High Performance Axial Fans

Model AX

Performance Supplement



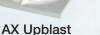




High Performance Axial Fans

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 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.





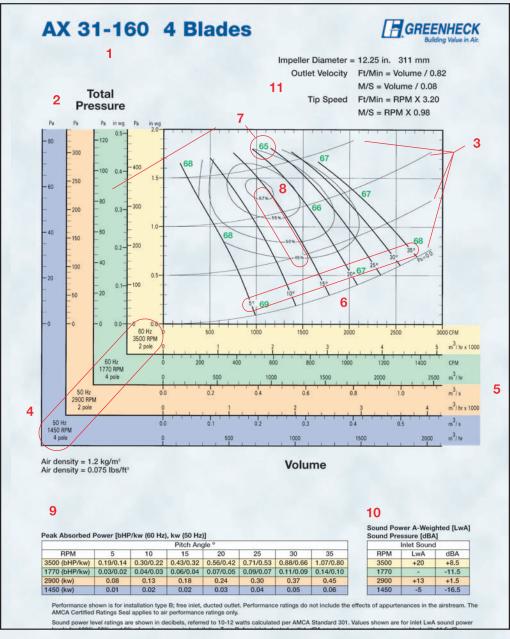
Availa	Available Hub Sizes (mm) / Number of Blades									
Size	160 (4 or 6)	190 (4 or 6)	275 (6 or 9)	400 (6 or 9)	533 (8 or 12)					
31	Х									
36	Х									
41	Х	Х								
47	Х	Х								
54	Х	Х	Х							
63	Х	Х	Х							
72		Х	Х							
80		Х	Х	Х						
90			Х	Х						
103			Х	Х						
113			Х	Х	Х	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

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 refence in finding air performance, power requirements, and sound information. See back cover for selection example.

- 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
- 5 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 m^3/s in the appropriate Outlet Velocity equation. Tip speed equation is only dependent on motor rpm.

AX 31-160 4 Blades



Impeller Diameter = 12.25 in. 311 mm

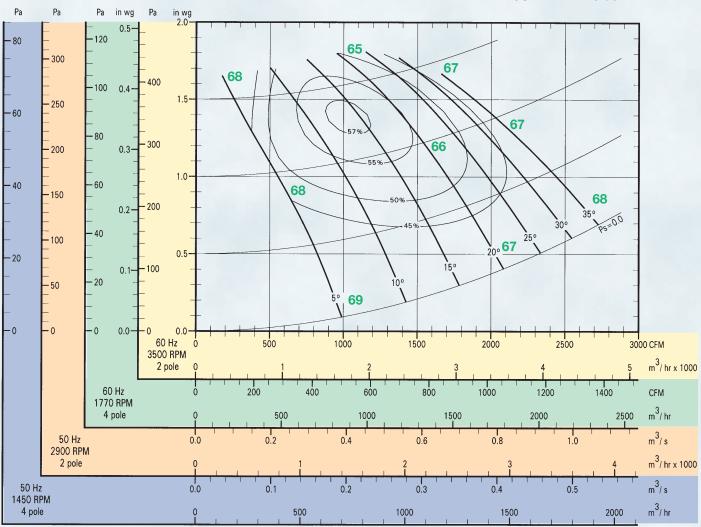
Outlet Velocity Ft/Min = Volume / 0.82

M/S = Volume / 0.08

Tip Speed Ft/Min = RPM X 3.20

 $M/S = RPM \times 0.98$

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							
LwA	dBA						
+20	+8.5						
-	-11.5						
+13	+1.5						
-5	-16.5						
	LwA +20 - +13						

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

Impeller Diameter = 12.25 inches 311 mm

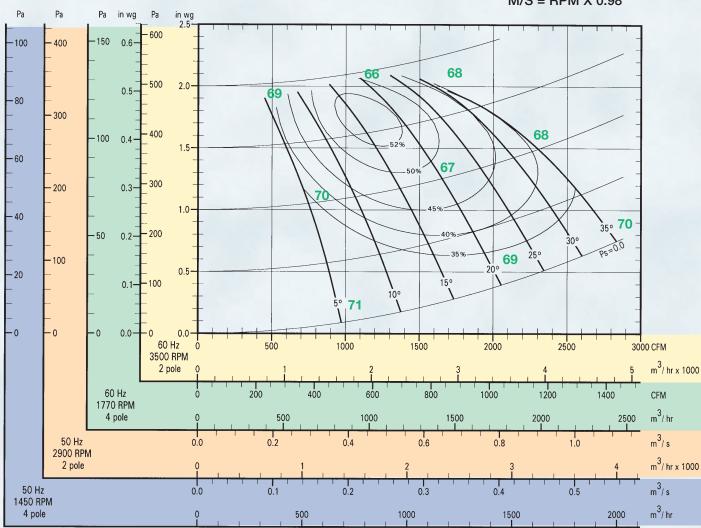
Outlet Velocity Ft/Min = Volume / 0.82

M/S = Volume / 0.08

Tip Speed Ft/Min = RPM X 3.20

 $M/S = RPM \times 0.98$





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)	0.38/0.28	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						

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AX 36-160 4 Blades



Impeller Diameter = 14.25 inches 362 mm

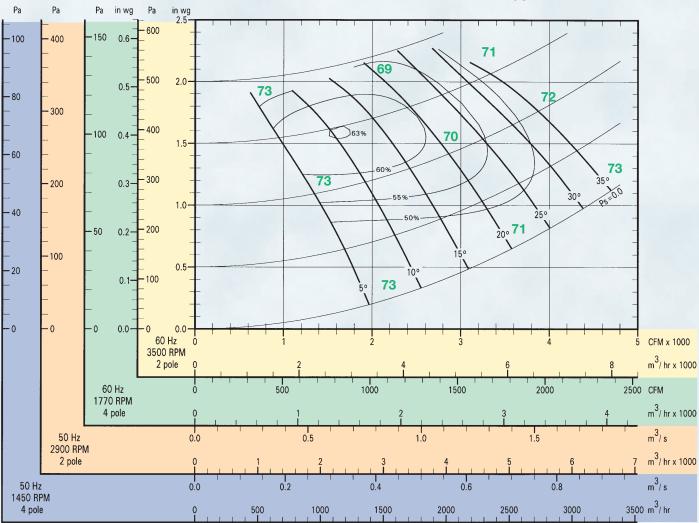
Outlet Velocity Ft/Min = Volume / 1.11

M/S = Volume / 0.10

Tip Speed Ft/Min = RPM X 3.73

 $M/S = RPM \times 1.14$





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						

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AX 36-160 6 Blades

Impeller Diameter = 14.25 inches 362 mm

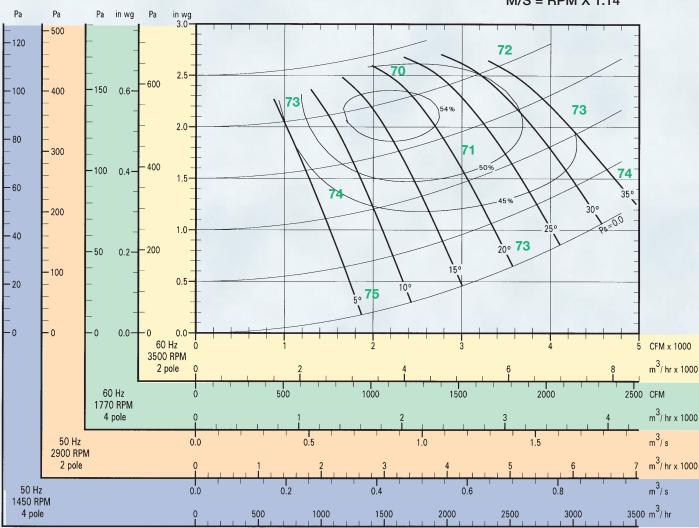
Outlet Velocity Ft/Min = Volume / 1.11

M/S = Volume / 0.10

Tip Speed Ft/Min = RPM X 3.73

 $M/S = RPM \times 1.14$





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
500 (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
770 (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
900 (kw)	0.31	0.40	0.53	0.70	0.88	1.08	1.27
450 (kw)	0.04	0.05	0.07	0.09	0.11	0.13	0.16

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

		4							
Inlet Sound									
RPM	LwA	dBA							
3500	+19	+7.5							
1770	-	-11.5							
2900	+13	+1.5							
1450	-5	-16.5							

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AX 41-160 4 Blades



Impeller Diameter = 16.25 inches 413 mm

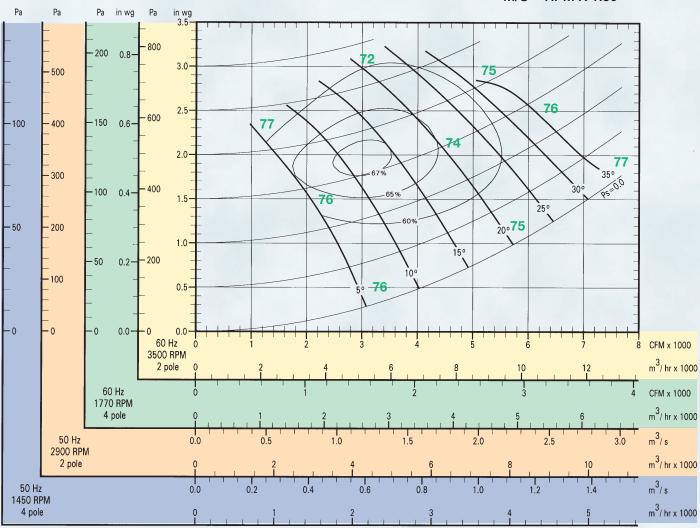
Outlet Velocity Ft/Min = Volume / 1.44

M/S = Volume / 0.13

Tip Speed Ft/Min = RPM X 4.25

 $M/S = RPM \times 1.30$

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

Impeller Diameter = 16.25 inches 413 mm

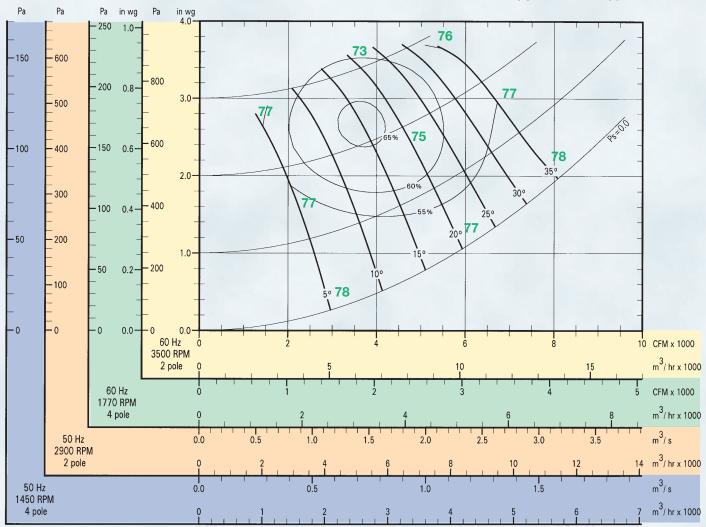
Outlet Velocity Ft/Min = Volume / 1.44

M/S = Volume / 0.13

Tip Speed Ft/Min = RPM X 4.25

 $M/S = RPM \times 1.30$

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)	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
770 (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
900 (kw)	0.47	0.75	1.04	1.34	1.66	2.02	2.44
450 (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

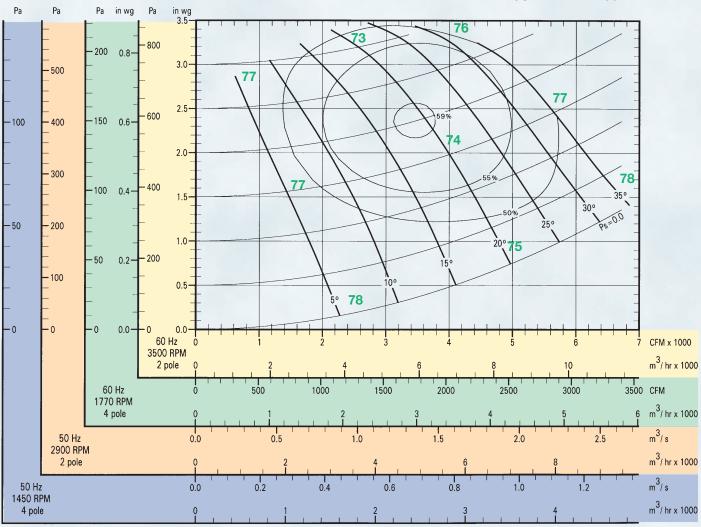
Outlet Velocity Ft/Min = Volume / 1.44

M/S = Volume / 0.13

Tip Speed Ft/Min = RPM X 4.25

 $M/S = RPM \times 1.30$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

27 72							
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							
RPM	RPM LwA						
3500	+19	+7.5					
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 41-190 6 Blades

Impeller Diameter = 16.25 inches 413 mm

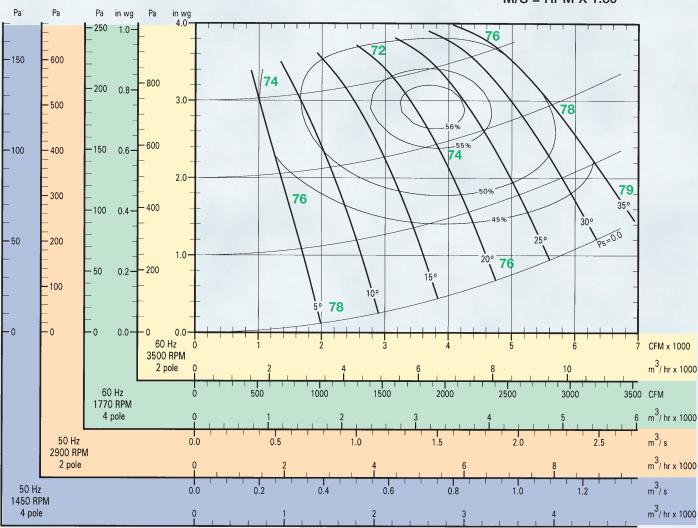
Outlet Velocity Ft/Min = Volume / 1.44

M/S = Volume / 0.13

Tip Speed Ft/Min = RPM X 4.25

 $M/S = RPM \times 1.30$





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)	1.09/0.81	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 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 47-160 4 Blades



Impeller Diameter = 18.38 inches 467 mm

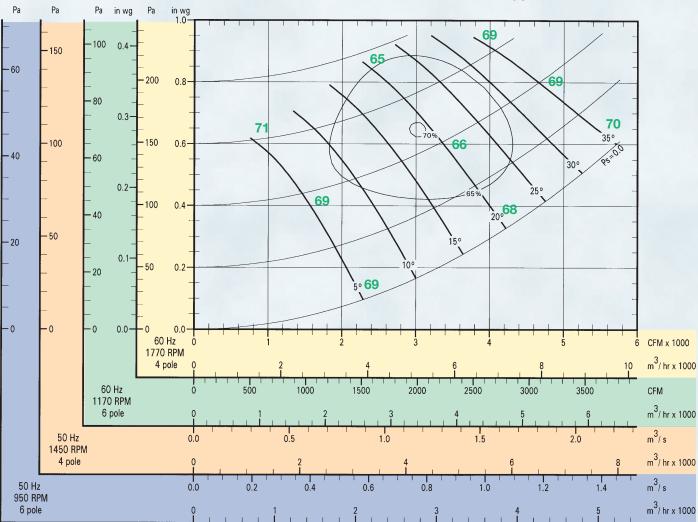
Outlet Velocity Ft/Min = Volume / 1.84

M/S = Volume / 0.17

Tip Speed Ft/Min = RPM X 4.81

 $M/S = RPM \times 1.47$





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								
+11	-0.5							
-	-11.5							
+6	-5.5							
-6	-17.5							
	LwA +11 - +6							

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AX 47-160 6 Blades

Impeller Diameter = 18.38 inches 467 mm

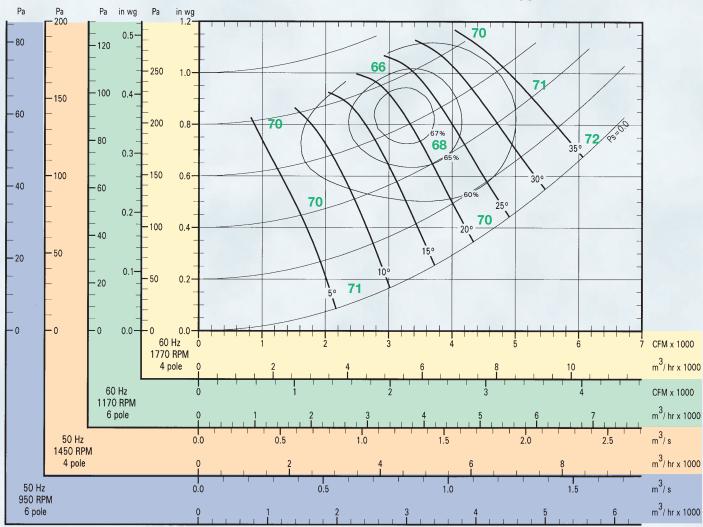
Outlet Velocity Ft/Min = Volume / 1.84

M/S = Volume / 0.17

Tip Speed Ft/Min = RPM X 4.81

 $M/S = RPM \times 1.47$





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
770 (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
170 (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
450 (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	RPM LwA						
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

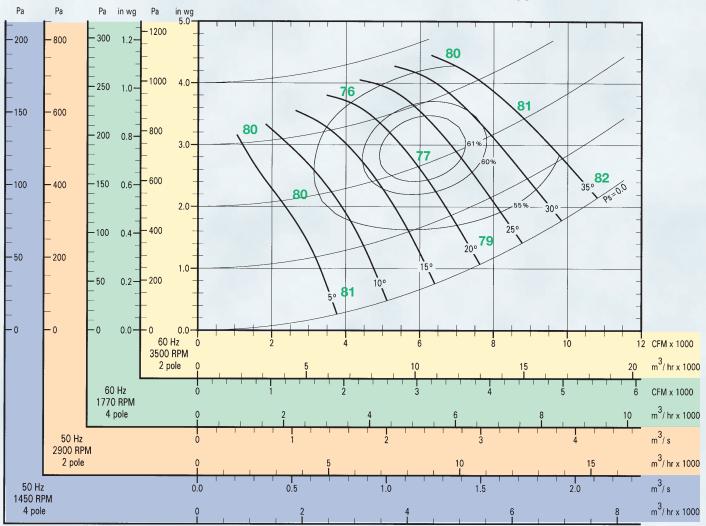
Outlet Velocity Ft/Min = Volume / 1.84

M/S = Volume / 0.17

Tip Speed Ft/Min = RPM X 4.81

 $M/S = RPM \times 1.47$





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)	1.57/1.17	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

Impeller Diameter = 18.38 inches 467 mm

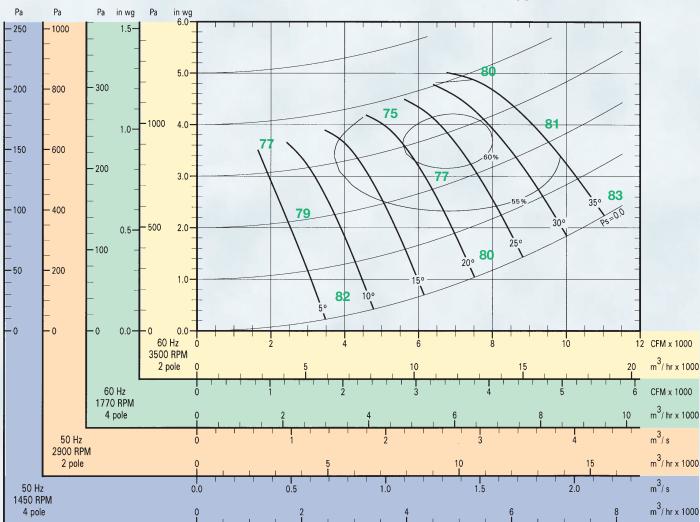
Outlet Velocity Ft/Min = Volume / 1.84

M/S = Volume / 0.17

Tip Speed Ft/Min = RPM X 4.81

 $M/S = RPM \times 1.47$

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							
+19	+7.5						
-	-11.5						
+13	+1.5						
-5	-16.5						
	LwA +19 - +13						

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



Impeller Diameter = 21.38 inches 543 mm

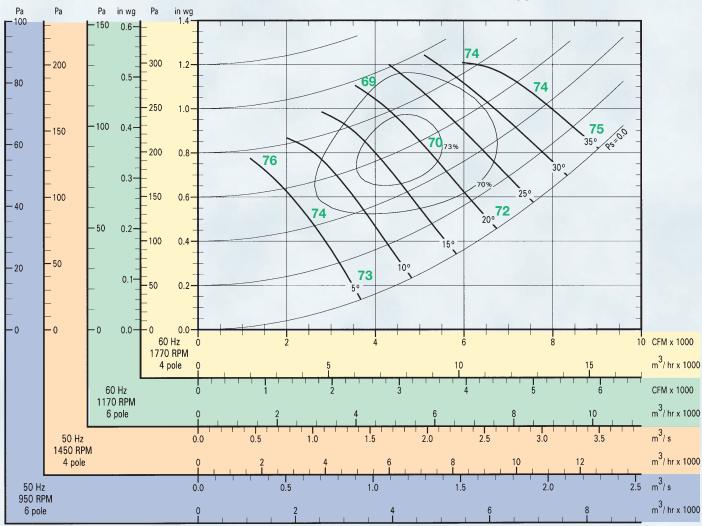
Outlet Velocity Ft/Min = Volume / 2.49

M/S = Volume / 0.23

Tip Speed Ft/Min = RPM X 5.60

 $M/S = RPM \times 1.71$





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	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

Impeller Diameter = 21.38 inches 543 mm

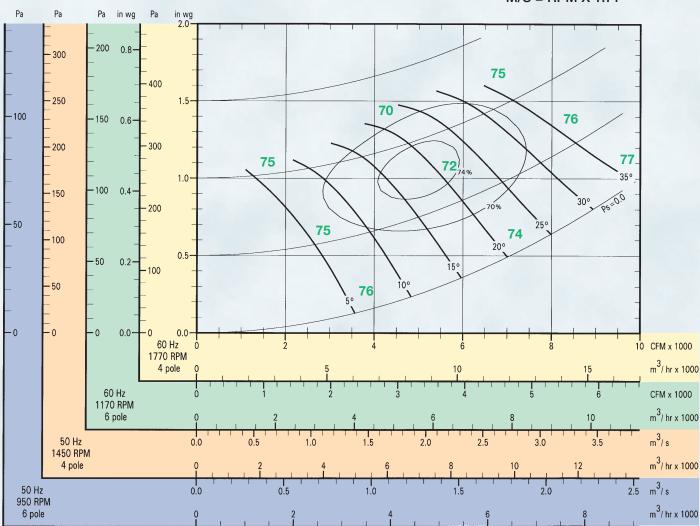
Outlet Velocity Ft/Min = Volume / 2.49

M/S = Volume / 0.23

Tip Speed Ft/Min = RPM X 5.60

 $M/S = RPM \times 1.71$

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 LwA							
+12	+0.5						
-	-11.5						
+7	-4.5						
-6	-17.5						
	LwA +12 - +7						

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



Impeller Diameter = 21.38 inches 543 mm

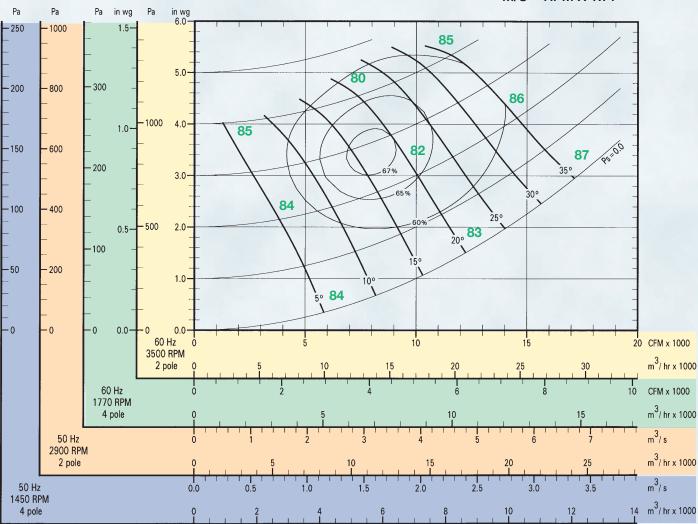
Outlet Velocity Ft/Min = Volume / 2.49

M/S = Volume / 0.23

Tip Speed Ft/Min = RPM X 5.60

 $M/S = RPM \times 1.71$





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	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

Impeller Diameter = 21.38 inches 543 mm

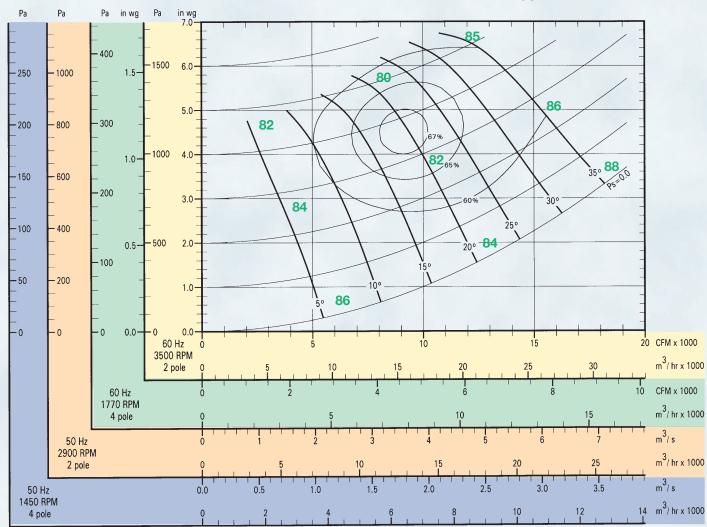
Outlet Velocity Ft/Min = Volume / 2.49

M/S = Volume / 0.23

Tip Speed Ft/Min = RPM X 5.60

 $M/S = RPM \times 1.71$

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	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



Impeller Diameter = 21.38 inches 543 mm

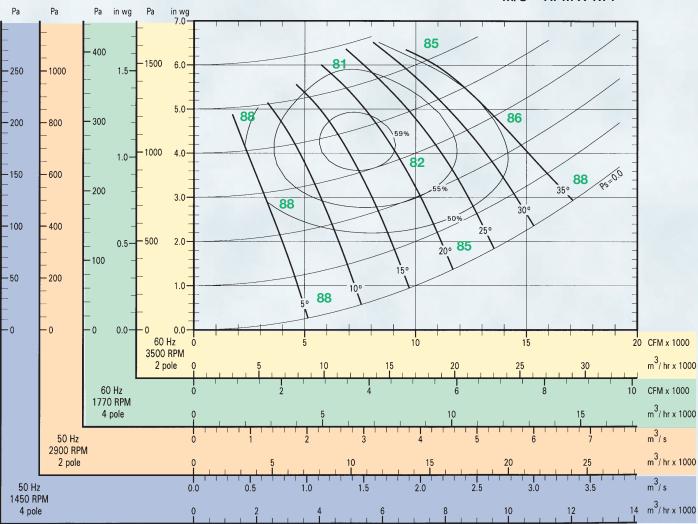
Outlet Velocity Ft/Min = Volume / 2.49

M/S = Volume / 0.23

Tip Speed Ft/Min = RPM X 5.60

 $M/S = RPM \times 1.71$





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	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

Impeller Diameter = 21.38 inches 543 mm

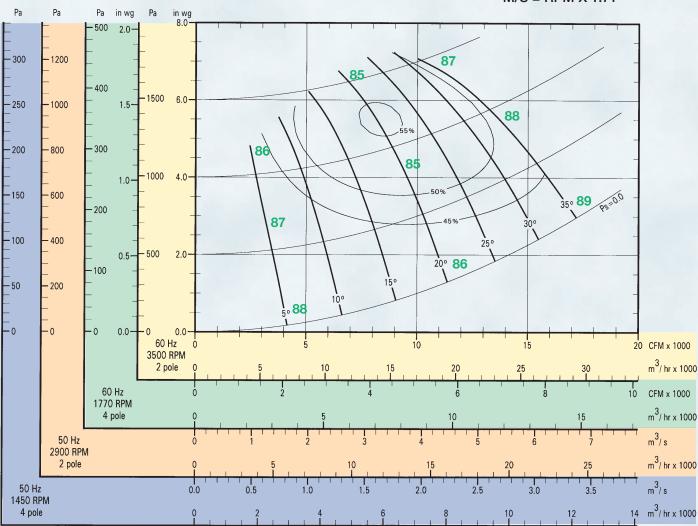
Outlet Velocity Ft/Min = Volume / 2.49

M/S = Volume / 0.23

Tip Speed Ft/Min = RPM X 5.60

 $M/S = RPM \times 1.71$





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							
RPM 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



Impeller Diameter = 24.38 inches 619 mm

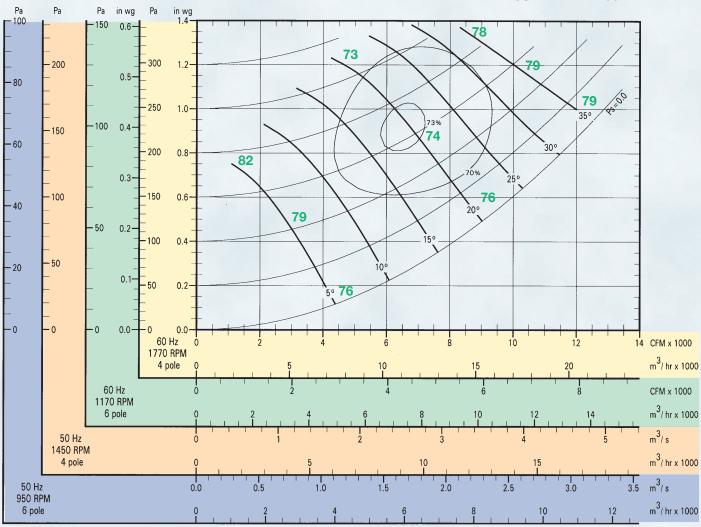
Outlet Velocity Ft/Min = Volume / 3.24

M/S = Volume / 0.30

Tip Speed Ft/Min = RPM X 6.38

 $M/S = RPM \times 1.95$





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

Impeller Diameter = 24.38 inches 619 mm

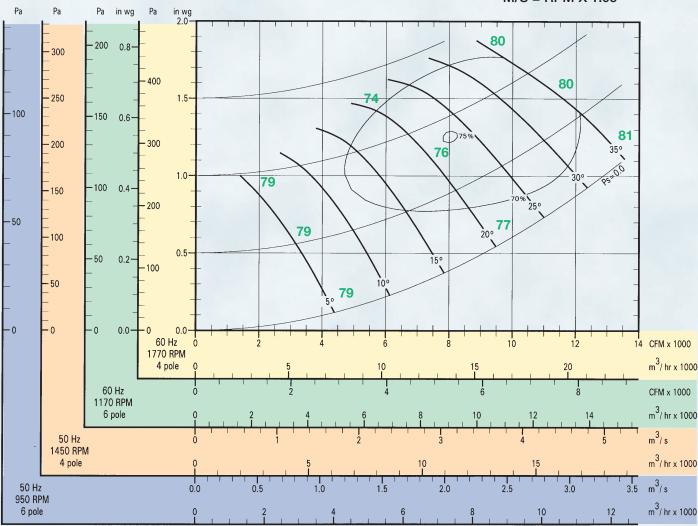
Outlet Velocity Ft/Min = Volume / 3.24

M/S = Volume / 0.30

Tip Speed Ft/Min = RPM X 6.38

 $M/S = RPM \times 1.95$





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) (0.51/0.38	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]

		4						
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

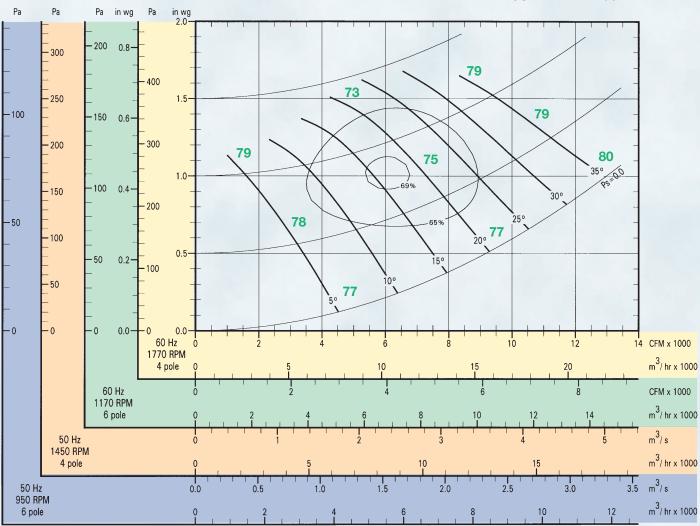
Outlet Velocity Ft/Min = Volume / 3.24

M/S = Volume / 0.30

Tip Speed Ft/Min = RPM X 6.38

 $M/S = RPM \times 1.95$





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)	0.50/0.37	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	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

Impeller Diameter = 24.38 inches 619 mm

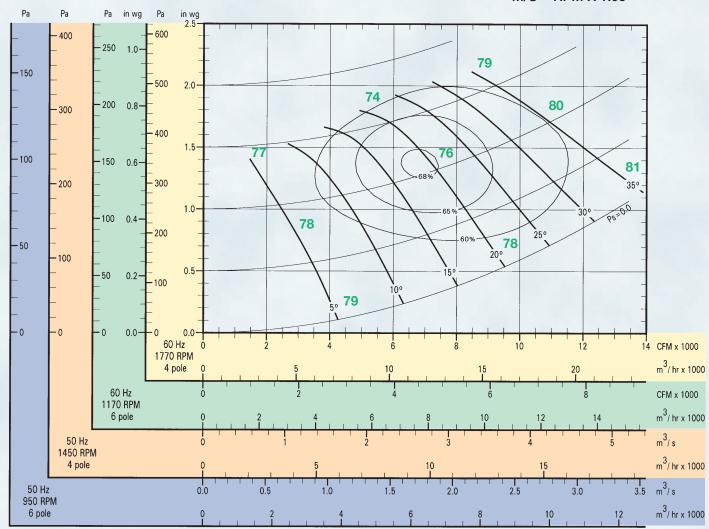
Outlet Velocity Ft/Min = Volume / 3.24

M/S = Volume / 0.30

Tip Speed Ft/Min = RPM X 6.38

 $M/S = RPM \times 1.95$

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 LwA								
+11	-0.5							
-	-11.5							
+5	-6.5							
-6	-17.5							
	LwA +11 - +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



Impeller Diameter = 24.38 inches 619 mm

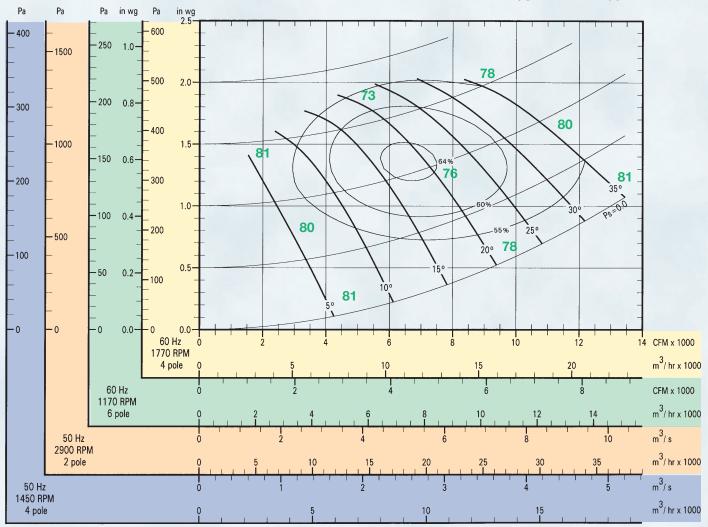
Outlet Velocity Ft/Min = Volume / 3.24

M/S = Volume / 0.30

Tip Speed Ft/Min = RPM X 6.38

 $M/S = RPM \times 1.95$





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)	0.75/0.56	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	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

Impeller Diameter = 24.38 inches 619 mm

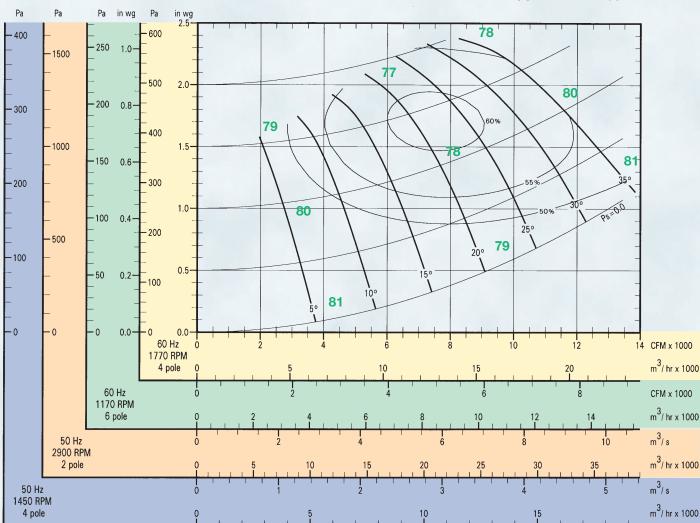
Outlet Velocity Ft/Min = Volume / 3.24

M/S = Volume / 0.30

Tip Speed Ft/Min = RPM X 6.38

 $M/S = RPM \times 1.95$

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	dBA						
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

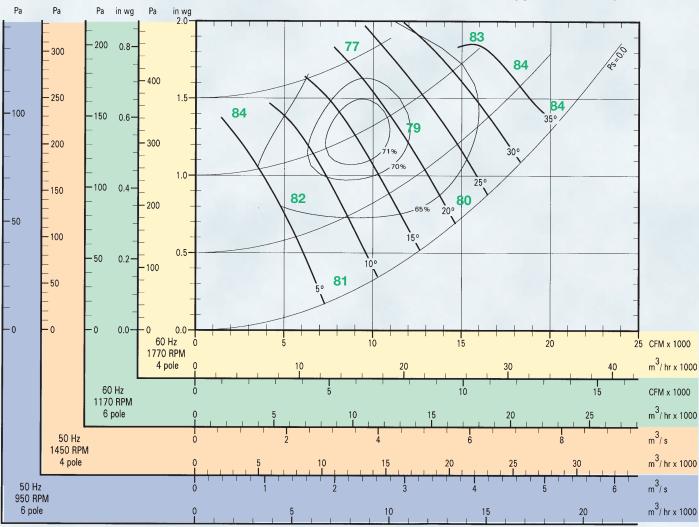
Outlet Velocity Ft/Min = Volume / 4.39

M/S = Volume / 0.41

Tip Speed Ft/Min = RPM X 7.43

 $M/S = RPM \times 2.26$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

Ī	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
Ī	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]

Inlet Sound								
RPM	RPM LwA							
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

Impeller Diameter = 28.38 inches 721 mm

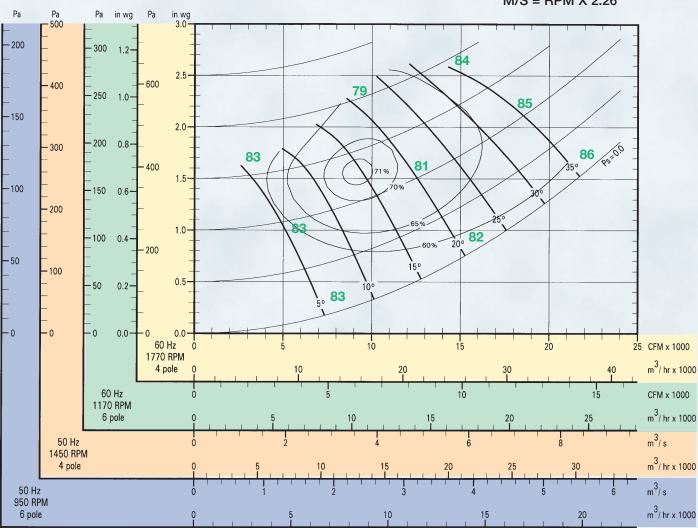
Outlet Velocity Ft/Min = Volume / 4.39

M/S = Volume / 0.41

Tip Speed Ft/Min = RPM X 7.43

M/S = RPM X 2.26





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							
+11	-0.5						
-	-11.5						
+6	-5.5						
-5	-16.5						
	LwA +11 - +6						

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



Impeller Diameter = 28.38 inches 721 mm

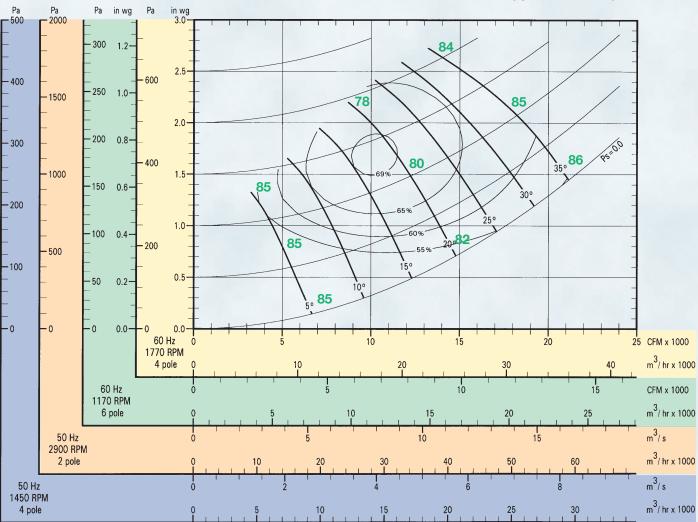
Outlet Velocity Ft/Min = Volume / 4.39

M/S = Volume / 0.41

Tip Speed Ft/Min = RPM X 7.43

 $M/S = RPM \times 2.26$





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)	1.29/0.97	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

Impeller Diameter = 28.38 inches 721 mm

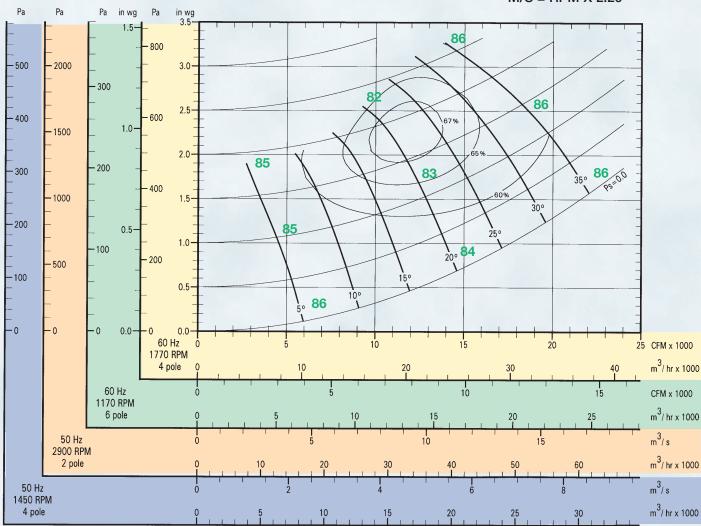
Outlet Velocity Ft/Min = Volume / 4.39

M/S = Volume / 0.41

Tip Speed Ft/Min = RPM X 7.43

M/S = RPM X 2.26





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 °							
Ī	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	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 80-190 4 Blades



Impeller Diameter = 32.38 inches 822 mm

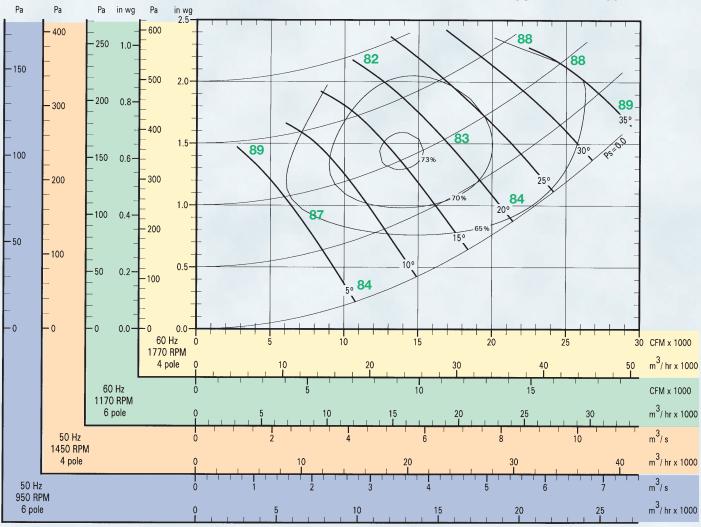
Outlet Velocity Ft/Min = Volume / 5.72

M/S = Volume / 0.53

Tip Speed Ft/Min = RPM X 8.48

 $M/S = RPM \times 2.58$





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	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

Impeller Diameter = 32.38 inches 822 mm

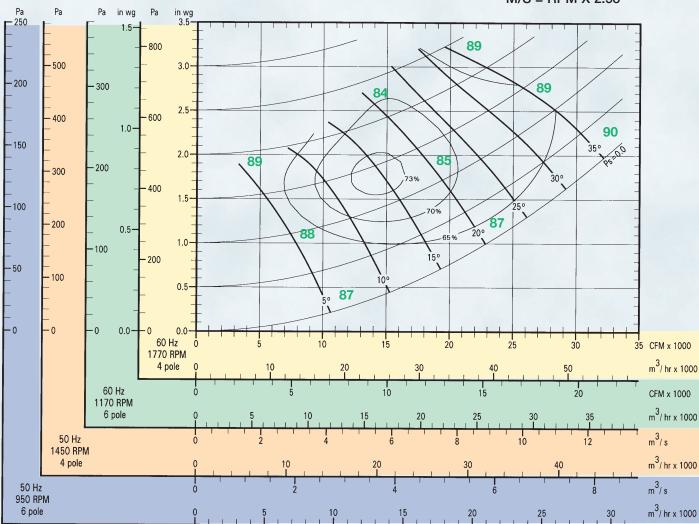
Outlet Velocity Ft/Min = Volume / 5.72

M/S = Volume / 0.53

Tip Speed Ft/Min = RPM X 8.48

 $M/S = RPM \times 2.58$





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)	2.20/1.64	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						
LwA	dBA					
+11	-0.5					
-	-11.5					
+6	-5.5					
-5	-16.5					
	LwA +11 - +6					

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



Impeller Diameter = 32.38 inches 822 mm

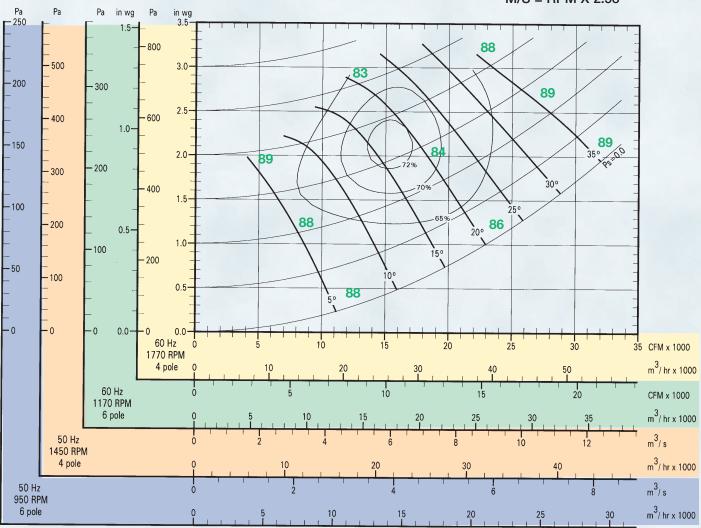
Outlet Velocity Ft/Min = Volume / 5.72

M/S = Volume / 0.53

Tip Speed Ft/Min = RPM X 8.48

 $M/S = RPM \times 2.58$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

		. ,	, ,	-			
			Pitch Ano	gle °			
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

Impeller Diameter = 32.38 inches 822 mm

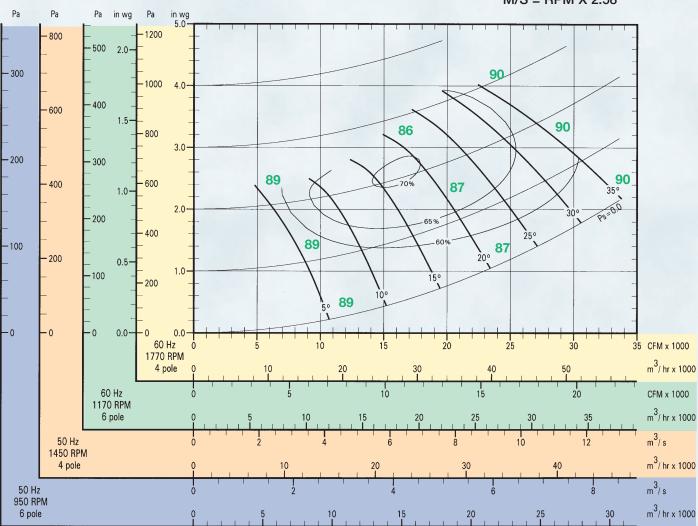
Outlet Velocity Ft/Min = Volume / 5.72

M/S = Volume / 0.53

Tip Speed Ft/Min = RPM X 8.48

 $M/S = RPM \times 2.58$





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) 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.	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	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	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						
LwA	dBA					
+10	-1.5					
-	-11.5					
+5	-6.5					
-6	-17.5					
	LwA +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 80-400 6 Blades



Impeller Diameter = 32.38 inches 822 mm

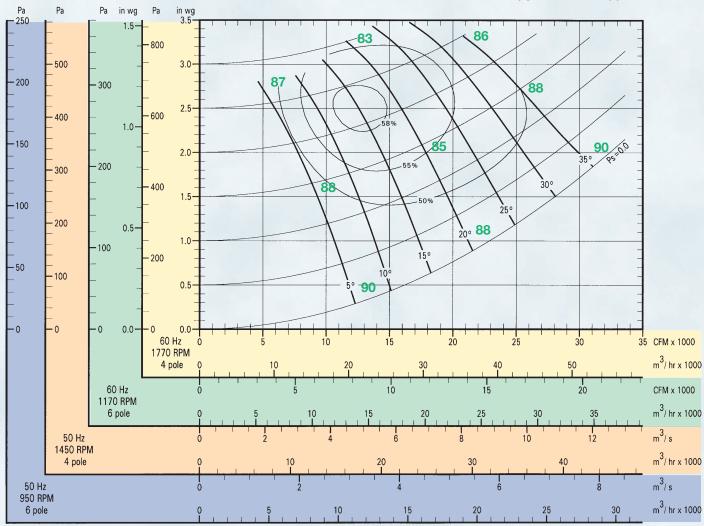
Outlet Velocity Ft/Min = Volume / 5.72

M/S = Volume / 0.53

Tip Speed Ft/Min = RPM X 8.48

 $M/S = RPM \times 2.58$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

, , , , , , , , , , , , , , , , , , ,								
				Pitch Ano	gle °			
	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

Impeller Diameter = 32.38 inches 822 mm

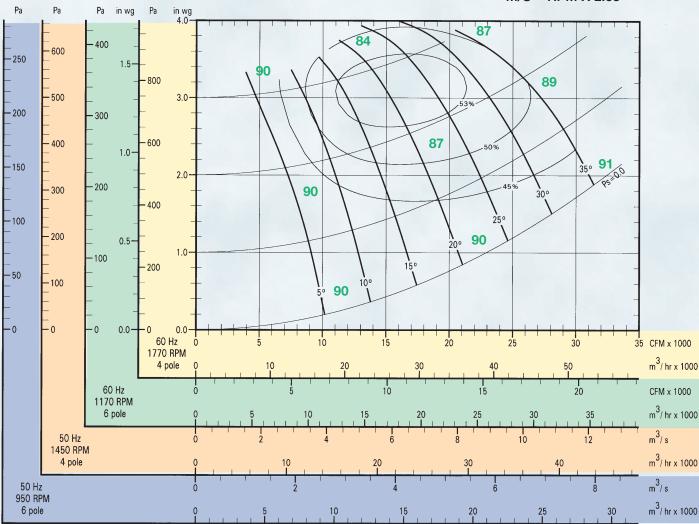
Outlet Velocity Ft/Min = Volume / 5.72

M/S = Volume / 0.53

Tip Speed Ft/Min = RPM X 8.48

 $M/S = RPM \times 2.58$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

i itoli / tigit	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	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							
LwA	dBA						
+10	-1.5						
-	-11.5						
+5	-6.5						
-5	-16.5						
	LwA +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 90-275 6 Blades



Impeller Diameter = 36.38 inches 924 mm

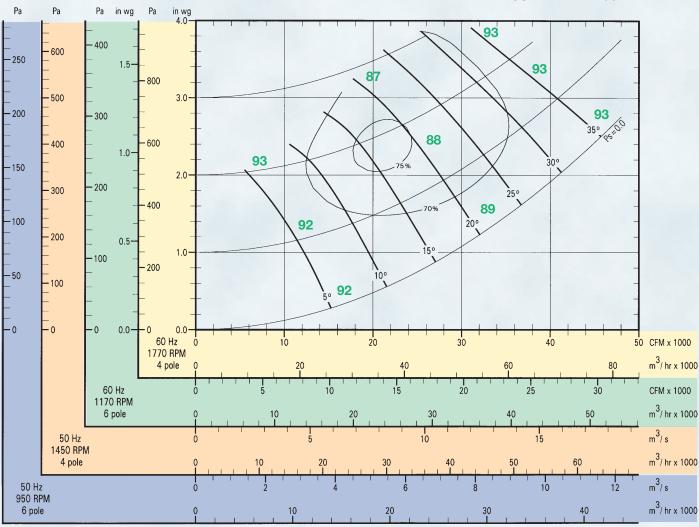
Outlet Velocity Ft/Min = Volume / 7.22

M/S = Volume / 0.67

Tip Speed Ft/Min = RPM X 9.52

 $M/S = RPM \times 2.90$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

	n v // v //							
	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
İ	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
1	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

Impeller Diameter = 36.38 inches 924 mm

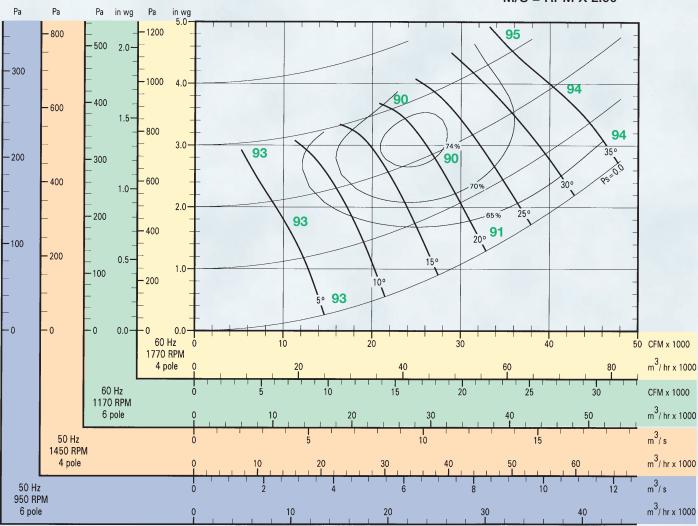
Outlet Velocity Ft/Min = Volume / 7.22

M/S = Volume / 0.67

Tip Speed Ft/Min = RPM X 9.52

 $M/S = RPM \times 2.90$





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 °						
5	10	15	20	25	30	35
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
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
2.06	3.65	5.31	7.13	9.28	11.9	15.3
0.58	1.03	1.49	2.01	2.61	3.36	4.29
	5.03/3.75 1.45/1.08 2.06	5.03/3.75 8.89/6.63 1.45/1.08 2.57/1.92 2.06 3.65	5 10 15 5.03/3.75 8.89/6.63 13.0/9.66 1.45/1.08 2.57/1.92 3.74/2.79 2.06 3.65 5.31	5 10 15 20 5.03/3.75 8.89/6.63 13.0/9.66 17.4/13.0 1.45/1.08 2.57/1.92 3.74/2.79 5.02/3.75 2.06 3.65 5.31 7.13	5 10 15 20 25 5.03/3.75 8.89/6.63 13.0/9.66 17.4/13.0 22.6/16.9 1.45/1.08 2.57/1.92 3.74/2.79 5.02/3.75 6.53/4.87 2.06 3.65 5.31 7.13 9.28	5 10 15 20 25 30 5.03/3.75 8.89/6.63 13.0/9.66 17.4/13.0 22.6/16.9 29.1/21.7 1.45/1.08 2.57/1.92 3.74/2.79 5.02/3.75 6.53/4.87 8.41/6.27 2.06 3.65 5.31 7.13 9.28 11.9

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

Inlet Sound						
LwA	dBA					
+11	-0.5					
-	-11.5					
+5	-6.5					
-5	-16.5					
	LwA +11 - +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

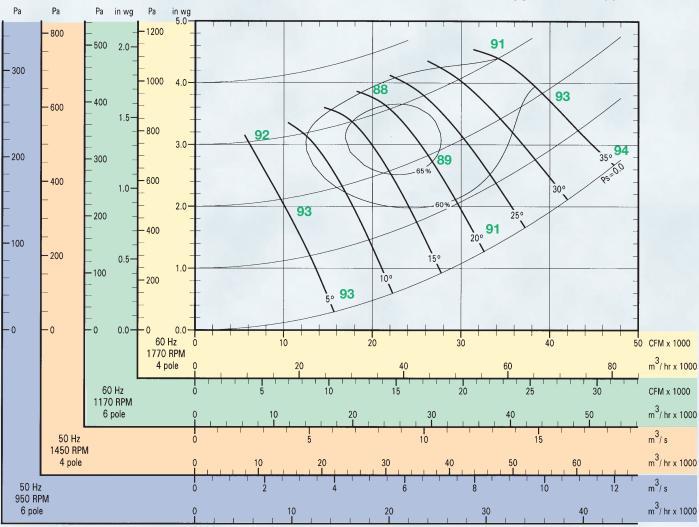
Outlet Velocity Ft/Min = Volume / 7.22

M/S = Volume / 0.67

Tip Speed Ft/Min = RPM X 9.52

 $M/S = RPM \times 2.90$

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)	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

Impeller Diameter = 36.38 inches 924 mm

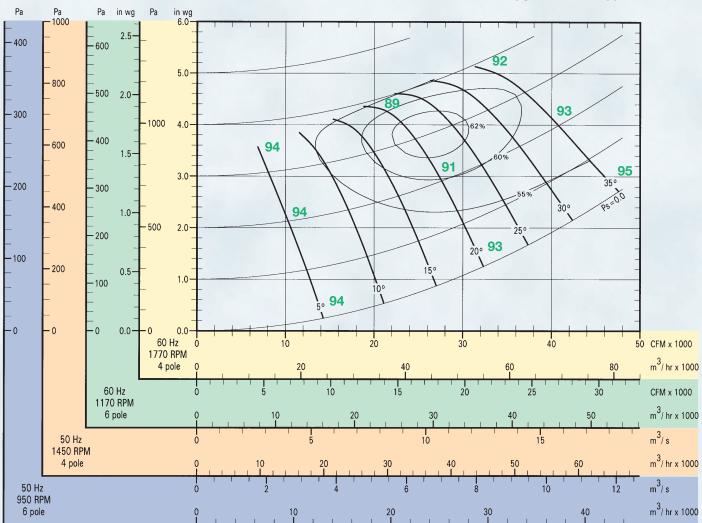
Outlet Velocity Ft/Min = Volume / 7.22

M/S = Volume / 0.67

Tip Speed Ft/Min = RPM X 9.52

 $M/S = RPM \times 2.90$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

			Pitch Ano	gle °			
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



Impeller Diameter = 40.38 inches 1026 mm

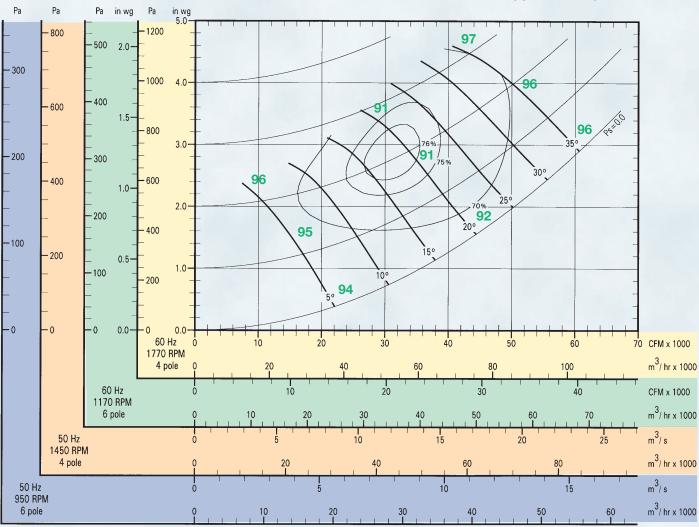
Outlet Velocity Ft/Min = Volume / 8.89

M/S = Volume / 0.83

Tip Speed Ft/Min = RPM X 10.6

 $M/S = RPM \times 3.22$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

n 1/ 1/ 1/4							
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

Impeller Diameter = 40.38 inches 1026 mm

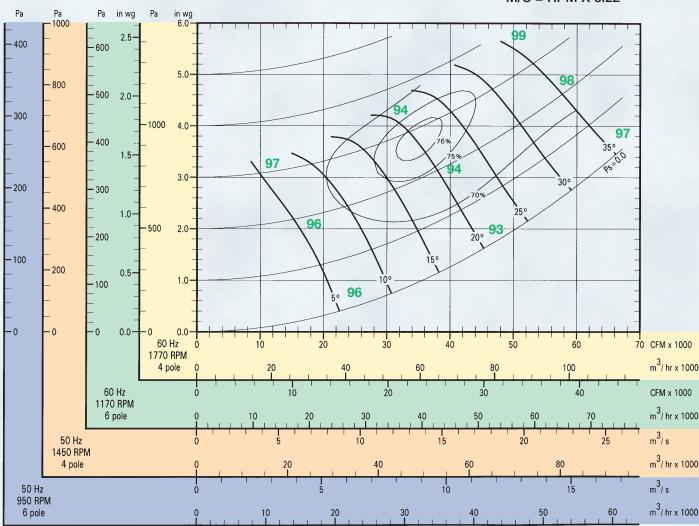
Outlet Velocity Ft/Min = Volume / 8.89

M/S = Volume / 0.83

Tip Speed Ft/Min = RPM X 10.6

 $M/S = RPM \times 3.22$





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							
+10	-1.5						
-	-11.5						
+4	-7.5						
-6	-17.5						
	LwA +10 - +4						

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

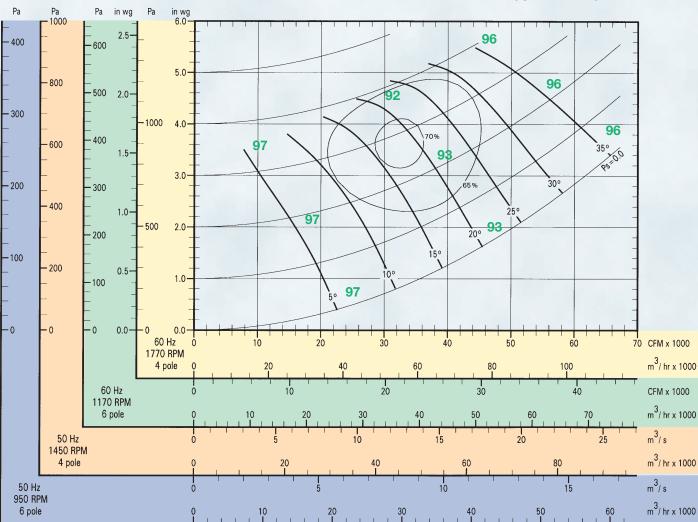
Outlet Velocity Ft/Min = Volume / 8.89

M/S = Volume / 0.83

Tip Speed Ft/Min = RPM X 10.6

 $M/S = RPM \times 3.22$





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)	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]

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

Impeller Diameter = 40.38 inches 1026 mm

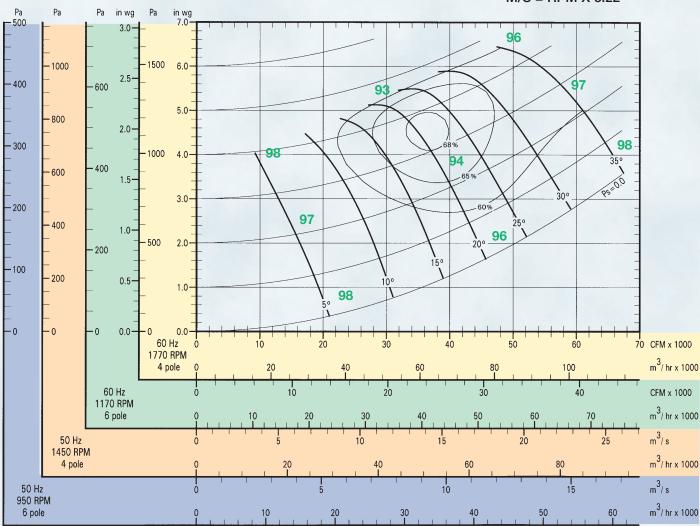
Outlet Velocity Ft/Min = Volume / 8.89

M/S = Volume / 0.83

Tip Speed Ft/Min = RPM X 10.6

 $M/S = RPM \times 3.22$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

			Pitch Ang	gle °			
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



Impeller Diameter = 44.5 inches 1130 mm

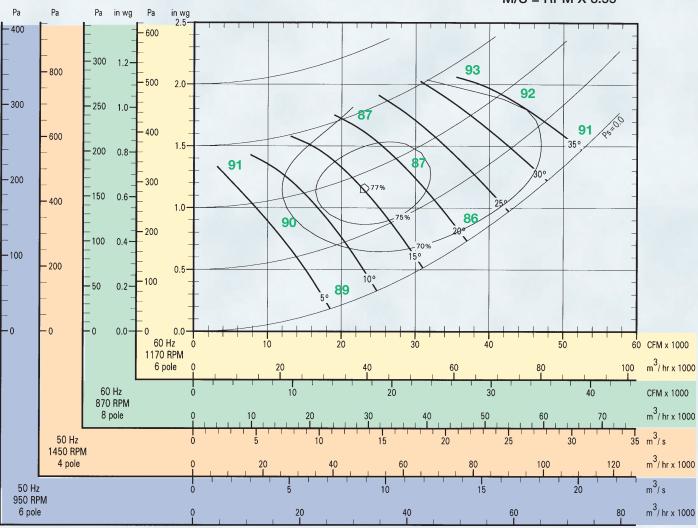
Outlet Velocity Ft/Min = Volume / 10.8

M/S = Volume / 1.0

Tip Speed Ft/Min = RPM X 11.7

 $M/S = RPM \times 3.55$





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)	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

Impeller Diameter = 44.5 inches 1130 mm

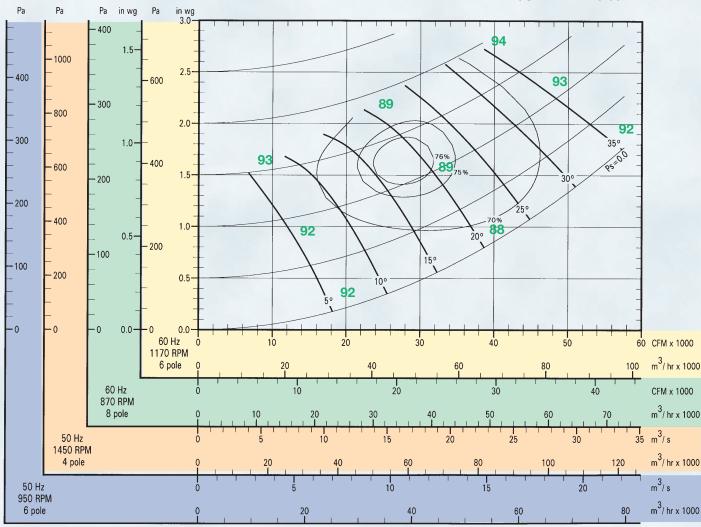
Outlet Velocity Ft/Min = Volume / 10.8

M/S = Volume / 1.0

Tip Speed Ft/Min = RPM X 11.7

 $M/S = RPM \times 3.55$





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)	3.29/2.46	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]

Inlet Sound							
RPM LwA							
+7	-4.5						
-	-11.5						
+13	+1.5						
+2	-9.5						
	LwA +7 - +13						

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



Impeller Diameter = 44.5 inches 1130 mm

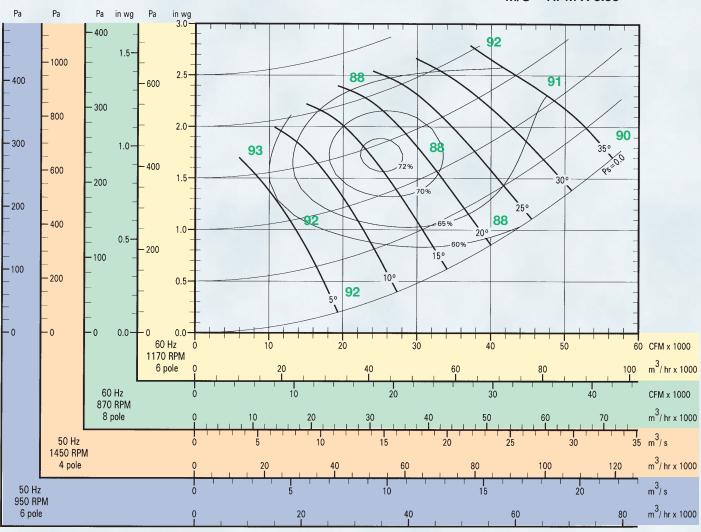
Outlet Velocity Ft/Min = Volume / 10.8

M/S = Volume / 1.0

Tip Speed Ft/Min = RPM X 11.7

 $M/S = RPM \times 3.55$

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)	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
(/			011 07 -11 0		0.000,		
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

Impeller Diameter = 44.5 inches 1130 mm

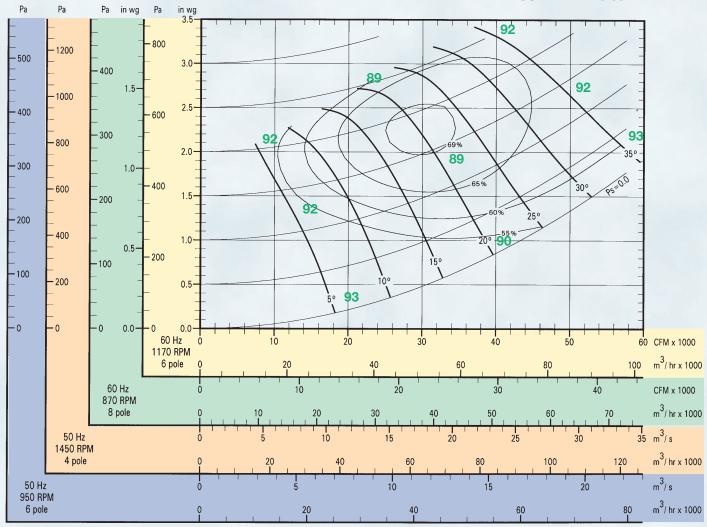
Outlet Velocity Ft/Min = Volume / 10.8

M/S = Volume / 1.0

Tip Speed Ft/Min = RPM X 11.7

 $M/S = RPM \times 3.55$

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	RPM LwA						
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

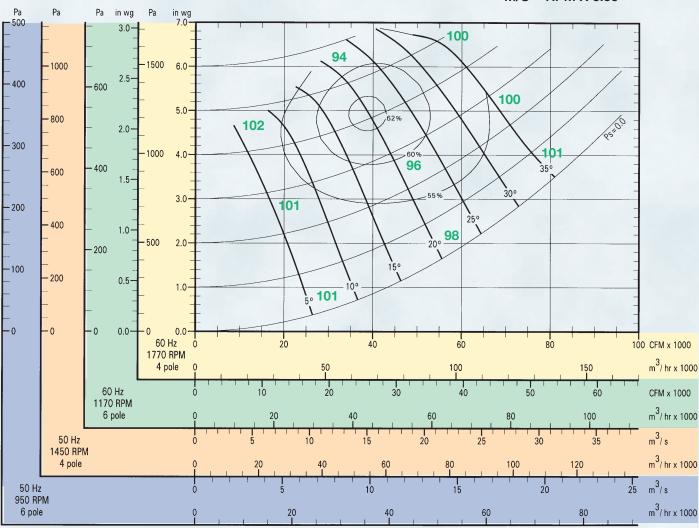
Outlet Velocity Ft/Min = Volume / 10.8

M/S = Volume / 1.0

Tip Speed Ft/Min = RPM X 11.7

 $M/S = RPM \times 3.55$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

- 4					-			
Pitch Angle °								
ĺ	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
ĺ	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]

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

Impeller Diameter = 44.5 inches 1130 mm

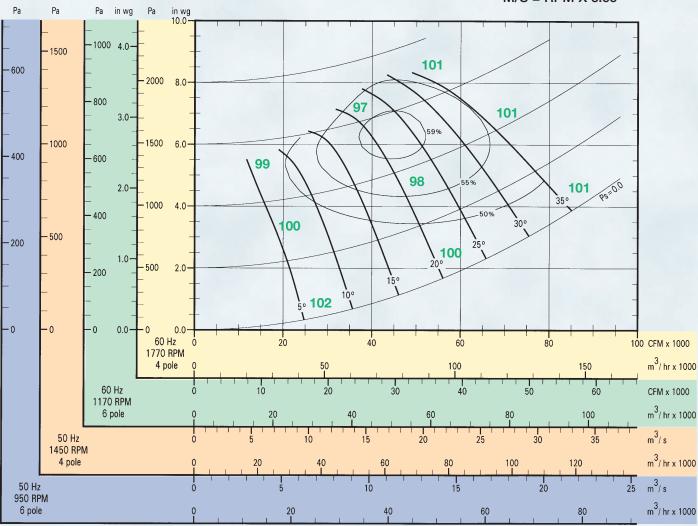
Outlet Velocity Ft/Min = Volume / 10.8

M/S = Volume / 1.0

Tip Speed Ft/Min = RPM X 11.7

 $M/S = RPM \times 3.55$





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 °						
5	10	15	20	25	30	35
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
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
9.74	15.1	21.0	27.6	35.0	43.4	52.9
2.74	4.24	5.91	7.76	9.85	12.2	14.9
	23.8/17.7 6.86/5.12 9.74	23.8/17.7 36.8/27.5 6.86/5.12 10.6/7.93 9.74 15.1	5 10 15 23.8/17.7 36.8/27.5 51.2/38.2 6.86/5.12 10.6/7.93 14.8/11.0 9.74 15.1 21.0	5 10 15 20 23.8/17.7 36.8/27.5 51.2/38.2 67.3/50.2 6.86/5.12 10.6/7.93 14.8/11.0 19.4/14.5 9.74 15.1 21.0 27.6	5 10 15 20 25 23.8/17.7 36.8/27.5 51.2/38.2 67.3/50.2 85.4/63.7 6.86/5.12 10.6/7.93 14.8/11.0 19.4/14.5 24.7/18.4 9.74 15.1 21.0 27.6 35.0	5 10 15 20 25 30 23.8/17.7 36.8/27.5 51.2/38.2 67.3/50.2 85.4/63.7 106/78.9 6.86/5.12 10.6/7.93 14.8/11.0 19.4/14.5 24.7/18.4 30.5/22.8 9.74 15.1 21.0 27.6 35.0 43.4

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 123-400 6 Blades



Impeller Diameter = 48.5 inches 1230 mm

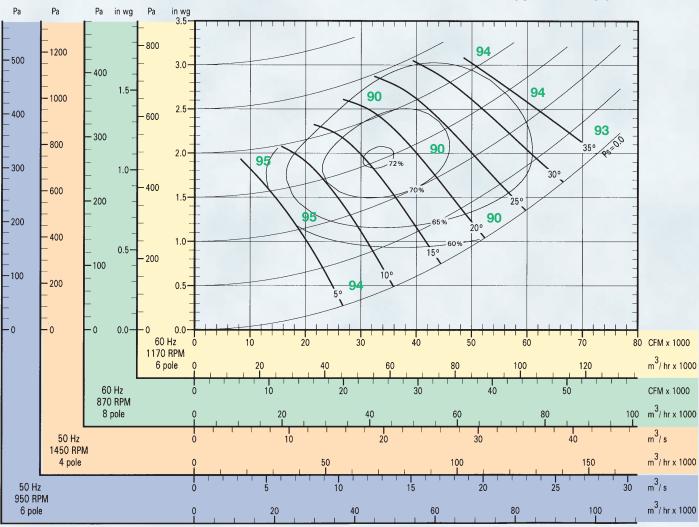
Outlet Velocity Ft/Min = Volume / 12.8

M/S = Volume / 1.19

Tip Speed Ft/Min = RPM X 12.7

 $M/S = RPM \times 3.87$

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

Impeller Diameter = 48.5 inches 1230 mm

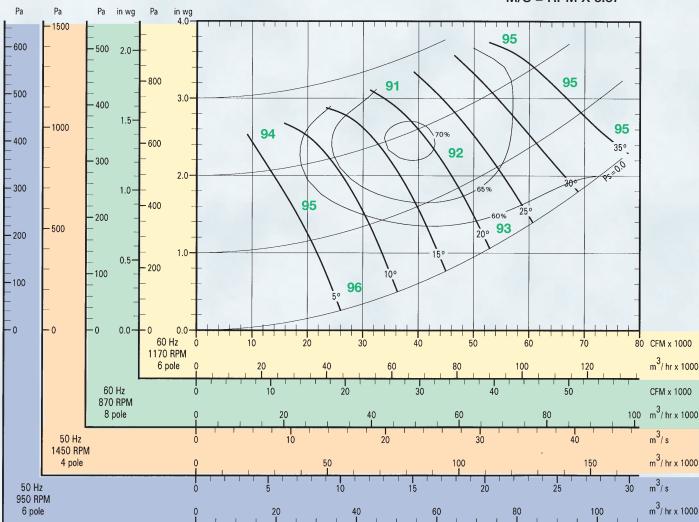
Outlet Velocity Ft/Min = Volume / 12.8

M/S = Volume / 1.19

Tip Speed Ft/Min = RPM X 12.7

 $M/S = RPM \times 3.87$





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	5 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 7.2	4 9.51	12.3	15.7	20.2	

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

Inlet Sound							
LwA	dBA						
+7	-4.5						
-	-11.5						
+14	+2.5						
+3	-8.5						
	LwA +7 - +14						

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



Impeller Diameter = 48.5 inches 1230 mm

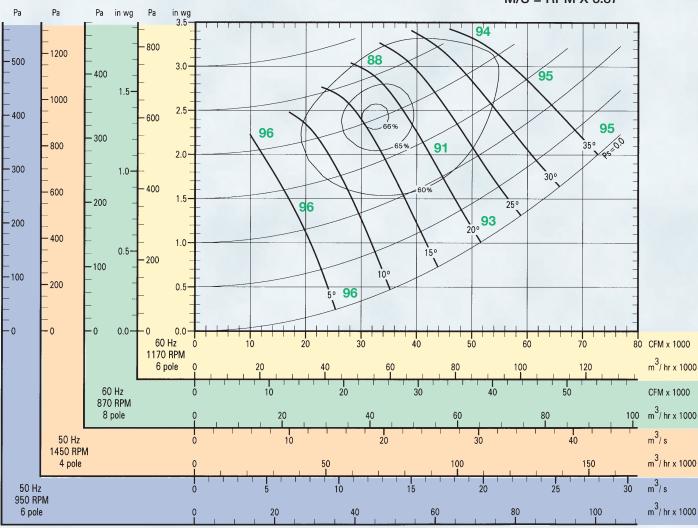
Outlet Velocity Ft/Min = Volume / 12.8

M/S = Volume / 1.19

Tip Speed Ft/Min = RPM X 12.7

 $M/S = RPM \times 3.87$





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

Impeller Diameter = 48.5 inches 1230 mm

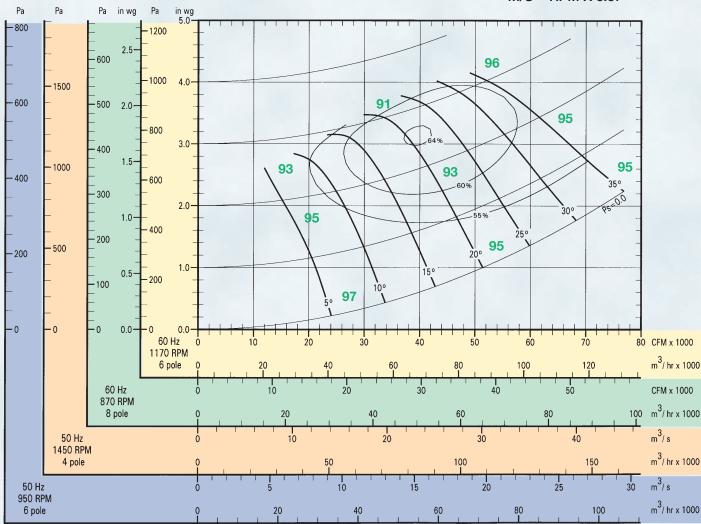
Outlet Velocity Ft/Min = Volume / 12.8

M/S = Volume / 1.19

Tip Speed Ft/Min = RPM X 12.7

 $M/S = RPM \times 3.87$





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	RPM LwA					
1170	1170 +7					
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

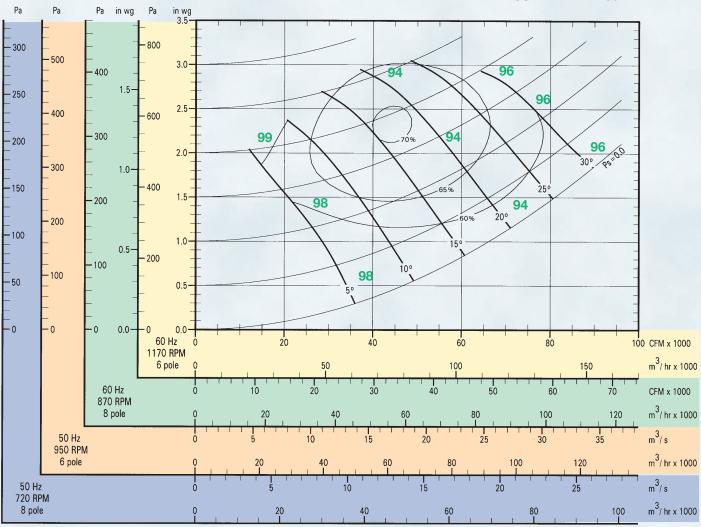
Outlet Velocity Ft/Min = Volume / 16.5

M/S = Volume / 1.53

Tip Speed Ft/Min = RPM X 14.4

 $M/S = RPM \times 4.39$





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						
RPM	LwA	dBA				
1170	+8	-3.5				
870	-	-11.5				
950	+2	-9.5				
720	-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 140-400 9 Blades

Impeller Diameter = 55.0 inches 1400 mm

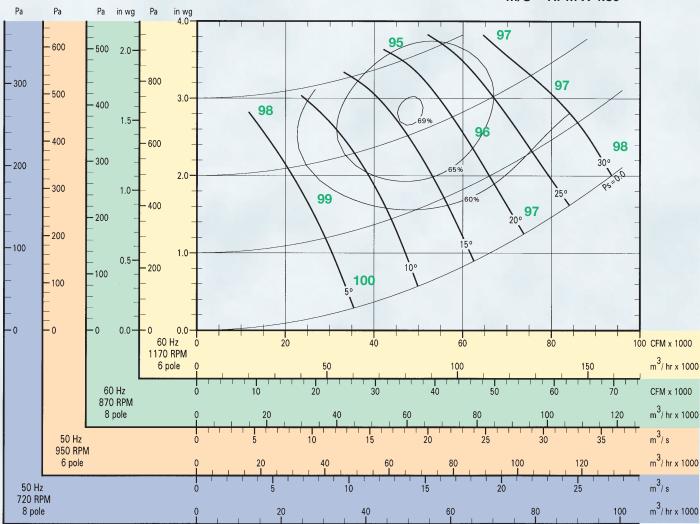
Outlet Velocity Ft/Min = Volume / 16.5

M/S = Volume / 1.53

Tip Speed Ft/Min = RPM X 14.4

 $M/S = RPM \times 4.39$





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	+9	-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



Impeller Diameter = 55.0 inches 1400 mm

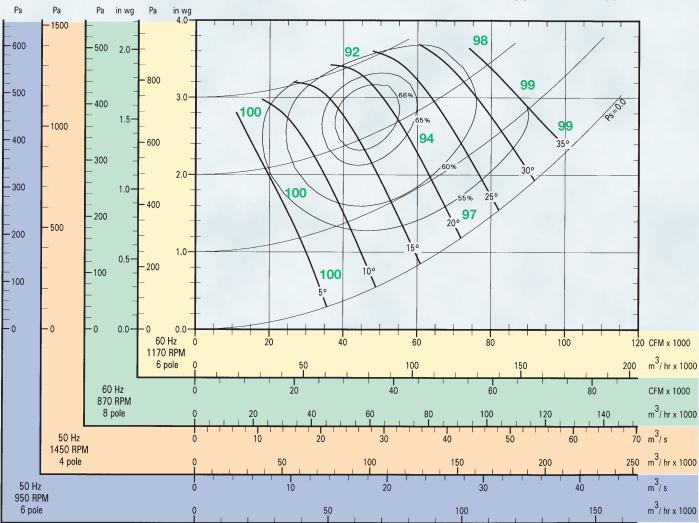
Outlet Velocity Ft/Min = Volume / 16.5

M/S = Volume / 1.53

Tip Speed Ft/Min = RPM X 14.4

 $M/S = RPM \times 4.39$





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)	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	RPM LwA					
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

Impeller Diameter = 55.0 inches 1400 mm

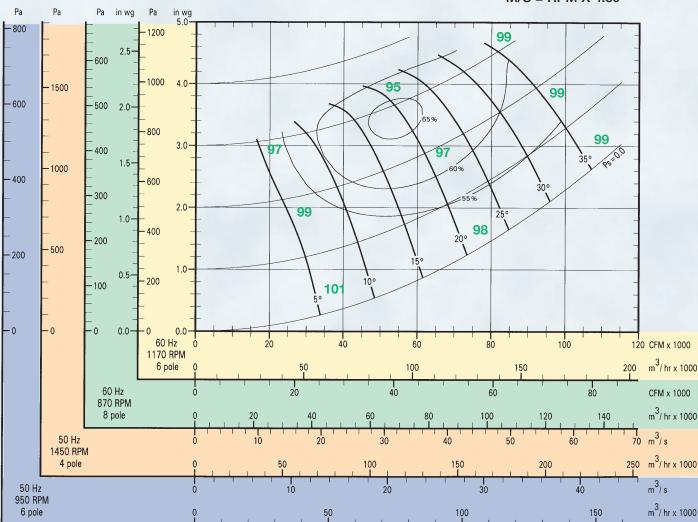
Outlet Velocity Ft/Min = Volume / 16.5

M/S = Volume / 1.53

Tip Speed Ft/Min = RPM X 14.4

 $M/S = RPM \times 4.39$

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)	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	RPM LwA					
1170	-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

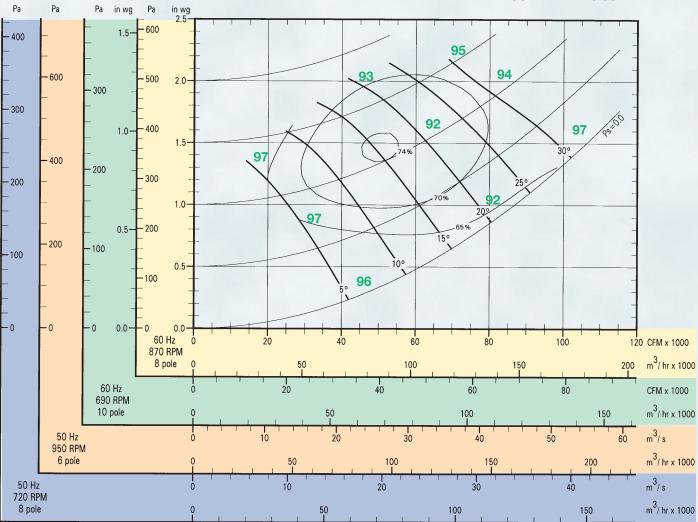
Outlet Velocity Ft/Min = Volume / 21.7

M/S = Volume / 2..01

Tip Speed Ft/Min = RPM X 16.5

 $M/S = RPM \times 5.03$





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 °						
		FILL	Aligie			
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							
RPM	dBA						
870	+6	-5.5					
690	-	-11.5					
950	+9	-2.5					
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 160-400 9 Blades

Impeller Diameter = 63.0 inches 1600 mm

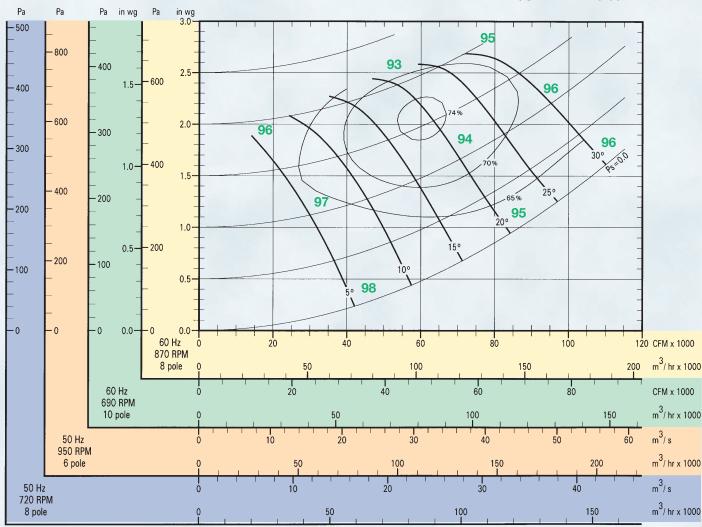
Outlet Velocity Ft/Min = Volume / 21.7

M/S = Volume / 2..01

Tip Speed Ft/Min = RPM X 16.5

 $M/S = RPM \times 5.03$

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	
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



Impeller Diameter = 63.0 inches 1600 mm

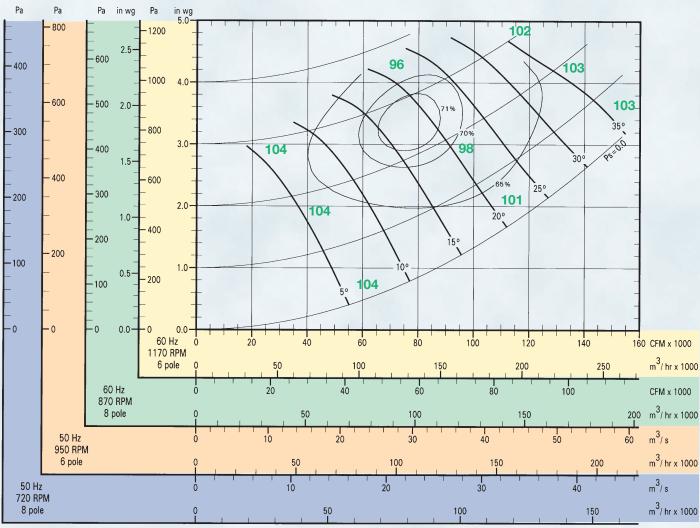
Outlet Velocity Ft/Min = Volume / 21.7

M/S = Volume / 2..01

Tip Speed Ft/Min = RPM X 16.5

 $M/S = RPM \times 5.03$





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

Volume

Peak Absorbed Power [bHP/kw (60 Hz), kw (50 Hz)]

Ditab Apple 0							
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

Impeller Diameter = 63.0 inches 1600 mm

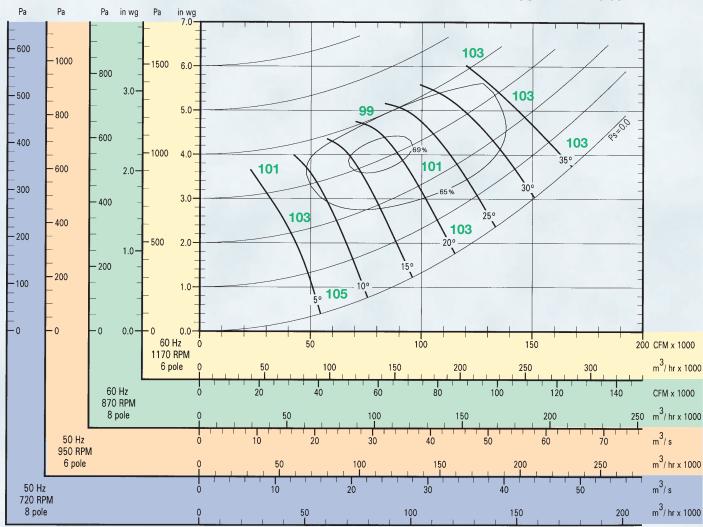
Outlet Velocity Ft/Min = Volume / 21.7

M/S = Volume / 2..01

Tip Speed Ft/Min = RPM X 16.5

 $M/S = RPM \times 5.03$





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
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	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

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

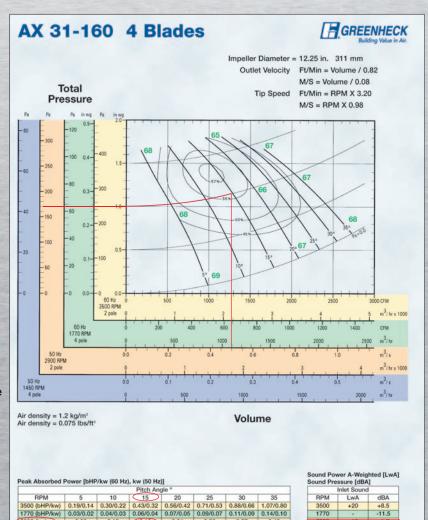
 The operating efficiency is between 55 and 57%

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



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.























1770

-11.5