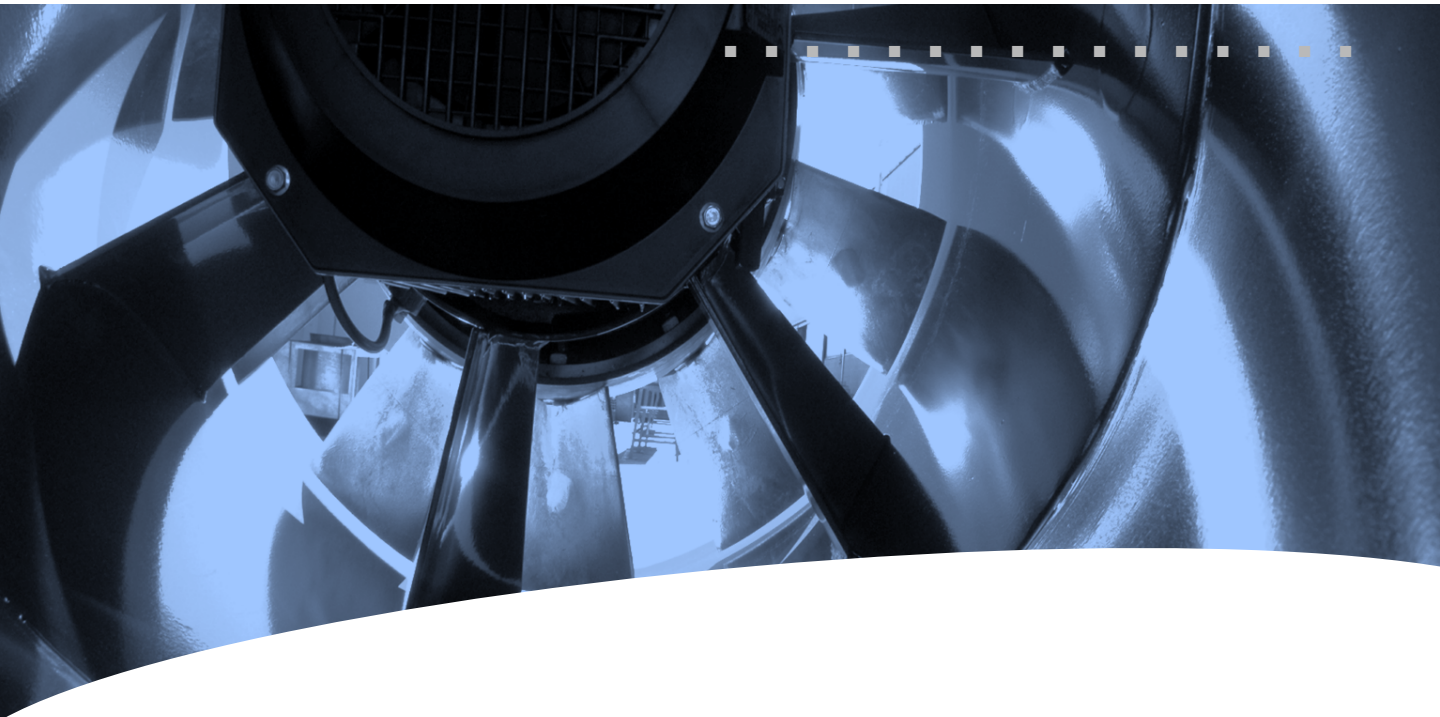


Technical Catalogue

AFH Series



- Construction and Features
- Installation Tips
- Dimensions
- Performance Curves

AFH SERIES High Performance Axial Fans



CometFans AFH Series high performance axial units are suitable for any application in Industry, Naval and Rail Transport markets which require no-compromise fans for a guaranteed and reliable long-term service.

Direct coupling solutions with motors from 2 to 8 poles are available, in sizes up to 1600mm diameter (and bigger upon request).

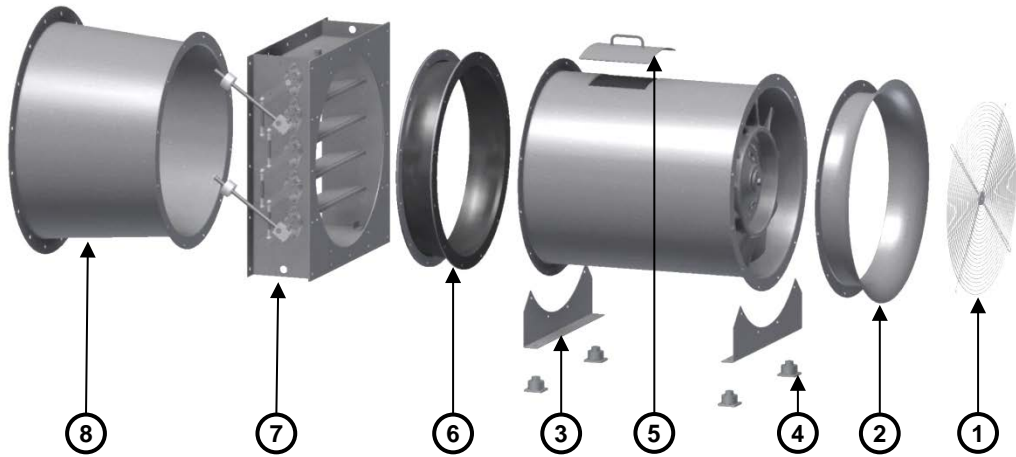
Detailed aerodynamic studies are the basis of the design of the “AFH” Series, which are the result of CometFans’ 25 years experience in the Axial Fans market.

Only top quality components, selected and sized by CometFans according to specific criteria, are used for the manufacturing of these fans, which are fully customizable with the maximum of flexibility to meet the customer’s requests.



ACCESSORIES

Several ancillary parts can be provided to complete an AFH unit.
 For more detailed technical information about fan accessories please contact our sales or technical department.

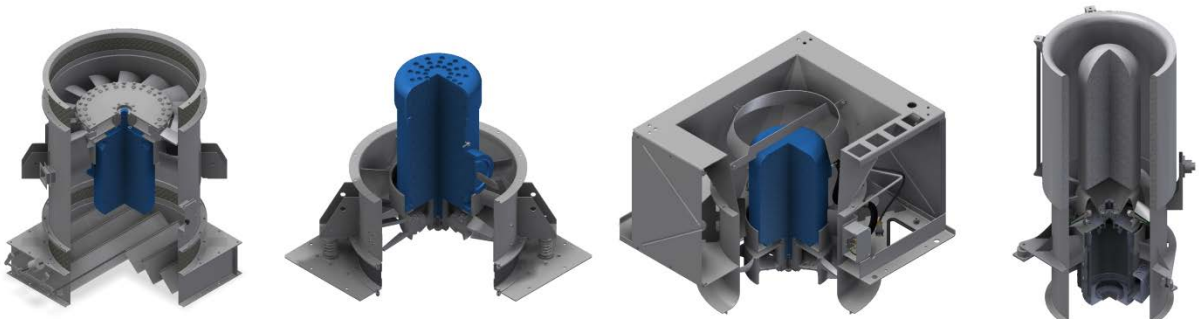


Item	Description
1	Protection Guard
2	Inlet Bell
3	Mounting Feet
4	Vibration Isolators
5	Inspection Door
6	Flexible Joint
7	Gravity Damper
8	Diffuser

Extra Accessories
Feet for vertical mounting
Auxiliary (duct) terminal box
External grease lines
Silencers
Noise insulation
Vibration sensors
Speed sensors
Temperature sensors

CUSTOMIZED VERSIONS

Customized versions with special materials, special dimension, motors according to customer's specifications, are available upon request.



ErP DIRECTIVE



The European Directive 2009/125/EC associated to “Energy-related Products” [ErP] encourages the use of environmentally friendly designs (“Eco Design”) with the objective to increase energy efficiencies and reduce greenhouse gas emissions.

Within the main directive, specific applicable standards have been developed for each product group. Fans driven by electric motors with electrical input power between 125W and 500kW are subject to the requirements of Regulation 327/2011.

The combined motor+impeller efficiency, referred to as “N” grade, determines whether the product meets the target efficiency defined by the 327/2011 Regulation.

Every fan unit of our AFH Series fully complies with the ErP Directive.

It must be noted that some specific units are exempted from complying with the ErP Directive, e.g. ATEX fans, high temperature fans, units installed on transport means, smoke extract or emergency units.

ATEX



The whole range of AFH units is available in the ATEX Certified version.

This version of the units is fully compliant to the requirements ATEX Directive and EN14986.

It includes :

- Anti-spark track in aluminium alloy or naval brass
- Positive locking of the impeller
- Selected and certified ATEX / IECEx components

Electrical motors of the best brands are used, often completed by a range of extra features like heaters and thermistors protection.

Certified junction boxes, cable glands and conduits are also available both in steel/cast iron and stainless steel.

Every unit undergoes a specific routine test before delivery, including overspeed and electrical tests.

The full traceability of every component is also guaranteed, according to the requirements of ATEX Directive.

The AFH-Ex (ATEX) units are suitable for the following Groups and Categories :

ATEX Group	ATEX Category	
II	2G	3G
	2D	3D

Typical inland and offshore application of ATEX AFH-Ex units :

- Marine and offshore oil & gas sites
- Refineries
- Painting facilities
- Battery room ventilation
- Chemical plants
- Gas turbine enclosures
- Engine enclosures
- Power stations

FORM OF RUNNING

AFH Fans are available in different form of running. Preferred Forms are B / BU and BD.
 The main series of tests were conducted on Form B. Performance differences with Form A occur only at fan outlet.



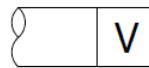
TEST STANDARDS

The ISO 5801 standard defines the test procedures and the typical fan installation Types. The Fan performance charts shall refer to one of these arrangements and this must be shown on the technical documents.
 The installation Types are defined by the way the fan is connected to the test chamber which simulates the actual installation on a duct or system.

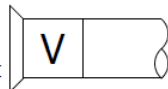
TYPE A
 Free inlet
 Free outlet



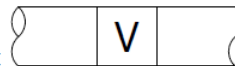
TYPE C
 Ducted inlet
 Free outlet



TYPE B
 Free inlet
 Ducted outlet



TYPE D
 Ducted inlet
 Ducted outlet



TOLERANCE GRADES

The ISO 13348 standard defines the tolerance grades of performances (pressure, airflow, power, efficiency) and noise levels to be guaranteed by the manufacturer. Each curve in this catalogue shows the applicable tolerance grade.

Grade	AN3	AN4
Flow rate	± 5%	± 10%
Pressure	± 5%	± 10%
Power	± 8%	± 16%
Noise	+ 4dB	+6 dB

PERFORMANCE VARIATION

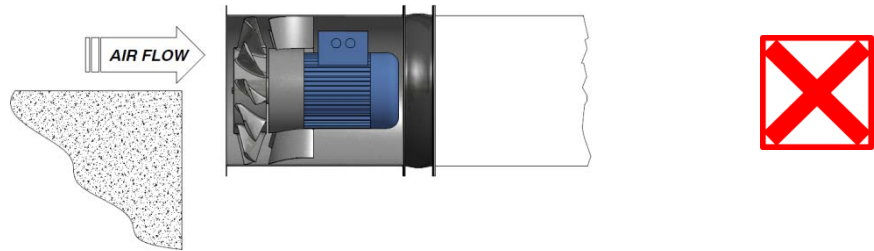
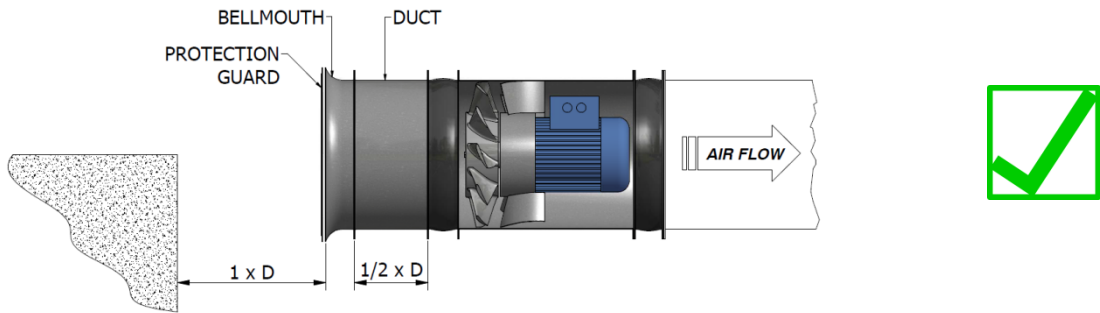
The achieved fan performances can differ from the test performances shown in the charts due to two main effects :

- 1) presence of abrupt changes of section or system irregularities close to the fan. Some installation tips are shown in the next pages which will assist in avoiding performance reductions. The tips do not cover all possible cases, but the general rule is that the fan should receive a nearly uniform airflow into its inlet, and discharge the airflow in an almost ideal pattern.
- 2) Change of internal elements of the fan, such as large terminal boxes on motors (e.g. ATEX), very tight protection guards, belt drive stacks, large cable conduits

INSTALLATION TIPS

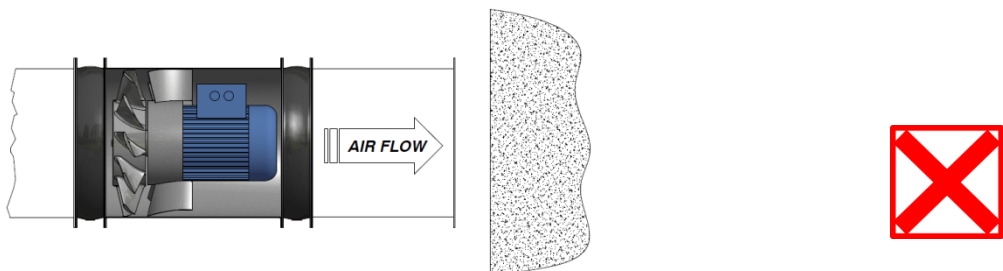
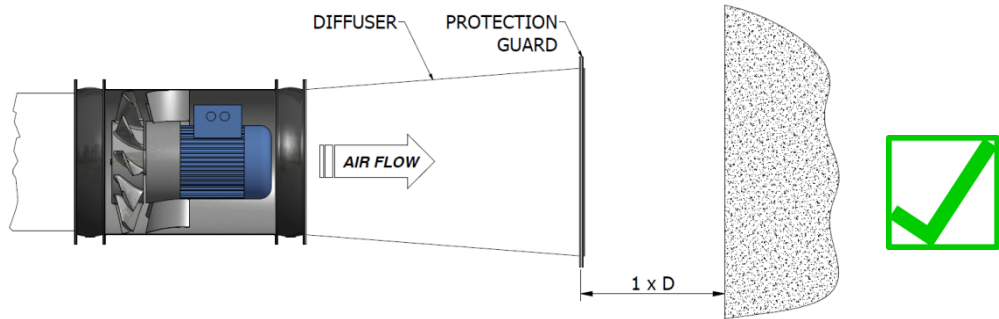
WITH FREE INLET :

- Use a bellmouth
- Install a protection guard (necessary for safety reasons [injuries, fan damage])
- Obstructions at inlet must be at least 1D away from fan inlet
- Foresee a ½ D Duct length at inlet



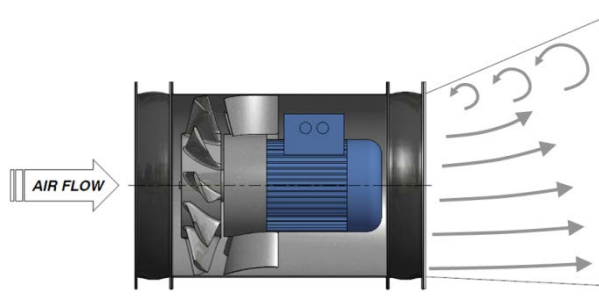
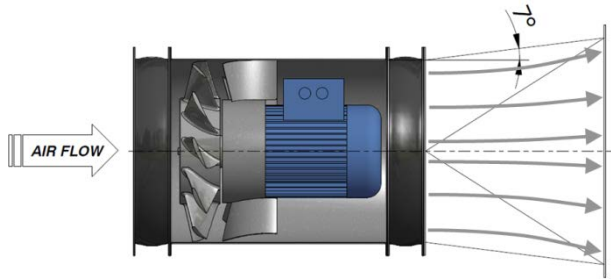
WITH FREE OUTLET :

- Use a diffuser
- Install a protection guard (necessary for safety reasons [injuries, fan damage])
- Obstructions at outlet must be at least 1D away from fan inlet



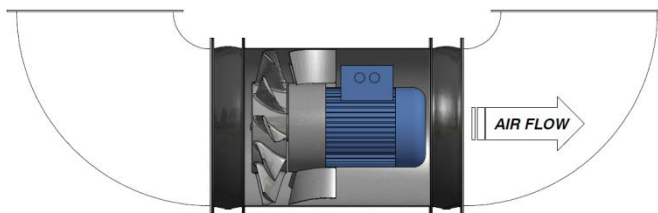
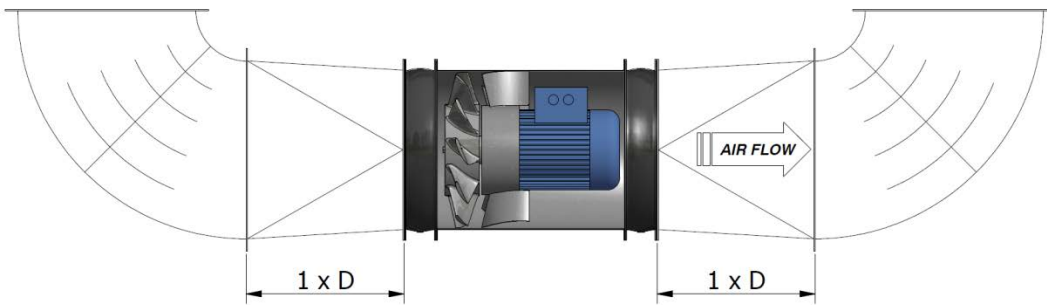
INSTALLATION NEAR TO LARGE SECTIONS

- The use of diffusers is recommended
- Asymmetric shapes must be avoided



INSTALLATION NEAR TO ELBOWS

- The use of duct guide vanes is recommended
- A minimum 1D distance from the elbows is recommended at both inlet and outlet
- Diffusers are necessary in case of large duct section



HOW TO SELECT A FAN

- USE THE QUICK SELECTION CURVES** to determine the fan diameter and speed to meet a specified duty
- REFER TO THE CORRESPONDENT FAN CURVE** which provides detailed information on the specific product, including Blade Pitch, Efficiency, Power, Noise Level and Motor Size
- DIMENSIONS** are shown on the following tables. Reference data are the fan and motor size of the selected unit.

Example :

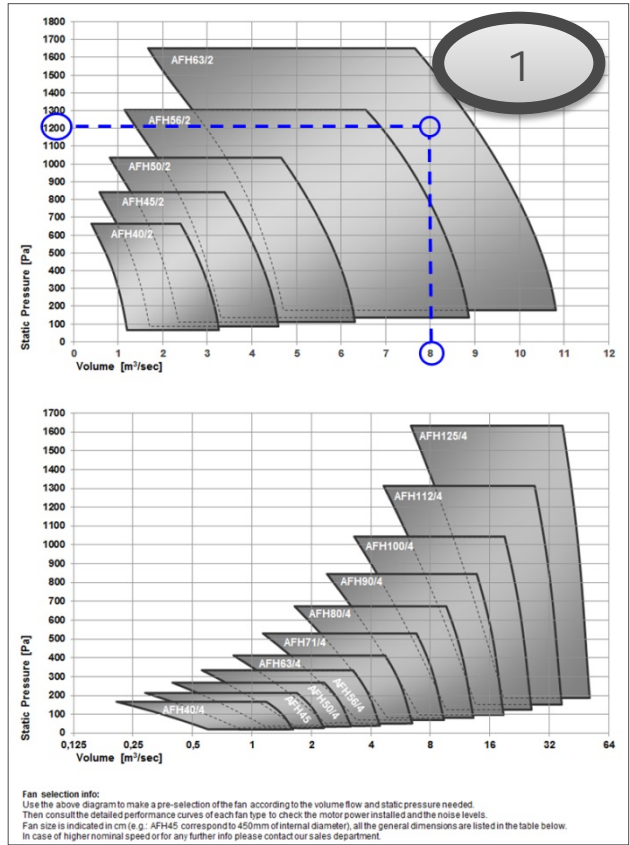
Specified performances :

- Volume flow: 8 m³/s
- Static Pressure: 1200

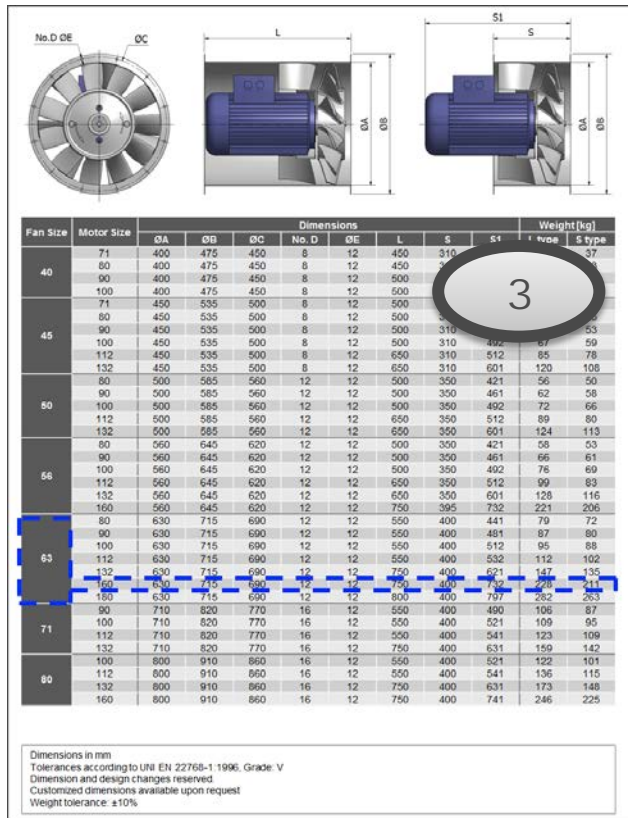
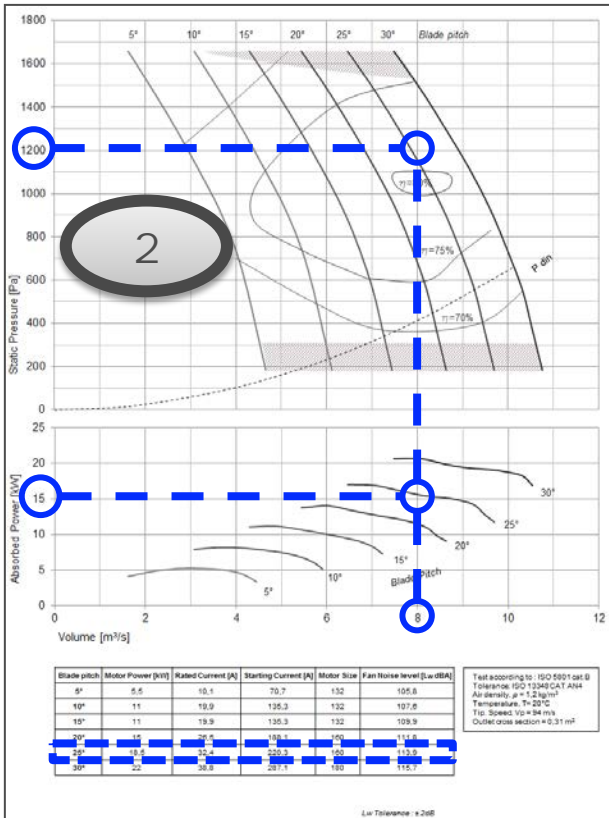
1 >> Selected Fan Size and Speed : AFH63/2

2 >> Blade Pitch : 25°
Absorbed Power: 15kW
Motor size : 160

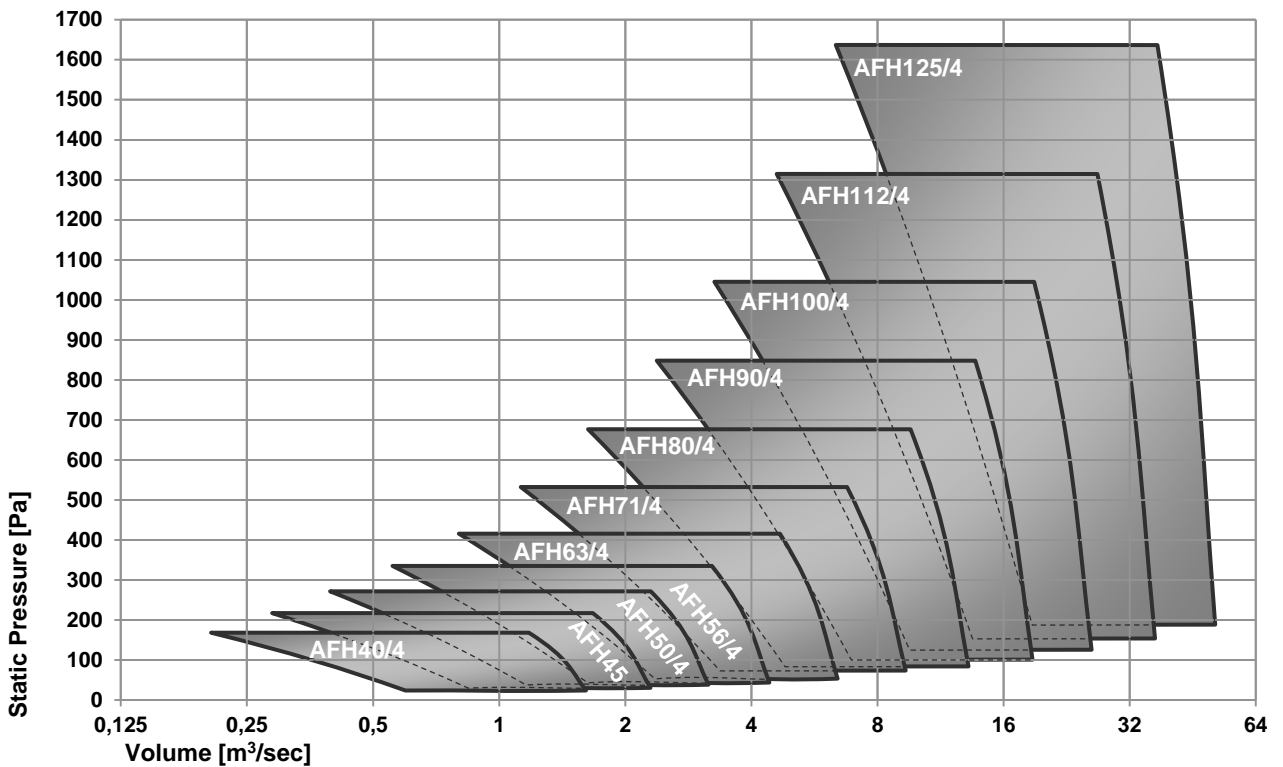
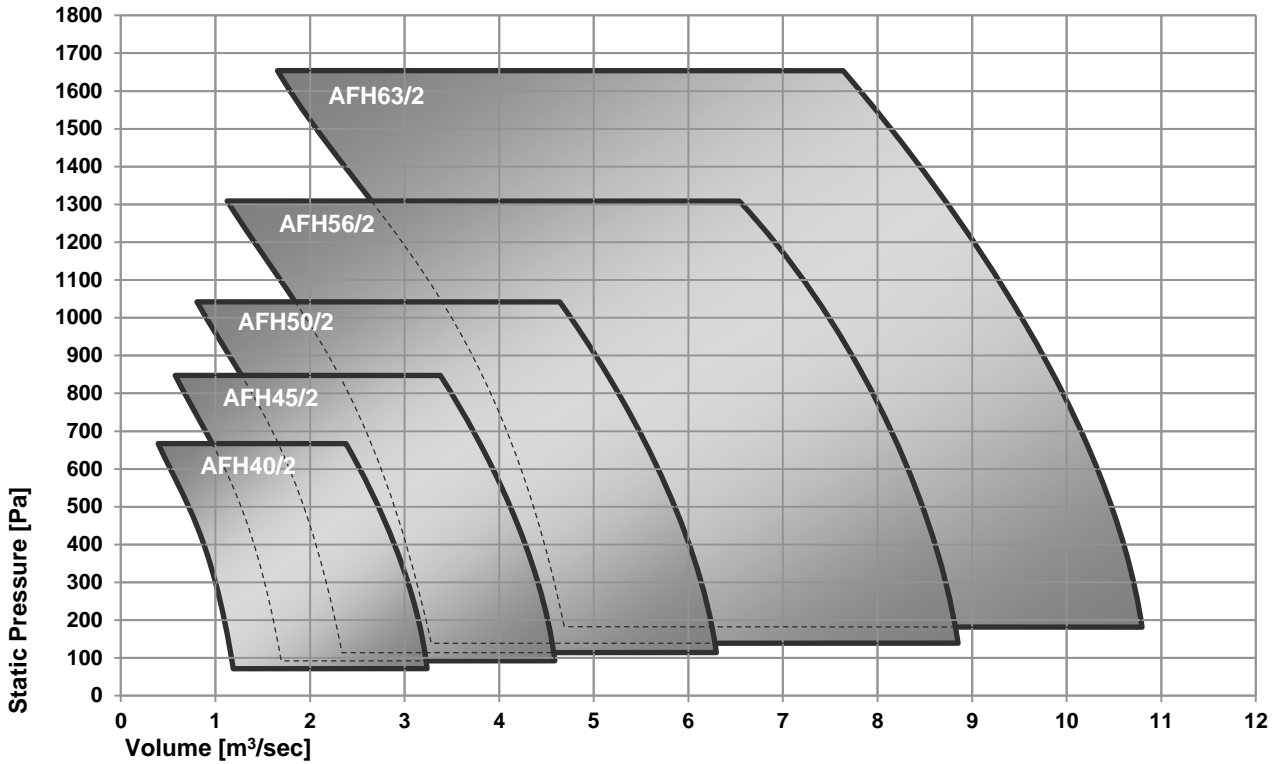
3 >> Dimensions from ref. : AFH63/2-160



Fan selection info:
Use the above diagram to make a pre-selection of the fan according to the volume flow and static pressure needed.
Then consult the detailed performance curves of each fan type to check the motor power installed and the noise levels.
Fan size is indicated in cm (e.g. AFH45 correspond to 450mm of internal diameter), all the general dimensions are listed in the table below.
In case of higher nominal speed or for any further info, please contact our sales department.



RPM 2900, 2-POLE, 50Hz
RPM 1450, 4-POLE, 50Hz

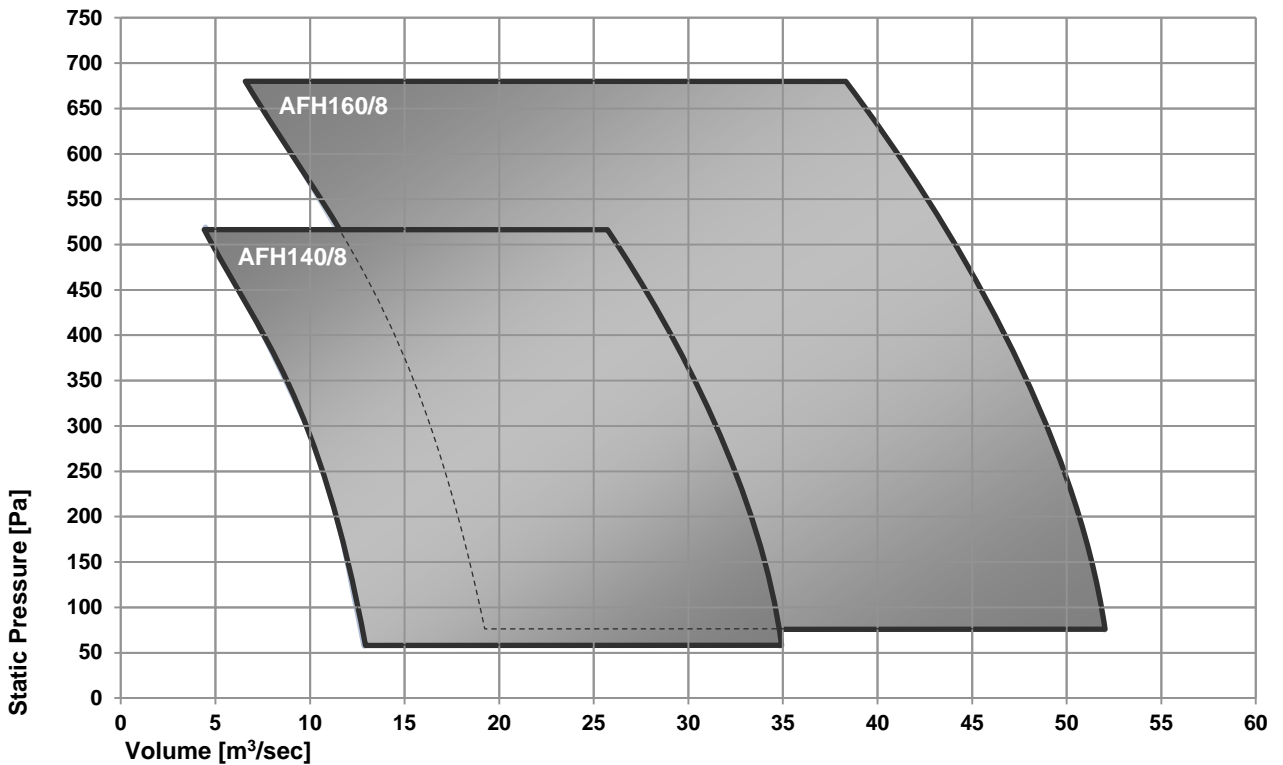
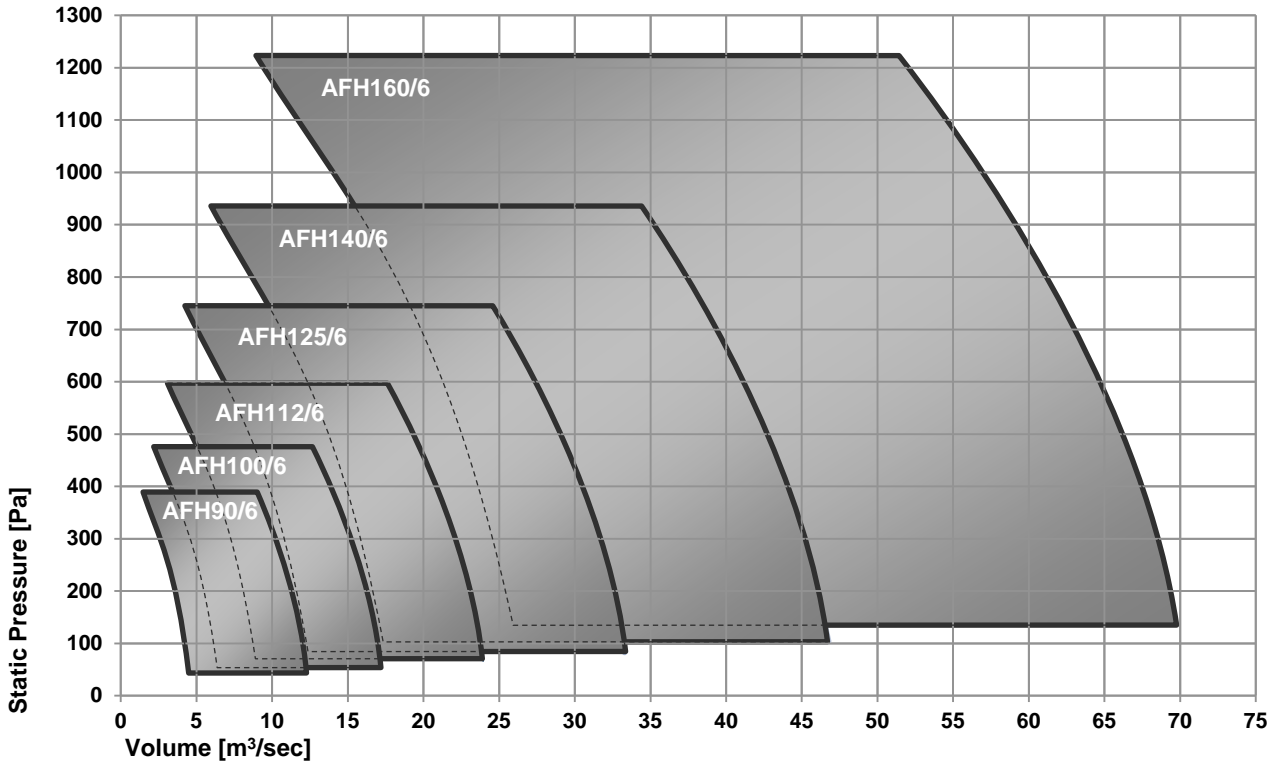


Fan selection info:

Use the above diagram to determine the fan size and speed to meet a specified duty, then refer to the correspondent performance curve of each fan type to get the blade pitch, motor power/size and noise level. Fan size corresponds to the diameter in cm (e.g.: AFH45 = 450mm internal diameter).

The curves are referred to units for Safe Area, in an optimal configuration including inlet bell, suitable duct lengths, etc.
For 60Hz versions and for any further info please contact our sales department.

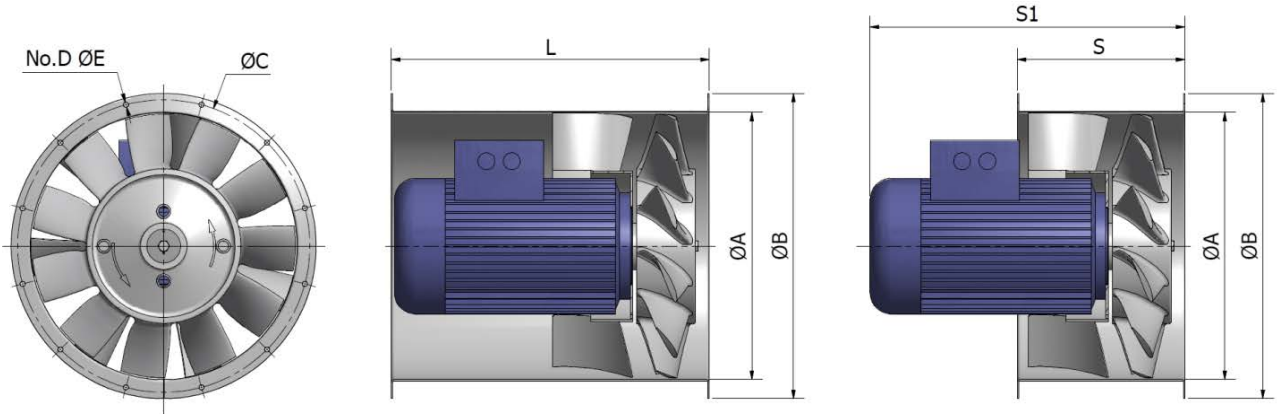
RPM 980, 6-POLE, 50Hz
RPM 730, 8-POLE, 50Hz



Fan selection info:

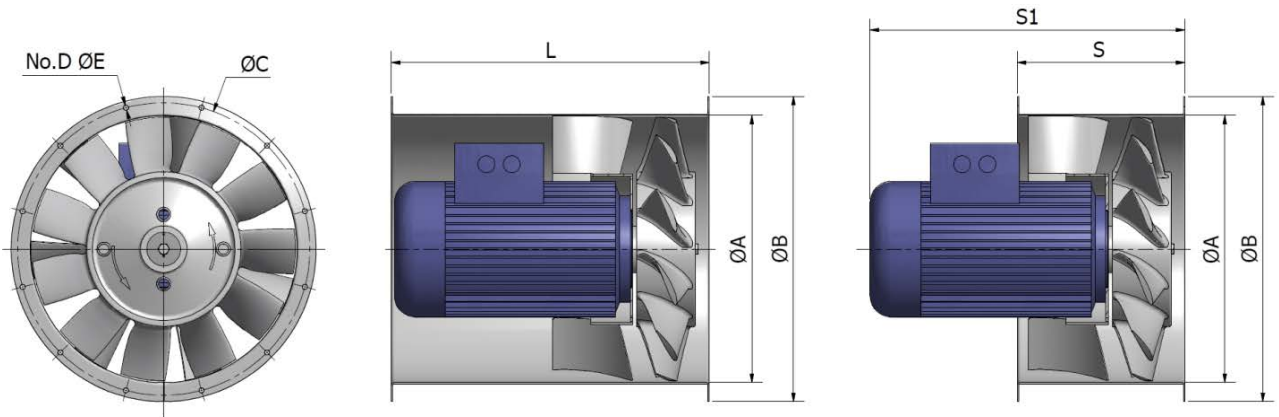
Use the above diagram to determine the fan size and speed to meet a specified duty, then refer to the correspondent performance curve of each fan type to get the blade pitch, motor power/size and noise level. Fan size corresponds to the diameter in cm (e.g.: AFH45 = 450mm internal diameter).

The curves are referred to units for Safe Area, in an optimal configuration including inlet bell, suitable duct lengths, etc.
For 60Hz versions and for any further info please contact our sales department.

GENERAL DIMENSIONS
FAN SIZE: 40 ÷ 80


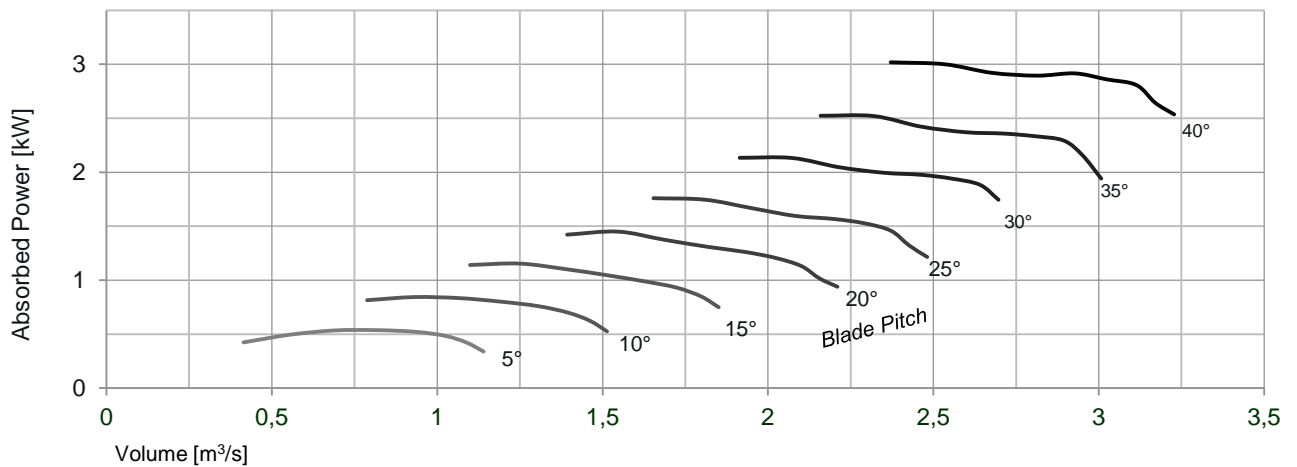
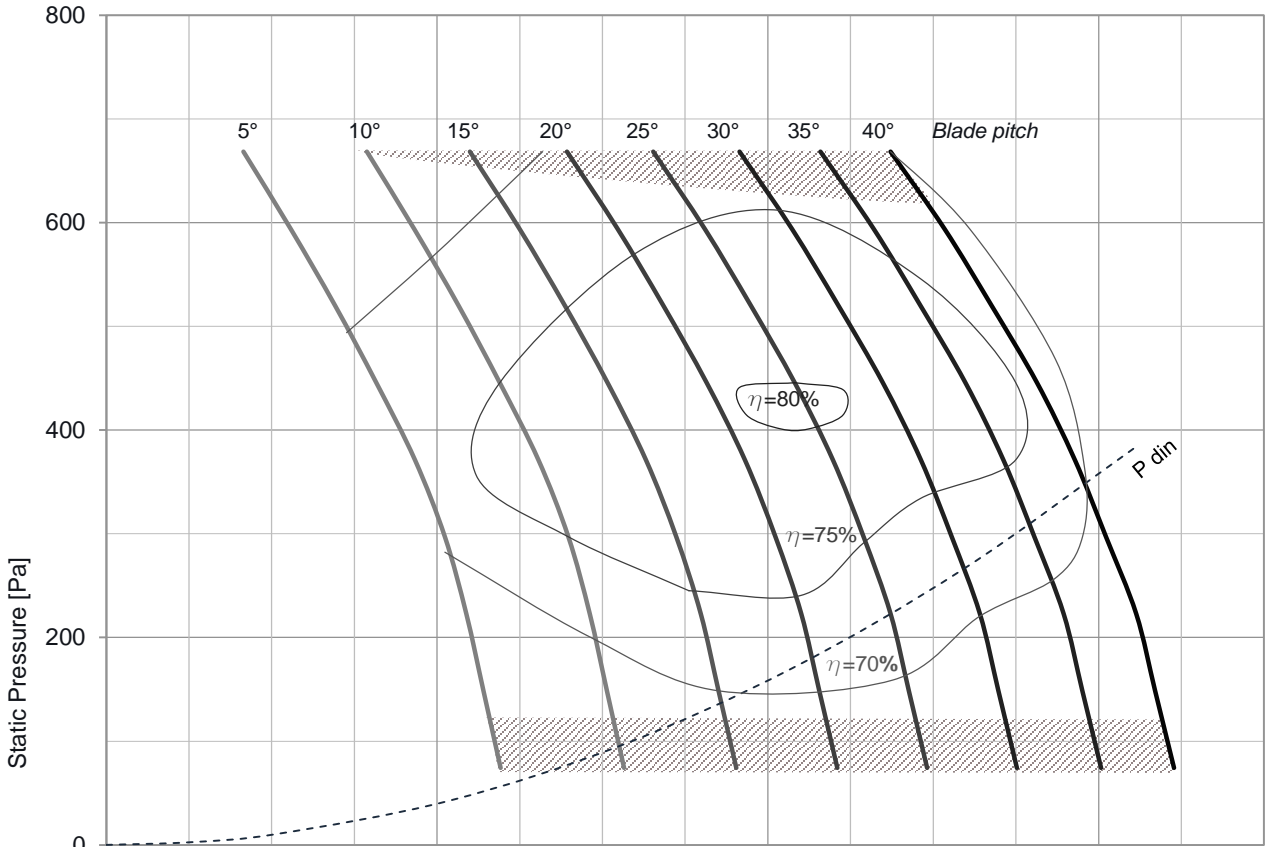
Fan Size	Motor Size	Dimensions								Weight [kg]	
		ØA	ØB	ØC	No. D	ØE	L	S	S1	L type	S type
40	71	400	475	450	8	12	450	310	393	41	37
	80	400	475	450	8	12	450	310	418	45	43
	90	400	475	450	8	12	500	310	458	53	51
	100	400	475	450	8	12	500	310	488	63	57
45	71	450	535	500	8	12	500	310	396	45	39
	80	450	535	500	8	12	500	310	421	49	45
	90	450	535	500	8	12	500	310	461	57	53
	100	450	535	500	8	12	500	310	492	67	59
	112	450	535	500	8	12	650	310	512	85	78
50	132	450	535	500	8	12	650	310	601	120	108
	80	500	585	560	12	12	500	350	421	56	50
	90	500	585	560	12	12	500	350	461	62	58
	100	500	585	560	12	12	500	350	492	72	66
56	112	500	585	560	12	12	650	350	512	89	80
	132	500	585	560	12	12	650	350	601	124	113
	80	560	645	620	12	12	500	350	421	58	53
	90	560	645	620	12	12	500	350	461	66	61
	100	560	645	620	12	12	500	350	492	76	69
63	112	560	645	620	12	12	650	350	512	99	83
	132	560	645	620	12	12	650	350	601	128	116
	160	560	645	620	12	12	750	395	732	221	206
	80	630	715	690	12	12	550	400	441	79	72
	90	630	715	690	12	12	550	400	481	87	80
	100	630	715	690	12	12	550	400	512	95	88
71	112	630	715	690	12	12	550	400	532	112	102
	132	630	715	690	12	12	750	400	621	147	135
	160	630	715	690	12	12	750	400	732	228	211
	180	630	715	690	12	12	800	400	797	282	263
	90	710	820	770	16	12	550	400	490	106	87
80	100	710	820	770	16	12	550	400	521	109	95
	112	710	820	770	16	12	550	400	541	123	109
	132	710	820	770	16	12	750	400	631	159	142
	160	800	910	860	16	12	550	400	521	122	101
80	112	800	910	860	16	12	550	400	541	136	115
	132	800	910	860	16	12	750	400	631	173	148
	160	800	910	860	16	12	750	400	741	246	225

Dimensions in mm
Tolerances according to UNI EN 22768-1:1996, Grade: V
Weight tolerance: ±10%
Customized dimensions available upon request
Comet Fans reserves the right to change this catalogue data without notice.

GENERAL DIMENSIONS
FAN SIZE: 90 ÷ 160


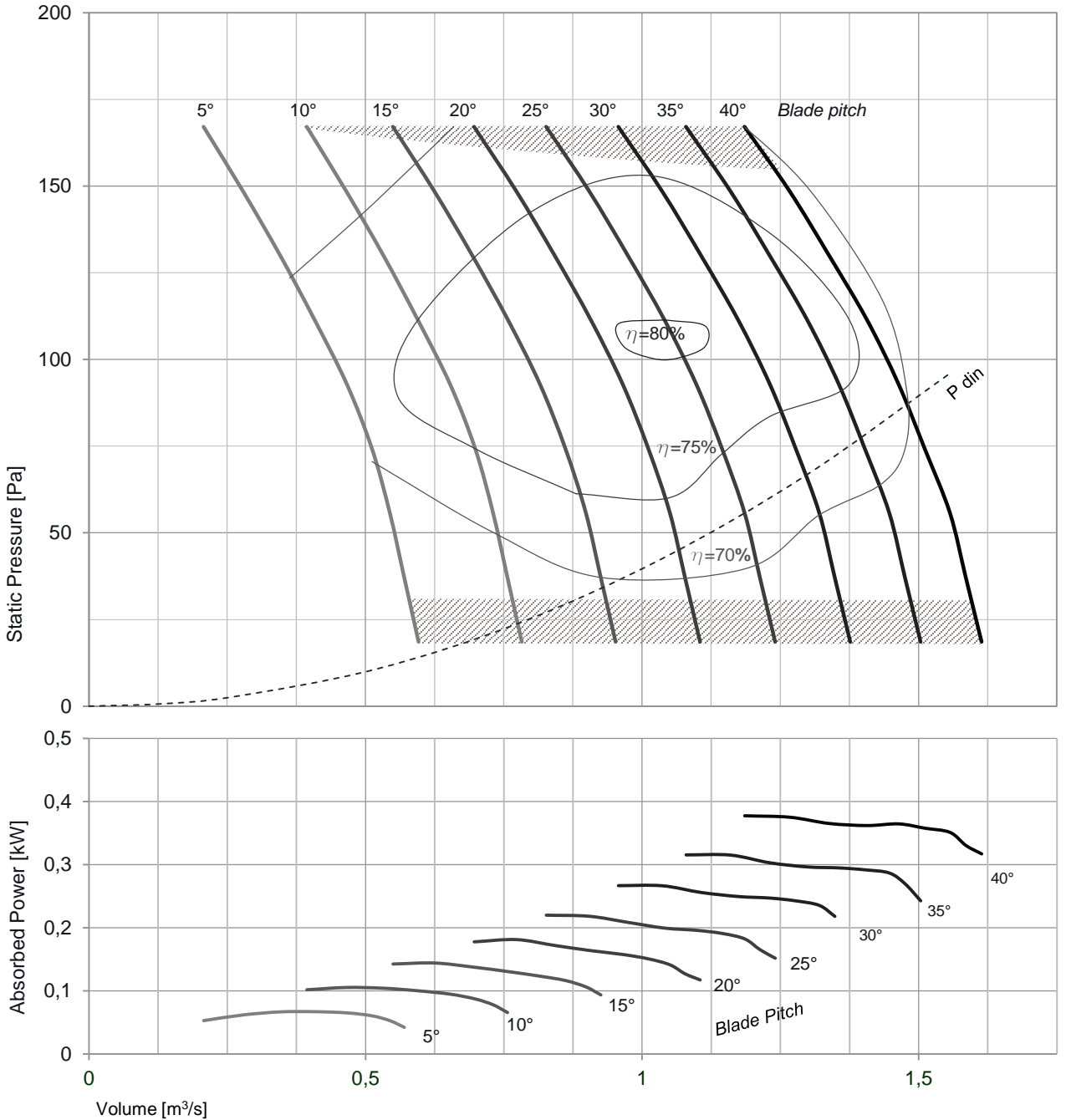
Fan Size	Motor Size	Dimensions								Weight [kg]	
		ØA	ØB	ØC	No. D	ØE	L	S	S1	L type	S type
90	100	900	1010	970	16	15	700	500	581	148	139
	112	900	1010	970	16	15	700	500	601	162	153
	132	900	1010	970	16	15	700	500	691	195	186
	160	900	1010	970	16	15	900	500	801	299	263
100	180	900	1010	970	16	15	900	500	866	370	334
	112	1000	1110	1070	16	15	700	500	601	203	183
	132	1000	1110	1070	16	15	700	500	691	236	216
	160	1000	1110	1070	16	15	1000	500	801	343	293
	180	1000	1110	1070	16	15	1000	500	866	394	344
112	200	1000	1110	1070	16	15	1000	500	923	466	416
	132	1120	1230	1190	20	15	700	600	691	256	229
	160	1120	1230	1190	20	15	1200	600	841	383	327
	180	1120	1230	1190	20	15	1200	600	906	444	378
	200	1120	1230	1190	20	15	1200	600	965	506	450
	225	1120	1230	1190	20	15	1200	600	1015	595	539
125	250	1120	1230	1190	20	15	1200	600	1100	725	669
	160	1250	1360	1320	20	15	1200	600	841	417	343
	180	1250	1360	1320	20	15	1200	600	906	468	394
	200	1250	1360	1320	20	15	1200	600	965	540	466
	225	1250	1360	1320	20	15	1200	600	1015	629	555
	250	1250	1360	1320	20	15	1200	600	1100	759	685
140	280	1250	1360	1320	20	15	1200	600	1175	942	868
	160	1400	1530	1470	20	15	1200	600	841	490	386
	180	1400	1530	1470	20	15	1200	600	906	541	437
	200	1400	1530	1470	20	15	1200	600	965	613	509
	225	1400	1530	1470	20	15	1200	600	1015	702	598
	250	1400	1530	1470	20	15	1200	600	1100	683	728
160	280	1400	1530	1470	20	15	1200	600	1175	1015	911
	180	1600	1730	1680	24	18	1200	600	906	583	412
	200	1600	1730	1680	24	18	1200	600	965	655	463
	225	1600	1730	1680	24	18	1200	600	1015	744	624
	250	1600	1730	1680	24	18	1200	600	1100	725	754
	280	1600	1730	1680	24	18	1200	600	1175	1057	937
	315	1600	1730	1680	24	18	1500	600	1460	1454	1276

Dimensions in mm
Tolerances according to UNI EN 22768-1:1996, Grade: V
Weight tolerance: ±10%
Customized dimensions available upon request
Comet Fans reserves the right to change this catalogue data without notice.



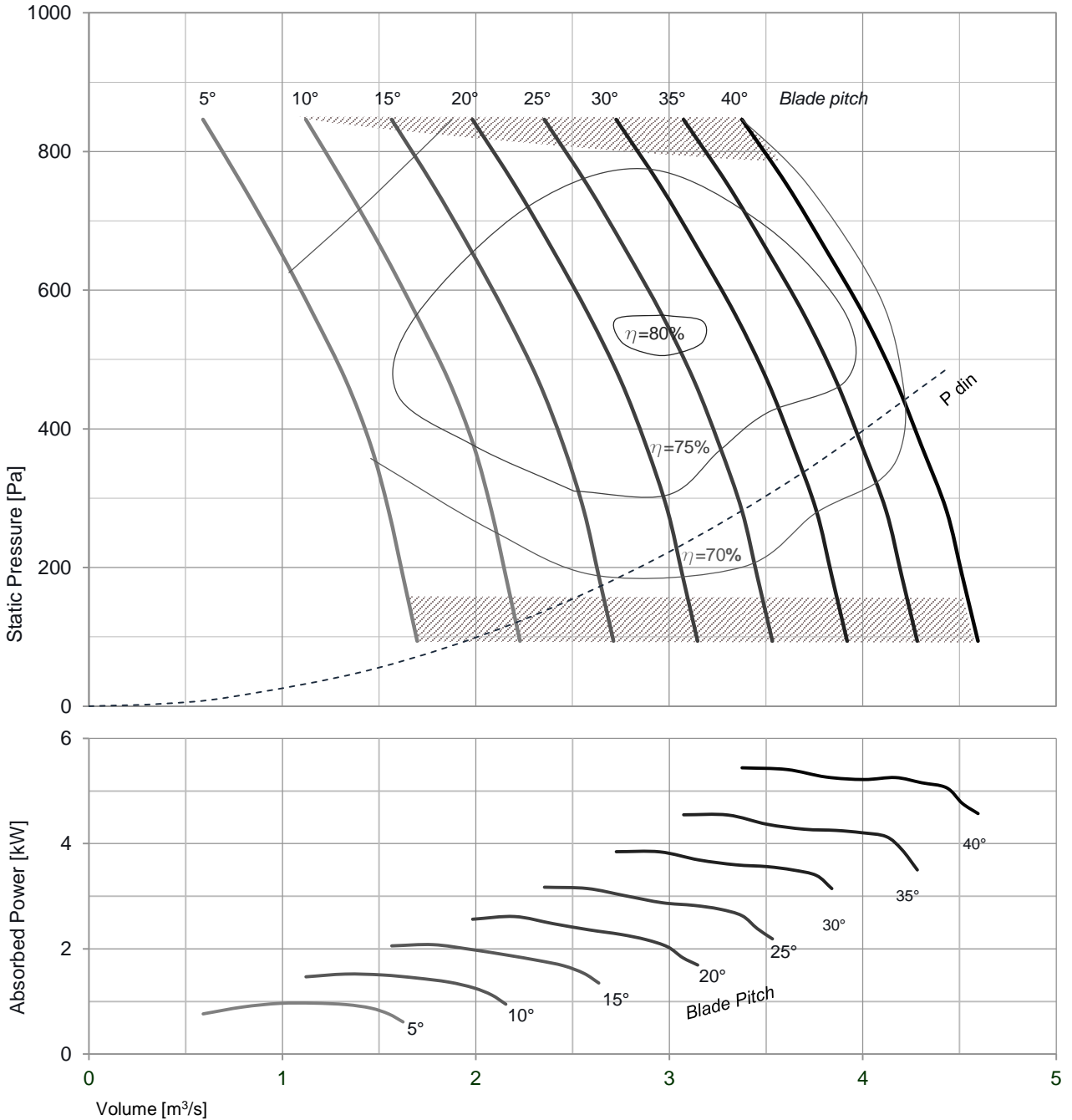
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	0,75	1,7	9,1	80	88,2
10°	1,1	2,4	13,2	80	90,3
15°	1,1	2,4	13,2	80	92,1
20°	1,5	3,1	18,6	90	94,2
25°	2,2	4,5	27	90	96,3
30°	2,2	4,5	27	90	98,3
35°	3	5,9	40,1	100	100,1
40°	3	5,9	40,1	100	102,2

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 60 \text{ m/s}$
Outlet cross section = $0,12 \text{ m}^2$



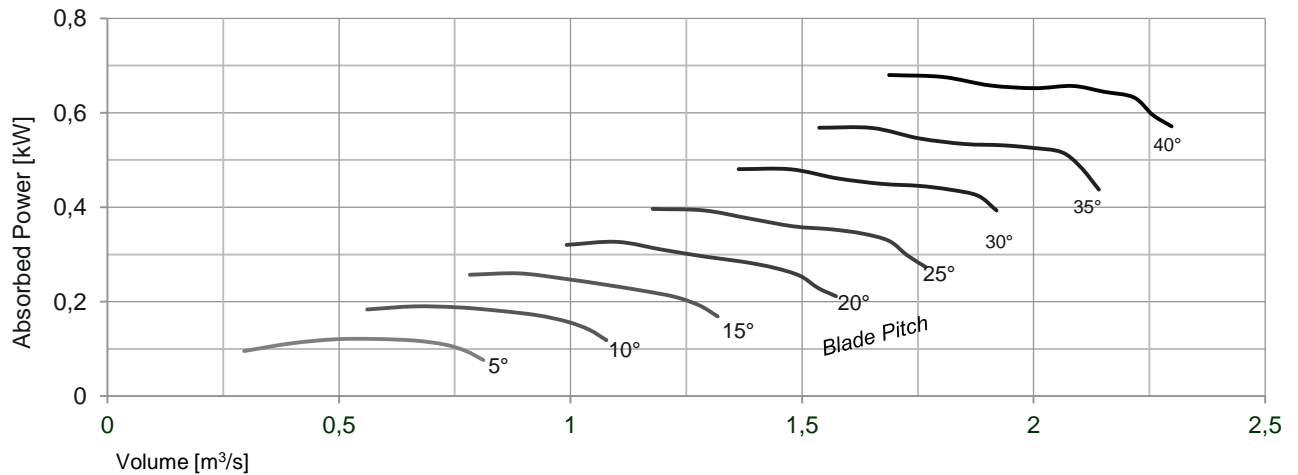
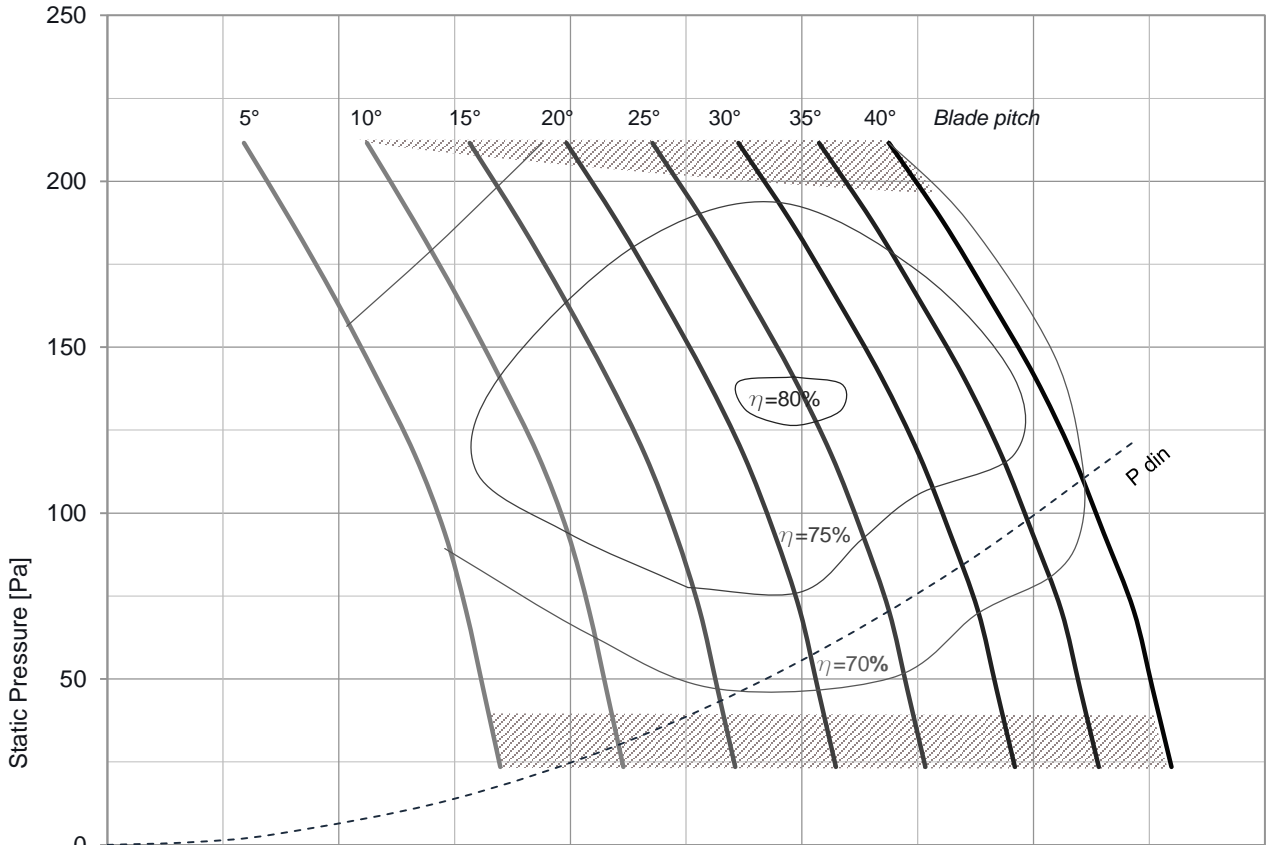
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	0,25	0,6	2,3	71	70,1
10°	0,25	0,6	2,3	71	72,2
15°	0,25	0,6	2,3	71	74,1
20°	0,25	0,6	2,3	71	76,0
25°	0,25	0,6	2,3	71	78,3
30°	0,37	0,8	3,6	71	80,2
35°	0,37	0,8	3,6	71	82,1
40°	0,37	0,8	3,6	71	84,3

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 30 \text{ m/s}$
Outlet cross section = $0,12 \text{ m}^2$



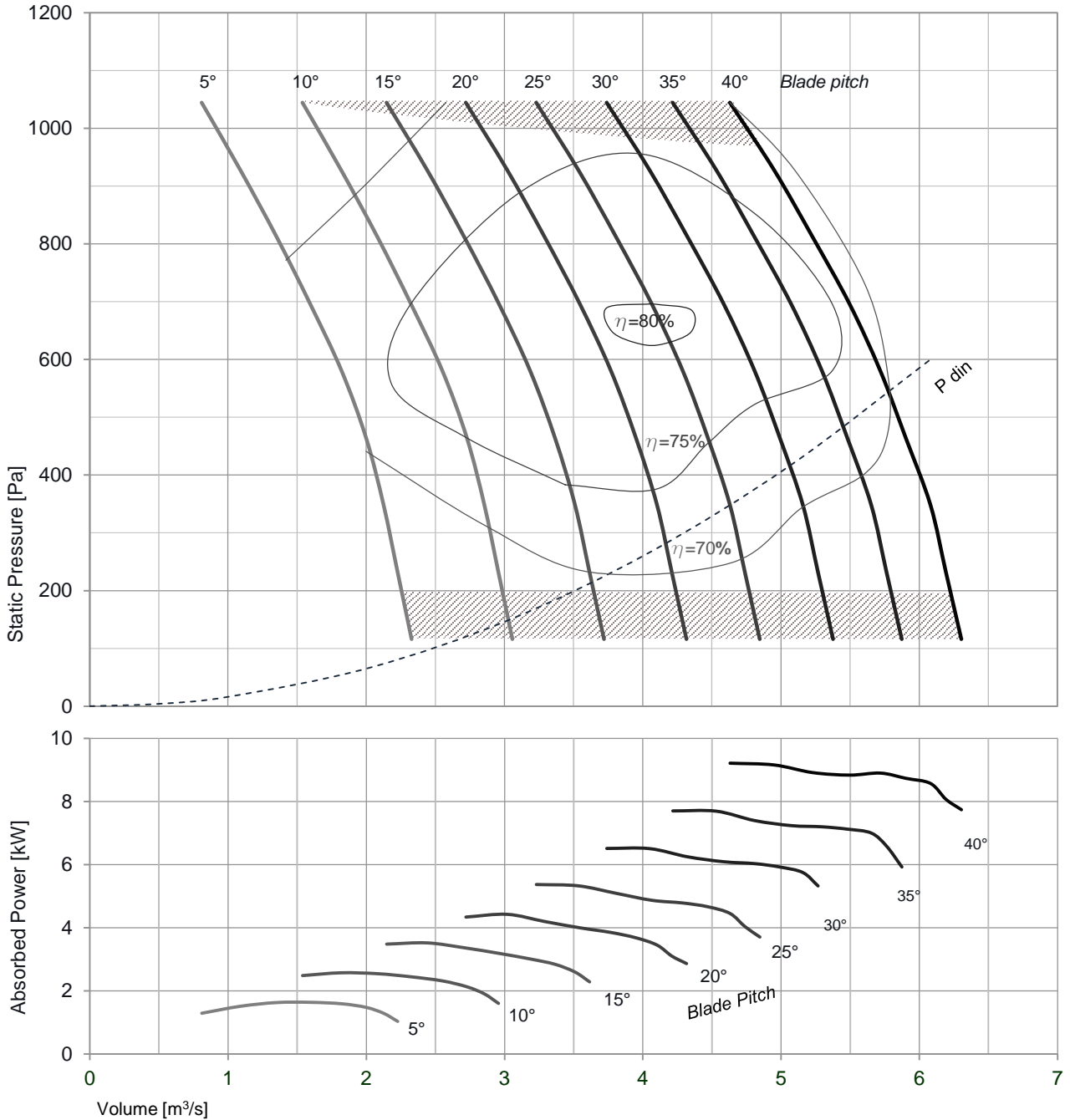
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	1,1	2,4	13,2	80	92,8
10°	1,5	3,1	18,6	90	94,7
15°	2,2	4,5	27	90	96,9
20°	3	5,9	40,1	100	98,8
25°	3	5,9	40,1	100	100,9
30°	4	7,4	51	112	102,7
35°	5,5	10,1	70,7	132	104,9
40°	5,5	10,1	70,7	132	106,8

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 68 \text{ m/s}$
Outlet cross section = $0,15 \text{ m}^2$



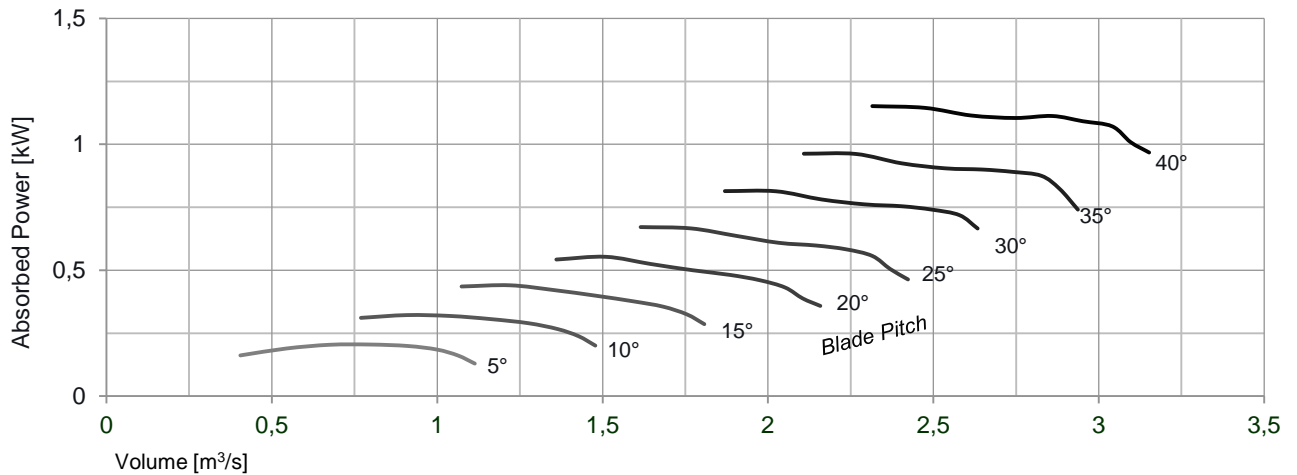
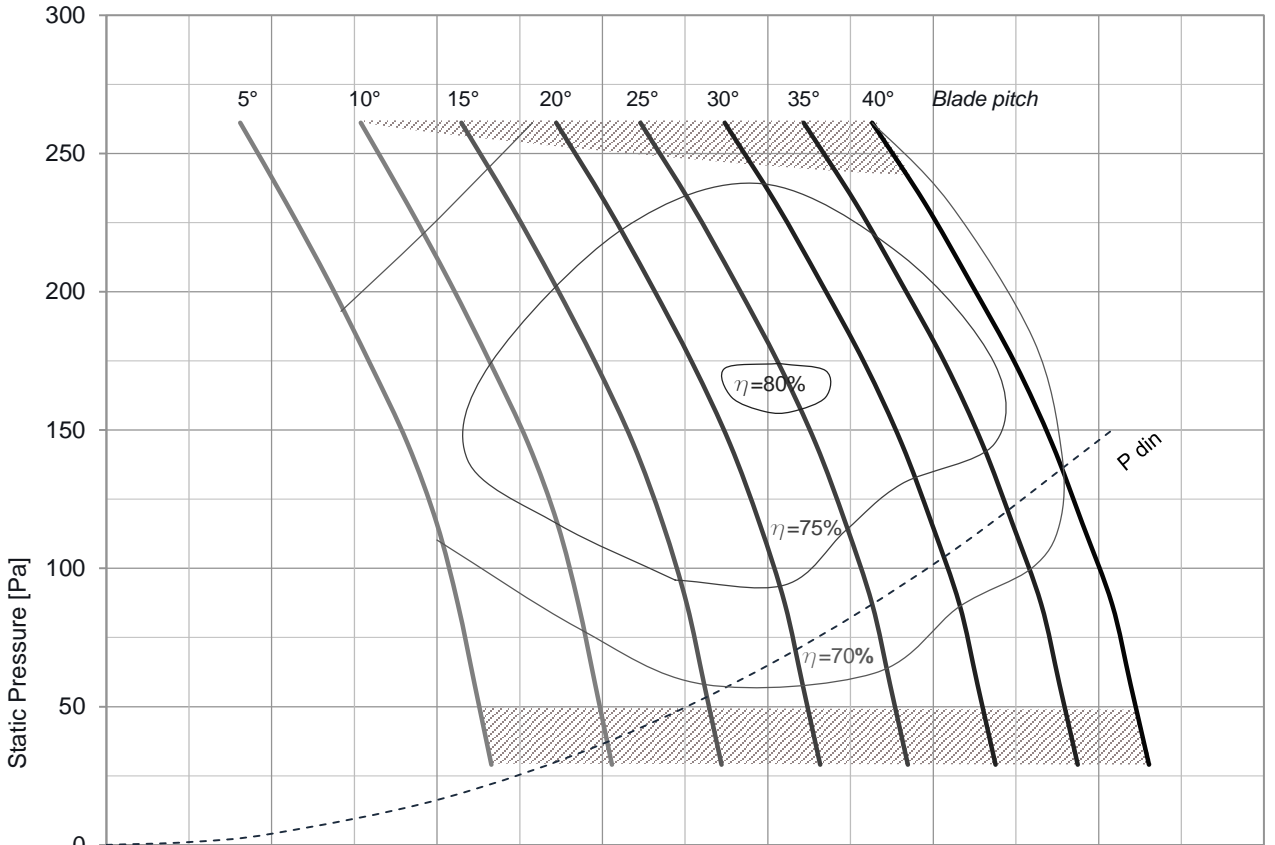
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	0,25	0,6	2,3	71	74,7
10°	0,25	0,6	2,3	71	76,8
15°	0,37	0,8	3,6	71	78,9
20°	0,37	0,8	3,6	71	8,5
25°	0,55	1,5	6,9	80	82,7
30°	0,55	1,5	6,9	80	84,8
35°	0,75	2	9	80	86,9
40°	0,75	2	9	80	88,7

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 34 \text{ m/s}$
Outlet cross section = $0,15 \text{ m}^2$



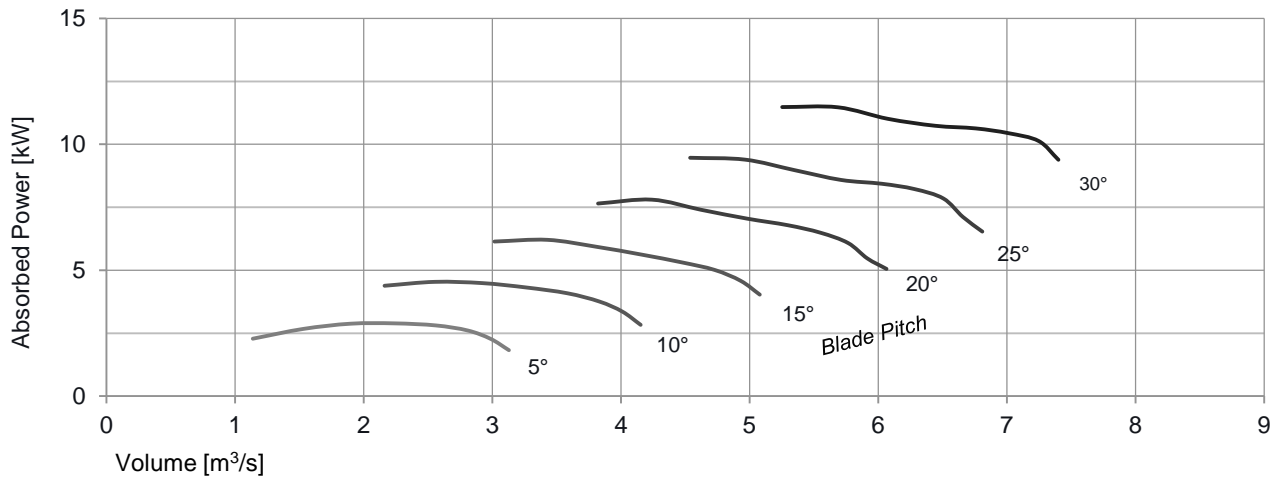
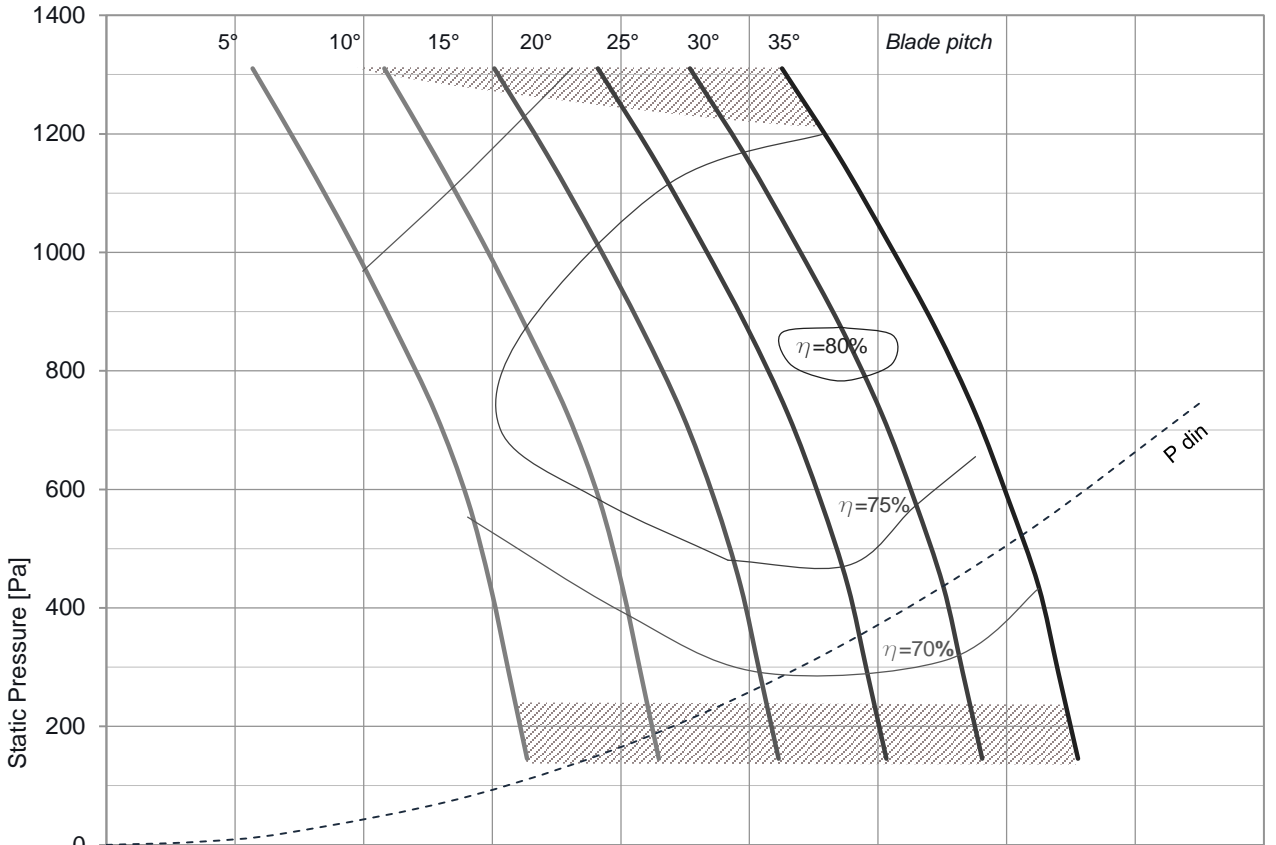
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	2,2	4,5	27	90	96,9
10°	3	5,9	40,1	100	98,8
15°	4	7,4	51	112	100,8
20°	5,5	10,1	70,7	132	102,7
25°	5,5	10,1	70,7	132	104,9
30°	7,5	13,8	95,2	132	106,8
35°	7,5	13,8	95,2	132	108,7
40°	11	19,9	135,5	132	110,9

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 75 \text{ m/s}$
Outlet cross section = $0,19 \text{ m}^2$



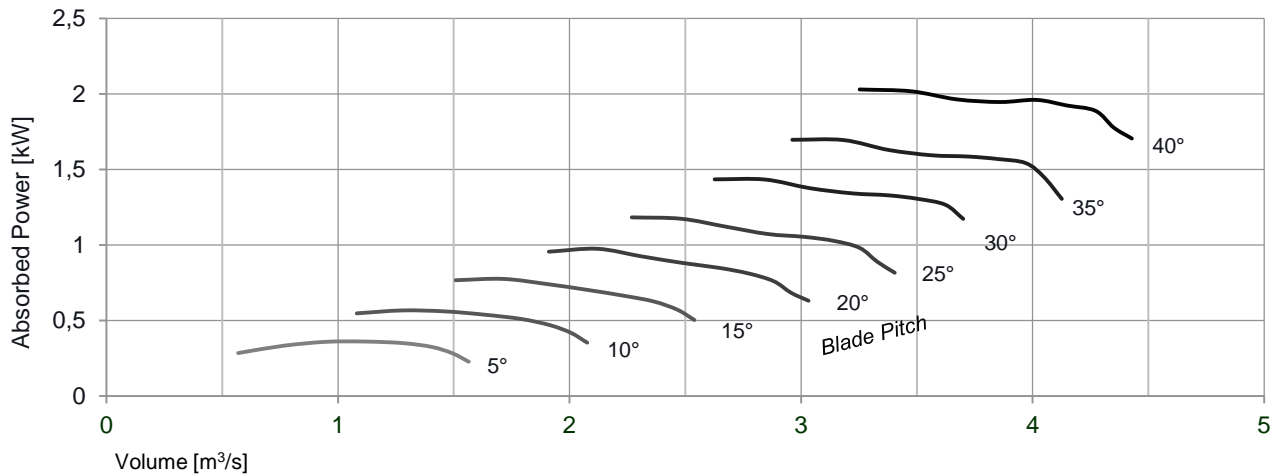
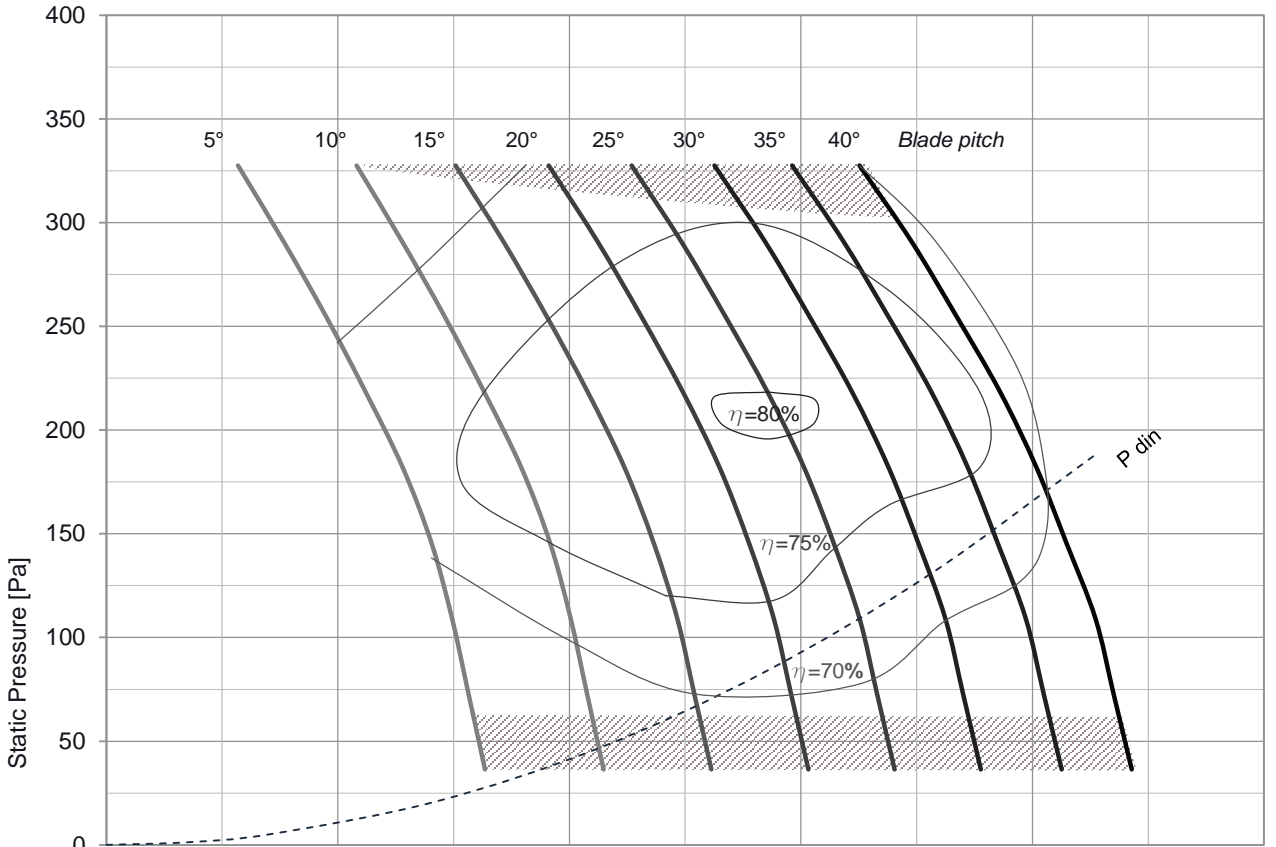
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	0,55	1,5	6,9	80	78,8
10°	0,55	1,5	6,9	80	80,9
15°	0,55	1,5	6,9	80	82,7
20°	0,55	1,5	6,9	80	84,9
25°	0,75	2	9	80	86,7
30°	1,1	2,6	10,9	90	88,8
35°	1,1	2,6	10,9	90	90,9
40°	1,1	2,6	10,9	90	92,7

Test according to : ISO 5801 cat.B
 Tolerance: ISO 13348 CAT AN4
 Air density, $\rho = 1,2 \text{ kg/m}^3$
 Temperature, $T = 20^\circ\text{C}$
 Tip Speed, $V_p = 37 \text{ m/s}$
 Outlet cross section = $0,19 \text{ m}^2$



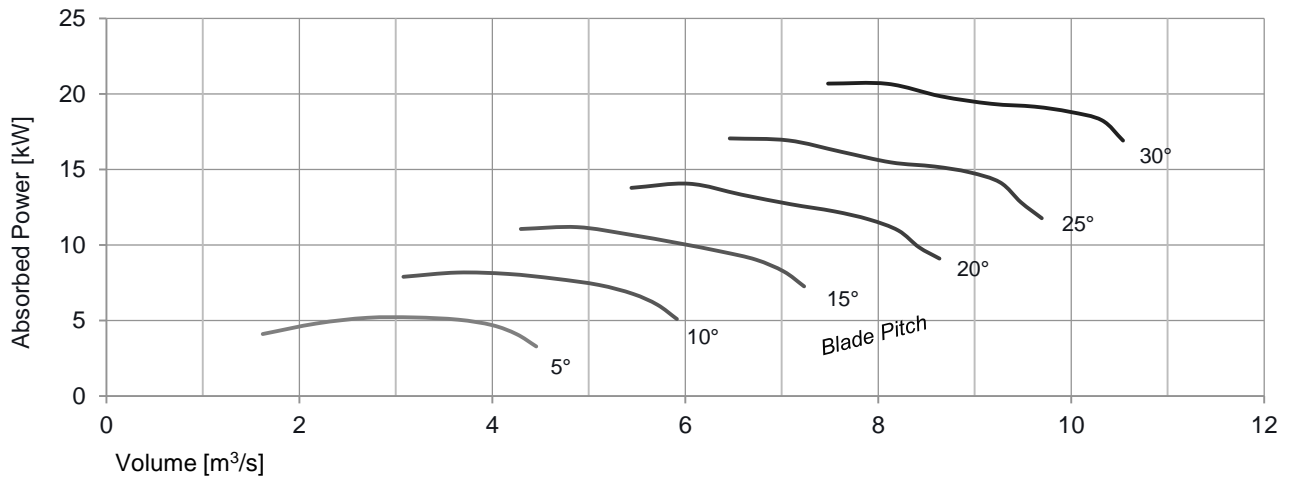
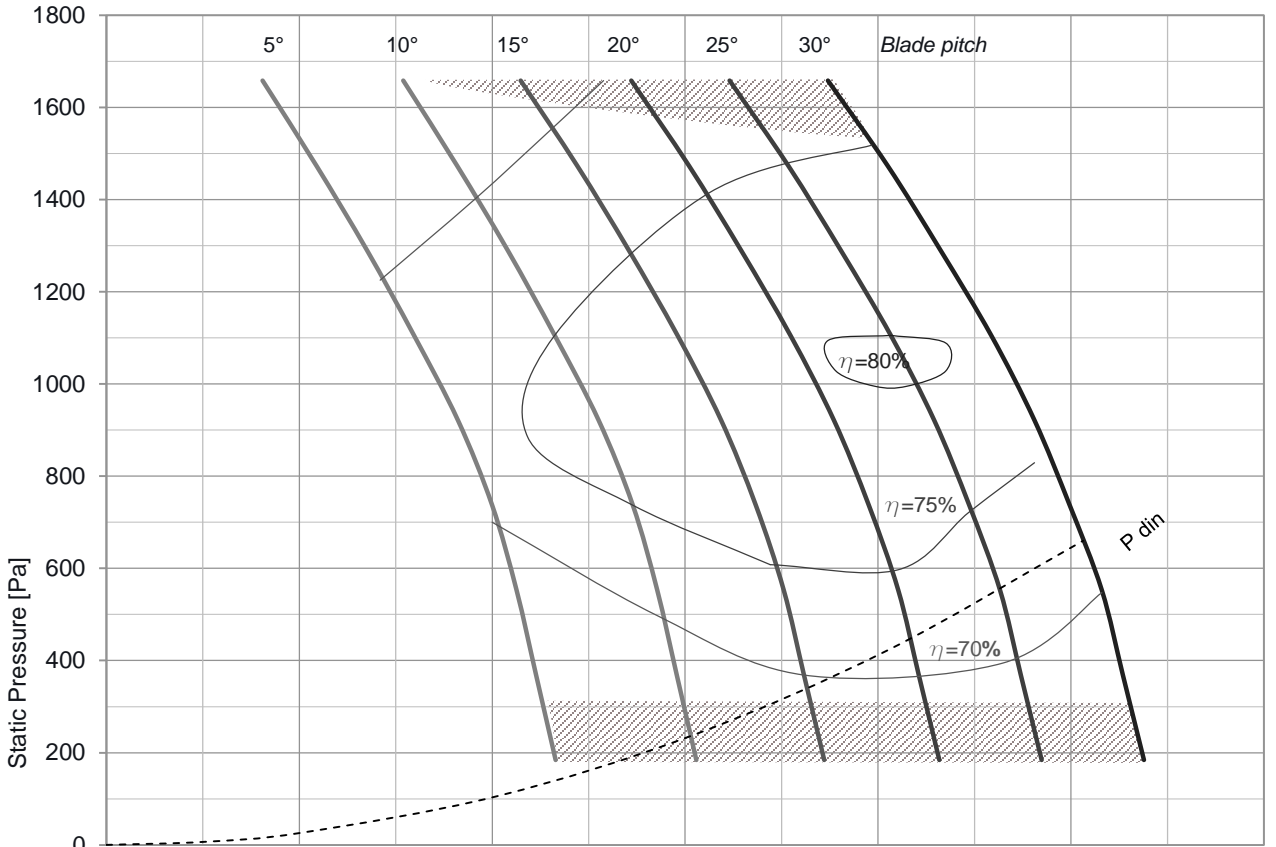
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	3	5,9	40,1	100	101,3
10°	5,5	10,1	70,7	132	103,4
15°	7,5	13,8	95,2	132	105,5
20°	11	19,9	135,3	132	107,2
25°	11	19,9	135,5	132	109,3
30°	15	26,5	188,1	160	111,4

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, T= 20°C
Tip Speed, Vp = 85 m/s
Outlet cross section = 0,24 m²



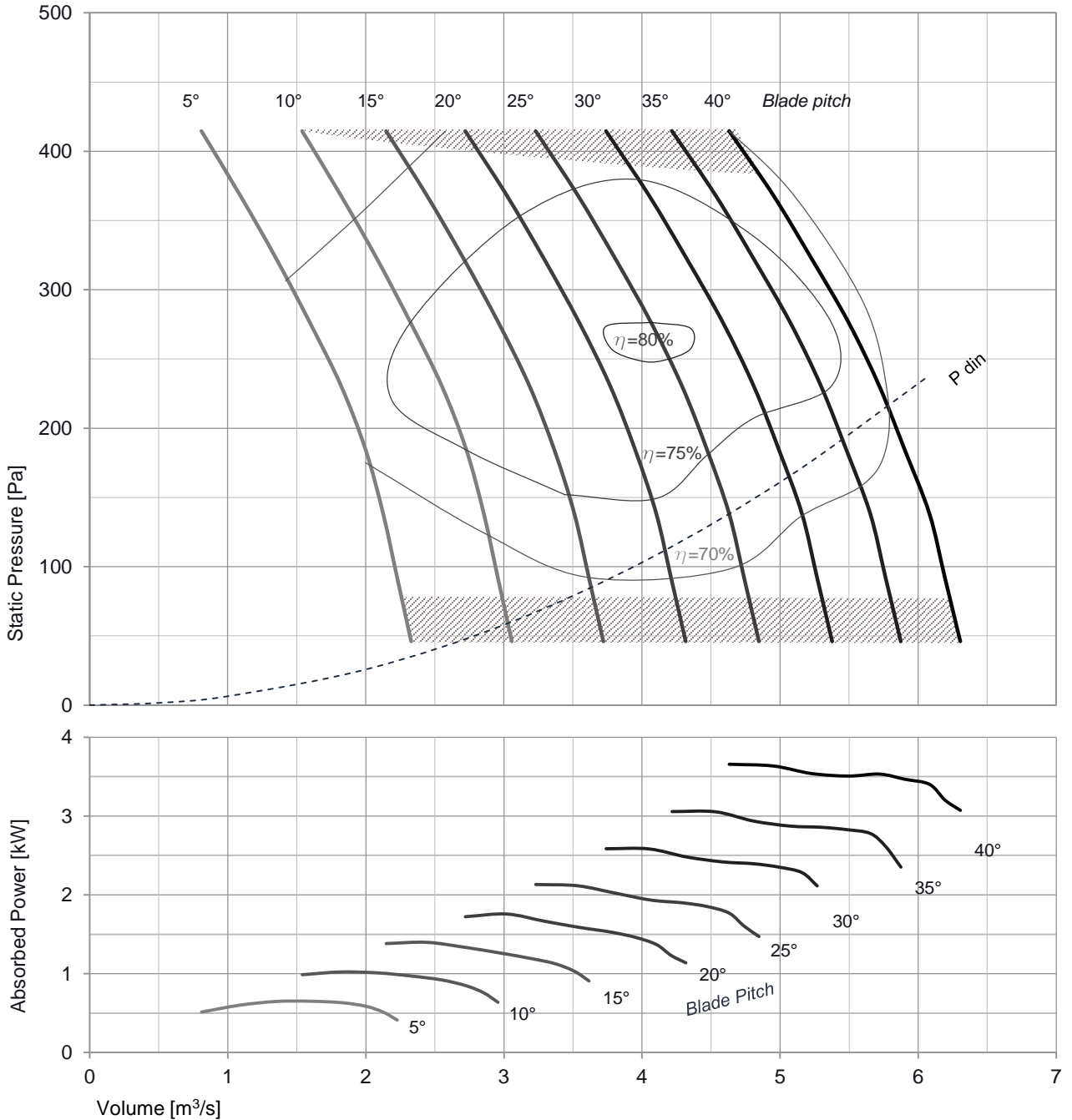
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	0,55	1,5	6,9	80	83,2
10°	0,55	1,5	6,9	80	85,3
15°	0,75	2	9	90	87,2
20°	1,1	2,6	10,9	90	89,1
25°	1,5	3,5	16,1	90	91,3
30°	1,5	3,4	16,1	90	93,4
35°	2,2	6,4	35,8	100	85,3
40°	2,2	6,4	35,8	100	97,2

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 42 \text{ m/s}$
Outlet cross section = $0,24 \text{ m}^2$



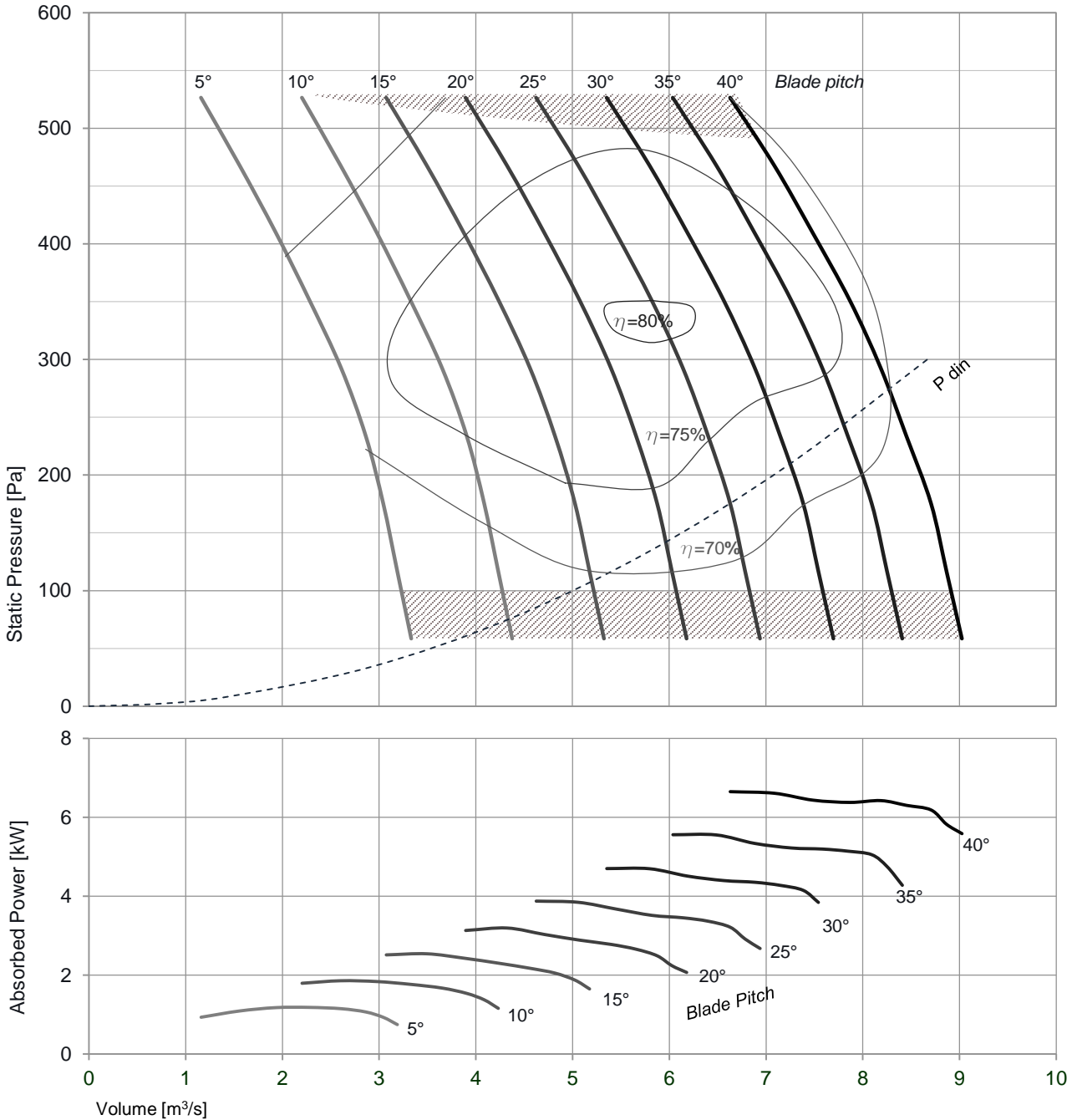
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	5,5	10,1	70,7	132	105,8
10°	11	19,9	135,3	132	107,6
15°	11	19,9	135,3	132	109,9
20°	15	26,5	188,1	160	111,8
25°	18,5	32,4	220,3	160	113,9
30°	22	38,8	287,1	180	115,7

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, T= 20°C
Tip Speed, Vp = 94 m/s
Outlet cross section = 0,31 m²



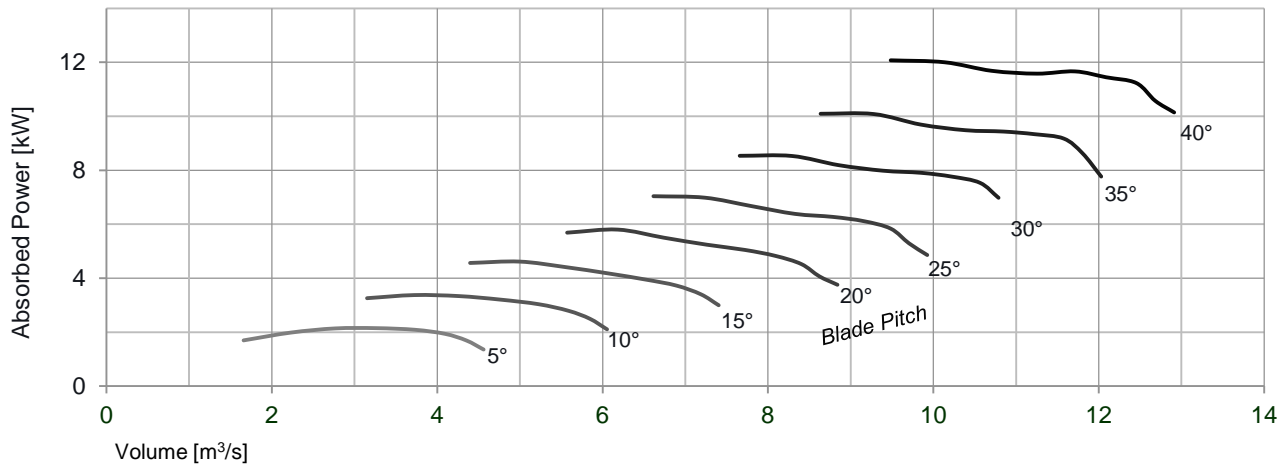
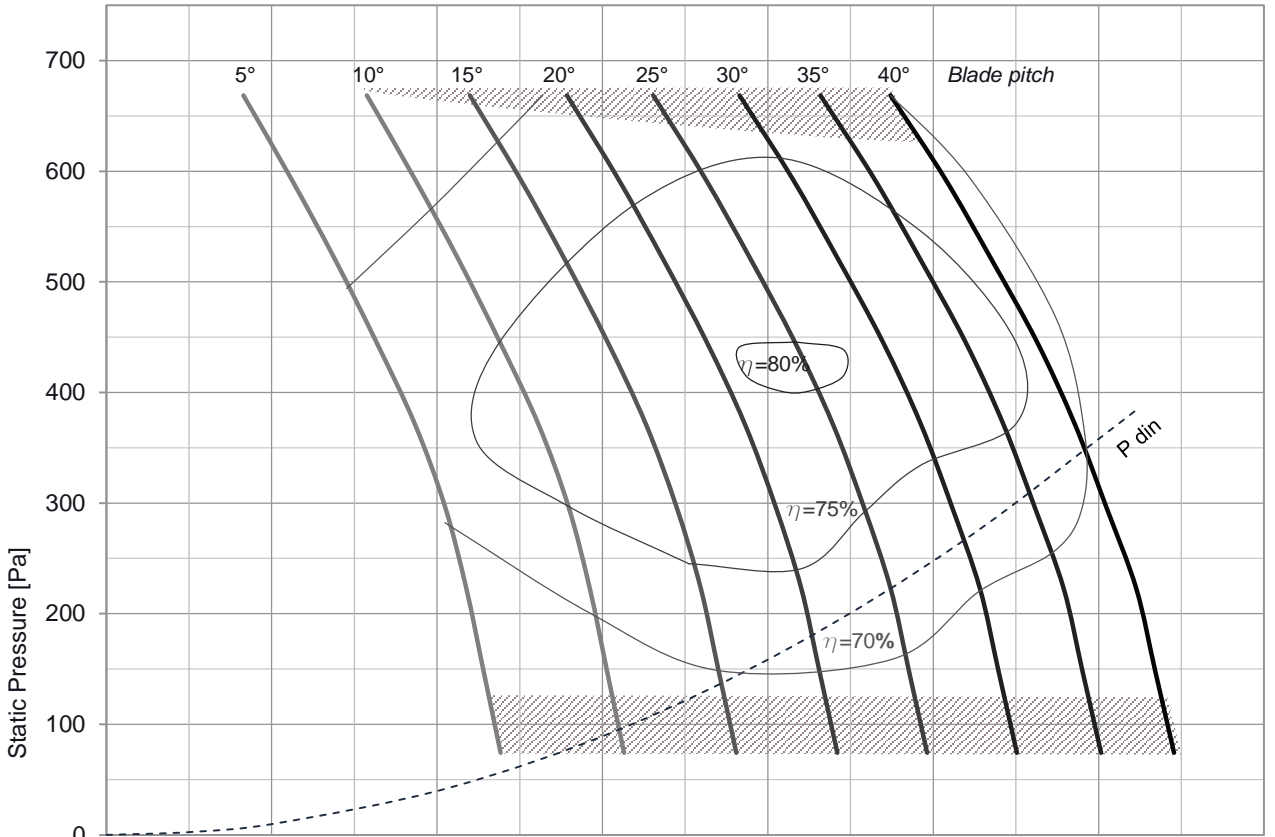
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	0,75	2	9	80	87,8
10°	1,1	2,6	10,9	90	89,6
15°	1,5	3,5	16,1	90	91,9
20°	2,2	4,7	24,4	100	93,8
25°	2,2	4,7	24,4	100	95,9
30°	3	6,4	35,8	100	97,7
35°	3	6,4	35,8	100	99,6
40°	4	8,2	47,5	112	101,9

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 48 \text{ m/s}$
Outlet cross section = $0,31 \text{ m}^2$



Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	1,5	3,5	16,1	90	92,5
10°	2,2	4,7	24,4	100	94,6
15°	3	6,4	35,8	100	96,3
20°	3	6,4	35,8	100	98,5
25°	4	8,2	47,5	112	100,4
30°	5,5	11,1	72,1	132	102,6
35°	5,5	11,1	72,1	132	104,6
40°	7,5	14,3	97,2	132	106,5

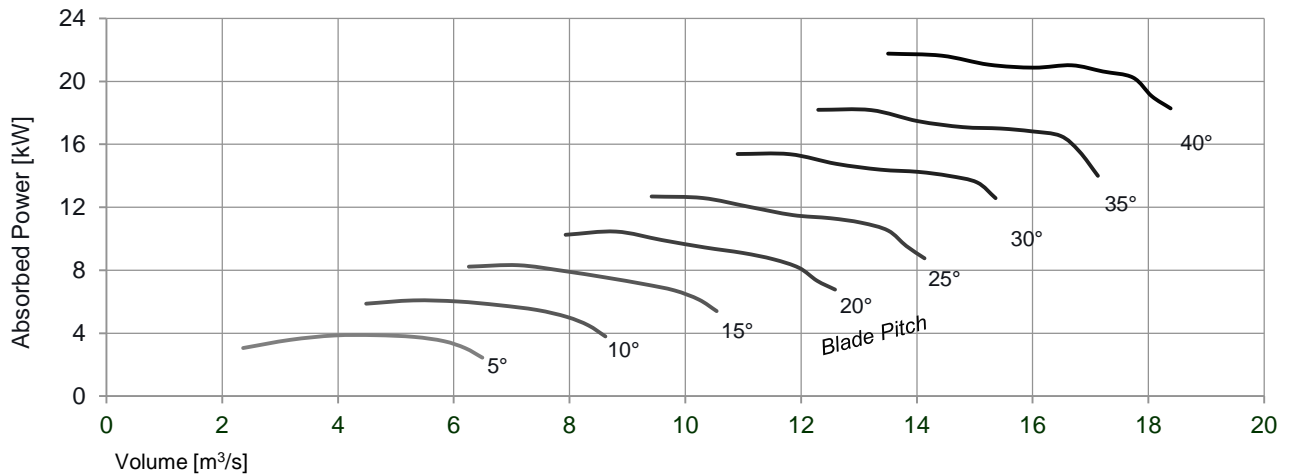
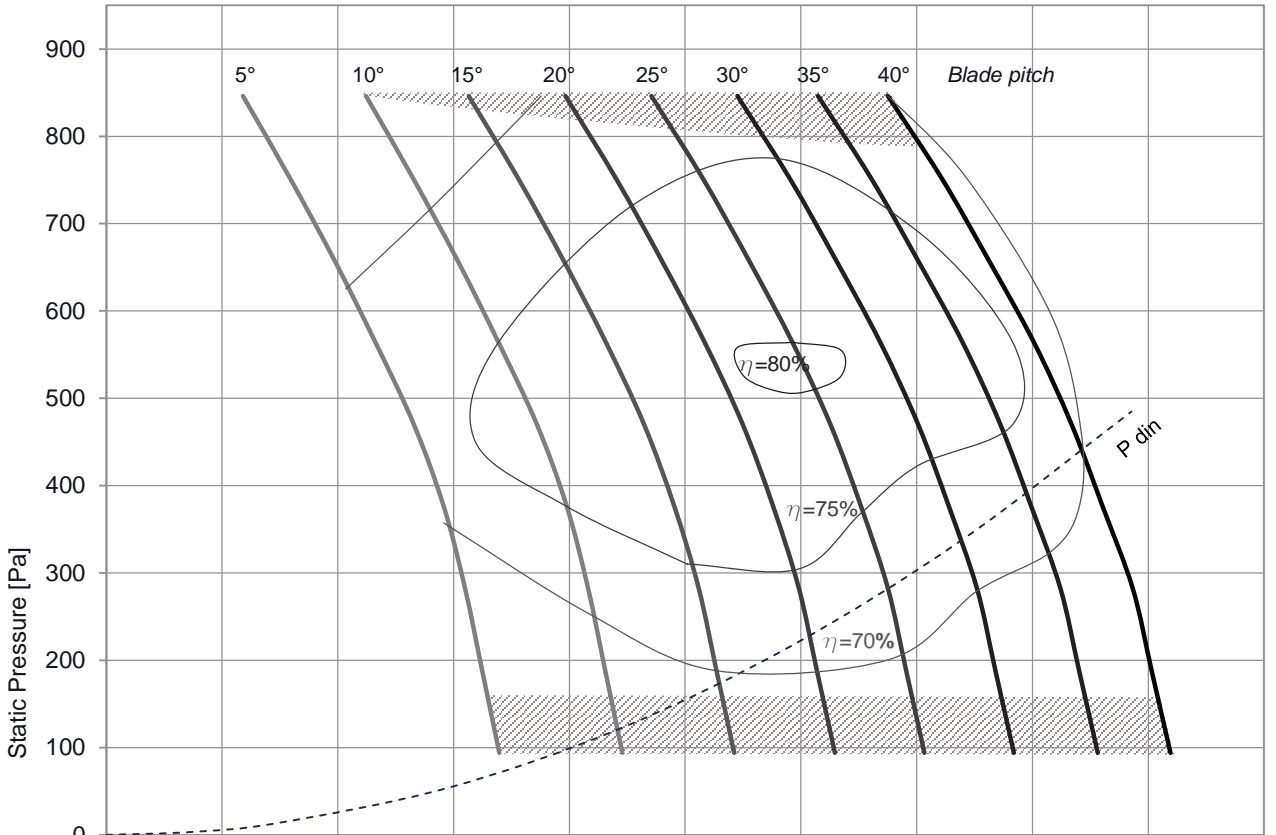
Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 53 \text{ m/s}$
Outlet cross section = $0,39 \text{ m}^2$



Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	2,2	4,7	24,4	100	97,2
10°	4	8,2	47,5	112	99,3
15°	5,5	11,1	72,1	132	101,1
20°	5,5	11,1	72,1	132	103,4
25°	7,5	14,3	97,2	132	105,2
30°	11	21,1	143,4	160	107,3
35°	11	21,1	143,4	160	109,1
40°	15	28,3	203,7	160	111,2

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip. Speed, $V_p = 60 \text{ m/s}$
Outlet cross section = $0,50 \text{ m}^2$

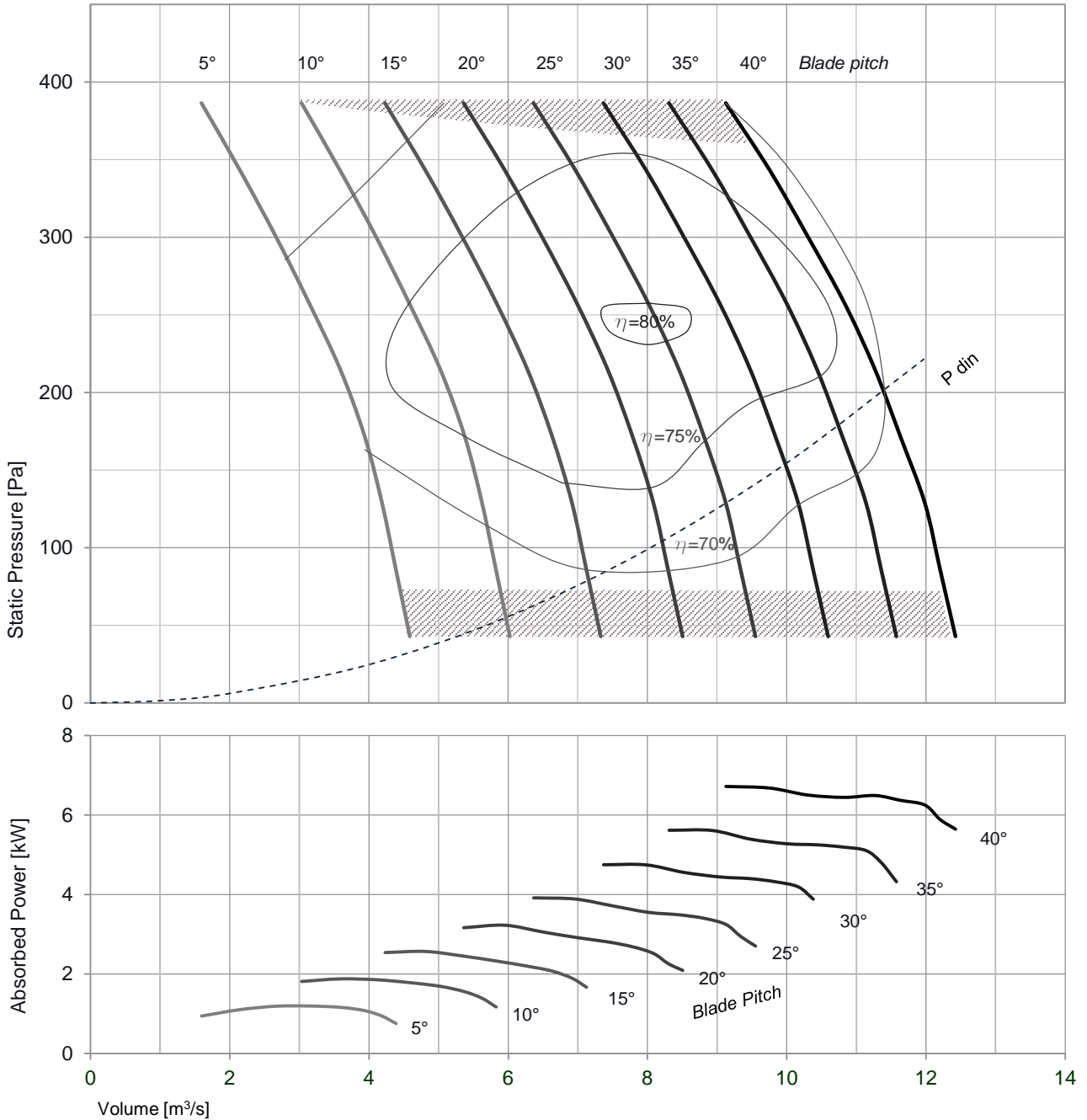
L_w Tolerance : $\pm 2\text{dB}$



Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	4	8,2	47,5	112	101,8
10°	7,5	14,3	97,2	132	103,9
15°	11	21,1	143,4	160	105,7
20°	11	21,1	143,4	160	107,9
25°	15	28,3	203,7	160	109,8
30°	15	28,3	203,7	160	111,7
35°	18,5	33,6	231,4	180	113,9
40°	22	39,4	271,8	180	115,8

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip. Speed, $V_p = 68 \text{ m/s}$
Outlet cross section = $0,63 \text{ m}^2$

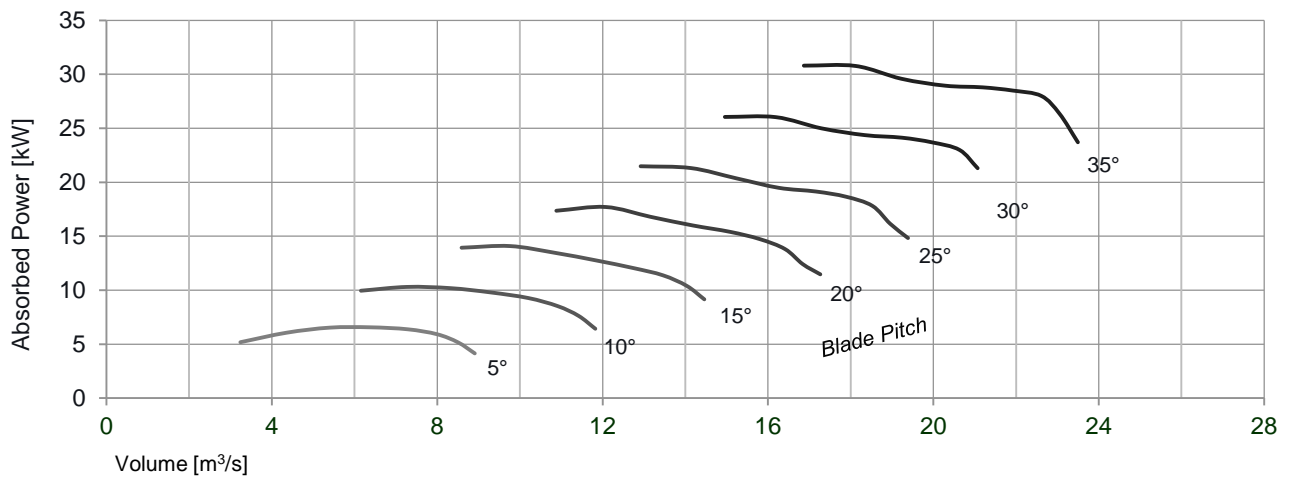
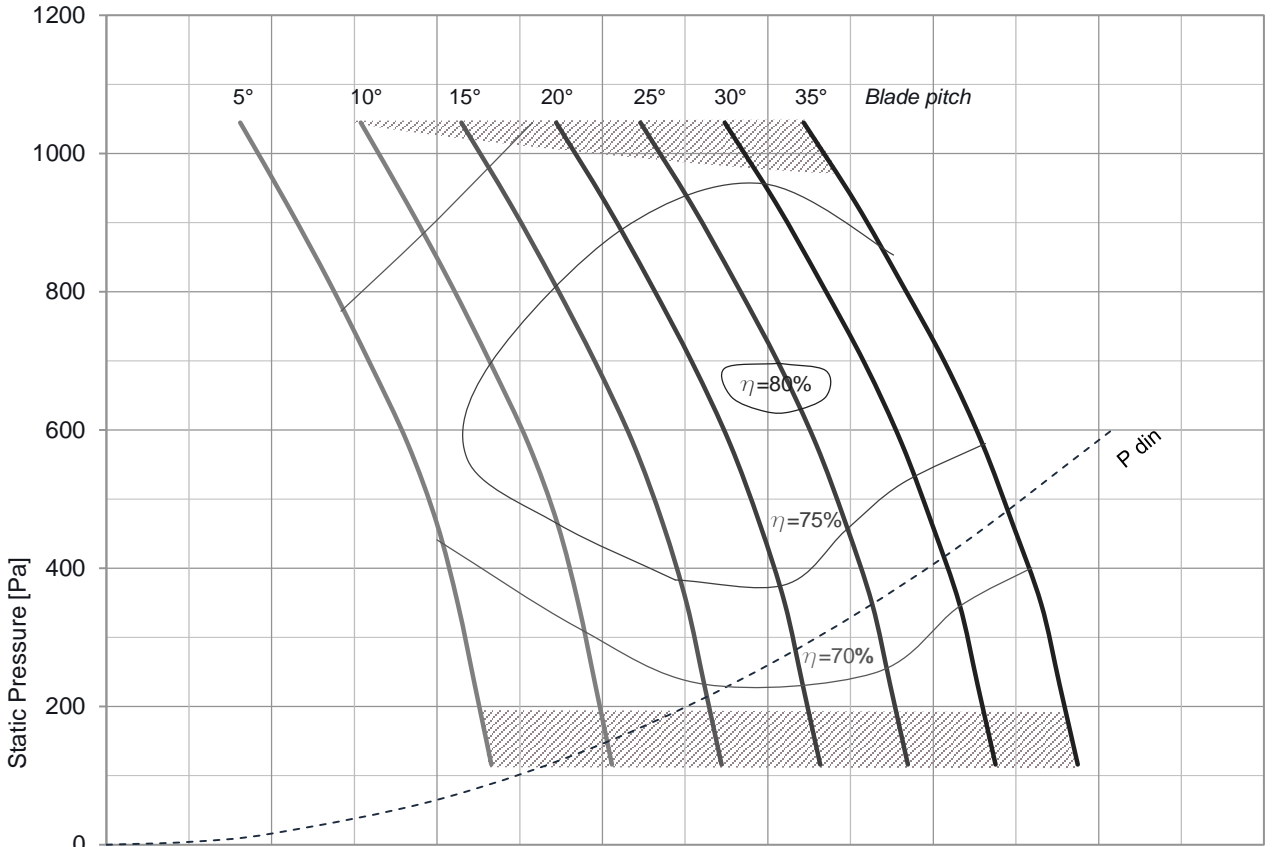
L_w Tolerance : $\pm 2\text{dB}$



Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	1,5	3,9	16,7	100	91,6
10°	2,2	5,3	23,3	112	93,4
15°	3	6,9	37,2	132	95,5
20°	4	8,8	48,4	132	97,6
25°	4	8,8	48,4	132	99,4
30°	5,5	12,0	74,4	132	101,6
35°	5,5	12,0	74,4	132	103,5
40°	7,5	15,9	84,4	160	105,6

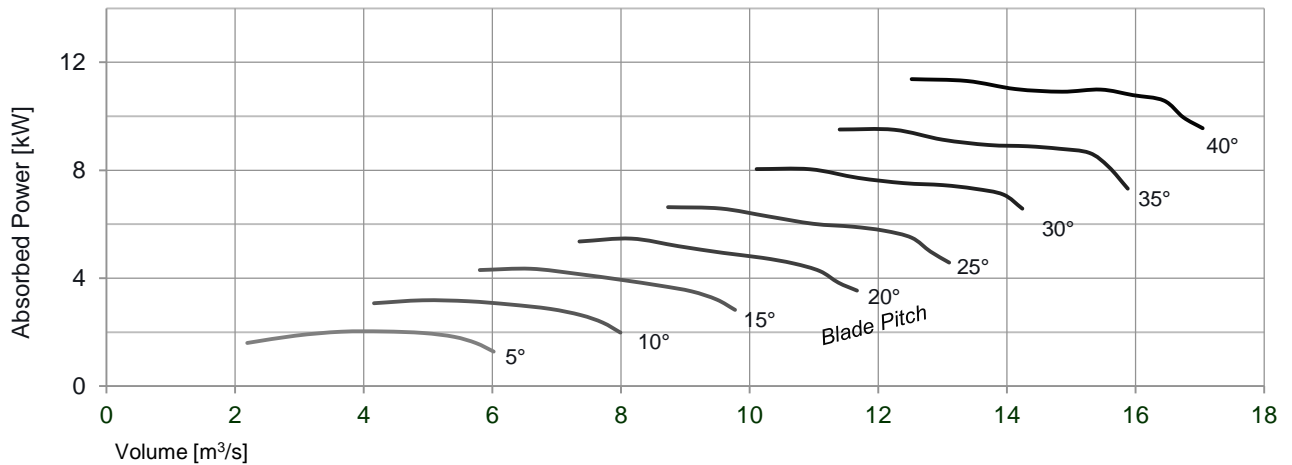
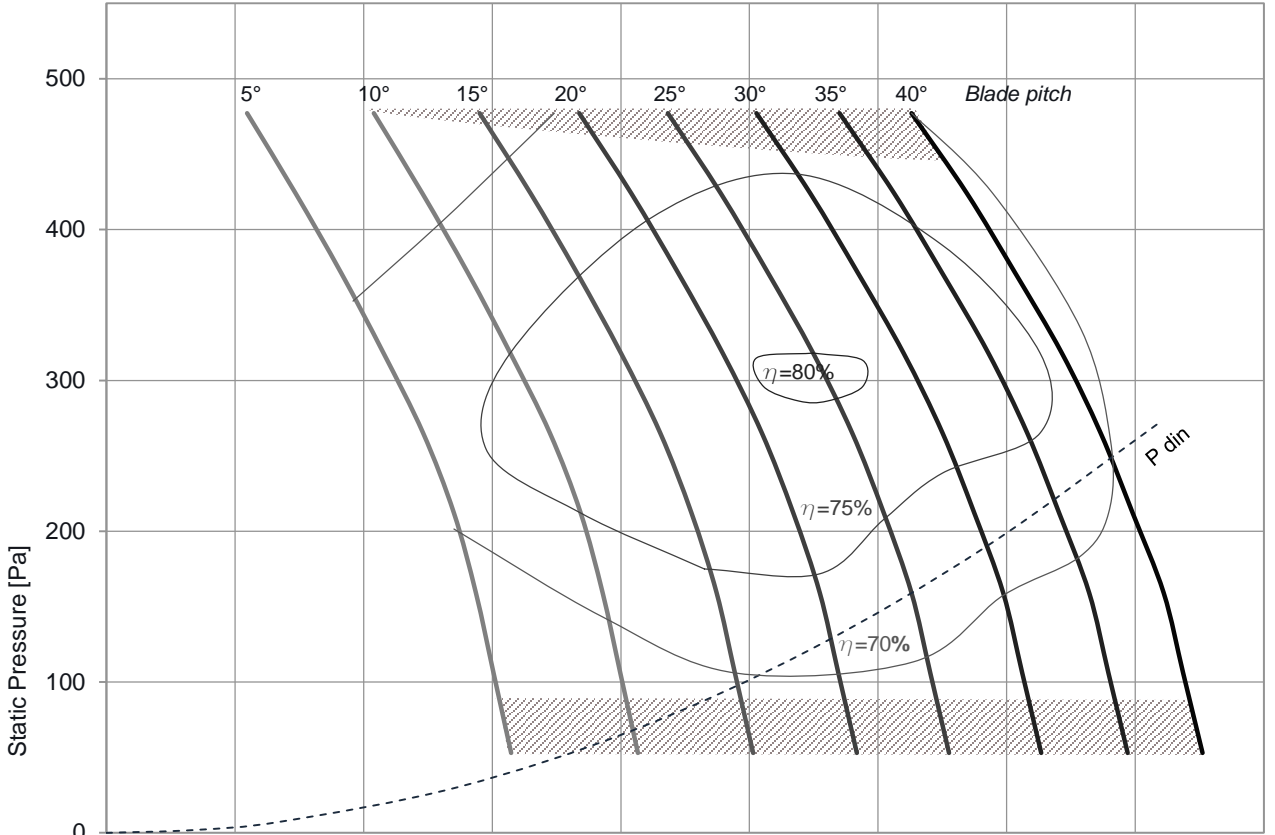
Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 46 \text{ m/s}$
Outlet cross section = $0,63 \text{ m}^2$

L_w Tolerance : ± 2dB



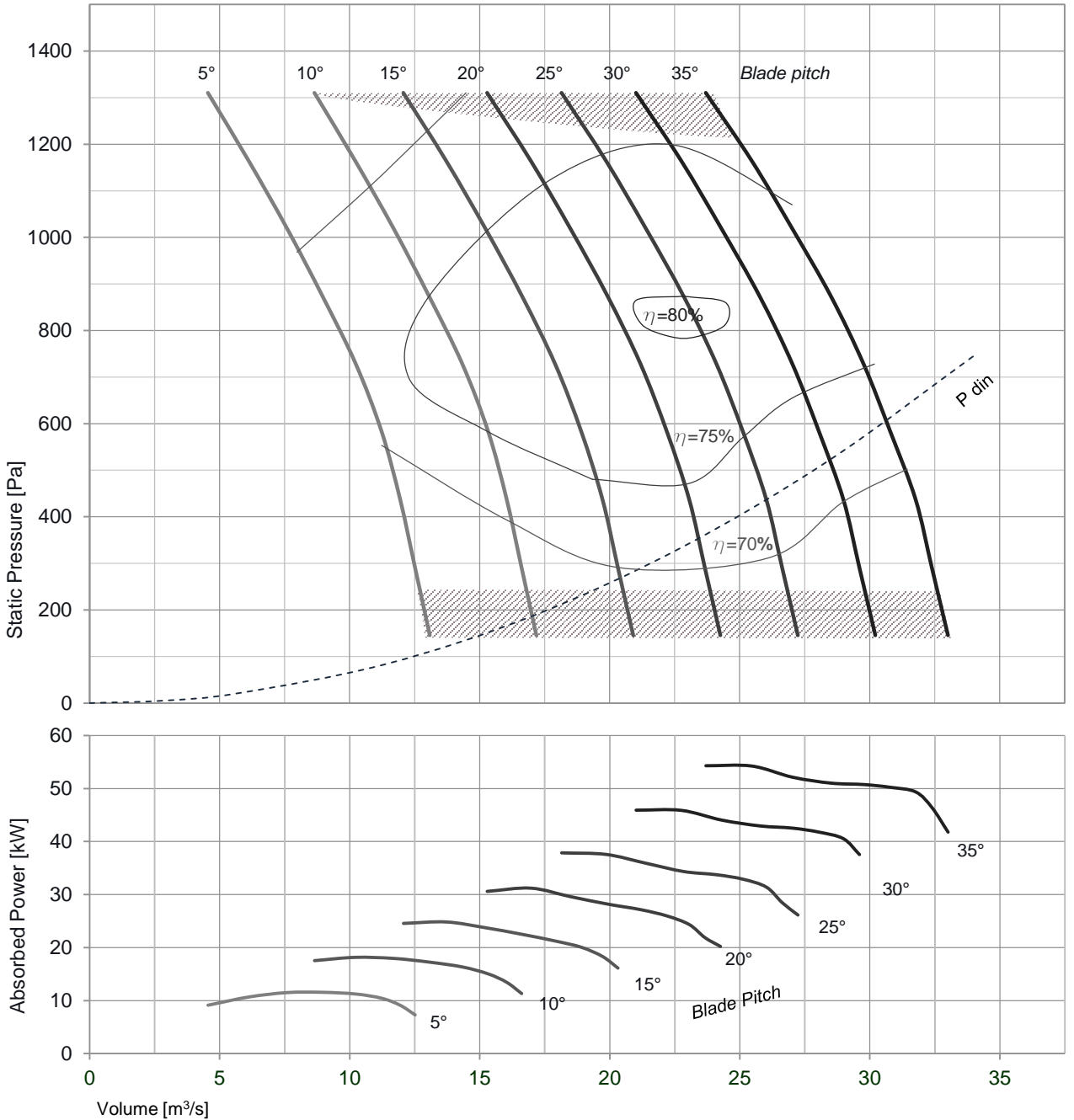
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	7,5	14,3	97,2	132	105,9
10°	11	21,1	143,4	160	107,8
15°	15	28,3	203,7	160	109,9
20°	18,5	33,6	231,4	180	111,7
25°	22	39,4	271,8	180	113,7
30°	30	52,8	332,6	200	115,8
35°	30	52,8	332,6	200	117,6

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, T= 20°C
Tip. Speed, V_p = 75 m/s
Outlet cross section = 0,78 m²



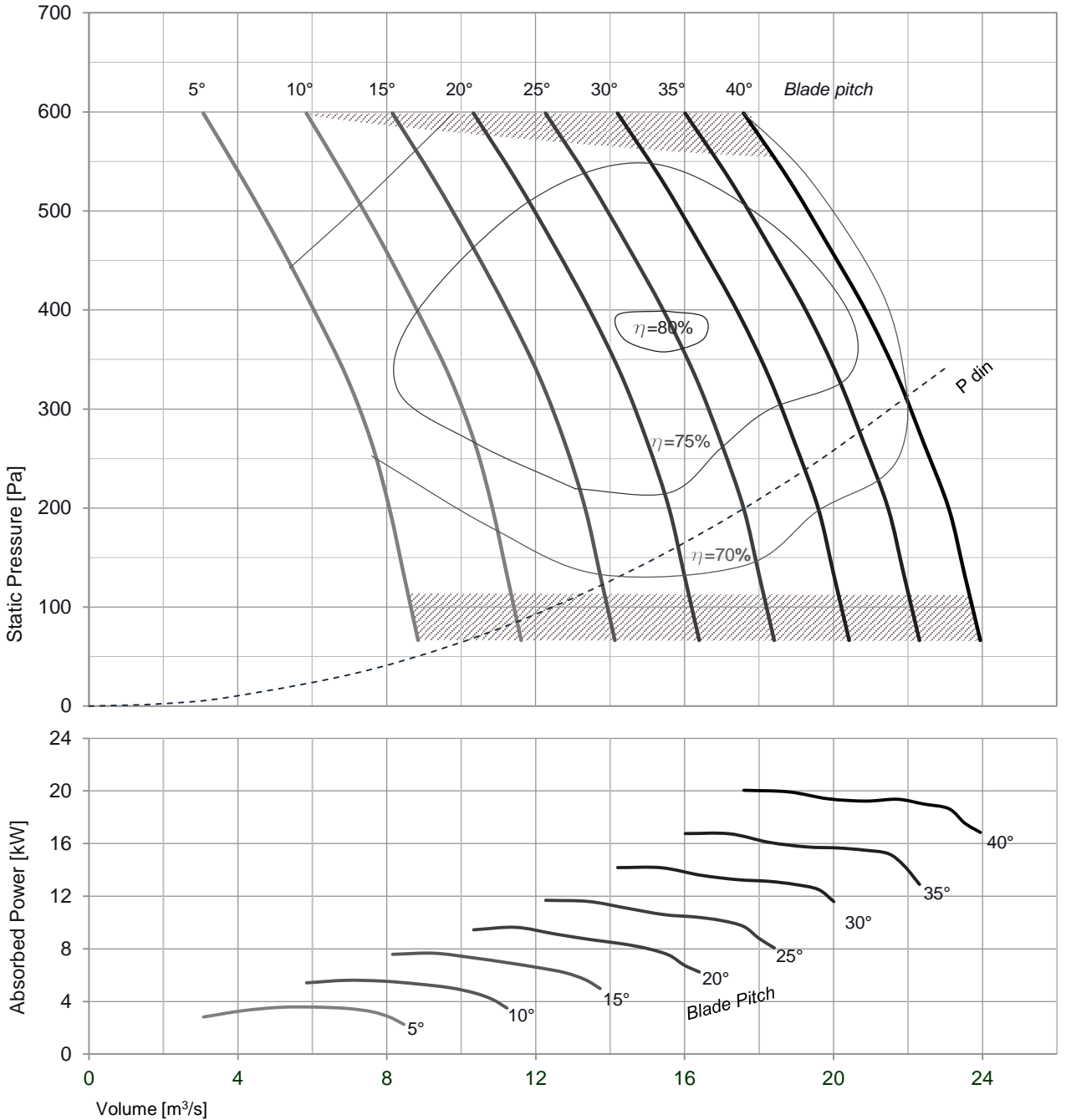
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	2,2	5,3	23,3	112	95,7
10°	4	8,8	48,4	132	97,6
15°	5,5	12,0	74,4	132	99,8
20°	5,5	12,0	74,4	132	101,5
25°	7,5	15,9	84,4	160	103,6
30°	11	22,8	127,6	160	105,7
35°	11	22,8	127,6	160	107,8
40°	11	22,8	127,6	160	109,7

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 51 \text{ m/s}$
Outlet cross section = $0,78 \text{ m}^2$



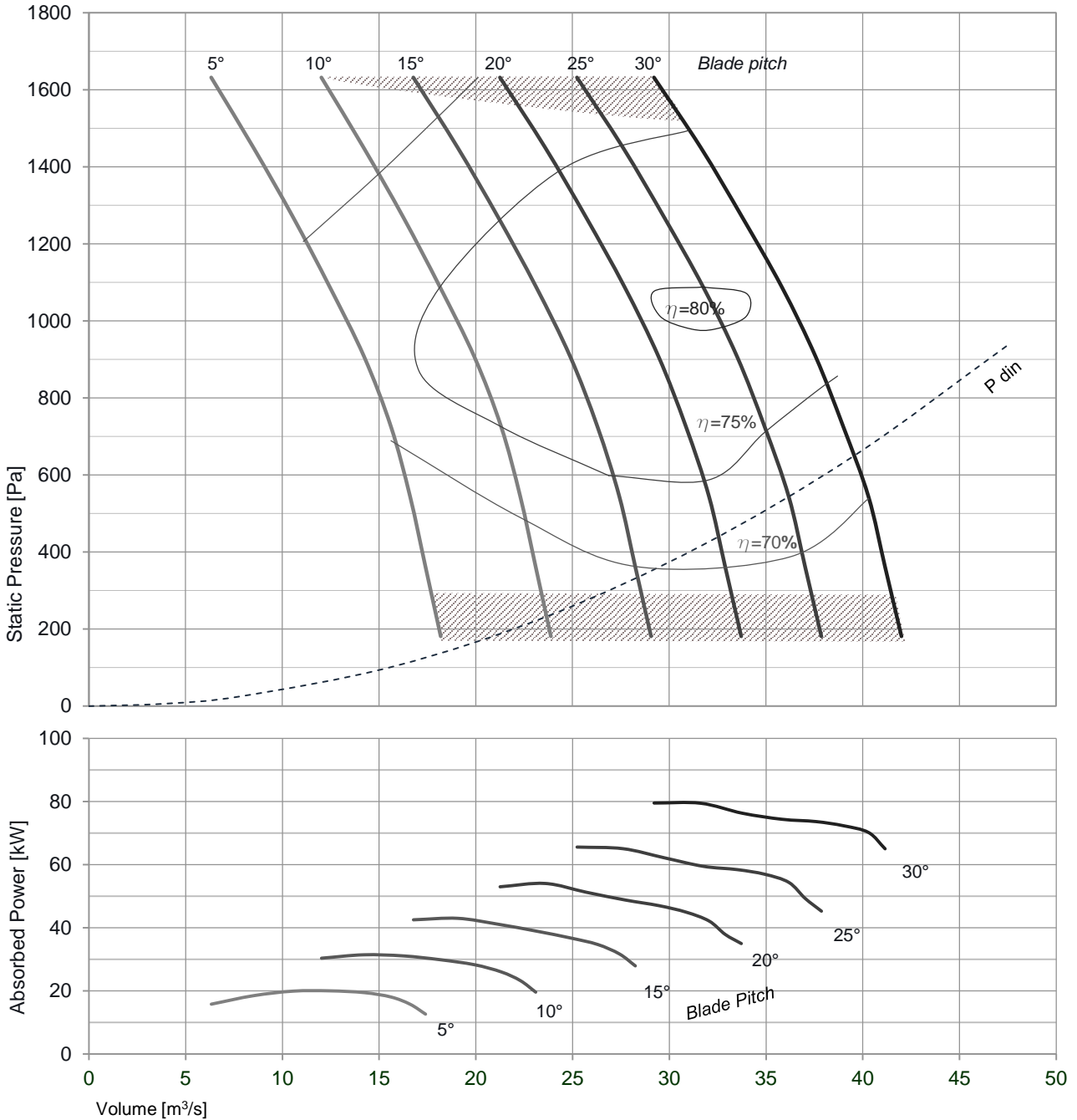
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	11	21,1	143,4	160	110,3
10°	18,5	33,6	231,4	180	112,5
20°	30	52,8	332,6	200	114,1
20°	30	52,8	332,6	200	116,2
25°	37	65,0	468	225	118,3
30°	55	97,1	611,7	250	120,5
35°	55	97,1	611,7	250	122,3

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 84 \text{ m/s}$
Outlet cross section = $0,98 \text{ m}^2$



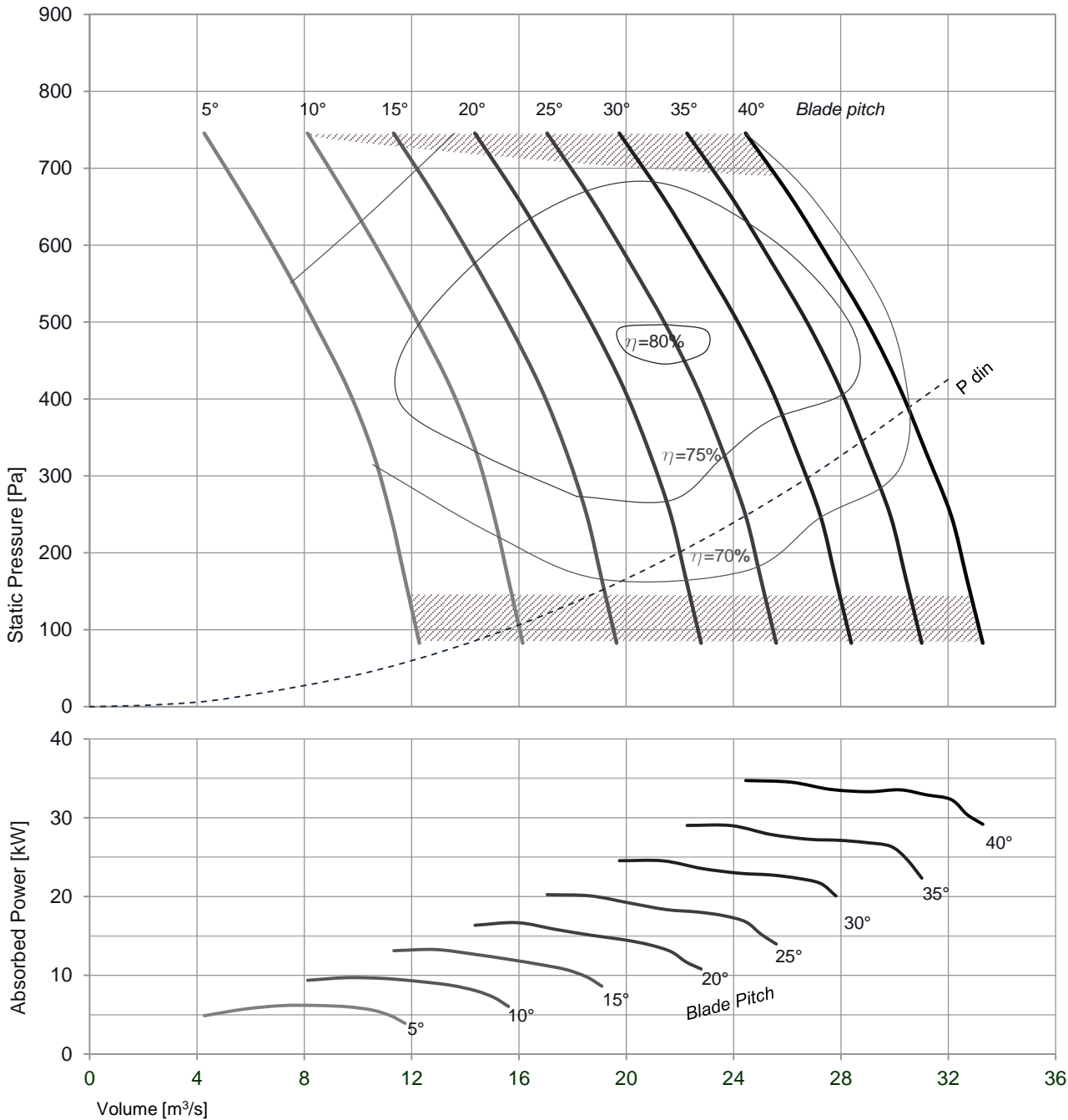
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	4	8,8	48,4	132	100,1
10°	5,5	12,0	74,4	132	102,3
15°	7,5	15,9	84,4	160	104,0
20°	11	22,8	127,6	160	106,2
25°	11	22,8	127,6	160	108,3
30°	15	29,4	167,5	180	110,1
35°	18,5	35,5	205,9	200	112,3
40°	22	40,9	237,2	200	114,1

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 57 \text{ m/s}$
Outlet cross section = $0,98 \text{ m}^2$



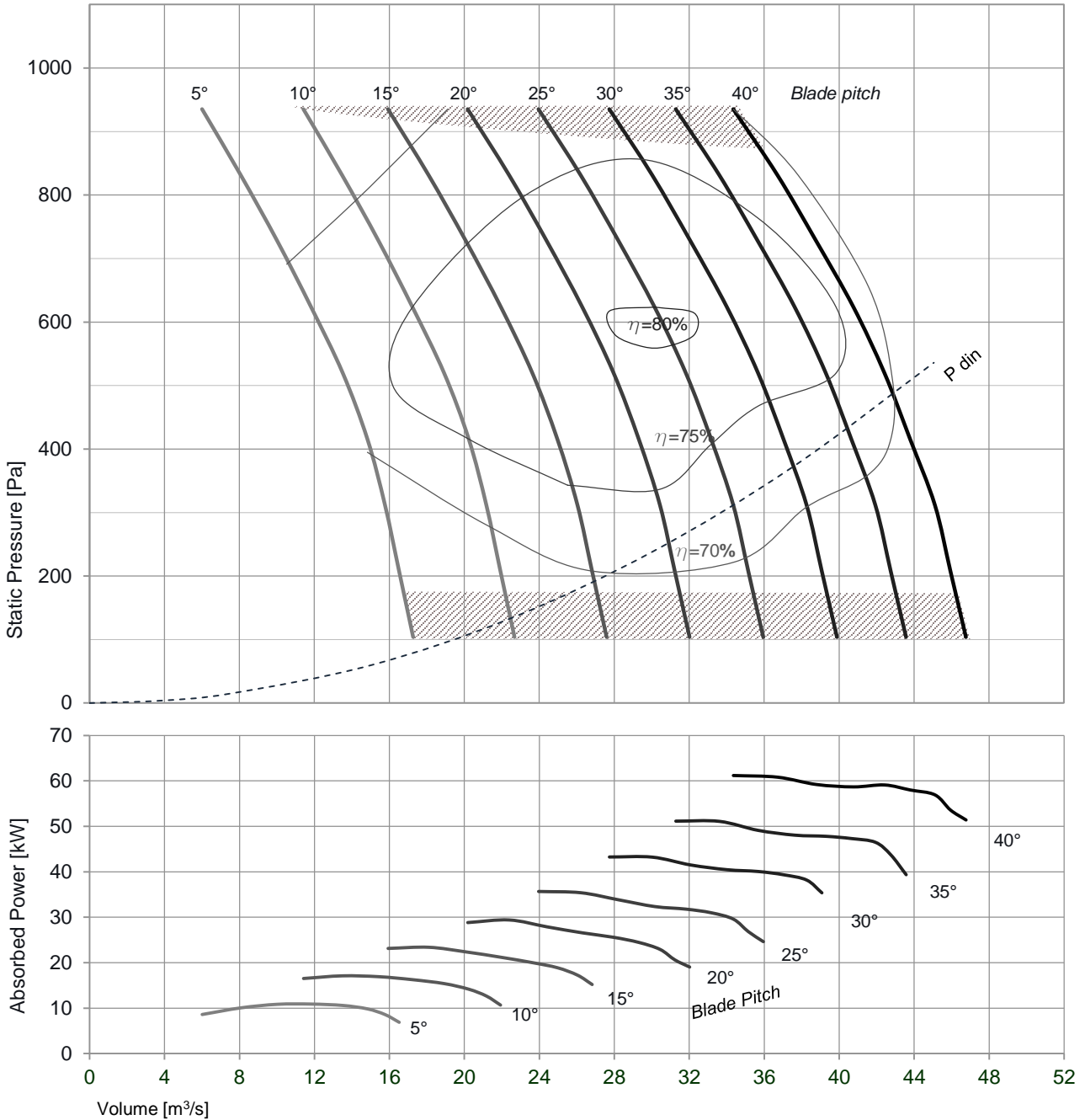
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	22	39,4	271,8	180	114,6
10°	30	52,8	332,6	200	116,5
15°	55	97,1	611,7	250	118,6
20°	55	97,1	611,7	250	120,7
25°	75	128,8	747,0	280	112,5
30°	75	128,8	747,0	280	124,6

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 94 \text{ m/s}$
Outlet cross section = $1,22 \text{ m}^2$



Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	7,5	15,9	84,4	160	104,4
10°	11	22,8	127,6	160	106,3
15°	15	29,4	167,5	180	108,3
20°	18,5	35,5	205,9	200	110,5
25°	22	40,9	237,2	200	112,6
30°	30	56,2	309,1	225	114,4
35°	30	56,2	309,1	225	116,5
40°	37	65,6	406,7	250	118,4

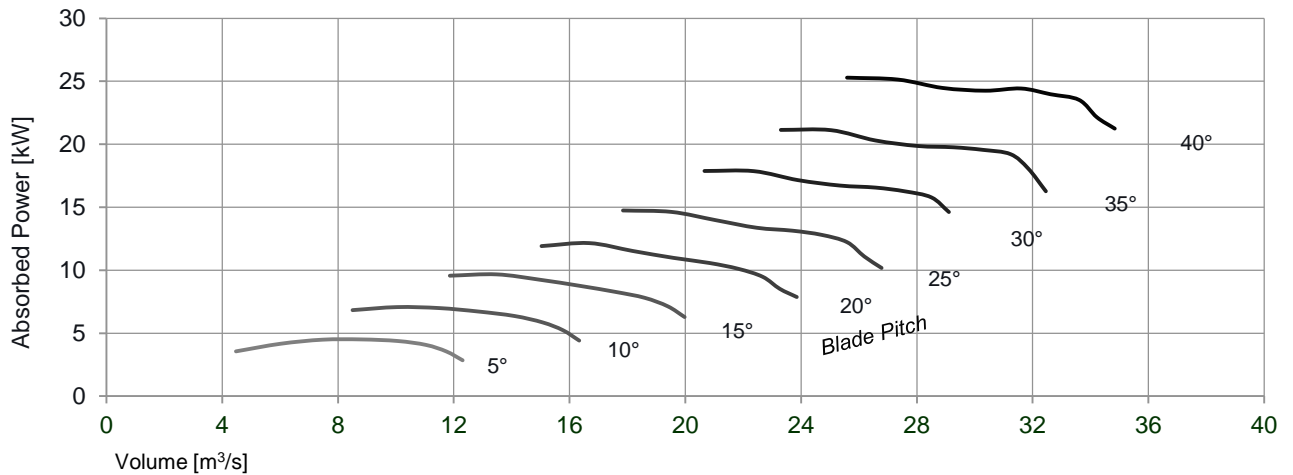
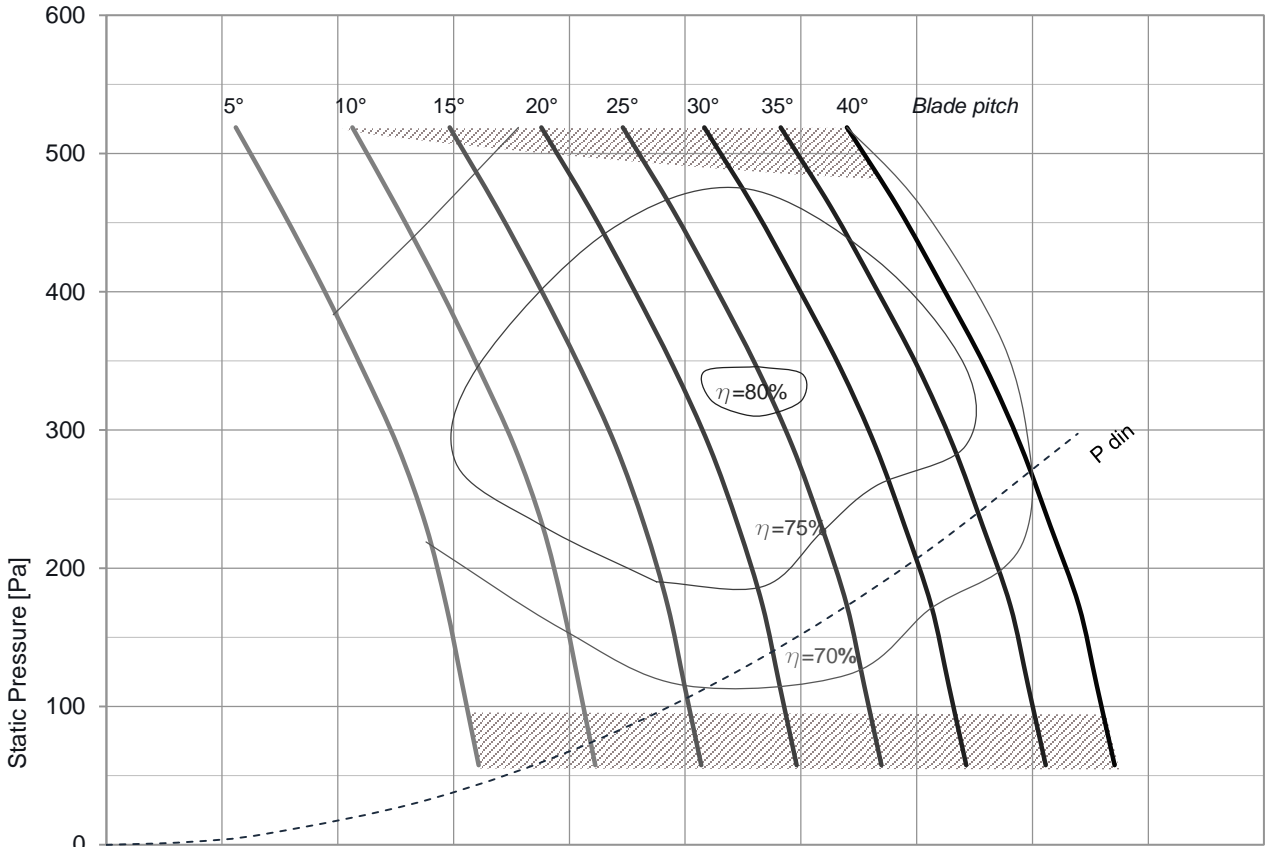
Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip. Speed, $V_p = 64 \text{ m/s}$
Outlet cross section = $1,22 \text{ m}^2$



Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	11	22,8	127,6	160	108,9
10°	18,5	35,5	205,9	200	110,8
15°	22	40,9	237,2	200	112,7
20°	30	56,2	309,1	225	114,9
25°	37	65,6	406,7	250	116,6
30°	45	80,8	509	280	118,7
35°	55	96,9	581,4	280	120,9
40°	75	128,4	834,6	280	122,9

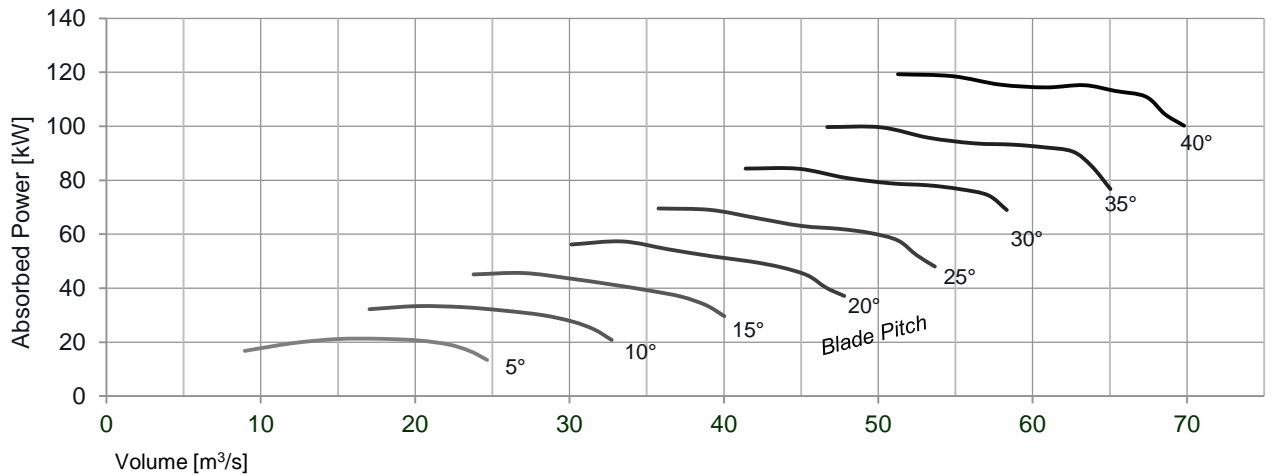
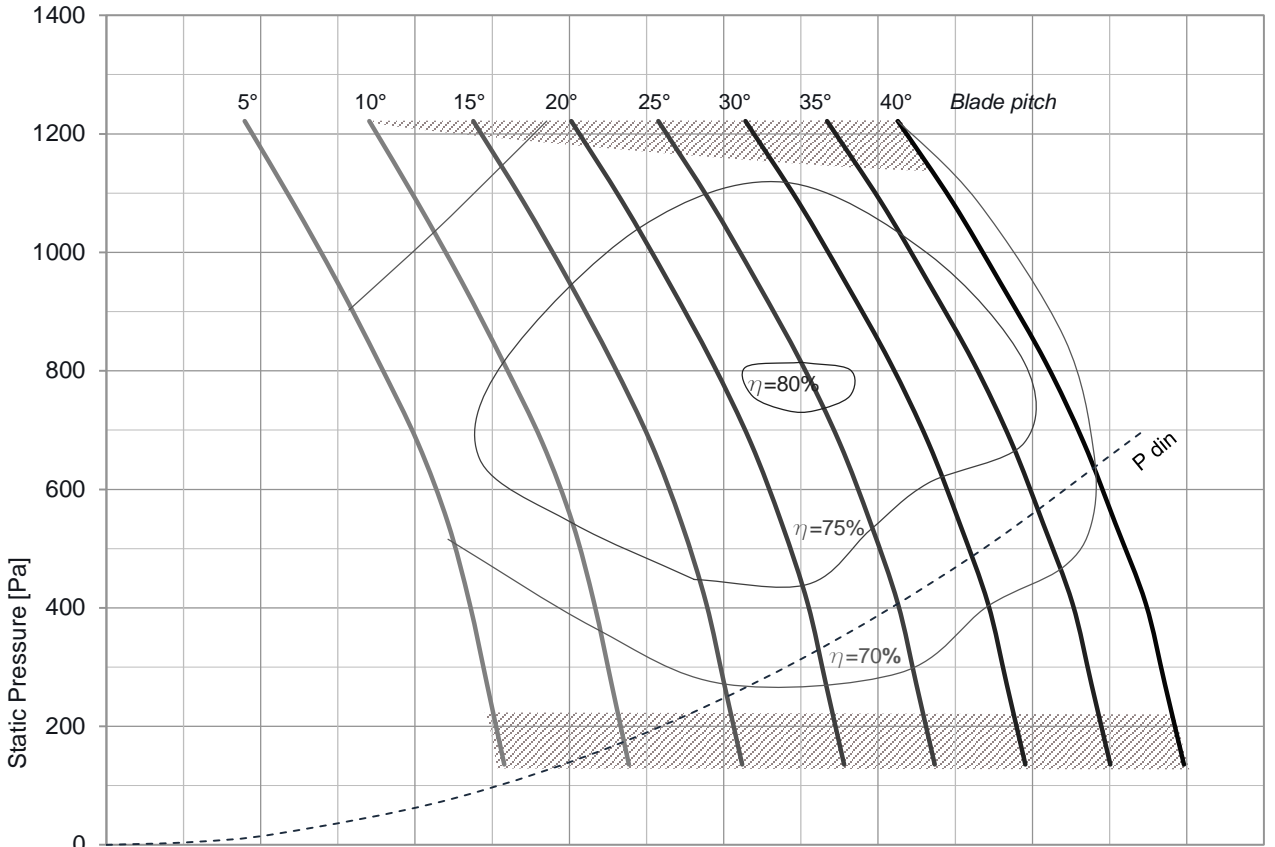
Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 71 \text{ m/s}$
Outlet cross section = $1,53 \text{ m}^2$

L_w Tolerance : ± 2dB



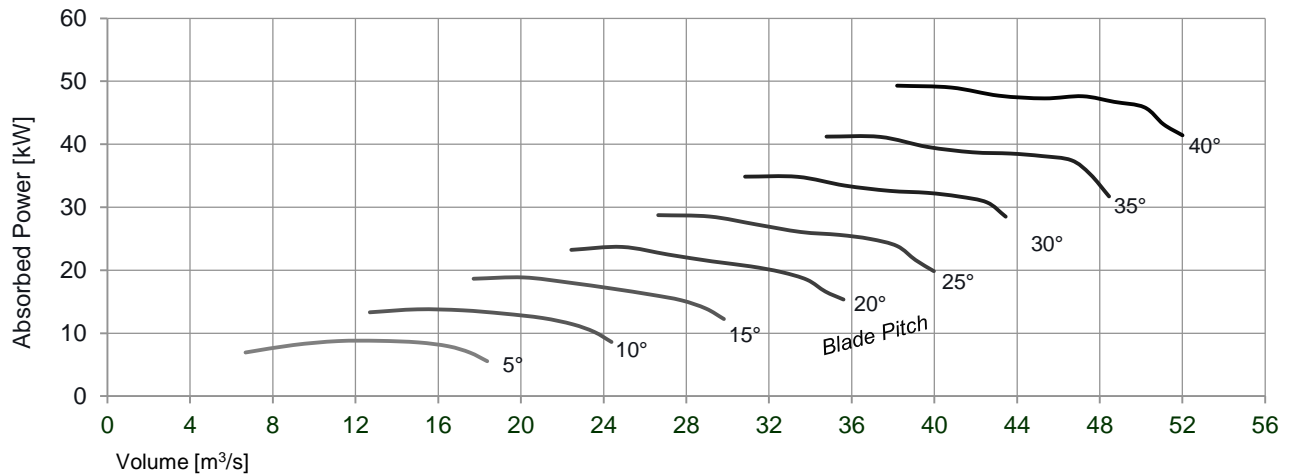
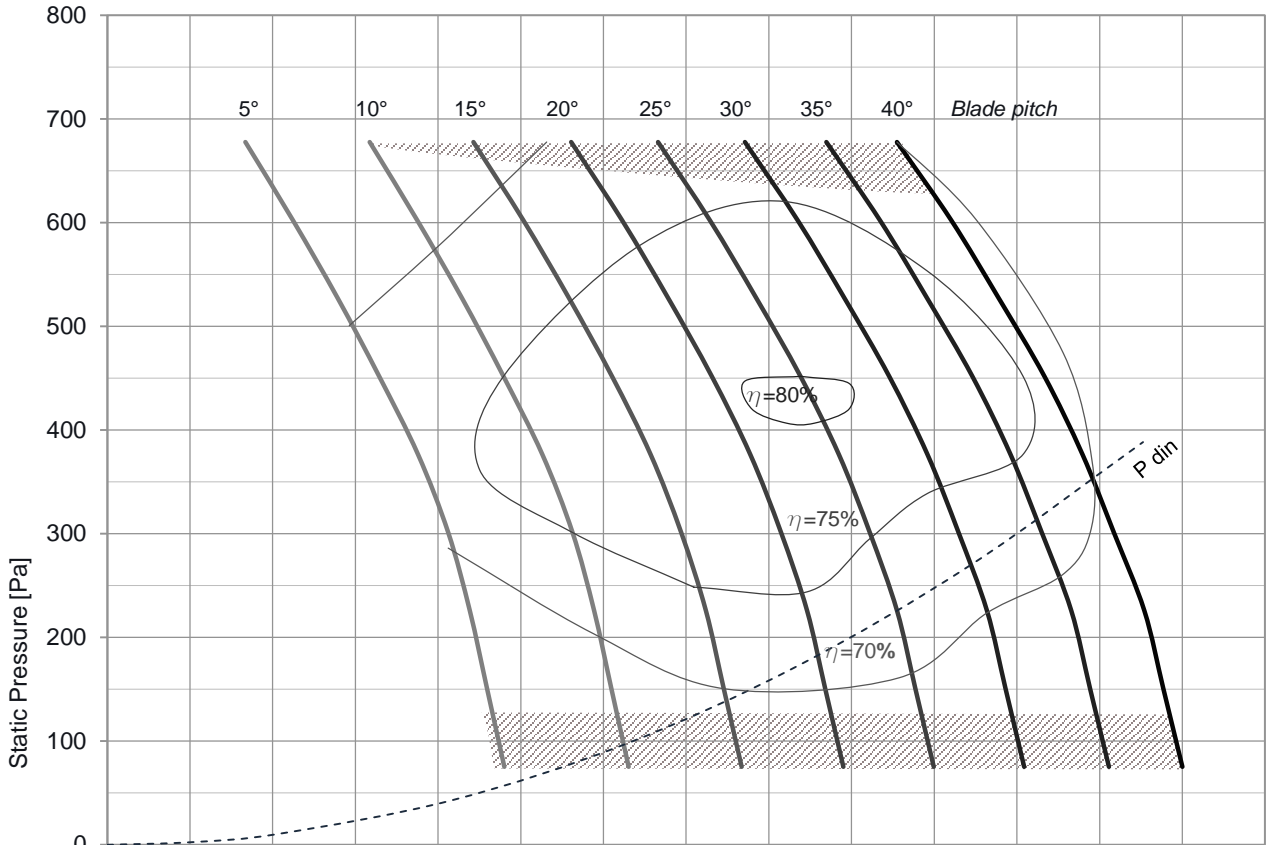
Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	5,5	12,5	62,5	160	101,2
10°	7,5	16,6	94,6	160	103,4
15°	11	23,8	133,2	180	105,3
20°	15	31,3	172,1	200	107,2
25°	15	31,3	172,1	200	109,4
30°	18,5	39,6	221,7	225	111,4
35°	22	44,9	242,4	225	113,3
40°	30	59,4	314,8	250	115,2

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 53 \text{ m/s}$
Outlet cross section = $1,53 \text{ m}^2$



Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	22	40,9	237,2	200	114,1
10°	37	65,6	406,7	250	116,2
15°	45	80,8	509	280	118,3
20°	55	96,9	581,4	280	120,1
25°	75	128,4	834,6	280	122,3
30°	90	160,1	1008,6	315	124,3
35°	110	195,6	1212,7	315	126,2
40°	110	195,6	1212,7	315	128,1

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip Speed, $V_p = 82 \text{ m/s}$
Outlet cross section = $2,0 \text{ m}^2$



Blade pitch	Motor Power [kW]	Rated Current [A]	Starting Current [A]	Motor Size	Fan Noise level [L _w dBA]
5°	11	23,8	133,2	180	106,4
10°	15	31,3	172,1	200	108,5
15°	18,5	39,6	221,7	225	110,3
20°	22	44,9	242,4	225	112,4
25°	30	59,4	314,8	250	114,6
30°	37	71,2	398,7	280	115,3
35°	45	87,3	453,9	280	118,2
40°	55	106,1	594,1	280	120,4

Test according to : ISO 5801 cat.B
Tolerance: ISO 13348 CAT AN4
Air density, $\rho = 1,2 \text{ kg/m}^3$
Temperature, $T = 20^\circ\text{C}$
Tip. Speed, $V_p = 61 \text{ m/s}$
Outlet cross section = $2,0 \text{ m}^2$

L_w Tolerance : $\pm 2\text{dB}$

High Performance Axial Fans

AFH Series

Comet Fans S.r.l.

Via Lucania, 2
20090 – Buccinasco – MI
Italy
Tel. +39.02.96.79.01.43
www.cometfans.com

Microelettrica Scientifica S.p.A.

Via Lucania, 2/4/6
20090 – Buccinasco – MI
Italy
Tel. +39.02.57.57.31
www.microelettrica.com



This publication may be altered without prior notice. A printed copy of this document may not be the latest revision. Please contact CometFans Sales Office for the latest update. The figurative mark "K" and the trademarks KNORR and KNORR-BREMSE are registered in the name of Knorr-Bremse AG – All rights reserved.

AFH-TC-ENG Rev.Feb 2017