High Performance Axial Fans Model AX

Performance Supplement





High Performance Axial Fans



Performance information is for the model AX standard configuration. Optional configurations include; upblast design with butterfly dampers and curb cap, detachable air straightening vane section, and shortened case. These options can effect performance. For estimated pressure drops on these accessories, consult your local Greenheck representative.









AX Upblast

AX Vane Section

AX Short Casing



Greenheck certifies that the Model AX fan 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 comply with the requirements of the AMCA Certified Ratings Program.

Hubs and Blades

The AX blade shape and hub are designed to move high volumes of air with less power to save on long-term energy costs.

The choice of five different hub diameters, along with variations in blade quantities, ensures that the most economical air performance can be achieved. In addition, during the design process, close attention was paid to the "hub to tip" ratios. This is a comparison of the hub diameter to the "tip to tip" dimension of the blades. Different choices of hub to tip ratios further optimize fan performance and provide a cost effective solution by not over sizing a hub to produce required volumes and pressures.

The hubs are constructed from cast aluminum and use a taper lock bushing to secure the hub to the motor shaft.





Available Hub Sizes (mm) / Number of Blades							
Size	160	190	275	400	533		
Size	(4 or 6)	(4 or 6)	(6 or 9)	(6 or 9)	(8 or 12)		
31	Х						
36	Х						
41	х	Х					
47	х	Х					
54	х	Х	Х				
63	х	Х	Х				
72		Х	Х				
80		Х	Х	Х			
90			Х	Х			
103			Х	Х			
113			Х	Х	х		
123				Х	Х		
140				Х	Х		
160				Х	Х		

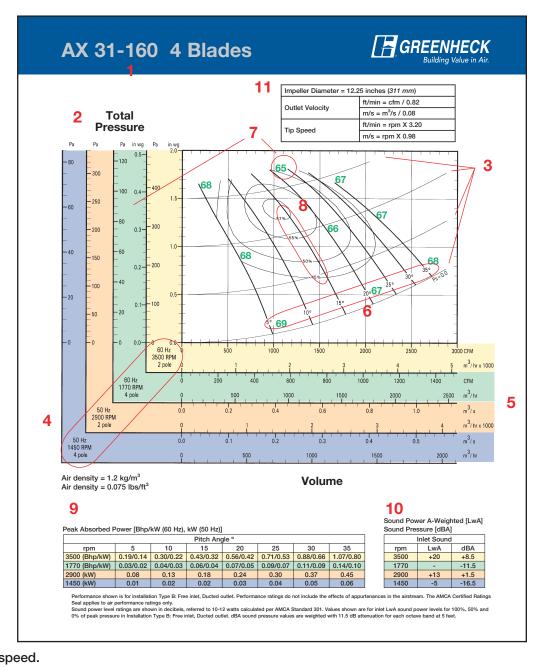
Performance Manual Guide



How to use this performance manual

The performance pages contains information in metric and english units. These are color coded with motor power frequency and motor speed for easy and quick reference in finding air performance, power requirements, and sound information. See back cover for selection example.

- 1 Model size and hub diameter
- 2 Total Pressure Axis in Pascals (Pa) and Inches Water Gauge (in. wg)
- 3 Static Pressure- Lines of constant static pressure
- 4 Color coded power frequency and motor speed (rpm)/poles
- Volume Axis displays two different units of measure for each power frequency and motor speed.
- 6 Blade pitch Shown in 5 degree
 increments, integral
 pitches are available
 between the
 displayed limits.
- 7 Sound power (LwA)
 Color coded sound
 power level levels
 are displayed as
 a percentage of
 peak power; 100%,
 50% and 0%. Use
 corrections in the
 sound power table to
 find corresponding
 LwA and dBA levels
 for a specific power
 frequency and motor speed.

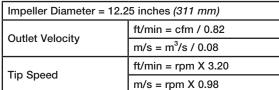


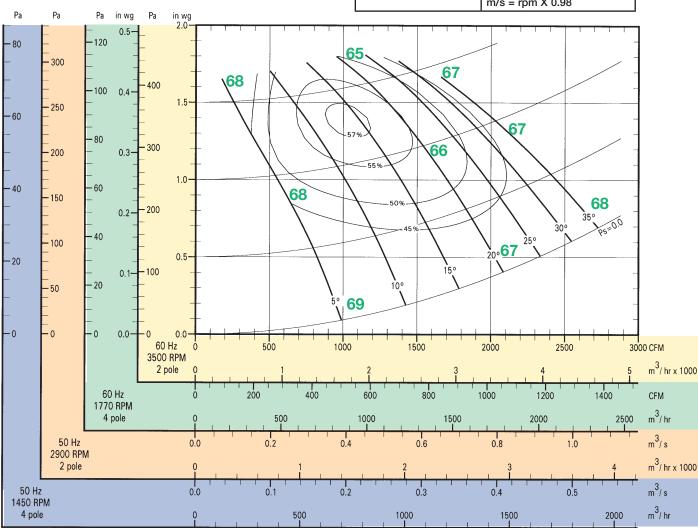
- 8 Total Efficiency curves Curves show total efficiency levels at different performance points. Those curves do not reflect static efficiency levels.
- 9 Peak Absorbed Power table Table displays the maximum power required by pitch angle and motor rpm. Values provided are in brake horse power and kilowatts.
- 10 Sound Power and Sound Pressure table Table displays the corrections required by motor rpm.
- 11 Outlet Velocity and Tip Speed formulas For deriving outlet velocity, use either cfm or m³/s in the appropriate Outlet Velocity equation. Tip speed equation is only dependent on motor rpm.

AX 31-160 4 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
3500 (Bhp/kW)	0.19/0.14	0.30/0.22	0.43/0.32	0.56/0.42	0.71/0.53	0.88/0.66	1.07/0.80
1770 (Bhp/kW)	0.03/0.02	0.04/0.03	0.06/0.04	0.07/0.05	0.09/0.07	0.11/0.09	0.14/0.10
2900 (kW)	0.08	0.13	0.18	0.24	0.30	0.37	0.45
1450 (kW)	0.01	0.02	0.02	0.03	0.04	0.05	0.06

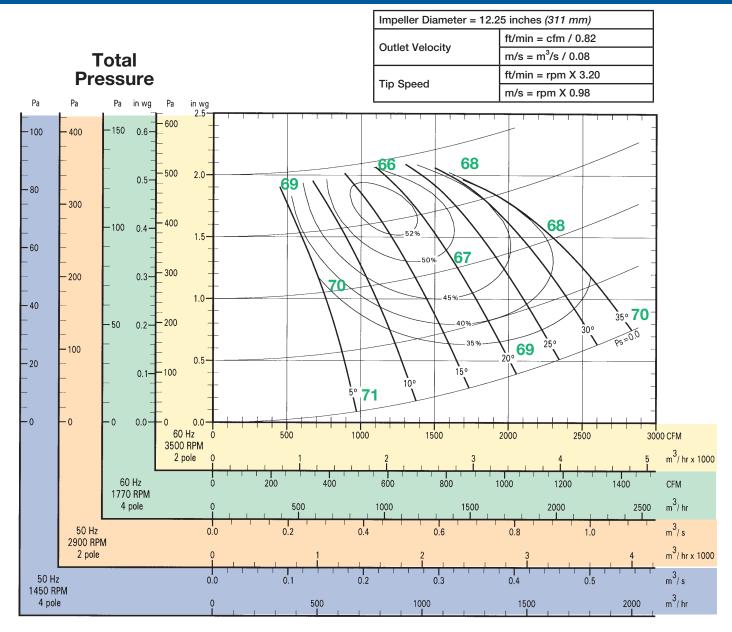
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

	Inlet Sound	
rpm	LwA	dBA
3500	+20	+8.5
1770	-	-11.5
2900	+13	+1.5
1450	-5	-16.5

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 31-160 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

		(//	(/2					
	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
3500 (Bhp/kW)	0.38/0.28	0.43/0.32	0.56/0.42	0.73/0.54	0.93/0.69	1.16/0.87	1.41/1.06	
1770 (Bhp/kW)	0.05/0.04	0.06/0.04	0.07/0.05	0.09/0.07	0.12/0.09	0.15/0.11	0.18/0.11	
2900 (kW)	0.16	0.18	0.24	0.31	0.39	0.49	0.60	
1450 (kW)	0.02	0.02	0.03	0.04	0.05	0.06	0.08	

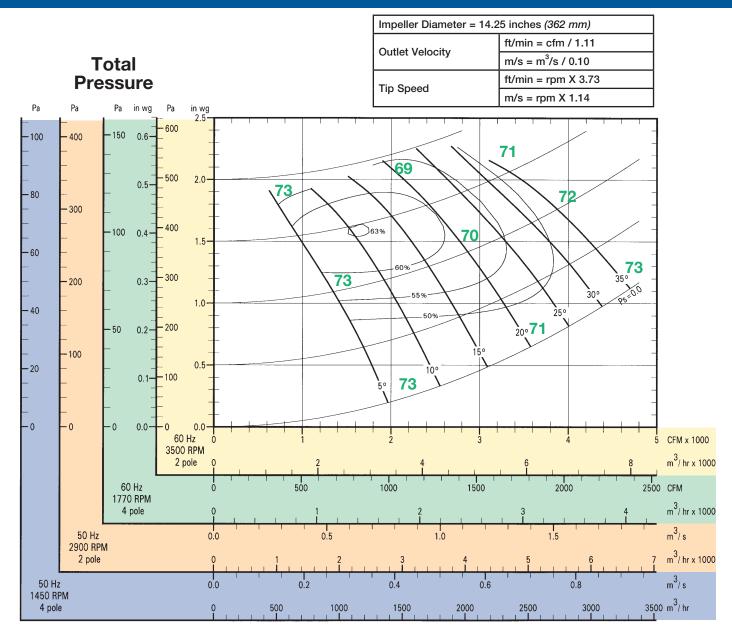
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

	Inlet Sound							
rpm	LwA	dBA						
3500	+20	+8.5						
1770	-	-11.5						
2900	+14	+2.5						
1450	-5	-16.5						

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 36-160 4 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
3500 (Bhp/kW)	0.42/0.31	0.61/0.46	0.87/0.65	1.18/0.88	1.52/1.13	1.89/1.41	2.31/1.72	
1770 (Bhp/kW)	0.05/0.04	0.08/0.06	0.11/0.08	0.15/0.11	0.20/0.15	0.24/0.18	0.30/0.22	
2900 (kW)	0.18	0.26	0.37	0.50	0.64	0.80	0.98	
1450 (kW)	0.02	0.03	0.05	0.06	0.08	0.10	0.12	

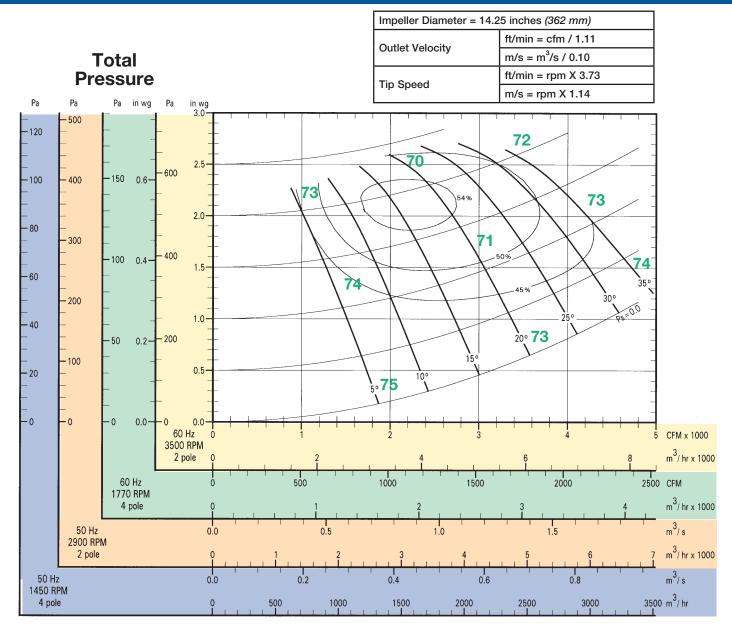
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

	Inlet Sound	
rpm	LwA	dBA
3500	+19	+7.5
1770	-	-11.5
2900	+13	+1.5
1450	-5	-16.5

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 36-160 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
3500 (Bhp/kW)	0.72/0.54	0.94/0.70	1.25/0.93	1.64/1.22	2.07/1.55	2.54/1.89	3.00/2.24	
1770 (Bhp/kW)	0.09/0.07	0.12/0.09	0.16/0.12	0.21/0.16	0.27/0.20	0.33/0.24	0.39/0.29	
2900 (kW)	0.31	0.40	0.53	0.70	0.88	1.08	1.27	
1450 (kW)	0.04	0.05	0.07	0.09	0.11	0.13	0.16	

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

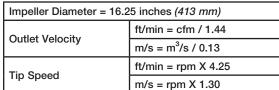
Inlet Sound							
rpm	LwA	dBA					
3500	+19	+7.5					
1770	-	-11.5					
2900	+13	+1.5					
1450	-5	-16.5					

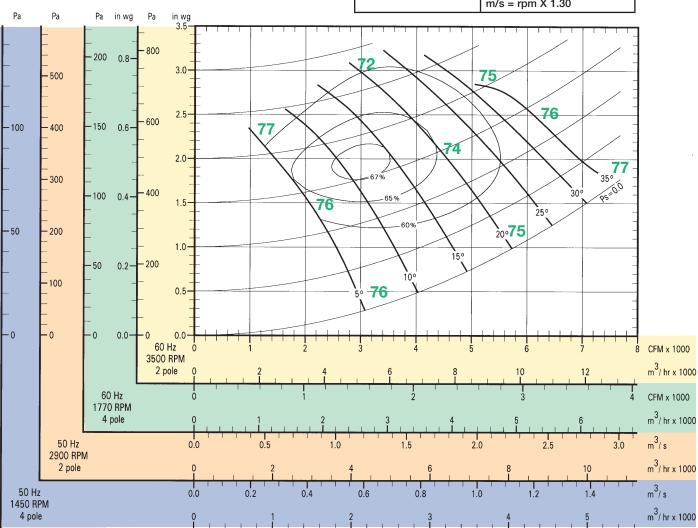
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 41-160 4 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
3500 (Bhp/kW)	0.78/0.58	1.21/0.90	1.76/1.31	2.36/1.76	3.02/2.25	3.73/2.78	4.52/3.37	
1770 (Bhp/kW)	0.10/0.08	0.16/0.12	0.23/0.17	0.31/0.23	0.39/0.29	0.48/0.36	0.58/0.44	
2900 (kW)	0.33	0.51	0.74	1.00	1.28	1.58	1.92	
1450 (kW)	0.04	0.06	0.09	0.13	0.16	0.20	0.24	

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

	Inlet Sound					
rpm LwA dBA						
3500	+18	+6.5				
1770	-	-11.5				
2900	+12	+0.5				
1450	-6	-17.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

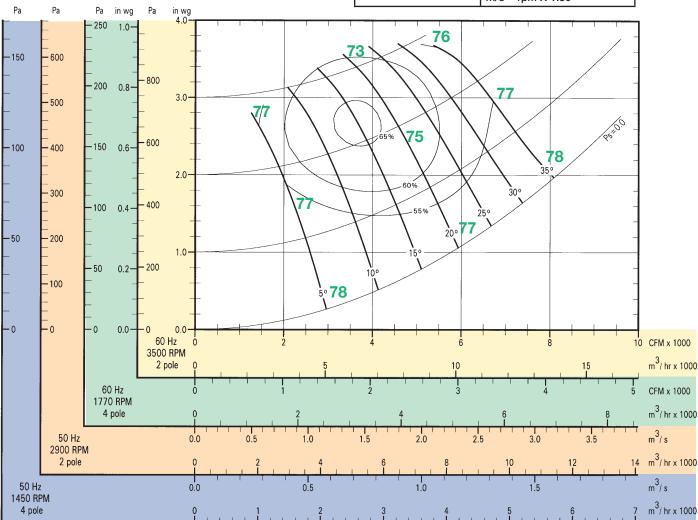
AX 41-160 6 Blades



Total Pressure

Impeller Diameter = 16.25 inches (413 mm)

Outlet Velocity ft/min = cfm / 1.44 $m/s = m^3/s / 0.13$ ft/min = rpm X 4.25 m/s = rpm X 1.30



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
3500 (Bhp/kW)	1.11/0.82	1.76/1.32	2.44/1.82	3.15/2.35	3.90/2.91	4.76/3.55	5.76/4.30	
1770 (Bhp/kW)	0.14/0.11	0.23/0.17	0.32/0.24	0.41/0.30	0.51/0.38	0.62/0.46	0.75/0.56	
2900 (kW)	0.47	0.75	1.04	1.34	1.66	2.02	2.44	
1450 (kW)	0.06	0.09	0.13	0.17	0.21	0.25	0.31	

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	dBA					
3500	+16	+4.5				
1770	-	-11.5				
2900	+12	+0.5				
1450	-7	-18.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 41-190 4 Blades



Impeller Diameter = 16.25 inches (413 mm) ft/min = cfm / 1.44 **Outlet Velocity** $m/s = m^3/s / 0.13$ **Total** ft/min = rpm X 4.25 **Pressure** Tip Speed m/s = rpm X 1.30Pa Pa in wg Pa in wg 3.5-200 0.8-3.0 - 500 2.5 600 -100 400 150 0.6 2.0 300 78 100 0.4 1.5 200 - 50 1.0 - 200 - 50 0.2--100 0.5 **78** 0.0 60 Hz CFM x 1000 3500 RPM $m^3/hr \times 1000$ 2 pole 3500 CFM 60 Hz 1770 RPM $m^3/hr \times 1000$ 4 pole m^3/s 50 Hz 2900 RPM m³/ hr x 1000 2 pole 50 Hz 1450 RPM $m^3/hr \times 1000$ 4 pole 0

Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
3500 (Bhp/kW)	0.80/0.60	1.24/0.92	1.79/1.34	2.43/1.81	3.11/2.32	3.81/2.84	4.55/3.40
1770 (Bhp/kW)	0.10/0.08	0.16/0.12	0.23/0.17	0.31/0.23	0.40/0.30	0.49/0.37	0.59/0.44
2900 (kW)	0.34	0.52	0.76	1.03	1.32	1.62	1.93
1450 (kW)	0.04	0.07	0.10	0.13	0.16	0.20	0.24

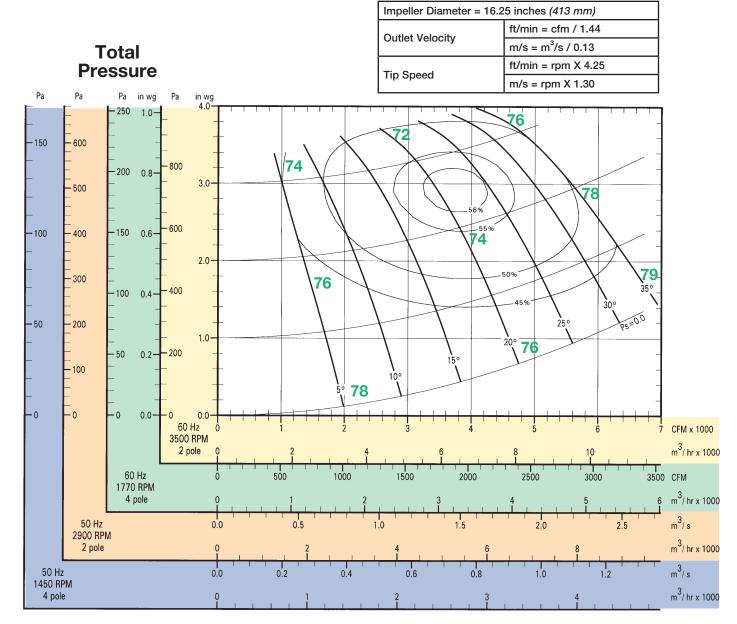
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

	-						
Inlet Sound							
LwA	dBA						
+19	+7.5						
-	-11.5						
+13	+1.5						
-6	-17.5						
	LwA +19 - +13						

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AX 41-190 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	(
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
3500 (Bhp/kW)	1.09/0.81	1.59/1.18	2.23/1.67	3.00/2.24	3.84/2.87	4.71/3.51	5.58/4.16
1770 (Bhp/kW)	0.14/0.11	0.21/0.15	0.29/0.22	0.39/0.29	0.50/0.37	0.61/0.45	0.72/0.54
2900 (kW)	0.46	0.67	0.95	1.27	1.63	2.00	2.37
1450 (kW)	0.06	0.08	0.12	0.16	0.20	0.25	0.30

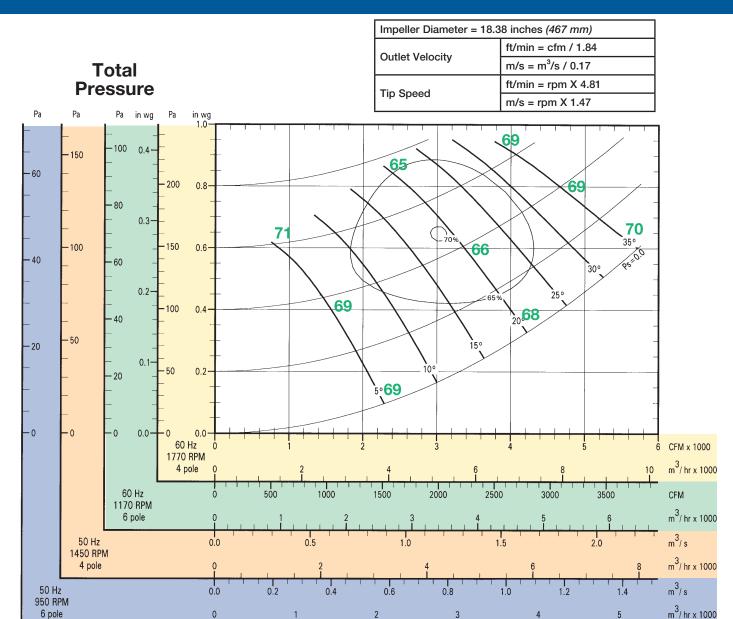
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	dBA					
3500	+18	+6.5				
1770	-	-11.5				
2900	+13	+1.5				
1450	-6	-17.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 47-160 4 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	0.17/0.12	0.26/0.20	0.37/0.28	0.49/0.36	0.62/0.47	0.79/0.59	1.01/0.75
1170 (Bhp/kW)	0.05/0.04	0.08/0.06	0.11/0.08	0.14/0.11	0.18/0.13	0.23/0.17	0.29/0.22
1450 (kW)	0.07	0.11	0.15	0.20	0.26	0.33	0.41
950 (kW)	0.02	0.03	0.04	0.06	0.07	0.09	0.12

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

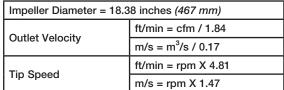
Inlet Sound						
rpm	LwA	dBA				
1770	+11	-0.5				
1170	-	-11.5				
1450	+6	-5.5				
950	-6	-17.5				

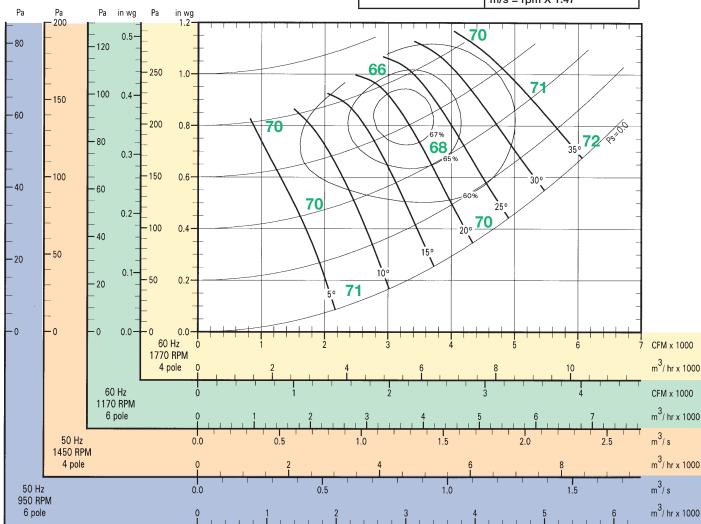
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AX 47-160 6 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	(
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	0.21/0.16	0.37/0.27	0.51/0.38	0.65/0.49	0.82/0.61	1.03/0.77	1.31/0.98
1170 (Bhp/kW)	0.06/0.05	0.11/0.08	0.15/0.11	0.19/0.14	0.24/0.18	0.30/0.22	0.38/0.28
1450 (kW)	0.09	0.15	0.21	0.27	0.34	0.42	0.54
950 (kW)	0.02	0.04	0.06	0.08	0.09	0.12	0.15

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1770	+9	-2.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-6	-17.5				

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AX 47-190 4 Blades



Impeller Diameter = 18.38 inches (467 mm) ft/min = cfm / 1.84 **Outlet Velocity** $m/s = m^3/s / 0.17$ **Total** ft/min = rpm X 4.81 **Pressure** Tip Speed m/s = rpm X 1.47Pa Pa in wg Pa in wg 1200 300 - 200 12 _80 1.0 -150 600 80 - 200 0.8 3.0 100 400 150 0.6 80 2.0 100 0.4 - 200 - 50 1.0 0.2 - 50 0.0 0.0 60 Hz 12 CFM x 1000 3500 RPM $m^3/hr \times 1000$ 2 pole 60 Hz CFM x 1000 1770 RPM $m^3/hr \times 1000$ 4 pole 50 Hz 2900 RPM $m^3/hr \times 1000$ 2 pole 50 Hz 1450 RPM $m^3/hr \times 1000$

Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

4 pole

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
3500 (Bhp/kW)	1.57/1.17	2.32/1.73	3.26/2.43	4.36/3.25	5.61/4.19	7.01/5.23	8.54/6.37
1770 (Bhp/kW)	0.20/0.15	0.30/0.22	0.42/0.31	0.56/0.42	0.73/0.54	0.91/0.68	1.10/0.82
2900 (kW)	0.67	0.98	1.38	1.85	2.38	2.97	3.62
1450 (kW)	0.08	0.12	0.17	0.23	0.30	0.37	0.45

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

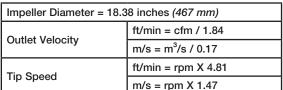
Inlet Sound						
rpm	LwA	dBA				
3500	+19	+7.5				
1770	-	-11.5				
2900	+13	+1.5				
1450	-7	-18.5				

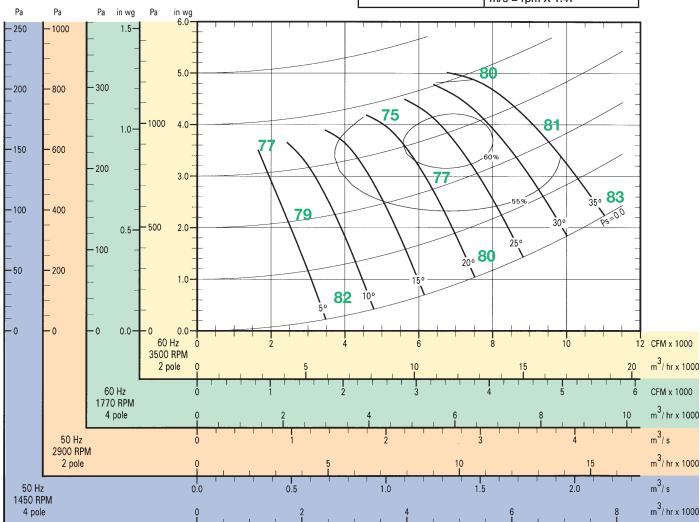
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AX 47-190 6 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
3500 (Bhp/kW)	2.04/1.52	2.94/2.19	4.11/3.06	5.48/4.09	7.04/5.25	8.71/6.49	10.4/7.78
1770 (Bhp/kW)	0.26/0.20	0.38/0.28	0.53/0.40	0.71/0.53	0.91/0.68	1.13/0.84	1.35/1.01
2900 (kW)	0.87	1.25	1.74	2.33	2.99	369	4.43
1450 (kW)	0.11	0.16	0.22	0.29	0.37	0.46	0.55

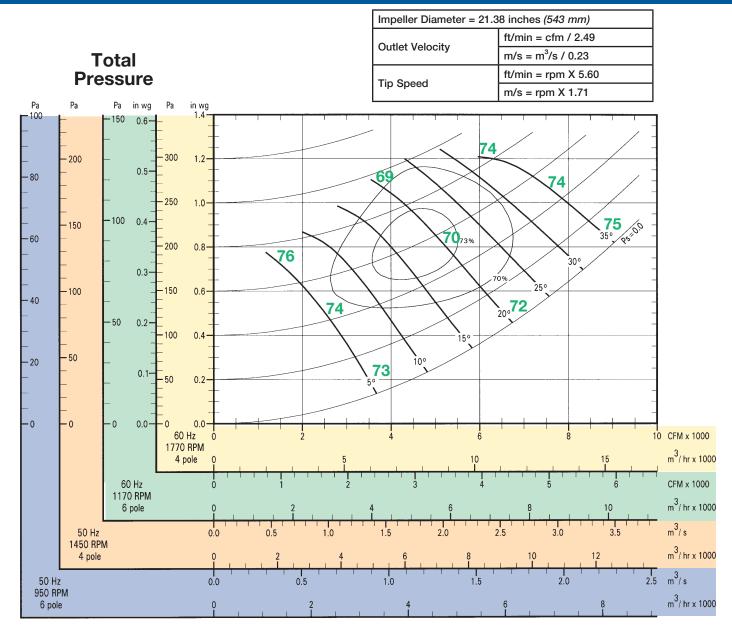
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	LwA	dBA					
3500	+19	+7.5					
1770	-	-11.5					
2900	+13	+1.5					
1450	-5	-16.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 54-160 4 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	0.29/0.22	0.48/0.36	0.69/0.52	0.93/0.69	1.20/0.90	1.52/1.13	1.92/1.43
1170 (Bhp/kW)	0.08/0.06	0.14/0.10	0.20/0.15	0.27/0.20	0.35/0.26	0.44/0.33	0.55/0.41
1450 (kW)	0.12	0.20	0.28	0.38	0.49	0.62	0.79
950 (kW)	0.03	0.06	0.08	0.11	0.14	0.18	0.22

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

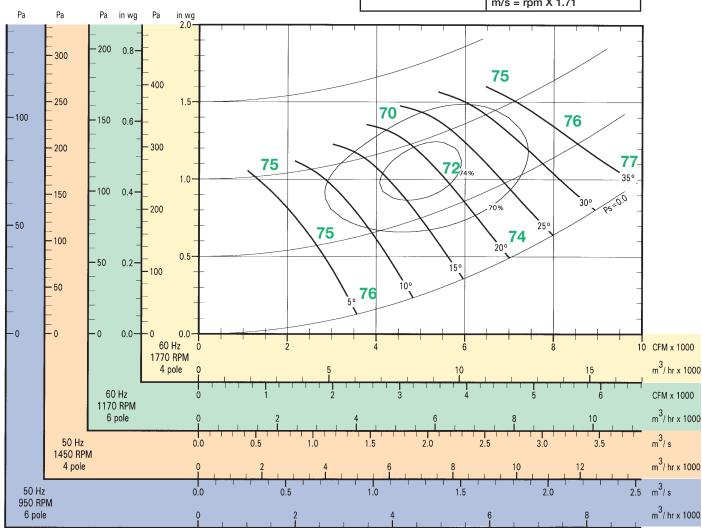
Inlet Sound							
rpm	LwA	dBA					
1770	+12	+0.5					
1170	-	-11.5					
1450	+6	-5.5					
950	-5	-16.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 54-160 6 Blades



Total Pressure



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	(· ·/)							
	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
3500 (Bhp/kW)	0.40/0.30	0.64/0.48	0.93/0.69	1.25/0.94	1.62/1.21	2.04/1.52	2.52/1.88	
1770 (Bhp/kW)	0.11/0.09	0.19/0.14	0.27/0.20	0.36/0.27	0.47/0.35	0.59/0.44	0.73/0.54	
2900 (kW)	0.16	0.26	0.38	0.51	0.67	0.84	1.03	
1450 (kW)	0.05	0.07	0.11	0.14	0.19	0.24	0.29	

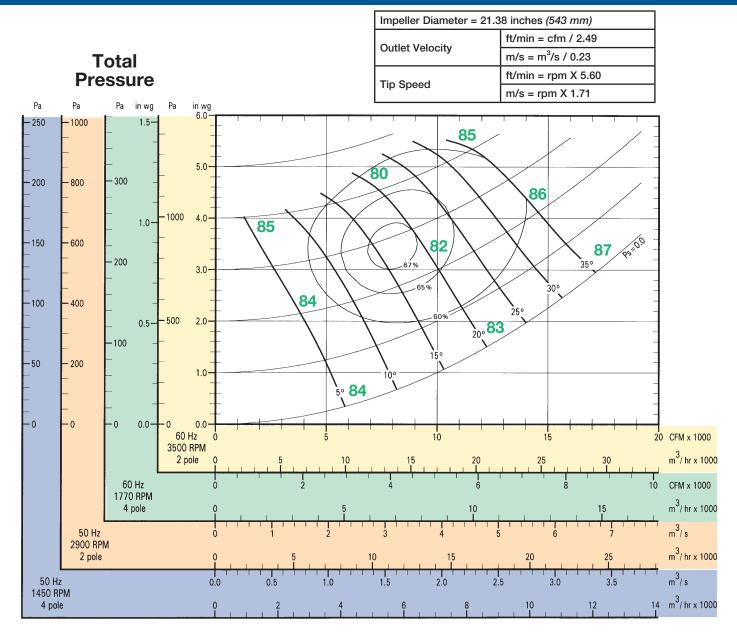
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	dBA						
3500	+12	+0.5					
1770	-	-11.5					
2900	+7	-4.5					
1450	-6	-17.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 54-190 4 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
3500 (Bhp/kW)	2.57/1.91	4.08/3.05	6.01/4.48	8.23/6.14	10.7/7.99	13.5/10.1	16.5/12.3
1770 (Bhp/kW)	0.33/0.25	0.53/0.39	0.78/0.58	1.06/0.79	1.39/1.03	1.74/1.30	2.14/1.59
2900 (kW)	1.09	1.73	2.55	3.49	4.55	5.72	7.01
1450 (kW)	0.14	0.22	0.32	0.44	0.57	0.72	0.88

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

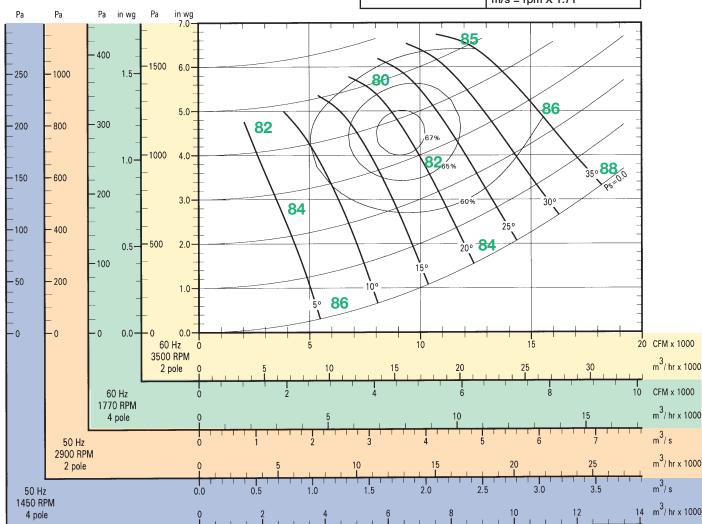
Inlet Sound							
rpm	LwA	dBA					
3500	+18	+6.5					
1770	-	-11.5					
2900	+13	+1.5					
1450	-6	-17.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 54-190 6 Blades



Total Pressure



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	(· ·/)							
	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
3500 (Bhp/kW)	3.38/2.52	5.66/4.22	8.03/5.99	10.6/7.93	13.6/10.1	17.0/12.7	21.1/15.7	
1770 (Bhp/kW)	0.44/0.33	0.73/0.55	1.04/0.78	1.37/1.03	1.75/1.31	2.20/1.64	2.73/2.03	
2900 (kW)	1.43	2.40	3.41	4.51	5.75	7.20	8.94	
1450 (kW)	0.18	0.30	0.43	0.56	0.72	0.90	1.12	

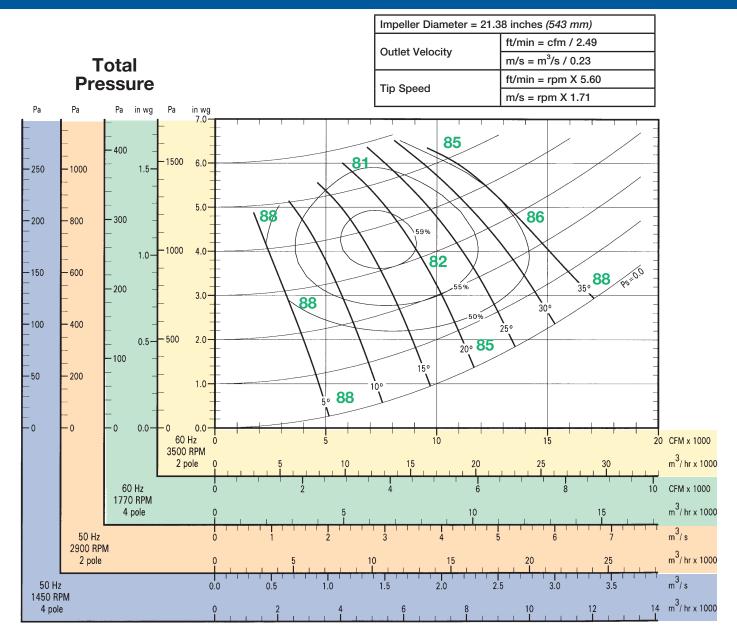
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	LwA	dBA					
3500	+18	+6.5					
1770	-	-11.5					
2900	+13	+1.5					
1450	-5	-16.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 54-275 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
3500 (Bhp/kW)	3.02/2.26	5.30/3.96	7.73/5.77	10.4/7.75	13.4/10.0	16.9/12.6	21.0/15.7
1770 (Bhp/kW)	0.39/0.29	0.69/0.51	1.00/0.75	1.34/1.00	1.74/1.29	2.19/1.63	2.72/2.03
2900 (kW)	1.28	2.25	3.28	4.41	5.69	7.18	8.92
1450 (kW)	0.16	0.28	0.41	0.55	0.71	0.90	1.12

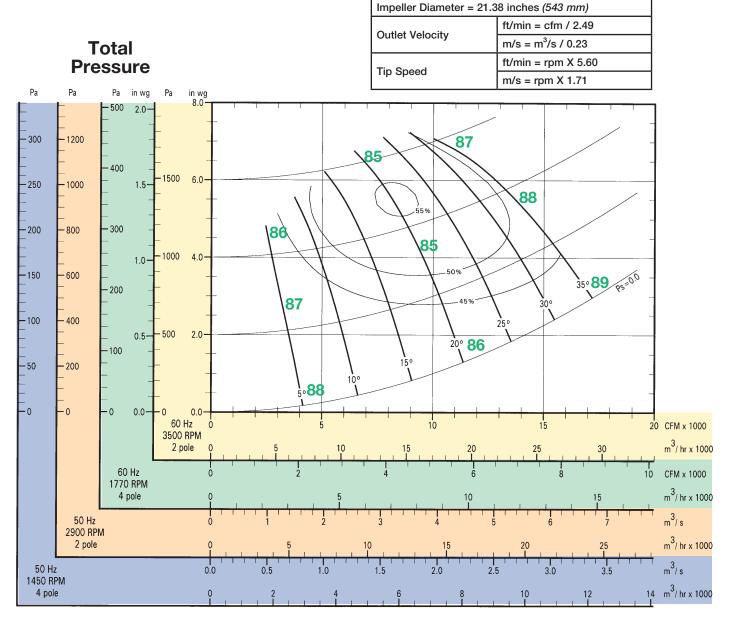
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	LwA	dBA					
3500	+18	+6.5					
1770	-	-11.5					
2900	+13	+1.5					
1450	-5	-16.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 54-275 9 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
3500 (Bhp/kW)	4.41/3.29	6.82/5.09	9.78/7.30	13.1/9.81	16.8/12.5	20.7/15.5	24.8/18.5	
1770 (Bhp/kW)	0.57/0.43	0.88/0.66	1.27/0.94	1.70/1.27	2.17/1.62	2.68/2.00	3.21/2.39	
2900 (kW)	1.87	2.89	4.15	5.58	7.13	8.80	10.5	
1450 (kW)	0.23	0.36	0.52	0.70	0.89	1.10	1.32	

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
LwA	dBA					
+17	+5.5					
-	-11.5					
+12	+0.5					
-5	-16.5					
	LwA +17 - +12					

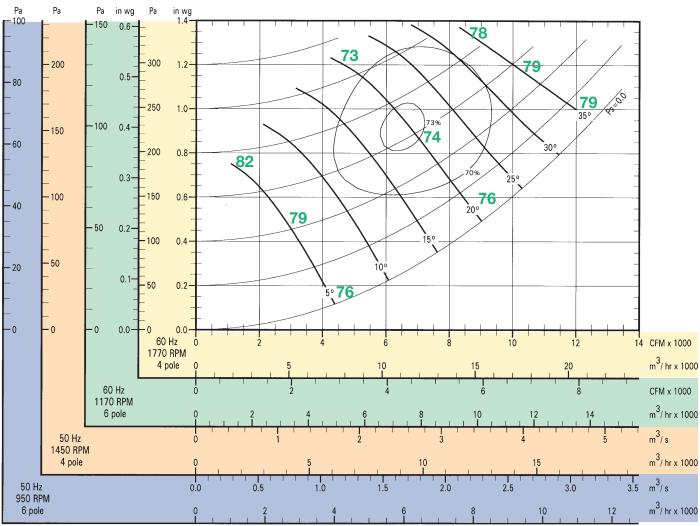
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 63-160 4 Blades



Total Pressure

Impeller Diameter = 24.38 inches (619 mm)				
Outlet Velocity	ft/min = cfm / 3.24			
	$m/s = m^3/s / 0.30$			
Tip Speed	ft/min = rpm X 6.38			
	m/s = rpm X 1.95			



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	0.38/0.28	0.64/0.48	0.97/0.72	1.35/1.01	1.79/1.34	2.28/1.70	2.86/2.14
1170 (Bhp/kW)	0.11/0.08	0.19/0.14	0.28/0.21	0.39/0.29	0.52/0.39	0.66/0.49	0.83/0.62
1450 (kW)	0.16	0.26	0.40	0.55	0.74	0.94	1.17
950 (kW)	0.04	0.07	0.11	0.16	0.21	0.26	0.33

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

	Inlet Sound						
rpm	dBA						
1770	+12	+0.5					
1170	-	-11.5					
1450	+5	-5.5					
950	-6	-17.5					

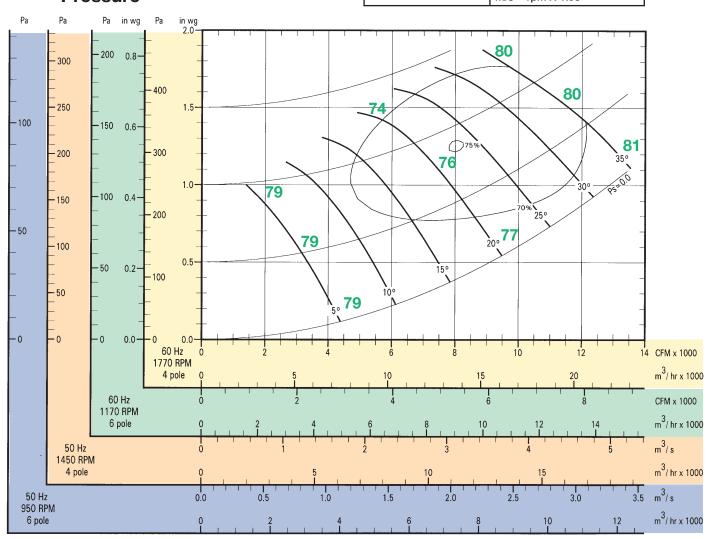
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 63-160 6 Blades



Total Pressure

Impeller Diameter = 24.38 inches (619 mm)				
Outlet Velesity	ft/min = cfm / 3.24			
Outlet Velocity	$m/s = m^3/s / 0.30$			
Tin Speed	ft/min = rpm X 6.38			
Tip Speed	m/s = rpm X 1.95			



Air density = 1.2 kg/m^3 Air density = 0.075 lbs/ft^3

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	0.51/0.38	0.86/0.65	1.31/0.98	1.82/1.36	2.41/1.80	3.09/2.31	3.88/2.89
1170 (Bhp/kW)	0.15/0.11	0.25/0.19	0.38/0.28	0.53/0.39	0.70/0.52	0.89/0.67	1.12/0.84
1450 (kW)	0.21	0.35	0.54	0.75	0.99	1.27	1.59
950 (kW)	0.06	0.10	0.15	0.21	0.28	0.36	0.45

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

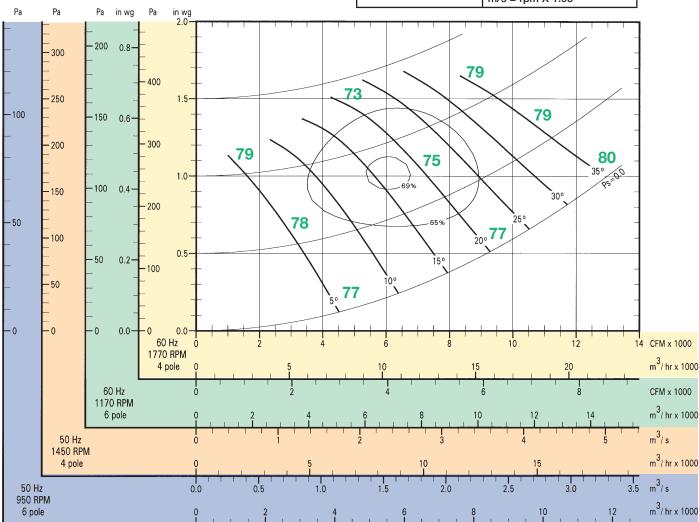
	Inlet Sound	
rpm	LwA	dBA
1770	+10	-1.5
1170	-	-11.5
1450	+5	-6.5
950	-6	-17.5

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 63-190 4 Blades



Impeller Diameter = 24.38 inches (619 mm)



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	0.50/0.37	0.90/0.67	1.32/0.99	1.79/1.34	2.33/1.74	2.98/2.22	3.77/2.81
1170 (Bhp/kW)	0.14/0.11	0.26/0.19	0.38/0.29	0.52/0.39	0.67/0.50	0.86/0.64	1.09/0.81
1450 (kW)	0.20	0.37	0.54	0.73	0.96	1.22	1.55
950 (kW)	0.06	0.10	0.15	0.21	0.27	0.34	0.44

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

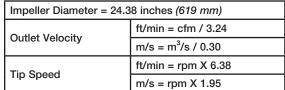
Inlet Sound						
rpm	LwA	dBA				
1770	+11	-0.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-6	-17.5				

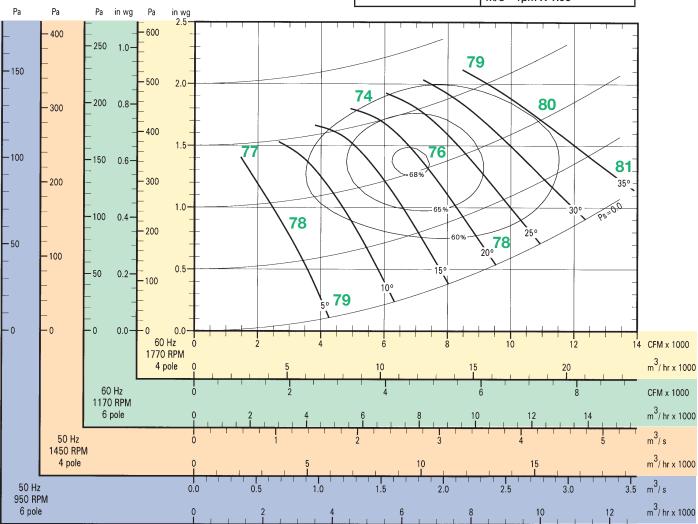
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 63-190 6 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	0.74/0.56	1.28/0.96	1.84/1.37	2.42/1.81	3.10/2.31	3.93/2.93	4.97/3.71
1170 (Bhp/kW)	0.22/0.16	0.37/0.28	0.53/0.40	0.70/0.52	0.90/0.67	1.14/0.85	1.43/1.07
1450 (kW)	0.31	0.53	0.75	0.99	1.27	1.61	2.04
950 (kW)	0.09	0.15	0.21	0.28	0.36	0.45	0.57

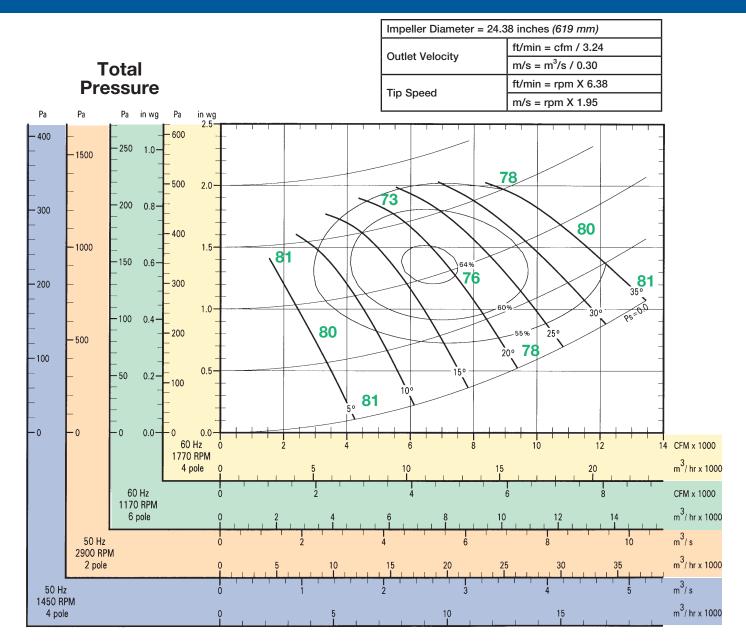
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	dBA					
1770	+11	-0.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-6	-17.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 63-275 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	(
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	0.75/0.56	1.30/0.97	1.89/1.41	2.53/1.89	3.26/2.43	4.10/3.06	5.08/3.79
1170 (Bhp/kW)	0.22/0.16	0.38/0.28	0.55/0.41	0.73/0.55	0.94/0.70	1.18/0.88	1.47/1.10
2900 (kW)	2.45	4.27	6.20	8.31	10.7	13.5	16.7
1450 (kW)	0.31	0.53	0.77	1.04	1.34	1.68	2.09

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

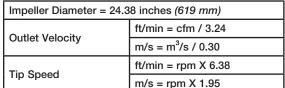
		-						
	Inlet Sound							
rpm	LwA	dBA						
1770	+10	-1.5						
1170	-	-11.5						
2900	+23	+11.5						
1450	+5	-6.5						

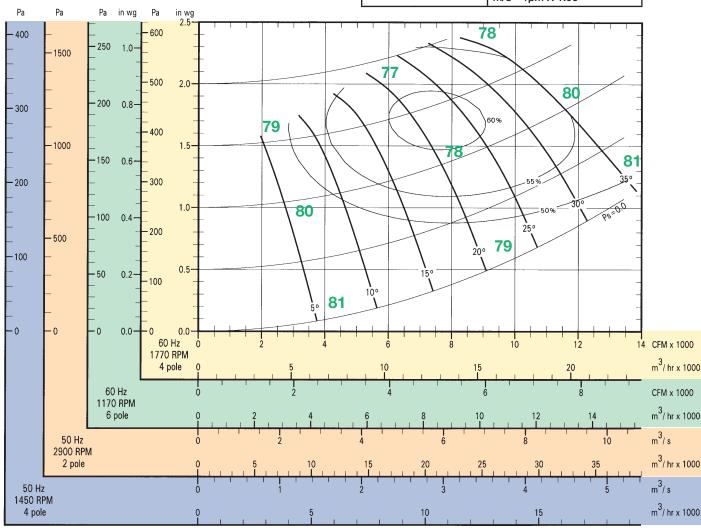
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 63-275 9 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

		. ,,						
	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
1770 (Bhp/kW)	1.08/0.81	1.71/1.27	2.38/1.78	3.12/2.33	3.97/2.97	4.97/3.71	6.15/4.59	
1170 (Bhp/kW)	0.31/0.23	0.49/0.37	0.69/0.51	0.90/0.67	1.15/0.86	1.44/1.07	1.78/1.33	
2900 (kW)	3.56	5.60	7.81	10.3	13.0	16.3	20.2	
1450 (kW)	0.44	0.70	0.98	1.28	1.63	2.04	2.52	

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm LwA dB							
1770	+11	-0.5					
1170	-	-11.5					
2900	+23	+11.5					
1450	+6	-5.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 72-190 4 Blades



Impeller Diameter = 28.38 inches (721 mm)

ft/min = cfm / 4.39 **Outlet Velocity** $m/s = m^3/s / 0.41$ **Total** ft/min = rpm X 7.43**Pressure** Tip Speed m/s = rpm X 2.26Pa Pa in wg Pa in wg 2.0-200 0.8 400 - 250 1.5 -100 84 -150 0.6 300 - 200 1.0 100 0.4-- 150 82 200 - 50 -100 0.5 50 0.2 100 81 - 50 0.0-60 Hz 25 CFM x 1000 1770 RPM $m^3/hr \times 1000$ 4 pole

Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

50 Hz 1450 RPM

4 pole

50 Hz 950 RPM

6 pole

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

60 Hz

1170 RPM

6 pole

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	0.93/0.69	1.69/1.26	2.53/1.89	3.44/2.57	4.51/3.36	5.82/4.34	7.45/5.56
1170 (Bhp/kW)	0.27/0.20	0.49/0.36	0.73/0.54	0.99/0.74	1.30/0.97	1.68/1.25	2.15/1.61
1450 (kW)	0.38	0.69	1.04	1.41	1.85	2.39	3.06
950 (kW)	0.11	0.20	0.29	0.40	0.52	0.67	0.86

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

CFM x 1000

 $m^3/hr \times 1000$

 $m^3/hr \times 1000$

 $m^3/ hr \times 1000$

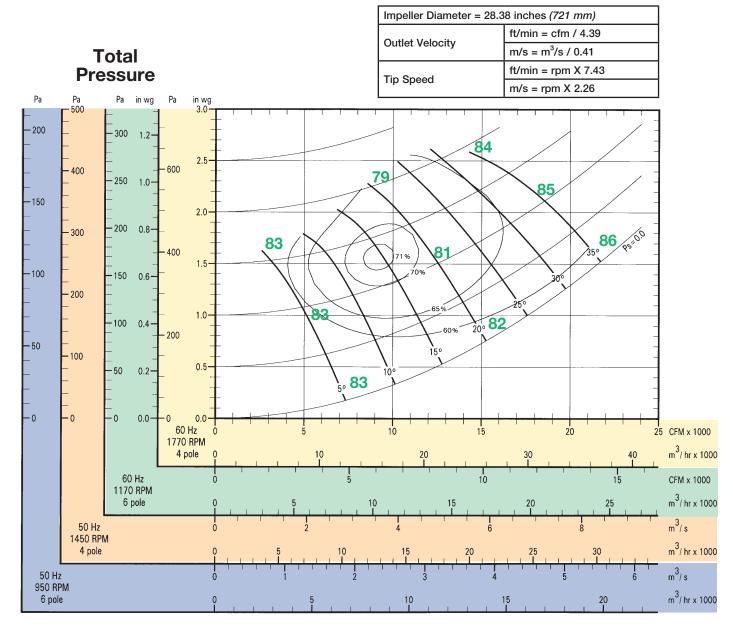
 m^3/s

Inlet Sound							
rpm	LwA	dBA					
1770	+11	-0.5					
1170	-	-11.5					
1450	+6	-5.5					
950	-5	-16.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 72-190 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	1.43/1.07	2.33/1.74	3.44/2.56	4.73/3.53	6.22/4.64	7.91/5.90	9.85/7.35
1170 (Bhp/kW)	0.41/0.31	0.67/0.50	0.99/0.74	1.37/1.02	1.80/1.34	2.28/1.70	2.84/2.12
1450 (kW)	0.59	0.96	1.41	1.94	2.55	3.24	4.04
950 (kW)	0.17	0.27	1.40	0.55	0.72	0.91	1.14

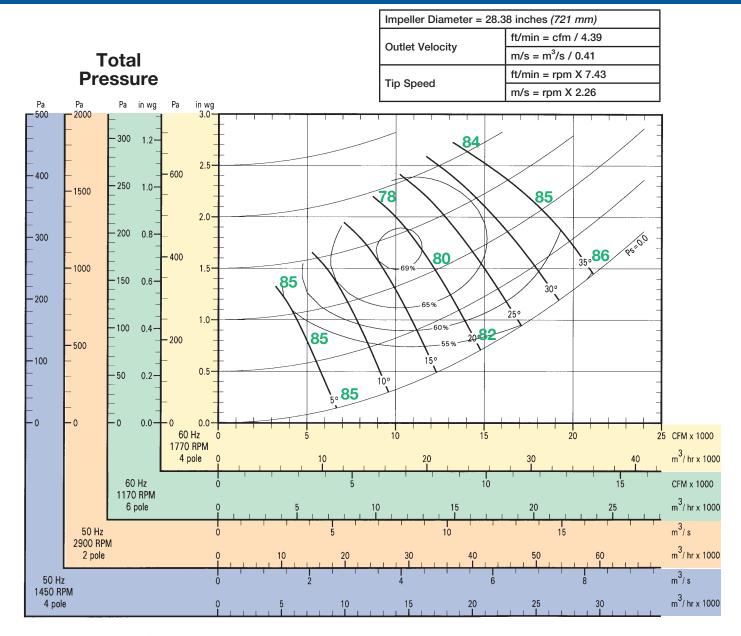
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm LwA dBA							
1770	+11	-0.5					
1170	-	-11.5					
1450	+6	-5.5					
950	-5	-16.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 72-275 6 Blades





Air density = 1.2 kg/m^3 Air density = 0.075 lbs/ft^3

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °							
rpm	5	10	15	20	25	30	35	
1770 (Bhp/kW)	1.29/0.97	2.23/1.67	3.33/2.49	4.60/3.44	6.08/4.53	7.77/5.79	9.81/7.32	
1170 (Bhp/kW)	0.37/0.28	0.65/0.48	0.96/0.72	1.33/0.99	1.75/1.31	2.24/1.67	2.83/2.11	
2900 (kW)	4.25	7.33	10.9	15.1	19.9	25.5	32.2	
1450 (kW)	0.53	0.92	1.37	1.89	2.49	3.19	4.02	

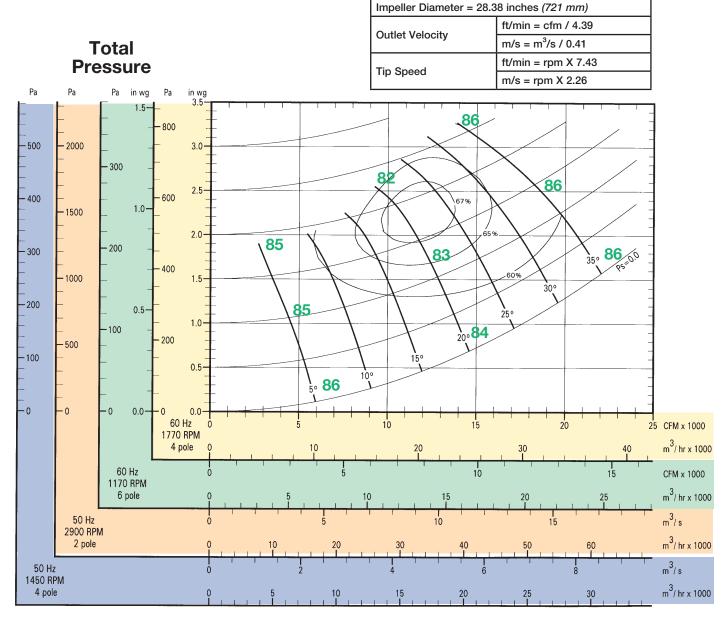
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

		-
	Inlet Sound	
rpm	LwA	dBA
1770	+11	-0.5
1170	-	-11.5
2900	+24	+12.5
1450	+6	-5.5

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 72-275 9 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	1.70/1.27	2.93/2.19	4.27/3.18	5.78/4.31	7.52/5.61	9.61/7.17	12.1/9.06
1170 (Bhp/kW)	0.49/0.37	0.85/0.63	1.23/0.92	1.67/1.24	2.17/1.62	2.78/2.07	3.51/2.62
2900 (kW)	5.59	9.62	14.0	19.0	24.7	31.5	39.9
1450 (kW)	0.70	1.20	1.75	2.37	3.09	3.94	4.98

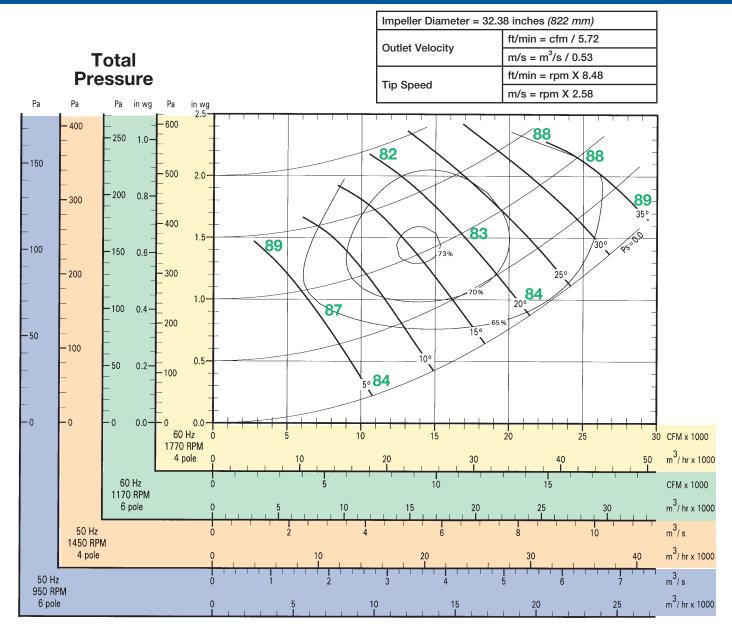
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm LwA						
+10	-1.5					
-	-11.5					
+23	+11.5					
+5	-6.5					
	LwA +10 - +23					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 80-190 4 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	1.56/1.16	2.80/2.09	4.16/3.10	5.73/4.28	7.63/5.69	9.95/7.43	12.8/9.55
1170 (Bhp/kW)	0.45/0.34	0.81/0.60	1.20/0.90	1.66/1.24	2.20/1.64	2.88/2.14	3.70/2.76
1450 (kW)	0.64	1.15	1.71	2.35	3.13	4.08	5.25
950 (kW)	0.18	0.32	0.48	0.66	0.88	1.15	1.48

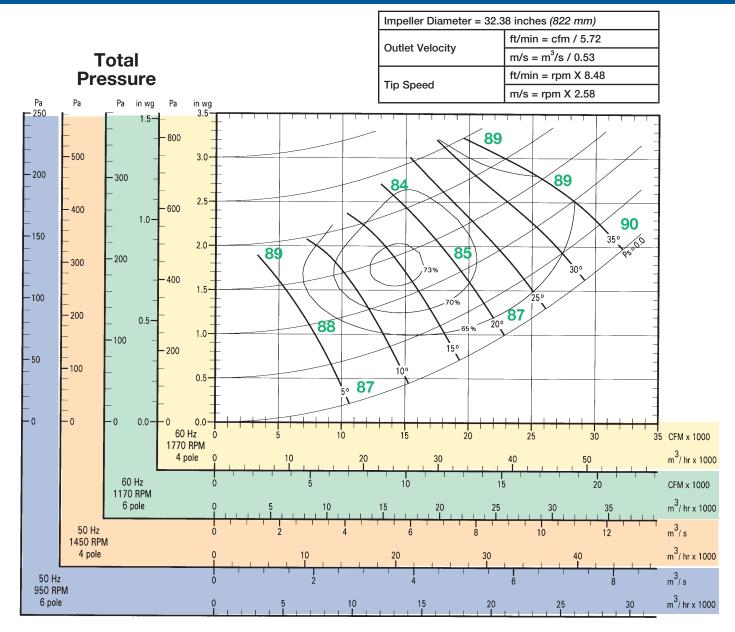
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	LwA	dBA					
1770	+11	-0.5					
1170	-	-11.5					
1450	+6	-5.5					
950	-5	-16.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 80-190 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	(<u>-</u> <u>-</u> <u>-</u>						
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	2.20/1.64	3.88/2.89	5.87/4.38	8.12/6.06	10.7/7.97	13.7/10.2	17.3/12.9
1170 (Bhp/kW)	0.64/0.47	1.12/0.84	1.70/1.26	2.35/1.75	3.09/2.30	3.94/2.94	4.99/3.72
1450 (kW)	0.90	1.59	2.41	3.33	4.38	5.60	7.09
950 (kW)	0.25	0.45	0.69	0.94	1.23	1.57	1.99

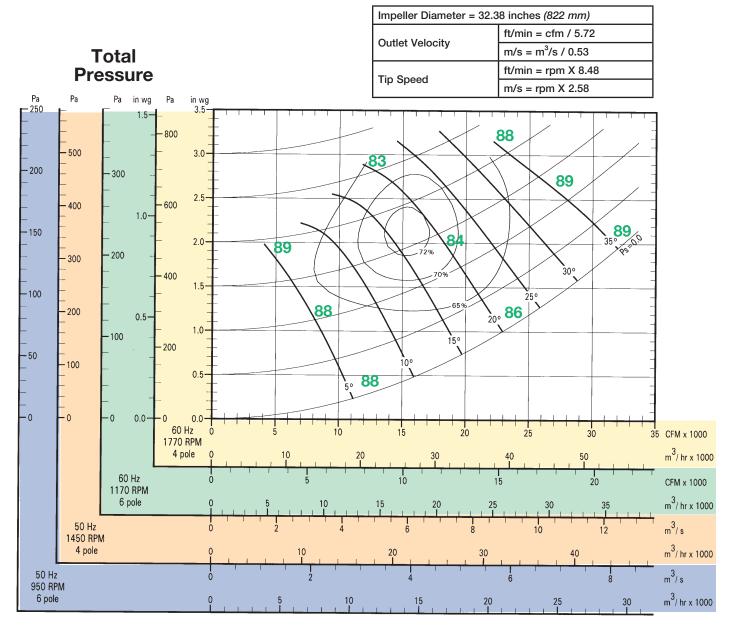
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	LwA	dBA					
1770	+11	-0.5					
1170	-	-11.5					
1450	+6	-5.5					
950	-5	-16.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 80-275 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	2.43/1.81	4.45/3.32	6.44/4.80	8.55/6.38	11.0/8.21	14.0/10.4	17.9/13.4
1170 (Bhp/kW)	0.70/0.52	1.29/0.96	1.86/1.39	2.47/1.84	3.18/2.37	4.04/3.02	5.18/3.87
1450 (kW)	1.00	1.83	2.64	3.51	4.51	5.74	7.36
950 (kW)	0.28	0.51	0.74	0.99	1.27	1.61	2.07

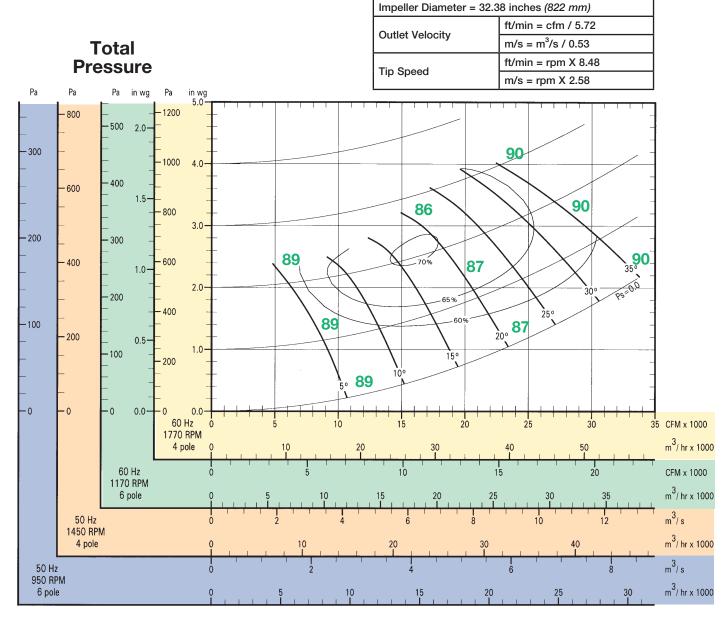
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	LwA	dBA					
1770	+11	-0.5					
1170	-	-11.5					
1450	+6	-5.5					
950	-5	-16.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 80-275 9 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	(· ·/)						
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	3.54/2.64	5.62/4.20	8.29/6.18	11.4/8.49	14.8/11.1	18.7/14.0	23.1/17.2
1170 (Bhp/kW)	1.02/0.76	1.62/1.21	2.39/1.79	3.29/2.45	4.28/3.20	5.40/4.03	6.66/4.97
1450 (kW)	1.45	2.31	3.40	4.67	6.08	7.67	9.46
950 (kW)	0.41	0.65	0.96	1.31	1.71	2.16	2.66

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

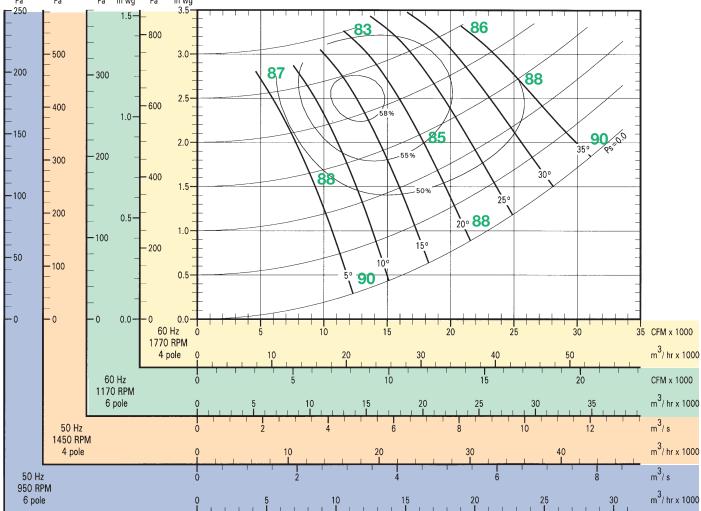
Inlet Sound							
rpm	LwA	dBA					
1770	+10	-1.5					
1170	-	-11.5					
1450	+5	-6.5					
950	-6	-17.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 80-400 6 Blades



Impeller Diameter = 32.38 inches (822 mm) ft/min = cfm / 5.72 **Outlet Velocity** $m/s = m^3/s / 0.53$ **Total** ft/min = rpm X 8.48**Pressure** Tip Speed m/s = rpm X 2.58Pa in wg Pa in wg 3.5-250 1.5-86 800



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	4.98/3.72	6.43/4.80	8.55/6.38	11.2/8.36	14.4/10.7	17.9/13.4	21.9/16.3
1170 (Bhp/kW)	1.44/1.07	1.86/1.39	2.47/1.84	3.24/2.42	4.14/3.09	5.18/3.86	6.32/4.71
1450 (kW)	2.04	2.64	3.51	4.60	5.88	7.35	8.97
950 (kW)	0.57	0.74	0.99	1.29	1.65	2.07	2.52

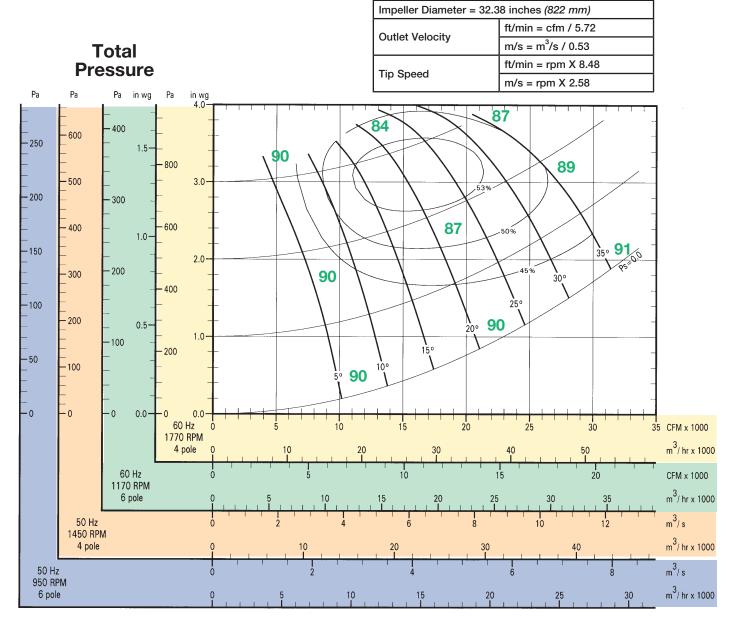
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1770	+11	-0.5				
1170	-	-11.5				
1450	+6	-5.5				
950	-5	-16.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 80-400 9 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	(
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	6.14/4.58	8.36/6.24	10.7/8.01	13.7/10.3	17.4/13.0	21.7/16.2	26.5/19.8
1170 (Bhp/kW)	1.77/1.32	2.42/1.80	3.10/2.31	3.97/2.96	5.02/3.74	6.26/4.67	7.66/5.72
1450 (kW)	2.54	3.43	4.40	5.64	7.13	8.89	10.9
950 (kW)	0.71	0.96	1.24	1.58	2.00	2.50	3.06

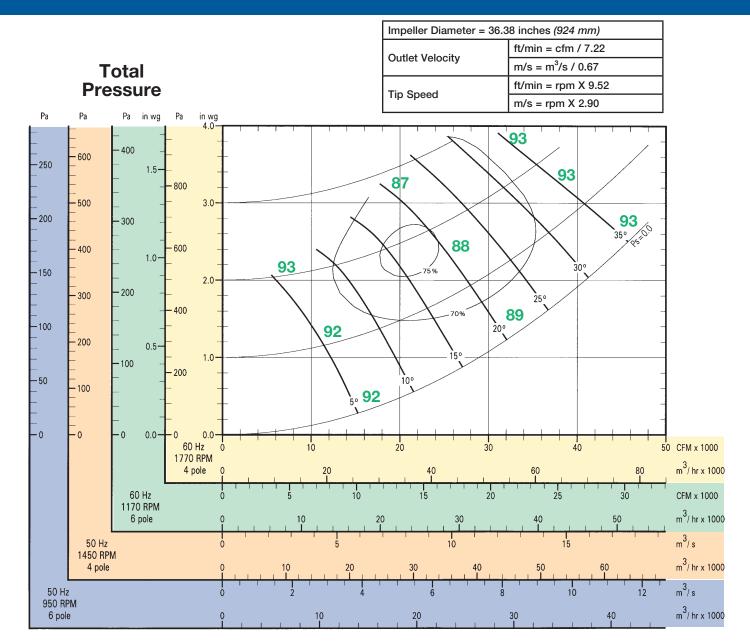
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1770	+10	-1.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-5	-16.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 90-275 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	3.76/2.81	6.26/4.67	9.39/7.00	13.1/9.78	17.5/13.0	22.6/16.9	28.7/21.4
1170 (Bhp/kW)	1.09/0.81	1.81/1.35	2.71/2.02	3.78/2.82	5.04/3.76	6.53/4.87	8.28/6.18
1450 (kW)	1.54	2.57	3.85	5.37	7.16	9.27	11.8
950 (kW)	0.43	0.72	1.08	1.51	2.01	2.61	3.31

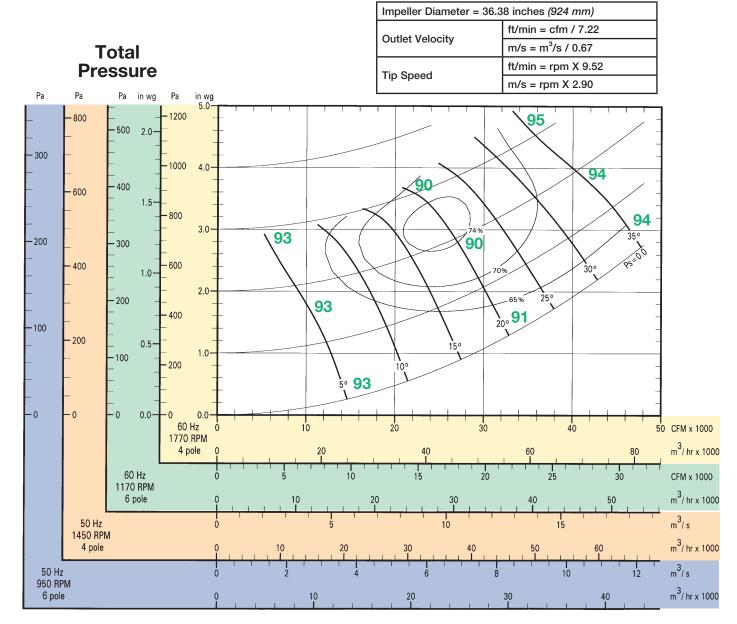
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1770	+11	-0.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-5	-16.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 90-275 9 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	5.03/3.75	8.89/6.63	13.0/9.66	17.4/13.0	22.6/16.9	29.1/21.7	37.2/27.8
1170 (Bhp/kW)	1.45/1.08	2.57/1.92	3.74/2.79	5.02/3.75	6.53/4.87	8.41/6.27	10.8/8.02
1450 (kW)	2.06	3.65	5.31	7.13	9.28	11.9	15.3
950 (kW)	0.58	1.03	1.49	2.01	2.61	3.36	4.29

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1770	+11	-0.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-5	-16.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 90-400 6 Blades



Impeller Diameter = 36.38 inches (924 mm) ft/min = cfm / 7.22**Outlet Velocity** $m/s = m^3/s / 0.67$ **Total** ft/min = rpm X 9.52**Pressure** Tip Speed m/s = rpm X 2.90Pa Pa in wg Pa in wg 1200 91 - 500 2.0 - 300 1000 4.0 93 - 400 600 1.5 800 3.0 35°94 - 200 - 300 89 400 1.0 2.0 93 - 200 _{20°}91 400 -100 200 0.5 1.0 -100 200 93 0.0 0.0 60 Hz 50 CFM x 1000 1770 RPM $m^3/hr \times 1000$ 4 pole CFM x 1000 60 Hz 1170 RPM $m^3/hr \times 1000$ 6 pole 50 Hz 1450 RPM $m^3/hr \times 1000$ 4 pole 50 Hz 950 RPM m³/ hr x 1000 6 pole

Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

			. , , , ,				
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	6.36/4.75	10.4/7.72	14.4/10.8	18.9/14.1	24.2/18.1	30.9/23.1	39.7/29.6
1170 (Bhp/kW)	1.84/1.37	2.99/2.23	4.17/3.11	5.46/4.07	6.99/5.22	8.93/6.66	11.5/8.55
1450 (kW)	2.61	4.25	5.92	7.75	9.93	12.7	16.3
950 (kW)	0.73	1.19	1.66	2.18	2.79	3.57	4.58

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1770	+11	-0.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-6	-17.5				

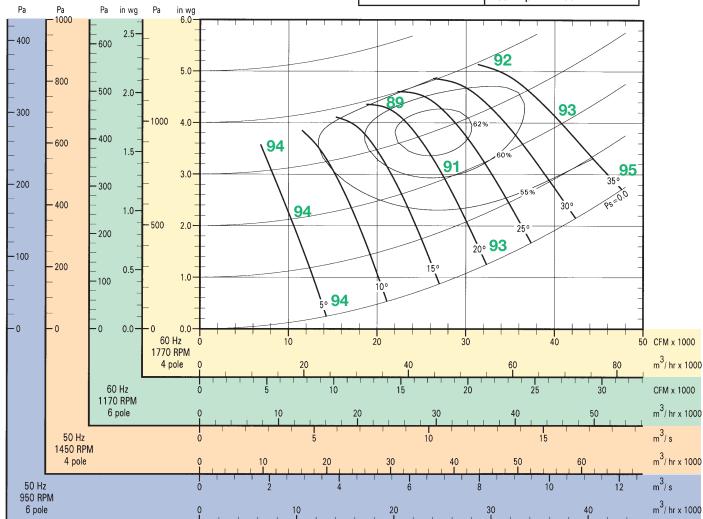
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 90-400 9 Blades



Total Pressure $\begin{array}{c} \text{Outlet Velocity} & ft/\text{min} = \text{cfm} / 7.22 \\ \hline m/s = m^3/s / 0.67 \\ \text{Tip Speed} & ft/\text{min} = \text{rpm X 9.52} \\ \hline m/s = \text{rpm X 2.90} \end{array}$

Impeller Diameter = 36.38 inches (924 mm)



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	8.31/6.20	13.5/10.0	18.6/13.8	23.9/17.9	30.0/22.3	36.9/27.6	45.3/33.8
1170 (Bhp/kW)	2.40/1.79	3.89/2.90	5.36/4.00	6.91/5.16	8.65/6.45	10.7/7.96	13.1/9.75
1450 (kW)	3.41	5.52	7.61	9.82	12.3	15.2	18.6
950 (kW)	0.96	1.55	2.14	2.76	3.45	4.26	5.22

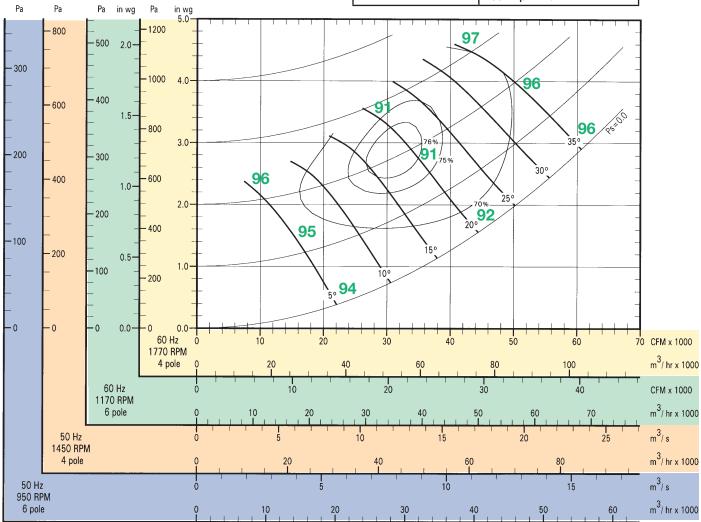
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1770	+10	-1.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-6	-17.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 103-275 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	5.61/4.18	9.93/7.40	14.9/11.1	20.6/15.3	27.2/20.3	35.2/26.2	45.2/33.8
1170 (Bhp/kW)	1.62/1.21	2.87/2.14	4.30/3.21	5.94/4.43	7.84/5.85	10.2/7.58	13.1/9.75
1450 (kW)	2.30	4.07	6.11	8.43	11.1	14.4	18.6
950 (kW)	0.65	1.14	1.72	2.37	3.13	4.06	5.22

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

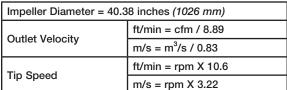
Inlet Sound							
rpm	LwA	dBA					
1770	+11	-0.5					
1170	-	-11.5					
1450	+5	-6.5					
950	-5	-16.5					

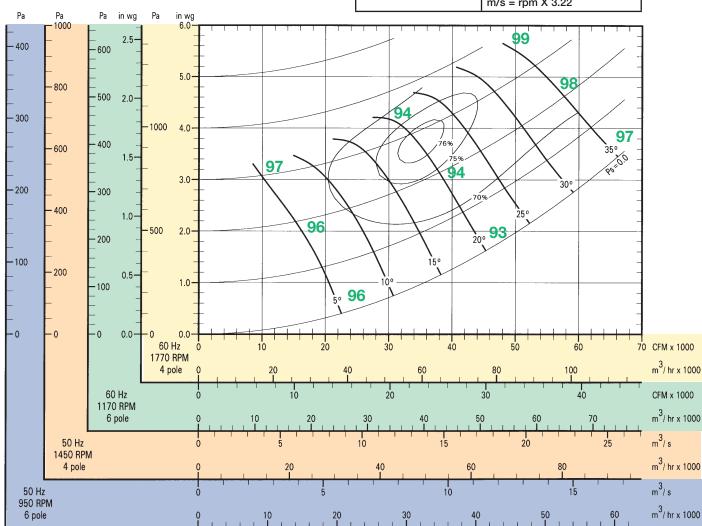
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 103-275 9 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	8.58/6.40	13.8/10.3	20.0/14.9	27.3/20.3	36.1/26.9	46.8/34.9	59.8/44.6
1170 (Bhp/kW)	2.48/1.85	3.99/2.98	5.77/4.30	7.87/5.87	10.4/7.77	13.5/10.1	17.3/12.9
1450 (kW)	3.52	5.67	8.19	11.2	14.8	19.2	24.5
950 (kW)	0.99	1.59	2.30	3.14	4.16	5.40	6.90

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	LwA	dBA					
1770	+10	-1.5					
1170	-	-11.5					
1450	+4	-7.5					
950	-6	-17.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 103-400 6 Blades



Impeller Diameter = 40.38 inches (1026 mm) ft/min = cfm / 8.89 **Outlet Velocity** $m/s = m^3/s / 0.83$ **Total** ft/min = rpm X 10.6 **Pressure** Tip Speed m/s = rpm X 3.22Pa Pa in wg in wg 1000 6.0 96 400 -600 5.0 800 96 - 500 2.0 - 300 1000 96 400 600 97 35° 1.5 93 3.0 300 - 200 -300 400 1.0 97 2.0 93 - 200 -100 200 0.5 1.0 100 97 - 0 0.0 0.0 60 Hz 70 CFM x 1000 1770 RPM $m^3/hr \times 1000$ 4 pole 60 Hz CFM x 1000 1170 RPM m³/ hr x 1000 6 pole m^3/s 50 Hz 1450 RPM $m^3/hr \times 1000$ 4 pole

Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

50 Hz 950 RPM

6 pole

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	9.66/7.20	15.6/11.7	22.2/16.6	29.7/22.1	38.7/28.9	50.4/37.6	66.6/49.7
1170 (Bhp/kW)	2.79/2.08	4.51/3.37	6.41/4.78	8.57/6.39	11.2/8.34	14.6/10.9	19.2/14.3
1450 (kW)	3.96	6.41	9.10	12.2	15.9	20.7	27.3
950 (kW)	1.11	1.80	2.56	3.42	4.46	5.81	7.68

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

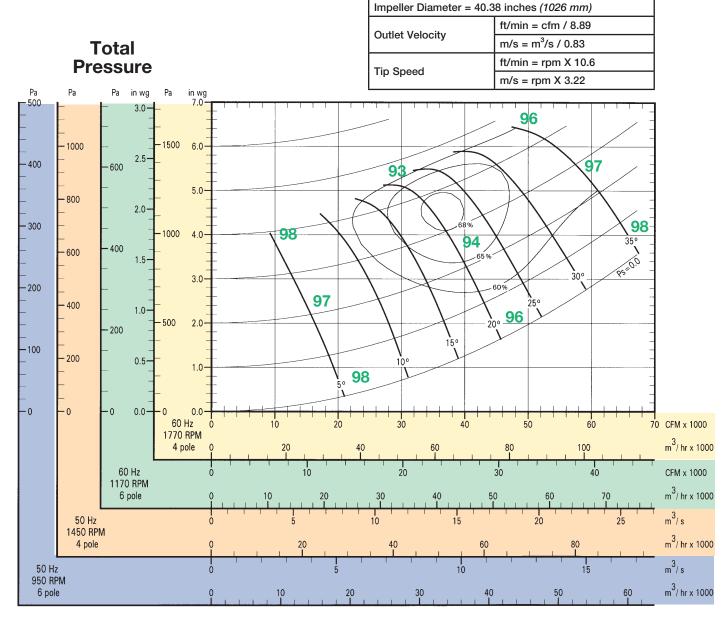
m³/ hr x 1000

Inlet Sound						
rpm	LwA	dBA				
1770	+10	-1.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-6	-17.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 103-400 9 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	12.8/9.51	21.9/16.3	29.7/22.2	37.8/28.2	47.6/35.5	60.8/45.3	82.1/61.2
1170 (Bhp/kW)	3.68/2.75	6.32/4.71	8.58/6.40	10.9/8.13	13.7/10.3	17.6/13.1	23.7/17.7
1450 (kW)	5.23	8.97	12.2	15.5	19.5	24.9	33.7
950 (kW)	1.47	2.52	3.43	4.35	5.49	7.01	9.47

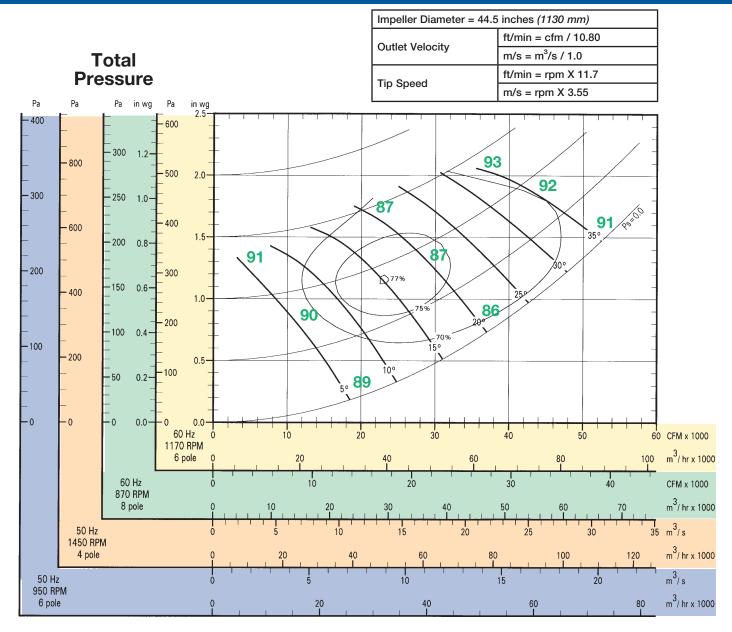
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	LwA	dBA					
1770	+11	-0.5					
1170	-	-11.5					
1450	+5	-6.5					
950	-6	-17.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 113-275 6 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	2.28/1.70	3.56/2.65	5.50/4.11	7.99/5.96	11.0/8.17	14.3/10.7	18.2/13.6
870 (Bhp/kW)	0.94/0.70	1.46/1.09	2.26/1.69	3.28/2.45	4.50/3.36	5.90/4.40	7.49/5.59
1450 (kW)	3.24	5.05	7.81	11.3	15.6	20.4	25.9
950 (kW)	0.91	1.42	2.20	3.19	4.37	5.73	7.28

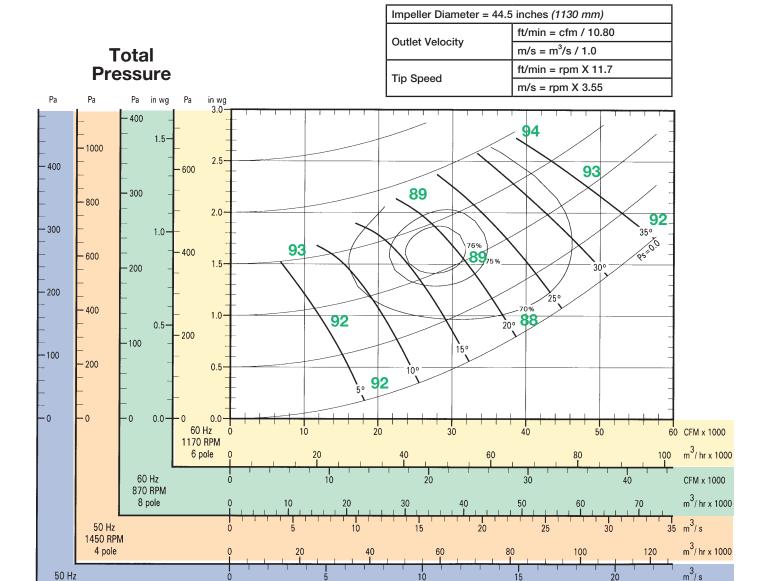
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1170	+7	-4.5				
870	-	-11.5				
1450	+13	+1.5				
950	+2	-9.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 113-275 9 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

950 RPM

6 pole

Volume

60

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	72						
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	3.29/2.46	5.09/3.80	7.67/5.72	10.8/8.09	14.6/10.9	19.0/14.2	25.2/18.8
870 (Bhp/kW)	1.35/1.01	2.09/1.56	3.15/2.35	4.46/3.33	6.01/4.48	7.81/5.83	10.3/7.71
1450 (kW)	4.68	7.22	10.9	15.4	20.8	27.0	35.7
950 (kW)	1.32	2.03	3.06	4.33	5.84	7.59	10.0

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

 $m^3/hr \times 1000$

Inlet Sound							
rpm	LwA	dBA					
1170	+7	-4.5					
870	-	-11.5					
1450	+13	+1.5					
950	+2	-9.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

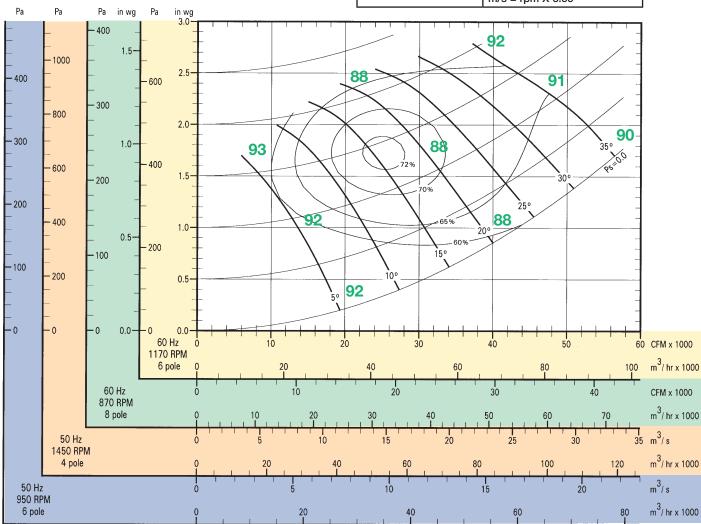
AX 113-400 6 Blades



Total Pressure

Impeller Diameter = 44.5 inches (1130 mm)

Outlet Velocity ft/min = cfm / 10.80 $m/s = m^3/s / 1.0$ ft/min = rpm X 11.7 m/s = rpm X 3.55



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

			. , , , ,				
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	3.78/2.82	6.23/4.65	9.00/6.72	12.2/9.11	16.0/12.0	20.7/15.4	26.6/19.8
870 (Bhp/kW)	1.55/1.16	2.56/1.91	3.70/2.76	5.02/3.74	6.60/4.92	8.51/6.35	10.9/8.15
1450 (kW)	5.37	8.84	12.8	17.3	22.8	29.4	37.8
950 (kW)	1.51	2.49	3.60	4.88	6.41	8.27	10.6

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

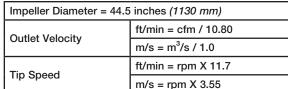
		-				
Inlet Sound						
rpm	LwA	dBA				
1170	+6	-5.5				
870	-	-11.5				
1450	+13	+1.5				
950	+2	-9.5				

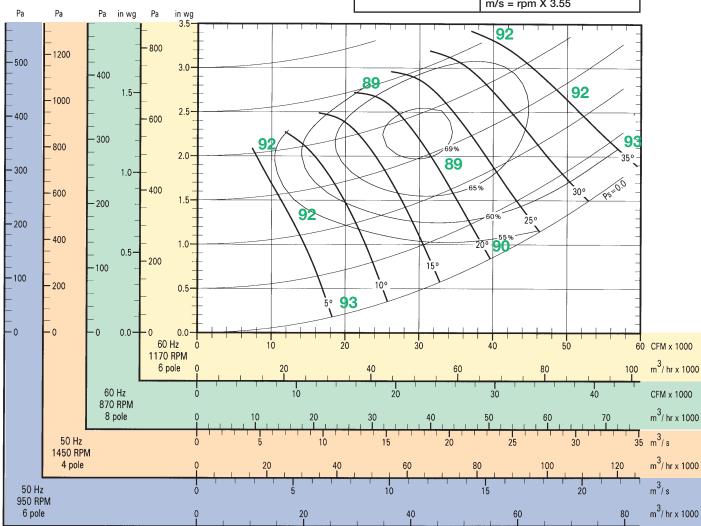
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 113-400 9 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	5.02/3.74	8.01/5.97	11.5/8.54	15.6/11.6	20.5/15.3	26.3/19.6	33.3/24.8
870 (Bhp/kW)	2.06/1.54	3.29/2.46	4.71/3.51	6.40/4.77	8.42/6.28	10.8/8.07	13.7/10.2
1450 (kW)	7.12	11.4	16.3	21.1	29.1	37.4	47.3
950 (kW)	2.00	3.20	4.57	6.22	8.17	10.5	13.3

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound								
rpm	LwA	dBA						
1170	+9	-2.5						
870	-	-11.5						
1450	+13	+1.5						
950	+2	-9.5						

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 113-533 8 Blades



Impeller Diameter = 44.5 inches (1130 mm) ft/min = cfm / 10.80 **Outlet Velocity** $m/s = m^3/s / 1.0$ **Total** ft/min = rpm X 11.7**Pressure** Tip Speed m/s = rpm X 3.55Pa in wg Pa 500 3.0-100 94 1500 1000 6.0 2.5 400 -600 100 5.0-- 800 102 2.0 - 300 1000 101 96 600 1.5-3.0 200 101 400 \ 20° <mark>98</mark> 1.0-2.0 200 100 200 0.5 1.0 101 0.0-0.0 60 Hz 100 CFM x 1000 1770 RPM m³/ hr x 1000 4 pole 60 Hz CFM x 1000 1170 RPM $m^3/hr \times 1000$ 6 pole 50 Hz 1450 RPM 4 pole 50 Hz

Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

950 RPM

6 pole

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	16.6/12.4	26.3/19.6	37.4/27.9	49.9/37.2	64.5/48.1	81.7/60.9	103/76.7
1170 (Bhp/kW)	4.80/3.58	7.60/5.67	10.8/8.05	14.4/10.8	18.6/13.9	23.6/17.6	29.7/22.2
1450 (kW)	6.81	10.8	15.3	20.5	26.4	33.5	42.2
950 (kW)	1.92	3.03	4.31	5.75	7.43	9.42	11.9

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

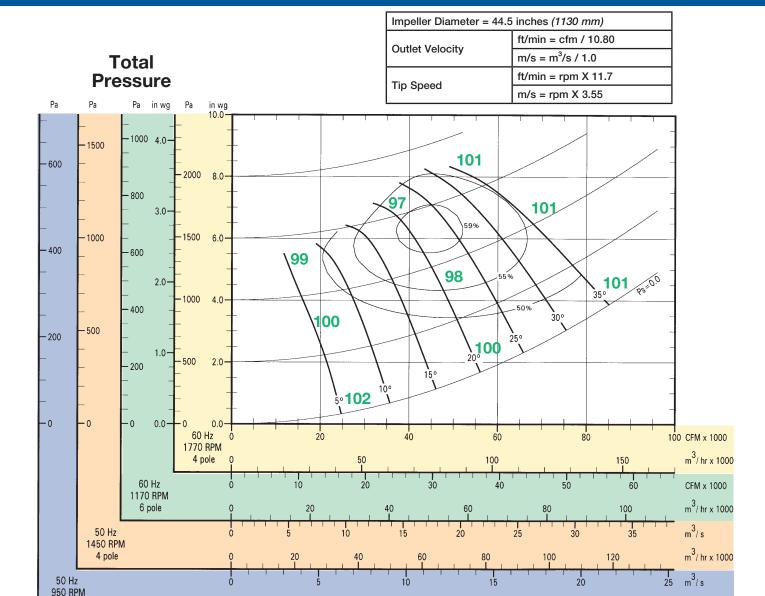
 $m^3/hr \times 1000$

Inlet Sound							
rpm	LwA	dBA					
1770	+11	-0.5					
1170	-	-11.5					
1450	+5	-6.5					
950	-6	-17.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 113-533 12 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

6 pole

Volume

60

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1770 (Bhp/kW)	23.8/17.7	36.8/27.5	51.2/38.2	67.3/50.2	85.4/63.7	106/78.9	129/96.2
1170 (Bhp/kW)	6.86/5.12	10.6/7.93	14.8/11.0	19.4/14.5	24.7/18.4	30.5/22.8	37.3/27.8
1450 (kW)	9.74	15.1	21.0	27.6	35.0	43.4	52.9
950 (kW)	2.74	4.24	5.91	7.76	9.85	12.2	14.9

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

80

m³/ hr x 1000

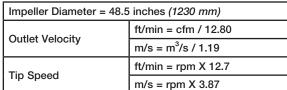
Inlet Sound						
rpm	LwA	dBA				
1770	+11	-0.5				
1170	-	-11.5				
1450	+5	-6.5				
950	-6	-17.5				

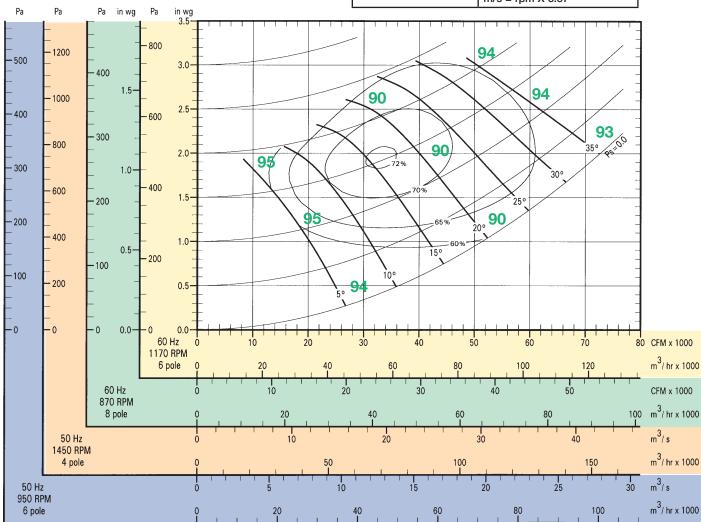
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 123-400 6 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

			. ,,				
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	5.66/4.22	8.89/6.63	13.0/9.70	18.0/13.4	23.8/17.7	30.4/22.7	38.2/28.5
870 (Bhp/kW)	2.33/1.74	3.66/2.73	5.34/3.99	7.39/5.51	9.78/7.29	12.5/9.33	15.7/11.7
1450 (kW)	8.04	12.6	18.5	25.5	33.8	43.2	54.2
950 (kW)	2.26	3.55	5.19	7.17	9.50	12.2	15.2

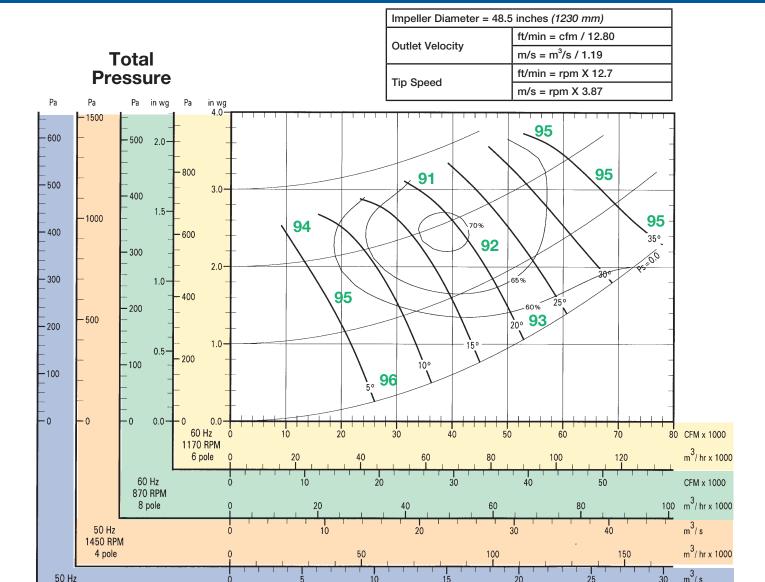
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound							
rpm	LwA	dBA					
1170	+8	-3.5					
870	-	-11.5					
1450	+14	+2.5					
950	+3	-8.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 123-400 9 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

950 RPM

6 pole

Volume

60

80

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	7.85/5.86	13.0/9.72	18.1/13.5	23.8/17.8	30.8/23.0	39.3/29.4	50.5/37.7
870 (Bhp/kW)	3.23/2.41	5.36/4.00	7.45/5.56	9.79/7.30	12.7/9.44	16.2/12.1	20.8/15.5
1450 (kW)	11.2	18.5	25.7	33.8	43.7	55.9	71.7
950 (kW)	3.13	5.21	7.24	9.51	12.3	15.7	20.2

20

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

100

 $m^3/hr \times 1000$

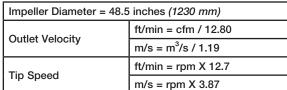
Inlet Sound							
rpm	LwA	dBA					
1170	+7	-4.5					
870	-	-11.5					
1450	+14	+2.5					
950	+3	-8.5					

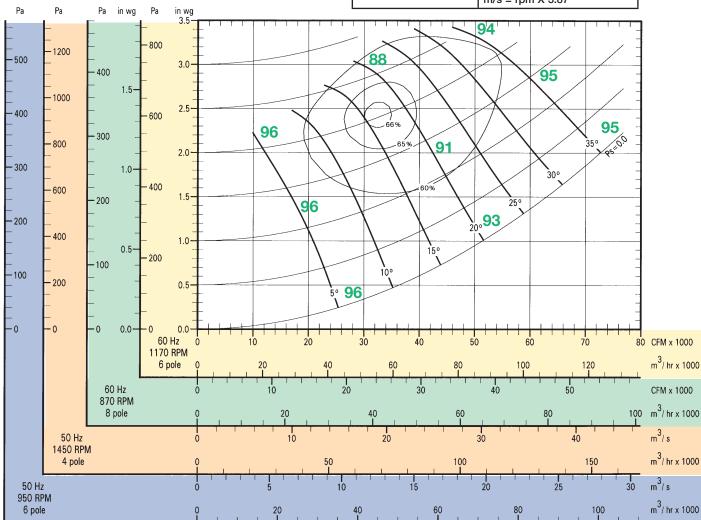
Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 123-533 8 Blades



Total Pressure





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	7.64/5.70	12.2/9.09	17.3/12.9	23.0/17.2	29.4/21.9	36.5/27.2	45.3/33.8
870 (Bhp/kW)	3.14/2.34	5.01/3.74	7.11/5.31	9.45/7.05	12.1/9.00	15.0/11.2	18.6/13.9
1450 (kW)	10.9	17.3	24.6	32.7	41.7	51.8	64.4
950 (kW)	3.05	4.87	6.91	9.18	11.7	14.6	18.1

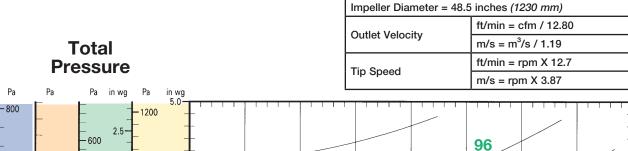
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

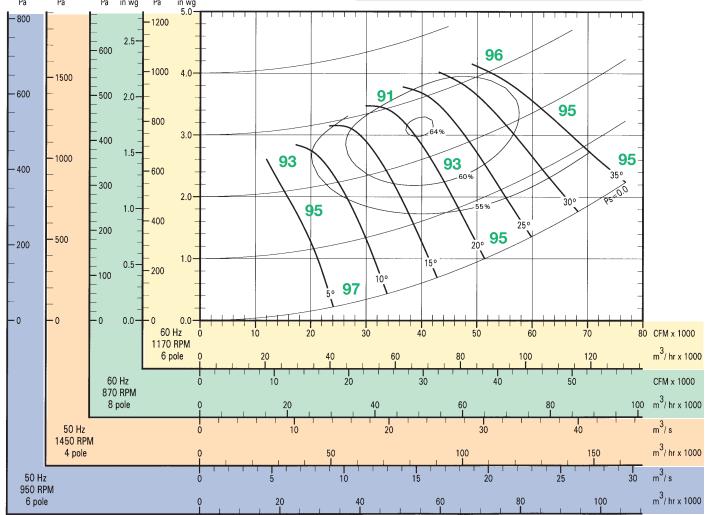
		-					
Inlet Sound							
rpm	LwA	dBA					
1170	+7	-4.5					
870	-	-11.5					
1450	+13	+1.5					
950	+2	-9.5					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 123-533 12 Blades







Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	(· ·-/)						
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	10.4/7.74	15.9/11.8	22.2/16.6	29.4/22.0	37.5/28.0	46.6/34.8	56.7/42.3
870 (Bhp/kW)	4.27/3.18	6.52/4.87	9.13/6.81	12.1/9.03	15.4/11.5	19.2/14.3	23.3/17.4
1450 (kW)	14.7	22.5	31.6	41.8	53.3	66.2	80.6
950 (kW)	4.14	6.34	8.87	11.8	15.0	18.6	22.7

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1170	+7	-4.5				
870	-	-11.5				
1450	+13	+1.5				
950	+3	-8.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 140-400 6 Blades



Impeller Diameter = 55.0 inches (1400 mm) ft/min = cfm / 16.50 **Outlet Velocity** $m/s = m^3/s / 1.53$ **Total** ft/min = rpm X 14.4**Pressure** Tip Speed m/s = rpm X 4.39Pa Pa in wg Pa in wg 800 - 300 500 3.0-96 - 400 94 1.5 -250 2.5 400 600 300 99 -200 96 2.0 300 1.0 65% **-**150 1.5 - 200 98 94 200 -100 1.0 0.5 200 -100 100 98 -50 0.5 -0 0.0 0.0 60 Hz 100 CFM x 1000 1170 RPM $m^3/hr \times 1000$ 6 pole 60 Hz CFM x 1000 870 RPM $m^3/ hr x 1000$ 8 pole 50 Hz 950 RPM 6 pole 50 Hz 720 RPM m³/ hr x 1000 8 pole

Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °						
rpm	5	10	15	20	25	30
1170 (Bhp/kW)	8.72/6.51	13.7/10.2	20.1/15.0	27.9/20.8	37.7/28.2	50.1/37.4
870 (Bhp/kW)	3.59/2.68	5.62/4.20	8.24/6.15	11.5/8.55	15.5/11.6	20.6/15.4
950 (kW)	3.48	5.46	8.01	11.1	15.1	20.0
720 (kW)	1.52	2.38	3.49	4.85	6.56	8.72

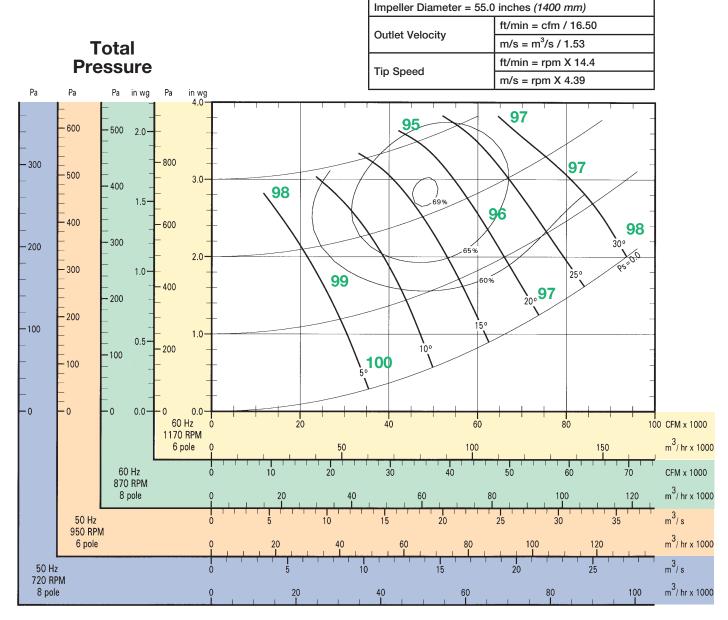
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
LwA	dBA					
+8	-3.5					
-	-11.5					
+2	-9.5					
-6	-17.5					
	LwA +8 - +2					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 140-400 9 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

		. ,,				
		Pito	ch Angle °			
rpm	5	10	15	20	25	30
1170 (Bhp/kW)	11.9/8.86	19.8/14.8	28.5/21.3	38.3/28.5	49.7/37.1	63.5/47.4
870 (Bhp/kW)	4.88/3.64	8.13/6.06	11.7/8.74	15.7/11.7	20.4/15.2	26.1/19.5
950 (kW)	4.74	7.89	11.4	15.3	19.8	25.4
720 (kW)	2.06	3.44	4.95	6.65	8.63	11.0

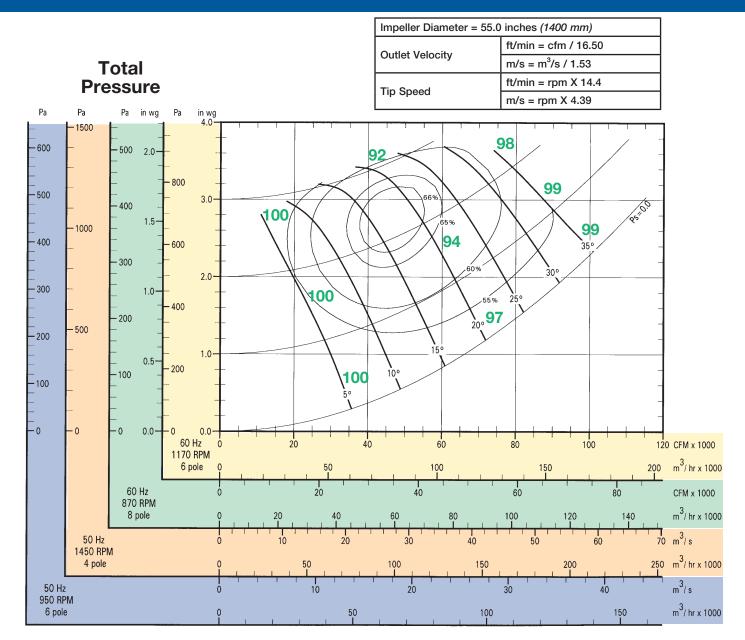
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1170	-2.5					
870	-	-11.5				
950	+2	-9.5				
720	-5	-16.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 140-533 8 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

		(,,	(,1				
	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	11.4/8.53	18.0/13.4	26.2/19.5	35.9/26.8	47.3/35.3	60.2/44.9	74.6/55.7
870 (Bhp/kW)	4.70/3.51	7.40/5.52	10.8/8.02	14.8/11.0	19.4/14.5	24.7/18.5	30.7/22.9
1450 (kW)	16.2	25.6	37.2	51.0	67.1	85.5	106
950 (kW)	4.57	7.19	10.5	14.4	18.9	24.0	29.8

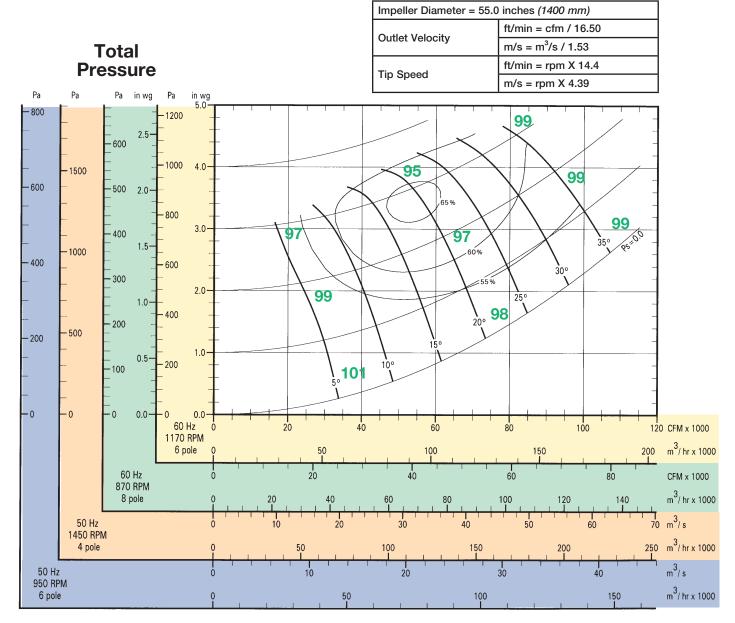
Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1170	+8	-3.5				
870	-	-11.5				
1450	+14	+2.5				
950	+3	-8.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 140-533 12 Blades





Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

	Pitch Angle °						
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	16.3/12.1	25.6/19.1	36.1/26.9	48.1/35.9	62.0/46.2	77.2/57.6	98.5/73.5
870 (Bhp/kW)	6.69/4.99	10.5/7.85	14.8/11.1	19.8/14.8	25.5/19.0	31.7/23.7	40.5/30.2
1450 (kW)	23.1	36.3	51.2	68.3	88.0	110	140
950 (kW)	6.49	10.2	14.4	19.2	24.8	30.8	39.3

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	dBA					
1170	+8	-3.5				
870	-	-11.5				
1450	+16	+4.5				
950	+2	-9.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

AX 160-400 6 Blades



Impeller Diameter = 63.0 inches (1600 mm) ft/min = cfm / 21.70 **Outlet Velocity** $m/s = m^3/s / 2.01$ **Total** ft/min = rpm X 16.5**Pressure** Tip Speed m/s = rpm X 5.03Pa in wg in wg 600 1.5 400 95 600 500 2.0 - 300 97 1.0 97 400 - 200 300 - 200 1.0 20º - 200 0.5 200 100 100 0.5 100 96 0.0-60 Hz 120 CFM x 1000 870 RPM m³/ hr x 1000 8 pole 60 Hz CFM x 1000 690 RPM $m^3/hr \times 1000$ 10 pole 50 Hz 950 RPM $m^3/hr \times 1000$ 6 pole 50 Hz 720 RPM $m^3/hr \times 1000$ 8 pole 50 100 150

Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °						
rpm	5	10	15	20	25	30
870 (Bhp/kW)	6.01/4.48	10.3/7.70	15.2/11.3	20.8/15.5	27.3/20.4	35.5/26.5
690 (Bhp/kW)	3.00/2.24	5.15/3.84	7.56/5.64	10.4/7.72	13.6/10.2	17.7/13.2
950 (kW)	5.84	10.0	14.7	20.2	26.5	34.5
720 (kW)	2.54	4.36	6.41	8.77	11.6	15.0

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

	-					
Inlet Sound						
LwA	dBA					
+6	-5.5					
-	-11.5					
+9	-2.5					
+1	-10.5					
	LwA +6 - +9					

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

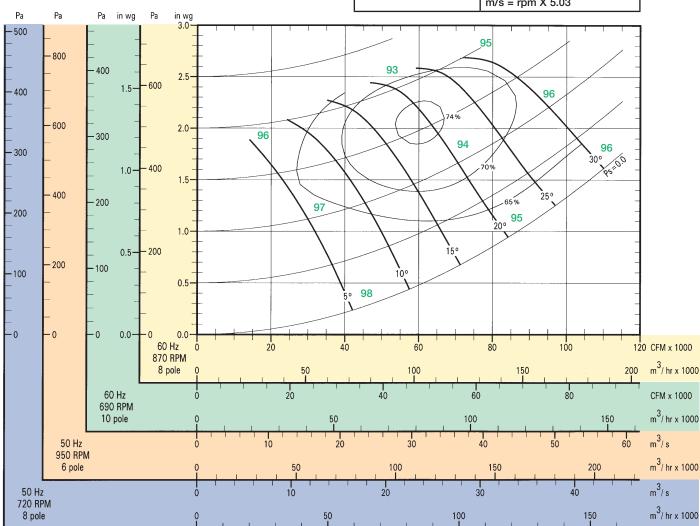
AX 160-400 9 Blades



Total Pressure

Impeller Diameter = 63.0 inches (1600 mm)

Outlet Velocity ft/min = cfm / 21.70 $m/s = m^3/s / 2.01$ Tip Speed ft/min = rpm X 16.5 m/s = rpm X 5.03



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °						
rpm	5	10	15	20	25	30
870 (Bhp/kW)	8.55/6.38	14.4/10.8	20.6/15.4	28.0/20.9	37.2/27.7	49.2/36.7
690 (Bhp/kW)	4.27/3.18	7.20/5.37	10.3/7.67	14.0/10.4	18.5/13.8	24.5/18.3
950 (kW)	8.31	14.0	20.0	27.2	36.1	47.7
720 (kW)	3.62	6.11	8.71	11.8	15.7	20.8

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound					
rpm	LwA	dBA			
870	+6	-5.5			
690	-	-11.5			
950	+8	-3.5			
720	+1	-10.5			

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

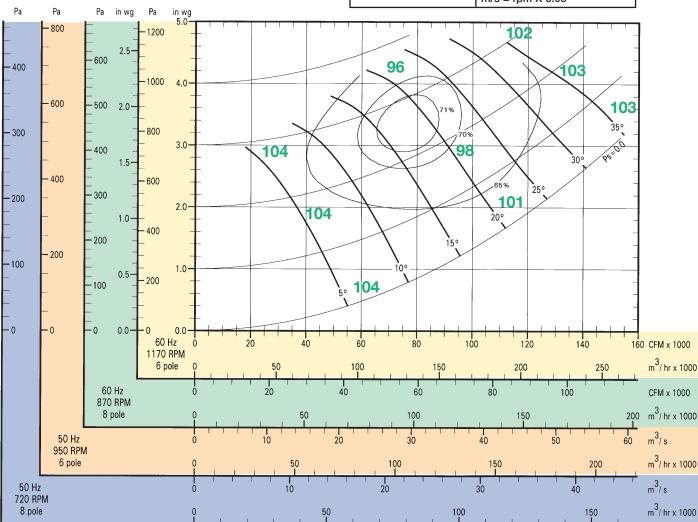
AX 160-533 8 Blades



Total Pressure

Impeller Diameter = 63.0 inches (1600 mm)

Outlet Velocity ft/min = cfm / 21.70 $m/s = m^3/s / 2.01$ ft/min = rpm X 16.5 m/s = rpm X 5.03



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	19.2/14.3	32.5/24.3	47.5/35.5	64.6/48.2	83.9/62.6	106/79.3	134/100
870 (Bhp/kW)	7.90/5.90	13.4/9.98	19.5/14.6	26.5/19.8	34.5/25.7	43.7/32.6	55.3/41.2
950 (kW)	7.68	13.0	19.0	25.8	33.5	42.4	53.7
720 (kW)	3.34	5.65	8.26	11.2	14.6	18.5	23.4

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1170	+9	-2.5				
870	-	-11.5				
950	+3	-8.5				
720	-4	-15.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

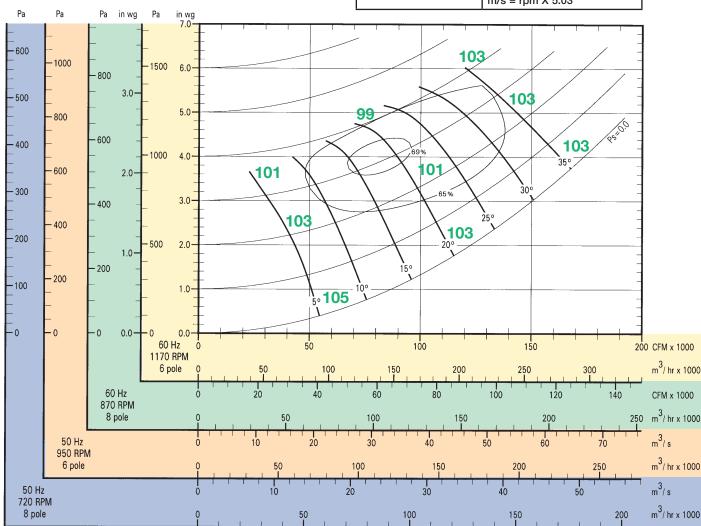
AX 160-533 12 Blades



Total Pressure

Impeller Diameter = 63.0 inches (1600 mm)

Outlet Velocity ft/min = cfm / 21.70 $m/s = m^3/s / 2.01$ Tip Speed ft/min = rpm X 16.5 m/s = rpm X 5.03



Air density = 1.2 kg/m³ Air density = 0.075 lbs/ft³

Volume

Peak Absorbed Power [Bhp/kW (60 Hz), kW (50 Hz)]

Pitch Angle °							
rpm	5	10	15	20	25	30	35
1170 (Bhp/kW)	27.6/20.6	43.1/32.1	62.0/46.3	84.1/62.7	110/82.2	141/105	177/132
870 (Bhp/kW)	11.4/8.48	17.7/13.2	25.5/19.0	34.6/25.8	45.3/33.8	58.0/43.3	72.7/54.3
950 (kW)	11.0	17.2	24.8	33.6	44.0	56.3	70.6
720 (kW)	4.81	7.49	10.8	14.6	19.2	24.5	30.8

Sound Power A-Weighted [LwA] Sound Pressure [dBA]

Inlet Sound						
rpm	LwA	dBA				
1170	+8	-3.5				
870	-	-11.5				
950	+2	-9.5				
720	-5	-16.5				

Performance shown is for installation Type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. The AMCA Certified Ratings Seal applies to air performance ratings only.

Selection Example and Warranty

Performance:

Volume - 0.5 m³/s

Pressure - 170 Pa Static Pressure

Power Frequency - 50 Hz

Results:

Following the constant static pressure line a size 31 with 160 hub and 4 blades needs:

- · 15 degree blade pitch setting
- 2900 rpm motor

From the chart

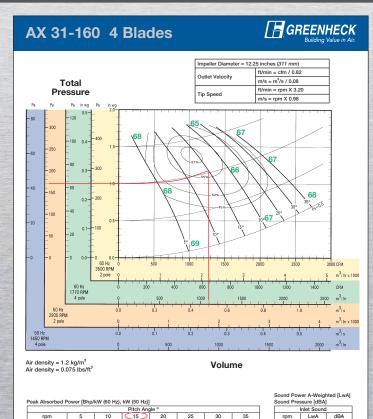
 The operating efficiency is between 55 and 57%

Using 2900 Motor rpm and Peak Absorbed Power Table

· 0.18 kW peak absorbed power

Sound power falls between 68 and 66 LwA for the color matched 1770 rpm. Using the Inlet Sound table and estimating 67 LwA with 2900 rpm, the calculated sound power and pressure are:

- Sound Power of 80 LwA
- Sound Pressure of 68.5 dBA

























Building Value in Air

Greenheck delivers value to mechanical engineers by helping them solve virtually any air quality challenges their clients face with a comprehensive selection of top quality, innovative airrelated equipment. We offer extra value to contractors by providing easy-to-install, competitively priced, reliable products that arrive on time. And building owners and occupants value the energy efficiency, low maintenance and quiet dependable operation they experience long after the construction project ends.

Our Warranty

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Greenheck prove defective during this period, they should be returned to the nearest authorized motor service station. Greenheck will not be responsible for any removal or installation costs.

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.



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Prepared to Support

Green Building Efforts