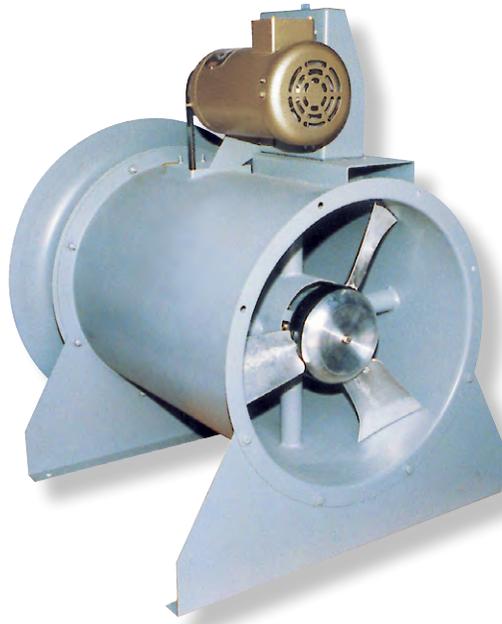


AEROVENT

INDUSTRIAL VENTILATION SYSTEMS



**Model ATABD
Belt Drive**



**Model ATA
Direct Drive**

TUBEAXIAL FANS

Adjustable Pitch Airfoil Design

Direct Drive & Belt Driven

Model ATA / ATABD

Tubeaxial Adjustable Pitch Airfoil Design

Model ATA Arrangement 4 – Direct Drive

- Available in ten sizes from 14" (035) to 49" (125) in diameter.
- Capacity from 500 to 75,000 CFM and pressures to 4½" w.g.
- Standard fan/motor configuration is suitable for maximum air temperature of 104°F. Special motors are available for higher temperature applications. Please consult the factory for assistance.



Model ATABD Arrangement 9 – Belt Driven

- Available in nine sizes from 16" (040) to 49" (125) in diameter.
- Capacity from 2,400 to 65,000 CFM and pressures to 3" w.g.
- Standard fan configuration is suitable for a maximum temperature of 275°F.



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Certification



Aerovent certifies that the models ATA and ATABD shown herein are licensed to bear the AMCA Seal for Sound and Air. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the AMCA Certified Ratings Program.

Refer to Bulletin 401 for sound power levels.

Construction Features

Design Innovation

The model ATA and ATABD fan blades have an ever-increasing airfoil chord length from the blade root to the blade tip. The additional chord length is placed at the leading edge rather than the trailing edge of the blade so that when set at an angle, the widest part of the airfoil is at maximum rotational speed in close proximity to the fan casing. This very wide blade tip area allows the ATA and ATABD to maximize energy transfer to the airstream and minimize noise generation.

The blade pitch can be individually manually adjusted while the fan is stopped. This feature allows the user to balance the present system while affording the flexibility of further possible pitch adjustment in the future.

Propeller Construction

The blades are made of permanent mold A319 aluminum alloy castings for high strength and precision. Retaining bolts hold the root of the blade casting in position in a spherical pocket between two stamped carbon steel hub plates. The hub center boss is made of cast iron and is straight bored and keyed for direct attachment to motor or fan shafts or, in fans of 24" diameter and larger, is fitted with a taper-lock bushing.



Housing

Model ATA and ATABD housings are made of continuously welded, heavy-gauge carbon steel with integrally rolled inlet and outlet flanges. Integral flanges are provided with bolt holes for bolting to fan accessories or ductwork. Housings can be supported by bolting the integral flanges directly to ductwork or can be provided with bolted support legs or welded clips for mounting in a horizontal or vertical position. After fabrication the housing is chemically pretreated, phosphatized, and painted with two coats of air dried acrylic enamel.

Extended grease fittings and grease leads are standardly furnished to permit relubrication of the motor bearings at the exterior of the fan housing. Motor leads are extended through liquid-tight conduit to the exterior of the fan housing to facilitate wiring.

Standard NEMA foot-mounted motors, of open drip-proof, totally enclosed or explosion-proof design are used on direct drive fans. Motors are squirrel cage induction, single speed, single winding, variable torque type for continuous duty operation.

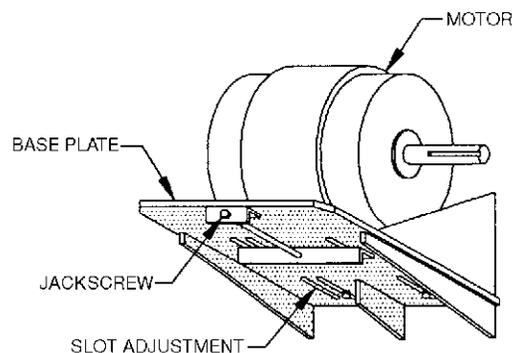
Belt Driven Design

Well suited for applications where it is advantageous to have the motor out of the airstream due to the presence of corrosive or hazardous fumes, or dirt-laden, hot, or moist air, Arrangement 9 fans include the following features as standard equipment:

- Belts and driven sheave enclosed in a metal tube protected from the airstream.
- Single jackscrew belt tension adjustment (see detail below).
- Standard NEMA foot-mounted motors, of open drip-proof, totally enclosed or explosion-proof design are used on belt driven fans. Motors are squirrel cage induction, single speed, single winding, variable torque type for continuous duty operation.

Adjusting Belt Tension

All belt driven units are constructed with the motor base plate welded to the outside of the fan casing which provides strength and rigidity. Except for very small motors, the adjustment of the belt tension is accomplished by means of a jackscrew as shown in the illustration below. This arrangement permits adjustment to be made with a minimum of effort, particularly when the motor is of large size.



Accessories

Inlet Bell

A spun steel aerodynamic inlet bell (necessary to minimize inlet losses on installations where ductwork does not precede the fan) shown bolted to fan inlet flange with an inlet guard of spiral wire bolted to inlet bell to provide personnel safety protection.



Shaft Seal

An elastomeric viton rotary seal rides against a heavy Teflon, bolted-in-place, wear plate which surrounds the shaft of belt driven fans to provide protection of the shaft and bearings when handling dirty, wet or corrosive air. **Note:** The seal does not make the installation gas-tight and is not appropriate in ambient temperatures above 250°F.



Motor Cover

A vented cover bolted to the exterior of a belt driven fan to provide drip-proof protection of the motor and drive tube when units are installed outdoors in horizontal or vertical configuration. **Note:** The standard belt guard is not provided when a motor cover is specified.



Curb Base

A square-to-round transition piece to convert a tubeaxial fan to a roof ventilator when mounted between a roof curb and the fan inlet flange. A stack cap or other device is necessary for weather protection in installations of this type.



Stack Cap

A backdraft damper assembly bolted to the fan discharge flange in vertical upblast rooftop installations. Ideally this device should be selected to handle discharge velocities ranging from 1800 to 3000 FPM and will add approximately 1/8" pressure drop to system.



Mounting Arrangements

Following are the mounting arrangements for the model ATA and ATABD fans. Please specify the mounting arrangement required at time of order.

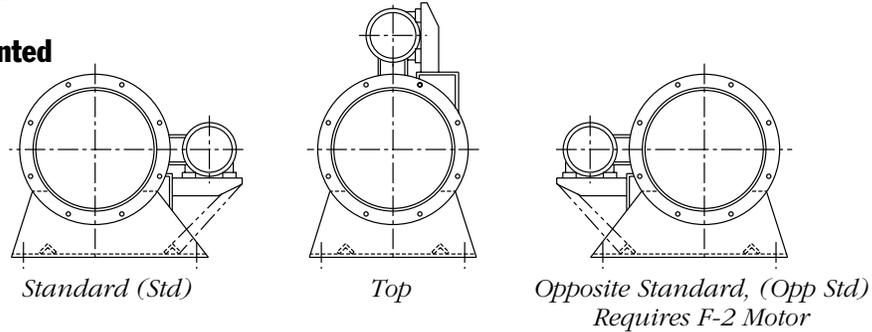
Example 1: For a belt driven fan with mounting arrangement horizontal floor mounted and motor on top, specify “top.”

Example 2: For a direct drive fan with mounting arrangement horizontal floor mounted, specify “support legs.”

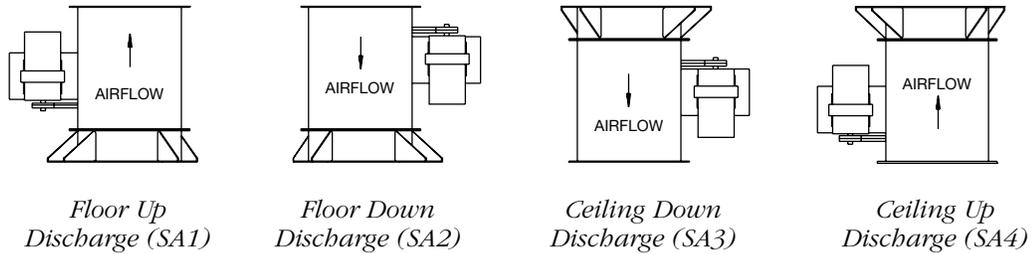
Example 3: For a belt driven fan with mounting arrangement floor down discharge, specify “SA2”.

Belt Driven Fans

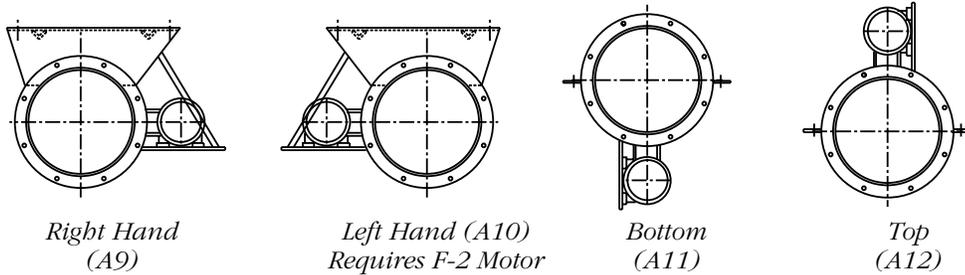
Horizontal Floor Mounted (view from outlet)



Vertical Floor & Ceiling Mounted

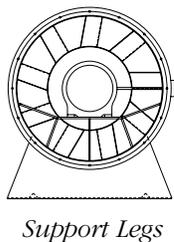


Horizontal Ceiling Mounted (view from outlet)

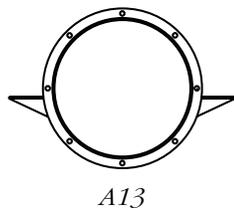


Direct Drive Fans

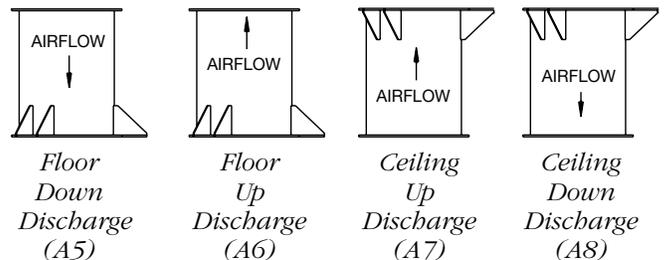
Horizontal Floor



Ceiling Horizontal Discharge



Vertical Floor & Ceiling Mounted



Fan Selection

Present methods of testing fans provide accurate, dependable performance data; however, information available for designing systems is necessarily based on averages. Therefore, a certain amount of “rounding off” of design figures is a reasonable approach and will produce a practical air handling system design. Most engineers prefer the static pressure or friction loss method of calculation.

The fan is usually located somewhere within the system; therefore, it is only necessary to figure the entrance loss and the duct friction loss, then select the fan directly from the tables. This method assumes that the duct size from the outlet of the fan to where the air is released to atmosphere is essentially the same as the diameter of the fan.

- If the fan is at the beginning of the duct, then an inlet bell should be used and no entrance loss is calculated.
- If the fan is at the end of the duct, then the entrance loss and duct friction are calculated and this is the fan static pressure.
- If an outlet cone is used and there is a static regain, the regain can be added to the static pressure.

Some systems are designed using total pressure (TP). Using the following formulas, the total pressure can be calculated.

Fan Selection Formulas

$VP = \left(\frac{CFM}{AREA \times 4005} \right)^2$	NOTE: This formula is used only for density at standard air, 0.075 lbs./ft ³ , 70°F and sea level.	Where: VP = Velocity pressure, IWG SP = Static pressure, IWG TP = Total pressure, IWG OV = Fan outlet velocity, FPM AREA = Fan outlet area, Ft ²
$VP = \left(\frac{CFM}{AREA \times 1096.7} \right)^2 \times \text{Density in lbs.per ft}^3$	NOTE: This formula is used when density is other than standard.	
TP = VP + SP		
$OV = \left(\frac{CFM}{AREA} \right)$		

Performance Correction for Temperature and Altitude

The performance tables in this bulletin are based on standard air density: 70°F at sea level (0.075 lbs./cu.ft. density). The fan performance tables provide the fan RPM and brake horsepower requirements for the given CFM and static pressure, at standard air density.

When the fan performance is not at standard conditions, the performance must be converted to standard conditions before entering the fan performance tables. The fan performance is converted to standard conditions by using the “Temperature and Altitude Density Ratio” from the table shown below.

Temperature and Altitude Density Ratios

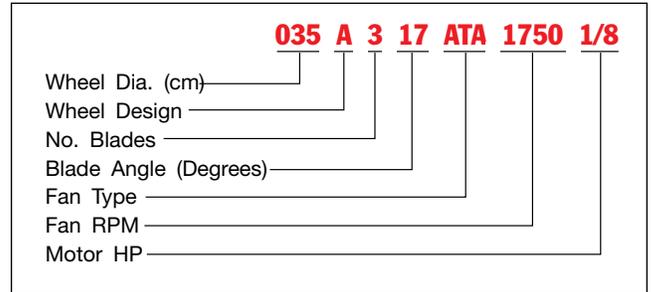
AIR TEMP °F	ALTITUDE IN FEET ABOVE SEA LEVEL											
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	15000
	BAROMETRIC PRESSURE IN INCHES OF MERCURY											
	29.92	28.86	27.82	26.82	25.84	24.90	23.98	23.09	22.22	21.39	20.58	16.89
-50	1.293	1.247	1.201	1.159	1.116	1.076	1.036	.997	.960	.924	.889	.729
0	1.152	1.111	1.071	1.032	.995	.959	.923	.889	.856	.824	.792	.650
50	1.039	1.003	.967	.932	.897	.864	.833	.801	.772	.743	.715	.586
70	1.000	.964	.930	.896	.864	.832	.801	.772	.743	.714	.688	.564
100	.946	.912	.880	.848	.818	.787	.758	.730	.703	.676	.651	.534
150	.869	.838	.808	.777	.751	.723	.696	.671	.646	.620	.598	.490
200	.803	.774	.747	.720	.694	.668	.643	.620	.596	.573	.552	.453
250	.747	.720	.694	.669	.645	.622	.598	.576	.555	.533	.514	.421
300	.697	.672	.648	.624	.604	.580	.558	.538	.518	.498	.480	.393
350	.654	.631	.608	.586	.565	.544	.524	.505	.486	.467	.450	.369
400	.616	.594	.573	.552	.532	.513	.493	.476	.458	.440	.424	.347
450	.582	.561	.542	.522	.503	.484	.466	.449	.433	.416	.401	.328
500	.552	.532	.513	.495	.477	.459	.442	.426	.410	.394	.380	.311
550	.525	.506	.488	.470	.454	.437	.421	.405	.390	.375	.361	.296
600	.500	.482	.465	.448	.432	.416	.400	.386	.372	.352	.344	.282

Performance Data — Direct Drive Model ATA

Catalog Numbering System

To identify a specific fan for ordering or engineering specifications, it is necessary to show the complete information listed in the tables below under "catalog number." All performance data is available in curve form upon request.

The model ATA fans shown herein have been tested in accordance with ASHRAE 51-85 and AMCA 210-85 Test Code and are guaranteed by the manufacturer to deliver rated performance.



Size 035A ATA – 1750 RPM

CATALOG NUMBER				CU. FT. PER MIN. & HP @ STATIC PRESSURE									
				1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE													
035A307	ATA	1750	1/12	783	0.06	492	0.06						
035A312	ATA	1750	1/12	1021	0.08	785	0.08						
035A317	ATA	1750	1/8	1287	0.10	1056	0.11						
035A322	ATA	1750	1/8	1505	0.13	1256	0.13						
035A327	ATA	1750	1/6	1749	0.17	1487	0.18						
035A332	ATA	1750	1/4	1912	0.22	1615	0.21	1190	0.20				
035A337	ATA	1750	1/4	2049	0.27	1728	0.26						
6-BLADE													
035A607	ATA	1750	1/12	795	0.09	618	0.09	410	0.08				
035A612	ATA	1750	1/8	1137	0.12	1000	0.13	670	0.12				
035A617	ATA	1750	1/6	1397	0.15	1262	0.16	1085	0.17				
035A622	ATA	1750	1/4	1661	0.19	1524	0.20	1353	0.22				
035A627	ATA	1750	1/4	1939	0.25	1788	0.26	1604	0.27				
035A632	ATA	1750	1/2	2174	0.30	1998	0.32	1783	0.32				
035A637	ATA	1750	1/2	2423	0.39	2218	0.39	1960	0.39				

Size 035A ATA – 3500 RPM

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE															
				1/4" SP		1/2" SP		3/4" SP		1" SP		1 1/4" SP		1 1/2" SP		2" SP		2 1/2" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE																			
035A307	ATA	3500	1/2	1761	0.47	1566	0.48	1348	0.48	985	0.45								
035A312	ATA	3500	3/4	2228	0.58	2042	0.60	1831	0.63	1570	0.63								
035A317	ATA	3500	1	2751	0.77	2574	0.81	2355	0.84	2111	0.85	1773	0.85						
035A322	ATA	3500	1	3194	0.99	3010	1.02	2771	1.06	2511	1.08	2175	1.07						
035A327	ATA	3500	1 1/2	3688	1.36	3498	1.40	3263	1.42	2973	1.43	2617	1.40						
035A332	ATA	3500	2	4046	1.71	3824	1.73	3547	1.73	3229	1.72	2864	1.68	2379	1.60				
035A337	ATA	3500	2	4359	2.14	4097	2.13	3787	2.11	3456	2.07	3053	2.00						
6-BLADE																			
035A607	ATA	3500	3/4	1729	0.73	1590	0.73	1425	0.73	1236	0.71	1047	0.70	819	0.66				
035A612	ATA	3500	1	2390	0.90	2274	0.95	2147	0.99	2000	1.02	1806	1.04	1340	0.96				
035A617	ATA	3500	1 1/2	2914	1.13	2794	1.19	2665	1.25	2523	1.31	2363	1.35	2171	1.38				
035A622	ATA	3500	2	3450	1.43	3322	1.50	3187	1.56	3048	1.63	2894	1.68	2705	1.72				
035A627	ATA	3500	2	4013	1.90	3878	1.97	3733	2.04	3575	2.10	3400	2.15	3208	2.18				

Performance certified is for installation Type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).



Performance Data — Direct Drive Model ATA

Size 040A ATA – 1160 RPM

CATALOG NUMBER				CU.FT. PER MIN. & HP @ SP					
				1/8" SP		1/4" SP		3/8" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE									
040A307	ATA	1160	1/12	551	0.03				
040A312	ATA	1160	1/12	895	0.04				
040A317	ATA	1160	1/12	1133	0.06				
040A322	ATA	1160	1/12	1346	0.08				
040A327	ATA	1160	1/12	1506	0.09				
040A332	ATA	1160	1/8	1647	0.11				
040A337	ATA	1160	1/4	1742	0.13				
6-BLADE									
040A607	ATA	1160	1/12	702	0.05				
040A612	ATA	1160	1/12	1031	0.07	503	0.06		
040A617	ATA	1160	1/8	1322	0.09				
040A622	ATA	1160	1/8	1593	0.12	1236	0.12		
040A627	ATA	1160	1/6	1831	0.15	1473	0.15		
040A632	ATA	1160	1/4	2041	0.19				
040A637	ATA	1160	1/4	2253	0.23	1791	0.22		

Size 040A ATA – 1750 RPM

CATALOG NUMBER				CU. FT. PER MIN. & HP @ STATIC PRESSURE											
				1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE															
040A307	ATA	1750	1/8	1215	0.11	936	0.11								
040A312	ATA	1750	1/4	1648	0.14	1426	0.15	1077	0.14						
040A317	ATA	1750	1/4	2018	0.19	1786	0.20	1462	0.20						
040A322	ATA	1750	1/4	2347	0.25	2110	0.26	1780	0.26						
040A327	ATA	1750	1/2	2628	0.31	2361	0.32	2011	0.32						
040A332	ATA	1750	1/2	2907	0.40	2590	0.40	2191	0.38						
040A337	ATA	1750	1/2	3103	0.47	2740	0.46	2324	0.44						
6-BLADE															
040A607	ATA	1750	1/6	1268	0.17	1109	0.17	918	0.17	652	0.16				
040A612	ATA	1750	1/4	1734	0.22	1599	0.23	1413	0.23	1104	0.23				
040A617	ATA	1750	1/2	2163	0.28	2034	0.30	1874	0.31	1609	0.31				
040A622	ATA	1750	1/2	2589	0.37	2446	0.39	2277	0.41	2059	0.42				
040A627	ATA	1750	1/2	2973	0.48	2811	0.50	2623	0.51	2393	0.52				
040A632	ATA	1750	3/4	3326	0.62	3135	0.64	2920	0.65	2661	0.64				
040A637	ATA	1750	3/4	3668	0.78	3465	0.79	3192	0.78	2908	0.76				

Size 040A ATA – 3500 RPM

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE													
				1/4" SP		1/2" SP		3/4" SP		1" SP		1 1/4" SP		1 1/2" SP		2" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE																	
040A307	ATA	3500	1	2645	0.84	2430	0.86	2166	0.87	1872	0.85	1449	0.79				
040A312	ATA	3500	1 1/2	3481	1.07	3296	1.10	3090	1.14	2851	1.16	2560	1.17	2154	1.13		
040A317	ATA	3500	1 1/2	4220	1.44	4035	1.49	3824	1.53	3572	1.56	3284	1.59	2924	1.58		
040A322	ATA	3500	2	4889	1.97	4694	2.02	4476	2.06	4219	2.10	3921	2.12	3560	2.11		
6-BLADE																	
040A607	ATA	3500	1 1/2	2676	1.33	2537	1.35	2384	1.36	2217	1.36	2035	1.36	1837	1.35	1303	1.27
040A612	ATA	3500	2	3585	1.68	3468	1.73	3341	1.78	3198	1.83	3033	1.86	2827	1.87	2207	1.80
040A617	ATA	3500	2	4440	2.14												

Performance certified is for installation Type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).

Performance Data — Direct Drive Model ATA

Size 050A ATA – 1160 RPM

CATALOG NUMBER				CU. FT. PER MIN. & HP @ STATIC PRESSURE									
				1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE													
050A307	ATA	1160	1/8	1860	0.12	1300	0.11						
050A312	ATA	1160	1/6	2354	0.15	1848	0.15						
050A317	ATA	1160	1/4	2797	0.19	2274	0.20						
050A322	ATA	1160	1/4	3274	0.25	2715	0.25						
050A327	ATA	1160	1/2	3729	0.33	3136	0.32						
050A332	ATA	1160	1/2	4064	0.39	3432	0.38						
050A337	ATA	1160	1/2	4313	0.47	3645	0.45						
6-BLADE													
050A607	ATA	1160	1/6	1943	0.18	1586	0.18	1030	0.17				
050A612	ATA	1160	1/4	2510	0.23	2172	0.24	1321	0.22				
050A617	ATA	1160	1/2	3117	0.29	2816	0.31	2328	0.32				
050A622	ATA	1160	1/2	3721	0.38	3410	0.40	2992	0.42				
050A627	ATA	1160	1/2	4269	0.48	3941	0.51	3458	0.52				
050A632	ATA	1160	3/4	4796	0.62	4417	0.64	3851	0.64				
050A637	ATA	1160	3/4	5209	0.76	4744	0.77	4118	0.74				

Size 050A ATA – 1750 RPM

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE													
				1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE																	
050A307	ATA	1750	1/2	3146	0.39	2885	0.40	2584	0.41	2220	0.40	1664	0.36				
050A312	ATA	1750	1/2	3874	0.48	3624	0.50	3346	0.52	3011	0.53	2574	0.52	1650	0.44		
050A317	ATA	1750	3/4	4557	0.62	4296	0.65	4009	0.66	3664	0.68	3221	0.68				
050A322	ATA	1750	1	5289	0.84	5019	0.86	4718	0.87	4357	0.87	3856	0.86	3236	0.82		
050A327	ATA	1750	1 1/2	5976	1.10	5707	1.11	5397	1.12	5019	1.12	4432	1.07	3876	1.03		
050A332	ATA	1750	1 1/2	6513	1.35	6219	1.35	5881	1.35	5470	1.34	4885	1.29	4333	1.23		
050A337	ATA	1750	1 1/2	6937	1.62	6605	1.60	6227	1.59	5780	1.56	5238	1.53	4474	1.42		
6-BLADE																	
050A607	ATA	1750	3/4	3161	0.60	2985	0.62	2773	0.62	2534	0.62	2267	0.62	1942	0.60		
050A612	ATA	1750	3/4	3989	0.74	3833	0.77	3652	0.79	3422	0.81	3146	0.82	2771	0.81		
050A617	ATA	1750	1	4904	0.96	4748	0.99	4576	1.03	4376	1.06	4135	1.09	3847	1.11		
050A622	ATA	1750	1 1/2	5829	1.24	5662	1.28	5479	1.32	5274	1.36	5032	1.39	4755	1.42		
050A627	ATA	1750	2	6663	1.61	6491	1.65	6301	1.69	6086	1.72	5818	1.76	5496	1.78	4716	1.75
050A632	ATA	1750	2	7491	2.09	7293	2.12	7075	2.15	6826	2.18	6516	2.20				

Performance certified is for installation Type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).



Performance Data — Direct Drive Model ATA

Size 063A ATA – 870 RPM

CATALOG NUMBER				CU. FT. PER MIN. & HP @ STATIC PRESSURE							
				1/8" SP		1/4" SP		3/8" SP		1/2" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE											
063A307	ATA	870	1/6	2709	0.16	1581	0.14				
063A312	ATA	870	1/4	3456	0.20	2508	0.20				
063A317	ATA	870	1/4	4118	0.26	3153	0.26				
063A322	ATA	870	1/2	4830	0.34	3781	0.34				
063A327	ATA	870	1/2	5511	0.44	4346	0.42				
063A332	ATA	870	1/2	6005	0.53	4793	0.50				
063A337	ATA	870	3/4	6367	0.62	5144	0.60				
6-BLADE											
063A607	ATA	870	1/4	2857	0.24	2225	0.24				
063A612	ATA	870	1/2	3716	0.30	3097	0.32				
063A617	ATA	870	1/2	4629	0.40	4085	0.43				
063A622	ATA	870	1/2	5531	0.51	4976	0.55	4177	0.56		
063A627	ATA	870	3/4	6352	0.65	5754	0.69	4870	0.69		
063A632	ATA	870	1	7135	0.84	6443	0.86	5376	0.84		
063A637	ATA	870	1	7745	1.03	6872	1.02				

Size 063A ATA – 1160 RPM

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE											
				1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE															
063A307	ATA	1160	1/2	4026	0.36	3481	0.37	2766	0.36						
063A312	ATA	1160	1/2	4996	0.46	4487	0.48	3836	0.49	2703	0.44				
063A317	ATA	1160	3/4	5895	0.59	5367	0.61	4693	0.63	3624	0.60				
063A322	ATA	1160	3/4	6860	0.78	6310	0.80	5595	0.81	4542	0.77				
063A327	ATA	1160	1	7772	1.02	7213	1.04	6464	1.03	5334	0.96				
063A332	ATA	1160	1½	8470	1.25	7859	1.25	7053	1.23	5929	1.15				
063A337	ATA	1160	1½	9011	1.49	8325	1.47	7463	1.44	6289	1.36				
6-BLADE															
063A607	ATA	1160	3/4	4092	0.56	3715	0.57	3258	0.57	2699	0.56	1889	0.52		
063A612	ATA	1160	3/4	5201	0.70	4875	0.73	4432	0.75	3829	0.75	2357	0.67		
063A617	ATA	1160	1	6413	0.90	6097	0.95	5711	0.99	5208	1.02	4049	0.96		
063A622	ATA	1160	1½	7633	1.16	7296	1.22	6899	1.27	6403	1.31	5835	1.33		
063A627	ATA	1160	1½	8736	1.50	8388	1.56	7969	1.60	7401	1.64	6753	1.65		
063A632	ATA	1160	2	9819	1.95	9419	1.99	8934	2.02	8278	2.04	7496	2.01		
063A637	ATA	1160	3	10678	2.41	10217	2.44	9621	2.44	8791	2.41	8029	2.33		

Size 063A ATA – 1750 RPM

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE											
				1/4" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE															
063A307	ATA	1750	1½	6162	1.24	5466	1.28	4618	1.27	3268	1.15				
063A312	ATA	1750	2	7622	1.55	6968	1.63	6182	1.68	5106	1.65				
063A317	ATA	1750	2	8982	2.00	8301	2.08	7495	2.14	6401	2.14				
063A322	ATA	1750	3	10441	2.67	9733	2.74	8890	2.77	7668	2.74				
063A327	ATA	1750	5	11817	3.50	11103	3.55	10221	3.56	8813	3.40	7348	3.20		
063A332	ATA	1750	5	12878	4.27	12098	4.28	11136	4.26	9716	4.07	8247	3.84		
063A337	ATA	1750	5	13707	5.13	12830	5.06	11768	4.98	10423	4.86				
6-BLADE															
063A607	ATA	1750	2	6234	1.92	5759	1.97	5175	1.98	4511	1.96	3638	1.90		
063A612	ATA	1750	3	7900	2.37	7485	2.48	6954	2.57	6266	2.61	5210	2.52		
063A617	ATA	1750	5	9728	3.07	9321	3.21	8846	3.35	8248	3.47	7490	3.51		
063A622	ATA	1750	5	11572	3.97	11137	4.14	10642	4.29	10041	4.43	9338	4.53	8491	4.55
063A627	ATA	1750	5	13239	5.13	12789	5.30	12271	5.45						

Performance certified is for installation Type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).

Performance Data — Direct Drive Model ATA

Size 071A ATA – 870 RPM

CATALOG NUMBER				CU. FT. PER MIN. & HP @ STATIC PRESSURE									
				1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE													
071A307	ATA	870	1/4	4102	0.28	3150	0.28						
071A312	ATA	870	1/2	5154	0.36	4277	0.38						
071A317	ATA	870	1/2	6110	0.46	5205	0.48						
071A322	ATA	870	3/4	7139	0.61	6190	0.62	4579	0.58				
071A327	ATA	870	3/4	8117	0.79	7132	0.79	5496	0.73				
071A332	ATA	870	1	8845	0.96	7773	0.95	6147	0.87				
071A337	ATA	870	1½	9395	1.14	8214	1.11						
6-BLADE													
071A607	ATA	870	1/2	4245	0.44	3601	0.44	2752	0.43				
071A612	ATA	870	3/4	5452	0.54	4864	0.58	3928	0.57				
071A617	ATA	870	3/4	6754	0.71	6222	0.75	5464	0.78				
071A622	ATA	870	1	8054	0.91	7499	0.96	6757	1.01				
071A627	ATA	870	1½	9234	1.17	8654	1.22	7809	1.26	6686	1.24		
071A632	ATA	870	1½	10375	1.51	9706	1.55	8729	1.56	7385	1.50		
071A637	ATA	870	2	11274	1.86	10479	1.87	9277	1.84				

Size 071A ATA – 1160 RPM

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE													
				1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE																	
071A307	ATA	1160	3/4	5908	0.65	5333	0.68	4656	0.68	3758	0.65						
071A312	ATA	1160	1	7291	0.82	6746	0.85	6118	0.88	5319	0.89	4054	0.82				
071A317	ATA	1160	1½	8584	1.05	8015	1.09	7371	1.13	6538	1.14	5382	1.10				
071A322	ATA	1160	1½	9970	1.41	9381	1.44	8705	1.46	7805	1.46	6612	1.41				
071A327	ATA	1160	2	11275	1.85	10684	1.88	9982	1.89	9017	1.85	7726	1.75				
071A332	ATA	1160	3	12287	2.26	11642	2.27	10872	2.26	9862	2.21	8572	2.10				
071A337	ATA	1160	3	13083	2.72	12356	2.69	11501	2.65	10467	2.60	9120	2.49				
6-BLADE																	
071A607	ATA	1160	1	5955	1.02	5567	1.04	5087	1.05	4557	1.04	3920	1.03	2994	0.97		
071A612	ATA	1160	1½	7531	1.25	7189	1.30	6772	1.34	6233	1.38	5594	1.37	3885	1.26		
071A617	ATA	1160	2	9266	1.62	8927	1.69	8542	1.75	8077	1.81	7505	1.85	6720	1.84		
071A622	ATA	1160	3	11018	2.09	10655	2.17	10250	2.25	9777	2.32	9212	2.37	8595	2.41		
071A627	ATA	1160	3	12601	2.71	12225	2.79	11803	2.86	11298	2.93	10649	2.98	9933	3.00		
071A632	ATA	1160	5	14164	3.52	13734	3.58	13248	3.64	12663	3.68	11912	3.70	11064	3.68		
071A637	ATA	1160	5	15409	4.37	14918	4.41	14349	4.44	13605	4.44	12651	4.38	11828	4.29		

Size 071A ATA – 1750 RPM

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE															
				1/4" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP		2" SP		2½" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE																			
071A307	ATA	1750	3	9009	2.23	8269	2.30	7417	2.34	6391	2.30	4847	2.12						
071A312	ATA	1750	3	11094	2.79	10385	2.91	9597	3.00	8651	3.05	7426	3.00	4979	2.59				
071A317	ATA	1750	5	13048	3.60	12308	3.72	11494	3.83	10521	3.91	9272	3.90						
071A322	ATA	1750	5	15142	4.82	14378	4.93	13525	5.01	12507	5.04	11097	4.99	9366	4.74				
071A327	ATA	1750	7½	17110	6.32	16346	6.42	15470	6.48	14403	6.45	12758	6.20	11171	5.95				
071A332	ATA	1750	7½	18646	7.76	17813	7.78	16855	7.78	15696	7.72	14054	7.44	12475	7.13				
071A337	ATA	1750	10	19861	9.36	18920	9.25	17848	9.15	16586	9.03	15060	8.85	13022	8.29				
6-BLADE																			
071A607	ATA	1750	5	9049	3.48	8551	3.55	7951	3.58	7275	3.59	6522	3.57	5609	3.49				
071A612	ATA	1750	5	11420	4.27	10978	4.42	10465	4.56	9818	4.68	9038	4.74	7996	4.67				
071A617	ATA	1750	7½	14037	5.53	13597	5.73	13108	5.93	12544	6.12	11865	6.29	11054	6.38				
071A622	ATA	1750	7½	16686	7.15	16212	7.39	15694	7.62	15113	7.84	14429	8.04	13648	8.19	11352	8.13		
071A627	ATA	1750	10	19074	9.27	18586	9.50	18048	9.73	17438	9.94	16684	10.14	15773	10.28	13597	10.12		

Performance certified is for installation Type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).

Performance Data — Direct Drive Model ATA

Size 080A ATA – 870 RPM

CATALOG NUMBER				CU. FT. PER MIN. & HP @ STATIC PRESSURE											
				1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE															
080A307	ATA	870	1/2	6343	0.47	5428	0.50	3131	0.42						
080A312	ATA	870	3/4	7890	0.61	7053	0.64	5738	0.64						
080A317	ATA	870	1	9413	0.78	8596	0.83	7360	0.84						
080A322	ATA	870	1½	10823	1.06	9931	1.10	8715	1.12	6507	1.05				
080A327	ATA	870	1½	12141	1.33	11124	1.35	9766	1.34	7577	1.27				
080A332	ATA	870	1½	13329	1.65	12201	1.64	10682	1.60	8469	1.54				
080A337	ATA	870	2	14367	2.01	13164	1.97	11302	1.88						
6-BLADE															
080A607	ATA	870	3/4	6333	0.77	5617	0.79	4543	0.76	3450	0.75				
080A612	ATA	870	1	8339	0.97	7809	1.04	6957	1.06	4428	0.93				
080A617	ATA	870	1½	10034	1.19	9527	1.27	8876	1.35	7810	1.39				
080A622	ATA	870	2	11868	1.58	11345	1.67	10693	1.75	9754	1.81				
080A627	ATA	870	2	13554	2.00	12951	2.09	12199	2.17	11166	2.23				
080A632	ATA	870	3	15232	2.54	14552	2.62	13642	2.68	12400	2.71	11110	2.67		
080A637	ATA	870	3	16915	3.26	16192	3.32	15053	3.34	13465	3.27				

Size 080A ATA – 1160 RPM

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE															
				1/8" SP		1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		1" SP		1¼" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE																			
080A307	ATA	1160	1½	8940	1.09	8317	1.13	7656	1.17	6864	1.18	5643	1.13						
080A312	ATA	1160	1½	10944	1.39	10393	1.46	9783	1.51	9061	1.53	8048	1.53	6665	1.49				
080A317	ATA	1160	2	13011	1.79	12416	1.87	11806	1.93	11164	1.98	10248	2.01	8878	1.96				
080A322	ATA	1160	3	14908	2.44	14289	2.52	13625	2.58	12915	2.62	12019	2.65	10686	2.65				
080A327	ATA	1160	3	16718	3.10	16030	3.16	15279	3.19	14450	3.19	13438	3.19	12069	3.15				
080A332	ATA	1160	5	18360	3.91	17597	3.91	16765	3.90	15842	3.88	14711	3.83	13224	3.74				
080A337	ATA	1160	5	19699	4.76	18989	4.75	18146	4.71	16984	4.62	15583	4.50	13884	4.38				
6-BLADE																			
080A607	ATA	1160	2	8792	1.79	8339	1.84	7820	1.87	7189	1.86	6352	1.81	5471	1.80	3944	1.75		
080A612	ATA	1160	3	11377	2.24	11040	2.33	10656	2.42	10189	2.48	9553	2.51	8288	2.47	4950	2.20		
080A617	ATA	1160	3	13641	2.74	13301	2.84	12928	2.95	12509	3.05	12021	3.17	11414	3.27				
080A622	ATA	1160	5	16097	3.64	15743	3.77	15358	3.89	14931	4.00	14442	4.11	13848	4.21	12056	4.30		
080A627	ATA	1160	5	18387	4.66	17978	4.78	17534	4.89	17043	4.99	16479	5.10	15793	5.20	14091	5.32		
080A632	ATA	1160	7½	20660	5.94	20205	6.04	19706	6.15	19145	6.24	18467	6.33	17563	6.39	15825	6.42		
080A637	ATA	1160	7½	22915	7.67	22445	7.76	21917	7.83	21303	7.89	20487	7.92	19051	7.86	17223	7.66		

Size 080A ATA – 1750 RPM

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE															
				1/4" SP		1/2" SP		3/4" SP		1" SP		1¼" SP		1½" SP		2" SP		2½" SP	
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3-BLADE																			
080A307	ATA	1750	5	13598	3.72	12777	3.84	11929	3.97	10967	4.05	9764	4.03	6712	3.51				
080A312	ATA	1750	5	16605	4.73	15888	4.97	15105	5.14	14232	5.22	13130	5.26	11656	5.23				
080A317	ATA	1750	7½	19734	6.12	18952	6.36	18143	6.57	17329	6.74	16388	6.86	14930	6.88				
080A322	ATA	1750	10	22600	8.35	21789	8.58	20925	8.78	20019	8.93	19010	9.03	17646	9.11	13393	8.62		
080A327	ATA	1750	10	25341	10.61	24442	10.80	23474	10.93	22427	10.97	21248	10.96	19763	10.93	15448	10.34		
6-BLADE																			
080A607	ATA	1750	7½	13342	6.11	12754	6.28	12097	6.39	11338	6.41	10370	6.32	9221	6.21	7031	6.14		
080A612	ATA	1750	10	17221	7.64	16784	7.93	16297	8.19	15735	8.42	15034	8.58	14076	8.64	9063	7.60		
080A617	ATA	1750	10	20638	9.36	20195	9.68	19715	10.00	19188	10.31	18597	10.63	17907	10.97				

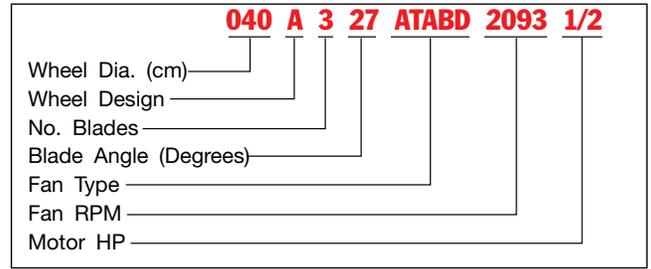
Performance certified is for installation Type D: Ducted inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).

Performance Data — Belt Driven Model ATABD

Catalog Numbering System

To identify a specific fan for ordering or engineering specifications, it is necessary to show the complete information listed in the tables below under "catalog number." All performance data is available in curve form upon request.

The model ATABD fans shown herein have been tested in accordance with ASHRAE 51-85 and AMCA 210-85 Test Code and are guaranteed by the manufacturer to deliver rated performance.



Size 040A327 ATABD

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE																
				1/4" SP		1/2" SP		3/4" SP		1" SP		1 1/4" SP		1 1/2" SP		2" SP		2 1/2" SP		
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
040A327	ATABD	2093	1/2	2857	0.55	2344	0.54													
040A327	ATABD	2396	3/4	3383	0.82	2990	0.82	2459	0.80											
040A327	ATABD	2637	1	3790	1.09	3453	1.10	3038	1.09	2465	1.03									
040A327	ATABD	3018	1 1/2	4419	1.63	4143	1.64	3826	1.65	3448	1.63	2969	1.57							
040A327	ATABD	3322	2	4914	2.17	4671	2.18	4401	2.20	4095	2.19	3735	2.16	3297	2.10					
040A327	ATABD	3803	3	5688	3.24	5482	3.27	5261	3.28	5021	3.30	4756	3.30	4459	3.27	3714	3.14			

Size 050A327 ATABD

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE																
				1/4" SP		1/2" SP		3/4" SP		1" SP		1 1/4" SP		1 1/2" SP		2" SP		2 1/2" SP		
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
050A327	ATABD	1380	1/2	4040	0.55															
050A327	ATABD	1579	3/4			3868	0.78													
050A327	ATABD	1738	1	5481	1.09	4727	1.08	3569	0.98											
050A327	ATABD	1990	1 1/2	6426	1.63	5880	1.65	5057	1.59											
050A327	ATABD	2190	2	7159	2.17	6708	2.20	6085	2.18	5226	2.07									
050A327	ATABD	2507	3	8303	3.24	7938	3.28	7498	3.30	6923	3.26	6175	3.15	5409	3.01					
050A327	ATABD	2973	5	9960	5.37	9671	5.43	9351	5.48	8983	5.50	8532	5.48	8002	5.41	6707	5.10			

Size 063A327 ATABD

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE																		
				1/4" SP		1/2" SP		3/4" SP		1" SP		1 1/4" SP		1 1/2" SP		2" SP		2 1/2" SP		3" SP		
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
063A327	ATABD	1075	3/4	6233	0.82																	
063A327	ATABD	1183	1	7155	1.10	5357	1.02															
063A327	ATABD	1354	1 1/2	8505	1.64	7247	1.62															
063A327	ATABD	1490	2	9534	2.18	8542	2.19	7014	2.07													
063A327	ATABD	1706	3	11128	3.25	10387	3.30	9351	3.26	7940	3.09											
063A327	ATABD	2023	5	13415	5.39	12851	5.47	12177	5.50	11302	5.45	10179	5.29	8985	5.08							
063A327	ATABD	2315	7 1/2	15492	8.05	15023	8.15	14499	8.21	13887	8.24	13132	8.19	12238	8.06	10128	7.57					
063A327	ATABD	2548	10	17137	10.71	16721	10.82	16269	10.91	15769	10.97	15188	10.98	14497	10.93	12751	10.54	10807	9.98			

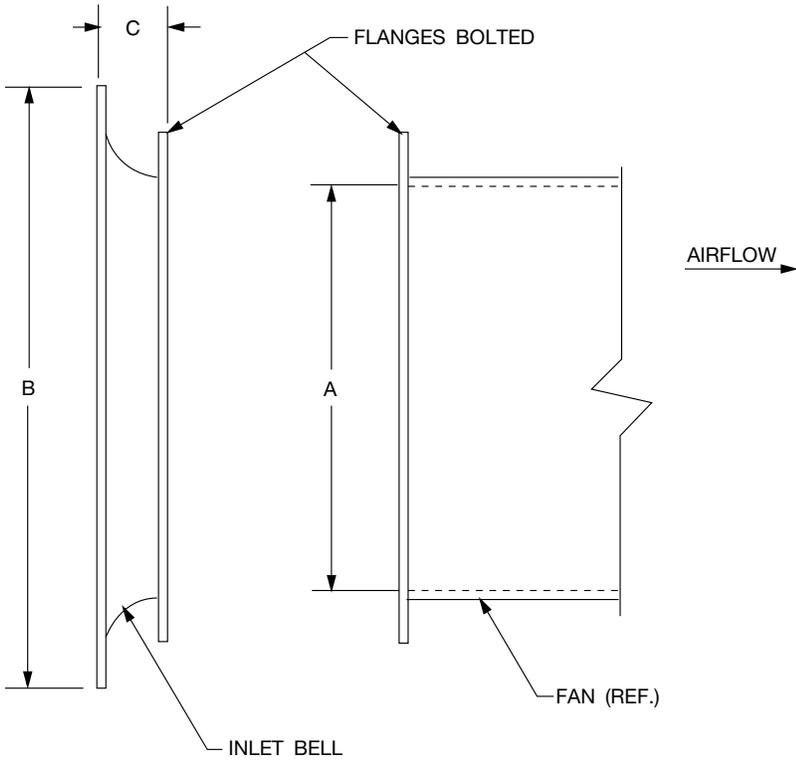
Size 071A327 ATABD

CATALOG NUMBER				CUBIC FEET PER MINUTE AND HORSEPOWER AT STATIC PRESSURE																	
				1/4" SP		1/2" SP		3/4" SP		1" SP		1 1/4" SP		1 1/2" SP		2" SP		2 1/2" SP			
PROP	TYPE	RPM	HP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP		
071A327	ATABD	881	3/4	6952	0.82																
071A327	ATABD	969	1	8107	1.10																
071A327	ATABD	1110	1 1/2	9781	1.65	7762	1.57														
071A327	ATABD	1221	2	11015	2.19	9485	2.17	7100	1.96												
071A327	ATABD	1398	3	12915	3.27	11808	3.30	10135	3.18												
071A327	ATABD	1657	5	15618	5.40	14810	5.48	13771	5.48	12380	5.35	10713	5.10								
071A327	ATABD	1897	7 1/2	18077	8.07	17414	8.17	16650	8.23	15693	8.22	14512	8.09	13028	7.79						
071A327	ATABD	2088	10	20016	10.73	19432	10.86	18784	10.95	18037	10.99	17120	10.94	16043	10.80	13423	10.18				

Power ratings (BHP) do not include transmission losses.
 Performance certified is for installation Type D: Ducted inlet, ducted outlet.
 Performance ratings do not include the effects of appurtenances (accessories).

Dimensional Data

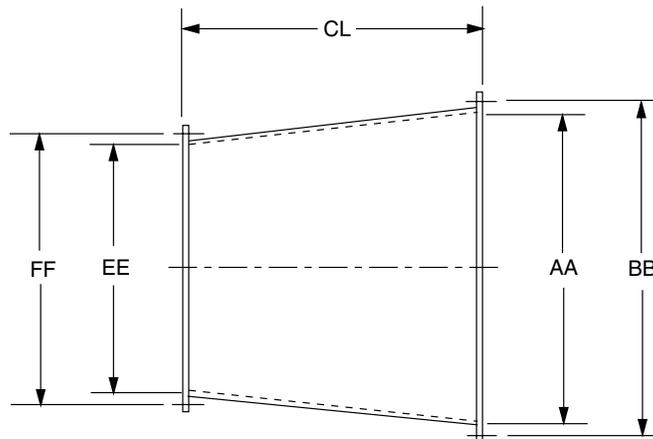
Inlet Bell



FAN SIZE	A	B	C	WT.
035	13.78	N/A	N/A	N/A
040	15.75	23.75	4.00	10
050	19.68	27.68	4.00	13
063	24.80	32.80	4.00	14
071	27.95	38.00	5.00	19
080	31.50	41.50	5.00	20
090	35.43	45.40	5.00	24
100	39.37	49.40	5.00	28
112	44.09	54.10	5.00	38
125	49.21	63.20	7.00	48

32254

Inlet & Outlet Cone

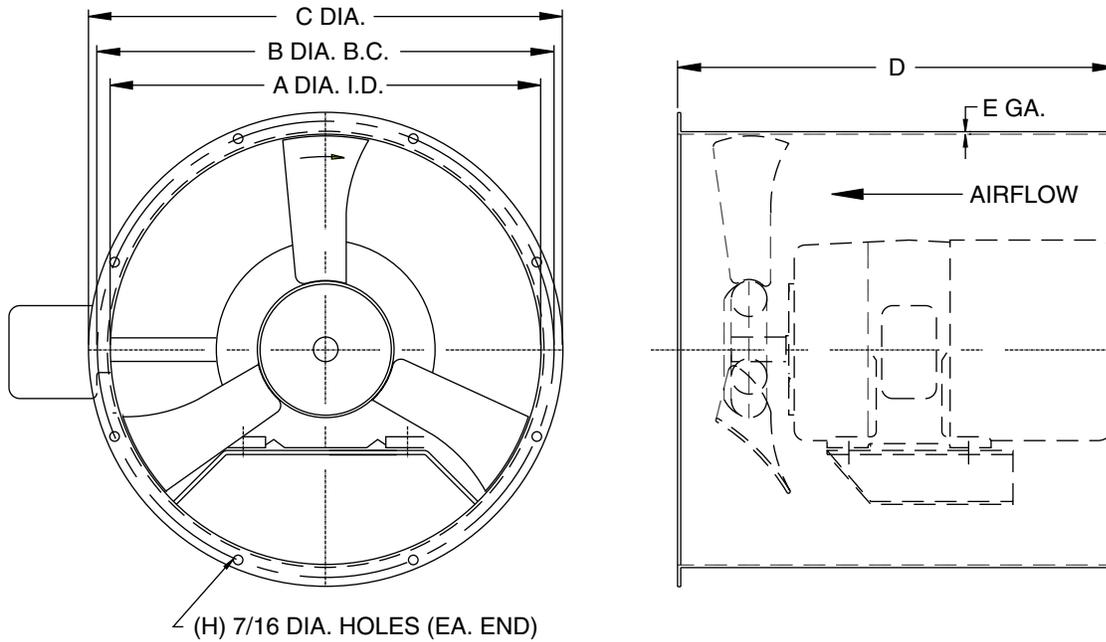


FAN SIZE	AA	BB	CL	EE	FF	GA.	WT.
035	18.00	18.63	8.50	13.78	15.31	18	16
040	20.00	21.13	8.50	15.75	17.38	18	19
050	24.00	25.13	8.50	19.68	21.31	18	22
063	32.00	33.50	13.00	24.80	26.68	18	32
071	36.00	37.50	14.00	27.95	29.85	18	37
080	40.00	41.50	16.00	31.50	33.38	18	45
090	44.00	45.50	18.00	35.43	37.31	18	53
100	50.00	51.50	20.00	39.37	41.25	16	63
112	56.00	57.50	22.00	44.09	46.00	16	75
125	62.00	63.50	25.00	49.21	51.09	14	90

32253-A

Dimensional Data

Model ATA, Arrangement 4 – Direct Drive



FAN SIZE	A	B	C	D	E (GA.)	H	MAX. MOTOR FRAME	WEIGHT (LBS.)*
035	13 ²⁵ / ₃₂	15 ⁵ / ₁₆	16 ²⁵ / ₃₂	18	14	8	145T/U	25
040	15 ³ / ₄	17 ³ / ₈	18 ³ / ₄	18	12	8	145T/U	37
050	19 ¹ / ₁₆	21 ⁵ / ₁₆	22 ¹ / ₁₆	20	12	8	184T/U	51
063	24 ¹³ / ₁₆	26 ¹ / ₁₆	28 ⁵ / ₁₆	24	10	8	215T/U	104
071	27 ³ / ₃₂	29 ⁷ / ₈	31 ¹⁵ / ₃₂	28	10	12	254T/U	127
080	31 ¹ / ₂	33 ³ / ₈	34 ¹ / ₂	28	7	12	254T/U	191
090	35 ⁷ / ₁₆	37 ⁵ / ₁₆	38 ⁷ / ₁₆	36	7	12	326T/U	275
100	39 ³ / ₈	41 ¹ / ₄	42 ³ / ₈	36	7	12	326T/U	353
112	44 ³ / ₃₂	45 ³ / ₃₂	47 ³ / ₃₂	38	7	16	326T/U	394
125	49 ⁷ / ₃₂	51 ³ / ₃₂	52 ⁷ / ₃₂	40	7	16	365T/U	465

*LESS MOTOR

31925-B



Typical Specifications

Model ATA, Arrangement 4 – Direct Drive

Fans, where indicated on drawings and schedules, shall be Model ATA, Arrangement 4, direct drive, axial flow type with fan blades being capable of individual manual pitch adjustment while the fan is stopped. Fans shall be as manufactured by Aerovent, Minneapolis, Minnesota, and shall be of the size and capacity as indicated in the fan schedules. Model ATA fans shall be tested in an AMCA registered laboratory in accordance with AMCA 210 and AMCA 300 test codes and are licensed to bear the AMCA certified ratings seal for both Air and Sound. In addition each unit shall be factory run tested and final trim balanced prior to shipment.

CONSTRUCTION — Fan casings shall be welded of ASTM A-569 low carbon, commercial quality 14-gauge hot rolled steel in sizes through 14" diameter, 12-gauge hot rolled steel in sizes through 20" diameter, 10-gauge hot rolled steel from 24" diameter through 28" diameter, and 7-gauge hot rolled steel on sizes above 30" in diameter. Inlet and outlet flanges shall be integrally rolled mechanically from fan casing sheet steel to insure concentricity and alignment. Accuracy and uniformity of the fan casing shall be insured through the use of welding jigs and fixtures. A fabricated steel motor support base of minimum $\frac{3}{16}$ " thick plate steel shall be welded into the inlet end of the fan casing.

PROPELLERS — Fan blades shall be permanent mold A319 aluminum precision alloy castings. Fan center hub boss shall be cast iron bolted to stamped steel hub halves coated by electrodeposition. Blade tip clearance shall be within tolerance to meet certified performance. Fan blade pitch angle shall be individually manually adjustable when fan is stopped. The fan propeller shall be secured directly to the motor shaft with knurled cup point set screws in all sizes to 20" diameter and split taper lock bushings in all larger sizes. The motor and propeller assembly shall be enclosed entirely within the fan casing.

BALANCING — The fan propeller assembly shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. In addition, direct drive fan propellers shall be balanced on the motor shaft after final assembly in the fan casing, in the manufacturing facility to the following peak velocity values, filter-in, at the fan test speed:

Fan Application Category	Rigidly Mounted (In/Sec)	Flexibly Mounted (In/Sec)
BV-3	0.15	0.20

Final test room vibration levels in the axial, vertical, and horizontal planes shall be recorded and a written copy shall be available upon request.

MOTORS — Fan motors shall be manufactured in accordance with current applicable standards of IEEE and NEMA. They shall be foot-mounted, NEMA standard, open drip-proof (ODP), continuous duty, ball bearing with class "B" insulation. External grease fittings with extended grease leads shall be supplied for lubrication of the motor bearings on all motors that provide grease fittings. Motor bearings shall have a minimum L-10 life as defined by AFBMA of at least 40,000 hours (200,000 hours average life).

FINISH — The units, after fabrication, shall be cleaned and chemically pretreated by a phosphatizing process and shall be painted inside and out with two coats of air dry enamel. The fan shall be coated with the following optional finishes:

- Carbocoat 30 (Replaces Sanitile 550)
- Hot Dip Galvanizing
- Plasite 4310 – Vinyl Ester
- Plasite 9500 (Replaces Plasite 1246)
- Plasite 7122L – Air Dry Epoxy Phenolic
- Plasite 3070 (Replaces Plasite 3066)
- Heresite VR506 – Air Dry Phenolic
- Dupont ASA – 70 Gray – Polyester (Replaces Farboil)

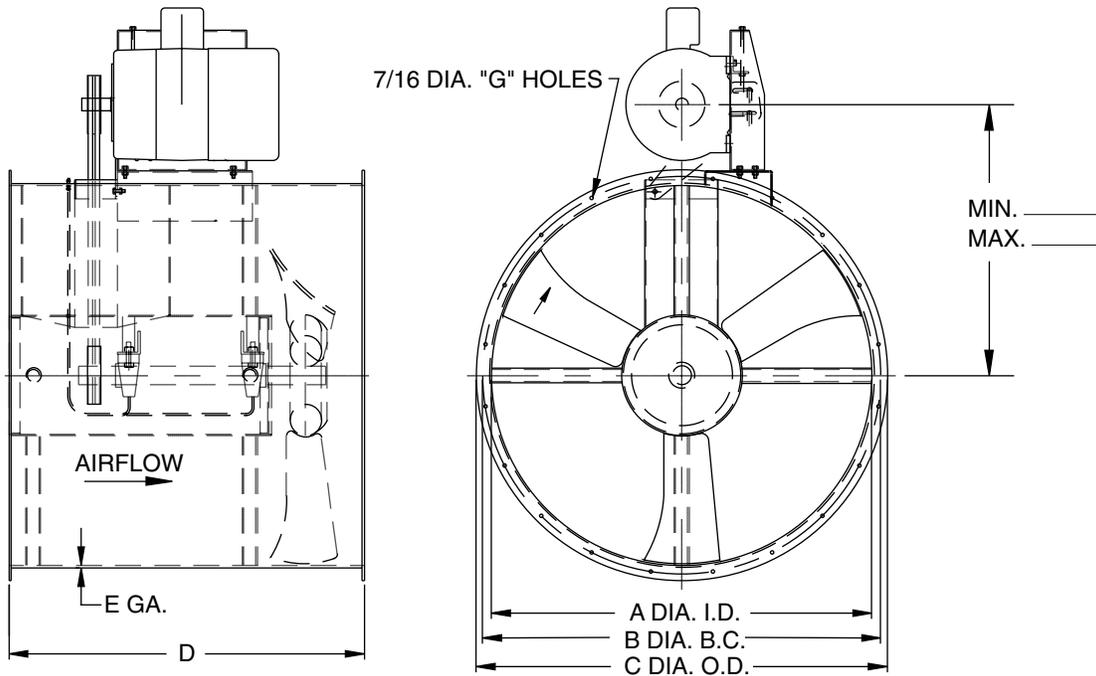
SOUND POWER LEVELS — The sound power level of the fans shall not exceed:

Octave Band - CPS (Sound Power 10^{-12})

63	125	250	500	1000	2000	4000	8000

Dimensional Data

Model ATABD, Arrangement 9 – Belt Driven



FAN SIZE	A	B	C	D	E (GA.)	G	MAX. MOTOR FRAME	WEIGHT (LBS.)*
040	15 ³ / ₄	17 ³ / ₈	18 ³ / ₄	26	12	8	184T/U	69
050	19 ¹¹ / ₁₆	21 ⁵ / ₁₆	22 ¹¹ / ₁₆	26	12	8	215T/U	82
063	24 ¹³ / ₁₆	26 ¹¹ / ₁₆	28 ⁵ / ₁₆	31	10	8	215T/U	134
071	27 ³¹ / ₃₂	29 ⁷ / ₈	31 ¹⁵ / ₃₂	36	10	12	256T/U	165
080	31 ¹ / ₂	33 ³ / ₈	34 ¹ / ₂	36	7	12	256T/U	277
090	35 ⁷ / ₁₆	37 ⁵ / ₁₆	38 ⁷ / ₁₆	44	7	12	326T/U	373
100	39 ³ / ₈	41 ¹ / ₄	42 ³ / ₈	44	7	12	326T/U	418
112	44 ³ / ₃₂	45 ³¹ / ₃₂	47 ¹ / ₃₂	50	7	16	326T/U	516
125	49 ⁷ / ₃₂	51 ³ / ₃₂	52 ⁷ / ₃₂	52	7	16	365T/U	638

*LESS MOTOR

31928-D



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Typical Specifications

Model ATABD, Arrangement 9 – Belt Driven

Fans, where indicated on drawings and schedules, shall be Model ATABD, Arrangement 9, V-belt driven, axial flow type with fan blades capable of individual manual pitch adjustment while the fan is stopped. Fans shall be as manufactured by Aerovent, Minneapolis, Minnesota, and shall be of the size and capacity as indicated in the fan schedules. Model ATABD fans have been tested in an AMCA registered laboratory in accordance with AMCA 210 and AMCA 300 test codes and are licensed to bear the AMCA certified ratings seal for both Air and Sound. In addition each unit shall be factory run tested and final trim balanced prior to shipment.

CONSTRUCTION — Fan casings shall be welded of ASTM A-569 low carbon, commercial quality 12-gauge hot rolled steel in sizes through 20" diameter, 10-gauge hot rolled steel from 24" diameter through 28" diameter, and 7-gauge hot rolled steel on sizes greater than 30" in diameter. Inlet and outlet flanges shall be integrally rolled mechanically from fan casing sheet steel to insure concentricity and alignment. Accuracy and uniformity of the fan casing shall be insured through the use of welding jigs and fixtures. The motor base plate shall be fabricated of minimum 3/16" steel plate and welded to the exterior of the fan casing. The adjustment of belt tension shall be accomplished with an adjustable slide rail base.

PROPELLERS — Fan blades shall be permanent mold A319 aluminum alloy precision castings. Fan center hub boss shall be cast iron bolted to stamped steel hub halves coated by electrodeposition. Blade tip clearance shall be within tolerance to meet certified performance. Fan blade pitch angle shall be individually manually adjustable when fan is stopped. The fan propeller shall be secured to the fan shaft with knurled cup point set screws in all sizes to 20" diameter and split taper lock bushings in all larger sizes.

SHAFT & BEARINGS — All fans shall be supplied with a shaft of AISI C-1045 steel material that has been properly turned, ground, and polished for accuracy. The shaft shall be supported by a matched pair of sealed pillow block bearings. Grease leads are to be extended from the fan shaft bearings to zerk fittings mounted on the exterior of the fan casing to facilitate bearing relubrication without the need to gain service access inside the ductwork or the fan casing. All fan bearings are to have an L-10 minimum life as defined by AFBMA of at least 20,000 hours. This L-10 minimum life converts to an average bearing life in excess of 100,000 hours.

DRIVES — Fan drives shall include cast iron sheaves and non-static conducting belts. Fans equipped with motors up to and including five horsepower will be furnished with a variable pitch type drive sheave to allow for minor speed adjustment of the fan propeller during system balance. Fans equipped with larger motors will be furnished with a fixed drive sheave. A belt guard or an optional motor cover is to be provided with all belt driven fans to afford personnel safety and general traffic protection.

MOTORS — Fan motors shall be manufactured in accordance with current applicable standards of IEEE and NEMA. They shall be foot-mounted, NEMA standard, open drip-proof (ODP), continuous duty, ball bearing with class "B" insulation.

BALANCING — The propeller assembly shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. In addition, belt driven fan propellers shall be balanced on the fan shaft after final assembly in the fan casing, in the manufacturing facility to the following peak velocity values, filter-in, at the fan test speed:

Fan Application Category	Rigidly Mounted (In/Sec)	Flexibly Mounted (In/Sec)
BV-3	0.15	0.20

Final test room vibration levels in the axial, vertical, and horizontal planes shall be recorded and a written copy shall be available upon request.

FINISH — The units, after fabrication, shall be cleaned and chemically pretreated by a phosphatizing process and shall be painted inside and out with two coats of air dry enamel. The fan shall be coated with the following optional finishes:

- Carbocoat 30 (Replaces Sanitile 550)
- Hot Dip Galvanizing
- Plasite 4310 – Vinyl Ester
- Plasite 9500 (Replaces Plasite 1246)
- Plasite 7122L – Air Dry Epoxy Phenolic
- Plasite 3070 (Replaces Plasite 3066)
- Heresite VR506 – Air Dry Phenolic
- Dupont ASA – 70 Gray – Polyester (Replaces Farboil)

SOUND POWER LEVELS — The sound power level of the fans shall not exceed:

Octave Band - CPS (Sound Power 10⁻¹² watts)

63	125	250	500	1000	2000	4000	8000

**PROPELLER FANS | TUBEAXIAL & VANEAXIAL FANS | CENTRIFUGAL FANS & BLOWERS | ROOF VENTILATORS
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