

The new degree of comfort.™

# Rheem High Efficiency Air Handler equipped with Comfort Control<sup>2</sup> System<sup>™</sup>



- Includes an energy efficient GE<sup>®</sup> ECM<sup>®</sup> Motor, that 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 high efficiency 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.

**RHPL- Series** 16 SEER



- Dip switch settings for selectable, customized cooling airflow over a wide variety of applications when wired in 24V conventional configurations.
- On-demand dehumidification terminal that adjusts airflow to help control humidity for unsurpassed comfort in cooling mode.
- External filter required.
- Advanced controls provide more comfort and diagnostic options.
- Blower automatically self-configures and no dip switch settings are required when installed with a communicating outdoor unit and a 500-Series Rheem thermostat.



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# **Engineering Features**

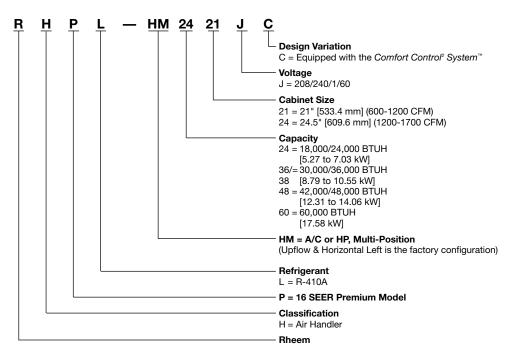
**RHPL-Series** 

- 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 air-flow 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.
- Advanced controls provide more comfort and diagnostic options.

- 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 copper tubing.
- 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 1<sup>1</sup>/<sub>2</sub> inch [38 mm] conduit.
- Internal checked TX valves are used on the Heat Pump indoor coil for more quiet refrigerant metering.
- Front refrigerant and drain connections.
- [ ] Designates Metric Conversions



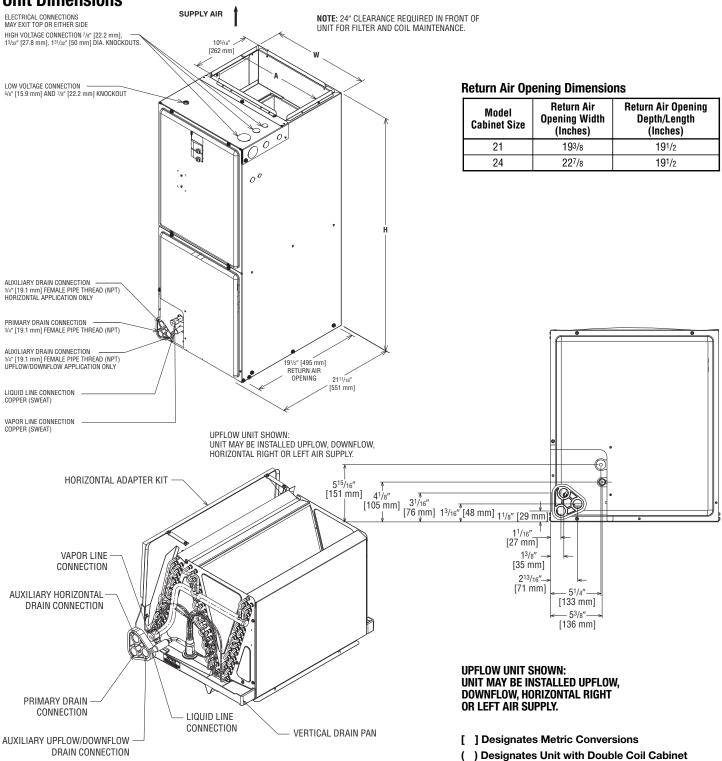
# **Model Number Identification**



<b>Available Models</b>
RHPL-HM2421JC
RHPL-HM3621JC
RHPL-HM3821JC
RHPL-HM4824JC
RHPL-HM6024JC



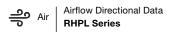
# **Unit Dimensions**



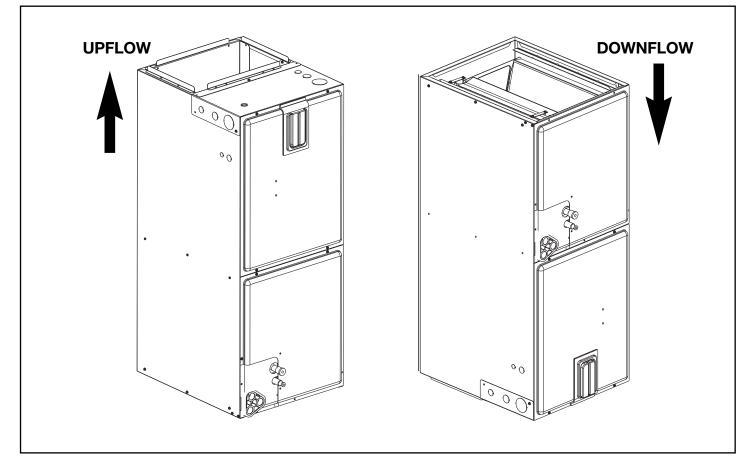
#### **Unit Dimensions & Weights**

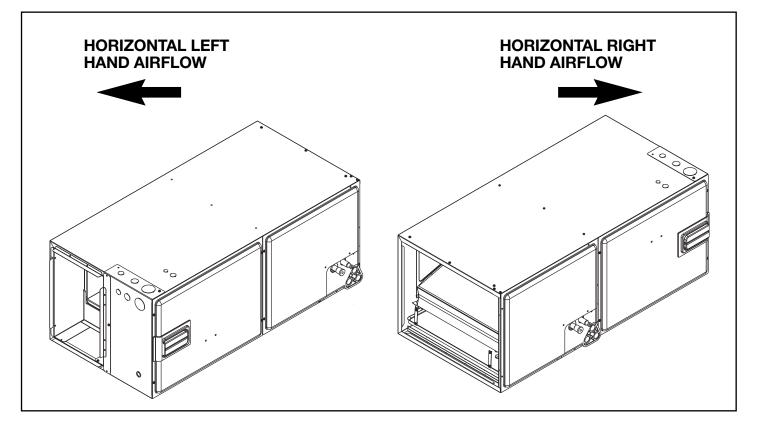
Unit	Unit	Supply		Nominal Coil	Airflow [L/s]	Unit Weight/Shipping Weight (Lbs.) [kg]	
Width	/idth Height [	Duct			2nd \$	Stage	Unit With
"W" In. [mm]		"A" In. [mm]	ODD*	Normal	ODD*	Normal	Coil (Max. KW)
21 [533]	421/2 [1080]	19 <sup>1</sup> /2 [495]	480 [227]	625 [295]	640 [302]	775 [366]	92/106 [42/48]
21 [533]	421/2 [1080]	19 <sup>1</sup> /2 [495]	720 [340]	900 [425]	960 [453]	1200 [566]	92/106 [42/48]
21 [533]	501/2 [1203]	19 <sup>1</sup> /2 [495]	750 [354]	900 [425]	960 [453]	1200 [566]	150/166 [68/75.2]
241/2 [622]	55 <sup>1</sup> /2 [1410]	23 [584]	960 [453]	1200 [566]	1280 [804]	1625 [767]	162/180 [73/81]
241/2 [622]	551/2 [1410]	23 [584]	1040 [491]	1375 [649]	1360 [642]	1675 [791]	181/198 [82/90]
	Width           "W" In. [mm]           21         [533]           21         [533]           21         [533]           21         [533]           21         [522]	Width "W" ln. [mm]         Height "H" ln. [mm]           21         [533]         421/2 [1080]           21         [533]         421/2 [1080]           21         [533]         501/2 [1203]           241/2 [622]         551/2 [1410]	Width "W" In. [mm]         Height "H" In. [mm]         Duct "A" In. [mm]           21         [533]         421/2 [1080]         191/2 [495]           21         [533]         421/2 [1080]         191/2 [495]           21         [533]         501/2 [1203]         191/2 [495]           21         [533]         501/2 [1203]         191/2 [495]           241/2 [622]         551/2 [1410]         23         [584]	Width "W" ln. [mm]         Height "H" ln. [mm]         Duct "A" ln. [mm]         1st S           21         [533]         421/2 [1080]         191/2 [495]         480 [227]           21         [533]         421/2 [1080]         191/2 [495]         720 [340]           21         [533]         501/2 [1203]         191/2 [495]         720 [340]           21         [533]         501/2 [1203]         191/2 [495]         750 [354]           241/2 [622]         551/2 [1410]         23 [584]         960 [453]	Width         Height         Duct         1st Stage           "W" In. [mm]         "H" In. [mm]         "A" In. [mm]         ODD*         Normal           21         [533]         421/2 [1080]         191/2 [495]         480 [227]         625 [295]           21         [533]         421/2 [1080]         191/2 [495]         720 [340]         900 [425]           21         [533]         501/2 [1203]         191/2 [495]         750 [354]         900 [425]           241/2 [622]         551/2 [1410]         23         [584]         960 [453]         1200 [566]	Width "W" In. [mm]         Height "H" In. [mm]         Duct "A" In. [mm]         1st Stage         2nd S           21         [533]         421/2 [1080]         191/2 [495]         480 [227]         625 [295]         640 [302]           21         [533]         421/2 [1080]         191/2 [495]         720 [340]         900 [425]         960 [453]           21         [533]         501/2 [1203]         191/2 [495]         750 [354]         900 [425]         960 [453]           241/2 [622]         551/2 [1410]         23 [584]         960 [453]         1200 [566]         1280 [804]	Width "W" In. [mm]         Height "H" In. [mm]         Buct "A" In. [mm]         1st Stage         2nd Stage           21         [533]         421/2 [1080]         191/2 [495]         480 [227]         625 [295]         640 [302]         775 [366]           21         [533]         421/2 [1080]         191/2 [495]         720 [340]         900 [425]         960 [453]         1200 [566]           21         [533]         501/2 [1203]         191/2 [495]         750 [354]         900 [425]         960 [453]         1200 [566]           241/2 [622]         551/2 [1410]         23 [584]         960 [453]         1200 [566]         1280 [804]         1625 [767]

\*Maximum dehumidification airflow.



# **Airflow Directional Data**







# **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

### **Airflow Performance Data**

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.

Nominal Cooling	Cabinet	Blo	ower	Nominal		ECM CFM [L/s] Air Delivery/RPM/Watts-230 Volts									
Capacity	Size	Size	Thermostat			-	External Static Pressure – Inches W.C. [kPa]								
oupuony		Motor HP	Input			0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
					CFM	550 [260]	575 [271]	600 [283]	600 [283]	625 [295]	625 [295]	625 [295]	600 [283]	575 [271]	550 [260]
			Y1	625	RPM	455	540	620	695	760	825	885	940	985	1030
HM2421	21	10 x 8			Watts	40	55	70	85	105	120	135	150	170	185
111112421	21	1/3			CFM	775 [366]	775 [366]	775 [366]	800 [378]	800 [378]	825 [389]	825 [389]	825 [389]	825 [389]	825 [389]
			Y2	775	RPM	540	615	685	750	810	870	925	975	1020	1065
					Watts	70	90	115	135	160	180	205	225	250	270
					CFM	875 [413]	900 [425]	900 [425]	900 [425]	900 [425]	900 [425]	900 [425]	900 [425]	900 [425]	875 [413]
			Y1	900	RPM	570	645	715	775	835	890	945	990	1030	1070
HM3621	21	10 x 8			Watts	90	110	135	155	180	200	220	240	265	285
111113021	21	1/2	Y2	1200	CFM	1175 [555]	1200 [566]	1200 [566]	1200 [566]	1225 [578]	1225 [578]	1200 [566]	1200 [566]	1200 [566]	1200 [566]
					RPM	700	760	820	875	925	970	1015	1055	1095	1125
					Watts	180	205	235	265	290	320	345	370	400	425
	21	10 x 10 1/2	Y1	Y1 900	CFM	809 [382]	867 [409]	872 [412]	874 [412]	897 [423]	899 [424]	892 [421]	866 [409]	870 [411]	830 [392]
					RPM	507	608	684	770	855	915	975	1037	1092	1145
HM3821					Watts	68	91	113	144	177	203	232	265	291	319
111110021			1/2 Y2	2 1200	CFM	1119 [528]	1163 [549]	1169 [552]	1180 [557]	1195 [564]	1184 [559]	1179 [556]	1181 [557]	1162 [548]	1152 [544]
					RPM	628	713	773	842	904	958	1012	1065	1120	1164
					Watts	128	166	197	229	266	292	324	364	385	423
					CFM	1200 [566]	1175 [555]	1175 [555]	1200 [566]	1225 [578]	1225 [578]	1200 [566]	1200 [566]	1200 [566]	1200 [566]
			Y1	1200	RPM	535	595	650	700	750	800	840	880	915	950
HM4824	24	11 x 11			Watts	130	160	190	220	250	280	305	335	365	390
	27	3/4			CFM	1625 [767]	1650 [779]	1650 [779]	1650 [779]	1675 [791]	1675 [791]	1675 [791]	1650 [779]	1650 [779]	1625 [767]
			Y2	1625	RPM	635	690	745	795	840	880	915	950	980	1005
					Watts	245	295	340	385	425	465	500	535	565	590
					CFM	1375 [649]	1375 [649]	1375 [649]	1375 [649]	1375 [649]	1375 [649]	1375 [649]	1350 [637]	1350 [637]	1350 [637]
			Y1	1375	RPM	575	630	685	735	780	825	865	905	945	980
HM6024	24	11 x 11			Watts	160	185	215	245	275	305	335	365	395	430
11110024	27	3/4			CFM	1650 [779]	1675 [791]	1700 [802]	1700 [802]	1700 [802]	1700 [802]	1700 [802]	1700 [802]	1700 [802]	1700 [802]
			Y2	1675	RPM	690	740	790	835	875	915	955	985	1015	1045
					Watts	290	335	375	415	455	495	530	560	595	625

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



# **Electrical Data**

Model	HP [W]	Voltage	Phase	Hertz	RPM	Circuit Amps.	Minimum Circuit Ampacity	Maximum Circuit Protector
HM2421	1/3 [249]	208/230	1	60	300-1100	1.7	4.0	15
HM3621	1/2 [373]	208/230	1	60	300-1100	3.4	6.0	15
HM3821	1/2 [373]	208/230	1	60	300-1100	3.4	6.0	15
HM4824	3/4 [559]	208/230	1	60	300-1100	4.9	9.0	15
HM6024	3/4 [559]	208/230	1	60	300-1100	4.9	9.0	15

# **Electrical Data – With Electric Heat**

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 Cabinet Size/ Cooling Capacity	Manufacturer Model Number	Type Supply Circuit	Voltage	PH/HZ	Heater kW	Heater AMPS	Motor Ampacity	Maximum Circuit Protection	Minimum Circuit Ampacity
	RXBH-24A05J	Single	208/240	1/60	3.6/4.8	17.3/20.0	1.7	25/30	24/28
21" / HM2421	RXBH-24A07J	Single	208/240	1/60	5.4/7.2	26.0/30.0	1.7	35/40	35/40
	RXBH-24A10J	Single	208/240	1/60	7.2/9.6	34.6/40.0	1.7	50/60	46/53
	RXBH-24A05J	Single	208/240	1/60	3.6/4.8	17.3/20.0	3.4	30/30	26/30
[	RXBH-24A07J	Single	208/240	1/60	5.4/7.2	26.0/30.0	3.4	40/45	37/42
	RXBH-24A10J	Single	208/240	1/60	7.2/9.6	34.6/40.0	3.4	50/60	48/55
21" /		Single	208/240	1/60	10.8/14.4	51.9/60.0	3.4	70/80	70/80
HM3621/HM3821	RXBH-24A15J	MULTI.CKT 1	208/240	1/60	3.6/4.8	17.3/20.0	3.4	30/30	26/30
		MULTI.CKT 2	208/240	1/60	7.2/9.6	34.6/40.0	0.0	45/50	44/50
		Single	208/240	1/60	12.8/17	61.6/70.8	3.4	90/100	82/93
	RXBH-24A18J	MULTI.CKT 1	208/240	1/60	6.4/8.5	30.8/35.4	3.4	45/50	43/49
		MULTI.CKT 2	208/240	1/60	6.4/8.5	30.8/35.4	0.0	40/45	39/45
	RXBH-24A05J	Single	208/240	1/60	3.6/4.8	17.3/20.0	4.9	30/35	28/32
	RXBH-24A07J	Single	208/240	1/60	5.4/7.2	26.0/30.0	4.9	40/45	39/44
	RXBH-24A10J	Single	208/240	1/60	7.2/9.6	34.6/40.0	4.9	50/60	50/57
		Single	208/240	1/60	10.8/14.4	51.9/60.0	4.9	80/90	72/82
	RXBH-24A15J	MULTI.CKT 1	208/240	1/60	3.6/4.8	17.3/20.0	4.9	30/35	28/32
		MULTI.CKT 2	208/240	1/60	7.2/9.6	34.6/40.0	0	45/50	44/50
		Single	208/240	1/60	12.8/17	61.6/70.8	4.9	90/100	84/95
0.411 / 1110 4 00 4	RXBH-24A18J	MULTI.CKT 1	208/240	1/60	6.4/8.5	30.8/35.4	4.9	45/60	45/51
24" / HM4824		MULTI.CKT 2	208/240	1/60	6.4/8.5	30.8/35.4	0	40/45	39/45
		Single	208/240	1/60	14.4/19.2	69.2/80.0	4.9	100/110	93/107
	RXBH-24A20J	MULTI.CKT 1	208/240	1/60	7.2/9.6	34.6/40.0	4.9	50/60	50/57
		MULTI.CKT 2	208/240	1/60	7.2/9.6	34.6/40.0	0	45/50	44/50
F		Single	208/240	1/60	18.0/24.0	87.0/99.9	4.9	125/150	115/132
	RXBH-24A25J	MULTI.CKT 1	208/240	1/60	6.0/8.0	29.0/33.3	4.9	45/50	43/48
	(4 ton only)	MULTI.CKT 2	208/240	1/60	6.0/8.0	29.0/33.3	0	40/45	37/42
		MULTI.CKT 3	208/240	1/60	6.0/8.0	29.0/33.3	0	40/45	37/42

 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 (2300) 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 with being and the block can be block and fully accurate the thriter lead. without the heater, bring only two leads to the terminal block cap, insulate and fully secure the third lead.



# Electrical Data – With Electric Heat (Cont.)

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 Cabinet Size/ Cooling Capacity	Manufacturer Model Number	Type Supply Circuit	Voltage	PH/HZ	Heater kW	Heater AMPS	Motor Ampacity	Maximum Circuit Protection	Minimum Circuit Ampacity
	RXBH-24A05J	Single	208/240	1/60	3.6/4.8	17.3/20.0	4.9	30/35	28/32
	RXBH-24A07J	Single	208/240	1/60	5.4/7.2	26.0/30.0	4.9	40/45	39/44
	RXBH-24A10J	Single	208/240	1/60	7.2/9.6	34.6/40.0	4.9	50/60	50/57
		Single	208/240	1/60	10.8/14.4	51.9/60.0	4.9	80/90	72/82
	RXBH-24A15J	MULTI.CKT 1	208/240	1/60	3.6/4.8	17.3/20.0	4.9	30/35	28/32
		MULTI.CKT 2	208/240	1/60	7.2/9.6	34.6/40.0	0	45/50	44/50
		Single	208/240	1/60	12.8/17	61.6/70.8	4.9	90/100	84/95
	RXBH-24A18J	MULTI.CKT 1	208/240	1/60	6.4/8.5	30.8/35.4	4.9	45/60	45/51
		MULTI.CKT 2	208/240	1/60	6.4/8.5	30.8/35.4	0	40/45	39/45
24" / HM6024		Single	208/240	1/60	14.4/19.2	69.2/80.0	4.9	100/110	93/107
24 / ΠΙΫΙΟυ24	RXBH-24A20J	MULTI.CKT 1	208/240	1/60	7.2/9.6	34.6/40.0	4.9	50/60	50/57
		MULTI.CKT 2	208/240	1/60	7.2/9.6	34.6/40.0	0	45/50	44/50
		Single	208/240	1/60	18.0/24.0	87.0/99.9	4.9	125/150	115/132
		MULTI.CKT 1	208/240	1/60	6.0/8.0	29.0/33.3	4.9	45/50	43/48
	RXBH-24A25J	MULTI.CKT 2	208/240	1/60	6.0/8.0	29.0/33.3	0	40/45	37/42
		MULTI.CKT 3	208/240	1/60	6.0/8.0	29.0/33.3	0	40/45	37/42
		Single	208/240	1/60	21.8/28.8	103.8/120	4.9	135/168	150/175
	RXBH-24A30J	MULTI.CKT 1	208/240	1/60	7.2/9.6	34.8/40.0	4.9	49/56	50/60
	плоп-24Азиј	MULTI.CKT 2	208/240	1/60	7.2/9.6	34.8/40.0	0	44/50	45/50
		MULTI.CKT 3	208/240	1/60	7.2/9.5	34.8/40.0	0	44/50	45/50

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.





# **Electrical Wiring**

### **Power Wiring**

- Field wiring must comply with the National Electrical Code (C.E.C. in Canada) and any applicable local ordinance.
- Supply wiring must be 75°C minimum copper conductors only.
- See electrical data for product Ampacity rating and Circuit Protector requirement.

### Accessories

#### • Combustible Floor Base RXHB-

Combustible Floor Base Model Number					
RXHB-21 BXHB-24					

- Jumper Bar Kit 3 Ckt. to 1 Ckt. RXBJ-A31 is used to convert single phase multiple three circuit units to a single supply circuit. Kit includes cover and screw for line side terminals.
- Jumper Bar Kit 2 Ckt. to 1 Ckt. RXBJ-A21 is used to convert single phase multiple two circuit units to a single supply circuit. Kit includes cover and screw for line side terminals.
- Note: No jumper bar kit is available to convert three phase multiple two circuit units to a single supply circuit.

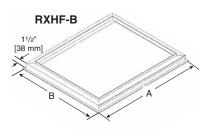
#### Auxiliary Horizontal Overflow Pan Accessory RXBM-

Nominal Cooling Capacity-Tons	Auxiliary Horizontal Overflow Pan Accessory Model Number
11/2 - 3	RXBM-AC48
31/2 - 5	RXBM-AC61

#### • External Filter Rack RXHF-B17, B21, B24

Model Cabinet Size	Filter Size In. [mm]	Part Number*	A	В
21	20 x 20 [508 x 508]	RXHF-B21	20.40	20.77
24	25 x 20 [635 x 508]	RXHF-B24	25.00	21.04

\*Accommodates 1" filter



#### (31/4") [82.55 mm] (31/4") [82.5

#### Grounding

- This product must be sufficiently grounded in accordance with National Electrical Code (C.E.C. in Canada) and any applicable local ordinance.
- A grounding lug is provided.

#### • Auxiliary Electric Heater Kits RXBH-

Heater Kits include circuit breakers which meet UL and cUL requirements for service disconnect. See the Electric Heat Electrical Data in this specification sheet for specific Heater Kit Model numbers.

#### External Filter Base RXHF-

Model Cabinet Size	Filter Size In. [mm]	Part Number*	A	В
21	20 x 20 [508 x 508]	RXHF-21	19.20	21.0
24	25 x 20 [635 x 508]	RXHF-24	22.70	25.5

\*Accommodates 1" or 2" filter



### **GENERAL TERMS OF LIMITED WARRANTY\***

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

Parts.....Ten (10) 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.



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

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