We Care for Your Needs

AXIAL FLOW FAN

AXF Series

CATALOGUE ID:
ETC-AXF-2023-EDUSV0
NOVEMBER 2023

TCF
TWIN CITY FAN

OUR VISION

We commit to provide our customers with our best service. We fully realize that nothing will endure unless it is built upon truth and justice. Therefore; we will not engage in any transaction which does not help all whom it affects.

Our aim is to achieve the highest level of development using all our resources and creativity to make our country a better place to live.

Webelieve that our work must be based on honesty and integrity and we also firmly believe in the fundamental importance of the trust among all.

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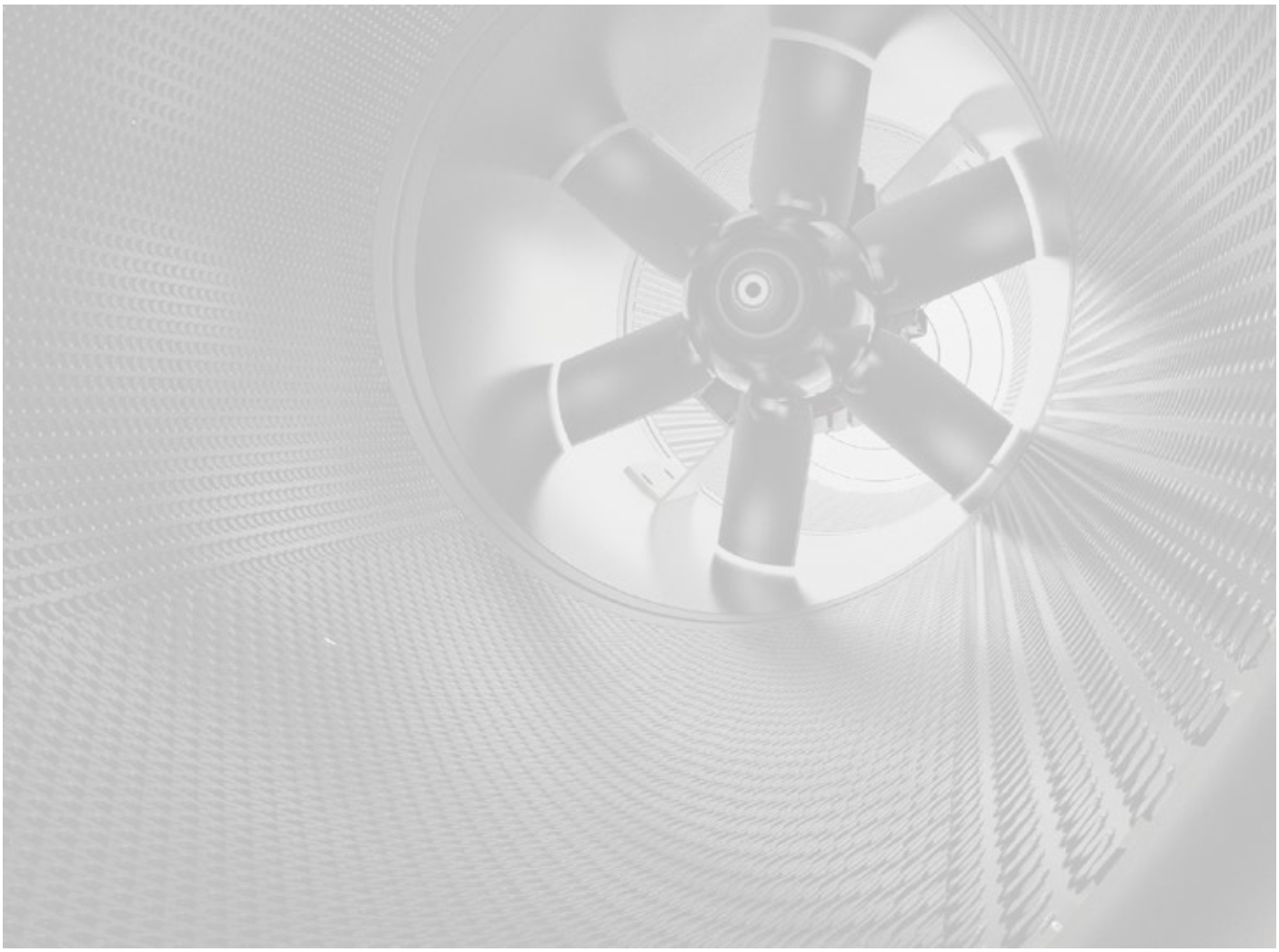


INTRODUCTION: AXF SERIES FAN

The AXF Series of axial fans was designed by Twin City Fan & Blower They are licensed to bear AMCA Seal. The AXF axial fans ranges includes 15 sizes as described in this catalogue. The volume flow ranges of AXF varies from 1,000 m3/h to 230,000 m3/h.

"Twin City Fan & Blower certifies that the AXF Axial Flow 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 AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program."

All of the Axial Flow Fans described here are licensed to bear the AMCA seal, and their certified ratings are shown on pages 08 - 23

TYPE CODE

AXF S 450 AL 5 / 25 4 L_1 xx

- xx — Special Construction
- L_1 — Casing L_1, L_2, & S
- 4 — Motor Pole Number
- 25 — Pitch Angle
- 5 — Number of Blades
- AL — Fan Blade Type (AL: Aluminum, ST: Steel, PP: Plastic
- 450 — Size
- S — S: Standard, H: High Temperature, E: Flame Proof
- AXF — Axial Fan

Features and Construction:

AXF Axial flow fans are specially manufactured for all applications and mounting positions in case sizes 315 to 1600 mm diameter. The performance range is from 1000 m³/h up to 230000 m³/h air volume, at total pressure up to 1500 Pa. Performance curve of the sample applied to conventional axial flow fans. In the case of special purpose fans, such as high temperature, high pressure, explosion-proof, fire smoke, corrosion resistance, etc..Please consult factory .

Casings:

Fan casing and motor brackets are made of mild steel. All steel parts are hot dip galvanised after manufacturing. . Elanges on both ends, drilled in accordance to DIN 24154,R2 are integrated.

Impellers:

AXF Impellers hubs and blades are made of diecastcaluminium alloy.The aerodynamical profilecgurantees high efficiency and low noise The pitch adjustable blades allow correct duty point setting. The variable number of blades increases the performance range.

AXF AXIAL FLOW FAN SERIES

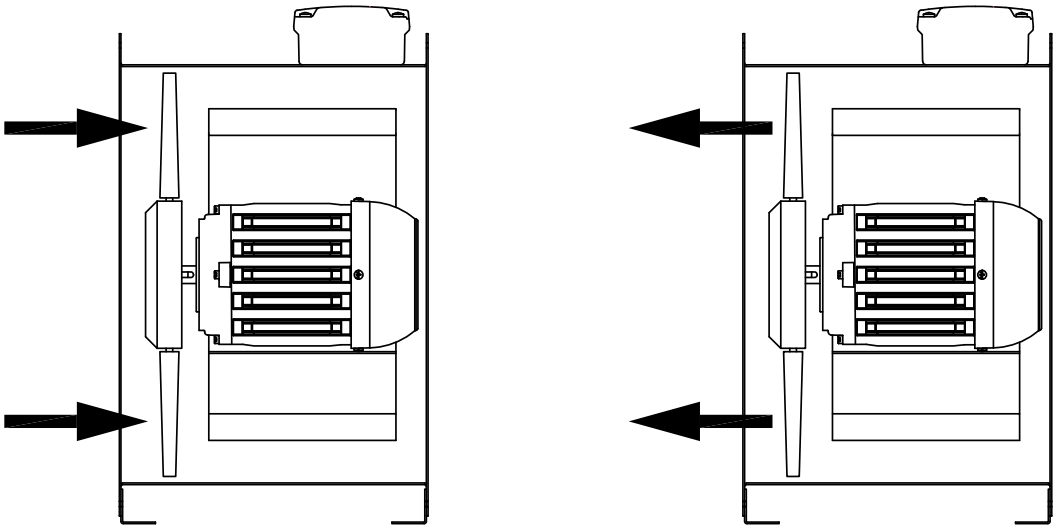


Fig-01

Motors

AXF uses standard closed squirrel cage motors rated to IEC 34, if required also in acordance to EPACT. The standard motor have Class F and enclosure IP 55. Continuous operating range from -40 0C to +40 0C, other operating conditions on demand. The motor bearings have L 10 life.

Forms of Running

AXF Axial flow fans are available for all forms of running. The Fig- 01 shows all standared forms of running, please indicate when ordering. Standard form of running Motor or impeller direction. Form of running is especially relevant when wheather proof motors are required. One label on the fan casing indicates the direction of fan and rotation of the impeller.

Fan Performance Curves

The performance curves for these fans types have been established in mounting position Dand show the total pressure increase P_t as a function of the volume flow. The dynamic pressure P_{d2} refers to the flange cross section at the outlet side of the fan.

Sound Levels

The ascertaining of the sound level follows the Reverberant Room method according to AMCA 300. In the performance curves shows the A-weighted sound power levels.

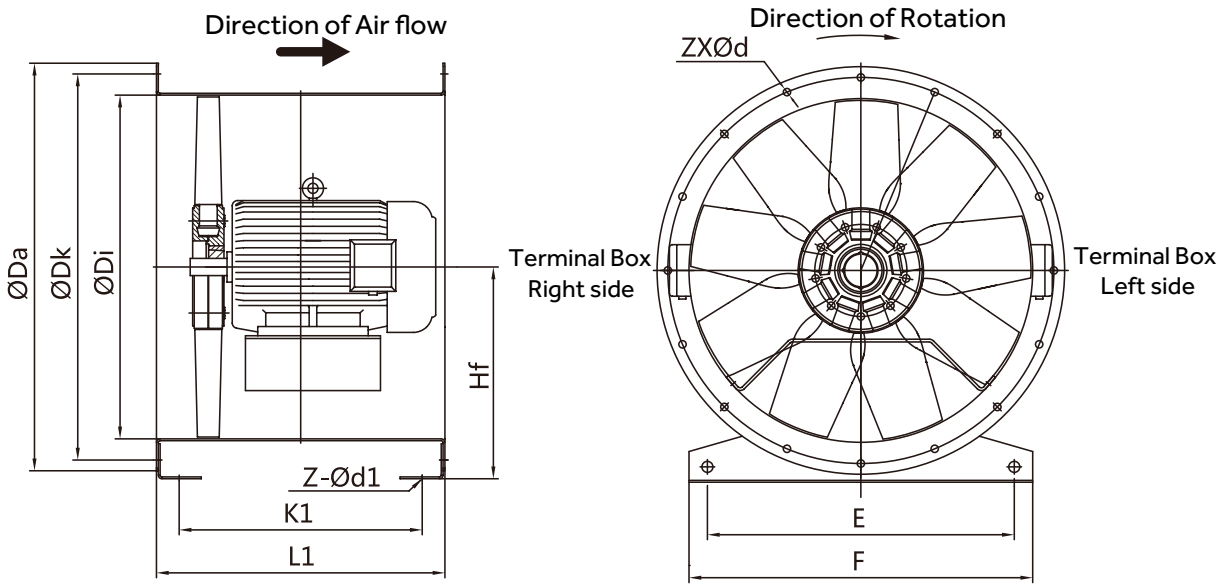
Ordering the Fan

When ordering please specify the below.

- Fan type and running form
- Fan code and type:
- Quantity required
- Duty required at standard air temperature , air volume in m3/h at static pressure in Pa.
- Motor power rating in KW
- Electrical supply
- Accessories required

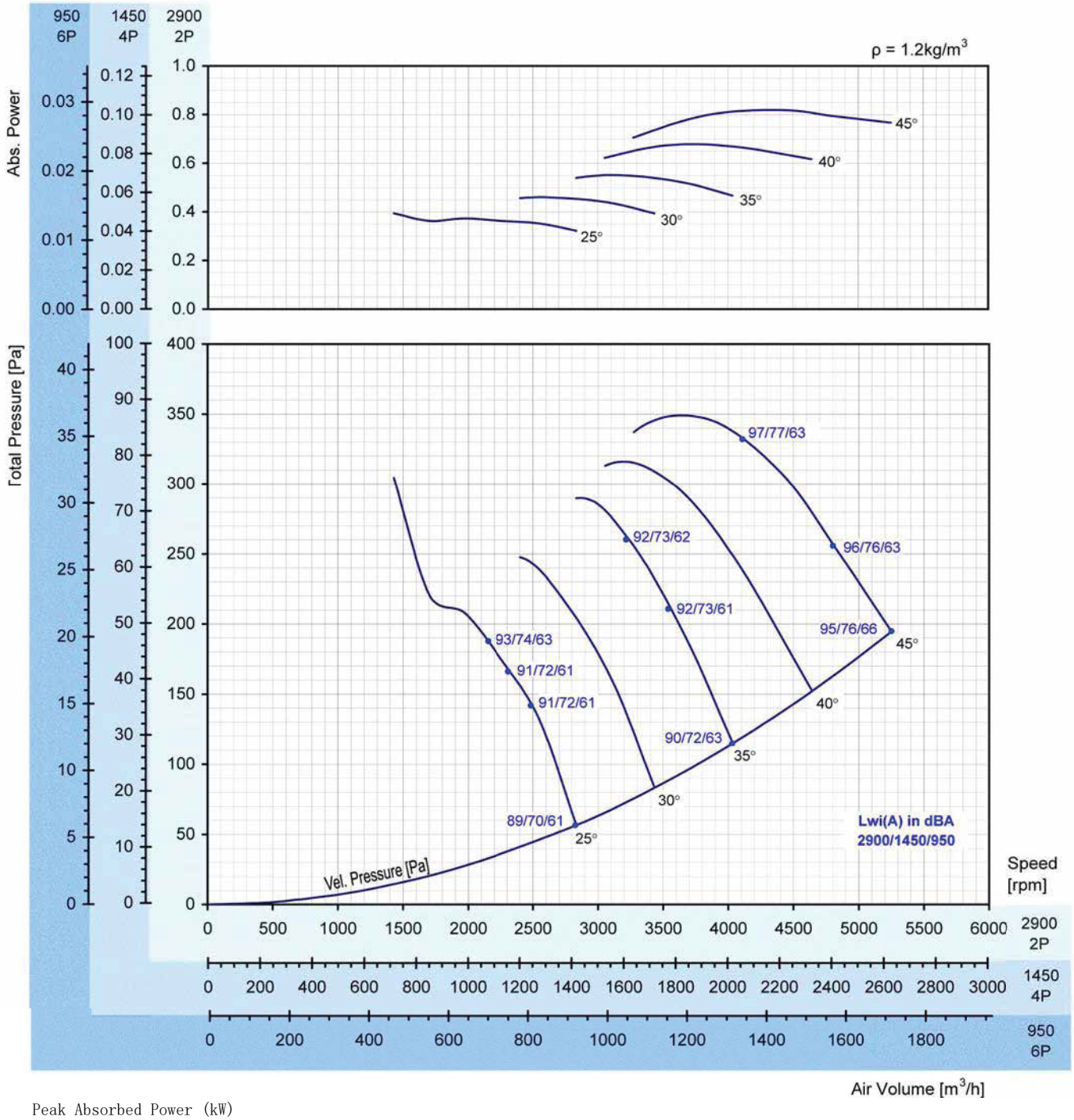
***If you have a particular need, please contact the factory.**

**Energy industrial fans reserves the right to change the design,techanical specification and dimensions without prior notice.*



Size	ØDi (mm)	ØDa (mm)	ØDk (mm)	Hf (mm)	E (mm)	F (mm)	L1 (mm)	K1 (mm)	z-Φd (mm)	z-Φd 1 (mm)	max. (mm)
315	320	398	366	205	265	315	420	358	8-Φ10	4-Φ10	Y80
355	359	438	405	225	305	355	420	358	8-Φ10	4-Φ10	Y80
400	401	484	448	250	350	400	435	373	12-Φ10	4-Φ10	Y90
450	450	534	497	280	400	450	435	373	12-Φ10	4-Φ10	Y112
500	503	584	551	315	440	500	470	398	12-Φ10	4-Φ12	Y112
560	560	664	629	345	500	560	470	398	16-Φ12	4-Φ18	Y112
							700	626			Y132
630	633	734	698	400	570	630	470	398	16-Φ12	4-Φ18	Y112
							700	626			Y160
710	710	814	775	450	650	710	470	396	16-Φ12	4-Φ18	Y112
							700	626			Y132
800	796	904	861	500	730	800	470	386	16-Φ12	4-Φ18	Y112
							700	616			Y160
900	894	1004	958	580	830	900	565	481	24-Φ12	4-Φ18	Y132
							700	616			Y160
1000	999	1105	1067	630	939	990	565	479	24-Φ12	4-Φ18	Y132
							780	696			Y180
1120	1125	1245	1200	690	1050	1110	700	594	24-Φ12	4-Φ18	Y160
							1000	894			Y225
1250	1250	1370	1337	750	1180	1240	700	594	24-Φ12	4-Φ18	Y160
							1000	894			Y280
1400	1400	1525	1480	850	1330	1390	1000	892	32-Φ14	6-Φ18	Y280
1600	1595	1725	1680	930	1530	1590	1000	892	32-Φ14	6-Φ18	Y315

AXF 315 AL-8-134



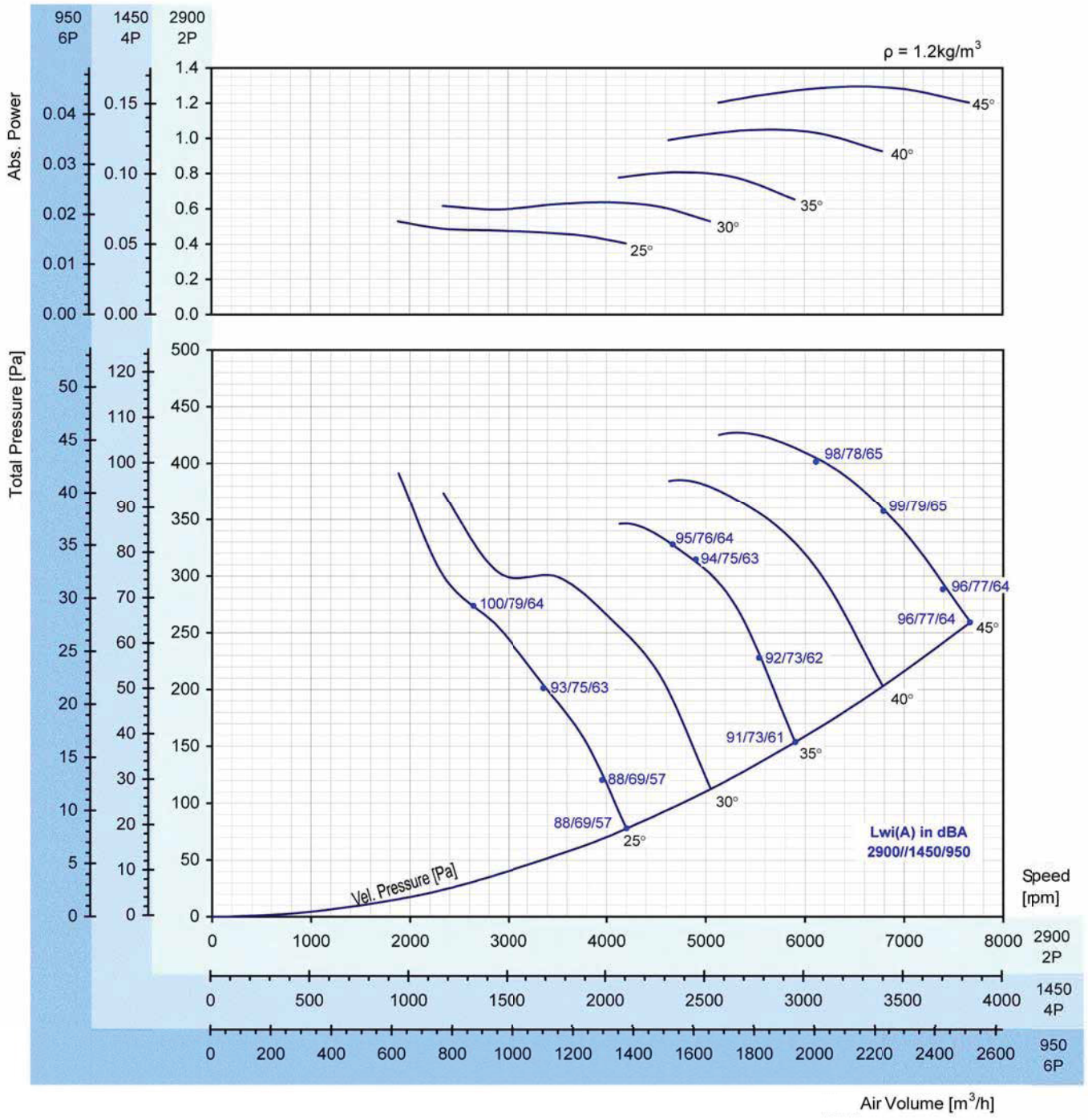
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.014	0.016	0.019	0.024	0.029
motor	0.37	0.37	0.37	0.37	0.37
1450	0.049	0.057	0.069	0.084	0.102
motor	0.37	0.37	0.37	0.37	0.37
2900	0.39	0.46	0.55	0.67	0.82
motor	0.55	0.55	0.75	0.75	1.1

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 355 AL-8-134



Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.019	0.022	0.028	0.037	0.045
motor	0.37	0.37	0.37	0.37	0.37
1450	0.066	0.080	0.101	0.131	0.161
motor	0.37	0.37	0.37	0.37	0.37
2900	0.53	0.64	0.81	1.05	1.29
motor	0.55	0.75	1.1	1.1	1.5

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

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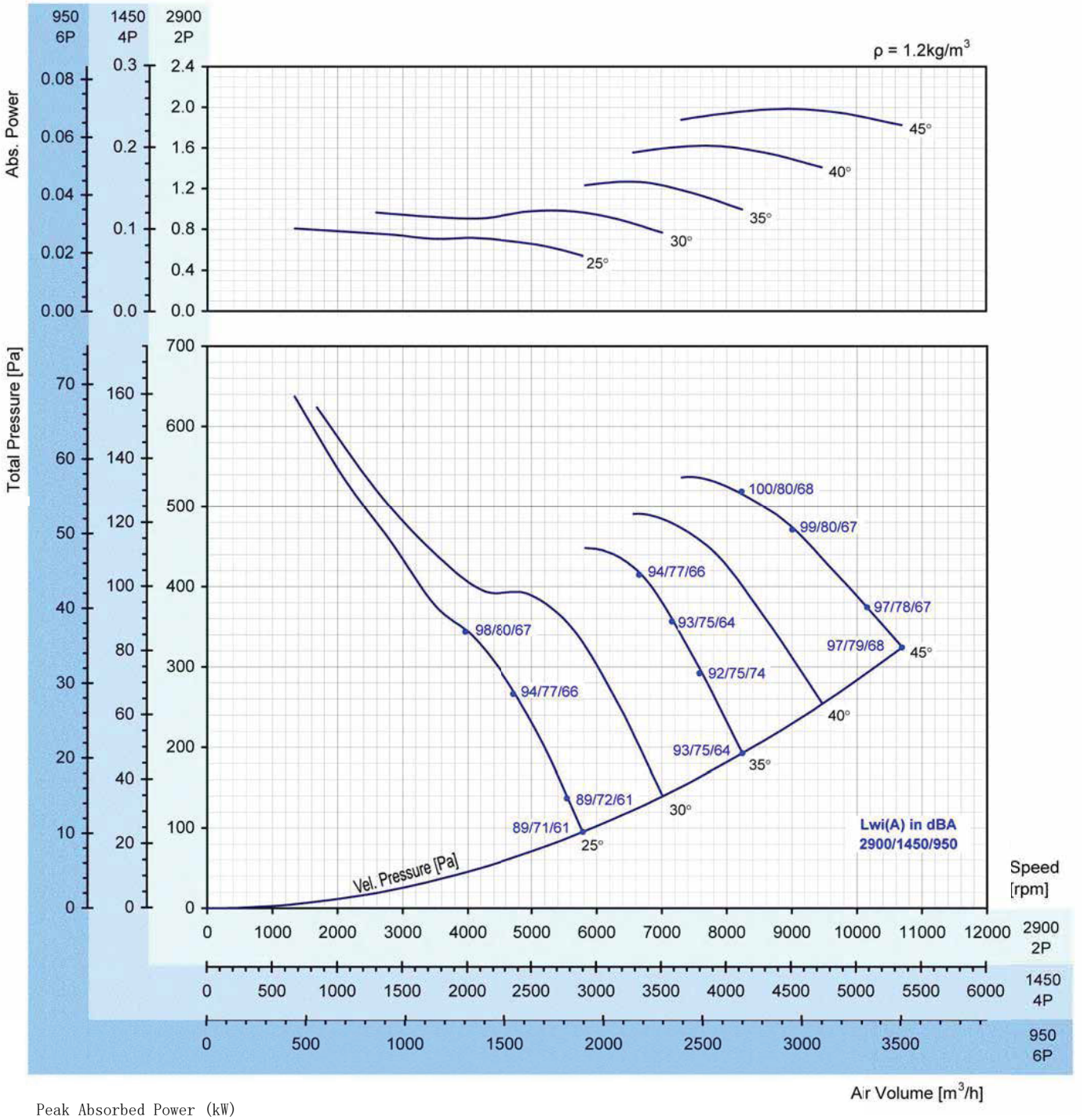
AXF 400 AL-8-134



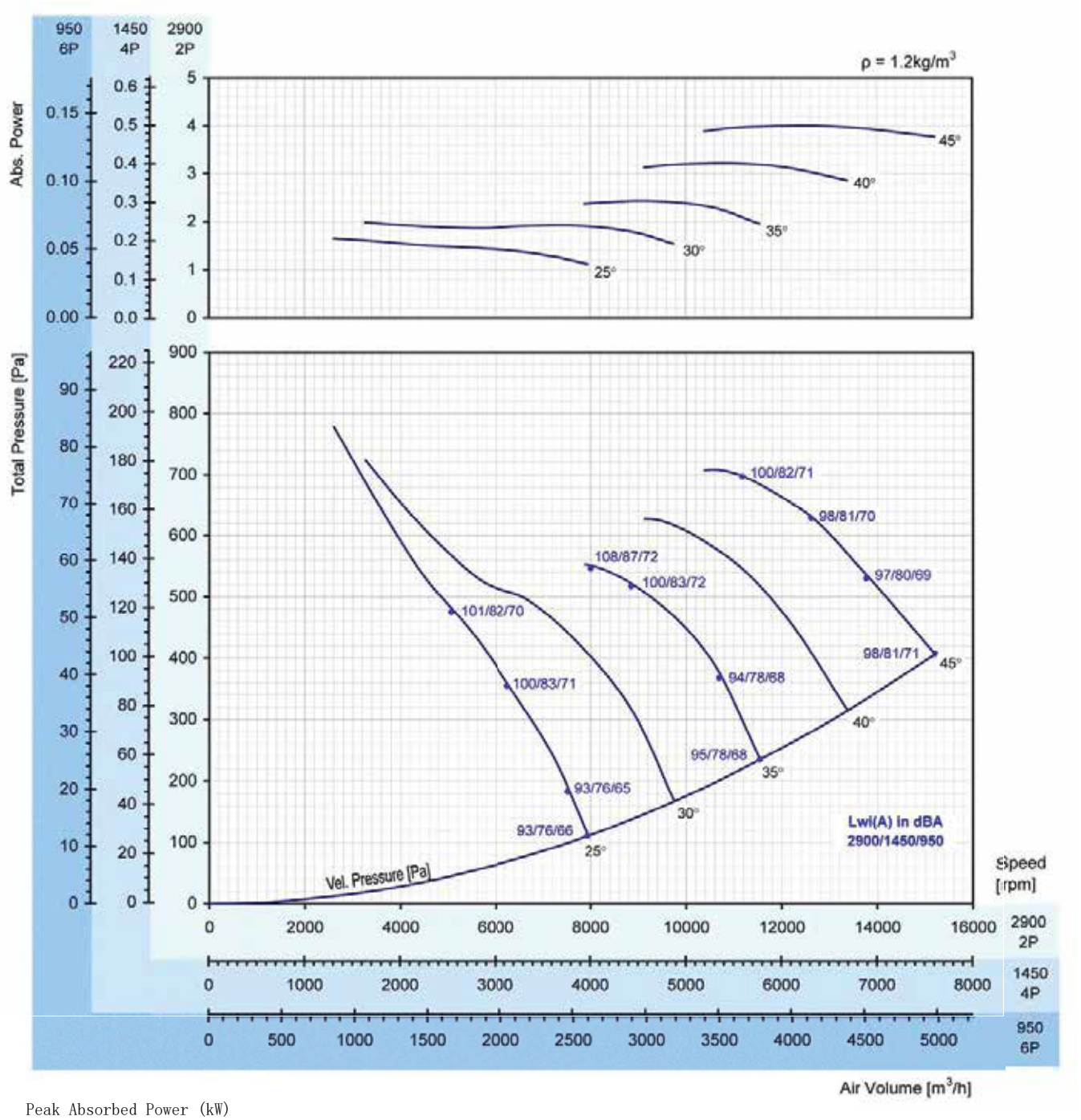
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.028	0.034	0.044	0.057	0.070
motor	0.37	0.37	0.37	0.37	0.37
1450	0.101	0.122	0.158	0.203	0.248
motor	0.37	0.37	0.37	0.37	0.37
2900	0.81	0.97	1.27	1.62	1.98
motor	1.1	1.1	1.5	2.2	2.2

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 450 AL-10-172



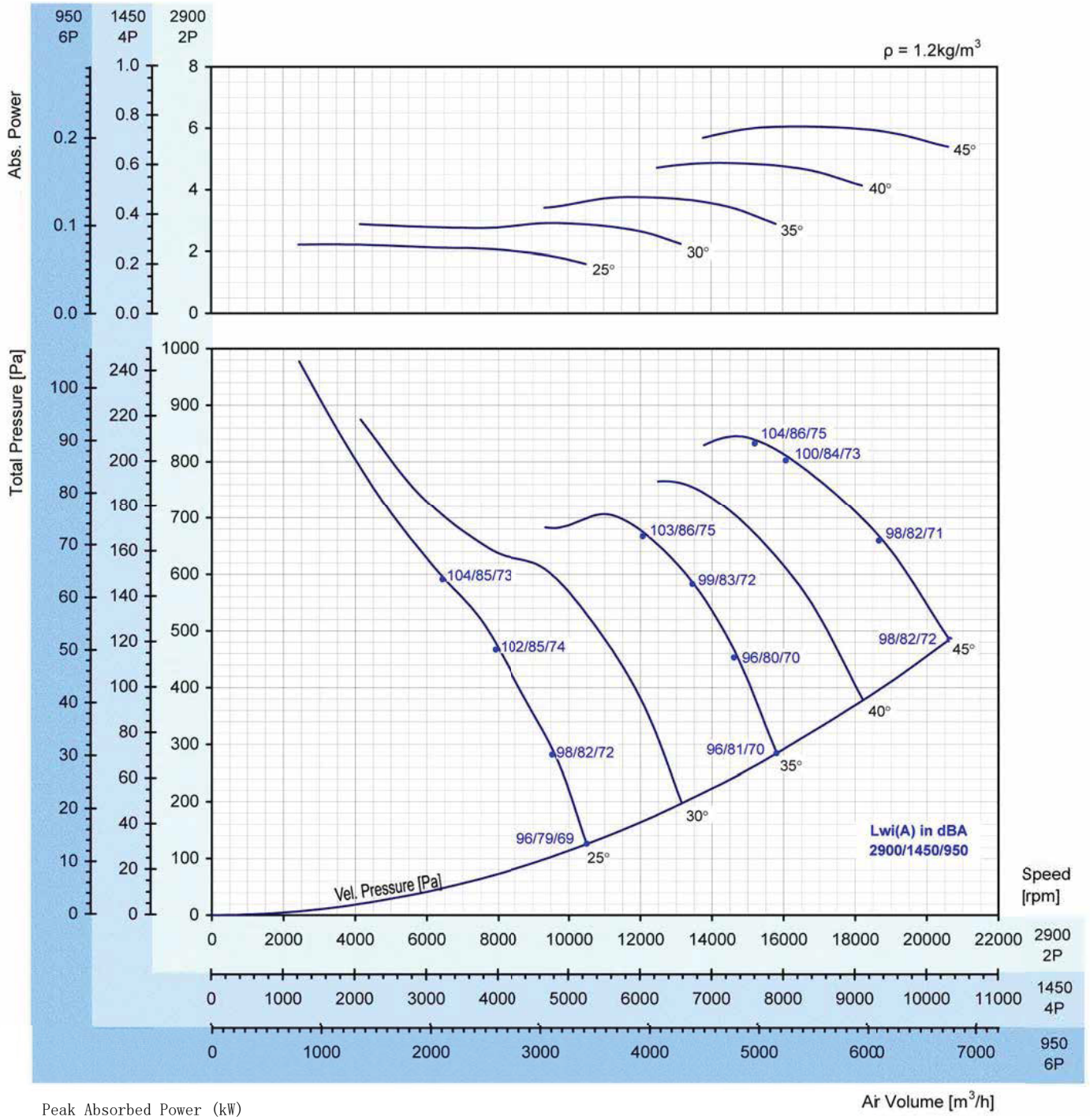
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.058	0.070	0.086	0.113	0.141
motor	0.37	0.37	0.37	0.37	0.37
1450	0.207	0.248	0.304	0.402	0.501
motor	0.37	0.37	0.37	0.55	0.55
2900	1.65	1.98	2.43	3.22	4.01
motor	2.2	2.2	3.0	4.0	5.5

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 500 AL-10-172



Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.078	0.102	0.132	0.171	0.212
motor	0.37	0.37	0.37	0.37	0.37
1450	0.28	0.36	0.47	0.61	0.75
motor	0.37	0.55	0.55	0.75	1.1
2900	2.23	2.92	3.74	4.87	6.04
motor	3.0	4.0	4.0	5.5	7.5

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

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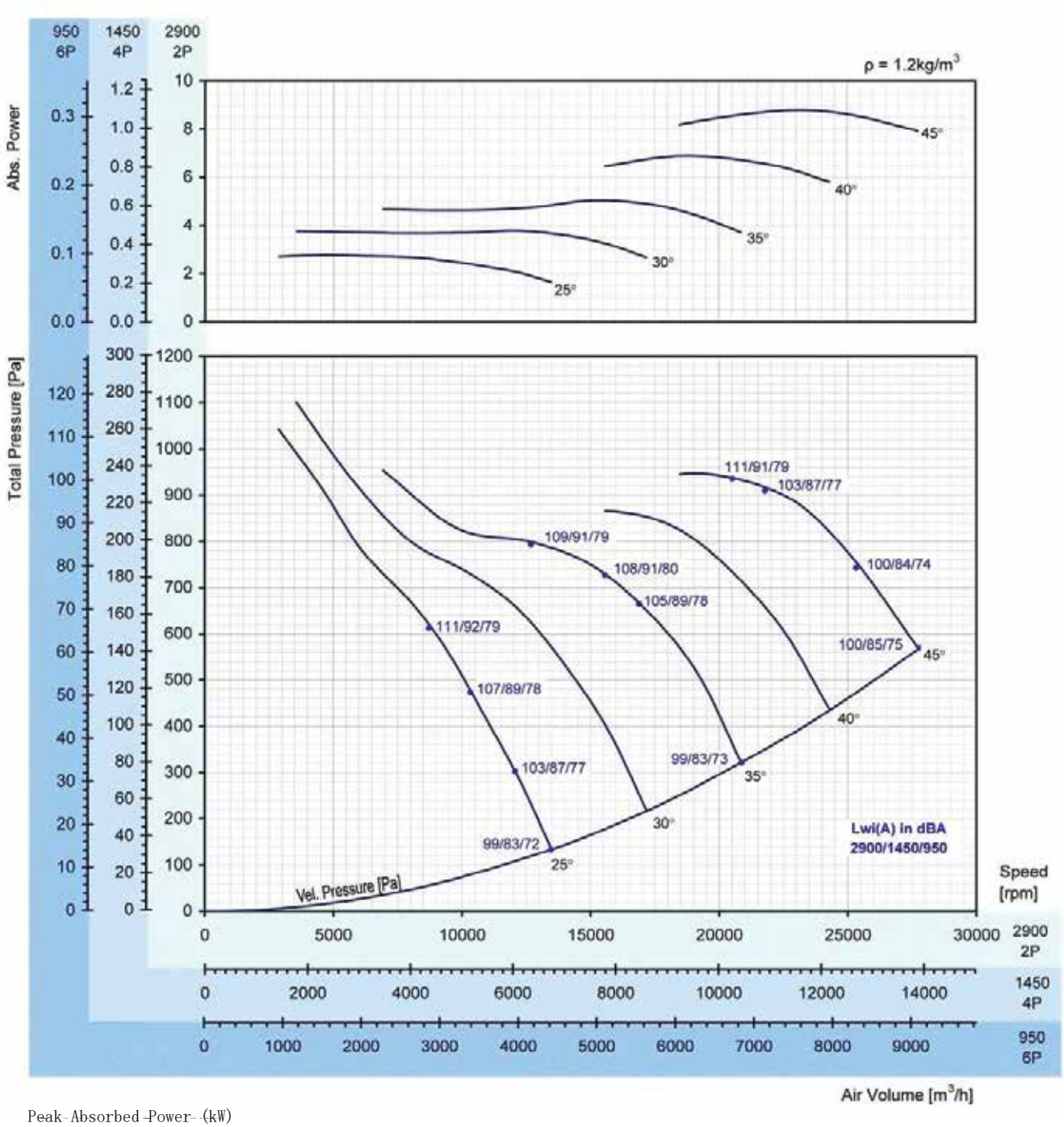
AXF 560 AL-10-172



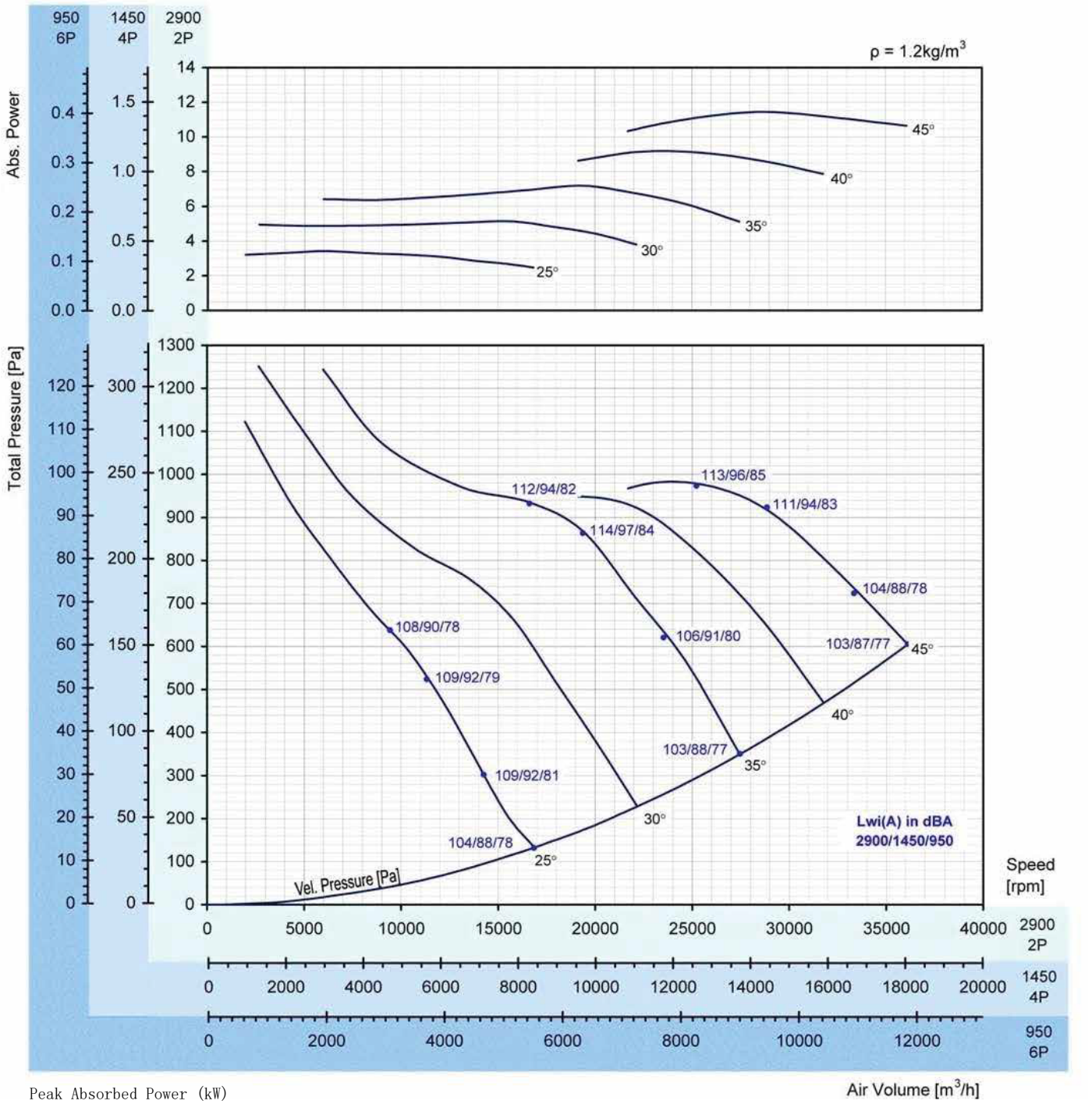
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.098	0.133	0.177	0.243	0.308
motor	0.37	0.37	0.37	0.37	0.37
1450	0.35	0.47	0.63	0.86	1.10
motor	0.37	0.55	0.75	1.1	1.5
2900	2.78	3.79	5.04	6.90	8.76
motor	3.0	4.0	5.5	7.5	11.0

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 630 AL-10-172



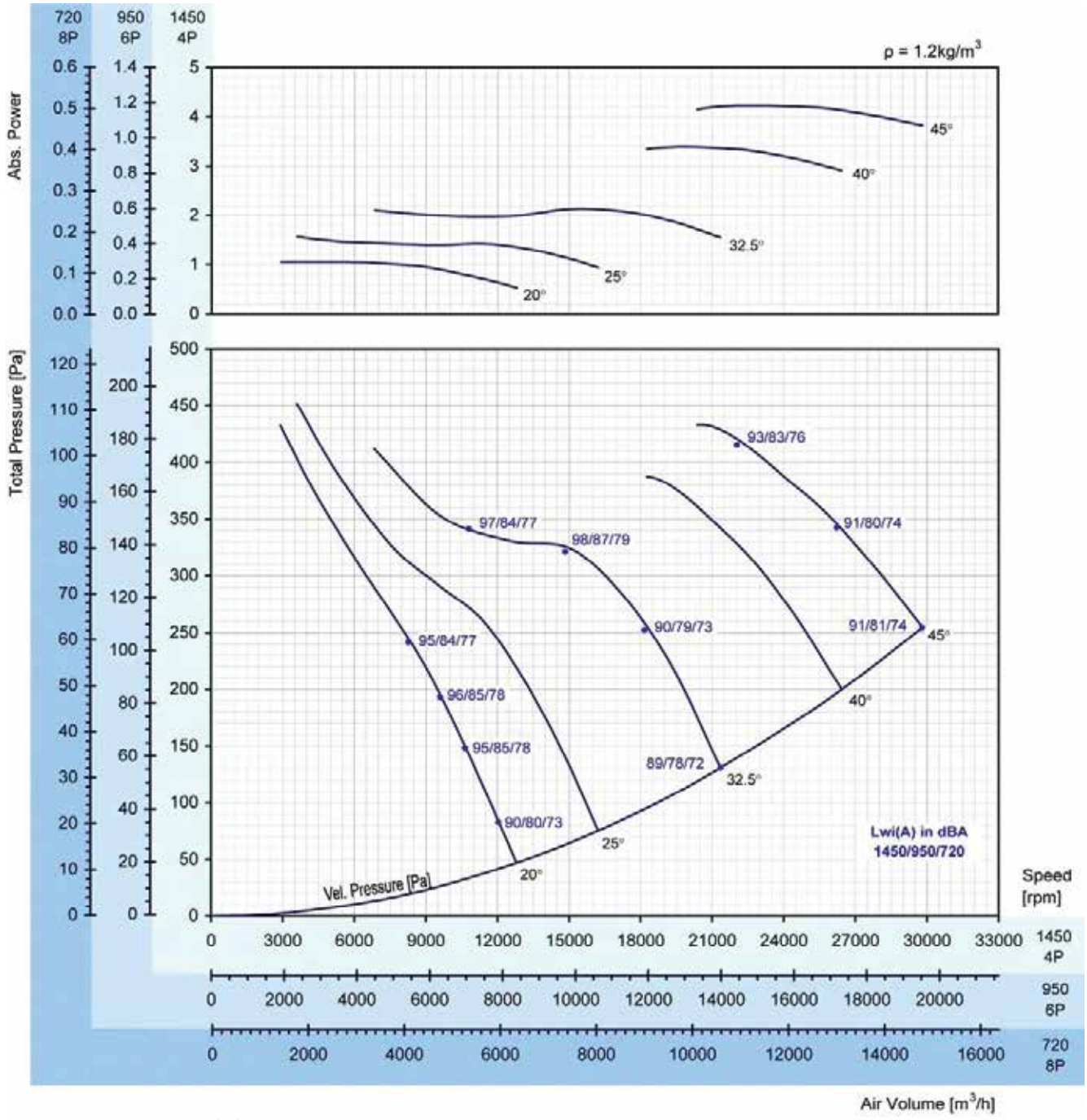
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.12	0.18	0.25	0.32	0.40
motor	0.37	0.37	0.37	0.37	0.55
1450	0.43	0.64	0.90	1.14	1.43
motor	0.55	0.75	1.1	1.5	1.5
2900	3.4	5.1	7.2	9.1	11.4
motor	4.0	5.5	7.5	11.0	15.0

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 710 AL-9-200



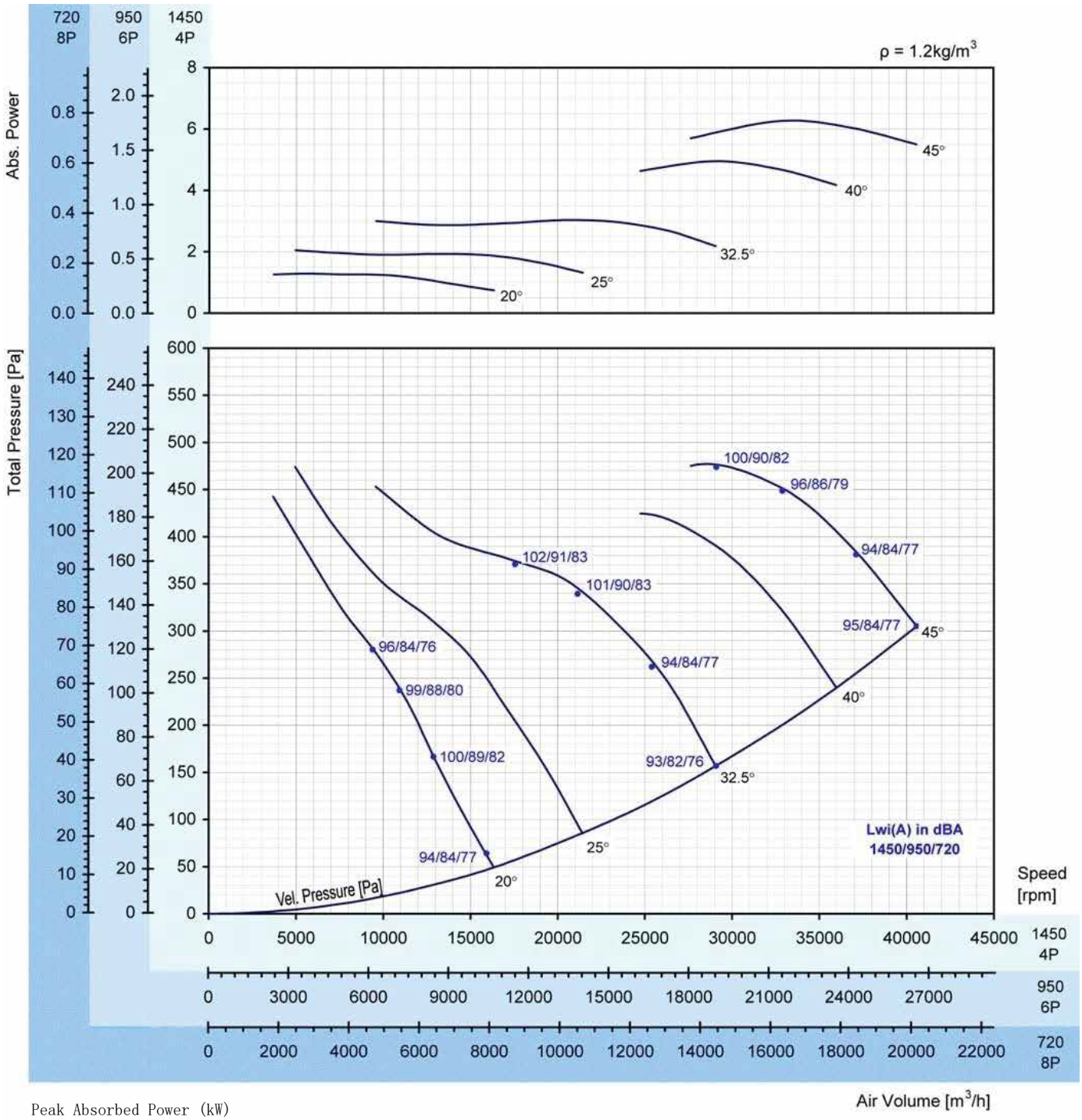
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.129	0.192	0.261	0.411	0.515
motor	0.37	0.37	0.37	0.55	0.55
1450	0.296	0.440	0.599	0.944	1.183
motor	0.37	0.55	0.75	1.1	1.5
2900	1.05	1.57	2.13	3.36	4.21
motor	1.1	2.2	2.2	4.0	5.5

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 800 AL-9-200



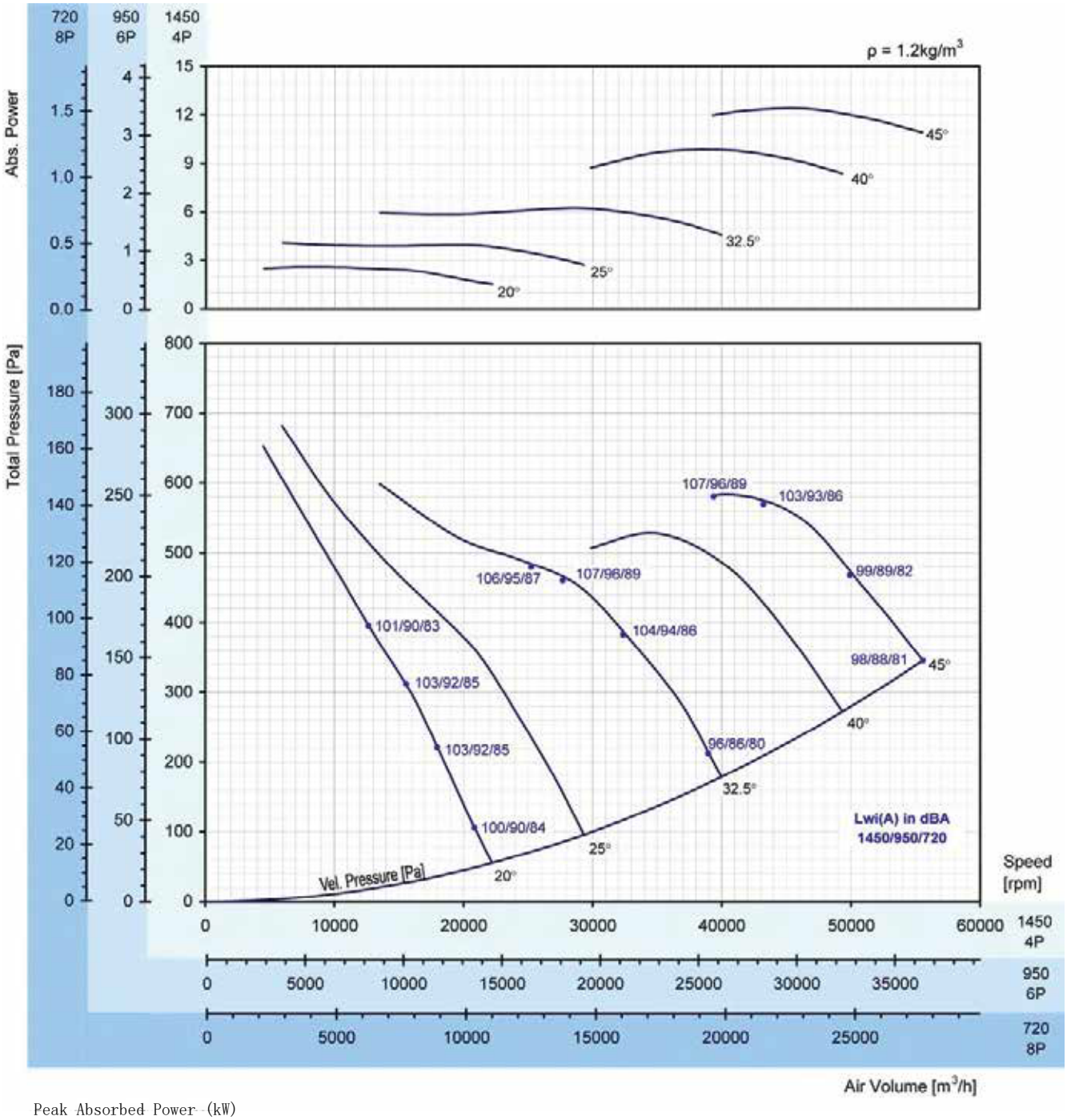
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.16	0.25	0.37	0.61	0.77
motor	0.37	0.37	0.55	0.75	1.1
1450	0.36	0.58	0.85	1.39	1.76
motor	0.55	0.75	1.1	1.5	2.2
2900	1.28	2.05	3.03	4.95	6.27
motor	1.5	2.2	4.0	5.5	7.5

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 900 AL-12-375



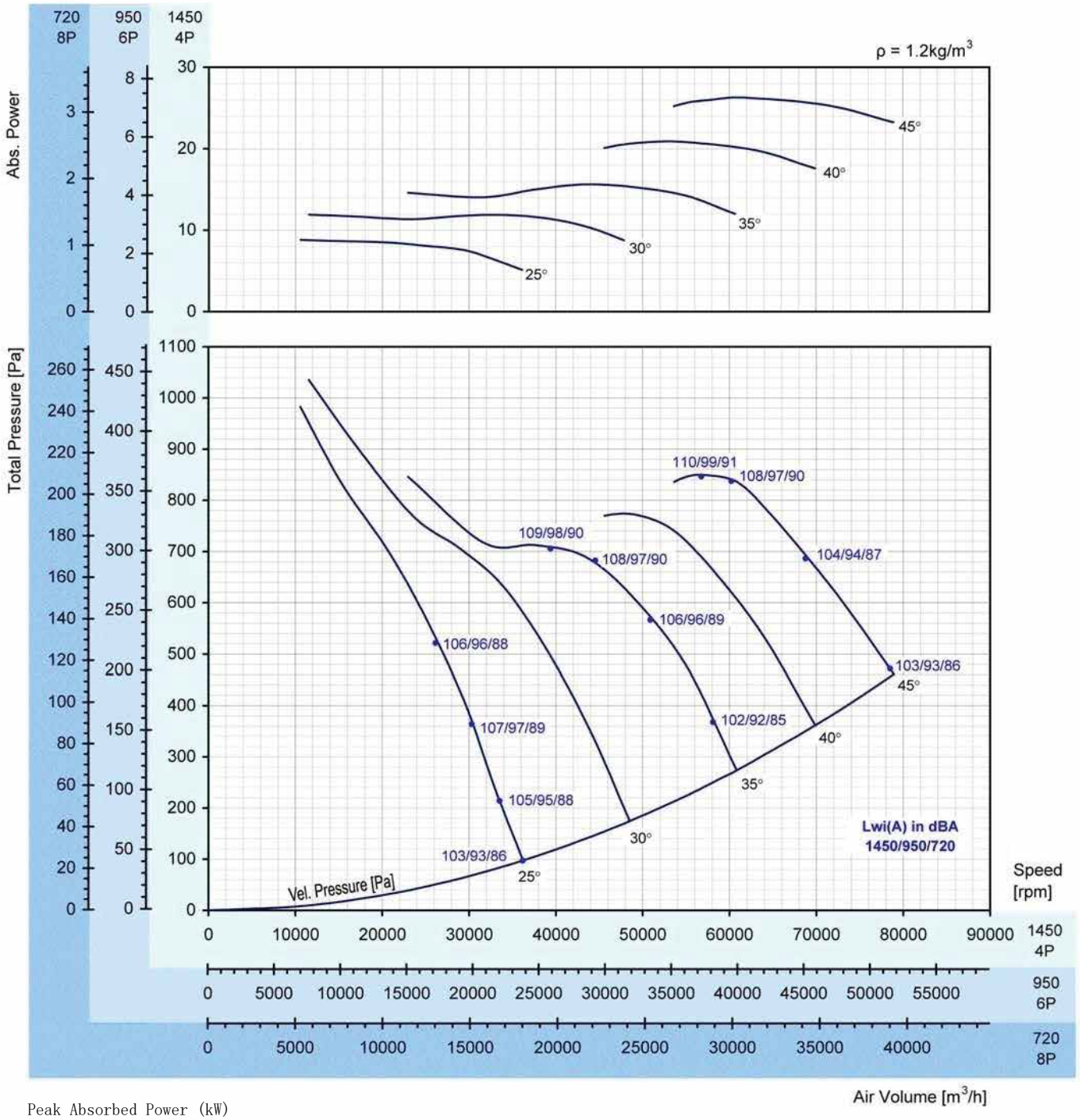
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	0.32	0.50	0.77	1.20	1.52
motor	0.37	0.55	1.1	1.5	2.2
1450	0.73	1.15	1.76	2.76	3.49
motor	1.1	1.5	2.2	3.0	4.0
2900	2.60	4.08	6.26	9.82	12.40
motor	3.0	5.5	7.5	11.0	15.0

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 1000 AL-16-375



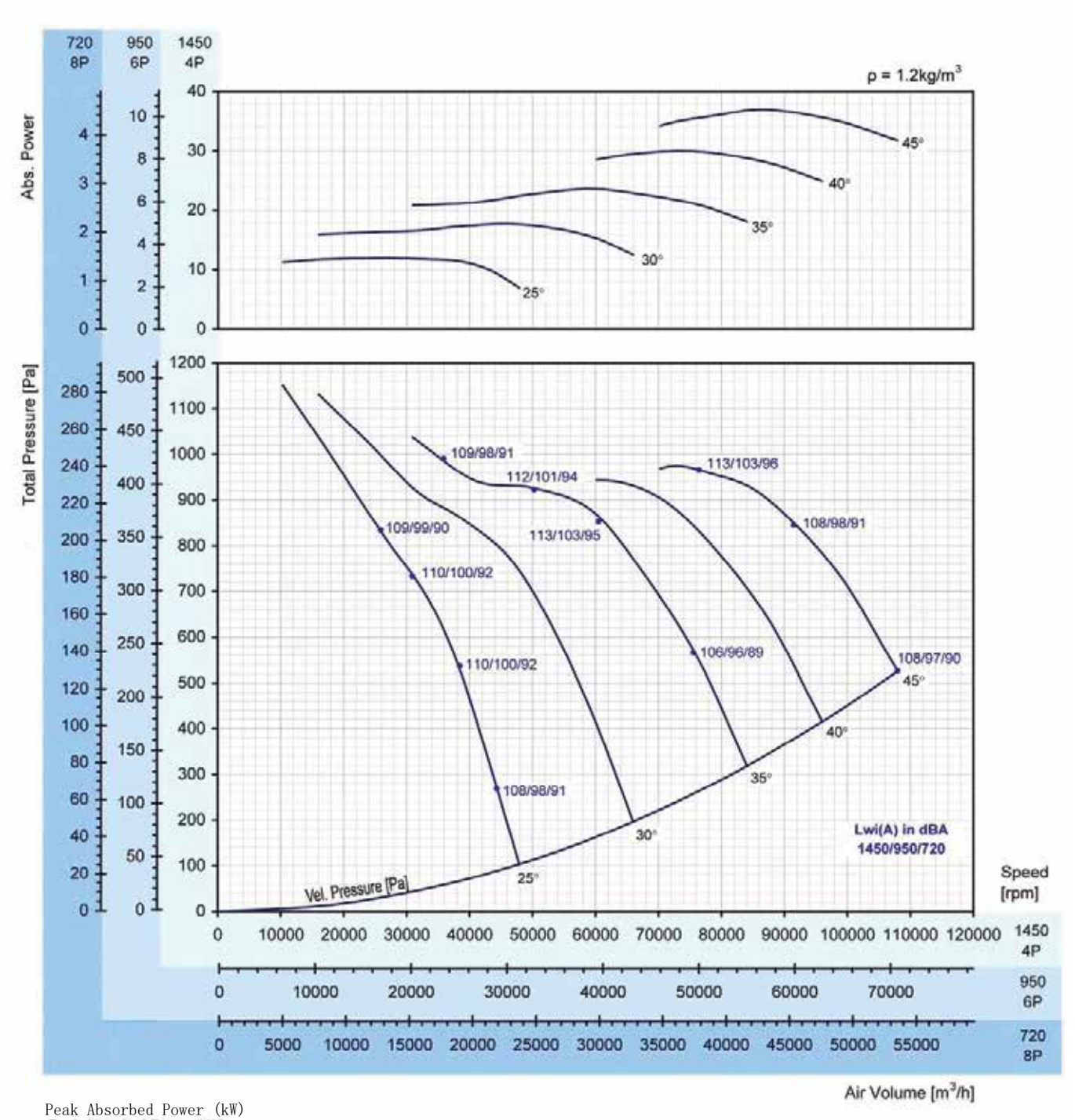
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	1.08	1.46	1.91	2.55	3.21
motor	1.5	1.5	2.2	3.0	4.0
1450	2.48	3.35	4.39	5.85	7.38
motor	3.0	4.0	5.5	7.5	7.5
2900	8.8	11.9	15.6	20.8	26.2
motor	11.0	15.0	18.5	22.0	30.0

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 1120 AL-16-375



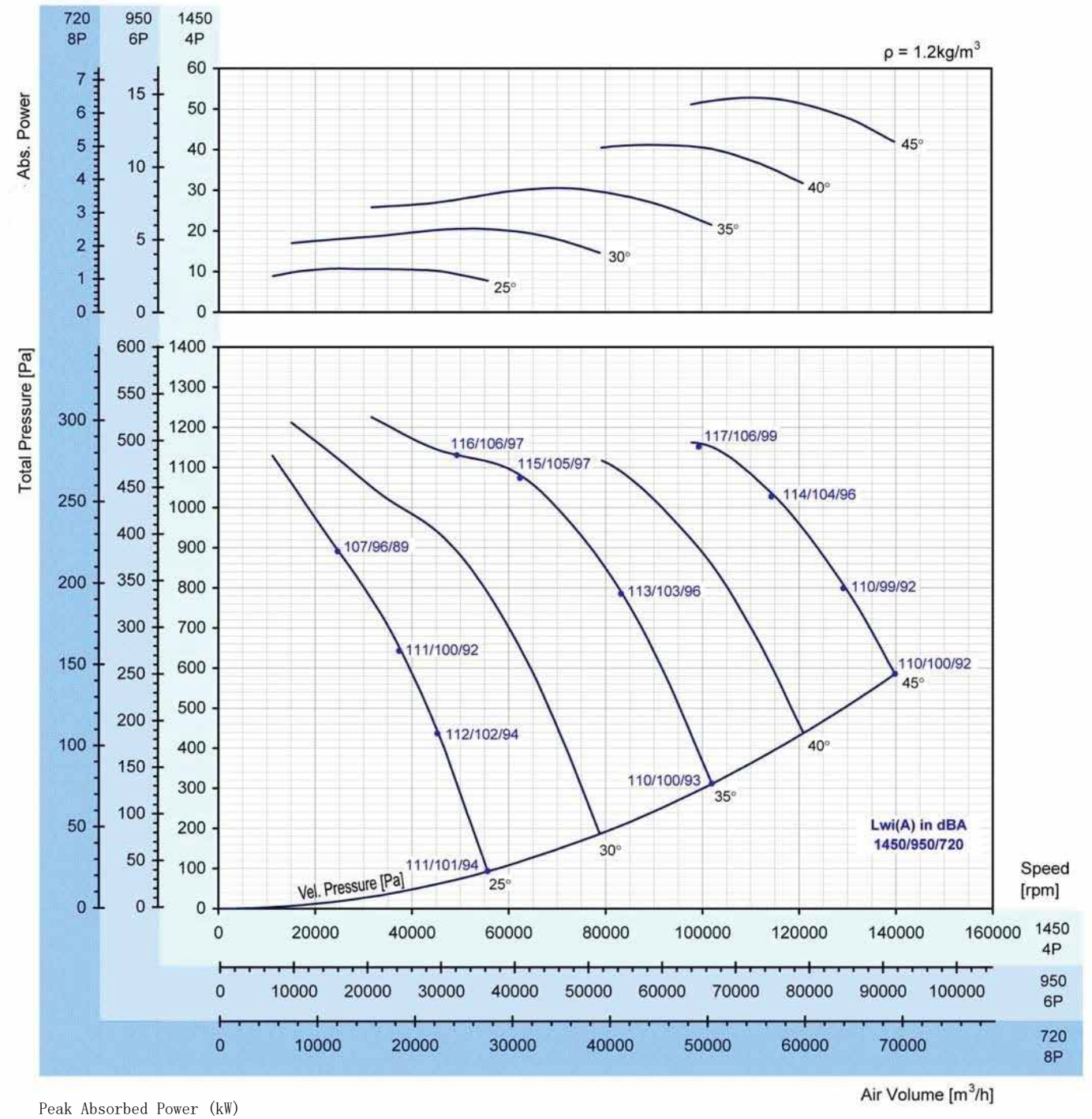
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	1.46	2.17	2.89	3.65	4.52
motor	1.5	2.2	3.0	4.0	5.5
1450	3.35	4.98	6.65	8.38	10.4
motor	4.0	5.5	7.5	11.0	11.0
2900	11.9	17.7	23.6	29.8	36.9
motor	15.0	22.0	30.0	37.0	37.0

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 1250 AL-16-375



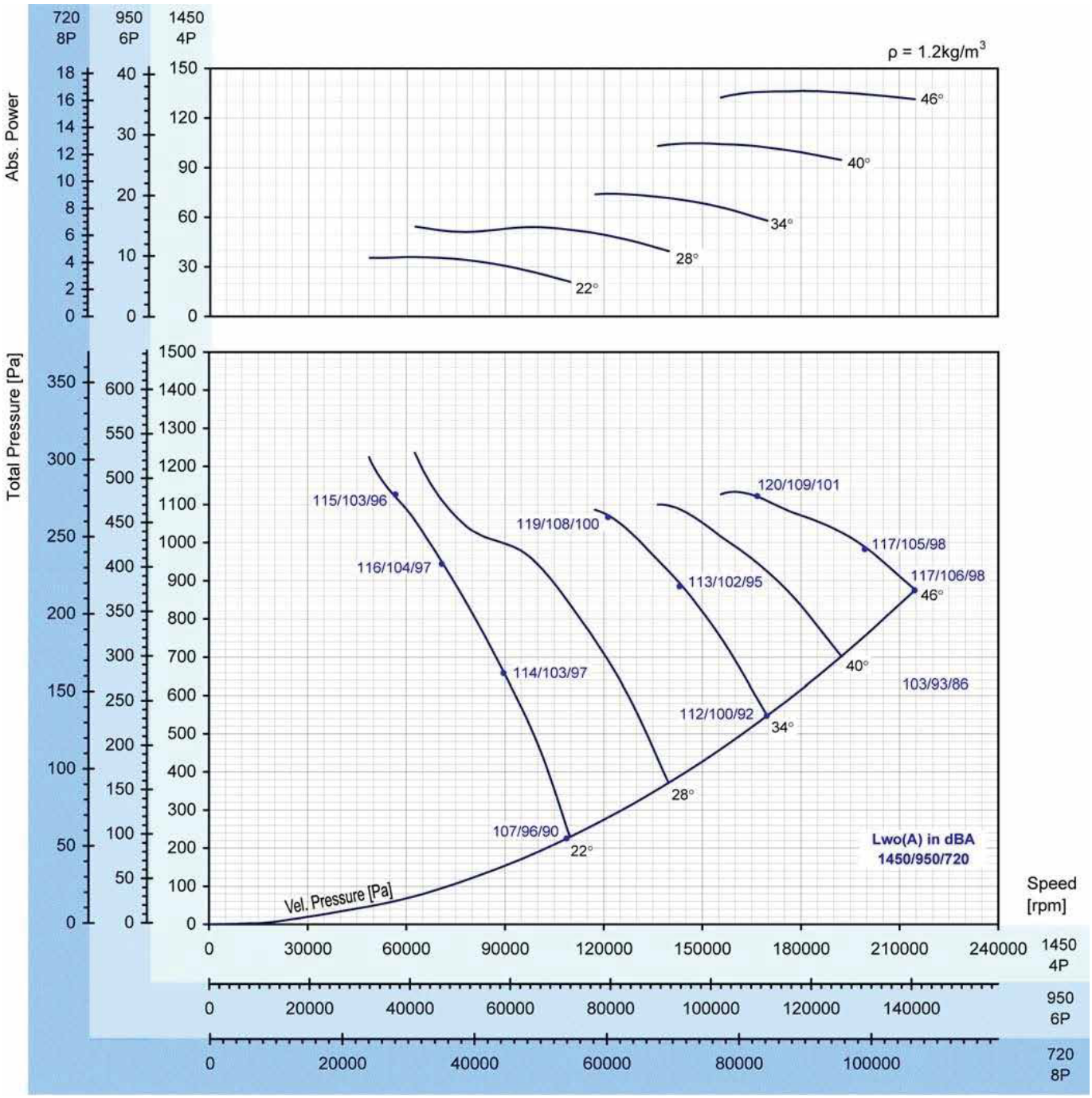
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	1.30	2.51	3.73	4.99	6.44
motor	1.5	3.0	4.0	5.5	7.5
1450	3.00	5.77	8.57	11.5	14.8
motor	4.0	7.5	11.0	15.0	18.5
2900	10.7	20.5	30.5	40.7	52.6
motor	11.0	22.0	37.0	45.0	55.0

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 1400 AL-10-470



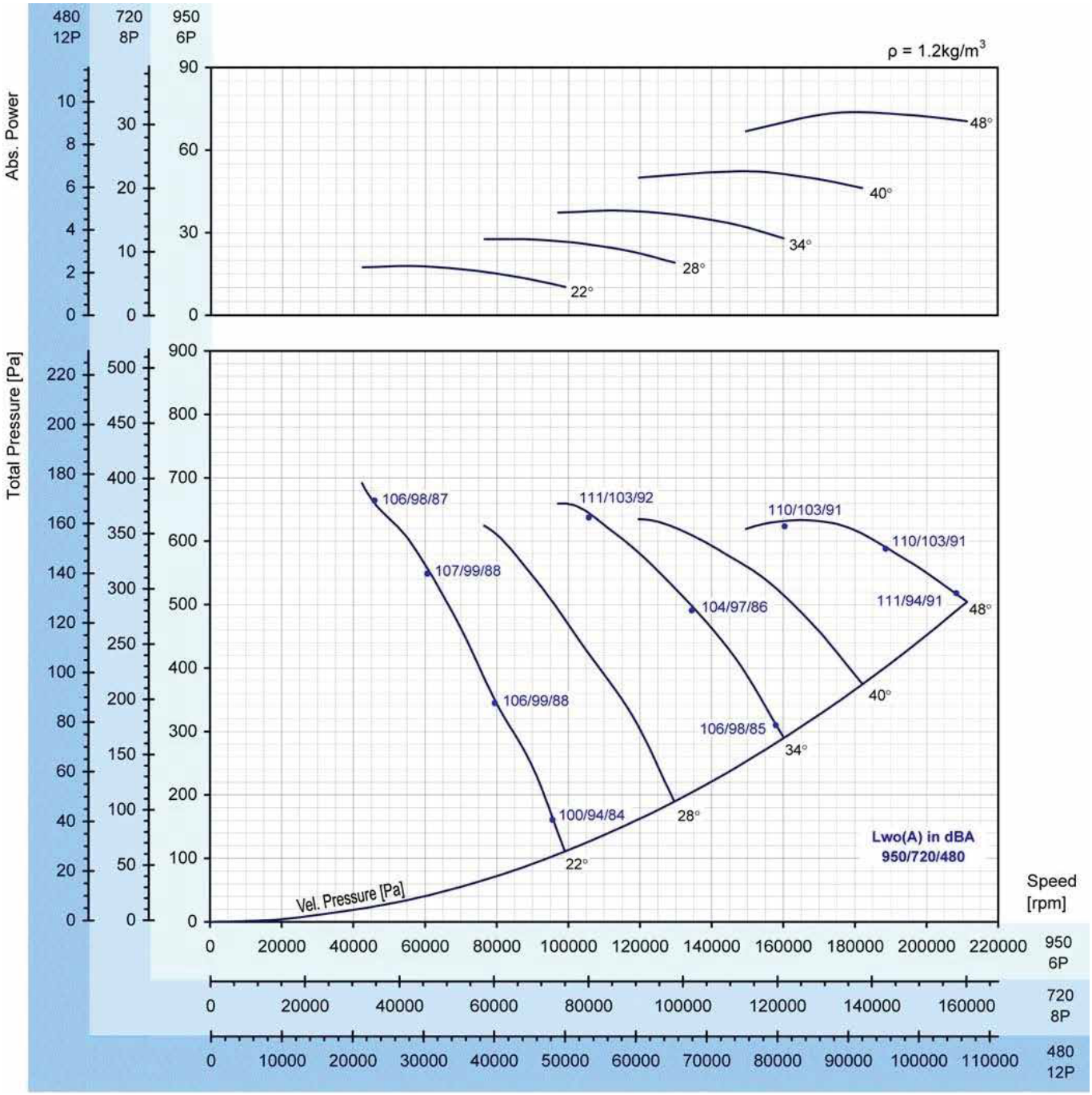
Peak Absorbed Power (kW)

N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	4.39	6.66	9.05	12.7	16.7
motor	5.5	7.5	11.0	15.0	18.5
1450	10.1	15.3	20.8	29.3	38.3
motor	11.0	18.5	22.0	37.0	45.0
2900	35.9	54.4	73.9	104.1	136.2
motor	37.0	75.0	75.0	110.0	160.0

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

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

AXF 1600 AL-10-470



Peak Absorbed Power (kW)

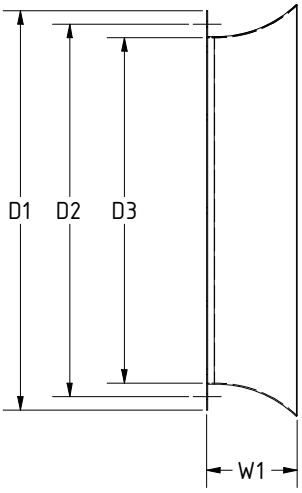
N (rpm)	Blade Pitch Angle				
	25°	30°	35°	40°	45°
950	2.31	3.56	4.91	6.75	9.46
motor	3.0	4.0	5.5	7.5	11.0
1450	7.8	12.0	16.6	22.8	31.9
motor	11.0	15.0	18.5	30.0	37.0
2900	17.9	27.6	38.1	52.4	73.4
motor	22.0	30.0	45.0	75.0	75.0

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

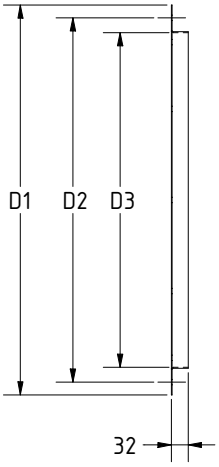
The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values showns are for inlet LWiA sound power levels for:installation type D: Ducted inlet, Ducted outlet. Ratings include effects of duct end correction.

ACCESSORIES

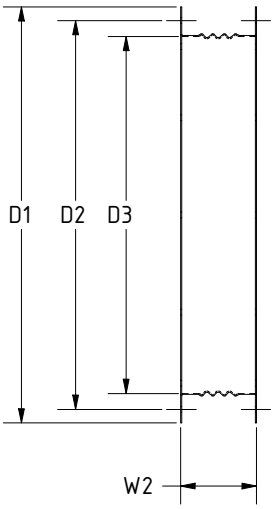
Inlet Cone



Matching Flange



Flexible Connector



Model Size	D1 [MM]	D2 [mm]	D3 [mm]	W1 [mm]	W2 [mm]
355	440	405	360	166	132
400	486	448	402	166	132
450	536	497	451	166	132
500	586	551	505	166	132
560	666	629	566	166	132
630	736	698	635	166	132
710	816	775	712	171	132
800	906	861	798	251	132
900	1006	958	895	251	132
1000	1107	1067	1004	251	132
1120	1247	1200	1126	251	132
1250	1372	1337	1251	251	172
1400	1527	1475	1406	251	172
1600	1727	1675	1606	251	172

Tubular Sound Attenuators for AXF Series Fans

Attenuators made of galvanized sheet steel. Copnnecting flanges correspond to those of the AXF axial fans series.

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