

TYPE - CW

CENTRIFUGAL WALL EXHAUST FANS

BELT & DIRECT DRIVE



DIVISION

AMERICAN COOLAIR
CORPORATION



TYPE - CW WALL FAN PACKAGES

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Founded in 1928, American Coolair Corporation is a manufacturer of axial, centrifugal, high temperature and mixed flow fans for commercial, industrial, and restaurant applications. American Coolair also produces ventilation and evaporative cooling systems for the poultry, swine, dairy, greenhouse and golf industries.

American Coolair products are fabricated in a 210,000 sq. ft. manufacturing complex by employees who value economy and efficiency. Each ventilation system and accessory is crafted with quality materials for durable wear and low maintenance.

American Coolair continues to design, manufacture, sell, and service ventilation products and accessories with one goal in mind: to remain the market leader by providing the best, most cost-efficient ventilation products available anywhere.



TYPE - CW WALL FAN PACKAGES

APPLICATION

Type-CW units are quiet, dependable centrifugal exhaust wall fans 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.

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

LONG LASTING CONSTRUCTION

Type-CW 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 level. All models are computer balanced on state-of-the-art equipment. Backplate fins draw cool air through the motor compartment, extending the life of the motor. Neoprene vibration isolators to reduce noise and wear, and a birdscreen are all standard.

DRIVE MECHANISMS

Type-CW models are available in both Belt Drive and Direct Drive configurations. Belt Drive models are available from 12 - 20 inches, and Direct Drive models are available from 6 - 20 inches.

More information on Belt Drive models can be found on pages 4 - 5.

More information on Direct Drive models can be found on pages 6 -7.

MOTORS

The standard motor for Type-CW units is an open construction motor, 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 enclosures may affect the UL Listing.

STANDARD FEATURES

- Weather-resistant motor compartment cover of spun aluminum removes easily for access to motor and drives
- 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 the life of the motor
- Birdscreen is 1/2" x 1/2" galvanized wire mesh
- AMCA Seal assures certification of Sound and Air Performance
- UL Listed for Standard 705



American Coolair Corporation certifies that the Types CWBA and CWDA 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.



Types CWBA and CWDA ventilators are listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



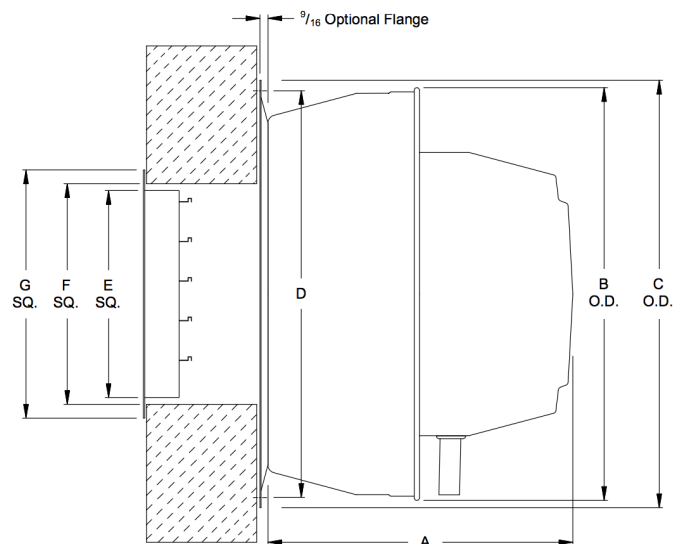
CWBA units provide general exhaust for low to medium air volumes in commercial, institutional and light manufacturing buildings. The centrifugal design has the advantages of a compact, attractive appearance with quiet performance against higher static pressure. The advantages of a CWBA Belt Drive unit include quieter operation, adjustable performance to suit operating needs, and extended service life using the 'C-Drive' bearing arrangement.

FEATURES

- Variable pitch pulley allows for speed adjustments
- Adjustable hinged motor bracket with single bolt adjustment facilitates maintenance of belt tension
- 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
- Unique 'C-Drive' design reduces radial bearing loads, providing a calculated L10 bearing life in excess of 1,000,000 hours
- Aluminum centrifugal wheel's quiet, non-overloading, backward-inclined design is computer balanced
- Standard open drip-proof motor is isolated from the airstream for protection and efficiency
- Motor is mounted with the electrical terminal board facing outward for convenient electrical connection and servicing
- Motor compartment is cooled by a forced air ventilation system, extending motor life
- Heavy-duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound
- Birdscreen prevents the entry of birds or other potentially damaging objects
- Units are factory tested prior to shipment for dependable operation
- UL Listed for Standard 705 (General Ventilation)
- AMCA licensed for Sound and Air Performance



DIMENSIONS



Model	Ventilator Dimensions				Damper Dimensions		
	A	B	C	D	E	F	G
12 - 15	22 1/8	29 7/8	31	29 1/2	15	15 3/4	17 1/2
16 - 20	24 3/8	35 7/8	36	34 1/2	22	22 3/4	24 1/2

Dimensions in Inches

DETAILS

- Available in sizes 12" - 20"
- Produces 711 - 5709 CFM
- Static Pressure to 2"



DRIVE MECHANISM

The belt driven CWBA utilizes the 'C-Drive', a unique bearing and shaft arrangement that increases value, efficiency and longevity. The 'C-Drive' is patterned after American Coolair's unique static shaft drive design that has been in existence for over 75 years, serving the general ventilation markets with reliable propeller products. This type of drive uses a captured bearing arrangement inside of a cast aluminum disc assembly locked to a short, large hex shaft.

The shaft is held stationary and the centrifugal wheel assembly rotates on the shaft instead of the entire assembly rotating.

The wheel is secured to the machined aluminum 'C-Drive' disc, and computer balanced on state-of-the-art equipment.

The result of this design is a reduction of radial loading of the bearings, increasing the calculated L10 bearing life to more than 1,000,000 hours, and average bearing life to 5,000,000 hours - more than 5 times the industry standard.

The machined surface of the 'C-Drive' also provides a rigid backplate for the centrifugal wheel. Electrical connections on the end of the motor face outwards, making field connections swift and simple.

The compact drive assembly provides more room in the motor compartment area and the single bolt, V-belt adjustment makes for a very serviceable unit. More information on the 'C-Drive' can be found below.

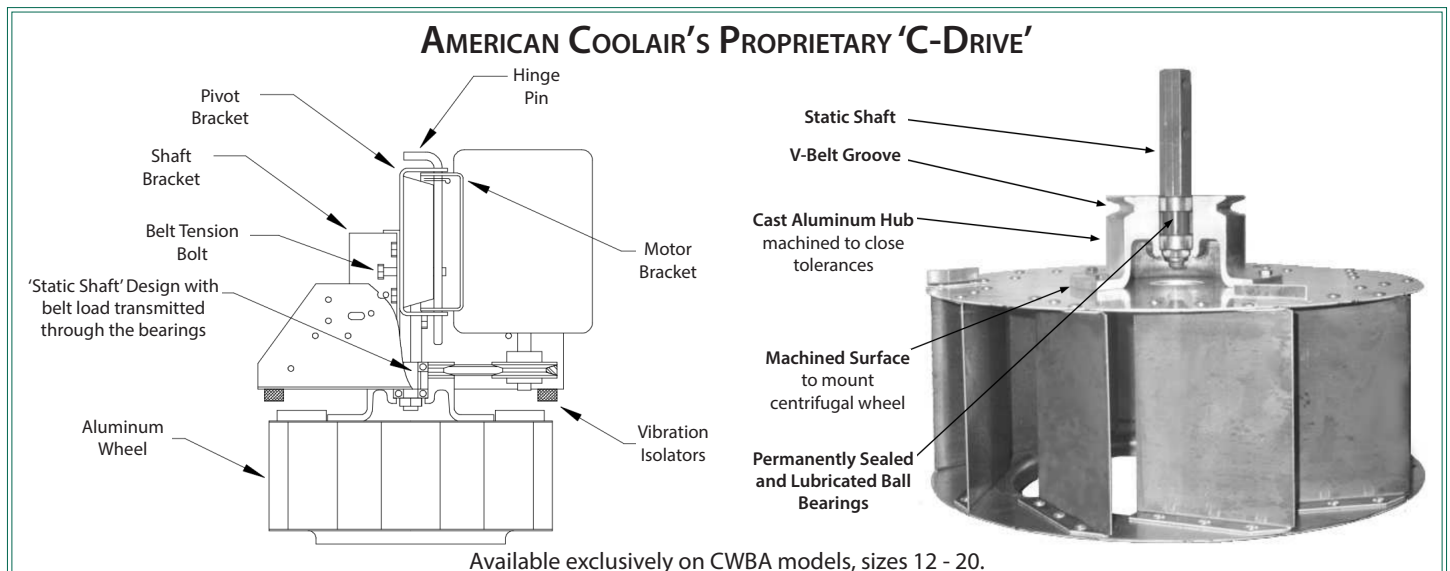
GUIDE SPECIFICATIONS

Wall mounted exhaust fans shall be of the CWBA 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 Sound and Air 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.

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, wall mounting flange and other accessories shall be listed in the fan schedule.





CWDA units provide general exhaust for low to medium air volumes in commercial, institutional and light manufacturing buildings. The centrifugal design has the advantages of a compact, attractive appearance with quiet performance against higher static pressure. The advantages of a CWDA Direct Drive unit include lower maintenance requirements, reduced risks of lower performance levels as a result of loose belts, and lower operating costs.

FEATURES

- Direct Drive configuration reduces maintenance and operating costs
- Safety disconnect device allows power to be turned off for unit service
- Weatherproof heavy-duty spun 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
- Aluminum centrifugal wheel's quiet, non-overloading, backward-inclined design is computer balanced for precision
- Standard open motor is isolated from the airstream for protection and efficiency
- Motor is mounted with the electrical terminal board facing outward for convenient electrical connection and servicing
- Motor compartment is cooled by a forced air ventilation system, extending motor life
- Heavy-duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound
- Birdscreen prevents the entry of birds and other potentially damaging objects
- Units are factory tested prior to shipment for dependable operation
- UL Listed for Standard 705 (General Ventilation)
- AMCA licensed for Sound and Air Performance

DETAILS

- Available in sizes 6" - 20"
- Produces 133 - 4942 CFM
- Static Pressure to 1"



DRIVE MECHANISM

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

ENERGYSAVER SPEED CONTROLLABLE MOTOR

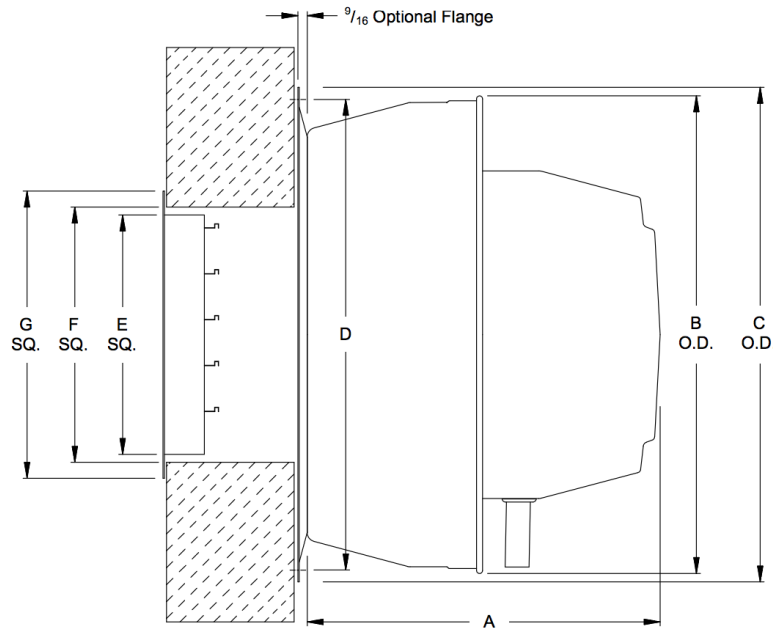
American Coolair is proud to introduce our new line of EnergySaver motors. These electronically controlled (EC) motors are controllable to 20% of nameplate speed and provide premium efficiency throughout their speed range. When compared to the standard permanent split capacitor (PSC) motors, EnergySaver motors can provide energy savings of 50% or more!

The dial speed controller for the EnergySaver motor can be specified and pre-wired at the factory, or packaged loose for remote field mounting. EnergySaver motors may also be specified for use with a variable pressure control (VPC). The VPC features a remotely mounted pressure sensor which is connected to the motor controller. Motor speed is then automatically adjusted based on the system status as indicated by the pressure sensor. Once set and tuned for the system, the VPC allows for fully automated ventilation control.

EnergySaver motors are available for CWDA06 - CWDA15.



DIMENSIONS



Model	Ventilator Dimensions				Damper Dimensions		
	A	B	C	D	E	F	G
06 - 10	12 1/8	23 3/4	25 1/4	24 1/8	10 1/4	10 3/4	13 1/2
12E10							
12J16							
13F11	17	29 7/8	31	29 1/2	14 1/4	14 3/4	17 1/2
13J15							
15H10							
15K15							
12J17							
13K17	22 1/8	29 7/8	31	29 1/2	14 1/4	14 3/4	17 1/2
15L17							
16 - 20	24 3/8	35 7/8	36	34 1/2	18 1/4	18 3/4	21 1/2

Dimensions in Inches

GUIDE SPECIFICATIONS

Wall mounted exhaust fans shall be of the CWDA 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 Sound and Air 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, wall mounting flange and other accessories shall be listed in the fan schedule.



CWBA 12

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 L	1/4 H	1/3		1/2	3/4		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone						
1101	1024	942	846	742																						1072	
0.08	6.2	0.09	5.8	0.10	5.6	0.10	5.4	0.10	5.2																		
1150	1076	998	909	815																							1119
0.09	6.6	0.10	6.3	0.11	6.1	0.12	6.0	0.12	5.7																		
1198	1127	1053	971	881																							1166
0.11	7.2	0.11	6.8	0.12	6.6	0.13	6.6	0.13	6.3																		
1245	1177	1106	1030	943	711																						1212
0.12	7.6	0.13	7.3	0.14	7.1	0.14	7.1	0.15	6.9	0.15	6.6																
1294	1228	1160	1088	1005	810																						1259
0.13	8.2	0.14	7.9	0.15	7.7	0.16	7.7	0.17	7.5	0.17	7.1																
1341	1278	1212	1144	1067	895																						1305
0.15	8.7	0.16	8.5	0.17	8.3	0.18	8.2	0.18	8.1	0.19	7.7																
1389	1328	1265	1201	1128	970																						1352
0.16	9.3	0.17	9.1	0.18	8.9	0.19	8.8	0.20	8.8	0.21	8.3																
1437	1379	1318	1256	1188	1038	820																					1399
0.18	9.9	0.19	9.7	0.20	9.6	0.21	9.4	0.22	9.4	0.23	9.0	0.23	8.7														
1485	1428	1369	1309	1246	1101	918																					1445
0.20	10.6	0.21	10.4	0.22	10.2	0.23	10.0	0.24	10.1	0.25	9.7	0.25	9.3														
1533	1478	1422	1364	1303	1165	1007																					1492
0.22	11.3	0.23	11.1	0.24	10.9	0.25	10.7	0.26	10.7	0.28	10.4	0.28	10.1														
1581	1528	1473	1418	1360	1227	1086	859																				1539
0.24	11.9	0.25	11.7	0.27	11.5	0.28	11.3	0.29	11.2	0.30	11.2	0.31	10.9	0.30	10.7												
1628	1577	1524	1470	1414	1289	1156	962																				1585
0.26	12.6	0.28	12.4	0.29	12.3	0.30	12.1	0.31	12.0	0.33	11.9	0.34	11.7	0.33	11.4												
1677	1627	1575	1523	1470	1351	1222	1059																				1632
0.29	13.4	0.30	13.2	0.31	13.0	0.33	12.9	0.34	12.7	0.36	12.8	0.37	12.5	0.37	12.3												
1724	1675	1625	1575	1523	1410	1285	1144																				1678
0.31	14.2	0.33	14.0	0.34	13.8	0.35	13.7	0.36	13.5	0.38	13.6	0.40	13.3	0.40	13.1												
1772	1725	1677	1627	1577	1470	1348	1221	1029																			1725
0.34	15.0	0.35	14.9	0.37	14.6	0.38	14.6	0.39	14.3	0.41	14.3	0.43	14.1	0.43	14.0	0.43	13.6										
1821	1774	1727	1680	1631	1529	1410	1292	1128																			1772
0.37	15.8	0.38	15.7	0.40	15.4	0.41	15.4	0.42	15.1	0.44	15.1	0.46	14.9	0.47	14.7	0.47	14.5										
1868	1823	1777	1731	1683	1585	1472	1357	1217																			1818
0.40	16.5	0.41	16.3	0.43	16.1	0.44	16.1	0.45	15.8	0.48	15.7	0.50	15.6	0.51	15.3	0.51	15.2										
1916	1872	1828	1783	1737	1642	1534	1421	1298																			1865
0.43	17.2	0.44	17.0	0.46	16.8	0.47	16.8	0.49	16.6	0.51	16.3	0.53	16.3	0.55	16.0	0.55	15.8										
1963	1921	1877	1833	1789	1697	1594	1483	1371																			1911
0.46	17.8	0.48	17.7	0.49	17.4	0.51	17.4	0.52	17.3	0.55	17.0	0.57	16.9	0.59	16.7	0.59	16.5										
2012	1970	1928	1885	1841	1752	1655	1546	1440	1113																		1958
0.50	18.5	0.51	18.4	0.53	18.2	0.54	18.1	0.56	18.0	0.58	17.6	0.61	17.6	0.63	17.4	0.63	17.2	0.62	16.8								
2060	2019	1978	1936	1894	1807	1714	1609	1505	1217																		2005
0.54	19.3	0.55	19.1	0.57	18.9	0.58	18.8	0.60	18.7	0.62	18.3	0.65	18.3	0.67	18.1	0.68	17.9	0.67	17.5								
2107	2067	2027	1986	1945	1861	1771	1670	1568	1313																		2051
0.57	20	0.59	19.9	0.60	19.6	0.62	19.4	0.64	19.4	0.66	18.9	0.69	19.0	0.71	18.8	0.73	18.6	0.73	18.2								

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). 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 hemispherical sone levels.



CWBA 13

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		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
1487		1385		1291		1199		1076																	1072	
0.14	8.5	0.15	7.8	0.16	7.2	0.17	6.9	0.17	6.7																	
1552		1454		1363		1277		1170		870															1119	
0.16	9.4	0.17	8.6	0.18	8.0	0.19	7.7	0.20	7.4	0.19	6.9														1166	
1617		1523		1435		1352		1259		997															1212	
0.18	10.3	0.19	9.5	0.21	8.7	0.22	8.4	0.22	8.1	0.22	7.7															
1681		1590		1505		1425		1341		1104															1259	
0.20	11.2	0.22	10.4	0.23	9.5	0.24	9.2	0.25	8.9	0.25	8.4															
1746		1659		1576		1498		1420		1205		877													1305	
0.23	12.2	0.24	11.4	0.26	10.4	0.27	10.0	0.27	9.7	0.28	9.2	0.26	8.7													
1810		1726		1645		1569		1495		1301		1042													1352	
0.25	13.3	0.27	12.4	0.28	11.3	0.30	10.9	0.30	10.6	0.31	10.1	0.30	9.6													
1875		1794		1715		1641		1570		1397		1165													1399	
0.28	14.4	0.29	13.5	0.31	12.3	0.33	11.7	0.34	11.5	0.34	10.9	0.34	10.5													
1940		1861		1786		1713		1644		1488		1273		928											1445	
0.31	15.2	0.33	14.4	0.34	13.2	0.36	12.4	0.37	12.2	0.38	11.6	0.38	11.2	0.34	10.7											
2004		1928		1854		1783		1716		1573		1373		1124											1492	
0.34	15.9	0.36	15.1	0.37	14.0	0.39	13.1	0.41	12.8	0.42	12.3	0.42	11.9	0.40	11.5											
2069		1995		1924		1854		1789		1655		1472		1254											1539	
0.38	16.6	0.39	15.8	0.41	14.8	0.43	13.9	0.44	13.5	0.46	13.0	0.46	12.6	0.45	12.3											
2134		2062		1993		1926		1861		1735		1569		1367		1058									1585	
0.41	17.3	0.43	16.5	0.45	15.6	0.47	14.7	0.48	14.2	0.50	13.7	0.51	13.3	0.50	13.0	0.47	12.6									
2198		2128		2061		1995		1932		1810		1660		1469		1238									1632	
0.45	18.0	0.47	17.3	0.49	16.4	0.51	15.5	0.52	14.9	0.55	14.5	0.56	14.0	0.55	13.6	0.53	13.4									
2263		2195		2129		2065		2003		1885		1750		1570		1367									1678	
0.49	18.7	0.51	18.1	0.53	17.2	0.55	16.3	0.57	15.7	0.59	15.3	0.60	14.7	0.60	14.4	0.59	14.3									
2327		2261		2197		2134		2073		1958		1833		1666		1479									1725	
0.54	19.5	0.55	18.8	0.57	18.0	0.59	17.1	0.61	16.4	0.64	16.0	0.66	15.5	0.66	15.3	0.65	15.0									
2392		2328		2265		2204		2145		2032		1915		1763		1585									1772	
0.58	20	0.60	19.6	0.62	18.8	0.64	17.9	0.66	17.2	0.69	16.8	0.71	16.3	0.72	16.1	0.71	15.9									
2457		2395		2334		2274		2216		2105		1995		1856		1686		1191								
0.63	21	0.65	20	0.67	19.7	0.69	18.8	0.71	18.1	0.75	17.6	0.77	17.1	0.78	16.9	0.77	16.6	0.70	16.3							

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). 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 hemispherical sone levels.



CWBA 15

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		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
2013		1917		1817		1712		1597		1289																1072
0.24	9.1	0.26	8.4	0.27	8.2	0.28	8.7	0.29	8.3	0.28	7.9															1119
2102		2009		1914		1815		1709		1437																1166
0.28	9.8	0.29	9.1	0.31	8.9	0.32	9.3	0.32	9.4	0.33	8.7															1212
2190		2101		2010		1916		1817		1575		1249														1259
0.31	10.5	0.33	9.8	0.34	9.5	0.35	9.7	0.36	10.4	0.37	9.6	0.37	9.5													1305
2276		2191		2104		2014		1920		1701		1403														1352
0.35	11.2	0.37	10.5	0.38	10.2	0.40	10.4	0.41	11.3	0.42	10.4	0.41	10.3													1399
2364		2283		2199		2113		2024		1823		1556														1445
0.39	12.0	0.41	11.2	0.43	11.0	0.44	11.1	0.45	11.9	0.46	11.4	0.46	11.2													1492
2451		2372		2291		2209		2124		1937		1698		1401												1539
0.44	12.8	0.46	12.0	0.47	11.7	0.49	11.9	0.50	12.3	0.52	12.2	0.52	11.8	0.51	11.8											1585
2539		2463		2386		2306		2225		2049		1835		1559												1632
0.49	13.7	0.51	12.9	0.53	12.6	0.54	12.7	0.55	12.9	0.57	13.2	0.58	12.5	0.57	12.4											1678
2627		2554		2479		2403		2325		2159		1963		1712		1421										1706
0.54	14.6	0.56	13.8	0.58	13.5	0.60	13.6	0.61	13.8	0.63	14.2	0.64	13.3	0.63	13.1	0.63	13.0									1778
2714		2643		2570		2497		2421		2263		2082		1857		1588										1825
0.60	15.5	0.62	14.7	0.64	14.4	0.65	14.4	0.67	14.6	0.69	15.0	0.70	14.1	0.70	13.8	0.70	13.7									1872
2802		2733		2663		2592		2520		2369		2200		1995		1744										1919
0.66	16.5	0.68	15.7	0.70	15.3	0.72	15.3	0.73	15.5	0.76	15.8	0.77	15.1	0.78	14.6	0.77	14.5									1966
2890		2824		2756		2687		2617		2472		2314		2127		1897										2013
0.72	17.5	0.74	16.7	0.76	16.3	0.78	16.3	0.80	16.5	0.83	16.6	0.84	16.0	0.85	15.4	0.84	15.3									2060
2977		2912		2846		2780		2712		2572		2422		2249		2040										2107
0.79	18.6	0.81	17.7	0.83	17.2	0.85	17.2	0.87	17.4	0.90	17.5	0.92	17.0	0.93	16.3	0.93	16.1									2154
3065		3002		2939		2874		2808		2674		2531		2370		2179		1706								2201
0.86	19.6	0.88	18.7	0.91	18.2	0.93	18.2	0.94	18.4	0.97	18.5	1.00	18.0	1.01	17.4	1.02	17.1	1.00	16.9							2248
3151		3090		3029		2966		2902		2772		2635		2484		2308		1865								2295
0.93	21	0.96	19.7	0.98	19.3	1.00	19.2	1.02	19.3	1.05	19.5	1.08	18.9	1.10	18.4	1.11	18.0	1.09	17.9							2342

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). 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 hemispherical sone levels.



CWBA 16

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		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
2529		2399		2270		2131		1977		1587															954	
0.31	10.1	0.32	9.6	0.34	9.4	0.35	9.1	0.36	8.9	0.35	8.1															
2627		2501		2378		2247		2098		1780															991	
0.34	10.7	0.36	10.3	0.38	10.1	0.39	9.9	0.40	9.8	0.40	9.0															
2725		2604		2485		2362		2220		1938		1198													1028	
0.38	11.4	0.40	10.9	0.42	10.7	0.44	10.6	0.45	10.5	0.45	9.9	0.39	8.2													
2821		2703		2588		2471		2339		2073		1563													1064	
0.43	12.1	0.45	11.7	0.47	11.4	0.48	11.3	0.49	11.3	0.50	10.8	0.47	9.4													
2919		2805		2694		2581		2458		2200		1829													1101	
0.47	12.9	0.49	12.5	0.51	12.3	0.53	12.2	0.54	12.2	0.56	11.7	0.54	10.7													
3017		2907		2799		2691		2576		2322		2025	1208												1138	
0.52	13.7	0.54	13.4	0.56	13.1	0.58	13.0	0.60	13.0	0.62	12.6	0.61	11.8	0.52	9.7											
3113		3006		2901		2796		2687		2439		2185	1603												1174	
0.57	14.5	0.59	14.2	0.62	13.9	0.64	13.7	0.65	13.7	0.67	13.5	0.67	12.8	0.61	11.0											
3211		3107		3006		2904		2800		2560		2329	1915												1211	
0.63	15.4	0.65	15.1	0.67	14.9	0.70	14.7	0.71	14.6	0.74	14.5	0.74	13.8	0.71	12.5											
3309		3208		3109		3011		2911		2682		2461	2141	1339											1248	
0.69	16.3	0.71	16.1	0.73	15.8	0.76	15.6	0.78	15.5	0.80	15.5	0.81	15.0	0.79	13.9	0.69	11.6									
3407		3309		3213		3118		3021		2804		2586	2323	1746											1285	
0.75	17.2	0.77	17.0	0.80	16.7	0.82	16.5	0.84	16.4	0.87	16.5	0.89	16.0	0.88	15.2	0.80	13.1									
3502		3407		3314		3221		3128		2922		2704	2477	2058											1321	
0.82	18.1	0.84	17.9	0.86	17.6	0.89	17.4	0.91	17.2	0.94	17.3	0.96	17.0	0.96	16.3	0.91	14.8									
3600		3508		3417		3327		3236		3042		2824	2619	2295											1358	
0.89	19.1	0.91	18.9	0.94	18.6	0.96	18.4	0.98	18.2	1.02	18.3	1.04	18.0	1.05	17.4	1.02	16.2									
3698		3608		3520		3432		3344		3158		2945	2751	2486											1395	
0.96	20	0.99	19.9	1.01	19.7	1.04	19.4	1.06	19.2	1.10	19.3	1.13	19.2	1.14	18.6	1.12	17.6									
3850		3763		3678		3593		3509		3334		3133	2942	2733	1674										1452	
1.08	22	1.11	22	1.14	21	1.16	21	1.19	21	1.23	21	1.26	21	1.28	20	1.28	19.6	1.10	15.7							
3948		3863		3780		3697		3615		3447		3256	3063	2874	2066										1489	
1.17	23	1.19	23	1.22	22	1.25	22	1.28	22	1.32	22	1.36	22	1.38	22	1.38	21	1.26	17.6							
4048		3966		3885		3804		3724		3561		3380	3186	3009	2388										1527	
1.26	24	1.29	24	1.31	23	1.34	23	1.37	23	1.42	23	1.46	23	1.48	23	1.49	22	1.41	19.4							
4147		4066		3986		3908		3830		3671		3499	3307	3134	2627										1564	
1.36	25	1.38	24	1.41	24	1.44	24	1.47	24	1.52	23	1.56	24	1.59	24	1.60	23	1.55	21							
4245		4166		4088		4011		3935		3781		3616	3429	3257	2823										1601	
1.45	25	1.48	25	1.51	25	1.54	25	1.57	25	1.62	24	1.66	24	1.70	24	1.71	24	1.69	22							

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). 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 hemispherical sone levels.



CWBA 18

CFM at Static Pressure																				RPM Range Motor HP					RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/2	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					
3248		3011		2893		2767		2612		2161															918	
0.42	11.3	0.44	10.3	0.46	10.1	0.48	9.9	0.49	9.5	0.48	8.6															
3375		3140		3024		2908		2764		2386		1658													954	
0.47	12.0	0.50	11.0	0.52	10.7	0.54	10.7	0.55	10.3	0.55	9.5	0.48	8.4													
3506		3272		3158		3049		2918		2590		2018													991	
0.53	12.8	0.56	11.8	0.58	11.5	0.60	11.4	0.61	11.1	0.62	10.5	0.57	9.3													
3637		3404		3292		3189		3068		2771		2285													1028	
0.59	13.5	0.62	12.6	0.64	12.3	0.66	12.2	0.68	12.0	0.69	11.4	0.66	10.4													
3764		3532		3421		3322		3211		2936		2521		1822												1064
0.65	14.3	0.68	13.4	0.71	13.0	0.73	13.0	0.75	12.9	0.77	12.3	0.75	11.4	0.66	10.3											
3895		3664		3554		3458		3355		3099		2752		2198												1101
0.72	15.1	0.76	14.2	0.78	13.8	0.80	13.8	0.83	13.8	0.85	13.3	0.84	12.5	0.77	11.3											
4026		3796		3687		3593		3497		3258		2958		2477		1554										1138
0.80	15.9	0.83	15.0	0.86	14.6	0.88	14.6	0.91	14.7	0.94	14.3	0.94	13.6	0.88	12.5	0.73	11.5									
4153		3925		3815		3724		3633		3409		3137		2717		2097										1174
0.88	16.8	0.91	15.9	0.94	15.4	0.96	15.5	0.99	15.6	1.03	15.2	1.03	14.6	1.00	13.6	0.90	12.5									
4284		4056		3948		3858		3771		3562		3310		2955		2449										1211
0.96	17.7	1.00	16.8	1.03	16.3	1.05	16.4	1.08	16.5	1.12	16.3	1.13	15.7	1.11	14.8	1.03	13.7									
4479		4252		4144		4056		3974		3785		3555		3273		2845										1266
1.10	19.1	1.14	18.1	1.17	17.7	1.20	17.7	1.22	17.9	1.27	17.8	1.29	17.3	1.29	16.6	1.23	15.5									
4610		4384		4276		4190		4109		3932		3715		3462		3087										1303
1.20	20	1.24	19.1	1.27	18.7	1.30	18.7	1.33	18.8	1.38	18.8	1.41	18.3	1.41	17.7	1.37	16.8									
4741		4516		4408		4322		4244		4077		3871		3637		3320		2227								1340
1.30	21	1.35	20	1.38	19.7	1.41	19.6	1.44	19.8	1.49	19.9	1.53	19.4	1.54	18.9	1.51	18.0	1.31	16.0							
4875		4652		4543		4459		4381		4223		4029		3810		3538		2651								1378
1.42	22	1.46	21	1.49	21	1.53	21	1.56	21	1.61	21	1.65	21	1.67	20	1.66	19.3	1.50	17.1							
5006		4783		4675		4591		4515		4363		4182		3973		3731		2958								1415
1.54	23	1.58	22	1.61	22	1.65	21	1.68	21	1.74	22	1.78	21	1.81	21	1.80	20	1.67	18.2							
5137		4915		4807		4723		4649		4502		4331		4132		3910		3219								1452
1.66	24	1.71	23	1.74	23	1.77	22	1.81	22	1.87	23	1.92	22	1.95	22	1.95	21	1.85	19.4							
5268		5047		4939		4856		4782		4640		4479		4289		4081		3463								1489
1.79	25	1.84	24	1.87	24	1.91	23	1.94	23	2.00	23	2.06	23	2.10	23	2.11	22	2.04	21							
5402		5183		5075		4991		4918		4780		4629		4448		4251		3708								1527
1.93	26	1.98	25	2.02	25	2.05	24	2.09	24	2.15	24	2.21	24	2.25	24	2.27	23	2.23	22							

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). 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 hemispherical sone levels.



CWBA 20

CFM at Static Pressure																		RPM Range Motor HP				RPM			
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		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				
3753		3595		3438		3263		3045		2550		1543													
0.56	11.9	0.59	11.5	0.61	11.2	0.63	11.0	0.63	10.8	0.63	9.9	0.52	9.3											881	
3911		3759		3608		3447		3247		2803		2021													
0.64	12.8	0.67	12.4	0.69	12.2	0.70	12.0	0.72	11.8	0.72	10.9	0.64	10.2											918	
4064		3919		3773		3622		3440		3026		2416													
0.71	13.7	0.75	13.3	0.77	13.1	0.79	12.9	0.80	12.7	0.81	12.0	0.76	11.1											954	
4222		4082		3942		3799		3634		3240		2745		1816											
0.80	14.6	0.84	14.3	0.86	14.0	0.88	13.9	0.89	13.7	0.91	13.1	0.89	12.2	0.75	11.7									991	
4380		4244		4109		3973		3822		3448		3021		2279											
0.89	15.6	0.93	15.3	0.96	15.1	0.98	14.9	0.99	14.7	1.01	14.2	1.00	13.4	0.90	12.7									1028	
4533		4402		4272		4141		4000		3647		3262		2675											
0.99	16.5	1.03	16.3	1.06	16.1	1.08	15.9	1.10	15.7	1.12	15.3	1.12	14.5	1.05	13.7									1064	
4759		4634		4510		4386		4256		3937		3584		3140		2389									
1.15	18.0	1.19	17.8	1.22	17.6	1.24	17.4	1.26	17.2	1.29	16.9	1.30	16.3	1.27	15.4	1.14	14.8							1117	
4917		4796		4675		4556		4432		4137		3797		3410		2811									
1.26	19.1	1.31	18.9	1.34	18.6	1.37	18.4	1.39	18.3	1.42	18.0	1.43	17.5	1.42	16.6	1.33	15.9							1154	
5074		4957		4841		4724		4606		4333		4003		3656		3170									
1.39	20	1.43	19.9	1.47	19.7	1.50	19.6	1.52	19.4	1.55	19.0	1.57	18.7	1.57	17.9	1.52	17.1							1191	
5236		5123		5010		4897		4783		4529		4213		3890		3481									
1.53	21	1.57	21	1.61	21	1.64	21	1.67	21	1.70	20	1.73	19.9	1.73	19.2	1.70	18.3							1229	
5394		5284		5174		5064		4955		4716		4416		4107		3749		2466							
1.67	22	1.72	22	1.76	22	1.79	22	1.81	22	1.85	21	1.88	21	1.89	20	1.88	19.6	1.61	18.5					1266	
5551		5444		5338		5231		5125		4899		4618		4317		3994		2914							
1.82	23	1.87	23	1.91	23	1.94	23	1.97	23	2.01	22	2.05	22	2.06	22	2.06	21	1.84	19.4					1303	
5709		5605		5501		5398		5294		5078		4817		4523		4224		3324							
1.98	24	2.03	24	2.07	24	2.11	24	2.14	23	2.18	23	2.22	23	2.24	23	2.24	22	2.09	20					1340	

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). 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 hemispherical sone levels.



CWDA 06

CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM	
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA06A11	CWDA06C16	CWDA06E16		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP		1/13 HP
183																				550
0.00	0.6																			
266		180																		800
0.01	2.3	0.01	1.3																	
315		251		141																950
0.01	3.4	0.01	2.6	0.01	2.1															
365		309		235		133														1100
0.02	4.7	0.02	4.2	0.02	3.6	0.02	3.2													
415		364		315		226		137												1250
0.03	6.5	0.03	6.1	0.03	5.5	0.03	5.1	0.03	4.7											
465		420		377		320		234												1400
0.04	7.8	0.04	7.3	0.04	6.7	0.04	6.4	0.04	6.1											
531		493		453		415		360		283										1600
0.05	10.1	0.05	9.4	0.06	8.8	0.06	8.1	0.06	7.9	0.06	7.6									
548		511		471		436		388		315										1650
0.06	10.8	0.06	10.1	0.06	9.4	0.07	8.8	0.07	8.6	0.07	8.2									

CWDA 08

CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM	
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA08A11	CWDA08C15	CWDA08E16		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP		1/13 HP
233																				550
0.00	0.5																			
339		256																		800
0.01	2.2	0.01	1.3																	
402		332		222																950
0.01	3.4	0.01	2.5	0.02	2.2															
466		408		342		209														1100
0.02	4.6	0.02	4.1	0.02	3.9	0.02	3.7													
530		480		424		342		215												1250
0.03	6.3	0.03	5.9	0.03	5.8	0.04	5.6	0.03	5.4											
593		549		498		452		360		244										1400
0.04	7.6	0.04	7.2	0.05	7.0	0.05	6.8	0.05	6.7	0.04	6.5									
657		617		574		529		480		390										1550
0.06	8.9	0.06	8.6	0.06	8.1	0.06	8.2	0.07	8.0	0.07	7.9									
688		650		611		565		527		451		366								1625
0.06	9.8	0.07	9.4	0.07	8.8	0.07	8.9	0.08	8.7	0.08	8.6	0.08	8.5							

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). 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 hemispherical sone levels.

* These models are not compatible with variable speed control.

AMCA Certified Ratings apply to the CWDA Wall Ventilator constant speed fans and not variable speed fans.



CWDA 10

CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA10A11		CWDA10C15	CWDA10E15
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																			550
0.00	0.5																		
435		350																	800
0.01	1.8	0.01	1.1																
517		450		344															950
0.02	2.9	0.02	2.5	0.02	1.8														
598		546		472		355													1100
0.03	4.7	0.03	4.4	0.03	3.6	0.03	3.1												
680		637		575		501		386											1250
0.04	6.8	0.04	6.5	0.05	5.9	0.05	5.2	0.05	4.8										
762		725		673		616		540		434									1400
0.05	8.1	0.05	7.8	0.06	7.4	0.07	6.6	0.07	6.2	0.07	5.7								
816		783		737		684		625		542									1500
0.06	8.9	0.07	8.7	0.07	8.4	0.08	7.7	0.08	7.2	0.08	6.7								
857		826		784		734		681		613		523							1575
0.07	9.7	0.08	9.4	0.08	9.2	0.09	8.5	0.09	8.0	0.09	7.6	0.09	7.0						

CWDA 12

CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA12E10		CWDA12J16	CWDA12J17*
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																
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								
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				
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				

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). 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 hemispherical sone levels.

* These models are not compatible with variable speed control.

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CWDA 13

CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA13F11		CWDA13J15	CWDA13K17*
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												
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				
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				

CWDA 15

CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA15H11		CWDA15K15	CWDA15L17*
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3 HP		3/4 HP	1 HP
1019		818																	550
0.03	2.7	0.04	1.7																
1204		1048		826															650
0.06	3.9	0.06	3.0	0.06	2.6														
1390		1260		1092		874													750
0.08	5.1	0.09	4.3	0.10	3.8	0.10	3.5												
1760		1660		1549		1411		1260		1071									950
0.17	7.9	0.18	7.1	0.20	6.8	0.20	6.4	0.20	6.3	0.20	5.9								
2038		1952		1862		1757		1636		1514		1353							1100
0.27	10.4	0.28	9.7	0.30	9.2	0.31	8.9	0.31	8.6	0.32	8.5	0.31	8.3						
2131		2048		1963		1868		1753		1640		1503		1152					1150
0.31	11.4	0.32	10.6	0.34	10.2	0.35	9.9	0.36	9.5	0.36	9.4	0.36	9.3	0.34	8.8				
2316		2240		2163		2081		1984		1877		1773		1502					1250
0.39	13.3	0.41	12.6	0.42	12.2	0.44	11.9	0.45	11.5	0.46	11.2	0.46	11.2	0.46	10.8				
2640		2574		2507		2438		2364		2280		2186		2001					1425
0.58	16.2	0.60	15.5	0.62	14.9	0.64	14.6	0.65	14.3	0.67	14.0	0.67	13.8	0.69	13.6				
2872		2811		2750		2687		2622		2552		2473		2301					1550
0.75	18.4	0.77	17.6	0.79	17.1	0.81	16.8	0.83	16.5	0.85	16.3	0.86	16.0	0.87	15.5				
3196		3142		3086		3031		2974		2915		2853		2708					1725
1.03	22	1.05	21	1.07	21	1.10	20	1.12	19.8	1.14	19.6	1.16	19.4	1.19	18.8				

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CWDA 16

CFM at Static Pressure														RPM OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA16J8*		CWDA16L11*	CWDA16N17*	
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
2187		2037		1884		1708		1523		1082										825
0.20	8.7	0.21	8.0	0.23	7.7	0.23	7.5	0.23	7.0	0.21	6.7									
3075		2967		2862		2755		2644		2517		2394		2125						1160
0.55	18.3	0.57	17.3	0.60	16.6	0.62	16.1	0.63	15.8	0.64	15.5	0.65	14.7	0.65	14.0					
4640		4568		4496		4426		4356		4286		4216		4072						1750
1.90	34	1.93	33	1.96	32	1.99	32	2.03	31	2.06	30	2.09	30	2.14	29					

CWDA 18

CFM at Static Pressure														RPM OF SELECTED MODELS		RPM				
0.00		.125		.250		.375		.500		.625		.750		1.00			CWDA18J8*	CWDA18L11*		
BHP	Sone	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					

CWDA 20

CFM at Static Pressure														RPM OF SELECTED MODEL	RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA20M11*		
BHP	Sone	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				
1.28	22	1.33	20	1.36	19.0	1.39	19.2	1.41	19.6	1.43	19.4	1.44	18.9	1.46	18.8			1160

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). 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 hemispherical sone levels.

*These models are not compatible with variable speed control.

AMCA Certified Ratings apply to the CWDA Wall Ventilator constant speed fans and not variable speed fans.



This chart shows which options and accessories are available on American Coolair's Centrifugal Wall Exhaust Fans.

Descriptions of these options and accessories are available below.

Options & Accessories	CWBA	CWDA
Wall Mounting Flanges	✓	✓
Two-Speed Motors	Most Models	
Totally Enclosed Motors	Most Models	Select Models
EnergySaver Speed Controllable Motors		Sizes 06 - 15
Explosion-Proof Motors	✓	Select Models
Speed Controls		Most Models
Backdraft Dampers	✓	✓
Safety Disconnect Switches	✓	Standard
Specialty Protective Coatings	✓	✓

WALL MOUNTING FLANGES

Available for convenient installation, but not required to complete installation.

MOTORS

Many different and specialty motors may be available, including:

- Two-Speed
- Totally Enclosed
- Energy Efficient
- Explosion-Proof

Specialty motors may affect the fan's UL Listing. Check with your American Coolair Representative for more information and availability.

ENERGYSAVER SPEED CONTROLLABLE MOTOR

Electronically controlled (EC) motors are controllable to 20% of nameplate speed and provide premium efficiency throughout their speed range. When compared to the standard permanent split capacitor (PSC) motors, EnergySaver motors can provide energy savings of 50% or more. For more information see pg 6.

SPEED CONTROLS

Provide the capability to adjust speed and performance, ranging from 50 - 100% of fan capacity. Allows for fine adjustment when balancing and tuning.

BACKDRAFT DAMPERS

Recommended to prevent air flow through the fan when the power supply is turned off. Aluminum dampers are available as automatic (gravity-operated), or motor-operated for positive opening and closing.

SAFETY DISCONNECT DEVICES

Safety disconnects cut power to the motor for servicing. A disconnect device with a factory mounted and wired junction box is standard for all CWDA models. A disconnect switch is an available accessory for CWBA models, and can be factory mounted and wired, or shipped loose for field installation. An optional wiring harness is available to connect the motor to the switch at the internal junction box.

PROTECTIVE COATINGS

Special protective coatings are available for units that may be exposed to corrosive exterior conditions. All painted parts are processed through the American Coolair five-stage pre-treatment system prior to the application of any coatings to ensure maximum finish adhesion. American Coolair uses a thermosetting epoxy powder paint with an average 3mm thickness, baked at 400° F for a smooth, hard, continuous finish.



RECEIPT

Models are shipped fully assembled and ready for installation. Always inspect equipment for damage during shipping and transit before accepting the delivery to assure a valid claim. Special handling and storage procedures (page 20) are required if the unit is to remain idle for a long time prior to installation.

PLACEMENT

All belt-driven units must be installed for accessibility to belts, motors and pulleys for regular maintenance. Vertical wheel operation is recommended to assure satisfactory damper operation.

MOUNTING

Units must be mounted on adequately designed and constructed wall openings to ensure the satisfactory operation of wall mounted exhaust fans.

Wall mounting flanges are not required, but are available for convenience in installation.

Install the unit so that the base is positioned vertically. Provide adequate caulking, flashing or other weather-proofing measures.

INSPECTION

1. Check centrifugal wheel for free rotation
2. Check belt for proper tension
3. Check motor and fan sheave faces for proper alignment
4. Check circuit phase, voltage and wiring connection against that shown on the motor nameplate
5. Check the direction of fan rotation for proper air flow
6. Check the belt after one week of operation for proper tension

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. If eroded parts are found they should be replaced immediately to avoid structural damage to the unit or possible failure.

Proper motor lubrication is the most important maintenance requirement. Motor bearings should be lubricated according to the motor manufacturer's instructions.

American Coolair's C-Drive bearings are permanently sealed and will never require lubrication.

MORE INFORMATION


For more information on Installation, Operation and Maintenance, refer to the IOM Guide, Form 705-61 included in fan packaging or found online at www.americancoolair.com.

ADJUSTMENT OF VARIABLE PITCH PULLEY & BELT FOR BELT DRIVE MODELS

Variable pitch pulleys may be adjusted within catalog RPM range to alter performance without overloading the motor.

Adjustment beyond the catalog RPM range is not recommended as it may cause the motor to overload and fail prematurely.

Pulley alignment and belt tension should be checked every 6 to 12 months and adjusted if necessary.

	WARNING	CAUTION
	<p>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.</p>	



AIR VOLUME CALCULATION

RECOMMENDED METHOD : RATE OF AIR VELOCITY

This method will provide adequate air movement to produce personnel comfort, not just minimum ventilation.

$$CFM = H \times W \times V$$

CFM is air volume in cubic feet per minute

H is the height of the building (ft.)

W is the width of the building (ft.)

V is the desired velocity (see table) (ft./min.)

Velocity Table	
Length of Building	Velocity
Up to 100'	150 ft./min
100' to 200'	200 ft./min
200' to 300'	250 ft./min
300' +	250 ft./min + booster fans

Example: Laundry 100' long by 30' wide by 15' high. Air is to be pulled through the 100' length.

$$CFM = 15' \times 30' \times 150 \text{ ft./min.} = 67,500 \text{ cu ft./min.}$$

METRIC CONVERSIONS

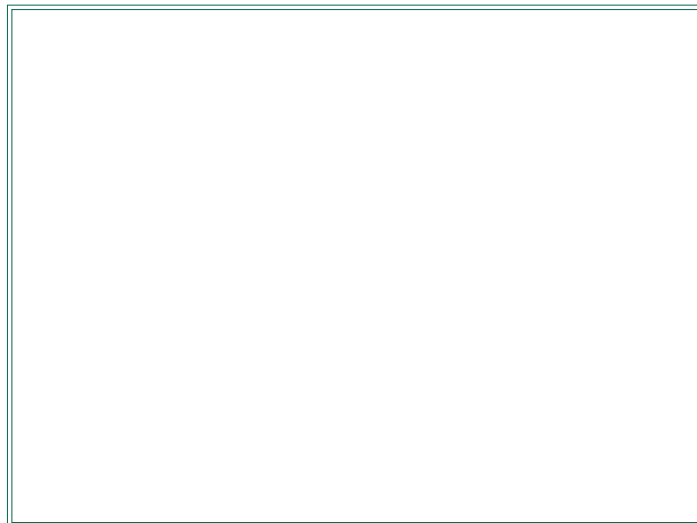
- Multiply CFM x .000472 to obtain cubic meters per second (CMS).
- Multiply SP x 248.36 to obtain Pascals (Pa).
- Multiply BHP x .7457 to obtain Kilowatts (kW).

EXAMPLE

$$3904 \text{ CFM} \times .000472 = 1.8427 \text{ CMS}$$

$$0.125 \text{ SP} \times 248.36 = 31.05 \text{ Pa}$$

$$0.886 \text{ BHP} \times .7457 = 0.661 \text{ kW}$$



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 RE-INSTALLATION 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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