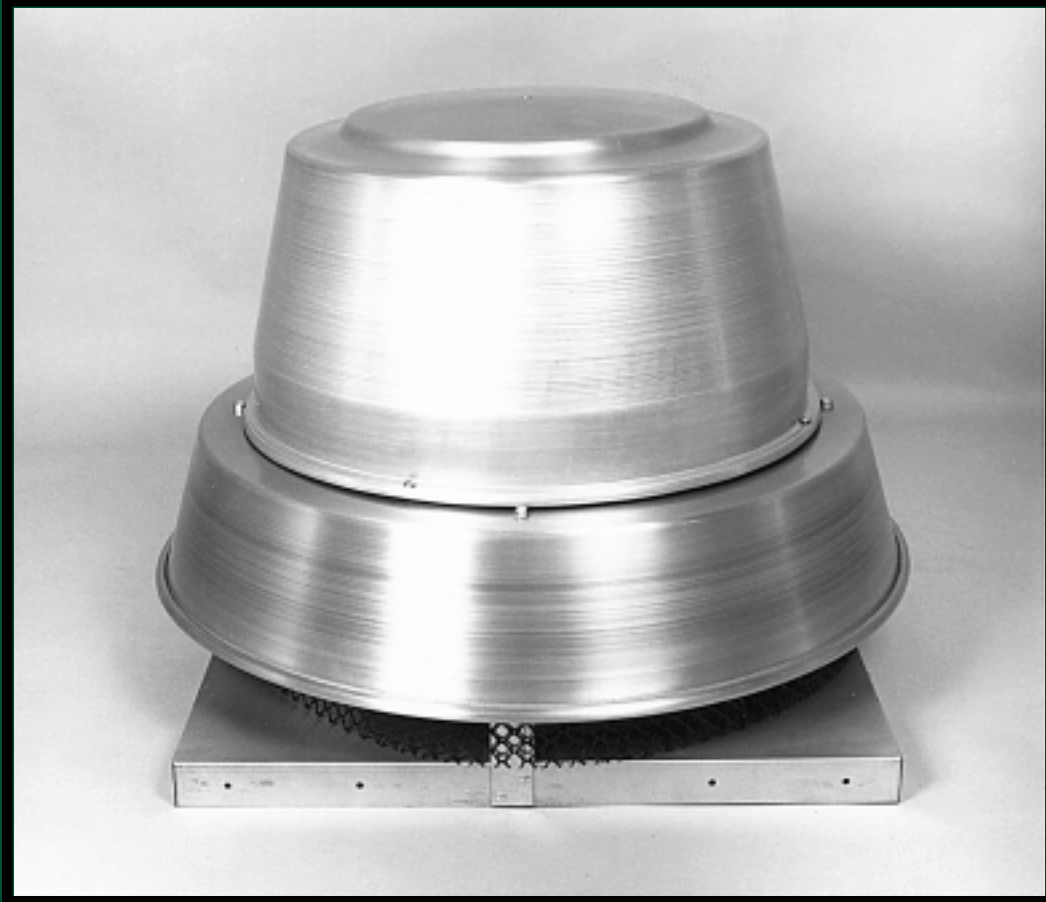




INDUSTRIES

AMERICAN COOLAIR CORPORATION



Centrifugal Power Roof Ventilators

TYPE CRBCA - BELT DRIVE

TYPE CRBA - BELT DRIVE

TYPE CRDA - DIRECT DRIVE

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BELT DRIVE FANS

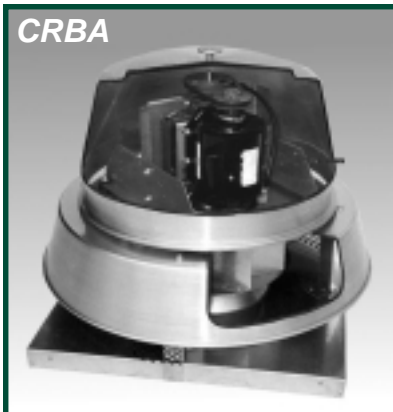


CRBCA

*Sizes 06 to 24
Flow rates from
185 to 10,328 CFM
and 2" Static Pressure*

CRBCA

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CRBA

*Sizes 30 to 52
Flow rates from
3,187 to 43,962 CFM
and 2" Static Pressure*

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CRDA

*Sizes 06 to 20
Flow rates from
162 to 5,730 CFM
and 1" Static Pressure*

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STANDARD FEATURES

CRBCA, CRBA AND CRDA UNITS

Weather-resistant aluminum motor compartment cover removes easily for access to motor and drives.

Out-of-airstream open motors are isolated for protection from exhaust airstream.

Aluminum centrifugal wheel is non-overloading, backward inclined design with state-of-the-art computerized balance.

Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency.

Wheel balance weights are permanently affixed to assure vibration-free operation.

Wheel backplate fins cool the motor compartment, extending motor life.

Birdscreen is vibration-free polypropylene mesh.

AMCA Seal assures certified rating of air and sound performance.

UL Listed for Standard 705.

CRBCA AND CRBA

Factory-wired disconnect switch is an available option.

Belt drive with adjustable motor pulley for flexibility to match operating requirements.

Hinged motor bracket with tensioning bolt(s) facilitates maintenance of belt tension.



CRDA

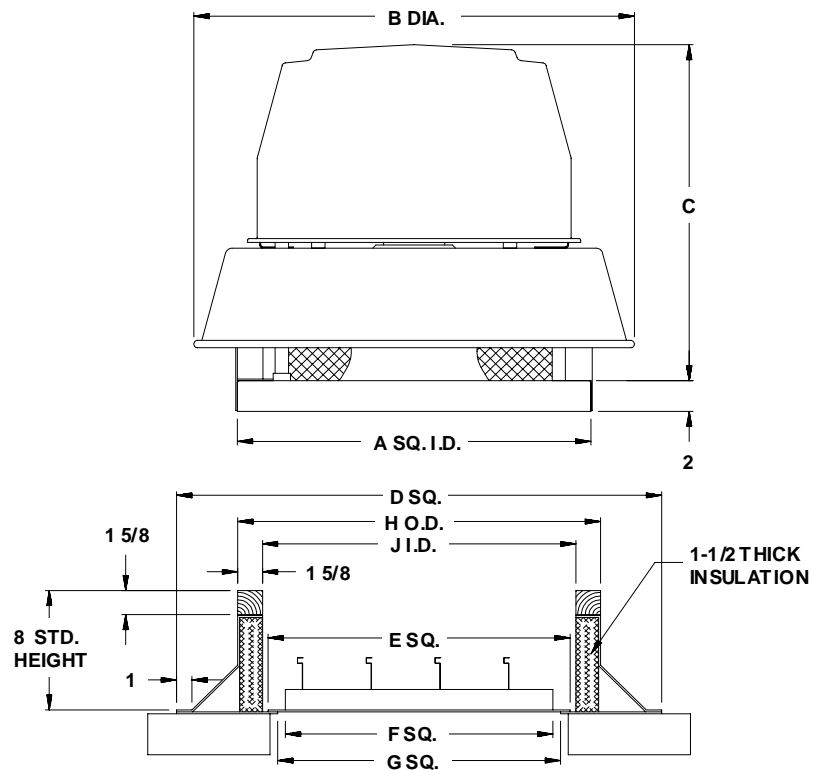
Factory-wired disconnect device for standard motors.

Direct-drive assembly reduces maintenance and operating costs.

Variable speed control available on some models.



CRBCA, CRBA AND CRDA VENTILATOR, ROOF CURB AND DAMPER DIMENSIONS



Unit	Ventilator Dimensions			Roof Curb and Damper Dimensions					
	A	B	C	D	E	F	G	H	J
CRBCA 06, 08, 10	18	23 1/8	20 1/2	24 1/2	12 1/2	10	11 1/4	16 1/2	13 1/4
CRDA 06, 08, 10	18	23 1/8	12	24 1/2	12 1/2	10	11 1/4	16 1/2	13 1/4
CRBCA 12, 13, 15 CRDA 12J17, 13K17 & 15L17	23	28 5/8	22 1/2	29 1/2	17 1/2	15	16 1/4	21 1/2	18 1/4
CRDA 12E10, 12J16, 13F11, 13J15, 15H10 & 15K15	23	28 5/8	16 1/2	29 1/2	17 1/2	15	16 1/4	21 1/2	18 1/4
CRBCA & CRDA 16, 18, 20	30	35 1/2	24 5/8	36 1/2	24 1/2	22	23 1/4	28 1/2	25 1/4
CRBCA 24	34	42 3/4	32 1/2	40 1/2	28 1/2	26	27 1/4	32 1/2	29 1/4
CRBA 30	40	50 1/4	36 3/4	46 1/2	34 1/2	32	33 1/4	38 1/2	35 1/4
CRBA 36	46	61 3/4	44 1/4	52 1/2	40 1/2	38	39 1/4	44 1/2	41 1/4
CRBA 44	56	71 1/4	49	62 1/2	50 1/2	48	49 1/4	54 1/2	51 1/4
CRBA 52	65	83 3/4	55 1/2	71 1/2	59 1/2	57	58 1/4	63 1/2	60 1/4

CRBCA

Belt Drive Centrifugal Power Roof Ventilators

Applications

The CRBCA units are quiet, dependable power roof ventilators recommended for a wide range of general exhaust applications where low and medium ranges of air volume and pressure are specified. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

CRBCA units are specified where a roof-mounted location is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of air. CRBCA units may be used with or without ducts.

The advantages of a CRBCA belt-drive over a direct-drive roof ventilator include quieter operation and adjustable performance to meet operating needs.

Construction

CRBCA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheel is secured to the machined aluminum "C-Drive" disc, and computer balanced on state-of-the-art equipment.

Neoprene vibration isolators to reduce noise and wear, and polypropylene birdscreen are both standard.

Drive Mechanism

The belt driven CRBCA utilizes a unique bearing/shaft arrangement that has been designated the "C-Drive". This "C-Drive" is patterned after American Coolair's unique static shaft drive design that has been in existence for over seventy years serving the general ventilation markets with reliable propeller products. This type of drive uses a captured bearing arrangement inside a cast aluminum disc assembly locked to a short, large diameter shaft. The shaft is held stationary and the centrifugal wheel/disc assembly rotates on the shaft instead of the entire assembly rotating.

As a result of reduction of radial loading of the bearings, the calculated L10 bearing life exceeds 1,000,000 hours or an average bearing life of 5,000,000 hours. Most other manufacturers' turning shaft drive designs result in cataloged average bearing life of 150,000-200,000 hours. Additionally, the machined surface of the "C-Drive" provides a rigid backplate for the centrifugal wheel. Electrical connections on the end of the motor face upwards making field connections rapid and simple. This compact drive assembly provides more room in the motor compartment area and the single bolt, V-belt adjustment makes for a very serviceable unit.

Motors

The standard motor for CRBCA models is open drip-proof construction, and located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. All motor brands are recognized and serviced nationwide. Motor enclosure may affect UL Listing.



UL705 - E39944

Type CRBCA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries certifies that the Type CRBCA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Power Roof Ventilators shall be of the CRBCA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 and shall bear the AMCA Certified Ratings Seal for air and sound performance. Base and venturi inlet shall be one piece heavy gauge spun aluminum or galvanized steel, with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge aluminum construction and easily removable for access to motor and drive.

Drive construction shall be of the ILG "C-Drive" design consisting of static shaft/bearing arrangement mounted in a machined cast aluminum disc assembly. The disc assembly shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

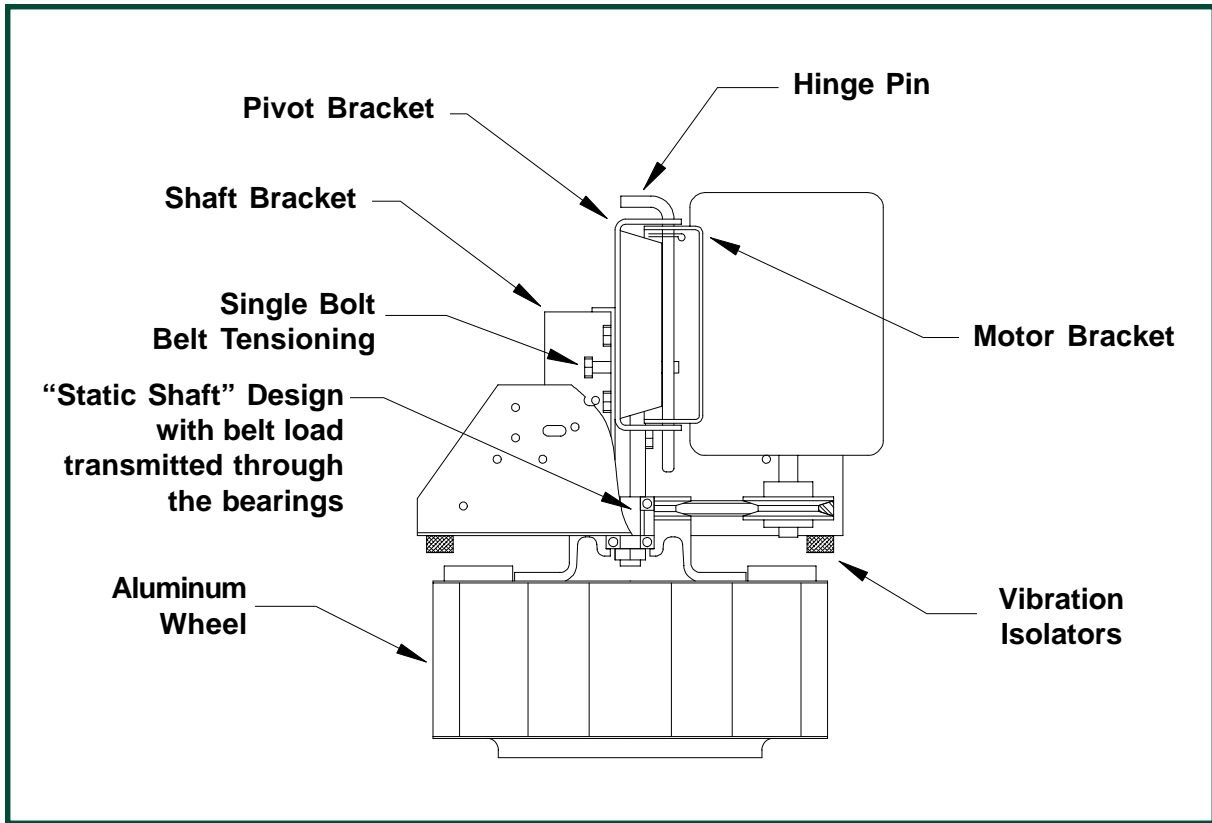
Bearings shall have a calculated L10 bearing life in excess of 1,000,000 hours.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on a hinged steel mounting bracket, utilizing a belt tensioning bolt. Motor shall be mounted with the shaft down to allow easy access to the electrical wiring terminal board/circuit box.

(Mounted and wired disconnect switch, backdraft damper, epoxy coating, roof curb and other accessories shall be listed in the fan schedule.)

ILG's "C-Drive"

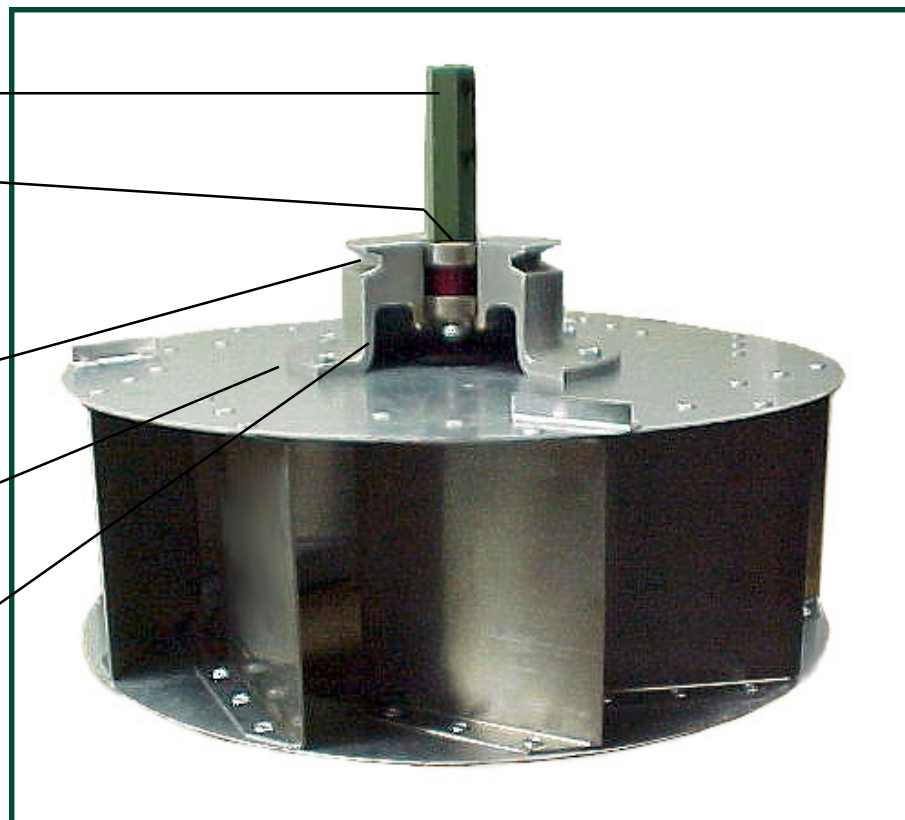
Available Exclusively on CRBCA Units Sizes 06 - 24



ILG's "C-Drive" Wheel Assembly

Features:

- Static Shaft
- Permanently Sealed and Lubricated Ball Bearings
- V-Belt Groove
- Machined Surface to mount centrifugal wheel
- Cast Aluminum Hub machined to close tolerances



CRBCA06 - CRBCA10 Performance Data

CRBCA06																		CFM at Static Pressure				RPM Range Motor HP				RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50		1/5	1/4 L	1/4 M	1/4 H			
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
279		206																						846		
0.01	1.5	0.01	0.8																					1041		
343		289		216																				1135		
0.02	2.9	0.02	2.5	0.02	1.9																			1360		
374		325		263		185																		1646		
0.03	3.7	0.03	3.2	0.03	2.8	0.03	2.3																	1789		
448		406		362		308		240																2076		
0.04	5.6	0.05	5.1	0.05	4.8	0.05	4.3	0.05	4.0															2219		
542		505		475		435		391		342														1646		
0.08	8.6	0.08	8.2	0.09	7.8	0.09	7.6	0.09	7.0	0.09	6.6													1789		
589		555		526		495		455		414		366												2076		
0.10	10.4	0.11	10.0	0.11	9.5	0.11	9.5	0.11	9.2	0.12	8.4	0.11	8.1											2219		
684		653		628		603		575		541		506		429										1646		
0.16	14.4	0.16	14.0	0.17	13.6	0.17	13.3	0.18	13.4	0.18	13.0	0.18	12.2	0.18	11.5									1789		
731		702		677		655		631		602		569		503		419								2076		
0.20	16.0	0.20	15.6	0.20	15.3	0.21	14.9	0.21	15.0	0.22	14.8	0.22	14.7	0.22	13.4	0.21	12.9							2219		

CRBCA08																		CFM at Static Pressure				RPM Range Motor HP				RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50		1/5	1/4 L	1/4 M	1/4 H			
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
367		290																						846		
0.01	1.6	0.01	1.3																					1041		
451		393		321																				1135		
0.02	3.2	0.02	2.9	0.03	2.8																			1360		
492		439		376		280																		1646		
0.03	4.0	0.03	3.7	0.03	3.7	0.03	3.4																	1789		
590		545		499		444		373																2076		
0.04	6.1	0.05	5.8	0.05	5.7	0.06	5.6	0.06	5.4															2219		
714		676		640		601		555		508		439												1646		
0.08	9.4	0.08	9.3	0.09	8.6	0.10	8.7	0.10	8.6	0.10	8.5	0.10	8.4											1789		
776		741		708		674		634		592		547												2076		
0.10	11.4	0.11	11.3	0.12	10.5	0.12	10.6	0.13	10.4	0.13	10.4	0.13	10.3											2219		
900		870		841		813		783		750		714		638		515								1646		
0.16	15.6	0.16	15.2	0.17	15.3	0.18	14.4	0.19	14.6	0.19	14.5	0.20	14.3	0.21	14.4	0.20	14.1							1789		
962		934		907		880		853		824		792		723		645		485						2076		
0.19	17.8	0.20	17.3	0.21	17.7	0.22	16.5	0.23	16.4	0.23	16.5	0.24	16.3	0.25	16.4	0.26	16.2	0.23	15.9					2219		

CRBCA10																		CFM at Static Pressure				RPM Range Motor HP				RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50		1/5	1/4 L	1/4 M	1/4 H			
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
487		384																						846		
0.01	2.1	0.02	1.6																					1041		
599		519		422																				1135		
0.03	3.7	0.03	3.3	0.03	3.0																			1360		
653		579		497		383																		1646		
0.03	4.5	0.04	4.1	0.04	4.0	0.04	3.1																	1789		
783		720		660		586		494																2076		
0.06	6.5	0.07	6.2	0.07	6.0	0.08	5.8	0.08	4.8															2219		
948		895		845		795		734		667		586												1646		
0.10	9.6	0.11	9.5	0.12	9.1	0.13	9.0	0.13	8.9	0.14	8.3	0.14	7.1											1789		
1030		982		935		890		839		782		719		540										2076		
0.13	11.5	0.14	11.4	0.15	11.0	0.16	10.8	0.17	10.7	0.17	10.5	0.18	9.8	0.17	8.1									2219		
1195		1153		1112		1073		1035		992		943		839		703								1646		
0.21	15.6	0.22	15.6	0.23	15.4	0.24	14.9	0.25	14.8	0.26	14.7	0.27	14.6	0.27	13.7	0.27	11.5							1789		
1278		1238		1200		1162		1126		1090		1047		955		847		703						2076		
0.26	17.8	0.27	17.4	0.28	17.3	0.29	16.8	0.30	16.8	0.31	16.7	0.32	16.7	0.33	16.4	0.34	14.7	0.33	12.8					2219		

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBCA12 Performance Data

CFM at Static Pressure																RPM Range					RPM					
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		Motor HP						
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/4 L	1/4 H	1/3	1/2	3/4
1002		900		791		643																				886
0.05	4.9	0.06	4.0	0.07	3.8	0.07	3.5																			
1054		958		858		730																				932
0.06	5.3	0.07	4.6	0.08	4.4	0.08	4.0																			
1107		1016		923		808		637																		979
0.07	5.8	0.08	5.2	0.09	4.9	0.09	4.6	0.09	4.3																	
1161		1073		986		880		749																		1026
0.08	6.4	0.09	5.8	0.10	5.5	0.11	5.2	0.11	5.0																	
1213		1129		1045		949		836																		1072
0.09	6.9	0.10	6.4	0.11	6.0	0.12	5.9	0.12	5.7																	
1266		1186		1105		1018		914																		1119
0.10	7.4	0.12	7.1	0.13	6.6	0.13	6.7	0.14	6.3																	
1319		1243		1164		1085		988	666																	1166
0.12	8.1	0.13	7.9	0.14	7.3	0.15	7.4	0.16	7.0	0.14	6.6															
1371		1298		1222		1148		1057	816																	1212
0.13	8.8	0.14	8.6	0.16	8.0	0.16	8.0	0.17	7.7	0.17	7.4															
1424		1354		1281		1210		1127	922																	1259
0.15	9.6	0.16	9.4	0.17	8.8	0.18	8.6	0.19	8.6	0.19	8.1															
1476		1409		1338		1270		1194	1010																	1305
0.16	10.4	0.18	10.2	0.19	9.7	0.20	9.3	0.21	9.5	0.22	9.0															
1529		1464		1396		1330		1260	1090	793																1352
0.18	11.3	0.20	11.1	0.21	10.7	0.22	10.1	0.23	10.4	0.24	9.8	0.22	9.5													
1582		1520		1454		1390		1325	1165	940																1399
0.20	12.2	0.22	12.0	0.23	11.7	0.24	10.9	0.25	11.2	0.27	10.8	0.26	10.4													
1634		1574		1510		1447		1386	1236	1047																1445
0.22	13.1	0.24	12.8	0.25	12.8	0.27	11.8	0.28	11.9	0.29	11.5	0.29	11.3													
1688		1629		1568		1506		1447	1306	1139																1492
0.25	14.1	0.26	13.8	0.28	13.9	0.29	12.8	0.30	12.6	0.32	12.3	0.33	12.3													
1741		1684		1625		1565		1508	1376	1222	981															1539
0.27	14.8	0.29	14.5	0.30	14.6	0.32	13.7	0.33	13.2	0.35	13.3	0.36	13.1	0.34	12.7											
1793		1738		1680		1622		1566	1443	1297	1103															1585
0.30	15.5	0.31	15.2	0.33	15.3	0.34	14.5	0.36	13.9	0.38	14.3	0.39	13.7	0.38	13.5											
1846		1793		1737		1680		1625	1510	1371	1204															1632
0.32	16.1	0.34	15.8	0.36	15.9	0.37	15.3	0.39	14.5	0.41	15.1	0.43	14.5	0.42	14.3											
1898		1846		1792		1737		1683	1574	1441	1291	1050														1678
0.35	16.7	0.37	16.5	0.39	16.5	0.40	16.1	0.42	15.3	0.44	15.6	0.46	15.0	0.46	15.1	0.43	15.0									
1951		1901		1849		1795		1742	1638	1512	1373	1181														1725
0.38	17.4	0.40	17.1	0.42	17.2	0.43	16.9	0.45	16.0	0.47	16.2	0.50	15.8	0.51	15.9	0.49	15.8									
2004		1955		1905		1853		1801	1700	1582	1450	1287														1772
0.41	18.0	0.43	17.7	0.45	17.8	0.47	17.6	0.49	16.8	0.51	16.8	0.53	16.7	0.55	16.8	0.54	16.7									
2056		2009		1959		1909		1858	1760	1649	1522	1378														1818
0.45	18.6	0.46	18.4	0.48	18.5	0.50	18.4	0.52	17.6	0.55	17.5	0.57	17.8	0.59	17.6	0.59	17.6									
2109		2063		2015		1966		1916	1821	1717	1594	1462														1865
0.48	19.4	0.50	19.1	0.52	19.1	0.54	19.1	0.56	18.4	0.59	18.3	0.61	18.7	0.63	18.3	0.64	18.4									
2162		2116		2069		2022		1973	1880	1781	1664	1540														1911
0.52	20	0.54	19.8	0.56	19.9	0.58	19.9	0.60	19.3	0.63	19.0	0.65	19.5	0.68	19.0	0.69	19.2									
2215		2170		2125		2078		2031	1939	1846	1734	1615														1958
0.56	21	0.58	21	0.60	21	0.62	21	0.64	20	0.67	19.7	0.69	20	0.72	19.8	0.74	20									
2268		2225		2180		2135		2089	1999	1909	1803	1688	1395													2005
0.60	22	0.62	22	0.64	22	0.66	22	0.68	21	0.72	20	0.74	21	0.77	21	0.79	21	0.77	21							

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBCA13 Performance Data

CFM at Static Pressure																		RPM Range				RPM										
.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		Motor HP												
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/4	1/3		1/2	3/4								
1342		1232		1102		959		773																						886		
0.08	5.9	0.09	5.1	0.10	4.6	0.11	4.3	0.10	4.1																							
1412		1308		1185		1056		898																						932		
0.09	6.5	0.11	5.7	0.12	5.1	0.12	4.8	0.12	4.6																							
1483		1385		1269		1149		1010																						979		
0.11	7.1	0.12	6.4	0.13	5.7	0.14	5.5	0.14	5.3																							
1554		1462		1353		1240		1114																						1026		
0.13	7.7	0.14	7.0	0.15	6.4	0.16	6.2	0.16	5.9																							
1624		1536		1433		1325		1211	907																					1072		
0.14	8.3	0.16	7.7	0.17	7.2	0.18	7.0	0.19	6.7	0.18	6.3																					
1695		1612		1515		1411		1305	1042																							
0.16	8.9	0.18	8.7	0.19	8.1	0.20	7.8	0.21	7.6	0.21	7.1																					
1766		1687		1595		1496		1396	1159																							
0.18	9.7	0.20	9.7	0.21	8.9	0.22	8.6	0.24	8.5	0.24	8.1																					
1836		1760		1673		1578		1482	1266																							
0.21	10.7	0.22	10.7	0.24	9.9	0.25	9.6	0.26	9.5	0.27	9.1																					
1907		1834		1752		1661		1569	1369	1111																						
0.23	11.8	0.25	11.8	0.27	11.0	0.28	10.7	0.29	10.5	0.30	10.0	0.30	9.6																			
1977		1907		1828		1741		1653	1466	1236																						
0.26	12.9	0.28	13.0	0.29	12.1	0.31	11.7	0.32	11.5	0.34	11.1	0.33	10.8																			
2048		1981		1906		1823		1737	1562	1352																						
0.29	14.2	0.31	14.3	0.33	13.4	0.34	12.9	0.35	12.7	0.37	12.3	0.37	11.9																			
2119		2054		1983		1904		1821	1654	1461	1217																					
0.32	15.0	0.34	15.2	0.36	14.4	0.37	13.8	0.38	13.5	0.41	13.3	0.41	12.8	0.40	12.4																	
2189		2126		2058		1982		1902	1742	1562	1346																					
0.35	15.7	0.37	15.9	0.39	15.2	0.41	14.5	0.42	14.2	0.45	14.1	0.46	13.5	0.45	13.2																	
2260		2200		2134		2062		1985	1830	1662	1465																					
0.39	16.4	0.41	16.7	0.43	16.0	0.45	15.3	0.46	15.0	0.49	14.8	0.50	14.2	0.50	13.9																	
2331		2273		2210		2141		2067	1916	1759	1576	1352																				
0.42	17.2	0.45	17.5	0.47	16.8	0.49	16.1	0.50	15.7	0.53	15.5	0.55	15.0	0.55	14.7	0.54	14.3															
2401		2344		2283		2217		2146	2000	1850	1680	1480																				
0.46	17.9	0.49	18.2	0.51	17.7	0.53	16.9	0.54	16.4	0.57	16.1	0.60	15.8	0.60	15.4	0.60	15.1															
2472		2417		2358		2295		2227	2085	1941	1782	1599																				
0.51	18.6	0.53	19.0	0.55	18.5	0.57	17.7	0.59	17.2	0.62	16.8	0.65	16.6	0.66	16.1	0.65	15.9															
2541		2488		2432		2371		2305	2167	2029	1879	1708																				
0.55	19.4	0.57	19.8	0.60	19.3	0.62	18.5	0.64	18.0	0.66	17.5	0.70	17.4	0.71	16.8	0.71	16.7															
2613		2561		2506		2447		2385	2251	2117	1975	1815																				
0.60	20	0.62	21	0.65	20	0.67	19.4	0.69	18.8	0.72	18.3	0.75	18.2	0.77	17.6	0.78	17.6															
2684		2634		2581		2524		2463	2334	2204	2068	1918	1546																			
0.65	21	0.67	21	0.70	21	0.72	20	0.74	19.6	0.77	19.0	0.81	18.9	0.83	18.7	0.84	18.3	0.82	18.1													

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBCA15 Performance Data

CFM at Static Pressure																				RPM Range					RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/4	1/3	1/2	3/4	1		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
1754		1687		1578		1459		1328																	886	
0.15	8.1	0.16	7.6	0.17	6.9	0.19	6.6	0.20	6.1																	
1845		1785		1682		1562		1471																	932	
0.18	8.8	0.19	8.3	0.20	7.6	0.21	7.2	0.23	6.8																	
1938		1884		1787		1675		1586																	979	
0.20	9.5	0.22	9.0	0.23	8.3	0.24	8.0	0.26	7.7																	
2031		1982		1891		1793		1691		1399															1026	
0.23	10.2	0.25	9.7	0.26	9.1	0.28	8.8	0.29	8.4	0.31	7.5															
2122		2077		1992		1902		1794		1580															1072	
0.27	11.0	0.28	10.5	0.30	9.9	0.31	9.4	0.33	9.1	0.35	8.2															
2215		2173		2095		2009		1906		1737															1119	
0.30	11.7	0.32	11.3	0.34	10.7	0.35	10.1	0.37	10.0	0.40	8.9															
2308		2269		2197		2115		2024		1864		1526													1166	
0.34	12.5	0.36	12.1	0.38	11.6	0.39	11.0	0.41	11.0	0.44	10.0	0.45	9.0													
2399		2362		2297		2217		2135		1971		1728													1212	
0.39	13.3	0.40	12.9	0.42	12.5	0.44	12.0	0.45	11.7	0.49	11.1	0.51	9.9													
2492		2457		2399		2321		2245		2076		1899													1259	
0.43	14.1	0.45	13.8	0.47	13.4	0.49	13.0	0.50	12.5	0.54	12.2	0.57	10.8													
2583		2550		2497		2422		2349		2179		2044		1713											1305	
0.48	15.0	0.50	14.7	0.52	14.4	0.54	14.0	0.55	13.4	0.59	13.0	0.63	11.8	0.64	11.1											
2676		2645		2597		2525		2455		2289		2166		1920											1352	
0.54	15.9	0.55	15.6	0.57	15.4	0.59	15.1	0.61	14.5	0.65	14.1	0.69	13.2	0.71	12.2											
2769		2739		2695		2628		2559		2406		2275		2093											1399	
0.59	16.8	0.61	16.6	0.63	16.4	0.65	16.2	0.67	15.7	0.71	15.3	0.75	14.8	0.78	13.2											
2860		2831		2791		2728		2661		2520		2378		2244		1951									1445	
0.65	17.8	0.67	17.5	0.69	17.4	0.72	17.2	0.73	16.8	0.77	16.4	0.81	15.9	0.85	14.4	0.87	13.7									
2953		2925		2888		2830		2764		2633		2483		2373		2146									1492	
0.72	18.8	0.73	18.6	0.75	18.4	0.78	18.2	0.80	17.9	0.84	17.3	0.89	16.8	0.93	15.8	0.96	14.9									
3046		3019		2985		2932		2868		2742		2590		2487		2315									1539	
0.79	19.8	0.81	19.6	0.83	19.4	0.85	19.3	0.88	19.0	0.92	18.2	0.96	17.8	1.00	17.4	1.04	16.0									
3137		3111		3079		3030		2968		2847		2702		2590		2464									1585	
0.86	21	0.88	21	0.90	20	0.93	20	0.95	20	0.99	19.2	1.04	19.0	1.08	18.8	1.13	17.2									
3230		3205		3174		3130		3071		2953		2819		2695		2594									1632	
0.94	22	0.96	22	0.98	22	1.01	21	1.04	21	1.07	20	1.12	20	1.17	19.8	1.21	18.6									

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBCA16 Performance Data

CFM at Static Pressure																			RPM Range Motor HP						RPM		
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/4	1/3	1/2	3/4	1		1 1/2	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone						
2170		2034		1862		1683		1427																		734	
0.15	7.3	0.17	6.4	0.19	5.9	0.20	5.4	0.20	4.8																		
2279		2152		1992		1823		1620																		771	
0.18	7.8	0.20	7.0	0.21	6.6	0.23	6.1	0.23	5.6																		
2385		2265		2116		1954		1780																		807	
0.20	8.5	0.22	7.8	0.24	7.3	0.26	6.8	0.27	6.4																		
2495		2381		2242		2086		1930																		844	
0.23	9.2	0.26	8.6	0.28	8.1	0.29	7.7	0.30	7.2																		
2604		2496		2367		2217		2070	1634																	881	
0.26	10.0	0.29	9.5	0.31	8.9	0.33	8.5	0.34	8.1	0.33	7.0																
2713		2610		2489		2347		2206	1853																	918	
0.30	10.8	0.32	10.4	0.35	9.7	0.37	9.5	0.38	8.9	0.39	7.9																
2820		2721		2607		2473		2336	2029																	954	
0.34	11.8	0.36	11.3	0.39	10.6	0.41	10.4	0.42	9.8	0.44	9.0																
2929		2834		2727		2601		2467	2191	1659																991	
0.38	12.7	0.40	12.3	0.43	11.6	0.45	11.3	0.47	10.9	0.49	10.1	0.45	9.0														
3039		2947		2845		2727		2598	2341	1958																1028	
0.42	13.6	0.45	13.4	0.47	12.5	0.50	12.2	0.52	11.9	0.54	11.1	0.54	10.0														
3145		3057		2960		2848		2725	2480	2161																1064	
0.47	14.7	0.50	14.5	0.52	13.6	0.55	13.2	0.57	13.0	0.60	12.1	0.61	11.1														
3254		3170		3077		2972		2854	2617	2340																1101	
0.52	15.7	0.55	15.6	0.58	14.8	0.60	14.2	0.62	14.1	0.66	13.1	0.68	12.4														
3364		3282		3193		3093		2982	2751	2503	2114															1138	
0.57	16.8	0.60	16.7	0.63	16.0	0.66	15.3	0.68	15.2	0.72	14.2	0.75	13.7	0.72	12.5												
3470		3391		3306		3211		3105	2880	2651	2333															1174	
0.63	17.9	0.66	17.9	0.69	17.2	0.72	16.3	0.74	16.2	0.79	15.3	0.81	14.8	0.81	13.7												
3579		3503		3421		3331		3230	3012	2796	2522															1211	
0.69	18.9	0.72	19.0	0.75	18.3	0.78	17.4	0.81	17.2	0.85	16.4	0.89	15.8	0.90	14.9												
3689		3615		3536		3449		3354	3143	2936	2693	2325														1248	
0.75	19.7	0.79	19.8	0.82	19.2	0.85	18.3	0.88	17.9	0.93	17.4	0.96	16.5	0.98	16.0	0.95	14.8										
3798		3727		3650		3567		3476	3273	3072	2852	2550														1285	
0.82	21	0.86	21	0.89	20	0.92	19.2	0.95	18.7	1.01	18.4	1.04	17.3	1.07	17.0	1.06	15.7										
3905		3835		3761		3681		3595	3399	3202	2998	2736														1321	
0.89	21	0.93	21	0.96	21	1.00	20	1.03	19.5	1.08	19.3	1.13	18.1	1.16	17.8	1.17	16.9										
4073		4007		3936		3861		3780	3597	3406	3218	2998														1378	
1.01	23	1.05	23	1.09	22	1.12	22	1.16	21	1.22	21	1.26	19.6	1.30	19.0	1.33	18.5										
4182		4118		4050		3977		3899	3725	3537	3355	3154	2484													1415	
1.10	23	1.14	24	1.17	23	1.21	23	1.24	22	1.31	21	1.36	21	1.40	19.8	1.43	19.5	1.35	17.7								
4292		4229		4163		4093		4018	3851	3668	3490	3303	2757													1452	
1.19	24	1.23	24	1.26	24	1.30	23	1.34	23	1.40	22	1.46	22	1.50	21	1.54	21	1.51	18.6								
4401		4340		4276		4208		4136	3975	3798	3623	3447	2973													1489	
1.28	25	1.32	25	1.36	25	1.40	24	1.43	24	1.50	23	1.56	23	1.61	22	1.65	21	1.66	19.6								

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBCA18 Performance Data

CFM at Static Pressure																		RPM Range Motor HP						RPM			
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/3	1/2	3/4	1		1 1/2	2	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone						
2754		2627		2440		2247		1974																		734	
0.22	8.9	0.24	7.9	0.26	7.3	0.28	6.8	0.29	6.0																		
2893		2778		2598		2422		2190																		771	
0.25	9.6	0.28	8.7	0.30	8.1	0.32	7.6	0.33	7.1																		
3028		2923		2749		2586		2389		1758																807	
0.29	10.5	0.31	9.6	0.34	8.9	0.36	8.5	0.37	8.1	0.36	6.7																
3167		3070		2904		2750		2577		2061																844	
0.33	11.4	0.36	10.6	0.39	9.8	0.41	9.5	0.42	9.0	0.43	7.5																
3305		3216		3058		2911		2753		2308																881	
0.38	12.3	0.40	11.7	0.43	10.8	0.46	10.5	0.48	9.9	0.50	8.5																
3444		3360		3213		3070		2923		2531		1886														918	
0.43	13.2	0.45	12.7	0.49	11.8	0.51	11.5	0.53	10.9	0.56	9.9	0.52	8.7														
3579		3500		3364		3222		3085		2738		2223														954	
0.48	14.2	0.51	13.8	0.54	12.9	0.57	12.5	0.59	12.1	0.62	11.3	0.62	9.6														
3718		3643		3519		3378		3247		2940		2494														991	
0.54	15.2	0.57	15.0	0.60	14.1	0.63	13.5	0.66	13.2	0.69	12.5	0.70	10.7														
3857		3785		3673		3533		3408		3128		2731		2128												1028	
0.60	16.2	0.63	16.1	0.66	15.4	0.70	14.7	0.72	14.5	0.76	13.6	0.79	12.0	0.74	11.1												
3992		3923		3822		3683		3562		3301		2945		2464												1064	
0.66	17.2	0.69	17.3	0.73	16.6	0.77	15.8	0.79	15.6	0.84	14.6	0.87	13.6	0.85	12.2												
4131		4065		3972		3837		3718		3474		3158		2741												1101	
0.73	18.3	0.77	18.6	0.80	18.0	0.84	17.0	0.87	16.8	0.92	15.8	0.96	15.3	0.96	13.4												
4270		4207		4121		3992		3874		3642		3362		2984		2454										1138	
0.81	19.4	0.85	19.8	0.88	19.3	0.92	18.2	0.96	17.8	1.01	17.0	1.05	16.6	1.07	14.5	1.02	13.8										
4405		4344		4264		4143		4025		3803		3547		3202		2766										1174	
0.89	20	0.93	21	0.96	20	1.00	19.2	1.04	18.7	1.10	18.0	1.14	17.4	1.17	15.8	1.15	14.6										
4611		4554		4481		4374		4254		4044		3814		3520		3157										1229	
1.02	22	1.06	22	1.10	22	1.14	21	1.18	20	1.25	19.6	1.29	18.5	1.33	18.1	1.35	16.0										
4750		4694		4626		4528		4409		4204		3987		3725		3388										1266	
1.12	22	1.15	23	1.19	23	1.24	22	1.28	21	1.35	21	1.40	19.4	1.44	19.3	1.47	17.2										
4889		4835		4770		4680		4563		4362		4155		3918		3607		2720								1303	
1.22	23	1.26	24	1.30	24	1.34	23	1.39	22	1.46	22	1.52	21	1.56	20	1.60	18.8	1.51	16.6								
5028		4976		4914		4831		4719		4519		4322		4101		3820		3068								1340	
1.32	25	1.36	25	1.41	25	1.45	24	1.50	23	1.58	22	1.64	22	1.69	21	1.73	20	1.70	17.5								
5170		5120		5061		4984		4878		4679		4490		4283		4032		3363								1378	
1.44	26	1.48	26	1.52	26	1.57	25	1.62	24	1.70	23	1.77	23	1.82	22	1.86	22	1.88	18.6								
5309		5260		5204		5132		5033		4834		4651		4455		4228		3618								1415	
1.56	27	1.60	27	1.64	27	1.69	26	1.74	25	1.83	24	1.90	24	1.96	23	2.00	23	2.06	19.7								
5448		5401		5346		5279		5187		4988		4812		4624		4415		3852								1452	
1.68	28	1.73	28	1.77	28	1.82	27	1.87	27	1.96	25	2.04	25	2.11	24	2.15	24	2.22	21								

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBCA20 Performance Data

CFM at Static Pressure																		RPM Range					RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		Motor HP				
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2	3/4	1	1 1/2	2
3626		3445		3247		3050		2821		2080														734
0.37	11.8	0.40	9.6	0.42	9.2	0.43	8.8	0.45	7.9	0.43	6.7													
3808		3638		3449		3263		3060		2500														771
0.43	12.8	0.46	10.5	0.49	10.1	0.50	9.7	0.52	9.0	0.52	7.8													
3986		3825		3644		3467		3282		2810														807
0.49	13.8	0.52	11.4	0.55	11.1	0.57	10.6	0.58	10.2	0.60	8.8													
4169		4015		3844		3673		3501		3082														844
0.56	14.8	0.59	12.4	0.63	12.3	0.64	11.9	0.66	11.4	0.69	10.0													
4352		4205		4042		3878		3715		3336		2794												881
0.64	15.8	0.67	13.5	0.71	13.5	0.73	13.0	0.74	12.4	0.78	11.3	0.76	10.1											
4534		4395		4240		4081		3925		3580		3134												918
0.72	17.0	0.75	14.6	0.80	14.6	0.82	14.1	0.83	13.5	0.88	12.6	0.88	11.4											
4712		4578		4431		4277		4127		3809		3411		2769										954
0.81	18.2	0.84	15.8	0.89	15.6	0.92	15.2	0.93	14.9	0.98	14.0	0.99	12.7	0.95	11.6									
4895		4766		4626		4477		4332		4036		3673		3185										991
0.91	19.4	0.94	17.1	0.99	16.7	1.03	16.5	1.04	16.4	1.08	15.4	1.11	14.0	1.09	12.9									
5152		5030		4898		4758		4619		4343		4023		3637		3007								1043
1.06	21	1.09	18.8	1.14	18.2	1.19	18.5	1.21	18.2	1.24	17.2	1.29	16.1	1.29	15.0	1.23	14.0							
5335		5217		5091		4956		4821		4556		4262		3910		3432								1080
1.17	23	1.21	20	1.26	19.4	1.31	19.9	1.34	19.3	1.37	18.4	1.42	17.8	1.44	16.5	1.41	15.4							
5517		5404		5283		5154		5022		4766		4494		4168		3778								1117
1.30	24	1.33	21	1.38	21	1.44	21	1.47	21	1.51	19.5	1.56	19.2	1.59	17.7	1.58	16.7							
5700		5591		5475		5350		5223		4974		4718		4418		4071								1154
1.43	25	1.47	23	1.52	22	1.57	22	1.62	22	1.65	21	1.70	20	1.75	19.0	1.75	18.0							
5883		5777		5665		5546		5422		5180		4937		4660		4340								1191
1.57	26	1.61	24	1.66	22	1.72	23	1.77	23	1.81	22	1.86	21	1.91	21	1.93	19.1							
6071		5969		5860		5746		5626		5391		5157		4901		4603		3768						1229
1.73	27	1.77	25	1.82	24	1.87	24	1.93	24	1.99	24	2.02	22	2.09	22	2.12	20	2.06	18.5					
6253		6154		6050		5940		5824		5594		5368		5129		4852		4150						1266
1.89	28	1.93	26	1.98	25	2.04	24	2.10	25	2.17	25	2.20	23	2.26	23	2.31	22	2.29	19.7					

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBCA24 Performance Data

CFM at Static Pressure																		RPM Range Motor HP							RPM				
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/3	1/2	3/4	1	1 1/2		2	3		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone								
4504		3960		3411		2373																						512	
0.25	5.8	0.26	5.2	0.27	4.6	0.26	4.3																						
4698		4178		3654		2874																						534	
0.28	6.3	0.29	5.7	0.31	5.1	0.30	4.7																						
4891		4395		3890		3256																						556	
0.31	7.0	0.33	6.2	0.34	5.6	0.35	5.2																						
5094		4621		4130		3588																						579	
0.36	7.8	0.37	6.8	0.39	6.1	0.39	5.8																						
5287		4835		4357		3870		2986																				601	
0.40	8.7	0.41	7.3	0.43	6.7	0.44	6.3	0.42	6.0																				
5481		5048		4582		4131		3439																				623	
0.44	9.7	0.46	7.9	0.48	7.2	0.49	6.8	0.48	6.5																				
5674		5260		4806		4377		3806																				645	
0.49	10.3	0.51	8.4	0.53	7.8	0.54	7.4	0.54	7.0																				
5877		5480		5039		4626		4136																				668	
0.55	10.9	0.56	9.0	0.58	8.4	0.60	7.9	0.60	7.5																				
6264		5898		5480		5088		4684																				712	
0.66	12.1	0.68	10.2	0.70	9.6	0.72	9.0	0.73	8.6																				
6466		6114		5709		5325		4946		3631																		735	
0.73	12.7	0.75	10.8	0.77	10.2	0.79	9.6	0.80	9.2	0.77	8.7																		
6756		6423		6036		5663		5306		4302																		768	
0.83	13.6	0.85	11.8	0.87	11.3	0.89	10.6	0.91	10.1	0.91	9.7																		
7152		6841		6478		6119		5780		4995																		813	
0.98	14.9	1.01	13.3	1.03	12.8	1.05	12.2	1.07	11.5	1.09	11.0																		
7346		7044		6693		6341		6008		5287		3845																835	
1.07	15.6	1.09	14.2	1.11	13.6	1.14	12.9	1.16	12.3	1.18	11.7	1.11	11.2																
7548		7256		6916		6572		6245		5571		4404																858	
1.16	16.4	1.18	15.2	1.20	14.5	1.23	13.9	1.25	13.1	1.28	12.4	1.24	12.0																
7944		7668		7351		7020		6704		6089		5239																903	
1.35	18.0	1.37	17.0	1.40	16.2	1.42	15.5	1.45	14.9	1.48	13.9	1.48	13.7																
8146		7878		7572		7248		6937		6341		5588		4083														926	
1.45	18.9	1.48	17.9	1.50	17.1	1.53	16.4	1.56	15.8	1.59	14.8	1.60	14.5	1.50	14.0														
8340		8079		7782		7465		7159		6577		5893		4667														948	
1.56	20	1.58	18.8	1.61	18.0	1.64	17.2	1.67	16.6	1.71	15.6	1.72	15.2	1.66	14.8														
8542		8288		8001		7692		7390		6821		6191		5170														971	
1.68	21	1.70	19.9	1.73	18.9	1.76	18.1	1.78	17.5	1.83	16.5	1.85	15.9	1.82	15.7														
8745		8497		8219		7917		7621		7062		6472		5598														994	
1.80	22	1.82	21	1.85	19.9	1.88	19.0	1.91	18.4	1.96	17.4	1.98	16.7	1.97	16.6														
8938		8697		8426		8132		7841		7290		6730		5959		4521												1016	
1.92	24	1.95	22	1.97	21	2.01	20	2.03	19.2	2.08	18.2	2.12	17.4	2.11	17.3	1.99	16.9												
9140		8905		8643		8356		8070		7527		6990		6301		5125												1039	
2.05	25	2.08	23	2.11	22	2.14	21	2.17	20	2.22	19.2	2.26	18.3	2.27	18.1	2.19	17.7												
9334		9104		8849		8569		8288		7752		7232		6604		5609												1061	
2.19	26	2.21	24	2.24	23	2.27	22	2.31	21	2.36	20	2.40	19.2	2.42	18.8	2.36	18.6												
9730		9510		9268		9004		8732		8211		7716		7172		6417												1106	
2.48	29	2.51	27	2.54	25	2.57	24	2.60	23	2.66	22	2.71	21	2.73	20	2.72	20												
10135		9924		9695		9445		9183		8676		8198		7707		7095												1152	
2.80	33	2.83	30	2.86	28	2.89	26	2.93	25	2.99	24	3.04	23	3.08	22	3.09	22												
10328		10122		9898		9654		9398		8898		8426		7952		7388		5244										1174	
2.96	35	2.99	31	3.02	29	3.06	28	3.09	26	3.16	25	3.21	24	3.25	23	3.27	23	3.07	22										

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBA

Belt Drive Centrifugal Power Roof Ventilators

Applications

The CRBA units are quiet, dependable power roof ventilators recommended for a wide range of general exhaust applications where medium and high ranges of air volume and pressure are specified. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

CRBA units are specified where a roof-mounted location is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of air. CRBA units may be used with or without ducts.

The advantages of a CRBA belt-drive over a direct-drive roof ventilator include quieter operation and adjustable performance to suit operating needs and availability of larger volume units.

Construction

CRBA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheel is secured to the machined aluminum hub, and computer balanced on state-of-the-art equipment.

Neoprene vibration isolators to reduce noise and wear, and polypropylene birdscreen are both standard.

Drive Mechanism

The belt driven CRBA utilizes a standard V-belt drive design with variable pitch cast iron pulley for adjusting fan speed. Drive shaft is turned, ground and polished. Motor support is adjustable for proper tensioning.

Bearings

Heavy duty pillow-block ball bearings with cast iron housing are self-aligning and relubricable.

Motors

The standard motor for CRBA models is open drip-proof construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. All motor brands are recognized and serviced nationwide. Motor enclosure may affect UL Listing.



Type CRBA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries certifies that the Type CRBA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Power Roof Ventilators shall be of the CRBA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 and shall bear the AMCA Certified Ratings Seal for air and sound performance. Base and venturi inlet shall be one piece heavy gauge spun aluminum or galvanized steel, with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge aluminum construction and easily removable for access to motor and drive.

Drive mechanism shall incorporate a V-belt drive with cast iron motor pulley. Drive shaft shall be turned, ground and polished. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Bearings shall be self-aligning and have fittings for relubrication.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on a hinged steel mounting bracket, utilizing belt tensioning bolt(s).

(Mounted and wired disconnect switch, backdraft damper, epoxy coating, roof curb and other accessories shall be listed in the fan schedule.)

CRBA30 Performance Data

CFM at Static Pressure																		RPM Range							RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		Motor HP						
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2	3/4	1	1½	2	3	5
6380		5549		4719																						400
0.33	6.0	0.34	5.3	0.35	4.8																					
7034		6283		5505		4588																				441
0.44	7.1	0.46	6.5	0.47	5.9	0.47	5.7																			
7528		6828		6097		5413		3187																		472
0.54	8.1	0.56	7.4	0.57	6.9	0.58	6.6	0.50	6.5																	
8325		7693		7042		6398		5696																		522
0.73	10.0	0.75	9.2	0.76	8.7	0.78	8.4	0.78	8.2																	
8868		8274		7671		7046		6480																		556
0.88	11.5	0.90	10.7	0.92	10.1	0.93	9.7	0.95	9.5																	
9474		8918		8358		7771		7221																		594
1.08	13.3	1.10	12.4	1.12	11.8	1.13	11.4	1.15	11.1																	
9888		9356		8821		8263		7716		6348																620
1.22	14.5	1.25	13.7	1.27	13.1	1.28	12.6	1.30	12.3	1.30	12.0															
10335		9825		9315		8787		8251		7203																648
1.40	15.6	1.42	14.8	1.44	14.1	1.46	13.6	1.48	13.3	1.50	13.0															
10734		10243		9752		9249		8727		7771																673
1.57	16.6	1.59	15.8	1.61	15.1	1.63	14.6	1.65	14.2	1.68	13.9															
11244		10776		10307		9831		9335		8412		6811														705
1.80	17.9	1.82	17.0	1.85	16.4	1.87	15.8	1.88	15.5	1.93	15.0	1.87	14.9													
11802		11356		10910		10460		9993		9082		8104														740
2.08	19.3	2.11	18.4	2.13	17.8	2.16	17.2	2.17	16.8	2.22	16.3	2.23	16.1													
12281		11852		11423		10992		10549		9654		8822		6474												770
2.35	21	2.37	19.8	2.40	19.0	2.43	18.4	2.44	18.0	2.49	17.4	2.52	17.2	2.33	17.1											
12807		12396		11985		11572		11152		10284		9497		8296												803
2.66	22	2.68	21	2.72	21	2.75	19.8	2.76	19.3	2.81	18.7	2.86	18.4	2.82	18.3											
13238		12840		12442		12044		11640		10798		10020		9132												830
2.94	23	2.96	22	2.99	22	3.03	21	3.05	21	3.09	19.8	3.15	19.4	3.15	19.3											
13668		13283		12898		12512		12123		11311		10534		9777		7950										857
3.23	25	3.26	24	3.29	23	3.33	22	3.35	22	3.39	21	3.45	21	3.48	20	3.33	20									
14354		13987		13620		13254		12885		12120		11355		10662		9751										900
3.75	27	3.77	26	3.81	25	3.84	24	3.87	24	3.91	23	3.97	22	4.02	22	4.01	22									
14992		14641		14290		13939		13586		12863		12118		11432		10738										940
4.27	29	4.29	28	4.33	27	4.37	26	4.40	26	4.44	25	4.49	24	4.56	24	4.59	24									
15710		15374		15039		14704		14369		13686		12974		12289		11662		8885								985
4.91	31	4.94	30	4.97	30	5.01	29	5.05	28	5.10	27	5.14	27	5.22	26	5.27	26	5.00	26							
16156		15830		15504		15179		14853		14192		13503		12824		12204		10388								1013
5.34	33	5.37	32	5.40	31	5.45	31	5.49	30	5.54	29	5.58	28	5.65	28	5.72	27	5.65	27							

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBA36 Performance Data

CFM at Static Pressure																RPM Range							RPM					
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		Motor HP								
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	3/4	1	1 1/2	2	3	5	7 1/2
8128		6712		4084																								276
0.30	4.7	0.32	3.9	0.31	3.4																							
8982		7727		6042																								305
0.41	5.8	0.43	4.9	0.44	4.4																							
9747		8601		7241																								331
0.52	7.0	0.54	6.0	0.56	5.5																							
10601		9547		8379		6621																						360
0.67	8.5	0.69	7.5	0.71	7.0	0.71	6.5																					
11514		10539		9517		8249																						391
0.86	10.4	0.88	9.2	0.91	8.7	0.92	8.2																					
12692		11802		10917		9885		8527																				431
1.15	13.1	1.17	11.9	1.20	11.3	1.22	10.9	1.23	10.3																			
13546		12709		11894		10971		9898																				460
1.40	14.8	1.42	13.6	1.46	13.0	1.48	12.6	1.50	12.1																			
14518		13733		12979		12159		11234		8282																		493
1.72	16.6	1.75	15.4	1.78	14.7	1.81	14.3	1.83	14.0	1.81	12.9																	
15313		14567		13852		13101		12256		10012																		520
2.02	18.1	2.05	16.9	2.08	16.2	2.12	15.7	2.14	15.4	2.16	14.3																	
16108		15397		14716		14019		13244		11393																		547
2.35	19.8	2.38	18.6	2.42	17.7	2.46	17.2	2.48	16.9	2.52	16.0																	
16932		16255		15604		14952		14242		12612		9967																575
2.73	22	2.76	20	2.80	19.4	2.84	18.9	2.87	18.5	2.92	17.8	2.89	16.7															
17816		17171		16549		15935		15284		13805		11815																605
3.18	23	3.21	22	3.25	21	3.29	21	3.33	20	3.39	19.7	3.40	18.5															
18464		17841		17238		16647		16032		14642		12937		9976														627
3.54	25	3.57	24	3.61	23	3.66	22	3.70	22	3.76	21	3.80	20	3.70	19.2													
19288		18691		18112		17546		16969		15678		14189		11945														655
4.03	27	4.07	26	4.11	25	4.16	24	4.20	23	4.27	23	4.33	22	4.29	21													
20172		19600		19044		18502		17957		16761		15410		13668		10780												685
4.61	29	4.65	28	4.69	27	4.74	26	4.79	26	4.87	25	4.93	24	4.95	23	4.81	22											
21055		20506		19972		19451		18932		17820		16568		15111		12924												715
5.25	32	5.28	30	5.32	29	5.37	28	5.43	28	5.52	27	5.58	27	5.63	25	5.58	24											
21821		21291		20774		20269		19770		18720		17540		16227		14472												741
5.84	34	5.88	32	5.92	31	5.97	30	6.03	30	6.12	29	6.19	29	6.26	28	6.26	26											
22822		22315		21819		21334		20856		19875		18781		17588		16177												775
6.68	37	6.72	35	6.76	34	6.81	33	6.87	32	6.98	32	7.06	31	7.13	31	7.18	29											
23853		23367		22891		22425		21967		21041		20029		18923		17704		13874										810
7.63	40	7.67	38	7.71	37	7.76	36	7.82	36	7.94	35	8.03	34	8.10	33	8.18	33	8.05	31									

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBA44 Performance Data

CFM at Static Pressure																RPM Range							RPM			
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		Motor HP								
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1	1 1/2	2	3	5	7 1/2	10		
13235		11029		7783																					245	
0.55	5.1	0.58	4.4	0.55	4.0																					
14316		12256		9792																					265	
0.70	6.1	0.74	5.3	0.73	5.0																					
15396		13476		11479																					285	
0.87	7.2	0.91	6.3	0.92	6.1																					
16315		14511		12726		9751																			302	
1.04	8.2	1.08	7.3	1.10	7.0	1.04	6.6																			
17827		16201		14568		12481																			330	
1.35	10.2	1.40	9.0	1.43	8.6	1.41	8.4																			
18800		17274		15691		13977		11179																	348	
1.59	11.5	1.64	10.3	1.67	9.9	1.67	9.7	1.59	9.1																	
19718		18277		16735		15243		12934																	365	
1.83	12.9	1.88	11.6	1.92	11.1	1.94	11.0	1.88	10.5																	
20474		19097		17590		16210		14230																	379	
2.05	14.2	2.10	12.8	2.15	12.2	2.17	12.0	2.14	11.7																	
21501		20199		18749		17451		15835																	398	
2.37	15.9	2.43	14.5	2.48	13.7	2.51	13.5	2.50	13.3																	
22689		21465		20090		18833		17496		12971															420	
2.79	17.4	2.85	16.0	2.90	15.1	2.94	14.8	2.95	14.7	2.77	13.4															
23986		22837		21546		20311		19141		15546															444	
3.30	19.0	3.36	17.6	3.42	16.7	3.46	16.3	3.49	16.1	3.38	15.3															
25499		24424		23230		22020		20937		18113		13278													472	
3.96	21	4.03	19.5	4.09	18.5	4.15	18.0	4.18	17.8	4.14	17.6	3.82	16.3													
26741		25722		24599		23424		22367		19987		16125													495	
4.57	23	4.64	21	4.71	20	4.77	19.7	4.81	19.5	4.82	19.5	4.60	18.3													
27821		26845		25778		24642		23595		21472		18177													515	
5.14	24	5.22	23	5.29	22	5.35	21	5.41	21	5.45	21	5.29	20													
29010		28077		27066		25978		24938		22993		20214		16102												537
5.83	27	5.91	25	5.98	24	6.05	23	6.11	23	6.18	23	6.08	22	5.74	21											
30252		29361		28401		27366		26341		24497		22165		18733												560
6.61	29	6.70	28	6.77	26	6.85	26	6.91	25	7.00	25	6.96	25	6.71	23											
31333		30473		29555		28566		27561		25764		23720		20727		16538										580
7.35	31	7.43	30	7.51	29	7.59	28	7.66	27	7.76	27	7.77	27	7.58	26	7.12	24									
32575		31750		30874		29935		28961		27193		25381		22831		19390										603
8.26	34	8.35	32	8.43	31	8.51	30	8.59	30	8.70	29	8.75	29	8.62	28	8.30	27									
33764		32970		32130		31234		30295		28546		26878		24692		21699										625
9.20	37	9.29	35	9.37	34	9.46	33	9.54	32	9.67	32	9.74	31	9.67	31	9.42	29.5									
34952		34187		33380		32525		31622		29891		28310		26411		23792										647
10.20	40	10.30	38	10.39	37	10.47	36	10.56	35	10.70	34	10.79	34	10.78	34	10.58	33									
35709		34960		34173		33341		32462		30744		29200		27442		25050										661
10.88	42	10.97	40	11.07	39	11.16	38	11.24	37	11.39	36	11.50	35	11.51	35	11.35	34									

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRBA52 Performance Data

CFM at Static Pressure															RPM Range						RPM				
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		Motor HP							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1 1/2	2	3	5	7 1/2	10		
17671		14598		9727																					205
0.71	4.9	0.75	4.2	0.69	3.9																				
19395		16562		13111																					225
0.93	5.9	0.98	5.3	0.97	4.8																				
21119		18509		15810		10531																			245
1.21	7.2	1.26	6.4	1.27	6.1	1.15	5.8																		
22843		20449		18093		14425																			265
1.53	8.6	1.59	7.7	1.62	7.3	1.56	7.0																		
24567		22371		20154		17404		12676																	285
1.90	10.2	1.96	9.1	2.01	8.7	1.99	8.5	1.83	8.0																
26032		23984		21839		19601		15994																	302
2.26	11.7	2.33	10.6	2.38	10.1	2.39	9.9	2.29	9.3																
28446		26602		24570		22735		20222																	330
2.95	14.5	3.02	13.1	3.09	12.5	3.12	12.3	3.09	12.1																
29997		28264		26323		24578		22545		15272															348
3.46	16.3	3.54	15.0	3.61	14.2	3.65	14.0	3.65	13.9	3.31	12.6														
31463		29820		27974		26267		24519		18742															365
3.99	18.2	4.07	16.8	4.15	16.0	4.21	15.7	4.23	15.6	4.01	14.4														
32669		31096		29328		27641		26036		21078															379
4.47	19.8	4.55	18.4	4.63	17.5	4.70	17.1	4.73	17.0	4.58	16.1														
34307		32816		31154		29492		27994		23907		16647													398
5.17	22	5.26	21	5.35	19.7	5.42	19.1	5.47	19.0	5.39	18.4	4.86	17.0												
36204		34799		33248		31633		30187		26844		21377													420
6.08	25	6.18	23	6.27	22	6.35	21	6.41	21	6.41	20	6.09	19.0												
38272		36949		35507		33967		32538		29691		25323		18344											444
7.18	27	7.28	25	7.38	24	7.47	23	7.54	23	7.61	22	7.40	21	6.72	20										
40686		39448		38112		36673		35265		32707		29316		24335		15163									472
8.63	30	8.74	28	8.84	27	8.94	26	9.03	25	9.14	25	9.05	24	8.68	23	7.26	22								
42669		41492		40233		38877		37503		35045		32229		28097		22273									495
9.95	32	10.07	30	10.18	29	10.28	28	10.38	28	10.51	27	10.52	27	10.25	26	9.60	24								
43962		42821		41607		40304		38961		36537		33982		30319		25373									510
10.89	34	11.00	32	11.12	31	11.23	30	11.33	29	11.48	28	11.52	28	11.32	28	10.84	26								

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CRDA

Direct Drive Centrifugal Power Roof Ventilators

Applications

The CRDA units are quiet, dependable power roof ventilators recommended for a wide range of general exhaust applications where low and medium ranges of air volume and pressure are specified. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

CRDA units are specified where a roof-mounted location is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of air. CRDA units may be used with or without ducts.

The advantages of a CRDA direct-drive over a belt-drive roof ventilator include lower maintenance requirements, reduced risk of lower performance levels as a result of loosened belts, and lower operating costs.

Construction

CRDA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheel is secured to the machined aluminum hub, and computer balanced on state-of-the-art equipment. The hub features a line bore, which eliminates the need for bushings.

Neoprene vibration isolators to reduce noise and wear, polypropylene birdscreen and factory wired disconnect device are all standard features.

Drive Mechanism

CRDA models have all the advantages of a direct drive assembly. There are no belts, bearings or pulleys to consume power or require maintenance.

Motors

The standard motor for most CRDA models is open drip-proof construction and located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. All motor brands are recognized and serviced nationwide. Motor enclosure may affect UL Listing.



Type CRDA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries certifies that the Type CRDA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Power Roof Ventilators shall be of the CRDA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 and shall bear the AMCA Certified Ratings Seal for air and sound performance. Base and venturi inlet shall be one piece heavy gauge spun galvanized steel, with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge spun aluminum construction and easily removable for access to motor and drive.

Drive mechanism shall be of the direct-drive design. The line bore hub shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Motor shall be open construction, NEMA design B. Optional variable speed control on some models allows for field adjustment and system balance. Motor shall be mounted with the shaft down to allow easy access to the electrical terminal board/circuit box.

(Backdraft damper, epoxy coating, roof curb and other accessories shall be listed in the fan schedule.)

CRDA06 - CRDA10 Performance Data

CRDA06 CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA06A11		CRDA06C16	CRDA06E16	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP
183																				550
0.01	0.5																			800
266	187																			950
0.01	1.5	0.01	1.1																	1100
316	254	162																		1250
0.02	2.9	0.02	2.4	0.02	2.1															1400
366	315	250	163																	1600
0.02	4.4	0.03	4.0	0.03	3.7	0.02	3.3													1650
416	371	318	252	174																
0.03	6.3	0.04	5.8	0.04	5.4	0.04	5.1	0.03	4.8											
465	424	383	331	262																
0.05	8.1	0.05	7.6	0.05	7.2	0.06	7.0	0.05	6.6											
532	494	462	420	375	316															
0.07	10.8	0.08	10.3	0.08	9.8	0.08	9.4	0.08	9.1	0.08	8.7									
548	512	481	442	398	348	283														
0.08	11.5	0.08	11.1	0.09	10.5	0.09	10.0	0.09	9.8	0.09	9.4	0.09	9.0							

CRDA08 CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA08A11		CRDA08C15	CRDA08E16	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP
239																				550
0.01	0.5																			800
347	267																			950
0.01	1.4	0.01	1.2																	1100
412	349	256																		1250
0.02	2.7	0.02	2.4	0.02	2.3															1400
477	426	360	224																	1550
0.02	4.2	0.03	3.9	0.03	3.8	0.03	3.7													1600
542	497	444	381	205																
0.03	5.9	0.04	5.6	0.04	5.6	0.05	5.4	0.04	5.2											
607	566	524	471	409	237															
0.05	7.6	0.05	7.3	0.06	7.2	0.06	7.1	0.06	7.0	0.05	6.8									
672	634	599	554	505	446	303														
0.07	9.4	0.07	9.1	0.08	8.9	0.08	8.9	0.09	8.8	0.09	8.6	0.07	8.4							
694	657	624	581	534	482	393														
0.07	10.0	0.08	9.8	0.08	9.6	0.09	9.5	0.09	9.4	0.10	9.3	0.09	9.1							

CRDA10 CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA10A11		CRDA10C15	CRDA10E15	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP
316																				550
0.01	0.2																			800
460	350																			950
0.01	1.9	0.02	1.3																	1100
546	459	342																		1250
0.02	3.2	0.02	2.8	0.03	2.3															1400
633	557	471	342																	1500
0.03	4.8	0.04	4.4	0.04	3.9	0.04	3.5													1550
719	651	582	498	357																
0.05	6.6	0.05	6.3	0.06	5.9	0.06	5.4	0.06	5.0											
805	744	687	617	537	405															
0.06	8.0	0.07	7.8	0.08	7.5	0.08	7.1	0.08	6.7	0.08	6.3									
863	805	752	691	621	538	226														
0.08	9.2	0.09	9.0	0.09	8.7	0.10	8.3	0.10	7.9	0.10	7.5	0.06	7.2							
891	836	784	727	661	586	474														
0.09	9.8	0.10	9.6	0.10	9.3	0.11	8.9	0.11	8.5	0.11	8.1	0.11	7.7							

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels. AMCA Certified Ratings apply to the CRDA Roof Ventilator constant speed fans and not variable speed fan:

CRDA12 - CRDA13 Performance Data

CRDA12														CFM at Static Pressure						RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA12E10	CRDA12J16	CRDA12J17*					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/8 HP	1/2 HP	1/2 HP			
623		442																					
0.01	1.3	0.02	0.7																	550			
736		593																		650			
0.02	2.3	0.03	1.7																	750			
850		729		577																850			
0.03	3.3	0.04	2.7	0.04	2.5															950			
963		856		737		557														1025			
0.05	4.4	0.05	3.8	0.06	3.6	0.06	3.4													1150			
1076		981		882		762		530												1300			
0.06	5.4	0.07	5.0	0.08	4.8	0.08	4.7	0.07	4.5											1450			
1161		1074		984		879		747												1600			
0.08	6.4	0.09	6.0	0.10	5.8	0.10	5.7	0.10	5.5											1690			
1303		1225		1145		1062		964		843		566								1725			
0.11	8.1	0.12	7.7	0.14	7.4	0.14	7.4	0.15	7.3	0.15	7.1	0.12	7.0										
1473		1405		1334		1264		1186		1100		1002											
0.16	10.5	0.18	10.1	0.19	9.8	0.20	9.7	0.21	9.6	0.22	9.6	0.22	9.5										
1643		1582		1519		1455		1392		1322		1244		1057									
0.23	13.1	0.24	12.8	0.26	12.5	0.27	12.3	0.28	12.2	0.29	12.2	0.30	12.1	0.30	11.9								
1813		1758		1701		1643		1586		1529		1464		1322									
0.30	15.5	0.32	15.2	0.34	14.9	0.35	14.7	0.37	14.5	0.38	14.4	0.39	14.3	0.40	14.2								
1915		1863		1809		1755		1700		1647		1590		1460									
0.36	17.1	0.38	16.8	0.39	16.5	0.41	16.2	0.43	16.1	0.44	16.0	0.45	15.9	0.47	15.7								
1955		1904		1851		1798		1744		1692		1637		1512									
0.38	17.7	0.40	17.4	0.42	17.1	0.43	16.9	0.45	16.7	0.46	16.6	0.47	16.5	0.50	16.3								

CRDA13														CFM at Static Pressure						RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA13F11	CRDA13J15	CRDA13K17*					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/5 HP	1/2 HP	3/4 HP			
833		635																					
0.02	2.0	0.03	1.3																	550			
1023		869		674																675			
0.04	3.6	0.04	2.8	0.05	2.3															800			
1212		1087		941		759														900			
0.06	5.0	0.07	4.4	0.08	3.9	0.08	3.6													1000			
1363		1255		1130		991		812												1125			
0.08	6.2	0.10	5.9	0.11	5.4	0.11	5.0	0.11	4.7											1250			
1515		1420		1310		1192		1058		890										1350			
0.12	7.7	0.13	7.4	0.14	7.0	0.15	6.6	0.15	6.2	0.15	6.0									1475			
1704		1622		1527		1426		1319		1199		1057								1575			
0.17	9.8	0.18	9.5	0.19	9.2	0.20	8.8	0.21	8.4	0.22	8.1	0.21	7.8							1750			
1894		1821		1737		1649		1556		1459		1352		1082									
0.23	12.2	0.25	12.0	0.26	11.7	0.27	11.4	0.28	11.0	0.29	10.6	0.30	10.3	0.29	9.7								
2045		1978		1903		1822		1739		1651		1560		1348									
0.29	14.3	0.31	14.1	0.32	13.9	0.34	13.5	0.35	13.2	0.36	12.9	0.37	12.5	0.37	11.9								
2235		2174		2107		2034		1960		1882		1801		1629									
0.37	16.6	0.39	16.4	0.42	16.2	0.43	15.9	0.44	15.6	0.46	15.3	0.47	15.0	0.48	14.5								
2386		2330		2268		2201		2132		2061		1987		1834									
0.45	18.3	0.48	18.2	0.50	18.1	0.52	17.8	0.53	17.5	0.54	17.1	0.56	16.8	0.59	16.3								
2651		2601		2547		2488		2427		2365		2301		2168									
0.62	22	0.65	22	0.67	22	0.70	22	0.72	21	0.73	21	0.74	21	0.78	20								

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels
 * - These models are not compatible with variable speed control
 AMCA Certified Ratings apply to the CRDA Roof Ventilator constant speed fans and not variable speed fan:

CRDA15 - CRDA 20 Performance Data

CRDA15 CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA15H11		CRDA15K15	CRDA15L17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3 HP	3/4 HP	1 HP
1089		930																		
0.04	2.4	0.04	1.9																	550
1286		1169		1015																
0.06	3.9	0.07	3.2	0.08	3.1															650
1484		1391		1250		1088														
0.09	5.2	0.10	4.5	0.11	4.3	0.12	4.3													750
1682		1609		1493		1378		1194												
0.13	6.8	0.15	6.2	0.16	5.9	0.17	5.8	0.18	5.7											850
1880		1824		1722		1604		1517		1334										
0.19	8.6	0.20	8.0	0.21	7.6	0.23	7.5	0.24	7.3	0.25	7.2									950
2177		2134		2053		1966		1860		1785		1677								
0.29	11.9	0.30	11.4	0.32	10.9	0.33	10.7	0.35	10.5	0.36	10.4	0.38	10.2							1100
2276		2237		2163		2079		1984		1897		1824								
0.33	13.1	0.34	12.6	0.36	12.2	0.38	11.9	0.39	11.7	0.41	11.6	0.43	11.4							1150
2474		2439		2379		2301		2224		2128		2056		1868						
0.42	15.6	0.44	15.1	0.46	14.7	0.48	14.4	0.49	14.2	0.51	14.1	0.53	13.9	0.56	13.5					1250
2672		2641		2593		2521		2450		2375		2284		2161						
0.53	17.8	0.55	17.4	0.57	17.0	0.59	16.8	0.61	16.5	0.63	16.4	0.65	16.2	0.68	15.8					1350
2820		2791		2750		2685		2617		2549		2471		2333						
0.63	20	0.64	19.2	0.66	18.9	0.69	18.6	0.71	18.4	0.72	18.1	0.75	17.7	0.79	17.2					1425
2969		2941		2904		2847		2782		2718		2652		2501						
0.73	21	0.75	21	0.77	20	0.79	20	0.82	20	0.83	20	0.85	19.3	0.90	18.8					1550
3414		3391		3363		3325		3273		3216		3160		3046						
1.11	26	1.13	26	1.15	25	1.18	25	1.21	24	1.24	24	1.25	24	1.30	24					1725

CRDA16 CFM at Static Pressure														RPM OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA16J8*		CRDA16L11*	CRDA16N17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	2 HP
2439		2321		2178		2018		1854		1621										
0.22	8.3	0.24	7.6	0.26	7.2	0.27	6.9	0.28	6.2	0.28	5.9									825
3429		3349		3262		3165		3057		2942		2830		2595						
0.60	16.8	0.64	15.8	0.67	15.2	0.69	14.9	0.72	14.4	0.74	14.1	0.76	14.0	0.79	12.2					1160
5173		5121		5067		5012		4954		4894		4830		4693						
2.08	31	2.12	30	2.17	29	2.22	29	2.26	28	2.31	28	2.35	28	2.43	27					1750

CRDA18 CFM at Static Pressure														RPM OF SELECTED MODELS		RPM				
0.00		.125		.250		.375		.500		.625		.750		1.00			CRDA18J8*	CRDA18L11*		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	
3095		2995		2824		2666		2482		2233		1915								
0.31	11.7	0.33	10.8	0.36	10.5	0.38	9.7	0.40	9.6	0.41	8.9	0.40	8.5							825
4352		4291		4208		4084		3966		3856		3740		3476						
0.86	23	0.89	22	0.93	21	0.97	21	1.01	21	1.04	21	1.06	19.3	1.10	19.9					1160

CRDA20 CFM at Static Pressure														RPM OF SELECTED MODEL	RPM					
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA20M11*				
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1-1/2 HP		
5730		5621		5506		5382		5255		5130		5007		4754						
1.45	34	1.49	28	1.54	25	1.59	24	1.64	24	1.67	24	1.68	23	1.73	22					1160

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels

* - These models are not compatible with variable speed control
 AMCA Certified Ratings apply to the CRDA Roof Ventilator constant speed fans and not variable speed fan:

Installation

Most models are shipped fully assembled and ready for installation. Always inspect equipment for transit damage before accepting delivery to assure a valid claim. Special handling and storage procedures are required if unit is to remain idle for a long time prior to installation.

Placement

All belt-driven units must be accessibly installed for maintenance and servicing of belts, bearings, motors and pulleys. Horizontal operation only is recommended to assure satisfactory damper operation.

Mounting

Satisfactory operation of roof ventilators requires mounting on adequately designed and constructed roof curbs. Prefabricated curbs for convenience in installation are available from ILG. Install with base of unit horizontal. Provide adequate caulking, flashing or other weatherproofing means.

Inspection

Check centrifugal wheel for free rotation.
Check belt for proper tension (CRBCA & CRBA).
Check bearings for proper and secure locking to drive shaft (CRBA).
Check motor and fan sheave faces for proper alignment (CRBCA & CRBA).
Check circuit phase, voltage and wiring connection against that shown on motor nameplate.
Check direction of fan rotation for proper air flow.
After one week of operation, check belt for proper tension (CRBCA & CRBA).

Maintenance

Units should be checked monthly for the first two or three months and periodically thereafter. Units should be cleaned periodically and checked for eroded parts which should be replaced to avoid structural damage and possible failure. Proper lubrication is the most important maintenance requirement. Fan bearings should be lubricated based on usage and operating conditions. Motor bearings should be lubricated according to the motor manufacturer's instructions.

Adjustment of Variable Pitch Pulley and Belt (CRBCA & CRBA)

Variable pitch pulley may be adjusted within catalog RPM range to alter performance without motor overload. Pulley alignment and belt tension should be adjusted if necessary. Inspection every 6 to 12 months is recommended.

Options & Accessories

Prefabricated Roof Curbs

Insulated roof curbs with weather-resistant continuous welded construction are available for convenience in installation for both insulated and non-insulated roof decks.

Special Motors

Two-speed, totally enclosed, energy efficient and explosion-proof motors for hazardous locations may be available for many models. Motor requirements may affect UL Listing.

Backdraft Dampers

Gravity or motor operated backdraft dampers are available. They are aluminum construction and designed for installation in prefabricated roof curbs.

Safety Disconnects

Safety disconnects cut power to motor for servicing of unit. A disconnect device is standard on all CRDA units and an option for CRBA and CRBCA units. It may be shipped loose for field installation or factory mounted and wired.

Protective Coatings

Fan units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive exterior conditions. Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to insure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400°F to a smooth, hard continuous finish. Consult your ILG Industries representative for available coatings.

Roof Handle

Aluminum handle facilitates removal of roof.

WARNING



CAUTION

DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH

To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 24.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

CRBCA Specification Checklist

General exhaust units for low to medium air volumes in commercial, institutional and light manufacturing buildings. Centrifugal design with advantages of compact, attractive appearance, quiet operation and performance against higher static pressures. Variable pitch belt drive allows for speed adjustment. Hinged motor bracket with a belt tensioning bolt. Weatherproof heavy duty aluminum housing and motor compartment cover resist corrosion and maintain appearance. Deep-spun, overlapping, one-piece venturi minimizes noise, reduces air turbulence and improves efficiency. "C-Drive" design provides a calculated L10 bearing life in excess of 1,000,000 hours with its unique radial loading elimination design. Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced. Standard open drip-proof motor is out of the airstream for protection. The motor's electrical connection terminal board is up for easy and convenient electrical connection and servicing. Positively cooled motor compartment with forced air ventilation system extends motor life. UL Label (UL 705) for general ventilation. Conduit raceway for ease in connecting to power supply. AMCA Seal assures certified rating of air and sound performance. Birdscreen prevents entry of birds or other potentially damaging objects. Heavy duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound.

CRBA Specification Checklist

Units provide general exhaust of medium or high air volumes in commercial, institutional and light manufacturing buildings. Centrifugal design has advantages of compact, attractive appearance, quiet operation and performance against higher static pressures. Variable pitch belt drive allows for speed adjustment. Hinged motor bracket with belt tensioning bolt(s). Weatherproof heavy duty aluminum housing and motor compartment cover resist corrosion and maintain appearance. Deep-spun, overlapping, one-piece venturi minimizes noise, reduces air turbulence and improves efficiency. Centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced. Standard open drip-proof motor is out of the airstream for protection. The motor is mounted with the shaft up for convenient access to the variable pitch cast iron motor pulley. Motor compartment is cooled by a forced air ventilation system, extending motor life. UL Label (UL 705) for general ventilation. Conduit raceway allows for ease in connecting to power supply. AMCA Seal assures certified rating of air and sound performance. Birdscreen prevents entry of birds or other potentially damaging objects. Heavy duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound. Heavy duty pillow-block bearings with cast iron housing are self-aligning and relubricable.

CRDA Specification Checklist

General exhaust units for low to medium air volumes in commercial, institutional and light manufacturing buildings. Centrifugal design with advantages of compact, attractive appearance, quiet operation and performance against higher static pressures. Spun aluminum housing for durable weather protection and attractive appearance. Direct-drive advantages of minimal maintenance and operating costs. Deep-spun, overlapping, one piece venturi minimizes noise, reduces air turbulence and improves efficiency. Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced. Standard open motor is out of the airstream for protection. The motor's electrical connection terminal board is up for easy and convenient electrical connection and servicing. Positively cooled motor compartment with forced air ventilation system extends motor life. UL Label (UL 705) for general ventilation. Safety disconnect device enables cut-off of power to unit for servicing. Birdscreen prevents entry of birds or other potentially damaging objects. Factory run and tested prior to shipment for dependable operation. AMCA Seal assures certified rating of air and sound performance.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.



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MEMBER OF AMCA

REPRESENTED BY: