Ruud *Achiever Plus*® Series Two-Stage Multi-position Gas Furnaces



R96T- Series

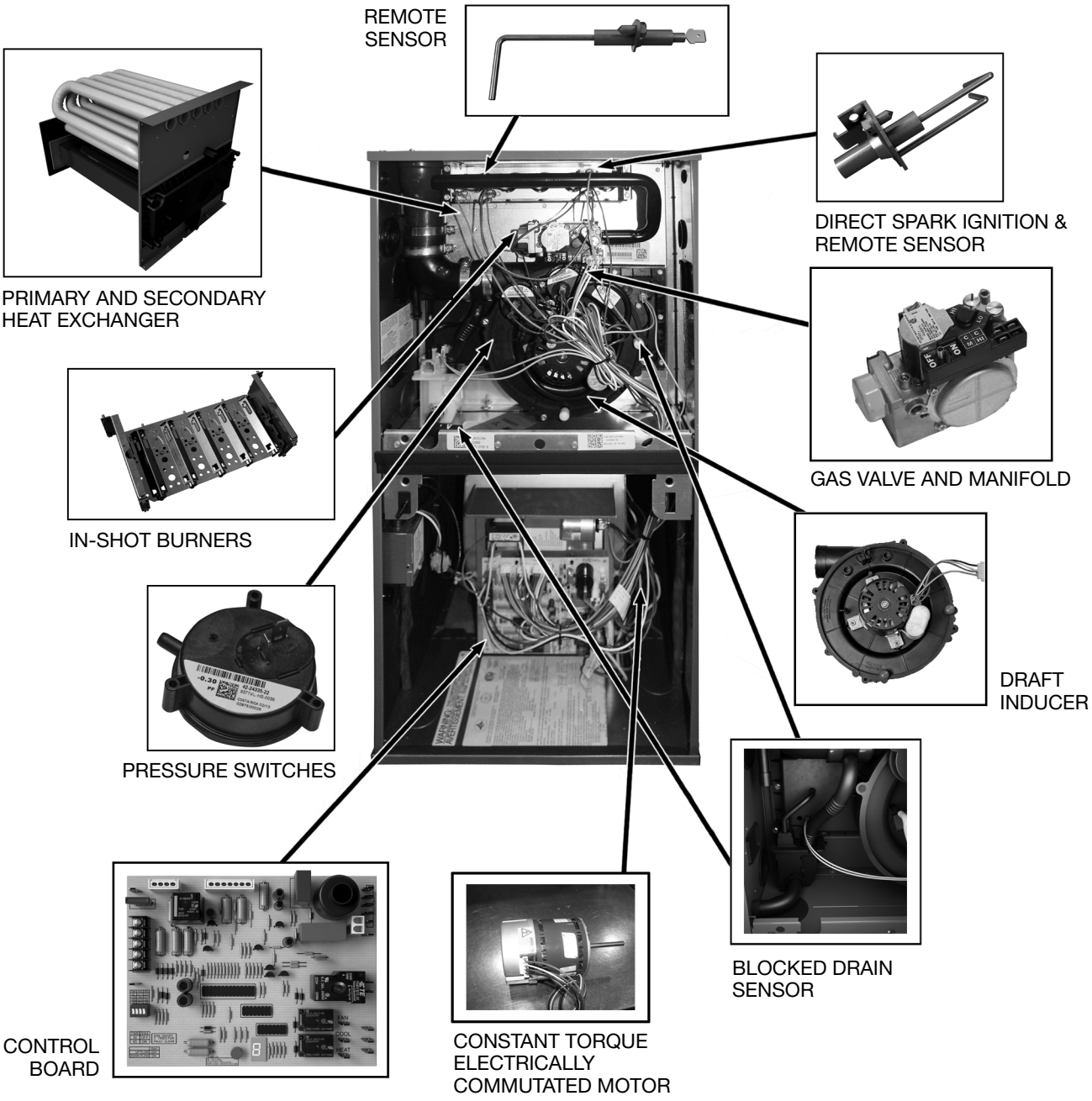
96% A.F.U.E.†*
Input Rates from 40 to 115 kBTU
[11.72 to 33.71 kW]

†A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.
*Up to 96% A.F.U.E.

- 96% residential gas furnace CSA certified
- 4 way multi-poise design
- Two stages of operation to save energy and maintain optimal comfort level.
- PlusOne™ Diagnostics 7-Segment LED all units
- PlusOne™ Ignition System – DSI for reliability and longevity
- PlusOne™ Water Management System with patented Blocked Drain Sensor
- Heat exchanger is removable for improved serviceability. Aluminized steel primary and stainless steel secondary construction provide maximum corrosion resistance and thermal fatigue reliability.
- Low profile “34 inch” cabinet ideal for space constrained installations.
- Blower Shelf design – serviceable in all furnace orientations
- Pre marked hoses – insures proper system drainage
- Vent with 2" or 3" PVC
- Replaceable Collector box
- Hemmed edges on cabinet and doors
- Quarter turn fasteners for tool less access
- Integrated control boards feature dip switches for easy system set up
- Self priming condensate trap
- Solid bottom included

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STANDARD EQUIPMENT

Completely assembled and wired; blocked drain sensor, 7 segment LED and marked hoses; heat exchanger; primary: aluminized steel, secondary: 29-4C stainless steel; 2 stage induced draft; pressure switches; redundant 2 stage main gas control; blower compartment door safety switch; solid state time on/off blower control; limit controls; manual shut-off valve; 100% safety lock out; cool fan off delay; field selectable heat fan off delay; one hour automatic retry; power and self-test diagnostics; flame sense current diagnostics; electronic air cleaner connections; twinning (built-in) features; humidifier connections; humidifier on/off delay; low speed continuous fan option; single speed option for heating and cooling applications; transformer; direct drive, multi-speed constant torque electrically commutated blower motor. Solid bottom. (Please note: a thermostat is not included as standard equipment.)

OPTIONAL EQUIPMENT

Side and bottom filter racks; return air cabinet for all sizes.

NOTE: Furnace is not listed for use with fuels other than natural or L.P. (propane) gas.

All models can be converted by a qualified distributor or local service dealer to use L.P. (propane) gas without changing burners. Factory approved kits must be used to convert from natural to L.P. (propane) gas and may be ordered as optional accessories from a parts distributor.

For L.P. (propane) operation, refer to Conversion Kit Index Form.

WARNING

THIS FURNACE IS NOT APPROVED
OR RECOMMENDED
FOR USE IN MOBILE HOMES

Physical Data and Specifications—Upflow Models
U.S. and Canadian Models

MODEL NUMBERS	R96TA0402317MSA	R96TA0602317MSA	R96TA0702317MSA	R96TA0852521MSA	R96TA1002521MSA	R96TA1152524MSA
HIGH FIRE INPUT BTU/HR [kW] ①	42,000 [12.31]	56,000 [16.41]	70,000 [20.50]	84,000 [24.61]	98,000 [28.72]	112,000 [32.82]
LOW FIRE INPUT BTU/HR [kW]	29,400 [8.61]	39,200 [11.49]	49,000 [14.36]	58,800 [17.23]	68,600 [20.11]	78,400 [22.97]
HEATING CAPACITY BTU/HR [kW]	41,000 [12.02]	55,000 [16.12]	68,000 [19.93]	82,000 [24.03]	95,000 [27.84]	109,000 [31.94]
HIGH ALTITUDE OUTPUT 10% DERATE [kW] ②	36,288 [10.64]	48,384 [14.18]	60,480 [17.72]	72,576 [21.28]	84,672 [24.81]	96,768 [28.36]
BLOWER (D x W) [mm]	11 x 7 [279 x 178]	11 x 8 [279 x 203]	11 x 8 [279 x 203]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 11 [279 x 279]
MOTOR H.P. [W]–SPEEDS TYPE	1/2 [373]-5-CT	1/2 [373]-5-CT	1/2 [373]-5-CT	1 [746]-5-CT	1 [746]-5-CT	1 [746]-5-CT
MINIMUM CIRCUIT AMPACITY	8	8	8	12	11	11
MINIMUM OVERLOAD PROTECTION	15	15	15	15	15	15
MAXIMUM OVERLOAD PROTECTION	15	15	15	20	15	15
MOTOR FULL LOAD AMPS	6.4	6.4	6.4	10.6	10.6	10.6
HEATING SPEED–HIGH FIRE	MED	MED	MED	MED-HIGH	MED	MED
HEATING SPEED–LOW FIRE	LOW	MED-LOW	LOW	MED-LOW	LOW	LOW
COOLING SPEED	MED-HIGH	MED-HIGH	MED-HIGH	HIGH	HIGH	HIGH
MINIMUM EXT. STATIC PRESSURE (IN. W.C.) [kPa]	.18 [.045]	.20 [.050]	.23 [.057]	.28 [.070]	.28 [.070]	.28 [.070]
MAXIMUM EXT. STATIC PRESSURE (IN. W.C.) [kPa]	0.9 [0.22]	0.9 [0.22]	0.9 [0.22]	0.9 [0.22]	0.9 [0.22]	0.9 [0.22]
HEATING CFM @ .2" [.049 kPa] W.C. E.S.P. [L/s]	1117 [527]	1161 [548]	1198 [565]	1715 [809]	1522 [718]	1574 [743]
COOLING CFM @ .7" [.17 kPa] W.C. E.S.P. [L/s]	1102 [520]	1139 [538]	1141 [538]	1745 [814]	1745 [814]	1765 [833]
TEMPERATURE RISE-HIGH FIRE RANGE IN DEGREES °F [°C]	20 - 50 [11 -28]	30 - 60 [17 - 33]	40 - 70 [22 - 39]	30 - 60 [17 - 33]	40 - 70 [22 - 39]	45 - 75 [25 - 42]
TEMPERATURE RISE-LOW FIRE RANGE IN DEGREES °F [°C]	15 - 45 [8 -25]	20 - 50 [11 - 28]	30 - 60 [17 - 33]	20 - 50 [11 - 28]	30 - 60 [17 - 33]	35 - 65 [19 - 36]
APPROX. SHIPPING WEIGHT (LBS.) [kg]	123.5 [56]	128 [58]	132 [60]	147.5 [67]	152 [69]	165 [75]
AFUE ③	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%

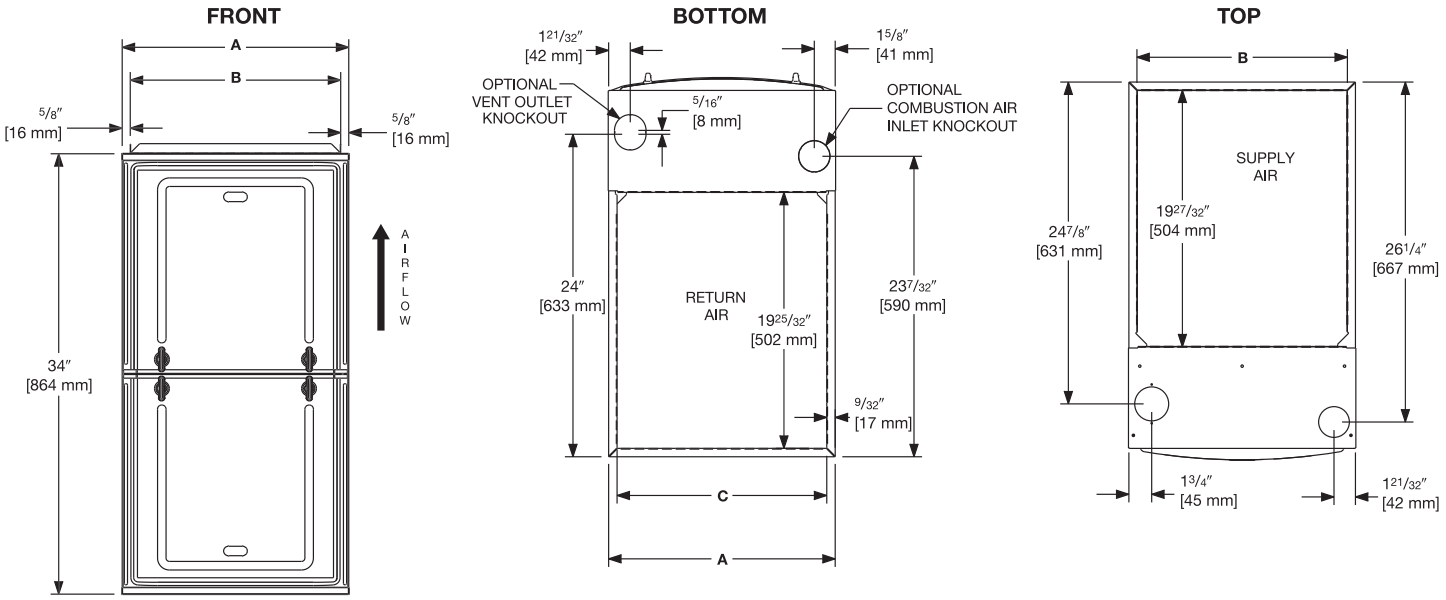
NOTES: All models are 115V, 60HZ, 1 phase Gas connection size for all models is 1/2" [13 mm] N.P.T.
① Installation instructions for high altitude derate.
② Canadian installations only.
③ In accordance with D.O.E. test procedures.
*S=Standard Models
NOTE: Standard model complies with California low nox requirements.

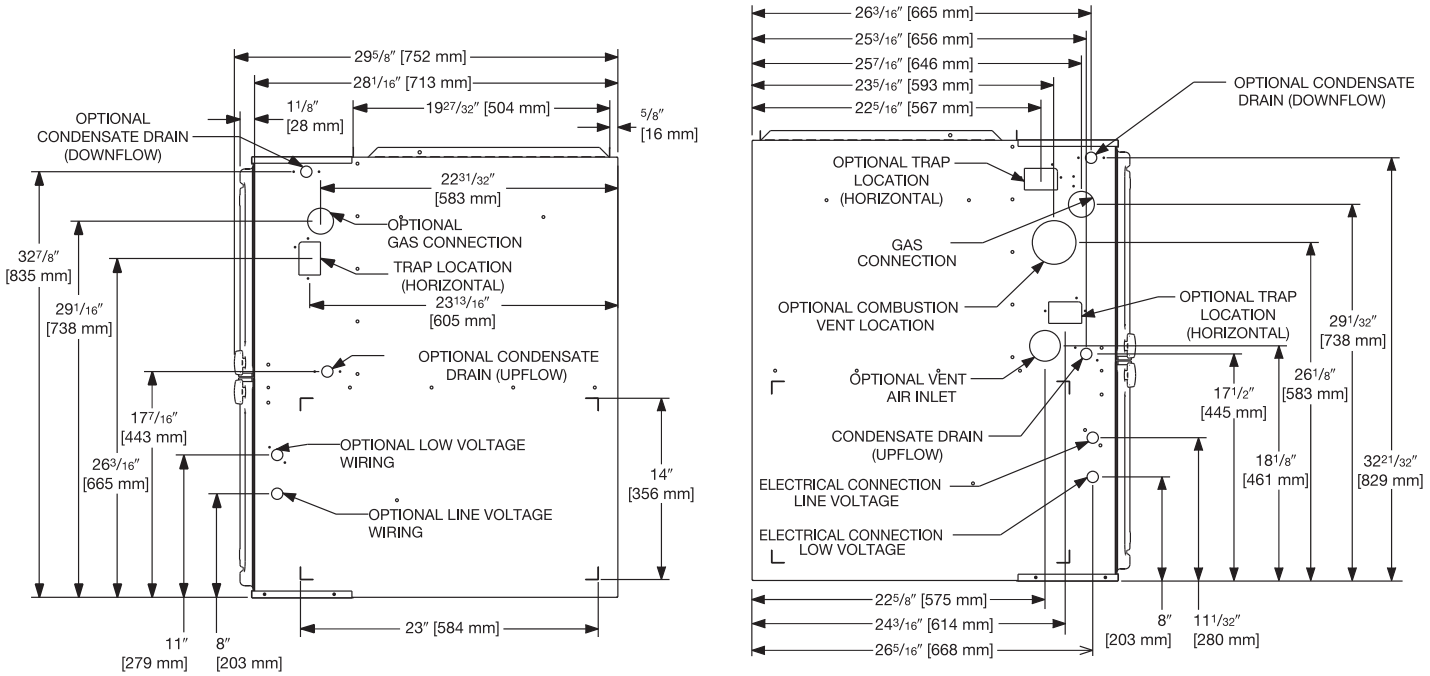
[ ] Designates Metric Conversions

Model Number Identification

R	96	T	A	—	040	2	3	17	M	S	A
Ruud	Series 96% Efficient	Motor - Constant Torque	Design Series A = 1st Design		Input BTU/HR 040 = 42,000 [12.31 kW] 060 = 56,000 [16.41 kW] 070 = 70,000 [20.51 kW] 085 = 84,000 [24.62 kW] 100 = 98,000 [28.72 kW] 115 = 112,000 [32.82 kW]	Stage - Two	Airflow 3 - Up to 3 Tons 5 - Up to 5 Tons	Cabinet Width 17 = 17.5" 21 = 21.0" 24 = 24.5"	Configuration - Multi-Position	S = Standard	Revision - Marketing (A - First Time Release)

[ ] Designates Metric Conversions





UNIT DIMENSIONS (CLEARANCE TO COMBUSTIBLES)

MODEL R96T	LEFT SIDE	MINIMUM CLEARANCE (IN.) [mm]					SHIP WGTS.	FLANGE DIMENSIONS		
		RIGHT SIDE	BACK	TOP	FRONT	VENT		A	B	C
040	0	0	0	1 [25]	2 [51]	0	123.5 [56]	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
060	0	0	0	1 [25]	2 [51]	0	128 [58]	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
070	0	0	0	1 [25]	2 [51]	0	132 [60]	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
085	0	0	0	1 [25]	2 [51]	0	147.5 [67]	21 [533]	19 49/64 [502]	19 45/64 [500]
100	0	0	0	1 [25]	2 [51]	0	152 [69]	21 [533]	19 49/64 [502]	19 45/64 [500]
115	0	0	0	1 [25]	2 [51]	0	165 [75]	24 1/2 [662]	23 17/64 [591]	23 13/64 [589]

*A service clearance of at least 24" is recommended in front of all furnaces
Supply and return depicted as upflow configuration.
Flange configuration will vary depending on installation orientation.

[ ] Designates Metric Conversions

MODEL	BLOWER SIZE IN. [mm]	MOTOR H.P. [W]	SPEED TAP	CFM [L/s] AIR DELIVERY EXTERNAL STATIC PRESSURE INCHES WATER COLUMN [kPa]								
				0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.19]	0.9 [.22]
R96T 402317	11 x 7 [279 x 178]	1/2 [373]	Low**	893	840	788	737	683	611	551	491	439
			Med. Lo	1021	976	931	884	838	792	745	673	615
			Med.*	1155	1117	1075	1039	999	957	915	872	819
			Med. Hi	1331	1291	1255	1216	1176	1139	1102	1065	1026
			High	1423	1387	1355	1320	1285	1250	1215	1180	1144
R96T 602317	11 x 8 [279 x 203]	1/2 [373]	Low	916	869	820	752	685	646	586	530	488
			Med. Lo**	1064	1022	979	937	888	820	770	729	673
			Med.*	1192	1161	1121	1081	1041	998	942	885	843
			Med. Hi	1350	1315	1281	1249	1215	1178	1139	1096	1044
			High	1397	1365	1333	1300	1269	1236	1194	1155	1109
R96T 702317	11 x 8 [279 x 203]	1/2 [373]	Low**	969	916	826	798	736	666	614	554	507
			Med. Lo	1105	1054	1010	961	910	840	791	735	686
			Med.*	1239	1198	1147	1101	1060	1011	951	887	838
			Med. Hi	1383	1332	1299	1263	1223	1182	1141	1090	1034
			High	1482	1444	1409	1379	1343	1294	1266	1226	1182
R96T 852521	11 x 10 [279 x 254]	1 [746]	Low	1278	1230	1173	1103	1045	997	944	897	846
			Med. Lo**	1431	1390	1343	1294	1235	1177	1131	1085	1039
			Med.	1607	1565	1525	1481	1433	1380	1325	1284	1241
			Med. Hi*	1746	1715	1679	1644	1599	1550	1499	1447	1405
			High	1955	1923	1888	1853	1824	1782	1745	1701	1635
R96T 1002521	11 x 10 [279 x 254]	1 [746]	Low**	1281	1232	1180	1131	1081	1031	944	903	845
			Med. Lo	1431	1367	1316	1274	1227	1181	1117	1072	1019
			Med.*	1561	1522	1482	1436	1394	1354	1306	1265	1186
			Med. Hi	1733	1694	1654	1615	1578	1535	1500	1461	1411
			High	1956	1916	1880	1845	1812	1777	1745	1710	1619
R96T 1152524	11 x 11 [279 x 279]	1 [746]	Low**	1333	1273	1208	1141	1074	1016	955	898	842
			Med. Lo	1480	1426	1373	1310	1241	1190	1131	1077	1024
			Med.*	1627	1574	1522	1472	1417	1355	1308	1250	1199
			Med. Hi	1828	1781	1728	1682	1635	1578	1525	1478	1420
			High	2030	1987	1942	1898	1857	1811	1765	1720	1673

** = Factory tap for Low Fire
* = Factory tap for Hi Fire
NOTE: The Technician/Installer must verify that the furnace is operating within the published rise range before completing the installation

[ ] Designates Metric Conversions.

VENT TERMINATION KITS: =

RXGY-E02: Vertical/Horizontal Concentric Vent Termination Kit 2" Pipe (US Only)

RXGY-E02A: Vertical/Horizontal Concentric Vent Termination Kit 2" Pipe (US & Canadian)

RXGY-E03: Vertical/Horizontal Concentric Vent Termination Kit 3" Pipe (US Only)

RXGY-E03A: Vertical/Horizontal Concentric Vent Termination Kit 3" Pipe (US & Canadian)

RXGY-G02: Direct Vent Furnace Side Wall Vent 2" or 3" (US Only)

RXGY-D05: Combustion Air Drain Kit 2"

RXGY-D06: Combustion Air Drain Kit 3"

NEUTRALIZER KIT: RXGY-A01
(Replacement Cartridge 54-22120-01)

FOSSIL FUEL KIT: RXPF-F01, RXPF-F02 (TVA)

EXTERNAL BOTTOM FILTER (UPFLOW/HORIZONTAL) RACK: RXGF-CB

EXTERNAL SIDE (UPFLOW) FILTER RACK: RXGF-CD

EXTERNAL (DOWNFLOW) FILTER RACK: RXGF-CC

FILTER RACK FILTER SIZES* INCHES [mm]			
MODEL	**RXGF-CB (UPFLOW/ HORIZONTAL)**	**RXGF-CD (UPFLOW)**	**RXGF-CC (DOWNFLOW)**
R96TA040	15 3/4 x 25 [400 x 635]	15 3/4 x 25 [400 x 635]	12 x 20 [305 x 508]
R96TA060	15 3/4 x 25 [400 x 635]	15 3/4 x 25 [400 x 635]	12 x 20 [305 x 508]
R96TA070	15 3/4 x 25 [400 x 635]	15 3/4 x 25 [400 x 635]	12 x 20 [305 x 508]
R96TA085	19 1/4 x 25 [489 x 635]	15 3/4 x 25 [400 x 635]	12 x 20 [305 x 508]
R96TA100	19 1/4 x 25 [489 x 635]	15 3/4 x 25 [400 x 635]	12 x 20 [305 x 508]
R96TA115	22 3/4 x 25 [578 x 635]	15 3/4 x 25 [400 x 635]	14 x 20 [356 x 508]

*Filter racks are shipped without filters.
Filters shipped with furnace may be used or a suitable 1" [25.4 mm] filter.

INDOOR COIL CASINGS

MODEL NUMBER
RXBC-D17A1
RXBC-D21A1
RXBC-D21B1
RXBC-D24A1

FOR HIGH ALTITUDES:

NOTE: For Canadian installations only, an optional derate (manifold gas pressure reduction) method may be used to adjust the furnace for altitude. See Installation Instructions for more information. This optional method may **NOT** be used for U.S. installations. See installation instructions as appropriate orifice change is required.

L.P. CONVERSION KIT: RXGJ-FP34

CONDENSATE PUMP KIT: PROSTOCK & 1PCB151TUL

DOWNFLOW/HORIZONTAL CONVERSION KIT: RXGY-CK

DOWNFLOW/HORIZONTAL LEFT ZERO CLEARANCE CONVERSION KIT: RXGY-ZK

COMBUSTIBLE FLOOR BASE: RXGC-B17
RXGC-B21
RXGC-B24

[ ] Designates Metric Conversions

GENERAL TERMS OF LIMITED WARRANTY*

Ruud 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.

***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.**

Conditional Parts
(Registration Required) .....Ten (10) Years
Heat Exchanger .....Limited Lifetime

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

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