAT SECTION.
 - ⚠ LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER, 24V, 50/60 HZ SUPPLIED.
 - ⚠ CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO FUSED DISCONNECT.
 - ⚠ MOTOR FACTORY WIRED FOR CORRECT VOLTAGE.
 - ⚠ WIRE SUPPLIED FOR ADDITION OF CRANK CASE HEATER ASSEMBLY.
 - ⚠ COMPONENTS LOCATED IN ELECTRIC HEATER COMPARTMENT.
 - ⚠ COMPONENTS LOCATED IN BLOWER COMPARTMENT.
 - ⚠ MAS ACCESSORY PROVIDED WITH ECONOMIZER.
 - ⚠ REMOVE PL10 & PL11 FOR LOW AMBIENT ACCESSORY.

DWG. NO. 90-42520-06 REV 01	BC	BLOWER CONTACTOR	RC	RUN CAPACITOR
	CC	COMPRESSOR CONTACTOR	TB	TERMINAL BLOCK
	CCH	CRANKCASE HEATER	TDC	TIME DELAY CONTROL
	COMP	COMPRESSOR	WN	WIRE NUT
	CT	CONTROL TRANSFORMER		
	FT	FREEZE STAT		
	GL	GROUND LUG		
	GND	GROUND		
	HPC	HIGH PRESSURE CONTROL		
	IBM	INDOOR BLOWER MOTOR		
	LAC	LOW AMBIENT COOLING CONTROL		
	MAS	MIXED AIR SENSOR		
	OFM	OUTDOOR FAN MOTOR		
	OPT	OPTIONAL		
	PL	PLUG		
	LPC	LOW PRESSURE CONTROL		

WIRING INFORMATION

LINE VOLTAGE
 -FACTORY STANDARD —————
 -FACTORY OPTION - - - - -
 -FIELD INSTALLED - - - - -

LOW VOLTAGE
 -FACTORY STANDARD —————
 -FACTORY OPTION - - - - -
 -FIELD INSTALLED - - - - -

REPLACEMENT WIRE
 -MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105° C MIN.)

WARNING
 -CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND LOCAL CODES AS APPLICABLE.

WIRE COLOR CODE			
BK	BLACK	O	ORANGE
BR	BROWN	PR	PURPLE
BL	BLUE	R	RED
G	GREEN	W	WHITE
GY	GRAY	Y	YELLOW

WIRING DIAGRAM
RLNB-A180
PACKAGED A/C
 208-230V, 3PH, 60HZ. / 460V, 3PH, 60HZ.
 575V, 3PH, 60 HZ.

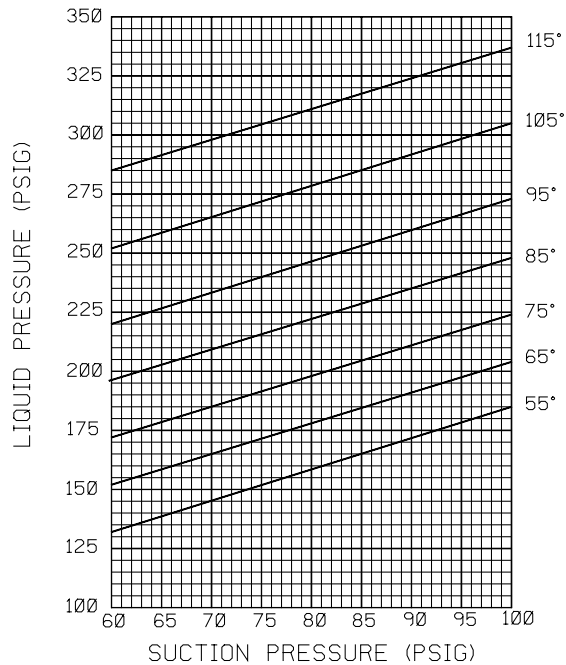
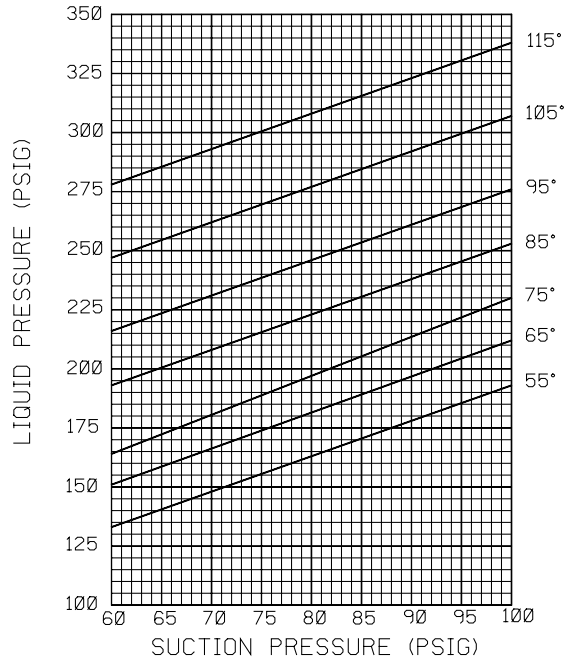
DR. BY	APP. BY	DATE	DWG. NO.	REV
JRJ		12-29-03	90-42520-06	01

RLKB SERIES – 15 TON

SYSTEM CHARGE CHART - REFRIGERANT 22 15 TON, STAGE 1 & 2

CAUTION: 1. BOTH COMPRESSORS MUST BE OPERATING BEFORE CHECKING REFRIGERANT CHARGE.
2. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK.

INSTRUCTIONS: 1. MEASURE SUCTION AND LIQUID PRESSURES AT SERVICE ACCESS PORTS.
2. MEASURE OUTDOOR AMBIENT TO UNIT.
3. PLACE (X) ON CHART WHERE SUCTION AND LIQUID INTERSECT.
4. IF (X) IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF (X) IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 1.



*CONDENSER FANS OPERATING, MAY REQUIRE JUMPERING OF HEAD PRESSURE CONTROL.

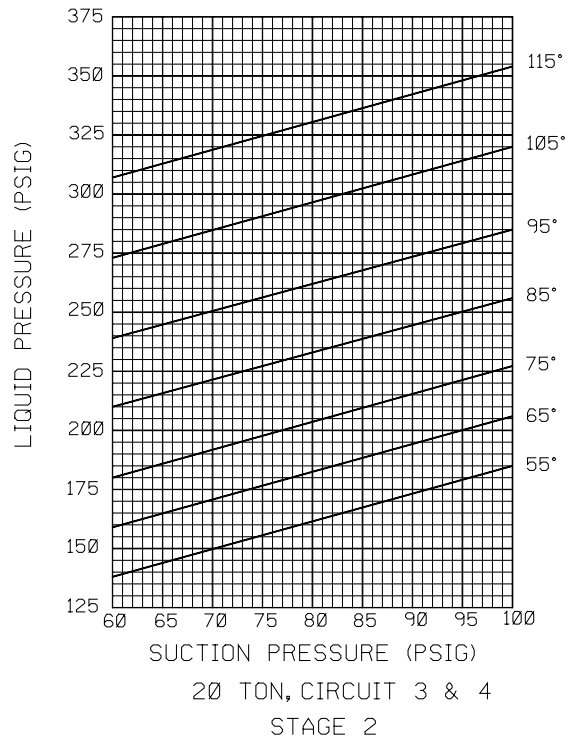
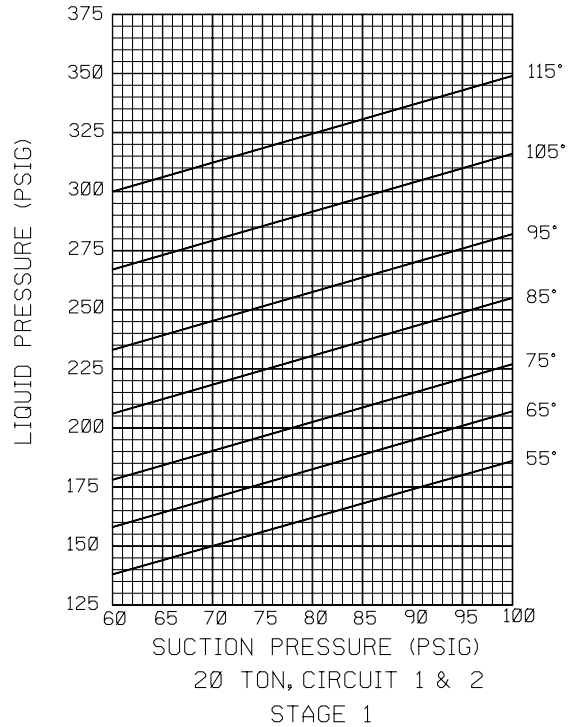
92-42530-15-00

RLKB SERIES – 20 TON

SYSTEM CHARGE CHART - REFRIGERANT 22 20 TON, STAGE 1 & 2

CAUTION: 1. BOTH COMPRESSORS MUST BE OPERATING BEFORE CHECKING REFRIGERANT CHARGE.
2. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK.

INSTRUCTIONS: 1. MEASURE SUCTION AND LIQUID PRESSURES AT SERVICE ACCESS PORTS.
2. MEASURE OUTDOOR AMBIENT TO UNIT.
3. PLACE (X) ON CHART WHERE SUCTION AND LIQUID INTERSECT.
4. IF (X) IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF (X) IS ABOVE OUTDOOR LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 1.



*CONDENSER FANS OPERATING, MAY REQUIRE JUMPERING OF HEAD PRESSURE CONTROL.

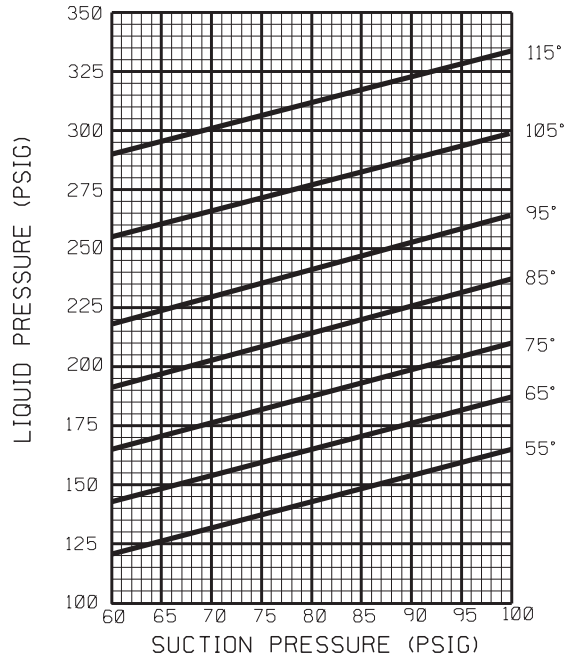
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RLKB SERIES – 25 TON

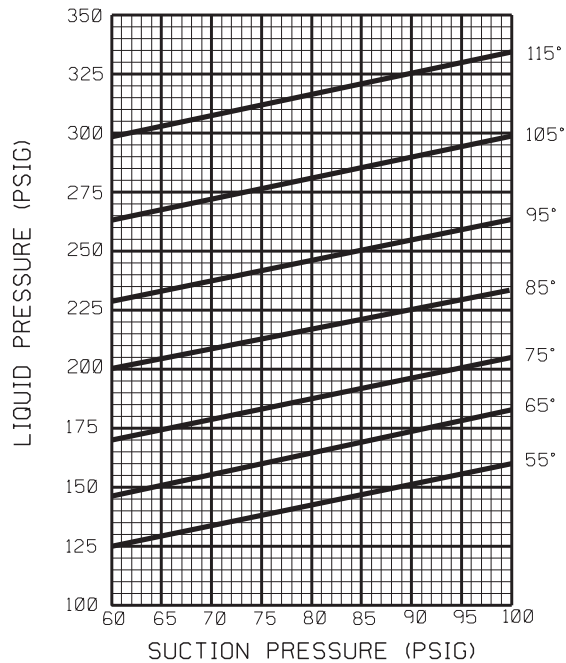
SYSTEM CHARGE CHART - REFRIGERANT 22 25 TON, STAGE 1 & 2

CAUTION: 1. BOTH COMPRESSORS MUST BE OPERATING BEFORE CHECKING REFRIGERANT CHARGE.
2. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK.

INSTRUCTIONS: 1. MEASURE SUCTION AND LIQUID PRESSURES AT SERVICE ACCESS PORTS.
2. MEASURE OUTDOOR AMBIENT TO UNIT.
3. PLACE (X) ON CHART WHERE SUCTION AND LIQUID INTERSECT.
4. IF (X) IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF (X) IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 1.



25 TON, CIRCUIT 1 & 2
STAGE 1



25 TON, CIRCUIT 3 & 4
STAGE 2

*CONDENSER FANS OPERATING, MAY REQUIRE JUMPERING OF HEAD PRESSURE CONTROL.

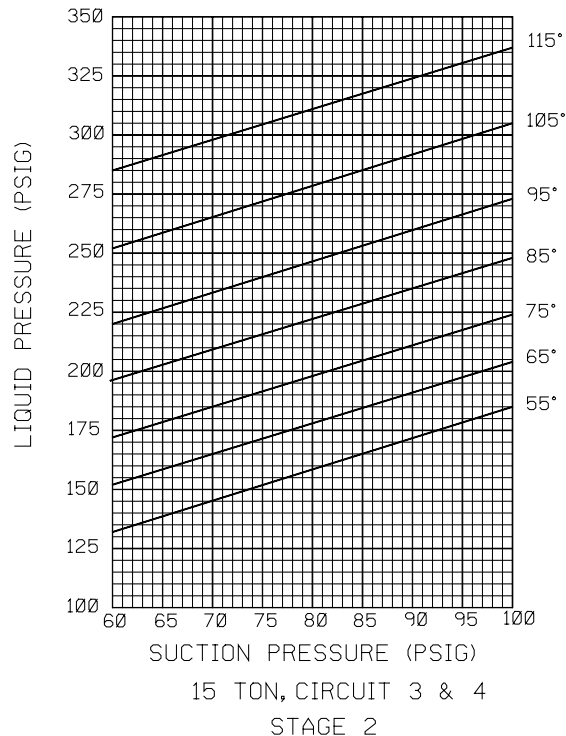
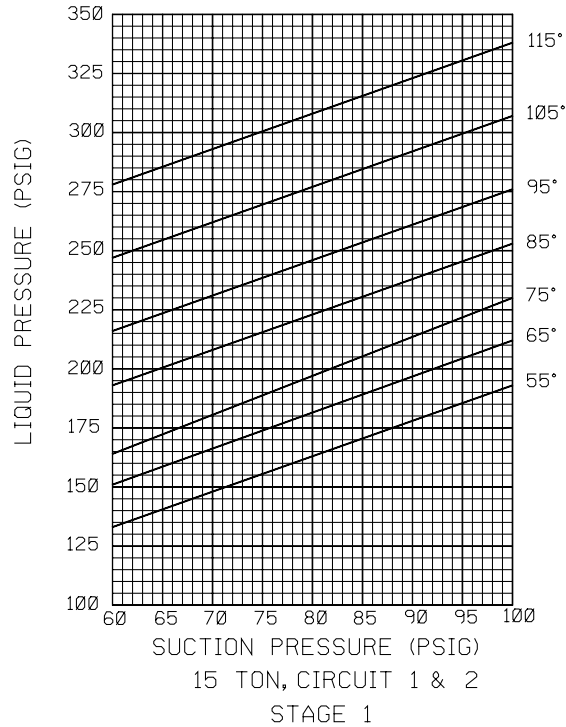
92-42530-24-00

RLMB SERIES – 15 TON

SYSTEM CHARGE CHART - REFRIGERANT 22 15 TON, STAGE 1 & 2

- CAUTION: 1. BOTH COMPRESSORS MUST BE OPERATING BEFORE CHECKING REFRIGERANT CHARGE.
2. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK.

- INSTRUCTIONS: 1. MEASURE SUCTION AND LIQUID PRESSURES AT SERVICE ACCESS PORTS.
2. MEASURE OUTDOOR AMBIENT TO UNIT.
3. PLACE (X) ON CHART WHERE SUCTION AND LIQUID INTERSECT.
4. IF (X) IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF (X) IS ABOVE OUTDOOR LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 1.



*CONDENSER FANS OPERATING, MAY REQUIRE JUMPERING OF HEAD PRESSURE CONTROL.

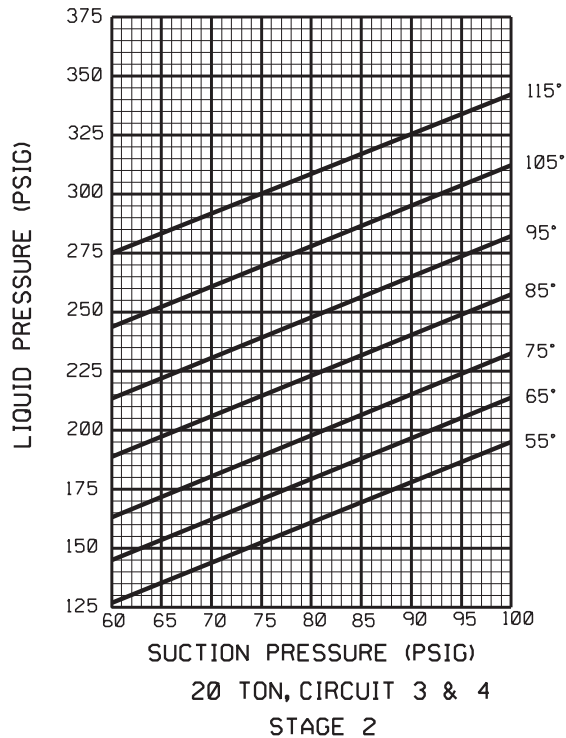
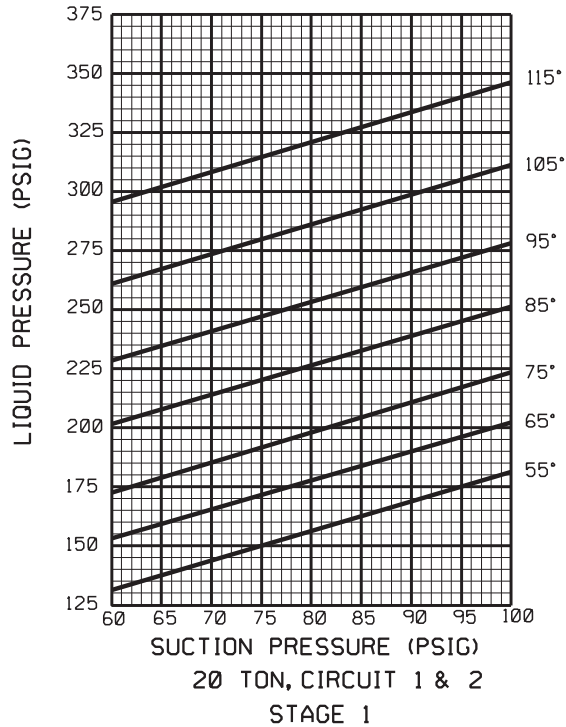
92-42530-15-00

RLMB SERIES – 20 TON

SYSTEM CHARGE CHART - REFRIGERANT 22 20 TON, STAGE 1 & 2

CAUTION: 1. BOTH COMPRESSORS MUST BE OPERATING BEFORE CHECKING REFRIGERANT CHARGE.
2. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK.

INSTRUCTIONS: 1. MEASURE SUCTION AND LIQUID PRESSURES AT SERVICE ACCESS PORTS.
2. MEASURE OUTDOOR AMBIENT TO UNIT.
3. PLACE (X) ON CHART WHERE SUCTION AND LIQUID INTERSECT.
4. IF (X) IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF (X) IS ABOVE OUTDOOR AMBIENT LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 1.



*CONDENSER FANS OPERATING, MAY REQUIRE JUMPERING OF HEAD PRESSURE CONTROL.

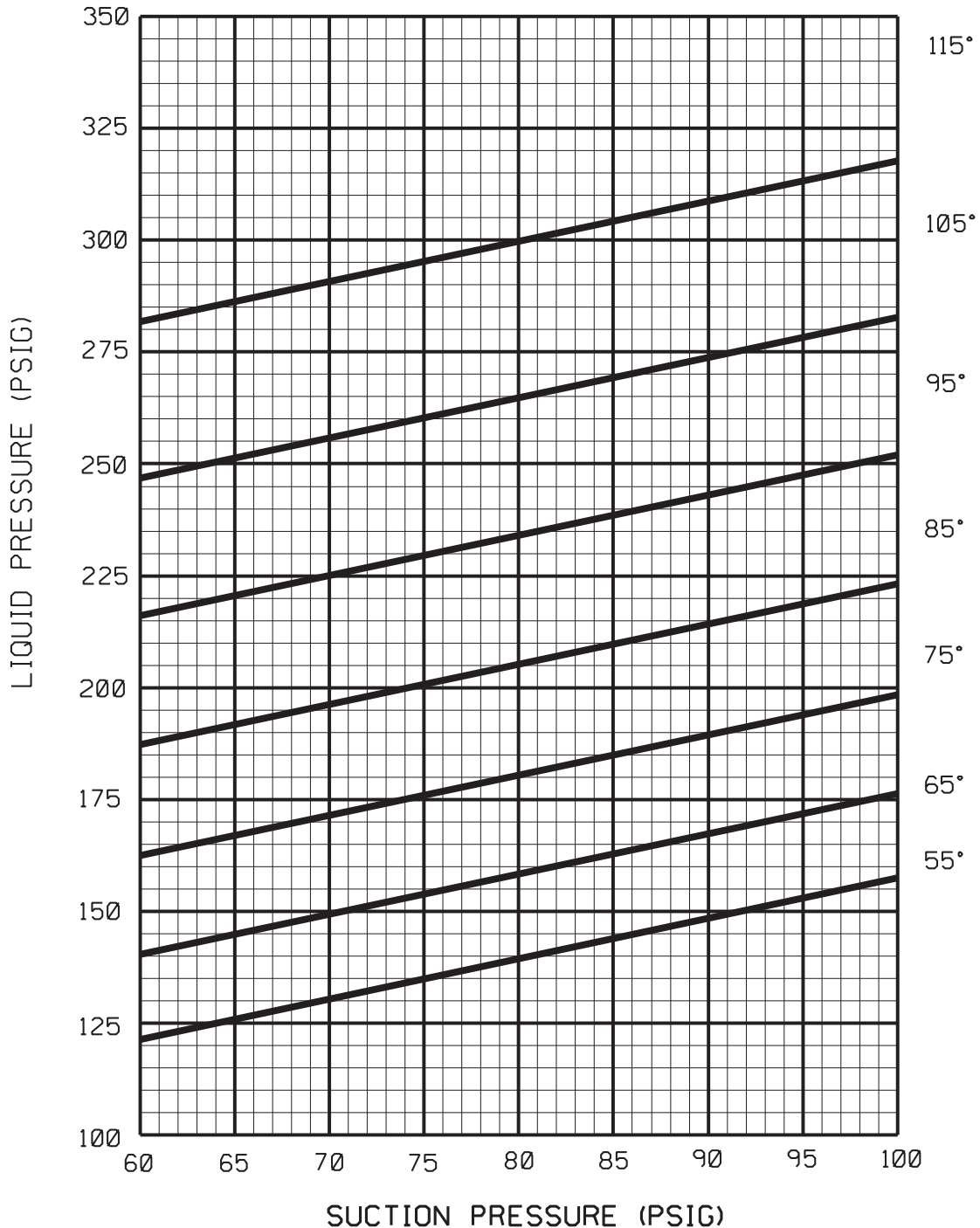
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RLNB SERIES – 15 TON

SYSTEM CHARGE CHART - REFRIGERANT 22 15 TON, SYSTEM 1 & 2

CAUTION: 1. BOTH COMPRESSORS MUST BE OPERATING BEFORE CHECKING REFRIGERANT CHARGE.
2. RETURN AIR TEMPERATURE MUST BE WITHIN COMFORT CONDITIONS BEFORE FINAL REFRIGERANT CHECK.

INSTRUCTIONS: 1. MEASURE SUCTION AND LIQUID PRESSURES AT SERVICE ACCESS PORTS.
2. MEASURE OUTDOOR AMBIENT TO UNIT.
3. PLACE (X) ON CHART WHERE SUCTION AND LIQUID INTERSECT.
4. IF (X) IS BELOW OUTDOOR AMBIENT LINE, ADD CHARGE AND REPEAT STEP 3.
5. IF (X) IS ABOVE OUTDOOR LINE, RECOVER EXCESS CHARGE AND REPEAT STEP 1.



*CONDENSER FAN OPERATING, MAY REQUIRE JUMPERING OF HEAD PRESSURE CONTROL.

92-42530-30-00

