Axial Fan Series

Model Nos.: AE

SEACON EQUIPMENTS

Fan type code

AE 450-7 /26 D -2 F400

- F400 — Smoke Extract Fan 400 C, 300° C
- -2 — Number of Poles
- D = Three Phase
- S = Single Phase
- /26 — Pitch Angle
- 450 — AR : Impeller - Ø and number of blade
- AE : Impeller - Ø Hub - Ø and number of blade
  315…1000 - 150, 250 - 5, 7, 10, 14
- AE — Axial fan blade type

Features and construction

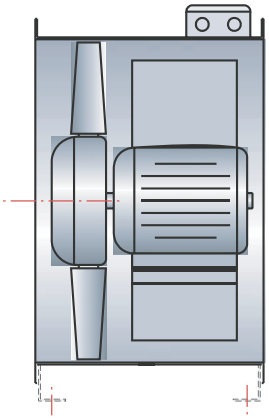
Types and duties

Seacon Axial flow-fans are specially manufactured for all applications and mounting positions in case sizes 315 up to 1600 mm diameter. The performance range is from 1000 up to 360000 m³/h on air volume, at static pressure up to 1500 Pa. Higher pressures are possible on multi-stage versions, contra-rotating. The curves show in this catalogue are for smoke extract version up to 300 C only. For F 400 C, please approach Seacon staff for assistant.

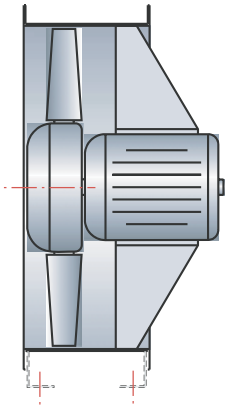
Casing:

Fan casing are fabricate using mild steel and treated with hot dip galvanised or epoxyafter manufacturing as an anti Standard length fans are lerg casing type which cover overall length of the impeller and motor. The motor leads (cover by flexible conduti) are connect to the terminal box on the fan casing. Where there is limited mounting for the ducts, short casing are used for installation. The motor cable are taken directly fot the T-box of the motor.

Long Casing



Short Casing



Impellers

Seacon impellers, hubs and blades are made of die-cast aluminium alloy, the sophisticated aerodynamical profile guarantees high efficiency and low noise. The manual pitch adjustable blades allow maximum flexibility to match individual airflow requirement. The variable number of blades increases the performance range.

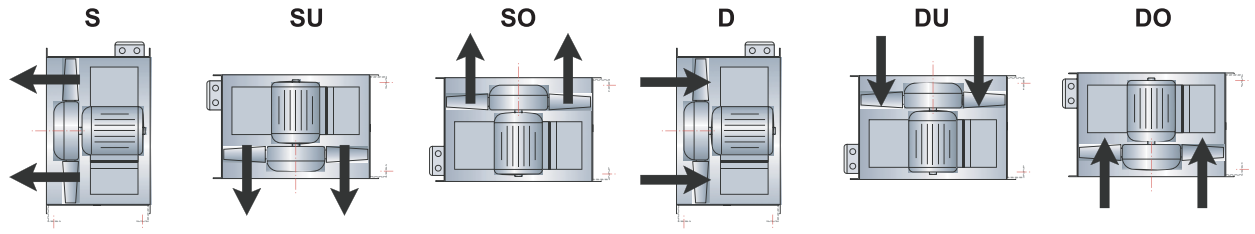
Each impeller is statically and dynamically balanced and checked to ensure smooth operation. All impeller examined by X-ray to ensure flawless castings.

Motors

Seacon uses totally enclosed fan cool squirrel cage motors rated to IEC 34, if required also in accordance to EPACT.
The standard motors have Class F and H enclosure class IP 55.
Ambient temperture of the operation is +40 “C, with 2 or 3 speeds, TAB- or DUAL-wounded are also available.
The motor bearings have a L 10 life.

Forms of running

Seacon Axial flow fans are available for all forms of running.
The chart information shows all standard forms of running, please indicate when ordering.
Standard form of running . Type D.
Form of running is especially relevant when weather proof motors are required.
Arrows indicating correct rotating and direction of airflow are shown on the fan casing.



Fan performance curves

The performance curves forthese fan types have been established in mounting position D (installed on the pressure side and suction side) and show the total pressure increase ? pt as a function of the volume flow. The dynamic pressure pd2 refers to the flange cross section at the outlet side of the fan.

Sound levels

The ascertaining of the sound level follows the enveloping surface method according to DIN 45635 section 38.
In the performance curves shows the unweighted total sound power levels.The octave sound power level is important for the choice of suitable sound attenuators. It is obtained as follows.

$L_{WOkt} = L_W + L\,W_{rel}$

The relative octave sound power level L_{WArel} octave medium frequency can be taken from the tables. These levels has been established at 0.5 X Vmax. The A-weighted octav sound power level is obtained by reducting by the A-filter. (A-filter see page 7)

$L_{WAOkt} = L_{WOkt} + L_{WrelA}$

The "A" sound power level L_{WA} is obtained by logarithmical addition of all A-weighted octave sound power levels. (See page 7)
Sound power level on suction and on outlet side are nearly the same.

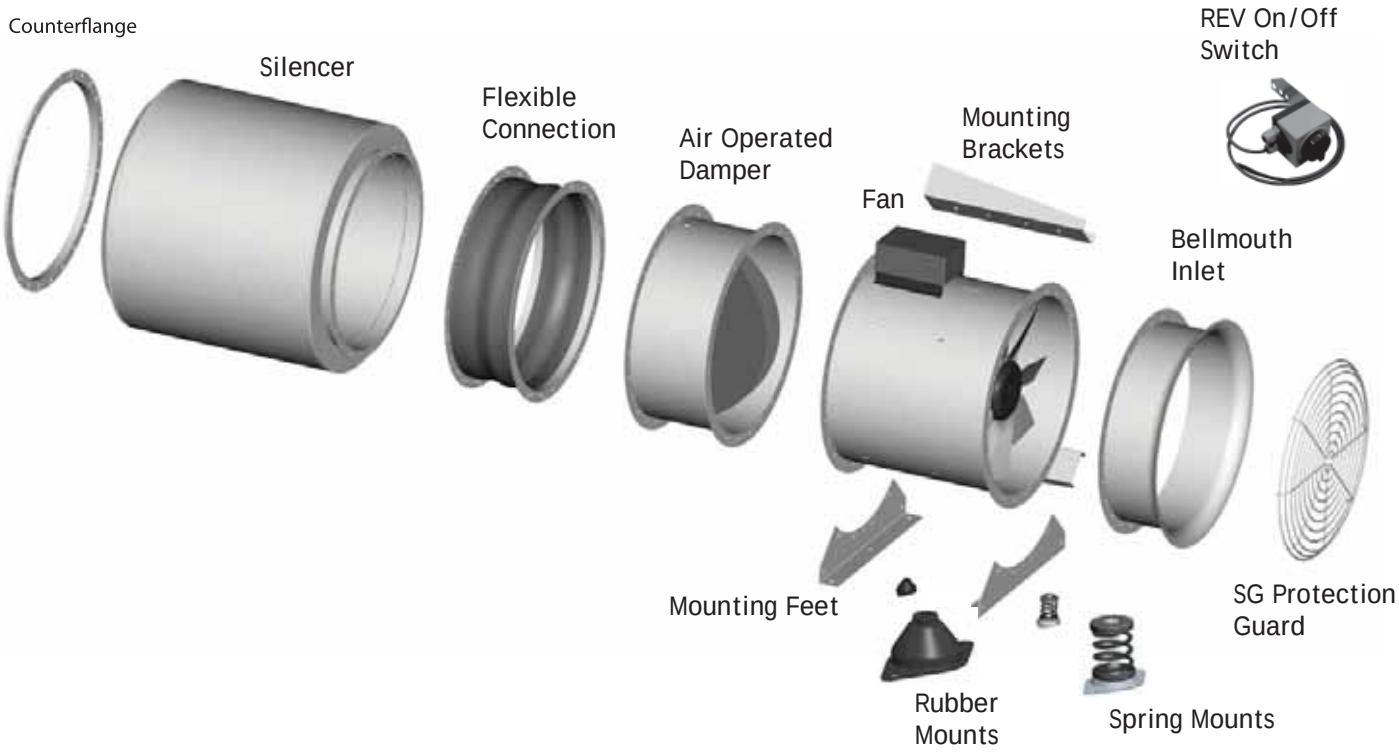
$L_{W5} \sim L_{W6}$, $L_{WA5} \sim L_{WA6}$, $L_{WA5} \sim L_{WA} - 3$

The sound power level emitted through the housing L , according to DIN 45635, part 38 is obtained approximately as follows:

$L_{W3} = L_W - 15dB(A)$

The “A” sound pressure level L_{PA} at a distance of 1 metre is obtained approximately by deducting 7 dB(A) from the “A” sound power level L_{WA}.
It is important to note that the reflection and room characteristic as well as natural frequencies differently influence the sound pressure levels

Fan Installation With Accessories



Certificate and Approval

TEST SUMMARY FOR:

Seacon Engineering Equipment Pte. Ltd

Chua Lee Chuang
Associate Engineer

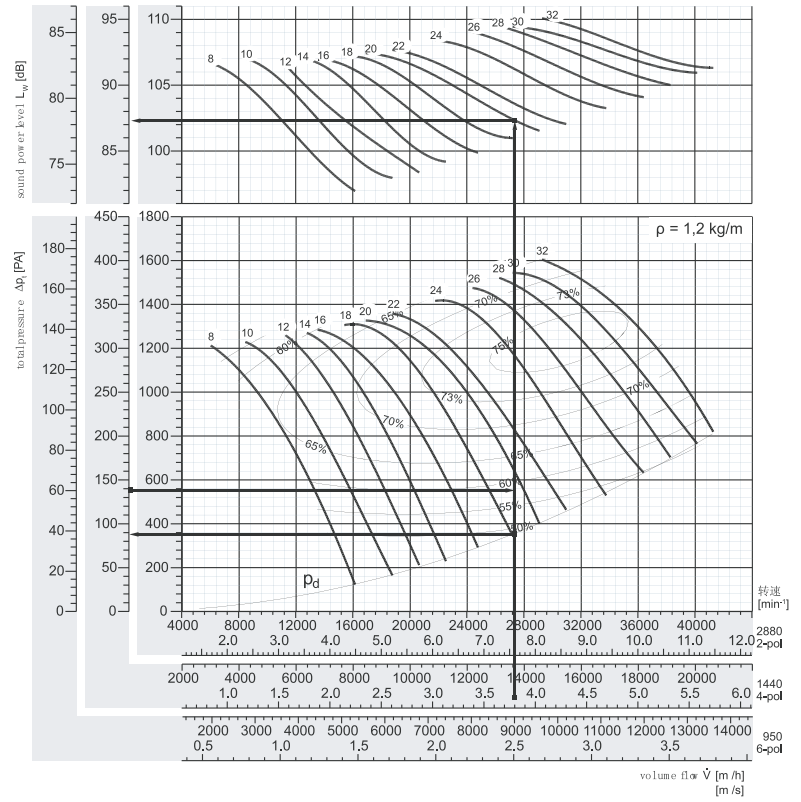
Chua Peck Cheong
Product Manager
Building and Industrial Products
Testing Group

PSB Singapore

Selection example

Required duty point by customer Volume flow : 3,8 m³/s
static pressure: 50 Pa
(for total pressure, please add velocity pressure to static pressure - 90 Pa dyn. pressure 50 Pa static pressure = 140 Pa total pressure)
Fan speed: 1440 1/min (4-pole)
How to use:
After having chosen right fan performance curve please draw volume flow and pressure.
In the cross you will find the following fan data:
- motor speed or number of poles 1440 1/min - 4-pole
- pitch angle: 20 degrees
- fan efficiency: 58 %
- sound power level: 87 dB

Performance curve 50 Hz AE 630-7



Peak absorbed power [kW] — relativ frequenc y spectru m ?L in dB/Okt

n [min⁻¹]	pitch angle [ ] 8	10	12	14	16	18	20	22	24	26	28	30	32	Octave b. midfr. [Hz] 63	125	250	500	1k	2k	4k	8k
950	0,15	0,20	0,25	0,28	0,29	0,33	0,36	0,40	0,47	0,55	0,61	0,64	0,71	-3	-5	-7	-7	-8	-12	-18	-24
motor	0,37							5,5			1,1										
1440	0,53	0,69	0,88	0,96	1,02	1,15	1,24	1,41	1,65	1,90	2,11	2,22	2,47	-5	-6	-5	-6	-7	-10	-15	-21
motor	0,55	1,1				1,5			2,2			3,0									
2880	4,24	5,52	7,04	7,68	8,16	9,20	9,92	11,3	13,2	15,2	16,9	17,8	19,8	-5	-10	-7	-5	-7	-8	-12	-18
motor	5,5	7,5		11,0				15,0		18,5			22,0								

Choose motor power:

Two possibilities are practicable to choose the motor power

1) Calculation absorbed power in duty point

$$P_L\,[kW] = \frac{V[m^3/s] \cdot \Delta pt\,[Pa]}{\eta\,[\%] \cdot 10} = \frac{3{,}8\ m^3/s \cdot 140\ Pa}{58 \cdot 10} = 0{,}91\ kW$$

Motor power: 1,1 kW

2) After peak-absorbed power see chart: 1,24 kW

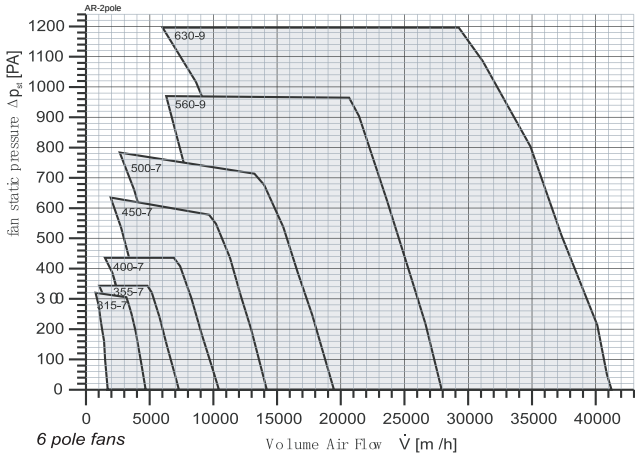
Motor power: 1,5 kW

Peak power is the max power over the whole pitch angle in the worst case.

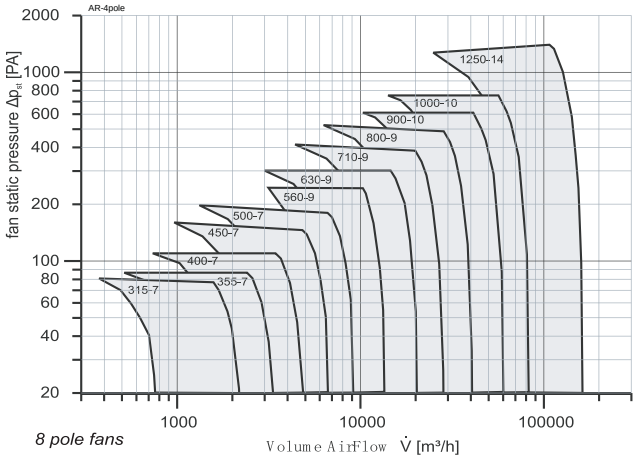
How to get the required noise level, see page 7.

Quick Selection

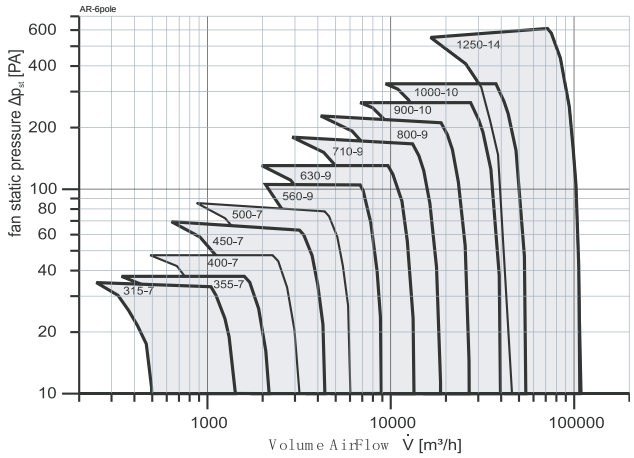
2 pole fans



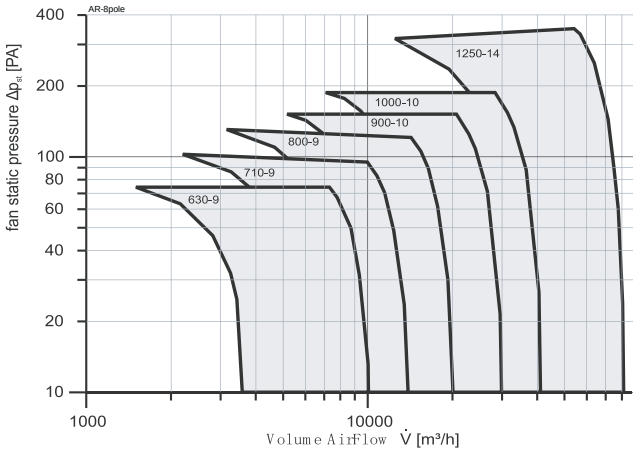
4 pole fans



6 pole fans



8 pole fans



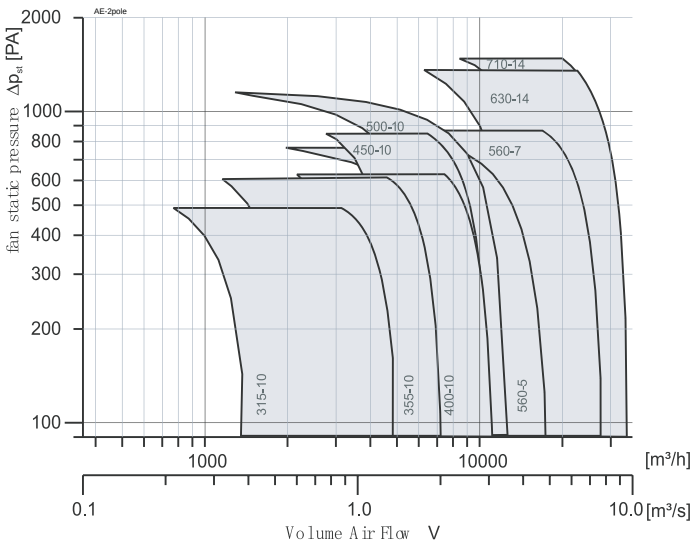
Axial Flow Fan Dimension

Size [mm]	Di [mm][	Da mm][	hF mm][	zxd mm]	Tk [mm]	EF [mm]	[mm]	bF [mm]
315	315	395	2318	x 12	355	265	315	60
355	355	435	2628	x 12	395	305	355	60
400	400	480	2971	2 x 12	440	350	400	60
450	450	530	3321	2 x 12	490	400	450	60
500	500	580	3501	2 x 12	540	440	500	70
560	560	660	3661	6 x 14	605	500	560	70
630	630	730	49	16 x 14	675	570	630	70
710	710	810	4901	6 x 14	755	650	710	70
800	800	900	5081	6 x 14	845	730	800	80
900	900	1000	5711	6 x 14	945	830	900	80
1000	1000	1100	6591	6 x 14	1050	930	990	80
1067	1067	1081	11811	6 x 14	1135	997	1057	80
1250	1250	1345	7992	4 x 14	1315	1180	1240	100
1400	1400	1530	---	24 x 14	1470	1330	1390	120

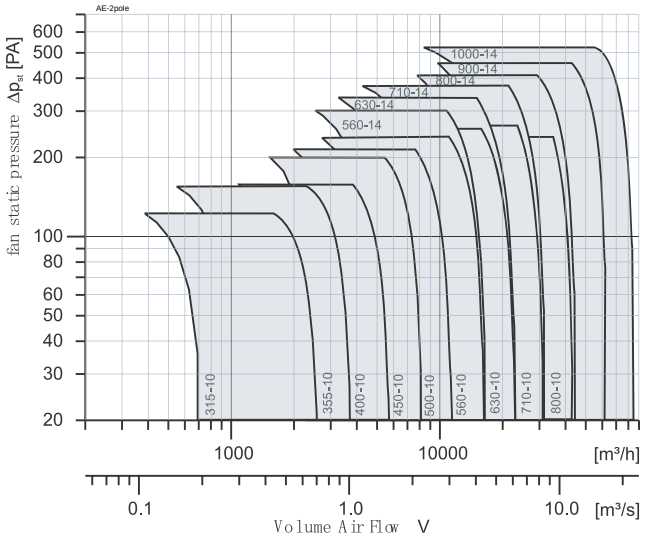
Size (mm)	sk (mm)	LH			SH		
		1l (mm)	1m (mm)m	otor ax	k2 (mm)	l2 (mm)	lmax (mm)
315/3552		305	355	80	160	225	350
400	2	305	355	90	160	225	400
450	2	350	400	112	160	225	500
500	2	450	500	132	149	225	400
560	2	450	500	112	149	225	600
		650	700	160	149	225	500
630	2	450	500	112	224	300	750
		650	700	160	149	225	500
710	3	450	500	112	224	300	750
800	3	510	560	132	147	225	400
		650	700	160	147	225	600
900	3	580	630	160	137	225	500
1000/10673		580	600	160	212	300	50
		730	780	180	137	225	500
1250	4	700	800	180	262	350	800
		900	1000	225	242	350	800
1400	6	--	1200	250-280	--	--	--
			1350	315			

Quick Selection

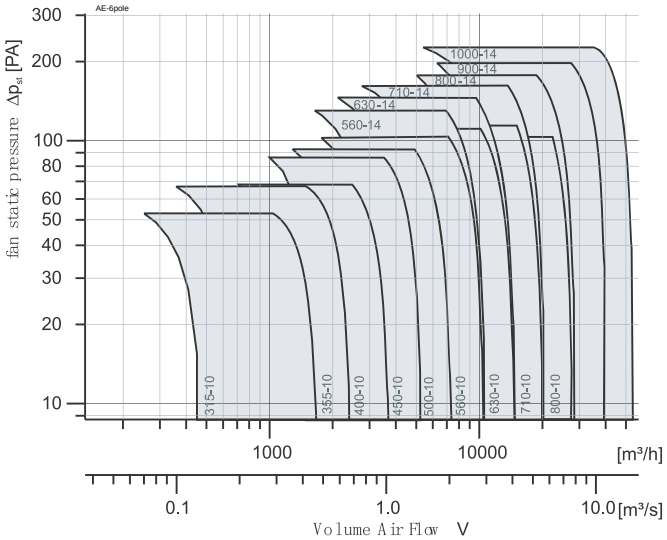
2 pole fans



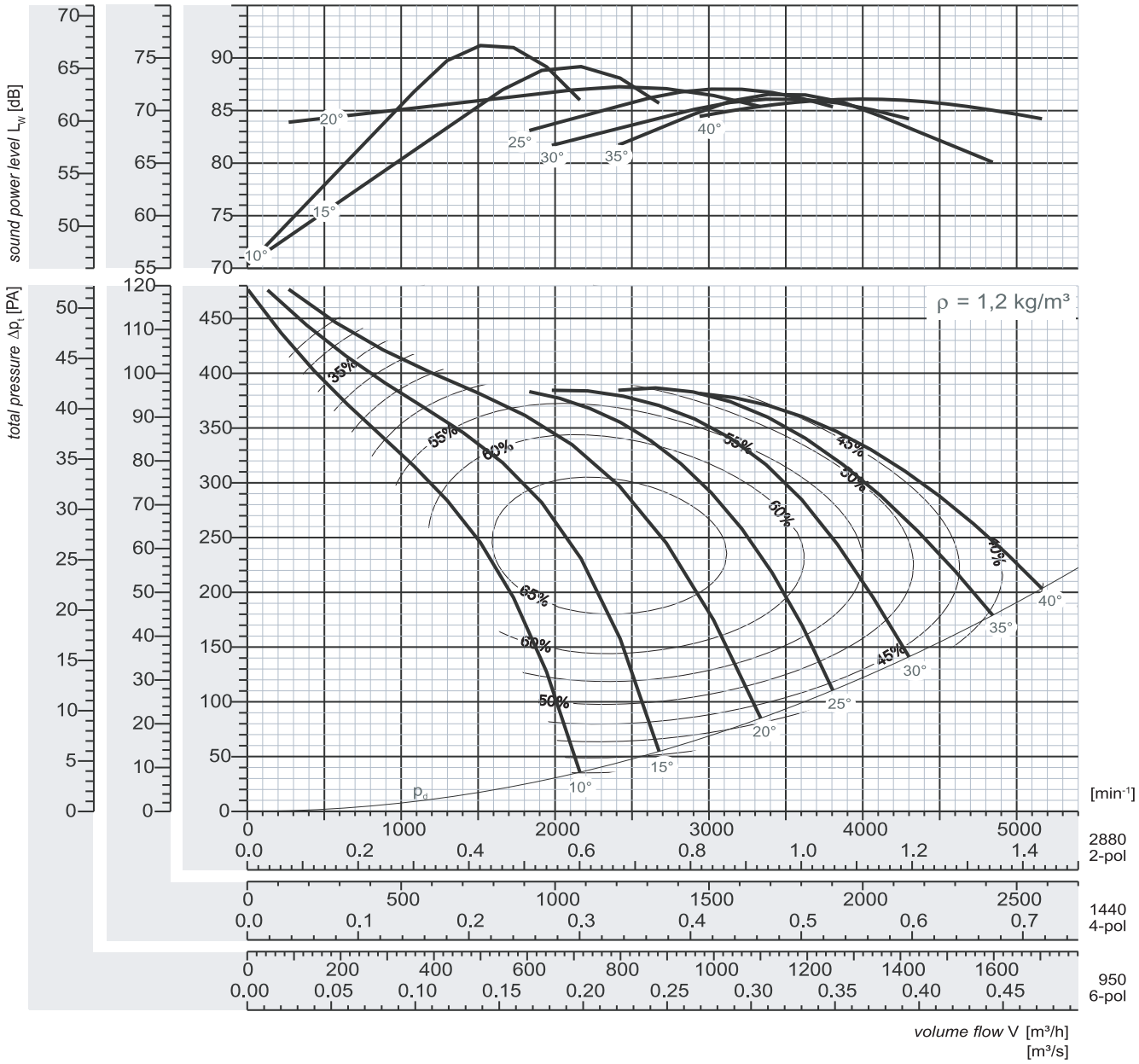
4 pole fans



6 pole fans



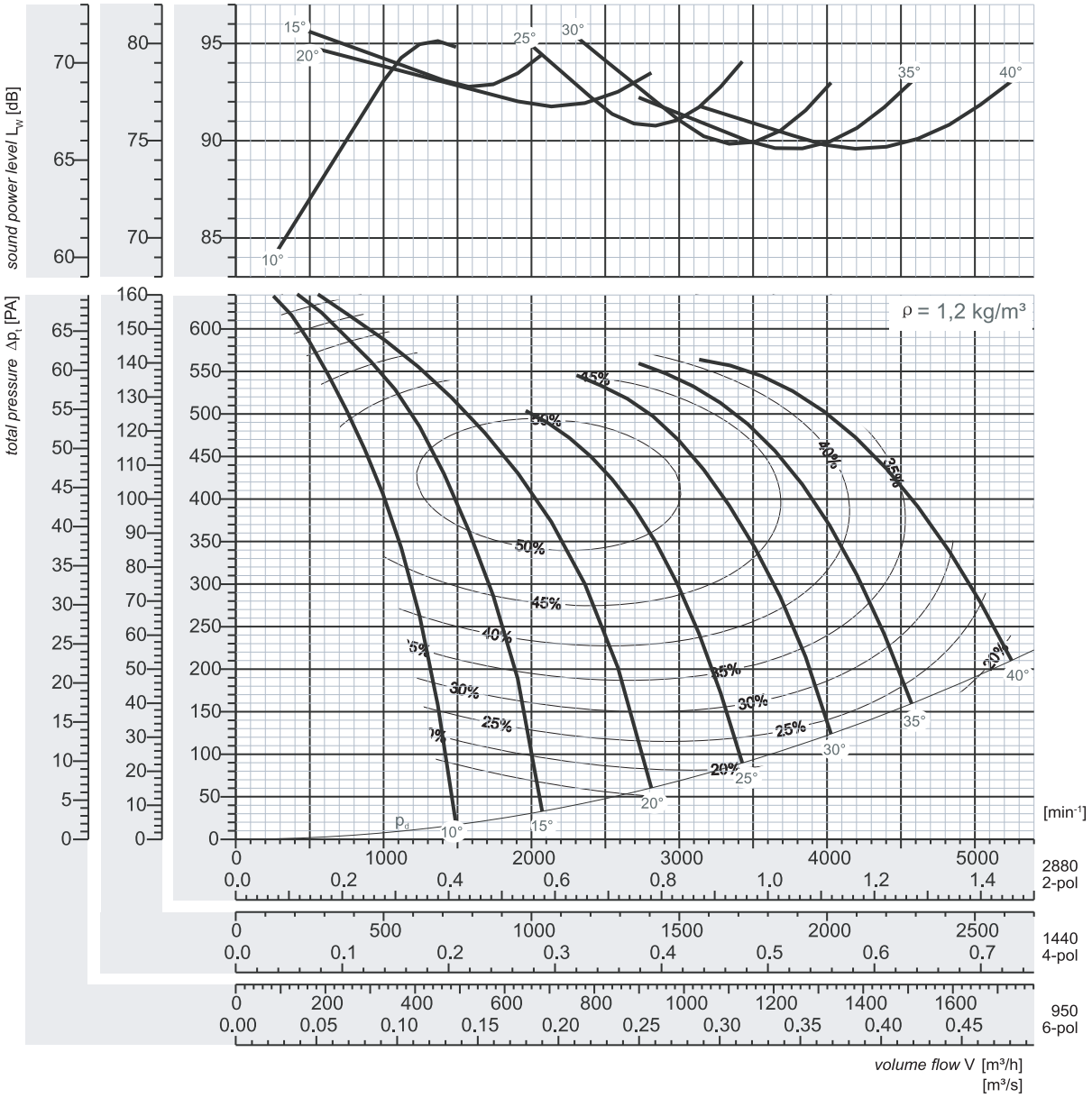
AE 315-5



Peak absorbed power **[kW]** ***relative frequency spectrum*** **ΔL in dB/Okt**

n	*pitch angle* [°]								*Octave b. midfr.* [Hz]								
[min⁻¹]	10	15	20	25	30	35	40		Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,006	0,009	0,011	0,015	0,019	0,024	0,032	L_{W5} saugseitig *inlet*	-1	-8	-9	-2	-9	-12	-15	-24	-33	-4
motor	0,37							L_{W6} druckseitig *outlet*	0	-6	-10	-3	-9	-14	-20	-24	-31	-7
1440	0,022	0,030	0,040	0,051	0,065	0,082	0,111	L_{W5} saugseitig *inlet*	1	-9	-6	-8	-11	-10	-12	-17	-27	-6
motor	0,37							L_{W6} druckseitig *outlet*	0	-7	-6	-8	-11	-11	-13	-16	-23	-6
2880	0,180	0,238	0,320	0,408	0,520	0,659	0,888	L_{W5} saugseitig *inlet*	0	-7	-8	-8	-11	-9	-10	-14	-22	-5
motor	0,37			0,55	0,55	0,75	1,1	L_{W6} druckseitig *outlet*	0	-8	-8	-6	-10	-10	-12	-15	-20	-5

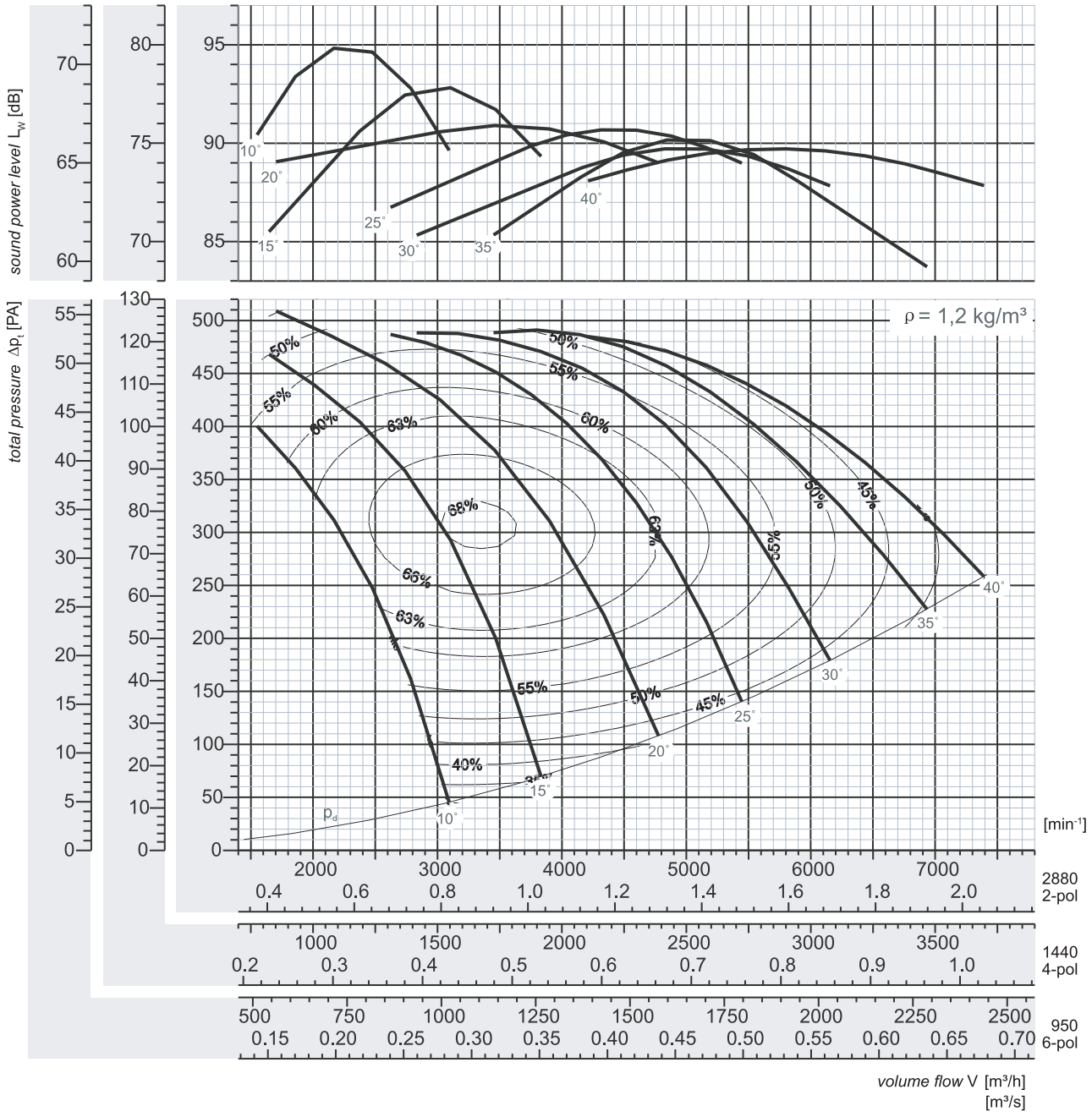
AE 315-10



Peak absorbed power **[kW]**

n	*pitch angle* [°]								*relative frequency spectrum* ΔL in dB/Okt										
[min⁻¹]	10	15	20	25	30	35	40		Total	*Octave b. midfr.* [Hz] 63	125	250	500	1k	2k	4k	8k	dBA
950	0,009	0,013	0,019	0,021	0,029	0,038	0,054	L_{W5} saugseitig *inlet*	-1	-11	-4	-6	-9	-11	-15	-22	-30	-6
motor	0,37							L_{W6} druckseitig *outlet*	0	-8	-5	-6	-8	-13	-19	-25	-33	-7
1440	0,030	0,045	0,065	0,073	0,100	0,132	0,190	L_{W5} saugseitig *inlet*	-1	-12	-6	-5	-12	-10	-12	-18	-31	-6
motor	0,37							L_{W6} druckseitig *outlet*	0	-9	-8	-4	-12	-13	-15	-18	-28	-7
2880	0,243	0,363	0,517	0,584	0,798	1,055	1,518	L_{W5} saugseitig *inlet*	-2	-8	-10	-9	-9	-7	-10	-13	-22	-3
motor	0,37		0,55	0,75	1,1	1,1	2,2	L_{W6} druckseitig *outlet*	0	-7	-10	-7	-7	-11	-13	-15	-22	-5

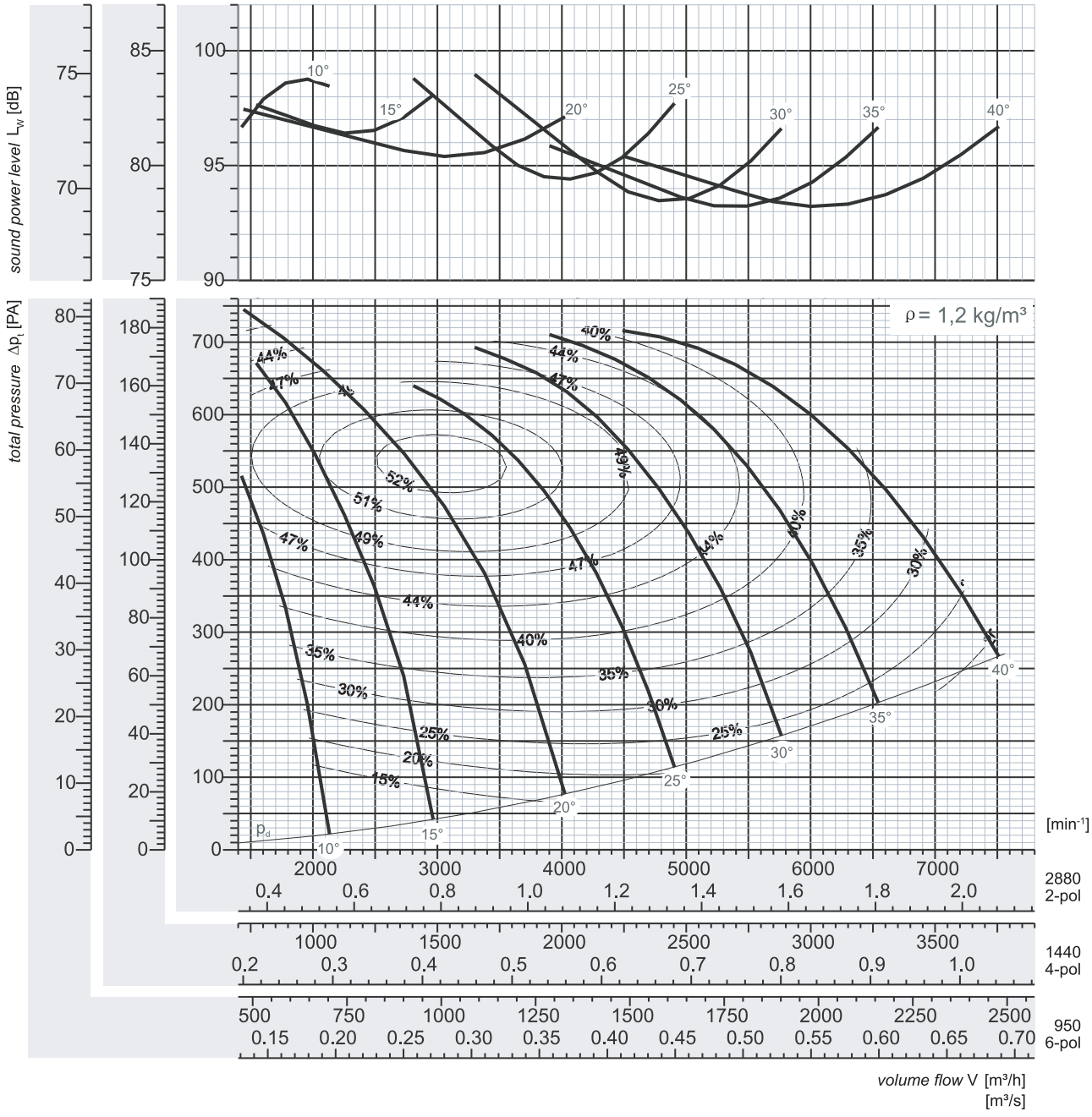
AE 355-5



***Peak absorbed power* [kW]**

n	*pitch angle* [°]								*relative frequency spectrum* ΔL in dB/Okt										
[min⁻¹]	10	15	20	25	30	35	40			*Octave b. midfr.* [Hz]									
									Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,01	0,02	0,02	0,03	0,03	0,04	0,06	L_{W5} saugseitig *inlet*	-1	-8	-9	-2	-9	-12	-15	-24	-33	-4
motor	0,37							L_{W6} druckseitig *outlet*	0	-6	-10	-3	-9	-14	-20	-24	-31	-7
1440	0,04	0,05	0,07	0,09	0,12	0,15	0,20	L_{W5} saugseitig *inlet*	1	-9	-6	-8	-11	-10	-12	-17	-27	-6
motor	0,37							L_{W6} druckseitig *outlet*	0	-7	-6	-8	-11	-11	-13	-16	-23	-6
2880	0,33	0,43	0,58	0,74	0,95	1,20	1,62	L_{W5} saugseitig *inlet*	0	-7	-8	-8	-11	-9	-10	-14	-22	-5
motor	0,37	0,55	0,75		1,1	1,5	2,2	L_{W6} druckseitig *outlet*	0	-8	-8	-6	-10	-10	-12	-15	-20	-5

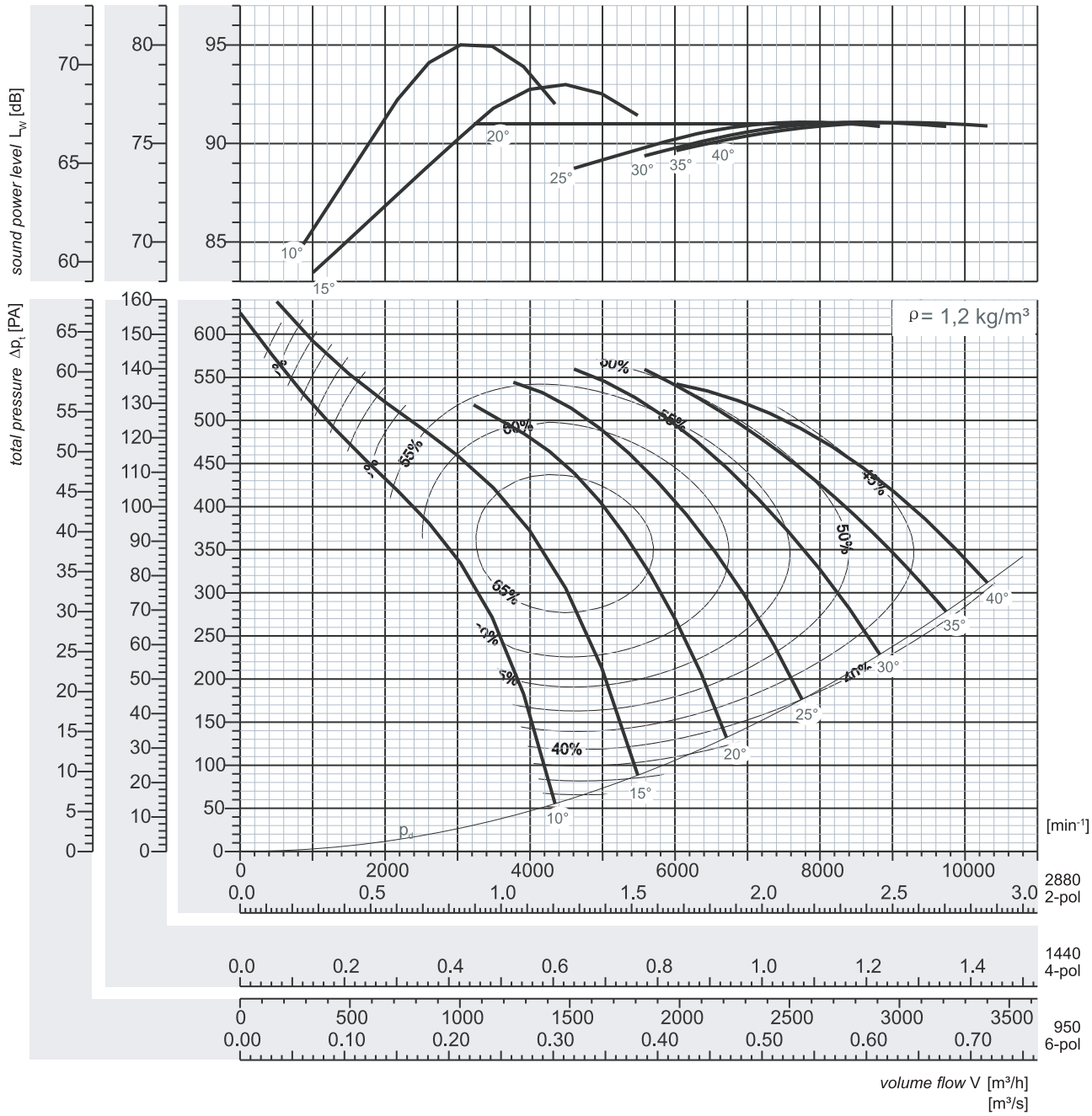
AE 355-10



***Peak absorbed power* [kW]** — ***relative frequency spectrum* ΔL in dB/Okt**

n	*pitch angle* [°]								*Octave b. midfr.* [Hz]								
[min⁻¹]	10	15	20	25	30	35	40		Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,02	0,02	0,03	0,04	0,05	0,07	0,10	L_{W5} saugseitig *inlet*	-1	-11	-4	-6	-9	-11	-15	-22	-30	-6
motor	0,37							L_{W6} druckseitig *outlet*	0	-8	-5	-6	-8	-13	-19	-25	-33	-7
1440	0,06	0,08	0,12	0,13	0,18	0,24	0,34	L_{W5} saugseitig *inlet*	-1	-12	-6	-5	-12	-10	-12	-18	-31	-6
motor	0,37							L_{W6} druckseitig *outlet*	0	-9	-8	-4	-12	-13	-15	-18	-28	-7
2880	0,44	0,66	0,94	1,06	1,45	1,92	2,76	L_{W5} saugseitig *inlet*	-2	-8	-10	-9	-9	-7	-10	-13	-22	-3
motor	0,55	0,75	1,1		1,5	2,2	3,0	L_{W6} druckseitig *outlet*	0	-7	-10	-7	-7	-11	-13	-15	-22	-5

AE 400-5



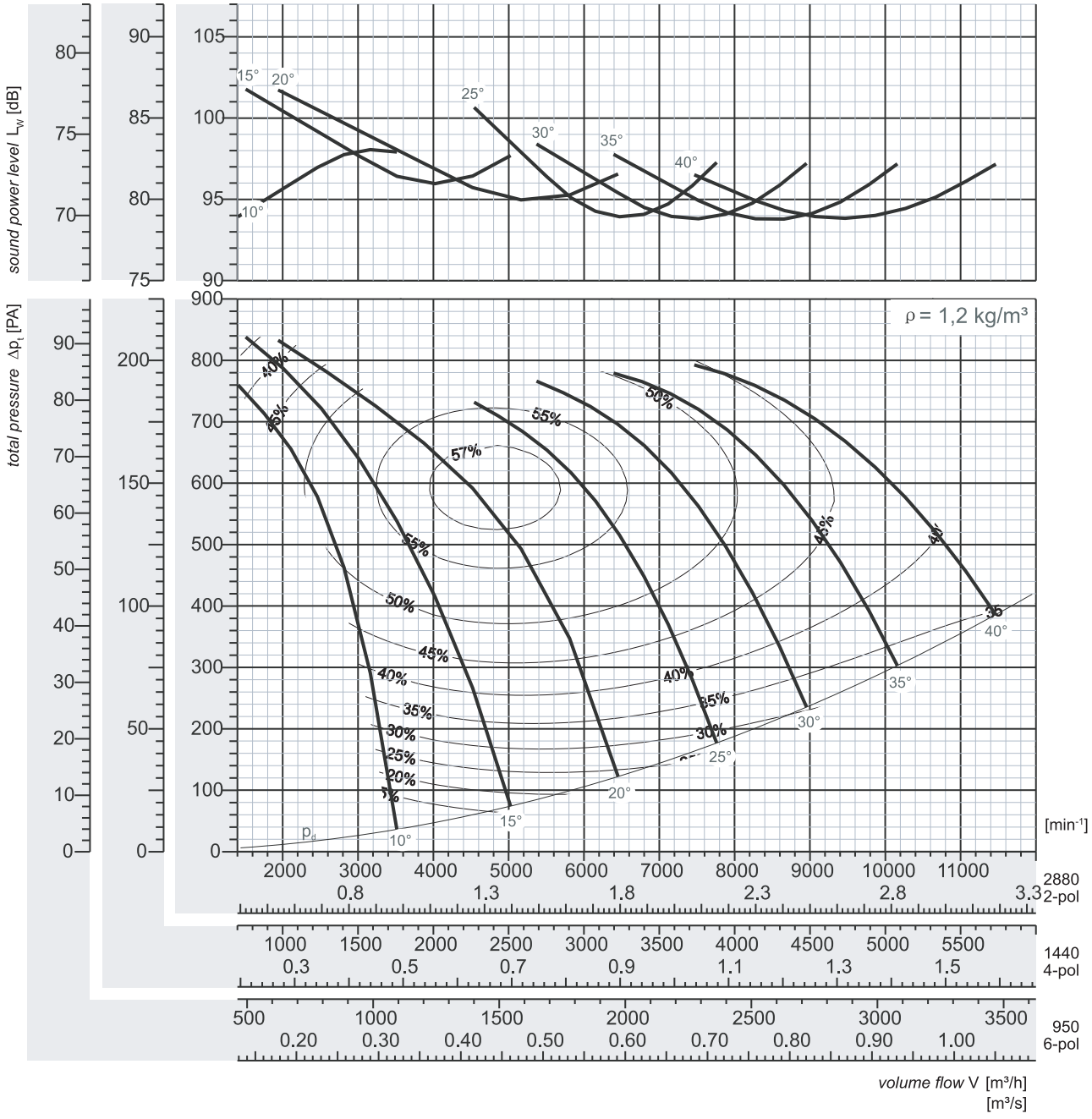
Peak absorbed power [kW]

n	*pitch angle* [°]							
[min⁻¹]	10	15	20	25	30	35	40	
950	0,02	0,02	0,03	0,04	0,05	0,07	0,09	L_{W5} saugseitig *inlet*
motor	0,37							L_{W6} druckseitig *outlet*
1440	0,06	0,08	0,10	0,14	0,18	0,23	0,30	L_{W5} saugseitig *inlet*
motor	0,37							L_{W6} druckseitig *outlet*
2880	0,48	0,64	0,83	1,14	1,47	1,86	2,39	L_{W5} saugseitig *inlet*
motor	0,55	0,75	1,1	1,5		2,2	3,0	L_{W6} druckseitig *outlet*

relative frequency spectrum ΔL in dB/Okt

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	1	-6	-9	-4	-10	-11	-14	-22	-32	-6
L_{W6} druckseitig *outlet*	0	-5	-7	-4	-8	-10	-15	-20	-28	-4
L_{W5} saugseitig *inlet*	0	-8	-6	-7	-11	-10	-13	-17	-26	-6
L_{W6} druckseitig *outlet*	0	-7	-6	-8	-11	-10	-13	-17	-23	-6
L_{W5} saugseitig *inlet*	1	-7	-10	-7	-10	-9	-12	-15	-22	-5
L_{W6} druckseitig *outlet*	0	-11	-8	-5	-10	-10	-12	-16	-20	-5

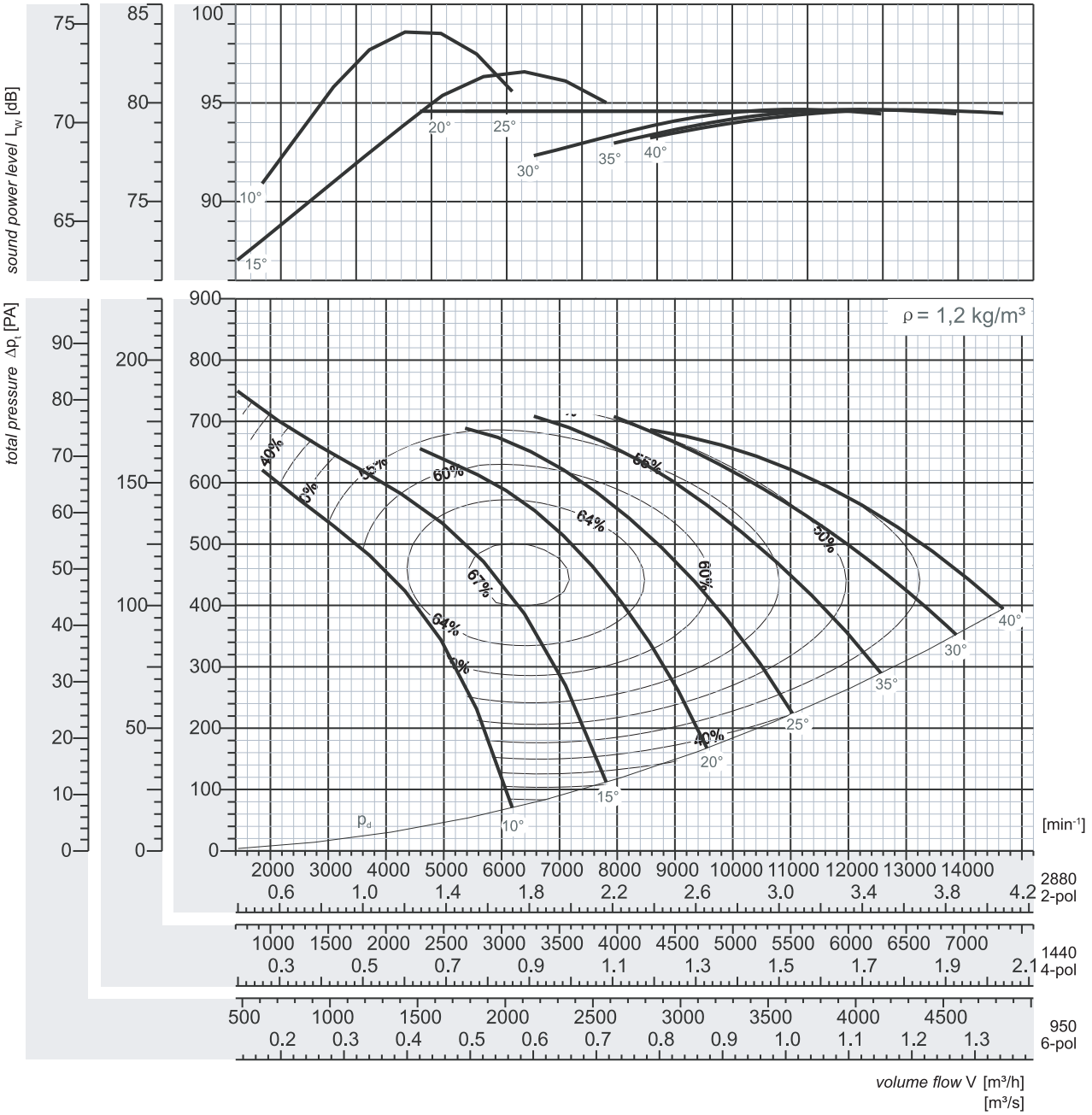
AE 400-10



***Peak absorbed power* [kW]**

n	***pitch angle* [°]**								***relative frequency spectrum* ΔL in dB/Okt**									
											***Octave b. midfr.* [Hz]**							
[min⁻¹]	10	15	20	25	30	35	40		Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,03	0,03	0,05	0,06	0,08	0,11	0,14	L_{W5} saugseitig *inlet*	-1	-9	-6	-6	-8	-11	-14	-22	-32	-6
motor	0,37							L_{W6} druckseitig *outlet*	0	-8	-6	-6	-7	-10	-15	-22	-33	-5
1440	0,10	0,12	0,17	0,22	0,29	0,38	0,50	L_{W5} saugseitig *inlet*	-1	-12	-8	-6	-9	-8	-10	-16	-27	-4
motor	0,37					0,55		L_{W6} druckseitig *outlet*	0	-9	-9	-6	-9	-10	-12	-16	-26	-5
2880	0,79	0,97	1,34	1,79	2,31	3,01	3,98	L_{W5} saugseitig *inlet*	-1	-8	-11	-10	-6	-7	-10	-15	-23	-3
motor	1,1		1,5	2,2	3,0	4,0		L_{W6} druckseitig *outlet*	0	-8	-8	-9	-7	-10	-12	-16	-21	-5

AE 450-5



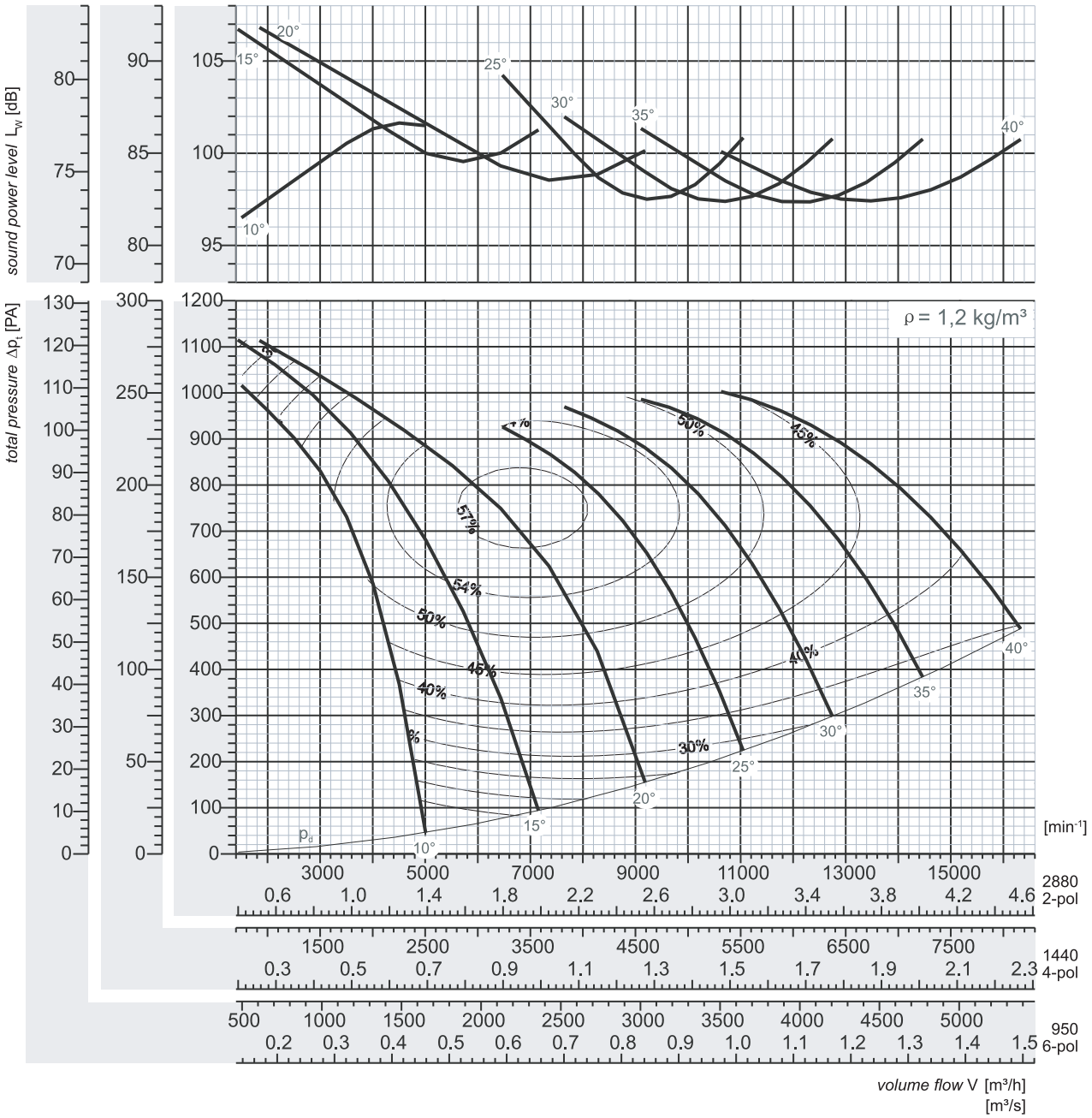
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,03	0,04	0,05	0,07	0,10	0,12	0,15
motor	0,37						
1440	0,11	0,14	0,19	0,26	0,33	0,42	0,54
motor	0,37					0,55	
2880	0,86	1,15	1,50	2,05	2,65	3,36	4,31
motor	1,1	1,5	2,2		3,0	4,0	-

***relative frequency spectrum* ΔL in dB/Okt**

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	1	-6	-9	-4	-10	-11	-14	-22	-32	-6
L_{W6} druckseitig *outlet*	0	-5	-7	-4	-8	-10	-15	-20	-28	-4
L_{W5} saugseitig *inlet*	0	-8	-6	-7	-11	-10	-13	-17	-26	-6
L_{W6} druckseitig *outlet*	0	-7	-6	-8	-11	-10	-13	-17	-23	-6
L_{W5} saugseitig *inlet*	1	-7	-10	-7	-10	-9	-12	-15	-22	-5
L_{W6} druckseitig *outlet*	0	-11	-8	-5	-10	-10	-12	-16	-20	-5

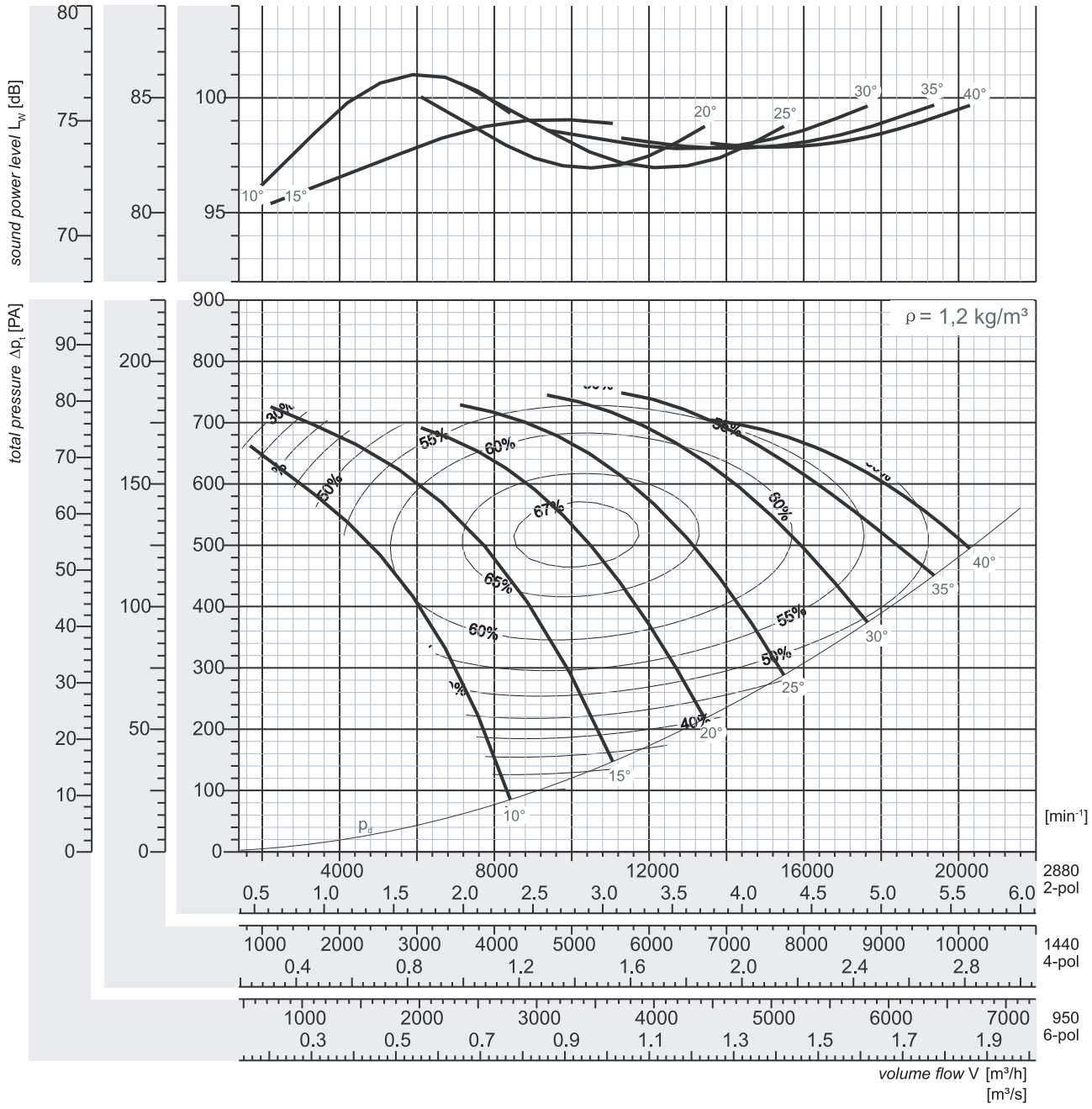
AE 450-10



***Peak absorbed power* [kW]**

n	*pitch angle* [°]								*relative frequency spectrum* ΔL in dB/Okt										
											Octave b. midfr. [Hz]								
[min⁻¹]	10	15	20	25	30	35	40		Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,05	0,06	0,09	0,12	0,15	0,19	0,26	L_{W5} saugseitig *inlet*	-1	-9	-6	-6	-8	-11	-14	-22	-32	-6
motor	0,37							L_{W6} druckseitig *outlet*	0	-8	-6	-6	-7	-10	-15	-22	-33	-5
1440	0,18	0,22	0,30	0,40	0,52	0,68	0,90	L_{W5} saugseitig *inlet*	-1	-12	-8	-6	-9	-8	-10	-16	-27	-4
motor	0,37						1,1	L_{W6} druckseitig *outlet*	0	-9	-9	-6	-9	-10	-12	-16	-26	-5
2880	1,42	1,76	2,42	3,23	4,16	5,42	7,17	L_{W5} saugseitig *inlet*	-1	-8	-11	-10	-6	-7	-10	-15	-23	-3
motor	1,5	2,2	3,0	4,0	-	-	-	L_{W6} druckseitig *outlet*	0	-8	-8	-9	-7	-10	-12	-16	-21	-5

AE 500-5



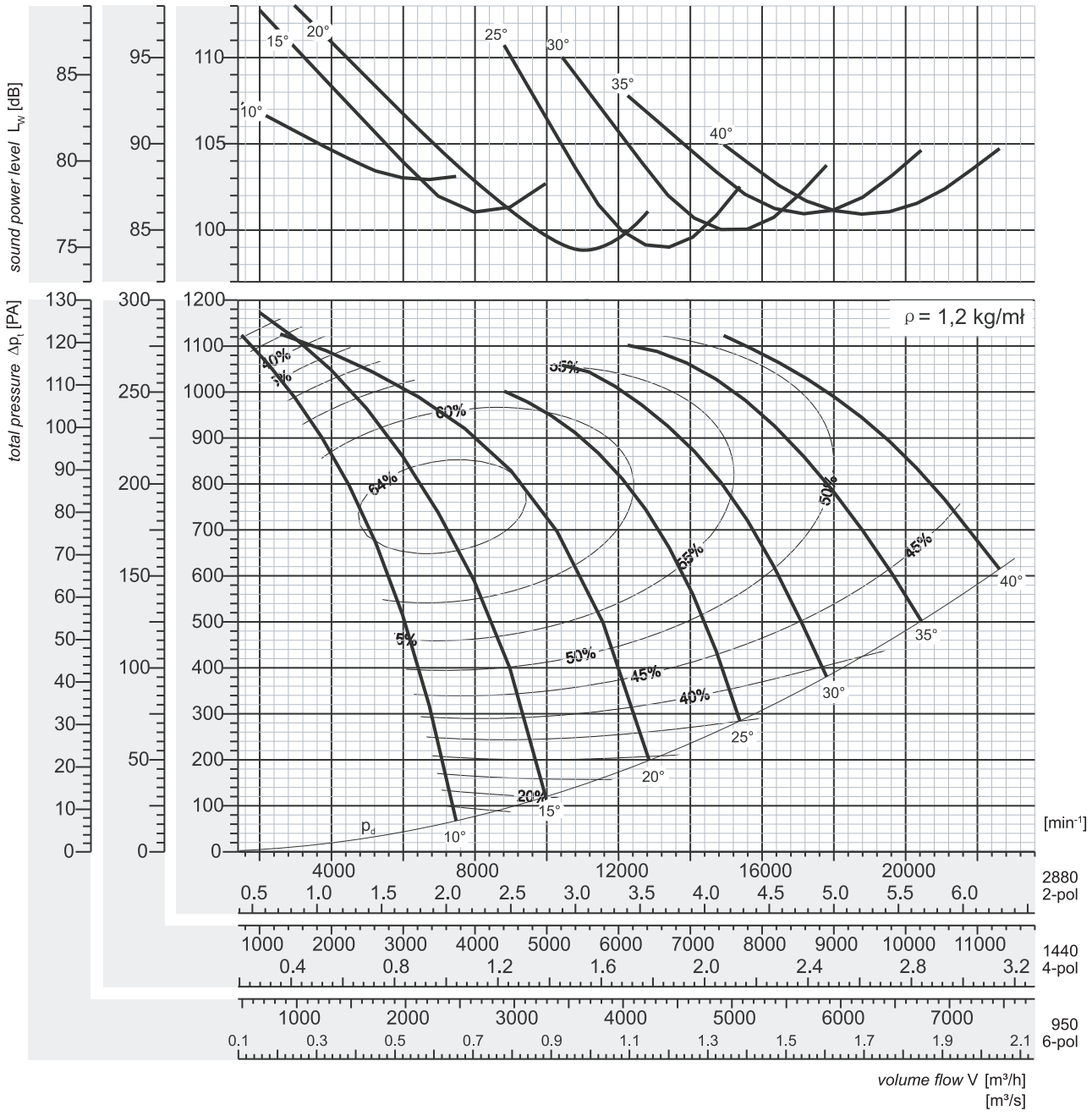
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,04	0,06	0,08	0,11	0,14	0,17	0,22
motor	0,37						
1440	0,14	0,21	0,29	0,38	0,48	0,61	0,76
motor	0,37			0,55		0,75	1,1
2880	1,14	1,66	2,31	3,03	3,84	4,86	6,12
motor	1,5	2,2	3,0	4,0		-	-

***relative frequency spectrum* ΔL in dB/Okt**

	Total	*Octave b. midfr.* [Hz]							
		63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	3	-3	-13	-9	-9	-11	-14	-20	-32	-7
L_{W6} druckseitig *outlet*	0	-4	-9	-6	-6	-8	-13	-17	-26	-3
L_{W5} saugseitig *inlet*	0	-8	-6	-10	-9	-10	-13	-16	-26	-5
L_{W6} druckseitig *outlet*	0	-7	-6	-8	-11	-10	-13	-17	-23	-6
L_{W5} saugseitig *inlet*	2	-6	-15	-8	-8	-8	-12	-14	-21	-5
L_{W6} druckseitig *outlet*	0	-10	-11	-7	-9	-9	-11	-14	-20	-5

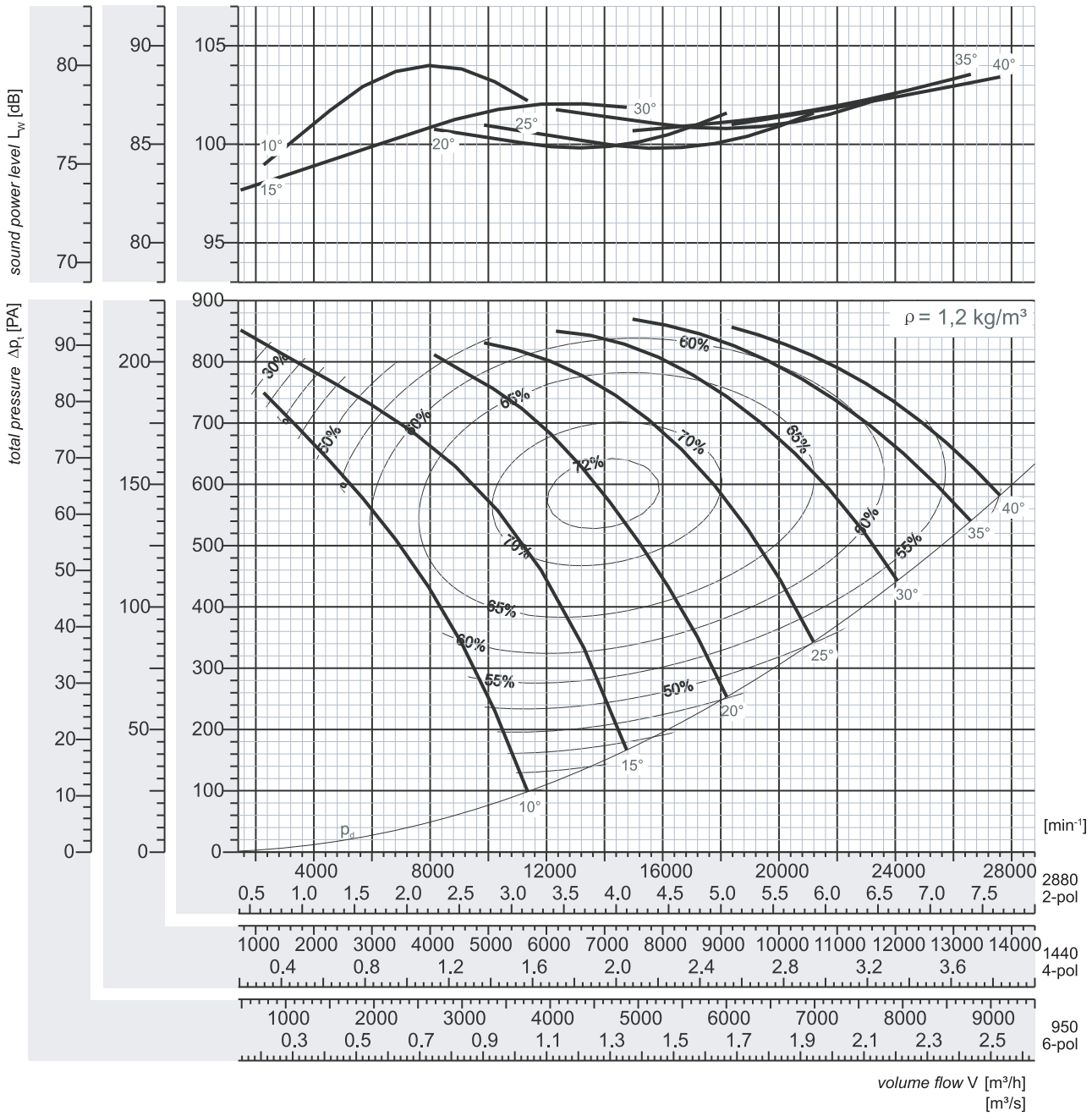
AE 500-10



***Peak absorbed power* [kW]**

n	*pitch angle* [°]								*relative frequency spectrum* ΔL in dB/Okt										
[min⁻¹]	10	15	20	25	30	35	40		Total	*Octave b. midfr.* [Hz] 63	125	250	500	1k	2k	4k	8k	dBA
950	0,05	0,09	0,12	0,16	0,22	0,29	0,36	L_{W5} saugseitig *inlet*	-0	-8	-11	-8	-7	-10	-14	-21	-35	-6
motor	0,37							L_{W6} druckseitig *outlet*	0	-9	-9	-7	-7	-10	-12	-20	-30	-5
1440	0,19	0,30	0,40	0,57	0,76	1,00	1,25	L_{W5} saugseitig *inlet*	-1	-13	-10	-9	-7	-6	-10	-13	-25	-2
motor	0,37		0,55	0,75	1,1		1,5	L_{W6} druckseitig *outlet*	0	-10	-11	-8	-8	-9	-11	-15	-24	-5
2880	1,52	2,38	3,23	4,54	6,10	7,96	10,03	L_{W5} saugseitig *inlet*	1	-13	-16	-13	-7	-5	-9	-12	-16	-2
motor	2,2	3,0	4,0	-	-	-	-	L_{W6} druckseitig *outlet*	0	-11	-13	-10	-6	-5	-7	-9	-15	-0

AE 560-5



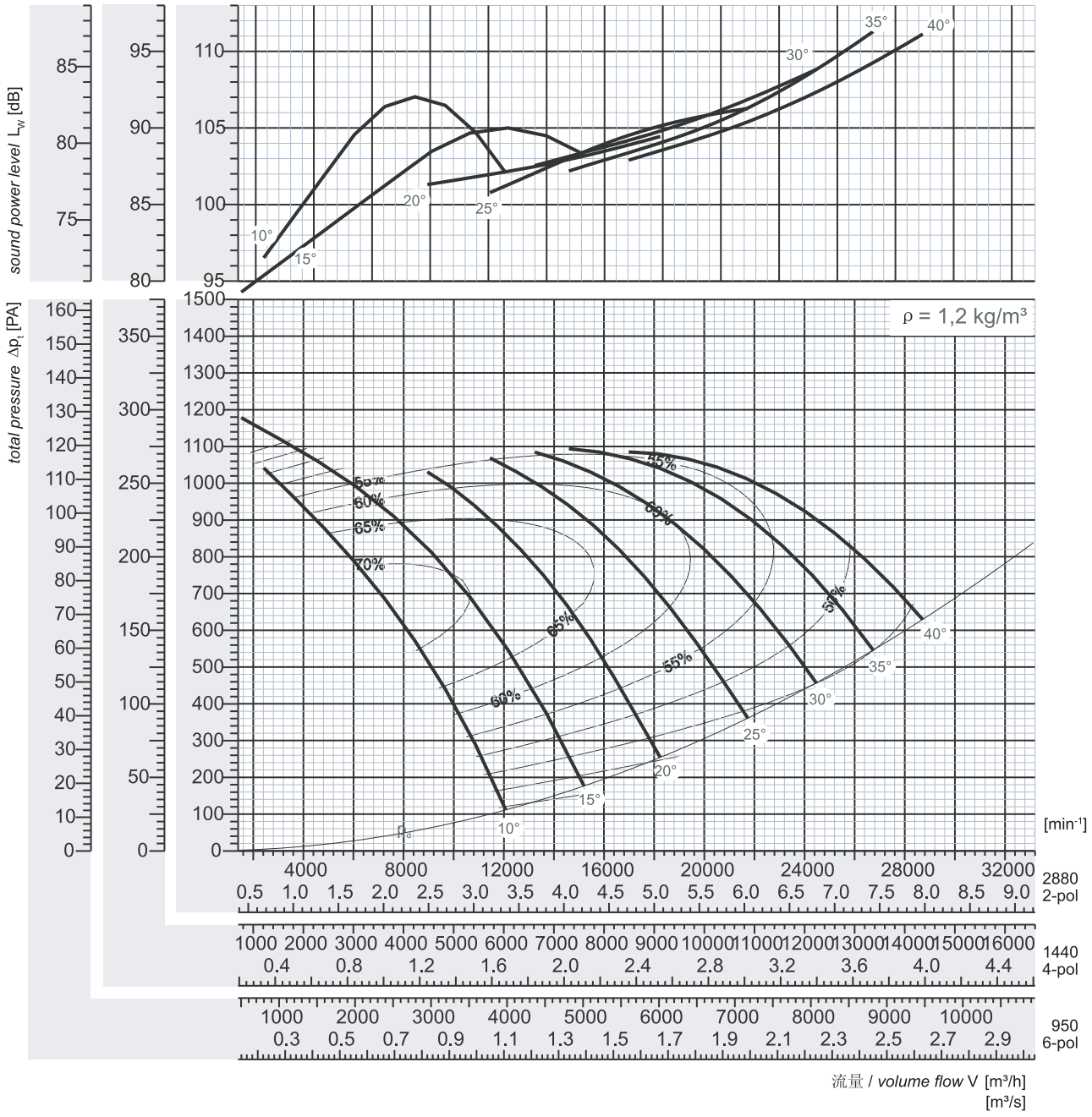
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,06	0,08	0,12	0,16	0,20	0,27	0,33
motor	0,37						
1440	0,20	0,29	0,41	0,56	0,70	0,95	1,14
motor	0,37		0,55	0,75		1,1	1,5
2880	1,57	2,34	3,25	4,47	5,62	7,58	9,09
motor	2,2	3,0	4,0	-	-	-	-

***relative frequency spectrum* ΔL in dB/Okt**

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	2	-4	-11	-9	-7	-12	-15	-20	-32	-7
L_{W6} druckseitig *outlet*	0	-4	-10	-7	-6	-9	-14	-18	-26	-3
L_{W5} saugseitig *inlet*	0	-7	-6	-8	-10	-11	-13	-17	-26	-6
L_{W6} druckseitig *outlet*	0	-7	-6	-10	-10	-10	-13	-16	-23	-6
L_{W5} saugseitig *inlet*	2	-6	-12	-9	-9	-9	-12	-15	-21	-5
L_{W6} druckseitig *outlet*	0	-9	-10	-6	-9	-9	-11	-15	-20	-4

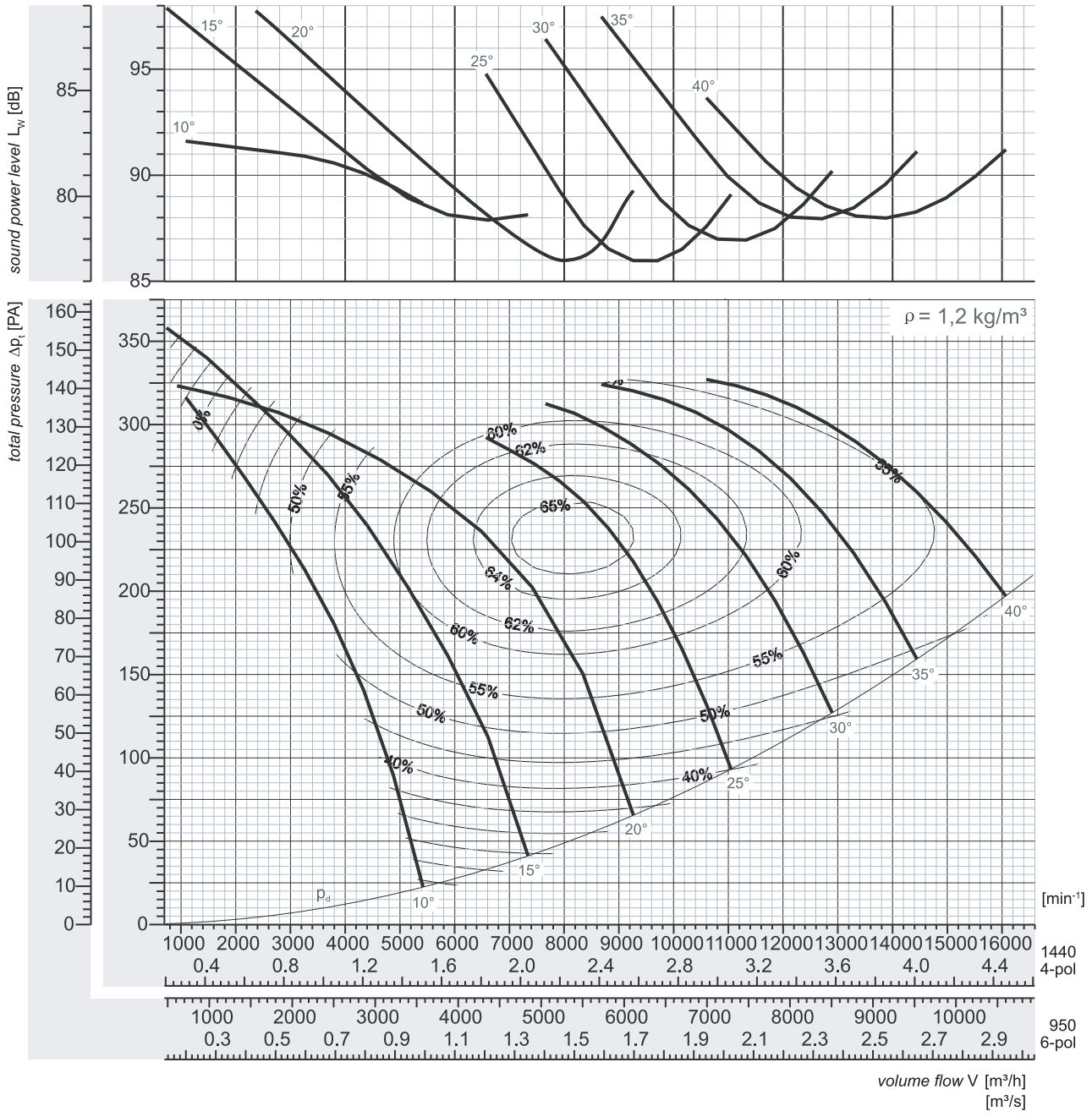
AE 560-7



***Peak absorbed power* [kW]**

n	*pitch angle* [°]									*relative frequency spectrum* ΔL in dB/Okt								
										Octave b. midfr. [Hz]								
[min⁻¹]	10	15	20	25	30	35	40		Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,07	0,11	0,17	0,22	0,28	0,34	0,43	L_{W5} saugseitig *inlet*	-2	-7	-7	-10	-7	-11	-15	-21	-31	-6
motor	0,37						0,55	L_{W6} druckseitig *outlet*	0	-7	-8	-8	-7	-10	-12	-18	-26	-5
1440	0,24	0,39	0,58	0,75	0,97	1,18	1,51	L_{W5} saugseitig *inlet*	-1	-10	-10	-8	-8	-11	-13	-17	-24	-6
motor	0,55		0,75	1,1		1,5	2,2	L_{W6} druckseitig *outlet*	0	-7	-7	-9	-10	-12	-13	-15	-22	-7
2880	1,95	3,08	4,62	6,04	7,72	9,45	12,05	L_{W5} saugseitig *inlet*	-0	-10	-15	-7	-6	-10	-13	-18	-22	-5
motor	2,2	4,0	5,5	7,5	11,0		15,0	L_{W6} druckseitig *outlet*	0	-9	-11	-7	-7	-9	-11	-14	-18	-4

AE 560-10



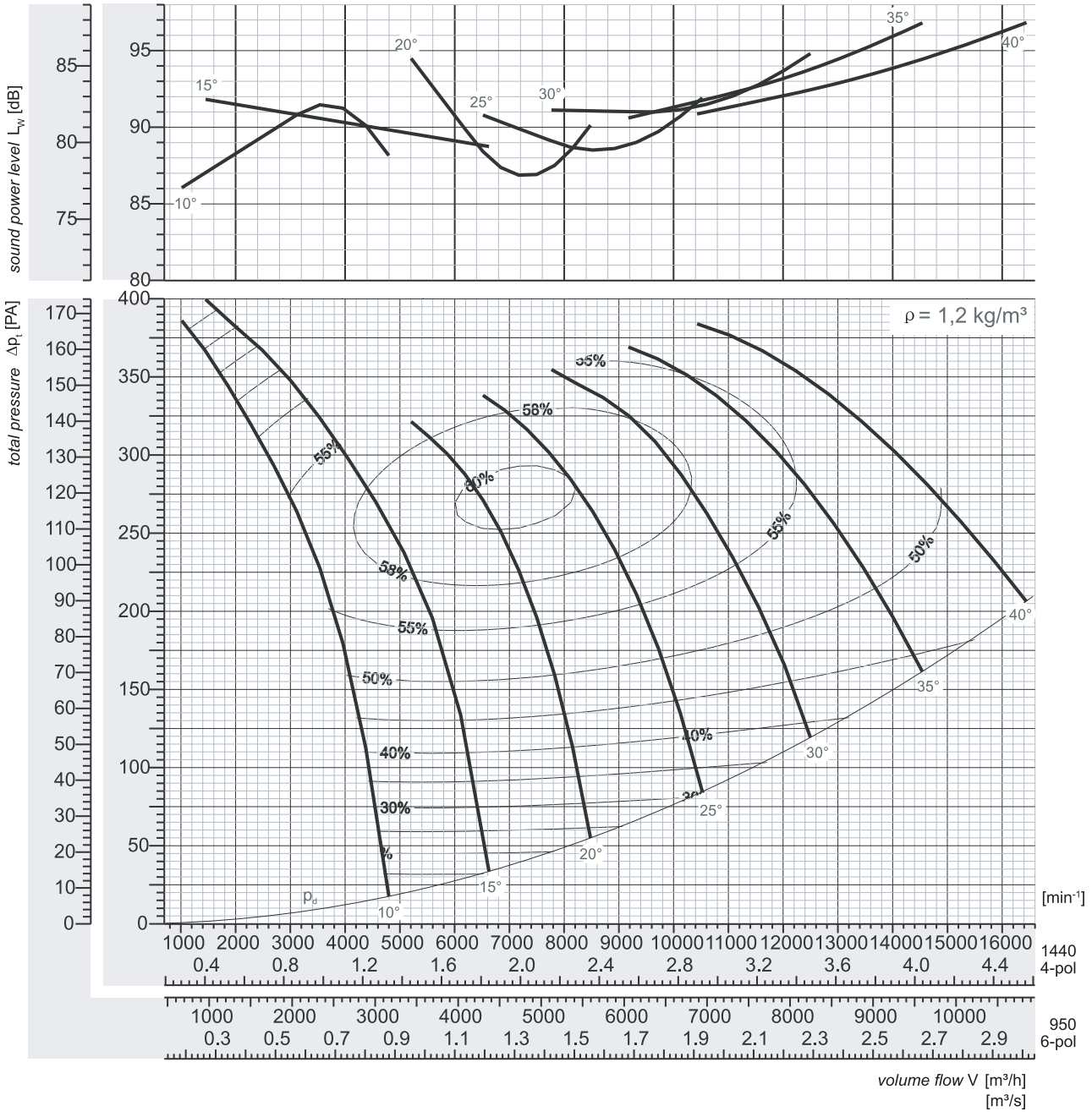
Peak absorbed power [kW]

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,11	0,14	0,20	0,26	0,34	0,44	0,56
motor	0,37					0,55	0,75
1440	0,37	0,49	0,68	0,92	1,18	1,53	1,94
motor	0,55		0,75	1,1	1,5	2,2	

relative frequency spectrum ΔL in dB/Okt

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-0	-8	-10	-7	-7	-11	-15	-21	-34	-6
L_{W6} druckseitig *outlet*	0	-8	-9	-7	-7	-9	-13	-19	-29	-5
L_{W5} saugseitig *inlet*	-1	-13	-13	-8	-7	-7	-11	-14	-24	-3
L_{W6} druckseitig *outlet*	0	-10	-12	-8	-8	-9	-11	-14	-23	-5

AE 560-14



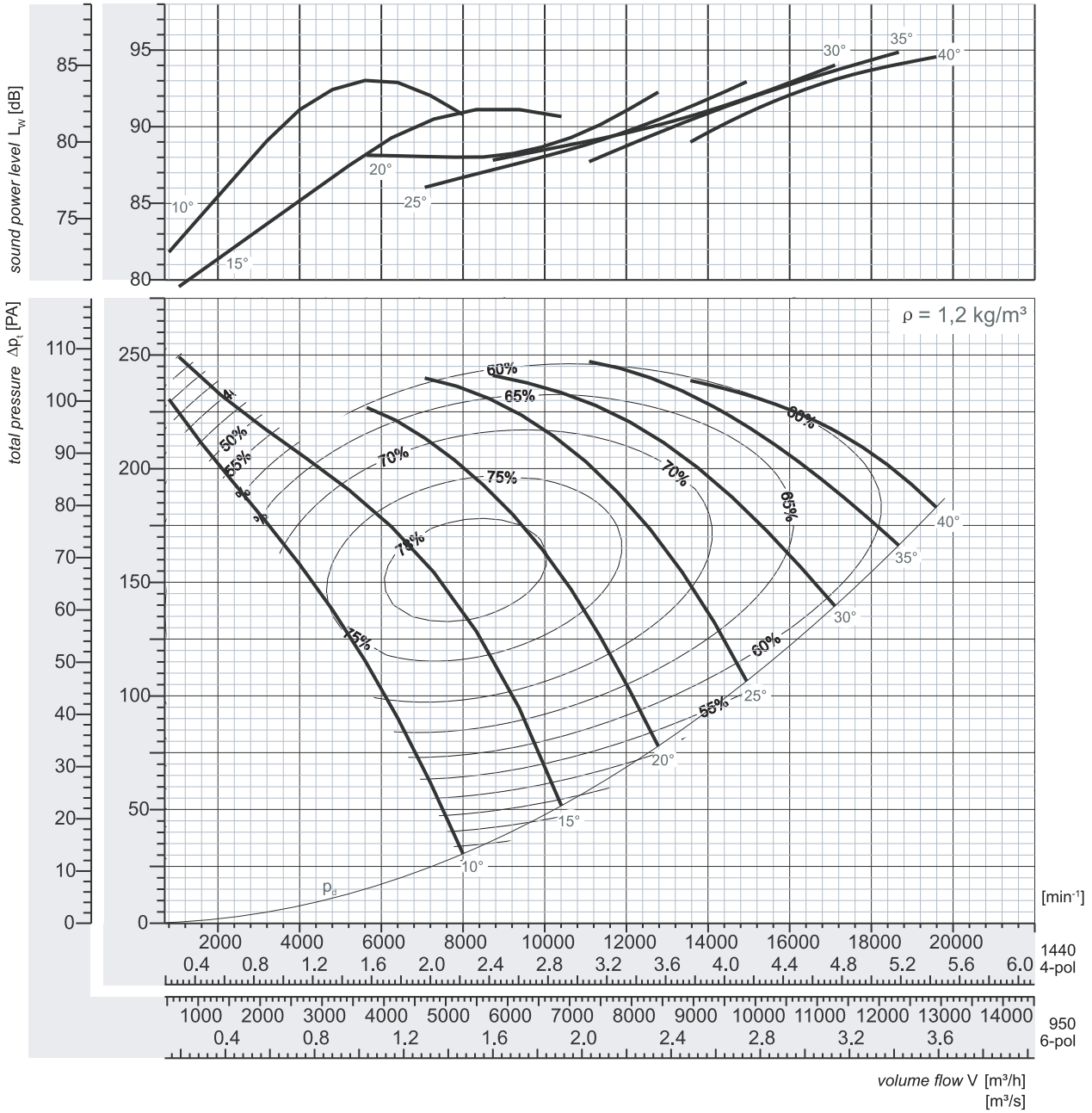
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,12	0,17	0,24	0,32	0,41	0,51	0,66
motor	0,37				0,55		0,75
1440	0,42	0,59	0,84	1,11	1,41	1,79	2,31
motor	0,55	0,75	1,1	1,5		2,2	3,0

***relative frequency spectrum* ΔL in dB/Okt**

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-2	-11	-13	-8	-6	-10	-14	-20	-33	-4
L_{W6} druckseitig *outlet*	0	-8	-11	-8	-6	-9	-13	-18	-25	-5
L_{W5} saugseitig *inlet*	0	-16	-17	-8	-6	-9	-12	-16	-28	-4
L_{W6} druckseitig *outlet*	0	-9	-12	-8	-7	-10	-11	-14	-22	-3

AE 630-5



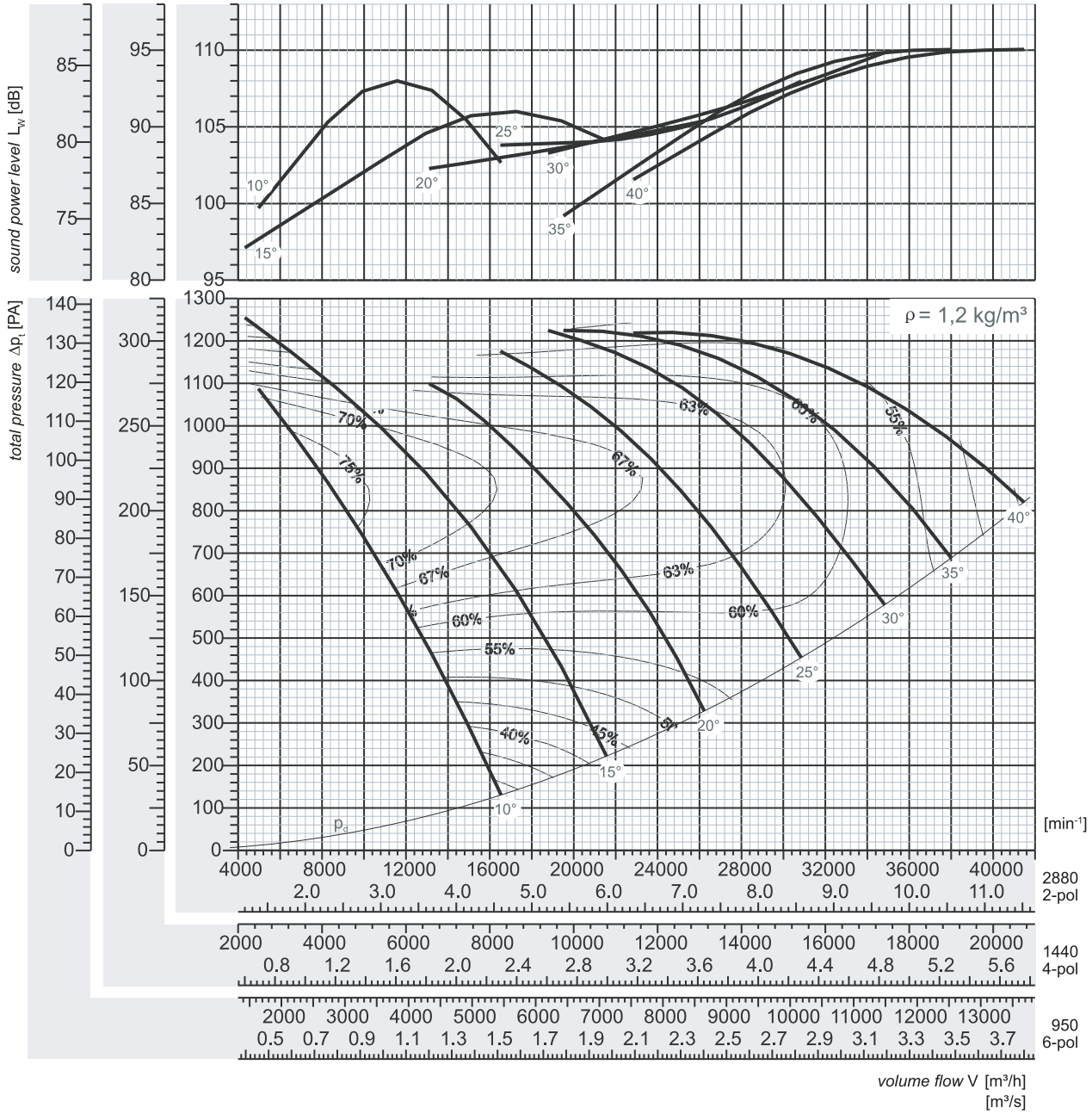
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,07	0,12	0,17	0,24	0,32	0,41	0,51
motor	0,37					0,55	
1440	0,24	0,40	0,60	0,85	1,11	1,44	1,79
motor	0,55		0,75	1,1	1,5		2,2

***relative frequency spectrum* ΔL in dB/Okt**

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-0	-4	-9	-9	-7	-12	-16	-20	-32	-6
L_{W6} druckseitig *outlet*	0	-5	-11	-8	-6	-9	-15	-19	-26	-4
L_{W5} saugseitig *inlet*	0	-6	-5	-10	-10	-10	-13	-16	-25	-6
L_{W6} druckseitig *outlet*	0	-7	-6	-11	-11	-11	-13	-15	-23	-6

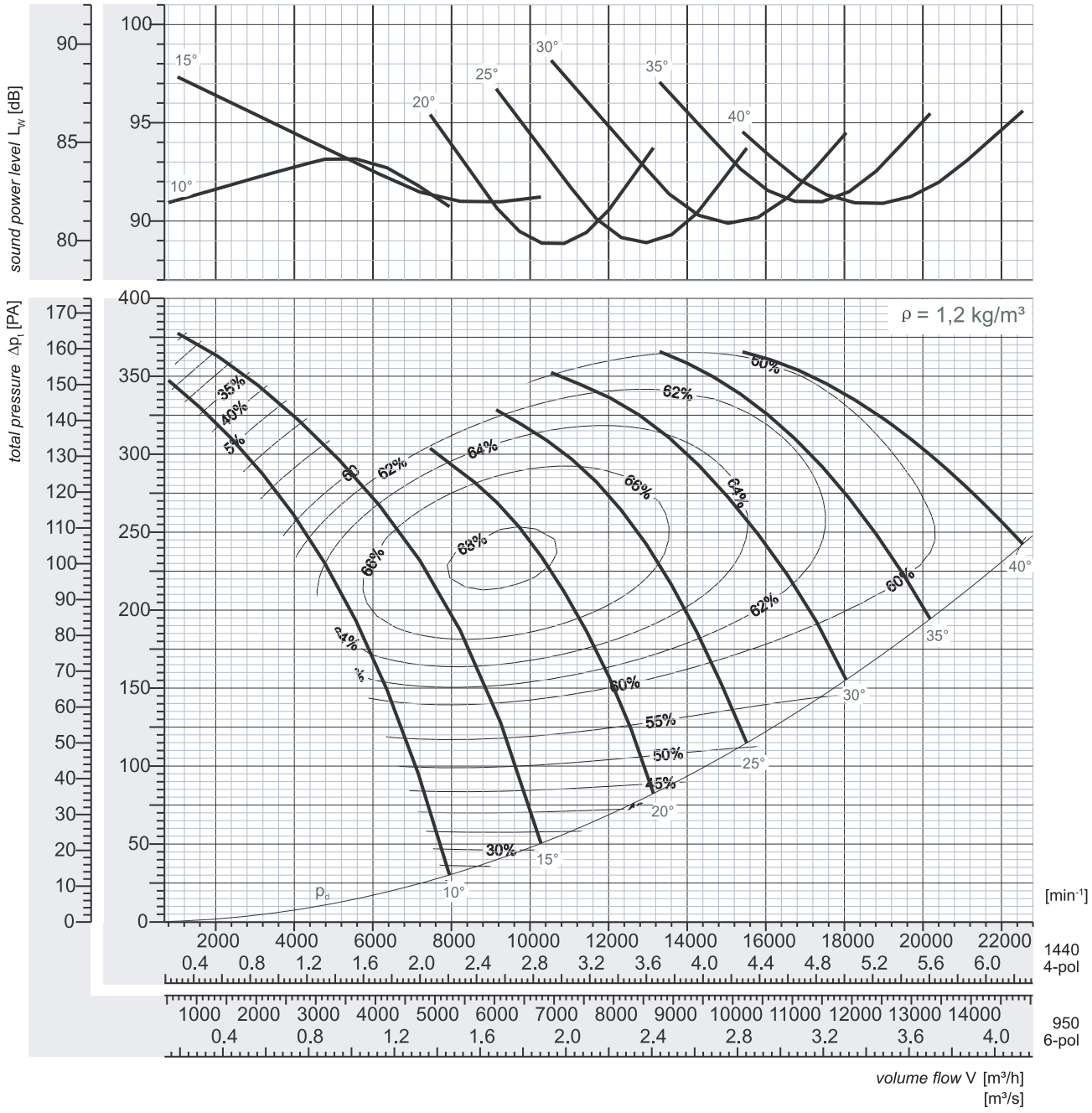
AE 630-7



Peak absorbed power **[kW]** ***relative frequency spectrum*** **ΔL in dB/Okt**

n	*pitch angle* [°]								*Octave b. midfr.* [Hz]									
[min⁻¹]	10	15	20	25	30	35	40		Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,11	0,17	0,25	0,33	0,43	0,56	0,71	L_{W5} saugseitig *inlet*	-2	-8	-7	-9	-8	-11	-15	-20	-31	-6
motor	0,37				0,55	0,75		L_{W6} druckseitig *outlet*	0	-6	-8	-9	-7	-10	-13	-19	-26	-5
1440	0,39	0,58	0,87	1,17	1,49	1,94	2,48	L_{W5} saugseitig *inlet*	-2	-9	-9	-7	-7	-10	-13	-17	-24	-5
motor	0,55	0,75	1,1	1,5		2,2	3,0	L_{W6} druckseitig *outlet*	0	-7	-8	-10	-11	-13	-14	-16	-22	-8
2880	3,08	4,62	6,98	9,32	11,9	15,6	19,8	L_{W5} saugseitig *inlet*	0	-10	-16	-7	-7	-10	-14	-18	-22	-6
motor	4,0	5,5	7,5	11,0	15,0	18,5	22,0	L_{W6} druckseitig *outlet*	0	-9	-11	-7	-8	-9	-11	-14	-18	-5

AE 630-10



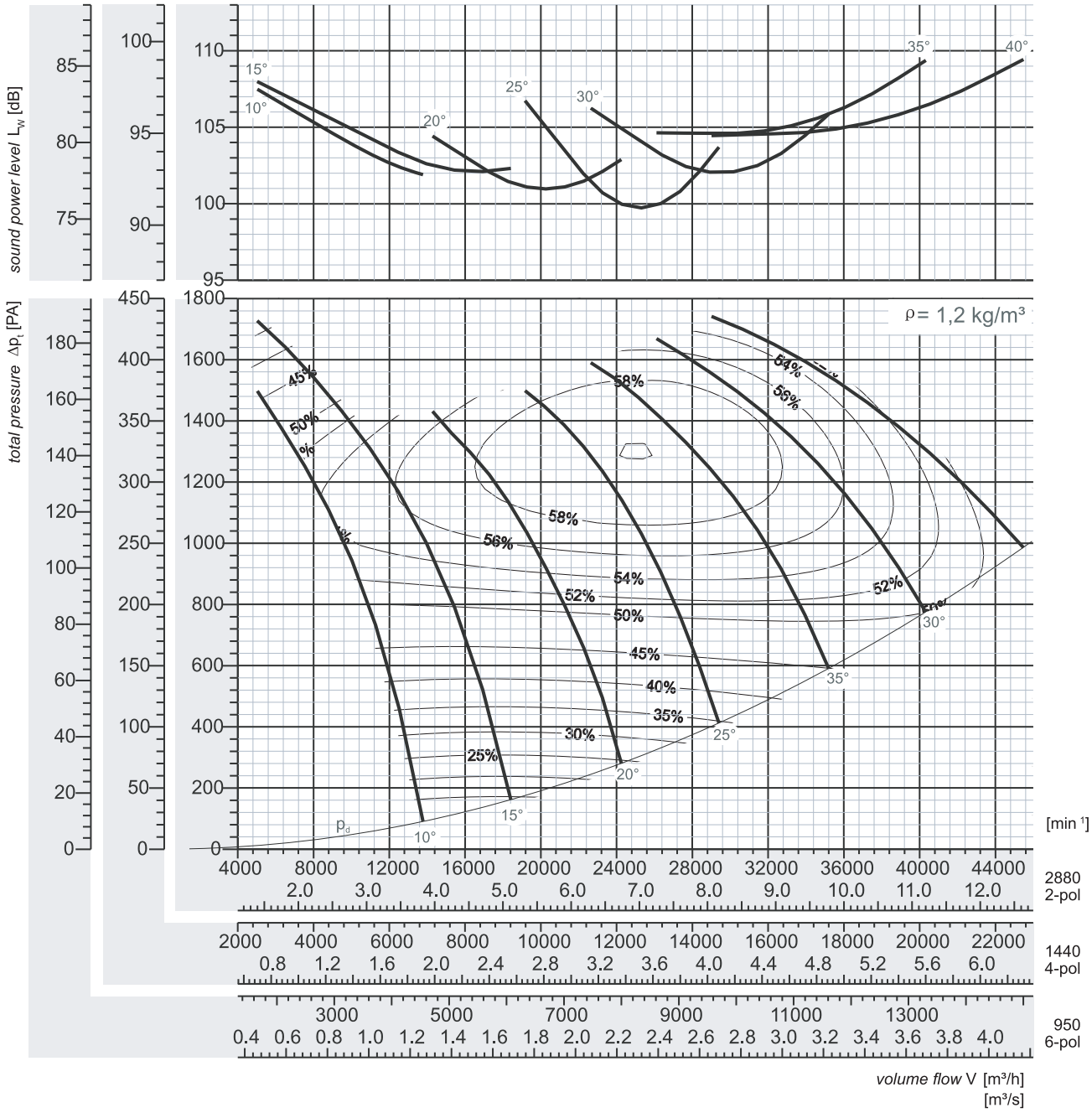
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,14	0,21	0,30	0,40	0,52	0,66	0,81
motor	0,37			0,55		0,75	1,1
1440	0,47	0,72	1,06	1,40	1,82	2,29	2,83
motor	0,55	0,75	1,1	1,5	2,2	3,0	

***relative frequency spectrum* ΔL in dB/Okt**

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-2	-9	-10	-8	-7	-10	-15	-21	-33	-6
L_{W6} druckseitig *outlet*	0	-7	-9	-8	-7	-9	-13	-18	-28	-5
L_{W5} saugseitig *inlet*	-0	-13	-17	-9	-6	-7	-11	-14	-22	-3
L_{W6} druckseitig *outlet*	0	-10	-14	-8	-7	-8	-10	-14	-21	-4

AE 630-14



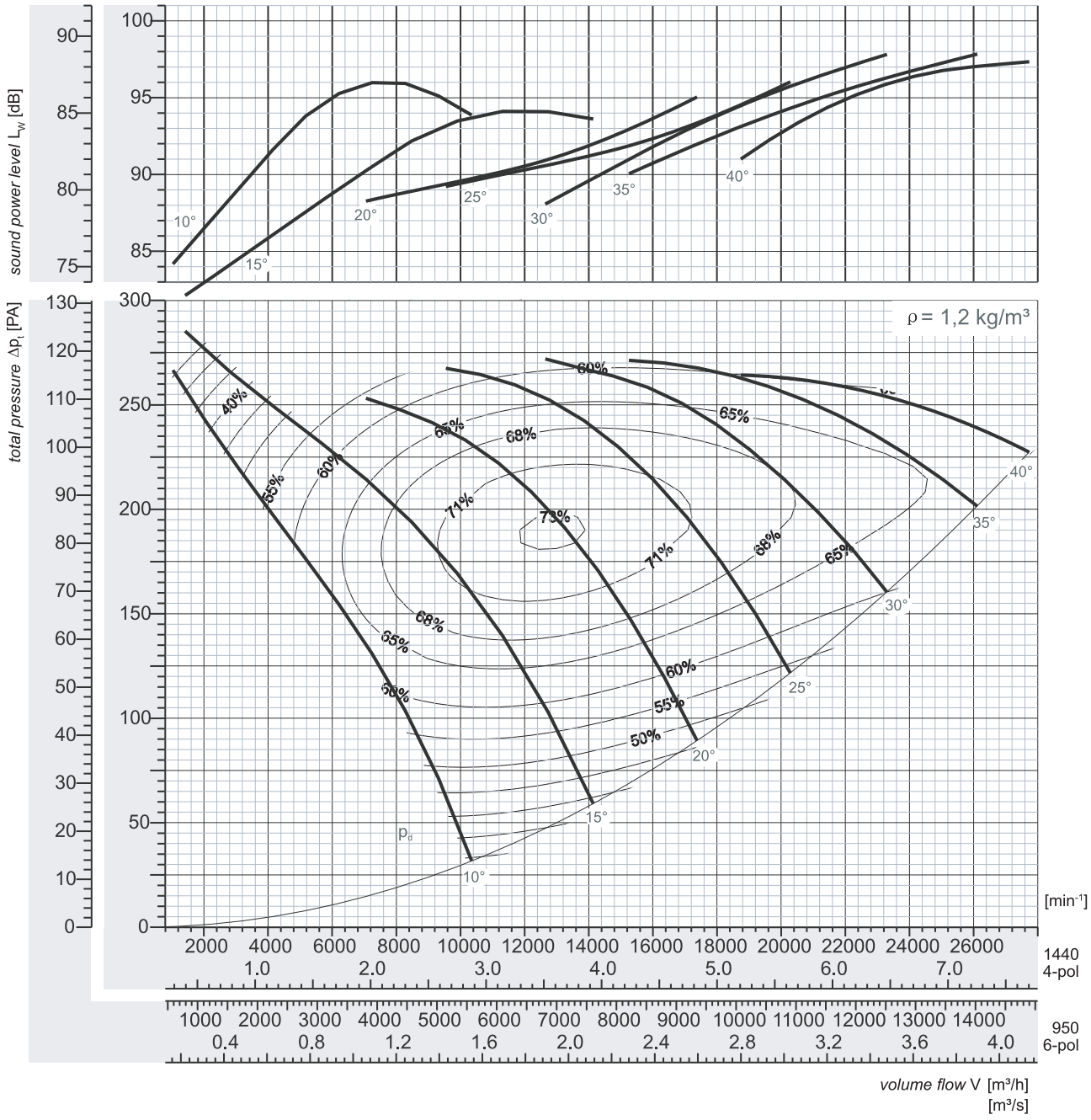
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,18	0,26	0,38	0,49	0,64	0,81	1,02
motor	0,37		0,55		0,75	1,1	
1440	0,63	0,90	1,33	1,70	2,24	2,81	3,54
motor	0,75	1,1	1,5	2,2	3,0		4,0
2880	5,05	7,17	10,64	13,61	17,95	22,47	28,34
motor	5,5	7,5	11,0	15,0	18,5	-	-

***relative frequency spectrum* ΔL in dB/Okt**

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-2	-10	-14	-7	-6	-10	-14	-18	-33	-5
L_{W6} druckseitig *outlet*	0	-7	-12	-8	-7	-10	-14	-19	-25	-5
L_{W5} saugseitig *inlet*	1	-14	-15	-9	-5	-8	-12	-15	-28	-4
L_{W6} druckseitig *outlet*	0	-9	-12	-8	-7	-10	-11	-14	-23	-5
L_{W5} saugseitig *inlet*	0	-13	-16	-13	-6	-6	-9	-13	-19	-2
L_{W6} druckseitig *outlet*	0	-8	-11	-11	-7	-6	-7	-10	-16	-1

AE 710-5



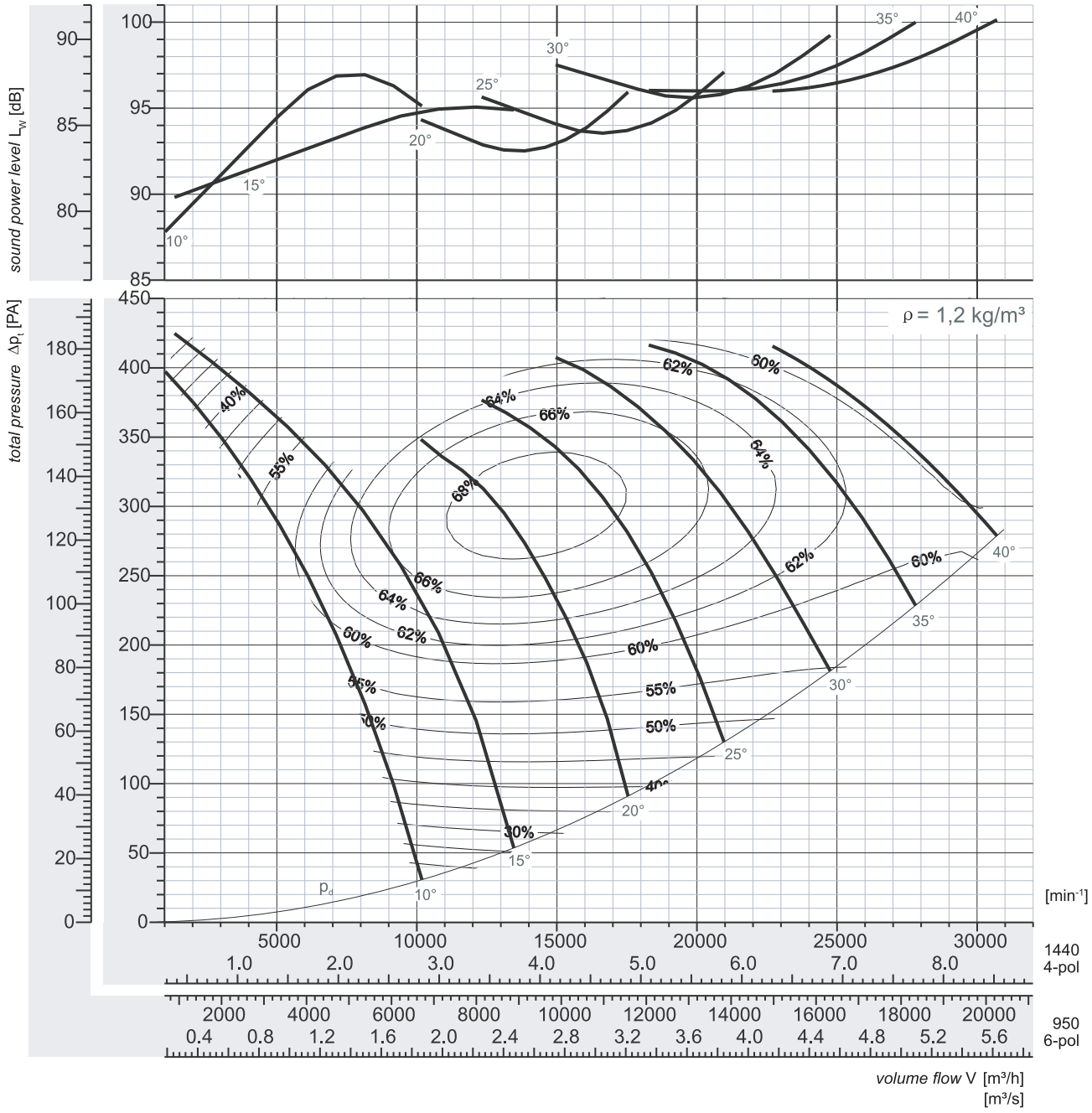
Peak absorbed power [kW]

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,12	0,19	0,28	0,39	0,51	0,64	0,80
motor	0,37			0,55		0,75	1,1
1440	0,42	0,67	0,98	1,36	1,77	2,22	2,77
motor	0,55	0,75	1,1	1,5	2,2	3,0	

relative frequency spectrum ΔL in dB/Okt

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-3	-4	-9	-11	-6	-12	-17	-21	-32	-7
L_{W6} druckseitig *outlet*	0	-5	-12	-11	-5	-10	-16	-20	-27	-5
L_{W5} saugseitig *inlet*	0	-7	-5	-10	-10	-11	-14	-16	-25	-7
L_{W6} druckseitig *outlet*	0	-8	-5	-10	-11	-11	-13	-15	-21	-6

AE 710-10



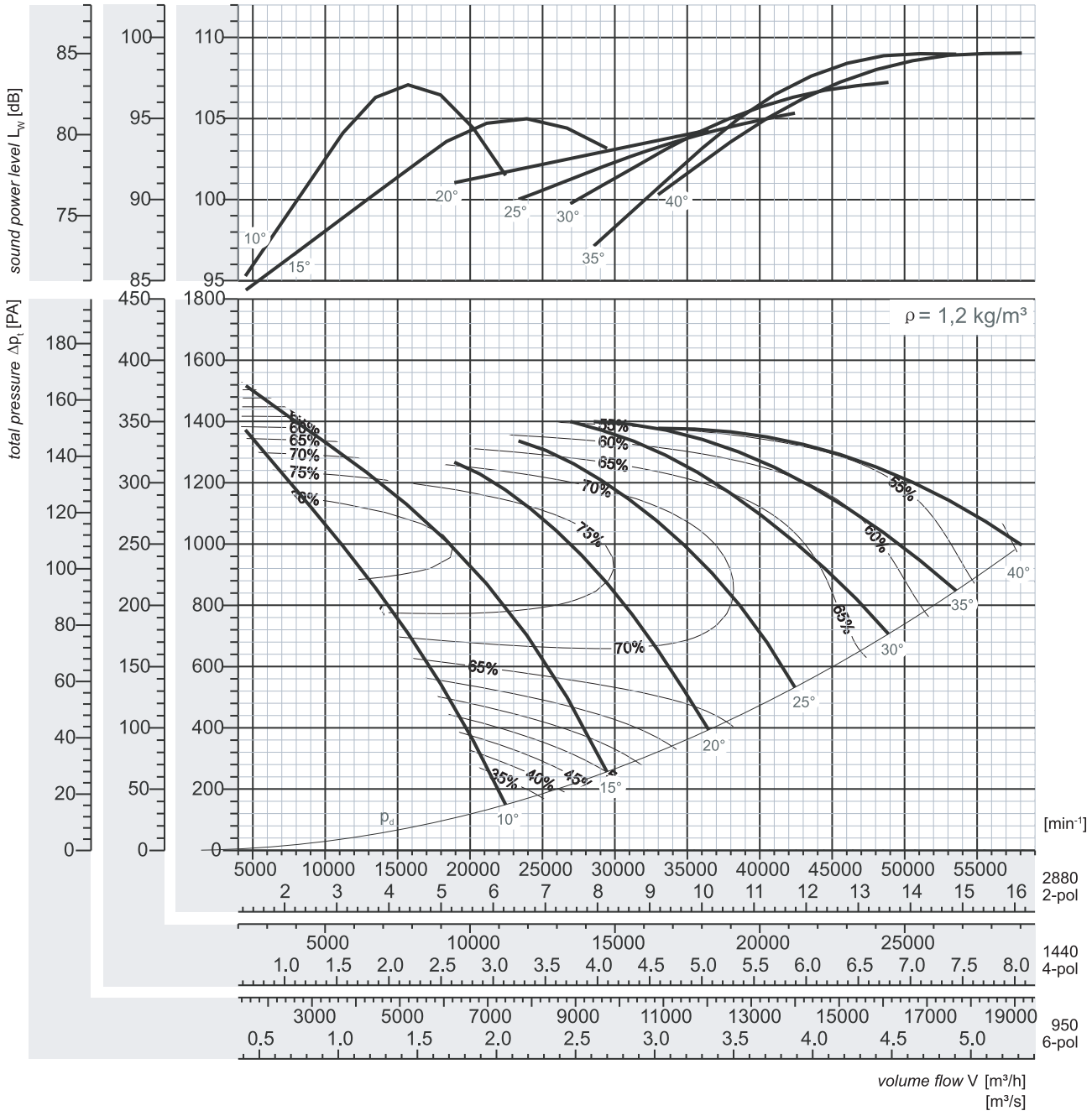
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,21	0,30	0,45	0,62	0,82	1,05	1,29
motor	0,37		0,55	0,75	1,1		1,5
1440	0,72	1,03	1,55	2,16	2,85	3,66	4,48
motor	0,75	1,1	2,2		3,0	4,0	-

***relative frequency spectrum* ΔL in dB/Okt**

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-2	-9	-9	-8	-6	-12	-17	-21	-33	-6
L_{W6} druckseitig *outlet*	0	-7	-10	-9	-6	-9	-13	-17	-27	-4
L_{W5} saugseitig *inlet*	-1	-10	-15	-7	-7	-9	-14	-17	-24	-5
L_{W6} druckseitig *outlet*	0	-9	-14	-10	-8	-9	-11	-14	-21	-5

AE 710-7



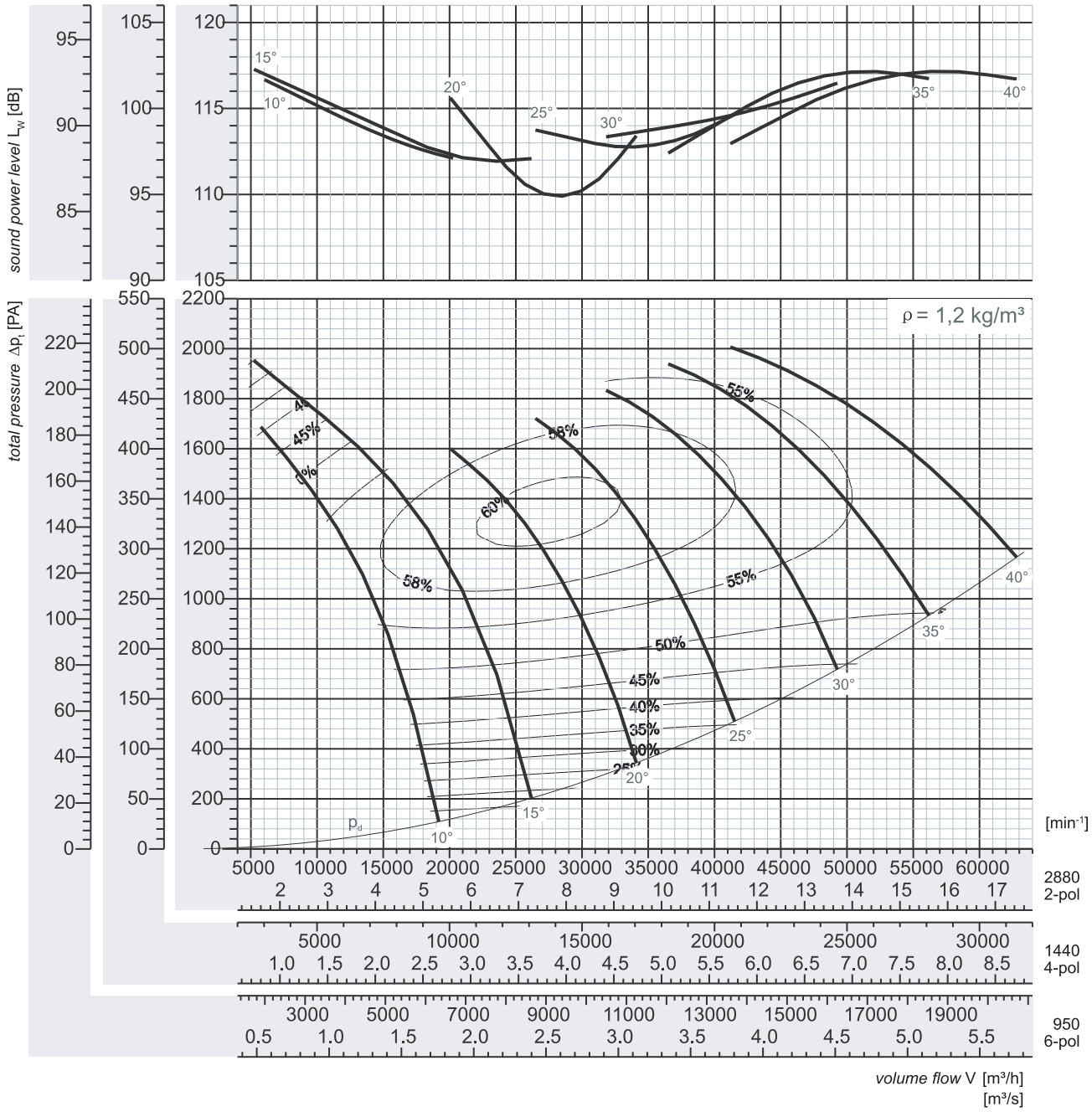
Peak absorbed power [kW]

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,16	0,24	0,37	0,50	0,67	0,87	1,15
motor	0,37			0,55	0,75	1,1	1,5
1440	0,55	0,84	1,28	1,74	2,35	3,03	3,99
motor	0,75	1,1	1,5	2,2	3,0	4,0	
2880	4,44	6,74	10,2	14,0	18,8	24,2	31,9
motor	5,5	7,5	11,0	15,0	22,0	-	-

relative frequency spectrum ΔL in dB/Okt

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-3	-6	-7	-11	-7	-12	-16	-20	-34	-7
L_{W6} druckseitig *outlet*	0	-7	-8	-11	-7	-10	-14	-18	-26	-6
L_{W5} saugseitig *inlet*	-2	-8	-9	-7	-8	-12	-15	-18	-29	-6
L_{W6} druckseitig *outlet*	0	-7	-8	-10	-10	-11	-13	-16	-22	-7
L_{W5} saugseitig *inlet*	0	-10	-16	-7	-7	-10	-14	-18	-22	-6
L_{W6} druckseitig *outlet*	0	-9	-11	-7	-8	-9	-11	-14	-18	-5

AE 710-14



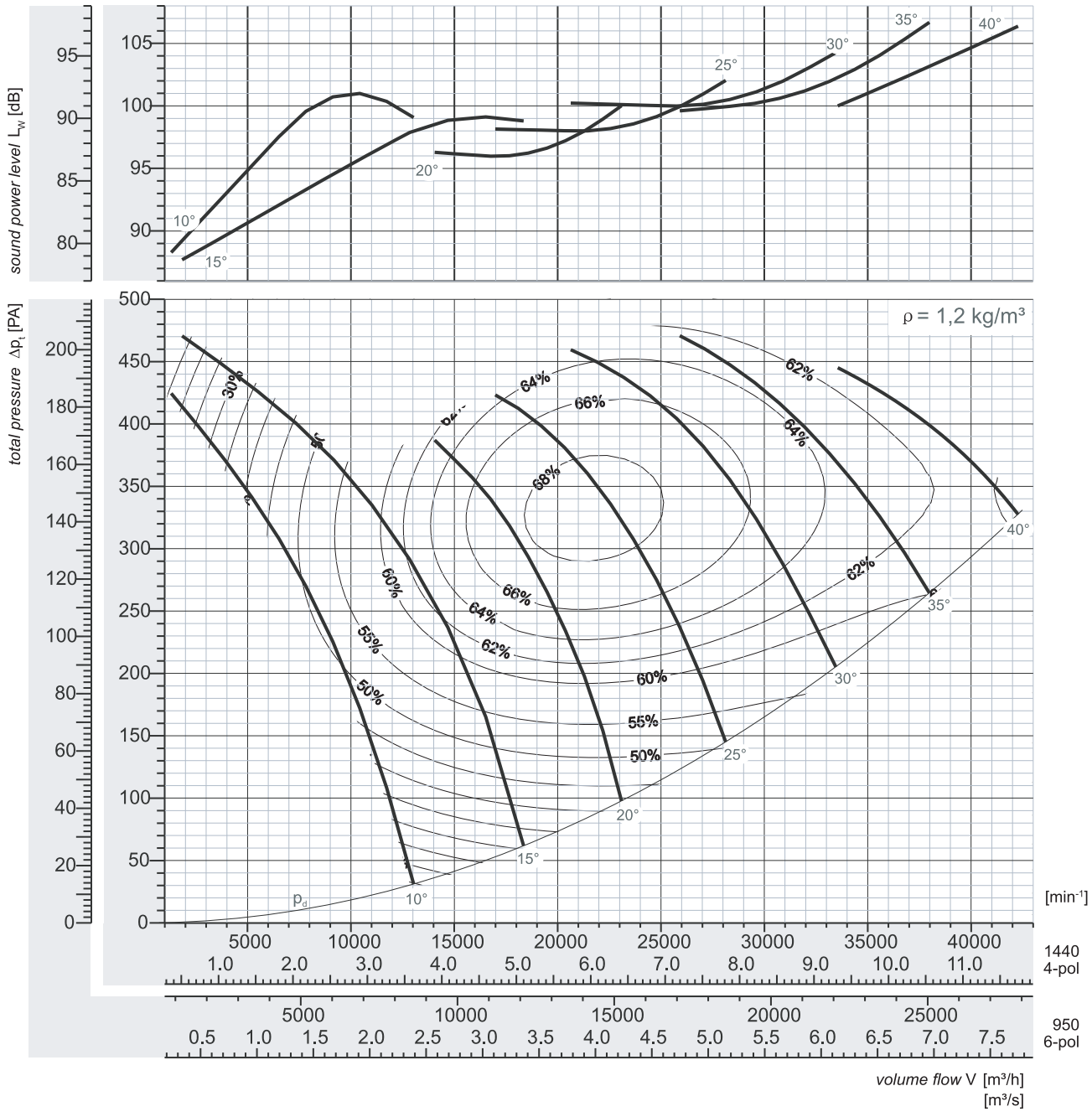
Peak absorbed power [kW]

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,26	0,41	0,60	0,79	1,06	1,36	1,65
motor	0,37	0,55	0,75	1,1		1,5	2,2
1440	0,90	1,41	2,08	2,76	3,70	4,75	5,75
motor	1,1	1,5	2,2	3,0	4,0	5,5	7,5
2880	7,23	11,3	16,7	22,1	29,6	38,0	46,0
motor	7,5	15,0	18,5	-	-	-	-

relative frequency spectrum ΔL in dB/Okt

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-2	-9	-13	-8	-6	-11	-15	-19	-34	-5
L_{W6} druckseitig *outlet*	0	-7	-13	-9	-6	-10	-13	-18	-25	-5
L_{W5} saugseitig *inlet*	-1	-10	-16	-8	-6	-8	-12	-16	-26	-4
L_{W6} druckseitig *outlet*	0	-8	-12	-9	-8	-9	-11	-14	-21	-5
L_{W5} saugseitig *inlet*	0	-13	-16	-13	-6	-6	-9	-13	-19	-2
L_{W6} druckseitig *outlet*	0	-8	-11	-11	-7	-6	-7	-10	-16	-1

AE 800-10



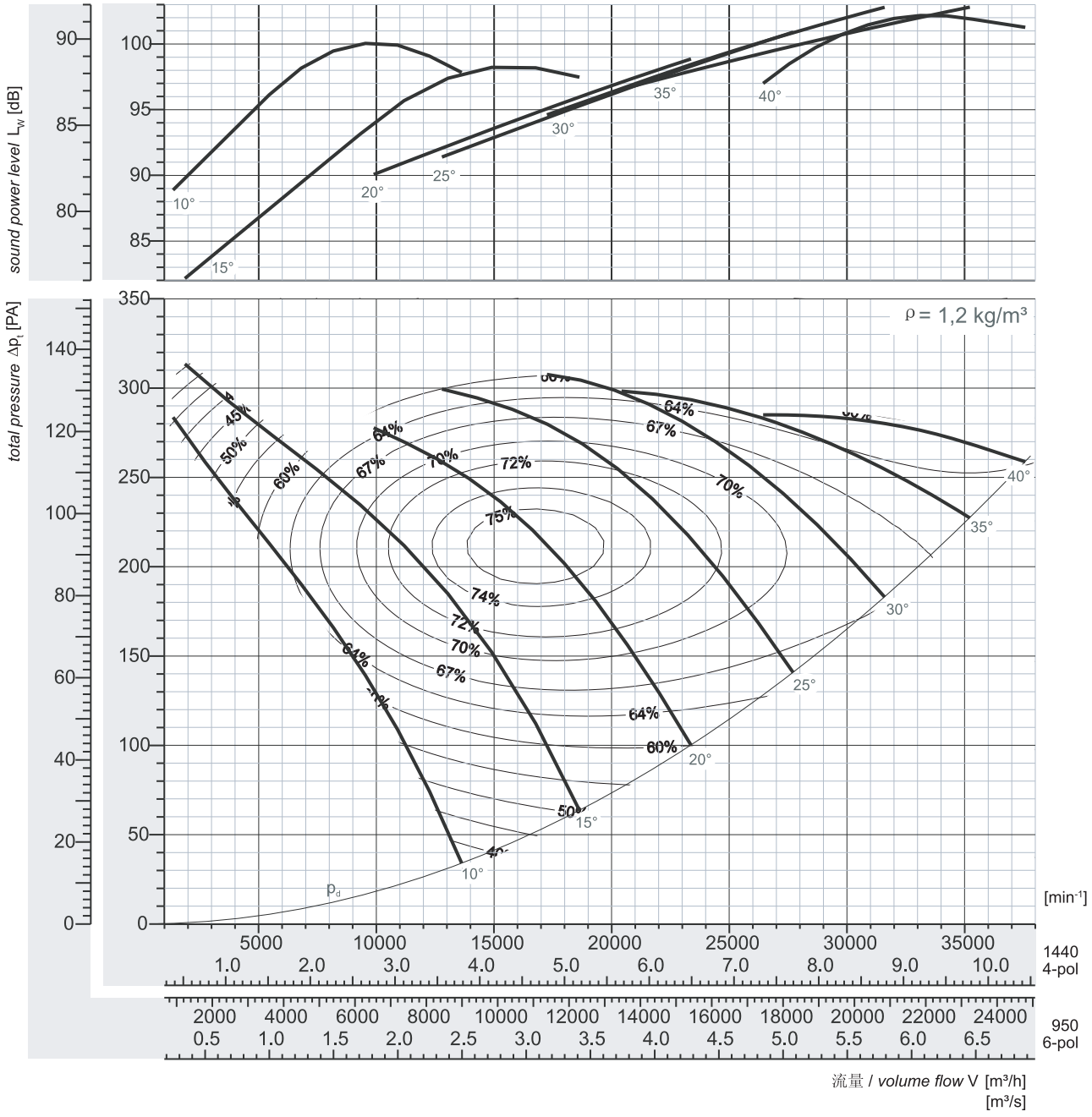
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,35	0,50	0,70	0,93	1,25	1,58	1,98
motor	0,4	0,6	0,8	1,1	1,5	2,2	
1440	1,24	1,76	2,44	3,24	4,34	5,52	6,90
motor	1,5	2,2	3,0	4,0	-	-	-

***relative frequency spectrum* ΔL in dB/Okt**

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-1	-10	-9	-8	-6	-12	-16	-21	-36	-6
L_{W6} druckseitig *outlet*	0	-7	-10	-9	-6	-9	-13	-17	-26	-4
L_{W5} saugseitig *inlet*	-1	-11	-14	-6	-7	-10	-14	-17	-25	-5
L_{W6} druckseitig *outlet*	0	-10	-12	-9	-9	-10	-12	-15	-22	-7

AE 800-5



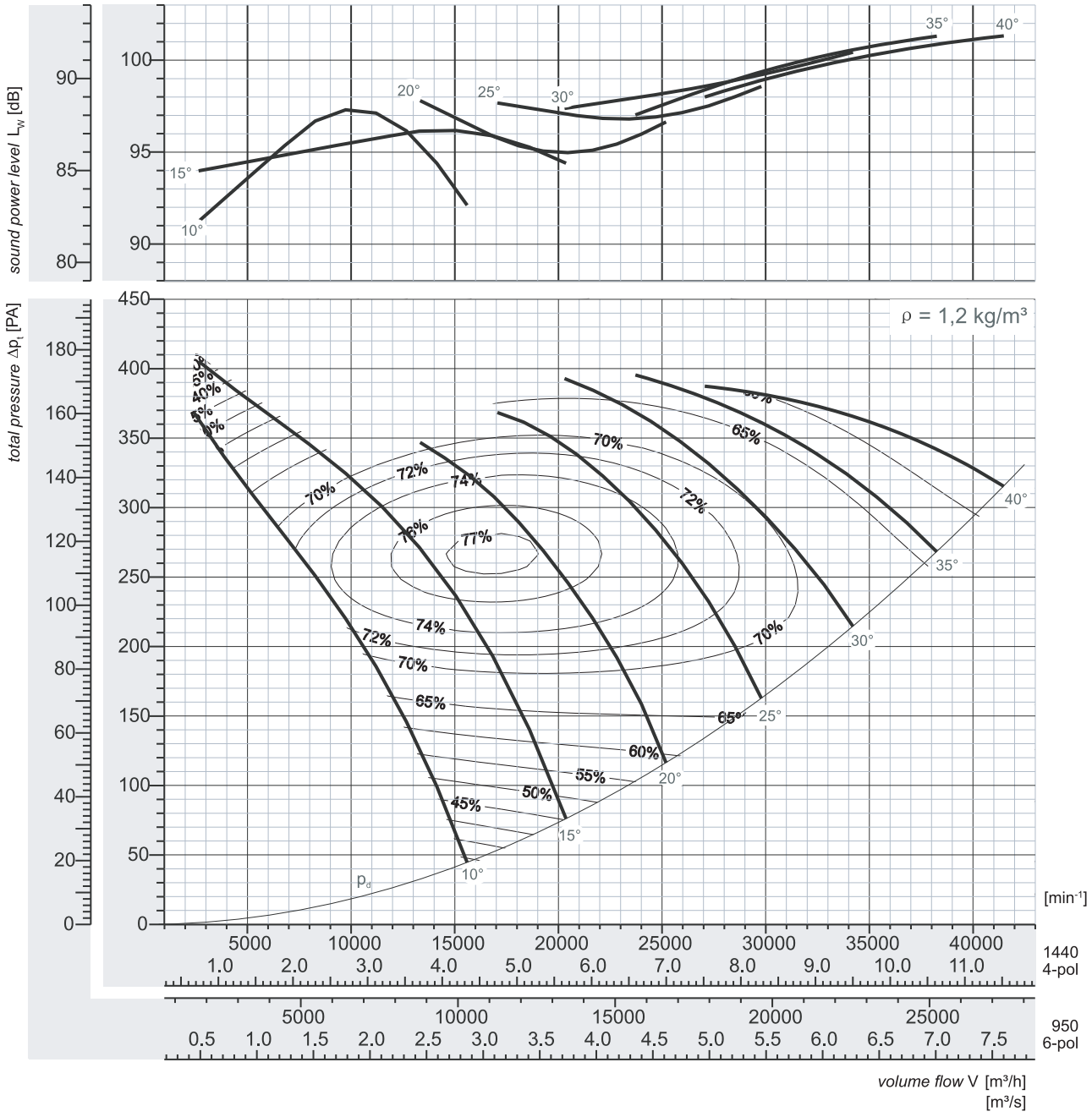
***Peak absorbed power* [kW]**

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,18	0,27	0,41	0,56	0,73	0,97	1,25
motor	0,37		0,55	0,75		1,1	1,5
1440	0,62	0,93	1,41	1,97	2,55	3,37	4,37
motor	0,75	1,1	1,5	2,2	3,0	4,0	-

***relative frequency spectrum* ΔL in dB/Okt**

	Total	*Octave b. midfr.* [Hz]								
		63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-2	-5	-10	-10	-6	-11	-15	-20	-32	-6
L_{W6} druckseitig *outlet*	0	-4	-11	-11	-5	-9	-15	-19	-27	-5
L_{W5} saugseitig *inlet*	1	-8	-5	-8	-10	-12	-15	-17	-25	-7
L_{W6} druckseitig *outlet*	0	-11	-5	-11	-11	-12	-13	-15	-21	-7

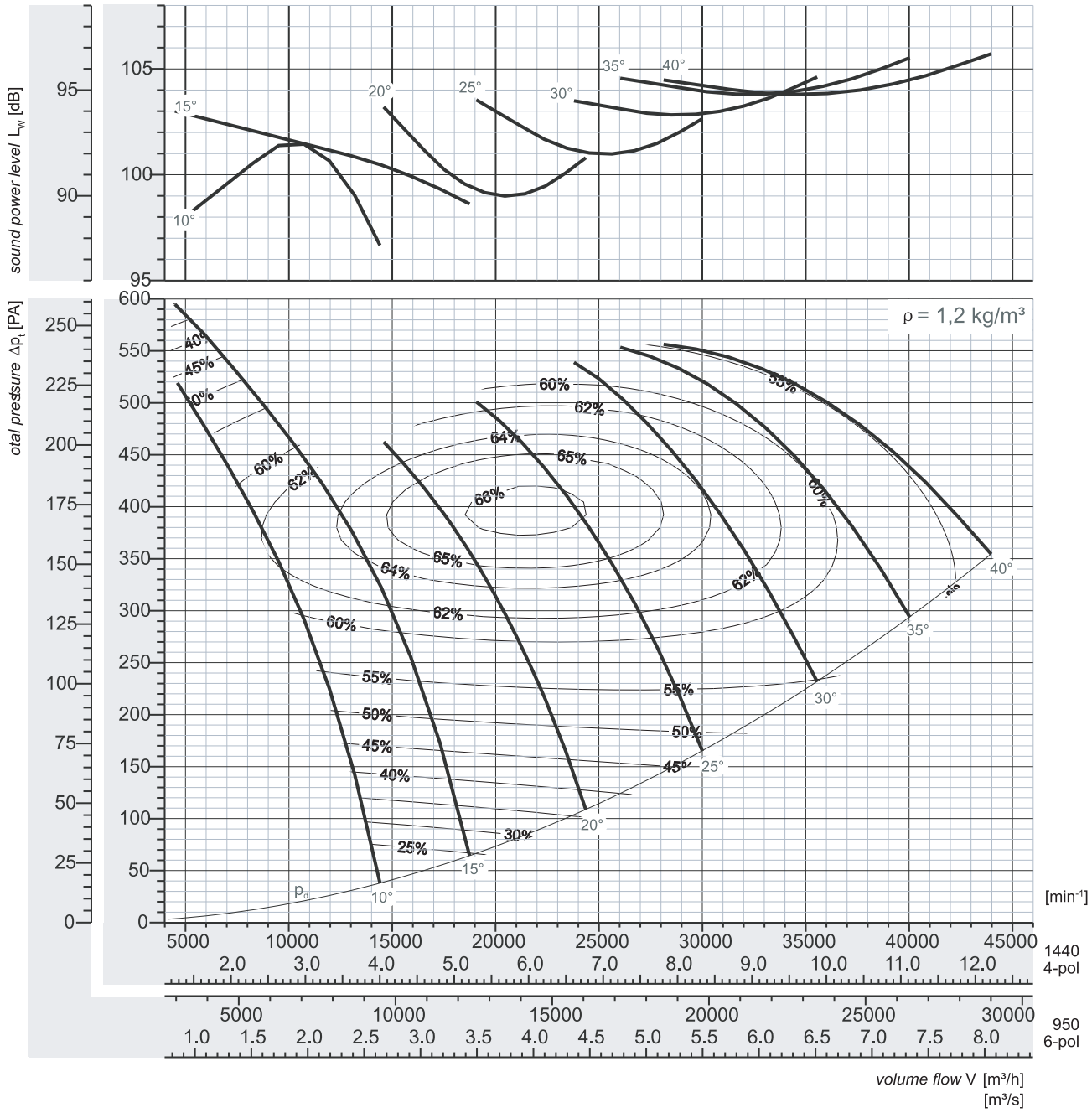
AE 800-7



***Peak absorbed power* [kW]**

n	*pitch angle* [°]								*relative frequency spectrum* ΔL in dB/Okt									
[min⁻¹]	10	15	20	25	30	35	40			*Octave b. midfr.* [Hz]								
									Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,24	0,39	0,56	0,79	1,03	1,35	1,86	L_{W5} saugseitig *inlet*	-2	-5	-6	-8	-8	-12	-15	-19	-32	-7
motor	0,55		0,75	1,1		1,5	2,2	L_{W6} druckseitig *outlet*	0	-6	-8	-8	-8	-10	-14	-17	-25	-6
1440	0,85	1,35	1,94	2,74	3,59	4,71	6,49	L_{W5} saugseitig *inlet*	-2	-8	-9	-8	-7	-10	-13	-17	-26	-5
motor	1,1	1,5	2,2	3,0	4,0	5,5	7,5	L_{W6} druckseitig *outlet*	0	-10	-8	-10	-9	-10	-12	-15	-21	-6

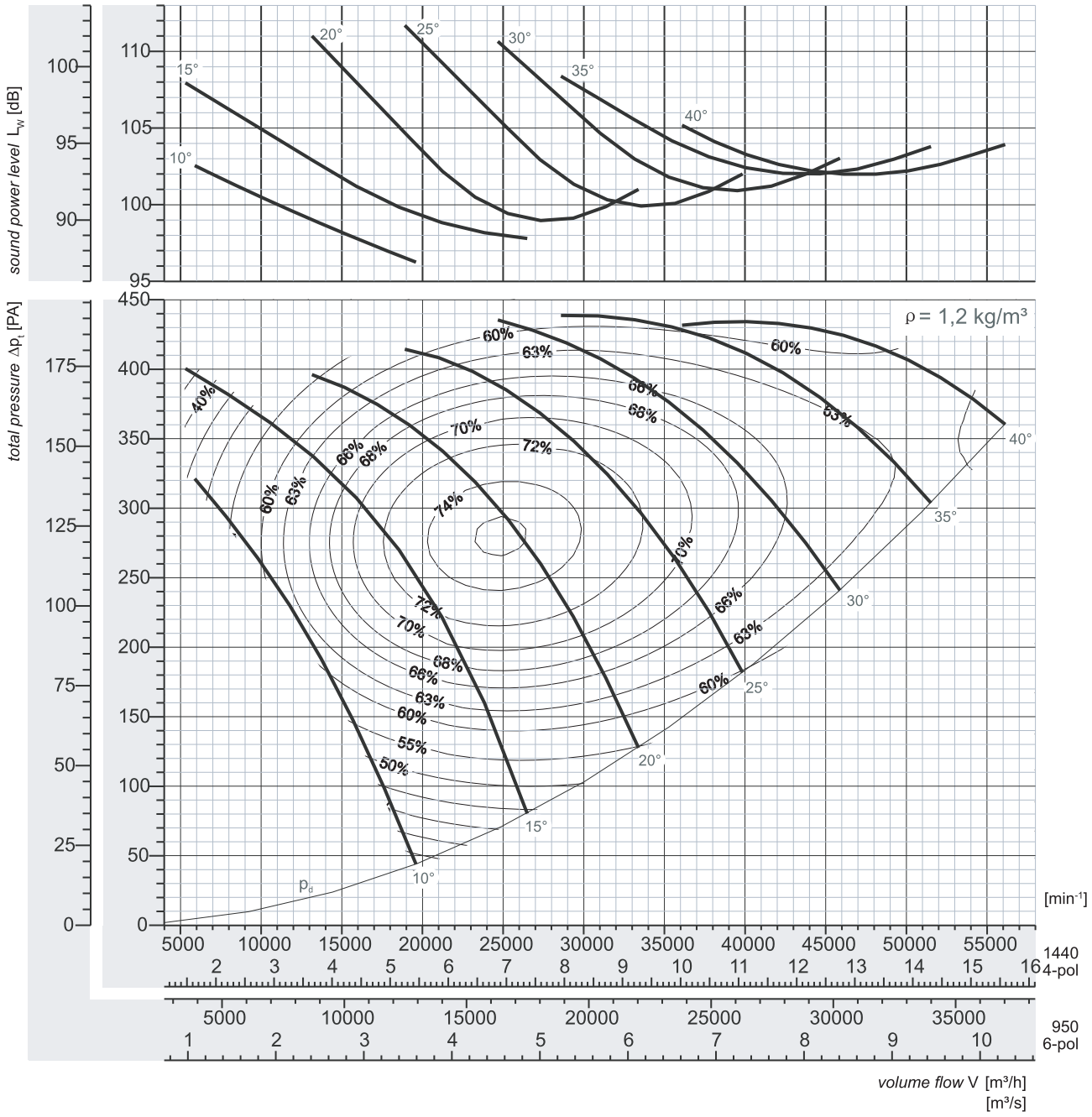
AE 800-14



***Peak absorbed power* [kW]** ***relative frequency spectrum* ΔL in dB/Okt**

n	*pitch angle* [°]								*Octave b. midfr.* [Hz]								
[min⁻¹]	10	15	20	25	30	35	40		Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,43	0,70	0,85	1,22	1,67	2,14	2,59	L_{W5} saugseitig *inlet*	-2	-8	-14	-7	-6	-8	-13	-18	-31	-4
motor	0,55	0,75	1,1	1,5	2,2		3,0	L_{W6} druckseitig *outlet*	0	-6	-13	-8	-6	-10	-12	-17	-26	-5
1440	1,50	2,43	2,95	4,25	5,83	7,45	9,03	L_{W5} saugseitig *inlet*	-1	-10	-16	-10	-5	-7	-10	-15	-23	-3
motor	1,5	3,0		5,5	7,5		11,0	L_{W6} druckseitig *outlet*	0	-11	-14	-10	-8	-8	-9	-13	-20	-4

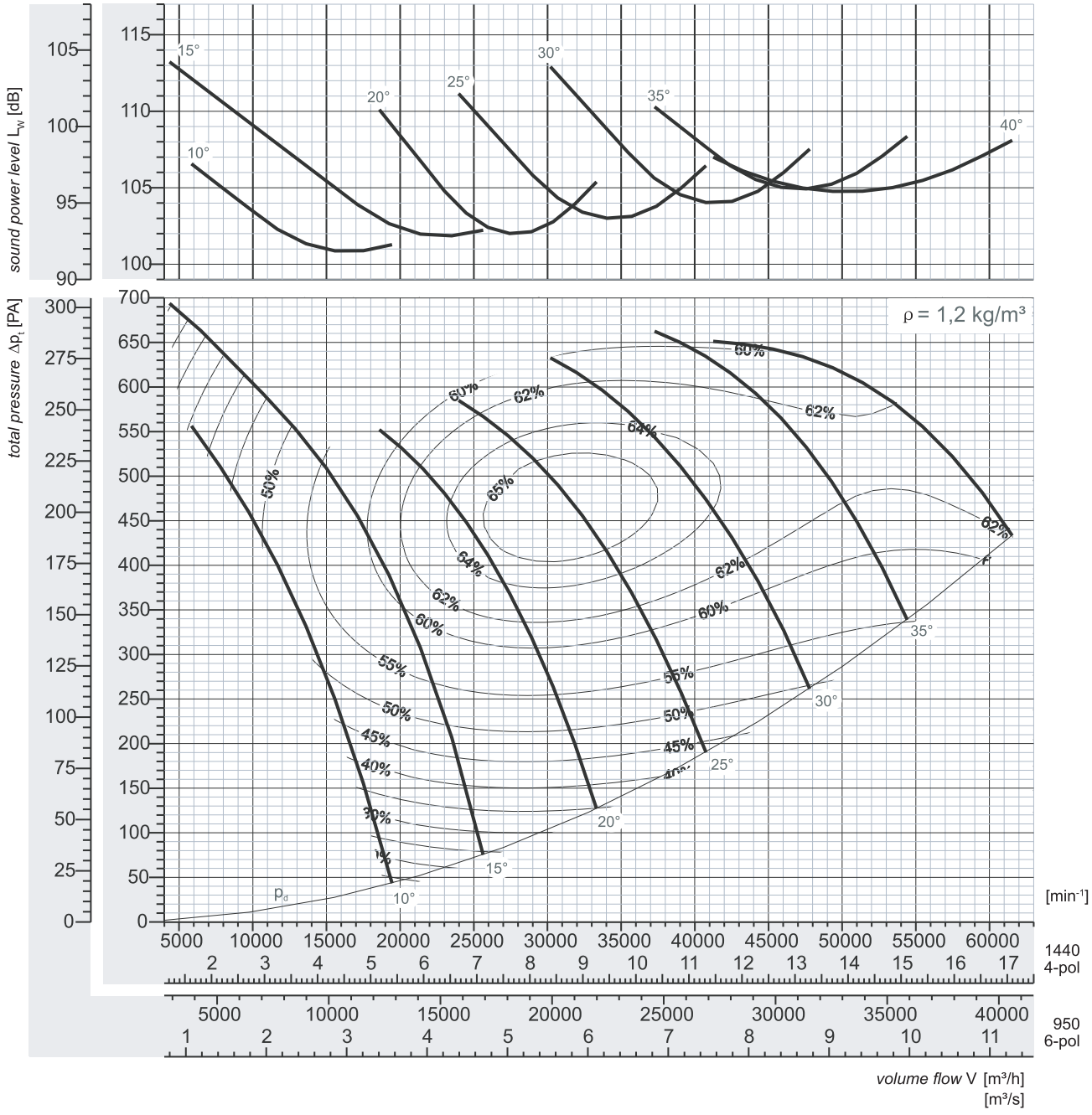
AE 900-7



***Peak absorbed power* [kW]**

n	*pitch angle* [°]								*relative frequency spectrum* ΔL in dB/Okt									
											Octave b. midfr. [Hz]							
[min⁻¹]	10	15	20	25	30	35	40		Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,35	0,55	0,83	1,17	1,58	2,08	2,66	L_{W5} saugseitig *inlet*	-1	-7	-8	-7	-8	-11	-14	-18	-28	-6
motor	0,37	0,55	1,1	1,5	2,2		3,0	L_{W6} druckseitig *outlet*	0	-7	-7	-7	-9	-11	-13	-17	-24	-5
1440	1,23	1,93	2,90	4,06	5,49	7,24	9,28	L_{W5} saugseitig *inlet*	-1	-10	-10	-9	-6	-8	-12	-16	-24	-4
motor	1,5	2,2	3,0	5,5		7,5	11,0	L_{W6} druckseitig *outlet*	0	-10	-9	-9	-8	-9	-12	-15	-22	-5

AE 900-14



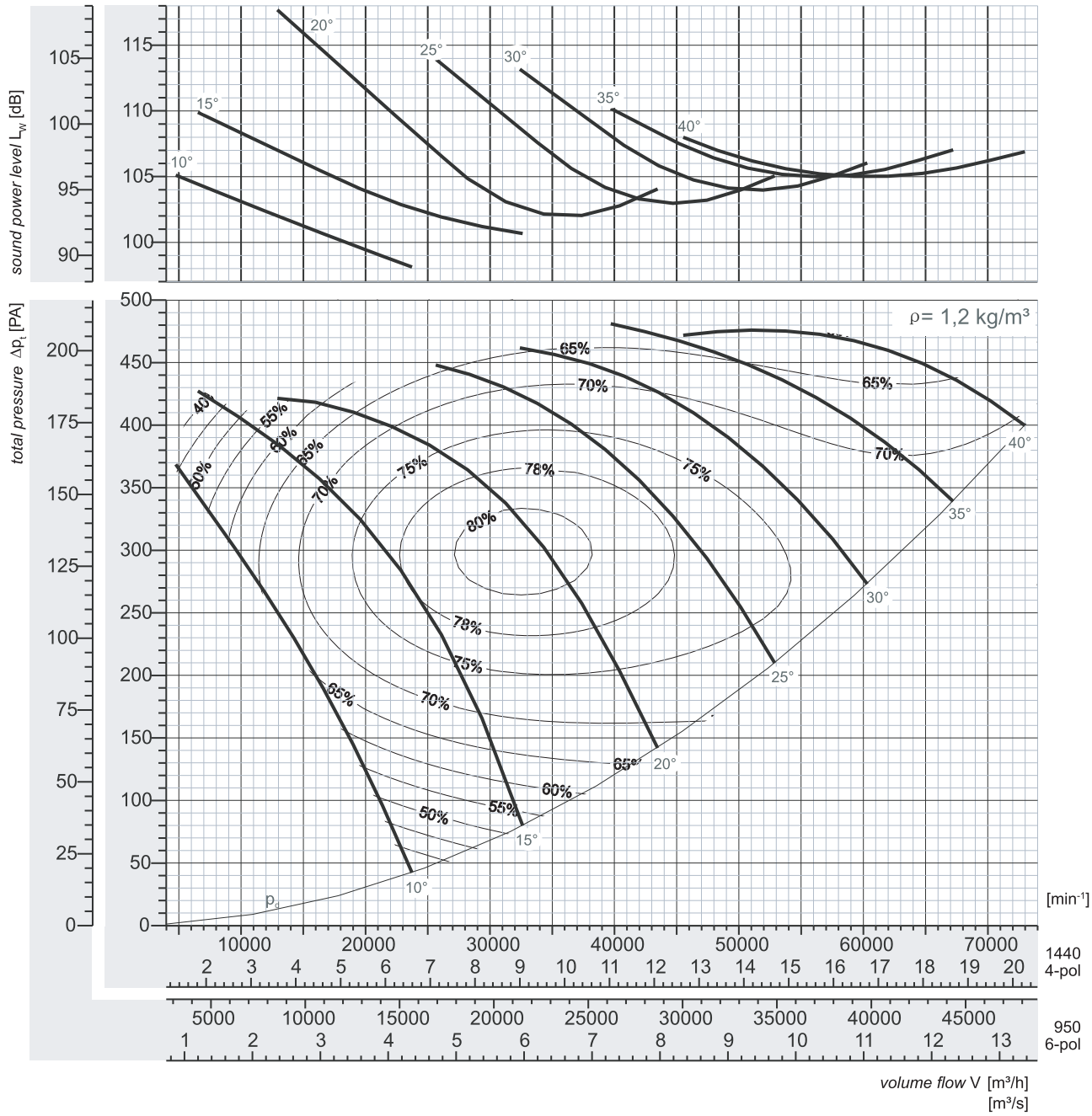
Peak absorbed power [kW]

n	*pitch angle* [°]						
[min⁻¹]	10	15	20	25	30	35	40
950	0,74	1,08	1,43	1,93	2,59	3,30	4,01
motor	0,75	1,1	1,5	2,2	3,0	4,0	5,5
1440	2,58	3,78	4,99	6,72	9,04	11,5	14,0
motor	3,0	4,0	5,5	7,5	11,0	15,0	

relative frequency spectrum ΔL in dB/Okt

		Octave b. midfr. [Hz]								
	Total	63	125	250	500	1k	2k	4k	8k	dBA
L_{W5} saugseitig *inlet*	-2	-8	-15	-5	-7	-8	-12	-17	-28	-4
L_{W6} druckseitig *outlet*	0	-6	-13	-7	-9	-10	-14	-19	-27	-6
L_{W5} saugseitig *inlet*	-1	-13	-19	-11	-5	-7	-10	-15	-23	-3
L_{W6} druckseitig *outlet*	0	-12	-16	-12	-6	-6	-9	-15	-22	-3

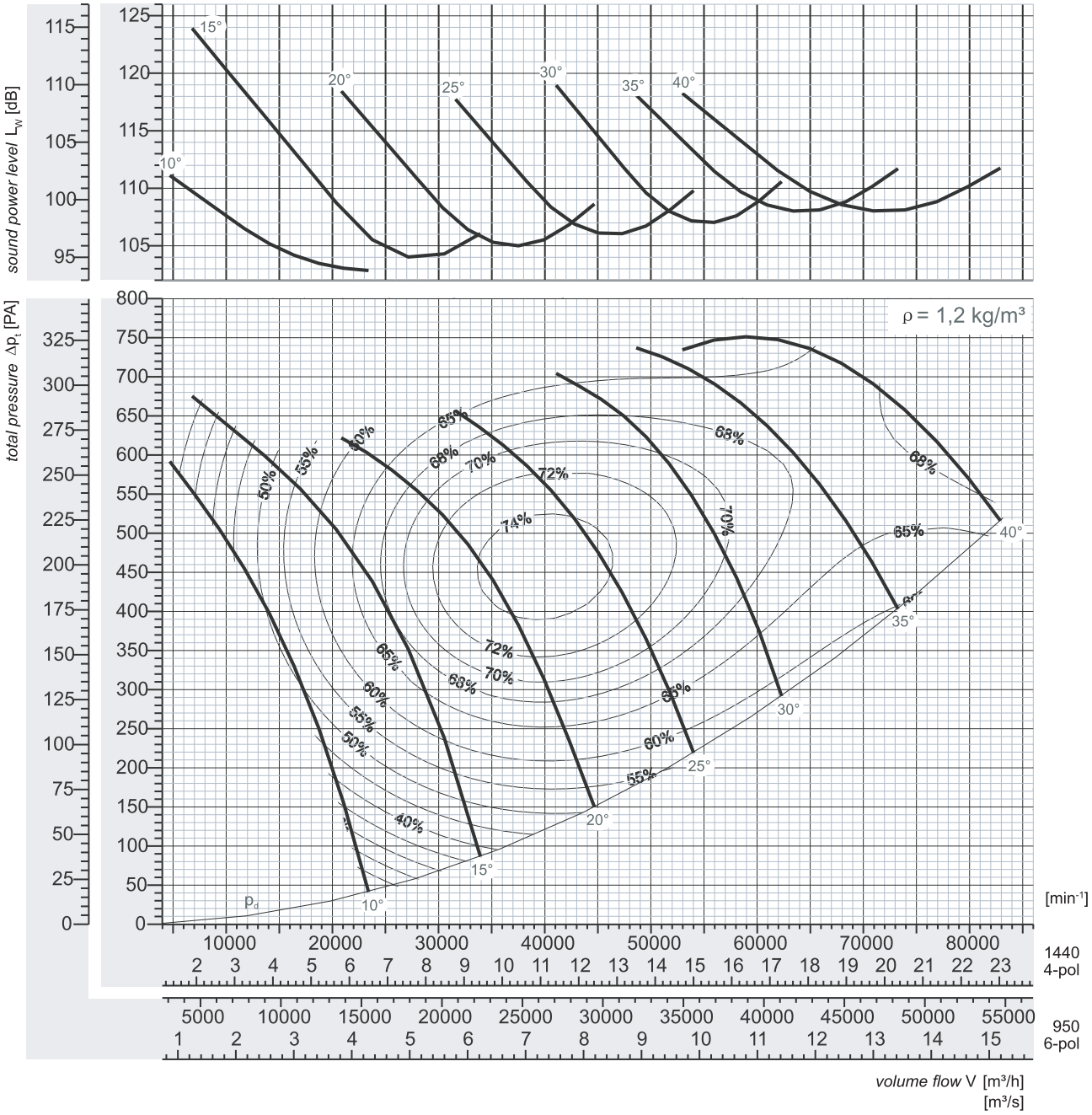
AE 1000-7



Peak absorbed power **[kW]**

n	***pitch angle*** **[°]**								***relative frequency spectrum*** **ΔL in dB/Okt**										
[min⁻¹]	10	15	20	25	30	35	40			***Octave b. midfr.*** **[Hz]**									
									Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,40	0,70	1,08	1,56	2,12	2,76	3,56	L_{W5} saugseitig *inlet*	-1	-6	-8	-7	-8	-11	-15	-19	-29	-6
motor	0,55	0,75	1,1	2,2		3,0	4,0	L_{W6} druckseitig *outlet*	0	-9	-10	-8	-8	-11	-13	-18	-24	-7
1440	1,38	2,43	3,78	5,42	7,37	9,63	12,4	L_{W5} saugseitig *inlet*	-1	-9	-11	-9	-7	-9	-12	-16	-24	-5
motor	1,5	3,0	4,0	5,5	7,5	11,0	~~15,0~~	L_{W6} druckseitig *outlet*	0	-9	-10	-9	-9	-9	-13	-16	-22	-6

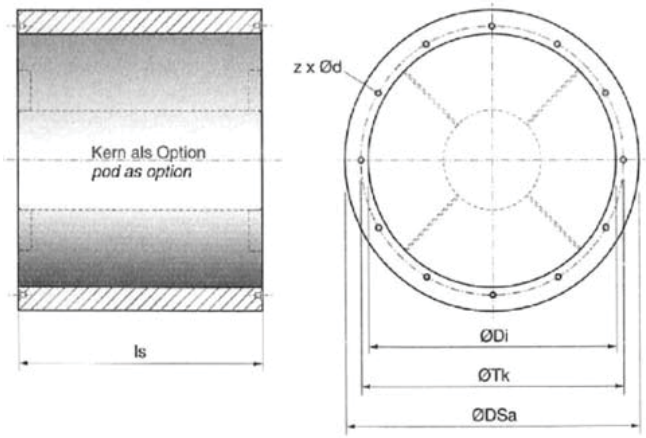
AE 1000-14



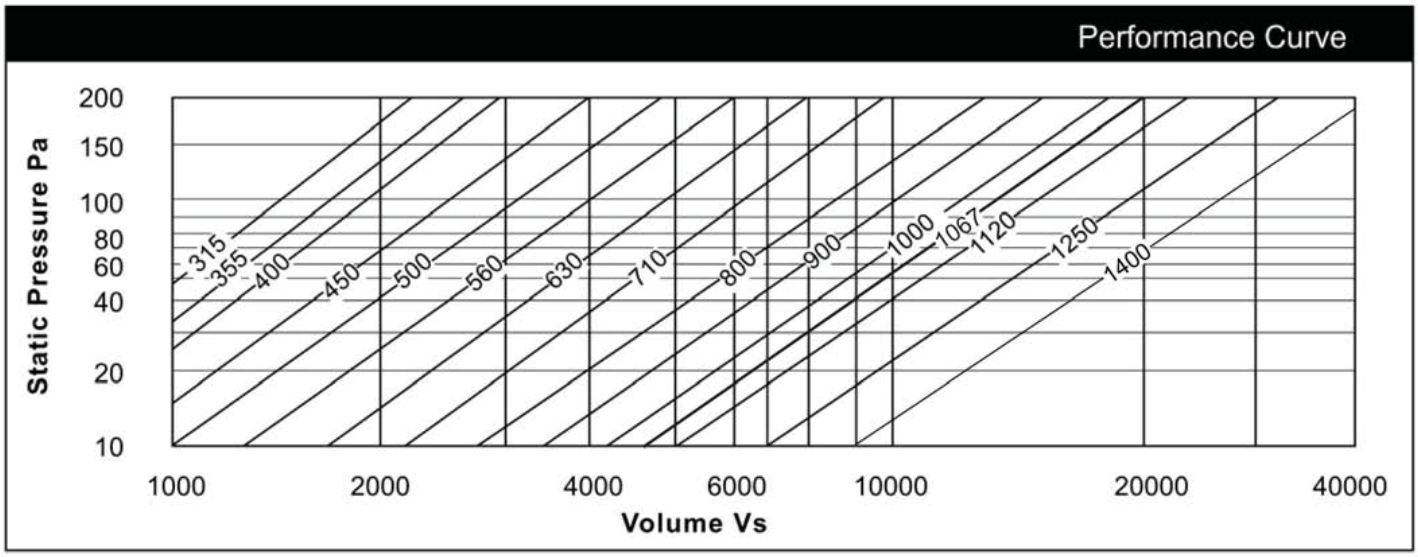
Peak absorbed power [kW]

n	*pitch angle* [°]								*relative frequency spectrum* ΔL in dB/Okt									
[min⁻¹]	10	15	20	25	30	35	40		*Octave b. midfr.* [Hz] Total	63	125	250	500	1k	2k	4k	8k	dBA
950	0,90	1,34	1,84	2,57	3,63	4,58	5,83	L_{W5} saugseitig *inlet*	-1	-8	-13	-6	-7	-9	-13	-17	-25	-5
motor	1,1	1,5	2,2	3,0	4,0	5,5	7,5	L_{W6} druckseitig *outlet*	0	-9	-14	-9	-6	-8	-10	-19	-25	-4
1440	3,14	4,66	6,39	8,96	12,6	15,9	20,3	L_{W5} saugseitig *inlet*	0	-13	-18	-11	-6	-6	-10	-15	-23	-3
motor	4,0	5,5	7,5	11,0	~~15,0~~	~~18,5~~	~~22,0~~	L_{W6} druckseitig *outlet*	0	-12	-16	-12	-6	-6	-9	-15	-22	-2

Silencer



Size	Dsa	D	Tk	Id	z x		Max kg			
	mm	mm	mm	1D	2D	mm	LP 1D	LP 2D	HP 1D	HP 2D
3154	65	3153	55	3156	30	8 x 81	01	82	02	9
3555	00	3553	95	3557	10	8 x 81	21	92	23	0
4005	50	4004	40	4008	00	12 x 81	32	02	33	1
4506	00	4504	90	4509	00	12 x 81	82	62	93	7
5006	50	5005	40	500	1000	12 x 82	33	23	54	3
5607	10	5606	05	560	1120	16 x 82	53	94	35	5
6307	80	6306	75	630	1260	16 x 83	24	35	26	4
7108	60	7107	55	710	1420	16 x 83	94	86	37	8
800	10008	00	8458	00	1600	16 x 85	06	17	99	9
900	11009	00	9459	00	1800	16 x 10	74	87	130	157
1000	1200	1000	1050	1000	2000	16 x 10	91	1071	61	193
1067	1267	1067	1135	1067	2134	16 x 10	1011	31	185	252
1250	1450	1250	1315	1250	2500	24 x 10	1261	63	231	315
1400	1650	1400	1470	1400	2800	24 x 14	1501	94	285	385



*Note: Performance curves relate to pressure losses through HP silencers only. The LP models have negligible pressure loss.

Model	Type	Insertion Loss at Hz							
		63	125	2505	00	1K	2K	4K	8K
LP 315/355/400/450/500/5601	D1		47		10	14	11	88	
HP 315/355/400/450/500/560	1D (Kern/Pod)4		69		13	19	19	16	14
LP 315/355/400/450/500/5602	D4		81	21	72	31	71	31	2
HP 315/355/400/450/500/560	2D (Kern/Pod)7		11	15	24	28	28	26	22
LP 630/710/800/900	1D	35		91	41	49		87	
HP 630/710/800/900	1D (Kern/Pod)4		61	01	72	32	11	91	1
LP 630/710/800/900	2D	68		14	23	24	14	13	10
HP 630/710/800/900	2D (Kern/Pod)7		11	16	29	34	32	30	19
LP 1000/1067/1250	1D	35		10	14	13	87		7
HP 1000/1067/1250	1D (Kern/Pod)4		61	22	01	91	51	41	2
LP 1000/1067/1250	2D	69		14	21	20	13	11	10
HP 1000/1067/1250	2D (Kern/Pod)7		12	19	29	28	26	22	17
HP 1400/1067/1250	1D (Kern/Pod)4		71	42	42	01	38		6

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- Ex-Proof Unit
- Custom-made AC unit

From Marine to Industrial to Commercial air conditioning unit. We provide you the best support and designs to your needs.

SPECIFICATIONS AND DESIGN ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.