



## iC Air Conditioners



### **DRAC15A**

Cooling Efficiency: 15.2 SEER2/9.8 EER2

Nominal Sizes: 2 to 5 Ton [7.0 to 17.6 kW]

Cooling Capacities: 17.1 to 55.5 kBTU [5.0 to 16.3 kW]



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## Features and Benefits

- **Bluetooth Connectivity:** With the BlueArch™ Contractor App, built-in technology makes advanced set-up, monitoring, troubleshooting and repairing the product easier than ever before
- **Variable Speed Twin Rotary Compressor & Inverter Drive:**
  - When installed with a 24V two-stage thermostat
  - Provides precise temperature control, advanced humidity control and greater efficiency
- **Swept Wing Fan Technology:** Features quieter operation and improved unit acoustics
- **7 mm Condenser Copper Coil:** Requires less refrigerant allowing for a smaller and lighter footprint while enhancing reliability
- **Pre-Painted Louvered Steel Cabinet:** Features durable construction to add protection from yard hazards, weather corrosion
- **Easily Accessible Control Box:** Leads to ease of installation and future serviceability

# Air Conditioners

<u>DR</u>	<u>AC</u>	<u>15</u>	<u>A</u>	<u>24</u>	<u>A</u>	<u>J</u>	<u>3</u>	<u>A</u>	<u>N</u>	<u>A</u>
Brand	Product Category	SEER2	Refrigerant	Capacity BTU/HR	Major Series	Voltage	Type	Region	Controls	Minor Series
DR - Durastar	A - Air Conditioners	15 - 15.2 SEER2	A - R-410A	24 - 24,000 [7.03 kW] 36 - 36,000 [10.55 kW] 48 - 48,000 [14.07 kW] 60 - 60,000 [17.58 kW]	A - 1st Design	J - 1ph, 208-230/60	3 - 3+ Stage	A - All Regions	N - Non-Communicating	A - 1st Design

[ ] Designates Metric Conversions

AVAILABLE MODELS
DRAC15A24AJ3ANA
DRAC15A36AJ3ANA
DRAC15A48AJ3ANA
DRAC15A60AJ3ANA

STANDARD EQUIPMENT
R-410A Refrigerant
Scroll Compressor
Field Installed Filter Drier
Front Seating Service Valves
Internal Pressure Relief Valve
Internal Thermal Overload
Long Line capability
Low Ambient capability with Kit
Optimized Venturi Airflow
Rust resistant screws
QR code
External gauge ports

<b>General Data</b>				
<b>MODEL NO.</b>	<b>DRAC15A24AJ3ANA</b>	<b>DRAC15A36AJ3NA</b>	<b>DRAC15A48AJ3NA</b>	<b>DRAC15A60AJ3NA</b>
<b>Nominal Tonnage</b>	2.0	3.0	4.0	5.0
<b>Valve Connections</b>				
Liquid Line O.D. – in.	3/8	3/8	3/8	3/8
Suction Line O.D. – in.	3/4	3/4	7/8	7/8
<b>Refrigerant (R410A) furnished oz.<sup>1</sup></b>	91	119	130	154
<b>Compressor Type</b>	Twin Rotary			
<b>Outdoor Coil</b>				
Net face area – Outer Coil	11.79	14.4	16.42	17.88
Net face area – Inner Coil	---	---	---	---
Tube diameter – in.	0.276	0.276	0.276	0.276
Number of rows	1	1	1	1
Fins per inch	24	24	24	24
<b>Outdoor Fan</b>				
Diameter – in.	20	24	24	26
Number of blades	3	3	3	3
Motor hp	1/4	1/5	1/2	1/2
CFM	2904	4138	4422	5234
RPM	1075	1000	1075	1075
Watts	297	267	401	463
<b>Shipping weight – lbs.</b>	157	158	200	215
<b>Operating weight – lbs.</b>	149	150	192	207
<b>Electrical Data</b>				
<b>Line Voltage Data (Volts-Phase-Hz)</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>
<b>Maximum overcurrent protection (amps)<sup>2</sup></b>	20	30	40	0
<b>Minimum circuit ampacity<sup>3</sup></b>	12	20	25	0
<b>Compressor</b>				
Rated load amps	10	15	20	0
Locked rotor amps	65	70	96	119

<sup>1</sup>Refrigerant charge sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the installation instructions for information about set length and additional refrigerant charge required.

<sup>2</sup>HACR type circuit breaker or fuse.

<sup>3</sup>Refer to National Electrical Code manual to determine wire, fuse and disconnect size requirements.

## Accessories

MODEL NO.		DRAC15A24AJ3ANA	DRAC15A36AJ3NA	DRAC15A48AJ3NA	DRAC15A60AJ3NA
Compressor crankcase heater*		X	X	X	X
Low ambient control		X	X	X	X
Compressor sound cover		X	X	X	X
Compressor hard start kit		X	X	X	X
Compressor time delay		X	X	X	X
Low pressure control		X	X	X	X
High pressure control		√	√	√	√
Liquid Line Solenoid (24 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC
	Solenoid Coil	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V
Liquid Line Solenoid (120/240 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC
	Solenoid Coil	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V

\*Crankcase Heater recommended with Low Ambient Kit.

## Weighted Sound Power Level (dBA)

Unit Size - Voltage, Series	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
DRAC15A24AJ3ANA	71.7	46.1	59.1	63.2	60.8	58.7	56.5	47.9
DRAC15A36AJ3ANA	72.9	47.5	59.5	64.9	60.7	62.6	57.0	49.6
DRAC15A48AJ3ANA	76.2	49.4	61.4	68.1	53.9	60.8	57.4	48.5
DRAC15A60AJ3ANA	76.7	49.3	64.6	68.1	65.1	62.6	58.6	53.0

**NOTE:** Tested in accordance with AHRI Standard 270-08 (not listed in AHRI)

# Unit Dimensions

MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
DRAC15A24AJ3ANA	27.00	686	29.75	756	29.75	756	28.50	724	32.38	822	32.38	822
DRAC15A36AJ3ANA	27.00	686	33.75	857	33.75	857	28.50	724	36.38	924	36.38	924
DRAC15A48AJ3ANA	31.00	787	33.75	857	33.75	857	32.50	826	36.38	924	36.38	924
DRAC15A60AJ3ANA	31.00	787	35.75	908	35.75	908	32.50	826	38.38	975	38.38	975

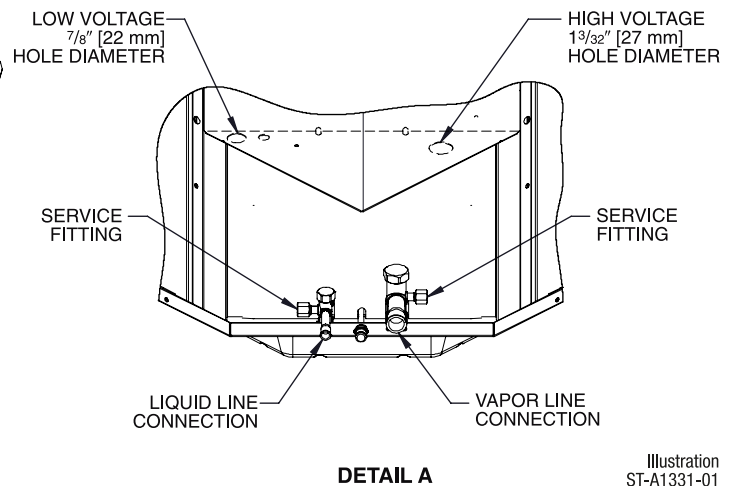
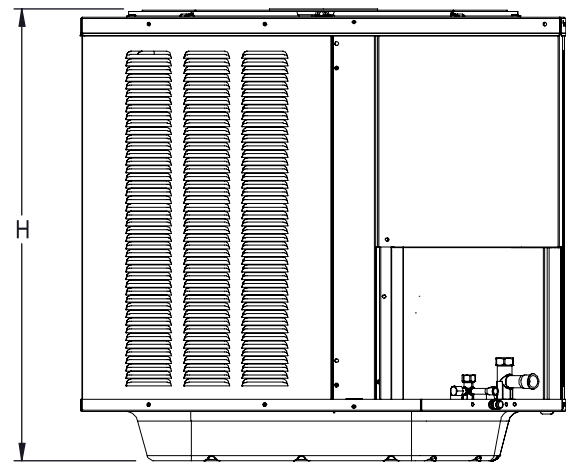
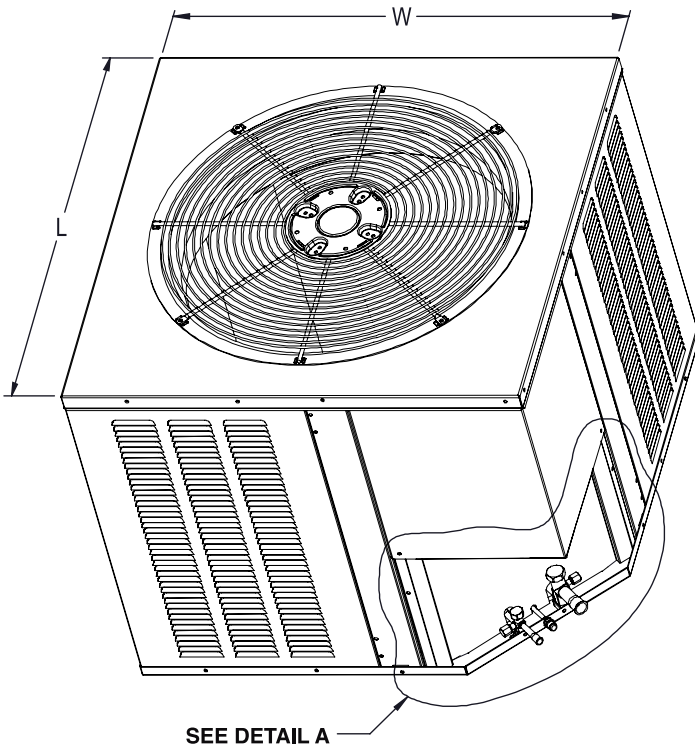
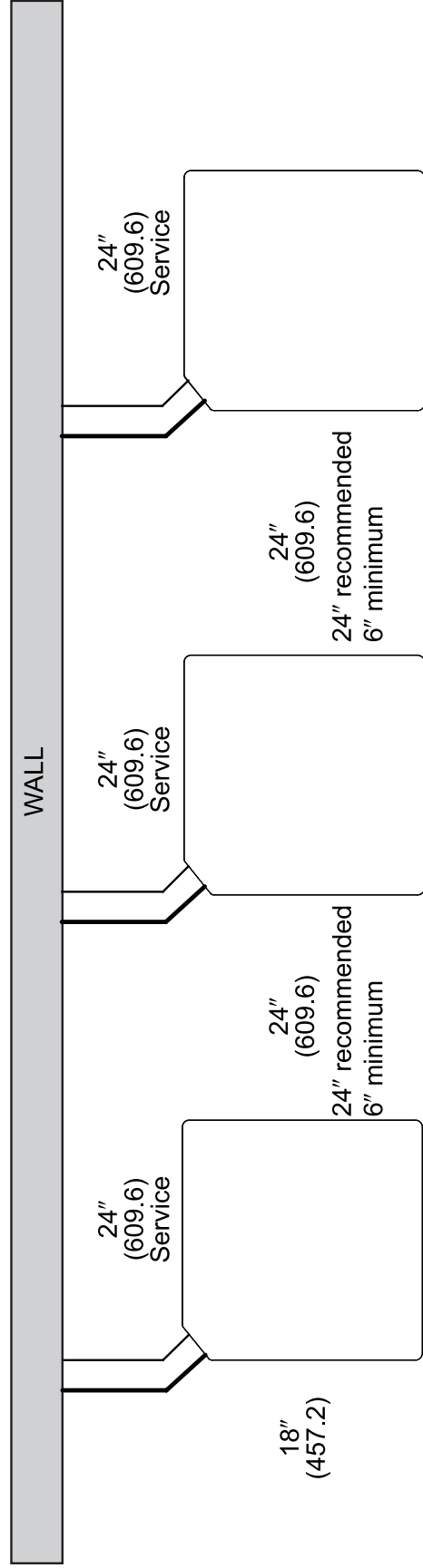
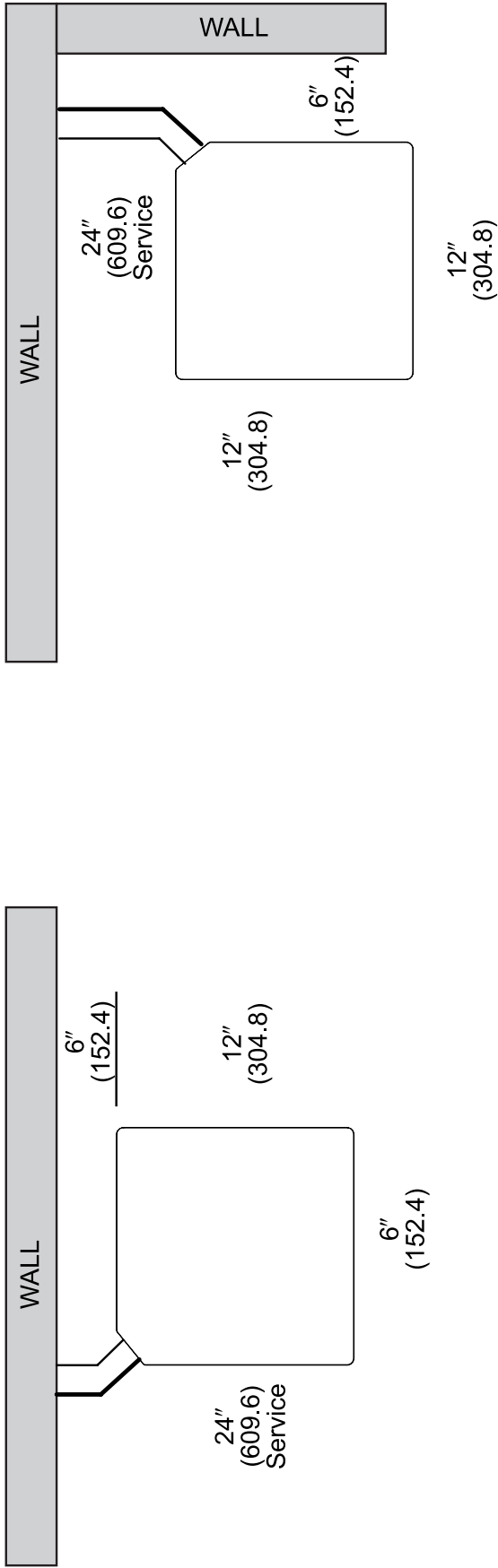


Illustration  
 ST-A1331-01  
 Rev. 10-20-2022

**NOTE:** Illustrations show the deep drawn basepan.

[ ] Designates Metric Conversions

# CLEARANCES

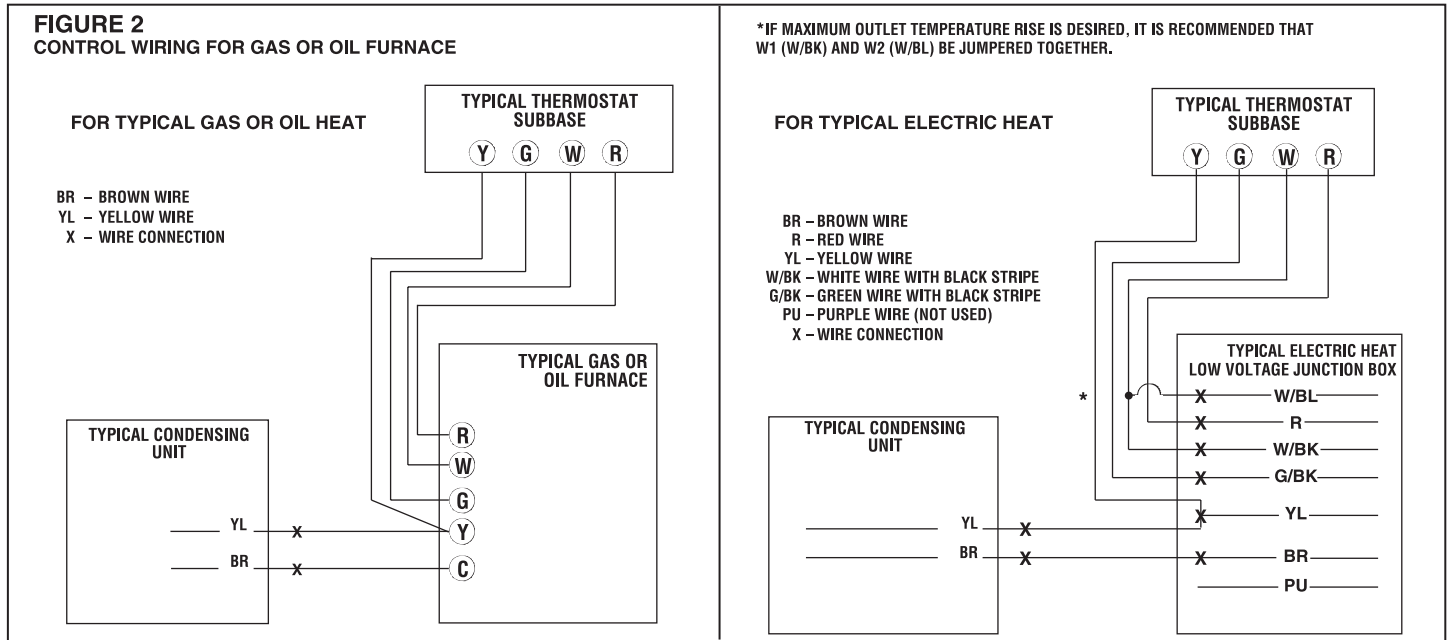


**NOTE: NUMBERS IN ( ) = mm**

**IMPORTANT:** When installing multiple units in an alcove, roof well or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.



## Control Wiring



## Application Guidelines

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01 -in. wc.
2. Minimum outdoor operation air temperature for cooling mode without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. Use only copper wire for electric connections at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
6. Do not apply capillary tube indoor coils to these units.
7. Factory-supplied filter drier must be installed.

## Refrigerant Line Size Information

15/16 SEER2 VARIABLE SPEED AIR CONDITIONERS								
Unit Size	Allowable Liquid Line Size	Allowable Vapor Line Size	Outdoor Unit ABOVE or BELOW Indoor Unit Equivalent Length (Feet)					
			< 25	26-50	51-75	76-100	101-125	126-150
			Maximum Vertical Separation / Capacity Multiplier					
2.0 Ton <b>**SEE NOTE 3</b>	1/4"	5/8"	25/1.00	50/0.99	32/0.98	40/0.97	NR	NR
	5/16"	5/8"	25/1.00	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	3/8"	5/8"	25/1.00	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	1/4"	3/4"	25/1.00	50/1.00	32/0.99	40/0.99	NR	NR
	5/16"	3/4"	25/1.00	50/1.00	50/0.99	50/0.99	50/0.99	50/0.98
	3/8"	3/4"	25/1.00	50/1.00	50/0.99	50/0.99	50/0.99	50/0.98
3 Ton	5/16"	5/8"	25/0.99	50/0.97	50/0.95	50/0.93	37/0.91	NR
	3/8"	5/8"	25/0.99	50/0.97	50/0.95	50/0.93	50/0.91	NR
	5/16"	3/4"	25/1.00	50/0.99	50/0.99	50/0.98	37/0.97	22/0.96
	3/8"	3/4"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.97	50/0.96
	1/2"	3/4"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.97	50/0.96
4 Ton	3/8"	3/4"	25/0.99	50/0.98	50/0.97	50/0.96	50/0.94	50/0.93
	1/2"	3/4"	25/0.99	50/0.98	50/0.97	50/0.96	50/0.94	50/0.93
	3/8"	7/8"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.98	50/0.97
	1/2"	7/8"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.98	50/0.97
5 Ton	3/8"	3/4"	25/0.99	50/0.97	50/0.95	50/0.93	50/0.91	NR
	1/2"	3/4"	25/0.99	50/0.97	50/0.95	50/0.93	50/0.91	NR
	3/8"	7/8"	25/1.00	50/0.99	50/0.98	50/0.98	50/0.97	38/0.96
	1/2"	7/8"	25/1.00	50/0.99	50/0.98	50/0.98	50/0.97	50/0.96

**NOTES:**

- 1) Do not exceed 150 ft. linear line length.
- 2) \*Do not exceed 50 ft. vertical separation between indoor and outdoor units.
- 3) \*\*3/4" suction line should only be used for 2 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
- 4) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 5) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 6) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

[ ] Designates Metric Conversions

## Refrigerant Line Size Information (Con't.)

15/16 SEER2 VARIABLE SPEED AIR CONDITIONERS								
Unit Size	Allowable Liquid Line Size	Allowable Vapor Line Size	Outdoor Unit ABOVE or BELOW Indoor Unit Equivalent Length (Meters)					
			< 8	8-15	16-23	23-31	31-38	38-46
			Maximum Vertical Separation / Capacity Multiplier					
2.0 Ton <b>**SEE NOTE 3</b>	6.35 [1/4]	15.88 [5/8]	8/1.00	15/0.99	1/0.98	10/0.97	NR	NR
	7.94 [5/16]	15.88 [5/8]	8/1.00	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	9.53 [3/8]	15.88 [5/8]	8/1.00	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	6.35 [1/4]	19.05 [3/4]**	8/1.00	15/0.99	10/0.99	1/0.99	NR	NR
	7.94 [5/16]	19.05 [3/4]**	8/1.00	15/0.99	15/0.99	15/0.99	15/0.99	15/0.98
	9.53 [3/8]	19.05 [3/4]**	8/1.00	15/0.99	15/0.99	15/0.99	15/0.99	15/0.98
3 Ton	7.94 [5/16]	15.88 [5/8]	8/0.99	15/0.97	15/0.95	15/0.93	11/0.91	NR
	9.53 [3/8]	15.88 [5/8]	8/0.99	15/0.97	15/0.95	15/0.93	15/0.91	NR
	7.94 [5/16]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.98	11/0.97	7/0.96
	9.53 [3/8]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.97	15/0.96
	12.7 [1/2]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.97	15/0.96
4 Ton	9.53 [3/8]	19.05 [3/4]	8/0.99	15/0.98	15/0.97	15/0.96	15/0.94	15/0.93
	12.7 [1/2]	19.05 [3/4]	8/0.99	15/0.98	15/0.97	15/0.96	15/0.94	15/0.93
	9.53 [3/8]	22.23 [7/8]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.98	15/0.97
	12.7 [1/2]	22.23 [7/8]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.98	15/0.97
5 Ton	9.53 [3/8]	19.05 [3/4]	8/0.99	15/0.97	15/0.95	15/0.93	15/0.91	NR
	12.7 [1/2]	19.05 [3/4]	8/0.99	15/0.97	15/0.95	15/0.93	15/0.91	NR
	9.53 [3/8]	22.23 [7/8]	8/1.00	15/0.99	15/0.98	15/0.98	15/0.97	12/0.96
	12.7 [1/2]	22.23 [7/8]	8/1.00	15/0.99	15/0.98	15/0.98	15/0.97	15/0.97

**NOTES:**

- 1) Do not exceed 46 meters linear line length.
- 2) \*Do not exceed 15 meters vertical separation between indoor and outdoor units.
- 3) \*\*19.05mm [3/4 in.] vapor line should only be used for 2 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
- 4) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 5) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 6) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

Additional Oil, Oz.											
Lineset Length	50	60	70	80	90	100	110	120	130	140	150
2T	N/A	N/A	N/A	N/A	N/A	1	2	3	5	6	7
3T	N/A	N/A	N/A	N/A	N/A	N/A	1	2	3	5	6
4T	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5T	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

## Performance Data @ AHRI Standard Conditions—Cooling

Designated Tested Combination (DTC)							
Outdoor Unit	Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER2	EER2	Indoor CFM [L/s]
DRAC15A24AJ3ANA	DRAH3LA2417ASTNNJ	22800 [6.7]	17600 [5.2]	5200 [1.5]	15.2	9.8	750 [354.0]
DRAC15A36AJ3ANA	DRAH3LA3617ASTNNJ	34200 [10.0]	26600 [7.8]	7600 [2.2]	15.2	9.8	1125 [530.9]
DRAC15A48AJ3ANA	DRAH3LA4821ASTNNJ	45500 [13.3]	35500 [10.4]	10000 [2.9]	15.2	9.8	1425 [672.5]
DRAC15A60AJ3ANA	DRAH3LA6024ASTNNJ	55500 [16.3]	43000 [12.6]	12500 [3.7]	15.2	9.8	1675 [790.5]

**NOTE:** This data includes DTC (Designated Test Combination) ratings and is for reference purposes only. A full listing of official ratings and system match-ups, along with downloadable certificates, can be accessed from the AHRI website: [www.ahridirectory.org](http://www.ahridirectory.org).

[ ] Designates Metric Conversions









**GENERAL TERMS OF LIMITED WARRANTY\***

Durastar will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

Parts .....Five (5) Years

**\*For complete details of the Limited and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.**

**Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.**



*"In keeping with its policy of continuous progress and product improvement, Durastar reserves the right to make changes without notice."*