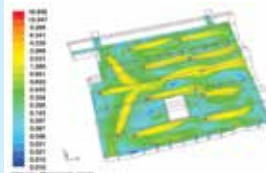
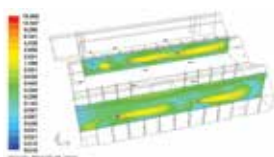


# Axial Fans

Medium pressure fan series



## About Us



At Lti Ventilatoren, Singapore, we produce complete range of ventilation products over a decade. Our products are required for ventilation of areas where we have to improve the Indoor Air Quality (IAQ), an important ingredient of life. With more than 30 years of experience of our colleagues in producing ventilation fans, we have been successful in setting up few manufacturing/assembly plants across the world.

Our long history of production & continuous investment in our R&D, have given us success in developing new innovative products with better efficiencies, low noise levels & compact sizes for easy installations.

Our name LTi, L-Long term T-Technical i-Innovative, supports our concept of continuous growth with our technical innovations on our existing product range & to develop new products for growing markets.

Our wide range of products includes Axial fans, Bifurcated axial fans, belt driven axial fans, Jet fans, centrifugal fans, In-line fans, mixed flow fans, special application fans for chemical resistance & battery room applications. Our customers are in domestic

sector, commercial sector, Industrial sector, power sector & infrastructure sector.

LTi Ventilatoren (Asia) Pte Ltd, established to support local markets by producing complete range of fans with national/international technologies to serve our customers locally & globally.

Our experience in the ventilation systems give our customers confidence to have most efficient/economical solutions for their ventilation requirements. This confidence in LTi & its high quality products is backed by excellent

pre/after sales services by our experienced sales & technical staff.

We provide complete designing solutions for ventilation problems. With this catalogue, we provide the complete overview of the fan type, Lti can offer to the market. For further detailed discussions & information kindly feel free to contact our local sales company/distributor/dealer worldwide.

## Quality standards

Our focus is customer satisfaction. The bases for the same are best quality & accurate delivery time. We believe in quality of our products, to support this our products carries 3 years standard warranty against any manufacturing defect. The products have been tested in Singapore with PSB & AMCA for their performances. The air & sound performances are tested as per AMCA standards. The products required for high temperature applications are tested in accordance with BS/EN latest standards for different temperature & time classifications.

\*No liability for errors! - Subject to technical modification

## Our Projects



Project Title: ITE College & HQ @ AMK  
Consultant: Kajima  
Fan supplied : Axial, Cabinet & MIL



Project Title: The Estuary  
Contractor: Great Resources M&E Contractor Pte Ltd  
Fan supplied: Axial, Cabinet & CIL



Project Title: Suki Sushi  
Contractor: Natural Cool Airconditioning & Engineering Pte Ltd  
Fan supplied: Axial, Cabinet, CIL & Propeller



Project Title: Central Fire Station  
Contractor: BNF Engineering (S) Pte Ltd  
Fan supplied: CIL & Propeller

### *Air Movement and Control Association International, Inc.*

*Certifies that*

***LTI Ventilatoren (Asia) Pte Ltd***

*Having satisfied the membership requirements, has been granted membership in the  
Air Movement and Control Association International, Inc.*

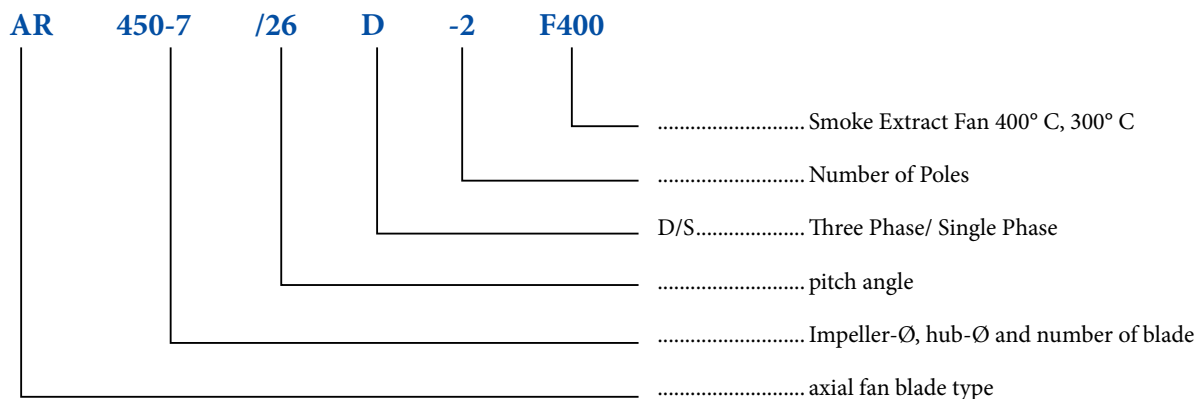
*Member Since  
February 2011*

*Michael Bay*  
AMCA International President



*M. L. S.*  
Acting Executive Director

## Fan Code



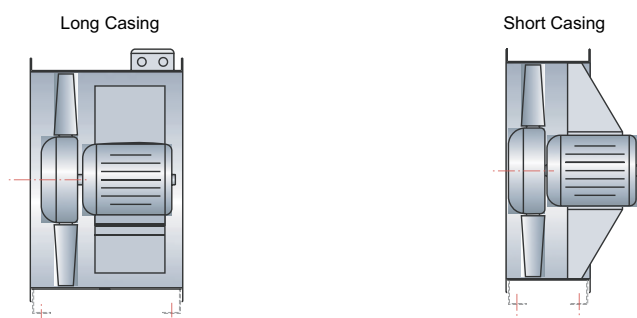
## Features and construction

### Types and duties

Lti-Axial flow-fans are specially manufactured for all applications and mounting positions in casing sizes 315mm up to 1600 mm diameter as standard and upto 3000mm on request. The performance range is from 1000 m<sup>3</sup>/h up to 360000 m<sup>3</sup>/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 Lti's staff for assistance.

### Casing:

Fan casing are fabricated using mild steel and treated with hot dip galvanised or epoxy coating after manufacturing. Standard length fans are large casing type which cover overall length of the impeller and motor. The motor leads (cover by flexible conduit) are connected to the terminal box on the fan casing. Where there is limited mounting for the ducts, short casing are used for installation (on request). The motor cable are taken directly to the T-box of the motor.



### Impellers

Lti-fan 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

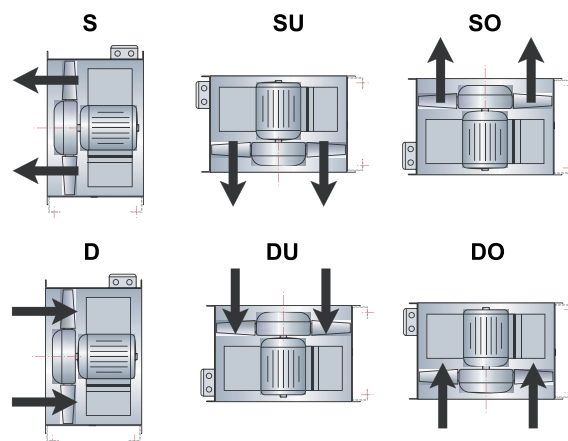
### Motors

Lti use 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 class of Insulation and protection class IP 55. Ambient temperature of the operation is +40°C, with 2 or 3 speeds, TAB-or DUAL-wounded are also available. The motor bearings have a L10 life.

### Forms of running

Lti-Axial flow fans are available for all forms of running.

The chart information shows all standard forms of running, Standard form of running is Type D. Form of running is especially relevant when weather proof motors are required. Arrows indicating correct rotation and direction of airflow are shown on the fan casing.



## Fan performance curves

The performance curves for these fan types have been established in mounting position D (installed on the pressure side and suction side) and 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 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.

$$L_{WOk} = L_W + L_{Wrel}$$

The relative octave sound power level  $L_{WAre}$  octave medium frequency can be taken from the tables. These levels has been established at  $0.5 \times V_{max}$ . The A-weighted octave sound power level is obtained by reducing the A-filter.

$$L_{WAOk} = L_{WOk} + L_{WrelA}$$

The "A" sound power level  $L$  is obtained by logarithmical addition of all A-weighted octave sound power levels.

Sound power level on suction and on outlet side are nearly the same.

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

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  $L$  at a distance of 1 metre is obtained approximately by deducting 7 dB(A) from the "A" sound power level LWA.

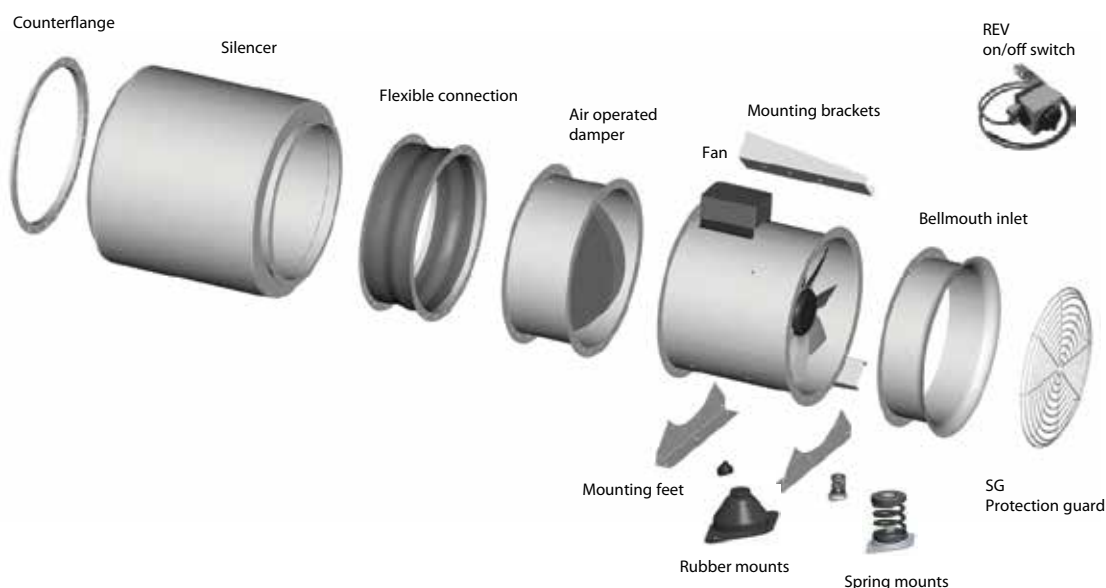
It is important to note that the reflection and room characteristic as well as natural frequencies differently influence the sound pressure levels

## Ordering the fan

After selection of the fan best for your needs please order as follows:

- Fan type, casing version and running form
- Fan code and type: see below
- Quantity required
- Duty required at standard air and temperature, air volume in  $m^3/h$  at static pressure in Pa.
- Motor power rating in KW
- Electrical supply
- Ancillaries required

## Fan installation with accessories



## Fan selection

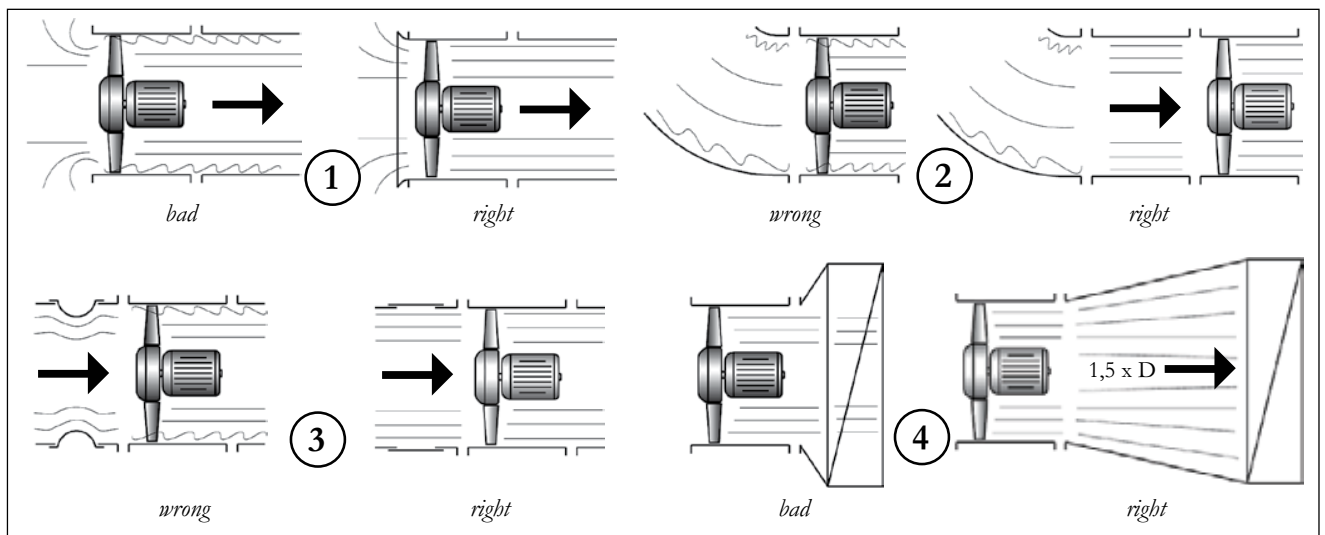
The chosen operating point of the fan has to be on or under the curve for the selected blade angle. If a fan is selected outside the performance curve, the fan might start pumping, which could increase the mechanical stress on the impeller so much that it would be destroyed. In order to assure the highest possible security for operation of the fan, we have selected the motors depending on the highest possible power consumption of one whole blade angle setting, to avoid a possible motor overloading.

If the operating point of the fan is in an area of the performance curve with a high efficiency, we recommend to calculate the required motor power depending on the actual operating point. A possible over-dimensioning of the motor can be avoided.

## Fan installation

Please note:

- In case fans are installed with free inlet or free outlet, a minimum distance of 1,5 times fan diameter to the next constructional element or component has to be observed. The inlet side should be equipped with an inlet cone to ensure a uniform incoming airflow.
- In case fans are installed in a duct, observe minimum distances (see drawings below) to accessories or connecting parts (duct bends, silencers, shutters) at the inlet or outlet side of the fan to avoid performance losses.



Duct length min.  $1 \times \varnothing$

## Selection example

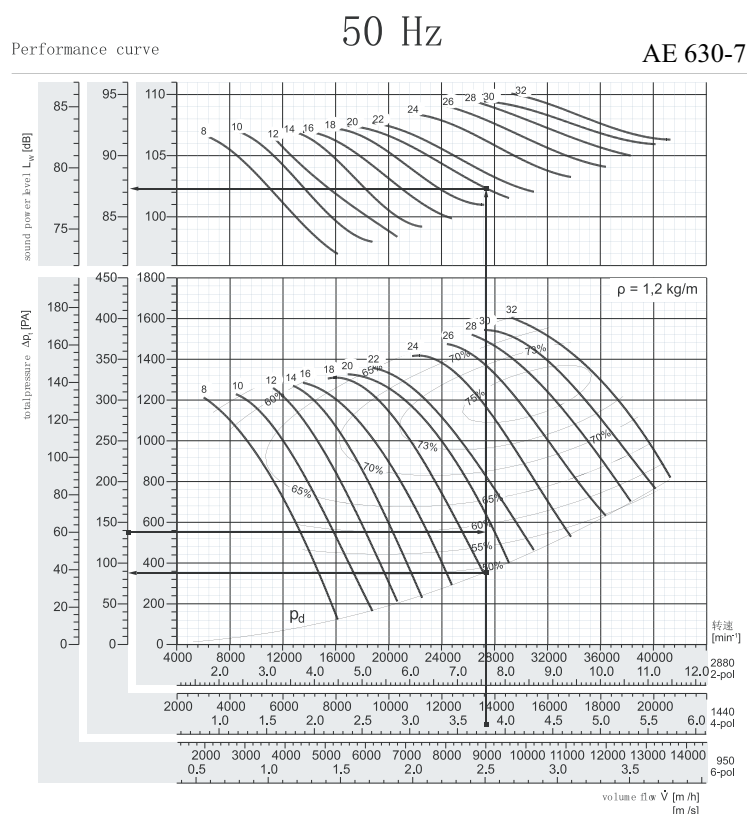
Required duty point by customer Volume flow : 3,8 m<sup>3</sup>/s static pressure: 50 Pa

(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 dBa



| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      |      |    |     |     | relative frequency spectrum $\Delta L$ in dB/Okt |    |     |     |     |  |  |  |
|---------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|----|-----|-----|--------------------------------------------------|----|-----|-----|-----|--|--|--|
|                           | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63 | 125 | 250 | 500                                              | 1k | 2k  | 4k  | 8k  |  |  |  |
| 950<br>motor              | 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 |  |  |  |
|                           | 0,37            |      |      |      |      |      | 5,5  |      |      |      | 1,1  |      |      |    |     |     |                                                  |    |     |     |     |  |  |  |
| 1440<br>motor             | 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 |  |  |  |
|                           | 0,55            | 1,1  |      |      |      | 1,5  |      | 2,2  |      |      | 3,0  |      |      |    |     |     |                                                  |    |     |     |     |  |  |  |
| 2880<br>motor             | 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 |  |  |  |
|                           | 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 duly point

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

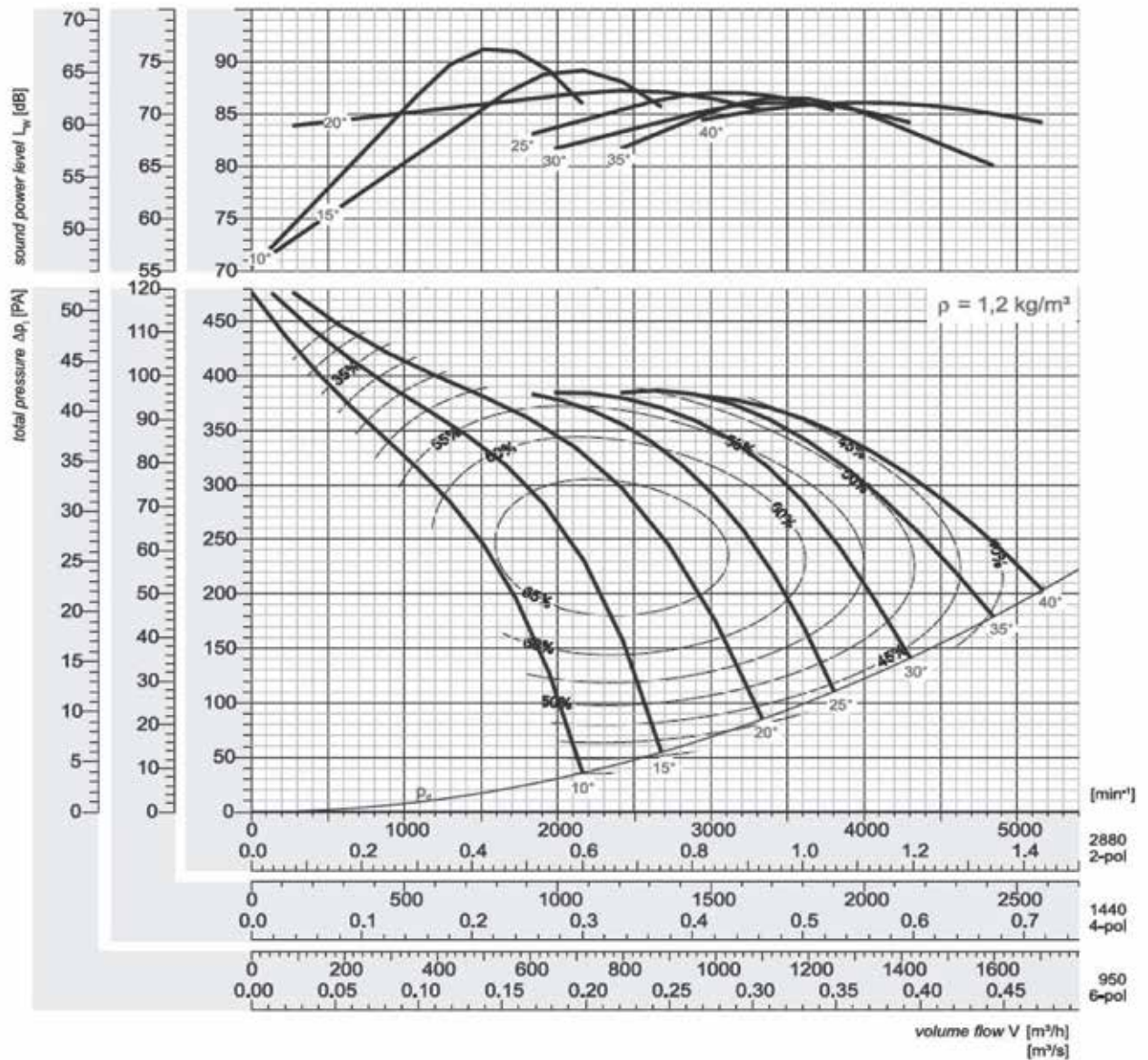
Motor power 1,1 kW

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

Motor power : 1,5kW

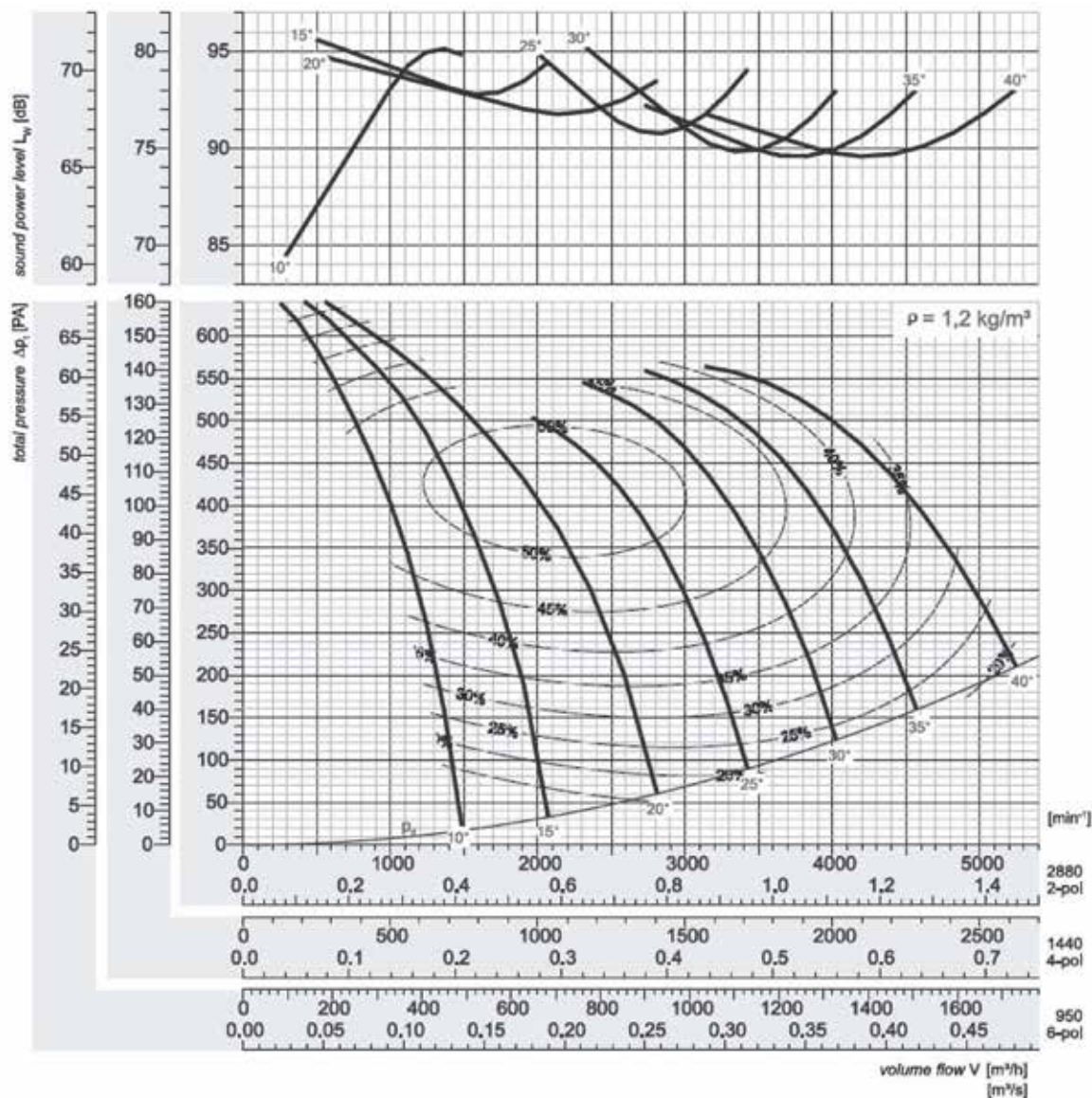
Peak power is the max power over the whole pitch angle in the worst case.

## AR 315-5



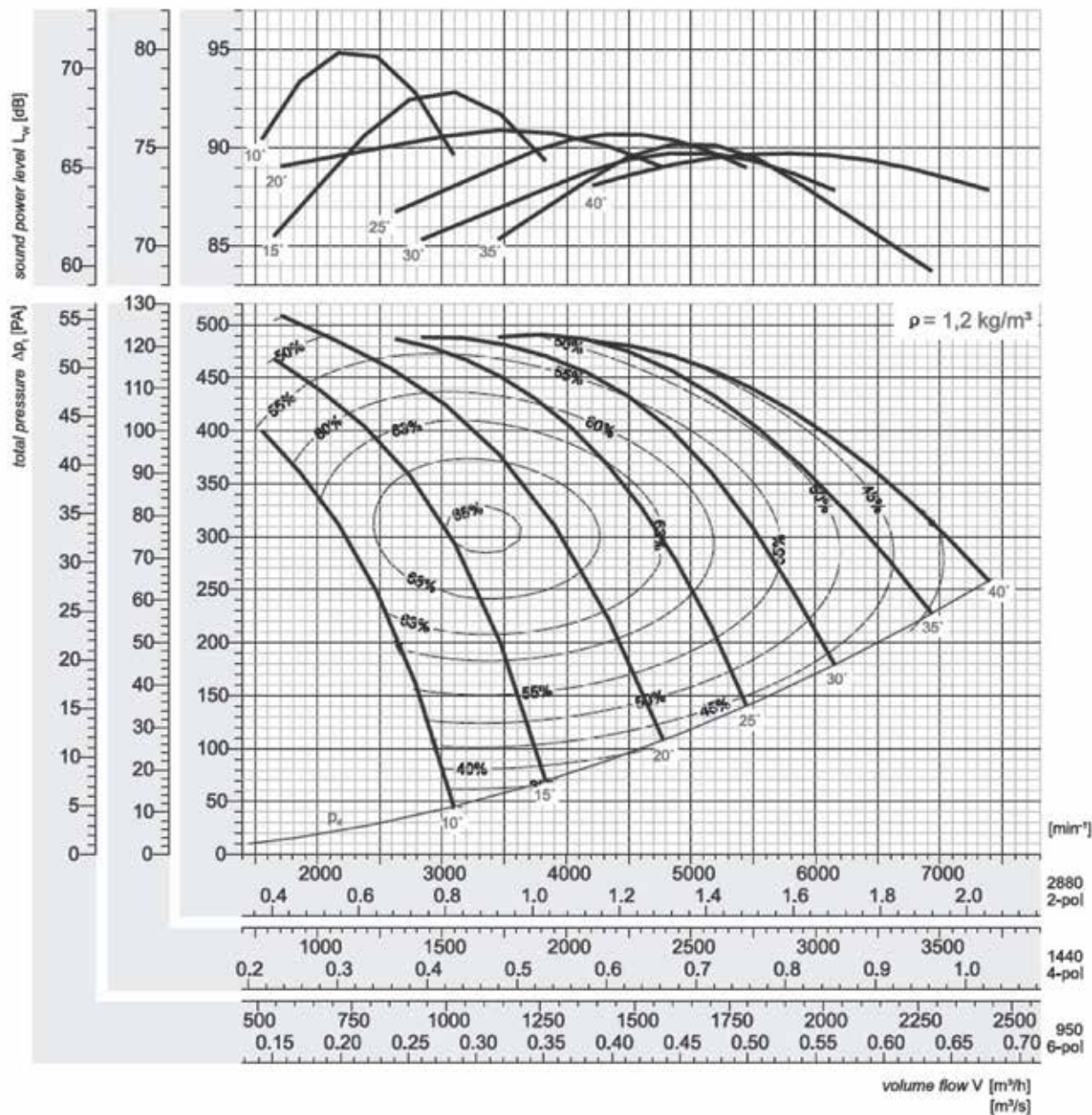
| n<br>[ $\text{min}^{-1}$ ] | Peak absorbed power [kW] |       |       |       |       |       |       |                             | relative frequency spectrum $\Delta L$ in dB/Okt |    |     |     |     |     |     |     |     |     |
|----------------------------|--------------------------|-------|-------|-------|-------|-------|-------|-----------------------------|--------------------------------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|
|                            | pitch angle [°]          |       |       |       |       |       |       |                             | Octave b. midfr. [Hz]                            |    |     |     |     |     |     |     |     |     |
|                            | 10                       | 15    | 20    | 25    | 30    | 35    | 40    |                             | Total                                            | 63 | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950<br>motor               | 0,006                    | 0,009 | 0,011 | 0,015 | 0,019 | 0,024 | 0,032 | $L_{w0}$ saugseitig inlet   | -1                                               | -8 | -9  | -2  | -9  | -12 | -15 | -24 | -33 | -4  |
|                            | 0,37                     |       |       |       |       |       |       | $L_{w0}$ druckseitig outlet | 0                                                | -6 | -10 | -3  | -9  | -14 | -20 | -24 | -31 | -7  |
| 1440<br>motor              | 0,022                    | 0,030 | 0,040 | 0,051 | 0,065 | 0,082 | 0,111 | $L_{w0}$ saugseitig inlet   | 1                                                | -9 | -6  | -8  | -11 | -10 | -12 | -17 | -27 | -6  |
|                            | 0,37                     |       |       |       |       |       |       | $L_{w0}$ druckseitig outlet | 0                                                | -7 | -6  | -8  | -11 | -11 | -13 | -16 | -23 | -6  |
| 2880<br>motor              | 0,180                    | 0,238 | 0,320 | 0,408 | 0,520 | 0,659 | 0,888 | $L_{w0}$ saugseitig inlet   | 0                                                | -7 | -8  | -8  | -11 | -9  | -10 | -14 | -22 | -5  |
|                            | 0,37                     |       |       | 0,55  | 0,55  | 0,75  | 1,1   | $L_{w0}$ druckseitig outlet | 0                                                | -8 | -8  | -6  | -10 | -10 | -12 | -15 | -20 | -5  |

# AR 315-10



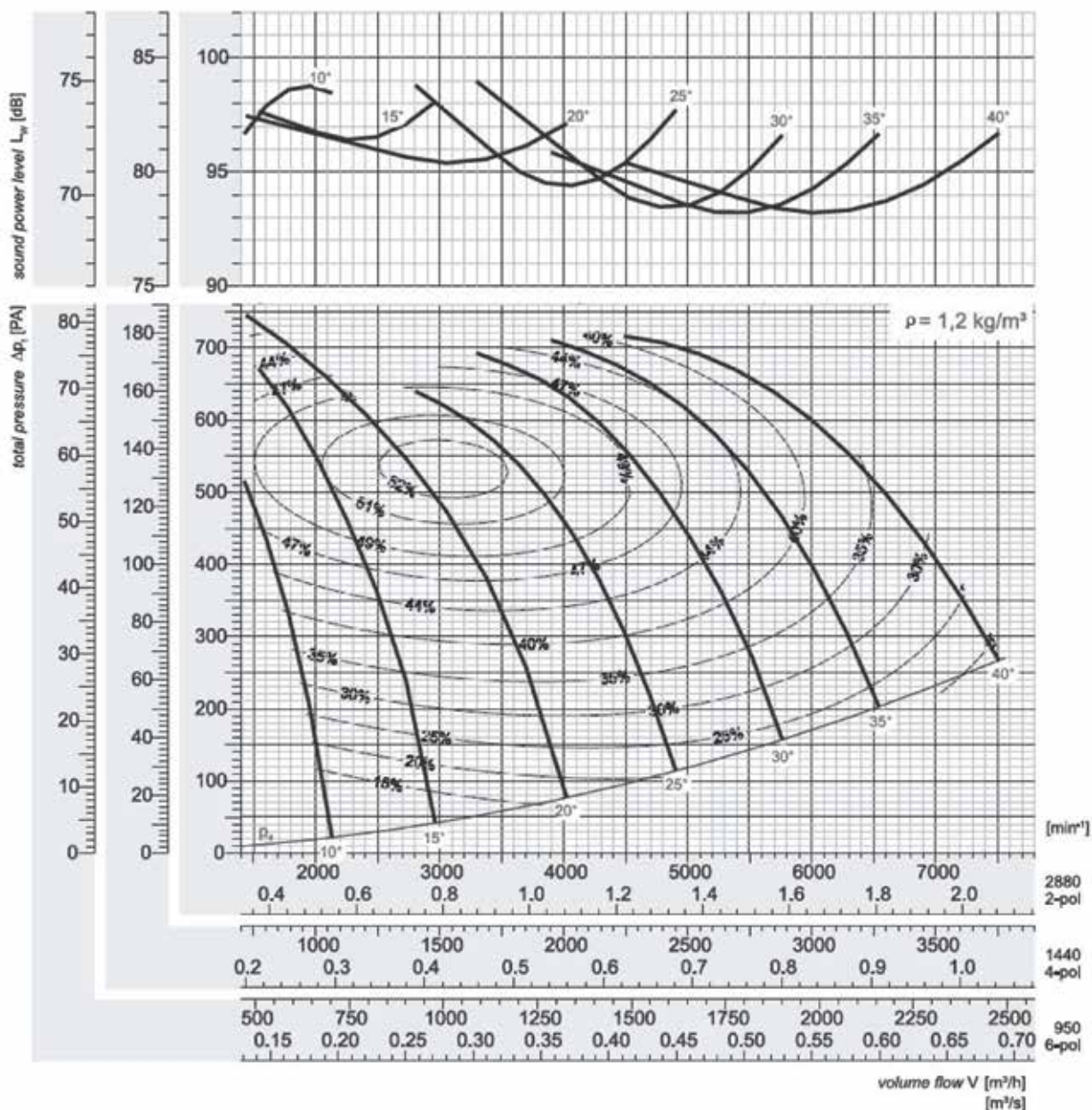
| n<br>[min⁻¹]  | Peak absorbed power [kW] |       |       |       |       |       |       |                             | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |     |     |     |     |     |     |
|---------------|--------------------------|-------|-------|-------|-------|-------|-------|-----------------------------|--------------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

## AR 355-5



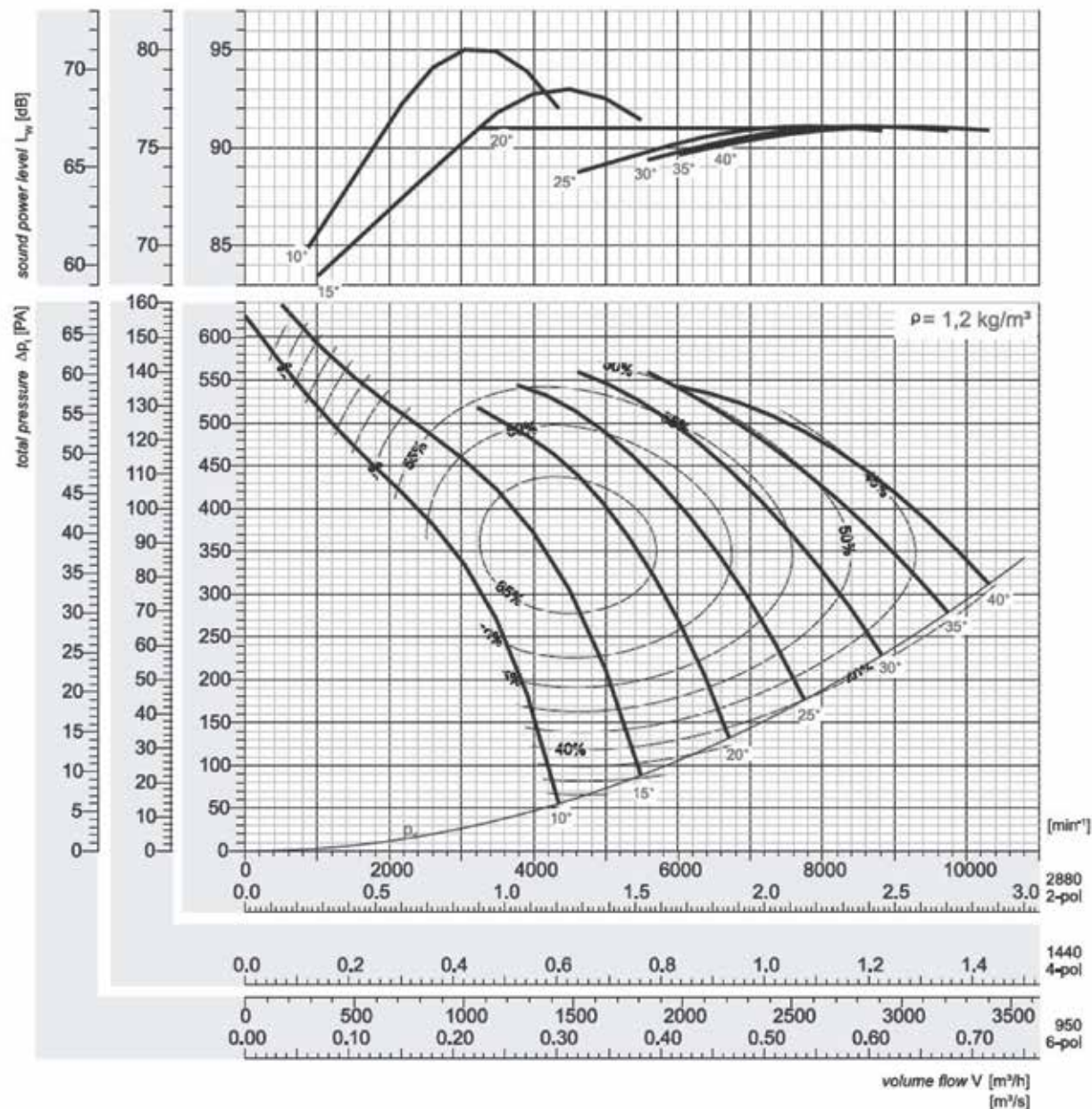
| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |    |     |     |     |     |     |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|---------------------------------------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

# AR 355-10



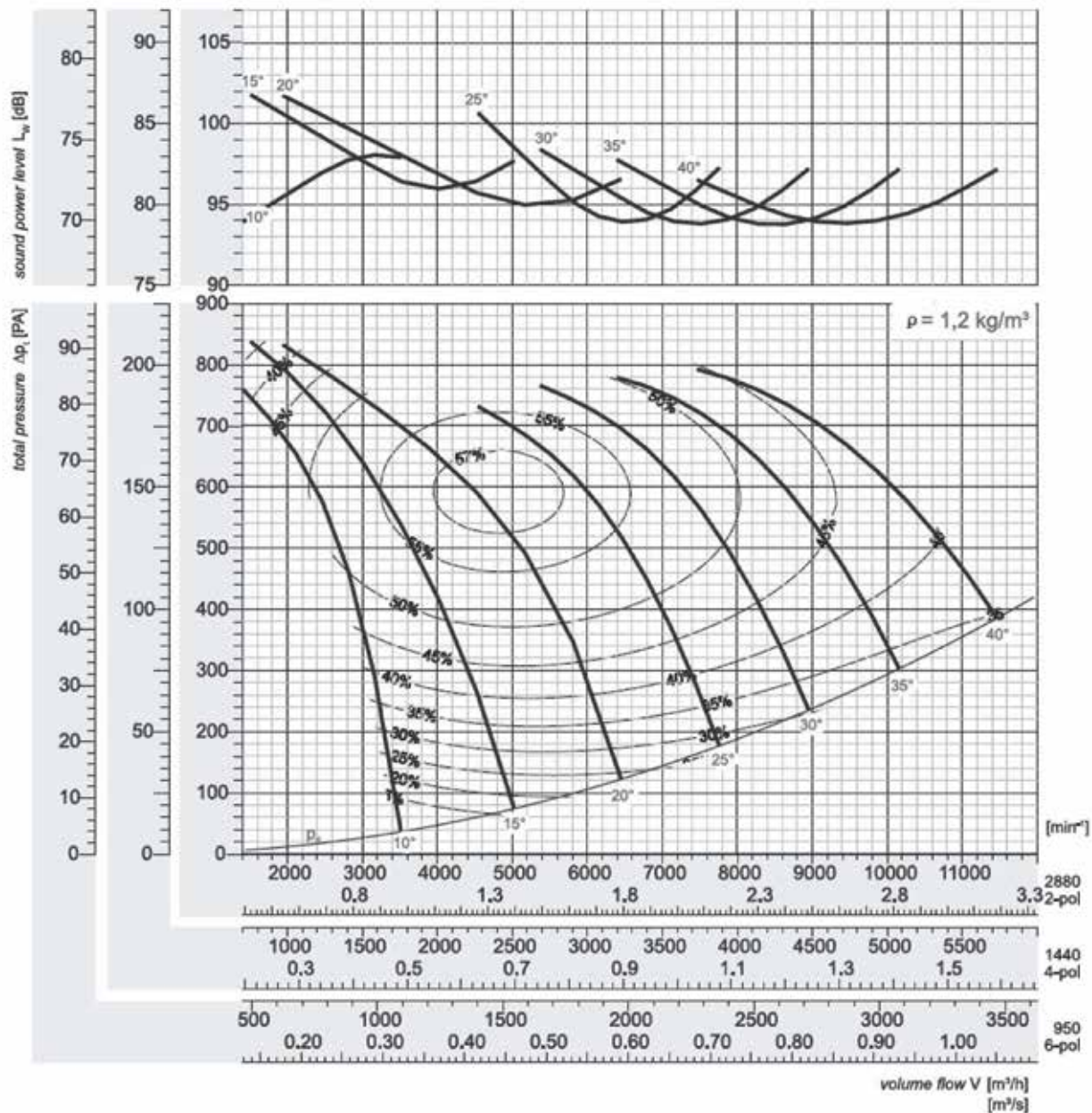
| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      |                                    | relative frequency spectrum ΔL in dB/Okt |     |     |     |     |     |     |     |     |     |  |  |
|---------------------------|--------------------------|------|------|------|------|------|------|------------------------------------|------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
|                           | pitch angle [°]          |      |      |      |      |      |      |                                    | Octave b. midfr. [Hz]                    |     |     |     |     |     |     |     |     |     |  |  |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                                    | Total                                    | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |  |  |
| 950<br>motor              | 0,02                     | 0,02 | 0,03 | 0,04 | 0,05 | 0,07 | 0,10 | L <sub>ws</sub> saugseitig inlet   | -1                                       | -11 | -4  | -6  | -9  | -11 | -15 | -22 | -30 | -6  |  |  |
|                           | 0,37                     |      |      |      |      |      |      | L <sub>ws</sub> druckseitig outlet | 0                                        | -8  | -5  | -6  | -8  | -13 | -19 | -25 | -33 | -7  |  |  |
| 1440<br>motor             | 0,06                     | 0,08 | 0,12 | 0,13 | 0,18 | 0,24 | 0,34 | L <sub>ws</sub> saugseitig inlet   | -1                                       | -12 | -6  | -5  | -12 | -10 | -12 | -18 | -31 | -6  |  |  |
|                           | 0,37                     |      |      |      |      |      |      | L <sub>ws</sub> druckseitig outlet | 0                                        | -9  | -8  | -4  | -12 | -13 | -15 | -18 | -28 | -7  |  |  |
| 2880<br>motor             | 0,44                     | 0,66 | 0,94 | 1,06 | 1,45 | 1,92 | 2,76 | L <sub>ws</sub> saugseitig inlet   | -2                                       | -8  | -10 | -9  | -9  | -7  | -10 | -13 | -22 | -3  |  |  |
|                           | 0,55                     | 0,75 | 1,1  |      | 1,5  | 2,2  | 3,0  | L <sub>ws</sub> druckseitig outlet | 0                                        | -7  | -10 | -7  | -7  | -11 | -13 | -15 | -22 | -5  |  |  |

## AR 400-5



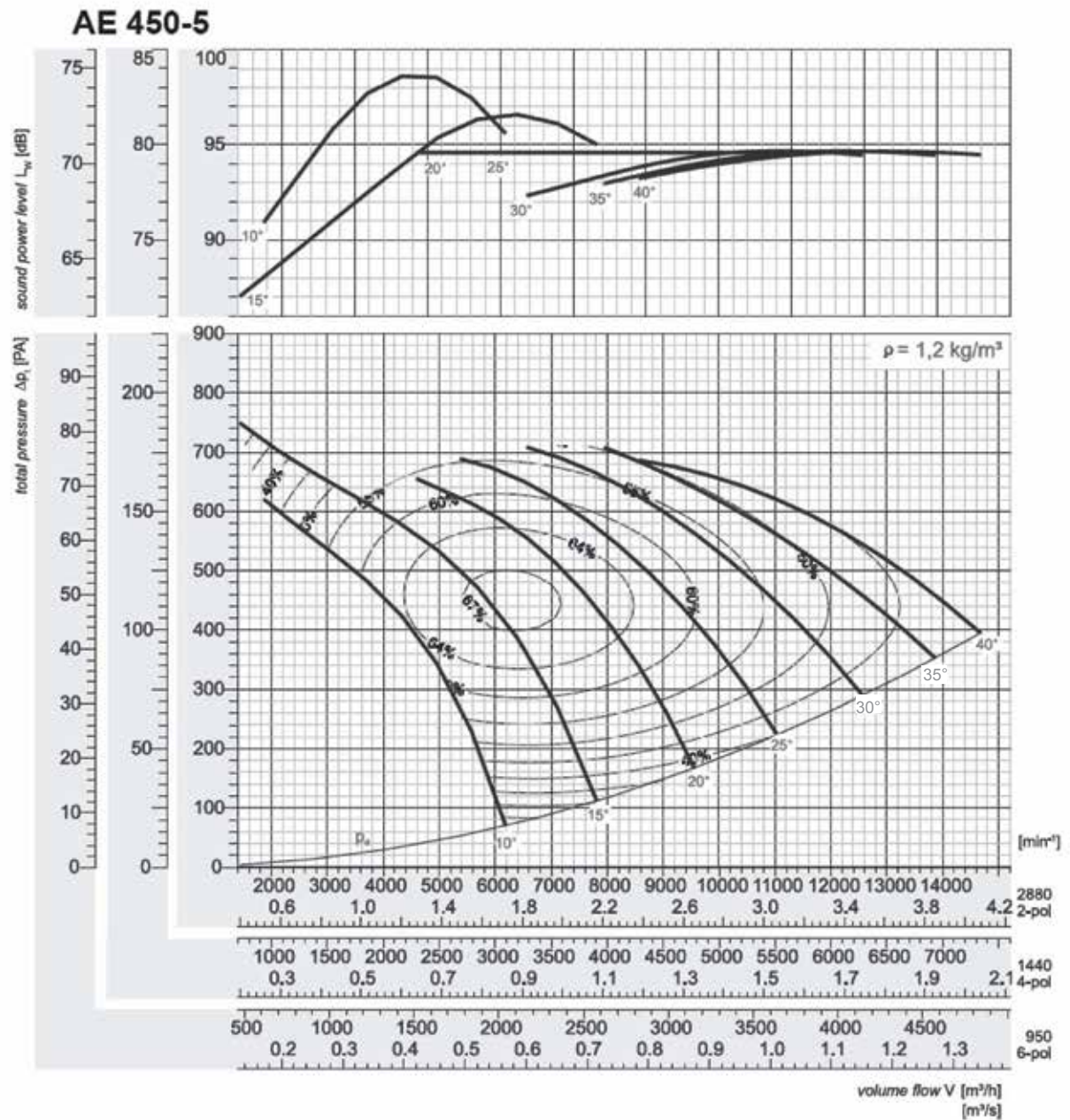
| n<br>[min⁻¹]  | Peak absorbed power [kW] |      |      |      |      |      |      |                             | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |     |     |     |     |     |     |  |
|---------------|--------------------------|------|------|------|------|------|------|-----------------------------|--------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|               | pitch angle [°]          |      |      |      |      |      |      |                             | Octave b. midfr. [Hz]                            |     |     |     |     |     |     |     |     |     |  |
|               | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                             | Total                                            | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |  |
| 950<br>motor  | 0,02                     | 0,02 | 0,03 | 0,04 | 0,05 | 0,07 | 0,09 | $L_{ws}$ saugseitig inlet   | 1                                                | -6  | -9  | -4  | -10 | -11 | -14 | -22 | -32 | -6  |  |
|               | 0,37                     |      |      |      |      |      |      | $L_{ws}$ druckseitig outlet | 0                                                | -5  | -7  | -4  | -8  | -10 | -15 | -20 | -28 | -4  |  |
| 1440<br>motor | 0,06                     | 0,08 | 0,10 | 0,14 | 0,18 | 0,23 | 0,30 | $L_{ws}$ saugseitig inlet   | 0                                                | -8  | -6  | -7  | -11 | -10 | -13 | -17 | -26 | -6  |  |
|               | 0,37                     |      |      |      |      |      |      | $L_{ws}$ druckseitig outlet | 0                                                | -7  | -6  | -8  | -11 | -10 | -13 | -17 | -23 | -6  |  |
| 2880<br>motor | 0,48                     | 0,64 | 0,83 | 1,14 | 1,47 | 1,86 | 2,39 | $L_{ws}$ saugseitig inlet   | 1                                                | -7  | -10 | -7  | -10 | -9  | -12 | -15 | -22 | -5  |  |
|               | 0,55                     | 0,75 | 1,1  | 1,5  |      | 2,2  | 3,0  | $L_{ws}$ druckseitig outlet | 0                                                | -11 | -8  | -5  | -10 | -10 | -12 | -16 | -20 | -5  |  |

# AR 400-10



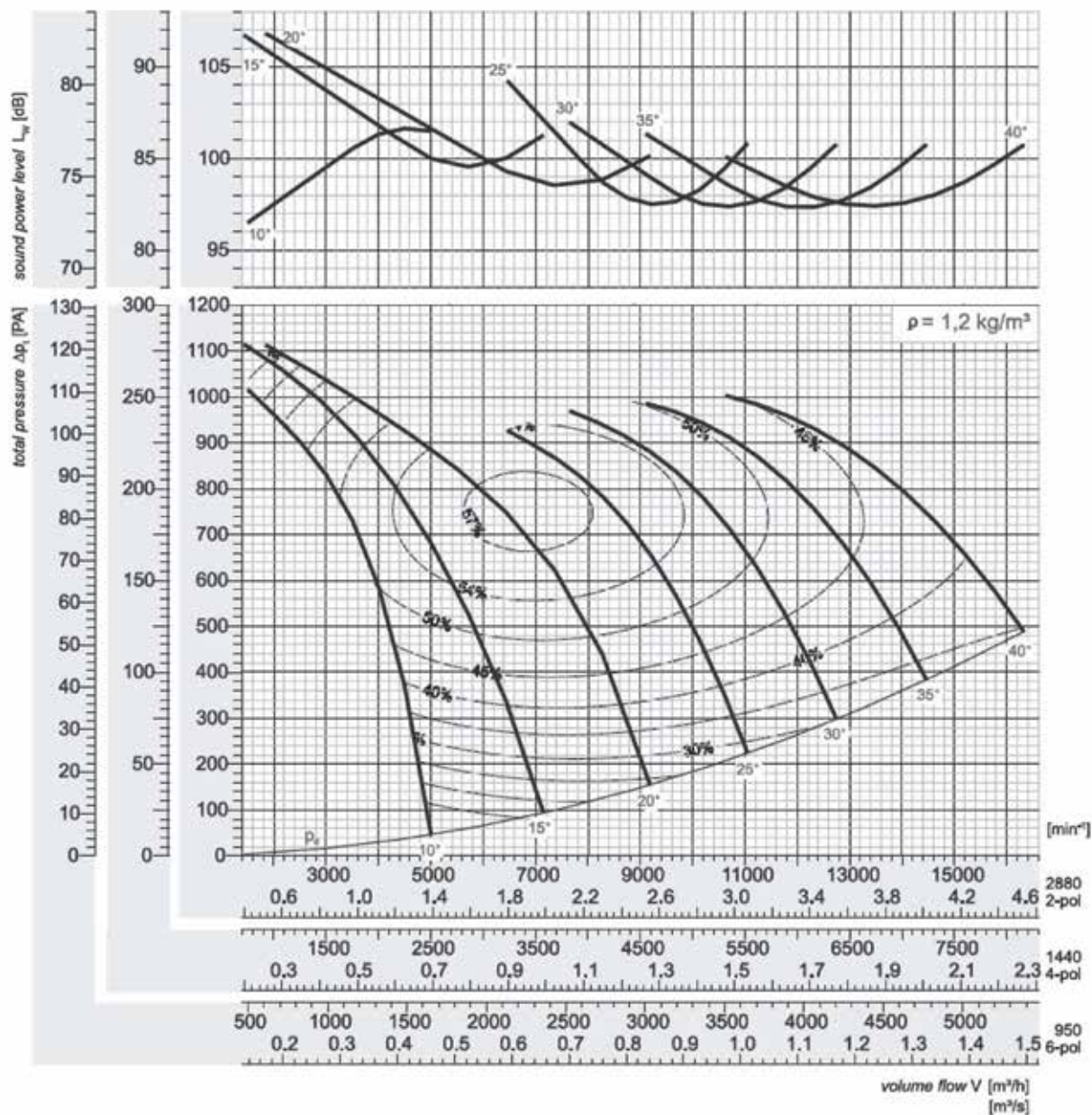
| Peak absorbed power [kW] |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |     |  |
|--------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|----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

## AR 450-5



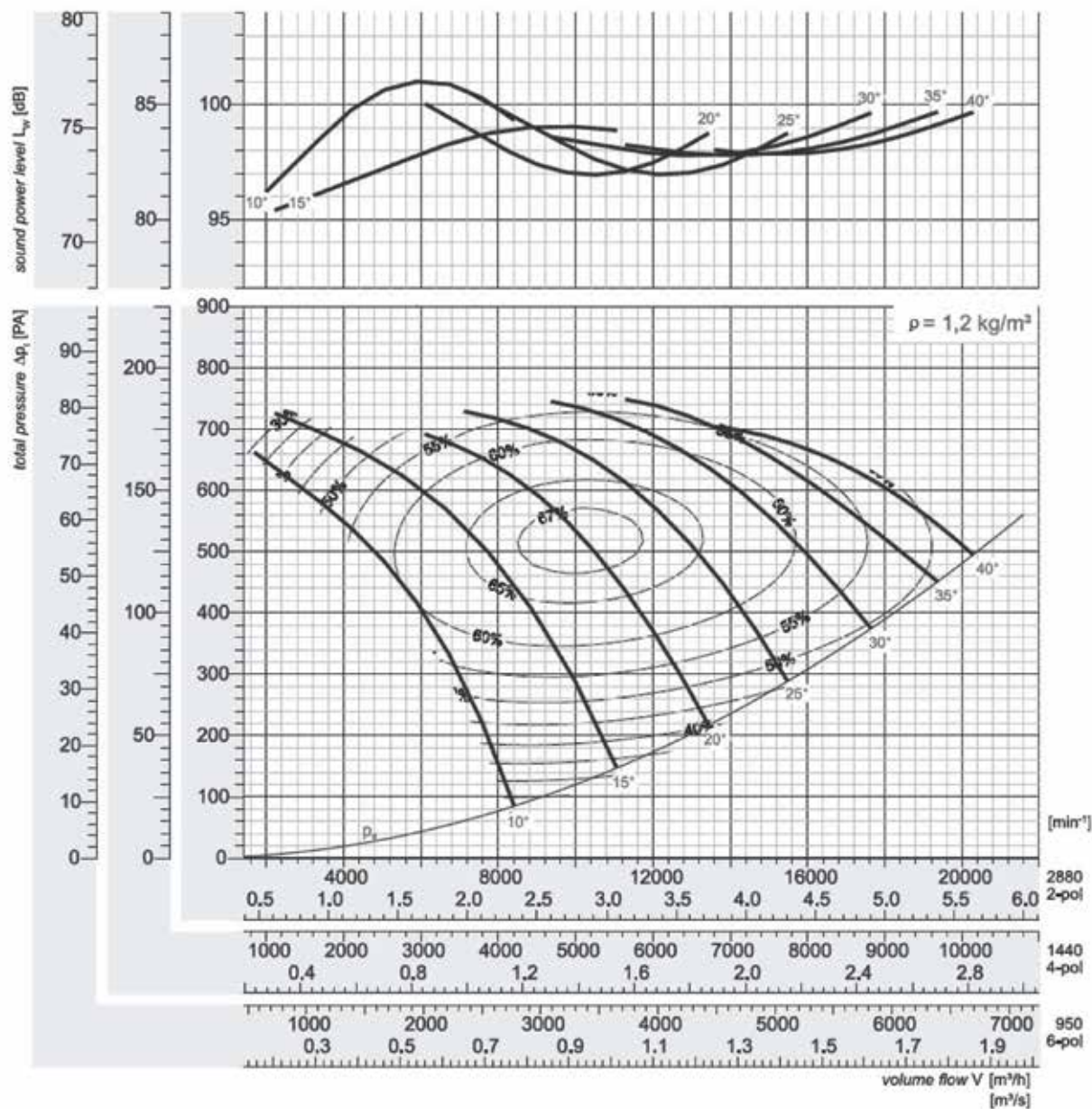
| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      |                             | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|-----------------------------|--------------------------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                           | pitch angle [°]          |      |      |      |      |      |      |                             | Total                                            | Octave b. midfr. [Hz] |     |     |     |     |     |     |     | dBA |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                             |                                                  | 63                    | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |     |
| 950<br>motor              | 0,03                     | 0,04 | 0,05 | 0,07 | 0,10 | 0,12 | 0,15 | $L_{ws}$ saugseitig inlet   | 1                                                | -6                    | -9  | -4  | -10 | -11 | -14 | -22 | -32 | -6  |
|                           | 0,37                     |      |      |      |      |      |      | $L_{we}$ druckseitig outlet | 0                                                | -5                    | -7  | -4  | -8  | -10 | -15 | -20 | -28 | -4  |
| 1440<br>motor             | 0,11                     | 0,14 | 0,19 | 0,26 | 0,33 | 0,42 | 0,54 | $L_{ws}$ saugseitig inlet   | 0                                                | -8                    | -6  | -7  | -11 | -10 | -13 | -17 | -26 | -6  |
|                           | 0,37                     |      |      |      |      | 0,55 |      | $L_{we}$ druckseitig outlet | 0                                                | -7                    | -6  | -8  | -11 | -10 | -13 | -17 | -23 | -6  |
| 2880<br>motor             | 0,86                     | 1,15 | 1,50 | 2,05 | 2,65 | 3,36 | 4,31 | $L_{ws}$ saugseitig inlet   | 1                                                | -7                    | -10 | -7  | -10 | -9  | -12 | -15 | -22 | -5  |
|                           | 1,1                      | 1,5  | 2,2  |      | 3,0  | 4,0  | -    | $L_{we}$ druckseitig outlet | 0                                                | -11                   | -8  | -5  | -10 | -10 | -12 | -16 | -20 | -5  |

# AR 450-10



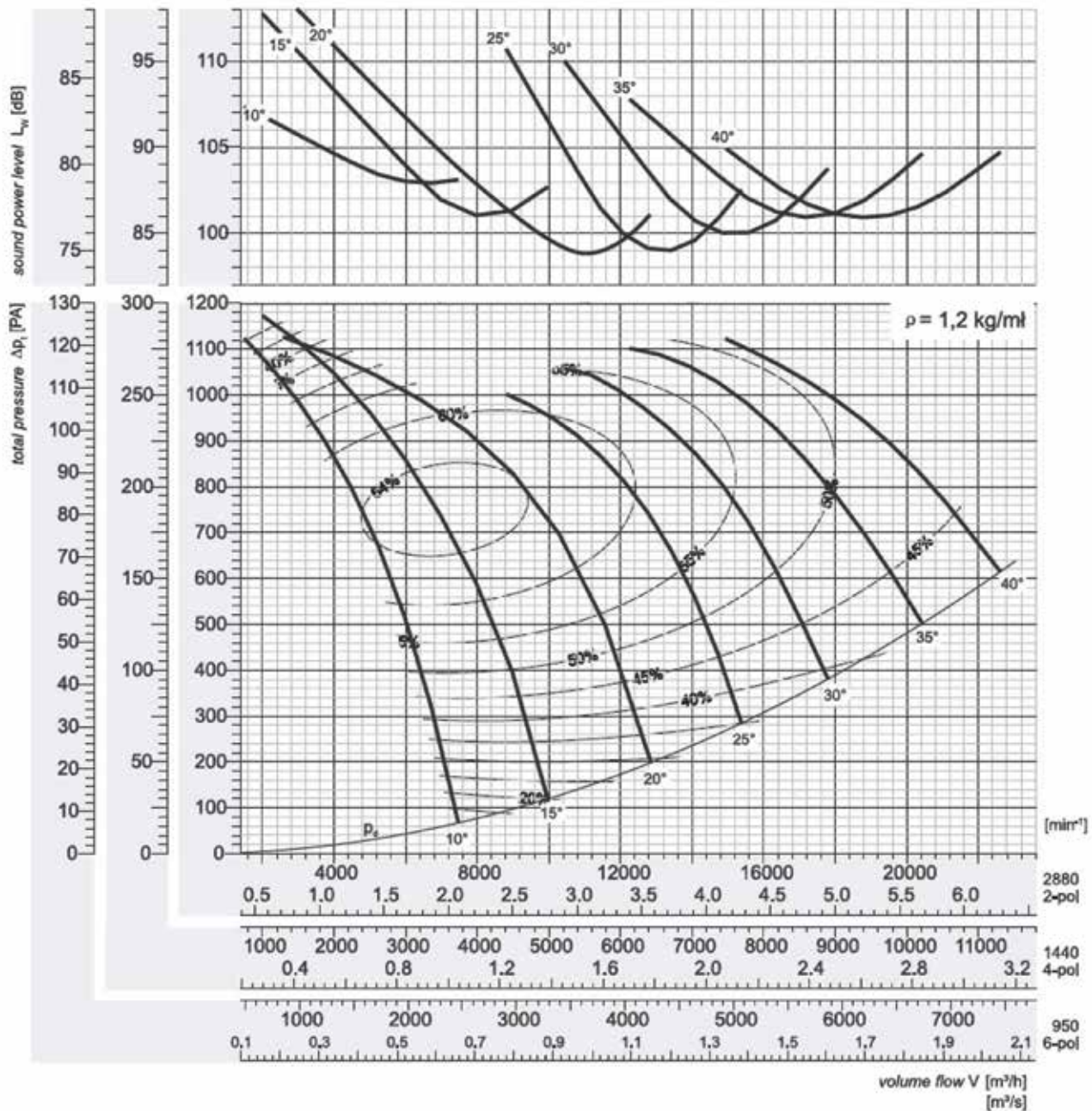
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |                                                  | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |     |
|                           | 10              | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total                 | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950<br>motor              | 0,05            | 0,06 | 0,09 | 0,12 | 0,15 | 0,19 | 0,26 | $L_{ws}$ saugseitig inlet                        | -1                    | -9  | -6  | -6  | -8  | -11 | -14 | -22 | -32 | -6  |
|                           | 0,37            |      |      |      |      |      |      | $L_{wh}$ druckseitig outlet                      | 0                     | -8  | -6  | -6  | -7  | -10 | -15 | -22 | -33 | -5  |
| 1440<br>motor             | 0,18            | 0,22 | 0,30 | 0,40 | 0,52 | 0,68 | 0,90 | $L_{ws}$ saugseitig inlet                        | -1                    | -12 | -8  | -6  | -9  | -8  | -10 | -16 | -27 | -4  |
|                           | 0,37            |      |      |      |      |      | 1,1  | $L_{wh}$ druckseitig outlet                      | 0                     | -9  | -9  | -6  | -9  | -10 | -12 | -16 | -26 | -5  |
| 2880<br>motor             | 1,42            | 1,76 | 2,42 | 3,23 | 4,16 | 5,42 | 7,17 | $L_{ws}$ saugseitig inlet                        | -1                    | -8  | -11 | -10 | -6  | -7  | -10 | -15 | -23 | -3  |
|                           | 1,5             | 2,2  | 3,0  | 4,0  | -    | -    | -    | $L_{wh}$ druckseitig outlet                      | 0                     | -8  | -8  | -9  | -7  | -10 | -12 | -16 | -21 | -5  |

## AR 500-5



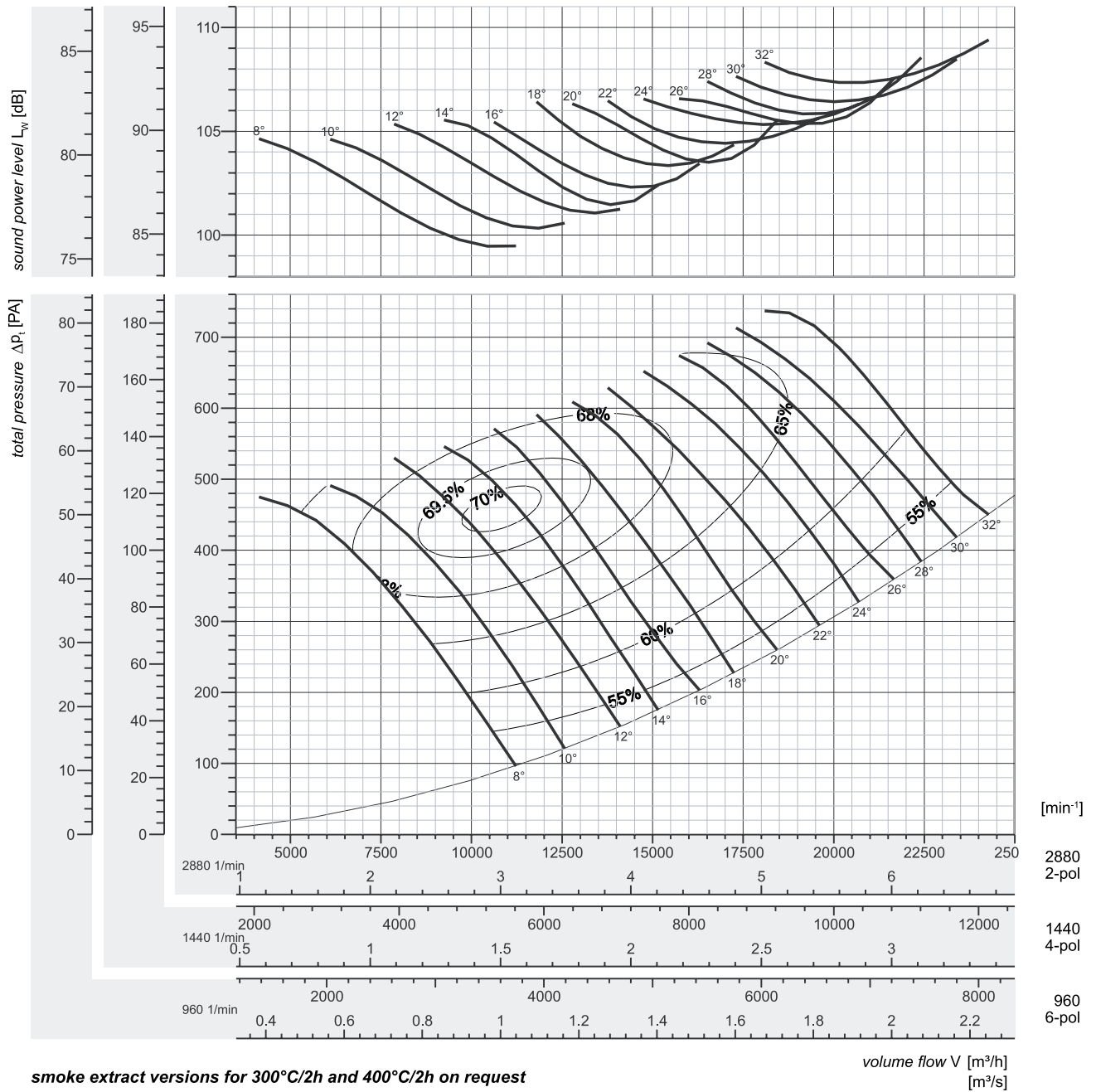
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |     |  |
|---------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |                                                  | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |     |  |
|                           | 10              | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total                 | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |  |
| 950<br>motor              | 0,04            | 0,06 | 0,08 | 0,11 | 0,14 | 0,17 | 0,22 | $L_{ws}$ saugseitig inlet                        | 3                     | -3  | -13 | -9  | -9  | -11 | -14 | -20 | -32 | -7  |  |
|                           | 0,37            |      |      |      |      |      |      | $L_{ws}$ druckseitig outlet                      | 0                     | -4  | -9  | -6  | -6  | -8  | -13 | -17 | -26 | -3  |  |
| 1440<br>motor             | 0,14            | 0,21 | 0,29 | 0,38 | 0,48 | 0,61 | 0,76 | $L_{ws}$ saugseitig inlet                        | 0                     | -8  | -6  | -10 | -9  | -10 | -13 | -16 | -26 | -5  |  |
|                           | 0,37            |      |      | 0,55 |      | 0,75 | 1,1  | $L_{ws}$ druckseitig outlet                      | 0                     | -7  | -6  | -8  | -11 | -10 | -13 | -17 | -23 | -6  |  |
| 2880<br>motor             | 1,14            | 1,66 | 2,31 | 3,03 | 3,84 | 4,86 | 6,12 | $L_{ws}$ saugseitig inlet                        | 2                     | -6  | -15 | -8  | -8  | -8  | -12 | -14 | -21 | -5  |  |
|                           | 1,5             | 2,2  | 3,0  | 4,0  |      | -    | -    | $L_{ws}$ druckseitig outlet                      | 0                     | -10 | -11 | -7  | -9  | -9  | -11 | -14 | -20 | -5  |  |

# AR 500-10



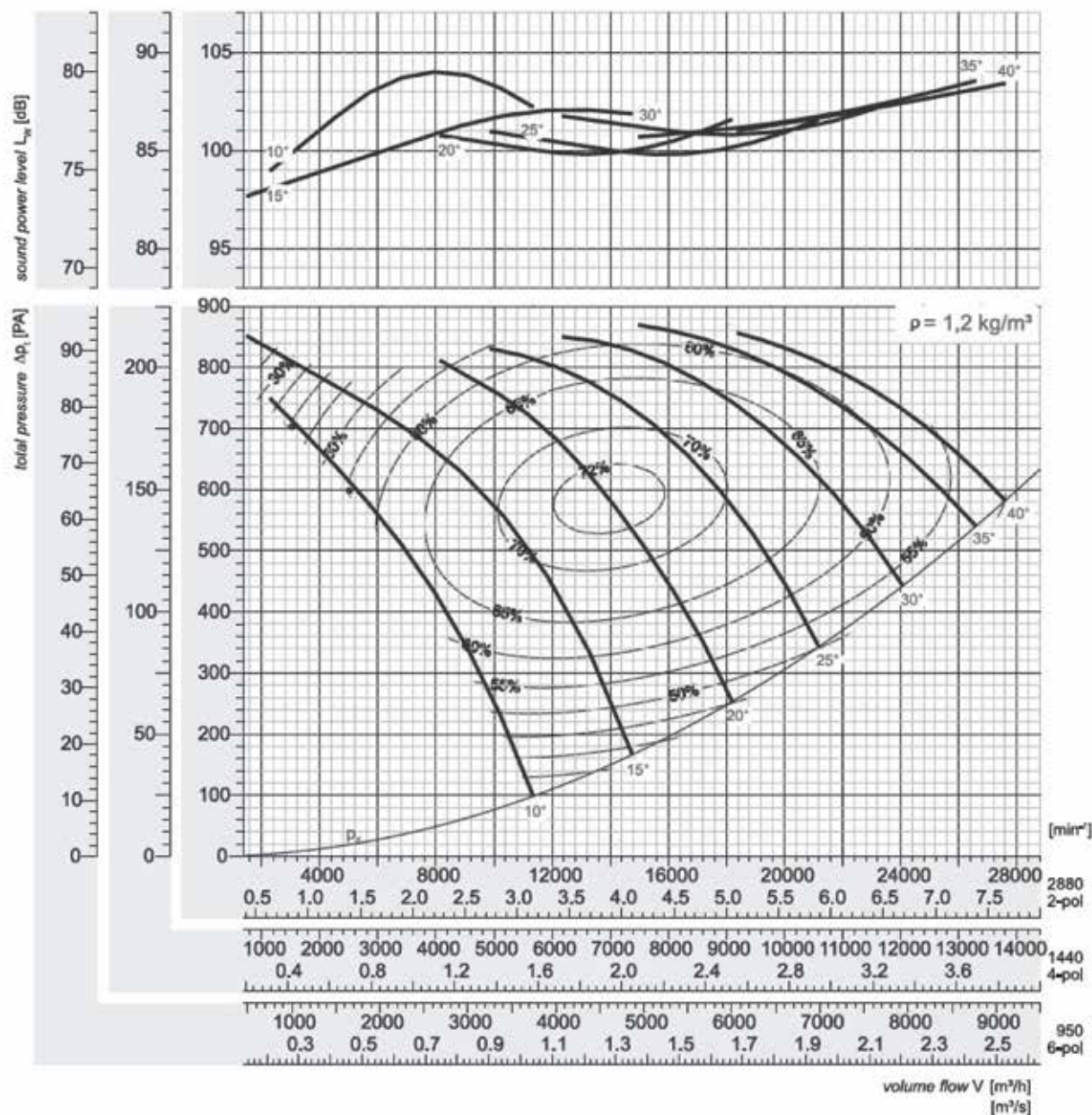
| Peak absorbed power [kW] |                 |      |      |      |      |      |       | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |     |
|--------------------------|-----------------|------|------|------|------|------|-------|--------------------------------------------------|-----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

## AR 560-3



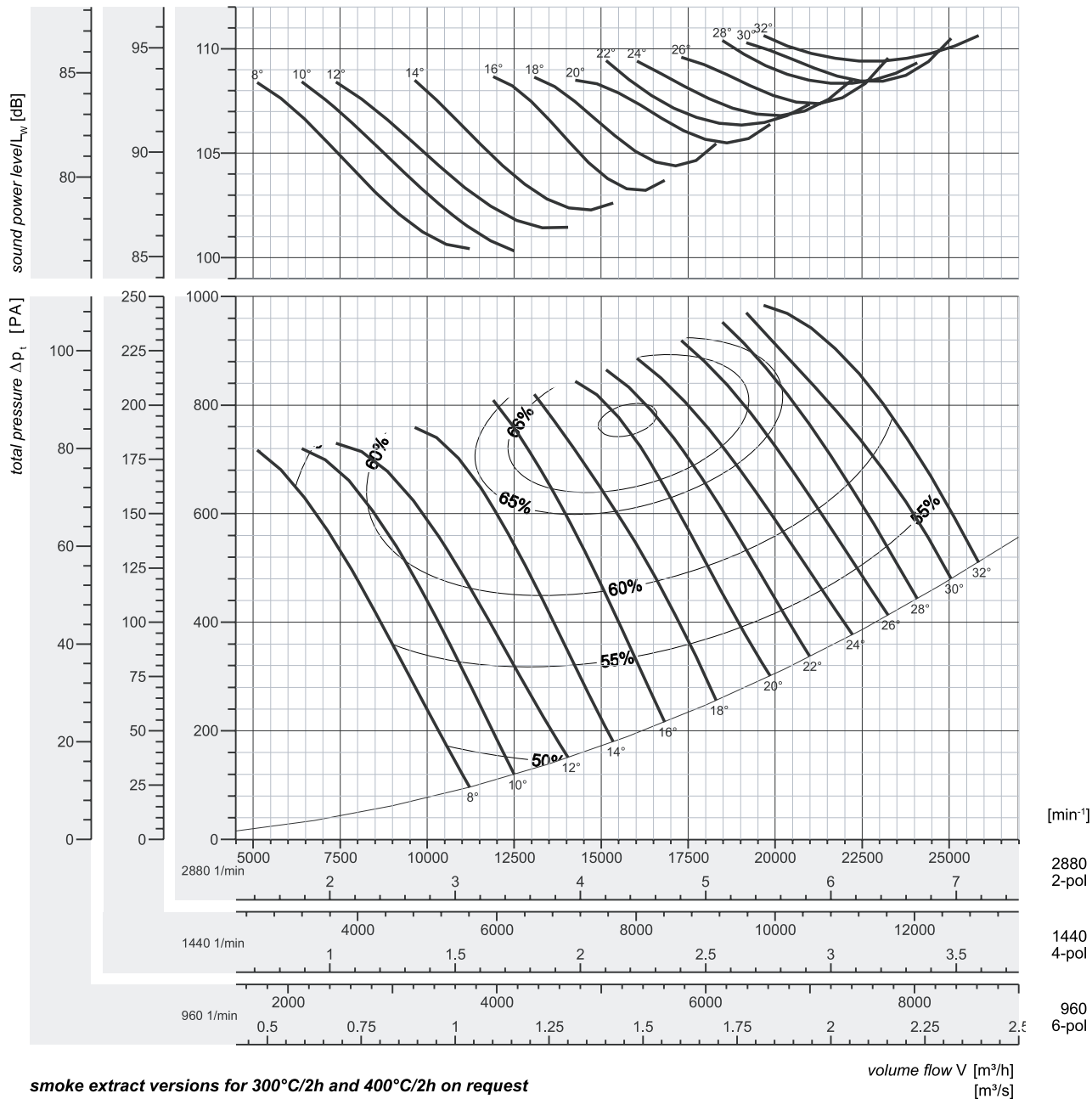
| Peak absorbed power [kW] |                 |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum ΔL in dB/Okt |    |     |     |     |    |     |     |     |
|--------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------------------------------------------|----|-----|-----|-----|----|-----|-----|-----|
| n                        | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                    |    |     |     |     |    |     |     |     |
| [min <sup>-1</sup> ]     | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32                                       | 63 | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  |
| 960<br>motor             | 0,04            | 0,05 | 0,06 | 0,08 | 0,09 | 0,10 | 0,12 | 0,13 | 0,15 | 0,16 | 0,18 | 0,20 | 0,22                                     | -3 | -5  | -7  | -7  | -8 | -12 | -18 | -24 |
|                          | 0,37            |      |      |      |      |      |      |      |      |      |      |      |                                          |    |     |     |     |    |     |     |     |
| 1440<br>motor            | 0,14            | 0,17 | 0,22 | 0,27 | 0,31 | 0,36 | 0,41 | 0,46 | 0,51 | 0,57 | 0,62 | 0,68 | 0,77                                     | -5 | -6  | -5  | -6  | -7 | -10 | -15 | -21 |
|                          | 0,55            |      |      |      |      |      |      |      |      |      | 0,75 |      |                                          |    |     |     |     |    |     |     |     |
| 2880<br>motor            | 1,11            | 1,39 | 1,76 | 2,14 | 2,51 | 2,89 | 3,28 | 3,65 | 4,10 | 4,54 | 4,97 | 5,44 | 6,19                                     | -5 | -10 | -7  | -5  | -7 | -8  | -12 | -18 |
|                          | 1,5             |      | 2,2  |      | 3,0  |      | 4,0  |      | 5,5  |      |      |      | 7,5                                      |    |     |     |     |    |     |     |     |

# AR 560-5



| Peak absorbed power [kW]  |                 |      |      |      |      |      |      |                           | relative frequency spectrum $\Delta L$ in dB/Okt |    |     |     |     |     |     |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|---------------------------|--------------------------------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |                           | Octave b. midfr. [Hz]                            |    |     |     |     |     |     |     |     |     |
|                           | 10              | 15   | 20   | 25   | 30   | 35   | 40   |                           | Total                                            | 63 | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950                       | 0,06            | 0,08 | 0,12 | 0,16 | 0,20 | 0,27 | 0,33 | $L_{ws}$ saugseitig inlet | 2                                                | -4 | -11 | -9  | -7  | -12 | -15 | -20 | -32 | -7  |
|                           | motor           |      |      |      |      |      |      |                           | 0                                                | -4 | -10 | -7  | -6  | -9  | -14 | -18 | -26 | -3  |
| 1440                      | 0,20            | 0,29 | 0,41 | 0,56 | 0,70 | 0,95 | 1,14 | $L_{ws}$ saugseitig inlet | 0                                                | -7 | -6  | -8  | -10 | -11 | -13 | -17 | -26 | -6  |
|                           | motor           |      |      |      |      |      |      |                           | 0                                                | -7 | -6  | -10 | -10 | -10 | -13 | -16 | -23 | -6  |
| 2880                      | 1,57            | 2,34 | 3,25 | 4,47 | 5,62 | 7,58 | 9,09 | $L_{ws}$ saugseitig inlet | 2                                                | -6 | -12 | -9  | -9  | -9  | -12 | -15 | -21 | -5  |
|                           | motor           |      |      |      |      |      |      |                           | 0                                                | -9 | -10 | -6  | -9  | -9  | -11 | -15 | -20 | -4  |

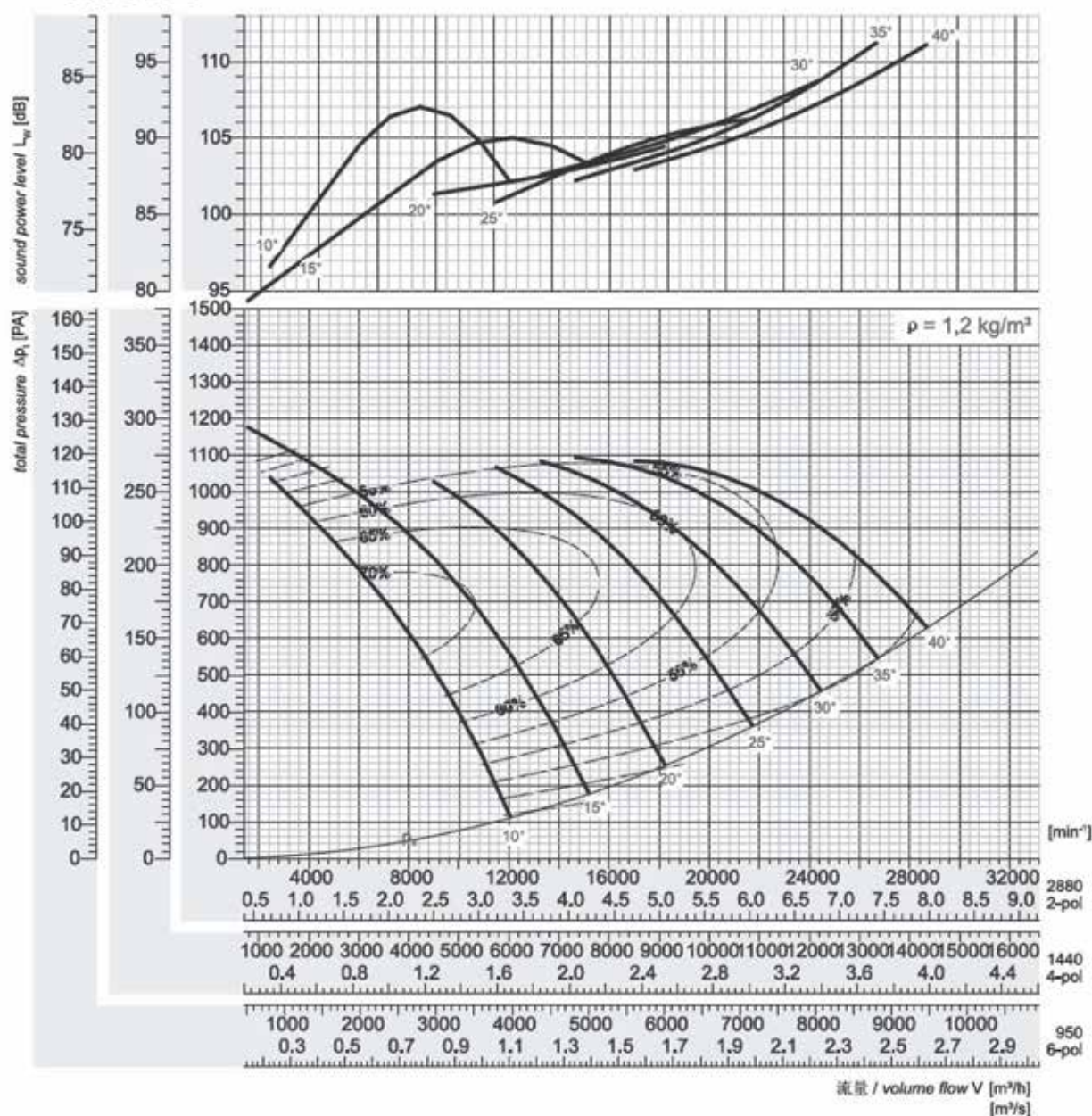
## AR 560-6



smoke extract versions for 300°C/2h and 400°C/2h on request

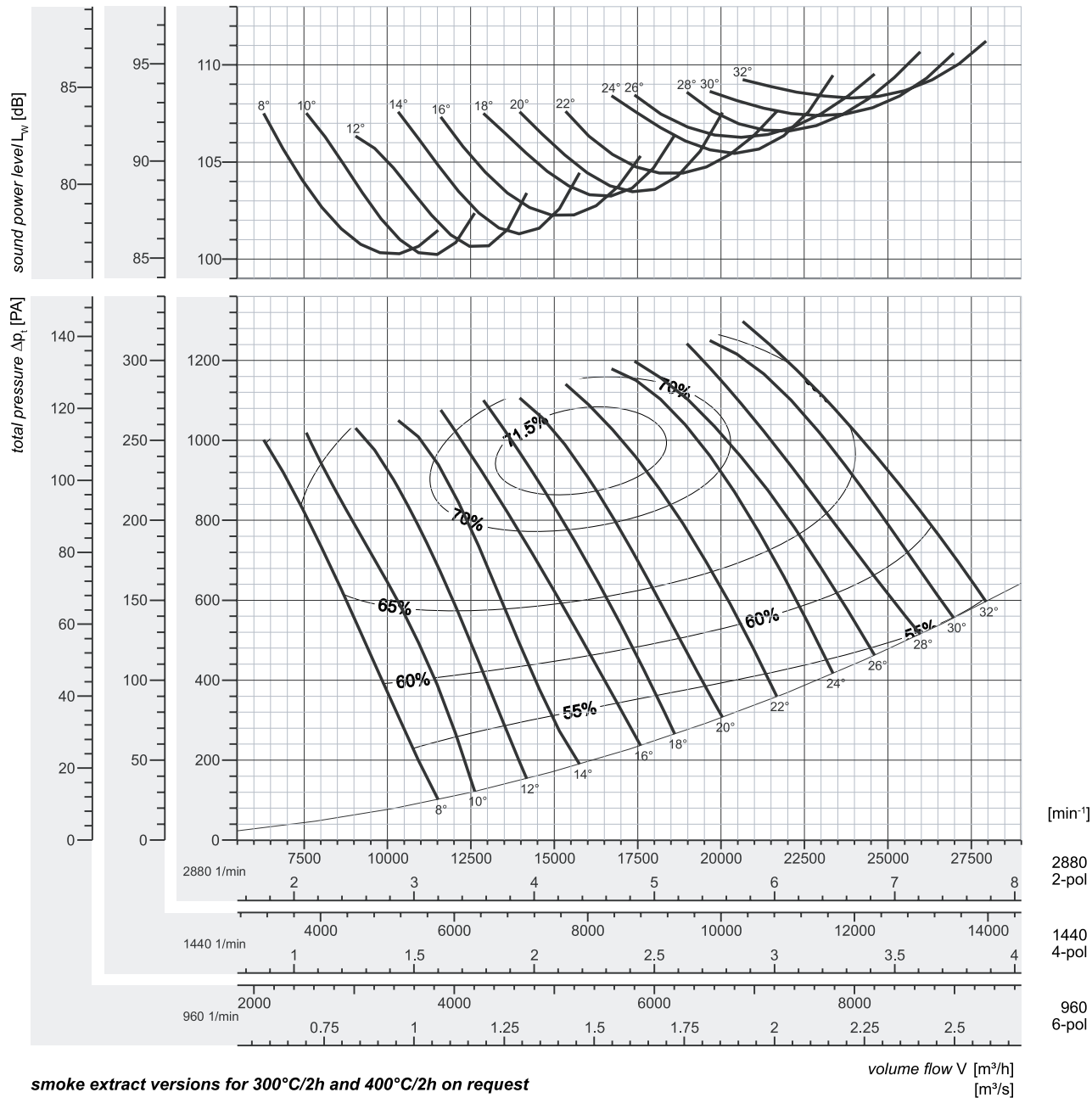
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum ΔL in dB/Okt |     |     |     |    |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------------------------|-----|-----|-----|----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                    |     |     |     |    |     |     |     |
|                           | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                       | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  |
| 960<br>motor              | 0,07            | 0,09 | 0,10 | 0,12 | 0,15 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 0,27 | 0,29 | 0,31 | -3                                       | -5  | -7  | -7  | -8 | -12 | -18 | -24 |
|                           | 0,37            |      |      |      |      |      |      |      |      |      |      |      |      |                                          |     |     |     |    |     |     |     |
| 1440<br>motor             | 0,25            | 0,31 | 0,35 | 0,42 | 0,53 | 0,57 | 0,64 | 0,70 | 0,76 | 0,85 | 0,96 | 1,02 | 1,08 | -5                                       | -6  | -5  | -6  | -7 | -10 | -15 | -21 |
|                           | 0,55            |      |      |      |      | 0,75 |      |      | 1,1  |      |      |      |      |                                          |     |     |     |    |     |     |     |
| 2880<br>motor             | 2,04            | 2,46 | 2,76 | 3,39 | 4,21 | 4,58 | 5,14 | 5,59 | 6,06 | 6,78 | 7,65 | 8,19 | 8,67 | -5                                       | -10 | -7  | -5  | -7 | -8  | -12 | -18 |
|                           | 2,2             | 3,0  |      | 4,0  | 5,5  |      |      | 7,5  |      |      | 11,0 |      |      |                                          |     |     |     |    |     |     |     |

# AR 560-7



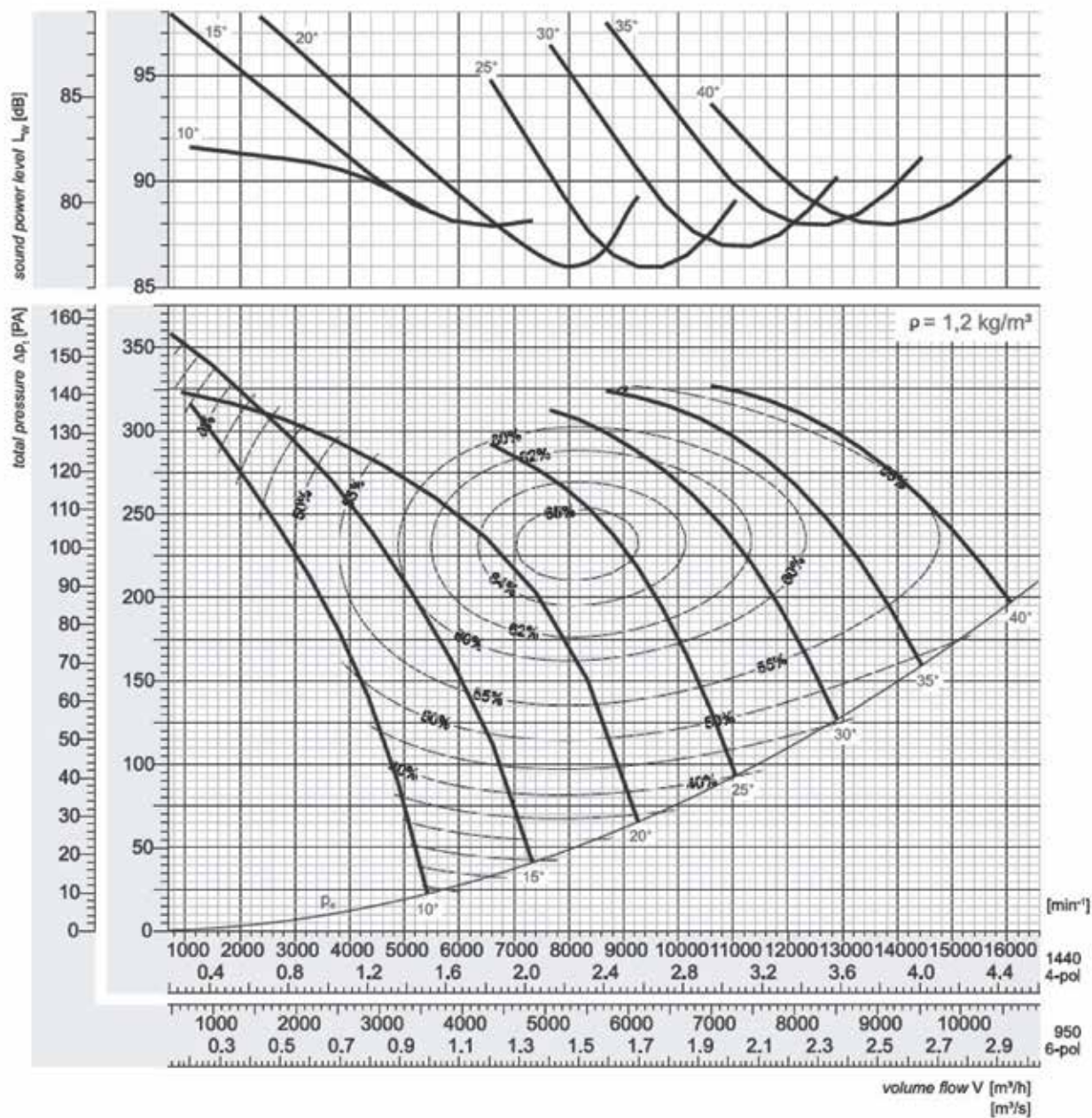
| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |       |                                    | relative frequency spectrum ΔL in dB/Okt |                       |     |     |     |     |     |     |     |    |     |
|---------------------------|--------------------------|------|------|------|------|------|-------|--------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

## AR 560-9



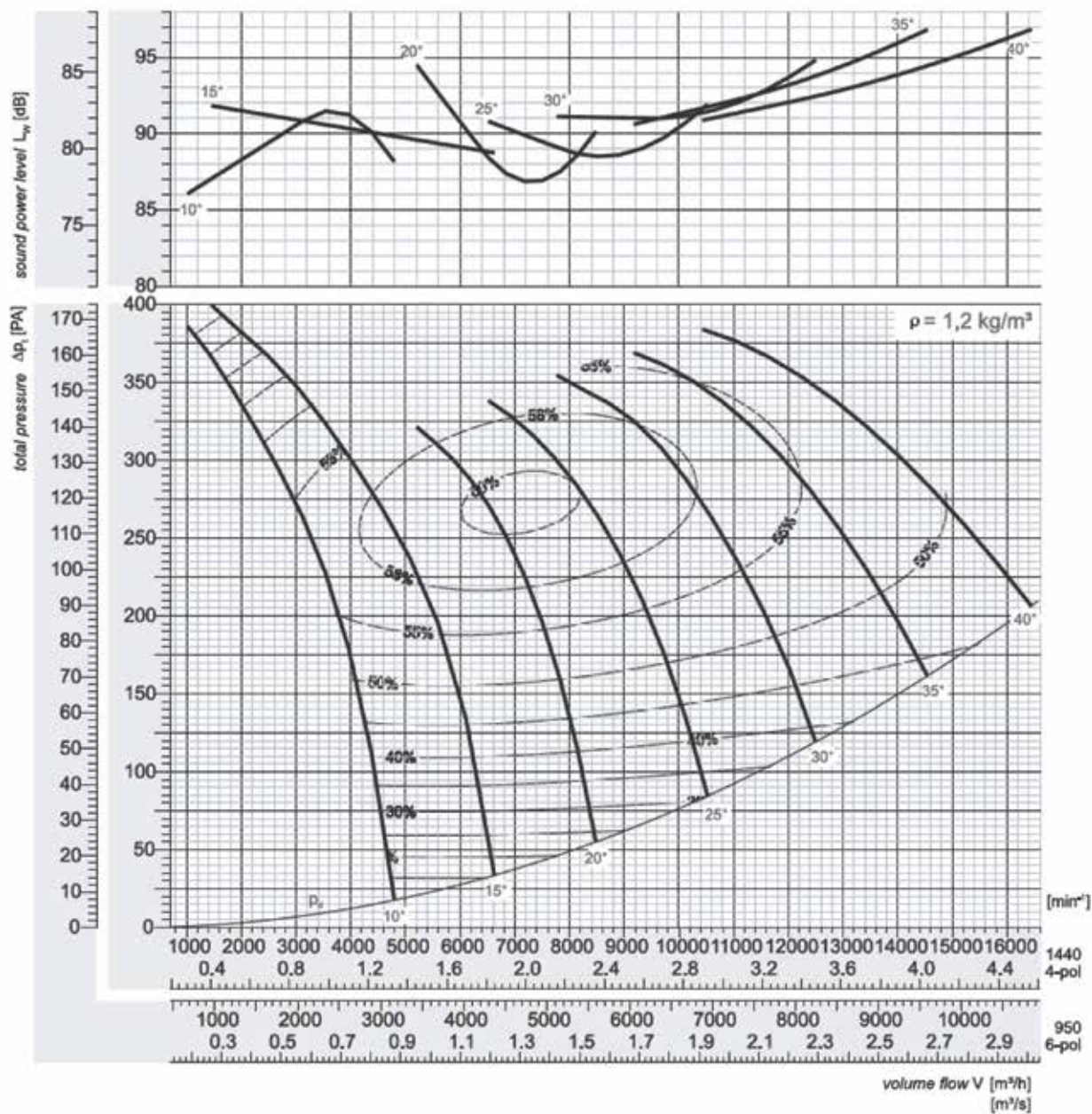
| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |    |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------------------------|-----|-----|-----|----|-----|-----|-----|
|                           | pitch angle [°]          |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |     |     |     |    |     |     |     |
|                           | 8                        | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                               | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  |
| 960<br>motor              | 0,10                     | 0,12 | 0,14 | 0,16 | 0,18 | 0,21 | 0,23 | 0,26 | 0,29 | 0,31 | 0,33 | 0,38 | 0,41 | -3                                               | -5  | -7  | -7  | -8 | -12 | -18 | -24 |
|                           | 0,37                     |      |      |      |      |      |      |      |      |      |      | 0,55 |      |                                                  |     |     |     |    |     |     |     |
| 1440<br>motor             | 0,36                     | 0,42 | 0,50 | 0,55 | 0,64 | 0,72 | 0,79 | 0,89 | 1,01 | 1,06 | 1,13 | 1,32 | 1,45 | -5                                               | -6  | -5  | -6  | -7 | -10 | -15 | -21 |
|                           | 0,55                     |      |      |      | 0,75 |      | 1,1  |      |      |      | 1,5  |      |      |                                                  |     |     |     |    |     |     |     |
| 2880<br>motor             | 2,87                     | 3,38 | 3,99 | 4,43 | 5,08 | 5,77 | 6,32 | 7,13 | 8,04 | 8,50 | 9,07 | 10,6 | 11,6 | -5                                               | -10 | -7  | -5  | -7 | -8  | -12 | -18 |
|                           | 3,0                      | 4,0  |      | 5,5  |      | 7,5  |      |      | 11   |      |      |      | 15   |                                                  |     |     |     |    |     |     |     |

# AR 560-10



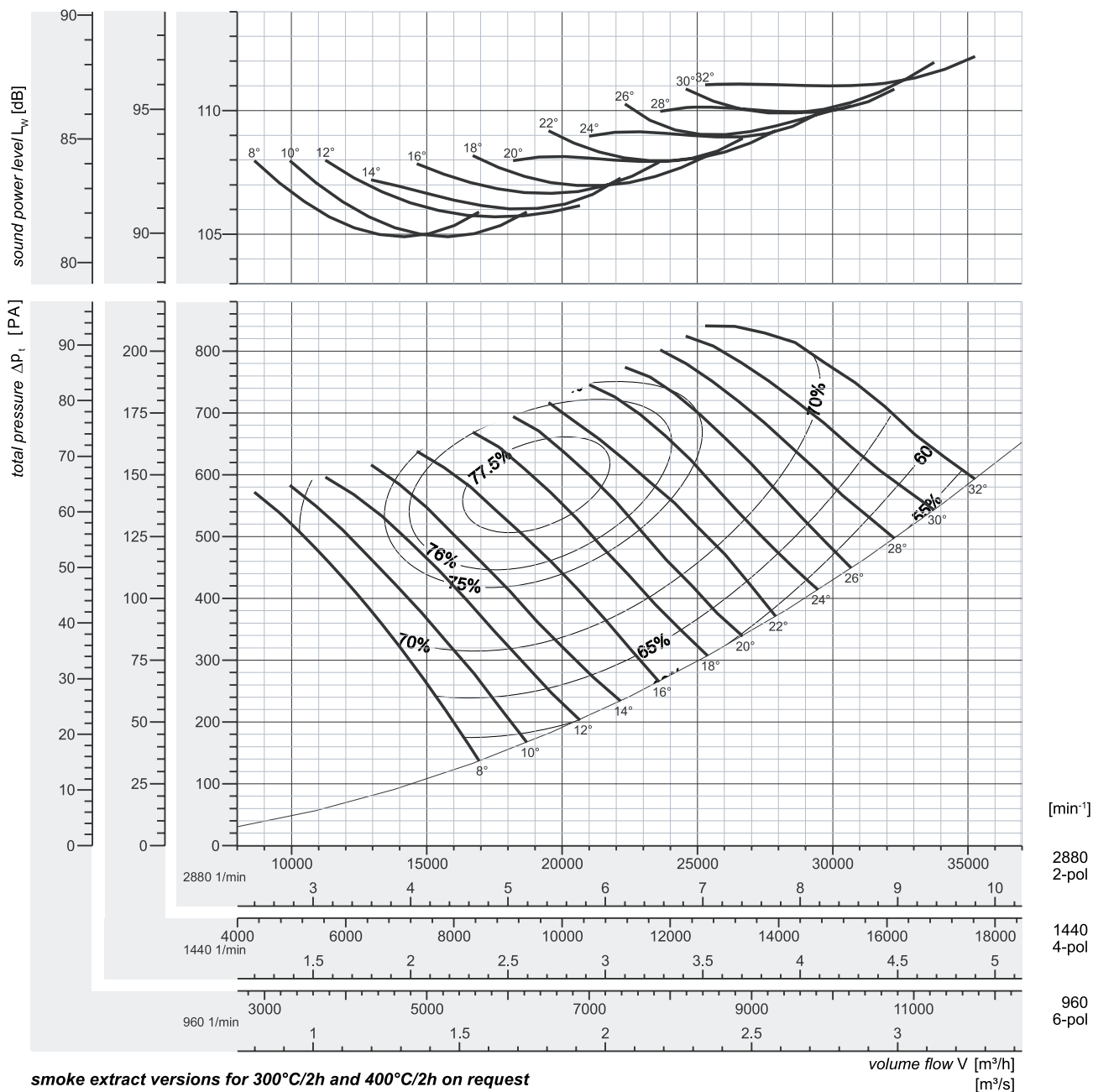
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |       |                       |     |     |     |     |     |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|-------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |                                                  | Total | Octave b. midfr. [Hz] |     |     |     |     |     |     |     | dBA |
|                           | 10              | 15   | 20   | 25   | 30   | 35   | 40   |                                                  |       | 63                    | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |     |
| 950<br>motor              | 0,11            | 0,14 | 0,20 | 0,26 | 0,34 | 0,44 | 0,56 | $L_{ws}$ saugseitig inlet                        | -0    | -8                    | -10 | -7  | -7  | -11 | -15 | -21 | -34 | -6  |
|                           | 0,37            |      |      |      |      | 0,55 | 0,75 | $L_{ws}$ druckseitig outlet                      | 0     | -8                    | -9  | -7  | -7  | -9  | -13 | -19 | -29 | -5  |
| 1440<br>motor             | 0,37            | 0,49 | 0,68 | 0,92 | 1,18 | 1,53 | 1,94 | $L_{ws}$ saugseitig inlet                        | -1    | -13                   | -13 | -8  | -7  | -7  | -11 | -14 | -24 | -3  |
|                           | 0,55            |      | 0,75 | 1,1  | 1,5  | 2,2  |      | $L_{ws}$ druckseitig outlet                      | 0     | -10                   | -12 | -8  | -8  | -9  | -11 | -14 | -23 | -5  |
|                           |                 |      |      |      |      |      |      |                                                  |       |                       |     |     |     |     |     |     |     |     |

## AR 560-14



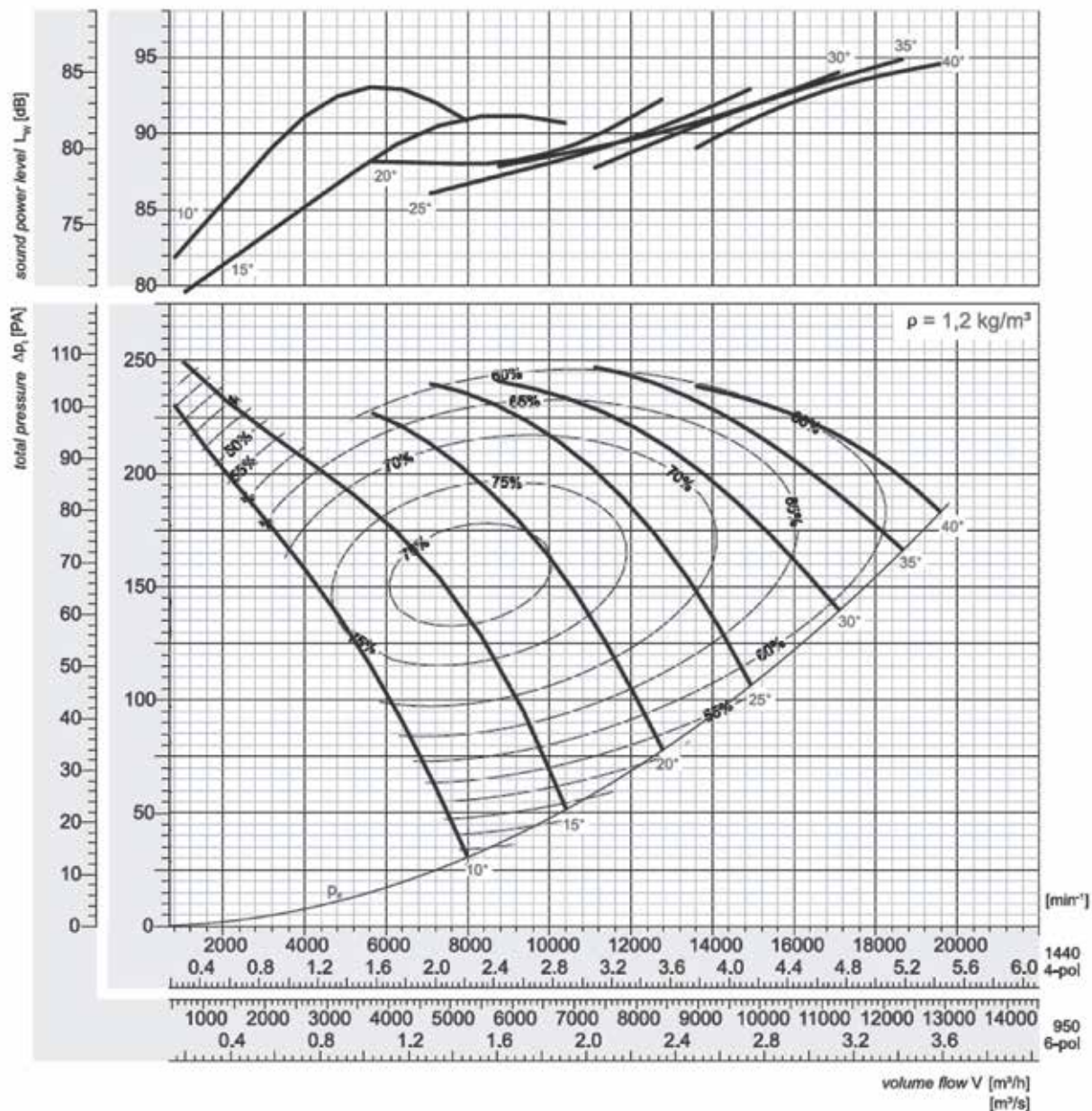
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |       |                       |     |     |     |     |     |     |     |     |  |
|---------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|-------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|--|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |                                                  |       | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |  |
|                           | 10              | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total | 63                    | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |  |
| 950<br>motor              | 0,12            | 0,17 | 0,24 | 0,32 | 0,41 | 0,51 | 0,66 | $L_{ws}$ saugseitig inlet                        | -2    | -11                   | -13 | -8  | -6  | -10 | -14 | -20 | -33 | -4  |  |
|                           | 0,37            |      |      |      | 0,55 |      | 0,75 | $L_{we}$ druckseitig outlet                      | 0     | -8                    | -11 | -8  | -6  | -9  | -13 | -18 | -25 | -5  |  |
| 1440<br>motor             | 0,42            | 0,59 | 0,84 | 1,11 | 1,41 | 1,79 | 2,31 | $L_{ws}$ saugseitig inlet                        | 0     | -16                   | -17 | -8  | -6  | -9  | -12 | -16 | -28 | -4  |  |
|                           | 0,55            | 0,75 | 1,1  | 1,5  |      | 2,2  | 3,0  | $L_{we}$ druckseitig outlet                      | 0     | -9                    | -12 | -8  | -7  | -10 | -11 | -14 | -22 | -3  |  |
|                           |                 |      |      |      |      |      |      |                                                  |       |                       |     |     |     |     |     |     |     |     |  |

# AR 630-3



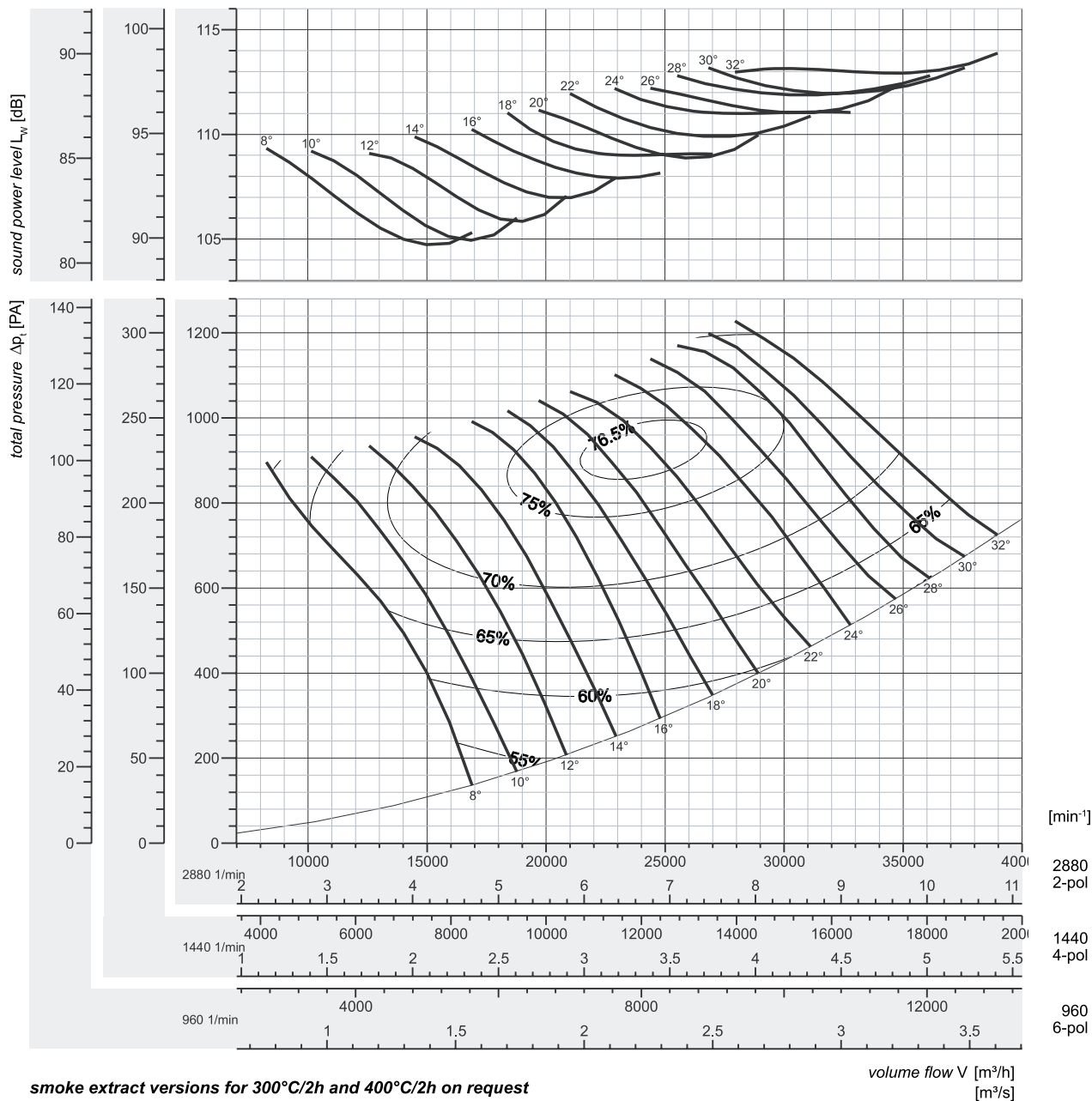
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum ΔL in dB/Okt |    |     |     |     |     |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------------------------------------------|----|-----|-----|-----|-----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                    |    |     |     |     |     |     |     |     |
|                           | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32                                       | 63 | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |
| 960<br>motor              | 0,08            | 0,08 | 0,10 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,21 | 0,24 | 0,29 | 0,34 | 0,39                                     | -3 | -5  | -7  | -7  | -8  | -12 | -18 | -24 |
|                           | 0,37            |      |      |      |      |      |      |      |      |      |      |      | 0,55                                     |    |     |     |     |     |     |     |     |
| 1440<br>motor             | 0,26            | 0,28 | 0,33 | 0,37 | 0,44 | 0,51 | 0,58 | 0,64 | 0,74 | 0,85 | 1,01 | 1,18 | 1,37                                     | -4 | -7  | -7  | -7  | -10 | -15 | -21 | -27 |
|                           | 0,55            |      |      |      |      |      | 0,75 |      |      | 1,1  |      | 1,5  |                                          |    |     |     |     |     |     |     |     |
| 2880<br>motor             | 2,10            | 2,21 | 2,66 | 2,97 | 3,50 | 4,06 | 4,60 | 5,10 | 5,93 | 6,80 | 8,07 | 9,42 | 10,9                                     | -5 | -6  | -5  | -6  | -7  | -10 | -15 | -21 |
|                           | 2,2             |      | 3,0  |      | 4,0  | 5,5  |      |      | 7,5  |      | 11,0 |      |                                          |    |     |     |     |     |     |     |     |

## AR 630-5



| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |    |     |     |     |     |     |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|--------------------------------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|
|                           | pitch angle [°]          |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |    |     |     |     |     |     |     |     |     |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   | Total                                            | 63 | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950                       | 0,07                     | 0,12 | 0,17 | 0,24 | 0,32 | 0,41 | 0,51 | $L_{w\text{in}}$ saugseitig inlet                | -0 | -4  | -9  | -9  | -7  | -12 | -16 | -20 | -32 |
|                           | 0,37                     |      |      |      |      | 0,55 |      | $L_{w\text{out}}$ druckseitig outlet             | 0  | -5  | -11 | -8  | -6  | -9  | -15 | -19 | -26 |
| 1440                      | 0,24                     | 0,40 | 0,60 | 0,85 | 1,11 | 1,44 | 1,79 | $L_{w\text{in}}$ saugseitig inlet                | 0  | -6  | -5  | -10 | -10 | -10 | -13 | -16 | -25 |
|                           | 0,55                     |      | 0,75 | 1,1  | 1,5  |      | 2,2  | $L_{w\text{out}}$ druckseitig outlet             | 0  | -7  | -6  | -11 | -11 | -11 | -13 | -15 | -23 |
|                           |                          |      |      |      |      |      |      |                                                  |    |     |     |     |     |     |     |     |     |

# AR 630-6

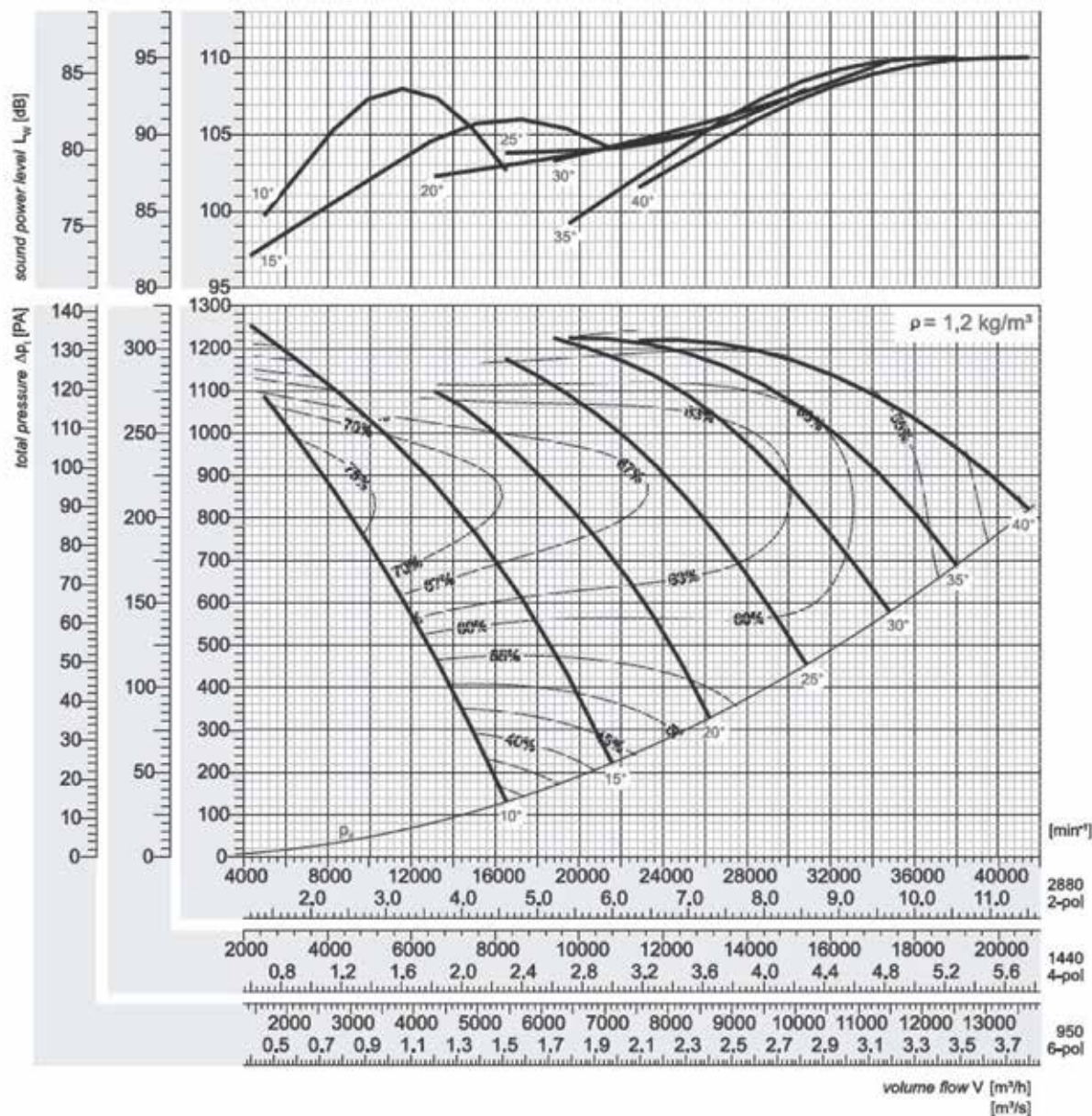


smoke extract versions for 300°C/2h and 400°C/2h on request

volume flow  $V$  [m³/h]  
[m³/s]

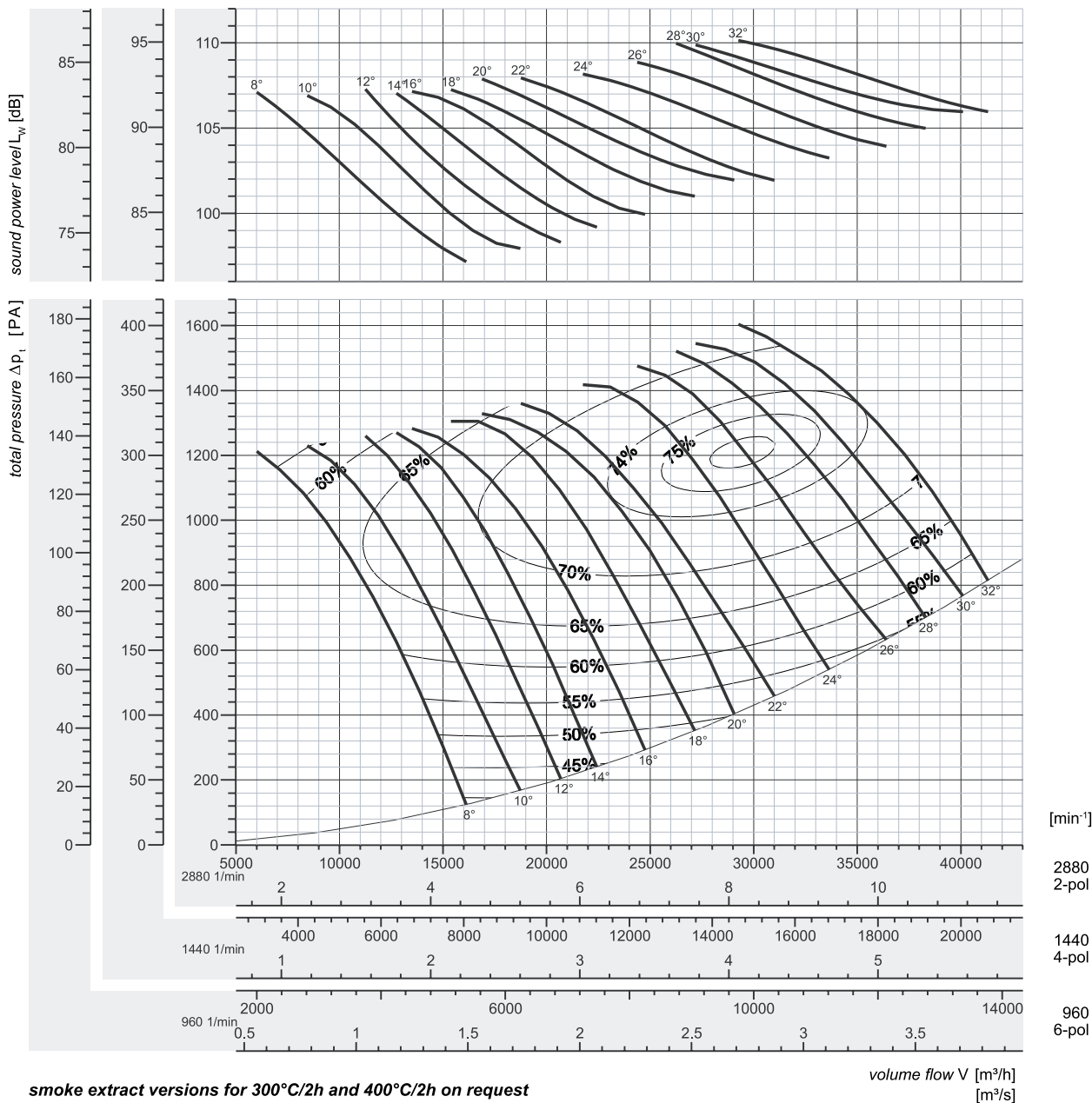
| Peak absorbed power [kW] |                 |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum ΔL in dB/Okt |     |     |     |    |     |     |     |
|--------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------------------------|-----|-----|-----|----|-----|-----|-----|
| n                        | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                    |     |     |     |    |     |     |     |
| [min <sup>-1</sup> ]     | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                       | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  |
| 960<br>motor             | 0,12            | 0,15 | 0,18 | 0,21 | 0,24 | 0,27 | 0,28 | 0,31 | 0,34 | 0,39 | 0,42 | 0,46 | 0,50 | -3                                       | -5  | -7  | -7  | -8 | -12 | -18 | -24 |
|                          | 0,37            |      |      |      |      |      |      |      |      | 0,55 |      |      |      |                                          |     |     |     |    |     |     |     |
| 1440<br>motor            | 0,42            | 0,51 | 0,62 | 0,72 | 0,83 | 0,93 | 0,99 | 1,08 | 1,20 | 1,36 | 1,47 | 1,62 | 1,75 | -7                                       | -3  | -7  | -7  | -8 | -12 | -18 | -24 |
|                          | 0,55            |      | 0,75 |      | 1,1  |      |      |      | 1,5  |      |      | 2,2  |      |                                          |     |     |     |    |     |     |     |
| 2880<br>motor            | 3,39            | 4,07 | 4,92 | 5,73 | 6,63 | 7,41 | 7,90 | 8,62 | 9,61 | 10,8 | 11,8 | 12,9 | 14,0 | -5                                       | -10 | -7  | -5  | -7 | -8  | -12 | -18 |
|                          | 4,0             | 5,5  |      | 7,5  |      |      | 11,0 |      |      |      | 15,0 |      |      |                                          |     |     |     |    |     |     |     |

## AR 630-7



| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      |                             | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |  |
|---------------------------|--------------------------|------|------|------|------|------|------|-----------------------------|--------------------------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|--|
|                           | pitch angle [°]          |      |      |      |      |      |      |                             | Total                                            | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |  |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                             |                                                  | 63                    | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |  |
| 950<br>motor              | 0,11                     | 0,17 | 0,25 | 0,33 | 0,43 | 0,56 | 0,71 | $L_{ws}$ saugseitig inlet   | -2                                               | -8                    | -7  | -9  | -8  | -11 | -15 | -20 | -31 | -6  |  |
|                           | 0,37                     |      |      |      | 0,55 | 0,75 |      | $L_{wy}$ druckseitig outlet | 0                                                | -6                    | -8  | -9  | -7  | -10 | -13 | -19 | -26 | -5  |  |
| 1440<br>motor             | 0,39                     | 0,58 | 0,87 | 1,17 | 1,49 | 1,94 | 2,48 | $L_{ws}$ saugseitig inlet   | -2                                               | -9                    | -9  | -7  | -7  | -10 | -13 | -17 | -24 | -5  |  |
|                           | 0,55                     | 0,75 | 1,1  | 1,5  |      | 2,2  | 3,0  | $L_{wy}$ druckseitig outlet | 0                                                | -7                    | -8  | -10 | -11 | -13 | -14 | -16 | -22 | -8  |  |
| 2880<br>motor             | 3,08                     | 4,62 | 6,98 | 9,32 | 11,9 | 15,6 | 19,8 | $L_{ws}$ saugseitig inlet   | 0                                                | -10                   | -16 | -7  | -7  | -10 | -14 | -18 | -22 | -6  |  |
|                           | 4,0                      | 5,5  | 7,5  | 11,0 | 15,0 | 18,5 | 22,0 | $L_{wy}$ druckseitig outlet | 0                                                | -9                    | -11 | -7  | -8  | -9  | -11 | -14 | -18 | -5  |  |

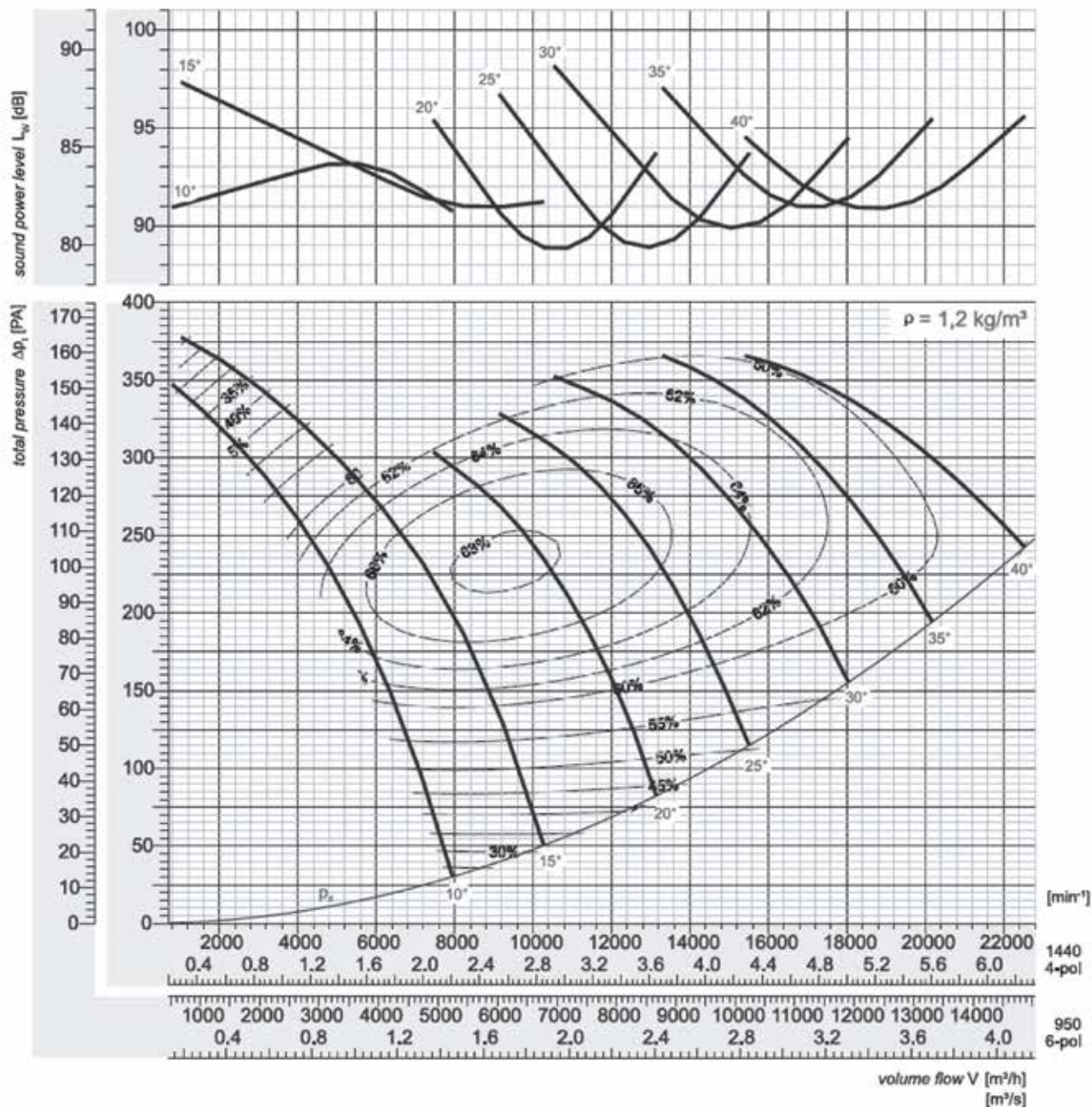
# AR 630-9



| Peak absorbed power [kW] |                 |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |    |     |     |     |
|--------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------------------------|-----|-----|-----|----|-----|-----|-----|
| n                        | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |     |     |     |    |     |     |     |
| [min <sup>-1</sup> ]     | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                               | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  |
| 960                      | 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            |      |      |      |      |      |      | 0,55 |      |      | 0,75 |      |      |                                                  |     |     |     |    |     |     |     |
| 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            | 0,75 | 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 | -*   | -5                                               | -10 | -7  | -5  | -7 | -8  | -12 | -18 |
| motor                    | 5,5             | 7,5  |      | 11,0 |      |      |      | 15,0 |      | 18,5 |      |      |      |                                                  |     |     |     |    |     |     |     |

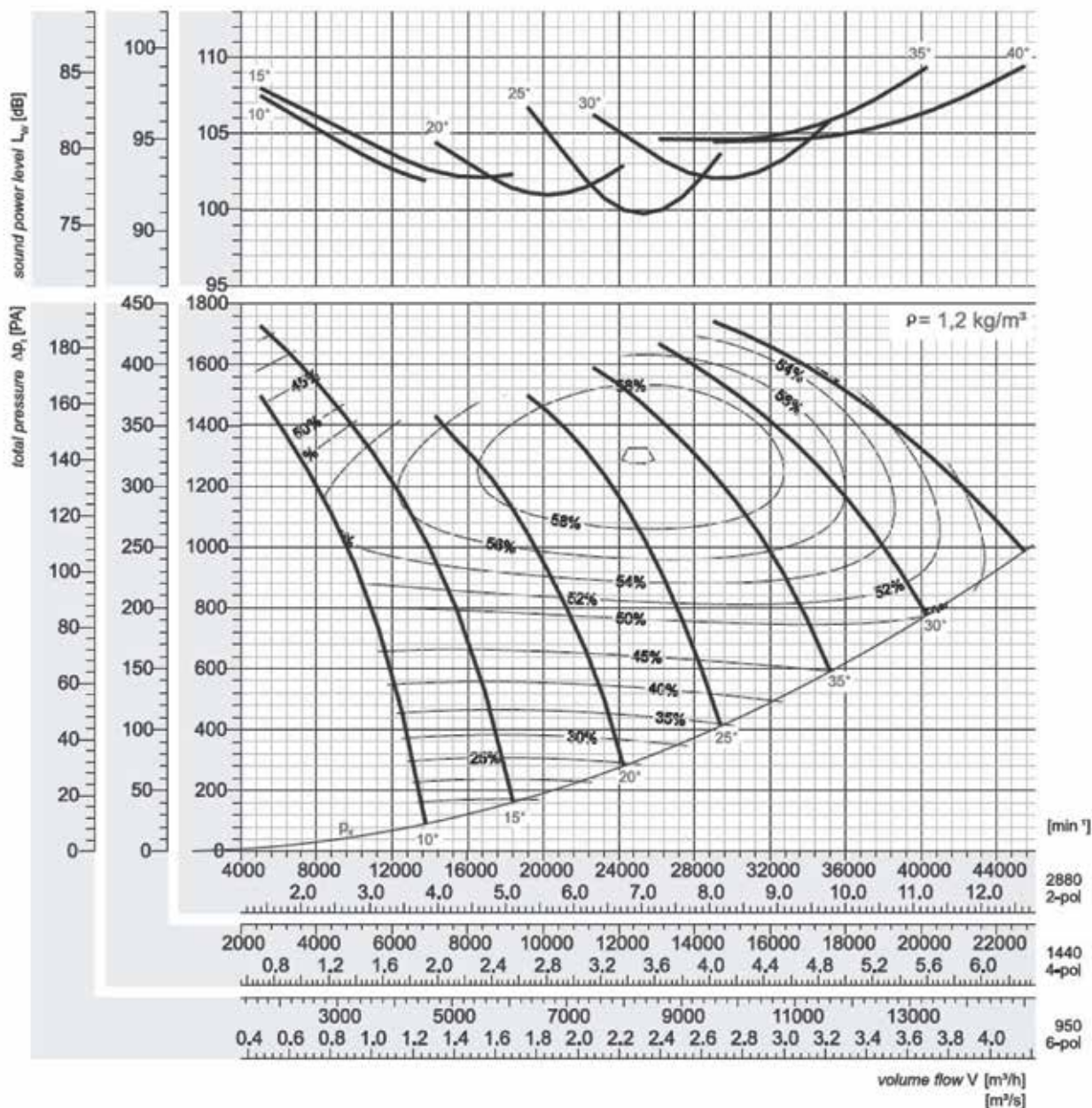
\* nicht möglich / out of range

## AR 630-10



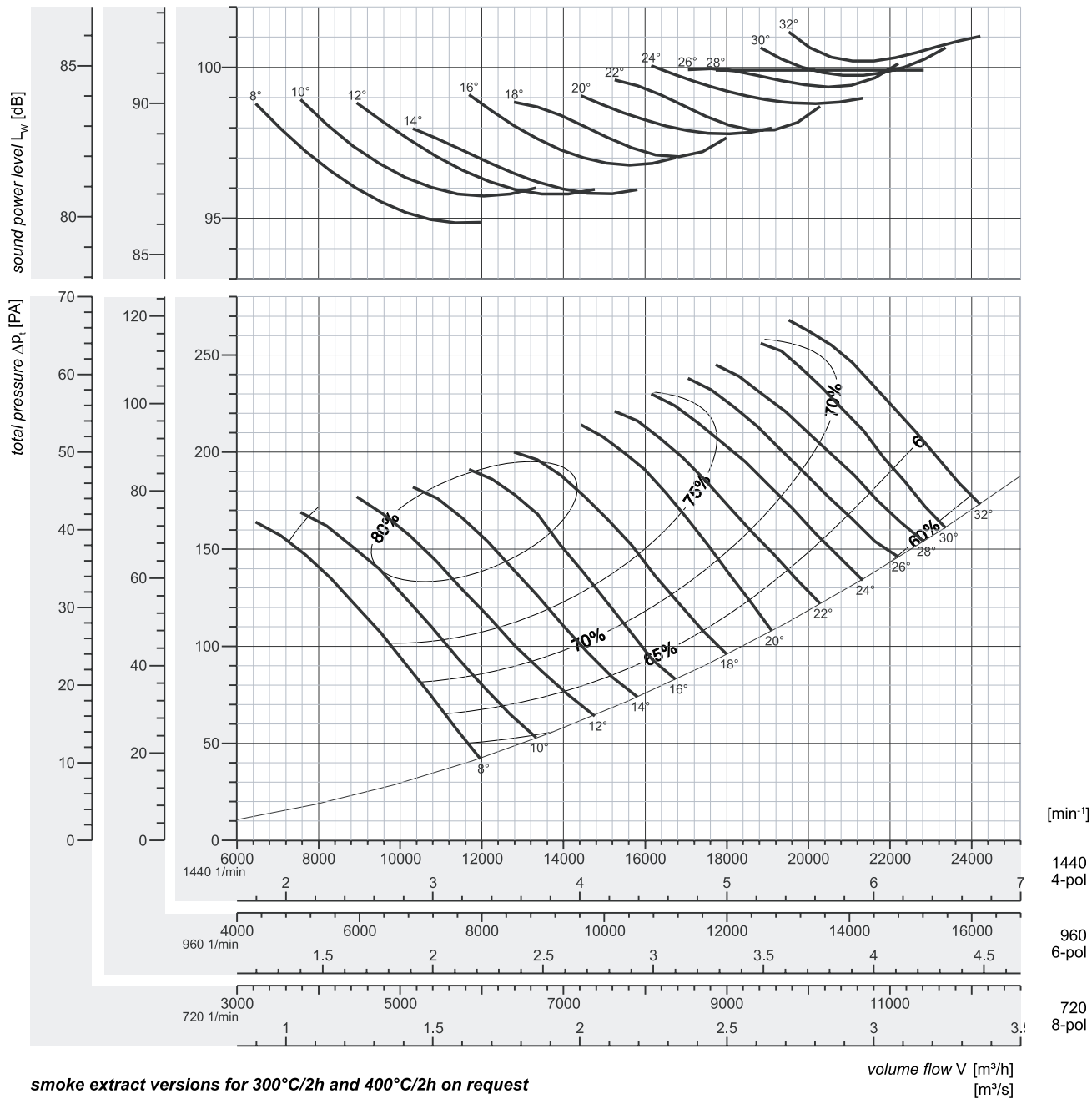
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |       |                       |     |     |     |     |     |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|-------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |                                                  |       | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |
|                           | 10              | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total | 63                    | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950<br>motor              | 0,14            | 0,21 | 0,30 | 0,40 | 0,52 | 0,66 | 0,81 | $L_{ws}$ saugseitig inlet                        | -2    | -9                    | -10 | -8  | -7  | -10 | -15 | -21 | -33 | -6  |
|                           | 0,37            |      |      | 0,55 |      | 0,75 | 1,1  | $L_{ws}$ druckseitig outlet                      | 0     | -7                    | -9  | -8  | -7  | -9  | -13 | -18 | -28 | -5  |
| 1440<br>motor             | 0,47            | 0,72 | 1,06 | 1,40 | 1,82 | 2,29 | 2,83 | $L_{ws}$ saugseitig inlet                        | -0    | -13                   | -17 | -9  | -6  | -7  | -11 | -14 | -22 | -3  |
|                           | 0,55            | 0,75 | 1,1  | 1,5  | 2,2  | 3,0  |      | $L_{ws}$ druckseitig outlet                      | 0     | -10                   | -14 | -8  | -7  | -8  | -10 | -14 | -21 | -4  |
|                           |                 |      |      |      |      |      |      |                                                  |       |                       |     |     |     |     |     |     |     |     |

# AR 630-14



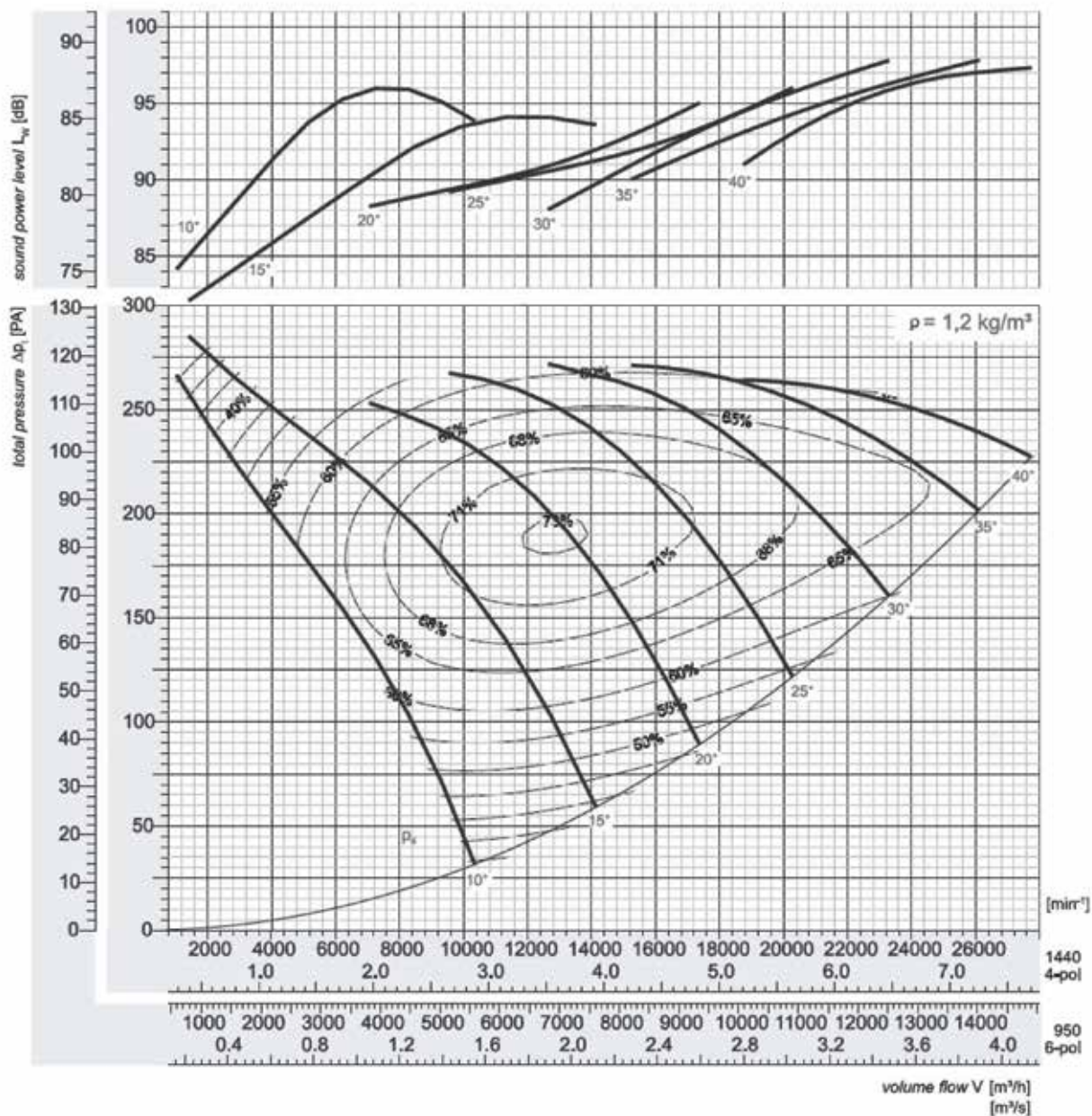
| Peak absorbed power [kW] |                 |      |       |       |       |       |       | relative frequency spectrum $\Delta L$ in dB/Okt |       |                       |     |     |     |     |     |     |     |     |
|--------------------------|-----------------|------|-------|-------|-------|-------|-------|--------------------------------------------------|-------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| n                        | pitch angle [°] |      |       |       |       |       |       |                                                  |       | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |
| [min <sup>-1</sup> ]     | 10              | 15   | 20    | 25    | 30    | 35    | 40    |                                                  | Total | 63                    | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950<br>motor             | 0,18            | 0,26 | 0,38  | 0,49  | 0,64  | 0,81  | 1,02  | $L_{ws}$ saugseitig inlet                        | -2    | -10                   | -14 | -7  | -6  | -10 | -14 | -18 | -33 | -5  |
|                          | 0,37            |      | 0,55  |       | 0,75  | 1,1   |       | $L_{ws}$ druckseitig outlet                      | 0     | -7                    | -12 | -8  | -7  | -10 | -14 | -19 | -25 | -5  |
| 1440<br>motor            | 0,63            | 0,90 | 1,33  | 1,70  | 2,24  | 2,81  | 3,54  | $L_{ws}$ saugseitig inlet                        | 1     | -14                   | -15 | -9  | -5  | -8  | -12 | -15 | -28 | -4  |
|                          | 0,75            | 1,1  | 1,5   | 2,2   | 3,0   |       | 4,0   | $L_{ws}$ druckseitig outlet                      | 0     | -9                    | -12 | -8  | -7  | -10 | -11 | -14 | -23 | -5  |
| 2880<br>motor            | 5,05            | 7,17 | 10,64 | 13,61 | 17,95 | 22,47 | 28,34 | $L_{ws}$ saugseitig inlet                        | 0     | -13                   | -16 | -13 | -6  | -6  | -9  | -13 | -19 | -2  |
|                          | 5,5             | 7,5  | 11,0  | 15,0  | 18,5  | -     | -     | $L_{ws}$ druckseitig outlet                      | 0     | -8                    | -11 | -11 | -7  | -6  | -7  | -10 | -16 | -1  |

## AR 710-3



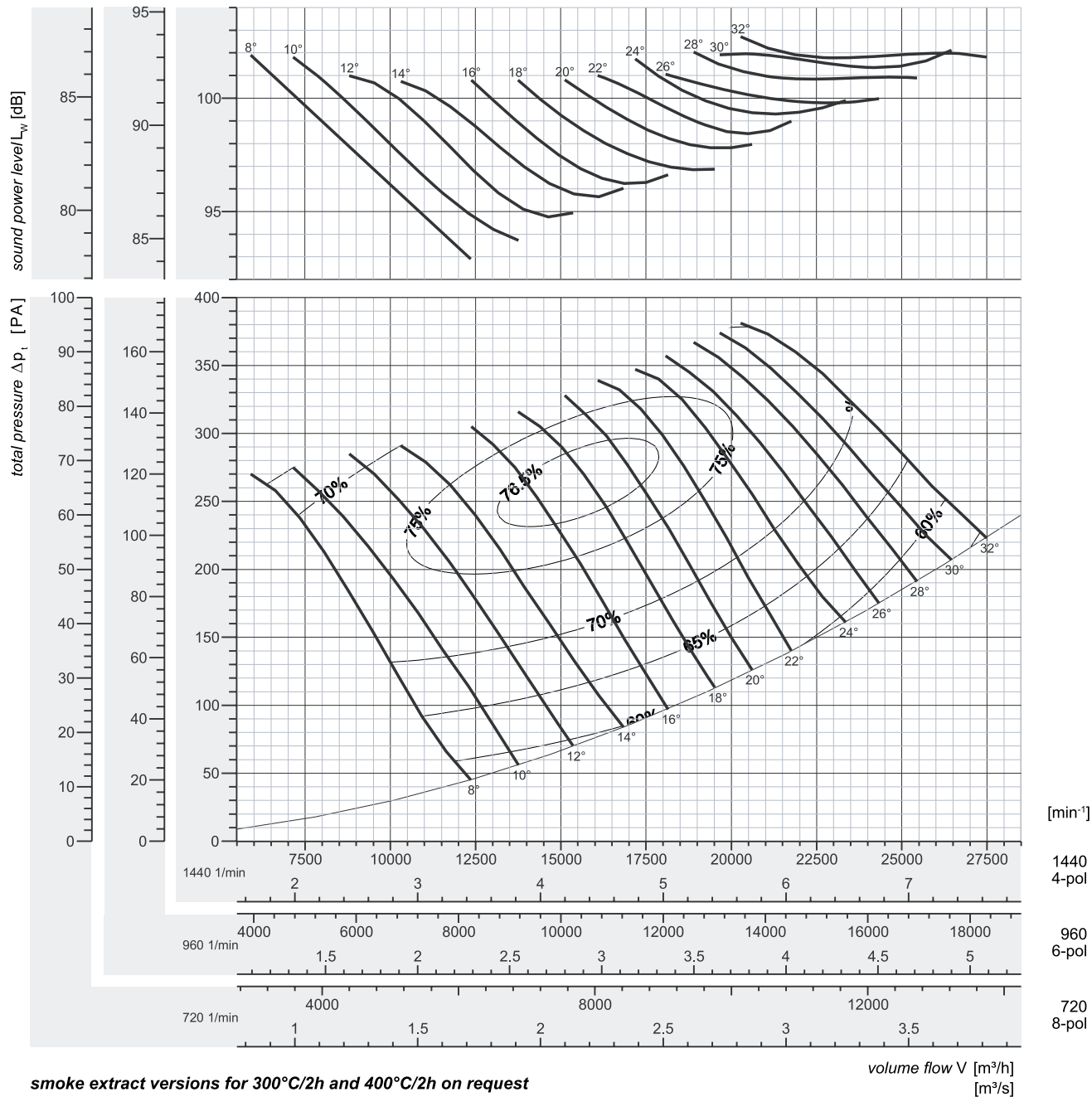
| n<br>[min⁻¹]  | Peak absorbed power [kW] |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |     |     |     |     |
|---------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
|               | pitch angle [°]          |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |     |     |     |     |     |     |     |
|               | 8                        | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                               | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |
| 960<br>motor  | 0,12                     | 0,14 | 0,16 | 0,20 | 0,23 | 0,26 | 0,32 | 0,35 | 0,40 | 0,44 | 0,48 | 0,54 | 0,61 | -5                                               | -7  | -7  | -8  | -12 | -18 | -24 | -30 |
|               | 0,37                     |      |      |      |      |      |      |      | 0,55 |      |      |      | 0,75 |                                                  |     |     |     |     |     |     |     |
| 1440<br>motor | 0,42                     | 0,49 | 0,57 | 0,68 | 0,80 | 0,91 | 1,11 | 1,23 | 1,38 | 1,54 | 1,66 | 1,89 | 2,12 | -4                                               | -7  | -7  | -7  | -10 | -15 | -21 | -27 |
|               | 0,55                     |      | 0,75 |      | 1,1  |      | 1,5  |      |      | 2,2  |      |      |      |                                                  |     |     |     |     |     |     |     |

# AR 710-5



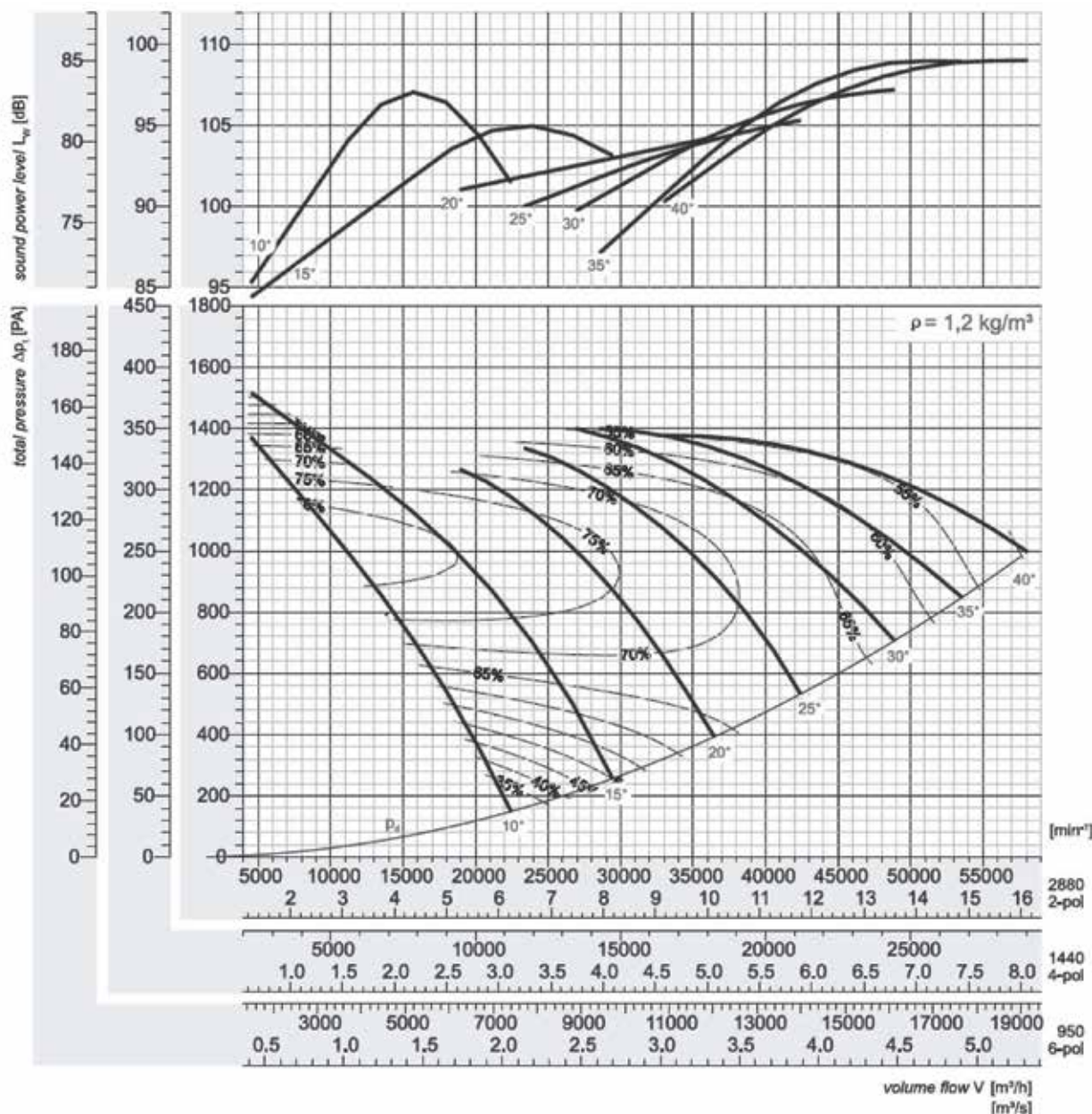
| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |    |     |     |     |     |     |     |     |     |  |
|---------------------------|--------------------------|------|------|------|------|------|------|--------------------------------------------------|-----------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|                           | pitch angle [°]          |      |      |      |      |      |      |                                                  | Octave b. midfr. [Hz] |    |     |     |     |     |     |     |     |     |  |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total                 | 63 | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |  |
| 950<br>motor              | 0,12                     | 0,19 | 0,28 | 0,39 | 0,51 | 0,64 | 0,80 | $L_{ws}$ saugseitig inlet                        | -3                    | -4 | -9  | -11 | -6  | -12 | -17 | -21 | -32 | -7  |  |
|                           | 0,37                     |      |      | 0,55 |      | 0,75 | 1,1  | $L_{we}$ druckseitig outlet                      | 0                     | -5 | -12 | -11 | -5  | -10 | -16 | -20 | -27 | -5  |  |
| 1440<br>motor             | 0,42                     | 0,67 | 0,98 | 1,36 | 1,77 | 2,22 | 2,77 | $L_{ws}$ saugseitig inlet                        | 0                     | -7 | -5  | -10 | -10 | -11 | -14 | -16 | -25 | -7  |  |
|                           | 0,55                     | 0,75 | 1,1  | 1,5  | 2,2  | 3,0  |      | $L_{we}$ druckseitig outlet                      | 0                     | -8 | -5  | -10 | -11 | -11 | -13 | -15 | -21 | -6  |  |

# AR 710-6



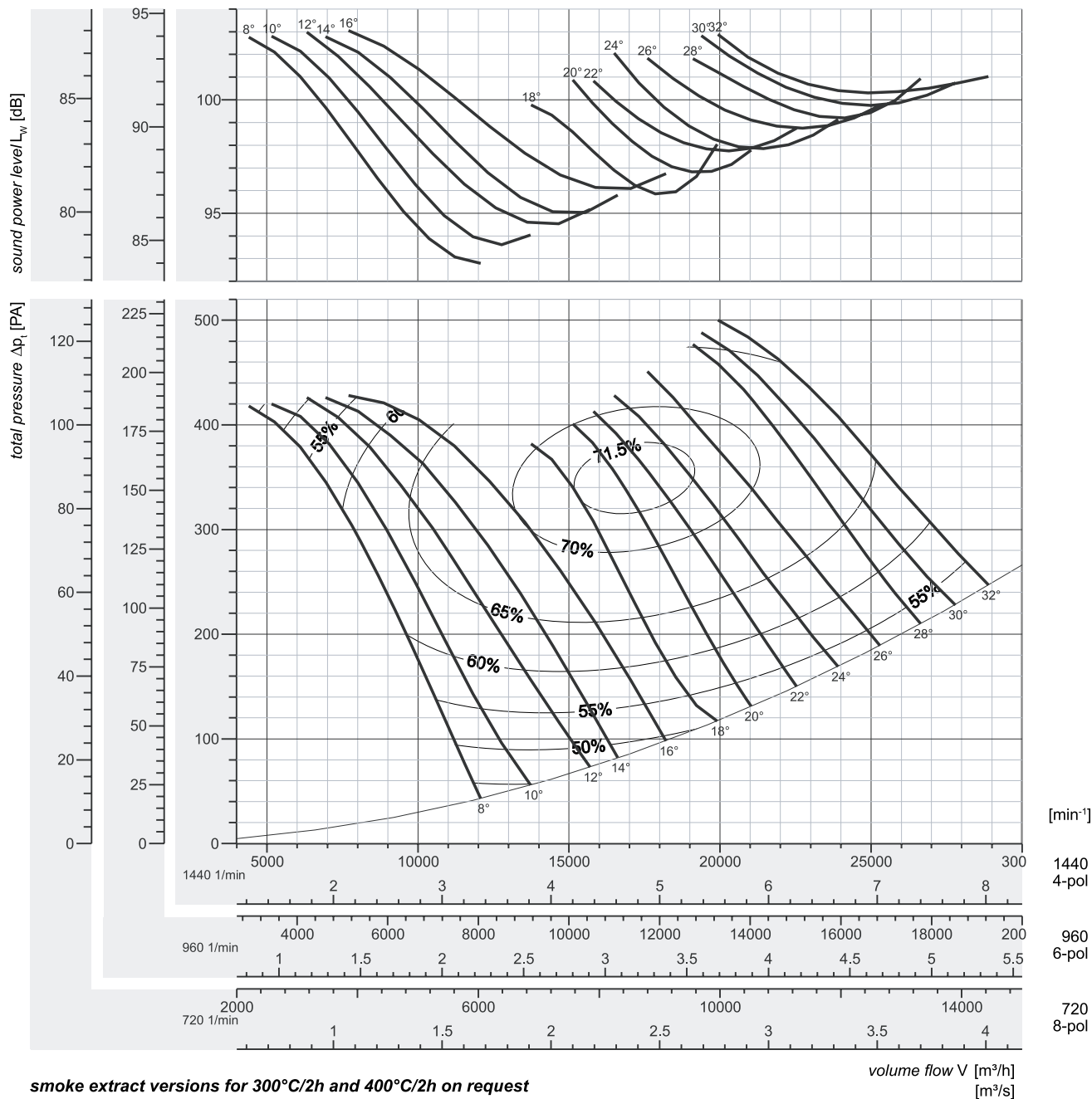
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |    |     |     |     |     |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------------------------|----|-----|-----|-----|-----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |    |     |     |     |     |     |     |     |
|                           | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32                                               | 63 | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |
| 960<br>motor              | 0,20            | 0,24 | 0,30 | 0,35 | 0,43 | 0,50 | 0,56 | 0,60 | 0,66 | 0,71 | 0,78 | 0,84 | 0,89                                             | -6 | -5  | -6  | -7  | -10 | -15 | -21 | -27 |
|                           | 0,37            |      |      |      | 0,55 |      | 0,75 |      |      |      | 1,1  |      |                                                  |    |     |     |     |     |     |     |     |
| 1440<br>motor             | 0,71            | 0,84 | 1,03 | 1,21 | 1,50 | 1,73 | 1,94 | 2,10 | 2,30 | 2,49 | 2,71 | 2,92 | 3,10                                             | -7 | -3  | -7  | -7  | -8  | -12 | -18 | -24 |
|                           | 0,75            | 1,1  |      | 1,5  |      | 2,2  |      |      | 3,0  |      |      |      | 4,0                                              |    |     |     |     |     |     |     |     |

# AR 710-7



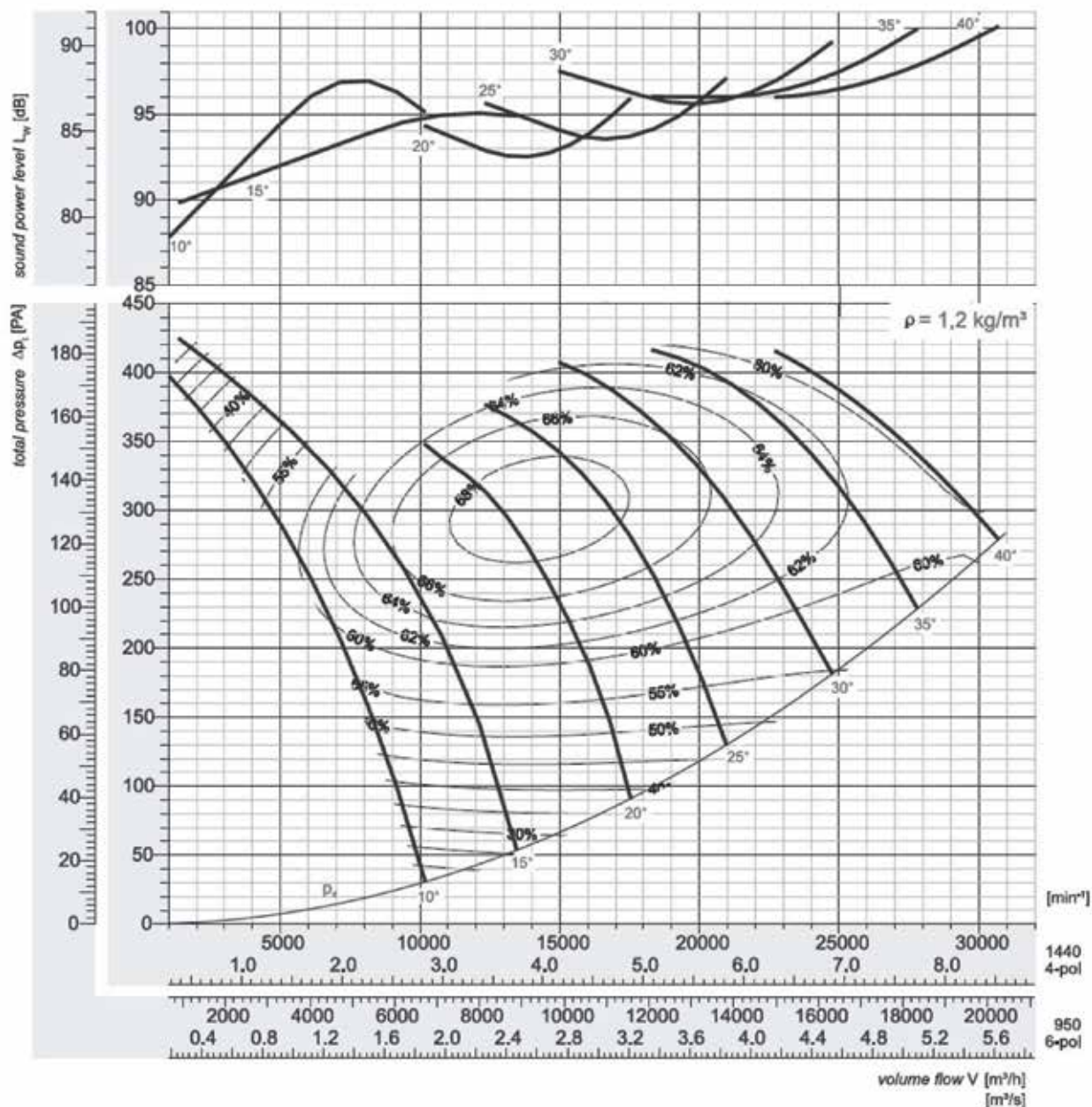
| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |       |     |     |     |     |     |     |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|--------------------------------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                           | pitch angle [°]          |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |       |     |     |     |     |     |     |     |     |     |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950                       | 0,16                     | 0,24 | 0,37 | 0,50 | 0,67 | 0,87 | 1,15 | $L_{ws}$ saugseitig inlet                        | -3    | -6  | -7  | -11 | -7  | -12 | -16 | -20 | -34 | -7  |
|                           | 0,37                     |      |      | 0,55 | 0,75 | 1,1  | 1,5  | $L_{ws}$ druckseitig outlet                      | 0     | -7  | -8  | -11 | -7  | -10 | -14 | -18 | -26 | -6  |
| 1440                      | 0,55                     | 0,84 | 1,28 | 1,74 | 2,35 | 3,03 | 3,99 | $L_{ws}$ saugseitig inlet                        | -2    | -8  | -9  | -7  | -8  | -12 | -15 | -18 | -29 | -6  |
|                           | 0,75                     | 1,1  | 1,5  | 2,2  | 3,0  | 4,0  |      | $L_{ws}$ druckseitig outlet                      | 0     | -7  | -8  | -10 | -10 | -11 | -13 | -16 | -22 | -7  |
| 2880                      | 4,44                     | 6,74 | 10,2 | 14,0 | 18,8 | 24,2 | 31,9 | $L_{ws}$ saugseitig inlet                        | 0     | -10 | -16 | -7  | -7  | -10 | -14 | -18 | -22 | -6  |
|                           | 5,5                      | 7,5  | 11,0 | 15,0 | 22,0 | -    | -    | $L_{ws}$ druckseitig outlet                      | 0     | -9  | -11 | -7  | -8  | -9  | -11 | -14 | -18 | -5  |

## AR 710-9



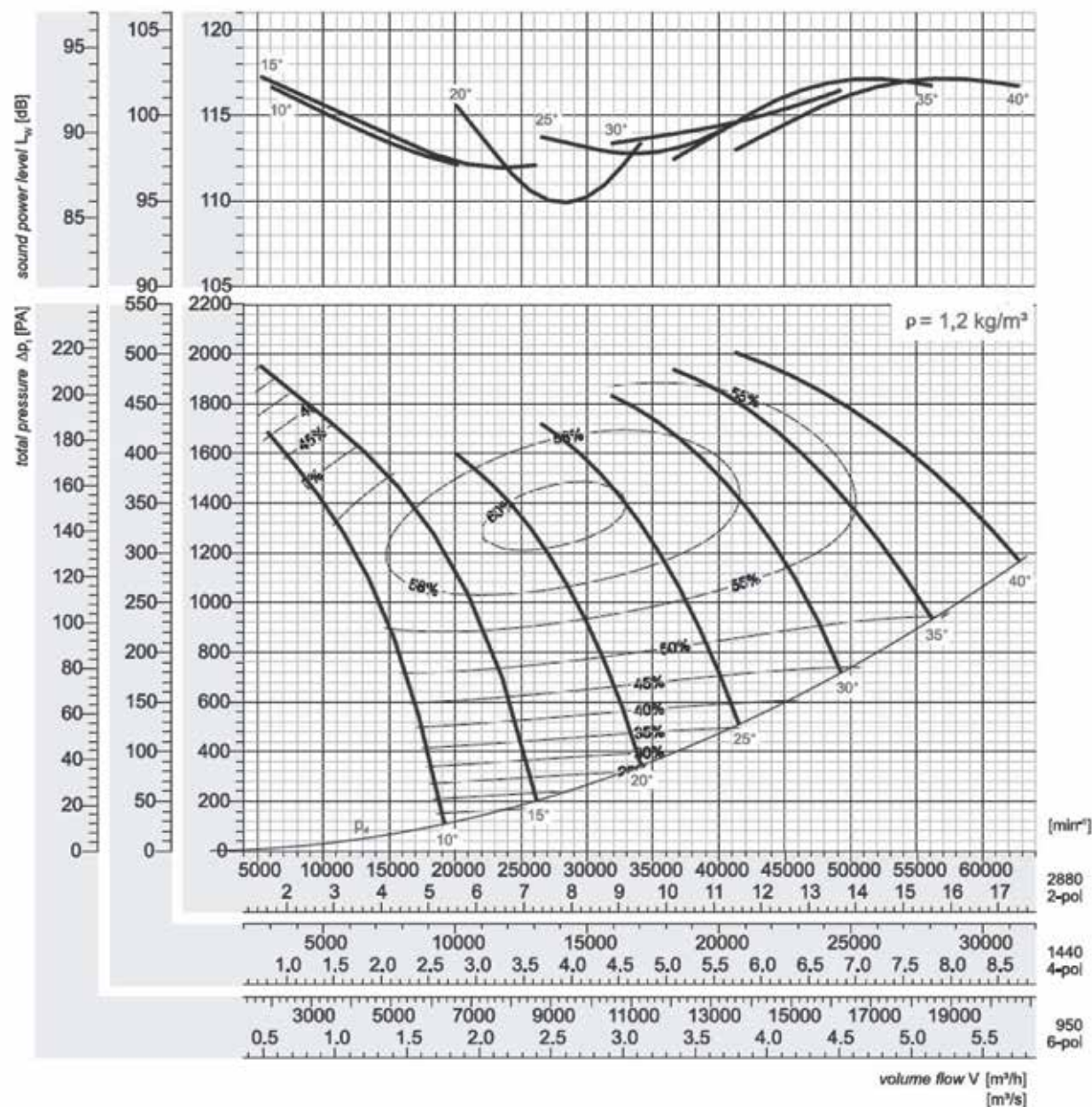
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |     |    |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------------------------|-----|-----|-----|-----|----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |     |     |     |     |    |     |     |     |
|                           | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32                                               | 63  | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  |
| 960<br>motor              | 0,34            | 0,38 | 0,45 | 0,48 | 0,53 | 0,62 | 0,71 | 0,78 | 0,84 | 0,96 | 1,13 | 1,19 | 1,28                                             | -10 | -7  | -5  | -7  | -8 | -12 | -18 | -24 |
|                           | 0,37            | 0,55 |      |      |      | 0,75 |      | 1,1  |      |      | 1,5  |      |                                                  |     |     |     |     |    |     |     |     |
| 1440<br>motor             | 1,19            | 1,34 | 1,55 | 1,68 | 1,86 | 2,17 | 2,48 | 2,70 | 2,93 | 3,35 | 3,95 | 4,16 | 4,46                                             | -5  | -6  | -5  | -6  | -7 | -10 | -5  | -21 |
|                           | 1,5             |      | 2,2  |      |      |      | 3,0  |      |      | 4,0  |      | 5,5  |                                                  |     |     |     |     |    |     |     |     |

# AR 710-10



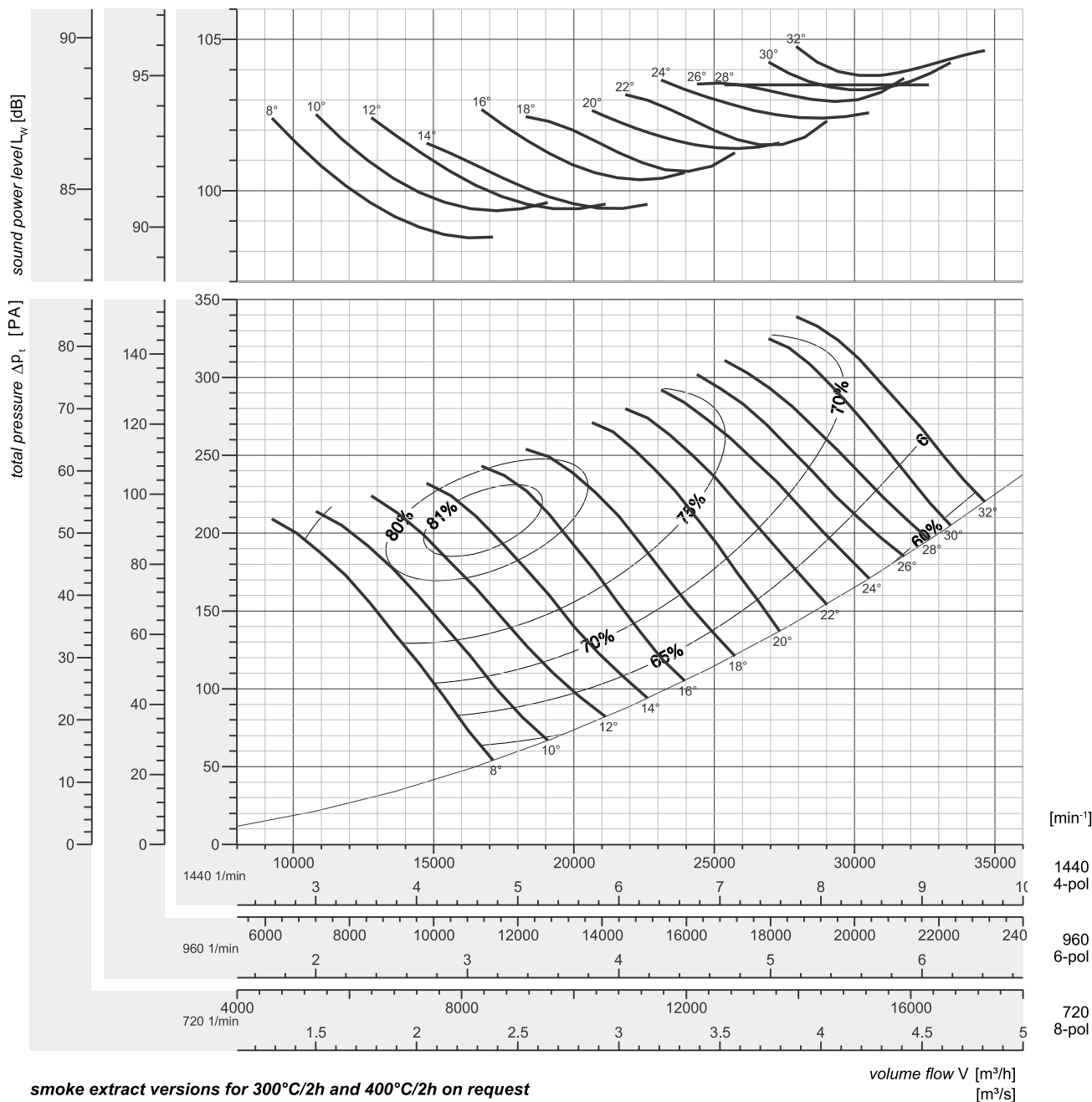
| Peak absorbed power [kW] |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |       |                       |     |     |     |     |     |     |     |    |     |
|--------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|-------|-----------------------|-----|-----|-----|-----|-----|-----|-----|----|-----|
| n                        | pitch angle [°] |      |      |      |      |      |      |                                                  | Total | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |    | dBA |
| [min <sup>-1</sup> ]     | 10              | 15   | 20   | 25   | 30   | 35   | 40   |                                                  |       | 63                    | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |    |     |
| 950<br>motor             | 0,21            | 0,30 | 0,45 | 0,62 | 0,82 | 1,05 | 1,29 | $L_{ws}$ saugseitig inlet                        | -2    | -9                    | -9  | -8  | -6  | -12 | -17 | -21 | -33 | -6 |     |
|                          | 0,37            |      | 0,55 | 0,75 | 1,1  |      | 1,5  | $L_{wh}$ druckseitig outlet                      | 0     | -7                    | -10 | -9  | -6  | -9  | -13 | -17 | -27 | -4 |     |
| 1440<br>motor            | 0,72            | 1,03 | 1,55 | 2,16 | 2,85 | 3,66 | 4,48 | $L_{ws}$ saugseitig inlet                        | -1    | -10                   | -15 | -7  | -7  | -9  | -14 | -17 | -24 | -5 |     |
|                          | 0,75            | 1,1  | 2,2  |      | 3,0  | 4,0  | -    | $L_{wh}$ druckseitig outlet                      | 0     | -9                    | -14 | -10 | -8  | -9  | -11 | -14 | -21 | -5 |     |
|                          |                 |      |      |      |      |      |      |                                                  |       |                       |     |     |     |     |     |     |     |    |     |

## AR 710-14



| Peak absorbed power [kW] |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |     |
|--------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| n                        | pitch angle [°] |      |      |      |      |      |      |                                                  | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |     |
| [min <sup>-1</sup> ]     | 10              | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total                 | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950<br>motor             | 0,26            | 0,41 | 0,60 | 0,79 | 1,06 | 1,36 | 1,65 | $L_{ws}$ saugseitig inlet                        | -2                    | -9  | -13 | -8  | -6  | -11 | -15 | -19 | -34 | -5  |
|                          | 0,37            | 0,55 | 0,75 | 1,1  |      | 1,5  | 2,2  | $L_{ws}$ druckseitig outlet                      | 0                     | -7  | -13 | -9  | -6  | -10 | -13 | -18 | -25 | -5  |
| 1440<br>motor            | 0,90            | 1,41 | 2,08 | 2,76 | 3,70 | 4,75 | 5,75 | $L_{ws}$ saugseitig inlet                        | -1                    | -10 | -16 | -8  | -6  | -8  | -12 | -16 | -26 | -4  |
|                          | 1,1             | 1,5  | 2,2  | 3,0  | 4,0  | 5,5  | 7,5  | $L_{ws}$ druckseitig outlet                      | 0                     | -8  | -12 | -9  | -8  | -9  | -11 | -14 | -21 | -5  |
| 2880<br>motor            | 7,23            | 11,3 | 16,7 | 22,1 | 29,6 | 38,0 | 46,0 | $L_{ws}$ saugseitig inlet                        | 0                     | -13 | -16 | -13 | -6  | -6  | -9  | -13 | -19 | -2  |
|                          | 7,5             | 15,0 | 18,5 | -    | -    | -    | -    | $L_{ws}$ druckseitig outlet                      | 0                     | -8  | -11 | -11 | -7  | -6  | -7  | -10 | -16 | -1  |

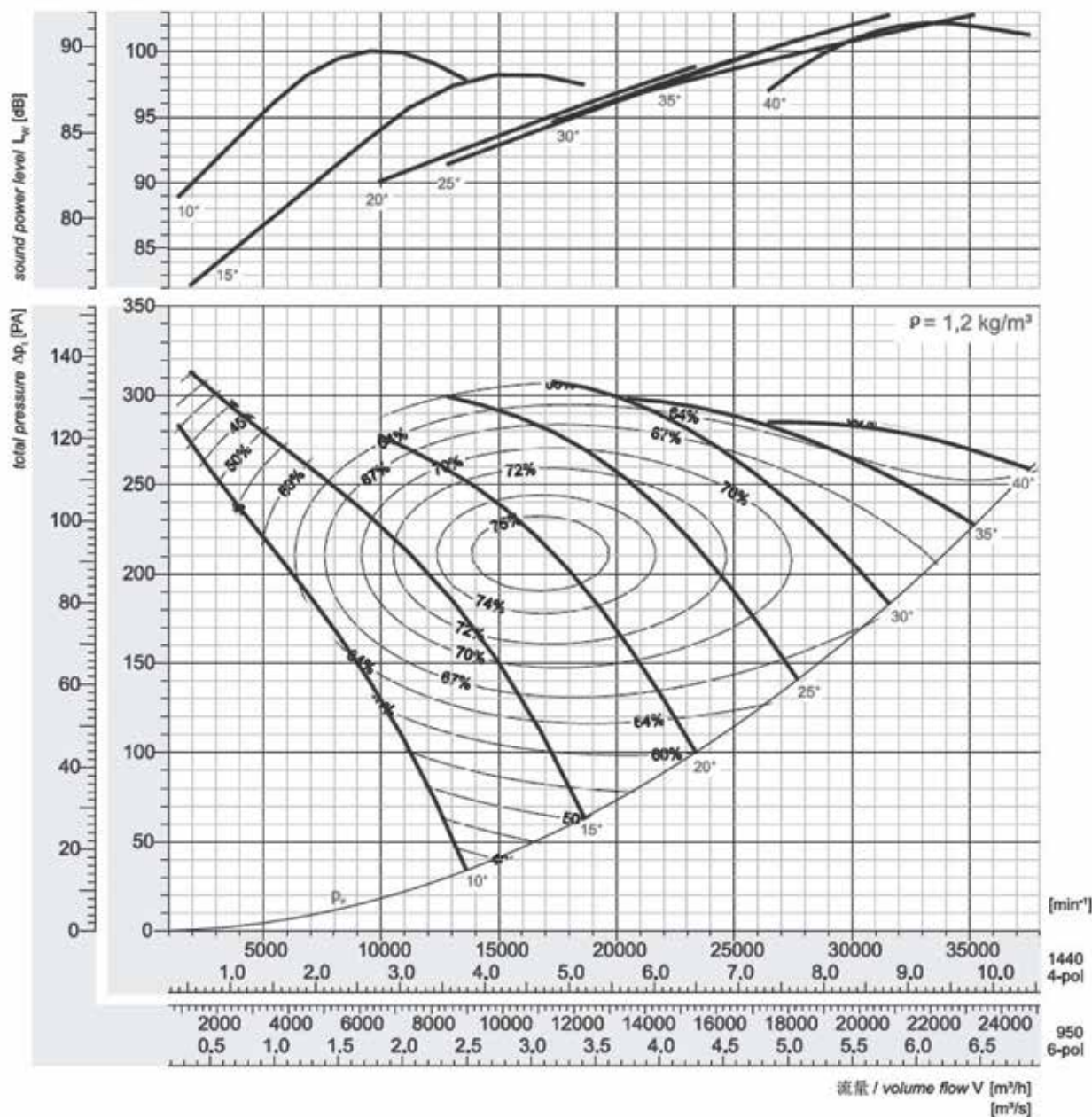
# AR 800-3



smoke extract versions for 300°C/2h and 400°C/2h on request

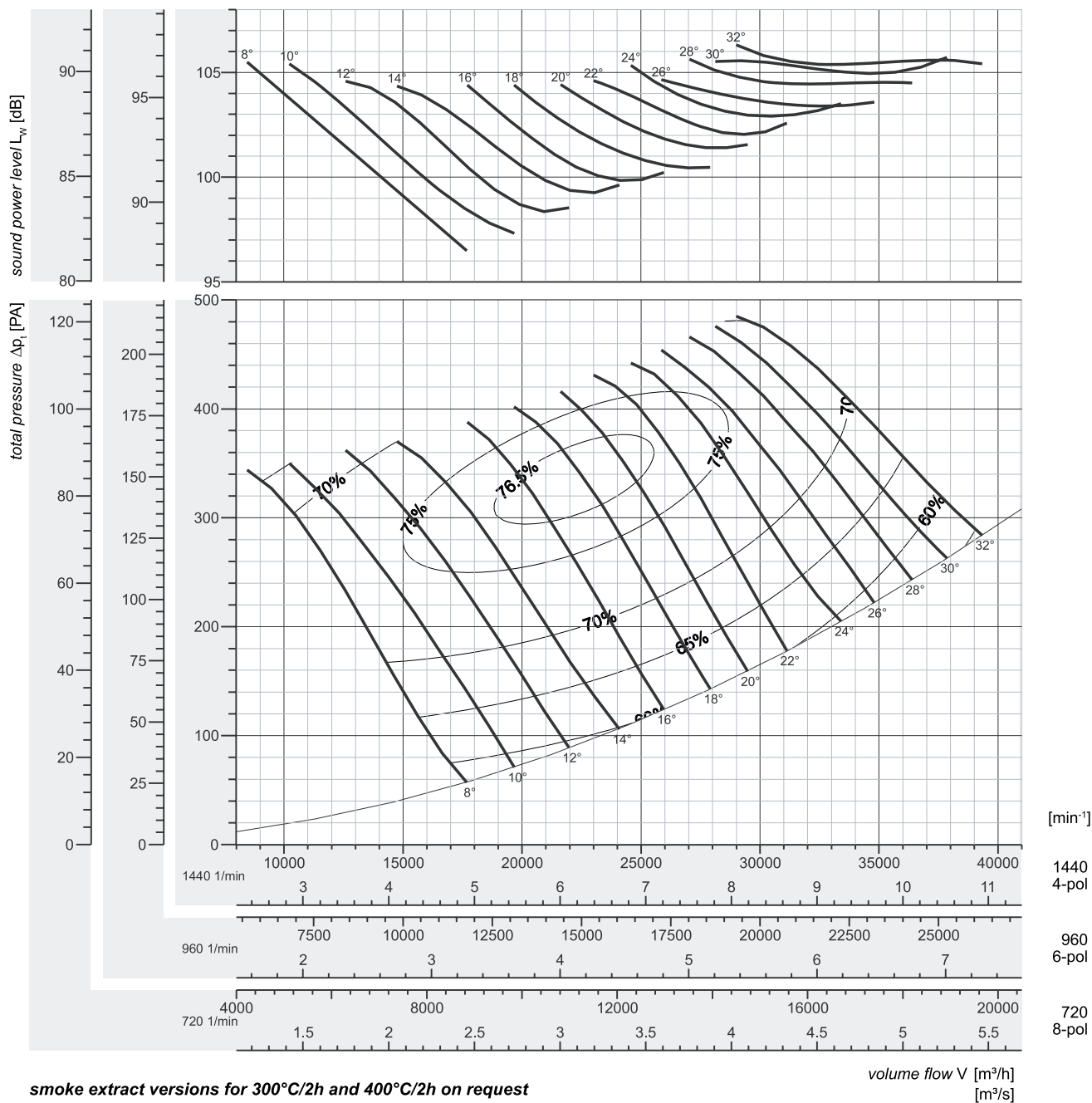
| n<br>[min⁻¹]  | Peak absorbed power [kW] |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |     |     |     |     |
|---------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
|               | pitch angle [°]          |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |     |     |     |     |     |     |     |
|               | 8                        | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                               | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |
| 960<br>motor  | 0,22                     | 0,25 | 0,30 | 0,36 | 0,42 | 0,47 | 0,58 | 0,64 | 0,72 | 0,80 | 0,88 | 0,99 | 1,11 | -5                                               | -7  | -7  | -8  | -12 | -18 | -24 | -30 |
|               | 0,55                     |      |      |      |      |      | 0,75 |      |      | 1,1  |      |      |      |                                                  |     |     |     |     |     |     |     |
| 1440<br>motor | 0,77                     | 0,88 | 1,04 | 1,24 | 1,45 | 1,65 | 2,02 | 2,24 | 2,51 | 2,79 | 3,05 | 3,43 | 3,86 | -4                                               | -7  | -7  | -7  | -10 | -15 | -21 | -27 |
|               | 1,1                      |      |      | 1,5  |      | 2,2  |      | 3,0  |      |      | 4,0  |      |      |                                                  |     |     |     |     |     |     |     |

## AR 800-5



| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |       |     |     |     |     |     |     |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|--------------------------------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                           | pitch angle [°]          |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |       |     |     |     |     |     |     |     |     |     |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950<br>motor              | 0,18                     | 0,27 | 0,41 | 0,56 | 0,73 | 0,97 | 1,25 | $L_{ws}$ saugseitig inlet                        | -2    | -5  | -10 | -10 | -6  | -11 | -15 | -20 | -32 | -6  |
|                           | 0,37                     |      | 0,55 | 0,75 |      | 1,1  | 1,5  | $L_{ws}$ druckseitig outlet                      | 0     | -4  | -11 | -11 | -5  | -9  | -15 | -19 | -27 | -5  |
| 1440<br>motor             | 0,62                     | 0,93 | 1,41 | 1,97 | 2,55 | 3,37 | 4,37 | $L_{ws}$ saugseitig inlet                        | 1     | -8  | -5  | -8  | -10 | -12 | -15 | -17 | -25 | -7  |
|                           | 0,75                     | 1,1  | 1,5  | 2,2  | 3,0  | 4,0  | -    | $L_{ws}$ druckseitig outlet                      | 0     | -11 | -5  | -11 | -11 | -12 | -13 | -15 | -21 | -7  |
|                           |                          |      |      |      |      |      |      |                                                  |       |     |     |     |     |     |     |     |     |     |

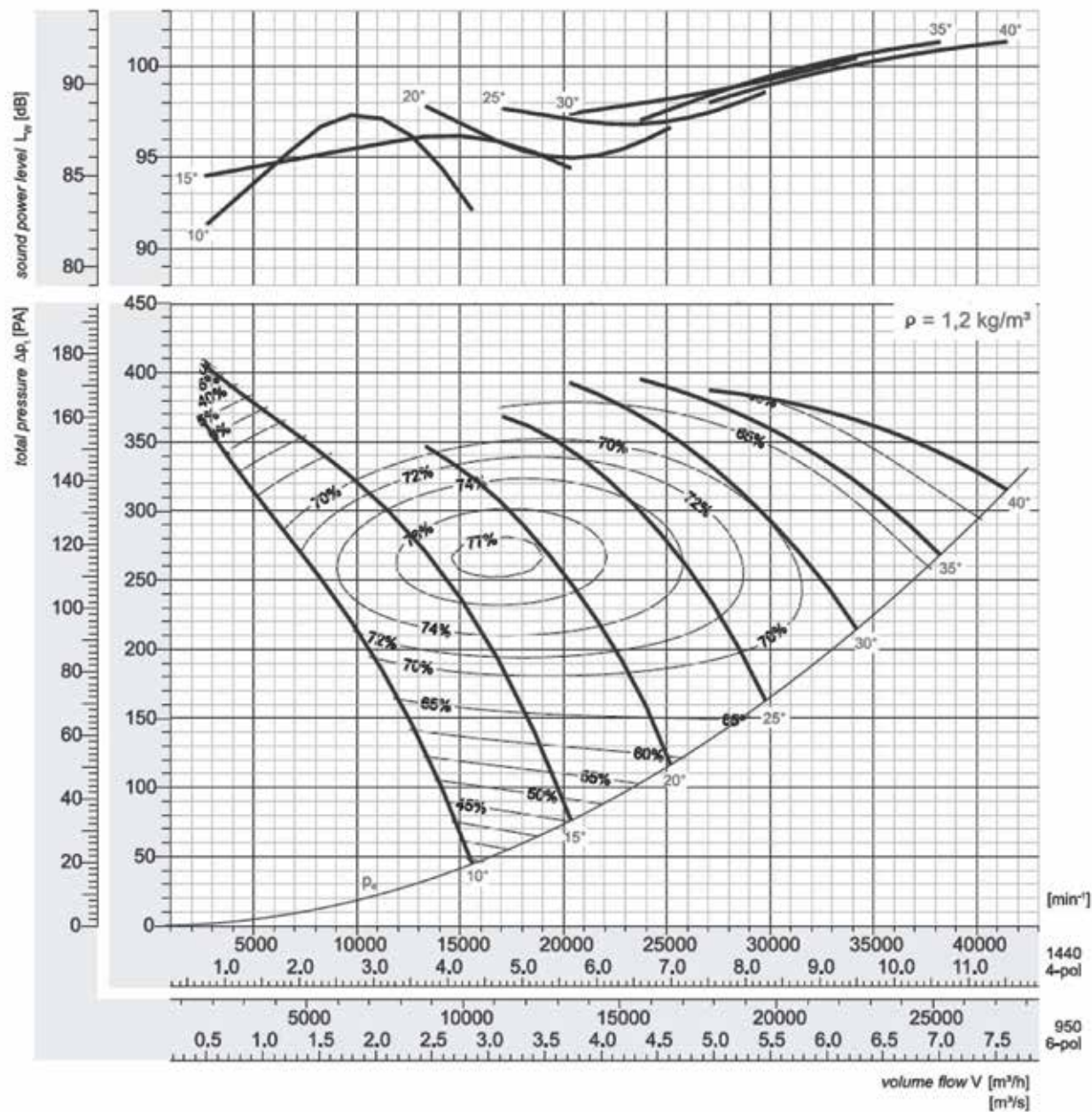
# AR 800-6



smoke extract versions for 300°C/2h and 400°C/2h on request

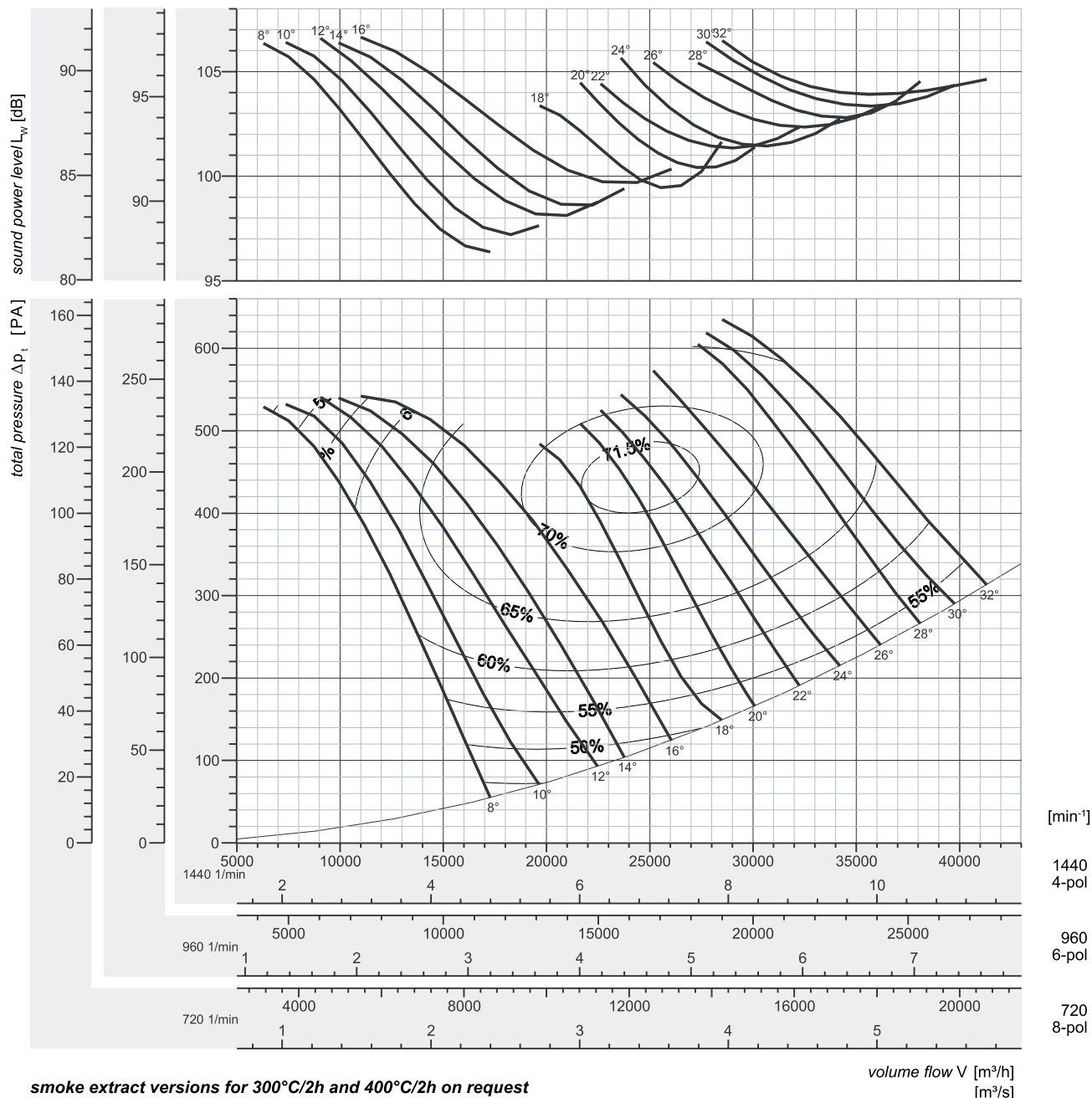
| n<br>[min⁻¹]  | Peak absorbed power [kW] |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |     |     |     |     |
|---------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
|               | pitch angle [°]          |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |     |     |     |     |     |     |     |
|               | 8                        | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                               | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |
| 960<br>motor  | 0,37                     | 0,44 | 0,54 | 0,63 | 0,78 | 0,90 | 1,01 | 1,09 | 1,20 | 1,30 | 1,41 | 1,52 | 1,61 | -6                                               | -5  | -6  | -7  | -10 | -15 | -21 | -27 |
|               | 0,55                     |      |      | 0,75 | 1,1  |      |      |      | 1,5  |      |      | 2,2  |      |                                                  |     |     |     |     |     |     |     |
| 1440<br>motor | 1,29                     | 1,53 | 1,88 | 2,20 | 2,73 | 3,13 | 3,52 | 3,81 | 4,19 | 4,52 | 4,91 | 5,31 | 5,62 | -7                                               | -3  | -7  | -7  | -8  | -12 | -18 | -24 |
|               | 1,5                      | 2,2  |      |      | 3,0  | 4,0  |      |      | 5,5  |      |      |      | 7,5  |                                                  |     |     |     |     |     |     |     |

## AR 800-7



| n<br>[min⁻¹] | Peak absorbed power [kW] |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |     |
|--------------|--------------------------|------|------|------|------|------|------|--------------------------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|              | pitch angle [°]          |      |      |      |      |      |      |                                                  | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |     |
|              | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | 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 | $L_{ws}$ saugseitig inlet                        | -2                    | -5  | -6  | -8  | -8  | -12 | -15 | -19 | -32 | -7  |
|              | 0,55                     |      | 0,75 | 1,1  |      | 1,5  | 2,2  | $L_{ws}$ 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 | $L_{ws}$ saugseitig inlet                        | -2                    | -8  | -9  | -8  | -7  | -10 | -13 | -17 | -26 | -5  |
|              | 1,1                      | 1,5  | 2,2  | 3,0  | 4,0  | 5,5  | 7,5  | $L_{ws}$ druckseitig outlet                      | 0                     | -10 | -8  | -10 | -9  | -10 | -12 | -15 | -21 | -6  |
|              |                          |      |      |      |      |      |      |                                                  |                       |     |     |     |     |     |     |     |     |     |

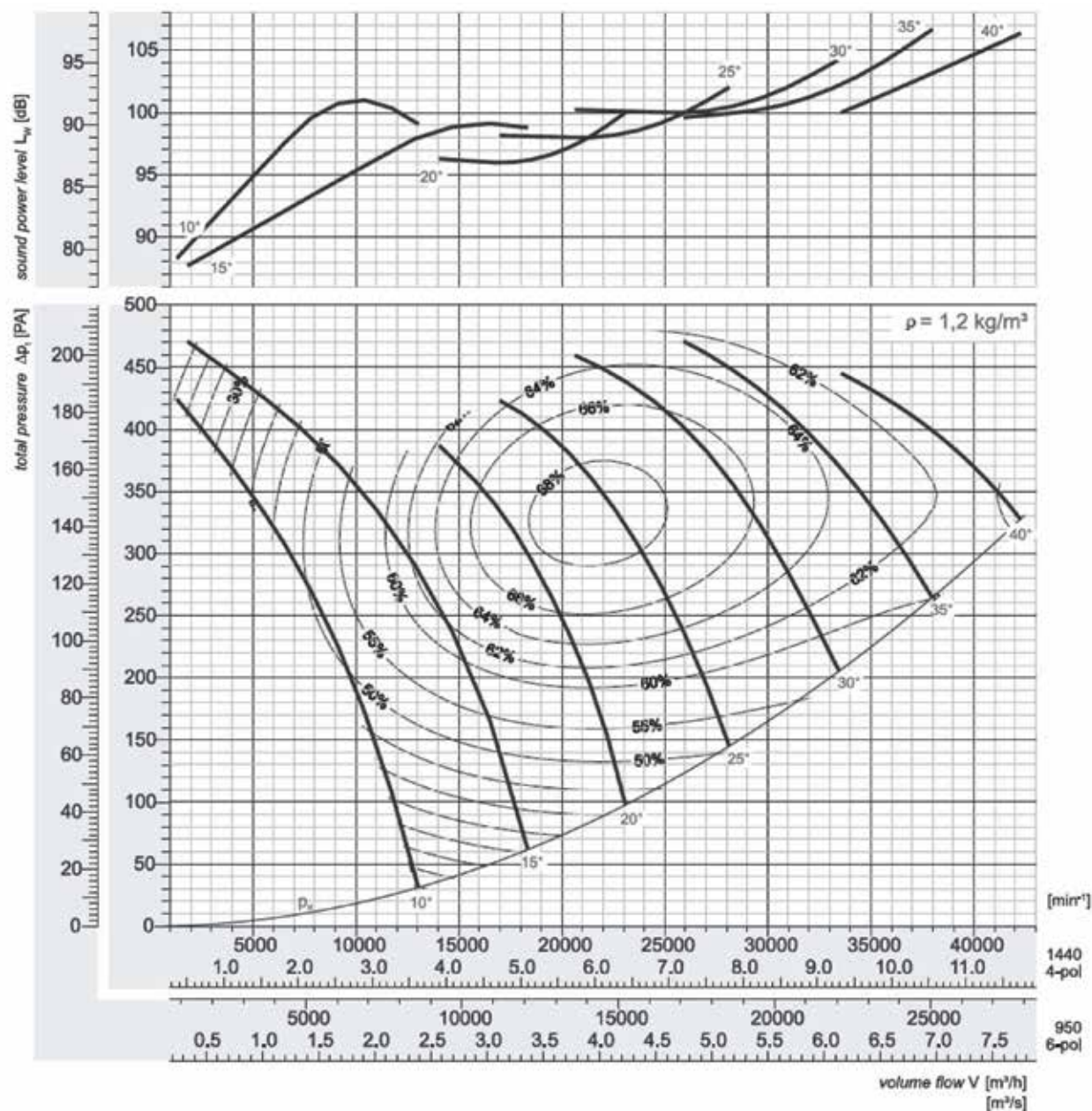
# AR 800-9



smoke extract versions for 300°C/2h and 400°C/2h on request

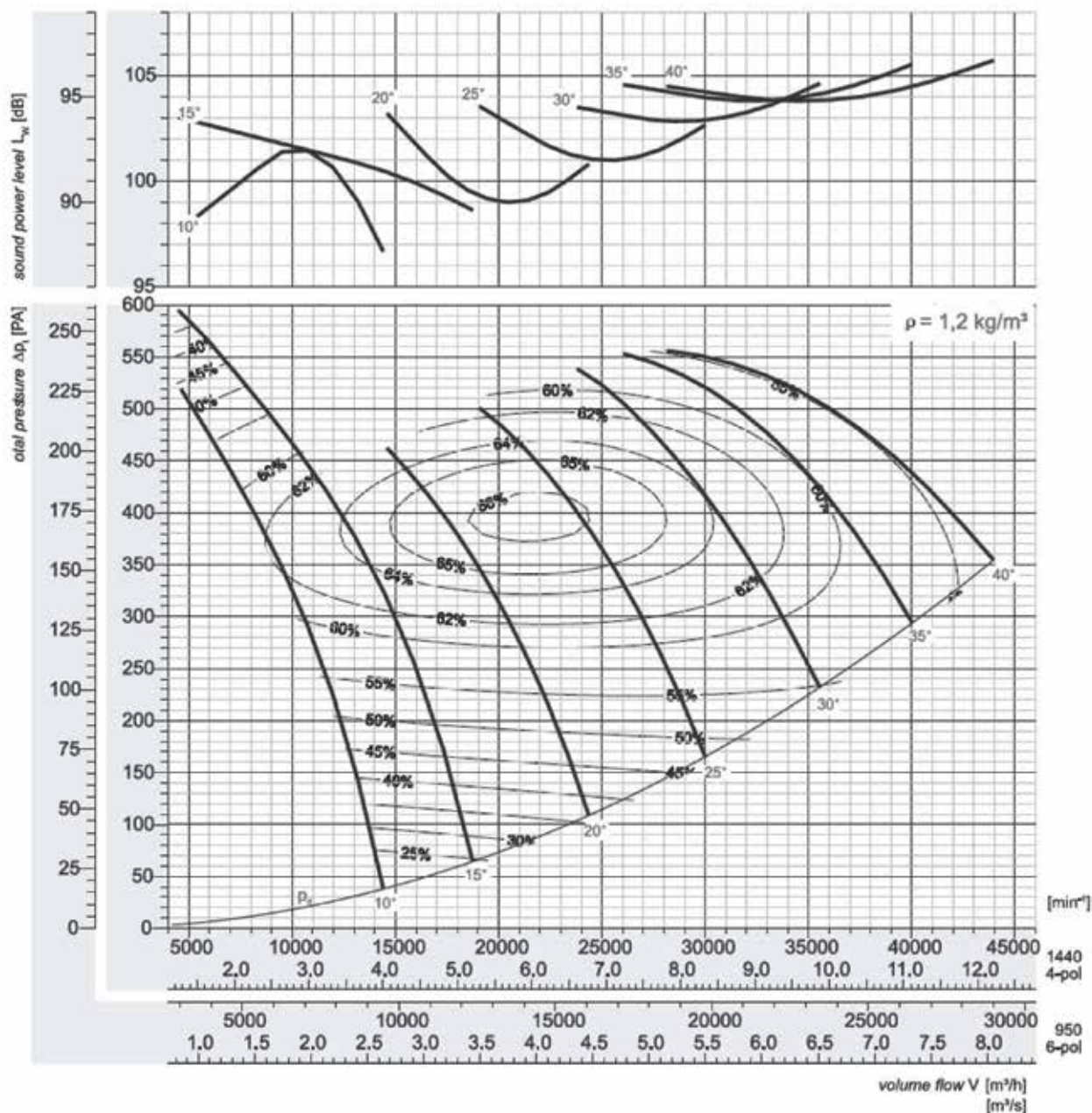
| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |    |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------------------------|-----|-----|-----|----|-----|-----|-----|
|                           | pitch angle [°]          |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                            |     |     |     |    |     |     |     |
|                           | 8                        | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                               | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  |
| 960<br>motor              | 0,62                     | 0,70 | 0,81 | 0,88 | 0,97 | 1,13 | 1,29 | 1,41 | 1,52 | 1,75 | 2,06 | 2,17 | 2,32 | -10                                              | -7  | -5  | -7  | -8 | -12 | -18 | -24 |
|                           | 0,75                     |      | 1,1  |      |      | 1,5  |      |      | 2,2  |      |      |      | 3,0  |                                                  |     |     |     |    |     |     |     |
| 1440<br>motor             | 2,16                     | 2,44 | 2,81 | 3,05 | 3,37 | 3,95 | 4,51 | 4,91 | 5,31 | 6,08 | 7,18 | 7,56 | 8,09 | -5                                               | -6  | -5  | -6  | -7 | -10 | -15 | -21 |
|                           | 2,2                      | 3,0  |      | 4,0  |      |      | 5,5  |      |      | 7,5  |      | 11,0 |      |                                                  |     |     |     |    |     |     |     |

## AR 800-10



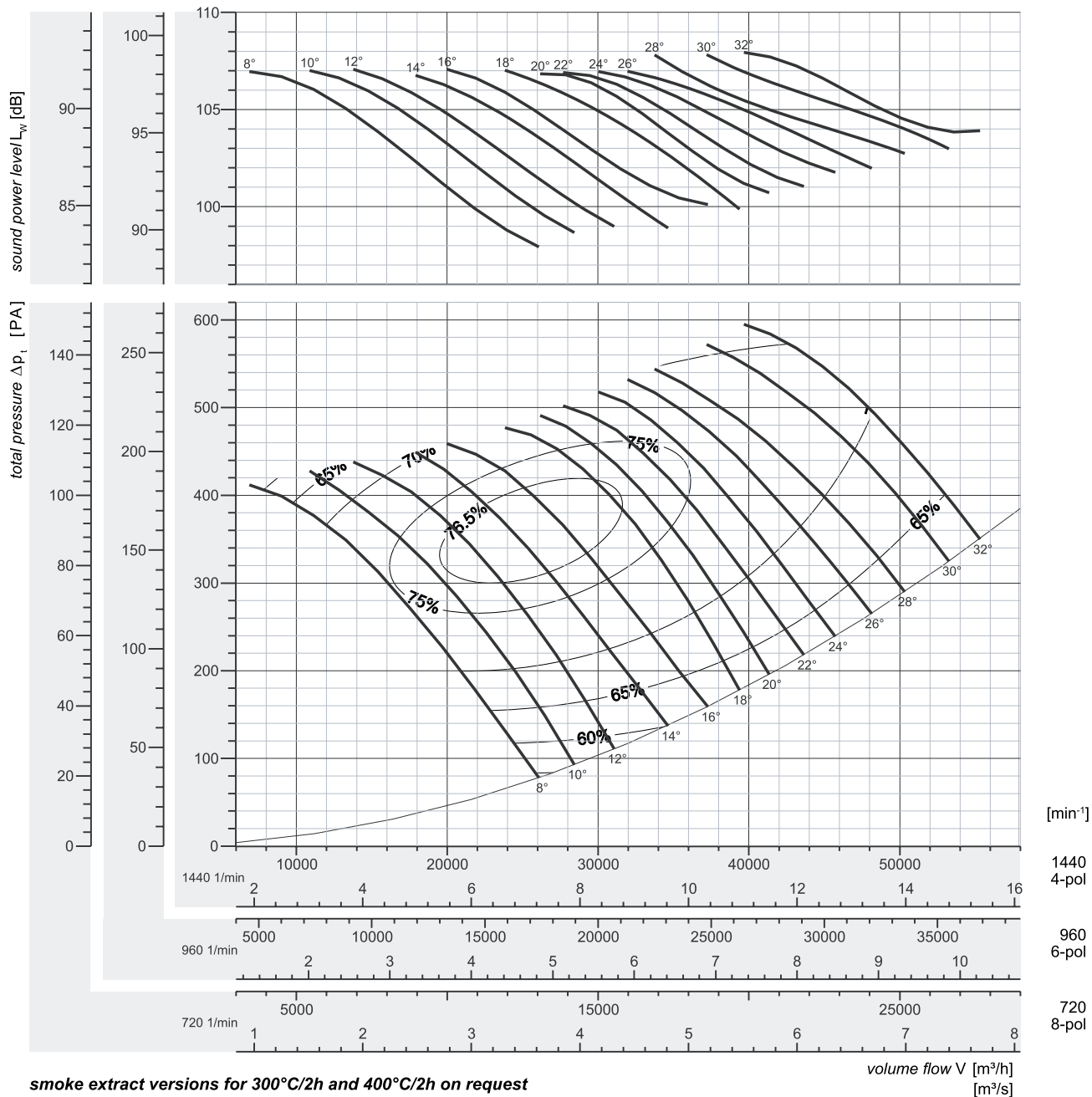
| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|--------------------------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                           | pitch angle [°]          |      |      |      |      |      |      |                                                  | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |     |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total                 | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950                       | 0,35                     | 0,50 | 0,70 | 0,93 | 1,25 | 1,58 | 1,98 | $L_{ws}$ saugseitig inlet                        | -1                    | -10 | -9  | -8  | -6  | -12 | -16 | -21 | -36 | -6  |
|                           | 0,4                      | 0,6  | 0,8  | 1,1  | 1,5  | 2,2  |      | $L_{ws}$ druckseitig outlet                      | 0                     | -7  | -10 | -9  | -6  | -9  | -13 | -17 | -26 | -4  |
| 1440                      | 1,24                     | 1,76 | 2,44 | 3,24 | 4,34 | 5,52 | 6,90 | $L_{ws}$ saugseitig inlet                        | -1                    | -11 | -14 | -6  | -7  | -10 | -14 | -17 | -25 | -5  |
|                           | 1,5                      | 2,2  | 3,0  | 4,0  | -    | -    | -    | $L_{ws}$ druckseitig outlet                      | 0                     | -10 | -12 | -9  | -9  | -10 | -12 | -15 | -22 | -7  |
|                           |                          |      |      |      |      |      |      |                                                  |                       |     |     |     |     |     |     |     |     |     |

## AR 800-14



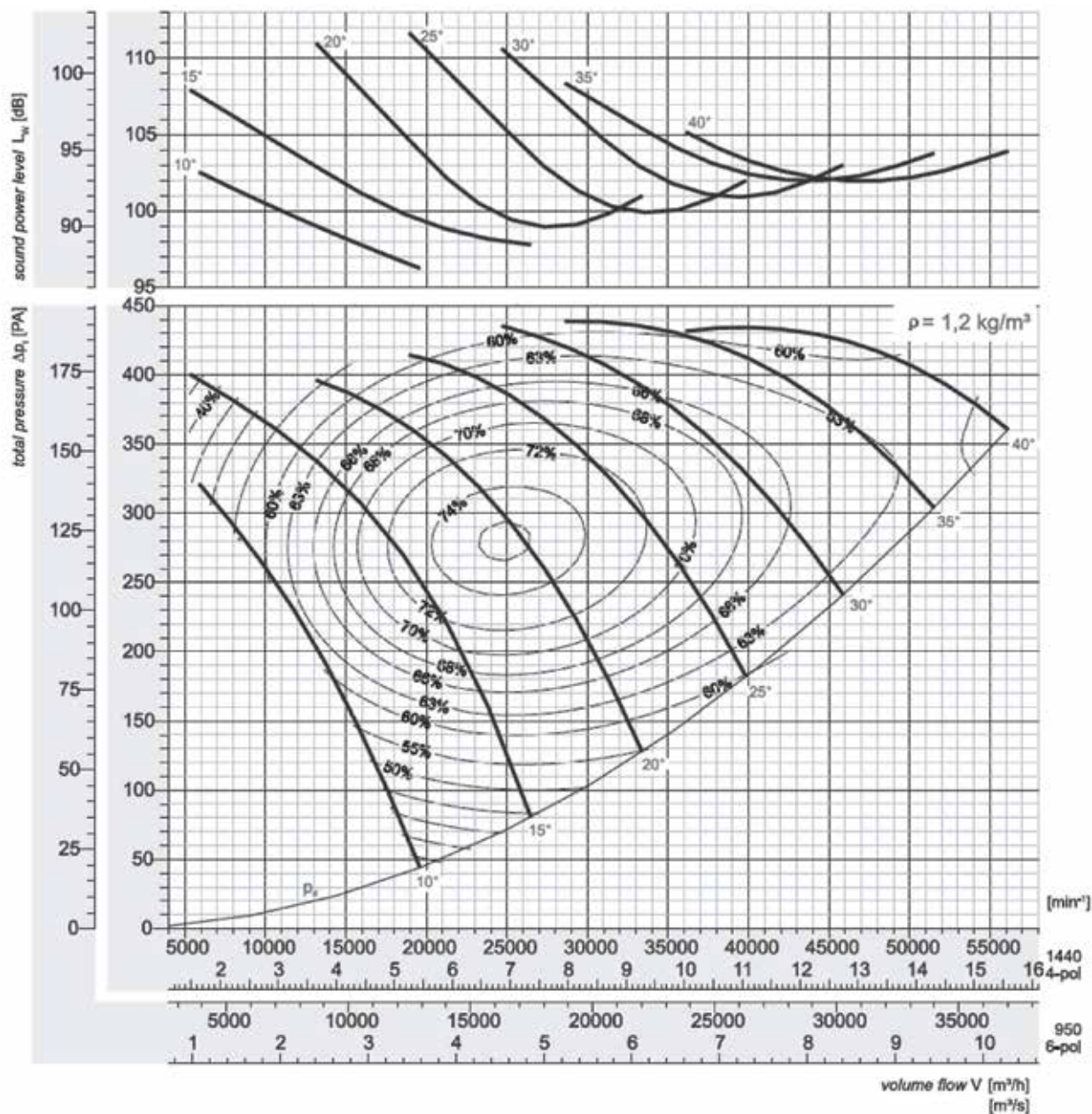
| n<br>[min⁻¹] | Peak absorbed power [kW] |      |      |      |      |      |      |                                    | relative frequency spectrum $\Delta L$ in dB/Okt |     |     |     |     |     |     |     |     |     |
|--------------|--------------------------|------|------|------|------|------|------|------------------------------------|--------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|              | pitch angle [°]          |      |      |      |      |      |      |                                    | Octave b. midfr. [Hz]                            |     |     |     |     |     |     |     |     |     |
|              | 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 | $L_{w, \text{saugseitig inlet}}$   | -2                                               | -8  | -14 | -7  | -6  | -8  | -13 | -18 | -31 | -4  |
|              | 0,55                     | 0,75 | 1,1  | 1,5  | 2,2  |      | 3,0  | $L_{w, \text{druckseitig outlet}}$ | 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 | $L_{w, \text{saugseitig inlet}}$   | -1                                               | -10 | -16 | -10 | -5  | -7  | -10 | -15 | -23 | -3  |
|              | 1,5                      | 3,0  |      | 5,5  | 7,5  |      | 11,0 | $L_{w, \text{druckseitig outlet}}$ | 0                                                | -11 | -14 | -10 | -8  | -8  | -9  | -13 | -20 | -4  |

## AR 900-5



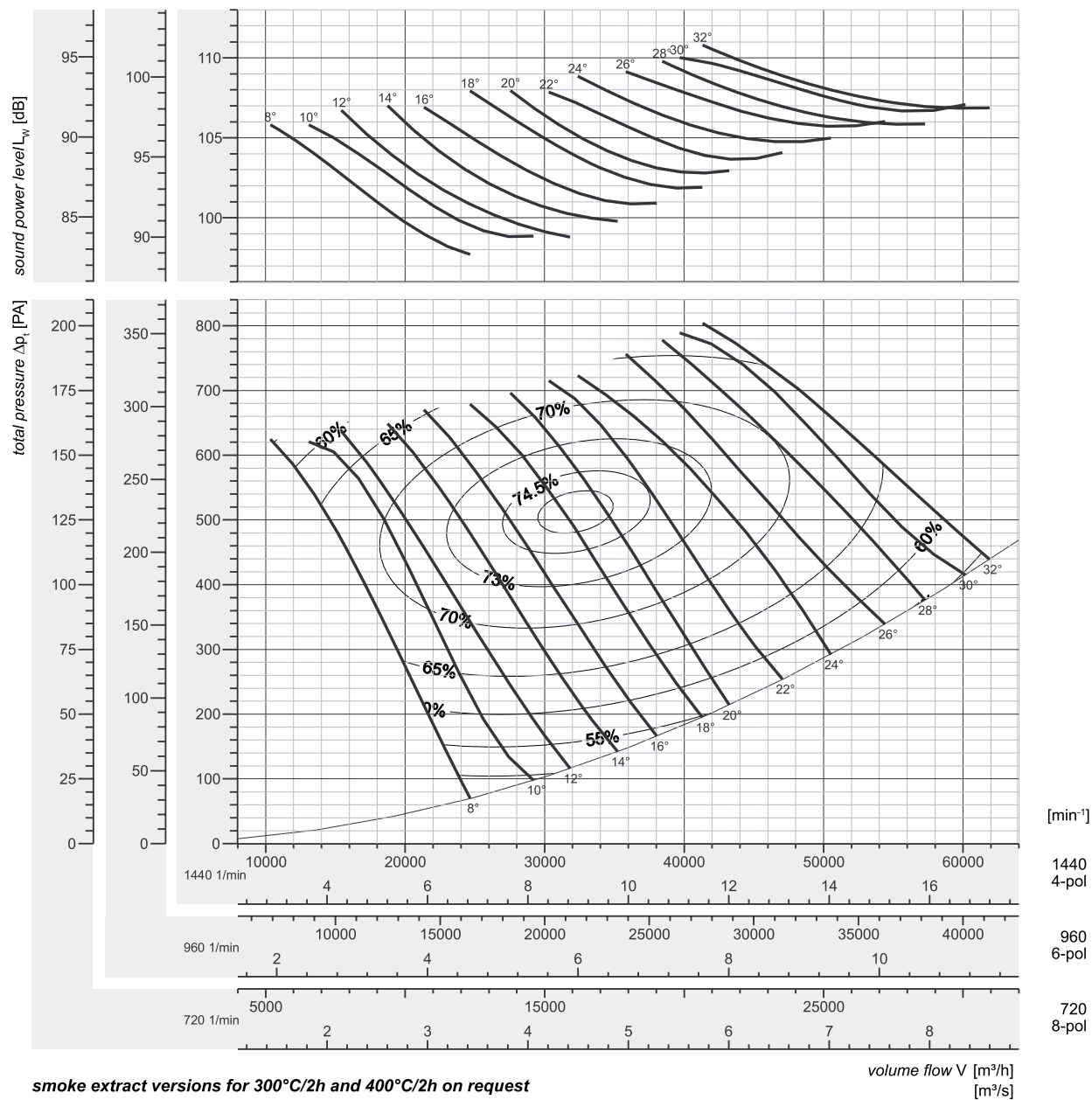
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum ΔL in dB/Okt |     |     |     |     |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                    |     |     |     |     |     |     |     |
|                           | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                       | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |
| 960<br>motor              | 0,52            | 0,63 | 0,79 | 0,95 | 1,08 | 1,30 | 1,44 | 1,59 | 1,76 | 1,93 | 2,09 | 2,49 | 2,81 | -6                                       | -5  | -6  | -7  | -10 | -15 | -21 | -27 |
|                           | 0,55            | 0,75 | 1,1  |      |      | 1,5  |      | 2,2  |      |      |      | 3,0  |      |                                          |     |     |     |     |     |     |     |
| 1440<br>motor             | 1,82            | 2,20 | 2,76 | 3,30 | 3,76 | 4,54 | 5,01 | 5,52 | 6,13 | 6,73 | 7,28 | 8,68 | 9,80 | -10                                      | -7  | -5  | -7  | -8  | -12 | -18 | -24 |
|                           | 2,2             |      | 3,0  | 4,0  |      | 5,5  |      | 7,5  |      |      |      | 11,0 |      |                                          |     |     |     |     |     |     |     |

## AR 900-7



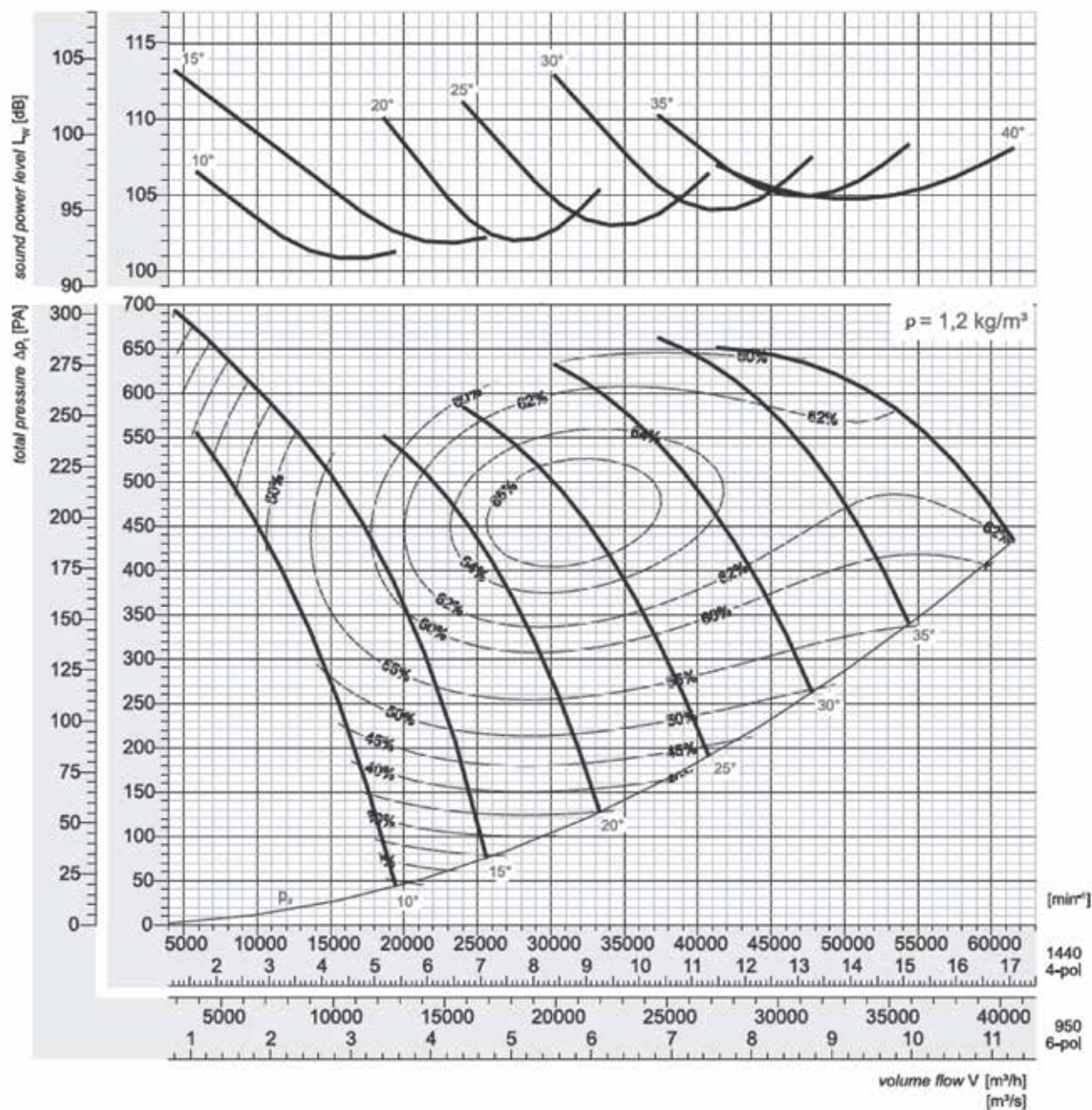
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |       |                       |     |     |     |     |     |     |     |     |  |
|---------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|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

## AR 900-10



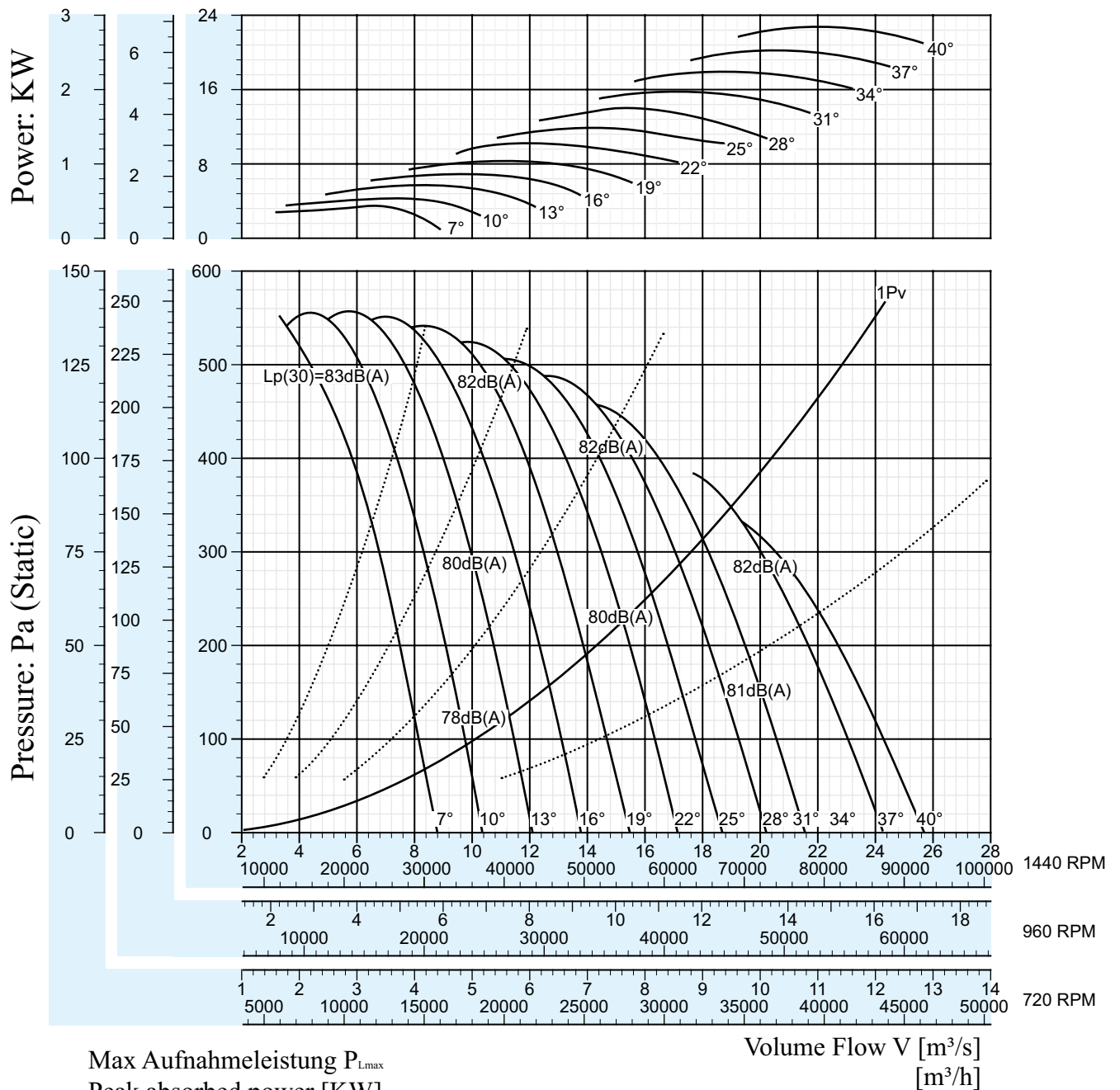
| Peak absorbed power [kW]  |                 |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum ΔL in dB/Okt |     |     |     |    |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------------------------|-----|-----|-----|----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                    |     |     |     |    |     |     |     |
|                           | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                       | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  |
| 960<br>motor              | 0,95            | 1,13 | 1,30 | 1,59 | 1,83 | 2,08 | 2,35 | 2,65 | 2,89 | 3,32 | 3,78 | 3,96 | 4,21 | -10                                      | -7  | -5  | -7  | -8 | -12 | -18 | -24 |
|                           | 1,1             | 1,5  |      | 2,2  |      |      | 3,0  |      |      | 4,0  |      |      | 5,5  |                                          |     |     |     |    |     |     |     |
| 1440<br>motor             | 3,30            | 3,94 | 4,54 | 5,54 | 6,39 | 7,26 | 8,19 | 9,24 | 10,1 | 11,6 | 13,2 | 13,8 | 14,7 | -10                                      | -12 | -6  | -5  | -7 | -10 | -15 | -21 |
|                           | 4,0             |      | 5,5  |      | 7,5  |      | 11,0 |      |      | 15,0 |      |      |      |                                          |     |     |     |    |     |     |     |

## AR 900-14



| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |     |     |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|--------------------------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                           | pitch angle [°]          |      |      |      |      |      |      |                                                  | Octave b. midfr. [Hz] |     |     |     |     |     |     |     |     |     |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total                 | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  | dBA |
| 950                       | 0,74                     | 1,08 | 1,43 | 1,93 | 2,59 | 3,30 | 4,01 | $L_{ws}$ saugseitig inlet                        | -2                    | -8  | -15 | -5  | -7  | -8  | -12 | -17 | -28 | -4  |
|                           | 0,75                     | 1,1  | 1,5  | 2,2  | 3,0  | 4,0  | 5,5  | $L_{ws}$ druckseitig outlet                      | 0                     | -6  | -13 | -7  | -9  | -10 | -14 | -19 | -27 | -6  |
| 1440                      | 2,58                     | 3,78 | 4,99 | 6,72 | 9,04 | 11,5 | 14,0 | $L_{ws}$ saugseitig inlet                        | -1                    | -13 | -19 | -11 | -5  | -7  | -10 | -15 | -23 | -3  |
|                           | 3,0                      | 4,0  | 5,5  | 7,5  | 11,0 | 15,0 |      | $L_{ws}$ druckseitig outlet                      | 0                     | -12 | -16 | -12 | -6  | -6  | -9  | -15 | -22 | -3  |
|                           |                          |      |      |      |      |      |      |                                                  |                       |     |     |     |     |     |     |     |     |     |

# AR 1000-4

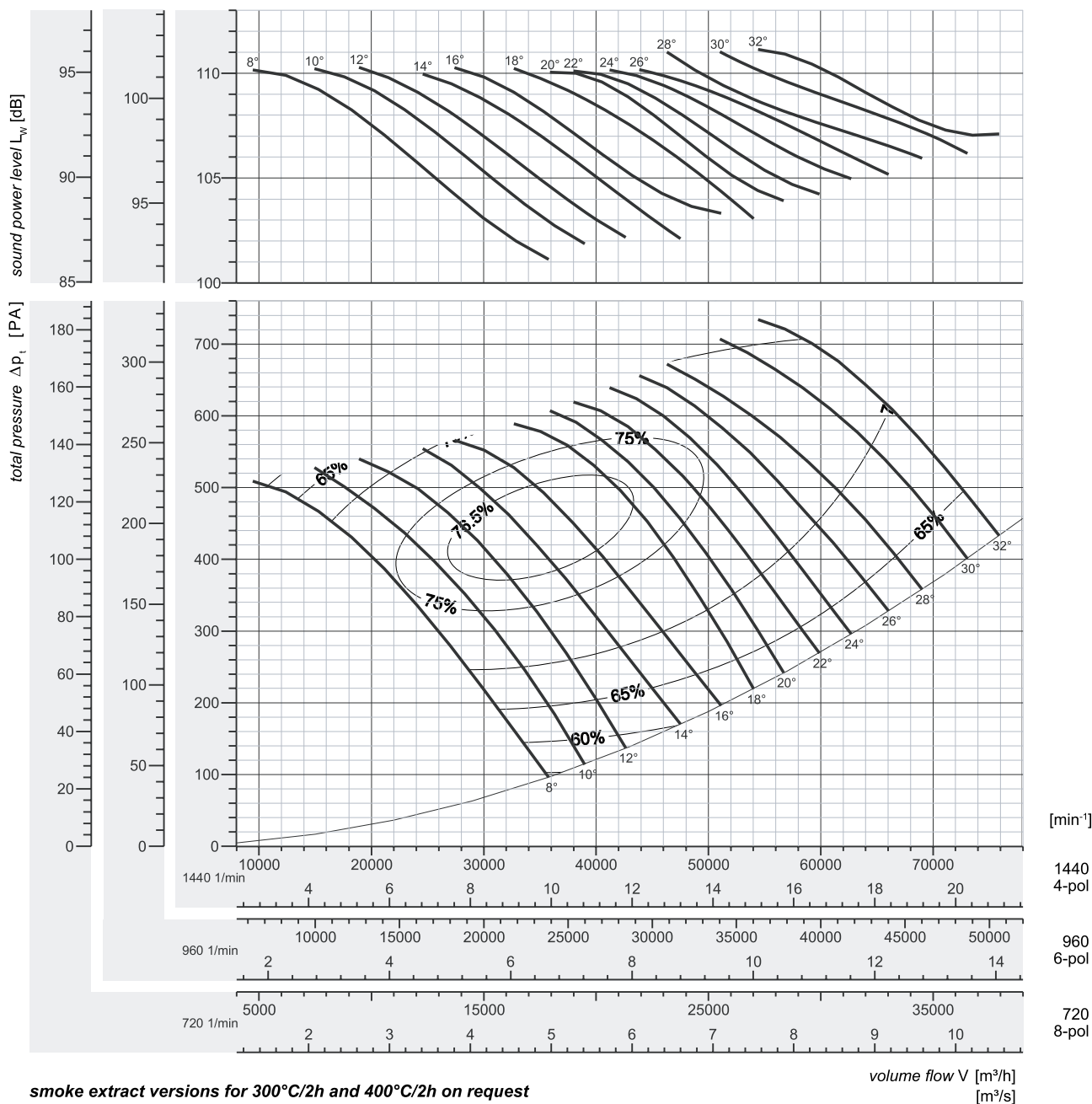


| n [min <sup>-1</sup> ] | Pitch Angle | 7°    | 10°   | 13°   | 16°   | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|------------------------|-------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 720                    | Peak KW     | 0.409 | 0.543 | 0.695 | 0.860 | 1.05 | 1.28 | 1.47 | 1.75 | 1.97 | 2.22 | 2.51 | 2.82 |
| 960                    |             | 0.970 | 1.29  | 1.65  | 2.04  | 2.50 | 3.03 | 3.48 | 4.14 | 4.68 | 5.27 | 5.95 | 6.69 |
| 1440                   |             | 3.27  | 4.35  | 5.56  | 6.88  | 8.42 | 10.2 | 11.7 | 14.0 | 15.8 | 17.8 | 20.1 | 22.6 |

## Sound Pressure Level $L_w$ [dB]

| n [min <sup>-1</sup> ] | Pitch Angle | 7° | 10° | 13° | 16° | 19° | 22° | 25° | 28° | 31° | 34° | 37° | 40° |
|------------------------|-------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 720                    | dB (A)      | 62 | 59  | 60  | 58  | 61  | 60  | 59  | 60  | 61  | 60  | 61  | 61  |
| 960                    |             | 68 | 65  | 66  | 64  | 67  | 66  | 65  | 66  | 67  | 66  | 67  | 67  |
| 1440                   |             | 77 | 74  | 75  | 73  | 76  | 75  | 74  | 75  | 76  | 75  | 76  | 76  |

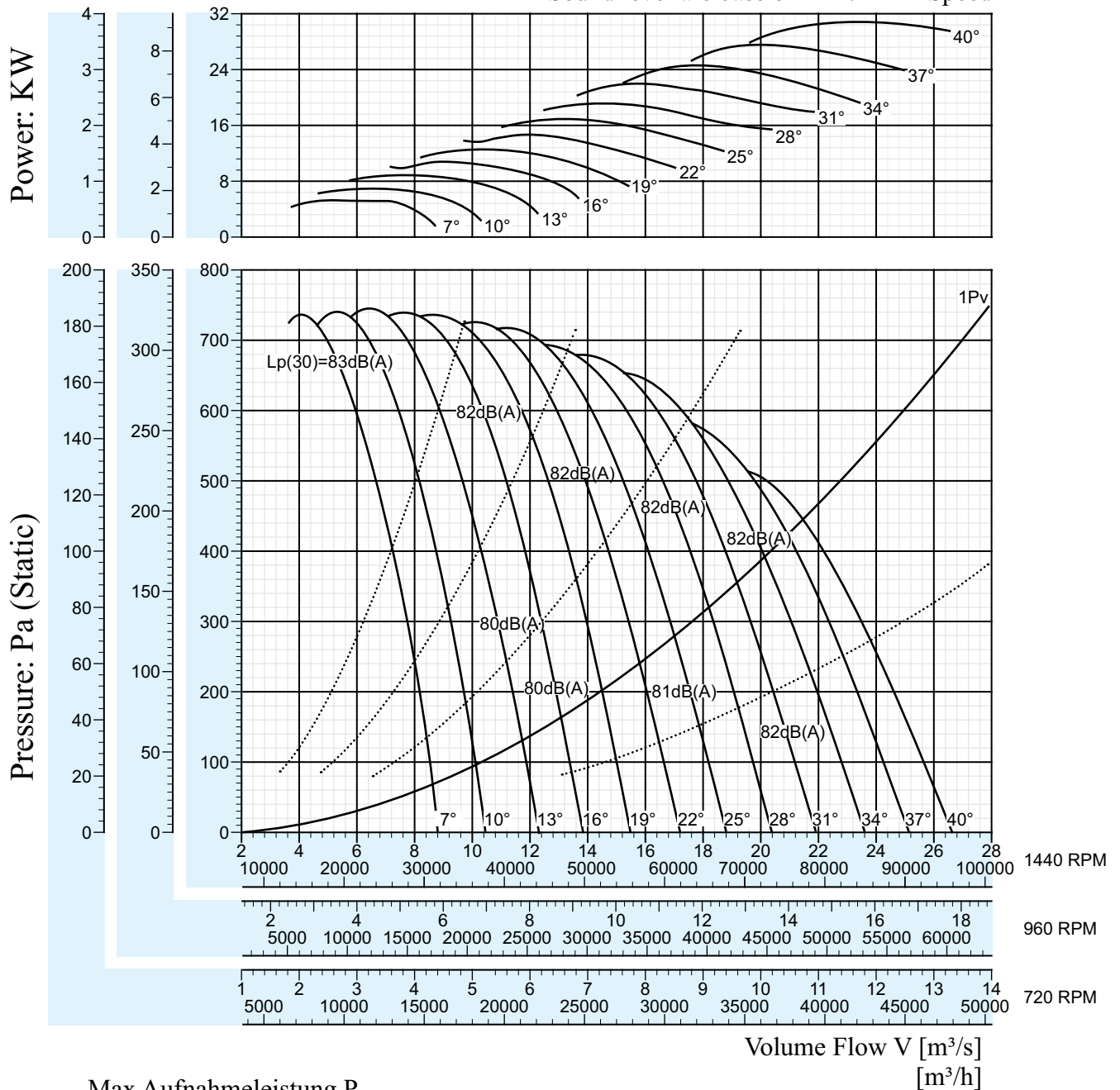
## AR 1000-5



| Peak absorbed power [kW]  |                 |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum ΔL in dB/Okt |     |     |     |     |     |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                    |     |     |     |     |     |     |     |     |
|                           | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32                                       | 63  | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |
| 960<br>motor              | 0,89            | 1,07 | 1,34 | 1,60 | 1,83 | 2,21 | 2,43 | 2,69 | 2,98 | 3,27 | 3,54 | 4,22 | 4,77                                     | -6  | -5  | -6  | -7  | -10 | -15 | -21 | -27 |
|                           | 1,1             |      | 1,5  | 2,2  |      | 3,0  |      |      |      | 4,0  |      | 5,5  |                                          |     |     |     |     |     |     |     |     |
| 1440<br>motor             | 3,09            | 3,73 | 4,68 | 5,59 | 6,37 | 7,69 | 8,48 | 9,35 | 10,4 | 11,4 | 12,3 | 14,7 | 16,6                                     | -10 | -7  | -5  | -7  | -8  | -12 | -18 | -24 |
|                           | 4,0             |      | 5,5  | 7,5  |      | 11,0 |      |      |      | 15,0 |      |      | 18,5                                     |     |     |     |     |     |     |     |     |

# AR 1000-7

Sound level are base on 1440 RPM Speed

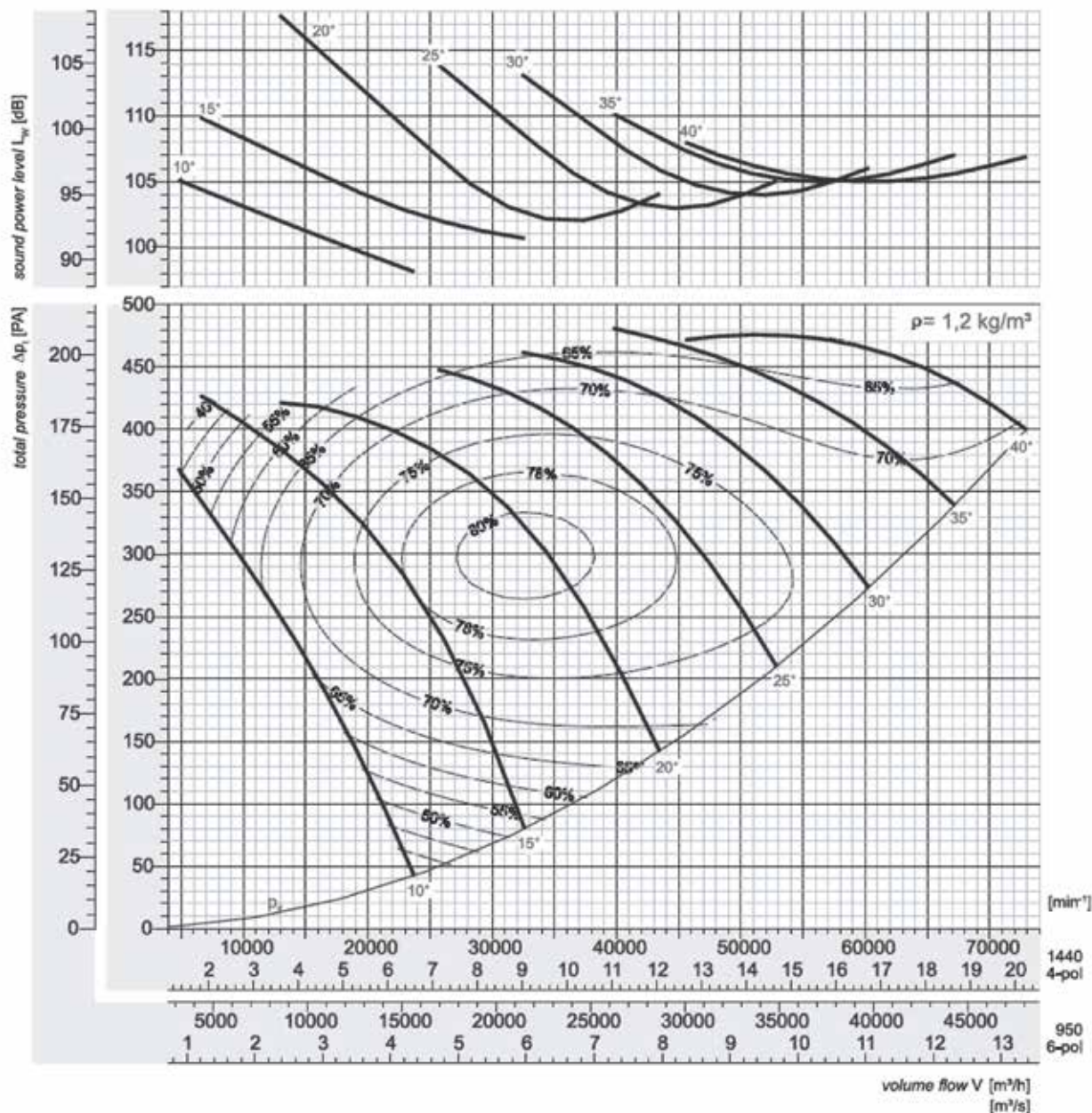


Max Aufnahmeleistung  $P_{L,max}$

Peak absorbed power [KW]

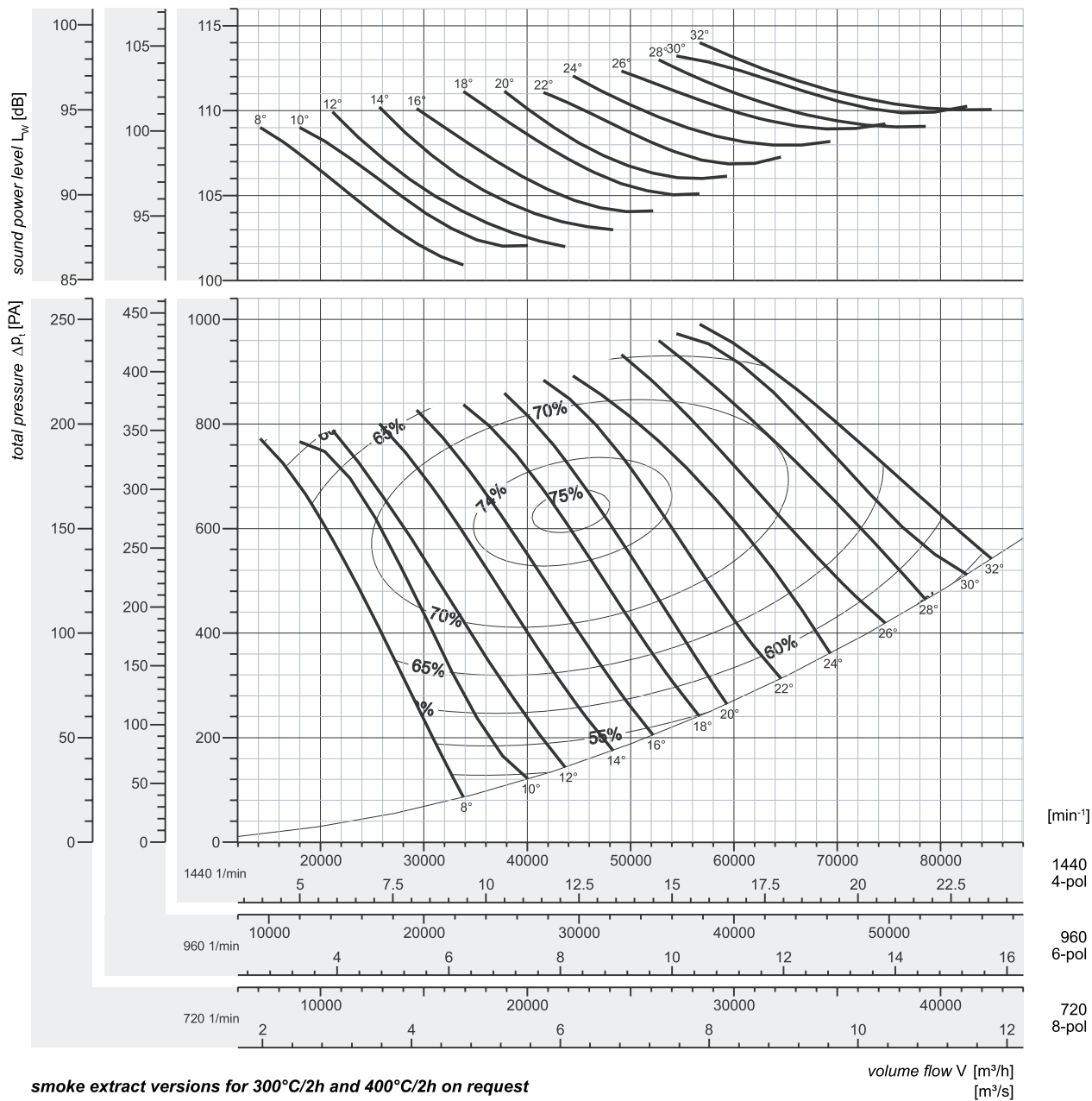
| Speed RPM | Pitch Angle | 7°    | 10°   | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 0.665 | 0.867 | 1.09 | 1.32 | 1.56 | 1.83 | 2.10 | 2.37 | 2.72 | 3.03 | 3.41 | 3.82 |
| 960       |             | 1.58  | 2.06  | 2.57 | 3.14 | 3.70 | 4.33 | 4.97 | 5.61 | 6.46 | 7.19 | 8.08 | 9.04 |
| 1440      |             | 5.32  | 6.94  | 8.68 | 10.6 | 12.5 | 14.6 | 16.8 | 18.9 | 21.8 | 24.3 | 27.3 | 30.5 |

## AR 1000°-7



| n<br>[min <sup>-1</sup> ] | Peak absorbed power [kW] |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |    |     |     |     |     |     |     |     |     |
|---------------------------|--------------------------|------|------|------|------|------|------|--------------------------------------------------|-----------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|
|                           | pitch angle $^\circ$     |      |      |      |      |      |      |                                                  | Octave b. midfr. [Hz] |    |     |     |     |     |     |     |     |     |
|                           | 10                       | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | 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 | $L_{ws}$ saugseitig inlet                        | -1                    | -6 | -8  | -7  | -8  | -11 | -15 | -19 | -29 | -6  |
|                           | 0,55                     | 0,75 | 1,1  | 2,2  |      | 3,0  | 4,0  | $L_{ws}$ 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 | $L_{ws}$ saugseitig inlet                        | -1                    | -9 | -11 | -9  | -7  | -9  | -12 | -16 | -24 | -5  |
|                           | 1,5                      | 3,0  | 4,0  | 5,5  | 7,5  | 11,0 | 15,0 | $L_{ws}$ druckseitig outlet                      | 0                     | -9 | -10 | -9  | -9  | -9  | -13 | -16 | -22 | -6  |
|                           |                          |      |      |      |      |      |      |                                                  |                       |    |     |     |     |     |     |     |     |     |

## AR 1000-10

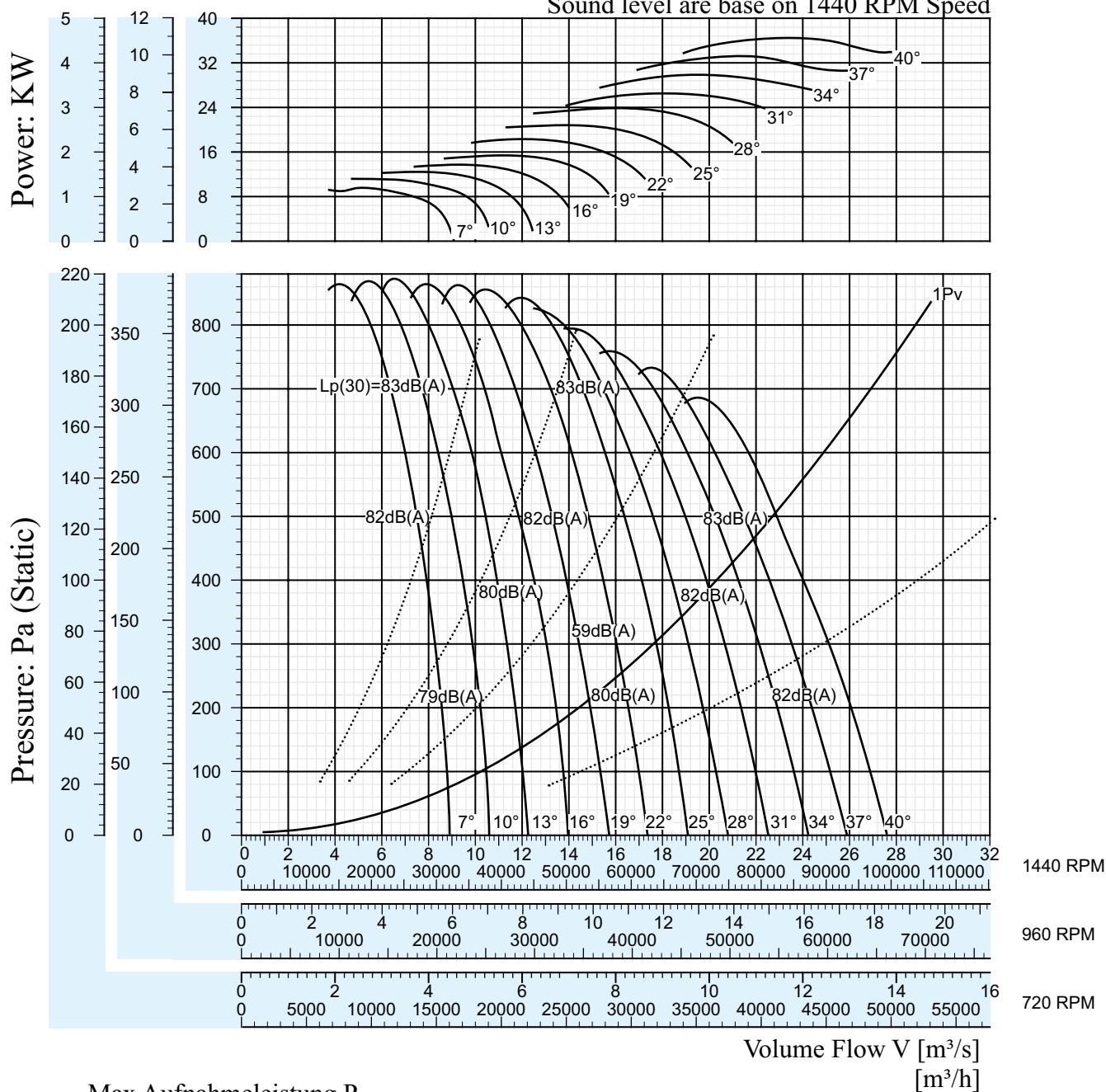


| Peak absorbed power [kW] |                 |      |      |      |      |      |      |      |      |      |      |      |      | relative frequency spectrum ΔL in dB/Okt |     |     |     |    |     |     |     |
|--------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------------------------|-----|-----|-----|----|-----|-----|-----|
| n                        | pitch angle [°] |      |      |      |      |      |      |      |      |      |      |      |      | Octave b. midfr. [Hz]                    |     |     |     |    |     |     |     |
| [min <sup>-1</sup> ]     | 8               | 10   | 12   | 14   | 16   | 18   | 20   | 22   | 24   | 26   | 28   | 30   | 32   | 63                                       | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  |
| 960                      | 1,60            | 1,92 | 2,21 | 2,69 | 3,11 | 3,53 | 3,98 | 4,78 | 4,90 | 5,62 | 6,41 | 6,78 | 7,12 | -10                                      | -7  | -5  | -7  | -8 | -12 | -18 | -24 |
| motor                    | 2,2             |      | 3,0  |      | 4,0  |      |      | 5,5  |      | 7,5  |      |      |      |                                          |     |     |     |    |     |     |     |
| 1440                     | 5,58            | 6,67 | 7,69 | 9,37 | 10,8 | 12,3 | 13,9 | 16,7 | 17,1 | 19,6 | 22,3 | 23,6 | 24,8 | -10                                      | -12 | -6  | -5  | -7 | -10 | -15 | -21 |
| motor                    | 7,5             |      | 11,0 |      |      | 15,0 |      | 18,5 |      | 22,0 |      | 30*  |      |                                          |     |     |     |    |     |     |     |

\* Motor ragt aus Ventilator-Gehäuse / motor protrudes the fan housing

## AR 1000-11

Sound level are base on 1440 RPM Speed

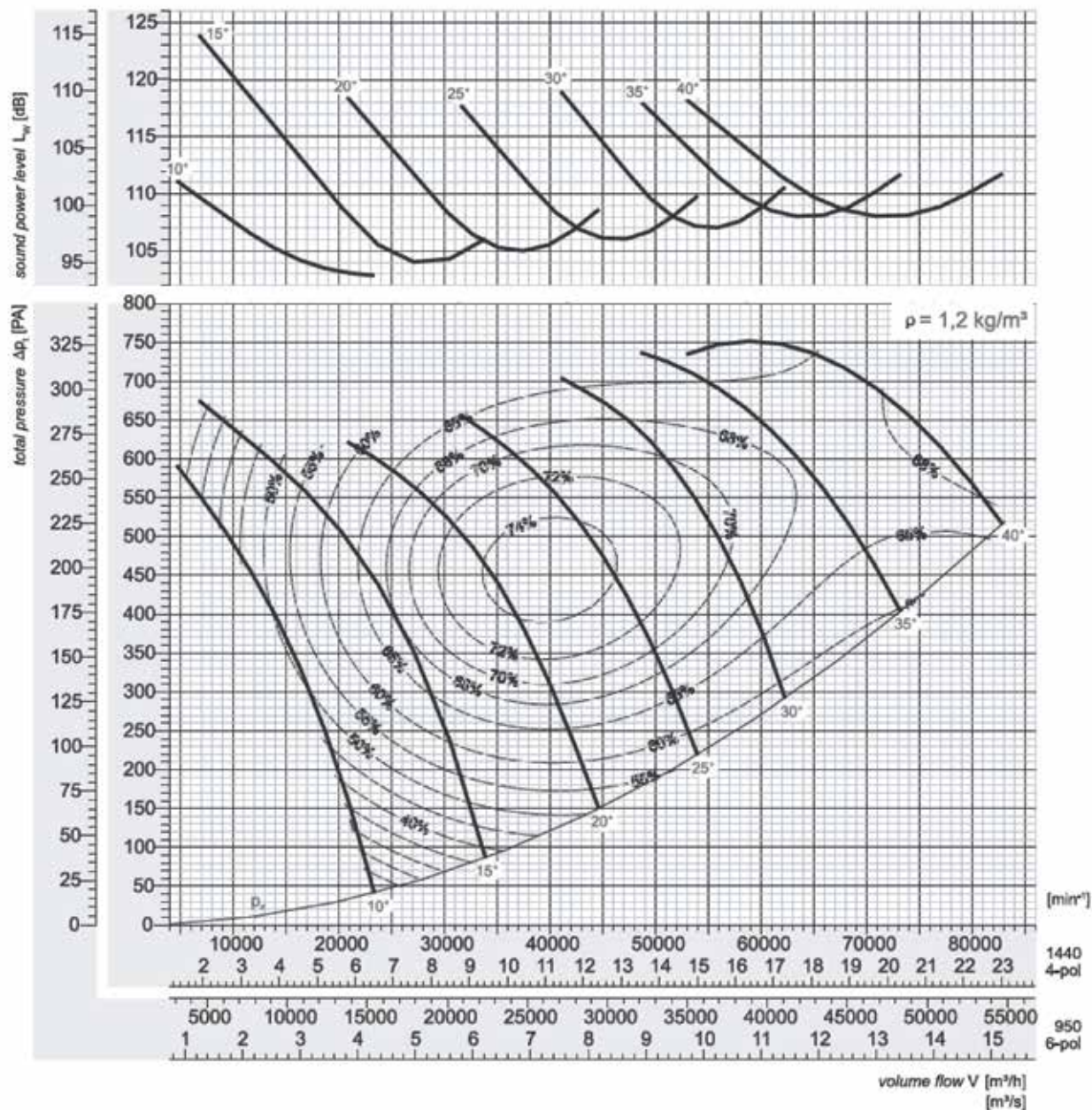


Max Aufnahmeleistung  $P_{L_{\max}}$

Peak absorbed power [KW]

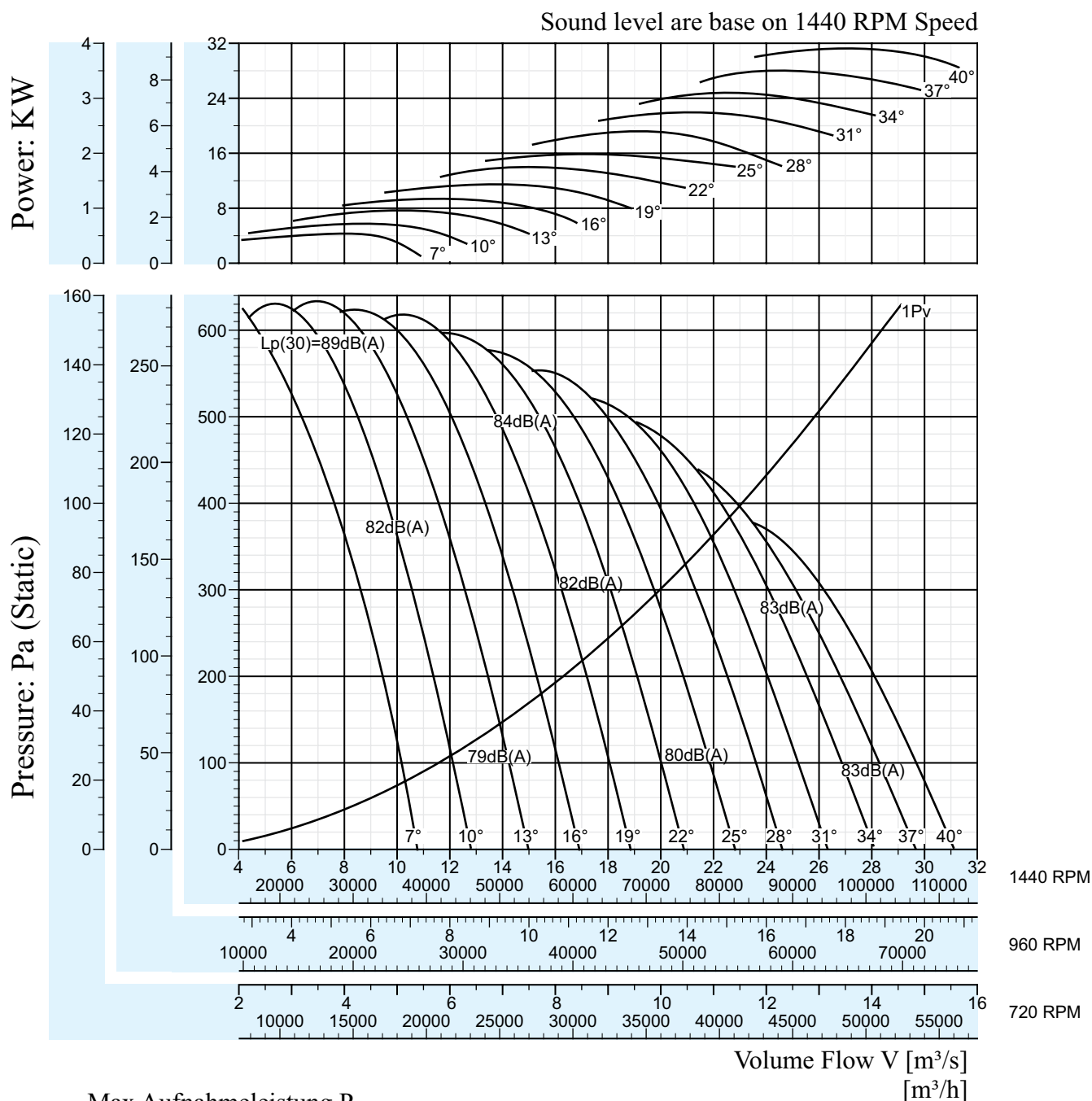
| Speed RPM | Pitch Angle | 7°   | 10°  | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 1.19 | 1.39 | 1.58 | 1.66 | 1.93 | 2.32 | 2.61 | 2.97 | 3.31 | 3.71 | 4.09 | 4.52 |
| 960       |             | 2.83 | 3.28 | 3.75 | 3.93 | 4.58 | 5.49 | 6.19 | 7.04 | 7.85 | 8.79 | 9.70 | 10.7 |
| 1440      |             | 9.55 | 11.1 | 12.7 | 13.3 | 15.5 | 18.5 | 20.9 | 23.8 | 26.5 | 29.7 | 32.7 | 36.1 |

## AR 1000-14



| Peak absorbed power [kW]  |                 |      |      |      |      |      |      | relative frequency spectrum $\Delta L$ in dB/Okt |                       |     |     |     |     |    |     |     |     |     |
|---------------------------|-----------------|------|------|------|------|------|------|--------------------------------------------------|-----------------------|-----|-----|-----|-----|----|-----|-----|-----|-----|
| n<br>[min <sup>-1</sup> ] | pitch angle [°] |      |      |      |      |      |      |                                                  | Octave b. midfr. [Hz] |     |     |     |     |    |     |     |     |     |
|                           | 10              | 15   | 20   | 25   | 30   | 35   | 40   |                                                  | Total                 | 63  | 125 | 250 | 500 | 1k | 2k  | 4k  | 8k  | dBA |
| 950<br>motor              | 0,90            | 1,34 | 1,84 | 2,57 | 3,63 | 4,58 | 5,83 | $L_{ws}$ saugseitig inlet                        | -1                    | -8  | -13 | -6  | -7  | -9 | -13 | -17 | -25 | -5  |
|                           | 1,1             | 1,5  | 2,2  | 3,0  | 4,0  | 5,5  | 7,5  | $L_{wp}$ druckseitig outlet                      | 0                     | -9  | -14 | -9  | -6  | -8 | -10 | -19 | -25 | -4  |
| 1440<br>motor             | 3,14            | 4,66 | 6,39 | 8,96 | 12,6 | 15,9 | 20,3 | $L_{ws}$ saugseitig inlet                        | 0                     | -13 | -18 | -11 | -6  | -6 | -10 | -15 | -23 | -3  |
|                           | 4,0             | 5,5  | 7,5  | 11,0 | 15,0 | 18,5 | 22,0 | $L_{wp}$ druckseitig outlet                      | 0                     | -12 | -16 | -12 | -6  | -6 | -9  | -15 | -22 | -2  |
|                           |                 |      |      |      |      |      |      |                                                  |                       |     |     |     |     |    |     |     |     |     |

## AR 1067-4

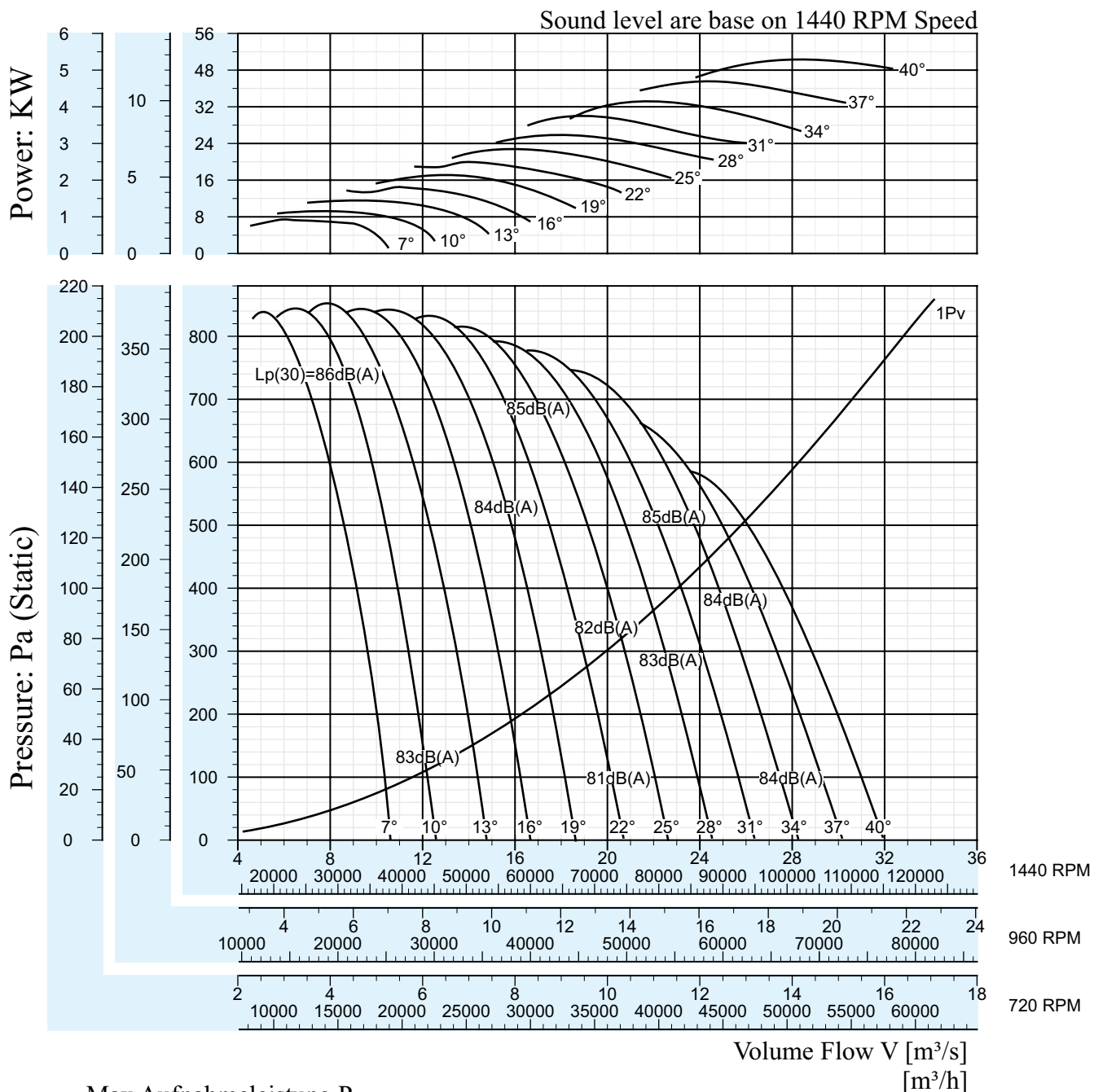


Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°    | 10°   | 13°   | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 0.566 | 0.751 | 0.962 | 1.19 | 1.46 | 1.77 | 2.03 | 2.42 | 2.73 | 3.07 | 3.47 | 3.90 |
| 960       |             | 1.34  | 1.78  | 2.28  | 2.82 | 3.45 | 4.18 | 4.81 | 5.72 | 6.47 | 7.28 | 8.23 | 9.25 |
| 1440      |             | 4.53  | 6.01  | 7.69  | 9.51 | 11.6 | 14.1 | 16.2 | 19.3 | 21.8 | 24.6 | 27.8 | 31.2 |

# AR 1067-7



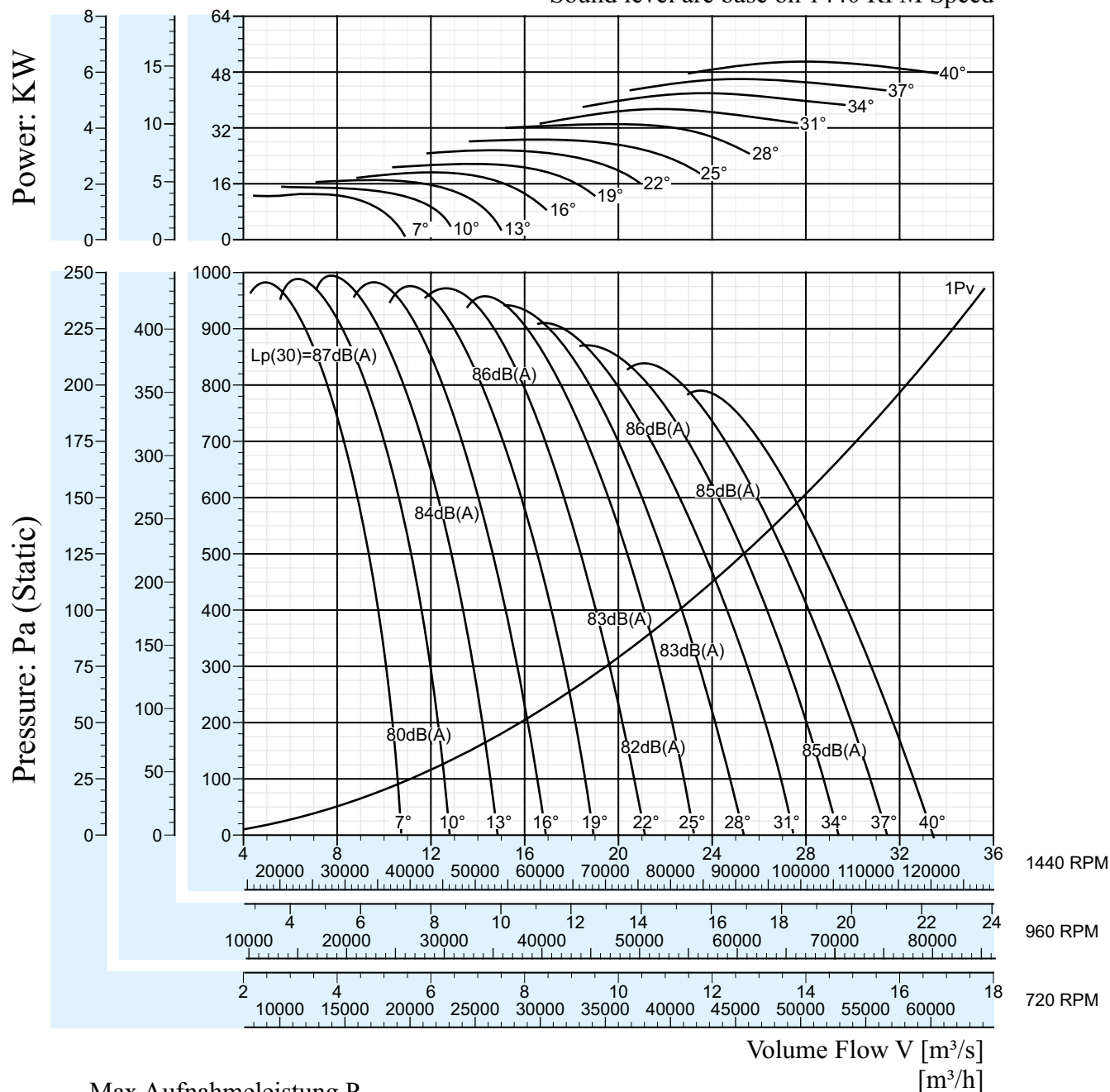
Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°    | 10°  | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 0.919 | 1.20 | 1.50 | 1.83 | 2.16 | 2.53 | 2.90 | 3.27 | 3.77 | 4.19 | 4.72 | 5.28 |
| 960       |             | 2.18  | 2.84 | 3.56 | 4.34 | 5.12 | 5.99 | 6.87 | 7.76 | 8.93 | 9.94 | 11.2 | 12.5 |
| 1440      |             | 7.36  | 9.60 | 12.0 | 14.7 | 17.3 | 20.2 | 23.2 | 26.2 | 30.1 | 33.6 | 37.7 | 42.2 |

## AR 1067-11

Sound level are base on 1440 RPM Speed



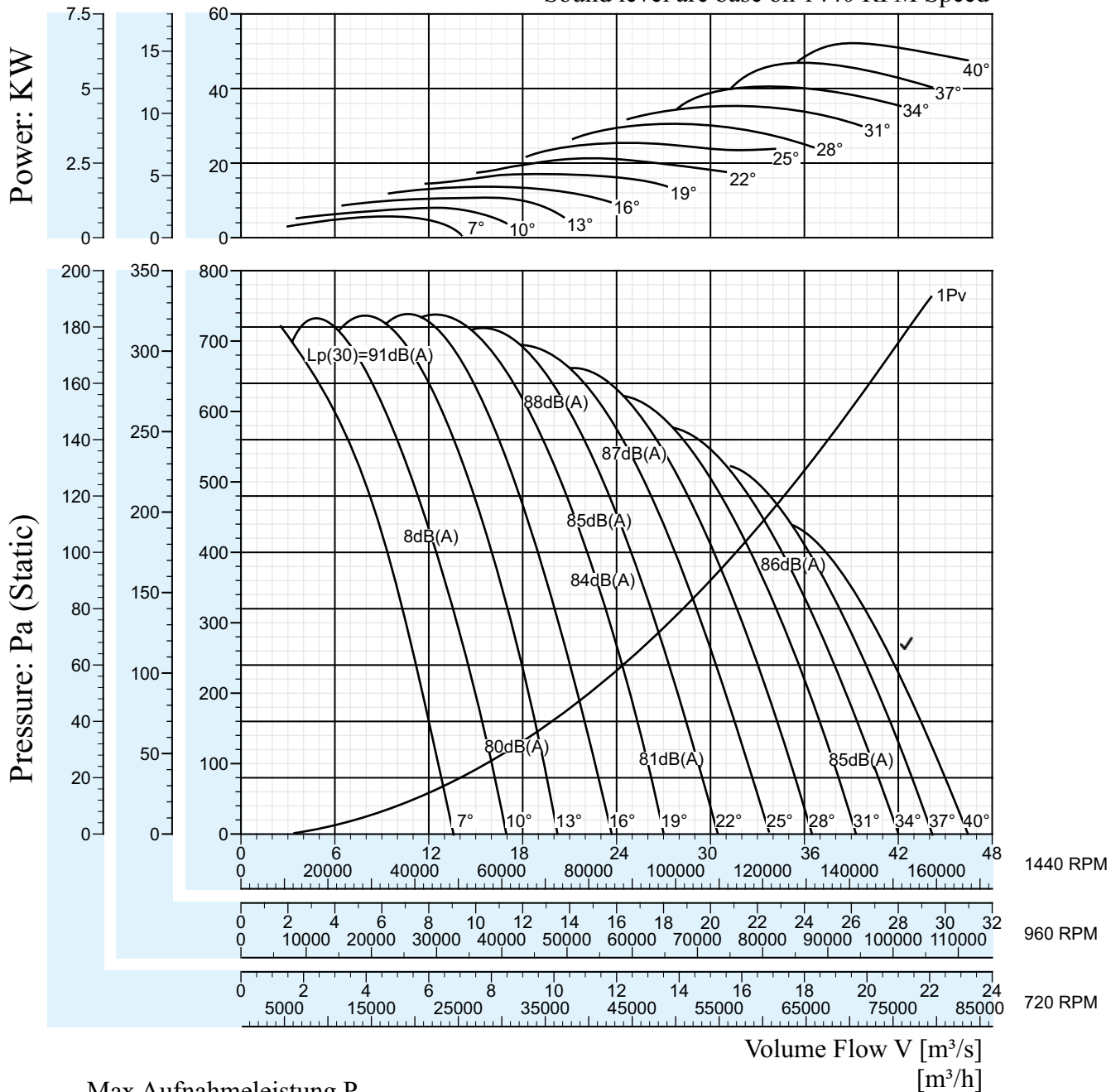
Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°   | 10°  | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 1.65 | 1.92 | 2.19 | 2.29 | 2.67 | 3.20 | 3.61 | 4.11 | 4.58 | 5.13 | 5.66 | 6.25 |
| 960       |             | 3.91 | 4.54 | 5.19 | 5.43 | 6.34 | 7.60 | 8.56 | 9.73 | 10.9 | 12.2 | 13.4 | 14.8 |
| 1440      |             | 13.2 | 15.3 | 17.5 | 18.3 | 21.4 | 25.6 | 28.9 | 32.9 | 36.6 | 41.0 | 45.3 | 50.0 |

## AR 1250-4

Sound level are base on 1440 RPM Speed

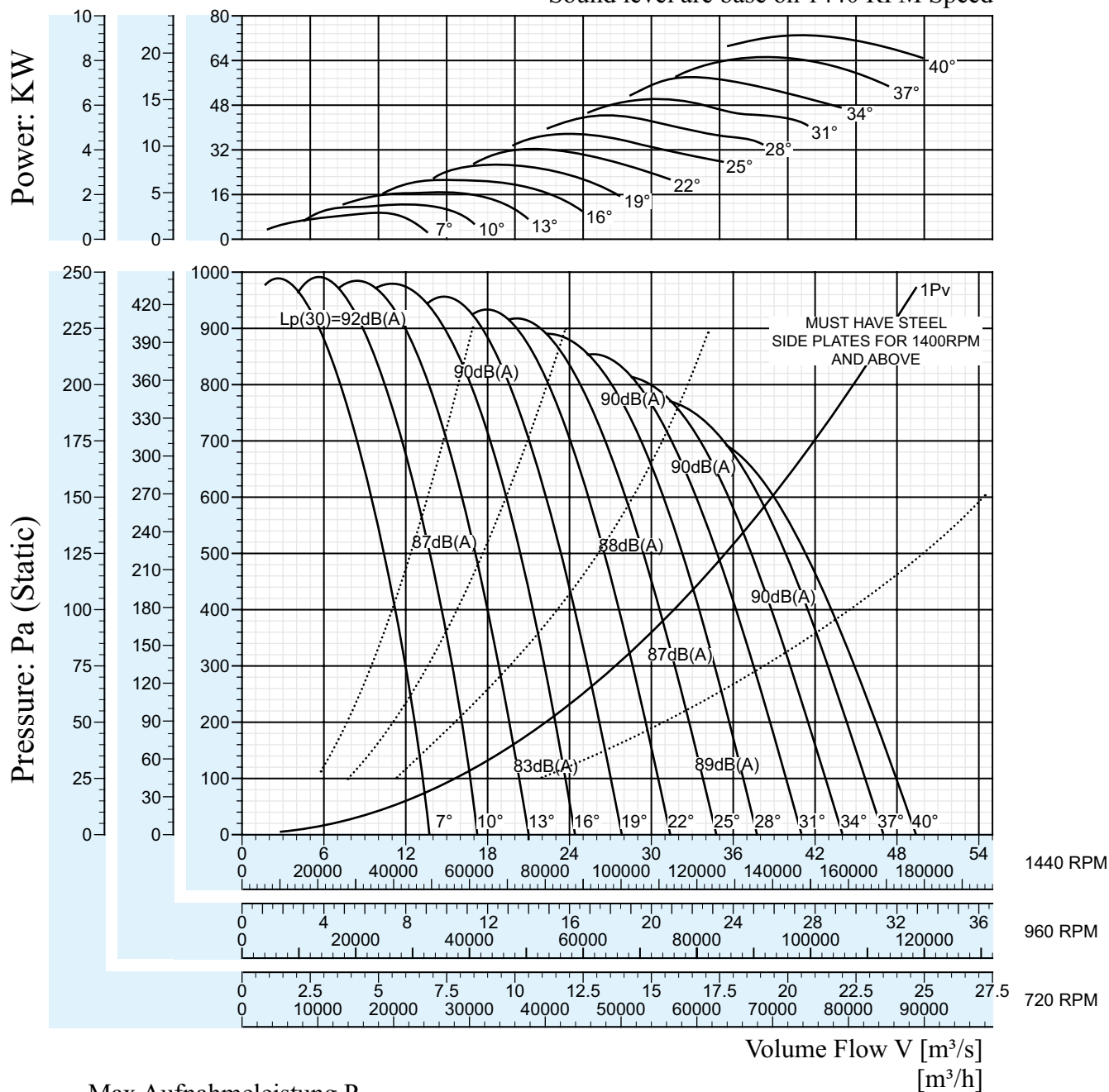
Max Aufnahmeleistung  $P_{Lmax}$ 

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°    | 10°   | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 0.723 | 0.973 | 1.32 | 1.70 | 2.17 | 2.66 | 3.17 | 3.76 | 4.34 | 5.01 | 5.81 | 6.47 |
| 960       |             | 1.71  | 2.31  | 3.14 | 4.04 | 5.14 | 6.30 | 7.51 | 8.91 | 10.3 | 11.9 | 13.8 | 15.3 |
| 1440      |             | 5.79  | 7.79  | 10.6 | 13.6 | 17.3 | 21.3 | 25.3 | 30.1 | 34.8 | 40.1 | 46.5 | 51.8 |

## AR-1250-7

Sound level are base on 1440 RPM Speed

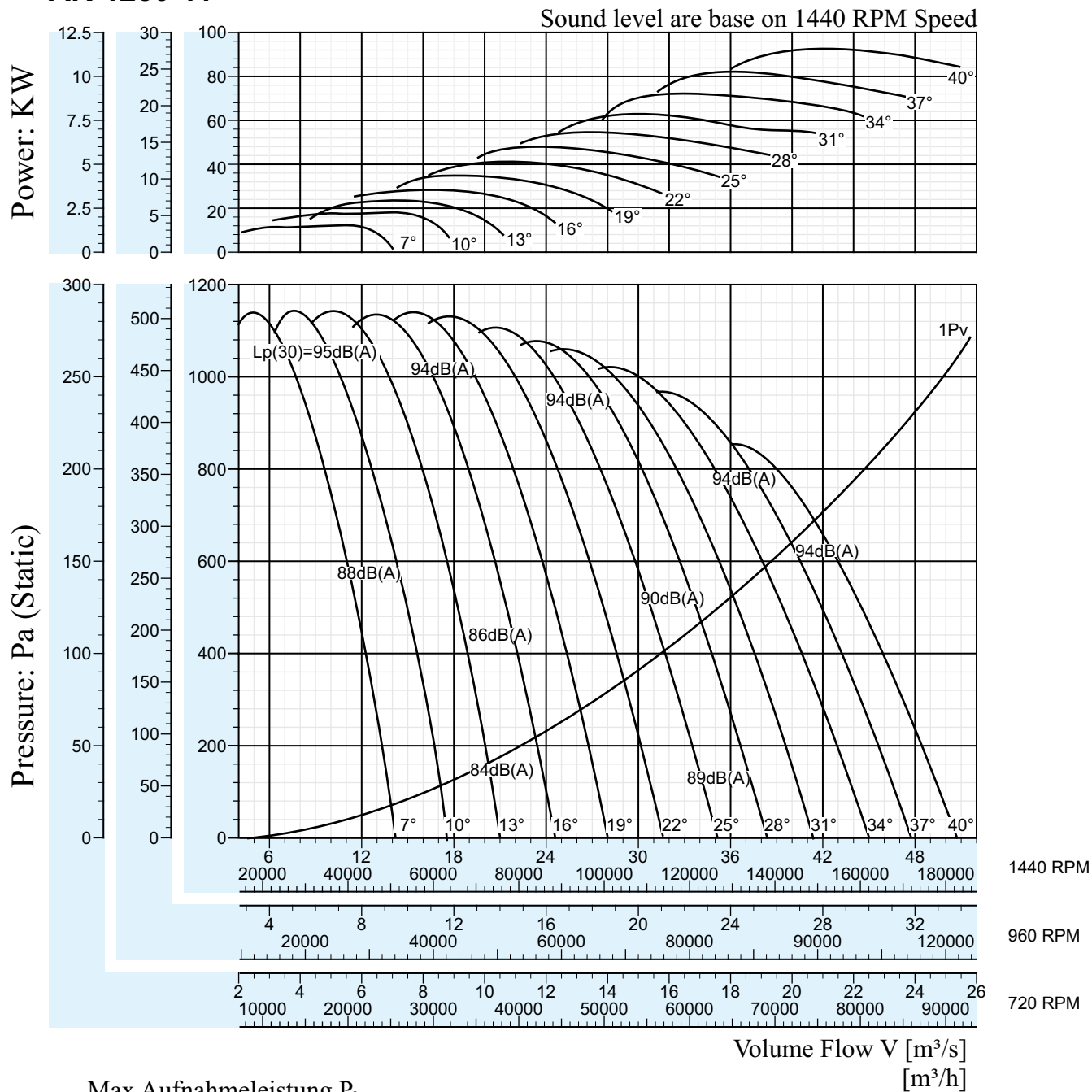


Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | $7^\circ$ | $10^\circ$ | $13^\circ$ | $16^\circ$ | $19^\circ$ | $22^\circ$ | $25^\circ$ | $28^\circ$ | $31^\circ$ | $34^\circ$ | $37^\circ$ | $40^\circ$ |
|-----------|-------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 720       | Peak KW     | 1.11      | 1.51       | 2.04       | 2.63       | 3.33       | 3.99       | 4.69       | 5.47       | 6.25       | 7.15       | 8.10       | 9.13       |
| 960       |             | 2.63      | 3.57       | 4.83       | 6.22       | 7.89       | 9.45       | 11.1       | 13.0       | 14.0       | 16.9       | 9.2        | 21.6       |
| 1440      |             | 8.87      | 12.1       | 16.3       | 21.0       | 26.6       | 31.9       | 37.5       | 43.0       | 50.0       | 57.2       | 64.8       | 73.0       |

## AR-1250-11



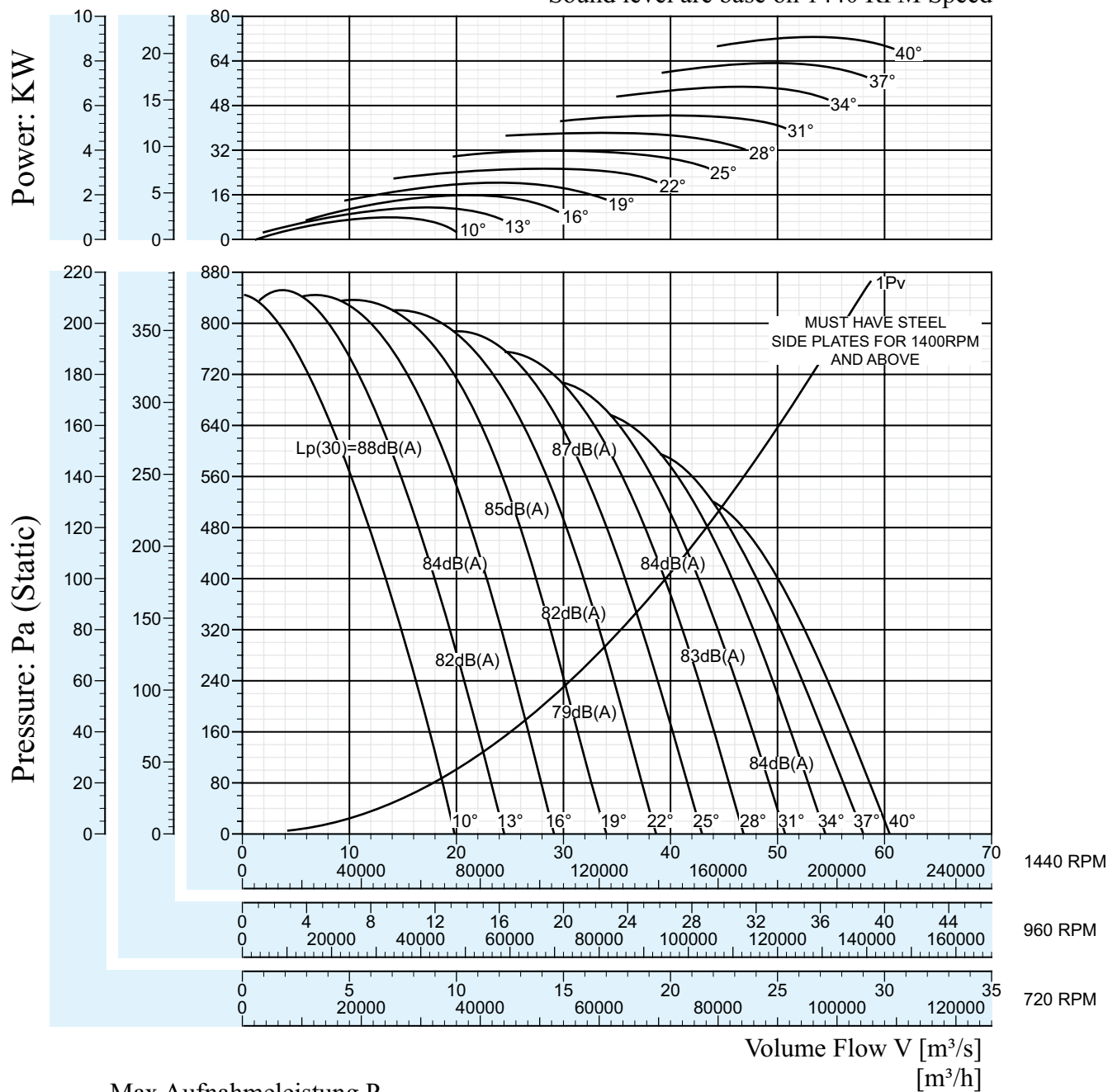
Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°   | 10°  | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 1.56 | 2.21 | 2.82 | 3.54 | 4.32 | 5.14 | 6.02 | 6.83 | 7.86 | 8.93 | 10.1 | 11.3 |
| 960       |             | 3.70 | 5.23 | 6.68 | 8.40 | 10.2 | 12.2 | 14.3 | 16.2 | 18.6 | 21.2 | 23.9 | 26.9 |
| 1440      |             | 12.5 | 17.7 | 22.5 | 28.3 | 34.6 | 41.1 | 48.2 | 54.6 | 62.9 | 71.4 | 80.6 | 90.8 |

## AR-1400-4

Sound level are base on 1440 RPM Speed



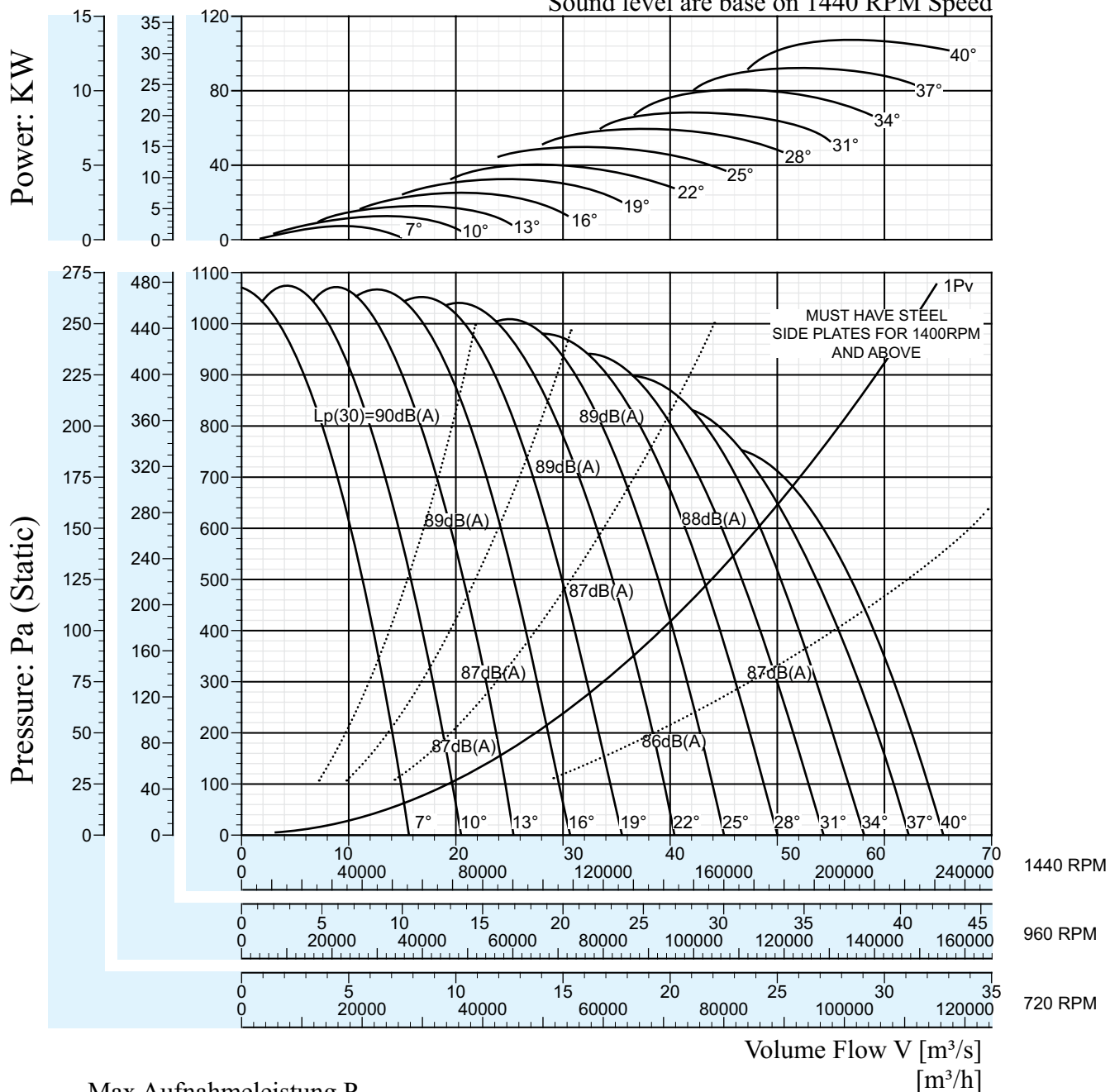
Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 10°  | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 1.00 | 1.46 | 1.98 | 2.52 | 3.22 | 4.01 | 4.84 | 5.63 | 6.81 | 7.86 | 9.02 |
| 960       |             | 2.38 | 3.45 | 4.68 | 5.98 | 7.62 | 9.51 | 11.5 | 13.4 | 16.1 | 18.6 | 21.4 |
| 1440      |             | 8.03 | 11.7 | 15.8 | 20.2 | 25.7 | 32.1 | 38.7 | 45.1 | 54.5 | 62.9 | 72.1 |

## AR-1400-7

Sound level are base on 1440 RPM Speed



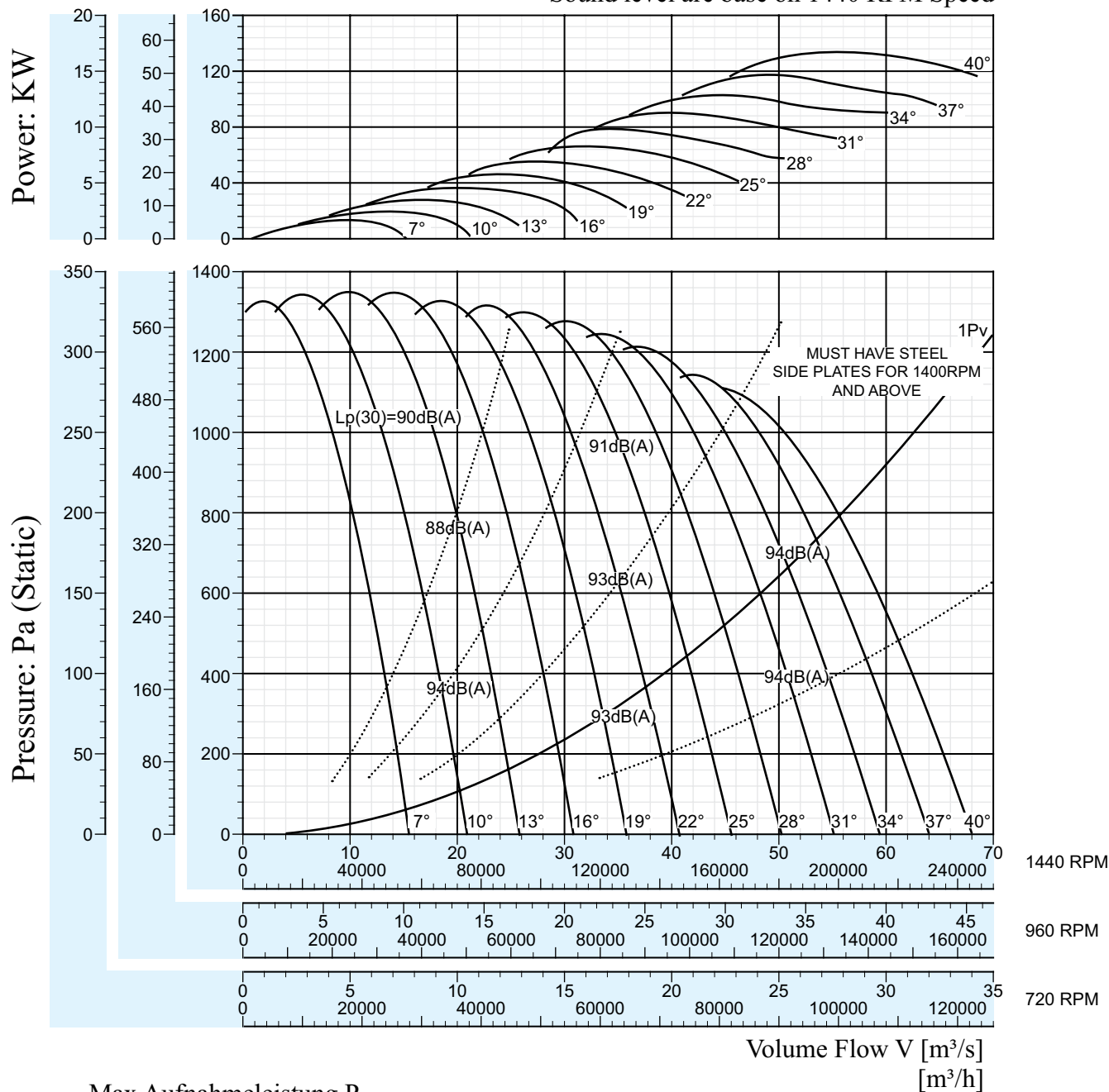
Max Aufnahmeleistung  $P_{L_{\max}}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°   | 10°  | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 1.11 | 1.75 | 2.41 | 3.17 | 4.15 | 5.08 | 6.26 | 7.46 | 8.54 | 9.98 | 11.4 | 13.3 |
| 960       |             | 2.26 | 4.16 | 5.72 | 7.52 | 9.84 | 12.1 | 14.8 | 17.7 | 20.2 | 23.7 | 27.1 | 31.4 |
| 1440      |             | 8.85 | 14.0 | 19.3 | 25.4 | 33.2 | 40.7 | 50.1 | 59.7 | 68.3 | 79.9 | 91.3 | 106  |

## AR-1400-11

Sound level are base on 1440 RPM Speed



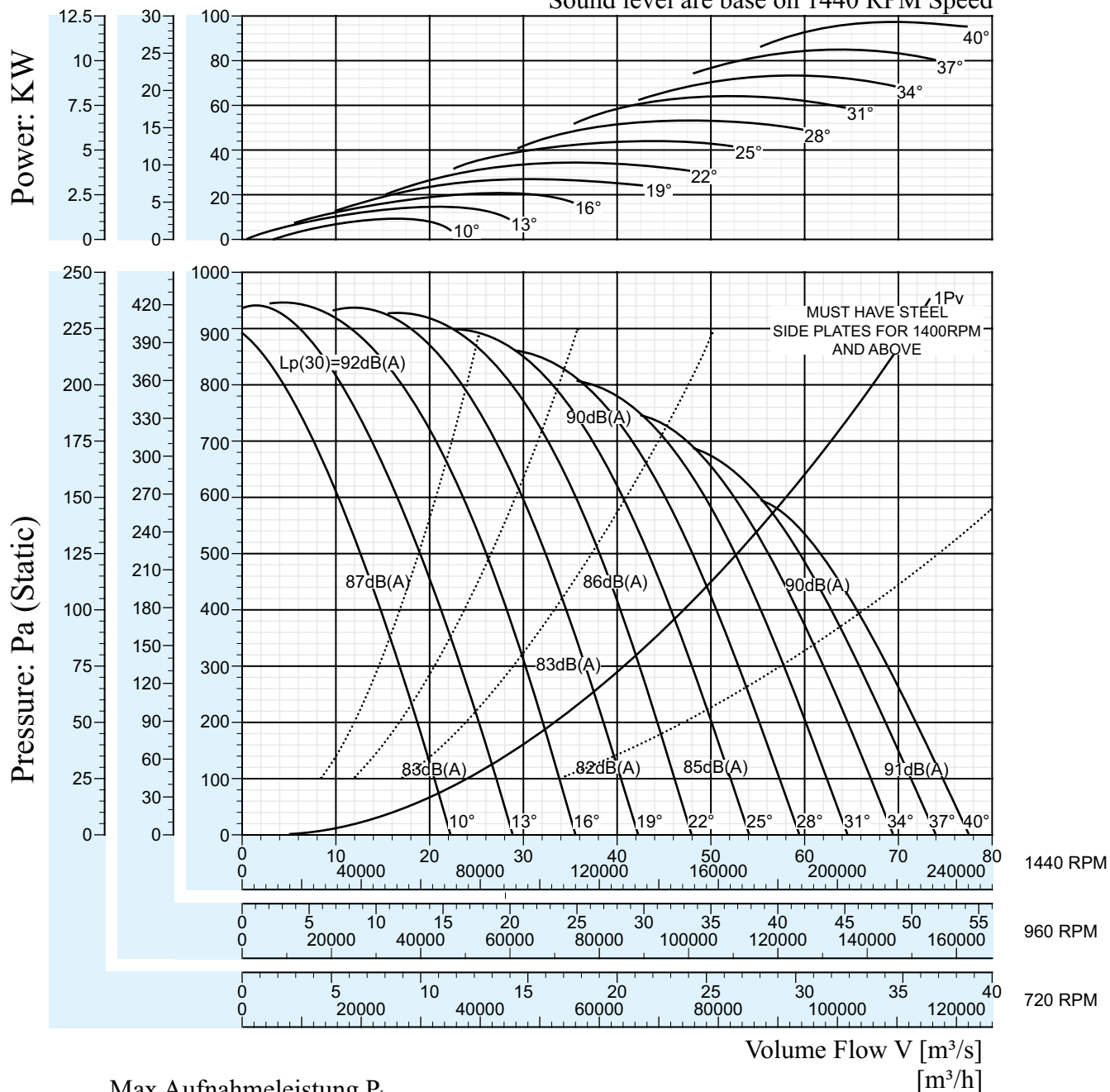
Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°   | 10°  | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 1.68 | 2.49 | 3.40 | 4.50 | 5.60 | 6.87 | 8.19 | 9.62 | 11.1 | 12.7 | 14.5 | 16.6 |
| 960       |             | 3.98 | 5.90 | 8.07 | 10.7 | 13.3 | 16.3 | 19.4 | 22.8 | 26.3 | 30.1 | 34.5 | 39.3 |
| 1440      |             | 13.4 | 19.9 | 27.2 | 36.0 | 44.8 | 54.9 | 65.6 | 77.0 | 88.9 | 102  | 116  | 133  |

## AR-1530-4

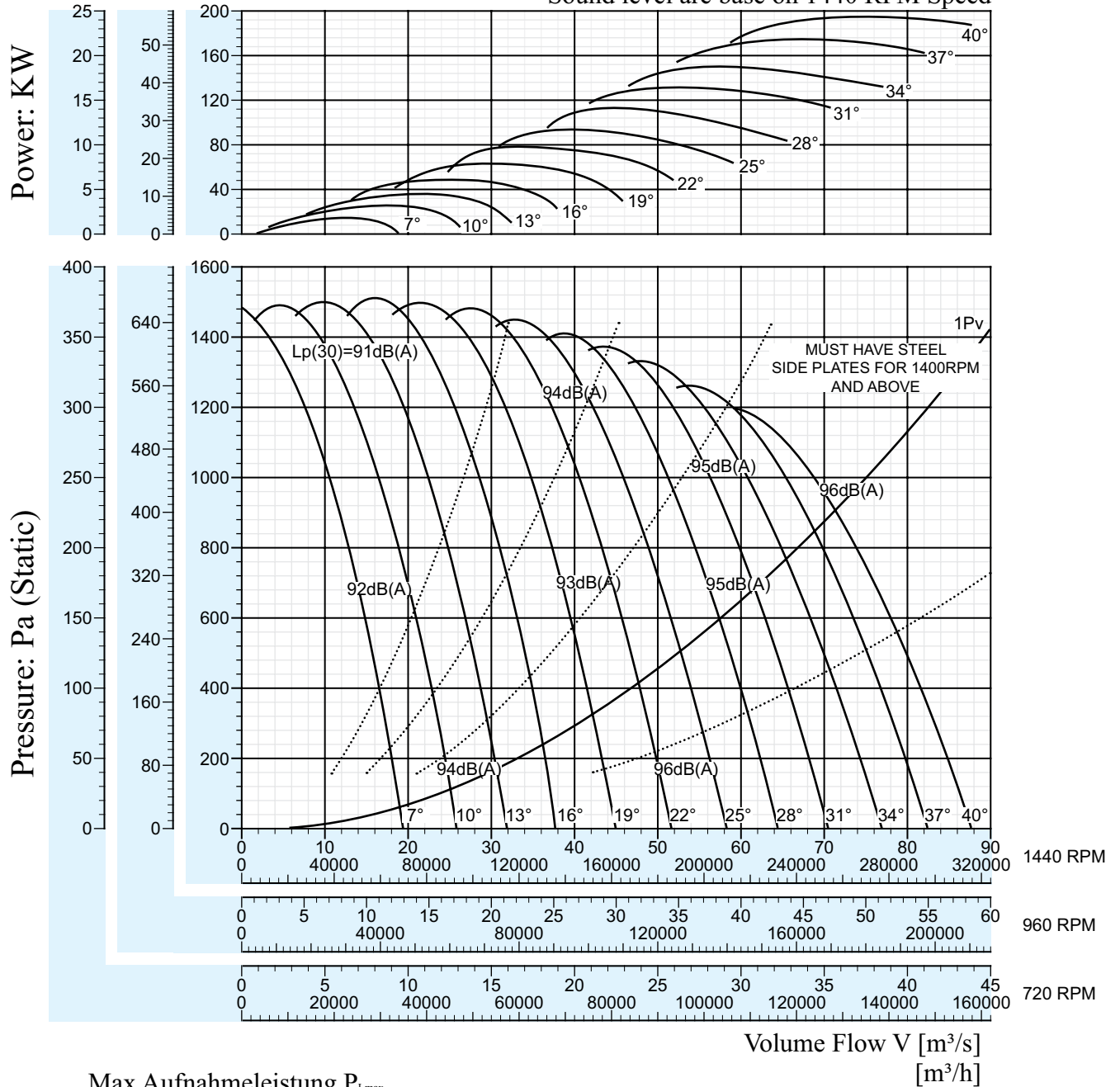
Sound level are base on 1440 RPM Speed





# AR-1530-11

Sound level are base on 1440 RPM Speed

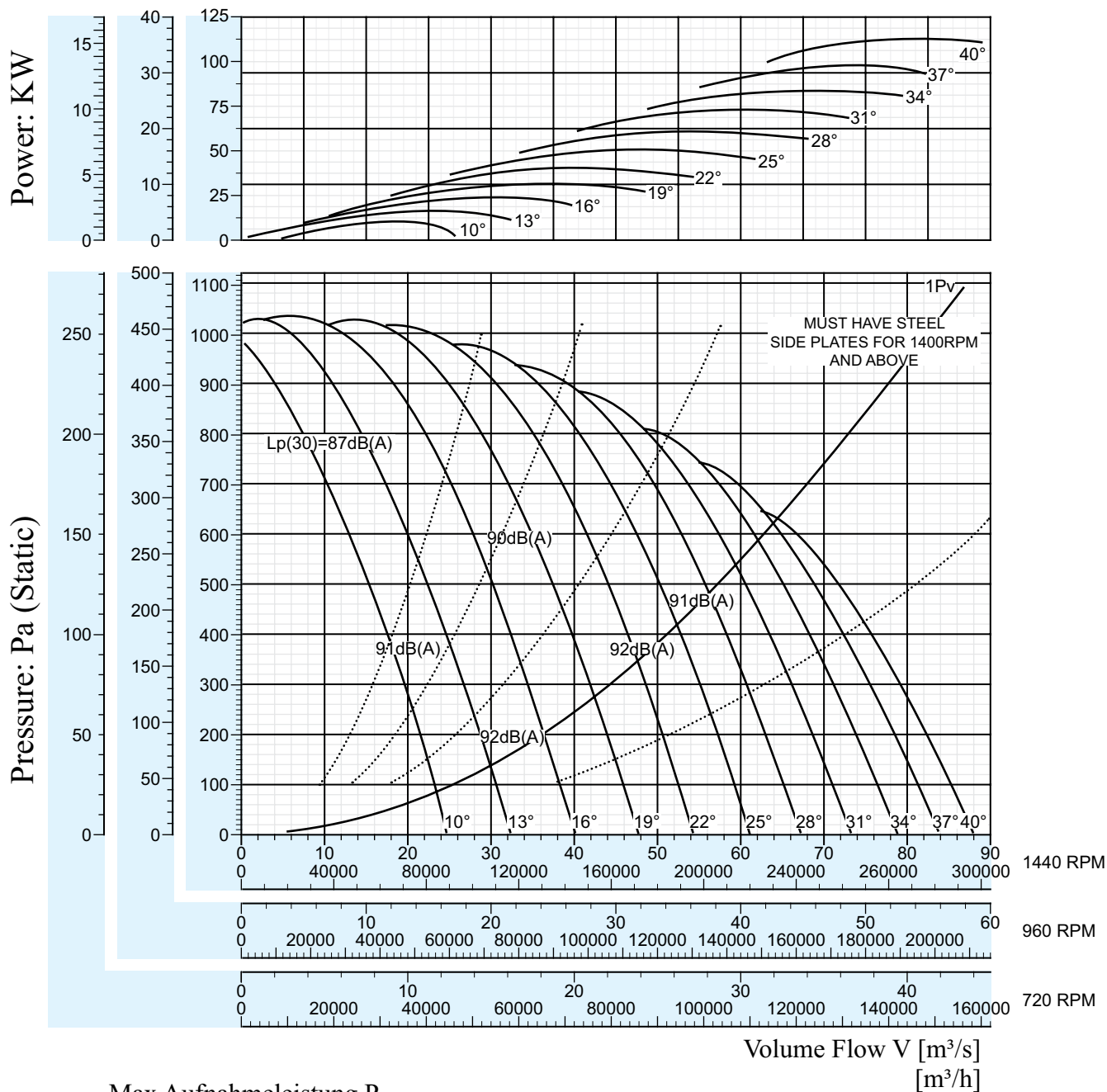


Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°   | 10°  | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°  | 37°  | 40°  |
|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 720       | Peak KW     | 1.94 | 3.16 | 4.23 | 5.79 | 7.50 | 9.57 | 11.3 | 13.6 | 15.9 | 18.2 | 21.2 | 23.9 |
| 960       |             | 4.59 | 7.49 | 10.0 | 13.7 | 17.8 | 22.7 | 26.9 | 32.3 | 37.8 | 43.2 | 50.2 | 56.7 |
| 1440      |             | 15.5 | 25.3 | 33.9 | 46.3 | 60.0 | 76.5 | 90.7 | 109  | 128  | 146  | 169  | 191  |

## AR-1600-4

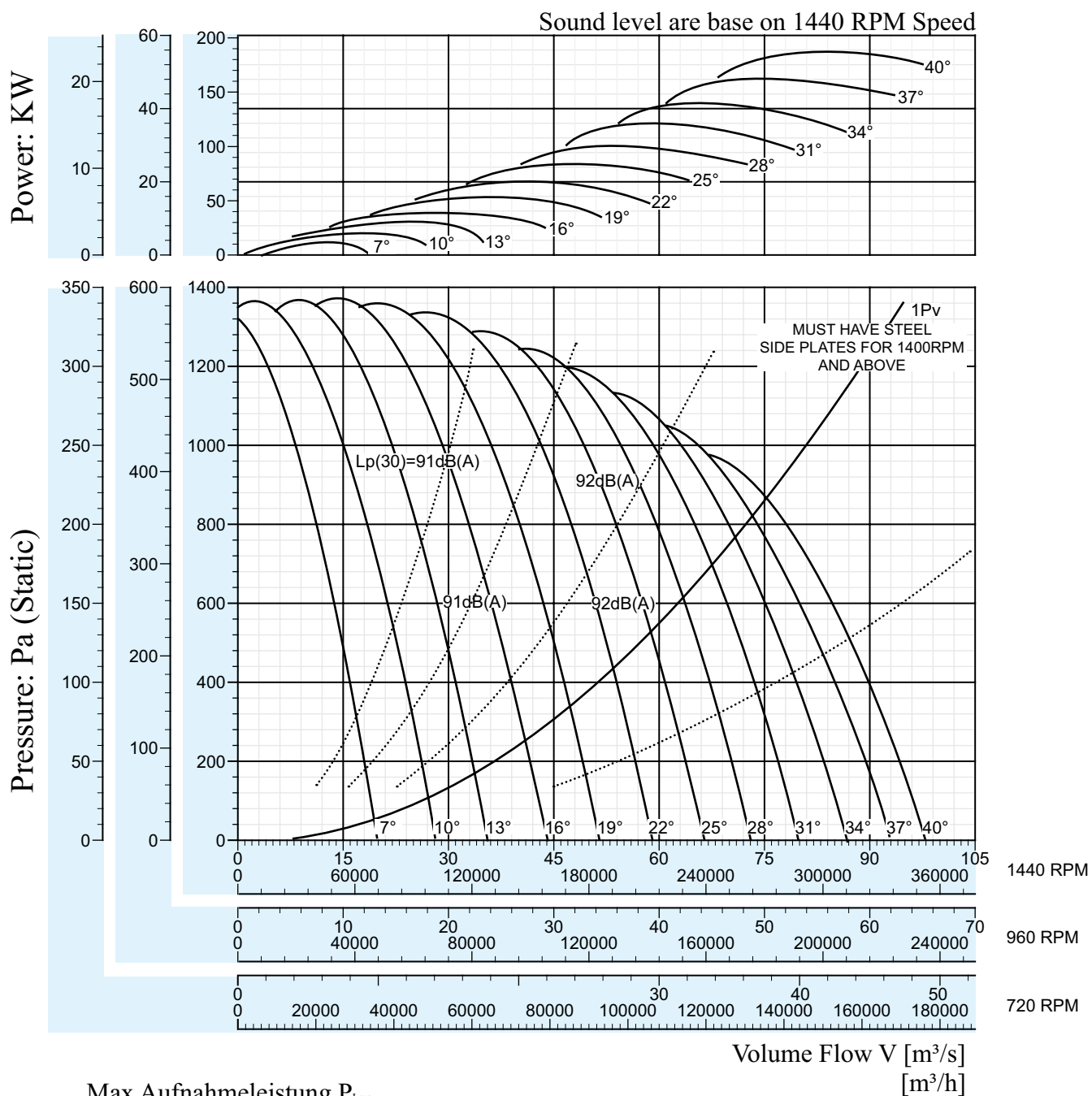


Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 10°  | 13°  | 16°  | 19°  | 22°  | 25°  | 28°  | 31°  | 34°   | 37°  | 40°  |
|-----------|-------------|------|------|------|------|------|------|------|------|-------|------|------|
| 720       | Peak KW     | 1.45 | 2.24 | 3.14 | 4.18 | 5.25 | 6.73 | 8.16 | 9.78 | 11.16 | 13   | 15   |
| 960       |             | 3.43 | 5.29 | 7.45 | 9.90 | 12.7 | 15.9 | 19.3 | 23.2 | 26.5  | 30.9 | 35.6 |
| 1440      |             | 11.6 | 17.9 | 25.1 | 33.4 | 42.9 | 53.8 | 65.3 | 78.2 | 89.3  | 104  | 120  |

## AR-1600-7



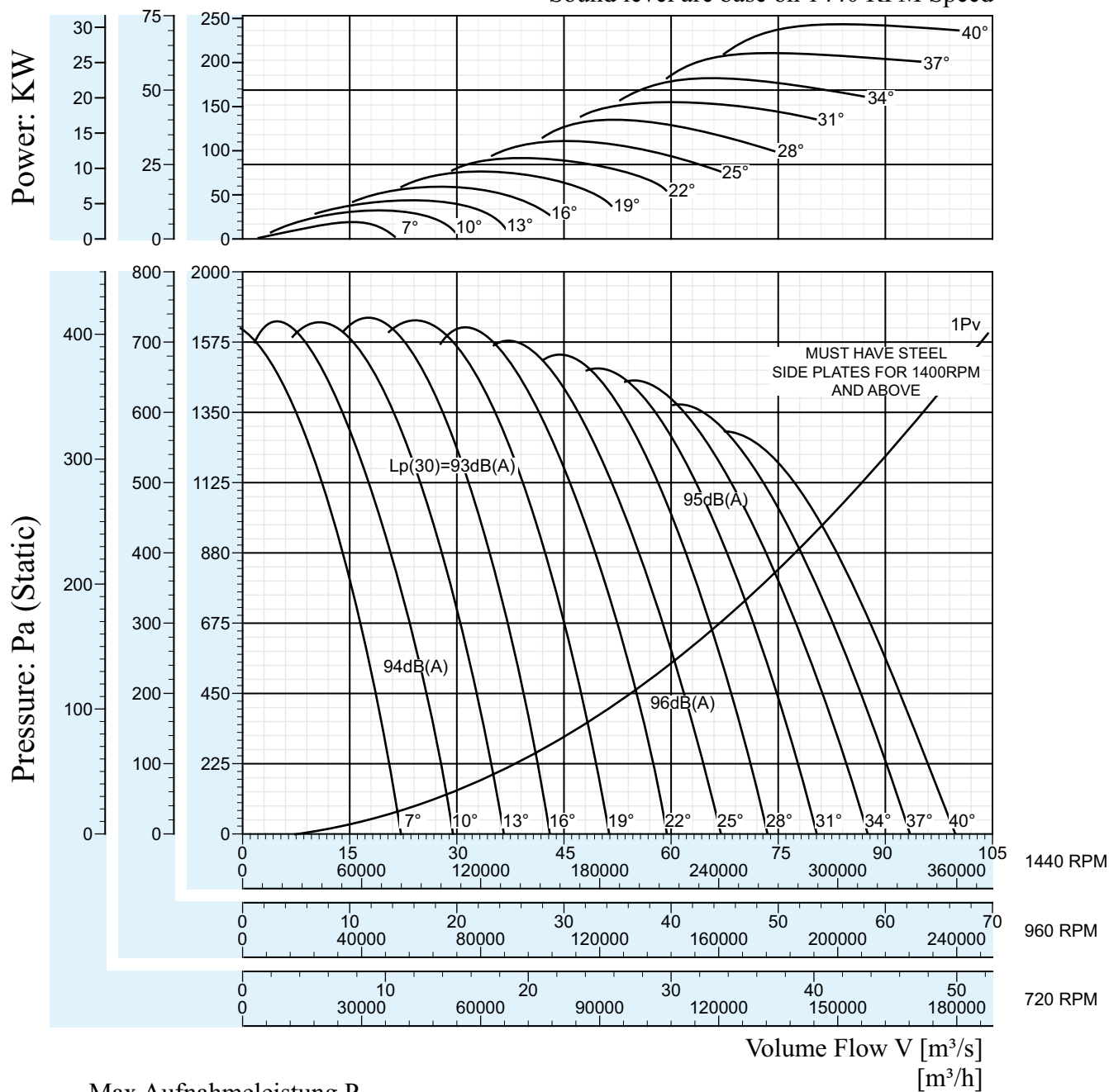
Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°   | 10°  | 13°  | 16°  | 19°  | 22°  | 25°   | 28°   | 31°   | 34°   | 37°   | 40°   |
|-----------|-------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| 720       | Peak KW     | 1.6  | 2.68 | 3.68 | 5.09 | 6.83 | 8.63 | 10.63 | 12.75 | 15.13 | 17.75 | 20.38 | 23.38 |
| 960       |             | 3.79 | 6.33 | 8.72 | 12.1 | 16.2 | 20.4 | 25.2  | 30.1  | 35.9  | 42.0  | 48.2  | 55.3  |
| 1440      |             | 12.8 | 21.4 | 29.4 | 40.7 | 54.6 | 69.0 | 85.0  | 102   | 121   | 142   | 163   | 187   |

## AR-1600-11

Sound level are base on 1440 RPM Speed

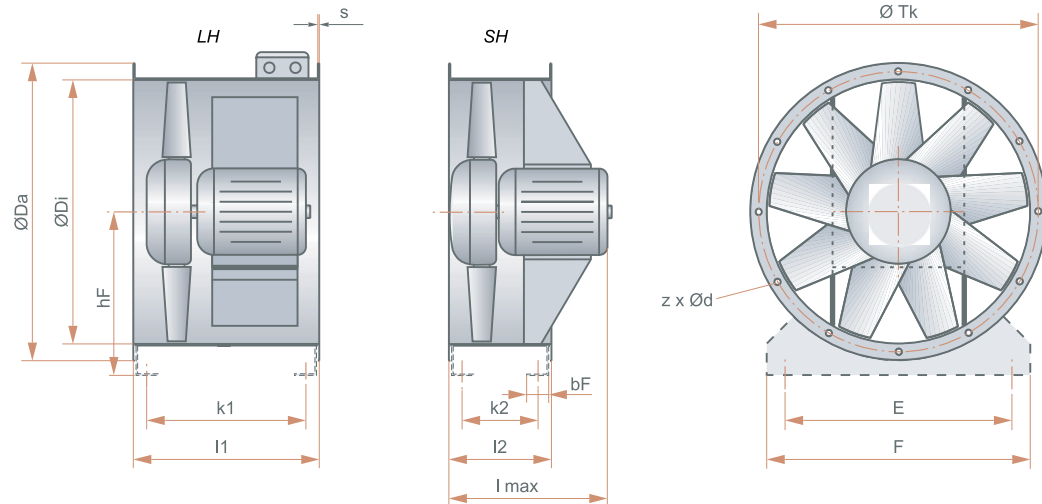


Max Aufnahmeleistung  $P_{Lmax}$

Peak absorbed power [KW]

| Speed RPM | Pitch Angle | 7°   | 10°  | 13°  | 16°  | 19°  | 22°   | 25°   | 28°   | 31°  | 34°   | 37°  | 40°   |
|-----------|-------------|------|------|------|------|------|-------|-------|-------|------|-------|------|-------|
| 720       | Peak KW     | 2.43 | 3.95 | 5.29 | 7.24 | 9.39 | 11.96 | 16.63 | 17.13 | 20   | 22.75 | 26.5 | 29.88 |
| 960       |             | 5.74 | 9.37 | 12.5 | 17.2 | 22.2 | 28.4  | 33.6  | 40.5  | 47.3 | 54.0  | 62.8 | 71.0  |
| 1440      |             | 19.4 | 31.6 | 42.3 | 57.9 | 75.1 | 95.7  | 113   | 137   | 160  | 182   | 212  | 239   |

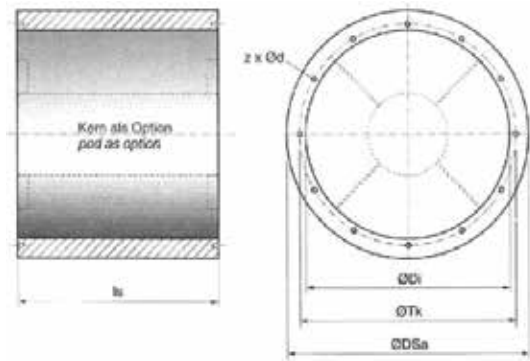
## Axial flow fan dimensions



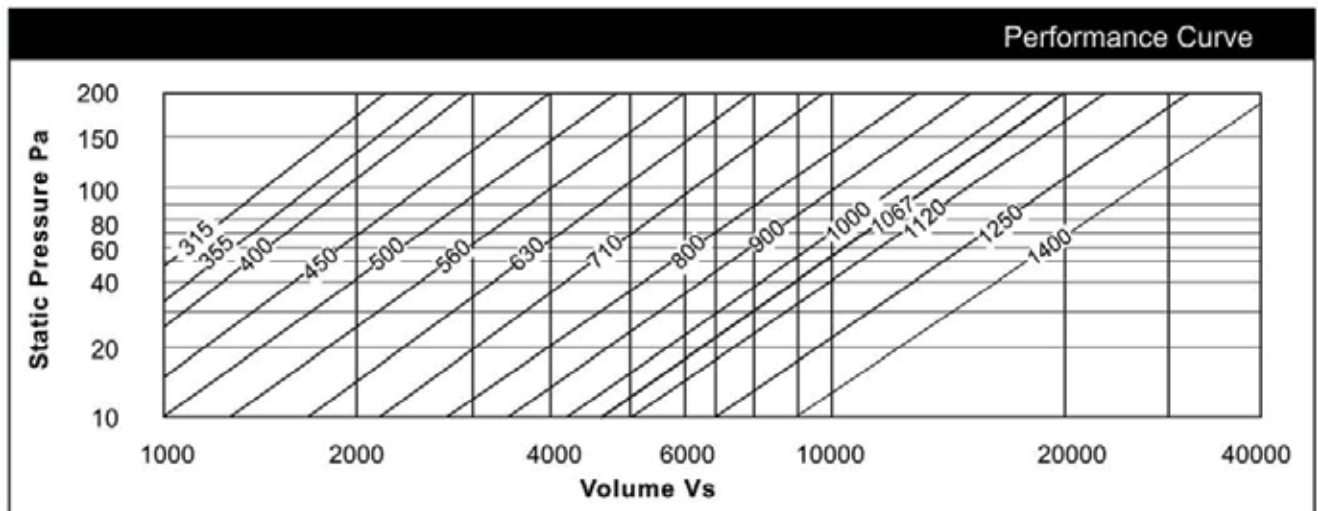
| "Size [mm]" | "Di [mm]" | "Da [mm]" | "hF [mm]" | "zxd [mm]" | "Tk [mm]" | "E [mm]" | "F [mm]" | "bF [mm]" |
|-------------|-----------|-----------|-----------|------------|-----------|----------|----------|-----------|
| 315         | 315       | 395       | 231       | 8 x 12     | 355       | 265      | 315      | 60        |
| 355         | 355       | 435       | 262       | 8 x 12     | 395       | 305      | 355      | 60        |
| 400         | 400       | 480       | 297       | 12 x 12    | 440       | 350      | 400      | 60        |
| 450         | 450       | 530       | 332       | 12 x 12    | 490       | 400      | 450      | 60        |
| 500         | 500       | 580       | 350       | 12 x 12    | 540       | 440      | 500      | 70        |
| 560         | 560       | 660       | 366       | 16 x 14    | 605       | 500      | 560      | 70        |
| 630         | 630       | 730       | 490       | 16 x 14    | 675       | 570      | 630      | 70        |
| 710         | 710       | 810       | 490       | 16 x 14    | 755       | 650      | 710      | 70        |
| 800         | 800       | 900       | 508       | 16 x 14    | 845       | 730      | 800      | 80        |
| 900         | 900       | 1000      | 571       | 16 x 14    | 945       | 830      | 900      | 80        |
| 1000        | 1000      | 1100      | 659       | 16 x 14    | 1050      | 930      | 990      | 80        |
| 1067        | 1067      | 1081      | 781       | 16 x 14    | 1135      | 997      | 1057     | 80        |
| 1250        | 1250      | 1345      | 799       | 24 x 14    | 1315      | 1180     | 1240     | 100       |
| 1400        | 1400      | 1530      | -----     | 24 x 14    | 1470      | 1330     | 1390     | 120       |

| "Size [mm]" | "s [mm]" | LH        |           |             |           | SH        |             |
|-------------|----------|-----------|-----------|-------------|-----------|-----------|-------------|
|             |          | "k1 [mm]" | "l1 [mm]" | "motor max" | "k2 [mm]" | "l2 [mm]" | "lmax [mm]" |
| 315/355     | 2        | 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         |
|             |          | 630       | 700       | 160         | 147       | 225       | 600         |
| 900         | 3        | 580       | 630       | 160         | 137       | 225       | 500         |
| 1000/1067   | 3        | 580       | 600       | 160         | 212       | 300       | 500         |
|             |          | 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         | -         | -         | -           |

| Model      | Speed<br>[RPM] | Mid Frequency Hz |     |     |     |     |     |     |     |
|------------|----------------|------------------|-----|-----|-----|-----|-----|-----|-----|
|            |                | 63               | 125 | 250 | 500 | 1K  | 2K  | 4K  | 8K  |
|            |                | Spectrum Factor  |     |     |     |     |     |     |     |
| AR 1000-4  | 720            | -8               | -8  | -8  | -9  | -12 | -14 | -22 | -30 |
|            | 960            | -7               | -7  | -7  | -8  | -10 | -15 | -20 | -28 |
|            | 1400           | -6               | -7  | -7  | -6  | -8  | -12 | -19 | -24 |
| AR 1000-7  | 720            | -6               | -7  | -8  | -8  | -11 | -14 | -21 | -28 |
|            | 960            | -9               | -7  | -6  | -7  | -9  | -14 | -19 | -26 |
|            | 1400           | -8               | -9  | -7  | -5  | -7  | -11 | -18 | -22 |
| AR 1000-11 | 720            | -4               | -5  | -6  | -7  | -9  | -12 | -20 | -26 |
|            | 960            | -9               | -6  | -5  | -7  | -8  | -12 | -18 | -24 |
|            | 1400           | -9               | -12 | -6  | -5  | -7  | -11 | -15 | -20 |
| AR 1067-4  | 720            | -7               | -8  | -8  | -9  | -12 | -14 | -22 | -30 |
|            | 960            | -7               | -7  | -7  | -8  | -10 | -15 | -20 | -28 |
|            | 1400           | -6               | -7  | -7  | -6  | -8  | -12 | -19 | -24 |
| AR 1067-7  | 720            | -7               | -7  | -8  | -8  | -11 | -14 | -21 | -28 |
|            | 960            | -9               | -6  | -6  | -7  | -9  | -14 | -19 | -26 |
|            | 1400           | -8               | -9  | -7  | -5  | -7  | -11 | -18 | -22 |
| AR 1067-11 | 720            | -5               | -5  | -6  | -7  | -9  | -12 | -20 | -26 |
|            | 960            | -9               | -6  | -5  | -7  | -8  | -12 | -18 | -24 |
|            | 1400           | -9               | -12 | -6  | -5  | -7  | -11 | -15 | -20 |
| AR 1250-4  | 720            | -6               | -8  | -8  | -9  | -11 | -14 | -22 | -30 |
|            | 960            | -6               | -7  | -7  | -8  | -10 | -15 | -21 | -28 |
|            | 1400           | -6               | -7  | -7  | -6  | -9  | -12 | -20 | -26 |
| AR 1250-7  | 720            | -8               | -6  | -8  | -8  | -10 | -13 | -21 | -28 |
|            | 960            | -8               | -5  | -7  | -8  | -9  | -14 | -20 | -26 |
|            | 1400           | -8               | -8  | -6  | -6  | -8  | -12 | -19 | -24 |
| AR 1250-11 | 720            | -7               | -5  | -6  | -7  | -9  | -12 | -20 | -26 |
|            | 960            | -10              | -6  | -5  | -7  | -8  | -12 | -18 | -24 |
|            | 1400           | -10              | -12 | -6  | -5  | -7  | -10 | -15 | -21 |
| AR 1400-4  | 720            | -6               | -6  | -7  | -9  | -11 | -15 | -21 | -30 |
|            | 960            | -6               | -6  | -7  | -8  | -10 | -15 | -20 | -29 |
|            | 1400           | -5               | -6  | -6  | -7  | -9  | -14 | -19 | -27 |
| AR 1400-7  | 720            | -9               | -7  | -8  | -8  | -10 | -13 | -21 | -28 |
|            | 960            | -8               | -5  | -6  | -7  | -9  | -14 | -19 | -26 |
|            | 1400           | -7               | -4  | -5  | -6  | -8  | -12 | -18 | -26 |
| AR 1400-11 | 720            | -8               | -5  | -6  | -7  | -9  | -12 | -20 | -26 |
|            | 960            | -11              | -6  | -5  | -7  | -8  | -12 | -18 | -24 |
|            | 1400           | -6               | -7  | -5  | -6  | -8  | -10 | -11 | -28 |
| AR 1530-4  | 720            | -6               | -5  | -7  | -8  | -11 | -15 | -21 | -32 |
|            | 960            | -5               | -6  | -6  | -8  | -10 | -15 | -19 | -30 |
|            | 1400           | -5               | -6  | -6  | -7  | -9  | -14 | -19 | -27 |
| AR 1530-7  | 720            | -9               | -5  | -7  | -7  | -10 | -14 | -20 | -28 |
|            | 960            | -8               | -5  | -6  | -7  | -9  | -14 | -18 | -27 |
|            | 1400           | -7               | -4  | -5  | -6  | -8  | -12 | -18 | -26 |
| AR 1530-11 | 720            | -10              | -5  | -6  | -7  | -9  | -12 | -19 | -26 |
|            | 960            | -12              | -6  | -5  | -7  | -8  | -12 | -17 | -25 |
|            | 1400           | -6               | -7  | -5  | -6  | -8  | -12 | -18 | -26 |
| AR 1600-4  | 720            | -7               | -6  | -8  | -10 | -14 | -19 | -22 | -33 |
|            | 960            | -6               | -7  | -7  | -9  | -13 | -18 | -20 | -31 |
| AR 1600-7  | 720            | -8               | -5  | -6  | -7  | -9  | -14 | -18 | -27 |
|            | 960            | -6               | -7  | -5  | -6  | -8  | -10 | -18 | -22 |
| AR 1600-11 | 720            | -12              | -6  | -5  | -7  | -8  | -12 | -17 | -25 |
|            | 960            | -6               | -7  | -5  | -6  | -8  | -10 | -18 | -22 |



| Size | Dsa  | Di   | Tk   | Is   | z x d |         | LP  | LP  | HP  | HP  |
|------|------|------|------|------|-------|---------|-----|-----|-----|-----|
|      | mm   | mm   | mm   | 1D   | 2D    | mm      | 1D  | 2D  | 1D  | 2D  |
| 315  | 465  | 315  | 355  | 315  | 630   | 8 x 8   | 10  | 18  | 20  | 29  |
| 355  | 505  | 355  | 395  | 355  | 710   | 8 x 8   | 12  | 19  | 22  | 30  |
| 400  | 600  | 400  | 440  | 400  | 800   | 12 x 8  | 13  | 20  | 23  | 31  |
| 450  | 650  | 450  | 490  | 450  | 900   | 12 x 8  | 18  | 26  | 29  | 37  |
| 500  | 700  | 500  | 540  | 500  | 1000  | 12 x 8  | 23  | 32  | 35  | 43  |
| 560  | 760  | 560  | 605  | 560  | 1120  | 16 x 8  | 25  | 39  | 43  | 55  |
| 630  | 830  | 630  | 675  | 630  | 1260  | 16 x 8  | 32  | 43  | 52  | 64  |
| 710  | 910  | 710  | 755  | 710  | 1420  | 16 x 8  | 39  | 48  | 63  | 78  |
| 800  | 1000 | 800  | 845  | 800  | 1600  | 16 x 8  | 50  | 61  | 79  | 99  |
| 900  | 1100 | 900  | 945  | 900  | 1800  | 16 x 10 | 74  | 87  | 130 | 157 |
| 1000 | 1200 | 1000 | 1050 | 1000 | 2000  | 16 x 10 | 91  | 107 | 161 | 193 |
| 1067 | 1267 | 1067 | 1135 | 1067 | 2134  | 16 x 10 | 101 | 131 | 185 | 252 |
| 1250 | 1450 | 1250 | 1315 | 1250 | 2500  | 24 x 10 | 126 | 163 | 231 | 315 |
| 1400 | 1650 | 1400 | 1470 | 1400 | 2800  | 24 x 14 | 150 | 194 | 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 | 250 | 500 | 1K | 2K | 4K | 8K |
| LP 315/355/400/450/500/560 | 1D      | 1                    | 4   | 7   | 10  | 14 | 11 | 8  | 8  |
| HP 315/355/400/450/500/560 | 1D(POD) | 4                    | 6   | 9   | 13  | 19 | 19 | 16 | 14 |
| LP 315/355/400/450/500/560 | 2D      | 4                    | 8   | 12  | 17  | 23 | 17 | 13 | 12 |
| HP 315/355/400/450/500/560 | 2D(POD) | 7                    | 11  | 15  | 24  | 28 | 28 | 26 | 22 |
| LP 630/710/800/900         | 1D      | 3                    | 5   | 9   | 14  | 14 | 9  | 8  | 7  |
| HP 630/710/800/900         | 1D(POD) | 4                    | 6   | 10  | 17  | 23 | 21 | 19 | 11 |
| LP 630/710/800/900         | 2D      | 6                    | 8   | 14  | 23  | 24 | 14 | 13 | 10 |
| HP 630/710/800/900         | 2D(POD) | 7                    | 11  | 16  | 29  | 34 | 32 | 30 | 19 |
| LP 1000/1067/1250          | 1D      | 3                    | 5   | 10  | 14  | 13 | 8  | 7  | 7  |
| HP 1000/1067/1251          | 1D(POD) | 4                    | 6   | 12  | 20  | 19 | 15 | 14 | 12 |
| LP 1000/1067/1252          | 2D      | 6                    | 9   | 14  | 21  | 20 | 13 | 11 | 10 |
| HP 1000/1067/1253          | 2D(POD) | 7                    | 12  | 19  | 29  | 28 | 26 | 22 | 17 |
| HP 1400                    | 1D(POD) | 4                    | 7   | 14  | 24  | 20 | 13 | 8  | 6  |

## Bifurcated Axial Fans



## BAR Range

- Suitable for temperatures up to +400°C
- motor isolated from the air stream
- Single phase motor are available up to 2.2kw
- maintenance free and reliable

Bifurcated axial fans are equipped with die cast aluminium impellers with adjustable blades. The casings are manufactured from hot dip galvanised steel. B3 foot mounted motors with terminal box mounted onto the motor. Easily accessible for connection.

Bifurcated casings are manufactured from sheet steel, hot dip galvanized upon completion. Flanges on both ends are pressed on, and punched in accordance with DIN 24154, set 3. Casing suitable for outdoor installations.

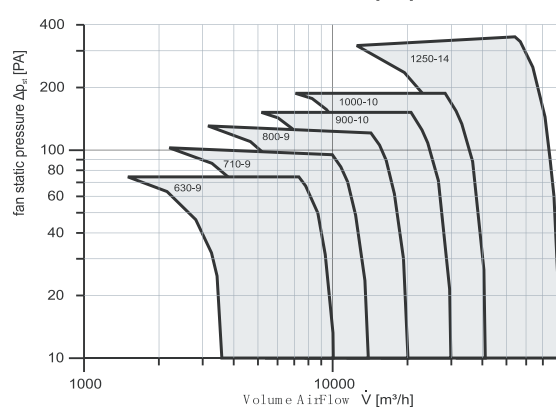
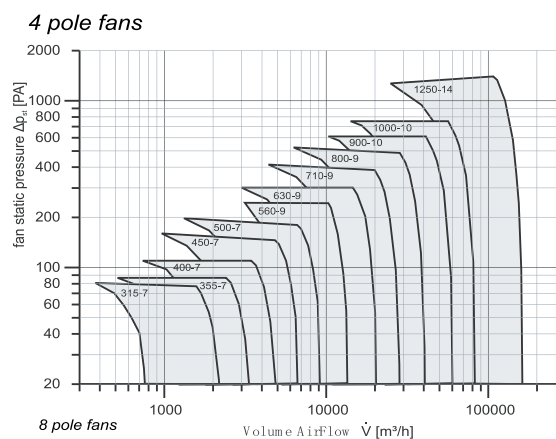
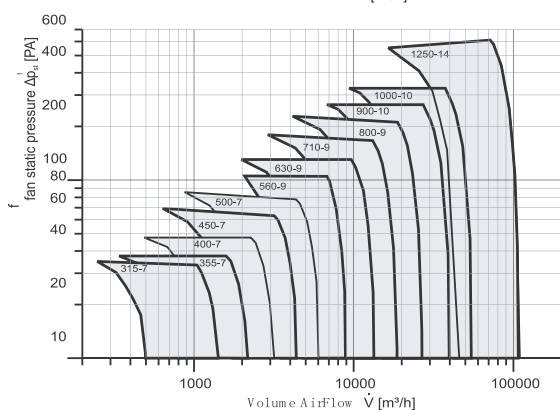
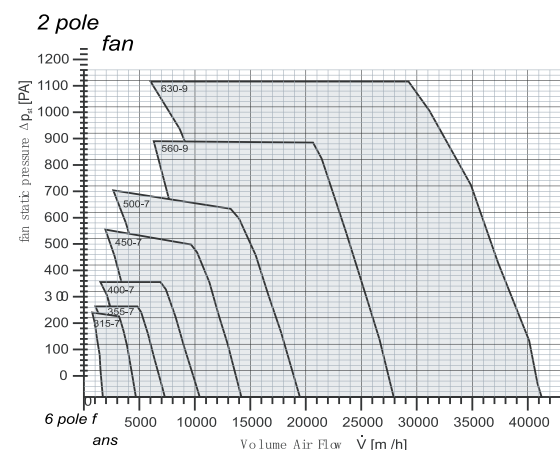
## Impellers

Impellers (hub and blade) are manufactured from cast aluminium alloy; the aerodynamically shape of the impeller guarantee a high efficiency and low noise. The construction of the hub enables a step-less adjustment of blade angle in standstill, in order to reach the optimal duty point.

## Motors

Bifurcated is equipped with AC-motors acc. to EC-Norm 34-1. The motors are completely closed, surface cooled squirrel-cage motors. They are suited for transported air up to 40 °C. Motor protection class IP 55, insulation class F. On request it is possible to use motors for higher temperature classes, dual-speed with two speeds, with dahlander connection or separate windings

## Quick selection





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\*subject to technical modification