



The new degree of comfort.™

## Rheem High Efficiency Air Handler



### RH1V/RH2V- Series

ECM Motor

Efficiencies up to 16 SEER



- Includes an energy efficient ECM® Motor, which in most applications, enhances the SEER rating of the outdoor unit. It also slowly ramps its speed up for quiet operation and enhanced customer satisfaction.
- Versatile 4-way convertible design for upflow, downflow, horizontal left and horizontal right applications.
- Nominal airflow up to 1.0" external static pressure.
- Factory-installed indoor coil.
- Sturdy cabinet construction with 1.0 inch [25.4 mm] of foil faced insulation for excellent sound and insulating characteristics.
- Field-installed auxiliary electric heater kits provide exact heat for indoor comfort. Kits include circuit breakers which meet U.L. and cUL requirements for service disconnect.
- Dip switch settings for selectable, customized cooling airflow over a wide variety of applications.
- On-demand dehumidification terminal that adjusts airflow to help control humidity for unsurpassed comfort in cooling mode.
- External filter required.
- Evaporator coil is constructed of aluminum fins bonded to internally grooved aluminum tubing.

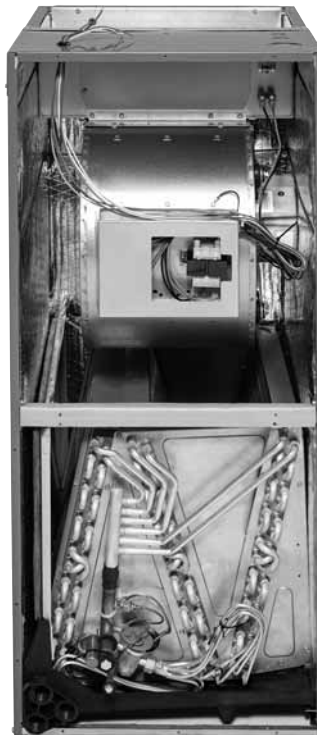


## Engineering Features

### RH1V/RH2V- Series

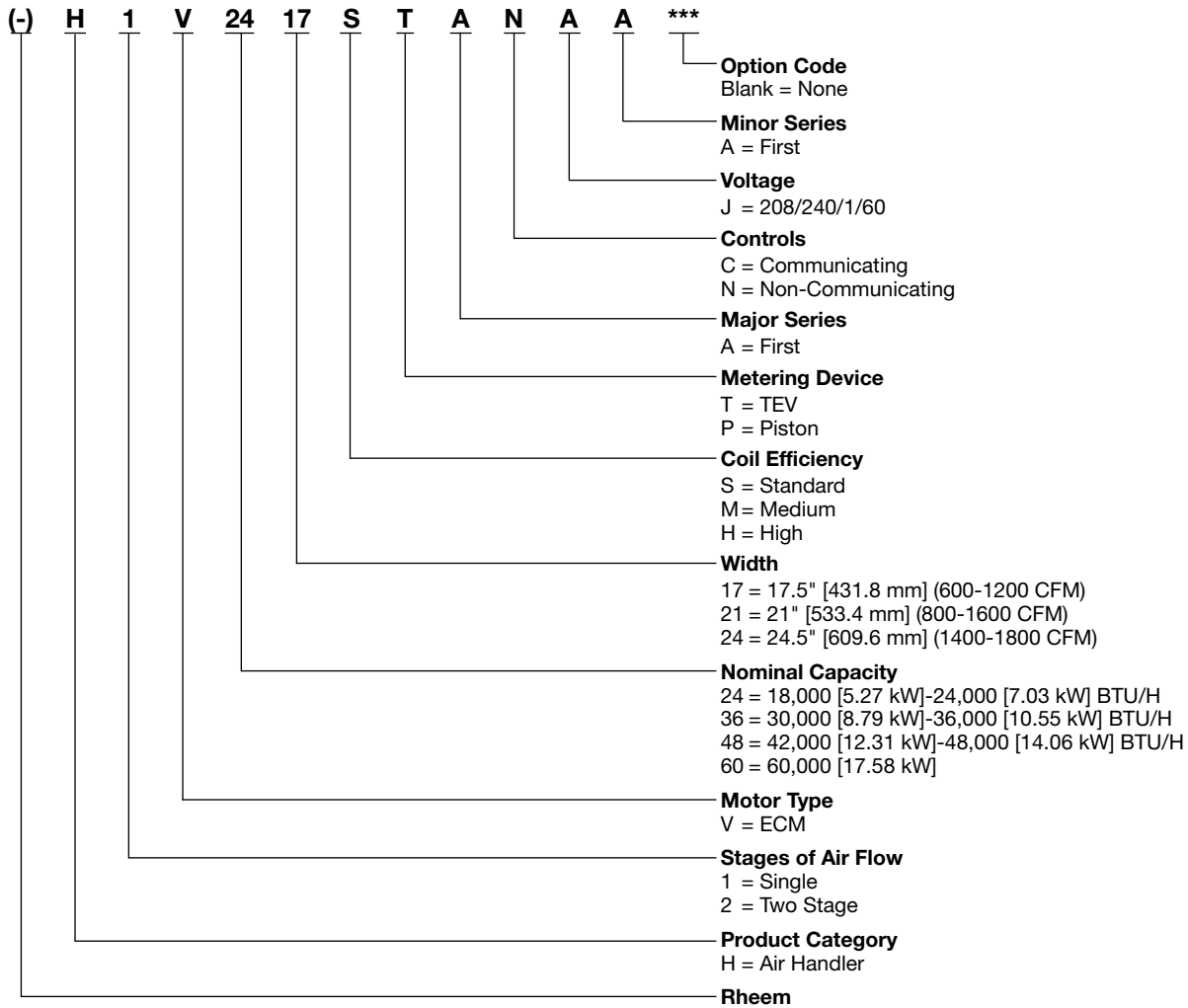
- Quiet, efficient ECM motor technology providing nominal airflow up to 1.0 inch [25 kPa] of external static pressure.
- Interface board with dip switches conveniently located in the blower compartment allows for precise, field selectable airflow to meet the requirements of particular applications.
- Selectable continuous fan “on” options.
- The most compact unit design available.
- Attractive pre-painted cabinet exterior.
- Rugged steel cabinet construction, designed for added strength and versatility.
- 1.0" foil faced insulation mechanically retained in blower compartment.
- Four leg rubber insulated motor mount.
- Field-installed auxiliary heater kit includes circuit breakers that meet UL and cUL requirements as a service disconnect switch.
- Blower housing with integrated controls, motor and blower. Slide out design for service and maintenance convenience.
- Field convertible for vertical upflow, vertical downflow, horizontal left hand or right hand air supply.
- Combustible floor base accessory available when required for downflow installations on combustible floors.
- Indoor coil design provides low air side pressure drop, high performance and extremely compact size. All coils come with PVC condensate elbow standard.
- Coils are constructed of aluminum fins bonded to internally grooved aluminum tubing.
- Coils are tested at the factory with an extensive refrigerant leak check.
- Coils have copper sweat refrigerant connections.
- Coils utilize chatleff metering device connections.
- Molded polymer corrosion resistant condensate drain pan is provided on all indoor coils.
- Supply duct flanges provided as standard on air handler cabinet.
- Provisions for field electrical connections available from either side or top of the air handler cabinet.
- Connection point for high voltage wiring is inside the air handler cabinet. Low voltage connection is made on the outside of the air handler cabinet.
- Concentric knockouts are provided for power connection to cabinet. Installer may pull desired hole size up to 2 inches [51 mm] for 1½ inch [38 mm] conduit.
- Front refrigerant and drain connections.

[ ] Designates Metric Conversions





Air



[ ] Designates Metric Conversions

**Available Models**

RH1V2417STANJA
RH1V3617STANJA
RH1V3621MTANJA
RH1V3621HTANJA
RH1V4821STANJA
RH1V4821MTANJA
RH1V4824STANJA
RH1V6021STANJA
RH1V6024STANJA
RH2V2421HTACJA
RH2V3624HTACJA
RH2V4824HTACJA
RH2V6024HTACJA
RH2V2421MTANJA
RH2V3621MTANJA
RH2V4821MTANJA
RH2V6021MTANJA



# Unit Dimensions

ELECTRICAL CONNECTIONS  
MAY EXIT TOP OR EITHER SIDE  
HIGH VOLTAGE CONNECTION 7/8" [22.2 mm],  
1 3/32" [27.8 mm], 1 1/32" [50 mm] DIA. KNOCKOUTS.

LOW VOLTAGE CONNECTION  
5/8" [15.9 mm] AND 7/8" [22.2 mm] KNOCKOUT

AUXILIARY DRAIN CONNECTION  
3/4" [19.1 mm] FEMALE PIPE THREAD (NPT)  
HORIZONTAL APPLICATION ONLY

PRIMARY DRAIN CONNECTION  
3/4" [19.1 mm] FEMALE PIPE THREAD (NPT)

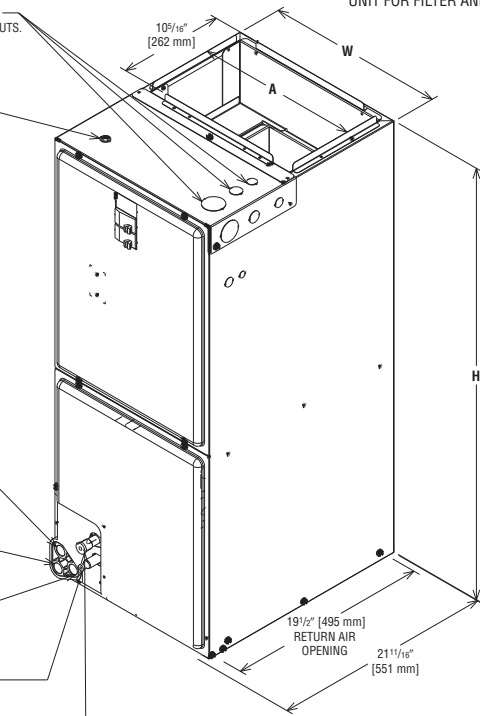
AUXILIARY DRAIN CONNECTION  
3/4" [19.1 mm] FEMALE PIPE THREAD (NPT)  
UPFLOW/DOWNFLOW APPLICATION ONLY

LIQUID LINE CONNECTION  
COPPER (SWEAT)

VAPOR LINE CONNECTION  
COPPER (SWEAT)

SUPPLY AIR ↑

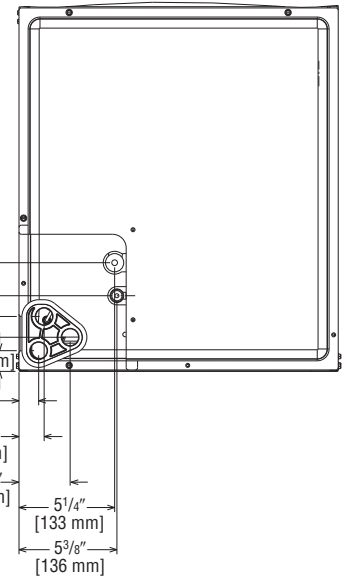
NOTE: 24" CLEARANCE REQUIRED IN FRONT OF  
UNIT FOR FILTER AND COIL MAINTENANCE.



UPFLOW UNIT SHOWN:  
UNIT MAY BE INSTALLED UPFLOW, DOWNFLOW,  
HORIZONTAL RIGHT OR LEFT AIR SUPPLY.

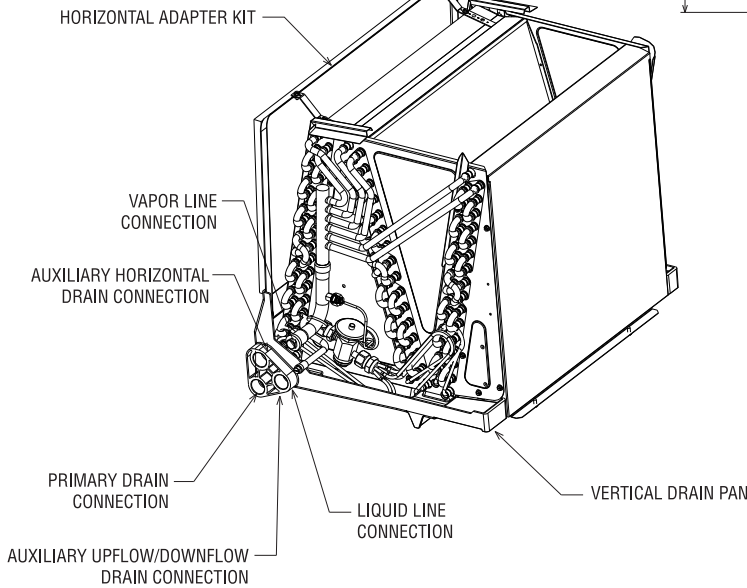
## Return Air Opening Dimensions

Model Cabinet Size	Return Air Opening Width (Inches)	Return Air Opening Depth/Length (Inches)
17	15 7/8	19 3/4
21	19 3/8	19 3/4
24	22 7/8	19 3/4



UPFLOW UNIT SHOWN:  
UNIT MAY BE INSTALLED UPFLOW,  
DOWNFLOW, HORIZONTAL RIGHT  
OR LEFT AIR SUPPLY.

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## Unit Dimensions & Weights

Model Size RH1V	Refrigerant Connections Sweat (In.) [mm] ID		Unit Width "W" In. [mm]	Unit Height "H" In. [mm]	Supply Duct "A" In. [mm]	Air Flow Coil (Nom.) [L/s]		Unit Weight/Shipping Weight (Lbs.) [kg]
	Liquid	Vapor				Lo	Hi	Unit With Coil (Max. KW)
2417ST	3/8 [9.53]	3/4 [19.05]	17 1/2 [445]	42 1/2 [1080]	16 [406]	600 [283]	800 [378]	82/96 [37/44]
3617ST	3/8 [9.53]	3/4 [19.05]	17 1/2 [445]	42 1/2 [1080]	16 [406]	1000 [472]	1200 [566]	90/104 [41/47]
3621HT	3/8 [9.53]	7/8 [22.23]	21 [533]	57 [1448]	19 1/2 [495]	1000 [472]	1200 [566]	135/147 [61/67]
3621MT	3/8 [9.53]	7/8 [22.23]	21 [533]	50 1/2 [1282]	19 1/2 [495]	1000 [472]	1200 [566]	126/142 [57/64]
4821MT	3/8 [9.53]	7/8 [22.23]	21 [533]	57 [1448]	19 1/2 [495]	1400 [661]	1600 [755]	141/153 [64/69]
4821ST	3/8 [9.53]	7/8 [22.23]	21 [533]	50 1/2 [1282]	19 1/2 [495]	1400 [661]	1600 [755]	130/146 [59/66]
4824ST	3/8 [9.53]	7/8 [22.23]	24 1/2 [622]	55 1/2 [1410]	23 [584]	1600 [755]	—	142/160 [64/72]
6021ST	3/8 [9.53]	7/8 [22.23]	21 [533]	57 [1448]	19 1/2 [495]	1600 [755]	1725 [814]	136/148 [62/67]
6024ST	3/8 [9.53]	7/8 [22.23]	24 1/2 [622]	55 1/2 [1410]	23 [584]	—	1800 [850]	162/179 [73/81]

Model Size (-)H2V	Unit Width "W" In. [mm]	Unit Height "H" In. [mm]	Supply Duct "A" In. [mm]	Matched to Outdoor Unit	Nominal Coil Airflow [L/s]				Unit Weight/Shipping Weight (Lbs.) [kg]
					1st Stage		2nd Stage		Unit With Coil (Max. KW)
					ODD*	Normal	ODD*	Normal	
2421HT	21 [533]	42 1/2 [1080]	19 1/2 [495]	(-)ARL/(-)ASL-024JEC	500 [236]	600 [283]	650 [307]	775 [366]	99/117 [45/51]
3624HT	24 1/2 [622]	55 1/2 [1410]	23 [584]	(-)ARL/(-)ASL-0935JEC	725 [342]	825 [389]	975 [460]	1175 [555]	129/146 [59/66]
				(-)ARL/(-)ASL-0935JEC	825 [389]	950 [448]	1000 [472]	1175 [555]	
4824HT	24 1/2 [622]	55 1/2 [1410]	23 [584]	(-)ASL-048JEC	825 [389]	1000 [472]	1300 [614]	1600 [755]	143/160 [65/72]
				(-)ARL-048JEC	1000 [472]	1200 [566]	1350 [637]	1600 [755]	
6024HT	24 1/2 [622]	55 1/2 [1410]	23 [584]	(-)ASL-060JEC	925 [437]	1050 [496]	1325 [625]	1700 [802]	159/176 [72/80]
				(-)ARL-060JEC	1025 [484]	1275 [602]	1400 [661]	1700 [802]	
2621MT	21 [533]	42 1/2 [1080]	19 1/2 [495]	(-)P1624	600 [283]	630 [297]	800 [378]	825 [389]	99/117 [45/51]
3621MT	21 [533]	50 1/2 [1282]	19 1/2 [495]	(-)P1636	800 [378]	825 [389]	1180 [557]	1200 [566]	135/147 [61/67]
4821MT	21 [533]	57 [1410]	19 1/2 [495]	(-)P1648	1200 [566]	1230 [580]	1600 [755]	1635 [771]	141/153 [64/69]
6024ST	24 1/2 [622]	55 1/2 [1410]	23 [584]	(-)P1660	1330 [627]	1350 [637]	1700 [802]	1730 [816]	159/176 [72/80]

\*Maximum dehumidification airflow.

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## Airflow Performance

Airflow performance data is based on cooling performance with a coil and no filter in place. Select performance table for appropriate unit size, voltage and number of electric heaters to be used. Make sure external static applied to unit allows operation within the minimum and maximum limits shown in table

below for both cooling and electric heat operation. For optimum blower performance, operate the unit in the .3 [8 mm] to .7 inches [18 mm] W.C. external static range. Units with coils should be applied with a minimum of .1 inch [3 mm] W.C. external static range.

## Airflow Performance and Electrical Data RH1V

Model No. RH1V	Nominal Cooling Capacity Tons	Motor Speed From Factory	Nominal Air-Flow CFM	Blower Size/ Motor HP [W]	CFM Air Delivery/RPM/Watts—230 Volts (No Filter)										
					External Static Pressure—Inches W.C. [kPa]										
					0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	0.9 [.22]	1.0 [.24]	
2417ST No Heater	1.5 Ton	High	600*	10x8 1/3 [249] 5 Speed	CFM [L/s]	597 [282]	608 [287]	607 [286]	616 [291]	616 [291]	618 [292]	613 [289]	608 [287]	600 [283]	594 [280]
					RPM	522	609	673	757	815	869	938	995	1051	1097
					Watts	57	74	89	115	130	144	169	190	212	232
2417ST with 13 kW Heat	1.5 Ton	High	600*	10x8 1/3 [249] 5 Speed	CFM [L/s]	588 [278]	598 [282]	596 [281]	605 [286]	603 [285]	605 [286]	600 [283]	595 [281]	587 [277]	577 [272]
					RPM	536	608	723	805	864	919	989	1047	1104	1149
					Watts	65	85	100	129	145	160	186	209	233	254
2417ST No Heat	2.0 Ton	High	800	10x8 1/3 [249] 5 Speed	CFM [L/s]	787 [371]	805 [380]	815 [385]	819 [387]	810 [382]	807 [381]	811 [383]	810 [382]	809 [382]	805 [380]
					RPM	614	682	763	818	868	917	972	1017	1070	1112
					Watts	97	113	144	167	191	209	239	259	289	311
2417ST with 13 kW Heat	2.0 Ton	High	800	10x8 1/3 [249] 5 Speed	CFM [L/s]	775 [366]	793 [374]	803 [379]	807 [381]	798 [377]	795 [375]	799 [377]	798 [377]	797 [376]	793 [374]
					RPM	630	700	783	839	891	941	997	1044	1098	1141
					Watts	111	130	165	192	219	240	275	298	332	357
3617ST No Heat	2.5 Ton	High	1000*	10x8 1/2 [373]	CFM [L/s]	1001 [472]	1030 [486]	1030 [486]	1035 [488]	1035 [488]	1029 [486]	1029 [486]	1029 [486]	1029 [486]	1023 [483]
					RPM	652	752	812	845	923	945	1007	1065	1090	1118
					Watts	134	166	193	212	244	266	280	320	341	357
3617ST with 18 kW Heat	2.5 Ton	High	1000*	10x8 1/2 [373]	CFM [L/s]	980 [463]	1009 [476]	1009 [476]	1014 [479]	1014 [479]	1008 [476]	1008 [476]	1008 [476]	1008 [476]	1002 [473]
					RPM	714	814	874	907	985	1007	1069	1127	1152	1180
					Watts	176	208	235	254	286	308	322	362	383	399
3617ST No Heat	3.0 Ton	High	1200	10x8 1/2 [373]	CFM [L/s]	1220 [576]	1229 [580]	1229 [580]	1229 [580]	1229 [580]	1229 [580]	1238 [584]	1238 [584]	1233 [582]	1228 [580]
					RPM	732	831	875	930	981	1005	1077	1108	1156	1194
					Watts	215	253	282	314	348	362	409	426	472	496
3617ST with 18 kW Heat	3.0 Ton	High	1200	10x8 1/2 [373]	CFM [L/s]	1199 [566]	1208 [570]	1208 [570]	1208 [570]	1208 [570]	1208 [570]	1217 [574]	1217 [574]	1212 [572]	1207 [570]
					RPM	794	893	937	992	1043	1067	1139	1170	1218	1256
					Watts	257	295	324	356	390	404	451	468	514	538
3621HT No Heat	2.5 Ton	High	1000	10x10 3/4 [559]	CFM [L/s]	1001 [472]	1001 [472]	1011 [477]	1009 [476]	1005 [474]	1000 [472]	996 [470]	994 [496]	970 [458]	967 [456]
					RPM	620	694	767	830	888	941	1004	1048	1128	1179
					Watts	128	122	195	217	229	270	289	302	380	388
3621HT No Heat	3.0 Ton	High	1200	10x10 3/4 [559]	CFM [L/s]	1175 [555]	1200 [566]	1203 [568]	1200 [566]	1200 [566]	1199 [566]	1202 [567]	1200 [566]	1197 [565]	1180 [557]
					RPM	664	740	805	868	926	982	1031	1087	1138	1196
					Watts	163	191	226	239	261	292	322	373	420	472
3621MT No Heat	2.5 Ton	High	1000	10x10 3/4 [559]	CFM [L/s]	1000 [472]	1001 [472]	1011 [477]	1009 [476]	1005 [474]	1000 [472]	996 [470]	994 [496]	970 [458]	967 [456]
					RPM	593	650	737	801	867	914	980	1026	1058	1099
					Watts	103	124	155	177	207	224	258	287	301	323
3621MT with 15 kW Heat	2.5 Ton	High	1000	10x10 3/4 [559]	CFM [L/s]	984 [464]	979 [462]	984 [464]	976 [461]	967 [456]	956 [451]	947 [447]	939 [443]	910 [429]	901 [425]
					RPM	627	689	780	849	919	971	1041	1092	1128	1174
					Watts	124	151	187	215	250	273	312	347	366	394
3621MT No Heat	3.0 Ton	High	1200	10x10 3/4 [559]	CFM [L/s]	1175 [555]	1200 [566]	1203 [568]	1200 [566]	1200 [566]	1199 [566]	1202 [567]	1200 [566]	1197 [565]	1180 [557]
					RPM	646	740	783	851	911	958	1013	1056	1102	1144
					Watts	147	186	207	240	270	296	334	356	385	416
3621MT with 18 kW Heat	3.0 Ton	High	1200	10x10 3/4 [559]	CFM [L/s]	1159 [546]	1178 [556]	1176 [555]	1167 [551]	1162 [548]	1155 [545]	1153 [544]	1145 [540]	1137 [537]	1114 [526]
					RPM	680	779	826	899	963	1015	1074	1122	1172	1219
					Watts	168	213	239	278	313	345	388	416	450	487

**WARNING:** Observe airflow operating limits. Do not operate above 1.0 in. W.C. system external static.

\*The airflow for continuous fan is set at 50% of the cooling airflow.

[ ] Designates Metric Conversions

## Electrical Data – With Electric Heat RH1V

Installation of the U.L. Listed original equipment manufacturer provided heater kits listed in the following table is recommended for all auxiliary heating requirements.

Air Handler Model RH1V	Heater Model No.	Heater kW (208/240V)	PH/HZ	No. Elements kW Per	Type Supply Circuit Single Circuit Multiple Circuit	Circuit Amps.	Motor Ampacity	Minimum Circuit Ampacity	Maximum Circuit Protector
2417STAN	RXBH-17203J	2.2/3	1/60	1 - 3	SINGLE	10.8/12.5	2.8	18/20	20/20
	RXBH-172405J	3.6/4.8	1/60	1 - 4.8	SINGLE	17.3/20	2.8	26/29	30/30
	RXBH-172407J	5.4/7.2	1/60	2 - 3.6	SINGLE	26/30	2.8	36/41	40/45
	RXBH-172410J	7.2/9.6	1/60	2 - 4.8	SINGLE	34.6/40	2.8	47/54	50/60
	RXBH-1724A10C	7.2/9.6	3/60	3 - 3.2	SINGLE	20/23.1	2.8	29/33	30/35
	RXBH-1724A13J	9.4/12.5	1/60	3 - 4.17	SINGLE	45.1/52.1	2.8	60/69	60/70
	RXBH-1724A13J	3.1/4.2	1/60	1 - 4.17	MULTIPLE CKT 1	15/17.4	2.8	23/26	25/30
	RXBH-1724A13J	6.3/8.3	1/60	2 - 4.17	MULTIPLE CKT 2	30.1/34.7	0	38/44	40/45
3617STAN	RXBH-17203J	2.2/3	1/60	1 - 3	SINGLE	10.8/12.5	4.3	19/21	20/25
	RXBH-172405J	3.6/4.8	1/60	1 - 4.8	SINGLE	17.3/20	4.3	27/31	30/35
	RXBH-172407J	5.4/7.2	1/60	2 - 3.6	SINGLE	26/30	4.3	38/43	40/45
	RXBH-172410J	7.2/9.6	1/60	2 - 4.8	SINGLE	34.6/40	4.3	49/56	50/60
	RXBH-1724A10C	7.2/9.6	3/60	3 - 3.2	SINGLE	20/23.1	4.3	31/35	35/35
	RXBH-1724A13J	9.4/12.5	1/60	3 - 4.17	SINGLE	45.1/52.1	4.3	62/71	70/80
	RXBH-1724A13J	3.1/4.2	1/60	1 - 4.17	MULTIPLE CKT 1	15/17.4	4.3	25/28	25/30
	RXBH-1724A13J	6.3/8.3	1/60	2 - 4.17	MULTIPLE CKT 2	30.1/34.7	0	38/44	40/45
	RXBH-1724A15C	10.8/14.4	3/60	3 - 4.8	SINGLE	30/34.6	4.3	43/49	45/50
	RXBH-1724A15J	10.8/14.4	1/60	3 - 4.8	SINGLE	51.9/60	4.3	71/81	80/90
	RXBH-1724A15J	3.6/4.8	1/60	1 - 4.8	MULTIPLE CKT 1	17.3/20	4.3	28/31	30/35
	RXBH-1724A15J	7.2/9.6	1/60	2 - 4.8	MULTIPLE CKT 2	34.6/40	0	44/50	45/50
	RXBH-1724A18J	12.8/17	1/60	3 - 5.67	SINGLE	61.6/70.8	4.3	83/94	90/100
	RXBH-1724A18J	4.3/5.7	1/60	1 - 5.67	MULTIPLE CKT 1	20.5/23.6	4.3	32/35	35/35
RXBH-1724A18J	8.5/11.3	1/60	2 - 5.67	MULTIPLE CKT 2	41.1/47.2	0	52/60	60/60	
3621HTAN 3621MTAN 4821MTAN 4821STAN 6021STAN	RXBH-172405J	3.6/4.8	1/60	1 - 4.8	SINGLE	17.3/20	4.3	27/31	30/35
	RXBH-172407J	5.4/7.2	1/60	2 - 3.6	SINGLE	26/30	4.3	38/43	40/45
	RXBH-172410J	7.2/9.6	1/60	2 - 4.8	SINGLE	34.6/40	4.3	49/56	50/60
	RXBH-1724A10C	7.2/9.6	3/60	3 - 3.2	SINGLE	20/23.1	4.3	31/35	35/35
	RXBH-1724A15C	10.8/14.4	3/60	3 - 4.8	SINGLE	30/34.6	4.3	43/49	45/50
	RXBH-1724A15J	10.8/14.4	1/60	3 - 4.8	SINGLE	51.9/60	4.3	71/81	80/90
	RXBH-1724A15J	3.6/4.8	1/60	1 - 4.8	MULTIPLE CKT 1	17.3/20	4.3	28/31	30/35
	RXBH-1724A15J	7.2/9.6	1/60	2 - 4.8	MULTIPLE CKT 2	34.6/40	0	44/50	45/50
	RXBH-1724A18J	12.8/17	1/60	3 - 5.67	SINGLE	61.6/70.8	4.3	83/94	90/100
	RXBH-1724A18J	4.3/5.7	1/60	1 - 5.67	MULTIPLE CKT 1	20.5/23.6	4.3	32/35	35/35
	RXBH-1724A18J	8.5/11.3	1/60	2 - 5.67	MULTIPLE CKT 2	41.1/47.2	0	52/60	60/60
	RXBH-24A20C	14.4/19.2	3/60	6 - 3.2	SINGLE	40/46.2	4.3	56/64	60/70
	RXBH-24A20C	7.2/9.6	3/60	3 - 3.2	MULTIPLE CKT 1	20/23.1	4.3	31/35	35/35
RXBH-24A20C	7.2/9.6	3/60	3 - 3.2	MULTIPLE CKT 2	20/23.1	0	25/29	25/30	

- Supply circuit protective devices may be fuses or "HACR" type circuit breakers.
- Largest motor load is included in single circuit and multiple circuit 1.
- If non-standard fuse size is specified, use next size larger standard fuse size.
- J Voltage (230V) single phase air handler is designed to be used with single or three phase 230 volt electric heaters. In the case of connecting 3-phase power to the air handler terminal block without the heater, bring only two leads to the terminal block cap, insulate and fully secure the third lead.

[ ] Designates Metric Conversions