# CBCN

### **AXIAL WALL FAN**

FEATURING AMERICAN COOLAIR'S NEW N AIRFOIL BLADE

AMERICAN COOLAIR'S NEWEST HIGH-EFFICIENCY
CAST AIRFOIL BLADE FEATURES A VARIABLE CHORD WIDTH,
VARIABLE TWIST RATE AND A CONTEMPORARY BLADE DESIGN.

The N blade is designed with a broad profile featuring a variable chord width & twist rate, allowing for slower operating speeds resulting in a highly efficient, quiet fan with low operating costs.

The adjustable pitch design offers a wide range of configurations to meet specified airflow and pressure requirements.



#### **CBCN Model Overview**

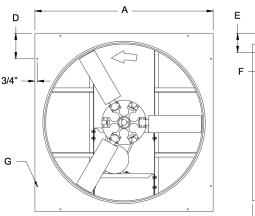
- AMCA Licensed for Sound and Air
- Epoxy coated steel panel and rugged angle frame form the rigid structure for CBCN fans
- The steel fan shaft is supported by two pillow-block ball bearings attached to the bearing support
- Designed to move large volumes of air efficiently at both lower and higher pressures
- · The motor pulley on most models can be opened to reduce fan speed, decreasing air flow
- Available with variable frequency drives to further adjust airflow
- Available in sizes 48", 54" & 60"

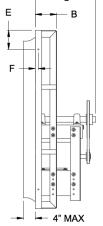
The CBCN fan line offers quality construction and industrial strength without sacrificing performance

#### Performance Ratings

Fan Model	Fan	an Cubic Feet Per Minute (CFM) at Static Pressure							Motor	Fan	Sones	Max	Bla	ade
	Size	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	HP	RPM	(@ 0")	ВНР	No.	Pitch
CBCN483M	48	24,004	21,258	18,155	14,425				1 1/2	598	21	1.70	3	20°
CBCN486M		23,514	21,207	18,427	14,136				1 1/2	452	16.9	1.70	6	25°
CBCN483N		26,533	24,076	21,360	18,345	14,357			2	661	25	2.30	3	20°
CBCN486N		26,115	24,072	21,704	18,858				2	502	20	2.29	6	25°
CBCN483P		30,387	28,266	25,979	23,511	20,824	17,509		3	757	31	3.45	3	20°
CBCN486P		29,912	28,158	26,205	24,002	21,408			3	575	26	3.45	6	25°
CBCN483Q		36,007	34,235	32,369	30,397	28,316	26,115	23,729	5	897	39	5.74	3	20°
CBCN486Q		35,375	33,912	32,340	30,631	28,768	26,724	24,159	5	680	32	5.72	6	25°
CBCN483R		41,225	39,687	38,089	36,422	34,682	32,871	30,985	7 1/2	1027	48	8.60	3	20°
CBCN486R		40,681	39,419	38,090	36,680	35,175	33,569	31,856	7 1/2	782	39	8.60	6	25°
CBCN483S		45,440	44,049	42,614	41,130	39,593	38,002	36,357	10	1132	57	11.48	3	20°
CBCN486S		44,947	43,810	42,624	41,383	40,077	38,698	37,243	10	864	48	11.48	6	25°
CBCN543M	54	28,339	24,432	19,614					1 1/2	508	19.4	1.70	3	20°
CBCN546M		28,016	24,732	20,645					1 1/2	386	17.3	1.70	6	25°
CBCN543N		31,351	27,890	23,748	19,008				2	562	23	2.30	3	20°
CBCN546N		30,919	27,984	24,589	19,724				2	426	20	2.29	6	25°
CBCN543P		35,870	32,905	29,518	25,648	21,398			3	643	28	3.44	3	20°
CBCN546P		35,419	32,893	30,114	26,852	22,215			3	488	26	3.43	6	25°
CBCN543Q		42,508	40,051	37,363	34,388	31,116	27,692	23,655	5	762	37	5.74	3	20°
CBCN546Q		42,024	39,922	37,682	35,266	32,539	29,173	24,188	5	579	34	5.74	6	25°
CBCN543R		48,644	46,518	44,248	41,802	39,156	36,307	33,350	7 1/2	872	47	8.60	3	20°
CBCN546R		48,121	46,299	44,389	42,377	40,234	37,882	35,167	7 1/2	663	42	8.62	6	25°
CBCN543S		53,553	51,633	49,608	47,460	45,171	42,725	40,131	10	960	56	11.47	3	20°
CBCN546S		52,911	51,260	49,545	47,758	45,886	43,905	41,756	10	729	50	11.45	6	25°
CBCN603M		33,801	28,123	21,095					1 1/2	451	19.3	1.69	3	20°
CBCN606M		33,424	28,675	22,188					1 1/2	337	15.3	1.69	6	25°
CBCN603N		37,398	32,342	26,488					2	499	23	2.30	3	20°
CBCN606N	60	36,598	32,355	27,195					2	369	18.6	2.23	6	25°
CBCN603P		42,270	37,857	32,963	27,234				3	564	28	3.32	3	20°
CBCN606P		42,350	38,781	34,615	29,679				3	427	25	3.46	6	25°
CBCN603Q		50,739	47,115	43,243	39,051	34,373	28,554		5	677	37	5.73	3	20°
CBCN606Q		50,086	47,131	43,840	40,170	36,085	28,670		5	505	33	5.72	6	25°
CBCN603R		58,084	54,941	51,642	48,157	44,440	40,397	35,772	7 1/2	775	47	8.61	3	20°
CBCN606R		57,326	54,774	52,016	48,999	45,743	42,248	37,268	7 1/2	578	41	8.58	6	25°
CBCN60S3		63,930	61,086	58,128	55,041	51,799	48,369	44,683	10	853	56	11.47	3	20°
CBCN606S		63,178	60,877	58,429	55,800	52,971	49,983	46,812	10	637	49	11.49	6	25°

## Drawings & Dimensions







American Coolair Corporation certifies that the Type CBCN fan models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures preformed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings

Fan Size	Α	В	С	D	E	F	G
48	56	6 5/8	19 1/2	8	6	1	3/8
54	62	6 5/8	19 1/2	8	6	1	3/8
60	68	6 5/8	19 1/2	11	9	1	1/2

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- Dimension A is the O.D. of the square fan panel.
- Dimension **B** is the depth from the face of the fan panel to the back of the fan frame.
- Dimension C is the maximum with constant speed, 3-phase TEFC motor of maximum horsepower for fan size and style indicated. This dimension will vary with the type  $\,$ and HP of the motor actually selected.
- Dimension  ${\bf G}$  is the diameter of the installation holes.
- Drawings of belt, drive and blade assembly are schematic.
- Multiple belts are used on certain sizes and HPs.



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<sup>-</sup> Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).

- The sound ratings shown are loudness values in hemispherical sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemishperical sone levels. The sound ratings shown are at 0" static pressure.

<sup>-</sup> Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) does not include transmission losses. Bearing losses are included.