

# R2H3

## Product Specifications

For Use With R-22 Refrigerant

### HEAT PUMP COMPONENT

1-1/2 THRU 5 TONS

208 / 230 Volt, 1-phase, 60 Hz

#### REFRIGERATION CIRCUIT

- Scroll compressors on all models
- Compressors contain proper charge of POE oil\*\*
- Suction line accumulator factory installed
- Integrated solid state control with Time-Temperature Defrost
- Low pressure switch
- Copper tube / aluminum fin coil

#### EASY TO INSTALL AND SERVICE

- Easy Access service valves on all models
- External high and low refrigerant service ports
- Only two screws to access control panel
- Factory charged with dry nitrogen holding charge
  - For use with R-22 refrigerant

#### BUILT TO LAST

- Pre-painted cabinet finish over galvanized steel
- Coated inlet grille with 3/8" (10mm) grille spacing for extra protection (hail guard)

#### WARRANTY\*

- 5 year parts limited warranty (including compressor and coil)
- \* For owner occupied, residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.



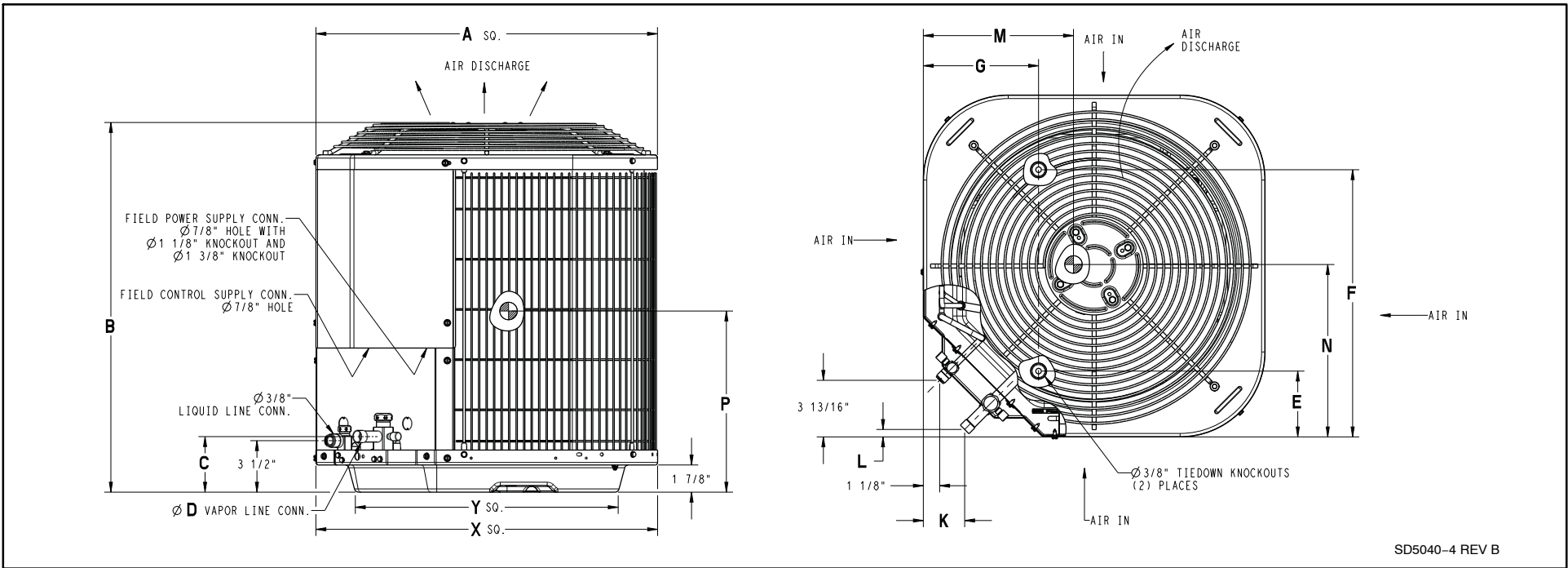
Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to [www.ahridirectory.org](http://www.ahridirectory.org).

\* Units factory shipped with no refrigerant, dry nitrogen charge only.

\*\* An approved filter drier (XH-6 with 25% activated alumina/75% molecular sieve desiccants) is required to be installed in the liquid line of this product due to use of POE oil in the compressor. Check with your factory authorized distributor for availability.

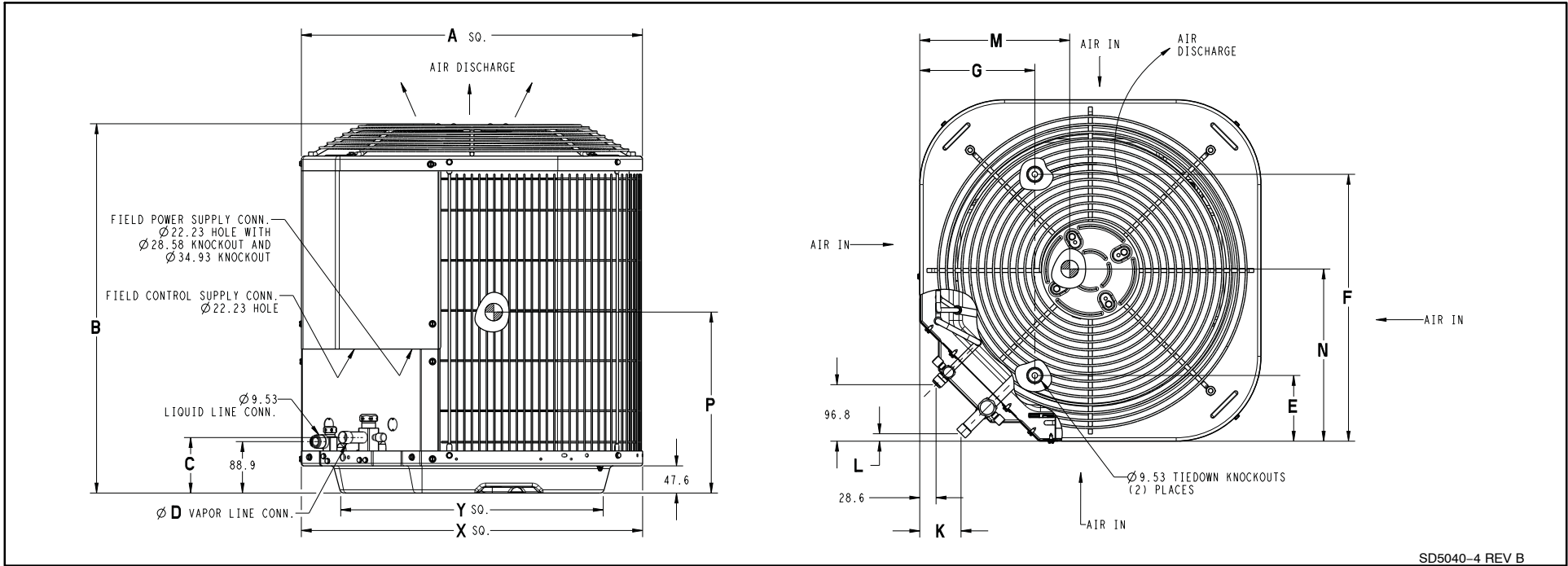
Model Number (Series 200/400)	Size (tons)	Nominal BTU/hr	Min. Circuit Ampacity	Max. Fuse or Breaker	Operating Dimensions height x width x depth in. (mm)	Shipping/Operating Weight lbs.(kg)
R2H318GKR	1-1/2	18,000	10.9	15	28-7/16 x 23-1/8 x 23-1/8 (722 x 587 x 587)	129 / 119 (59 / 54)
R2H324GKR	2	24,000	14.3	20	35-3/16 x 23-1/8 x 23-1/8 (894 x 587 x 587)	138 / 126 (63 / 57)
R2H330GKR	2-1/2	30,000	18.4	30	28-7/16 x 31-3/16 x 31-3/16 (722 x 792 x 792)	178 / 161 (81 / 73)
R2H336GKR	3	36,000	20.4	30	31-13/16 x 31-3/16 x 31-3/16 (808 x 792 x 792)	192 / 177 (87 / 80)
R2H342GKR	3-1/2	42,000	25.4	40	38-5/8 x 31-3/16 x 31-3/16 (981 x 792 x 792)	216 / 198 (98 / 90)
R2H348GKR	4	48,000	28.7	40	28-7/16 x 31-3/16 x 31-3/16 (722 x 792 x 792)	221 / 207 (100 / 94)
R2H360GKR	5	60,000	33.0	50	42 x 31-3/16 x 31-3/16 (1067 x 792 x 792)	285 / 273 (129 / 124)

Specifications subject to change without notice.



1. Allow 24" clearance to service side of unit, 48" above unit, 6" on one side, 12" on remaining sides.
2. Maintain a distance of 24" between units or 18" if no overhang within 12'.
3. Minimum outdoor operating ambient in cooling mode is 55°F, max 125°F.
4. Center of Gravity

Model (Series 200/400)	All Dimensions Inches (English)												Minimum Ground Mounting Pad Size X	Minimum Rooftop Mounting Pad Size Y	Crated Dimensions L x W x H
	A	B	C	D	E	F	G	K	L	M	N	P			
R2H318GKR	23-1/8	28-7/16	3-3/4	3/4	4-7/16	18-1/16	7-13/16	2-13/16	1/2	11-1/2	10-1/2	12-1/2	23-1/2 x 23-1/2	17-3/4 x 17-3/4	24-1/8 x 24-1/8 x 30-5/8
R2H324GKR	23-1/8	35-3/16	3-3/4	3/4	4-7/16	18-1/16	7-13/16	2-13/16	1/2	11-1/2	10-1/2	14-1/2	23-1/2 x 23-1/2	17-3/4 x 17-3/4	24-1/8 x 24-1/8 x 37-7/16
R2H330GKR	31-3/16	28-7/16	3-3/4	3/4	6-9/16	24-11/16	9-1/8	2-13/16	1/2	15	15	12	31-1/2 x 31-1/2	23 x 23	32-3/16 x 32-3/16 x 30-5/8
R2H336GKR	31-3/16	31-13/16	3-7/8	7/8	6-9/16	24-11/16	9-1/8	2-15/16	5/8	15	15	11-1/2	31-1/2 x 31-1/2	23 x 23	32-3/16 x 32-3/16 x 34
R2H342GKR	31-3/16	38-5/8	3-7/8	7/8	6-9/16	24-11/16	9-1/8	2-15/16	5/8	15	15	15-1/2	31-1/2 x 31-1/2	23 x 23	32-3/16 x 32-3/16 x 40-13/16
R2H348GKR	31-3/16	28-7/16	3-7/8	7/8	6-9/16	24-11/16	9-1/8	2-15/16	5/8	15	15	12	31-1/2 x 31-1/2	23 x 23	32-3/16 x 32-3/16 x 30-5/8
R2H360GKR	31-3/16	42	3-7/8	7/8	6-9/16	24-11/16	9-1/8	2-15/16	5/8	15	15	16	31-1/2 x 31-1/2	23 x 23	32-3/16 x 32-3/16 x 44-1/4



SD5040-4 REV B

1. Allow 610 mm clearance to service side of unit, 1219 mm above unit, 152 mm on one side, 305 mm on remaining sides.
2. Maintain a distance of 610 mm between units or 457 mm if no overhang within 3.7 m.
3. Minimum outdoor operating ambient in cooling mode is 13°C, max 52°C.
4. Center of Gravity

Model (Series 200/400)	All Dimensions mm (SI Metric)												Minimum Ground Mounting Pad Size X	Minimum Rooftop Mounting Pad Size Y	Crated Dimensions L x W x H
	A	B	C	D	E	F	G	K	L	M	N	P			
R2H318GKR	587	722	95	19	113	459	198	71	13	292	267	318	597 x 597	597 x 597	613 x 613 x 778
R2H324GKR	587	894	95	19	113	459	198	71	13	292	267	368	597 x 597	597 x 597	613 x 613 x 951
R2H330GKR	792	722	95	19	243	627	232	71	13	381	381	305	800 x 800	800 x 800	818 x 818 x 778
R2H336GKR	792	808	98	22	243	627	232	75	16	381	381	292	800 x 800	800 x 800	818 x 818 x 864
R2H342GKR	792	981	98	22	243	627	232	75	16	381	381	394	800 x 800	800 x 800	818 x 818 x 1037
R2H348GKR	792	722	98	22	243	627	232	75	16	381	381	305	800 x 800	800 x 800	818 x 818 x 777
R2H360GKR	792	1067	98	22	243	627	232	75	16	381	381	406	800 x 800	800 x 800	818 x 818 x 1124

PHYSICAL DATA							
Model Size (Series 200/400)	18	24	30	36	42	48	60
Nominal Cooling Capacity (BTU/hr)	18,000	24,000	30,000	36,000	42,000	48,000	60,000
Sound Rating (dBA)**	76	76	76	77	80	80	80
PSC Fan Motor HP	1/12	1/10	1/10	1/5	1/4	1/4	1/4
Fan RPM (single speed)	1100	1100	1100	1100	1100	1100	1100
Fan CFM	1700	2000	2600	3100	3400	3400	3400
Coil Face Area ft <sup>2</sup> (m <sup>2</sup> )	9.8 (0.91)	12.6 (1.17)	15.14 (1.41)	17.30 (1.61)	23.79 (2.21)	15.14 (1.41)	23.79 (2.21)
Coil Rows – fins per inch	1 – 25	1 – 20	1 – 20	1 – 25	1 – 25	2 – 20	2 – 20
Liquid Line Connection Size in. (mm)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)
Vapor Line Connection Size in. (mm)	3/4 (19)	3/4 (19)	3/4 (19)	7/8 (22)	7/8 (22)	7/8 (22)	7/8 (22)
Recommended Line Set Liquid Tube Diameter in. (mm)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)
Recommended Line Set Vapor Tube Diameter in. (mm)	3/4 (19)*	3/4 (19)*	3/4 (19)*	7/8 (22)*	7/8 (22)*	7/8 (22)*	1-1/8 (29)*
* Recommended Vapor Tube Line size is for standard installations. These recommendations may not apply to “Long Line” installations. When the total equivalent line length exceeds 80 feet (24.4m) or there is more than 20 feet (6.1m) vertical separation between indoor and outdoor units, consult the Long Line Application Guideline document before purchasing/installing line sets.							
Suggested Field R-22 Refrigerant Charge for 15 foot (4.6m) Lineset lbs. (kg)	5.35 (2.43)	4.68 (2.13)	5.29 (2.41)	6.50 (2.96)	7.50 (3.41)	9.13 (4.15)	13.03 (5.93)
Required Subcooling ° F (° C)	21 (12)	13 (7)	12 (7)	14 (8)	14 (8)	16 (9)	16 (9)
Weight, shipping lbs. (kg)	129 (59)	138 (63)	178 (81)	192 (87)	216 (98)	221 (100)	285 (129)
Weight, operating lbs. (kg)	119 (54)	126 (57)	161 (73)	177 (80)	198 (90)	207 (94)	273 (124)

ELECTRICAL DATA (208/230-1-60, voltage range 197V – 253V)							
Model Size (Series 200/400)	18	24	30	36	42	48	60
Minimum Circuit Ampacity – <b>MCA</b> (amps)	10.9	14.3	18.4	20.4	25.4	28.7	33.0
Maximum OverCurrent Protective device – <b>MOCP</b> (amps)	15	20	30	30	40	40	50
Compressor <b>RLA</b> (Rated Load Amps) <b>LRA</b> (Locked Rotor Amps)	8.3 40.3	10.8 56.0	14.1 75.0	15.4 87.0	19.2 112.0	21.8 137.0	25.3 146.0
Fan Motor <b>FLA</b> (Full Load Amps)	0.5	.77	0.8	1.1	1.4	1.4	1.4

\*\*Sound Rating tested in accordance with AHRI Standard 270-2008 (not listed with AHRI).

**ACCESSORY USAGE GUIDELINES**

Accessory	REQUIRED FOR APPLICATIONS IN SNOW-BELT REGION	REQUIRED FOR LOW-AMBIENT APPLICATIONS {Below 55°F (13°C)}	REQUIRED FOR LONG-LINE APPLICATIONS* {Over 80 Ft. (24.4m)}
Crankcase Heater	Standard (if required)	<b>Yes</b>	<b>Yes</b>
Evaporator Freeze Thermostat	No	<b>Yes</b>	No
Accumulator	Standard (factory installed)	Standard (factory installed)	Standard (factory installed)
Hard Start Kit (Capacitor & Relay)	No	<b>Yes</b>	<b>Yes</b>
Low Ambient Kit (Pressure Switch)	No	<b>Yes***</b>	No
Support Feet, 4" (102mm) tall	<b>Yes</b>	Recommended	No
Liquid Line Solenoid Valve	No	No	See Long-Line Application Guideline

\* For Line Set lengths between 80 and 200 ft (24.4 and 61m) horizontal. or more than 20 ft (6.1m) indoor-outdoor vertical separation, refer to the Long Line Application Guideline document.

\*\*\* For heat pump application, isolation relay required (see kit below)

**ACCESSORIES**

Part Number	Description	Used On Model Size
NASA001SC	Start Component – PTC Device	ALL
NASA001FS	Evaporator Freeze Thermostat	ALL
NASA001LS	Liquid Line Solenoid Valve	ALL
NASA001TD	Time Delay Relay, Indoor Blower	ALL
NASA001AC	Anti-Cycle Timer (5 minute delay)	ALL
NASA201LA	Low Ambient Kit (Pressure Switch)	ALL
NASA204PS	High Pressure Switch*	ALL
NASA00201SF	Support Feet, 4" tall (5 blocks)	18, 24
NASA001SF	Support Feet, 4" tall (4 blocks)	30, 36, 42, 48, 60
NASA003CH	Crankcase Heater for Compressor	18, 24
NASA001CH	Crankcase Heater for Compressor	30, 36, 42, 48, 60
NASA003SC	Hard Start Kit (Capacitor & Relay)	18, 24, 30, 36, 42, 48
NASA004SC	Hard Start Kit (Capacitor & Relay)	60
NASA002SJ	Sound Jacket, Compressor	18, 24, 30
NASA001SJ	Sound Jacket, Compressor	36, 42, 48
NASA003SJ	Sound Jacket, Compressor	60
AMF153TKB	TXV Kit, R-22 (converts R-22 Aeroquip piston coils to R-22 TXV)	18, 24, 30, 36
AMF355TKB	TXV Kit, R-22 (converts R-22 Aeroquip piston coils to R-22 TXV)	42, 48, 60