



FRIEDRICH

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Friedrich® Commercial Air Handler



RHCLA Series

Nominal Sizes 7.5, 10, 12.5, 15 & 20 Tons
[26.4, 35.2, 44, 52.8 & 70.3 kW]



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CABINET—The pre-painted, sheet-metal cabinet uses 18-gauge material for structural components with an underlying coat of G60 electro deposition powder coating that is tested to withstand a rigorous 500-hour salt spray test, per ASTM B117.

MOTOR—Inherently protected motors are mounted inside of insulated cabinet to reduce motor noise. A choice of motor horsepower and drive combinations are available to allow you to meet specified CFM at various static pressures up to 2" [.498 kPa] external static pressure.

LOW PROFILE—Allows for horizontal installation in most standard drop ceiling applications, and the movement of units through most standard doorways for addition or replacement work.

THERMAL EXPANSION VALVES—Standard all models.

FILTERS—One inch [25 mm] throwaway filters are standard, but filter racks are designed to accept either one inch [25 mm] or two inch [51 mm] filters. MERV 13 & MERV 8 filters are available as an accessory.

EVAPORATOR COIL—Two circuit, interlaced row split coils are constructed with copper tubes and aluminum fins mechanically bonded to the tubes for maximum heat transfer capabilities. All coil assemblies are leak tested up to 450 PSIG [3100 kPa] internal pressure prior to installation into units.

VARIABLE FREQUENCY DRIVE—Provides 2-stage airflow for improved part load efficiency. Meets California Title 24 requirements.

REFRIGERANT CONNECTIONS—Field piping connections are made through a fixed post between two side access panels on either side of the unit. Allows flexibility to meet most field conditions as well as full accessibility after the installation is complete. Units may be used with two straight cool condensing units or single circuit manifolded in the field using the copper fittings shipped with each unit.

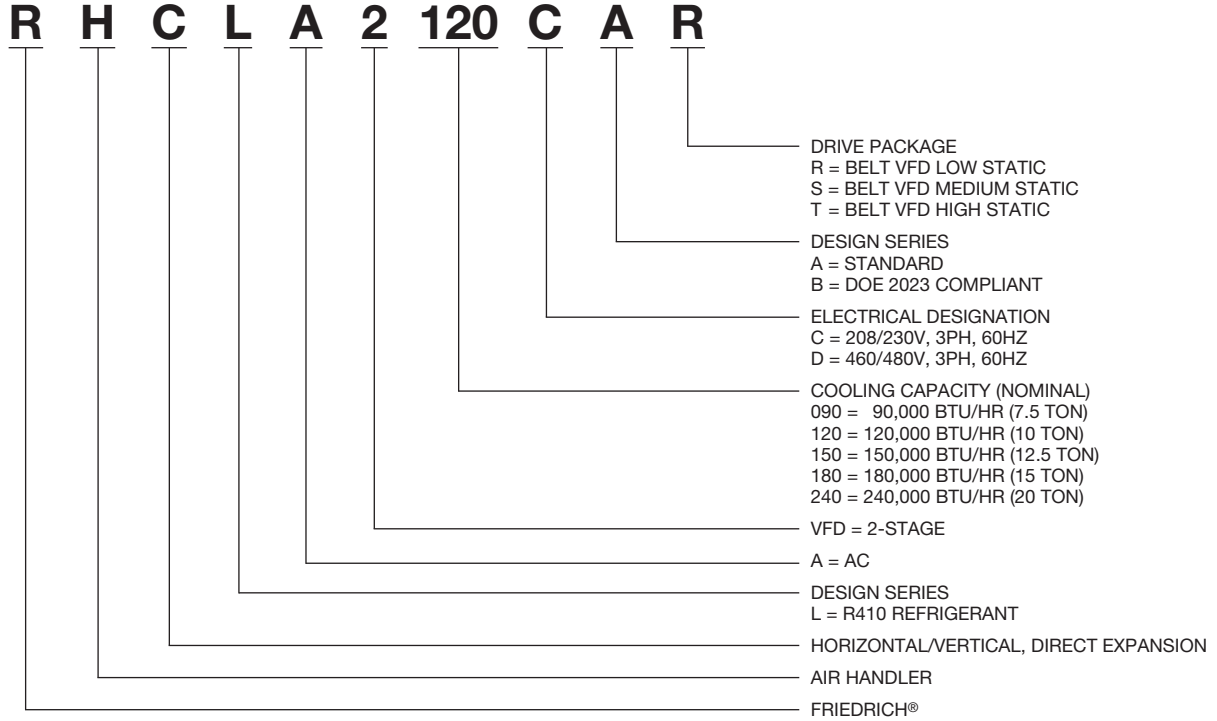
DRAIN PAN—The galvanized steel drain pan is designed to trap condensate in either vertical or horizontal installations. Condensate drain connections are located on both sides of the unit allowing complete flexibility to meet most field conditions.

SERVICE ACCESS—Two removable panels on top and each side of the unit are easily removed for access to motors, blowers, sheaves, and filters.

HORIZONTAL OR VERTICAL—All models are designed for either application and can be installed in either position as supplied from the factory.

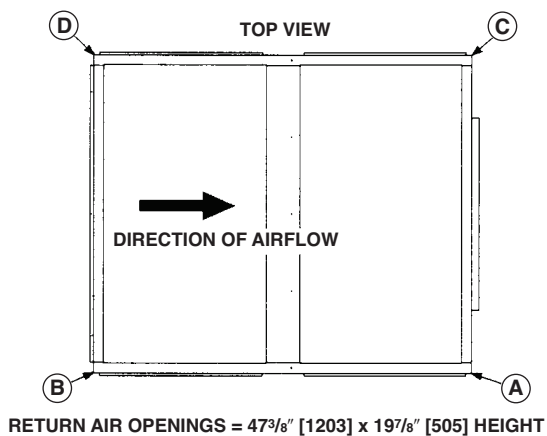
TESTING—All units are run tested at the factory prior to shipment. Units are shipped with a holding charge of nitrogen.

[] Designates Metric Conversions



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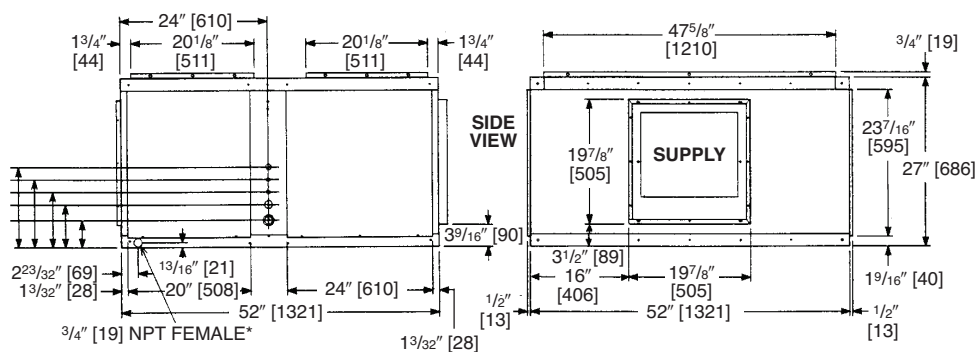
RHCLA LBS. [kg] 7.5 AND 10 NOMINAL TONS [26.4 AND 35.2 kW]



REFRIGERANT STUB SIZES, IN. [mm]				
MODEL	DUAL LIQ.	DUAL SUC.	SINGLE LIQ.	SINGLE SUC.
090	1/2, 1/2 [13, 13]	7/8, 7/8 [22, 22]	1/2 [13]	1 1/8 [29]
120	1/2, 1/2 [13, 13]	7/8, 7/8 [22, 22]	5/8 [16]	1 3/8 [35]

MODEL	CORNER WEIGHTS LBS. [kg]				TOTAL WEIGHT	GROSS WEIGHT
	A	B	C	D		
090	127 [57]	57 [25]	50 [22]	131 [59]	365 [165]	409 [185]
120	127 [57]	57 [25]	50 [22]	131 [59]	365 [165]	409 [185]

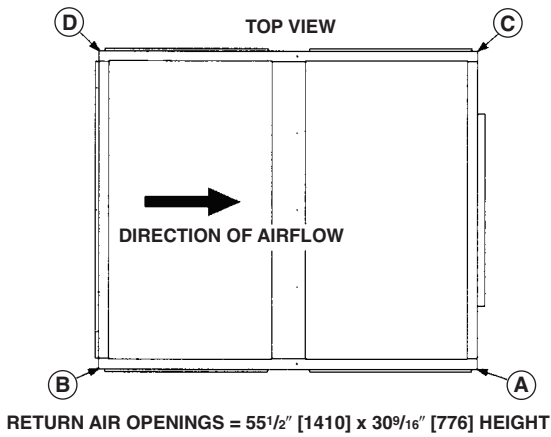
KNOCK-OUTS BOTH SIDES	
7/8" [22]	12 13/16" [325]
5/8" [16]	10 13/16" [275]
5/8" [16]	8 13/16" [224]
1 1/4" [32]	6 13/16" [173]
1 1/4" x 1 3/4" [32 x 44]	4 5/16" [110]



*Drain connections are provided on both sides of the drain pan. The drain can be connected to either side of the drain pan, but not both. The drain must be trapped.

[] Designates Metric Conversions

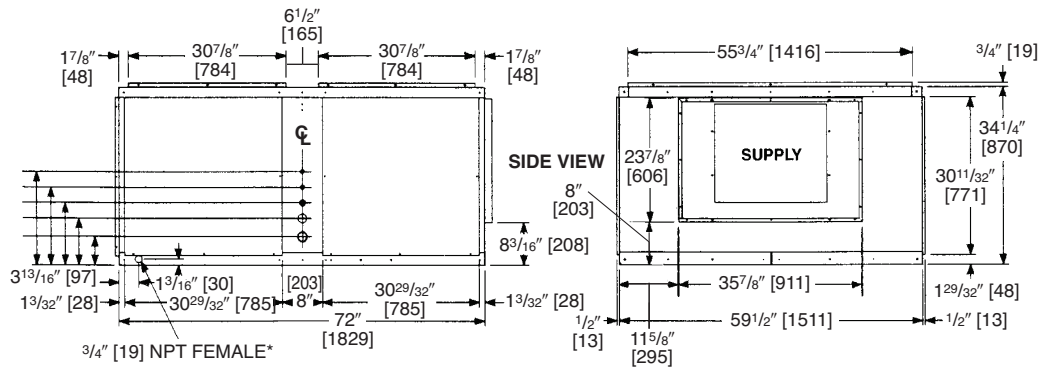
**RHCLA LBS. [kg]
12.5, 15 & 20 NOMINAL TONS
[44 & 70.3 kW]**



REFRIGERANT STUB SIZES, IN. [mm]				
MODEL	DUAL LIQ.	DUAL SUC.	SINGLE LIQ.	SINGLE SUC.
150	1/2, 1/2 [13, 13]	1 1/8, 1 1/8 [29, 29]	5/8 [16]	1 5/8 [41]
180	5/8, 5/8 [16, 16]	1 3/8, 1 3/8 [35, 35]	7/8 [22]	1 5/8 [41]
240	5/8, 5/8 [16, 16]	1 3/8, 1 3/8 [35, 35]	7/8 [22]	1 5/8 [41]

MODEL	CORNER WEIGHTS LBS. [kg]				GROSS WEIGHT
	A	B	C	D	
150	144 [65]	127 [58]	117 [53]	105 [48]	495 [225]
180	159 [72]	142 [64]	129 [59]	115 [52]	545 [247]
240	159 [72]	142 [64]	129 [59]	115 [52]	545 [247]

KNOCK-OUTS BOTH SIDES	
7/8" [22]	18" [457]
7/8" [22]	15" [381]
7/8" x 1 1/4" [22 x 32]	12" [305]
1 3/4" [44]	9" [229]
1 3/4" x 2" [44 x 51]	5 1/2" [140]



*Drain connections are provided on both sides of the drain pan. The drain can be connected to either side of the drain pan, but not both. The drain must be trapped.

[] Designates Metric Conversions

		RHCLA2				
Cooling Size		090	120	150	180	240
Nominal size (tons)		7-1/2	10	12-1/2	15	20
Nominal CFM @ Rated E.S.P. (2nd Stage)		3000 @ .25"	4000 @ .30"	4785 @ .35"	6000 @ .35"	8000 @ .40
# of Blower Speeds		2	2	2	2	2
1st Stage Blower RPM %		66%	66%	66%	66%	66%
MOTOR HORSEPOWER	Standard— 1750 RPM 3 phase	2 HP	2 HP	2 HP	2HP	5 HP
	Optional— 1750 RPM 3 phase	2 HP, 3 HP	2 HP, 3 HP	2 HP, 3 HP, 5Hp	2 HP, 3 HP, 5Hp	5 HP, 7.5 HP
Blower Size—diameter x width		12 X 12	12 X 12	18 x 15	18 x 18	18 x 18
Blower Shaft Diameter		3/4	3/4	1	1	1
Motor Sheave	1750 RPM 3 phase	1VP50	4.4 - 5.0	Belt	1VL44 7/8"	1VP56 1-1/8"
Belt Type & Size Std.		A-50	V-54	0	B52	B50
Coil Face Area (sq. ft.)		10.2	10.2	16.2	16.5	16.5
Coil Tube Diameter		3/8	3/8	3/8	3/8	3/8
Coil, Rows Deep-Fins Per Inch		4/15	4/15	3	4	4
T.X. Valve Refrigerant Control		(2) BBIZE-5-GA	(2) BBIZE-5-GA	(2) BBIZE-6-GA @98	(2) BBIZE-6-GA @84	(2) BBIZE-8-GA
Filter Size (std.)* No. Req'd		(4) 16 X 25 X 1	(4) 16 X 25 X 1	(6) 20 X 25 X 1	(6) 20 X 25 X 1	(6) 20 X 25 X 1
CABINET:						
Finish		Prepaint	Prepaint	Prepaint	Prepaint	Prepaint
Sheet Metal		Galvanized	Galvanized	Galvanized	Galvanized	Galvanized
Gauge: Top		18	18	18	18	18
Sides		16	16	16	16	16
Bottom		18	18	18	18	18
Door and Covers		20 min.	20 min.	20 min.	20 min.	20 min.
UNIT WEIGHTS:						
Operating	R - Drive	330	347	446	486	545
	S - Drive	330	347	446	492	595
	T - Drive	341	358	446	530	645
Shipping	R - Drive	396	413	481	521	580
	S - Drive	396	413	481	527	630
	T - Drive	407	435	481	565	680
OPTIONAL ACCESORIES WEIGHTS:						
Hot Water Coils		200	200	200	200	200
Steam Heating Coils		200	200	200	200	200

AIRFLOW PERFORMANCE RHCLA2090 — 7.5 TON [26.4 kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]		External Static Pressure—Inches of Water [kPa]																			
		(-) HCLP2090 Voltage 208/230 — 3 phase 60 Hz																			
		0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.35]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]
2400 [1133]	—	626 [590]	673 [644]	720 [696]	767 [745]	803 [792]	843 [854]	883 [915]	921 [976]	959 [1036]	995 [1085]	1035 [1103]	1066 [1126]	1096 [1156]	1126 [1186]	1156 [1216]	1186 [1246]	1222 [1282]	1256 [1316]	1287 [1347]	
2500 [1180]	—	641 [634]	688 [698]	734 [741]	780 [790]	815 [835]	855 [898]	893 [961]	931 [1023]	968 [1084]	1004 [1145]	1013 [1162]	1044 [1219]	1075 [1277]	1105 [1337]	1135 [1399]	1164 [1463]	1193 [1528]	1222 [1595]	1246 [1582]	
2600 [1227]	—	657 [680]	703 [736]	748 [788]	793 [838]	828 [883]	867 [948]	904 [1012]	941 [1075]	977 [1138]	1012 [1200]	1023 [1226]	1054 [1366]	1084 [1347]	1114 [1411]	1144 [1476]	1173 [1542]	1202 [1611]	1230 [1681]	1256 [1672]	
2700 [1274]	628 [671]	673 [730]	718 [786]	763 [839]	806 [890]	840 [936]	878 [1003]	915 [1068]	951 [1133]	987 [1197]	1001 [1233]	1033 [1294]	1063 [1357]	1094 [1422]	1124 [1489]	1153 [1557]	1182 [1627]	1210 [1699]	1242 [1717]	1266 [1767]	
2800 [1321]	645 [724]	690 [783]	734 [839]	778 [893]	815 [926]	853 [995]	890 [1063]	927 [1130]	962 [1196]	996 [1261]	1012 [1302]	1043 [1367]	1073 [1433]	1103 [1501]	1133 [1571]	1162 [1643]	1191 [1716]	1219 [1791]	1252 [1814]	1276 [1867]	
2900 [1368]	663 [779]	707 [839]	750 [896]	793 [951]	829 [989]	866 [1059]	903 [1128]	938 [1196]	973 [1264]	1006 [1331]	1022 [1376]	1053 [1444]	1083 [1514]	1113 [1585]	1142 [1658]	1172 [1733]	1200 [1810]	1228 [1888]	1262 [1914]	1286 [1970]	
3000 [1416]	682 [838]	725 [898]	767 [956]	806 [985]	843 [1057]	879 [1128]	915 [1199]	950 [1269]	983 [1338]	1016 [1406]	1032 [1455]	1063 [1526]	1093 [1599]	1123 [1674]	1152 [1750]	1181 [1828]	1209 [1908]	1248 [1959]	1272 [2020]	1296 [2079]	
3100 [1463]	701 [900]	743 [961]	784 [1019]	820 [1056]	857 [1130]	893 [1203]	928 [1275]	961 [1346]	994 [1416]	1012 [1466]	1043 [1539]	1074 [1613]	1104 [1689]	1133 [1767]	1162 [1847]	1191 [1928]	1219 [2011]	1258 [2066]	1282 [2130]	1306 [2192]	
3200 [1510]	720 [965]	761 [1026]	802 [1085]	836 [1133]	871 [1208]	906 [1283]	940 [1356]	973 [1429]	1005 [1500]	1023 [1551]	1054 [1627]	1084 [1705]	1114 [1784]	1143 [1865]	1172 [1948]	1201 [2033]	1229 [2119]	1268 [2177]	1293 [2244]	1316 [2310]	
3300 [1557]	740 [1033]	780 [1095]	815 [1139]	851 [1216]	886 [1292]	920 [1368]	942 [1442]	985 [1516]	1017 [1590]	1035 [1640]	1065 [1720]	1095 [1801]	1125 [1893]	1154 [1968]	1182 [2054]	1211 [2142]	1254 [2222]	1279 [2298]	1308 [2363]	1326 [2432]	
3400 [1604]	760 [1104]	799 [1167]	831 [1225]	866 [1303]	900 [1381]	934 [1458]	966 [1534]	998 [1610]	1015 [1654]	1046 [1735]	1076 [1817]	1106 [1901]	1135 [1987]	1164 [2075]	1193 [2164]	1221 [2255]	1265 [2339]	1290 [2413]	1314 [2487]	—	
3500 [1652]	781 [1179]	812 [1236]	847 [1316]	882 [1396]	915 [1475]	948 [1554]	979 [1631]	1010 [1708]	1027 [1749]	1057 [1833]	1088 [1919]	1117 [2006]	1146 [2096]	1175 [2187]	1203 [2279]	1250 [2382]	1276 [2461]	1300 [2538]	1324 [2615]	—	
4000 [1888]	868 [1677]	900 [1766]	931 [1853]	962 [1940]	991 [2026]	997 [2006]	1028 [2101]	1058 [2198]	1088 [2296]	1118 [2397]	1147 [2499]	1175 [2602]	1204 [2708]	1186 [2303]	1214 [2399]	1261 [2505]	1287 [2587]	1311 [2668]	—	—	

Airflow CFM [L/s]	AIRFLOW CORRECTION FACTORS *				COMPONENT AIRFLOW RESISTANCE					
	Sensible MBH		Power kW		Wet Coil		MERV 8 Filter		MERV 13 Filter	
	Total MBH	Resistance MBH	Power kW	Resistance Inches of Water [kPa]	Resistance Inches of Water	Resistance Inches of Water	Resistance Inches of Water	Resistance Inches of Water		
2400 [1133]	0.93	0.73	0.96	0.04 [0.01]	0.153	0.157	0.153	0.157		
2500 [1180]	0.93	0.74	0.96	0.05 [0.01]	0.164	0.168	0.164	0.168		
2600 [1227]	0.94	0.76	0.97	0.05 [0.01]	0.175	0.179	0.175	0.179		
2700 [1274]	0.94	0.78	0.97	0.05 [0.01]	0.186	0.189	0.186	0.189		
2800 [1321]	0.95	0.80	0.97	0.05 [0.01]	0.198	0.200	0.198	0.200		
2900 [1368]	0.95	0.81	0.97	0.06 [0.01]	0.209	0.211	0.209	0.211		
3000 [1416]	0.95	0.83	0.98	0.06 [0.01]	0.220	0.221	0.220	0.221		
3100 [1463]	0.96	0.85	0.98	0.06 [0.01]	0.231	0.232	0.231	0.232		
3200 [1510]	0.96	0.87	0.98	0.06 [0.01]	0.242	0.243	0.242	0.243		
3300 [1557]	0.97	0.88	0.99	0.07 [0.02]	0.253	0.254	0.253	0.254		
3400 [1604]	0.97	0.90	0.99	0.07 [0.02]	0.264	0.264	0.264	0.264		
3500 [1652]	0.98	0.92	0.99	0.07 [0.02]	0.276	0.275	0.276	0.275		
3600 [1699]	0.98	0.93	0.99	0.08 [0.02]	0.287	0.286	0.287	0.286		
3700 [1746]	0.99	0.95	1.00	0.08 [0.02]	0.298	0.296	0.298	0.296		
3800 [1793]	0.99	0.97	1.00	0.08 [0.02]	0.309	0.307	0.309	0.307		
3900 [1840]	1.00	0.99	1.00	0.08 [0.02]	0.320	0.318	0.320	0.318		
4000 [1888]	1.00	1.00	1.01	0.09 [0.02]	0.331	0.329	0.331	0.329		

* Multiply correction factor times gross performance data — resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE — 10 TON [26.4 kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]	External Static Pressure—Inches of Water [kPa]																																							
	(-) HCLA2120 Voltage 208/230 — 3 phase 60 Hz																																							
	0.1 [L.02]	0.2 [L.05]	0.3 [L.07]	0.4 [L.10]	0.5 [L.12]	0.6 [L.15]	0.7 [L.17]	0.8 [L.20]	0.9 [L.22]	1.0 [L.25]	1.1 [L.27]	1.2 [L.30]	1.3 [L.32]	1.4 [L.35]	1.5 [L.37]	1.6 [L.40]	1.7 [L.42]	1.8 [L.45]	1.9 [L.47]	2.0 [L.50]																				
2400 [1133]	—	626	590	673	644	720	696	767	745	803	792	843	854	883	915	921	976	959	1036	995	1095	1004	1103	1035	1157	1066	1212	1096	1268	1126	1327	1156	1387	1185	1449	1214	1513	1237	1497	
2500 [1180]	—	641	634	688	688	734	741	780	790	815	835	855	898	893	961	931	1023	968	1084	1004	1145	1013	1162	1044	1219	1075	1277	1105	1337	1135	1399	1164	1463	1193	1528	1222	1595	1246	1582	
2600 [1227]	—	657	680	703	736	748	788	793	838	828	883	867	948	904	1012	941	1075	977	1138	1012	1200	1023	1226	1054	1286	1084	1347	1114	1411	1144	1476	1173	1542	1202	1611	1230	1681	1256	1672	
2700 [1274]	628	671	673	730	718	786	763	839	806	890	840	936	878	1003	915	1068	951	1133	987	1197	1001	1233	1033	1294	1063	1357	1094	1422	1124	1489	1153	1557	1182	1627	1210	1699	1242	1717	1266	1767
2800 [1321]	645	724	690	783	734	839	778	893	815	926	853	995	890	1063	927	1130	962	1196	996	1261	1012	1302	1043	1367	1073	1433	1103	1501	1133	1571	1162	1643	1191	1716	1219	1791	1252	1814	1276	1867
2900 [1368]	663	779	707	839	750	896	793	951	829	989	866	1059	903	1128	938	1196	973	1264	1006	1331	1022	1376	1053	1444	1083	1514	1113	1585	1142	1658	1172	1733	1200	1810	1228	1888	1262	1914	1286	1970
3000 [1416]	682	838	725	898	767	956	806	985	843	1057	879	1128	915	1199	950	1269	983	1338	1016	1406	1032	1455	1063	1526	1093	1599	1123	1674	1152	1750	1181	1828	1209	1908	1248	1959	1272	2020	1296	2079
3100 [1463]	701	900	743	961	784	1019	820	1056	857	1130	893	1203	928	1275	961	1346	994	1416	1012	1466	1043	1539	1074	1613	1104	1699	1133	1767	1162	1847	1191	1928	1219	2011	1258	2066	1282	2130	1306	2192
3200 [1510]	720	965	761	1026	802	1085	836	1133	871	1208	906	1283	940	1356	973	1429	1005	1500	1023	1551	1054	1627	1084	1705	1114	1784	1143	1865	1172	1948	1201	2033	1229	2119	1268	2177	1293	2244	1316	2310
3300 [1557]	740	1033	780	1095	815	1139	851	1216	886	1292	920	1368	953	1442	985	1516	1017	1590	1035	1640	1065	1720	1095	1801	1125	1883	1154	1968	1182	2054	1211	2142	1254	2222	1279	2293	1303	2363	1326	2432
3400 [1604]	760	1104	799	1167	831	1225	866	1303	900	1381	934	1458	966	1534	998	1610	1015	1654	1046	1735	1076	1817	1106	1901	1135	1987	1164	2075	1193	2164	1221	2255	1265	2339	1290	2413	1314	2487	—	—
3500 [1652]	781	1179	812	1236	847	1316	882	1396	915	1475	948	1554	979	1631	1010	1708	1027	1749	1057	1833	1088	1919	1117	2006	1146	2096	1175	2187	1203	2279	1250	2382	1276	2461	1300	2538	1324	2615	—	—
4000 [1888]	868	1677	900	1766	931	1853	962	1940	991	2026	997	2006	1028	2101	1058	2198	1088	2296	1118	2397	1147	2499	1175	2602	1204	2708	1186	2803	1214	2909	1261	2905	1287	2987	1311	2668	—	—	—	—

Drive Package	R					S					T					U - Field Installed																			
Motor H.P. [W]	2.0 [1491.4]					2.0 [1491.4]					3 [2237.1]					3 [2237.1]																			
Blower Sheave	AK104					AK71H					AK59					AK79																			
Motor Sheave	1VP50					1VL-44					1VL-44					1VP-65																			
Belt	A50					A44					A42					A48																			
Turns Open	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
RPM	801	768	732	696	662	627	598	565	531	497	463	429	395	361	327	293	259	225	191	157	123	89	55	21	—	—	—	—	—	—	—	—	—	—	—

NOTES: 1. Factory sheave settings are shown in bold type.
 2. Do not set motor sheave below minimum or maximum turns open shown.
 3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure
 4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

[] Designates Metric Conversions

Airflow CFM [L/s]	AIRFLOW CORRECTION FACTORS *			COMPONENT AIRFLOW RESISTANCE		
				Wet Coil	MERV 8 Filter	MERV 13 Filter
	Total MBH	Sensible MBH	Power kW	Resistance Inches of Water [kPa]	Resistance Inches of Water	Resistance Inches of Water
2400 [1133]	0.93	0.73	0.96	0.04 [.01]	0.153	0.157
2500 [1180]	0.93	0.74	0.96	0.05 [.01]	0.164	0.168
2600 [1227]	0.94	0.76	0.97	0.05 [.01]	0.175	0.179
2700 [1274]	0.94	0.78	0.97	0.05 [.01]	0.186	0.189
2800 [1321]	0.95	0.80	0.97	0.05 [.01]	0.198	0.200
2900 [1368]	0.95	0.81	0.97	0.06 [.01]	0.209	0.211
3000 [1416]	0.95	0.83	0.98	0.06 [.01]	0.220	0.221
3100 [1463]	0.96	0.85	0.98	0.06 [.01]	0.231	0.232
3200 [1510]	0.96	0.87	0.98	0.06 [.01]	0.242	0.243
3300 [1557]	0.97	0.88	0.99	0.07 [.02]	0.253	0.254
3400 [1604]	0.97	0.90	0.99	0.07 [.02]	0.264	0.264
3500 [1652]	0.98	0.92	0.99	0.07 [.02]	0.276	0.275
3600 [1699]	0.98	0.93	0.99	0.08 [.02]	0.287	0.286
3700 [1746]	0.99	0.95	1.00	0.08 [.02]	0.298	0.296
3800 [1793]	0.99	0.97	1.00	0.08 [.02]	0.309	0.307
3900 [1840]	1.00	0.99	1.00	0.08 [.02]	0.320	0.318
4000 [1888]	1.00	1.00	1.01	0.09 [.02]	0.331	0.329

* Multiply correction factor times gross performance data — resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

Airflow CFM [L/s]	AIRFLOW CORRECTION FACTORS *			COMPONENT AIRFLOW RESISTANCE		
				Wet Coil	MERV 8 Filter	MERV 13 Filter
	Total MBH	Sensible MBH	Power kW	Resistance Inches of Water [kPa]	Resistance Inches of Water	Resistance Inches of Water
3500 [1652]	0.98	0.92	0.99	0.07 [.02]	0.091	0.098
3600 [1699]	0.98	0.93	0.99	0.08 [.02]	0.097	0.103
3700 [1746]	0.99	0.95	1.00	0.08 [.02]	0.103	0.109
3800 [1793]	0.99	0.97	1.00	0.08 [.02]	0.109	0.115
3900 [1840]	1.00	0.99	1.00	0.08 [.02]	0.115	0.121
4000 [1888]	1.00	1.00	1.01	0.09 [.02]	0.121	0.127
4100 [1935]	1.00	1.02	1.01	0.09 [.02]	0.127	0.132
4200 [1982]	1.01	1.04	1.01	0.09 [.02]	0.133	0.138
4300 [2029]	1.01	1.06	1.01	0.10 [.02]	0.139	0.144
4400 [2076]	1.02	1.07	1.02	0.10 [.02]	0.145	0.150
4500 [2123]	1.02	1.09	1.02	0.10 [.02]	0.151	0.156
4600 [2171]	1.03	1.11	1.02	0.10 [.02]	0.157	0.161
4700 [2218]	1.03	1.12	1.03	0.11 [.03]	0.163	0.167
4800 [2265]	1.04	1.14	1.03	0.11 [.03]	0.169	0.173
4900 [2312]	1.04	1.16	1.03	0.11 [.03]	0.175	0.179
5000 [2359]	1.05	1.18	1.03	0.12 [.03]	0.181	0.185
5100 [2407]	1.05	1.19	1.04	0.12 [.03]	0.188	0.190

* Multiply correction factor times gross performance data — resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

Airflow CFM [L/s]	AIRFLOW CORRECTION FACTORS *			COMPONENT AIRFLOW RESISTANCE		
				Wet Coil	MERV 8 Filter	MERV 13 Filter
	Total MBH	Sensible MBH	Power kW	Resistance Inches of Water [kPa]	Resistance Inches of Water	Resistance Inches of Water
4750 [2241]	1.03	1.13	1.03	0.11 [.03]	0.166	0.170
4850 [2289]	1.04	1.15	1.03	0.11 [.03]	0.172	0.176
4950 [2336]	1.04	1.17	1.03	0.11 [.03]	0.178	0.182
5050 [2383]	1.05	1.19	1.03	0.12 [.03]	0.185	0.188
5150 [2430]	1.05	1.20	1.04	0.12 [.03]	0.191	0.193
5250 [2477]	1.06	1.22	1.04	0.12 [.03]	0.197	0.199
5350 [2525]	1.06	1.24	1.04	0.13 [.03]	0.203	0.205
5450 [2572]	1.07	1.25	1.05	0.13 [.03]	0.209	0.211
5550 [2619]	1.07	1.27	1.05	0.13 [.03]	0.215	0.217
5650 [2666]	1.08	1.29	1.05	0.13 [.03]	0.221	0.222
5750 [2713]	1.08	1.31	1.05	0.14 [.03]	0.227	0.228
5850 [2760]	1.08	1.32	1.06	0.14 [.03]	0.233	0.234
5950 [2808]	1.09	1.34	1.06	0.14 [.03]	0.239	0.240
6050 [2855]	1.09	1.36	1.06	0.15 [.04]	0.245	0.246
6150 [2902]	1.10	1.38	1.07	0.15 [.04]	0.251	0.251
6250 [2949]	1.10	1.39	1.07	0.15 [.04]	0.257	0.257
6350 [2996]	1.11	1.41	1.07	0.15 [.04]	0.263	0.263

* Multiply correction factor times gross performance data — resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

Airflow CFM [L/s]	AIRFLOW CORRECTION FACTORS *			COMPONENT AIRFLOW RESISTANCE		
				Wet Coil	MERV 8 Filter	MERV 13 Filter
	Total MBH	Sensible MBH	Power kW	Resistance Inches of Water [kPa]	Resistance Inches of Water	Resistance Inches of Water
6200 [2926]	1.10	1.38	1.07	0.15 [.04]	0.254	0.254
6300 [2973]	1.11	1.40	1.07	0.15 [.04]	0.260	0.260
6400 [3020]	1.11	1.42	1.07	0.16 [.04]	0.266	0.266
6500 [3067]	1.11	1.44	1.08	0.16 [.04]	0.272	0.272
6600 [3114]	1.12	1.45	1.08	0.16 [.04]	0.278	0.277
6700 [3162]	1.12	1.47	1.08	0.16 [.04]	0.284	0.283
6800 [3209]	1.13	1.49	1.08	0.17 [.04]	0.290	0.289
6900 [3256]	1.13	1.51	1.09	0.17 [.04]	0.296	0.295
7000 [3303]	1.14	1.52	1.09	0.17 [.04]	0.302	0.301
7100 [3350]	1.14	1.54	1.09	0.18 [.04]	0.308	0.306
7200 [3398]	1.15	1.56	1.10	0.18 [.04]	0.314	0.312
7300 [3445]	1.15	1.57	1.10	0.18 [.04]	0.320	0.318
7400 [3492]	1.16	1.59	1.10	0.18 [.04]	0.326	0.324
7500 [3539]	1.16	1.61	1.10	0.19 [.05]	0.332	0.330
7600 [3586]	1.16	1.63	1.11	0.19 [.05]	0.339	0.335
7700 [3633]	1.17	1.64	1.11	0.19 [.05]	0.345	0.341
7800 [3681]	1.17	1.66	1.11	0.19 [.05]	0.351	0.347

* Multiply correction factor times gross performance data — resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

PERFORMANCE DATA @ AHRI STANDARD CONDITIONS

MODEL NUMBERS		80°F [26.5°C] DB 76°F [19.5°C] WB INDOOR AIR 95°F [35°C] DB OUTDOOR AIR					RATED INDOOR CFM [L/s]
OUTDOOR UNIT RACL-	INDOOR COIL AND/OR AIR HANDLER	TOTAL CAPACITY BTU/H [kW]	NET SENSIBLE BTU/H [kW]	NET LATENT BTU/H [kW]	EER	IEER	
RACL2078CA	RHCLA2090CA	78000 [22.8]	54400 [15.9]	23600 [6.9]	11.2	12.9	2800
RACL2090CA	RHCLA2090CA	88000 [25.8]	62000 [18.2]	26000 [7.6]	11.2	12.9	2800
RACL2120CA	RHCLA2120CA	114000 [33.4]	83600 [24.5]	30400 [8.9]	11.2	12.9	3660
RACL2150CA	RHCLA2150CA	142000 [41.6]	108800 [31.9]	33200 [9.7]	11.0	12.4	4780
RACL2180CA	RHCLA2180CA	172000 [50.4]	132000 [38.7]	41100 [12.0]	11.0	12.4	5500
RACL2240CA	RHCLA2240CA	240000 [70.6]	163500 [47.9]	76500 [22.4]	10.0	11.6	7200
RACL2078CB	RHCLA2090CB	78000 [22.8]	54400 [15.9]	23600 [6.9]	11.2	14.8	2800
RACL2090CB	RHCLA2090CB	88000 [25.8]	62000 [18.2]	26000 [7.6]	11.2	14.8	2800
RACL2120CB	RHCLA2120CB	114000 [33.4]	83600 [24.5]	30400 [8.9]	11.2	14.8	3660
RACL2150CB	RHCLA2150CB	142000 [41.6]	108800 [31.9]	33200 [9.7]	11.0	14.2	4780
RACL2180CB	RHCLA2180CB	172000 [50.4]	132000 [38.7]	41100 [12.0]	11.0	14.2	5500
RACL2240CB	RHCLA2240CB	240000 [70.6]	163500 [47.9]	76500 [22.4]	10.0	13.2	7200

[] Designates Metric Conversions

COOLING PERFORMANCE DATA — RACL2090+RHCLA2090

wDE		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①											
		71°F [21.7°C]		67°F [19.4°C]		63°F [17.2°C]		61°F [16.1°C]		59°F [15.0°C]			
CFM [L/s]	DR ①	3600 [1699]	3225 [1522]	2400 [1133]	3600 [1699]	3225 [1522]	2400 [1133]	3600 [1699]	3225 [1522]	2400 [1133]	3600 [1699]	3225 [1522]	2400 [1133]
75°F [23.9°C]	Total BTUH [kW]	104.3 [39.6]	102.2 [29.9]	97.4 [28.5]	97.0 [28.4]	95.0 [27.8]	90.5 [26.5]	86.3 [25.3]	84.5 [24.8]	80.6 [23.6]	79.4 [23.3]	77.1 [22.8]	74.1 [21.7]
	Sens BTUH [kW]	66.6 [19.5]	63.1 [18.5]	55.6 [16.3]	73.7 [21.6]	69.9 [20.5]	61.5 [18.0]	71.6 [21.0]	68.0 [19.9]	59.8 [17.5]	66.8 [19.6]	63.4 [18.6]	55.8 [16.4]
	Power	7.2	7.1	6.9	6.6	6.6	6.4	6.1	6.1	6.0	5.9	5.8	5.7
80°F [26.7°C]	Total BTUH [kW]	102.5 [30.0]	100.4 [29.4]	95.7 [28.0]	95.1 [27.9]	93.1 [27.3]	88.8 [26.0]	84.4 [24.7]	82.7 [24.2]	78.8 [23.1]	77.5 [22.7]	75.9 [22.2]	72.4 [21.2]
	Sens BTUH [kW]	66.0 [19.3]	62.6 [18.3]	55.1 [16.2]	73.1 [21.4]	69.4 [20.3]	61.1 [17.9]	71.1 [20.8]	67.4 [19.8]	59.4 [17.4]	66.3 [19.4]	62.9 [18.4]	55.4 [16.2]
	Power	7.4	7.3	7.2	6.9	6.8	6.6	6.3	6.3	6.2	6.1	6.0	5.8
85°F [29.4°C]	Total BTUH [kW]	100.3 [29.4]	98.2 [28.8]	93.7 [27.4]	92.9 [27.2]	91.0 [26.7]	86.8 [25.4]	82.3 [24.1]	80.6 [23.6]	76.8 [22.5]	75.3 [22.1]	73.8 [21.6]	70.4 [20.6]
	Sens BTUH [kW]	65.2 [19.1]	61.8 [18.1]	54.4 [16.0]	72.3 [21.2]	68.6 [20.1]	60.4 [17.7]	70.3 [20.6]	66.7 [19.5]	58.7 [17.2]	65.5 [19.2]	62.1 [18.2]	54.7 [16.0]
	Power	7.7	7.6	7.5	7.2	7.1	6.9	6.6	6.6	6.5	6.4	6.3	6.1
90°F [32.2°C]	Total BTUH [kW]	97.8 [28.7]	95.8 [28.1]	91.3 [26.8]	90.4 [26.5]	88.6 [26.0]	84.5 [24.7]	79.8 [23.4]	78.1 [22.9]	74.5 [21.8]	72.9 [21.3]	71.3 [20.9]	68.0 [19.9]
	Sens BTUH [kW]	64.0 [18.8]	60.7 [17.8]	53.5 [15.7]	71.2 [20.9]	67.5 [19.8]	59.4 [17.4]	69.1 [20.3]	65.6 [19.2]	57.7 [16.9]	64.3 [18.9]	61.0 [17.9]	53.7 [15.7]
	Power	8.0	8.0	7.8	7.5	7.4	7.3	6.9	6.9	6.7	6.7	6.6	6.4
95°F [35°C]	Total BTUH [kW]	95.0 [27.8]	93.0 [27.3]	88.7 [26.0]	87.6 [25.7]	85.8 [25.2]	81.8 [24.0]	77.0 [22.6]	75.4 [22.1]	71.9 [21.1]	70.1 [20.5]	68.6 [20.1]	65.4 [19.2]
	Sens BTUH [kW]	62.6 [18.3]	59.4 [17.4]	52.3 [15.3]	69.7 [20.4]	66.1 [19.4]	58.2 [17.1]	67.7 [19.8]	64.2 [18.8]	56.5 [16.6]	62.9 [18.4]	59.7 [17.5]	52.5 [15.4]
	Power	8.4	8.4	8.2	7.9	7.8	7.6	7.3	7.3	7.1	7.1	7.0	6.8
100°F [37.8°C]	Total BTUH [kW]	91.9 [26.9]	90.0 [26.4]	85.8 [25.1]	84.5 [24.8]	82.8 [24.3]	78.9 [23.1]	73.9 [21.6]	72.3 [21.2]	69.0 [20.2]	66.9 [19.6]	65.5 [19.2]	62.5 [18.3]
	Sens BTUH [kW]	60.9 [17.8]	57.7 [16.9]	50.8 [14.9]	68.0 [19.9]	64.5 [18.9]	56.8 [16.6]	66.0 [19.3]	62.6 [18.3]	55.1 [16.1]	61.2 [17.9]	58.0 [17.0]	51.1 [15.0]
	Power	8.9	8.8	8.6	8.3	8.2	8.0	7.8	7.8	7.5	7.5	7.4	7.2
105°F [40.6°C]	Total BTUH [kW]	88.5 [25.9]	86.6 [25.4]	82.6 [24.2]	81.1 [23.8]	79.4 [23.3]	75.7 [22.2]	70.4 [20.6]	69.0 [20.2]	65.8 [19.3]	63.5 [18.6]	62.2 [18.2]	59.3 [17.4]
	Sens BTUH [kW]	58.8 [17.2]	55.8 [16.4]	49.1 [14.4]	65.9 [19.3]	62.6 [18.3]	55.1 [16.1]	63.9 [18.7]	60.6 [17.8]	53.4 [15.6]	59.1 [17.3]	56.1 [16.4]	49.4 [14.5]
	Power	9.4	9.3	9.1	8.8	8.7	8.5	8.2	8.2	8.0	8.0	7.9	7.7
110°F [43.3°C]	Total BTUH [kW]	84.7 [24.8]	83.0 [24.3]	79.1 [23.2]	77.3 [22.7]	75.7 [22.2]	72.2 [21.2]	66.7 [19.5]	65.3 [19.1]	62.2 [18.2]	59.7 [17.5]	58.5 [17.1]	55.8 [16.3]
	Sens BTUH [kW]	56.5 [16.6]	53.6 [15.7]	47.2 [13.8]	63.6 [18.6]	60.3 [17.7]	53.1 [15.6]	61.6 [18.0]	58.4 [17.1]	51.4 [15.1]	56.8 [16.6]	53.9 [15.8]	47.4 [13.9]
	Power	9.9	9.8	9.6	9.3	9.2	9.0	8.8	8.7	8.5	8.5	8.4	8.2
115°F [46.1°C]	Total BTUH [kW]	80.6 [23.6]	79.0 [23.1]	75.3 [22.1]	73.3 [21.5]	71.7 [21.0]	68.4 [20.0]	62.6 [18.3]	61.3 [18.0]	58.4 [17.1]	55.7 [16.3]	54.5 [16.0]	52.0 [15.2]
	Sens BTUH [kW]	53.9 [15.8]	51.1 [15.0]	45.0 [13.2]	61.0 [17.9]	57.8 [16.9]	50.9 [14.9]	58.9 [17.3]	55.9 [16.4]	49.2 [14.4]	54.1 [15.9]	51.4 [15.1]	45.2 [13.3]
	Power	10.5	10.4	10.1	9.9	9.8	9.6	9.4	9.4	9.1	9.1	9.0	8.8
120°F [48.9°C]	Total BTUH [kW]	76.2 [22.3]	74.7 [21.9]	71.2 [20.9]	68.9 [20.2]	67.5 [19.8]	64.3 [18.8]	58.2 [17.1]	57.0 [16.7]	54.4 [15.9]	51.3 [15.0]	50.2 [14.7]	47.9 [14.0]
	Sens BTUH [kW]	50.9 [14.9]	48.3 [14.2]	42.5 [12.5]	58.0 [17.0]	55.0 [16.1]	48.5 [14.2]	56.0 [16.4]	53.1 [15.6]	46.8 [13.7]	51.2 [15.0]	48.6 [14.2]	42.8 [12.5]
	Power	11.1	11.0	10.7	10.5	10.4	10.2	10	10	9.9	9.7	9.6	9.4
125°F [51.7°C]	Total BTUH [kW]	71.5 [21.1]	70.1 [20.5]	66.8 [19.6]	64.2 [18.8]	62.8 [18.4]	59.9 [17.6]	53.5 [15.7]	52.4 [15.4]	50.0 [14.6]	46.6 [13.7]	45.6 [13.4]	43.5 [12.7]
	Sens BTUH [kW]	47.7 [14.1]	45.2 [13.3]	39.8 [11.7]	54.8 [16.1]	52.0 [15.2]	45.8 [13.4]	52.8 [15.5]	50.1 [14.7]	44.1 [12.9]	46.6 [13.7]	45.5 [13.3]	40.1 [11.7]
	Power	11.8	11.7	11.4	11.2	11.1	10.9	10.7	10.6	10.3	10.4	10.3	10.1

DR — Depression ratio
dbE — Entering air dry bulb
wDE — Entering air wet bulb

NOTES:
① When the entering air dry bulb is other than 80°F [27°C], adjust the sensible capacity from the table by adding [1.10 x CFM x (1 - DR) x (dbE - 80)].

[] Designates Metric Conversions

Total — Total capacity x 1000 BTUH
Sens — Sensible capacity x 1000 BTUH
Power — KW input

COOLING PERFORMANCE DATA – RACL2120+RHCLA2120

wDE		ENTERING INDOOR AIR @ 80°F [26.7°C] dBE ①											
		71°F [21.7°C]		67°F [19.4°C]		63°F [17.2°C]		61°F [16.1°C]		59°F [15.0°C]			
CFM [L/s]		4560 [2152]	3400 [1605]	3040 [1435]	4560 [2152]	3400 [1605]	3040 [1435]	4560 [2152]	3400 [1605]	3040 [1435]	4560 [2152]	3400 [1605]	3040 [1435]
75°F [23.9°C]	Total BTUH [KW]	0.08	0.02	-0.01	0.08	0.02	-0.01	0.08	0.02	-0.01	0.08	0.02	-0.01
	Sens BTUH [KW]	145.0 [42.5]	136.5 [40.0]	133.9 [39.2]	135.1 [39.6]	127.2 [37.3]	124.8 [36.6]	119.6 [35.0]	119.6 [35.0]	114.2 [33.5]	114.2 [33.5]	107.6 [31.5]	105.5 [30.9]
	Power	8.0	7.8	7.7	8.0	7.7	7.6	7.8	7.8	7.6	7.5	7.6	7.5
80°F [26.7°C]	Total BTUH [KW]	142.6 [41.8]	134.3 [39.4]	131.7 [38.6]	132.7 [38.9]	125.0 [36.6]	122.5 [35.9]	117.2 [34.3]	117.2 [34.3]	108.2 [31.7]	111.9 [32.8]	105.3 [30.9]	103.3 [30.3]
	Sens BTUH [KW]	89.4 [26.2]	77.1 [22.6]	73.3 [21.5]	105.6 [31.0]	91.1 [26.7]	86.6 [25.4]	80.2 [23.6]	80.2 [23.6]	76.6 [22.5]	81.1 [23.7]	76.6 [22.5]	74.6 [21.8]
	Power	8.4	8.1	8.1	8.3	8.1	8.0	8.2	8.2	7.9	8.2	7.9	7.9
85°F [29.4°C]	Total BTUH [KW]	140.0 [41.0]	131.8 [38.6]	129.3 [37.9]	130.1 [38.1]	122.5 [35.9]	120.1 [35.2]	114.6 [33.6]	114.6 [33.6]	105.8 [31.0]	109.2 [32.0]	102.8 [30.1]	100.9 [29.6]
	Sens BTUH [KW]	88.3 [25.9]	76.2 [22.3]	72.4 [21.2]	104.5 [30.6]	90.2 [26.4]	85.7 [25.1]	79.8 [23.5]	79.8 [23.5]	76.6 [22.5]	81.1 [23.7]	76.6 [22.5]	74.6 [21.8]
	Power	8.8	8.5	8.4	8.7	8.5	8.4	8.6	8.6	8.3	8.6	8.3	8.2
90°F [32.2°C]	Total BTUH [KW]	137.1 [40.2]	129.1 [37.8]	126.6 [37.1]	127.2 [37.3]	119.8 [35.1]	117.5 [34.4]	111.7 [32.7]	111.7 [32.7]	103.2 [30.2]	106.3 [31.2]	100.1 [29.3]	98.2 [28.8]
	Sens BTUH [KW]	87.1 [25.5]	75.1 [22.0]	71.4 [20.9]	103.3 [30.3]	89.1 [26.1]	84.7 [24.8]	78.9 [23.2]	78.9 [23.2]	75.7 [22.5]	80.2 [23.6]	75.7 [22.5]	73.7 [21.9]
	Power	9.2	8.9	8.9	9.1	8.9	8.8	9.1	9.0	8.8	9.0	8.7	8.7
95°F [35°C]	Total BTUH [KW]	134.0 [39.3]	126.2 [37.0]	123.7 [36.3]	124.1 [36.4]	116.8 [34.2]	114.6 [33.6]	108.5 [31.8]	108.5 [31.8]	100.2 [29.4]	103.2 [30.2]	97.2 [28.5]	95.3 [27.9]
	Sens BTUH [KW]	85.7 [25.1]	73.9 [21.7]	70.3 [20.6]	101.9 [29.9]	87.9 [25.8]	83.6 [24.5]	78.0 [23.0]	78.0 [23.0]	74.8 [22.2]	79.2 [23.5]	74.8 [22.2]	72.8 [21.6]
	Power	9.7	9.4	9.3	9.6	9.3	9.2	9.5	9.5	9.2	9.5	9.2	9.1
100°F [37.8°C]	Total BTUH [KW]	130.6 [38.3]	123.0 [36.0]	120.6 [35.3]	120.7 [35.4]	113.6 [33.3]	111.4 [32.7]	105.2 [30.9]	105.2 [30.9]	97.1 [28.5]	99.8 [29.2]	94.0 [27.5]	92.2 [27.0]
	Sens BTUH [KW]	84.2 [24.7]	72.6 [21.3]	69.0 [20.2]	100.4 [29.4]	86.6 [25.4]	82.4 [24.1]	76.8 [23.2]	76.8 [23.2]	73.6 [22.5]	78.0 [23.0]	73.6 [22.5]	71.6 [21.8]
	Power	10.2	9.9	9.8	10.1	9.8	9.7	10.0	10.0	9.7	10.0	9.7	9.6
105°F [40.6°C]	Total BTUH [KW]	126.9 [37.2]	119.5 [35.0]	117.2 [34.4]	117.0 [34.3]	110.2 [32.3]	108.1 [31.7]	101.5 [29.7]	101.5 [29.7]	93.7 [27.5]	96.2 [28.2]	90.5 [26.5]	88.8 [26.0]
	Sens BTUH [KW]	82.6 [24.2]	71.2 [20.9]	67.7 [19.8]	98.8 [29.0]	85.2 [25.0]	81.0 [23.7]	76.4 [23.0]	76.4 [23.0]	73.2 [22.4]	77.6 [23.0]	73.2 [22.4]	71.2 [20.9]
	Power	10.7	10.4	10.3	10.6	10.3	10.2	10.6	10.5	10.2	10.5	10.2	10.1
110°F [43.3°C]	Total BTUH [KW]	123.0 [36.1]	115.9 [33.9]	113.6 [33.3]	113.1 [33.2]	106.5 [31.2]	104.5 [30.6]	97.6 [28.6]	97.6 [28.6]	90.1 [26.4]	92.3 [27.0]	86.9 [25.5]	85.2 [25.0]
	Sens BTUH [KW]	80.8 [23.7]	69.7 [20.4]	66.3 [19.4]	97.1 [28.4]	83.7 [24.5]	79.6 [23.3]	75.0 [22.2]	75.0 [22.2]	71.8 [21.6]	76.2 [23.0]	71.8 [21.6]	69.7 [20.4]
	Power	11.3	10.9	10.8	11.2	10.9	10.8	11.1	11.1	10.7	11.3	11.3	11.2
115°F [46.1°C]	Total BTUH [KW]	118.9 [34.8]	111.9 [32.8]	109.8 [32.2]	109.0 [31.9]	102.6 [30.1]	100.6 [29.5]	93.5 [27.4]	93.5 [27.4]	86.3 [25.3]	88.1 [25.8]	83.0 [24.3]	81.4 [23.8]
	Sens BTUH [KW]	79.0 [23.1]	68.1 [20.0]	64.8 [19.0]	95.2 [27.9]	82.1 [24.1]	78.1 [22.9]	73.6 [22.2]	73.6 [22.2]	70.4 [21.5]	74.8 [22.2]	70.4 [21.5]	68.1 [20.0]
	Power	11.9	11.5	11.4	11.8	11.4	11.3	11.7	11.7	11.2	11.6	11.3	11.2
120°F [48.9°C]	Total BTUH [KW]	114.5 [33.5]	107.8 [31.6]	105.7 [31.0]	104.6 [30.6]	98.5 [28.9]	96.6 [28.3]	89.0 [26.1]	89.0 [26.1]	82.2 [24.1]	83.7 [24.5]	78.8 [23.1]	77.3 [22.6]
	Sens BTUH [KW]	77.0 [22.6]	66.4 [19.5]	63.1 [18.5]	93.2 [27.3]	80.4 [23.6]	76.5 [22.4]	72.0 [21.5]	72.0 [21.5]	68.8 [20.5]	73.2 [22.0]	68.8 [20.5]	66.4 [19.5]
	Power	12.5	12.1	12.0	12.4	12.0	11.9	12.3	12.3	11.9	12.3	11.9	11.8
125°F [51.7°C]	Total BTUH [KW]	109.8 [32.2]	103.4 [30.3]	101.4 [29.7]	99.9 [29.3]	94.1 [27.6]	92.3 [27.0]	84.4 [24.7]	84.4 [24.7]	77.9 [22.8]	79.0 [23.2]	74.4 [21.8]	73.0 [21.4]
	Sens BTUH [KW]	74.9 [21.9]	64.6 [18.9]	61.4 [18.0]	91.1 [26.7]	78.6 [23.0]	74.7 [21.9]	70.2 [21.0]	70.2 [21.0]	67.0 [20.5]	71.6 [21.0]	67.0 [20.5]	64.6 [18.9]
	Power	13.1	12.8	12.6	13.1	12.7	12.6	13.0	13.0	12.5	12.9	12.6	12.4

DR — Depression ratio
dBE — Entering air dry bulb
wDE — Entering air wet bulb

NOTES:
① Total capacity x 1000 BTUH
Sens — Sensible capacity x 1000 BTUH
Power — KW input

① When the entering air dry bulb is other than 80°F [27°C], adjust the sensible capacity from the table by adding [1.10 x CFM x (1 – DR) x (dBE – 80)].

[] Designates Metric Conversions

COOLING PERFORMANCE DATA – RACL2150+RHCLA2150

WBE		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①																	
		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			61°F [16.1°C]			59°F [15.0°C]					
		6000 [2832]	5000 [2360]	4000 [1888]	6000 [2832]	5000 [2360]	4000 [1888]	6000 [2832]	5000 [2360]	4000 [1888]	6000 [2832]	5000 [2360]	4000 [1888]	6000 [2832]	5000 [2360]	4000 [1888]			
CFM [L/s]		0.07			0.02			0.07			0.02			0.07			0.02		
DR ①		-0.04			-0.04			-0.04			-0.04			-0.04			-0.04		
75°F [23.9°C]	Total BTUH [kW]	175.3 [51.4]	169.2 [49.6]	163.0 [47.8]	167.1 [49.0]	161.2 [47.2]	155.3 [45.5]	158.7 [46.5]	152.9 [44.8]	152.9 [44.8]	152.9 [44.8]	152.9 [44.8]	152.9 [44.8]	152.9 [44.8]	152.9 [44.8]	152.9 [44.8]	152.9 [44.8]	152.9 [44.8]	
	Sens BTUH [kW]	113.6 [33.3]	103.9 [30.4]	94.2 [27.6]	134.3 [39.3]	122.8 [36.0]	111.3 [32.6]	149.8 [43.9]	137.0 [40.1]	124.2 [36.4]	124.2 [36.4]	124.2 [36.4]	124.2 [36.4]	124.2 [36.4]	124.2 [36.4]	124.2 [36.4]	124.2 [36.4]	124.2 [36.4]	124.2 [36.4]
	Power	10.0	9.8	9.6	9.9	9.7	9.5	9.8	9.6	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
80°F [26.7°C]	Total BTUH [kW]	172.5 [50.6]	166.5 [48.8]	160.4 [47.0]	164.2 [48.1]	158.5 [46.4]	152.7 [44.7]	161.6 [47.4]	156.0 [45.7]	150.3 [44.0]	150.3 [44.0]	150.3 [44.0]	150.3 [44.0]	150.3 [44.0]	150.3 [44.0]	150.3 [44.0]	150.3 [44.0]	150.3 [44.0]	150.3 [44.0]
	Sens BTUH [kW]	114.2 [33.5]	104.5 [30.6]	94.7 [27.8]	134.9 [39.5]	123.4 [36.1]	111.8 [32.8]	150.4 [44.1]	137.6 [40.3]	124.7 [36.6]	124.7 [36.6]	124.7 [36.6]	124.7 [36.6]	124.7 [36.6]	124.7 [36.6]	124.7 [36.6]	124.7 [36.6]	124.7 [36.6]	124.7 [36.6]
	Power	10.5	10.3	10.1	10.3	10.2	10.0	10.2	10.0	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
85°F [29.4°C]	Total BTUH [kW]	169.3 [49.6]	163.4 [47.9]	157.4 [46.1]	161.0 [47.2]	155.4 [45.5]	149.7 [43.9]	158.4 [46.4]	152.9 [44.8]	147.3 [43.2]	147.3 [43.2]	147.3 [43.2]	147.3 [43.2]	147.3 [43.2]	147.3 [43.2]	147.3 [43.2]	147.3 [43.2]	147.3 [43.2]	147.3 [43.2]
	Sens BTUH [kW]	113.9 [33.4]	104.2 [30.5]	94.5 [27.7]	134.6 [39.4]	123.1 [36.1]	111.6 [32.7]	150.1 [44.0]	137.3 [40.2]	124.5 [36.5]	124.5 [36.5]	124.5 [36.5]	124.5 [36.5]	124.5 [36.5]	124.5 [36.5]	124.5 [36.5]	124.5 [36.5]	124.5 [36.5]	124.5 [36.5]
	Power	11.0	10.8	10.6	10.8	10.7	10.5	10.7	10.5	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
90°F [32.2°C]	Total BTUH [kW]	165.8 [48.6]	159.9 [46.9]	154.1 [45.2]	157.5 [46.1]	151.9 [44.5]	146.4 [42.9]	154.9 [45.4]	149.4 [43.8]	144.0 [42.2]	144.0 [42.2]	144.0 [42.2]	144.0 [42.2]	144.0 [42.2]	144.0 [42.2]	144.0 [42.2]	144.0 [42.2]	144.0 [42.2]	144.0 [42.2]
	Sens BTUH [kW]	112.7 [33.0]	103.0 [30.2]	93.4 [27.4]	133.3 [39.1]	121.9 [35.7]	110.6 [32.4]	148.9 [43.6]	136.2 [39.9]	123.4 [36.2]	123.4 [36.2]	123.4 [36.2]	123.4 [36.2]	123.4 [36.2]	123.4 [36.2]	123.4 [36.2]	123.4 [36.2]	123.4 [36.2]	123.4 [36.2]
	Power	11.5	11.3	11.1	11.4	11.2	11.0	11.3	11.1	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
95°F [35°C]	Total BTUH [kW]	161.8 [47.4]	156.2 [45.8]	150.5 [44.1]	153.6 [45.0]	148.2 [43.4]	142.8 [41.8]	151.0 [44.2]	145.7 [42.7]	140.4 [41.1]	140.4 [41.1]	140.4 [41.1]	140.4 [41.1]	140.4 [41.1]	140.4 [41.1]	140.4 [41.1]	140.4 [41.1]	140.4 [41.1]	140.4 [41.1]
	Sens BTUH [kW]	110.5 [32.4]	101.1 [29.6]	91.6 [26.8]	131.2 [38.4]	120.0 [35.2]	108.8 [31.9]	146.7 [43.0]	134.2 [39.3]	121.6 [35.6]	121.6 [35.6]	121.6 [35.6]	121.6 [35.6]	121.6 [35.6]	121.6 [35.6]	121.6 [35.6]	121.6 [35.6]	121.6 [35.6]	121.6 [35.6]
	Power	12.1	11.9	11.7	12.0	11.8	11.6	11.9	11.7	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
100°F [37.8°C]	Total BTUH [kW]	157.6 [46.2]	152.0 [44.6]	146.5 [42.9]	149.9 [43.7]	144.0 [42.2]	138.8 [40.7]	146.7 [43.0]	141.6 [41.5]	136.4 [40.0]	136.4 [40.0]	136.4 [40.0]	136.4 [40.0]	136.4 [40.0]	136.4 [40.0]	136.4 [40.0]	136.4 [40.0]	136.4 [40.0]	136.4 [40.0]
	Sens BTUH [kW]	107.4 [31.5]	98.2 [28.8]	89.1 [26.1]	128.1 [37.5]	117.1 [34.3]	106.2 [31.1]	143.6 [42.1]	131.3 [38.5]	119.1 [34.9]	119.1 [34.9]	119.1 [34.9]	119.1 [34.9]	119.1 [34.9]	119.1 [34.9]	119.1 [34.9]	119.1 [34.9]	119.1 [34.9]	119.1 [34.9]
	Power	12.7	12.5	12.3	12.6	12.4	12.2	12.5	12.3	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
105°F [40.6°C]	Total BTUH [kW]	152.9 [44.8]	147.6 [43.2]	142.2 [41.7]	144.7 [42.4]	139.6 [40.9]	134.5 [39.4]	142.1 [41.6]	137.1 [40.2]	132.1 [38.7]	132.1 [38.7]	132.1 [38.7]	132.1 [38.7]	132.1 [38.7]	132.1 [38.7]	132.1 [38.7]	132.1 [38.7]	132.1 [38.7]	132.1 [38.7]
	Sens BTUH [kW]	103.4 [30.3]	94.5 [27.7]	85.7 [25.1]	124.0 [36.3]	113.4 [33.2]	102.8 [30.1]	139.6 [40.9]	127.6 [37.4]	115.7 [33.9]	115.7 [33.9]	115.7 [33.9]	115.7 [33.9]	115.7 [33.9]	115.7 [33.9]	115.7 [33.9]	115.7 [33.9]	115.7 [33.9]	115.7 [33.9]
	Power	13.4	13.2	12.9	13.3	13.1	12.8	13.2	13.0	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
110°F [43.3°C]	Total BTUH [kW]	148.0 [43.4]	142.8 [41.8]	137.6 [40.3]	139.7 [40.9]	134.8 [39.5]	129.9 [38.1]	137.1 [40.2]	132.3 [38.8]	127.5 [37.4]	127.5 [37.4]	127.5 [37.4]	127.5 [37.4]	127.5 [37.4]	127.5 [37.4]	127.5 [37.4]	127.5 [37.4]	127.5 [37.4]	127.5 [37.4]
	Sens BTUH [kW]	98.4 [28.8]	90.0 [26.4]	81.6 [23.9]	119.1 [34.9]	108.9 [31.9]	98.7 [28.9]	134.6 [39.4]	123.1 [36.1]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]
	Power	14.1	13.9	13.6	14.0	13.8	13.5	13.9	13.7	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
115°F [46.1°C]	Total BTUH [kW]	142.6 [41.8]	137.6 [40.3]	132.6 [38.9]	134.3 [39.4]	129.6 [38.0]	124.9 [36.6]	131.7 [38.6]	127.1 [37.3]	122.5 [35.9]	122.5 [35.9]	122.5 [35.9]	122.5 [35.9]	122.5 [35.9]	122.5 [35.9]	122.5 [35.9]	122.5 [35.9]	122.5 [35.9]	122.5 [35.9]
	Sens BTUH [kW]	92.5 [27.1]	84.6 [24.8]	76.7 [22.5]	113.2 [33.2]	103.5 [30.3]	93.8 [27.5]	128.7 [37.7]	117.7 [34.5]	106.7 [31.3]	106.7 [31.3]	106.7 [31.3]	106.7 [31.3]	106.7 [31.3]	106.7 [31.3]	106.7 [31.3]	106.7 [31.3]	106.7 [31.3]	106.7 [31.3]
	Power	14.9	14.6	14.3	14.7	14.5	14.2	14.6	14.4	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
120°F [48.9°C]	Total BTUH [kW]	136.9 [40.1]	132.1 [38.7]	127.3 [37.3]	128.6 [37.7]	124.1 [36.4]	119.6 [35.0]	126.0 [36.9]	121.6 [35.6]	117.2 [34.3]	117.2 [34.3]	117.2 [34.3]	117.2 [34.3]	117.2 [34.3]	117.2 [34.3]	117.2 [34.3]	117.2 [34.3]	117.2 [34.3]	117.2 [34.3]
	Sens BTUH [kW]	85.7 [25.1]	78.3 [23.0]	71.0 [20.8]	106.3 [31.2]	97.3 [28.5]	88.2 [25.8]	121.9 [35.7]	111.5 [32.7]	101.1 [29.6]	101.1 [29.6]	101.1 [29.6]	101.1 [29.6]	101.1 [29.6]	101.1 [29.6]	101.1 [29.6]	101.1 [29.6]	101.1 [29.6]	101.1 [29.6]
	Power	15.7	15.4	15.1	15.5	15.3	15.0	15.4	15.2	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
125°F [51.7°C]	Total BTUH [kW]	130.9 [38.3]	126.3 [37.0]	121.7 [35.7]	122.6 [35.9]	118.3 [34.7]	114.0 [33.4]	120.0 [35.2]	115.8 [33.9]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]	111.6 [32.7]
	Sens BTUH [kW]	77.9 [22.8]	71.2 [20.9]	64.6 [18.9]	98.6 [28.9]	90.2 [26.4]	81.7 [24.0]	114.1 [33.4]	104.4 [30.6]	94.6 [27.7]	94.6 [27.7]	94.6 [27.7]	94.6 [27.7]	94.6 [27.7]	94.6 [27.7]	94.6 [27.7]	94.6 [27.7]	94.6 [27.7]	94.6 [27.7]
	Power	16.5	16.2	15.9	16.4	16.1	15.8	16.2	16.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7

DR — Depression ratio
dbE — Entering air dry bulb
WBE — Entering air wet bulb

NOTES:
① When the entering air dry bulb is other than 80°F [27°C], adjust the sensible capacity from the table by adding $[1.10 \times \text{CFM} \times (1 - \text{DR}) \times (\text{dbE} - 80)]$.

[] Designates Metric Conversions

Total — Total capacity x 1000 BTUH
Sens — Sensible capacity x 1000 BTUH
Power — KW input

COOLING PERFORMANCE DATA – RACL2180+RHCLA2180

wBE		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①										59°F [15.0°C]				
		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			61°F [16.1°C]			59°F [15.0°C]		
CFM [L/s]		6600 [3115]	5500 [2596]	4400 [2077]	6600 [3115]	5500 [2596]	4400 [2077]	6600 [3115]	5500 [2596]	4400 [2077]	6600 [3115]	5500 [2596]	4400 [2077]	6600 [3115]	5500 [2596]	4400 [2077]
75°F [23.9°C]	Total BTUH [KW]	153.5 [45.0]	148.1 [43.4]	142.7 [41.8]	141.5 [41.5]	136.5 [40.0]	131.6 [38.6]	105.7 [31.0]	102.0 [29.9]	98.3 [28.8]	78.9 [23.1]	76.2 [22.3]	73.4 [21.5]	46.2 [13.5]	44.6 [13.1]	42.9 [12.6]
	Sens BTUH [KW]	80.0 [23.4]	73.1 [21.4]	66.3 [19.4]	105.6 [31.0]	96.6 [28.3]	87.6 [25.7]	97.9 [28.7]	89.6 [26.2]	81.2 [23.8]	78.9 [23.1]	73.4 [21.5]	66.5 [19.5]	46.2 [13.5]	44.6 [13.1]	42.9 [12.6]
	Power	11.6	11.4	11.2	11.6	11.4	11.2	11.5	11.3	11.1	11.1	11.5	11.3	11.1	11.4	11.2
80°F [26.7°C]	Total BTUH [KW]	173.1 [50.7]	167.1 [49.0]	161.0 [47.2]	161.1 [47.2]	155.5 [45.6]	149.8 [43.9]	125.4 [36.7]	121.0 [35.5]	116.6 [34.2]	98.6 [28.9]	95.1 [27.9]	91.7 [26.9]	65.8 [19.3]	63.5 [18.6]	61.2 [17.9]
	Sens BTUH [KW]	99.7 [29.2]	91.2 [26.7]	82.7 [24.2]	125.4 [36.8]	114.7 [33.6]	104.0 [30.5]	117.7 [34.5]	107.7 [31.6]	97.6 [28.6]	98.6 [28.9]	91.5 [26.8]	82.9 [24.3]	65.8 [19.3]	63.5 [18.6]	59.8 [17.5]
	Power	12.2	12.0	11.8	12.1	11.9	11.7	12.1	11.9	11.7	12.1	11.8	11.6	12.0	11.8	11.6
85°F [29.4°C]	Total BTUH [KW]	186.8 [54.7]	180.3 [52.8]	173.7 [50.9]	174.8 [51.2]	168.7 [49.4]	162.6 [47.6]	139.1 [40.8]	134.2 [39.3]	129.3 [37.9]	112.3 [32.9]	108.3 [31.7]	104.4 [30.6]	79.5 [23.3]	76.7 [22.5]	73.9 [21.7]
	Sens BTUH [KW]	113.6 [33.3]	103.9 [30.5]	94.2 [27.6]	139.3 [40.8]	127.4 [37.3]	115.5 [33.9]	131.6 [38.6]	120.4 [35.3]	109.1 [32.0]	112.3 [32.9]	104.2 [30.5]	94.5 [27.7]	79.5 [23.3]	76.7 [22.5]	71.3 [20.9]
	Power	12.8	12.6	12.4	12.8	12.6	12.3	12.7	12.5	12.3	12.7	12.5	12.2	12.6	12.4	12.2
90°F [32.2°C]	Total BTUH [KW]	194.5 [57.0]	187.7 [55.0]	180.9 [53.0]	182.5 [53.5]	176.1 [51.6]	169.7 [49.7]	146.8 [43.0]	141.6 [41.5]	136.5 [40.0]	120.0 [35.2]	115.7 [33.9]	111.5 [32.7]	87.2 [25.6]	84.1 [24.7]	81.1 [23.8]
	Sens BTUH [KW]	121.6 [35.6]	111.3 [32.6]	100.9 [29.6]	147.3 [43.2]	134.7 [39.5]	122.2 [35.8]	139.6 [40.9]	127.7 [37.4]	115.8 [33.9]	120.0 [35.2]	111.5 [32.7]	101.1 [29.6]	87.2 [25.6]	84.1 [24.7]	78.0 [22.8]
	Power	13.5	13.3	13.0	13.5	13.2	13.0	13.4	13.2	12.9	13.4	13.1	12.9	13.3	13.1	12.9
95°F [35°C]	Total BTUH [KW]	196.2 [57.5]	189.3 [55.5]	182.4 [53.5]	184.2 [54.0]	177.8 [52.1]	171.3 [50.2]	148.5 [43.5]	143.3 [42.0]	138.1 [40.5]	121.7 [35.7]	117.4 [34.4]	113.1 [33.2]	88.9 [26.1]	85.8 [25.1]	82.7 [24.2]
	Sens BTUH [KW]	123.8 [36.3]	113.2 [33.2]	102.6 [30.1]	149.4 [43.8]	136.7 [40.0]	123.9 [36.3]	141.7 [41.5]	129.6 [38.0]	117.5 [34.4]	121.7 [35.7]	113.4 [33.2]	102.9 [30.1]	88.9 [26.1]	85.8 [25.1]	79.7 [23.4]
	Power	14.3	14.0	13.8	14.2	13.9	13.7	14.1	13.9	13.6	14.1	13.9	13.6	14.1	13.8	13.6
100°F [37.8°C]	Total BTUH [KW]	192.0 [56.2]	185.2 [54.3]	178.5 [52.3]	180.0 [52.7]	173.7 [50.9]	167.3 [49.0]	144.2 [42.3]	139.1 [40.8]	134.1 [39.3]	117.4 [34.4]	113.3 [33.2]	109.2 [32.0]	84.7 [24.8]	81.7 [23.9]	78.7 [23.1]
	Sens BTUH [KW]	120.0 [35.2]	109.7 [32.2]	99.5 [29.2]	145.7 [42.7]	133.2 [39.0]	120.8 [35.4]	138.0 [40.4]	126.2 [37.0]	114.4 [33.5]	117.4 [34.4]	110.0 [32.2]	99.7 [29.2]	84.7 [24.8]	81.7 [23.9]	76.6 [22.4]
	Power	15.0	14.8	14.5	15.0	14.7	14.5	14.9	14.7	14.4	14.9	14.6	14.4	14.9	14.6	14.3
105°F [40.6°C]	Total BTUH [KW]	181.7 [53.2]	175.3 [51.4]	169.0 [49.5]	169.7 [49.7]	163.8 [48.0]	157.8 [46.2]	134.0 [39.3]	129.3 [37.9]	124.6 [36.5]	107.2 [31.4]	103.4 [30.3]	99.6 [29.2]	74.4 [21.8]	71.8 [21.0]	69.2 [20.3]
	Sens BTUH [KW]	110.3 [32.3]	100.9 [29.6]	91.5 [26.8]	136.0 [39.8]	124.4 [36.4]	112.8 [33.0]	128.3 [37.6]	117.3 [34.4]	106.4 [31.2]	107.2 [31.4]	101.1 [29.6]	91.7 [26.9]	74.4 [21.8]	71.8 [21.0]	68.6 [20.1]
	Power	15.9	15.6	15.3	15.8	15.5	15.3	15.8	15.5	15.2	15.7	15.5	15.2	15.7	15.4	15.2
110°F [43.3°C]	Total BTUH [KW]	165.5 [48.5]	159.7 [46.8]	153.9 [45.1]	153.5 [45.0]	148.1 [43.4]	142.7 [41.8]	117.7 [34.5]	113.6 [33.3]	109.5 [32.1]	90.9 [26.6]	87.7 [25.7]	84.6 [24.8]	58.2 [17.1]	56.2 [16.5]	54.1 [15.9]
	Sens BTUH [KW]	94.8 [27.8]	86.7 [25.4]	78.6 [23.0]	120.4 [35.3]	110.1 [32.3]	99.9 [29.3]	112.7 [33.0]	103.1 [30.2]	93.5 [27.4]	90.9 [26.6]	86.9 [25.5]	78.8 [23.1]	58.2 [17.1]	56.2 [16.5]	54.1 [15.9]
	Power	16.8	16.5	16.2	16.7	16.4	16.1	16.7	16.4	16.1	16.6	16.3	16.1	16.6	16.3	16.0
115°F [46.1°C]	Total BTUH [KW]	143.3 [42.0]	138.3 [40.5]	133.2 [39.0]	131.3 [38.5]	126.7 [37.1]	122.1 [35.8]	95.5 [28.0]	92.2 [27.0]	88.8 [26.0]	68.7 [20.1]	66.3 [19.4]	63.9 [18.7]	36.0 [10.5]	34.7 [10.2]	33.5 [9.8]
	Sens BTUH [KW]	73.3 [21.5]	67.0 [19.6]	60.8 [17.8]	99.0 [29.0]	90.5 [26.5]	82.1 [24.1]	91.3 [26.8]	83.5 [24.5]	75.7 [22.2]	68.7 [20.1]	66.3 [19.4]	61.0 [17.9]	36.0 [10.5]	34.7 [10.2]	33.5 [9.8]
	Power	17.7	17.4	17.1	17.7	17.4	17.1	17.6	17.3	17.0	17.6	17.3	17.0	17.5	17.2	16.9
120°F [48.9°C]	Total BTUH [KW]	115.1 [33.7]	111.1 [32.5]	107.0 [31.4]	103.1 [30.2]	99.5 [29.2]	95.9 [28.1]	67.4 [19.7]	65.0 [19.0]	62.6 [18.4]	40.6 [11.9]	39.1 [11.5]	37.7 [11.1]	7.8 [2.3]	7.5 [2.2]	7.3 [2.1]
	Sens BTUH [KW]	46.0 [13.5]	42.0 [12.3]	38.1 [11.2]	71.6 [21.0]	65.5 [19.2]	59.4 [17.4]	64.0 [18.7]	58.5 [17.1]	53.0 [15.5]	40.6 [11.9]	39.1 [11.5]	37.7 [11.1]	7.8 [2.3]	7.5 [2.2]	7.3 [2.1]
	Power	18.7	18.4	18.1	18.7	18.4	18.0	18.6	18.3	18.0	18.6	18.3	17.9	18.6	18.2	17.9
125°F [51.7°C]	Total BTUH [KW]	80.9 [23.7]	78.1 [22.9]	75.3 [22.1]	69.0 [20.2]	66.5 [19.5]	64.1 [18.8]	33.2 [9.7]	32.0 [9.4]	30.9 [9.0]	6.4 [1.9]	6.2 [1.8]	5.9 [1.7]	-26.4 [-7.7]	-25.4 [-7.5]	-24.5 [-7.2]
	Sens BTUH [KW]	12.7 [3.7]	11.7 [3.4]	10.6 [3.1]	38.4 [11.3]	35.1 [10.3]	31.9 [9.3]	30.7 [9.0]	28.1 [8.2]	25.5 [7.5]	6.4 [1.9]	6.2 [1.8]	5.9 [1.7]	-26.4 [-7.7]	-25.4 [-7.5]	-24.5 [-7.2]
	Power	19.8	19.5	19.1	19.7	19.4	19.0	19.7	19.3	19.0	19.6	19.3	19.0	19.6	19.3	18.9

DR — Depression ratio
dbE — Entering air dry bulb
wBE — Entering air wet bulb

NOTES:
① Total capacity x 1000 BTUH
Sens — Sensible capacity x 1000 BTUH
Power — KW input

① When the entering air dry bulb is other than 80°F [27°C], adjust the sensible capacity from the table by adding [1.10 x CFM x (1 – DR) x (dbE – 80)].

[] Designates Metric Conversions

ELECTRICAL DATA—WITHOUT ELECTRIC HEAT

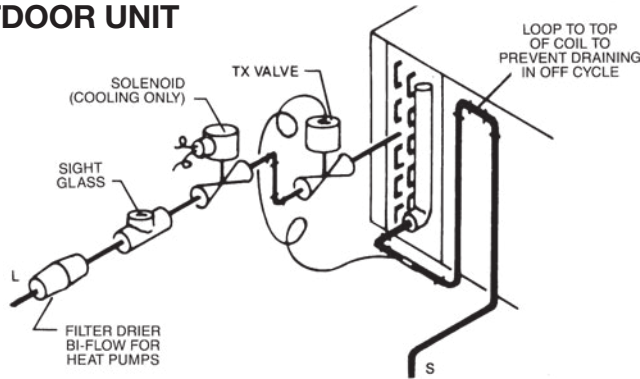
MODEL NUMBER	DRIVE PACKAGE	AIR HANDLER MOTOR					MINIMUM CIRCUIT AMPACITY	RECOMMENDED MINIMUM COPPER WIRE SIZE/ MAX. RUN IN FEET	MAXIMUM OVERCURRENT PROTECTION AMPS
		HP	VOLTS	PHASE	RATING PLATE AMPS	MOTOR LRA			
AC									
RHCLA2090C	R,S	2	208/230	3	6.2	47	15	#14 / 165	15
RHCLA2090D	R,S	2	460	3	3	24	15	#14 / 275	15
RHCLA2090C	T	3	208/230	3	9.2	74.5	15	#14 / 135	15
RHCLA2090D	T	3	460	3	4.6	38.1	15	#14 / 230	15
RHCLA2120C	R,S	2	208/230	3	6.2	47	15	#14 / 165	15
RHCLA2120D	R,S	2	460	3	3	24	15	#14 / 275	15
RHCLA2120C	T	3	208/230	3	9.2	74.5	15	#14 / 135	15
RHCLA2120D	T	3	460	3	4.6	38.1	15	#14 / 230	15
RHCLA2150C	R	2	208/230	3	5.8	56.0	15	#14/165	15
RHCLA2150D	R	2	460	3	2.9	28.4	15	#14/275	15
RHCLA2150C	S	3	208/230	3	8.7	56.0	15	#14/135	15
RHCLA2150D	S	3	460	3	4.1	28.4	15	#14/230	15
RHCLA2150C	T	5	208/230	3	13.6-12.6	86-95	15	#10/240/#12/150	15
RHCLA2150D	T	5	460	3	6.3	47.5	15	#14/185	15
RHCLA2240C	R	5	208/230	3	13.6-12.6	86-95	15	#10/240/#12/150	15
RHCLA2240D	R	5	460	3	6.3	47.5	15	#14/185	15
RHCLA2240C	S, T	7.5	208/230	3	21.0-19.2	115-127	15	#10/150	15
RHCLA2240D	S, T	7.5	460	3	9.6	63.5	15	#14-135	15

ELECTRICAL DATA—WITH ELECTRIC HEAT

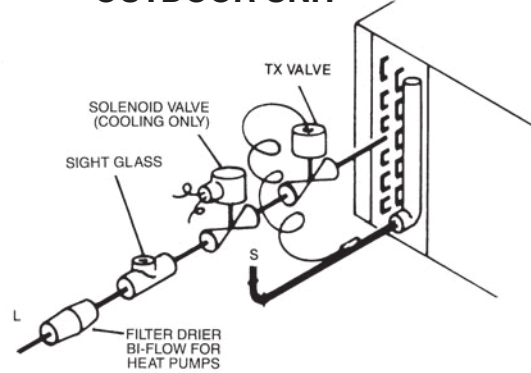
MODEL NUMBER	HEATER KIT				HEATING CAPACITY		MIN. CIRCUIT AMPACITY	MAX FUSE OR HACR BREAKER SIZE
	MODEL	VOLTAGE	kW	AMPS	kW	MBH		
AC								
RHCLA2090C	RXHE-DE020CA	208/240	20	43.1/48.9	15.6/20.2	53.2/68.9	67/73	70/80
RHCLA2090C	RXHE-DE030CA	208/240	30	60.8/70.2	11.0/29.6	75.1/101	89/100	90/100
RHCLA2090D	RXHE-DE020DA	480	20	24.7	20.2	68.9	37	40
RHCLA2090D	RXHE-DE030DA	480	30	35	29.7	101.3	50	50
RHCLA2120C	RXHE-DE020CA	208/240	20	43.1/48.9	15.6/20.2	53.2/68.9	67/73	70/80
RHCLA2120C	RXHE-DE030CA	208/240	30	60.8/70.2	11.0/29.6	75.1/101	89/100	90/100
RHCLA2120D	RXHE-DE020DA	480	20	24.7	20.2	68.9	37	40
RHCLA2120D	RXHE-DE030DA	480	30	35	29.7	101.3	50	50
RHCLA2150C	RXHE-CE030CC	208/230	30	60/70	21.6/28.8	73.7/98.3	105/115	110/125
RHCLA2150C	RXHE-CE040CC	208/230	40	83/96	30/40	102.4/136.5	134/148	150/150
RHCLA2150D	RXHE-CE030DC	460	30	35	28.8	98.3	58	60
RHCLA2150D	RXHE-CE040DC	460	40	48	40	136.5	74	80
RHCLA2240C	RXHE-CE030CC	208/230	30	60/70	21.6/28.8	73.7/98.3	105/115	110/125
RHCLA2240C	RXHE-CE040CC	208/230	40	83/96	30/40	102.4/136.5	134/148	150/150
RHCLA2240D	RXHE-CE030DC	460	30	35	28.8	98.3	58	60
RHCLA2240D	RXHE-CE040DC	460	40	48	40	136.5	74	80

TYPICAL PIPING RECOMMENDATIONS

INDOOR COIL ABOVE OUTDOOR UNIT



INDOOR COIL BELOW OUTDOOR UNIT



NOTE: PIPING ACCESSORIES SHOWN SHOULD BE MOUNTED AS CLOSE TO AIR HANDLING UNIT AS POSSIBLE.

REFRIGERANT PIPING

1. Size liquid line for no more than 50 PSIG pressure drop.
2. Size suction lines for no more than 2°F loss, which corresponds to approximately 5 PSIG pressure drop.
3. When evaporator is installed below condensing unit, do not exceed the recommended suction line O.D. This will insure adequate velocities for proper oil return.
4. Install strainer-drier and sight glass in liquid line.
5. Pitch all horizontal suction lines downward in the direction of flow.
6. When making up refrigerant piping, take every precaution to prevent dirt and moisture from entering the piping.
7. Locate the condensing unit and evaporator(s) as close together as possible to minimize piping runs.
8. A liquid line solenoid installed just ahead of the expansion valve is recommended.
9. See tables below for general refrigerant line sizing and equivalent length of valves and fittings.
10. Refer to the vapor and liquid line selection procedure and charts in the outdoor unit installation manual or literature for more specific refrigerant line sizing information. When dual outdoor units are matched with the air-handler using dual circuits, size the refrigerant lines for each system independently.

CONDENSATE DRAIN PIPING

- Consult local codes or ordinances for specific requirements regarding condensate drain.
- Condensate drain is open to atmosphere and must be trapped. Trap must be at least 3 inches [76 mm] deep and made of flexible material or fabricated to prevent freeze-up.
- Pitch the drain line at least 1/4 inch [6 mm] per foot away from the drain pan.
- Do not reduce the drain line size from the connection size provided on the unit.
- Do not connect the drain line to a closed sewer line.

TYPICAL PIPING RECOMMENDATIONS

All models are provided with dual circuit coil manifolds that can be configured for dual condensing unit applications. The coil is circuited to provide full face coil operation for each system. Knock-outs are provided on both sides of the unit to allow the refrigerant tubing to enter from either side. Remove the rubber grommets from the parts bag and install them in the appropriate holes prior to running the line set tubing into the cabinet to seal around and protect the tubing. Copper fittings are provided in the parts bag to allow the two refrigerant circuits to be tied together for single condensing unit applications. The fittings may be installed to allow the tubing to enter the unit from either side as shown in Figure 5.

RECOMMENDED VAPOR AND LIQUID LINE SIZES FOR VARIOUS LENGTHS OF RUN

LINEAR LENGTH (FT.) [m]	LIQUID LINE O.D. SIZES (IN.) [mm]		VAPOR LINE O.D. SIZES (IN.) [mm]	
	090	120	090	120
0-40 [0-12.19]	1/2 [12.7]	5/8 [15.88]	1 1/8 [28.58]	1 3/8 [34.93]
41-90 [12.5-27.43]	1/2 [12.7]	5/8 [15.88]	1 3/8 [34.93]*	1 3/8 [34.93]*

*NOTE: With the outdoor unit located below the indoor air handler, all vertical vapor lines must not exceed 1 1/8" [28.58 mm] O.D.

EQUIVALENT LENGTH (FT.) [m] OF STRAIGHT TYPE "L" TUBING FOR NON-FERROUS VALVES AND FITTINGS (BRAZED)

TUBE SIZE INCHES [mm] O.D.	ANGLE VALVE	SHORT RADIUS ELL	LONG RADIUS ELL	TEE LINE FLOW
1/2 [12.7]	24 [7.32]	4.7 [1.43]	3.2 [0.98]	1.7 [0.52]
5/8 [15.88]	25 [7.62]	5.7 [1.74]	3.9 [1.19]	2.3 [0.70]
3/4 [19.05]	25 [7.62]	6.5 [1.98]	4.5 [1.37]	2.9 [0.88]
7/8 [22.23]	28 [8.53]	7.8 [2.38]	5.3 [1.62]	3.7 [1.13]
1 1/8 [28.58]	29 [8.84]	2.7 [0.82]	1.9 [0.58]	5.2 [1.59]
1 3/8 [34.93]	33 [10.06]	3.2 [0.98]	2.2 [0.67]	6.9 [2.10]

[] Designates Metric Conversions

FIELD INSTALLED ACCESSORIES & KITS

ACCESSORY DESCRIPTION	MODEL NUMBER	SIZE USED ON	NET WEIGHT (LBS) [kg]
Hot Water Coil	RXHC-C74W	90,120	200 [91]
	RXHC-C76W	150,180,240	200 [91]
Steam Coil	RXHC-C74S	90,120	200 [91]
	RXHC-C76S	150,180,240	200 [91]
Auxiliary Heater Kit	RXHE-DE020*A	90,120	75 [34]
	RXHE-DE030*A	90,120	75 [34]
	RXHE-CE030*C	150,180,240	90 [41]
	RXHE-CE040*C	150,180,240	98 [44]
External Filter Rack	RXHF-F1	120	20 [9]

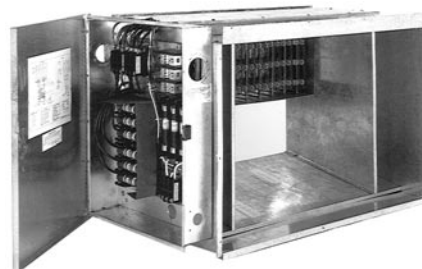
NOTE: *Designates "C", "D" or "Y" Voltage

ACCESSORY DESCRIPTION	MODEL NUMBER	SIZE USED ON	DIMENSIONS
MERV 13 Filter	RXMF-M13A11625	090, 120	1X16X25
	RXMF-M13A12025	150, 180, 240	1X20X25
MERV 8 Filter	RXMF-M08A11625	090, 120	1X16X25
	RXMF-M08A1205	150, 180, 240	1X20X25

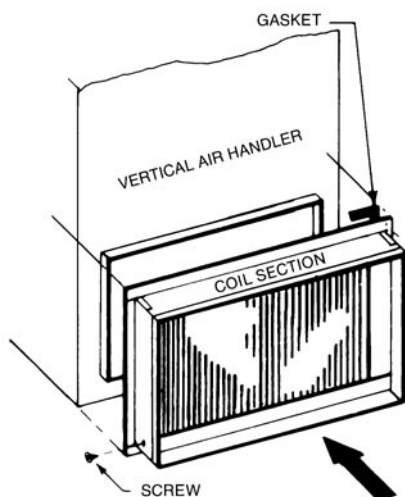
RXHM MIXING BOX



RXHE ELECTRIC HEATER KIT

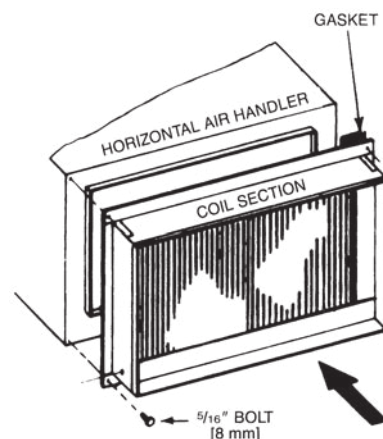


HOT WATER OR STEAM COILS



(090, 120) RXHC-C74W
RXHC-C74S
or
(150, 180, 240) RXHC-C76W
RXHC-C76S

(090, 120) RXHC-C74W
RXHC-C74S
or
(150, 180, 240) RXHC-C76W
RXHC-C76S



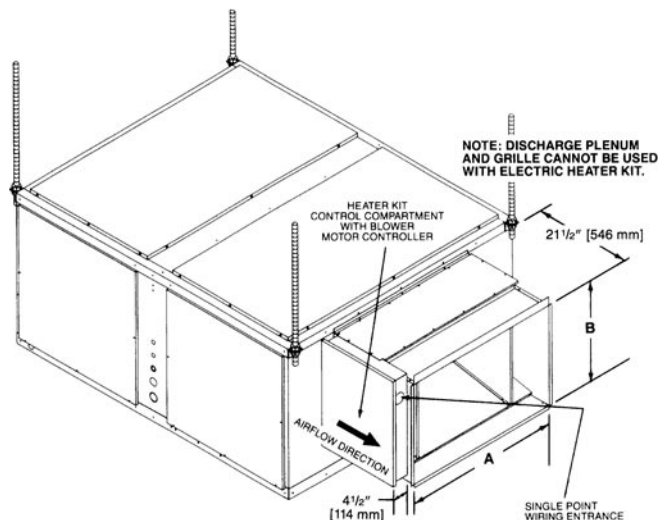
ELECTRIC RESISTANCE HEATER KITS

Optional electrical heater kit shown installed in horizontal position and connected directly to the air handler. The heater kit may also be installed with the air handler set in the vertical position. In either position the heater kit control compartment must be on the left side facing the air discharge opening.

AUXILIARY HEATER KIT

MODEL NO.	IN. [mm]	
	A	B
RXHE-DE****A	20 [508]	20 [508]

[] Designates Metric Conversions



GUIDE SPECIFICATIONS

Furnish and install as shown on the drawing. The entire assembly shall be UL and cUL listed with the cooling capacity A.R.I. Certified.

DRIVE PACKAGE—A complete drive package shall be factory or field installed. Package shall consist of a 3450 RPM dual voltage, single phase open drip proof motor or a 3 phase 1750 RPM open drip proof internally protected motor, not requiring an external starter. Variable pitch motor sheave, fixed pitch fan sheave, and belt.

COILS—Coils shall be fabricated of 3/8" [10 mm] O.D. seamless copper tubing expanded into aluminum fins. All coils shall be submitted to an air pressure test of up to 550 PSIG [2068 kPa] under water after fabrication and dehydrated prior to assembly in unit. Units shall be shipped with a nitrogen holding charge. Airflow shall be draw through design providing uniform air distribution across the coil surface.

BLOWER, BEARINGS AND SHAFT—Fans shall be a double width, double inlet, forward curve, centrifugal type, statically and dynamically balanced, and constructed of galvanized steel. They shall be mounted on 3/4" [19 mm] = 7.5 ton [26 kW] diameter solid shafts made of high carbon steel, centerless ground and polished, supported by resilient mounted sealed bearings.

DRAIN PAN—The drain pan shall be manufactured of zinc coated steel. The pan shall have internally threaded pipe size drain connections and shall be designed to accept condensate in either horizontal or vertical type applications on either side of unit.

FILTERS—Filter mounting hardware shall be designed to accept up to 2" [51 mm] filters for field replacement. One inch [25 mm] throw away filters shall be furnished with the unit. MERV 13 & MERV 8 filters are available as an accessory.

CABINET—Cabinets shall be manufactured of galvanized steel subjected to multi-stage cleaning and finished with powder coat paint. Units shall have removable service access panels on each side and top.

INSULATION—Cabinets shall be insulated with 1/2" [13 mm] by 1-1/2 pound [.68 kg] density fiberglass insulation coated with neo-prene and bonded to the cabinet surface with a U.L. approved adhesive. Insulation shall have fire retarding characteristics in accordance with smoke developed rating not to exceed 50 and flame spread rating of 25 per Underwriters Laboratories testing procedures.

FACTORY TESTING—In addition to the pre-assembly testing mentioned above, each coil shall be leak tested after assembly into the unit. While under pressure, the coil shall be leak tested using an Electronic Leak Detector.

ELECTRIC HEATERS—UL and cUL listed electric heater kits shall be available in a wide range of capacities. All kits shall offer two stages of capacity, blower motor controller and single point connection. Heater kits shall be available for installation directly on the supply fan discharge for either horizontal or vertical application.

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GENERAL TERMS OF LIMITED WARRANTY*

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

*For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or Contact the Manufacturer for a Copy.

Any PartOne (1) Year



FRIEDRICH

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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.

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