



# AD SERIES DUCT FAN IN-LINE MIXED-FLOW FAN FOR RESIDENTIAL OR COMMERCIAL APPLICATIONS

PRODUCT  
SPECIFICATIONS  
AND ENGINEERING  
INFORMATION  
SUBMITTAL DATA  
422R-11-01



**ALDES AD-SERIES  
IN-LINE DUCT FANS**

### DESCRIPTION

The "AD" duct fan is a direct-drive centrifugal exhaust/supply fan, ideal for moderate size ventilation applications, with a mixed-flow impeller permitting the compactness of axial fans with the higher pressure characteristics of centrifugal blowers. Additionally, these fans offer substantially quieter operation and are easier to install than axial fans. "AD" fans can be mounted at any angle and in any point in the ductwork. Their straight-through airflow design configuration and the ease with which they can be removed facilitate both installation and service. Fans are UL listed under Standard 507 and 705 and are designed to operate in conditioned airstreams with temperatures up to 140° F. Motor bearings are the permanently sealed, self-lubricating ball type. All fans are 100% speed controllable through a decrease in voltage with either a solid state or transformer type of control.

AD Series fans are backed by ALDES' Three Year Warranty.

### TYPICAL SPECIFICATIONS FOR ALDES AD SERIES DUCT FANS

Supply, exhaust or return air in-line fans shall be of the centrifugal, direct driven type.

### CONSTRUCTION

Fan housing shall be constructed of heavy gauge galvanized steel metal with a baked enamel finish. Fan housing shall be lined with vibration dampening/sound attenuating padding for noise suppression. Fan shall

be supplied with externally mounted electrical terminal box with pre-wired terminal strip connections. Integral disconnect switch shall be provided when specified.

Motorized impeller shall be a totally enclosed external rotor type, Class B insulation. Single phase motors (AD12HP-AD18) shall be permanent split capacitor type. Three phase motors (AD18HP, AD20) shall be dual wound for 230V or 440/460V. All motors shall be the permanently sealed self lubricating ball bearing type. Motors shall be equipped with automatic reset thermal overload protection. Motors shall be acceptable for continuous duty. Sufficient service factor shall be provided to ensure long maintenance free operation over maximum load conditions.

Fan wheel shall be of the mixed flow centrifugal type with a well designed inlet venturi for maximum performance. Motorized impeller shall be both statically and dynamically balanced as one integral unit to provide for vibration free performance. Impellers for models AD12HP and AD14 shall be molded of high impact polypropylene. Impeller for models AD14HP through AD20 shall be constructed of aluminum.

### PERFORMANCE

Fan air performance shall be based on tests conducted in accordance with AMCA Standard 210-85.

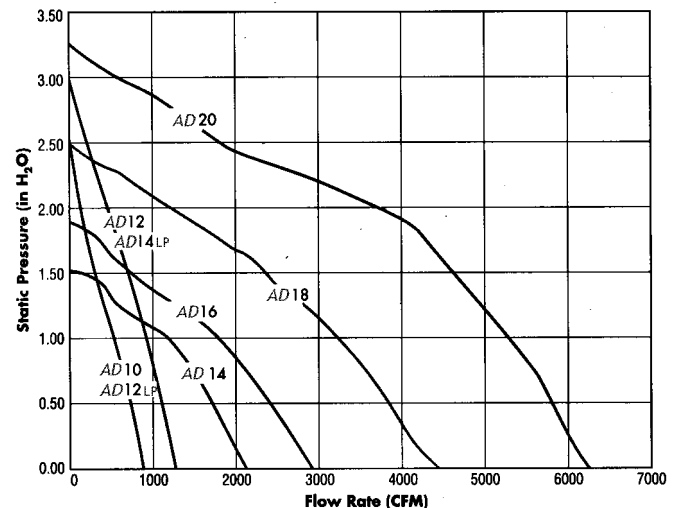
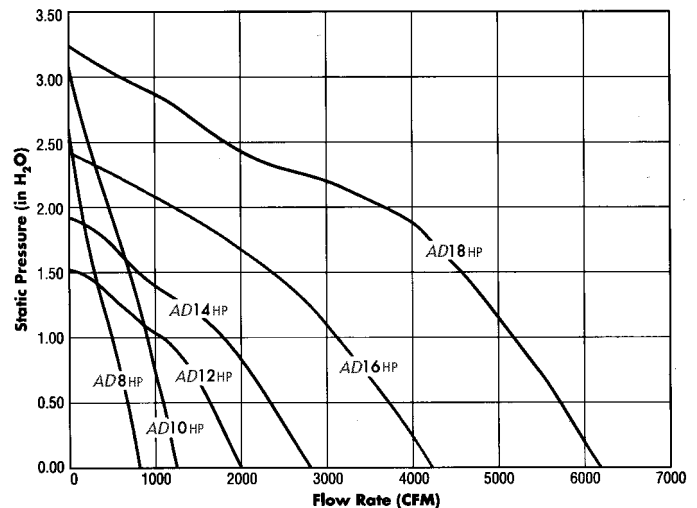
### CODE APPROVAL

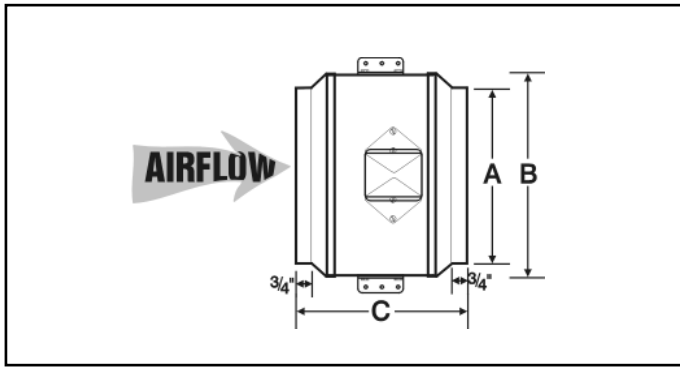
Fan shall be tested and approved by UL and CSA (or equal) for safety.

AD SERIES fans shall be manufactured under the authority of American ALDES Ventilation Corp., Sarasota, FL

For smaller applications, consider either ALDES' "A" or "P" Series Duct Fans.

## AD Air Performance Graphs

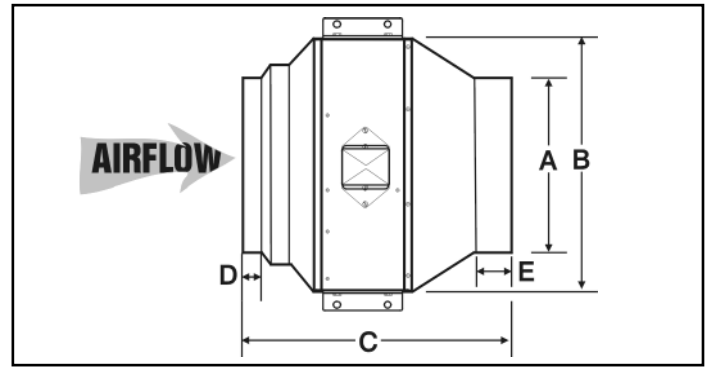




**DIMENSIONS (INCHES)**

Part #	Model	A	B	C
99 650	AD-8HP	8	12 <sup>1/2</sup>	15 <sup>1/8</sup>
99 651	AD-10	10	12 <sup>1/2</sup>	12 <sup>1/2</sup>
99 652	AD-10HP	10	14	15
99 653	AD-12LP	12	12 <sup>1/2</sup>	10
99 654	AD-12	12	14	12 <sup>1/2</sup>
99 656	AD-14LP	14	14	‡

‡AD14's overall length is 8"



**DIMENSIONS (INCHES)**

Part #	Model	AØ	B	C	D	E
99 655	AD-12HP	12	17 <sup>7/8</sup>	18 <sup>7/8</sup>	7/8	1 <sup>5/8</sup>
99 657	AD-14	14	19 <sup>3/4</sup>	20 <sup>1/4</sup>	1 <sup>1/2</sup>	1 <sup>5/8</sup>
99 658	AD-14HP	14	19 <sup>3/4</sup>	20 <sup>1/4</sup>	1	1 <sup>5/8</sup>
99 659	AD-16	16	19 <sup>3/4</sup>	18 <sup>3/4</sup>	1 <sup>1/2</sup>	1 <sup>5/8</sup>
99 660	AD-16HP	16	22 <sup>1/8</sup>	23 <sup>1/4</sup>	1 <sup>1/4</sup>	1 <sup>5/8</sup>
99 661	AD-18	18	22 <sup>1/8</sup>	21 <sup>3/4</sup>	1 <sup>1/4</sup>	1 <sup>5/8</sup>
99 662	AD-18HP	18	28 <sup>1/4</sup>	29 <sup>1/4</sup>	2	1 <sup>3/4</sup>
99 663	AD-20	20	28 <sup>1/4</sup>	27 <sup>1/4</sup>	2	1 <sup>3/4</sup>

**PERFORMANCE DATA**

Fan Model	RPM	Volts	Max Watts	Max Amps	0"	.125"	.25"	.375"	.5"	.75"	1.0"	1.25"	1.5"	2.0"	Max Ps.	Duct Dia.	†Sones
AD 8HP	2700	115	327	2.99 <sup>1</sup>	836	799	761	720	680	595	499	393	286	—	2.59"	8"	14.1
AD 10	2700	115	329	3.01 <sup>1</sup>	910	873	836	795	752	653	547	432	342	—	2.60"	10"	15.3
AD 10HP	2850	115	529	4.84 <sup>2</sup>	1266	1226	1187	1147	1100	1006	911	810	696	460	3.08"	10"	21.0
AD 12LP	2700	115	323	2.95 <sup>1</sup>	930	889	848	804	758	657	550	443	343	—	2.54"	12"	15.2
AD 12	2900	115	531	4.86 <sup>2</sup>	1305	1266	1228	1189	1145	1054	948	833	712	479	3.08"	12"	23.0
AD 12HP	1700	115 <sup>x</sup>	500	4.80 <sup>2</sup>	2016	1920	1832	1746	1649	1423	1066	606	—	—	1.52"	12"	18.7
AD 14LP	2900	115 <sup>x</sup>	525	4.81 <sup>2</sup>	1305	1261	1218	1174	1125	1025	923	814	703	469	3.12"	14"	23.0
AD 14	1700	115 <sup>x</sup>	495	4.76 <sup>2</sup>	2156	2061	1965	1868	1764	1520	1193	623	—	—	1.52"	14"	18.4
AD 14HP	1600	115 <sup>x</sup>	761	6.64 <sup>2</sup>	2831	2714	2599	2484	2370	2100	1793	1351	823	—	1.92"	14"	19.9
AD 16	1600	115 <sup>x</sup>	742	6.39 <sup>2</sup>	2952	2831	2707	2580	2445	2144	1804	1306	774	—	1.90"	16"	18.5
AD 16HP	1600	115 <sup>xx</sup>	1421	12.40 <sup>3</sup>	4274	4392	4014	3880	3743	3452	3137	2794	2379	1242	2.42"	16"	25.0
AD 18	1600	115 <sup>xx</sup>	1411	12.04 <sup>3</sup>	4448	4992	4130	3991	3871	3583	3239	2843	2380	1231	2.51"	18"	24.0
AD 18HP	1700	460/3	2208	3.75	6236	6115	5995	5874	5754	5500	5199	4909	4602	3703	3.24"	18"	32.0
AD 20	1750	460/3	2218	3.73	6291	6174	6054	5933	5829	5617	5307	4987	4667	3757	3.27"	20"	33.0

Performance shown is for installation type D- Ducted inlet, Ducted outlet. Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances in the airstream.

†The sound ratings shown are loudness values in fan sones at 5ft. (1.5m) in hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type D: Ducted inlet fan sone levels. Ratings do not include the effect of duct end correction. All sone values shown are calculated at 0.5" (static pressure in inches W.G.).

Note: Three phase motors are wound for 230/460 volt. Motors are prewired for 460 volts but may be delivered as 230 volt or may be rewired in the AMERICAN ALDES VENTILATION CORPORATION reserves the right to substitute material or change product specification.

<b>PROJECT:</b>	<b>DATE:</b>	<b>SUBMITTED BY:</b>	<b>ARCHITECT:</b>
<b>CONTRACTOR:</b>	<b>ENGINEER:</b>		

**SPECIFICATION**

FAN POS.	MODEL NO.	CFM	IN W.G.	RPM	WATTS/HP	AMPS	dB(A)*	SONES	QTY.	OPTIONAL EQUIP.

**WARNING! DO NOT use in HAZARDOUS ENVIRONMENTS** where fan's electrical system could provide ignition to combustible or flammable materials unless it is specifically built for hazardous environments. \* Measured at 5 feet - freefield conditions.



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