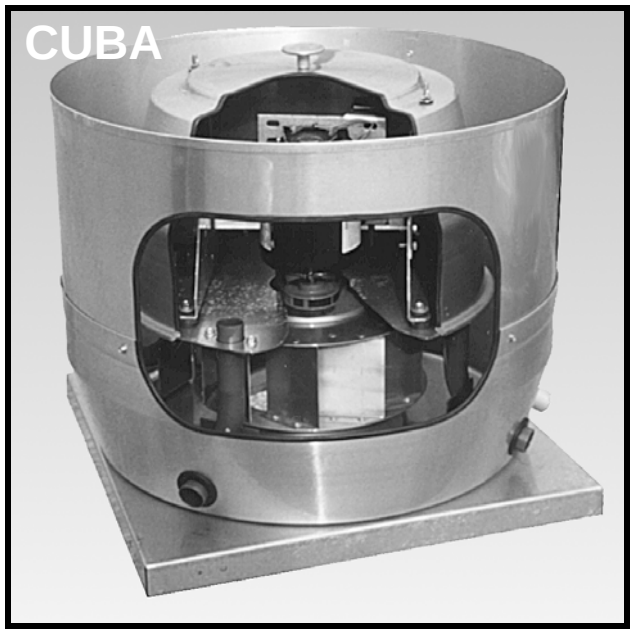
ILG INDUSTRIES

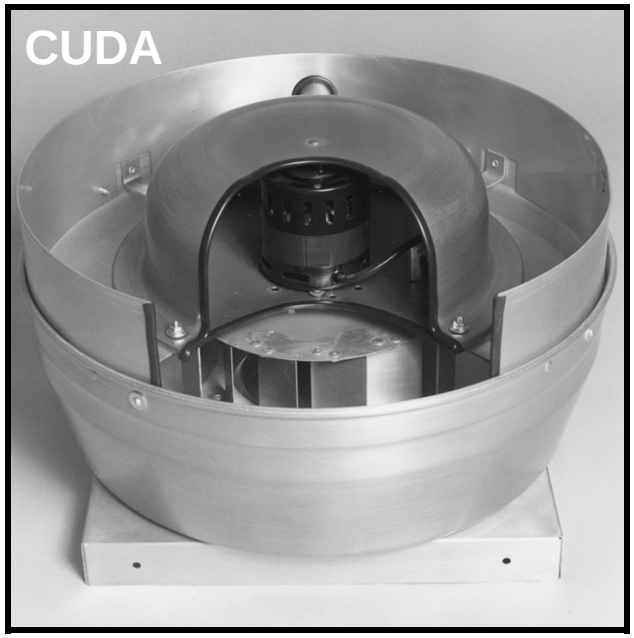
AMERICAN COOLAIR CORPORATION

Centrifugal Upblast Power Roof Ventilators

TYPE CUBA - BELT DRIVE
TYPE CUDA - DIRECT DRIVE



Sizes 12 to 24
781 to 8850 CFM
Static Pressure to 2”
AMCA Licensed Ratings for
Sound and Air



Sizes 06 to 20
133 to 4942 CFM
Static Pressure to 1”
AMCA Licensed Ratings for
Sound and Air

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BELT DRIVE FANS

CUBA

DIRECT DRIVE FANS

CUDA

FEATURES

CUBA Units

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

Single bolt adjustment facilitates tensioning of belt.

Weather-resistant motor compartment cover of spun aluminum removes easily for access to motor and drive.

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

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

Aluminum centrifugal wheel is a non-overloading, backward-inclined design and is computer balanced.

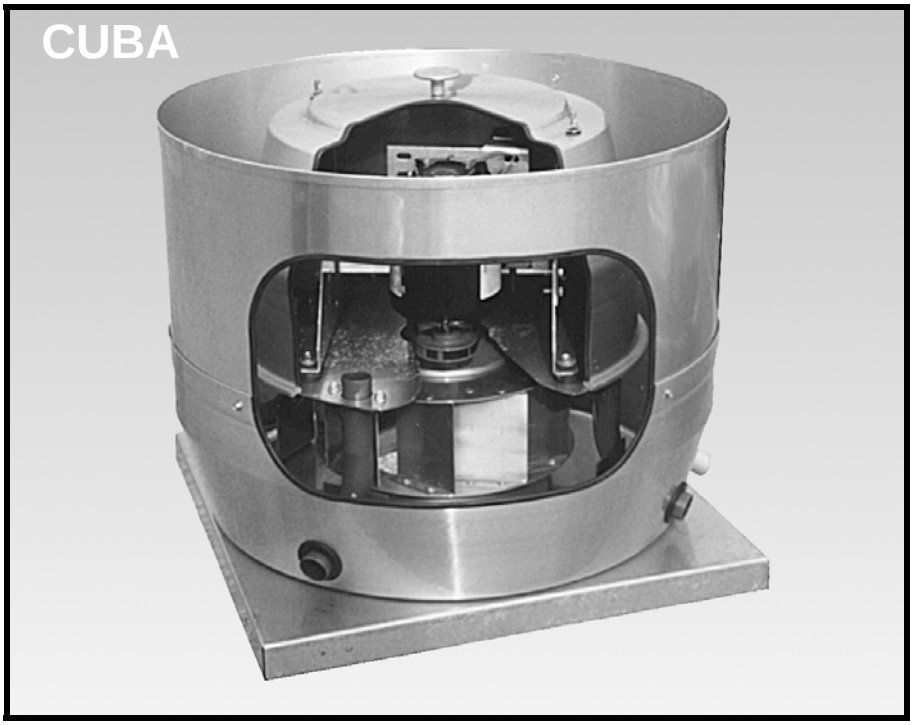
Permanently affixed wheel balance weights assure vibration-free operation.

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

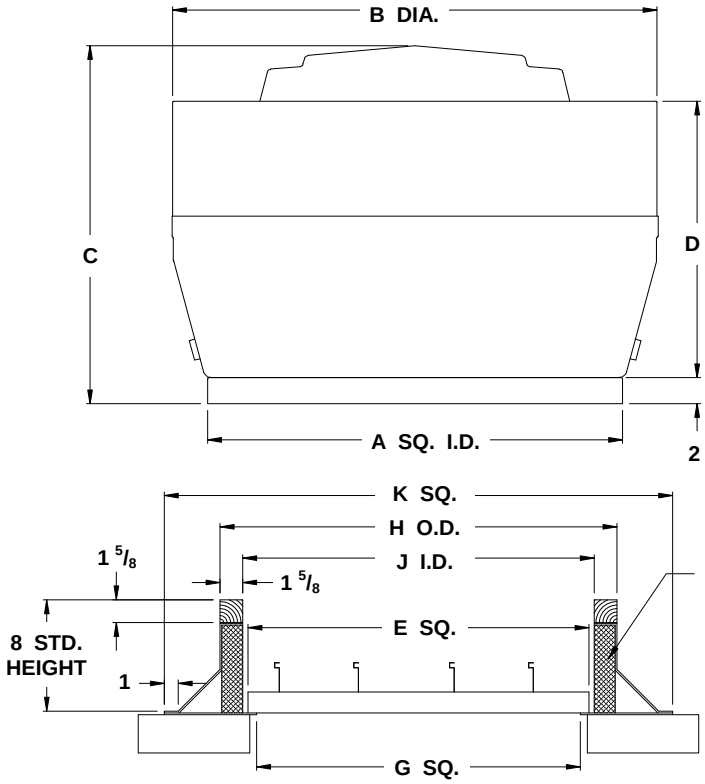
Safety disconnect switch is optional.

AMCA Seal assures certified rating of air and sound performance.

UL Listed for Standard 705 or Standard 762.



CUBA Ventilator, Roof Curb, and Damper Dimensions

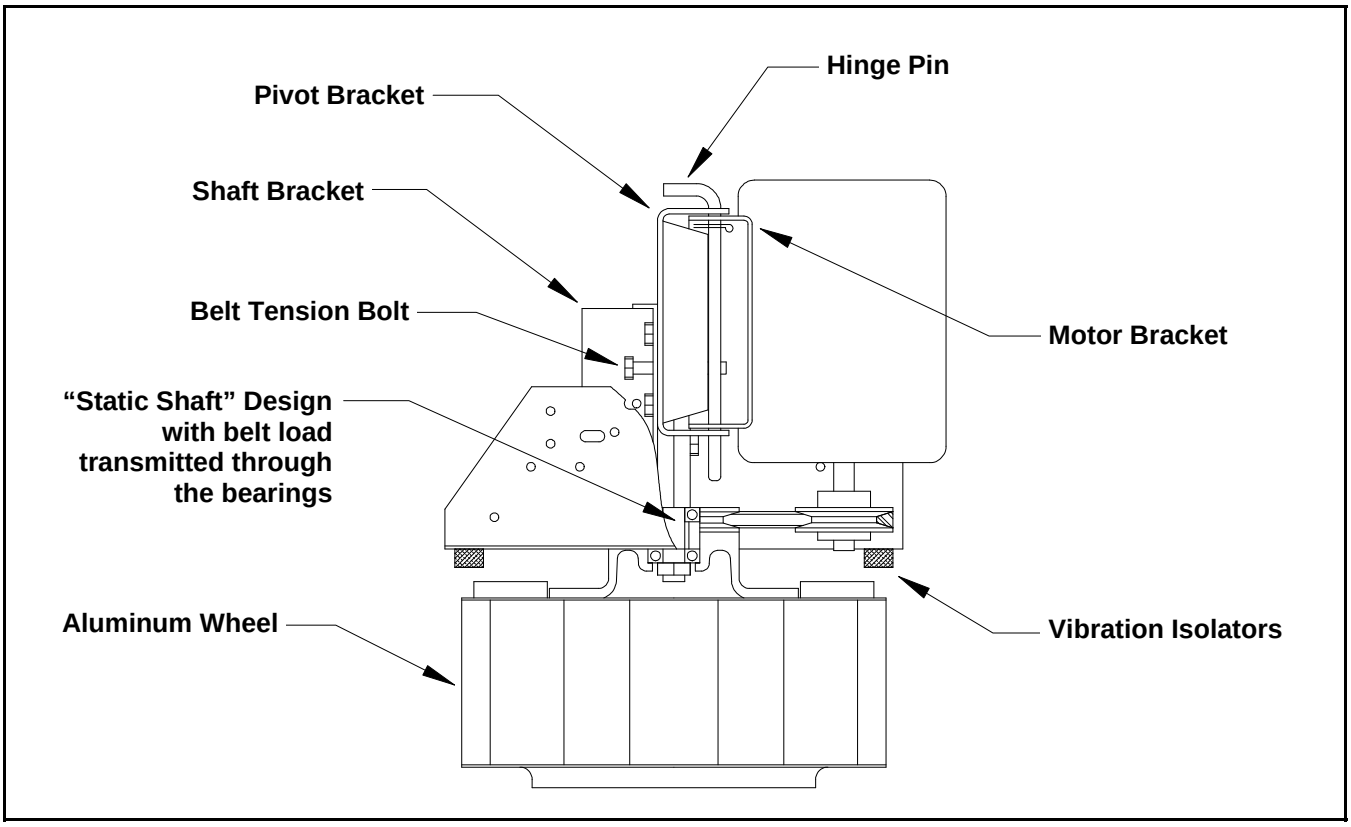


Size	Ventilator Dimensions				Roof Curb and Damper Dimensions				
	A	B	C	D	E	G	H	J	K
12-15	26	29 1/4	24 1/2	22	20 3/4	19 1/4	24 1/2	21 1/4	32 1/2
16-18	30	35 1/4	26 3/8	22	24 3/4	23 1/4	28 1/2	25 1/4	36 1/2
21	34	43 3/8	30	25 1/2	28 3/4	27 1/4	32 1/2	29 1/4	40 1/2
24	34	43 3/8	34 5/8	25 1/2	28 3/4	27 1/4	32 1/2	29 1/4	40 1/2

Dimensions in inches

ILG's "C-Drive"

Available Exclusively on CUBA Units Sizes 12 - 24



Features:

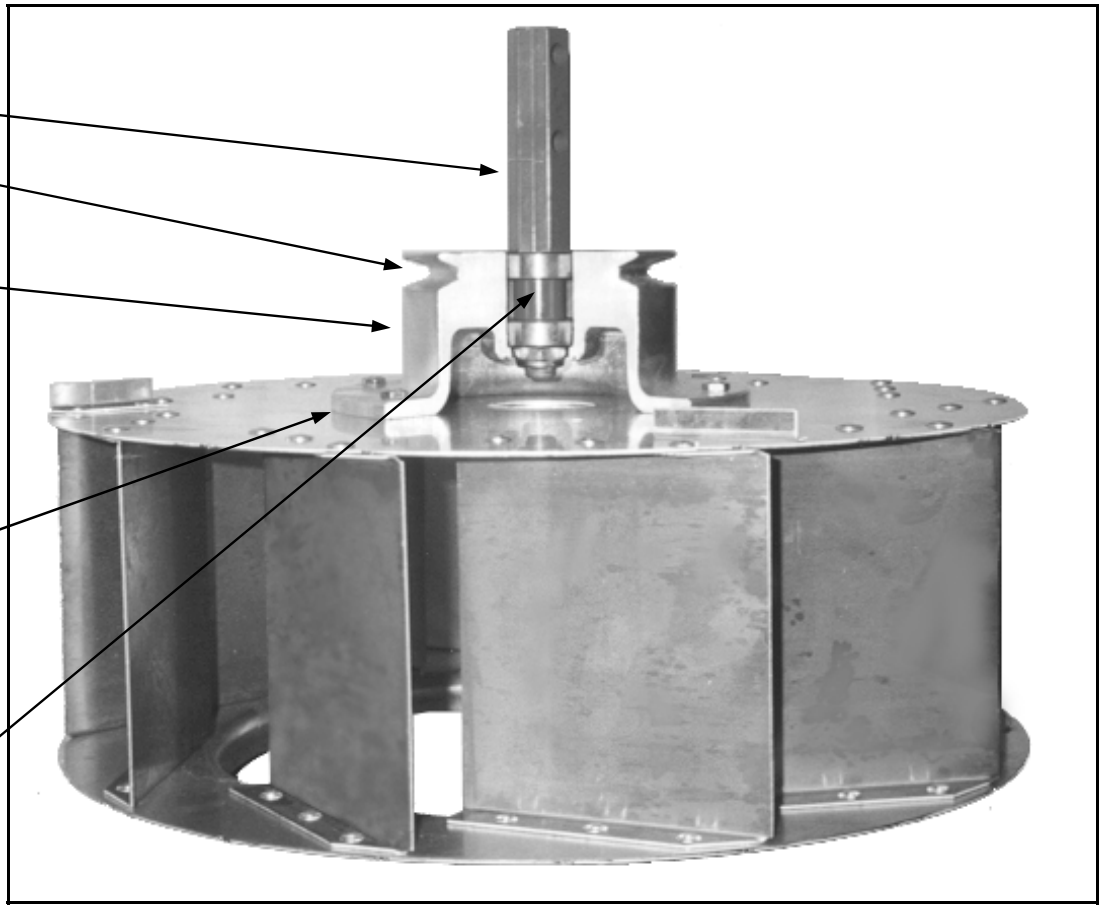
Static Shaft

V-Belt Groove

Cast Aluminum Hub machined to close tolerances

Machined Surface to mount centrifugal wheel

Permanently Sealed and Lubricated Ball Bearings



CUBA
Belt Drive Centrifugal Upblast Power Roof Ventilators

Applications

The CUBA units are quiet, dependable upblast power roof ventilators for the removal of grease-laden air from kitchen exhaust systems, and general ventilation applications where vertical discharge of exhaust air is required. Applications include virtually all types of commercial and institutional kitchens, such as restaurant and cafeteria, fast food, hospital, hotel and motel, bakery, delicatessen, school and military.

The advantages of a CUBA belt drive over a direct drive roof ventilator include quieter operation, adjustable performance to suit operating needs and extended service life using the “C-Drive" bearing arrangement.

The CUBA meets the rigorous requirements of Underwriters Laboratories Standard 762 and is so listed as being suitable for the extraction of grease-laden air and fumes from range exhaust hoods and commercial kitchen exhaust systems. When properly installed, the CUBA also meets the requirements of NFPA 96. It is particularly recommended for economical and efficient range hood ventilation where continuous operation under severe conditions may cause other power roof ventilators to fail.

Construction

CUBA 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 are standard.

Drive Mechanism

The belt driven CUBA 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.

This design accomplishes several identifiable points of value. 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 a 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 CUBA 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.

c UL us LISTED

UL705 - E39944

Type CUBA ventilators are UL705 Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.

UL LISTED

UL762 - MH9847

Type CUBA ventilators are UL762 Listed by Underwriters Laboratory Inc. to US safety standards.

AMCA CERTIFIED RATINGS SOUND AND AIR PERFORMANCE

AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC.

American Coolair Corporation, ILG Industries certifies that the Type CUBA units 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

Upblast power roof ventilators shall be of the CUBA 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 or 762 as required and shall bear the AMCA Certified Ratings Seal for air and sound performance. Housing and venturi inlet shall be one piece heavy gauge spun aluminum 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. Base, motor compartment disc and support pipes shall be heavy gauge steel.

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 steel mounting bracket with single bolt adjustment. Motor shall be mounted with the shaft down to allow easy access to the electrical wiring terminal board/circuit box.

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

CUBA12 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								
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	
1222		1121		1024		915		781																		1072
0.10	6.7	0.11	6.6	0.11	6.2	0.12	5.8	0.12	5.6																	
1275		1178		1086		985		867																		1119
0.11	7.4	0.12	7.2	0.13	6.9	0.13	6.5	0.14	6.2																	
1329		1235		1147		1052		945																		1166
0.12	8.0	0.13	7.9	0.14	7.5	0.15	7.1	0.15	6.8																	
1381		1290		1206		1117		1017																		1212
0.14	8.7	0.15	8.6	0.16	8.2	0.17	7.9	0.17	7.4																	
1435		1347		1266		1181		1088		845																1259
0.15	9.5	0.17	9.4	0.18	8.9	0.18	8.6	0.19	8.2	0.19	7.7															
1487		1402		1324		1243		1156		942																1305
0.17	10.2	0.19	10.1	0.20	9.7	0.20	9.4	0.21	8.9	0.22	8.4															
1541		1458		1382		1306		1223		1029																1352
0.19	11.0	0.21	10.9	0.22	10.5	0.23	10.1	0.23	9.7	0.24	9.0															
1594		1515		1441		1367		1289		1110																1399
0.21	11.9	0.23	11.8	0.24	11.4	0.25	11.0	0.26	10.6	0.27	9.8															
1647		1569		1498		1427		1352		1185		955														1445
0.23	12.7	0.25	12.6	0.26	12.3	0.27	11.9	0.28	11.5	0.29	10.6	0.29	10.3													
1700		1625		1555		1487		1416		1258		1057														1492
0.26	13.6	0.27	13.5	0.29	13.2	0.30	12.7	0.31	12.3	0.32	11.5	0.32	11.1													
1754		1681		1613		1547		1479		1329		1148														1539
0.28	14.4	0.30	14.3	0.31	13.9	0.32	13.5	0.33	13.1	0.35	12.2	0.35	11.7													
1806		1735		1669		1605		1539		1396		1230		990												1585
0.31	15.0	0.32	14.9	0.34	14.6	0.35	14.2	0.36	13.8	0.38	13.0	0.39	12.4	0.37	12.1											
1860		1791		1726		1663		1600		1464		1309		1105												1632
0.34	15.7	0.35	15.6	0.37	15.4	0.38	15.0	0.39	14.7	0.41	14.0	0.42	13.3	0.42	13.0											
1912		1845		1781		1721		1660		1529		1383		1202												1678
0.37	16.5	0.38	16.3	0.40	16.1	0.41	15.8	0.42	15.5	0.44	14.8	0.46	14.2	0.46	13.8											
1966		1900		1838		1779		1720		1595		1456		1292		1053										1725
0.40	17.3	0.42	17.1	0.43	16.9	0.45	16.6	0.46	16.4	0.48	15.7	0.50	15.0	0.50	14.6	0.48	14.2									
2020		1955		1895		1837		1780		1659		1527		1375		1175										1772
0.43	18.1	0.45	17.9	0.47	17.7	0.48	17.4	0.49	17.1	0.52	16.5	0.53	15.9	0.54	15.3	0.53	15.1									
2072		2009		1950		1893		1838		1721		1594		1453		1276										1818
0.46	18.7	0.48	18.5	0.50	18.3	0.52	18.1	0.53	17.8	0.55	17.2	0.57	16.6	0.59	16.0	0.58	15.8									
2126		2064		2006		1951		1896		1784		1663		1528		1369										1865
0.50	19.5	0.52	19.3	0.54	19.1	0.56	18.8	0.57	18.6	0.59	18.0	0.61	17.4	0.63	16.8	0.63	16.5									
2178		2118		2061		2007		1954		1845		1728		1600		1454										1911
0.54	20	0.56	20	0.58	20	0.60	19.7	0.61	19.4	0.64	18.7	0.66	18.1	0.68	17.5	0.68	17.2									
2232		2173		2117		2064		2012		1907		1794		1672		1535										1958
0.58	21	0.60	21	0.62	21	0.64	21	0.65	20	0.68	19.6	0.70	18.9	0.72	18.3	0.73	17.9									
2285		2228		2174		2121		2070		1968		1859		1742		1613		1253								2005
0.62	22	0.65	22	0.67	22	0.68	22	0.70	21	0.73	21	0.75	19.9	0.77	19.1	0.79	18.6	0.75	18.1							
2338		2282		2228		2177		2127		2028		1922		1810		1687		1368								2051
0.67	23	0.69	23	0.71	23	0.73	23	0.75	22	0.77	22	0.80	21	0.82	20	0.84	19.5	0.82	19.0							

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.

CUBA13 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						
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	
1617		1524		1429		1335		1239		953														
0.16	8.9	0.17	8.2	0.18	8.0	0.19	7.8	0.20	7.5	0.20	6.7													1119
1685		1596		1506		1413		1324		1083														
0.18	9.8	0.19	9.0	0.20	8.8	0.22	8.6	0.23	8.4	0.23	7.6													1166
1752		1665		1580		1489		1405		1191														
0.20	10.7	0.22	9.8	0.23	9.6	0.24	9.4	0.25	9.3	0.26	8.5													1212
1820		1736		1655		1567		1485		1293														
0.23	11.6	0.24	10.8	0.25	10.5	0.27	10.3	0.28	10.2	0.29	9.5													1259
1886		1805		1728		1643		1563		1389		1140												
0.25	12.6	0.27	11.7	0.28	11.4	0.29	11.2	0.31	11.1	0.32	10.5	0.32	9.7											1305
1954		1876		1801		1720		1641		1482		1264												
0.28	13.7	0.30	12.7	0.31	12.4	0.32	12.2	0.34	12.1	0.36	11.6	0.36	10.8											1352
2022		1946		1874		1797		1719		1570		1374												
0.31	14.5	0.33	13.5	0.34	13.1	0.35	12.9	0.37	12.8	0.39	12.4	0.40	11.7											1399
2089		2015		1945		1872		1795		1652		1475		1232										
0.34	15.2	0.36	14.2	0.37	13.8	0.39	13.6	0.40	13.4	0.43	13.2	0.44	12.4	0.43	11.7									1445
2157		2085		2017		1947		1872		1734		1573		1364										
0.38	15.9	0.39	14.9	0.41	14.5	0.42	14.3	0.44	14.2	0.47	13.9	0.48	13.2	0.48	12.6									1492
2225		2155		2089		2022		1950		1814		1668		1479										
0.41	16.6	0.43	15.6	0.45	15.2	0.46	15.0	0.48	14.9	0.51	14.7	0.53	14.1	0.53	13.6									1539
2291		2224		2159		2095		2025		1892		1756		1583		1356								
0.45	17.3	0.47	16.4	0.49	15.9	0.50	15.7	0.52	15.6	0.55	15.3	0.57	15.0	0.58	14.5	0.57	13.8							1585
2359		2293		2231		2169		2102		1970		1843		1684		1488								
0.49	18.0	0.51	17.1	0.53	16.6	0.54	16.4	0.56	16.3	0.59	16.1	0.62	15.8	0.63	15.5	0.63	14.9							1632
2425		2362		2301		2240		2176		2047		1924		1779		1602								
0.54	18.6	0.56	17.8	0.57	17.3	0.59	17.1	0.61	17.0	0.64	16.9	0.67	16.7	0.68	16.4	0.68	15.9							1678
2493		2431		2372		2313		2252		2124		2006		1873		1709								
0.58	19.4	0.60	18.5	0.62	18.0	0.64	17.8	0.65	17.7	0.69	17.7	0.72	17.5	0.74	17.3	0.74	16.9							1725
2561		2501		2442		2386		2327		2202		2086		1963		1811								
0.63	20	0.65	19.2	0.67	18.7	0.69	18.5	0.71	18.4	0.74	18.5	0.77	18.4	0.80	18.2	0.81	17.9							1772

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.

CUBA15 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						
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3	1/2	3/4	1	
2188		2101		1967		1835		1722		1395														1119
0.27	10.1	0.29	9.4	0.31	9.5	0.32	9.2	0.33	8.5	0.33	8.2													
2280		2197		2077		1939		1835		1533														1166
0.31	10.8	0.33	10.2	0.35	10.3	0.36	10.1	0.37	9.3	0.38	9.1													
2370		2291		2183		2041		1940		1667		1361												1212
0.35	11.6	0.37	10.9	0.39	11.0	0.40	10.9	0.42	10.3	0.42	9.8	0.42	9.4											
2462		2386		2288		2148		2045		1804		1512												1259
0.39	12.5	0.41	11.8	0.43	11.8	0.45	11.8	0.46	11.3	0.48	10.5	0.47	10.0											
2552		2479		2388		2255		2147		1937		1649												1305
0.44	13.4	0.46	12.7	0.48	12.6	0.50	12.7	0.51	12.3	0.53	11.2	0.53	11.1											
2644		2574		2489		2365		2251		2062		1787		1511										1352
0.48	14.3	0.50	13.6	0.53	13.5	0.55	13.6	0.56	13.4	0.59	12.1	0.59	12.3	0.59	11.8									
2736		2668		2589		2476		2356		2179		1923		1664										1399
0.54	15.4	0.56	14.5	0.58	14.3	0.60	14.5	0.62	14.4	0.65	13.2	0.65	13.3	0.65	12.4									
2826		2761		2686		2583		2460		2286		2058		1802		1514								1445
0.59	16.3	0.61	15.6	0.63	15.3	0.66	15.4	0.68	15.5	0.71	14.3	0.72	14.0	0.72	13.7	0.70	14.0							
2917		2854		2784		2690		2569		2393		2194		1940		1693								1492
0.65	17.4	0.67	16.6	0.70	16.3	0.72	16.4	0.74	16.5	0.78	15.6	0.79	14.7	0.79	15.0	0.79	14.2							
3009		2948		2881		2795		2679		2498		2323		2077		1842								1539
0.72	18.4	0.74	17.6	0.76	17.3	0.78	17.3	0.81	17.5	0.85	16.9	0.87	15.7	0.87	16.2	0.87	15.2							
3099		3040		2976		2896		2788		2600		2442		2211		1981								1585
0.78	19.5	0.80	18.7	0.83	18.3	0.85	18.3	0.88	18.4	0.92	18.1	0.94	16.8	0.95	17.0	0.95	16.6							
3191		3134		3072		2998		2898		2704		2555		2349		2119								1632
0.85	21	0.88	19.8	0.90	19.3	0.93	19.3	0.95	19.4	1.00	19.3	1.03	18.1	1.04	17.7	1.03	17.9							
3281		3225		3166		3096		3004		2806		2662		2481		2252		1790						1678
0.93	22	0.95	21	0.98	20	1.00	20	1.03	21	1.08	21	1.11	19.4	1.13	18.5	1.12	19.1	1.11	18.7					

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.

CUBA16 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							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3	1/2	3/4	1	1 1/2	
2628		2432		2281		2156		2009		1407															
0.28	10.3	0.30	9.7	0.32	9.3	0.33	9.3	0.34	8.9	0.30	7.7														918
2731		2541		2391		2270		2138		1678															
0.32	11.0	0.34	10.3	0.35	10.0	0.36	10.0	0.37	9.7	0.36	8.6														954
2837		2653		2503		2386		2264		1895															
0.36	11.7	0.38	11.1	0.39	10.8	0.41	10.8	0.42	10.6	0.42	9.5														991
2943		2765		2616		2500		2387		2075		1341													
0.40	12.5	0.42	11.9	0.44	11.5	0.45	11.6	0.46	11.5	0.48	10.4	0.39	9.4												1028
3046		2873		2726		2610		2503		2229		1657													
0.44	13.3	0.47	12.6	0.48	12.4	0.50	12.5	0.51	12.4	0.53	11.5	0.48	10.3												1064
3152		2984		2839		2723		2620		2374		1933													
0.49	14.2	0.52	13.4	0.53	13.2	0.55	13.3	0.56	13.3	0.58	12.6	0.56	11.4												1101
3258		3095		2952		2836		2735		2511		2154		1391											
0.54	15.1	0.57	14.3	0.59	14.1	0.60	14.2	0.62	14.2	0.64	13.6	0.64	12.4	0.51	11.5										1138
3361		3202		3061		2945		2846		2638		2335		1721											
0.59	16.1	0.62	15.2	0.64	14.9	0.66	15.0	0.67	15.1	0.70	14.7	0.71	13.5	0.62	12.4										1174
3467		3313		3174		3058		2960		2764		2500		2021											
0.65	17.1	0.68	16.2	0.70	15.9	0.72	16.0	0.73	16.1	0.76	15.8	0.78	14.7	0.73	13.5										1211
3573		3423		3287		3170		3073		2887		2651		2270		1537									
0.71	18.0	0.74	17.2	0.77	16.9	0.79	16.9	0.80	17.0	0.83	16.9	0.85	16.0	0.83	14.6	0.67	13.8								1248
3679		3533		3399		3283		3186		3007		2793		2476		1877									
0.78	19.0	0.81	18.2	0.83	17.8	0.85	17.8	0.87	17.9	0.90	17.9	0.92	17.2	0.92	15.9	0.81	14.8								1285
3782		3640		3508		3393		3295		3122		2924		2650		2172									
0.84	20	0.88	19.2	0.90	18.8	0.93	18.7	0.94	18.9	0.97	18.9	1.00	18.3	1.01	17.2	0.94	15.9								1321
3888		3749		3620		3506		3408		3238		3054		2813		2430									
0.92	21	0.95	20	0.98	19.9	1.00	19.7	1.02	19.9	1.05	20	1.08	19.5	1.10	18.5	1.06	17.2								1358
4051		3918		3793		3680		3581		3416		3247		3041		2749		1508							
1.04	23	1.07	22	1.10	22	1.13	21	1.15	21	1.18	22	1.21	21	1.24	21	1.23	19.3	0.90	17.3						1415
4157		4027		3904		3793		3694		3530		3369		3179		2926		1880							
1.12	24	1.16	23	1.19	23	1.21	22	1.24	23	1.27	23	1.30	23	1.33	22	1.34	21	1.09	18.4						1452
4263		4136		4016		3905		3807		3643		3489		3312		3087		2212							
1.21	25	1.25	24	1.28	24	1.31	24	1.33	24	1.36	24	1.40	24	1.43	23	1.45	22	1.27	19.7						1489
4372		4247		4130		4021		3923		3759		3610		3445		3241		2521							
1.30	26	1.34	25	1.38	25	1.41	25	1.43	24	1.47	25	1.50	25	1.53	24	1.56	23	1.45	21						1527
4478		4356		4241		4133		4036		3872		3727		3570		3384		2780							
1.40	27	1.44	26	1.48	26	1.51	25	1.53	25	1.57	26	1.60	26	1.64	25	1.67	25	1.61	22						1564

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.

CUBA18 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							
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	
3344		3153		2924		2757		2568		2061															
0.43	10.6	0.45	10.1	0.46	9.5	0.47	9.4	0.48	9.2	0.46	8.4														918
3476		3296		3067		2906		2725		2319															
0.48	11.3	0.50	10.8	0.51	10.2	0.52	10.2	0.54	10.1	0.53	9.3														954
3610		3441		3214		3055		2887		2533		1802													
0.54	12.1	0.56	11.6	0.57	11.0	0.58	11.0	0.60	10.9	0.60	10.3	0.53	9.1												991
3745		3585		3363		3202		3047		2715		2127													
0.60	13.1	0.63	12.4	0.64	12.0	0.65	11.8	0.66	11.9	0.67	11.3	0.62	10.2												1028
3876		3723		3509		3344		3200		2879		2410													
0.67	14.0	0.70	13.4	0.71	12.9	0.72	12.7	0.73	12.8	0.75	12.3	0.72	11.4												1064
4011		3865		3660		3490		3353		3043		2674		1948											
0.74	15.0	0.77	14.3	0.78	13.8	0.79	13.6	0.80	13.6	0.83	13.3	0.81	12.6	0.72	11.2										1101
4146		4006		3812		3636		3503		3204		2892		2284											
0.82	16.0	0.85	15.3	0.86	14.8	0.87	14.5	0.88	14.6	0.92	14.4	0.91	13.7	0.84	12.5										1138
4277		4143		3959		3778		3646		3362		3074		2575		1781									
0.90	17.0	0.93	16.4	0.95	15.9	0.96	15.6	0.97	15.5	1.00	15.5	1.00	14.9	0.95	13.8	0.80	12.5								1174
4412		4283		4109		3925		3792		3524		3246		2853		2181									
0.99	18.0	1.02	17.4	1.04	16.9	1.05	16.6	1.06	16.5	1.09	16.6	1.10	16.0	1.07	15.2	0.96	13.6								1211
4612		4490		4331		4147		4009		3762		3490		3198		2662									
1.13	19.7	1.16	19.0	1.18	18.5	1.19	18.1	1.20	17.9	1.24	18.1	1.26	17.7	1.25	17.1	1.17	15.9								1266
4747		4629		4479		4297		4155		3919		3652		3390		2951									
1.23	21	1.26	20	1.29	19.7	1.30	19.2	1.31	19.0	1.34	19.2	1.38	18.9	1.37	18.3	1.31	17.3								1303
4882		4768		4625		4448		4301		4072		3814		3565		3219		1845							
1.33	22	1.37	21	1.40	21	1.41	20	1.42	20	1.45	20	1.49	20	1.49	19.6	1.46	18.8	1.13	16.4						1340
5020		4910		4774		4604		4452		4226		3980		3737		3454		2314							
1.45	23	1.49	23	1.52	22	1.54	22	1.55	21	1.57	21	1.62	21	1.63	21	1.60	20	1.37	17.4						1378
5155		5048		4919		4755		4600		4375		4142		3900		3652		2674							
1.57	24	1.61	23	1.64	23	1.66	22	1.67	22	1.70	22	1.74	22	1.76	22	1.75	21	1.57	18.7						1415
5290		5186		5062		4906		4749		4522		4302		4062		3832		2993							
1.70	25	1.74	24	1.77	24	1.79	23	1.80	23	1.83	23	1.87	23	1.90	23	1.90	22	1.76	20						1452
5425		5324		5205		5056		4899		4668		4460		4223		4002		3288							
1.83	26	1.87	25	1.91	25	1.93	24	1.94	24	1.97	24	2.01	24	2.05	24	2.05	23	1.94	21						1489
5563		5465		5351		5210		5054		4817		4618		4390		4171		3574							
1.98	27	2.02	26	2.05	26	2.08	25	2.09	25	2.12	24	2.15	25	2.20	25	2.22	24	2.14	23						1527

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.

CUBA21 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							
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	
3857		3620		3383		3189		2931		2092															
0.41	10.8	0.43	9.8	0.45	9.4	0.46	9.1	0.47	8.6	0.43	7.3														771
4037		3812		3580		3390		3185		2485															
0.47	11.6	0.49	10.7	0.51	10.2	0.52	10.0	0.54	9.6	0.52	8.6														807
4222		4008		3783		3594		3415		2801															
0.53	12.5	0.56	11.5	0.58	11.1	0.59	11.0	0.61	10.7	0.61	10.1														844
4407		4203		3986		3797		3630		3091		2295													
0.61	13.5	0.64	12.5	0.66	12.0	0.67	12.1	0.69	11.9	0.70	11.4	0.63	9.8												881
4593		4397		4189		3999		3838		3383		2733													
0.69	14.5	0.72	13.4	0.74	12.9	0.76	13.1	0.77	13.1	0.80	12.3	0.76	11.1												918
4773		4585		4385		4196		4037		3662		3066													
0.77	15.6	0.80	14.4	0.83	14.0	0.84	14.1	0.86	14.2	0.89	13.4	0.88	12.8												954
4958		4778		4586		4399		4240		3918		3365		2645											
0.86	16.7	0.90	15.6	0.92	15.1	0.94	15.1	0.96	15.3	0.99	14.7	0.99	14.3	0.91	12.6										991
5143		4970		4785		4603		4443		4149		3653		3073											
0.96	17.8	1.00	16.7	1.03	16.2	1.05	16.2	1.07	16.4	1.10	15.9	1.11	15.5	1.07	14.2										1028
5403		5239		5064		4888		4727		4451		4065		3539		2824									
1.12	19.4	1.16	18.3	1.19	17.8	1.21	17.7	1.23	17.8	1.27	17.8	1.30	17.0	1.28	16.6	1.16	15.1								1080
5588		5430		5262		5090		4930		4660		4339		3833		3270									
1.24	20	1.28	19.5	1.31	18.9	1.33	18.7	1.35	18.9	1.39	19.0	1.43	18.2	1.42	17.9	1.35	16.6								1117
5773		5620		5459		5292		5133		4865		4586		4121		3631									
1.36	22	1.41	21	1.44	20	1.47	19.8	1.49	20	1.53	20	1.57	19.6	1.58	19.2	1.54	18.4								1154
5958		5810		5655		5493		5336		5069		4814		4415		3941		2338							
1.50	23	1.54	22	1.58	21	1.61	21	1.63	21	1.67	22	1.71	21	1.74	20	1.72	20	1.36	18.8						1191
6148		6005		5855		5699		5545		5277		5036		4708		4240		3006							
1.65	24	1.69	23	1.73	23	1.76	22	1.78	22	1.83	23	1.87	23	1.91	22	1.90	21	1.66	19.4						1229
6333		6194		6049		5898		5748		5479		5247		4969		4529		3503							
1.80	25	1.85	24	1.89	24	1.92	23	1.94	23	1.99	24	2.04	24	2.08	23	2.08	22	1.92	21						1266
6519		6384		6243		6097		5950		5682		5454		5209		4823		3914							
1.96	26	2.01	25	2.05	24	2.09	24	2.11	24	2.16	25	2.21	25	2.25	24	2.27	23	2.18	22						1303

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.

CUBA24 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									
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3	1/2	3/4	1	1 1/2	2	3	
4025		3669		3189		2398																					
0.27	7.2	0.29	6.8	0.29	6.3	0.28	6.0																				534
4191		3851		3399		2794																					
0.30	7.8	0.32	7.4	0.33	6.9	0.32	6.5																				556
4365		4040		3626		3121																					
0.34	8.5	0.36	8.0	0.37	7.5	0.37	7.1																				579
4531		4220		3844		3379																					
0.38	9.1	0.41	8.7	0.42	8.1	0.42	7.7																				601
4696		4399		4055		3606		2894																			
0.43	9.7	0.45	9.4	0.46	8.8	0.46	8.3	0.45	8.1																		623
4862		4577		4256		3820		3273																			
0.48	10.4	0.50	10.1	0.51	9.5	0.51	9.0	0.51	8.7																		645
5036		4763		4457		4039		3596																			
0.53	11.2	0.56	10.8	0.57	10.3	0.57	9.7	0.57	9.3																		668
5367		5115		4830		4469		4090																			
0.64	12.7	0.67	12.4	0.68	11.9	0.69	11.3	0.69	10.8																		712
5541		5298		5022		4698		4317																			
0.70	13.6	0.74	13.3	0.75	12.8	0.76	12.2	0.76	11.7																		735
5789		5559		5295		5013		4632		3638																	
0.80	14.8	0.84	14.5	0.85	14.1	0.87	13.5	0.87	12.9	0.84	12.3																768
6129		5913		5665		5415		5069		4338																	
0.95	16.4	1.00	16.2	1.01	15.8	1.03	15.3	1.03	14.7	1.03	14.0																813
6295		6085		5846		5603		5289		4610																	
1.03	17.2	1.08	17.0	1.09	16.7	1.11	16.2	1.11	15.6	1.12	14.8																835
6468		6265		6033		5798		5515		4865		3631															
1.12	18.0	1.17	17.9	1.19	17.6	1.20	17.1	1.21	16.5	1.22	15.7	1.13	15.2														858
6807		6616		6399		6173		5937		5314		4482															
1.30	19.7	1.36	19.6	1.38	19.4	1.39	18.9	1.41	18.3	1.41	17.3	1.38	16.8														903
6980		6795		6585		6364		6141		5534		4834															
1.41	21	1.46	21	1.49	20	1.50	19.9	1.52	19.3	1.52	18.1	1.51	17.5														926
7146		6965		6762		6546		6332		5744		5128															
1.51	22	1.57	22	1.60	21	1.60	21	1.62	20	1.63	18.9	1.63	18.2														948
7320		7143		6947		6735		6528		5965		5402		4300													
1.62	22	1.68	23	1.71	22	1.72	22	1.74	21	1.75	19.9	1.76	19.0	1.66	18.8												971
7493		7321		7130		6924		6722		6191		5652		4742													
1.74	23	1.80	24	1.84	24	1.85	23	1.86	23	1.87	21	1.89	19.8	1.82	19.5												994
7659		7491		7306		7105		6906		6411		5875		5114													
1.86	24	1.92	24	1.96	24	1.97	24	1.99	24	2.00	22	2.02	21	1.98	20												1016
7832		7668		7489		7293		7098		6639		6100		5457													
1.99	25	2.05	25	2.09	26	2.11	25	2.12	25	2.15	23	2.15	22	2.14	21												1039
7998		7838		7663		7472		7280		6853		6312		5747		4656											
2.12	26	2.19	26	2.23	27	2.24	26	2.25	26	2.29	24	2.29	23	2.29	22	2.16	22										1061
8337		8184		8018		7838		7652		7271		6741		6262		5490											
2.40	28	2.47	29	2.52	29	2.54	29	2.55	28	2.59	26	2.58	25	2.60	24	2.54	23										1106
8684		8537		8380		8209		8030		7677		7191		6727		6164											
2.71	30	2.79	31	2.84	31	2.86	31	2.87	31	2.92	29	2.92	27	2.93	26	2.93	25										1152
8850		8706		8552		8386		8211		7865		7411		6940		6439											
2.87	31	2.95	32	3.00	33	3.03	33	3.04	32	3.08	31	3.09	28	3.10	27	3.11	26										1174

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.

FEATURES

CUDA Units

Safety disconnect device is standard.

Direct drive assembly reduces maintenance and operating costs.

Line bore hub eliminates the need for a bushing, and has wheel puller provisions

Weather-resistant motor compartment cover of spun aluminum removes easily for access to motor and drive.

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

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

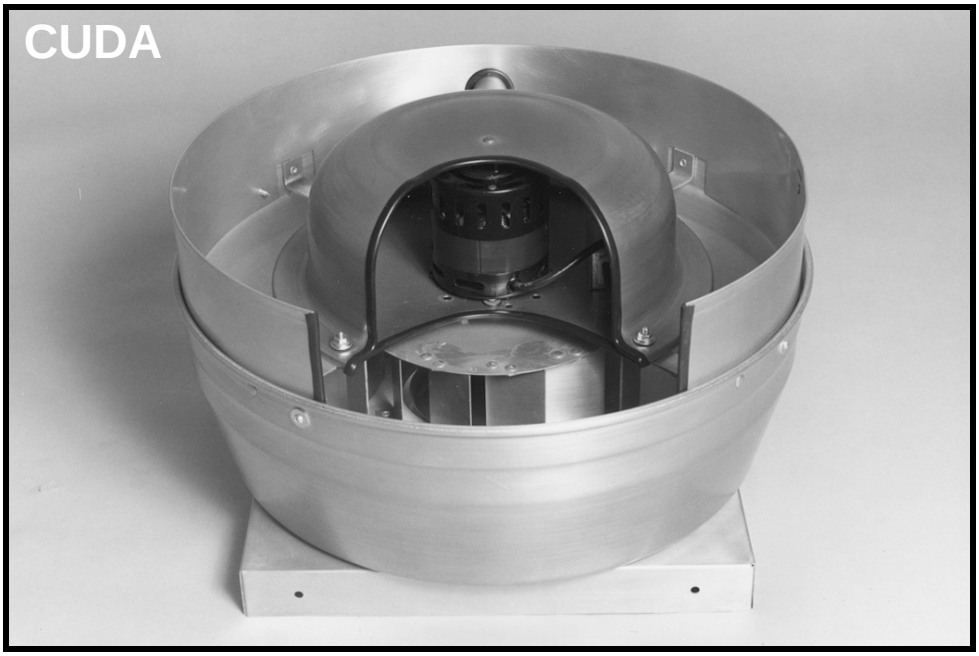
Aluminum centrifugal wheel is a non-overloading, backward-inclined design and is computer balanced.

Permanently affixed wheel balance weights assure vibration-free operation.

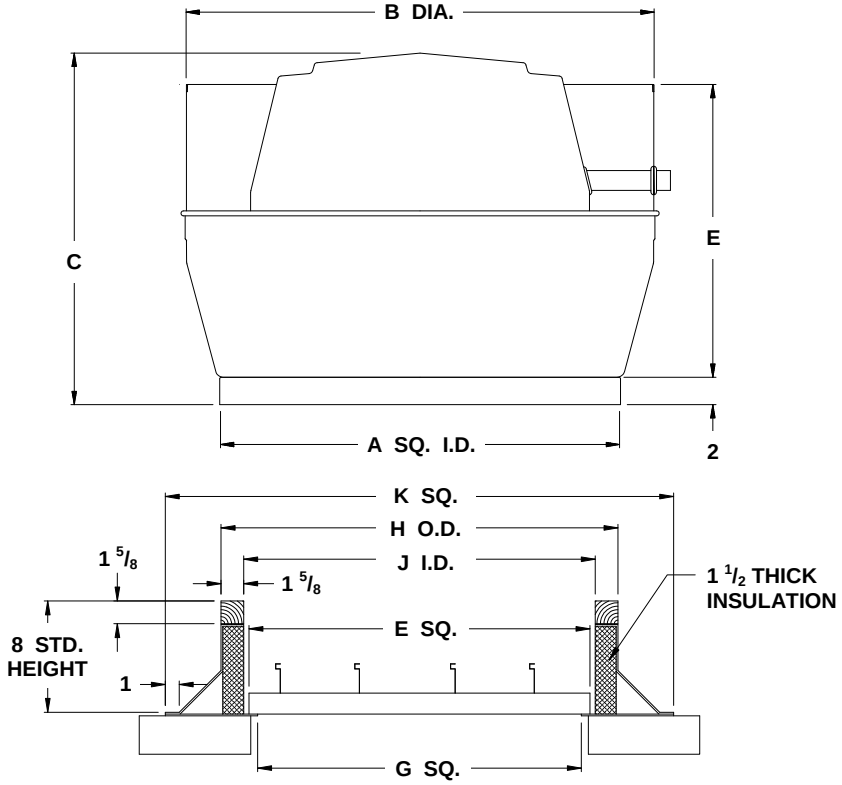
Wheel backplate fins cool the motor compartment, extending motor life.

AMCA Seal assures certified rating of air and sound performance.

UL Listed for Standard 705.



CUDA Ventilator, Roof Curb and Damper Dimensions



Unit	Ventilator Dimensions				Roof Curb and Damper Dimensions				
	A	B	C	D	E	G	H	J	K
06-10	18	23	14 1/8	11 1/8	12 3/4	11 1/4	16 1/2	13 1/4	24 1/2
12E10,12J16 13F11,13J15 15H10,15K15	26	29 1/4	19	22	20 3/4	19 1/4	24 1/2	21 1/4	32 1/2
12J17,13K17 15L17	26	29 1/4	24 1/4	22	20 3/4	19 1/4	24 1/2	21 1/4	32 1/2
16-20	30	35 1/4	26 3/8	22	24 3/4	23 1/4	28 1/2	25 1/4	36 1/2

Dimensions in inches

CUDA
Direct Drive Centrifugal Upblast Power Roof Ventilators

Applications

The CUDA units are quiet, dependable upblast 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.

CUDA units are specified where vertical discharge of exhaust air is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of overheated air. CUDA units may be used with or without ducts.

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

Construction

CUDA 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 and a safety disconnect device with a mounted and wired junction box are all standard.

Drive Mechanism

CUDA 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 CUDA models is open 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.

c UL us LISTED

UL705 - E39944

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

AMCA CERTIFIED RATINGS SOUND AND AIR PERFORMANCE ® AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC.

American Coolair Corporation, ILG Industries certifies that the Type CUBA units 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

Upblast power roof ventilators shall be of the CUDA 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. Housing and venturi inlet shall be one piece heavy gauge spun aluminum 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.

Drive construction 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. The unit shall be equipped with a safety disconnect device.

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

CUDA06 - CUDA10 Performance Data

CUDA06	CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA06A11	CUDA06C16	CUDA06E16	
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																			
0.01	0.6																		550
266		180																	
0.01	2.3	0.01	1.3																800
315		251		141															
0.01	3.4	0.01	2.6	0.01	2.1														950
365		309		235		133													
0.02	4.7	0.02	4.2	0.02	3.6	0.02	3.2												1100
415		364		315		226		137											
0.03	6.5	0.03	6.1	0.03	5.5	0.03	5.1	0.03	4.7										1250
465		420		377		320		234		155									
0.04	7.8	0.04	7.3	0.04	6.7	0.04	6.4	0.04	6.1	0.04	7.6								1400
531		493		453		415		360		283		218							
0.05	10.1	0.05	9.4	0.06	8.8	0.06	8.1	0.06	7.9	0.06	7.6	0.06	7.6						1600
548		511		471		436		388		315		248							
0.06	10.8	0.06	10.1	0.06	9.4	0.07	8.8	0.07	8.6	0.07	8.2	0.07	8.2						1650

CUDA08	CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA08A11	CUDA08C15	CUDA08E16	
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	
233																			
0.00	0.5																		550
339		256																	
0.01	2.2	0.01	1.3																800
402		332		222															
0.01	3.4	0.01	2.5	0.02	2.2														950
466		408		342		209													
0.02	4.6	0.02	4.1	0.02	3.9	0.02	3.7												1100
530		480		424		342		215											
0.03	6.3	0.03	5.9	0.03	5.8	0.04	5.6	0.03	5.4										1250
593		549		498		452		360		244									
0.04	7.6	0.04	7.2	0.05	7.0	0.05	6.8	0.05	6.7	0.04	6.5								1400
657		617		574		529		480		390		289							
0.06	8.9	0.06	8.6	0.06	8.1	0.06	8.2	0.07	8.0	0.07	7.9	0.06	7.9						1550
678		639		599		553		512		431		343							
0.06	9.4	0.06	9.1	0.07	8.6	0.07	8.7	0.07	8.5	0.08	8.3	0.07	8.3						1600

CUDA10	CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA10A11	CUDA10C15	CUDA10E15	
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	
299																			
0.00	0.2																		550
435		350																	
0.01	1.8	0.01	1.1																800
517		450		344															
0.02	2.9	0.02	2.5	0.02	1.8														950
598		546		472		355													
0.03	4.7	0.03	4.4	0.03	3.6	0.03	3.1												1100
680		637		575		501		386											
0.04	6.8	0.04	6.5	0.05	5.9	0.05	5.2	0.05	4.8										1250
762		725		673		616		540		434									
0.05	8.1	0.05	7.8	0.06	7.4	0.07	6.6	0.07	6.2	0.07	5.7								1400
816		783		737		684		625		542									
0.06	8.9	0.07	8.7	0.07	8.4	0.08	7.7	0.08	7.2	0.08	6.7								1500
843		811		768		717		663		590		495							
0.07	9.4	0.07	9.1	0.08	8.9	0.09	8.3	0.09	7.7	0.09	7.2	0.09	6.8						1550

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstrea
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 CUDA Roof Ventilator constant speed fans and not variable speed fans

CUDA12 - CUDA13 Performance Data

CUDA12	CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA12E10	CUDA12J16	CUDA12J17*	
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	
566		393																	550
0.01	1.8	0.01	1.3																
669		531																	650
0.02	2.7	0.02	2.7																
772		657		510															750
0.03	3.8	0.03	3.8	0.04	3.0														
874		774		658		488													850
0.04	5.0	0.05	4.9	0.05	4.5	0.05	3.8												
977		888		791		676													950
0.06	6.1	0.06	5.9	0.07	6.0	0.07	5.2												
1054		972		885		784		654											1025
0.07	6.9	0.08	6.8	0.09	7.0	0.09	6.4	0.09	5.7										
1183		1109		1035		951		858		740									1150
0.10	8.4	0.11	8.2	0.12	8.4	0.12	8.3	0.13	7.6	0.13	7.0								
1337		1272		1207		1139		1061		980		884							1300
0.15	10.2	0.16	10.0	0.17	10.2	0.17	10.5	0.18	10.1	0.19	9.4	0.19	8.9						
1492		1433		1374		1315		1253		1182		1109		926					1450
0.20	12.4	0.21	12.1	0.22	12.3	0.23	12.6	0.24	12.7	0.25	12.3	0.26	11.7	0.26	10.7				
1646		1593		1540		1487		1432		1374		1310		1176					1600
0.27	14.7	0.28	14.5	0.30	14.5	0.31	14.8	0.32	15.1	0.33	15.2	0.34	14.9	0.35	13.9				
1739		1688		1638		1588		1537		1484		1427		1302					1690
0.32	16.3	0.33	16.0	0.35	16.0	0.36	16.3	0.37	16.6	0.38	16.9	0.39	16.8	0.41	15.8				
1775		1725		1676		1627		1577		1526		1471		1349					1725
0.34	16.9	0.35	16.6	0.37	16.6	0.38	16.8	0.39	17.2	0.40	17.5	0.41	17.5	0.43	16.6				

CUDA13	CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA13F11	CUDA13J15	CUDA13K17*	
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	
763		566																	550
0.02	1.9	0.02	1.0																
936		784		580															675
0.03	3.1	0.04	2.4	0.04	1.8														
1109		977		845		641													800
0.06	4.5	0.07	3.7	0.07	3.3	0.07	2.9												
1248		1129		1020		873		663											900
0.08	5.6	0.09	4.9	0.10	4.6	0.10	4.2	0.10	3.8										
1387		1279		1180		1073		924		716									1000
0.11	6.7	0.12	6.2	0.13	5.8	0.14	5.6	0.14	5.2	0.13	4.9								
1560		1463		1372		1287		1182		1048		888							1125
0.16	8.3	0.17	8.0	0.19	7.5	0.20	7.4	0.20	7.1	0.20	6.7	0.19	6.4						
1733		1646		1562		1484		1405		1307		1186		821					1250
0.22	10.2	0.24	9.9	0.25	9.4	0.26	9.1	0.27	9.1	0.27	8.8	0.27	8.4	0.24	7.8				
1872		1791		1712		1638		1567		1490		1393		1160					1350
0.28	11.9	0.29	11.7	0.31	11.2	0.33	10.8	0.33	10.7	0.34	10.6	0.34	10.3	0.34	9.5				
2045		1971		1898		1829		1763		1698		1626		1436					1475
0.36	13.6	0.38	13.4	0.40	13.0	0.42	12.5	0.43	12.2	0.44	12.2	0.44	12.1	0.45	11.5				
2184		2114		2046		1980		1916		1855		1794		1641					1575
0.44	14.9	0.46	14.8	0.48	14.4	0.50	13.9	0.52	13.6	0.53	13.4	0.54	13.4	0.54	13.0				
2427		2363		2302		2241		2182		2126		2071		1958					1750
0.61	17.5	0.63	17.4	0.65	17.1	0.67	16.6	0.69	16.2	0.71	15.9	0.72	15.8	0.74	15.7				

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstrea
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
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CUDA15 - CUDA 20 Performance Data

CUDA15 CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA15H10	CUDA15K15	CUDA15L17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3 HP	3/4 HP	1 HP	
1033		832																	550
0.03	2.7	0.04	1.7																
1221		1056		842															650
0.05	3.9	0.06	3.0	0.06	2.6														
1409		1268		1110		885													750
0.08	5.1	0.09	4.3	0.10	3.8	0.10	3.5												
1596		1473		1342		1184		969											850
0.12	6.4	0.13	5.7	0.14	5.2	0.14	5.0	0.14	4.6										
1784		1675		1560		1435		1280		1083									950
0.17	7.9	0.18	7.1	0.19	6.8	0.20	6.4	0.20	6.3	0.20	5.9								
2047		1952		1854		1752		1640		1509		1347							1090
0.26	10.3	0.27	9.5	0.28	9.1	0.29	8.7	0.30	8.4	0.30	8.4	0.30	8.1						
2160		2070		1978		1882		1780		1666		1529							1150
0.30	11.4	0.32	10.6	0.33	10.2	0.34	9.9	0.35	9.5	0.35	9.4	0.36	9.3						
2348		2265		2181		2094		2004		1908		1800		1527					1250
0.39	13.3	0.40	12.6	0.42	12.2	0.43	11.9	0.44	11.5	0.45	11.2	0.46	11.2	0.45	10.8				
2535		2459		2382		2302		2220		2135		2044		1829					1350
0.49	14.9	0.51	14.2	0.52	13.7	0.54	13.4	0.55	13.1	0.56	12.8	0.57	12.5	0.58	12.5				
2676		2604		2531		2456		2379		2301		2218		2031					1425
0.57	16.2	0.59	15.5	0.61	14.9	0.63	14.6	0.64	14.3	0.65	14.0	0.66	13.8	0.68	13.6				
2911		2845		2778		2709		2640		2569		2496		2340					1550
0.74	18.4	0.76	17.6	0.78	17.1	0.80	16.8	0.82	16.5	0.83	16.3	0.84	16.0	0.86	15.5				
3240		3180		3120		3059		2998		2935		2872		2740					1725
1.02	22	1.04	21	1.06	21	1.09	20	1.11	19.8	1.12	19.6	1.14	19.4	1.17	18.8				

CUDA16 CFM at Static Pressure																RPM OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA16J8*	CUDA16L11*	CUDA16N17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	2 HP	
2187		2037		1884		1708		1523		1082									825
0.20	8.4	0.21	7.4	0.23	6.7	0.23	6.6	0.23	6.2	0.21	5.8								
3075		2967		2862		2755		2644		2517		2394		2125					1160
0.55	15.9	0.57	15.0	0.60	14.1	0.62	13.3	0.63	12.9	0.64	12.9	0.65	12.9	0.65	12.0				
4640		4568		4496		4426		4356		4286		4216		4072					1750
1.90	30	1.93	29	1.96	29	1.99	28	2.03	27	2.06	27	2.09	26	2.14	25				

CUDA18 CFM at Static Pressure																RPM OF SELECTED MODELS		RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA18J8*	CUDA18L11*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	
2919		2679		2550		2389		2194		1888		1422						825
0.30	9.8	0.33	8.6	0.34	8.4	0.36	8.0	0.36	7.6	0.34	7.0	0.31	6.6					
4104		3875		3765		3673		3580		3473		3350		3069				1160
0.85	18.6	0.88	17.1	0.91	16.4	0.93	16.1	0.96	16.0	0.98	15.5	0.99	15.0	0.99	14.3			

CUDA20 CFM at Static Pressure																RPM OF SELECTED MODEL	RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA20M11*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1-1/2 HP	
4942		4822		4702		4583		4461		4326		4169		3830			1160
1.28	22	1.33	19.9	1.36	19.0	1.39	19.2	1.41	19.6	1.43	19.4	1.44	18.9	1.46	18.8		

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
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Installation

All 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, motors and pulleys.

Mounting

Satisfactory operation of upblast power 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 weather-proofing means.

Inspection

Check centrifugal wheel for free rotation.

Check belt for proper tension. (CUBA)

Check motor and fan sheave faces for proper alignment. (CUBA)

Check circuit phase, voltage and wiring connection against that shown on motor nameplate.

Check direction of fan rotation for proper air flow.

Check belt after one week of operation for proper tension. (CUBA)

Maintenance

Units should be checked monthly for the first two or three months and periodically thereafter.

Cleaning

Units should be cleaned of grease and material buildup every three months or when necessary, depending on the condition of air being exhausted and frequency of use. Grease trough, drain and container should be checked and emptied as required to prevent grease overflow, as often as every one or two weeks with heavy grease applications such as char-broilers. Units should also be checked for eroded parts which should be replaced to avoid structural damage and possible failure.

Lubrication

Fan bearings on CUBA models are permanently sealed and require **no** lubrication. Motor bearings should be lubricated according to the motor manufacturer's instructions.

Adjustment of Variable Pitch Pulley and Belt (CUBA)

Variable pitch pulley may be adjusted within catalog RPM range to alter performance. However, adjustment beyond catalog RPM range may cause motor overload and possible premature motor failure. Pulley alignment and belt tension should be adjusted if necessary. Both motor and driven pulleys should be at right angles to the shafts, and the V-grooves should be aligned with each other. Inspection of drive components every 6 to 12 months is recommended.

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 (m^3/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 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

CUBA/CUDA Options and Accessories

Grease Extraction Application Accessories

Prefabricated Roof Curbs
Roof curbs for grease extraction CUBA models meet NFPA 96 system requirements for minimum PRV discharge height above the roof line. Curb height for sizes 18 and below is 20", and for sizes 20 and above is 18". Curbs with venting on two or four sides are also available. All curbs are insulated, feature a weather-resistant, continuous welded construction and provide convenience in installation of PRV units for both insulated and non-insulated roof decks.

Safety Disconnects
Safety disconnects cut power to motor for servicing of unit. A factory mounted and wired disconnect is an option for CUBA units with the UL 762 designation. The disconnect may either be interior with an external weather-proof junction box (all units), or external (units up to 2 hp only). Wiring is completed from the motor to the exterior box.

Grease Collector
Grease pans collect grease drained from the fan. An integral baffle contains the grease while allowing water to flow from the pan. The grease collector should be attached to the curb below the standard drain.

General Ventilation 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.

Safety Disconnects
Safety disconnects cut power to motor for servicing of unit. A disconnect switch is an accessory available on CUBA units used for general ventilation. The switch is shipped loose for field installation and power source connection. An optional wiring harness is available to connect the motor to the switch at the internal junction box. A factory disconnect device with mounted and wired internal junction box is standard for all CUDA models.

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

Birdguards
Birdguards are available to prevent entry of birds or other potentially damaging objects.

General Options and Accessories

Hinged Base Kits
Hinged bases are specifically designed to provide easy access for cleaning and servicing the lower parts of CUBA units.

Roof Handle
Aluminum handle facilitates removal of the roof. Roof handles are standard for CUBA models with a UL762 designation.

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 Listings.

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.

Speed Controller (For selected CUDA models only)
Solid state speed controller provides capability to change performance and speed ranging from 50% to 100% of fan capacity. This permits adjustment for fine tuning and balancing the ventilation system (see performance tables for compatible models).

CUBA Specification Checklist

- Units provide grease-laden vapor extraction and general exhaust with vertical discharge for low to medium air volumes, especially in commercial and institutional kitchens.
- Centrifugal design has advantages of compact, attractive appearance, quiet operation and performance against higher static pressures.
- Variable pitch belt drive allows for speed adjustment.
- Adjustable hinged motor bracket with single bolt adjustment facilitates maintenance of belt tension.
- Weatherproof heavy duty spun aluminum housing and motor compartment cover resist corrosion, maintaining appearance.
- Deep-spun, overlapping, one-piece venturi/bottom outer housing minimizes noise, reduces air turbulence and improves efficiency.
- Unique “C-Drive” design reduces radial bearing loads, providing a calculated L10 bearing life of over 1,000,000 hours.
- 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 is mounted with the electrical terminal board up for convenient connection and servicing.
- The motor compartment is cooled by a forced air ventilation system, extending motor life.
- Units have the UL Label for the removal of grease-laden vapors and fumes (UL 762), or for general ventilation (UL 705).
- AMCA Seal assures certified rating of air and sound performance.
- Heavy duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound.

CUDA Specification Checklist

- Units provide grease-laden vapor extraction and general exhaust with vertical discharge for low to medium 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.
- Direct-drive has advantages of minimal maintenance and operating costs.
- Safety disconnect device allows power to be cut off for servicing of unit.
- Weatherproof heavy duty spun aluminum housing and motor compartment cover resist corrosion, maintaining appearance.
- Deep-spun, overlapping, one-piece venturi/bottom outer housing 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 compartment is cooled by a forced air ventilation system, extending motor life.
- Units have the UL Label for general ventilation (UL 705).
- AMCA Seal assures certified rating of air and sound performance.
- Heavy duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound.
- Units are factory run and tested prior to shipment for dependable operation.

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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