

Handbook Radial Fans 50 Hz



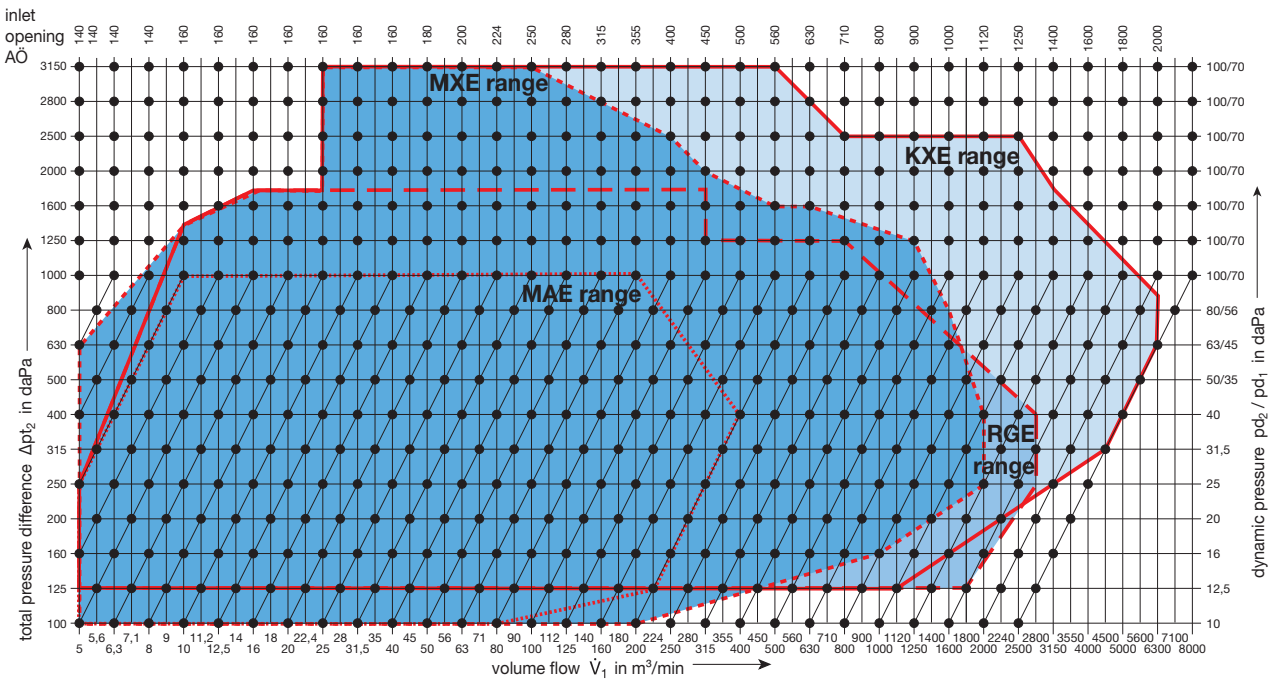
Preface

Reitz - Handbook Radial Fans

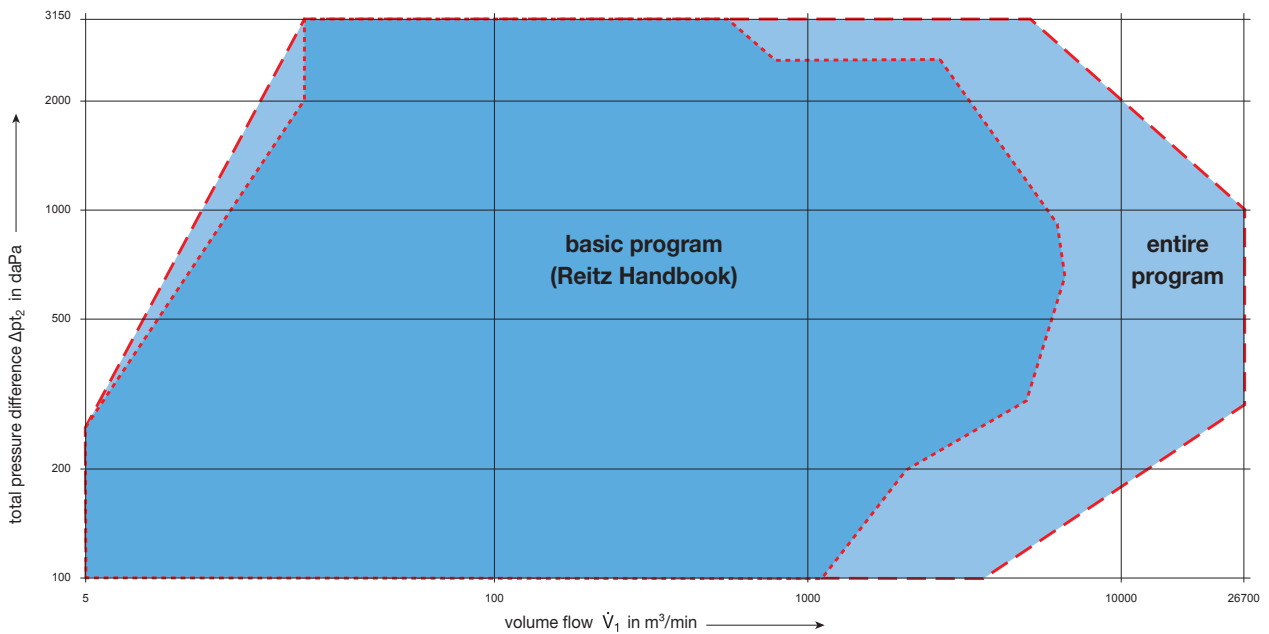
Our extensive basic program consists of four different structural designs with two types of drives. It offers a wide variety of radial fans for the most diverse tasks and performance requirements. State-of-the-art production processes and good vertical integration ensure top-quality standards, a very good price performance ratio and optimum delivery times of our fans.

Modifications of single components as per the customers' specifications can offer extended solutions in many cases.

The diagram below shows our basic program.



Should your requirements exceed these figures, we design and produce customised fans for all industrial applications.





ErP-Directive

By signing the Kyoto Protocol, the countries of the European Union agreed upon a common climate and energy policy and committed themselves to lower the CO₂ emissions by 20 % by 2020, to enhance the energy efficiency by 20% and, in addition, increase the total share of renewable energy to 20%. In pursuing these objectives, the European Union adopted the directive 2009/125/EC “establishing a framework for the setting of ecodesign requirements for energy-related products”, or **ErP directive** for short, in 2009.

With the EC regulation 327/2011 to Directive 2007/125/EC, the European Parliament and the European Council laid down the requirements for eco-friendly design of fans that are driven by motors with an electric input power of 125W to 500 kW.

The regulation specifies two deadlines for the mandatory gradual introduction of the so-called efficiency classes. The first stage came into force on January 1, 2013 and has since been effective; the second stage came into effect on January 1, 2015.

Implementation of the directive

Fans from Reitz Group comply with the requirements that have been in effect as of January 1st, 2015.

The new type selection sheets of the basic program show whether the target energy efficiency is achieved or not or whether the target energy efficiency is relevant and fulfilled or not.

This is indicated by the symbols ○ directive fulfilled, ● directive not fulfilled, □ directive not relevant ■ directive not relevant but fulfilled

Please contact us for enquiries about fans marked in the type selections sheet with the symbol ●. We will be pleased to advise you.

Which products are governed by the ErP Directive?

- The ErP Directive applies to all fans in pure air applications up to pressure series 1000daPa inclusive and up to a maximum inlet temperature $t_1 \leq 100^\circ\text{C}$

Which products are not governed by the ErP Directive?

- Fans whose operating motor temperature or annual average handled gas temperature in the environment do not fall below -40°C or exceed $+65^\circ\text{C}$.
- Fans for application in the automotive and mobility sector.

Marking on the nameplate

As of January 1st, 2015, the fan's nameplate must bear additional information about the turbo-machine's efficiency which refers to the fan's optimum calculated point, i.e. nominal point NP.

Compliant with the ErP Directive, the information about efficiency grade and target efficiency should be indicated in dependence of fan operation with fixed or variable speed. Since operation at fixed speed, however, has proven to be the worst case, all information on target efficiency and efficiency grade refers to the operation mode without variable speed.

In addition, the nameplate and the technical data sheets (product catalogue) indicate the efficiency grade η , the underlying measurement category and the degree of efficiency at the optimum energy efficiency point η_{opt} .



Design variants basic program

Unusual demands require unusual solutions. Apart from the basic configuration, all fans of the REITZ basic program are also available in the most diverse design variants. No matter which fans are required, from high-pressure fans to explosion-proof, stainless-steel fans, our comprehensive experience gained over many years ensures reliable operation, even in critical application areas. The following list provides an overview of the enormous variety of the REITZ basic program.

- low-wear design and non-corroding armouring made of material with surface hardness of up to 68 HRC or 700 Brinell.
- non-corroding design: use of stainless steel and layers like hard or soft rubber lining, PTFE, ETFE, etc.
- adaptation to procedural specific characteristics like Hygienic Design (EHEDG, FDA, etc.) or vibratory ground design
- temperature resistant design for low (-50°C) or high (+500°C) handled gas temperatures as well as designs for ambient temperatures from -50°C to +60°C
- pressure-resistant and pressure-shock proof designs
- explosion-proof design acc. to ATEX directive 2014/34/EU
- spark protection for non-EC applications
- gasproof and liquid-tight designs

This fan handbook is also called list 17_1. Compared to the former lists 2012 and 2010, we editorially reworked the present version and revised the technical descriptions in the type selection sheets.

You may download the handbook or parts thereof from our website or order further copies from us.

Please contact us for any questions and inquiry.

We will gladly give our expert advice anytime.

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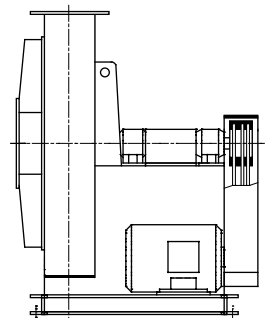
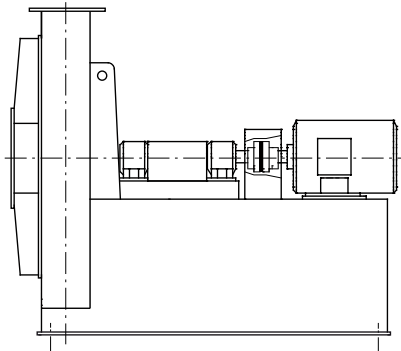
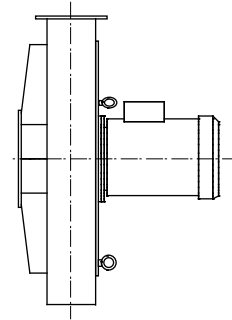
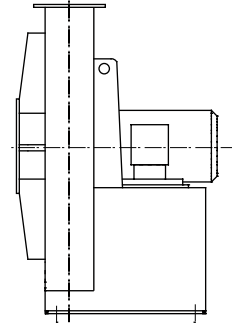
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Product description

Chapter 1 - Product description - PB

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- Conversion from pressure to vacuum operation
- Operational behaviour
- Tolerances
- Sound behaviour



Design conditions

General information

All fans listed herein are single-stage fans and manufactured in welded industrial design. Depending on the fan design, there is a common base frame made of steel to accommodate the housing, bearings and drive motor. The impellers are designed in accordance with state-of-the-art flow technology. The performance data is based on an inlet temperature of 20° C at an air pressure of 101,325 Pa relative to a density of 1.205 kg/m³. The presently effective EU Directives are the basis for fan and equipment design. The technical design complies with DIN 24166, „Technical Delivery Conditions for Fans“. We are certified according to DIN EN ISO 9001.

Ambient temperature

The mechanical drive elements are designed for steady ambient temperatures of -20°C up to +40°C. Please consult us for other temperatures.

Operating temperature

All fan components in contact with the medium are designed to handle temperature ranges from -20°C to +80°C. The fan types MAE, MXE, KXE and RGE are suitable for temperatures of up to +180°C provided a heat flinger is installed. Please consult us for other temperatures.

Balancing technique

All fan impellers and other rotating parts are dynamically balanced in two planes. The permissible residual unbalance has been determined in compliance with the Standard DIN ISO 1940 Part I „Balance quality requirements of rigid rotors“. The balance quality grade of the entire fan unit is G 6.3. Other quality grades can be supplied for special requirements. Please enquire about the additional costs for other quality grades. All connections with key and slot are balanced by half keys according to DIN EN 60034-14.

Vibration technique

All fans meet the technical vibration requirements with respect to dynamic rigidity, quiet running, noise radiation and similar aspects. The evaluation of the vibration complies with DIN ISO 10816-3 „Evaluation of machine vibration by measurements on non-rotating parts – part 3: Industrial machines with nominal power above 15 kW and nominal speeds between 120 r/min and 15,000 r/min when measured in situ (ISO 10916-3:2009)“. Other applicable regulations: DIN ISO 10816 „Evaluation of machine vibration by measurements on non-rotating parts“ and DIN ISO 13373-1 “Condition monitoring and diagnostics of machines– Part 1: General procedures”.

Design conditions

Mechanical load

The fan design must ensure that all fan components can handle all possible load situations which may occur. Impellers in particular are key components heavily loaded. Apart from the static stress to which they are subjected, impellers also have to cope with supplementary dynamic loads. Frequent load changes caused by permanent control intervals and the aerodynamic influence of other plant components may substantially shorten the service life of the impeller and other components subjected to mechanical loads. Therefore it must be ensured that load changes are reduced. Load changes can have different causes:

- a) Speed-dependent excitation
e.g. frequent start from standstill, control with a frequency converter, pole-changing motor etc.
- b) Aerodynamic excitation
provided that the entire system resonates and is subjected to an unsteady volume flow or to deviation in pressure caused by unstable operating points (e.g. distinctive pumping of the system, constant change of operating points etc.)
- c) Vibration-dependent excitation
e.g. caused by vibrations of the complete shafting system (motor, coupling, fan, shaft, impeller etc.); see standard VDI 3840 „Vibration of shafting systems“

In order to keep impact loads and alternating loads acting on mechanical components as small as possible, frequent switching must be avoided. High switching frequencies always occur whenever there are erratic changes of speed (e.g. starting from shutdown, speed changes of pole-changing motors and permanent control intervals by frequency converters, etc.). It must therefore be ensured that switching frequencies of 6 to 8 times per day are not exceeded. Please consult us for higher switching frequencies.

Remarks on transport

Fans should always be transported using means of transport that are suitable for the location where the fan is to be installed. Only use the lifting lugs and a fork-lift truck to lift and transport the fan. Do not attach lifting tackles to inlet or discharge or to the fan motor. Blank off all openings (nozzles, flanges, etc.) firmly to keep out foreign substances, moisture, dust, etc.

Warranty claims

We reserve the right to change all technical data shown in this list. Warranty claims made as a result of such technical modifications are excluded. Prior to mounting and commissioning on-site, the corresponding safety instructions and operating manuals have to be read. Adequate preservative measures are required for long-term storage on-site. Storage instructions are available on request.

Design conditions

Information required from the customer

Where the customer's order does not refer to catalogue details, the following information is required to select the correct type of fan and the required equipment.

1. Ambient conditions (e.g. ambient pressure or altitude, ambient temperature and relative humidity)
2. Inlet temperature and inlet density
3. Total pressure increase
4. Volume flow (based on the inlet condition at temperature t_1 and static pressure p_{st1})
5. Handled gas or type of gas and its composition (gas constant); details as to whether the gas is e.g. explosive, aggressive, corrosive, dust or moisture containing, toxic or radioactive; type, composition and grain size distribution of the dust contained in the medium if the dust content of the gas handled is considerably higher than that of the external air in industrial areas ($> 5 \text{ mg/m}^3$) (e.g. abrasive, adhesive, sticking and hygroscopic)
6. Information on the type of the system, machine or unit and its intended use; mounting and installation conditions, installation dimensions to be kept
7. Type of installation and connection:
 - A, B, C or D, see page PB 16.
8. Operating conditions such as permanent operation, interrupted operation, long standstill periods, start-up frequency and variable speed control by frequency control.
9. Type of drive, method of switching-on of the motor
 - see pages PB 13 to PB 15.
10. Voltage, frequency, special conditions of the supply system
 - Please pay particular attention to the speed changes and the resulting changes in output for a 60 Hz mains.
 - Please request further information from us.
11. Design features such as e.g. radial fan, position of drive (e.g. belt or coupling) and arrangement or control units, if necessary.
Please note:
The fan sense of rotation is viewed from the fan driven end in the direction of the motor fan impeller (generally, this is the non-driven end motor bearing). The motor sense of rotation, however, is viewed from the free motor shaft end (usually, this is the driven end motor bearing), that is to say, the view direction is from the opposite side of the motor fan impeller. If, for example, the fan sense of rotation is clockwise, the motor sense of rotation is opposed to that, namely counter-clockwise.
12. Whether sealing is required for the housing and the shaft passage and whether gas has to be prevented from entering or escaping.
13. Other general information (e.g. protection against corrosion, information on material, life time of bearings, ducting forces, earthquake and vibration load, pressure-resistant and shockproof or gastight). Equipment e.g. guards, flexible connections, control devices and dampers, suction boxes.

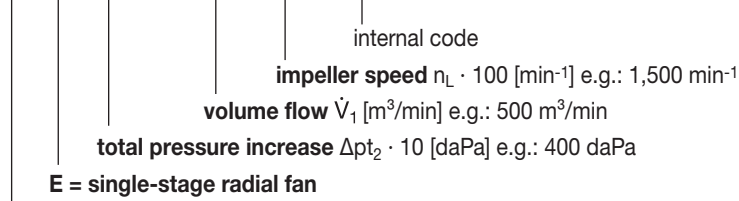
Observe for warranty statement

In our capacity as the fan supplier, we are not generally familiar with the individual system design and local conditions. Therefore, the system designer or project manager should prepare the ordering data in such a way that it already refers to the peculiarities and local conditions that are specific to the system. Our warranty details relate to individual values and test conditions in accordance with the presently effective DIN Guidelines or Standards and Regulations. It is therefore essential to adapt these to the operating state under given local conditions. For built-in parts belonging to our scope of delivery such as transition pieces, dampers, suction boxes, filters, guards, silencers etc the system designer is required to determine the corresponding installation resistances and include them in the calculations which are required to determine the fan type.

Structural designs

Type designation and article number

KX E 040 - 0500 15 - 00



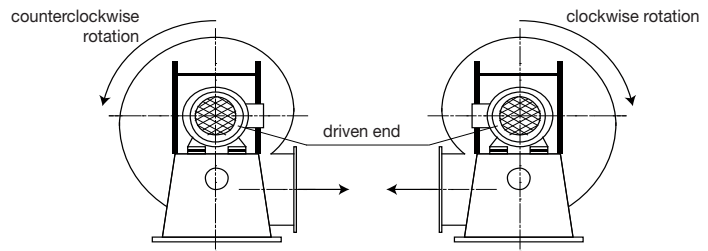
structural design: **MX** motor on pedestal; **MA** flange-mounted motor; **KX** with coupling; **RG** with belt drive

Important data needed to handle your order

1. Structural designs

MXE MAE KXE RGE
description see page PB 6

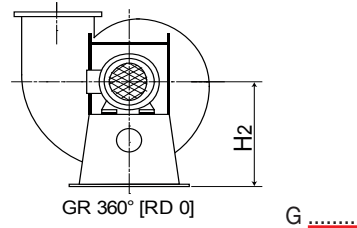
2. Sense of rotation



(viewed from the driven end) see page PB 7

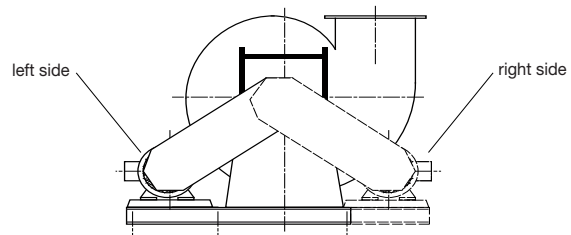
counterclockwise rotation clockwise rotation

3. Position of discharge



for example GR 360° see page PB 7

4. Arrangement of the motor



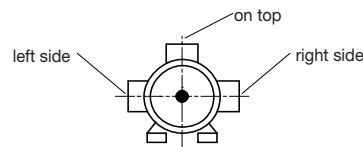
(for structural design RGE only)

right side left side see page PB 8

5. Motor size (if provided by customer)

$P_M =$ _____ kW
 $n_M =$ _____ min⁻¹
 motor size = _____
 make = _____

6. Placing of terminal box

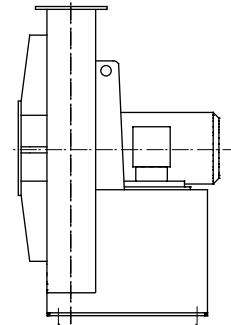


left side on top right side
viewed towards the motor shaft end

Structural designs

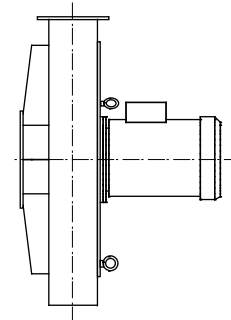
Structural design MXE

Directly driven by the motor shaft on which the impeller is mounted. The motor of foot mounting type (IMB3) is placed on the pedestal.



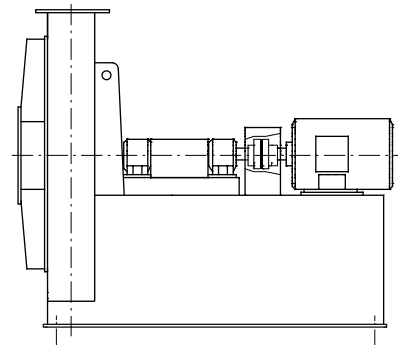
Structural design MAE

Directly driven by the motor shaft on which the impeller is mounted, suitable for surface mounting on a separator, filter etc. The motor of flange design (IMB5, IMV1) is directly flanged to the fan housing.



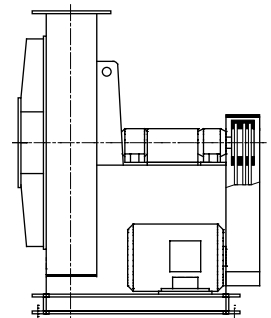
Structural design KXE

Power transmission from motor shaft to fan shaft by a flexible coupling. The fan shaft runs in two antifriction bearings.



Structural design RGE

Power transmission from motor shaft to fan shaft by V-belts. The fan shaft runs in two antifriction bearings. The motor is laterally arranged on a base frame made of channel.



Design options

Sense of rotation

Single-stage radial fans are available in two directions of rotation. As viewed from the driven end it is:

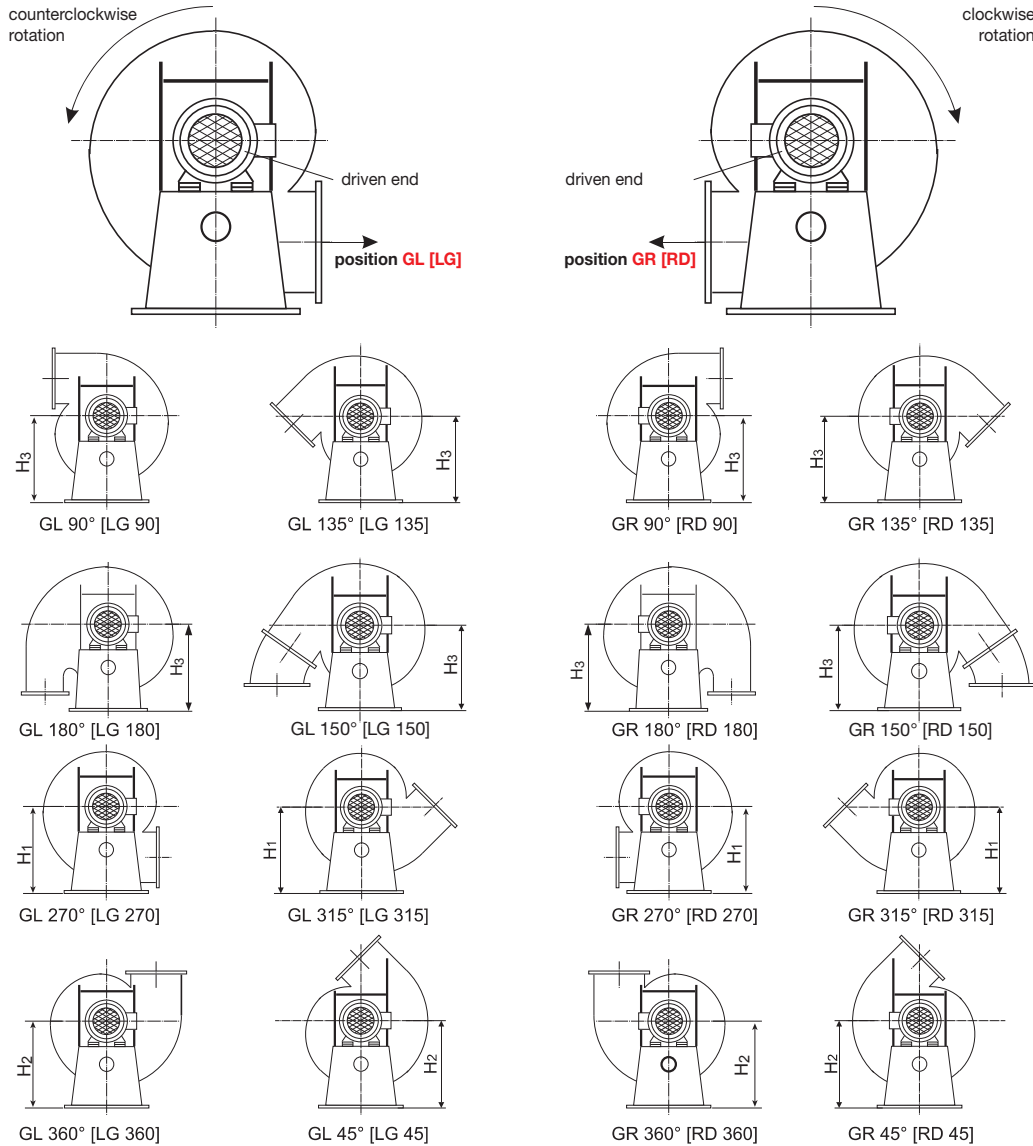
GR = clockwise rotation [RD]*

GL = counterclockwise rotation [LG]*

* Identification in [.....] as per EUROVENT

Positions of discharge

The position of the housing or the direction of the discharge is indicated in position degrees. The sense of rotation or sense of impeller rotation is always indicated as viewed from the driven end (VDMA 24 165).

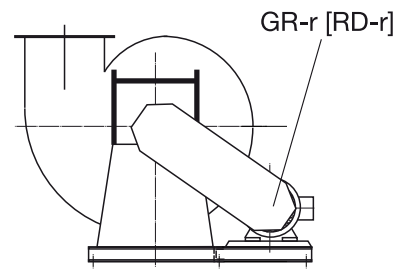


Motor arrangement

For structural design „RGE“ the motor can be arranged at the right or at the left side.

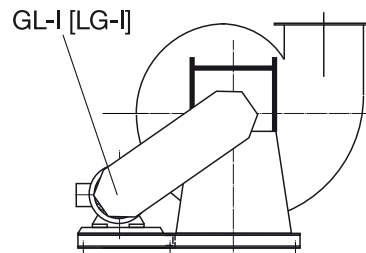
Design r

Arrangement of the motor on the right side of the base frame, viewed from the driven end.



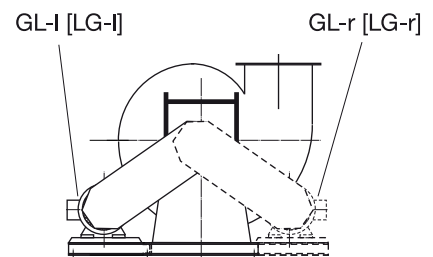
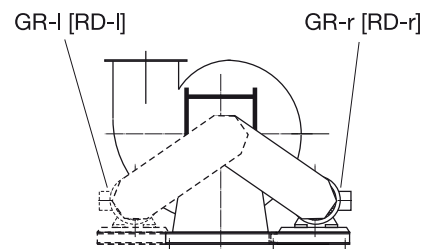
Design l

Arrangement of the motor on the left side of the base frame, viewed from the driven end.

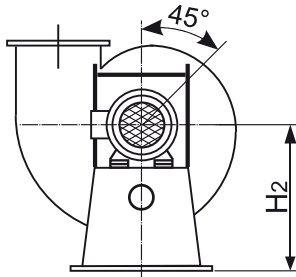


Design variants

Arrangement of the motor and sense of rotation for structural design RGE



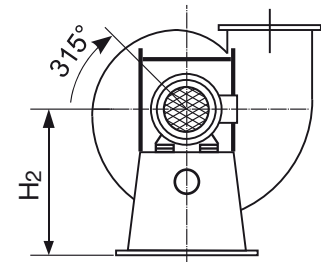
Position of the inspection openings (IO)



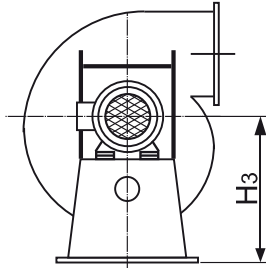
GR 360° [RD 360]

- Example 1:** Discharge position GR [RD] 360°
IO position at 45°
- Example 2:** Discharge position GL [LG] 360°
IO position at 315°

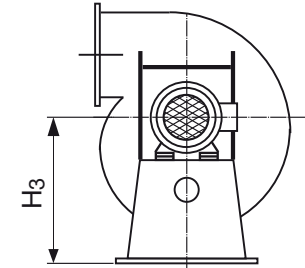
Arrangement options
viewed on the motor



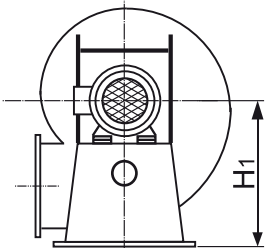
GL 360° [LG 360]



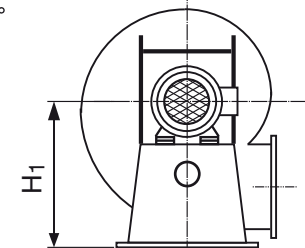
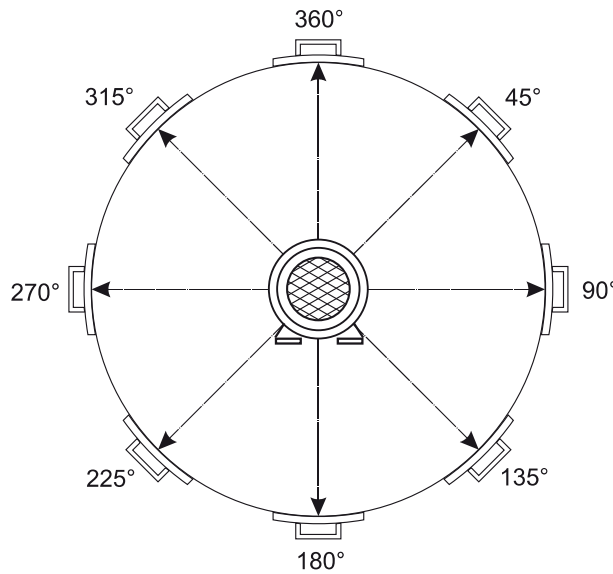
GR 90° [RD 90]



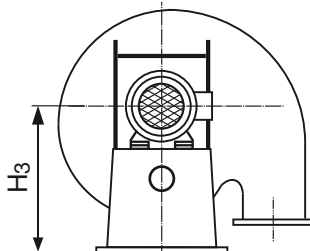
GL 90° [LG 90]



GR 270° [RD 270]

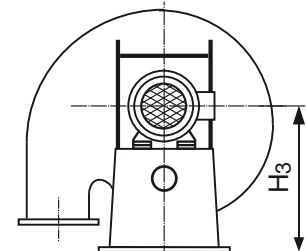


GL 270° [LG 270]

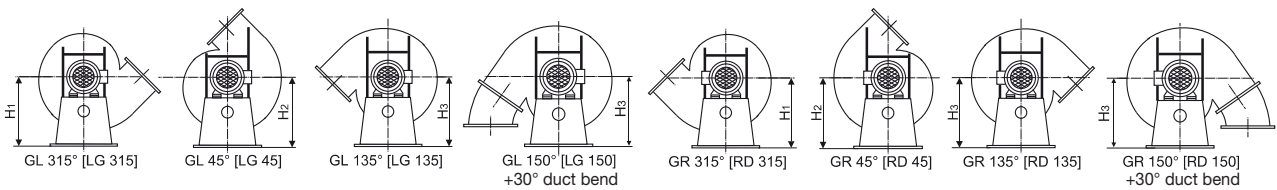


GR 180° [RD 180]*

The inspection opening position is always indicated in degrees of the circular housing. Direction of rotation always clockwise (righthanded) seen from the driven end. This is irrespective of the direction of rotation of the fan.



GL 180° [LG 180]*



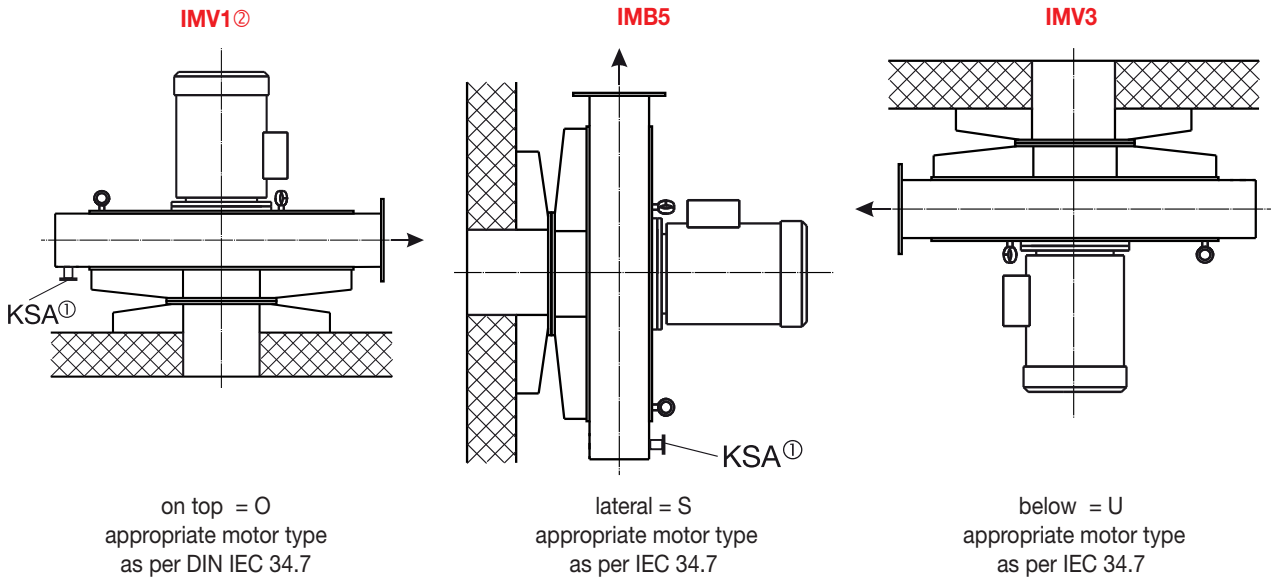
Examples of possible housing positions.

* Discharge position 180° depending on the size can only be achieved with 150° + 30° duct bend.

Arrangement of structural design MAE

Installation and mounting options and corresponding motor types

Fan arrangement

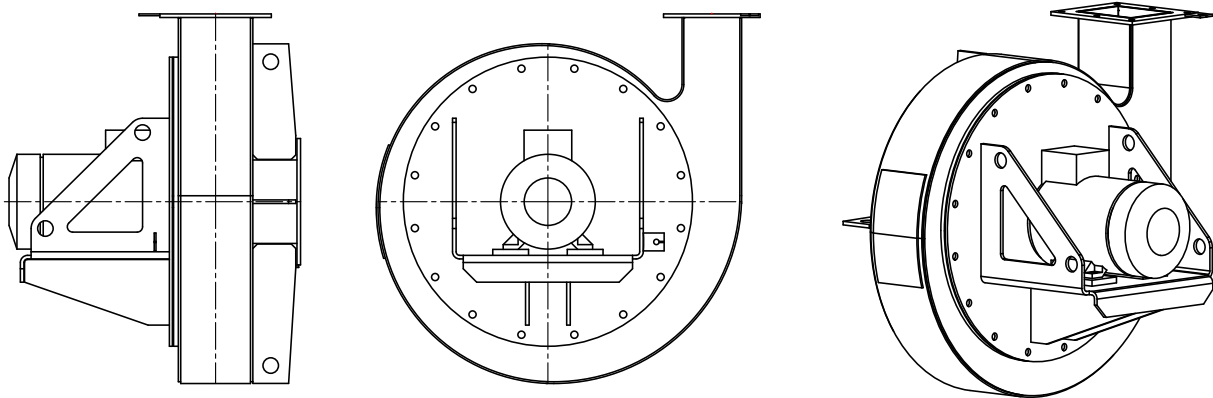


*KSA = drain. The drain, if any, is arranged as shown.

Ⓢ Structural type of motor IMV1 can be designed with rainhood upon request.

Design MAE ATEX

Constructional changes are required for MAE ATEX. Please inquire for this structural design.

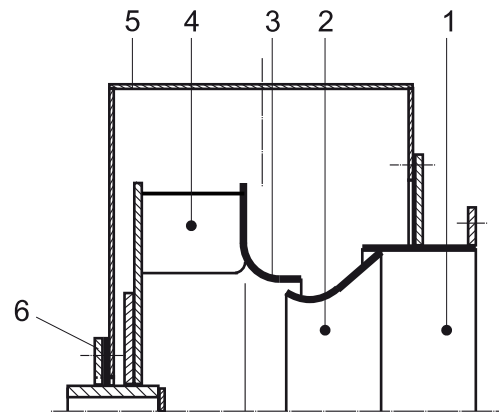


Design characteristics

Inlet design

Our optimum aerodynamic flow design includes inlet, inlet cone and nozzle and ensures high efficiency degrees.

- 1 - inlet
- 2 - inlet cone
- 3 - nozzle
- 4 - impeller
- 5 - fan housing
- 6 - shaft seal



Design of fan connections

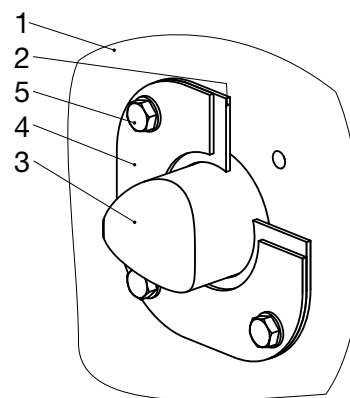
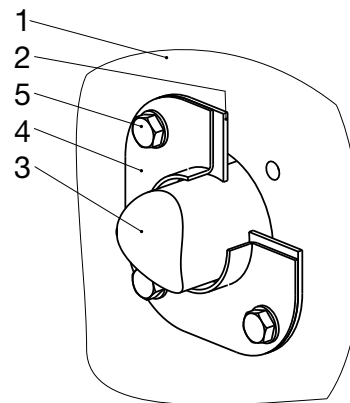
The fan is connected to the plant system with flanges according to DIN 24154 R2 edition July 90 or with flat frames as per DIN 24193 R3.

In case the fan is connected to duct work with flexible connections with hose clamps, the supplied fan can be of end piece design upon request.

Sealing of the shaft passage

The shaft passage is sealed in the basic version up to a handled gas temperature of + 180°C with an asbestos-free flat gasket. This type of seal is not absolutely tight. For operating temperatures of 181-300°C, the shaft seal is designed as a 1-groove carbon ring seal. Please inquire for higher-quality shaft seals.

- 1 - housing back plate
- 2 - flat seal
- 3 - impeller hub
- 4 - seal locking plate
- 5 - fastening screw



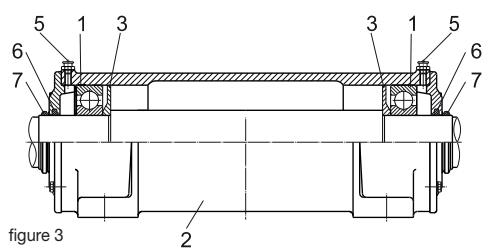
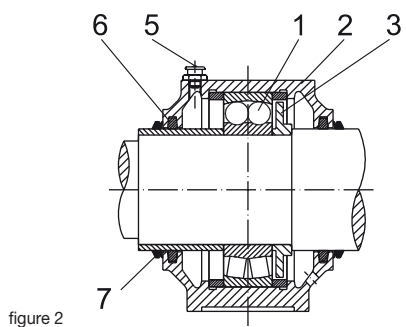
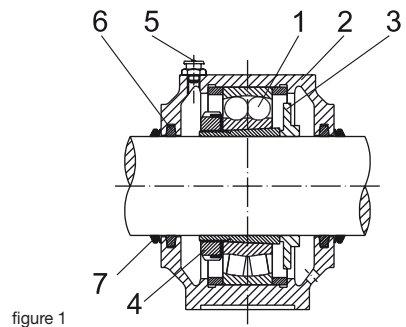
Design characteristics

Fan shaft bearings

Fan shafts for types KXE and RGE run in two anti-friction bearings. The bearing housings have re-lubricating devices and a grease quantity control. Depending on the type of bearing, bearings are fixed on the fan shaft by conical bearings with clamping sleeves or with cylindrical bearing seats

- bearing with clamping sleeve (figure 1)
- bearing with cylindrical sleeve (figure 2)
- multiple bearing block with cylindrical bore (figure 3)

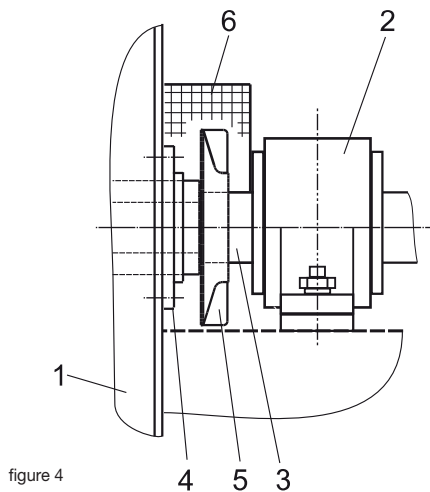
- 1 - self-aligning ball or roller bearing as required
- 2 - single bearing
- 3 - grease quantity control
- 4 - shaft nut
- 5 - flat lubrication nipple
- 6 - felt seal
- 7 - additional seal against dust and dirt



Cooling system

Fans are provided with a heat flinger made of cast aluminium alloy when they handle gas whose temperature exceed 80°C. This heat flinger has heat-dissipating surfaces to reduce the heat radiation to the bearings (fig.4)

- 1 - fan housing
- 2 - single bearing housing
- 3 - fan shaft
- 4 - shaft seal
- 5 - heat flinger
- 6 - guard



Drive motor

Selection of drive motors

The very best branded three-phase standard motors of the protection system IP 55 are used for the drive. The motors are sufficiently dimensioned due to a power consumption that includes a safety margin. If the motors are installed in rooms with a cooling air temperature higher than 40°C, it has to be considered that the output will be reduced. Take values from the manufacturer's motor catalogue.

Protective motor devices

Protective motor devices are used to protect the motors from unacceptable temperature rise, to protect them against damage and to minimize the downtime of electric drives. The efficiency of a motor protection varies according to the applied technical means from most uncomplicated devices that respond often inaccurately only to the coarsest sources of faults, to most expensive and sophisticated equipment which allows to supervise all imaginable possibilities of danger. The inherent high starting current of all radial fans quickly heats up the stator and rotor windings, their temperature will be very high within a few seconds. Therefore it is important for a plant designer to consider the starting time. Starting times from 6 to 10 seconds are referred to as normal starts (the tripping time of the employed protective unit must exceed the starting time of the fan). Starts which take longer are referred to as heavy-duty starts.

Standard value

$$t_A \approx 6...10s = \text{normal start}$$

$$t_A \geq 6...10s = \text{heavy-duty start}$$

Performance of motor protective devices

The most important function of a motor protective device is to respond before the motor surpasses its maximum permissible excess temperature. However, motor protective devices must not respond if the motor is

- continuously operated with rated power,
- during the allowed run-up time with the allowed start-up current,
- overloaded in warm condition for 2 min with an allowed 1,5-fold nominal current according to DIN VDE 0530.

Explosion protection

Every motor must be protected with a power cut-out switch in order to meet the requirements of protection against explosion in the factory. When selecting the type of switch, care must be taken to ensure that in the event of a short circuit in the motor (i.e. locked rotor) the switch responds within the time t_E stated on the performance data plate, this must be initiated in accordance with the characteristics in the cold state (20 °C). With reference to the heating-up time t_E set out in the test regulations, the start-up conditions on motors with the „e“ protection system must be checked with particular care. The generally permitted run-up time for motors with „e“ protection system is as follows:.

$$t_A \leq 1.7 \times t_E$$

For run-up times of t_A within the t_E -time range, the protection of current-monitored motors becomes difficult because unnecessary triggering of the overload protector can be effected where start up is repeated, or because the required triggering is not effected despite exceeding the temperature limit of the stator or rotor winding, since in the meantime the overload trigger has cooled more rapidly than the motor because of its smaller thermal time constant. Please contact the motor supplier for further information.

Starting behaviour

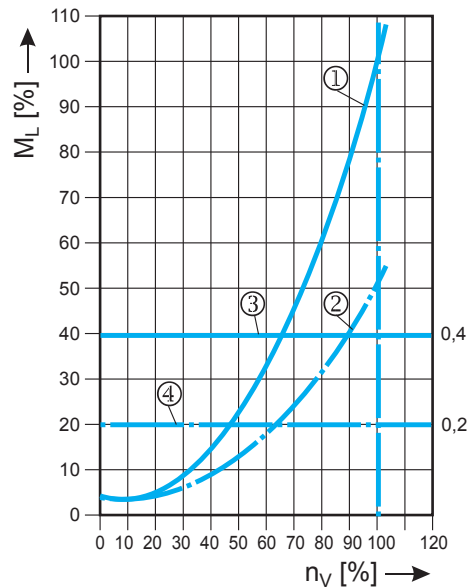
Start-up of radial fans

Fans are heavy-starting machines. To start them, the drive motor must overcome the mass moment of inertia of the impeller and when starting against the system resistance it must also overcome the load moment of the fan. Radial fans have a square-law rising load moment (see diagram load torque curve). This can produce unacceptable start-up times and, depending on the individual type of starting (direct or star – delta), run-up problems: the fan possibly does not run up to rated speed. Fans should therefore be started with closed damper where possible (shutter, damper, louvre damper or inlet guide vane). All the motor sizes recommended in our list have been defined accordingly. The run-up times stated in the type selection were calculated for motors whose start-up torque is $[M_A = 2.2 \times \text{rated torque}]$. Different start-up torque levels of the individual makes will produce different run-up times.

Load torque curve

Start-up data in design point

1. Load moment with open damper
 $M_L = 9550 \times (P_W/n_V)$
2. Load moment with closed damper
 $M_L = 9550 \times (P_W/n_V) \times 0.5$
3. Calculated load moment with open damper
 $M_{Lm} = 9550 \times (P_W/n_V) \times 0.4$
4. Calculated load moment with closed damper
 $M_{Lm} = 9550 \times (P_W/n_V) \times 0.2$



When the motor is ordered and supplied by customer, the following data must be notified to the motor manufacturer before selecting the motor:

1. Fan speed
2. Mass moment of inertia of the impeller
3. Power requirement in nominal point
4. **Starting the motor:**
 - a) with open damper
 - b) with closed damper
5. **Motor run-up:**
 - a) in star-delta
 - b) direct online
6. Switching frequency or number of start-ups per hour

The size of the motor and start-up mode can only be finally determined after the starting behaviour has been checked by the motor manufacturer.

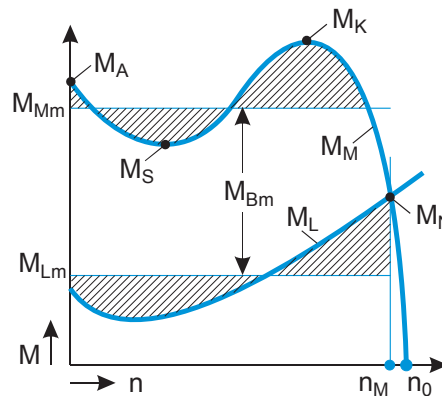
Start-up

Start-up time

Amongst other factors, the start-up time depends on the acceleration torque. The calculated acceleration torque is the difference between the motor torque and the load moment. A precise calculation can only be done by using integral calculus. In practise it is sufficient to ascertain the calculated acceleration torque and thereby to calculate the start-up time.

Calculated acceleration torque

M_{BM}	= calculated acceleration torque
M_{Mm}	= calculated motor torque
M_{Lm}	= calculated load moment
M_A	= start-up torque
M_S	= pull-up torque
M_K	= breakdown torque
M_M	= motor torque
M_N	= rated torque
M_L	= load moment
P_M	= rated motor power in kW
P_W	= required shaft power in kW
n_M	= motor speed (nominal speed)
n_0	= idling speed



Star-delta start-up

On star-delta start-up, only about 1/3 of the start-up torque is applied by the drive motor in the star circuit. Above a specific start-up speed the load torque of the fan exceeds the starting torque of the motor. The motor will not run up to rated speed. It must therefore be switched to direct online in time during the start-up period. However, this always produces a current peak.

Start-up current

The power supply, the switching devices and the monitoring equipment should essentially be checked by the client with regard to the type of start-up and current peak, ensuring that the dimensions are sufficient. Particular attention should be paid to the start-up current for direct switching. Depending upon the individual rotor category, this is 6 to 8 times the nominal current and must be electrically protected during run-up.

Start-up problems

The motor can only start-up with the fan if sufficient acceleration torque is available throughout the start-up range up to the nominal speed. Subsequent alterations to the absolute course of the motor torque cannot be implemented, thus the correct choice of motor, including the associated switching and monitoring controls, must be made on designing. It is recommended that PTC thermistors protect the motor.

Start-up current too high

Where local mains are too weak, a start-up coupling must be provided or converter technique must be applied on designing the plant. Changes of the fan dimensions should be taken into account.





Use of start-up coupling

Most start-up couplings – hydraulic or mechanical with flyweights – have a torque (friction moment) transferable from the coupling that is equivalent to the square of the RPM speed. For acceleration, the difference between motor and coupling momentums is available. The motor is virtually idling when running-up. The start-up time is lightly higher than the idle-running time. The high start-up current is therefore only of short duration. After this, when the coupling momentum exceeds the load momentum, the coupling's continuous slip moment accelerates against the load torque of the operating motor. The size of the additional inertia momentum has a significant effect on the run-up time of the machine. The start-up time can take e.g. 5 s or 100 s .

Operating conditions

Types of installation

Fans can be installed in a technical air system in different ways. In general, fans can be installed in four different types as per DIN 24163 T1.

type of installation	description of installation		figure	operation mode
	fan inlet	fan discharge		
A	free inlet	free discharge		Not permitted for radial fans. Motor will be overloaded.
B	free inlet	discharge ducted		pressure operation
C	inlet ducted	free discharge		vacuum operation
D	inlet ducted	discharge ducted		mixed operation

Installation

In general, fans should be provided with flexible connections. Flexible connections prevent the transmission of structure-borne sound and vibrational forces. They are also supposed to avoid the transmissions of forces from the duct to the fan. At the same time, alignment errors of the duct work are compensated. The flexible connections should always be arranged directly at the fan connection flange except when a damper is installed. If the fan is mounted on anti-vibration mounts, flexible connections must always be provided at inlet and discharge.

Maintenance

The antifriction bearings of the fans of KXE and RGE designs are lubricated with grease or oil and are designed for a theoretic service life time of at least 40,000 operating hours. The belt drive of the „R” type is fitted with standard narrow V-belts with a service life time of at least 25.000 operating hours. The main maintenance points include bearings, coupling, belt drive, shaft seals and parts subject to wear and tear such as the impeller. An inspection opening must be provided for checking of the impeller condition. The impeller must be checked for wear and tear or sticking of dust and dirt at regular intervals determined by the degree of wear and tear or soiling level of the handled gas. When carrying out these checks the impeller must be examined in particular for any formation of cracks on the weld seams. Easy and quick accessibility of parts which need to be serviced is important. Appropriate lifting gears and the required space must be provided if necessary for assembly and dismantling. The impeller in particular must be easily accessible.

Monitoring

The type of fan monitoring is determined primarily by its function and its importance within a system. So, depending upon its importance for the system the following factors should be taken into account:

- replacement fan or standby unit
- monitoring devices such as:
 - bearing temperature and bearing condition monitoring
 - speed monitoring
 - vibration monitoring etc.

To ensure high operational safety it is recommended to install a vibration monitoring system in fans that are subject to special load. The system can be set to trigger a preliminary warning or a major alarm or to cause an automatic shutdown even in cases of minor irregularities. Optimum service life and safe operation can only be achieved, however, if proper maintenance is provided and regular checking of parts at risk is carried out. The maintenance and inspection instructions should therefore be precisely observed.

Formeln und Einheiten

SI-unit for pressure

One pascal equals the amount of pressure acting constantly on a surface at which a force of 1 N is exerted on 1 m² surface. All pressures in this list are stated in daPa.

$$1 \text{ Pa} = 1 \text{ N/m}^2$$

$$1 \text{ daPa} = 1,02 \text{ mm WS (water column)}$$

Total pressure increase Δp_t

The total pressure increase is the total energy from the sum of the static and dynamic pressures.

$$\Delta p_t = p_{st} + p_d \quad [\text{daPa}]$$

Static pressure p_{st}

This is the internal pressure of a gas and it is exerted vertically to the duct wall.

$$p_{st_1} ; p_{st_2} \quad [\text{daPa}]$$

Dynamic pressure p_d

This corresponds to the kinetic energy of a flowing gas. This pressure is a function of speed "c" according to the following formula:

$$p_d = \frac{\rho \cdot c^2}{20} \quad [\text{daPa}] \quad \text{with } c \text{ in m/s}$$

Conversion of pressure units

required given	daPa	Pa N/m ²	mbar	bar	mmWS kp/m ²	Torr
1 daPa	1	10	0,1	10 ⁻⁴	1,02	7,5 · 10 ⁻²
1 Pa 1 N/m ²	0,1	1	10 ⁻²	10 ⁻⁵	0,102	0,75 · 10 ⁻²
1 mbar	10	10 ²	1	10 ⁻³	0,102 · 10 ²	0,75
1 bar	10 ⁴	10 ⁵	10 ³	1	0,102 · 10 ⁵	750
1 mmWS 1 kp/m ²	0,981	9,81 ≈ 1 daPa	9,81 · 10 ⁻²	9,81 · 10 ⁻⁵	1	735 · 10 ⁻⁴
1 Torr	13,3 · 10 ²	13,3 · 10 ²	1,33	1,33 · 10 ⁻³	13,6	1

Volume flow

The volume flow \dot{V} is the product of the volume and the associated time. All volume flows in this list are specified in m³/min.

$$\dot{V} \quad [\text{m}^3/\text{s}, \text{m}^3/\text{min}, \text{m}^3/\text{h}]$$

The volume flow is always referred to the vacuum operation, i.e. to the static pressure p_{st_1} , in the inlet and to the inlet temperature t_1 .

$$\dot{V}_1 = \frac{\dot{m}}{\rho_1}$$

If the temperature changes for operational reasons, the volume flow, however, is maintained.

Formulas and units

Mass flow \dot{m}

The mass flow is the product of the mass and the related time.

$$\dot{m} = \dot{V} \cdot \rho \quad [\text{kg/s, kg/min, kg/h}]$$

Standard cubic metres

The flow volume in standard cubic meters refers to the physical standard state when the temperature is 0° C and the air pressure 101,325 Pa.

$$\dot{V}_N \quad [\text{Nm}^3/\text{s, Nm}^3/\text{min, Nm}^3/\text{h}]$$

$$\dot{V}_1 = \dot{V}_N \cdot \frac{\rho_N}{\rho_1} \quad \text{bzw.} \quad \dot{V}_N = \dot{V}_1 \cdot \frac{\rho_1}{\rho_N}$$

ρ_1 in kg/m^3 = density in the operating state

ρ_N in kg/m^3 = standard density at 0°C and 101,325 Pa

Total specific supply Y_t

The specific total supply is the effective energy difference between the inlet and the discharge referred to the mass.

$$Y_t = K \cdot \frac{\Delta p_t}{\rho_1} \quad [\text{J/kg, daJ/kg}]$$

$$Y_t = \frac{\Delta p_t}{\rho_m} \quad [\text{J/kg, daJ/kg}]$$

K = compression factor

ρ_m = average density = $1/2 (\rho_1 + \rho_2)$

Compression factor K

The compression factor K accounts for the compressibility of the air.

$$K = \rho_1 \cdot \frac{Y_t}{\Delta p_t}$$

It can be determined with the mean density ρ_m .

$$K = \frac{\rho_1}{\rho_m}$$

Thumbrule for the calculation of K

$$K \approx 1 - 0,31 \cdot \frac{\Delta p_{st}}{p_a} \quad ; \quad \frac{\Delta p_{st}}{p_a} \leq 0,1$$

$$K \approx 0,994 - 0,25 \cdot \frac{\Delta p_{st}}{p_a} \quad ; \quad \frac{\Delta p_{st}}{p_a} > 0,1 \leq 0,3$$

Δp_{st} = static pressure difference

p_a = absolute pressure

Formulas and units

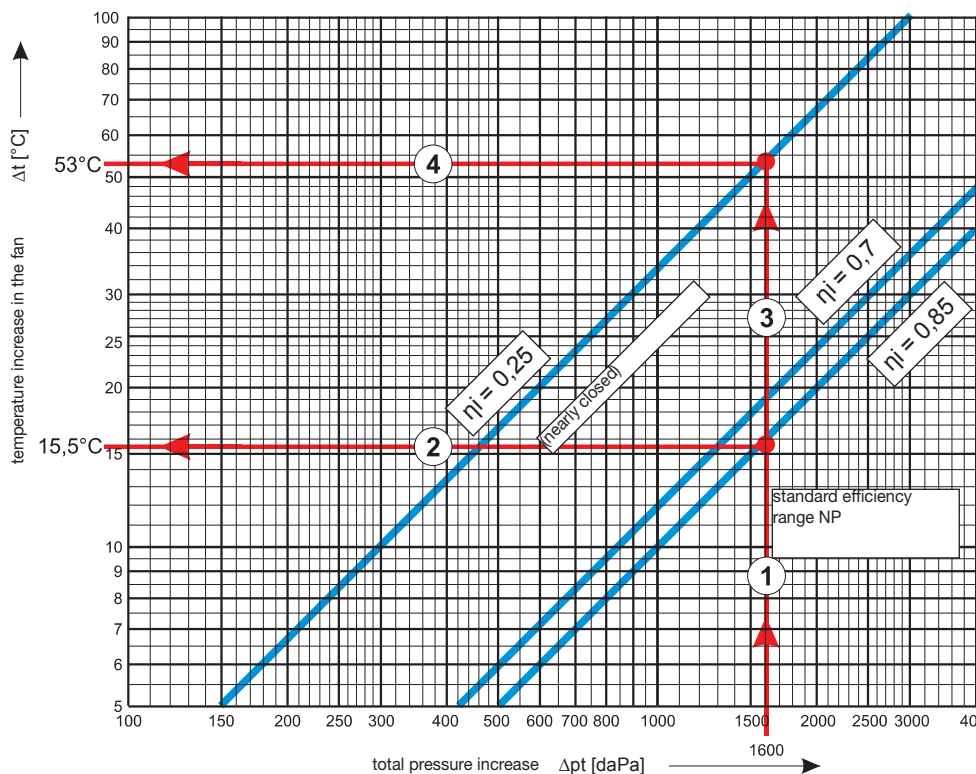
Compression heating in the fan with reference to the nominal point (NP)

The air inside the fan is subject to compression, the temperature rises from the inlet temperature t_1 to the discharge temperature t_2 . The difference between the inlet and discharge temperature is the temperature increase or compression heating Δt with $\Delta t = t_2 - t_1$ in $^{\circ}\text{C}$. The temperature increase can be easily calculated by approximation at a given fan efficiency level with the formula.

$$\Delta t = \frac{\Delta p_t}{121 \cdot \eta_i} \cdot K$$

Δt in $^{\circ}\text{C}$
 Δp_t in daPa
 K = compression factor (set as 1 in the formula)
 η_i = internal fan efficiency

Temperature increase inside the fan with reference to the nominal point and in dependence of the total pressure increase



Important remark on fan safety

The fan efficiency deteriorates when the flow is strongly reduced by dampers (deviation from nominal point). Thus, the temperature rises continuously. Temperatures of much more than 50°C can occur on the housing surfaces of high-pressure fans with a total pressure increase of $\Delta p_{t2} > 1,000$ daPa. This is to be observed for reasons of the prevention of accidents. The diagram shows a strong reduction of flow ($\eta_i = 0,25$) as a standard value. When the dampers are completely closed (i.e. operation with no flow) the maximum temperature increase is to be assessed.

Formulas and units

Total supply output P_t

The total supply output is the product of the mass flow \dot{m} and the total specific supply Y_t .

$$P_t = \frac{\dot{m} \cdot Y_t}{100} \quad [\text{kW}] \quad \begin{array}{l} \dot{m} \quad [\text{kg/s}] \\ Y_t \quad [\text{daJ/kg}] \end{array}$$

Overall efficiency η_{tW}

Overall efficiency is to be understood as the total supply P_t to shaft power P_W ratio without V-belt drive losses.

$$\eta_{tW} = \frac{P_t}{P_W} \quad P_t ; P_W \quad [\text{kW}]$$

Required shaft power P_W

The required shaft power P_W is the power taken up at the fan shaft including the corresponding mechanical losses such as bearing friction and coupling losses.

$$P_W = \frac{\dot{m} \cdot Y_t}{100 \cdot \eta_{tW}} \quad [\text{kW}] \quad \begin{array}{l} \dot{m} \quad [\text{kg/s}] \\ Y_t \quad [\text{daJ/kg}] \end{array}$$

$$P_W = \frac{\dot{V}_1 \cdot \Delta p_t}{6000 \cdot \eta_{tW}} \cdot K \quad [\text{kW}] \quad \begin{array}{l} \Delta p_t \quad [\text{daPa}] \\ \dot{V}_1 \quad [\text{m}^3/\text{min}] \end{array}$$

η_{tW} = overall efficiency of the fan referred to the fan shaft.

For total pressures up to $\Delta p_{t2} = 355$ daPa the compression factor can be neglected.

$$P_W = \frac{\dot{V}_1 \cdot \Delta p_t}{6000 \cdot \eta_{tW}} \quad [\text{kW}] \quad \text{for} \quad \Delta p_{t2} \leq 355 \text{ daPa}$$

Efficiency η_{tWV} (without compression factor)

$$\eta_{tWV} = \frac{\Delta p_t \cdot \dot{V}_1}{6000 \cdot P_W} \quad \begin{array}{l} \Delta p_t \quad [\text{daPa}] \\ \dot{V}_1 \quad [\text{m}^3/\text{min}] \\ P_W \quad [\text{kW}] \end{array}$$

Efficiency η_{tW} (with compression factor)

$$\eta_{tW} = \eta_{tWV} \cdot K$$

Formulas and units

Effect of density

In case of ideal gases the density can be determined from the general gas equation.

$$\rho = \frac{p}{R \cdot T} \quad [\text{kg/m}^3]$$

p = pressure [Pa]

T = thermodynamic temperature [K]

R = gas constant [J/kgK]

At different air density levels the pressure and the shaft power changes in proportion to the density. By contrast, the flow volume is kept constant.

Index: I = initial condition

II = altered condition

$$\frac{\Delta p_{tI}}{\Delta p_{tII}} = \frac{\rho_I}{\rho_{II}} \quad ; \quad \frac{P_{WI}}{P_{WII}} = \frac{\rho_I}{\rho_{II}}$$

Influence of air pressure

Dependent on the altitude of the installation site, the absolute air pressure and consequently the corresponding air density changes.

$$p_a = p_0 \cdot \left[1 - \frac{6,5 \cdot h}{273 + t} \right]^{5,256} \quad [\text{Pa}]$$

p_a = absolute air pressure in „h“ m altitude [Pa]

p_0 = reference air pressure in „0“ m altitude [Pa]

= 101,325 Pa

h = altitude of site [km],

t = temperature [°C]

$$\rho_a = \frac{p_a}{R \cdot T} \quad [\text{kg/m}^3]$$

Speed change

The flow volume alters proportional with the speed ratio.

$$\frac{\dot{V}_{II}}{V_{II}} = \frac{n_I}{n_{II}}$$

The pressure alters with the square of speed ratio.

$$\frac{\Delta p_{tI}}{\Delta p_{tII}} = \left(\frac{n_I}{n_{II}} \right)^2$$

The shaft power changes with the third power of speed ratio.

$$\frac{P_{WI}}{P_{WII}} = \left(\frac{n_I}{n_{II}} \right)^3$$

Fan performance curve

General information

The fan performance curve always indicates the pressure for the corresponding volume flow. The indicated pressure is always the total pressure increase Δpt_2 . For finding the static pressure p_{st} , subtract the dynamic pressure pd from Δpt_2 . The graph of the performance curve depends on various geometric and ventilation parameters. Therefore, the performance curve type is indicated in the type selection for each type of fan. The graph of the performance curve should be taken from the respective performance curve (see sheets TA 46 to TA 52).

Nominal point NP

The ratings indicated in our type selection are within the optimal range of efficiency and are designated as nominal point NP.

Plant characteristic curve

There is a resistance to the fan in every plant. For most ventilation plants the resistance runs in the form of a parabola. This characteristic curve has to be carefully calculated by the client.

Operating point BP

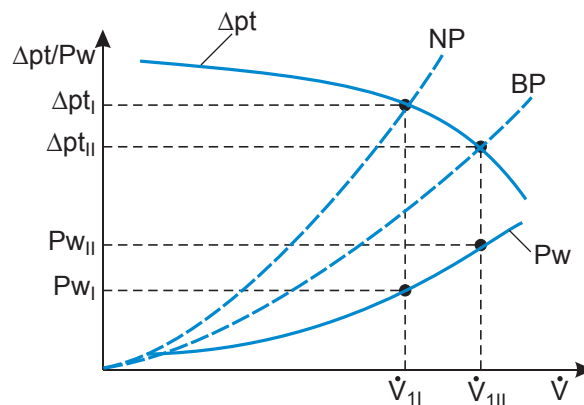
As the fan can operate at any point of its performance curve depending on the plant resistance, the actual working point in the plant is called the operating point, OP.

Interaction of plant and fan

The interface point of the fan performance curve and the plant characteristic curve is the actual operating point OP. In the best case, it is close to the nominal point NP. Should the plant resistance be lower than calculated (Δpt_{I1}), there will be a higher volume flow (\dot{V}_{1II}) at the operating point BP. As a result, the mounted motor will be overloaded and damaged. Especially for fans with a constant increase in power consumption (KL type 1, 2 and 3), the power consumption increases even when the nominal point is only slightly exceeded.

NP = nominal point = list data

BP = operation point = working point in the plant



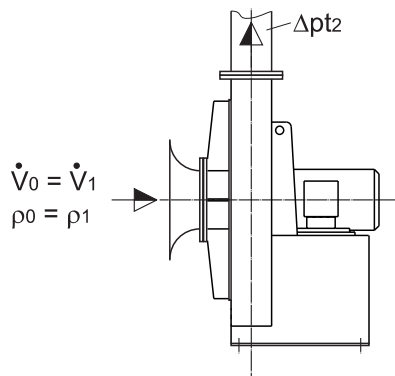
Reserve power

For this reason it is recommended to apply a motor with sufficient reserve. Experience shows that it is advisable to choose a driving power that is about 15-30% higher than the required shaft power.

$$P_M = P_W + 15\% \text{ bis } 30\%$$

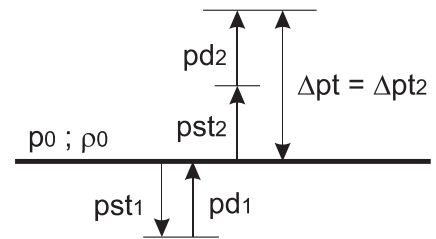
Pressure course at different operation modes

Pressure operation



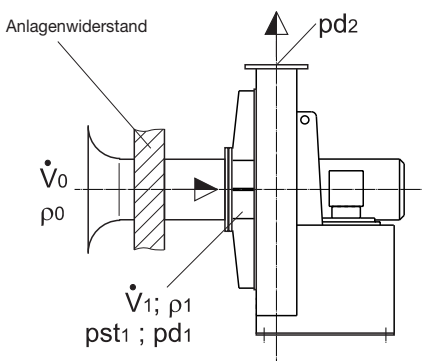
$$\Delta pt_2 = pst_2 + pd_2$$

$$pst_2 = \Delta pt_2 - pd_2$$



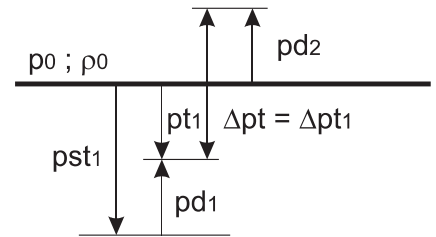
- ρ_0 = reference density
- p_0 = reference air pressure
- Δpt_2 = total pressure increase - discharge
- pst_2 = static pressure - discharge
- pd_2 = dynamic pressure - discharge

Vacuum operation



$$\Delta pt_1 = pst_1 + pd_2 - pd_1$$

$$pst_1 = \Delta pt_1 - pd_2 + pd_1$$



- Δpt_1 = total pressure increase - inlet
- pst_1 = static pressure - inlet (observe preceding sign for pst_1 (-))
- pd_1 = dynamic pressure - inlet
- pd_2 = dynamic pressure - discharge

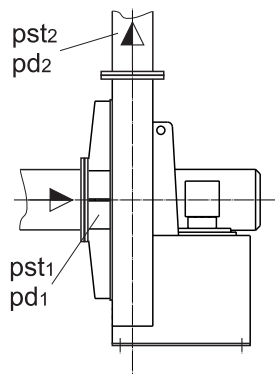
In case of operation at inlet the flow to be handled is always to be considered and indicated. The volume flow \dot{V}_0 at the intake or vacuum point is always smaller than the volume flow \dot{V}_1 at the fan inlet. To facilitate conversion from \dot{V}_0 to \dot{V}_1 , the corresponding conversion factors f_{V_0} are included in the type selection sheets (see TA 2).

$$\dot{V}_1 \cdot \rho_1 = \dot{V}_0 \cdot \rho_0$$

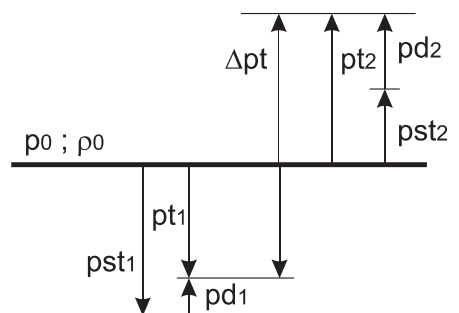
$$\dot{V}_0 = \dot{V}_1 \cdot f_{V_0}$$

$$f_{V_0} = \rho_1 / \rho_0 \text{ mit } \rho_0 = 1,205 \text{ kg/m}^3$$

Mixed operation



$$\Delta pt = pst_2 + pst_1 + pd_2 - pd_1$$



Performance curve courses at different operation modes

Pressure operation

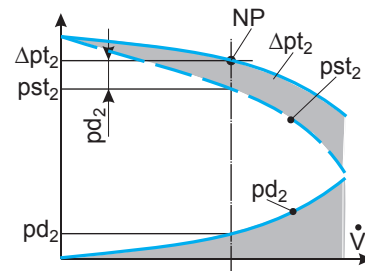
$$\Delta pt_2 = pst_2 + pd_2$$

$$pst_2 = \Delta pt_2 - pd_2$$

$$\rho_2 = \frac{(pa + pst_2) \cdot 10}{R \cdot T_2}$$

$$c_2 = \frac{\dot{V}_2}{60 \cdot A_2} \quad pd_2 = \frac{\rho_2}{20} \cdot c_2^2$$

A_2 = area of discharge



Vacuum operation

$$\Delta pt_1 = pst_1 + pd_2 - pd_1$$

$$pst_1 = \Delta pt_1 - pd_2 + pd_1$$

$$\rho_1 = \frac{(pa - pst_1) \cdot 10}{R \cdot T_1}$$

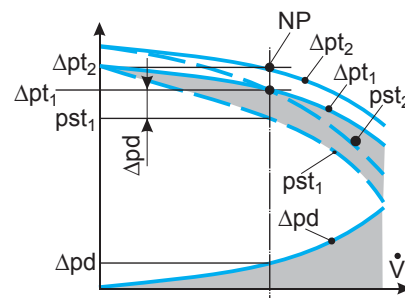
$$c_1 = \frac{\dot{V}_1}{60 \cdot A_1} \quad pd_1 = \frac{\rho_1}{20} \cdot c_1^2$$

$$\Delta pd = pd_2 - pd_1$$

if $A_1 = A_2$ then $\Delta p_d = 0$

$$\Delta pt_1 = pst_1$$

A_1 = area of inlet



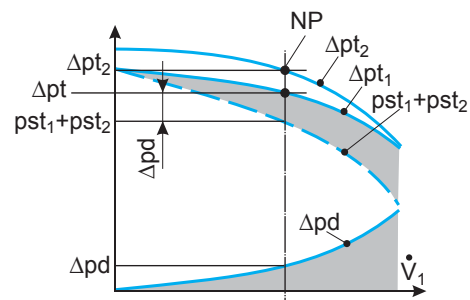
Mixed operation

$$\Delta pt = pst_2 + pst_1 + pd_2 - pd_1$$

$$\Delta pd = pd_2 - pd_1$$

if $A_1 = A_2$ then $\Delta p_d = 0$

$$\Delta pt = pst_2 + pst_1$$



Change of density

The change of density from discharge to inlet operation is noticeable in case of a total pressure increase from $\Delta pt_2 = 250$ daPa onwards. The type selection indicates the respective total pressure increases for inlet operation Δpt_1 and for discharge operation Δpt_2 (see PB 25).

Conversion from pressure to vacuum operation

All fan design data (calculation data) refer to pressure operation based on an inlet temperature of 20°C in the fan inlet, an air pressure (atmospheric pressure) of $p_0 = 10132.5$ daPa and a density of $\rho_0 = 1.205$ kg/m³.

For the calculation of the density ρ_1 and ρ_2 the static pressure is equated with the total pressure increase ($\Delta p_t = p_{st}$) and provided that inlet and pressure openings have the same diameter.

Basic formula for the pressure conversion

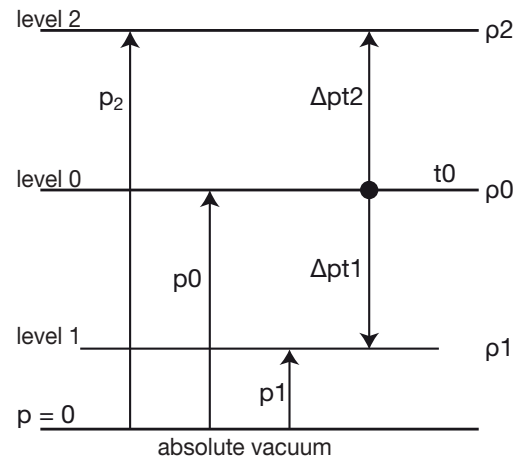
In the conversion from pressure to vacuum operation and vice versa, the pressures behave like the densities in pressure and vacuum operation under atmospheric condition

$$\frac{p_1}{p_0} = \frac{\rho_0}{\rho_2} = \frac{\Delta p_{t1}}{\Delta p_{t2}} = \frac{\rho_1}{\rho_0} = \frac{p_0}{p_2}$$

$$\Delta p_{t1} = \Delta p_{t2} \cdot \frac{\rho_0}{\rho_2} \quad \text{with} \quad \rho_2 = \frac{(p_0 + \Delta p_{t2}) \cdot 10}{287 \cdot (273 + 20)}$$

$$\Delta p_{t2} = \Delta p_{t1} \cdot \frac{\rho_0}{\rho_1} \quad \text{with} \quad \rho_1 = \frac{(p_0 + \Delta p_{t1}) \cdot 10}{287 \cdot (273 + 20)}$$

$$\rho_0 = 1,205 \text{ kg/m}^3$$



Formula symbols

Δp_t	= total pressure increase
p_{st}	= static pressure
p_d	= dynamic pressure
\dot{V}_1	= volume flow in m ³ /min
A	= surface area in m ²
NP	= fan nominal point
ρ_0	= 1,205 kg/m ³ = reference density
ρ	= density in kg/m ³
T	= thermo-dynamic temperature in K
t	= temperature in °C
R	= gas constant for air = 287 J/kg · K

Index:	1 = inlet
	2 = discharge
	0 = reference figures with
	$p_0 = 10132,5$ daPa atmospheric pressure
	$t_0 = 20^\circ\text{C}$ inlet temperature
	$\rho_0 = 1,205$ kg/m ³ inlet density
	p = absolute pressure in daPa

level 0 : reference pressure = atmospheric pressure

level 2 : operation at discharge (positive pressure)

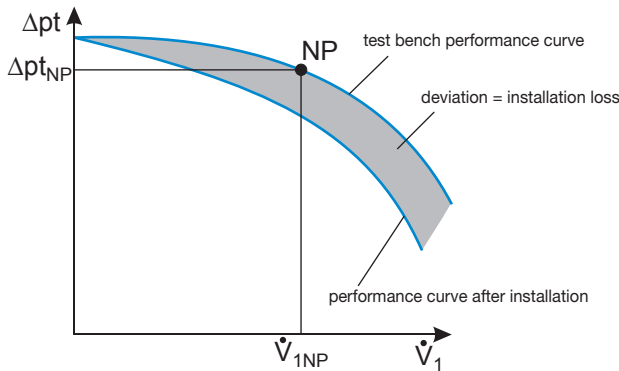
level 1 : operation at inlet (negative pressure)

Operational behaviour

Installation loss

Both fan and plant are part of an interacting complex aerodynamic system. After the installation in a plant, there will consequently be a deviation from the standard performance curve depending on the kind of the inlet and discharge conditions. The deviations will be indicated as installation loss.

Deviation from the standard performance curve



In order to keep the installation loss as small as possible the following frequent malfunction sources should be avoided:

- bend directly up- or downstram of the fan
- dampers directly upstream of the inlet
- flexible connections with constricted cross-section
- inlet duct too short
- improper transition pieces
- pressure loss caused by suction box
- inlet whirl by components at inlet
- leakage loss in ducts and plant components
- stalls caused by plant
- dynamic pressure at discharge (diffusor)

Standard performance curve

According to DIN 24163 the standard performance curve of a fan is the interrelation between the fan pressure increase Δp_t and the handled flow rate \dot{V}_1 metered on the test bench under accurate test conditions. To complete the operating data, the power consumption P_W is also indicated. All data given in the technical literature is principally based on this standard performance curve. The performance of the standard curve depends on various geometrical and flow parameters. The design or calculation point of the performance curve is called the nominal point (NP). It is within the optimum range of efficiency. All ventilation data refers to the following reference figures:

air pressure	$\rho_0 = \rho_a = 10132.5 \text{ daPa}$
inlet temperature	$t_0 = t_1 = 20^\circ\text{C}$
inlet density	$\rho_0 = \rho_1 = 1.205 \text{ kg/m}^3$

Tolerances

Basic criteria

Certain deviations from the agreed operational values are permissible due to unavoidable design, calculation and production tolerances (called „as-built tolerances“). The permissible deviations depend on the class of accuracy of the fan. The selection of the accuracy class for the individual fan depends on different criteria. It might be necessary to adapt the accuracy class to the ambient or operating conditions. Uncertainties concerning the defining of the operational values due to special installation conditions (e.g. disturbances at the inlet and discharge) are not included in the as-built tolerances and must be considered separately. For further information see our brochure „Fans in practice“.

As-built tolerances depending on the class of accuracy

class of accuracy according to DIN 24166		0	1	2	3
volume flow	\dot{V}_1	±1%	± 2,5%	±5%	± 10%
total pressure increase	Δp_t	±1%	± 2,5%	±5%	± 10%
shaft power	P_W	+ 2%	+ 3%	+ 8%	+ 16%
efficiency	η_{tw}	- 1%	- 2%	- 5%	-
sound values	L_W, \bar{L}_p	+ 3dB	+ 3dB	+ 4dB	+ 6dB

In case no special specifications have been agreed upon, the following accuracy classes apply:

shaft power $P_W > 50\text{kW}$ class 1
 shaft power $P_W < 50\text{kW}$ class 2

Special design fans (e.g. unshrouded impellers, rubberlined or coated impellers, impellers with strongly curved blades) are class 3. Class 2 applies to slightly modified impellers flow conditions.

Operational condition

The as-built tolerances apply only to design point or nominal point (NP) of the fan. It has been specified with regard to the speed, volume flow, pressure, density and handled gas.

As-built tolerances

The allowed deviations in the dimension sheets comply with ISO 2768-mK and EN ISO 13920-A.

nominal range (mm)	above 6	above 30	above 120	above 315	above 1000	above 2000	above 4000
	to 30	to 120	to 315	to 1000	to 2000	to 4000	to 8000
tolerance (mm)	+ 1	+1,5	+ 2	+ 3	+ 4	+ 5	+ 8

Sound behaviour

Correction supplements

For design and construction of ventilation plants, compliance with the given noise limits is necessary to protect the neighbourhood from sound irritation. The fan in particular is one of the most critical sound sources within the entire plant which should be paid particular attention to.

In order to maintain and prove the agreed sound specifications, it is necessary to measure noise according to the given standard regulations.

For sound measurements at fans, standardised regulations apply as described in DIN 45635, sheet 1 „Machine noise measurement“ and DIN 45635 part 38 „Fan noise measurement“ .

The standard describes the precondition for determination of the sound radiated directly from the fan into the environment (sound emission), according to standardised methods, so that the results can be compared. The measuring method described in the standard is only valid for free sound radiation i.e. in a reflexion-free environment.

In practise, however, there are generally no optimal terms. Noise values metered under operational conditions differ more or less from the values measured in reflexion-free space. The individual operating conditions and type of installation in combination with the environmental influences normally lead to considerable increases in the noise levels. The provision of warranty to the end-user is subject to the consideration of plant-specific additions and acoustic calculations.

$$\boxed{\text{fan noise level in the system}} = \boxed{\text{REITZ fan noise level specification}} + \boxed{\text{addition* (adjustment)}}$$

*addition from 3 to 9 db, db(A) are quite realistic

The plant designer or acoustic engineer has to ascertain and calculate the additions. The empiricals for the addition depend on the number of parameters which can be influenced

Influence of noises under operating conditions

In order to transfer measurements for the fan taken in optimum conditions to working conditions, it is indispensable to observe and take into account the following sources of interference

- noise of drive motors
- background noise generated by other machines
- level increase by room influence (reflexion)
- level increase by deviation from nominal point (fan is deviating from order values when operating in the plant)
- level increase caused by dampers (inlet guide vanes, valves, shutters, etc.)
- level increase caused by flexible connections (they represent areas of „noise leaks“ in the system)
- level increase caused by plant components as for instance ducts, bends, baffles, suction boxes, changes of cross section, transition pieces etc.
- level increase caused by stalls in the plant

In principle, the sources of interference produced by the plant itself as well as interference caused by set-up (locality) are to be calculated and determined by the designer of the plant. Please refer to our brochure entitled „Practical sound design“. This detailed information on sound is intended to avoid design and planning faults.

Chapter 2 - Type selection, sound tables - TA

- Comments on type selection.....2
- Comments on sound tables.....3
- Type selection for pressure series from 100 daPa to 3150 daPa, 50 Hz, 180°C
 - structural design MXE.....4
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 - structural design MXE.....91
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- Performance curves.....178

Comments on type selection

Volume flow correction values

$\dot{V}_0 = \dot{V}_1 \cdot f_{V0}$ = calculation of actual volume at vacuum operation; **index 1** for inlet operation (Δp_{t1}); **index 2** for discharge operation (Δp_{t2}) (comment on f_{V0} see sheet PB 23)

pressure series	100 daPa - 250 daPa	$f_{V0} = 1,00$
pressure series	315 daPa	$f_{V0} = 0,98$
pressure series	355 daPa	$f_{V0} = 0,97$
pressure series	400 daPa - 450 daPa	$f_{V0} = 0,96$
pressure series	500 daPa	$f_{V0} = 0,95$
pressure series	560 daPa	$f_{V0} = 0,95$
pressure series	630 daPa	$f_{V0} = 0,94$
pressure series	710 daPa	$f_{V0} = 0,93$
pressure series	800 daPa	$f_{V0} = 0,93$
pressure series	900 daPa	$f_{V0} = 0,93$
pressure series	1000 daPa	$f_{V0} = 0,91$
pressure series	1120 daPa	$f_{V0} = 0,90$
pressure series	1250 daPa	$f_{V0} = 0,89$
pressure series	1400 daPa	$f_{V0} = 0,88$
pressure series	1600 daPa	$f_{V0} = 0,86$
pressure series	1800 daPa	$f_{V0} = 0,85$
pressure series	2000 daPa	$f_{V0} = 0,84$
pressure series	2250 daPa	$f_{V0} = 0,82$
pressure series	2500 daPa	$f_{V0} = 0,80$
pressure series	2800 daPa	$f_{V0} = 0,72$
pressure series	3150 daPa	$f_{V0} = 0,69$

Index terms to the type selection sheet

- The recommended motor may possibly differ from the motor that actually must be chosen with regard to starting behaviour which depends on the motor make. Furthermore, motor selection must also consider the change of shaft power at sequences through the performance curve beyond the nominal point. Therefore,
 - starting, starting behaviour, starting times and motor protection must be observed (see sheets PB 13 to 15)
 - heavy-duty starting must be provided
 - the customer should always check the main power supply, the switching devices and monitoring equipment with respect to starting mode and current peak values and have them adequately dimensioned
 - it is recommended to use protective motor devices with PTC-thermistors
 - the actual shaft power has to be checked when the nominal point of the performance curve is exceeded. Subsequently the actual motor power to be installed has to be adjusted. (see sheet PB 22).
- Applies to drive motors listed in the type selection with a starting torque which is as high as 2.2 times the nominal torque.
- Shaft power in nominal point for type „KXE“
Shaft power for types RGE = $P_w (1.03...1.07)$

Pertaining performance curves

The performance curves for discharge operation can be found in the annex to the type selection sheets under TA178 to TA185.

Observe tolerances according to DIN 24166 (see sheet PB 27)

Comments on sound tables

Acoustic parameter

- Consider the noise of the corresponding drive motor.
- The bearing noise is already included in the calculation for the structural designs K und R, which are fitted with shafts and anti-friction bearings.
- Rounding-off the values to integral numbers will invariably lead to differences in further calculation runs.

General comments

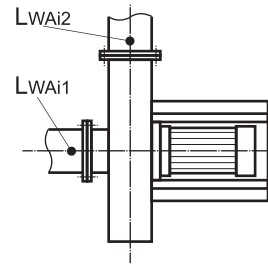
$$\bar{L}_{PA} = L_{WAa} - L_S \quad \text{or} \quad L_{WAa} = \bar{L}_{PA} + L_S$$

$$L_W = L_{WA} + \Delta L_{KA} \quad \text{or} \quad \bar{L}_P = \bar{L}_{PA} + \Delta L_{KA}$$

ΔL_{KA} = correction value for A-weighting

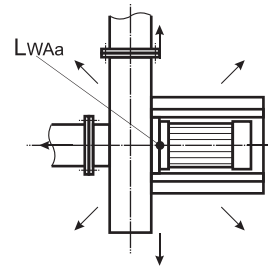
- The DIN 24 166 tolerances must always be observed. For more information see chapter „Acoustic technology” ST and pages PB 27 and 28.
- All values refer to free-field conditions. As such they are subject to local influences such as sound level addition, reflection, external background noises, system components, ducts, etc. Weitere Erläuterungen siehe Kapitel 5 - Schalltechnik
- For further information, see chapter 5 - Acoustic technology

duct noise (see sheet ST 3)



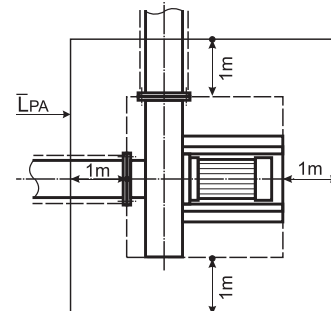
housing or fan radiation noise

with fan ducted (s. sheet ST 4)



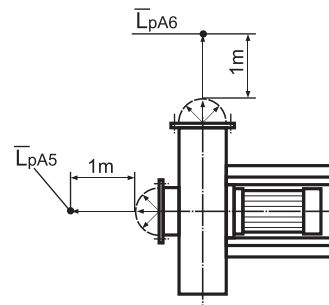
sound pressure level on measuring surface

with fan ducted at free-field conditions (see sheet ST 5)



free inlet and/or free discharge noise

referred to a distance of 1m from the hemispherical radius of the inlet and/or discharge



Type selection for pressure series 100 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 100 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
010-000530	5,0	0,10	0,14	○	1,1	2835	140	100	125	0,05	4	9	32
010-000830	8,0	0,16	0,20	○	1,1	2835	140	112	125	0,05	4	9	32
010-001030	10,0	0,20	0,24	○	1,1	2835	140	125	125	0,05	4	9	32
010-001230	12,5	0,25	0,29	○	1,1	2835	160	140	125	0,06	5	9	34
010-001630	16,0	0,32	0,37	○	1,1	2835	160	160	125	0,06	5	9	34
010-002030	20,0	0,40	0,45	○	1,1	2835	180	180	140	0,07	5	9	39
010-002530	25,0	0,50	0,56	○	1,1	2835	200	200	160	0,08	6	9	41
010-003130	31,5	0,63	0,69	○	1,1	2835	224	224	180	0,09	6	9	51
010-004030	40,0	0,80	0,87	○	1,1	2835	250	250	200	0,11	6	9	52
010-005015	50,0	1,00	1,09	○	1,5	1410	315	280	224	0,83	5	9	103
010-005030	50,0	1,00	1,08	○	1,5	2850	280	280	224	0,13	6	9	57
010-006315	63,0	1,27	1,35	○	1,5	1410	315	315	250	0,85	5	9	106
010-006330	63,0	1,27	1,35	○	1,5	2850	315	315	250	0,16	7	9	68
010-008015	80,0	1,61	1,71	○	2,2	1420	355	355	280	1,00	6	9	130
010-010015	100,0	2,01	2,14	○	3	1430	400	400	315	1,15	6	9	142
010-012515	125,0	2,51	2,66	○	3	1430	450	450	355	1,32	6	9	151
010-016015	160,0	3,21	3,40	○	4	1440	500	500	400	1,59	6	9	187
010-020015	200,0	4,02	4,25	○	5,5	1450	560	560	450	2,03	7	9	220

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 100$ daPa
 Total pressure increase $\Delta pt_1 = 99$ daPa
 Specific supply $Yt_2 \approx 83$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,193$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 125 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 125 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
012-000530	5,6	0,11	0,19	○	1,1	2835	140	100	125	0,06	4	9	32
012-000930	9,0	0,18	0,28	○	1,1	2835	140	112	125	0,07	4	9	33
012-001130	11,2	0,22	0,34	○	1,1	2835	140	125	125	0,06	4	9	33
012-001430	14,0	0,28	0,41	○	1,1	2835	160	140	125	0,07	5	9	34
012-001830	18,0	0,36	0,52	○	1,1	2835	180	160	125	0,09	5	9	40
012-002230	22,4	0,45	0,63	○	1,1	2835	180	180	140	0,09	5	9	43
012-002830	28,0	0,56	0,78	○	1,1	2835	200	200	160	0,10	5	9	44
012-003530	35,0	0,70	0,96	○	1,1	2835	224	224	180	0,12	6	9	51
012-004530	45,0	0,90	1,22	○	1,5	2850	250	250	200	0,14	6	9	62
012-005615	56,0	1,12	1,52	○	2,2	1420	315	280	224	1,05	5	9	121
012-005630	56,0	1,12	1,50	○	2,2	2850	280	280	224	0,16	6	9	67
012-007115	71,0	1,43	1,91	○	2,2	1420	355	315	250	1,24	5	9	126
012-007130	71,0	1,43	1,91	○	2,2	2850	315	315	250	0,20	6	9	69
012-009015	90,0	1,81	2,39	○	3	1430	355	355	280	1,20	5	9	130
012-009030	90,0	1,81	2,40	○	3	2875	355	355	280	0,25	7	9	88
012-011215	112,0	2,25	2,98	○	4	1440	400	400	315	1,42	6	9	144
012-014015	140,0	2,81	3,73	○	4	1440	450	450	355	1,78	6	9	173
012-018015	180,0	3,62	4,76	○	5,5	1450	500	500	400	2,07	6	9	211
012-022415	224,0	4,50	5,93	○	7,5	1450	560	560	450	2,77	6	9	228
012-028015	280,0	5,62	7,40	○	11	1460	630	630	500	3,95	7	9	298

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 125$ daPa
 Total pressure increase $\Delta p_{t1} = 124$ daPa
 Specific supply $Y_{t2} \approx 103$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,190$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 160 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 160 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
016-000630	6,3	0,13	0,27	○	1,1	2835	140	100	125	0,09	4	9	36
016-001030	10,0	0,20	0,40	○	1,1	2835	140	112	125	0,09	4	9	36
016-001230	12,5	0,25	0,48	○	1,1	2835	160	125	125	0,10	4	9	36
016-001630	16,0	0,32	0,60	○	1,1	2835	160	140	125	0,10	4	9	40
016-002030	20,0	0,40	0,73	○	1,1	2835	180	160	125	0,11	5	9	41
016-002530	25,0	0,50	0,90	○	1,1	2835	200	180	140	0,13	5	9	51
016-003130	31,5	0,63	1,11	○	1,5	2850	200	200	160	0,14	5	9	54
016-004030	40,0	0,80	1,39	○	1,5	2850	224	224	180	0,16	5	9	61
016-005030	50,0	1,00	1,73	○	2,2	2850	250	250	200	0,18	6	9	63
016-006315	63,0	1,27	2,20	○	3	1430	315	280	224	1,41	4	11	139
016-006330	63,0	1,27	2,16	○	3	2875	280	280	224	0,22	6	9	71
016-008015	80,0	1,61	2,75	○	3	1430	355	315	250	1,62	5	11	144
016-008030	80,0	1,61	2,75	○	3	2875	315	315	250	0,26	6	9	83
016-010015	100,0	2,01	3,44	○	4	1440	400	355	280	1,92	5	11	153
016-010030	100,0	2,01	3,41	○	4	2900	355	355	280	0,31	6	9	89
016-012515	125,0	2,51	4,24	○	5,5	1450	400	400	315	1,97	5	11	186
016-012530	125,0	2,51	4,23	○	5,5	2900	400	400	315	0,42	7	9	113
016-016015	160,0	3,21	5,43	○	7,5	1450	450	450	355	2,29	6	9	197
016-020015	200,0	4,02	6,79	○	7,5	1450	500	500	400	3,29	6	9	247
016-025015	250,0	5,02	8,43	○	11	1460	560	560	450	3,89	6	9	278
016-031515	315,0	6,33	10,6	○	15	1460	630	630	500	5,02	6	9	307
016-040015	400,0	8,03	13,5	○	15	1460	710	710	560	6,90	7	9	431
016-050015	500,0	10,04	16,9	○	18,5	1460	800	800	630	8,18	8	9	515
016-063015	630,0	12,65	21,1	○	30	1470	900	900	710	11,52	8	9	589
016-080010	800,0	16,07	26,6	○	30	980	1000	1000	800	36,10	7	9	1020
016-100010	1000,0	20,08	33,1	○	37	980	1120	1120	900	44,11	8	9	1124

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 160$ daPa
 Total pressure increase $\Delta p_{t1} = 158$ daPa
 Specific supply $Y_{t2} \approx 132$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,186$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 200 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design MXE	volume flow and mass flow in NP at 200 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor MXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
020-000730	7,1	0,14	0,39	○	1,1	2835	140	100	125	0,12	3	9	42
020-001130	11,2	0,22	0,56	○	1,1	2835	140	112	125	0,12	3	9	42
020-001430	14,0	0,28	0,68	○	1,1	2835	160	125	125	0,13	4	9	43
020-001830	18,0	0,36	0,84	○	1,1	2835	180	140	125	0,15	4	9	48
020-002230	22,4	0,45	1,02	○	1,1	2835	180	160	125	0,15	4	9	48
020-002830	28,0	0,56	1,25	○	1,5	2850	200	180	140	0,17	5	9	53
020-003530	35,0	0,70	1,54	○	2,2	2850	224	200	160	0,19	5	9	63
020-004530	45,0	0,90	1,95	○	2,2	2850	224	224	180	0,20	5	9	67
020-005630	56,0	1,12	2,41	○	3	2875	250	250	200	0,24	6	9	73
020-007115	71,0	1,43	3,10	○	4	1440	355	280	224	2,05	4	11	161
020-007130	71,0	1,43	3,06	○	4	2900	280	280	224	0,28	6	9	82
020-009015	90,0	1,81	3,86	○	5,5	1450	355	315	250	2,07	4	11	158
020-009030	90,0	1,81	3,84	○	5,5	2900	315	315	250	0,34	6	9	92
020-011215	112,0	2,25	4,80	○	5,5	1450	400	355	280	2,43	5	11	194
020-011230	112,0	2,25	4,76	○	5,5	2900	355	355	280	0,44	6	9	102
020-014015	140,0	2,81	6,00	○	7,5	1450	450	400	315	3,18	5	11	218
020-014030	140,0	2,81	5,91	○	7,5	2915	400	400	315	0,58	7	9	116
020-018015	180,0	3,62	7,59	○	11	1460	450	450	355	3,71	5	11	249
020-018030	180,0	3,62	7,54	○	11	2920	450	450	355	0,88	7	9	157
020-022415	224,0	4,50	9,47	○	11	1460	500	500	400	4,35	6	9	270
020-028015	280,0	5,62	11,8	○	15	1460	560	560	450	5,39	6	9	348
020-035515	355,0	7,13	14,9	○	18,5	1460	630	630	500	6,65	6	9	397
020-045015	450,0	9,04	18,8	○	22	1460	710	710	560	8,76	6	9	447
020-056015	560,0	11,25	23,2	○	30	1470	800	800	630	11,12	7	9	550
020-071015	710,0	14,26	29,3	○	37	1470	900	900	710	14,96	7	9	738
020-090015	900,0	18,08	37,3	○	45	1470	1000	1000	800	20,39	8	9	857
020-112010	1120,0	22,49	46,2	○	55	980	1120	1120	900	65,38	8	11	1438
020-140010	1400,0	28,12	57,5	○	75	980	1250	1250	1000	78,96	8	11	1816

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 200 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 196 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,181 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 165 \text{ daJ/kg}$

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 250 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
025-000530	5,0	0,10	0,39	○	1,1	2835	140	100	125	0,17	3	9	50
025-000830	8,0	0,16	0,55	○	1,1	2835	140	100	125	0,17	3	9	50
025-001230	12,5	0,25	0,79	○	1,1	2835	160	112	125	0,19	3	9	51
025-001630	16,0	0,32	0,97	○	1,1	2835	160	125	125	0,18	3	9	51
025-002030	20,0	0,40	1,17	○	1,5	2850	180	140	125	0,20	4	9	54
025-002530	25,0	0,50	1,44	○	2,2	2850	200	160	125	0,22	4	9	56
025-003130	31,5	0,63	1,76	○	2,2	2850	200	180	140	0,22	4	9	62
025-004030	40,0	0,80	2,19	○	3	2875	224	200	160	0,25	5	9	67
025-005030	50,0	1,00	2,71	○	3	2875	250	224	180	0,29	5	9	72
025-006330	63,0	1,27	3,4	○	4	2900	250	250	200	0,30	5	9	73
025-008015	80,0	1,61	4,4	○	5,5	1450	355	280	224	3,13	4	11	188
025-008030	80,0	1,61	4,3	○	5,5	2900	280	280	224	0,41	6	9	95
025-010015	100,0	2,01	5,4	○	7,5	1450	400	315	250	3,54	4	11	196
025-010030	100,0	2,01	5,3	○	7,5	2915	315	315	250	0,46	6	9	98
025-012515	125,0	2,51	6,7	○	7,5	1450	400	355	280	3,60	4	11	204
025-012530	125,0	2,51	6,6	○	7,5	2915	355	355	280	0,59	6	9	105
025-016015	160,0	3,21	8,5	○	11	1460	450	400	315	4,65	5	11	270
025-016030	160,0	3,21	8,4	○	11	2920	400	400	315	0,88	6	9	151
025-020015	200,0	4,02	10,7	○	15	1460	500	450	355	5,52	5	11	286
025-020030	200,0	4,02	10,5	○	15	2925	450	450	355	1,09	7	9	160
025-025015	250,0	5,02	13,2	○	15	1460	500	500	400	5,94	5	11	338
025-025030	250,0	5,02	13,1	○	15	2925	500	500	400	1,28	7	9	197
025-031515	315,0	6,33	16,6	○	18,5	1460	560	560	450	7,21	6	9	359
025-040015	400,0	8,03	20,9	○	30	1470	630	630	500	9,56	6	9	471
025-050015	500,0	10,04	25,9	○	30	1470	710	710	560	10,91	6	9	510
025-063015	630,0	12,65	32,5	○	37	1470	800	800	630	15,05	7	9	574
025-080015	800,0	16,07	41,1	○	45	1470	900	900	710	19,57	7	9	757
025-100015	1000,0	20,08	51,7	○	55	1475	1000	1000	800	24,35	8	9	910
025-125015	1250,0	25,10	64,3	○	75	1480	1120	1120	900	37,38	8	9	1367

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 250$ daPa
 Total pressure increase $\Delta p_{t1} = 244$ daPa
 Specific supply $Y_{t2} \approx 206$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,181$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 315 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 315 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MXE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
031-000530	5,6	0,11	0,55	○	1,5	2850	140	100	125	0,25	3	9	53
031-000930	9,0	0,18	0,79	○	1,5	2850	140	100	125	0,24	3	9	53
031-001430	14,0	0,28	1,12	○	2,2	2850	160	112	125	0,26	3	9	54
031-001830	18,0	0,36	1,38	○	1,5	2850	180	125	125	0,28	3	9	56
031-002230	22,4	0,45	1,66	○	2,2	2850	180	140	125	0,28	3	9	59
031-002830	28,0	0,56	2,04	○	2,2	2850	200	160	125	0,31	4	9	59
031-003530	35,0	0,70	2,48	○	3	2875	224	180	140	0,35	4	9	70
031-004530	45,0	0,90	3,11	○	4	2900	224	200	160	0,32	4	9	71
031-005615	56,0	1,12	4,10	○	5,5	1450	315	224	180	4,09	3	11	199
031-005630	56,0	1,12	3,8	○	5,5	2900	250	224	180	0,43	5	9	84
031-007115	71,0	1,43	5,0	○	5,5	1450	355	250	200	4,33	4	11	203
031-007130	71,0	1,43	4,9	○	5,5	2900	280	250	200	0,51	5	9	87
031-009015	90,0	1,81	6,2	○	7,5	1450	355	280	224	4,36	4	11	220
031-009030	90,0	1,81	6,0	○	7,5	2915	280	280	224	0,51	5	9	97
031-011215	112,0	2,25	7,7	○	11	1460	400	315	250	4,92	4	11	244
031-011230	112,0	2,25	7,5	○	11	2920	315	315	250	0,84	6	9	132
031-014015	140,0	2,81	9,6	○	11	1460	450	355	280	5,94	4	11	259
031-014030	140,0	2,81	9,3	○	11	2920	355	355	280	0,93	6	9	138
031-018015	180,0	3,62	12,1	○	15	1460	450	400	315	6,01	5	11	305
031-018030	180,0	3,62	11,8	○	15	2925	400	400	315	1,09	6	9	153
031-022415	224,0	4,50	15,0	○	18,5	1460	500	450	355	7,06	5	11	355
031-022430	224,0	4,50	14,8	○	18,5	2940	450	450	355	1,27	6	9	177
031-028015	280,0	5,62	18,7	○	22	1460	560	500	400	9,95	5	11	415
031-028030	280,0	5,62	18,5	○	22	2940	500	500	400	1,75	7	9	227
031-035515	355,0	7,13	23,4	○	30	1470	560	560	450	10,32	6	9	445
031-035530	355,0	7,13	23,3	○	30	2950	560	560	450	2,43	7	9	257
031-045015	450,0	9,04	29,4	○	37	1470	630	630	500	12,34	6	9	489
031-045030	450,0	9,04	29,5	○	37	2960	630	630	500	3,27	7	9	365
031-056015	560,0	11,25	36,4	○	45	1470	710	710	560	16,16	6	9	582
031-071015	710,0	14,26	45,9	○	55	1475	800	800	630	19,35	6	9	767
031-090015	900,0	18,08	58,6	○	75	1480	900	900	710	27,40	7	9	1027
031-112015	1120,0	22,49	72,6	○	90	1480	1000	1000	800	36,70	8	9	1294
031-140015	1400,0	28,12	90,4	○	110	1480	1120	1120	900	47,88	8	9	1497

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 315$ daPa
 Total pressure increase $\Delta pt_1 = 306$ daPa
 Specific supply $Yt_2 \approx 259$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,168$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 355 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 355 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
035-000830	7,5	0,15	0,80	○	1,5	2850	140	100	125	0,31	2	11	56
035-001230	12,5	0,25	1,17	○	2,2	2850	160	100	125	0,31	3	9	56
035-001930	19,0	0,38	1,65	○	3	2875	180	125	125	0,34	3	9	60
035-002430	23,6	0,47	1,99	○	2,2	2850	180	140	125	0,33	3	9	60
035-003030	30,0	0,60	2,47	○	3	2875	200	160	125	0,37	4	9	63
035-003830	37,5	0,75	2,99	○	4	2900	224	180	140	0,39	4	9	70
035-004830	47,5	0,95	3,71	○	4	2900	250	200	160	0,46	4	9	73
035-006030	60,0	1,21	4,60	○	5,5	2900	250	224	180	0,49	4	9	85
035-007530	75,0	1,51	5,76	○	7,5	2915	280	250	200	0,56	5	9	100
035-009515	95,0	1,91	7,5	○	11	1460	400	280	224	5,74	4	11	244
035-009530	95,0	1,91	7,2	○	11	2920	315	280	224	0,85	5	9	128
035-011815	118,0	2,37	9,2	○	11	1460	400	315	250	5,78	4	11	248
035-011830	118,0	2,37	8,9	○	11	2920	315	315	250	0,92	5	9	133
035-015015	150,0	3,01	11,5	○	15	1460	450	355	280	6,90	4	11	320
035-015030	150,0	3,01	11,2	○	15	2925	355	355	280	1,03	6	9	140
035-019015	190,0	3,82	14,4	○	18,5	1460	450	400	315	7,02	4	11	342
035-019030	190,0	3,82	14,2	○	15	2925	400	400	315	1,26	6	9	155
035-023615	236,0	4,74	17,8	○	22	1460	500	450	355	8,78	5	11	382
035-023630	236,0	4,74	17,5	○	22	2940	450	450	355	1,60	6	9	208
035-030015	300,0	6,03	22,5	○	30	1470	560	500	400	11,34	5	11	435
035-030030	300,0	6,03	22,2	○	30	2950	500	500	400	2,26	7	9	241
035-037515	375,0	7,53	27,7	○	30	1470	560	560	450	11,67	5	11	452
035-047515	475,0	9,54	34,9	○	37	1470	630	630	500	14,85	6	9	500
035-060015	600,0	12,05	43,8	○	55	1475	710	710	560	18,50	6	9	716
035-075015	750,0	15,06	54,5	○	75	1480	800	800	630	21,71	6	9	924
035-095015	950,0	19,08	69,5	○	75	1480	900	900	710	30,63	7	9	1091
035-118015	1180,0	23,70	86,0	○	110	1480	1000	1000	800	42,11	7	9	1340
035-150015	1500,0	30,13	108,8	○	132	1480	1120	1120	900	53,09	8	9	1515

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 355$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 343$ daPa

density at inlet operation of

$\rho_1 = 1,164$ kg/m³

Specific supply

$Y_{t2} \approx 292$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 400 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
040-000630	6,3	0,13	0,82	○	1,5	2850	140	100	125	0,38	2	11	66
040-001030	10,0	0,20	1,16	○	2,2	2850	140	100	125	0,37	2	11	58
040-001630	16,0	0,32	1,64	○	3	2875	160	112	125	0,38	3	9	61
040-002030	20,0	0,40	1,97	○	3	2875	180	125	125	0,40	3	9	61
040-002530	25,0	0,50	2,39	○	3	2875	200	140	125	0,43	3	9	73
040-003130	31,5	0,63	2,93	○	4	2900	200	160	125	0,42	3	9	73
040-004030	40,0	0,80	3,59	○	4	2900	224	180	140	0,46	4	9	82
040-005030	50,0	1,00	4,40	○	5,5	2900	250	200	160	0,57	4	9	94
040-006330	63,0	1,27	5,44	○	7,5	2915	250	224	180	0,56	4	9	98
040-008030	80,0	1,61	6,9	○	7,5	2915	280	250	200	0,64	5	9	101
040-010030	100,0	2,01	8,6	○	11	2920	315	280	224	0,99	5	9	131
040-012515	125,0	2,51	11,0	○	15	1460	400	315	250	6,88	4	11	308
040-012530	125,0	2,51	10,5	○	15	2925	315	315	250	1,02	5	9	134
040-016015	160,0	3,21	13,9	○	15	1460	450	355	280	8,80	4	11	330
040-016030	160,0	3,21	13,4	○	15	2925	355	355	280	1,19	6	9	171
040-020015	200,0	4,02	17,2	○	18,5	1460	500	400	315	9,95	4	11	355
040-020030	200,0	4,02	16,8	○	18,5	2940	400	400	315	1,57	6	9	194
040-025015	250,0	5,02	21,2	○	30	1470	500	450	355	10,87	5	11	407
040-025030	250,0	5,02	20,8	○	30	2950	450	450	355	2,09	6	9	222
040-031515	315,0	6,33	26,5	○	30	1470	560	500	400	12,92	5	11	441
040-031530	315,0	6,33	26,2	○	30	2950	500	500	400	2,45	6	9	242
040-040015	400,0	8,03	33,4	○	37	1470	630	560	450	16,02	5	11	505
040-040030	400,0	8,03	33,4	○	37	2960	560	560	450	3,17	7	9	304
040-050015	500,0	10,04	41,3	○	45	1470	630	630	500	18,05	6	9	645
040-063015	630,0	12,65	51,7	○	55	1475	710	710	560	20,86	6	9	722
040-080015	800,0	16,07	65,3	○	75	1480	800	800	630	28,31	6	9	970
040-100015	1000,0	20,08	82,2	○	90	1480	900	900	710	37,55	7	9	1223
040-125015	1250,0	25,10	102,3	○	110	1480	1000	1000	800	48,85	7	9	1418

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 400$ daPa
 Total pressure increase $\Delta p_{t1} = 385$ daPa
 Specific supply $Y_{t2} \approx 328$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,159$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 450 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 450 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
045-000930	8,5	0,17	1,18	○	2,2	2850	140	100	125	0,47	2	11	68
045-001330	13,2	0,27	1,63	○	3	2875	160	100	125	0,47	2	11	71
045-002130	21,2	0,43	2,36	○	4	2900	180	125	125	0,47	3	9	71
045-002730	26,5	0,53	2,86	○	4	2900	200	140	125	0,50	3	9	74
045-003430	33,5	0,67	3,51	○	4	2900	200	160	125	0,50	3	9	75
045-004230	42,5	0,85	4,30	○	5,5	2900	224	180	140	0,56	4	9	91
045-005330	53,0	1,06	5,25	○	7,5	2915	250	200	160	0,65	4	9	95
045-006730	67,0	1,35	6,64	○	7,5	2915	280	224	180	0,72	5	9	100
045-008530	85,0	1,71	8,24	○	11	2920	280	250	200	0,91	5	9	119
045-010630	106,0	2,13	10,2	○	11	2920	315	280	224	1,10	5	9	146
045-013215	132,0	2,65	13,1	○	15	1460	400	315	250	9,33	3	11	321
045-013230	132,0	2,65	12,5	○	15	2925	315	315	250	1,13	5	9	163
045-017015	170,0	3,41	16,6	○	18,5	1460	450	355	280	10,37	4	11	337
045-017030	170,0	3,41	16,0	○	18,5	2940	355	355	280	1,28	6	9	174
045-021215	212,0	4,26	20,5	○	22	1460	500	400	315	11,61	4	11	379
045-021230	212,0	4,26	19,9	○	22	2940	400	400	315	1,76	6	9	197
045-026515	265,0	5,32	25,2	○	30	1470	500	450	355	12,63	4	11	413
045-026530	265,0	5,32	24,7	○	30	2950	450	450	355	2,34	6	9	224
045-033515	335,0	6,73	31,7	○	37	1470	560	500	400	15,04	5	11	486
045-033530	335,0	6,73	31,3	○	37	2960	500	500	400	2,73	6	9	290
045-042515	425,0	8,54	39,8	○	45	1470	630	560	450	19,22	5	11	575
045-042530	425,0	8,54	39,7	○	45	2960	560	560	450	3,54	7	9	342
045-053015	530,0	10,64	49,0	○	55	1475	630	630	500	20,85	5	11	677
045-053030	530,0	10,64	49,2	○	55	2970	630	630	500	4,75	7	9	396
045-067015	670,0	13,46	61,7	○	75	1480	710	710	560	26,82	6	9	907
045-085015	850,0	17,07	77,7	○	90	1480	800	800	630	35,75	6	9	1050
045-106015	1060,0	21,29	97,4	○	110	1480	900	900	710	44,64	7	9	1332
045-132015	1320,0	26,51	121,2	○	132	1480	1000	1000	800	56,82	7	11	1447

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 450$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 431$ daPa

density at inlet operation of

$\rho_1 = 1,153$ kg/m³

Specific supply

$Yt_2 \approx 369$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 500 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MXE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
050-000730	7,1	0,14	1,18	●	2,2	2850	140	100	125	0,56	2	11	69
050-001130	11,2	0,22	1,66	○	3	2875	140	100	125	0,54	2	11	72
050-001830	18,0	0,36	2,32	○	4	2900	180	112	125	0,55	3	9	72
050-002230	22,4	0,45	2,79	○	4	2900	180	125	125	0,55	3	9	72
050-002830	28,0	0,56	3,37	○	5,5	2900	200	140	125	0,60	3	9	82
050-003530	35,0	0,70	4,09	○	5,5	2900	224	160	125	0,65	3	9	83
050-004530	45,0	0,90	5,07	○	5,5	2900	224	180	140	0,65	3	9	92
050-005630	56,0	1,12	6,17	○	7,5	2915	250	200	160	0,75	4	9	96
050-007130	71,0	1,43	7,80	○	11	2920	280	224	180	1,00	4	9	131
050-009030	90,0	1,81	9,7	○	11	2920	280	250	200	1,00	4	9	133
050-011230	112,0	2,25	11,9	○	15	2925	315	280	224	1,20	5	9	161
050-014015	140,0	2,81	15,7	○	18,5	1460	450	315	250	12,18	4	11	355
050-014030	140,0	2,81	14,7	○	18,5	2940	355	315	250	1,37	5	9	167
050-018015	180,0	3,62	19,6	○	22	1460	450	355	280	12,04	4	11	384
050-018030	180,0	3,62	18,7	○	22	2940	355	355	280	1,53	5	9	178
050-022415	224,0	4,50	24,1	○	30	1470	500	400	315	14,31	4	11	433
050-022430	224,0	4,50	23,3	○	30	2950	400	400	315	2,24	6	9	215
050-028015	280,0	5,62	29,9	○	37	1470	560	450	355	16,89	5	11	463
050-028030	280,0	5,62	29,2	○	37	2960	450	450	355	2,58	6	9	268
050-035515	355,0	7,13	37,2	○	45	1470	560	500	400	17,08	5	11	546
050-035530	355,0	7,13	36,8	○	45	2960	500	500	400	3,21	6	9	294
050-045015	450,0	9,04	46,7	○	55	1475	630	560	450	21,66	5	11	672
050-045030	450,0	9,04	46,5	○	55	2970	560	560	450	4,44	6	9	369
050-056015	560,0	11,25	57,7	○	75	1480	710	630	500	30,00	5	11	906
050-056030	560,0	11,25	57,8	○	75	2975	630	630	500	5,58	7	9	490
050-071015	710,0	14,26	72,4	○	90	1480	710	710	560	30,53	6	9	970
050-071030	710,0	14,26	73,4	○	90	2975	710	710	560	7,66	7	9	550
050-090015	900,0	18,08	91,2	○	110	1480	800	800	630	41,94	6	9	1095
050-112015	1120,0	22,49	114,5	○	132	1480	900	900	710	52,79	7	11	1361
050-140015	1400,0	28,12	142,4	○	160	1480	1000	1000	800	68,75	7	11	1642

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 500$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 477$ daPa

density at inlet operation of

$\rho_1 = 1,148$ kg/m³

Specific supply

$Y_{t2} \approx 409$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 560 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 560 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
056-000830	7,5	0,15	1,42	●	3	2875	140	100	125	0,68	2	11	84
056-001530	15,0	0,30	2,35	○	3	2875	160	100	125	0,67	2	11	84
056-002430	23,6	0,47	3,35	○	4	2900	180	125	125	0,66	3	9	84
056-003030	30,0	0,60	4,07	○	5,5	2900	200	140	125	0,71	3	9	95
056-003830	37,5	0,75	4,88	○	5,5	2900	224	160	125	0,74	3	9	96
056-004830	47,5	0,95	6,01	○	7,5	2915	250	180	140	0,79	4	9	105
056-006030	60,0	1,21	7,41	○	11	2920	250	200	160	1,04	4	9	138
056-007530	75,0	1,51	9,23	○	11	2920	280	224	180	1,13	4	9	145
056-009515	95,0	1,91	12,5	○	15	1460	400	250	200	12,98	3	11	352
056-009530	95,0	1,91	11,5	○	15	2925	315	250	200	1,32	5	9	149
056-011815	118,0	2,37	15,0	○	18,5	1460	400	280	224	13,28	3	11	354
056-011830	118,0	2,37	14,0	○	15	2925	315	280	224	1,34	5	9	162
056-015015	150,0	3,01	18,7	○	22	1460	450	315	250	14,38	3	11	392
056-015030	150,0	3,01	17,6	○	22	2940	355	315	250	1,65	5	9	172
056-019015	190,0	3,82	23,2	○	30	1470	450	355	280	14,32	3	11	476
056-019030	190,0	3,82	22,4	○	30	2950	400	355	280	2,37	6	9	222
056-023615	236,0	4,74	28,5	○	37	1470	500	400	315	17,05	4	11	511
056-023630	236,0	4,74	27,5	○	30	2950	400	400	315	2,50	6	9	240
056-030015	300,0	6,03	35,8	○	45	1470	560	450	355	19,31	4	11	549
056-030030	300,0	6,03	34,9	○	37	2960	450	450	355	2,93	6	9	270
056-037515	375,0	7,53	44,0	○	55	1475	560	500	400	19,67	4	11	627
056-037530	375,0	7,53	43,3	○	55	2970	500	500	400	4,16	6	9	347
056-047515	475,0	9,54	55,1	○	75	1480	630	560	450	28,66	5	11	881
056-047530	475,0	9,54	54,8	○	75	2975	560	560	450	5,06	6	9	455
056-060015	600,0	12,05	68,9	○	75	1480	710	630	500	33,83	5	11	916
056-060030	600,0	12,05	69,2	○	75	2975	630	630	500	6,21	7	9	494
056-075015	750,0	15,06	85,3	○	110	1480	710	710	560	40,78	5	11	1037
056-075030	750,0	15,06	86,5	○	110	2975	710	710	560	8,27	7	9	723
056-095015	950,0	19,08	108,5	○	132	1480	800	800	630	53,00	7	11	1288
056-118015	1180,0	23,70	134,6	○	160	1480	900	900	710	61,20	7	11	1531
056-150015	1500,0	30,13	170,3	○	200	1480	1000	1000	800	78,93	7	11	1740

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 560$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 531$ daPa

density at inlet operation of

$\rho_1 = 1,148$ kg/m³

Specific supply

$Yt_2 \approx 458$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 630 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 630 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
063-000830	8,0	0,16	1,74	●	3	2875	140	100	125	0,83	2	11	95
063-001230	12,5	0,25	2,35	○	4	2900	160	100	125	0,80	2	11	85
063-002030	20,0	0,40	3,35	○	5,5	2900	180	112	125	0,85	2	11	103
063-002530	25,0	0,50	3,96	○	5,5	2900	200	125	125	0,84	3	9	103
063-003130	31,5	0,63	4,84	○	7,5	2915	200	140	125	0,84	3	9	107
063-004030	40,0	0,80	5,92	○	7,5	2915	224	160	125	0,88	3	9	108
063-005030	50,0	1,00	7,21	○	11	2920	250	180	140	1,14	4	9	135
063-006330	63,0	1,27	8,78	○	11	2920	250	200	160	1,18	4	9	140
063-008030	80,0	1,61	11,1	○	15	2925	280	224	180	1,28	4	9	146
063-010030	100,0	2,01	13,6	○	15	2925	315	250	200	1,64	4	9	173
063-012530	125,0	2,51	16,7	○	18,5	2940	315	280	224	1,63	4	9	168
063-016015	160,0	3,21	22,8	○	30	1470	450	315	250	17,42	3	11	490
063-016030	160,0	3,21	21,1	○	30	2950	355	315	250	2,25	5	11	212
063-020015	200,0	4,02	28,0	○	30	1470	500	355	280	18,84	4	11	521
063-020030	200,0	4,02	26,5	○	30	2950	400	355	280	2,79	5	11	226
063-025015	250,0	5,02	34,0	○	37	1470	500	400	315	20,13	4	11	553
063-025030	250,0	5,02	32,7	○	37	2960	400	400	315	2,87	5	11	255
063-031515	315,0	6,33	42,3	○	45	1470	560	450	355	22,63	4	11	631
063-031530	315,0	6,33	41,1	○	45	2960	450	450	355	3,58	6	9	308
063-040015	400,0	8,03	52,9	○	75	1480	630	500	400	32,77	5	11	842
063-040030	400,0	8,03	52,1	○	75	2975	500	500	400	4,94	6	9	440
063-050015	500,0	10,04	65,1	○	75	1480	630	560	450	33,24	5	11	892
063-050030	500,0	10,04	64,7	○	75	2975	560	560	450	5,56	6	9	458
063-063015	630,0	12,65	81,2	○	90	1480	710	630	500	38,81	5	11	1069
063-063030	630,0	12,65	82,1	○	90	2975	630	630	500	7,65	6	9	508
063-080015	800,0	16,07	103,8	○	110	1480	800	710	560	57,71	6	13	1276
063-080030	800,0	16,07	104,3	○	132	2975	710	710	560	10,49	7	9	809
063-100015	1000,0	20,08	128,8	○	160	1480	800	800	630	64,67	6	13	1392

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 630 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 593 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,148 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 514 \text{ daJ/kg}$

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 710 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 710 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
071-000930	8,5	0,17	2,12	●	4	2900	140	100	125	1,00	2	11	112
071-001330	13,2	0,27	2,85	●	5,5	2900	160	100	125	1,00	2	11	120
071-002130	21,2	0,43	4,05	○	5,5	2900	180	112	125	1,02	2	11	121
071-002730	26,5	0,53	4,77	○	7,5	2915	200	125	125	1,00	3	9	121
071-003430	33,5	0,67	5,86	○	7,5	2915	200	140	125	1,01	3	9	125
071-004230	42,5	0,85	7,12	○	11	2920	224	160	125	1,22	3	9	155
071-005330	53,0	1,06	8,65	○	11	2920	250	180	140	1,37	4	11	156
071-006730	67,0	1,35	10,7	○	15	2925	280	200	160	1,46	4	9	160
071-008530	85,0	1,71	13,3	○	15	2925	280	224	180	1,77	4	11	172
071-010630	106,0	2,13	16,2	○	18,5	2940	315	250	200	1,94	4	11	177
071-013230	132,0	2,65	19,9	○	22	2940	315	280	224	1,95	4	11	192
071-017015	170,0	3,41	27,4	○	30	1470	450	315	250	21,12	3	11	533
071-017030	170,0	3,41	25,4	○	30	2950	355	315	250	2,67	5	11	217
071-021215	212,0	4,26	33,5	○	37	1470	500	355	280	24,14	3	11	566
071-021230	212,0	4,26	31,5	○	37	2960	400	355	280	3,07	5	11	238
071-026515	265,0	5,32	40,7	○	45	1470	500	400	315	23,96	3	11	637
071-026530	265,0	5,32	38,9	○	45	2960	400	400	315	3,20	5	11	259
071-033515	335,0	6,73	50,8	○	55	1475	560	450	355	30,47	4	11	702
071-033530	335,0	6,73	49,1	○	55	2970	450	450	355	4,49	6	9	364
071-042515	425,0	8,54	63,2	○	75	1480	630	500	400	38,24	4	11	902
071-042530	425,0	8,54	62,1	○	75	2975	500	500	400	5,39	6	9	443
071-053015	530,0	10,64	77,7	○	90	1480	630	560	450	38,61	4	11	1020
071-053030	530,0	10,64	77,0	○	90	2975	560	560	450	6,33	6	9	466
071-067015	670,0	13,46	97,5	○	110	1480	710	630	500	53,58	5	13	1145
071-067030	670,0	13,46	97,9	○	110	2975	630	630	500	9,37	6	9	741
071-085015	850,0	17,07	123,6	○	132	1480	800	710	560	66,44	6	13	1302
071-106015	1060,0	21,29	153,2	○	200	1480	800	800	630	73,85	6	13	1496

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 710$ daPa
 Total pressure increase $\Delta pt_1 = 664$ daPa
 Specific supply $Yt_2 \approx 578$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,125$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 800 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
080-000930	9,0	0,18	2,63	●	5,5	2900	140	100	125	1,29	1	13	119
080-001430	14,0	0,28	3,51	●	5,5	2900	160	100	125	1,29	2	13	123
080-002230	22,4	0,45	4,93	○	7,5	2915	180	112	125	1,26	2	13	123
080-002830	28,0	0,56	5,81	○	7,5	2915	200	125	125	1,32	2	13	124
080-003530	35,0	0,70	6,94	○	11	2920	224	140	125	1,51	4	11	145
080-004530	45,0	0,90	8,56	○	11	2920	224	160	125	1,47	3	11	157
080-005630	56,0	1,12	10,3	○	15	2925	250	180	140	1,57	4	11	158
080-007130	71,0	1,43	12,9	○	15	2925	280	200	160	1,94	3	11	166
080-009030	90,0	1,81	16,0	○	18,5	2940	280	224	180	2,04	4	11	176
080-011230	112,0	2,25	19,3	○	22	2940	315	250	200	2,23	4	11	181
080-014030	140,0	2,81	23,7	○	30	2950	355	280	224	2,77	4	11	213
080-018015	180,0	3,62	32,8	○	37	1470	450	315	250	25,83	3	13	553
080-018030	180,0	3,62	30,2	○	37	2960	355	315	250	2,95	4	11	229
080-022415	224,0	4,50	39,7	○	45	1470	500	355	280	33,32	3	13	602
080-022430	224,0	4,50	37,4	○	45	2960	400	355	280	3,64	5	11	298
080-028015	280,0	5,62	49,4	○	55	1475	560	400	315	36,54	4	13	819
080-028030	280,0	5,62	47,1	○	55	2970	450	400	315	4,94	5	11	347
080-035515	355,0	7,13	60,6	○	75	1480	560	450	355	37,96	4	13	853
080-035530	355,0	7,13	58,8	○	75	2975	450	450	355	5,68	5	11	388
080-045015	450,0	9,04	75,3	○	90	1480	630	500	400	45,42	4	13	1061
080-045030	450,0	9,04	73,8	○	90	2975	500	500	400	6,19	6	9	451
080-056015	560,0	11,25	92,5	○	110	1480	710	560	450	53,44	5	13	1135
080-056030	560,0	11,25	92,5	○	110	2975	560	560	450	8,22	6	9	686
080-071015	710,0	14,26	117,4	○	132	1480	710	630	500	61,47	5	13	1287
080-090015	900,0	18,08	146,9	○	160	1480	800	710	560	82,26	6	13	1428

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 800$ daPa
 Total pressure increase $\Delta pt_1 = 742$ daPa
 Specific supply $Yt_2 \approx 649$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,116$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 900 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 900 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
090-000930	9,5	0,19	3,22	●	7,5	2915	140	100	125	1,55	1	13	143
090-001430	15,0	0,30	4,31	●	7,5	2915	160	100	125	1,54	2	13	125
090-002430	23,6	0,47	5,94	○	7,5	2915	180	112	125	1,53	2	13	125
090-003030	30,0	0,60	7,08	○	11	2920	200	125	125	1,76	2	13	144
090-003830	37,5	0,75	8,42	○	11	2920	224	140	125	1,77	4	11	147
090-004830	47,5	0,95	10,1	○	15	2925	250	160	125	1,82	3	11	160
090-006030	60,0	1,21	12,5	○	15	2925	250	180	140	1,83	4	11	160
090-007530	75,0	1,51	15,4	○	18,5	2940	280	200	160	2,25	3	11	170
090-009530	95,0	1,91	19,0	○	22	2940	315	224	180	2,59	4	11	224
090-011830	118,0	2,37	22,9	○	30	2950	315	250	200	2,85	4	11	245
090-015030	150,0	3,01	28,7	○	37	2960	355	280	224	3,33	4	11	277
090-019015	190,0	3,82	39,4	○	45	1470	450	315	250	36,97	3	13	737
090-019030	190,0	3,82	36,2	○	45	2960	400	315	250	4,06	5	11	289
090-023615	236,0	4,74	47,3	○	55	1475	500	355	280	40,05	3	13	786
090-023630	236,0	4,74	44,2	○	55	2970	400	355	280	4,39	5	11	321
090-030015	300,0	6,03	59,6	○	75	1480	560	400	315	43,09	3	13	964
090-030030	300,0	6,03	56,3	○	75	2975	450	400	315	5,92	5	11	370
090-037515	375,0	7,53	72,2	○	90	1480	560	450	355	45,16	4	13	1008
090-037530	375,0	7,53	69,4	○	75	2975	450	450	355	6,08	5	11	390
090-047515	475,0	9,54	89,4	○	110	1480	630	500	400	55,42	4	13	1174
090-047530	475,0	9,54	88,1	○	110	2975	500	500	400	7,64	6	9	661
090-060015	600,0	12,05	111,6	○	132	1480	710	560	450	68,69	4	13	1243
090-060030	600,0	12,05	110,8	○	132	2975	560	560	450	10,15	6	9	705
090-075015	750,0	15,06	139,3	○	160	1480	710	630	500	77,99	5	13	1345
090-095015	950,0	19,08	173,8	○	200	1480	800	710	560	94,92	6	13	1603

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 900$ daPa
 Total pressure increase $\Delta pt_1 = 827$ daPa
 Specific supply $Yt_2 \approx 728$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,118$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 1000 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
100-001030	10,0	0,20	3,89	●	7,5	2915	140	100	125	1,87	1	13	163
100-001630	16,0	0,32	5,21	●	7,5	2915	160	100	125	1,84	2	13	163
100-002530	25,0	0,50	6,91	●	11	2920	200	112	125	2,03	2	13	182
100-003130	31,5	0,63	8,36	○	11	2920	200	125	125	2,05	2	13	183
100-004030	40,0	0,80	10,0	○	15	2925	224	140	125	2,09	2	13	204
100-005030	50,0	1,00	12,0	○	15	2925	250	160	125	2,13	4	11	205
100-006330	63,0	1,27	14,6	○	18,5	2940	250	180	140	2,11	4	11	220
100-008030	80,0	1,61	18,4	○	22	2940	280	200	160	2,23	4	11	209
100-010030	100,0	2,01	22,3	○	30	2950	315	224	180	3,29	5	11	243
100-012530	125,0	2,51	27,2	○	30	2950	315	250	200	3,24	4	11	247
100-016030	160,0	3,21	34,2	○	37	2960	355	280	224	4,02	4	11	283
100-020030	200,0	4,02	42,5	○	45	2960	400	315	250	4,67	4	11	293
100-025015	250,0	5,02	56,6	○	75	1480	500	355	280	48,75	4	13	989
100-025030	250,0	5,02	52,2	○	75	2975	400	355	280	5,40	5	11	344
100-031515	315,0	6,33	69,0	○	75	1480	560	400	315	52,94	3	13	1048
100-031530	315,0	6,33	65,4	○	75	2975	450	400	315	6,68	5	11	374
100-040015	400,0	8,03	85,3	○	110	1480	630	450	355	64,02	4	13	1138
100-040030	400,0	8,03	82,8	○	90	2975	500	450	355	7,73	5	11	516
100-050030	500,0	10,04	102,5	○	110	2975	500	500	400	9,47	6	9	675
100-063030	630,0	12,65	130,3	○	160	2980	560	560	450	11,62	7	9	721
100-080030	800,0	16,07	163,6	○	200	2980	630	630	500	13,79	7	9	843

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 1000 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 911 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,096 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 807 \text{ daJ/kg}$

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1120 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 1120 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
112-001030	10,0	0,20	4,60	☐	7,5	2915	140	100	125	3,08	1	13	201
112-001630	16,0	0,32	6,08	☐	11	2920	160	100	125	3,10	1	13	192
112-002530	25,0	0,50	7,95	☐	15	2925	200	112	125	3,09	2	13	192
112-003130	31,5	0,63	9,60	■	15	2925	200	125	125	3,08	2	13	193
112-004030	40,0	0,80	11,4	■	18,5	2940	224	140	125	3,05	2	13	215
112-005030	50,0	1,00	13,7	■	18,5	2940	250	160	125	3,14	4	11	217
112-006330	63,0	1,27	16,7	■	22	2940	250	180	140	3,11	4	11	215
112-008030	80,0	1,61	20,8	■	30	2950	280	200	160	3,66	4	11	237
112-010030	100,0	2,01	25,2	■	30	2950	315	224	180	3,92	4	11	247
112-012530	125,0	2,51	30,5	■	37	2960	315	250	200	4,16	3	11	264
112-016030	160,0	3,21	38,3	■	45	2960	355	280	224	4,71	4	11	321
112-020030	200,0	4,02	47,3	■	55	2970	400	315	250	5,62	4	11	350
112-025015	250,0	5,02	64,1	■	75	1480	500	355	280	59,10	4	13	1075
112-025030	250,0	5,02	58,5	■	75	2975	400	355	280	6,17	4	11	384
112-031515	315,0	6,33	78,1	■	90	1480	560	400	315	62,88	3	13	1140
112-031530	315,0	6,33	73,2	■	90	2975	450	400	315	7,38	5	11	498
112-040015	400,0	8,03	96,2	■	110	1480	630	450	355	74,68	4	13	1226
112-040030	400,0	8,03	92,5	■	110	2975	500	450	355	9,49	5	11	632
112-050030	500,0	10,04	115,5	■	132	2975	500	500	400	10,86	5	11	690
112-063030	630,0	12,65	143,5	■	160	2980	560	560	450	12,37	6	9	726

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 1120$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 1009$ daPa

density at inlet operation of

$\rho_1 = 1,084$ kg/m³

Specific supply

$Y_{t2} \approx 901$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

☐ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 1250 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
125-001030	10,0	0,20	5,44	☐	11	2920	140	100	125	3,97	1	13	224
125-001630	16,0	0,32	7,10	☐	11	2920	160	100	125	3,77	1	13	223
125-002530	25,0	0,50	9,15	☐	15	2925	200	112	125	3,79	1	13	223
125-003130	31,5	0,63	11,1	☐	15	2925	200	125	125	3,77	2	13	224
125-004030	40,0	0,80	13,1	■	18,5	2940	224	140	125	3,73	2	13	231
125-005030	50,0	1,00	15,5	■	18,5	2940	250	160	125	3,80	2	13	250
125-006330	63,0	1,27	18,9	■	22	2940	250	180	140	3,76	2	13	248
125-008030	80,0	1,61	23,5	■	30	2950	280	200	160	4,26	3	11	270
125-010030	100,0	2,01	28,4	■	37	2960	315	224	180	4,96	3	11	296
125-012530	125,0	2,51	34,6	■	45	2960	315	250	200	4,93	3	11	301
125-016030	160,0	3,21	42,7	■	55	2970	355	280	224	5,63	3	11	344
125-020030	200,0	4,02	52,8	■	75	2975	400	315	250	6,40	3	11	407
125-025030	250,0	5,02	65,3	■	75	2975	400	355	280	6,86	3	11	427
125-031530	315,0	6,33	81,6	■	90	2975	450	400	315	8,18	4	11	502
125-040030	400,0	8,03	104,4	■	132	2975	500	450	355	11,63	4	11	650
125-050030	500,0	10,04	128,5	■	160	2980	500	500	400	12,37	4	11	709
125-063030	630,0	12,65	161,0	■	200	2980	560	560	450	14,79	4	11	804

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 1250$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 1113$ daPa

density at inlet operation of

$\rho_1 = 1,072$ kg/m³

Specific supply

$Yt_2 \approx 1002$ daJ/kg

☐ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

☐ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 1400 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
140-001030	10,0	0,20	6,51	□	15	2925	140	100	125	4,92	1	13	257
140-001630	16,0	0,32	8,39	□	15	2925	160	100	125	4,68	1	13	256
140-002530	25,0	0,50	10,6	□	18,5	2940	200	112	125	4,59	1	13	257
140-003130	31,5	0,63	12,8	□	18,5	2940	200	125	125	4,53	2	13	257
140-004030	40,0	0,80	15,0	■	22	2940	224	140	125	4,55	2	13	267
140-005030	50,0	1,00	17,7	■	22	2940	250	160	125	4,61	2	13	290
140-006330	63,0	1,27	21,5	■	30	2950	250	180	140	4,79	2	13	301
140-008030	80,0	1,61	26,7	■	37	2960	280	200	160	5,44	3	11	322
140-010030	100,0	2,01	32,1	■	37	2960	315	224	180	5,72	3	11	335
140-012530	125,0	2,51	39,0	■	45	2960	315	250	200	5,73	3	11	340
140-016030	160,0	3,21	48,0	■	55	2970	355	280	224	6,45	2	11	386
140-020030	200,0	4,02	59,3	■	75	2975	400	315	250	7,29	3	11	411
140-025030	250,0	5,02	73,3	■	90	2975	400	355	280	8,25	3	11	464
140-031530	315,0	6,33	91,4	■	110	2975	450	400	315	10,41	3	11	617
140-040030	400,0	8,03	116,7	■	132	2975	500	450	355	13,22	4	11	715
140-050030	500,0	10,04	143,5	■	160	2980	500	500	400	13,97	4	11	778

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 1400$ daPa
Total pressure increase $\Delta p_{t1} = 1231$ daPa
Specific supply $Y_{t2} \approx 1118$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
density at inlet operation of $\rho_1 = 1,058$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1600 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 1600 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
160-001630	16,0	0,32	10,3	☐	18,5	2940	160	100	125	6,07	1	13	299
160-002530	25,0	0,50	12,8	☐	22	2940	200	112	125	6,02	2	13	301
160-003130	31,5	0,63	15,2	☐	22	2940	200	125	125	5,84	2	13	301
160-004030	40,0	0,80	17,8	☐	30	2950	224	140	125	6,70	2	13	332
160-005030	50,0	1,00	20,7	■	30	2950	250	160	125	6,72	2	13	358
160-006330	63,0	1,27	25,5	■	30	2950	250	180	140	6,80	2	13	365
160-008030	80,0	1,61	31,2	■	37	2960	280	200	160	6,90	2	13	369
160-010030	100,0	2,01	37,2	■	45	2960	315	224	180	7,07	3	11	390
160-012530	125,0	2,51	45,1	■	55	2970	315	250	200	7,44	2	11	410
160-016030	160,0	3,21	55,7	■	75	2975	355	280	224	8,05	2	11	481
160-020030	200,0	4,02	68,6	■	75	2975	400	315	250	9,04	3	11	494
160-025030	250,0	5,02	84,0	■	110	2975	400	355	280	11,03	3	11	637
160-031530	315,0	6,33	104,5	■	132	2975	450	400	315	12,21	3	11	686
160-040030	400,0	8,03	133,1	■	160	2980	500	450	355	15,01	4	11	732
160-050030	500,0	10,04	163,5	■	200	2980	500	500	400	16,31	4	11	787

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 1600 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 1383 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,040 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 1271 \text{ daJ/kg}$

☐ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

☐ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 1800 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
180-001630	16,0	0,32	12,44	☐	22	2940	160	100	125	11,21	1	13	325
180-002530	25,0	0,50	14,90	☐	30	2950	200	112	125	8,48	1	13	330
180-003130	31,5	0,63	17,87	☐	30	2950	200	125	125	8,40	2	13	330
180-004030	40,0	0,80	20,56	☐	37	2960	224	140	125	8,23	2	13	373
180-005030	50,0	1,00	23,93	■	37	2960	250	160	125	8,20	2	13	375
180-006330	63,0	1,27	29,34	■	37	2960	250	180	140	8,29	2	13	371
180-008030	80,0	1,61	35,76	■	45	2960	280	200	160	8,44	2	13	377
180-010030	100,0	2,01	42,37	■	55	2970	315	224	180	8,82	3	11	409
180-012530	125,0	2,51	51,32	■	75	2975	315	250	200	9,00	2	11	432
180-016030	160,0	3,21	63,0	■	75	2975	355	280	224	9,50	2	11	487
180-020030	200,0	4,02	77,5	■	90	2975	400	315	250	12,10	2	11	515
180-025030	250,0	5,02	94,8	■	110	2975	400	355	280	12,79	2	11	644
180-031530	315,0	6,33	117,6	■	132	2975	450	400	315	16,71	3	11	706
180-040030	400,0	8,03	149,6	■	200	2980	500	450	355	19,85	3	11	751

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 1800 \text{ daPa}$
Total pressure increase $\Delta pt_1 = 1529 \text{ daPa}$
Specific supply $Yt_2 \approx 1423 \text{ daJ/kg}$

reference density of $\rho_0 = 1,205 \text{ kg/m}^3$
 density at inlet operation of $\rho_1 = 1,023 \text{ kg/m}^3$

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- ☐ does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 2000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 2000 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
200-002530	25,0	0,50	17,4	□	30	2950	200	112	125	13,40	1	13	389
200-003130	31,5	0,63	20,8	□	30	2950	200	125	125	13,23	2	13	389
200-004030	40,0	0,80	23,7	□	37	2960	224	140	125	12,87	2	13	422
200-005030	50,0	1,00	27,4	□	45	2960	250	160	125	12,82	2	13	425
200-006330	63,0	1,27	33,5	■	45	2960	250	180	140	12,82	2	13	391
200-008030	80,0	1,61	40,6	■	55	2970	280	200	160	13,07	2	13	415
200-010030	100,0	2,01	47,6	■	75	2975	315	224	180	13,42	3	11	444
200-012530	125,0	2,51	57,8	■	75	2975	315	250	200	13,30	2	11	450
200-016030	160,0	3,21	70,6	■	90	2975	355	280	224	15,66	2	11	521
200-020030	200,0	4,02	87,4	■	110	2975	400	315	250	17,09	2	11	640
200-025030	250,0	5,02	106,0	■	132	2975	400	355	280	18,04	2	11	670
200-031530	315,0	6,33	131,6	■	160	2980	450	400	315	19,57	3	11	854

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 2000$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 1671$ daPa

density at inlet operation of

$\rho_1 = 1,006$ kg/m³

Specific supply

$Yt_2 \approx 1573$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 2250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 2250 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
225-002530	25,0	0,50	20,4	□	37	2960	200	112	125	16,59	1	7	473
225-003130	31,5	0,63	24,5	□	37	2960	200	125	125	16,00	1	7	473
225-004030	40,0	0,80	27,9	□	45	2960	224	140	125	16,01	2	7	502
225-005030	50,0	1,00	31,6	□	55	2970	250	160	125	16,42	2	7	521
225-006330	63,0	1,27	38,4	□	55	2970	250	180	140	16,00	2	7	509
225-008030	80,0	1,61	46,3	■	75	2975	280	200	160	16,16	2	7	560
225-010030	100,0	2,01	54,4	■	90	2975	315	224	180	16,54	2	7	589
225-012530	125,0	2,51	65,7	■	90	2975	315	250	200	18,58	1	7	611
225-016030	160,0	3,21	80,1	■	110	2975	355	280	224	19,17	2	7	751
225-020030	200,0	4,02	98,1	■	132	2975	400	315	250	20,83	2	7	771
225-025030	250,0	5,02	120,1	■	160	2980	400	355	280	21,65	2	7	812

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 2250$ daPa
Total pressure increase $\Delta p_{t1} = 1842$ daPa
Specific supply $Y_{t2} \approx 1758$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 0,985$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 2500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 2500 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
MXE													
250-002530	25,0	0,50	24,2	☐	45	2960	200	112	125	20,71	2	7	645
250-003130	31,5	0,63	28,7	☐	45	2960	200	125	125	19,94	2	7	645
250-004030	40,0	0,80	32,2	☐	45	2960	224	140	125	19,58	2	7	671
250-005030	50,0	1,00	36,5	☐	55	2970	250	160	125	19,89	2	7	684
250-006330	63,0	1,27	43,8	☐	75	2975	250	180	140	19,51	2	7	749
250-008030	80,0	1,61	52,8	☑	75	2975	280	200	160	19,51	2	7	719
250-010030	100,0	2,01	61,9	☑	90	2975	315	224	180	23,00	2	7	781
250-012530	125,0	2,51	74,4	☑	90	2975	315	250	200	22,72	2	7	789
250-016030	160,0	3,21	90,7	☑	110	2975	355	280	224	23,27	3	7	819
250-020030	200,0	4,02	110,6	☑	132	2975	400	315	250	26,44	3	7	847
250-025030	250,0	5,02	134,7	☑	160	2980	400	355	280	26,26	3	7	908

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 2500 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta pt_1 = 2006 \text{ daPa}$

density at inlet operation of

$\rho_1 = 0,966 \text{ kg/m}^3$

Specific supply

$Yt_2 \approx 1942 \text{ daJ/kg}$

☐ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

☐ does not require labeling according to ErP 2009/125/EG

☑ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 2800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 2800 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
280-002530	25,0	0,50	28,8	☐	37	2960	200	112	125	25,95	2	7	703
280-003130	31,5	0,63	34,3	☐	45	2960	200	125	125	24,97	2	7	703
280-004030	40,0	0,80	38,1	☐	45	2960	224	140	125	24,47	2	7	717
280-005030	50,0	1,00	42,7	☐	55	2970	250	160	125	24,63	2	7	743
280-006330	63,0	1,27	51,1	☐	75	2975	250	180	140	27,66	2	7	833
280-008030	80,0	1,61	60,9	☐	75	2975	280	200	160	27,39	2	7	800
280-010030	100,0	2,01	70,6	■	90	2975	315	224	180	28,13	2	7	848
280-012530	125,0	2,51	85,2	■	110	2975	315	250	200	27,82	2	7	863
280-016030	160,0	3,21	103,1	■	132	2975	355	280	224	28,18	2	7	893

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 2800$ daPa
Total pressure increase $\Delta p_{t1} = 2195$ daPa
Specific supply $Y_{t2} \approx 2159$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 0,943$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- ☐ does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 3150 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 3150 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
315-002530	25,0	0,50	35,4	<input type="checkbox"/>	45	2960	200	112	125	37,64	2	7	790
315-003130	31,5	0,63	41,5	<input type="checkbox"/>	55	2970	200	125	125	36,23	2	7	846
315-004030	40,0	0,80	45,5	<input type="checkbox"/>	55	2970	224	140	125	36,36	2	7	863
315-005030	50,0	1,00	50,4	<input type="checkbox"/>	75	2975	250	160	125	35,70	2	7	927
315-006330	63,0	1,27	60,6	<input type="checkbox"/>	75	2975	250	180	140	34,60	2	7	904
315-008030	80,0	1,61	71,2	<input type="checkbox"/>	90	2975	280	200	160	34,19	2	7	875
315-010030	100,0	2,01	81,7	<input checked="" type="checkbox"/>	110	2975	315	224	180	35,00	2	7	906
315-012530	125	2,51	98,2	<input checked="" type="checkbox"/>	132	2975	315	250	200	34,16	2	7	918

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 3150 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 2404 \text{ daPa}$

density at inlet operation of

$\rho_1 = 0,919 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 2408 \text{ daJ/kg}$

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 100 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 100 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
010-000530	5,0	0,10	0,14	○	1,1	2835	140	100	125	0,05	4	9	20
010-000830	8,0	0,16	0,20	○	1,1	2835	140	112	125	0,05	4	9	20
010-001030	10,0	0,20	0,24	○	1,1	2835	140	125	125	0,05	4	9	20
010-001230	12,5	0,25	0,29	○	1,1	2835	160	140	125	0,06	5	9	22
010-001630	16,0	0,32	0,37	○	1,1	2835	160	160	125	0,06	5	9	23
010-002030	20,0	0,40	0,45	○	1,1	2835	180	180	140	0,07	5	9	26
010-002530	25,0	0,50	0,56	○	1,5	2850	200	200	160	0,08	6	9	27
010-003130	31,5	0,63	0,69	○	1,5	2850	224	224	180	0,09	6	9	35
010-004030	40,0	0,80	0,87	○	1,5	2850	250	250	200	0,11	6	9	36
010-005015	50,0	1,00	1,09	○	2,2	1420	315	280	224	0,82	5	9	78
010-005030	50,0	1,00	1,08	○	2,2	2850	280	280	224	0,13	6	9	41
010-006315	63,0	1,27	1,35	○	2,2	1420	315	315	250	0,85	5	9	81
010-006330	63,0	1,27	1,35	○	2,2	2850	315	315	250	0,16	7	9	48
010-008015	80,0	1,61	1,71	○	3	1430	355	355	280	0,93	6	9	97

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 100$ daPa
Total pressure increase $\Delta p_{t1} = 99$ daPa
Specific supply $Y_{t2} \approx 83$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
density at inlet operation of $\rho_1 = 1,193$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 125 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 125 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
012-000530	5,6	0,11	0,19	○	1,1	2835	140	100	125	0,06	4	9	20
012-000930	9,0	0,18	0,28	○	1,1	2835	140	112	125	0,07	4	9	21
012-001130	11,2	0,22	0,34	○	1,1	2835	140	125	125	0,06	4	9	21
012-001430	14,0	0,28	0,41	○	1,1	2835	160	140	125	0,07	5	9	23
012-001830	18,0	0,36	0,52	○	1,5	2850	180	160	125	0,09	5	9	27
012-002230	22,4	0,45	0,63	○	1,5	2850	180	180	140	0,09	5	9	30
012-002830	28,0	0,56	0,78	○	1,5	2850	200	200	160	0,10	5	9	31
012-003530	35,0	0,70	0,96	○	2,2	2850	224	224	180	0,12	6	9	35
012-004530	45,0	0,90	1,22	○	2,2	2850	250	250	200	0,14	6	9	42
012-005615	56,0	1,12	1,52	○	2,2	1420	315	280	224	1,05	5	9	90
012-005630	56,0	1,12	1,50	○	2,2	2850	280	280	224	0,16	6	9	47
012-007115	71,0	1,43	1,91	○	3	1430	355	315	250	1,17	5	9	92
012-007130	71,0	1,43	1,91	○	3	2875	315	315	250	0,20	6	9	51
012-009015	90,0	1,81	2,39	○	4	1440	355	355	280	1,19	5	9	100
012-009030	90,0	1,81	2,40	○	4	2900	355	355	280	0,25	7	9	63
012-011215	112,0	2,25	2,98	○	5,5	1450	400	400	315	1,42	6	9	111
012-014015	140,0	2,81	3,73	○	5,5	1450	450	450	355	1,77	6	9	137
012-018015	180,0	3,62	4,76	○	7,5	1450	500	500	400	2,07	6	9	149
012-022415	224,0	4,50	5,93	○	7,5	1450	560	560	450	2,77	6	9	165

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 125$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 124$ daPa

density at inlet operation of

$\rho_1 = 1,190$ kg/m³

Specific supply

$Y_{t2} \approx 103$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 160 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 160 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
016-000630	6,3	0,13	0,27	○	1,1	2835	140	100	125	0,09	4	9	24
016-001030	10,0	0,20	0,40	○	1,1	2835	140	112	125	0,09	4	9	25
016-001230	12,5	0,25	0,48	○	1,1	2835	160	125	125	0,10	4	9	25
016-001630	16,0	0,32	0,60	○	1,5	2850	160	140	125	0,10	4	9	27
016-002030	20,0	0,40	0,73	○	1,5	2850	180	160	125	0,11	5	9	27
016-002530	25,0	0,50	0,90	○	1,5	2850	200	180	140	0,13	5	9	36
016-003130	31,5	0,63	1,11	○	2,2	2850	200	200	160	0,14	5	9	37
016-004030	40,0	0,80	1,39	○	2,2	2850	224	224	180	0,16	5	9	41
016-005030	50,0	1,00	1,73	○	3	2875	250	250	200	0,19	6	9	44
016-006315	63,0	1,27	2,20	○	3	1430	315	280	224	1,41	4	11	105
016-006330	63,0	1,27	2,16	○	3	2875	280	280	224	0,22	6	9	50
016-008015	80,0	1,61	2,75	○	4	1440	355	315	250	1,59	5	11	109
016-008030	80,0	1,61	2,75	○	4	2900	315	315	250	0,25	6	9	58
016-010015	100,0	2,01	3,44	○	5,5	1450	400	355	280	1,92	5	11	121
016-010030	100,0	2,01	3,41	○	5,5	2900	355	355	280	0,33	6	9	66
016-012515	125,0	2,51	4,24	○	5,5	1450	400	400	315	1,97	5	11	131
016-012530	125,0	2,51	4,23	○	5,5	2900	400	400	315	0,42	7	9	78
016-016015	160,0	3,21	5,43	○	7,5	1450	450	450	355	2,29	6	9	141
016-020015	200,0	4,02	6,79	○	11	1460	500	500	400	3,42	6	9	187

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 160$ daPa
 Total pressure increase $\Delta p_{t1} = 158$ daPa
 Specific supply $Y_{t2} \approx 132$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,186$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 200 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 200 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
020-000730	7,1	0,14	0,39	○	1,1	2835	140	100	125	0,12	3	9	29
020-001130	11,2	0,22	0,56	○	1,1	2835	140	112	125	0,12	3	9	29
020-001430	14,0	0,28	0,68	○	1,5	2850	160	125	125	0,13	4	9	30
020-001830	18,0	0,36	0,84	○	1,5	2850	180	140	125	0,15	4	9	32
020-002230	22,4	0,45	1,02	○	2,2	2850	180	160	125	0,15	4	9	33
020-002830	28,0	0,56	1,25	○	2,2	2850	200	180	140	0,17	5	9	37
020-003530	35,0	0,70	1,54	○	2,2	2850	224	200	160	0,19	5	9	43
020-004530	45,0	0,90	1,95	○	3	2875	224	224	180	0,21	5	9	49
020-005630	56,0	1,12	2,41	○	4	2900	250	250	200	0,24	6	9	51
020-007115	71,0	1,43	3,10	○	4	1440	355	280	224	2,05	4	11	124
020-007130	71,0	1,43	3,06	○	4	2900	280	280	224	0,28	6	9	57
020-009015	90,0	1,81	3,86	○	5,5	1450	355	315	250	2,07	4	11	115
020-009030	90,0	1,81	3,84	○	5,5	2900	315	315	250	0,34	6	9	61
020-011215	112,0	2,25	4,80	○	7,5	1450	400	355	280	2,43	5	11	140
020-011230	112,0	2,25	4,76	○	7,5	2915	355	355	280	0,43	6	9	72
020-014015	140,0	2,81	6,00	○	7,5	1450	450	400	315	3,18	5	11	155
020-014030	140,0	2,81	5,91	○	7,5	2915	400	400	315	0,58	7	9	81
020-018015	180,0	3,62	7,59	○	11	1460	450	450	355	3,71	5	11	179
020-018030	180,0	3,62	7,54	○	11	2920	450	450	355	0,71	7	9	100
020-022415	224,0	4,50	9,47	○	15	1460	500	500	400	4,35	6	9	192

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 200$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 196$ daPa

density at inlet operation of

$\rho_1 = 1,181$ kg/m³

Specific supply

$Y_{t2} \approx 165$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 250 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
025-000530	5,0	0,10	0,39	○	1,1	2835	140	100	125	0,17	3	9	35
025-000830	8,0	0,16	0,55	○	1,1	2835	140	100	125	0,17	3	9	35
025-001230	12,5	0,25	0,78	○	1,5	2850	160	112	125	0,18	3	9	35
025-001630	16,0	0,32	0,97	○	1,5	2850	160	125	125	0,18	3	9	35
025-002030	20,0	0,40	1,17	○	2,2	2850	180	140	125	0,20	4	9	38
025-002530	25,0	0,50	1,44	○	2,2	2850	200	160	125	0,22	4	9	39
025-003130	31,5	0,63	1,76	○	3	2875	200	180	140	0,23	4	9	44
025-004030	40,0	0,80	2,19	○	3	2875	224	200	160	0,25	5	9	46
025-005030	50,0	1,00	2,71	○	4	2900	250	224	180	0,29	5	9	51
025-006330	63,0	1,27	3,4	○	5,5	2900	250	250	200	0,32	5	9	54
025-008015	80,0	1,61	4,4	○	5,5	1450	355	280	224	3,13	4	11	134
025-008030	80,0	1,61	4,3	○	5,5	2900	280	280	224	0,41	6	9	64
025-010015	100,0	2,01	5,4	○	7,5	1450	400	315	250	3,54	4	11	140
025-010030	100,0	2,01	5,3	○	7,5	2915	315	315	250	0,46	6	9	67
025-012515	125,0	2,51	6,7	○	11	1460	400	355	280	3,70	4	11	158
025-012530	125,0	2,51	6,6	○	11	2920	355	355	280	0,59	6	9	75
025-016015	160,0	3,21	8,5	○	11	1460	450	400	315	4,65	5	11	194
025-016030	160,0	3,21	8,4	○	11	2920	400	400	315	0,71	6	9	93
025-020015	200,0	4,02	10,7	○	15	1460	500	450	355	5,52	5	11	209
025-020030	200,0	4,02	10,5	○	15	2925	450	450	355	1,09	7	9	112
025-025015	250,0	5,02	13,2	○	18,5	1460	500	500	400	5,95	5	11	253
025-025030	250,0	5,02	13,1	○	18,5	2940	500	500	400	1,26	7	9	137

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 =$ daPa reference density of $\rho_0 =$ kg/m³
 Total pressure increase $\Delta pt_1 =$ daPa density at inlet operation of $\rho_1 =$ kg/m³
 Specific supply $Yt_2 \approx$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 315 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 315 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
031-000530	5,6	0,11	0,55	○	1,5	2850	140	100	125	0,25	3	9	36
031-000930	9,0	0,18	0,79	○	1,5	2850	140	100	125	0,24	3	9	36
031-001430	14,0	0,28	1,12	○	2,2	2850	160	112	125	0,26	3	9	37
031-001830	18,0	0,36	1,38	○	2,2	2850	180	125	125	0,28	3	9	39
031-002230	22,4	0,45	1,66	○	3	2875	180	140	125	0,28	3	9	41
031-002830	28,0	0,56	2,04	○	3	2875	200	160	125	0,31	4	9	44
031-003530	35,0	0,70	2,47	○	4	2900	224	180	140	0,34	4	9	49
031-004530	45,0	0,90	3,11	○	4	2900	224	200	160	0,32	4	9	50
031-005615	56,0	1,12	4,10	○	5,5	1450	315	224	180	4,09	3	11	147
031-005630	56,0	1,12	3,8	○	5,5	2900	250	224	180	0,43	5	9	58
031-007115	71,0	1,43	5,0	○	7,5	1450	355	250	200	4,33	4	11	151
031-007130	71,0	1,43	4,9	○	7,5	2915	280	250	200	0,50	5	9	61
031-009015	90,0	1,81	6,2	○	7,5	1450	355	280	224	4,36	4	11	159
031-009030	90,0	1,81	6,0	○	7,5	2915	280	280	224	0,51	5	9	66
031-011215	112,0	2,25	7,7	○	11	1460	400	315	250	4,92	4	11	174
031-011230	112,0	2,25	7,5	○	11	2920	315	315	250	0,67	6	9	80
031-014015	140,0	2,81	9,6	○	15	1460	450	355	280	5,94	4	11	189
031-014030	140,0	2,81	9,3	○	15	2925	355	355	280	0,92	6	9	96
031-018015	180,0	3,62	12,1	○	15	1460	450	400	315	6,01	5	11	226
031-018030	180,0	3,62	11,8	○	15	2925	400	400	315	1,09	6	9	105
031-022415	224,0	4,50	15,0	○	18,5	1460	500	450	355	7,06	5	11	271
031-022430	224,0	4,50	14,8	○	18,5	2940	450	450	355	1,27	6	9	128
031-028015	280,0	5,62	18,7	○	22	1460	560	500	400	9,95	5	11	303
031-028030	280,0	5,62	18,5	○	22	2940	500	500	400	1,75	7	9	159
031-035515	355,0	7,13	23,4	○	30	1470	560	560	450	10,32	6	9	325
031-035530	355,0	7,13	23,3	○	30	2950	560	560	450	2,43	7	9	180

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 315$ daPa
 Total pressure increase $\Delta p_{t1} = 306$ daPa
 Specific supply $Y_{t2} \approx 259$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,168$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 355 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 355 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
035-000830	7,5	0,15	0,80	○	1,5	2850	140	100	125	0,31	2	11	40
035-001230	12,5	0,25	1,17	○	2,2	2850	160	100	125	0,31	3	9	40
035-001930	19,0	0,38	1,65	○	2,2	2850	180	125	125	0,33	3	9	40
035-002430	23,6	0,47	1,99	○	3	2875	180	140	125	0,34	3	9	45
035-003030	30,0	0,60	2,47	○	4	2900	200	160	125	0,36	4	9	45
035-003830	37,5	0,75	2,99	○	4	2900	224	180	140	0,39	4	9	50
035-004830	47,5	0,95	3,71	○	5,5	2900	250	200	160	0,49	4	9	54
035-006030	60,0	1,21	4,60	○	7,5	2915	250	224	180	0,49	4	9	59
035-007530	75,0	1,51	5,76	○	7,5	2915	280	250	200	0,56	5	9	70
035-009515	95,0	1,91	7,5	○	11	1460	400	280	224	5,74	4	11	174
035-009530	95,0	1,91	7,2	○	11	2920	315	280	224	0,67	5	9	76
035-011815	118,0	2,37	9,2	○	11	1460	400	315	250	5,78	4	11	178
035-011830	118,0	2,37	8,9	○	11	2920	315	315	250	0,75	5	9	80
035-015015	150,0	3,01	11,5	○	15	1460	450	355	280	6,90	4	11	243
035-015030	150,0	3,01	11,2	○	15	2925	355	355	280	1,03	6	9	97
035-019015	190,0	3,82	14,4	○	18,5	1460	450	400	315	7,02	4	11	257
035-019030	190,0	3,82	14,2	○	18,5	2940	400	400	315	1,24	6	9	107
035-023615	236,0	4,74	17,8	○	22	1460	500	450	355	8,78	5	11	281
035-023630	236,0	4,74	17,5	○	22	2940	450	450	355	1,60	6	9	148
035-030015	300,0	6,03	22,5	○	30	1470	560	500	400	11,34	5	11	314
035-030030	300,0	6,03	22,2	○	30	2950	500	500	400	2,26	7	9	168

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 355$ daPa
 Total pressure increase $\Delta p_{t1} = 343$ daPa
 Specific supply $Y_{t2} \approx 292$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,164$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 400 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
040-000630	6,3	0,13	0,82	○	1,5	2850	140	100	125	0,38	2	11	48
040-001030	10,0	0,20	1,16	○	2,2	2850	140	100	125	0,37	2	11	41
040-001630	16,0	0,32	1,65	○	2,2	2850	160	112	125	0,38	3	9	41
040-002030	20,0	0,40	1,97	○	3	2875	180	125	125	0,40	3	9	43
040-002530	25,0	0,50	2,39	○	3	2875	200	140	125	0,43	3	9	53
040-003130	31,5	0,63	2,93	○	4	2900	200	160	125	0,42	3	9	53
040-004030	40,0	0,80	3,59	○	4	2900	224	180	140	0,46	4	9	58
040-005030	50,0	1,00	4,40	○	5,5	2900	250	200	160	0,57	4	9	63
040-006330	63,0	1,27	5,44	○	7,5	2915	250	224	180	0,56	4	9	68
040-008030	80,0	1,61	6,9	○	11	2920	280	250	200	0,64	5	9	71
040-010030	100,0	2,01	8,6	○	11	2920	315	280	224	0,82	5	9	79
040-012515	125,0	2,51	11,0	○	15	1460	400	315	250	6,88	4	11	230
040-012530	125,0	2,51	10,5	○	15	2925	315	315	250	1,02	5	9	91
040-016015	160,0	3,21	13,9	○	18,5	1460	450	355	280	8,81	4	11	254
040-016030	160,0	3,21	13,4	○	18,5	2940	355	355	280	1,18	6	9	99
040-020015	200,0	4,02	17,2	○	22	1460	500	400	315	9,95	4	11	271
040-020030	200,0	4,02	16,8	○	22	2940	400	400	315	1,58	6	9	139
040-025015	250,0	5,02	21,2	○	30	1470	500	450	355	10,87	5	11	297
040-025030	250,0	5,02	20,8	○	30	2950	450	450	355	2,09	6	9	157
040-031515	315,0	6,33	26,5	○	30	1470	560	500	400	12,92	5	11	320
040-031530	315,0	6,33	26,2	○	30	2950	500	500	400	2,45	6	9	170
040-040015	400,0	8,03	33,4	○	37	1470	630	560	450	16,02	5	11	372
040-040030	400,0	8,03	33,4	○	37	2960	560	560	450	3,17	7	9	207

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 400$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 385$ daPa

density at inlet operation of

$\rho_1 = 1,159$ kg/m³

Specific supply

$Y_{t2} \approx 328$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 450 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 450 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
045-000930	8,5	0,17	1,18	○	2,2	2850	140	100	125	0,47	2	11	49
045-001330	13,2	0,27	1,63	○	2,2	2850	160	100	125	0,47	2	11	49
045-002130	21,2	0,43	2,36	○	3	2875	180	125	125	0,48	3	9	51
045-002730	26,5	0,53	2,86	○	4	2900	200	140	125	0,50	3	9	54
045-003430	33,5	0,67	3,51	○	5,5	2900	200	160	125	0,53	3	9	56
045-004230	42,5	0,85	4,30	○	5,5	2900	224	180	140	0,56	4	9	61
045-005330	53,0	1,06	5,25	○	7,5	2915	250	200	160	0,65	4	9	64
045-006730	67,0	1,35	6,64	○	11	2920	280	224	180	0,72	5	9	70
045-008530	85,0	1,71	8,24	○	11	2920	280	250	200	0,73	5	9	72
045-010630	106,0	2,13	10,2	○	15	2925	315	280	224	1,09	5	9	98
045-013215	132,0	2,65	13,1	○	15	1460	400	315	250	9,33	3	11	244
045-013230	132,0	2,65	12,5	○	15	2925	315	315	250	1,13	5	9	115
045-017015	170,0	3,41	16,6	○	22	1460	450	355	280	10,37	4	11	260
045-017030	170,0	3,41	16,0	○	18,5	2940	355	355	280	1,28	6	9	125
045-021215	212,0	4,26	20,5	○	30	1470	500	400	315	11,72	4	11	284
045-021230	212,0	4,26	19,9	○	30	2950	400	400	315	2,06	6	9	148
045-026515	265,0	5,32	25,2	○	30	1470	500	450	355	12,63	4	11	304
045-026530	265,0	5,32	24,7	○	30	2950	450	450	355	2,34	6	9	160
045-033515	335,0	6,73	31,7	○	37	1470	560	500	400	15,04	5	11	352
045-033530	335,0	6,73	31,3	○	37	2960	500	500	400	2,73	6	9	192

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 450$ daPa
 Total pressure increase $\Delta p_{t1} = 431$ daPa
 Specific supply $Y_{t2} \approx 369$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,153$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 500 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
050-000730	7,1	0,14	1,18	●	2,2	2850	140	100	125	0,56	2	11	50
050-001130	11,2	0,22	1,67	○	2,2	2850	140	100	125	0,55	2	11	50
050-001830	18,0	0,36	2,33	○	3	2875	180	112	125	0,56	3	9	51
050-002230	22,4	0,45	2,79	○	4	2900	180	125	125	0,55	3	9	51
050-002830	28,0	0,56	3,37	○	4	2900	200	140	125	0,58	3	9	55
050-003530	35,0	0,70	4,09	○	5,5	2900	224	160	125	0,65	3	9	57
050-004530	45,0	0,90	5,07	○	7,5	2915	224	180	140	0,64	3	9	62
050-005630	56,0	1,12	6,17	○	7,5	2915	250	200	160	0,75	4	9	65
050-007130	71,0	1,43	7,80	○	11	2920	280	224	180	0,83	4	9	80
050-009030	90,0	1,81	9,7	○	15	2925	280	250	200	1,00	4	9	91
050-011230	112,0	2,25	11,9	○	15	2925	315	280	224	1,20	5	9	113
050-014015	140,0	2,81	15,7	○	18,5	1460	450	315	250	12,18	4	11	271
050-014030	140,0	2,81	14,7	○	18,5	2940	355	315	250	1,37	5	9	117
050-018015	180,0	3,62	19,6	○	22	1460	450	355	280	12,04	4	11	284
050-018030	180,0	3,62	18,7	○	22	2940	355	355	280	1,53	5	9	129
050-022415	224,0	4,50	24,1	○	30	1470	500	400	315	14,31	4	11	313
050-022430	224,0	4,50	23,3	○	30	2950	400	400	315	2,24	6	9	149
050-028015	280,0	5,62	29,9	○	37	1470	560	450	355	16,89	5	11	341
050-028030	280,0	5,62	29,2	○	37	2960	450	450	355	2,58	6	9	180
050-035515	355,0	7,13	37,2	○	45	1470	560	500	400	17,08	5	11	411
050-035530	355,0	7,13	36,8	○	45	2960	500	500	400	3,21	6	9	196

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 500$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 477$ daPa

density at inlet operation of

$\rho_1 = 1,148$ kg/m³

Specific supply

$Y_{t2} \approx 409$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 560 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 560 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
056-000830	7,5	0,15	1,42	●	3	2875	140	100	125	0,68	2	11	60
056-001530	15,0	0,30	2,35	○	3	2875	160	100	125	0,67	2	11	60
056-002430	23,6	0,47	3,35	○	4	2900	180	125	125	0,66	3	9	60
056-003030	30,0	0,60	4,07	○	5,5	2900	200	140	125	0,71	3	9	66
056-003830	37,5	0,75	4,88	○	5,5	2900	224	160	125	0,74	3	9	66
056-004830	47,5	0,95	6,01	○	7,5	2915	250	180	140	0,79	4	9	71
056-006030	60,0	1,21	7,41	○	11	2920	250	200	160	0,86	4	9	87
056-007530	75,0	1,51	9,23	○	11	2920	280	224	180	0,95	4	9	94
056-009515	95,0	1,91	12,5	○	15	1460	400	250	200	12,98	3	11	269
056-009530	95,0	1,91	11,5	○	15	2925	315	250	200	1,32	5	9	107
056-011815	118,0	2,37	15,0	○	18,5	1460	400	280	224	13,28	3	11	271
056-011830	118,0	2,37	14,0	○	15	2925	315	280	224	1,34	5	9	114
056-015015	150,0	3,01	18,7	○	30	1470	450	315	250	14,35	3	11	298
056-015030	150,0	3,01	17,6	○	30	2950	355	315	250	1,95	5	9	129
056-019015	190,0	3,82	23,2	○	30	1470	450	355	280	14,32	3	11	357
056-019030	190,0	3,82	22,4	○	30	2950	400	355	280	2,37	6	9	158
056-023615	236,0	4,74	28,5	○	37	1470	500	400	315	17,05	4	11	390
056-023630	236,0	4,74	27,4	○	37	2960	400	400	315	2,48	6	9	169
056-030015	300,0	6,03	35,8	○	45	1470	560	450	355	19,31	4	11	415
056-030030	300,0	6,03	34,9	○	45	2960	450	450	355	2,93	6	9	183

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 560$ daPa
 Total pressure increase $\Delta p_{t1} = 531$ daPa
 Specific supply $Y_{t2} \approx 458$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,148$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 630 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 630 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
063-000830	8,0	0,16	1,74	●	3	2875	140	100	125	0,83	2	11	72
063-001230	12,5	0,25	2,35	○	4	2900	160	100	125	0,80	2	11	61
063-002030	20,0	0,40	3,35	○	5,5	2900	180	112	125	0,85	2	11	73
063-002530	25,0	0,50	3,96	○	5,5	2900	200	125	125	0,84	3	9	74
063-003130	31,5	0,63	4,84	○	7,5	2915	200	140	125	0,84	3	9	78
063-004030	40,0	0,80	5,92	○	7,5	2915	224	160	125	0,88	3	9	78
063-005030	50,0	1,00	7,17	○	11	2920	250	180	140	0,94	3	9	84
063-006330	63,0	1,27	8,78	○	11	2920	250	200	160	1,01	4	9	88
063-008030	80,0	1,61	11,1	○	15	2925	280	224	180	1,28	4	9	104
063-010030	100,0	2,01	13,6	○	15	2925	315	250	200	1,64	4	9	126
063-012530	125,0	2,51	16,7	○	18,5	2940	315	280	224	1,63	4	9	118
063-016015	160,0	3,21	22,8	○	30	1470	450	315	250	17,42	3	11	372
063-016030	160,0	3,21	21,1	○	30	2950	355	315	250	2,25	5	11	148
063-020015	200,0	4,02	28,0	○	30	1470	500	355	280	18,84	4	11	391
063-020030	200,0	4,02	26,5	○	30	2950	400	355	280	2,79	5	11	162
063-025015	250,0	5,02	34,0	○	37	1470	500	400	315	20,13	4	11	422
063-025030	250,0	5,02	32,7	○	37	2960	400	400	315	2,87	5	11	173

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 630$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 593$ daPa

density at inlet operation of

$\rho_1 = 1,148$ kg/m³

Specific supply

$Y_{t2} \approx 514$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 710 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 710 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
071-000930	8,5	0,17	2,12	●	4	2900	140	100	125	1,00	2	11	86
071-001330	13,2	0,27	2,85	●	5,5	2900	160	100	125	0,98	2	11	85
071-002130	21,2	0,43	4,05	○	5,5	2900	180	112	125	1,02	2	11	88
071-002730	26,5	0,53	4,78	○	7,5	2900	200	125	125	1,02	3	9	88
071-003430	33,5	0,67	5,86	○	7,5	2915	200	140	125	1,01	3	9	92
071-004230	42,5	0,85	7,13	○	11	2920	224	160	125	1,05	3	9	93
071-005330	53,0	1,06	8,61	○	11	2920	250	180	140	1,12	3	9	100
071-006730	67,0	1,35	10,7	○	15	2925	280	200	160	1,46	4	9	114
071-008530	85,0	1,71	13,3	○	15	2925	280	224	180	1,77	4	11	126
071-010630	106,0	2,13	16,2	○	18,5	2940	315	250	200	1,94	4	11	129
071-013230	132,0	2,65	19,9	○	22	2940	315	280	224	1,95	4	11	138
071-017015	170,0	3,41	27,4	○	30	1470	450	315	250	21,12	3	11	405
071-017030	170,0	3,41	25,4	○	30	2950	355	315	250	2,67	5	11	153
071-021215	212,0	4,26	33,5	○	37	1470	500	355	280	24,14	3	11	437
071-021230	212,0	4,26	31,5	○	37	2960	400	355	280	3,07	5	11	164

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 710$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 664$ daPa

density at inlet operation of

$\rho_1 = 1,125$ kg/m³

Specific supply

$Y_{t2} \approx 578$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 800 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
080-000930	9,0	0,18	2,63	●	5,5	2900	140	100	125	1,28	1	13	90
080-001430	14,0	0,28	3,51	●	5,5	2900	160	100	125	1,29	2	13	90
080-002230	22,4	0,45	4,93	○	7,5	2915	180	112	125	1,26	2	13	90
080-002830	28,0	0,56	5,81	○	7,5	2915	200	125	125	1,32	2	13	91
080-003530	35,0	0,70	6,90	○	11	2920	224	140	125	1,31	3	11	95
080-004530	45,0	0,90	8,57	○	11	2920	224	160	125	1,30	3	11	96
080-005630	56,0	1,12	10,3	○	15	2925	250	180	140	1,57	4	11	111
080-007130	71,0	1,43	12,9	○	15	2925	280	200	160	1,94	3	11	119
080-009030	90,0	1,81	16,0	○	18,5	2940	280	224	180	2,04	4	11	128
080-011230	112,0	2,25	19,3	○	22	2940	315	250	200	2,23	4	11	132
080-014030	140,0	2,81	23,7	○	30	2950	355	280	224	2,77	4	11	149
080-018015	180,0	3,62	32,8	○	37	1470	450	315	250	25,83	3	13	422
080-018030	180,0	3,62	30,2	○	37	2960	355	315	250	2,95	4	11	155

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 800$ daPa
 Total pressure increase $\Delta pt_1 = 742$ daPa
 Specific supply $Yt_2 \approx 649$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,116$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 900 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 900 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
090-000930	9,5	0,19	3,23	●	7,5	2900	140	100	125	1,58	1	13	106
090-001430	15,0	0,30	4,31	●	7,5	2915	160	100	125	1,54	2	13	92
090-002430	23,6	0,47	5,94	○	7,5	2915	180	112	125	1,53	2	13	92
090-003030	30,0	0,60	7,08	○	11	2920	200	125	125	1,58	2	13	93
090-003830	37,5	0,75	8,38	○	11	2920	224	140	125	1,58	3	11	97
090-004830	47,5	0,95	10,1	○	15	2925	250	160	125	1,82	3	11	119
090-006030	60,0	1,21	12,5	○	15	2925	250	180	140	1,83	4	11	113
090-007530	75,0	1,51	15,4	○	18,5	2940	280	200	160	2,25	3	11	122
090-009530	95,0	1,91	19,0	○	22	2940	315	224	180	2,59	4	11	171
090-011830	118,0	2,37	22,9	○	30	2950	315	250	200	2,85	4	11	182
090-015030	150,0	3,01	28,7	○	37	2960	355	280	224	3,33	4	11	197
090-019015	190,0	3,82	39,4	○	45	1470	450	315	250	36,97	3	13	557
090-019030	190,0	3,82	36,2	○	45	2960	400	315	250	4,06	5	11	208

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 900$ daPa
 Total pressure increase $\Delta p_{t1} = 827$ daPa
 Specific supply $Y_{t2} \approx 728$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,118$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 1000 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	MAE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
100-001030	10,0	0,20	3,89	●	7,5	2915	140	100	125	1,87	1	13	126
100-001630	16,0	0,32	5,21	●	7,5	2915	160	100	125	1,84	2	13	126
100-002530	25,0	0,50	6,91	●	11	2920	200	112	125	1,85	2	13	126
100-003130	31,5	0,63	8,36	○	11	2920	200	125	125	1,88	2	13	127
100-004030	40,0	0,80	10,0	○	15	2925	224	140	125	2,09	2	13	158
100-005030	50,0	1,00	12,0	○	15	2925	250	160	125	2,13	4	11	160
100-006330	63,0	1,27	14,6	○	18,5	2940	250	180	140	2,11	4	11	167
100-008030	80,0	1,61	18,4	○	22	2940	280	200	160	2,23	4	11	155
100-010030	100,0	2,01	22,3	○	30	2950	315	224	180	3,29	5	11	181
100-012530	125,0	2,51	27,2	○	30	2950	315	250	200	3,24	4	11	184
100-016030	160,0	3,21	34,2	○	37	2960	355	280	224	4,02	4	11	202
100-020030	200,0	4,02	42,5	○	55	2970	400	315	250	4,97	4	11	216

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 1000 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 911 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,096 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 807 \text{ daJ/kg}$

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 125 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 125 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
012-000530	5,6	0,11	0,49	●	1,1	2835	140	100	125	0,06	4	9	71
012-000930	9,0	0,18	0,58	●	1,1	2835	140	112	125	0,07	4	9	71
012-001130	11,2	0,22	0,64	●	1,1	2835	140	125	125	0,06	4	9	71
012-001430	14,0	0,28	0,71	●	1,1	2835	160	140	125	0,07	5	9	74
012-001830	18,0	0,36	0,82	●	1,1	2835	180	160	125	0,09	5	9	81
012-002230	22,4	0,45	0,93	○	1,1	2835	180	180	140	0,09	5	9	85
012-002830	28,0	0,56	1,08	○	1,5	2850	200	200	160	0,10	5	9	91
012-003530	35,0	0,70	1,26	○	1,5	2850	224	224	180	0,12	6	9	101
012-004530	45,0	0,90	1,52	○	2,2	2850	250	250	200	0,15	6	9	115
012-005615	56,0	1,12	1,82	○	2,2	1420	315	280	224	1,1	5	9	187
012-005630	56,0	1,12	1,80	○	2,2	2850	280	280	224	0,17	6	9	120
012-007115	71,0	1,43	2,21	○	3	1430	355	315	250	1,2	5	9	189
012-007130	71,0	1,43	2,21	○	3	2875	315	315	250	0,20	6	9	129
012-009015	90,0	1,81	2,69	○	3	1430	355	355	280	1,2	5	9	197
012-009030	90,0	1,81	2,70	○	3	2875	355	355	280	0,25	7	9	146
012-011215	112,0	2,25	3,28	○	4	1440	400	400	315	1,4	6	9	216
012-014015	140,0	2,81	4,03	○	5,5	1450	450	450	355	1,8	6	9	255
012-018015	180,0	3,62	5,06	○	5,5	1450	500	500	400	2,0	6	9	272
012-022415	224,0	4,50	6,23	○	7,5	1450	560	560	450	2,8	6	9	322
012-028015	280,0	5,62	7,70	○	11	1460	630	630	500	4,0	7	9	432
012-035515	355,0	7,13	9,75	○	11	1460	710	710	560	5,1	8	9	546
012-045015	450,0	9,04	12,16	○	15	1460	800	800	630	6,6	8	9	654
012-056015	560,0	11,25	15,02	○	18,5	1460	900	900	710	9,1	8	9	764
012-071015	710,0	14,26	19,48	○	22	1460	1000	1000	800	11,8	8	9	926
012-090010	900,0	18,08	23,75	○	30	980	1120	1120	900	33,8	8	9	1512
012-112010	1120,0	22,49	29,29	○	37	980	1250	1250	1000	50,1	8	11	1766

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 125$ daPa
 Total pressure increase $\Delta pt_1 = 124$ daPa
 Specific supply $Yt_2 \approx 103$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,190$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 160 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 160 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
016-000630	6,3	0,13	0,57	●	1,1	2835	140	100	125	0,09	4	9	75
016-001030	10,0	0,20	0,70	●	1,1	2835	140	112	125	0,09	4	9	75
016-001230	12,5	0,25	0,78	●	1,1	2835	160	125	125	0,10	4	9	76
016-001630	16,0	0,32	0,90	●	1,1	2835	160	140	125	0,10	4	9	82
016-002030	20,0	0,40	1,03	○	1,1	2835	180	160	125	0,11	5	9	82
016-002530	25,0	0,50	1,20	○	1,5	2850	200	180	140	0,13	5	9	101
016-003130	31,5	0,63	1,41	○	1,5	2850	200	200	160	0,14	5	9	102
016-004030	40,0	0,80	1,69	○	2,2	2850	224	224	180	0,17	5	9	115
016-005030	50,0	1,00	2,03	○	2,2	2850	250	250	200	0,19	6	9	116
016-006315	63,0	1,27	2,50	○	3	1430	315	280	224	1,4	4	11	207
016-006330	63,0	1,27	2,46	○	3	2875	280	280	224	0,22	6	9	128
016-008015	80,0	1,61	3,05	○	4	1440	355	315	250	1,6	5	11	217
016-008030	80,0	1,61	3,05	○	4	2900	315	315	250	0,25	6	9	135
016-010015	100,0	2,01	3,74	○	4	1440	400	355	280	1,9	5	11	227
016-010030	100,0	2,01	3,71	○	4	2900	355	355	280	0,31	6	9	141
016-012515	125,0	2,51	4,54	○	5,5	1450	400	400	315	2,0	5	11	248
016-012530	125,0	2,51	4,53	○	5,5	2900	400	400	315	0,40	7	9	163
016-016015	160,0	3,21	5,73	○	7,5	1450	450	450	355	2,3	6	9	271
016-020015	200,0	4,02	7,09	○	11	1460	500	500	400	3,4	6	9	392
016-025015	250,0	5,02	8,73	○	11	1460	560	560	450	3,9	6	9	406
016-031515	315,0	6,33	10,9	○	15	1460	630	630	500	5,0	6	9	452
016-040015	400,0	8,03	13,8	○	15	1460	710	710	560	6,9	7	9	599
016-050015	500,0	10,04	17,2	○	18,5	1460	800	800	630	8,2	8	9	712
016-063015	630,0	12,65	21,4	○	30	1470	900	900	710	11,5	8	9	865
016-080010	800,0	16,07	26,9	○	30	980	1000	1000	800	36,4	7	9	1504
016-100010	1000,0	20,08	33,4	○	37	980	1120	1120	900	44,1	8	9	1634
016-125010	1250,0	25,10	41,7	○	45	980	1250	1250	1000	65,1	8	11	1951

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 160$ daPa
 Total pressure increase $\Delta p_{t1} = 158$ daPa
 Specific supply $Y_{t2} \approx 132$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,186$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 200 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 200 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
020-000730	7,1	0,14	0,69	●	1,1	2835	140	100	125	0,12	3	9	84
020-001130	11,2	0,22	0,86	●	1,1	2835	140	112	125	0,12	3	9	84
020-001430	14,0	0,28	0,98	●	1,1	2835	160	125	125	0,13	4	9	84
020-001830	18,0	0,36	1,14	○	1,5	2850	180	140	125	0,15	4	9	97
020-002230	22,4	0,45	1,32	○	1,5	2850	180	160	125	0,15	4	9	98
020-002830	28,0	0,56	1,55	○	2,2	2850	200	180	140	0,18	5	9	106
020-003530	35,0	0,70	1,84	○	2,2	2850	224	200	160	0,20	5	9	116
020-004530	45,0	0,90	2,25	○	3	2875	224	224	180	0,21	5	9	128
020-005630	56,0	1,12	2,71	○	3	2875	250	250	200	0,24	6	9	130
020-007115	71,0	1,43	3,40	○	4	1440	355	280	224	2,1	4	11	240
020-007130	71,0	1,43	3,36	○	4	2900	280	280	224	0,28	6	9	134
020-009015	90,0	1,81	4,16	○	5,5	1450	355	315	250	2,1	4	11	223
020-009030	90,0	1,81	4,14	○	5,5	2900	315	315	250	0,32	6	9	138
020-011215	112,0	2,25	5,10	○	5,5	1450	400	355	280	2,4	5	11	257
020-011230	112,0	2,25	5,06	○	5,5	2900	355	355	280	0,41	6	9	150
020-014015	140,0	2,81	6,30	○	7,5	1450	450	400	315	3,2	5	11	312
020-014030	140,0	2,81	6,21	○	7,5	2915	400	400	315	0,56	7	9	176
020-018015	180,0	3,62	7,89	○	11	1460	450	450	355	3,7	5	11	357
020-018030	180,0	3,62	7,84	○	11	2920	450	450	355	0,69	7	9	215
020-022415	224,0	4,50	9,77	○	11	1460	500	500	400	4,4	6	9	397
020-028015	280,0	5,62	12,1	○	15	1460	560	560	450	5,4	6	9	496
020-035515	355,0	7,13	15,2	○	18,5	1460	630	630	500	6,7	6	9	564
020-045015	450,0	9,04	19,1	○	22	1460	710	710	560	8,8	6	9	633
020-056015	560,0	11,25	23,5	○	30	1470	800	800	630	11,1	7	9	813
020-071015	710,0	14,26	29,6	○	37	1470	900	900	710	14,6	7	9	1063
020-090015	900,0	18,08	37,6	○	45	1470	1000	1000	800	20,4	8	9	1274
020-112010	1120,0	22,49	46,6	○	55	980	1120	1120	900	66,8	8	11	1908
020-140010	1400,0	28,12	58,0	○	75	980	1250	1250	1000	79,1	8	11	2383
020-180010	1800,0	36,15	74,5	○	90	980	1400	1400	1120	117	8	11	2960

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 200$ daPa
 Total pressure increase $\Delta pt_1 = 196$ daPa
 Specific supply $Yt_2 \approx 165$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,181$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 250 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
025-000530	5,0	0,10	0,69	●	1,1	2835	140	100	125	0,17	3	9	95
025-000830	8,0	0,16	0,85	●	1,1	2835	140	100	125	0,17	3	9	95
025-001230	12,5	0,25	1,08	●	1,5	2850	160	112	125	0,18	3	9	100
025-001630	16,0	0,32	1,27	○	1,5	2850	160	125	125	0,18	3	9	101
025-002030	20,0	0,40	1,47	○	2,2	2850	180	140	125	0,21	4	9	108
025-002530	25,0	0,50	1,74	○	2,2	2850	200	160	125	0,24	4	9	109
025-003130	31,5	0,63	2,06	○	2,2	2850	200	180	140	0,23	4	9	116
025-004030	40,0	0,80	2,49	○	3	2875	224	200	160	0,25	5	9	124
025-005030	50,0	1,00	3,01	○	4	2900	250	224	180	0,29	5	9	123
025-006330	63,0	1,27	3,7	○	4	2900	250	250	200	0,30	5	9	125
025-008015	80,0	1,61	4,7	○	5,5	1450	355	280	224	3,1	4	11	251
025-008030	80,0	1,61	4,6	○	5,5	2900	280	280	224	0,39	6	9	142
025-010015	100,0	2,01	5,7	○	7,5	1450	400	315	250	3,5	4	11	269
025-010030	100,0	2,01	5,6	○	7,5	2915	315	315	250	0,44	6	9	154
025-012515	125,0	2,51	7,0	○	7,5	1450	400	355	280	3,6	4	11	279
025-012530	125,0	2,51	6,9	○	7,5	2915	355	355	280	0,57	6	9	162
025-016015	160,0	3,21	8,8	○	11	1460	450	400	315	4,7	5	11	398
025-016030	160,0	3,21	8,7	○	11	2920	400	400	315	0,68	6	9	207
025-020015	200,0	4,02	11,0	○	15	1460	500	450	355	5,5	5	11	423
025-020030	200,0	4,02	10,8	○	15	2925	450	450	355	0,92	7	9	245
025-025015	250,0	5,02	13,5	○	15	1460	500	500	400	5,9	5	11	481
025-025030	250,0	5,02	13,4	○	15	2925	500	500	400	1,1	7	9	282
025-031515	315,0	6,33	16,9	○	18,5	1460	560	560	450	7,2	6	9	510
025-040015	400,0	8,03	21,2	○	30	1470	630	630	500	9,6	6	9	702
025-050015	500,0	10,04	26,2	○	30	1470	710	710	560	10,9	6	9	771
025-063015	630,0	12,65	32,8	○	37	1470	800	800	630	14,7	7	9	838
025-080015	800,0	16,07	41,4	○	45	1470	900	900	710	19,6	7	9	1109
025-100015	1000,0	20,08	52,1	○	75	1480	1000	1000	800	24,2	8	9	1419
025-125015	1250,0	25,10	64,8	○	75	1480	1120	1120	900	37,4	8	9	1762
025-160010	1600,0	32,13	82,5	○	90	980	1250	1250	1000	119	8	11	2766
025-200010	2000,0	40,17	102,7	○	110	980	1400	1400	1120	160	8	11	3272
025-250010	2500,0	50,21	128,0	○	200	980	1600	1600	1250	193	8	11	4107

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 250$ daPa
 Total pressure increase $\Delta p_{t1} = 244$ daPa
 Specific supply $Y_{t2} \approx 206$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,181$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 315 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 315 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
031-000530	5,6	0,11	0,85	●	1,5	2850	140	100	125	0,25	3	9	101
031-000930	9,0	0,18	1,09	●	1,5	2850	140	100	125	0,24	3	9	101
031-001430	14,0	0,28	1,42	●	2,2	2850	160	112	125	0,27	3	9	106
031-001830	18,0	0,36	1,68	○	2,2	2850	180	125	125	0,29	3	9	109
031-002230	22,4	0,45	1,96	○	2,2	2850	180	140	125	0,29	3	9	112
031-002830	28,0	0,56	2,34	○	3	2875	200	160	125	0,31	4	9	119
031-003530	35,0	0,70	2,78	○	3	2875	224	180	140	0,35	4	9	127
031-004530	45,0	0,90	3,41	○	4	2900	224	200	160	0,32	4	9	122
031-005615	56,0	1,12	4,40	○	5,5	1450	315	224	180	4,1	3	11	264
031-005630	56,0	1,12	4,1	○	5,5	2900	250	224	180	0,41	5	9	131
031-007115	71,0	1,43	5,3	○	7,5	1450	355	250	200	4,3	4	11	281
031-007130	71,0	1,43	5,2	○	5,5	2900	280	250	200	0,48	5	9	133
031-009015	90,0	1,81	6,5	○	7,5	1450	355	280	224	4,4	4	11	316
031-009030	90,0	1,81	6,3	○	7,5	2915	280	280	224	0,49	5	9	153
031-011215	112,0	2,25	8,0	○	11	1460	400	315	250	4,9	4	11	352
031-011230	112,0	2,25	7,8	○	11	2920	315	315	250	0,64	6	9	185
031-014015	140,0	2,81	9,9	○	11	1460	450	355	280	5,9	4	11	367
031-014030	140,0	2,81	9,6	○	11	2920	355	355	280	0,73	6	9	193
031-018015	180,0	3,62	12,4	○	15	1460	450	400	315	6,0	5	11	440
031-018030	180,0	3,62	12,1	○	15	2925	400	400	315	0,91	6	9	237
031-022415	224,0	4,50	15,3	○	18,5	1460	500	450	355	7,1	5	11	503
031-022430	224,0	4,50	15,1	○	18,5	2940	450	450	355	1,3	6	9	281
031-028015	280,0	5,62	19,0	○	22	1460	560	500	400	10,0	5	11	597
031-028030	280,0	5,62	18,8	○	22	2940	500	500	400	1,7	7	9	360
031-035515	355,0	7,13	23,7	○	30	1470	560	560	450	10,3	6	9	670
031-035530	355,0	7,13	23,6	○	30	2950	560	560	450	2,1	7	9	426
031-045015	450,0	9,04	29,7	○	37	1470	630	630	500	12,0	6	9	719
031-056015	560,0	11,25	36,7	○	45	1470	710	710	560	16,2	6	9	911
031-071015	710,0	14,26	46,3	○	55	1475	800	800	630	19,4	6	9	1138
031-090015	900,0	18,08	59,0	○	75	1480	900	900	710	27,4	7	9	1355
031-112015	1120,0	22,49	73,2	○	90	1480	1000	1000	800	36,7	8	9	1703
031-140015	1400,0	28,12	91,0	○	110	1480	1120	1120	900	46,3	8	9	1917
031-180010	1800,0	36,15	116,2	○	132	980	1250	1250	1000	157,9	7	11	2989
031-180015	1800,0	36,15	116,6	○	132	1480	1250	1250	1000	64,3	8	11	2343
031-224010	2240,0	44,99	144,2	○	200	980	1400	1400	1120	199	8	11	3505
031-280010	2800,0	56,23	179,8	○	200	980	1600	1600	1250	266	8	11	4453
031-355010	3550,0	71,30	228,6	○	250	980	1800	1800	1400	401	8	11	6195
031-450010	4500,0	90,38	288,5	○	315	980	2000	2000	1600	578	8	11	7337

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 315$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 306$ daPa

density at inlet operation of

$\rho_1 = 1,168$ kg/m³

Specific supply

$Y_{t2} \approx 259$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 355 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 355 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
035-000830	7,5	0,15	1,10	●	1,5	2850	140	100	125	0,31	2	11	105
035-001230	12,5	0,25	1,47	●	2,2	2850	160	100	125	0,32	3	9	109
035-001930	19,0	0,38	1,95	○	3	2875	180	125	125	0,34	3	9	117
035-002430	23,6	0,47	2,29	○	3	2875	180	140	125	0,34	3	9	120
035-003030	30,0	0,60	2,77	○	3	2875	200	160	125	0,37	4	9	120
035-003830	37,5	0,75	3,29	○	4	2900	224	180	140	0,39	4	9	122
035-004830	47,5	0,95	4,01	○	5,5	2900	250	200	160	0,46	4	9	127
035-006030	60,0	1,21	4,90	○	5,5	2900	250	224	180	0,47	4	9	132
035-007530	75,0	1,51	6,06	○	7,5	2915	280	250	200	0,54	5	9	157
035-009515	95,0	1,91	7,8	○	11	1460	400	280	224	5,7	4	11	352
035-009530	95,0	1,91	7,5	○	11	2920	315	280	224	0,65	5	9	182
035-011815	118,0	2,37	9,5	○	11	1460	400	315	250	5,8	4	11	356
035-011830	118,0	2,37	9,2	○	11	2920	315	315	250	0,73	5	9	186
035-015015	150,0	3,01	11,8	○	15	1460	450	355	280	6,9	4	11	457
035-015030	150,0	3,01	11,5	○	15	2925	355	355	280	0,9	6	9	219
035-019015	190,0	3,82	14,7	○	18,5	1460	450	400	315	7,0	4	11	489
035-019030	190,0	3,82	14,5	○	18,5	2940	400	400	315	1,2	6	9	259
035-023615	236,0	4,74	18,1	○	22	1460	500	450	355	8,8	5	11	560
035-023630	236,0	4,74	17,8	○	22	2940	450	450	355	1,6	6	9	315
035-030015	300,0	6,03	22,8	○	30	1470	560	500	400	11,3	5	11	658
035-030030	300,0	6,03	22,5	○	30	2950	500	500	400	2,0	7	9	414
035-037515	375,0	7,53	28,0	○	30	1470	560	560	450	11,7	5	11	677
035-047515	475,0	9,54	35,2	○	45	1470	630	630	500	14,9	6	9	754
035-060015	600,0	12,05	44,1	○	55	1475	710	710	560	18,5	6	9	1069
035-075015	750,0	15,06	54,9	○	75	1480	800	800	630	21,7	6	9	1207
035-095015	950,0	19,08	70,0	○	75	1480	900	900	710	30,6	7	9	1431
035-118015	1180,0	23,70	86,6	○	110	1480	1000	1000	800	40,5	7	9	1750
035-150015	1500,0	30,13	109,6	○	132	1480	1120	1120	900	53,1	8	9	1971
035-190010	1900,0	38,16	137,8	○	200	980	1250	1250	1000	179,7	7	11	3326
035-190015	1900,0	38,16	138,8	○	160	1480	1250	1250	1000	75,5	8	11	2433
035-236010	2360,0	47,40	170,7	○	200	980	1400	1400	1120	249	7	11	3917
035-300010	3000,0	60,25	217,3	○	250	980	1600	1600	1250	349	8	11	6063
035-375010	3750,0	75,31	270,5	○	315	980	1800	1800	1400	447	8	11	6539
035-475010	4750,0	95,40	342,4	○	400	980	2000	2000	1600	660	8	11	7545

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 355$ daPa
 Total pressure increase $\Delta p_{t1} = 343$ daPa
 Specific supply $Y_{t2} \approx 292$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,164$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 400 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
040-000630	6,3	0,13	1,12	●	1,5	2850	140	100	125	0,38	2	11	117
040-001030	10,0	0,20	1,46	●	2,2	2850	140	100	125	0,39	2	11	111
040-001630	16,0	0,32	1,94	○	3	2875	160	112	125	0,38	3	9	117
040-002030	20,0	0,40	2,27	○	3	2875	180	125	125	0,40	3	9	118
040-002530	25,0	0,50	2,69	○	3	2875	200	140	125	0,43	3	9	132
040-003130	31,5	0,63	3,23	○	4	2900	200	160	125	0,42	3	9	126
040-004030	40,0	0,80	3,89	○	5,5	2900	224	180	140	0,46	4	9	137
040-005030	50,0	1,00	4,70	○	5,5	2900	250	200	160	0,55	4	9	141
040-006330	63,0	1,27	5,74	○	7,5	2915	250	224	180	0,54	4	9	155
040-008030	80,0	1,61	7,2	○	11	2920	280	250	200	0,62	5	9	168
040-010030	100,0	2,01	8,9	○	11	2920	315	280	224	0,79	5	9	184
040-012515	125,0	2,51	11,3	○	15	1460	400	315	250	6,9	4	11	444
040-012530	125,0	2,51	10,8	○	15	2925	315	315	250	0,85	5	9	213
040-016015	160,0	3,21	14,2	○	15	1460	450	355	280	8,8	4	11	468
040-016030	160,0	3,21	13,7	○	15	2925	355	355	280	1,0	6	9	256
040-020015	200,0	4,02	17,5	○	22	1460	500	400	315	10,0	4	11	546
040-020030	200,0	4,02	17,1	○	18,5	2940	400	400	315	1,6	6	9	303
040-025015	250,0	5,02	21,5	○	30	1470	500	450	355	10,9	5	11	622
040-025030	250,0	5,02	21,1	○	30	2950	450	450	355	1,8	6	9	356
040-031515	315,0	6,33	26,8	○	30	1470	560	500	400	12,9	5	11	664
040-031530	315,0	6,33	26,5	○	30	2950	500	500	400	2,1	6	9	416
040-040015	400,0	8,03	33,7	○	37	1470	630	560	450	15,7	5	11	736
040-040030	400,0	8,03	33,7	○	37	2960	560	560	450	2,9	7	9	496
040-050015	500,0	10,04	41,6	○	45	1470	630	630	500	18,1	6	9	973
040-063015	630,0	12,65	52,1	○	75	1480	710	710	560	20,7	6	9	1135
040-080015	800,0	16,07	65,8	○	75	1480	800	800	630	28,3	6	9	1258
040-100015	1000,0	20,08	82,8	○	90	1480	900	900	710	37,6	7	9	1620
040-125015	1250,0	25,10	103,1	○	110	1480	1000	1000	800	47,3	7	9	1834
040-160015	1600,0	32,13	131,5	○	160	1480	1120	1120	900	63,0	8	11	2572
040-200015	2000,0	40,17	163,8	○	200	1480	1250	1250	1000	93,8	8	11	2949
040-250010	2500,0	50,21	203,1	○	250	980	1400	1400	1120	280	7	11	5180
040-315010	3150,0	63,26	256,1	○	315	980	1600	1600	1250	412	8	11	6078
040-400010	4000,0	80,33	325,3	○	355	980	1800	1800	1400	563	8	11	6855
040-500010	5000,0	100,42	406,7	○	450	980	2000	2000	1600	767	8	11	8782

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 400$ daPa
 Total pressure increase $\Delta p_{t1} = 385$ daPa
 Specific supply $Y_{t2} \approx 328$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,159$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 450 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 450 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	KXE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
045-000930	8,5	0,17	1,48	●	2,2	2850	140	100	125	0,48	2	11	122
045-001330	13,2	0,27	1,93	●	3	2875	160	100	125	0,47	2	11	129
045-002130	21,2	0,43	2,66	○	4	2900	180	125	125	0,47	3	9	123
045-002730	26,5	0,53	3,16	○	4	2900	200	140	125	0,50	3	9	126
045-003430	33,5	0,67	3,81	○	5,5	2900	200	160	125	0,50	3	9	129
045-004230	42,5	0,85	4,60	○	5,5	2900	224	180	140	0,54	4	9	138
045-005330	53,0	1,06	5,55	○	7,5	2915	250	200	160	0,63	4	9	151
045-006730	67,0	1,35	6,94	○	7,5	2915	280	224	180	0,70	5	9	157
045-008530	85,0	1,71	8,54	○	11	2920	280	250	200	0,71	5	9	169
045-010630	106,0	2,13	10,5	○	15	2925	315	280	224	0,92	5	9	231
045-013215	132,0	2,65	13,4	○	15	1460	400	315	250	9,3	3	11	458
045-013230	132,0	2,65	12,8	○	15	2925	315	315	250	1,0	5	9	248
045-017015	170,0	3,41	16,9	○	18,5	1460	450	355	280	10,4	4	11	477
045-017030	170,0	3,41	16,3	○	18,5	2940	355	355	280	1,3	6	9	277
045-021215	212,0	4,26	20,8	○	30	1470	500	400	315	11,7	4	11	608
045-021230	212,0	4,26	20,2	○	22	2940	400	400	315	1,8	6	9	307
045-026515	265,0	5,32	25,5	○	30	1470	500	450	355	12,6	4	11	629
045-026530	265,0	5,32	25,0	○	30	2950	450	450	355	2,0	6	9	358
045-033515	335,0	6,73	32,0	○	37	1470	560	500	400	14,7	5	11	715
045-033530	335,0	6,73	31,6	○	37	2960	500	500	400	2,4	6	9	480
045-042515	425,0	8,54	40,1	○	45	1470	630	560	450	19,2	5	11	830
045-042530	425,0	8,54	40,0	○	45	2960	560	560	450	3,2	7	9	555
045-053015	530,0	10,64	49,4	○	55	1475	630	630	500	20,9	5	11	1028
045-053030	530,0	10,64	49,5	○	55	2970	630	630	500	4,1	7	9	613
045-067015	670,0	13,46	62,1	○	75	1480	710	710	560	26,8	6	9	1184
045-085015	850,0	17,07	78,3	○	90	1480	800	800	630	35,8	6	9	1396
045-106015	1060,0	21,29	98,1	○	110	1480	900	900	710	43,1	7	9	1743
045-132015	1320,0	26,51	122,1	○	132	1480	1000	1000	800	56,8	7	11	1898
045-170015	1700,0	34,14	156,7	○	200	1480	1120	1120	900	77,4	8	11	2613
045-212015	2120,0	42,58	194,6	○	250	1480	1250	1250	1000	107	8	11	3065
045-265010	2650,0	53,22	241,4	○	315	980	1400	1400	1120	338	7	11	5359
045-335010	3350,0	67,28	305,4	○	355	980	1600	1600	1250	492	7	11	6165
045-425010	4250,0	85,35	388,8	○	450	980	1800	1800	1400	659	8	11	7196
045-530010	5300,0	106,44	482,2	○	560	980	2000	2000	1600	861	8	11	9063

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 450$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 431$ daPa

density at inlet operation of

$\rho_1 = 1,153$ kg/m³

Specific supply

$Y_{t2} \approx 369$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 500 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
050-000730	7,1	0,14	1,48	●	2,2	2850	140	100	125	0,58	2	11	123
050-001130	11,2	0,22	1,96	●	3	2875	140	100	125	0,54	2	11	130
050-001830	18,0	0,36	2,62	○	4	2900	180	112	125	0,55	3	9	123
050-002230	22,4	0,45	3,09	○	4	2900	180	125	125	0,55	3	9	124
050-002830	28,0	0,56	3,67	○	5,5	2900	200	140	125	0,58	3	9	129
050-003530	35,0	0,70	4,39	○	5,5	2900	224	160	125	0,62	3	9	130
050-004530	45,0	0,90	5,37	○	7,5	2915	224	180	140	0,62	3	9	149
050-005630	56,0	1,12	6,47	○	7,5	2915	250	200	160	0,73	4	9	152
050-007130	71,0	1,43	8,10	○	11	2920	280	224	180	0,81	4	9	186
050-009030	90,0	1,81	10,0	○	11	2920	280	250	200	0,81	4	9	188
050-011230	112,0	2,25	12,2	○	15	2925	315	280	224	1,0	5	9	245
050-014015	140,0	2,81	16,0	○	18,5	1460	450	315	250	12,2	4	11	502
050-014030	140,0	2,81	15,0	○	18,5	2940	355	315	250	1,4	5	9	269
050-018015	180,0	3,62	19,9	○	22	1460	450	355	280	12,0	4	11	559
050-018030	180,0	3,62	19,0	○	22	2940	355	355	280	1,5	5	9	283
050-022415	224,0	4,50	24,4	○	30	1470	500	400	315	14,3	4	11	656
050-022430	224,0	4,50	23,6	○	30	2950	400	400	315	1,9	6	9	348
050-028015	280,0	5,62	30,2	○	37	1470	560	450	355	16,6	5	11	686
050-028030	280,0	5,62	29,5	○	37	2960	450	450	355	2,3	6	9	450
050-035515	355,0	7,13	37,5	○	45	1470	560	500	400	17,1	5	11	799
050-035530	355,0	7,13	37,1	○	45	2960	500	500	400	2,9	6	9	505
050-045015	450,0	9,04	47,0	○	55	1475	630	560	450	21,7	5	11	1019
050-045030	450,0	9,04	46,9	○	55	2970	560	560	450	3,8	6	9	577
050-056015	560,0	11,25	58,1	○	75	1480	710	630	500	30,0	5	11	1184
050-056030	560,0	11,25	58,3	○	75	2975	630	630	500	5,0	7	9	824
050-071015	710,0	14,26	72,9	○	90	1480	710	710	560	30,5	6	9	1276
050-071030	710,0	14,26	74,0	○	90	2975	710	710	560	7,4	7	9	928
050-090015	900,0	18,08	91,9	○	110	1480	800	800	630	40,4	6	9	1441
050-112015	1120,0	22,49	115,3	○	132	1480	900	900	710	52,8	7	11	1807
050-140015	1400,0	28,12	143,5	○	160	1480	1000	1000	800	68,9	7	11	2189
050-180015	1800,0	36,15	182,0	○	200	1480	1120	1120	900	93,5	7	11	2659
050-224015	2240,0	44,99	225,5	○	250	1480	1250	1250	1000	126	7	11	2780
050-280010	2800,0	56,23	279,0	○	315	980	1400	1400	1120	379	6	11	5678
050-355010	3550,0	71,30	358,4	○	400	980	1600	1600	1250	553	7	11	6637
050-450010	4500,0	90,38	456,0	○	500	980	1800	1800	1400	777	8	11	7661
050-560010	5600,0	112,47	566,3	○	630	980	2000	2000	1600	987	8	11	9668

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 500$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 477$ daPa

density at inlet operation of

$\rho_1 = 1,148$ kg/m³

Specific supply

$Y_{t2} \approx 409$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 560 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 560 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	KXE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
056-000830	7,5	0,15	1,72	●	3	2875	140	100	125	0,68	2	11	143
056-001530	15,0	0,30	2,65	●	3	2875	160	100	125	0,67	2	11	143
056-002430	23,6	0,47	3,65	○	4	2900	180	125	125	0,66	3	9	137
056-003030	30,0	0,60	4,37	○	5,5	2900	200	140	125	0,69	3	9	143
056-003830	37,5	0,75	5,18	○	5,5	2900	224	160	125	0,72	3	9	144
056-004830	47,5	0,95	6,31	○	7,5	2915	250	180	140	0,77	4	9	167
056-006030	60,0	1,21	7,71	○	11	2920	250	200	160	0,84	4	9	192
056-007530	75,0	1,51	9,53	○	11	2920	280	224	180	0,93	4	9	200
056-009515	95,0	1,91	12,8	○	15	1460	400	250	200	13,0	3	11	497
056-009530	95,0	1,91	11,8	○	15	2925	315	250	200	1,2	5	9	229
056-011815	118,0	2,37	15,3	○	18,5	1460	400	280	224	13,3	3	11	502
056-011830	118,0	2,37	14,3	○	18,5	2940	315	280	224	1,3	5	9	266
056-015015	150,0	3,01	19,0	○	22	1460	450	315	250	14,4	3	11	567
056-015030	150,0	3,01	17,9	○	22	2940	355	315	250	1,7	5	9	275
056-019015	190,0	3,82	23,5	○	30	1470	450	355	280	14,3	3	11	700
056-019030	190,0	3,82	22,7	○	30	2950	400	355	280	2,1	6	9	356
056-023615	236,0	4,74	28,8	○	37	1470	500	400	315	16,7	4	11	734
056-023630	236,0	4,74	27,8	○	30	2950	400	400	315	2,2	6	9	410
056-030015	300,0	6,03	36,1	○	45	1470	560	450	355	19,3	4	11	802
056-030030	300,0	6,03	35,2	○	45	2960	450	450	355	2,6	6	9	473
056-037515	375,0	7,53	44,4	○	55	1475	560	500	400	19,7	4	11	936
056-037530	375,0	7,53	43,7	○	55	2970	500	500	400	3,5	6	9	560
056-047515	475,0	9,54	55,5	○	75	1480	630	560	450	28,7	5	11	1157
056-047530	475,0	9,54	55,2	○	75	2975	560	560	450	4,5	6	9	774
056-060015	600,0	12,05	69,4	○	75	1480	710	630	500	33,8	5	11	1193
056-060030	600,0	12,05	69,7	○	75	2975	630	630	500	5,7	7	9	828
056-075015	750,0	15,06	85,9	○	110	1480	710	710	560	39,2	5	11	1342
056-075030	750,0	15,06	87,2	○	110	2975	710	710	560	8,3	7	9	1019
056-095015	950,0	19,08	109,3	○	132	1480	800	800	630	53,0	7	11	1722
056-118015	1180,0	23,70	135,7	○	160	1480	900	900	710	61,3	7	11	2072
056-150015	1500,0	30,13	171,6	○	200	1480	1000	1000	800	79,1	7	11	2319
056-190010	1900,0	38,16	215,6	○	250	980	1120	1120	900	339	6	13	4914
056-236010	2360,0	47,40	266,6	○	315	980	1250	1250	1000	393	7	11	5327
056-300010	3000,0	60,25	339,4	○	400	980	1400	1400	1120	516	7	11	6115
056-375010	3750,0	75,31	422,5	○	450	980	1600	1600	1250	705	7	11	6934
056-475010	4750,0	95,40	535,5	○	630	980	1800	1800	1400	885	7	11	8639
056-600010	6000,0	120,50	677,1	○	800	980	2000	2000	1600	1203	8	11	9973

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 560$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 531$ daPa

density at inlet operation of

$\rho_1 = 1,148$ kg/m³

Specific supply

$Y_{t2} \approx 458$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 630 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
063-000830	8,0	0,16	2,04	●	3	2875	140	100	125	0,83	2	11	155
063-001230	12,5	0,25	2,65	●	4	2900	160	100	125	0,80	2	11	138
063-002030	20,0	0,40	3,65	○	5,5	2900	180	112	125	0,82	2	11	151
063-002530	25,0	0,50	4,26	○	5,5	2900	200	125	125	0,82	3	9	151
063-003130	31,5	0,63	5,14	○	7,5	2915	200	140	125	0,82	3	9	165
063-004030	40,0	0,80	6,22	○	7,5	2915	224	160	125	0,86	3	9	166
063-005030	50,0	1,00	7,51	○	11	2920	250	180	140	0,94	4	9	190
063-006330	63,0	1,27	9,08	○	11	2920	250	200	160	1,0	4	9	194
063-008030	80,0	1,61	11,4	○	15	2925	280	224	180	1,1	4	9	226
063-010030	100,0	2,01	13,9	○	15	2925	315	250	200	1,5	4	9	259
063-012530	125,0	2,51	17,0	○	18,5	2940	315	280	224	1,6	4	9	270
063-016015	160,0	3,21	23,1	○	30	1470	450	315	250	17,4	3	11	714
063-016030	160,0	3,21	21,4	○	30	2950	355	315	250	1,9	5	11	346
063-020015	200,0	4,02	28,3	○	37	1470	500	355	280	18,8	4	11	759
063-020030	200,0	4,02	26,8	○	30	2950	400	355	280	2,5	5	11	361
063-025015	250,0	5,02	34,3	○	37	1470	500	400	315	19,8	4	11	785
063-025030	250,0	5,02	33,0	○	37	2960	400	400	315	2,6	5	11	439
063-031515	315,0	6,33	42,7	○	55	1475	560	450	355	22,7	4	11	999
063-031530	315,0	6,33	41,5	○	45	2960	450	450	355	3,3	6	9	510
063-040015	400,0	8,03	53,3	○	75	1480	630	500	400	32,8	5	11	1126
063-040030	400,0	8,03	52,5	○	75	2975	500	500	400	4,4	6	9	757
063-050015	500,0	10,04	65,6	○	75	1480	630	560	450	33,2	5	11	1169
063-050030	500,0	10,04	65,2	○	75	2975	560	560	450	5,0	6	9	778
063-063015	630,0	12,65	81,8	○	90	1480	710	630	500	38,8	5	11	1381
063-063030	630,0	12,65	82,7	○	90	2975	630	630	500	7,4	6	9	871
063-080015	800,0	16,07	104,5	○	132	1480	800	710	560	57,7	6	13	1716
063-080030	800,0	16,07	105,1	○	132	2975	710	710	560	10,5	7	9	1109
063-100015	1000,0	20,08	129,8	○	160	1480	800	800	630	64,8	6	13	1870
063-125015	1250,0	25,10	161,1	○	200	1480	900	900	710	76,4	7	11	2463
063-160015	1600,0	32,13	202,8	○	250	1480	1000	1000	800	103	6	11	2464
063-200015	2000,0	40,17	252,3	○	315	1480	1120	1120	900	124	6	11	3335
063-250015	2500,0	50,21	316,2	○	355	1480	1250	1250	1000	178	7	11	3911
063-315015	3150,0	63,26	400,5	○	500	1480	1400	1400	1120	247	8	11	4880
063-400010	4000,0	80,33	501,3	○	560	980	1600	1600	1250	827	6	11	7489
063-500010	5000,0	100,42	624,9	○	710	980	1800	1800	1400	1047	7	11	8927
063-630010	6300,0	126,53	788,0	○	1000	980	2000	2000	1600	1433	7	11	11371

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 630 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta pt_1 = 593 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,148 \text{ kg/m}^3$

Specific supply

$Yt_2 \approx 514 \text{ daJ/kg}$

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 710 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 710 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
071-000930	8,5	0,17	2,42	●	4	2900	140	100	125	1,00	2	11	170
071-001330	13,2	0,27	3,15	●	5,5	2900	160	100	125	0,98	2	11	172
071-002130	21,2	0,43	4,35	○	5,5	2900	180	112	125	1,00	2	11	173
071-002730	26,5	0,53	5,07	○	7,5	2915	200	125	125	0,98	3	9	183
071-003430	33,5	0,67	6,16	○	7,5	2915	200	140	125	0,99	3	9	188
071-004230	42,5	0,85	7,43	○	11	2920	224	160	125	1,03	3	9	199
071-005330	53,0	1,06	8,96	○	11	2920	250	180	140	1,2	4	11	215
071-006730	67,0	1,35	11,0	○	15	2925	280	200	160	1,3	4	9	246
071-008530	85,0	1,71	13,6	○	15	2925	280	224	180	1,6	4	11	258
071-010630	106,0	2,13	16,5	○	18,5	2940	315	250	200	1,9	4	11	281
071-013230	132,0	2,65	20,2	○	22	2940	315	280	224	1,9	4	11	304
071-017015	170,0	3,41	27,7	○	30	1470	450	315	250	21,1	3	11	765
071-017030	170,0	3,41	25,7	○	30	2950	355	315	250	2,4	5	11	351
071-021215	212,0	4,26	33,8	○	37	1470	500	355	280	23,8	3	11	799
071-021230	212,0	4,26	31,8	○	37	2960	400	355	280	2,8	5	11	386
071-026515	265,0	5,32	41,1	○	45	1470	500	400	315	24,0	3	11	968
071-026530	265,0	5,32	39,2	○	45	2960	400	400	315	2,9	5	11	465
071-033515	335,0	6,73	51,1	○	55	1475	560	450	355	30,5	4	11	1055
071-033530	335,0	6,73	49,4	○	55	2970	450	450	355	3,8	6	9	573
071-042515	425,0	8,54	63,7	○	75	1480	630	500	400	38,2	4	11	1182
071-042530	425,0	8,54	62,6	○	75	2975	500	500	400	4,8	6	9	760
071-053015	530,0	10,64	78,2	○	90	1480	630	560	450	38,6	4	11	1322
071-053030	530,0	10,64	77,5	○	90	2975	560	560	450	6,1	6	9	808
071-067015	670,0	13,46	98,3	○	110	1480	710	630	500	52,0	5	13	1456
071-067030	670,0	13,46	98,6	○	110	2975	630	630	500	9,4	6	9	1042
071-085015	850,0	17,07	124,6	○	132	1480	800	710	560	66,4	6	13	1736
071-106015	1060,0	21,29	154,3	○	200	1480	800	800	630	74,0	6	13	2031
071-132015	1320,0	26,51	190,4	○	250	1480	900	900	710	92,0	7	11	2310
071-170015	1700,0	34,14	244,6	○	315	1480	1000	1000	800	120	7	11	3362
071-212015	2120,0	42,58	303,6	○	355	1480	1120	1120	900	162	7	11	3722
071-265010	2650,0	53,22	375,7	○	400	980	1250	1250	1000	565	6	13	6115
071-335008	3350,0	67,28	472,1	○	500	740	1600	1400	1120	1725	5	13	9151
071-335010	3350,0	67,28	476,8	○	560	980	1400	1400	1120	795	7	11	7548
071-425010	4250,0	85,35	604,9	○	710	980	1600	1600	1250	950	7	11	8708
071-530010	5300,0	106,44	751,6	○	800	980	1800	1800	1400	1285	7	11	9920

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 710$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 664$ daPa

density at inlet operation of

$\rho_1 = 1,125$ kg/m³

Specific supply

$Y_{t2} \approx 578$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 800 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
080-000930	9,0	0,18	2,93	●	5,5	2900	140	100	125	1,3	1	13	175
080-001430	14,0	0,28	3,81	●	5,5	2900	160	100	125	1,3	2	13	175
080-002230	22,4	0,45	5,23	●	7,5	2915	180	112	125	1,2	2	13	185
080-002830	28,0	0,56	6,11	○	7,5	2915	200	125	125	1,3	2	13	186
080-003530	35,0	0,70	7,24	○	11	2920	224	140	125	1,3	4	11	201
080-004530	45,0	0,90	8,87	○	11	2920	224	160	125	1,3	3	11	202
080-005630	56,0	1,12	10,7	○	15	2925	250	180	140	1,4	4	11	243
080-007130	71,0	1,43	13,2	○	15	2925	280	200	160	1,8	3	11	251
080-009030	90,0	1,81	16,3	○	18,5	2940	280	224	180	2,0	4	11	280
080-011230	112,0	2,25	19,6	○	22	2940	315	250	200	2,2	4	11	286
080-014030	140,0	2,81	24,0	○	30	2950	355	280	224	2,5	4	11	347
080-018015	180,0	3,62	33,1	○	37	1470	450	315	250	25,5	3	13	784
080-018030	180,0	3,62	30,5	○	37	2960	355	315	250	2,6	4	11	376
080-022415	224,0	4,50	40,0	○	45	1470	500	355	280	33,3	3	13	858
080-022430	224,0	4,50	37,7	○	45	2960	400	355	280	3,3	5	11	507
080-028015	280,0	5,62	49,8	○	55	1475	560	400	315	36,5	4	13	1176
080-028030	280,0	5,62	47,4	○	55	2970	450	400	315	4,3	5	11	561
080-035515	355,0	7,13	61,0	○	75	1480	560	450	355	38,0	4	13	1134
080-035530	355,0	7,13	59,2	○	75	2975	450	450	355	5,1	5	11	664
080-045015	450,0	9,04	75,9	○	90	1480	630	500	400	45,4	4	13	1375
080-045030	450,0	9,04	74,4	○	90	2975	500	500	400	6,0	6	9	790
080-056030	560,0	11,25	93,2	○	110	2975	560	560	450	8,2	6	9	987
080-071015	710,0	14,26	118,3	○	132	1480	710	630	500	61,5	5	13	1723
080-090015	900,0	18,08	148,0	○	160	1480	800	710	560	82,4	6	13	1907
080-112015	1120,0	22,49	180,9	○	200	1480	900	800	630	93,1	6	11	2388
080-140015	1400,0	28,12	224,4	○	250	1480	900	900	710	115	6	11	2368
080-180015	1800,0	36,15	286,8	○	315	1480	1000	1000	800	145	6	11	3604
080-224015	2240,0	44,99	357,2	○	400	1480	1120	1120	900	203	6	11	3784
080-280015	2800,0	56,23	444,4	○	500	1480	1250	1250	1000	235	6	11	4577
080-355010	3550,0	71,30	559,5	○	630	980	1400	1400	1120	892	6	11	7341
080-450010	4500,0	90,38	718,6	○	800	980	1600	1600	1250	1273	7	11	9313
080-560010	5600,0	112,47	891,5	○	1000	980	1800	1800	1400	1532	7	11	10542

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 800$ daPa
 Total pressure increase $\Delta pt_1 = 742$ daPa
 Specific supply $Yt_2 \approx 649$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,116$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 900 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 900 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
090-000930	9,5	0,19	3,52	●	7,5	2915	140	100	125	1,5	1	13	209
090-001430	15,0	0,30	4,61	●	7,5	2915	160	100	125	1,5	2	13	187
090-002430	23,6	0,47	6,24	●	7,5	2915	180	112	125	1,5	2	13	187
090-003030	30,0	0,60	7,38	○	11	2920	200	125	125	1,6	2	13	199
090-003830	37,5	0,75	8,73	○	11	2920	224	140	125	1,6	4	11	203
090-004830	47,5	0,95	10,5	○	15	2925	250	160	125	1,7	3	11	229
090-006030	60,0	1,21	12,8	○	15	2925	250	180	140	1,7	4	11	245
090-007530	75,0	1,51	15,7	○	18,5	2940	280	200	160	2,3	3	11	273
090-009530	95,0	1,91	19,3	○	22	2940	315	224	180	2,6	4	11	338
090-011830	118,0	2,37	23,2	○	30	2950	315	250	200	2,5	4	11	380
090-015030	150,0	3,01	29,0	○	37	2960	355	280	224	3,0	4	11	462
090-019015	190,0	3,82	39,7	○	45	1470	450	315	250	37,0	3	13	1072
090-019030	190,0	3,82	36,5	○	45	2960	400	315	250	3,8	5	11	497
090-023615	236,0	4,74	47,7	○	55	1475	500	355	280	40,1	3	13	1144
090-023630	236,0	4,74	44,5	○	55	2970	400	355	280	3,7	5	11	525
090-030015	300,0	6,03	60,0	○	75	1480	560	400	315	43,1	3	13	1246
090-030030	300,0	6,03	56,8	○	75	2975	450	400	315	5,4	5	11	649
090-037515	375,0	7,53	72,7	○	90	1480	560	450	355	45,2	4	13	1313
090-037530	375,0	7,53	70,0	○	75	2975	450	450	355	5,5	5	11	667
090-047515	475,0	9,54	90,1	○	110	1480	630	500	400	53,9	4	13	1492
090-047530	475,0	9,54	88,7	○	110	2975	500	500	400	7,6	6	9	962
090-060030	600,0	12,05	111,6	○	132	2975	560	560	450	10,2	6	9	1002
090-075015	750,0	15,06	140,3	○	160	1480	710	630	500	78,1	5	13	1812
090-095015	950,0	19,08	175,1	○	200	1480	800	710	560	95,1	6	13	2152
090-118015	1180,0	23,70	215,9	○	250	1480	900	800	630	117	6	13	2544
090-150015	1500,0	30,13	274,4	○	315	1480	900	900	710	144	6	13	3470
090-190010	1900,0	38,16	343,6	○	400	980	1120	1000	800	533	5	13	5529
090-236010	2360,0	47,40	423,7	○	450	980	1250	1120	900	720	6	13	6458
090-300010	3000,0	60,25	538,9	○	630	980	1400	1250	1000	1050	6	13	8137
090-375010	3750,0	75,31	668,9	○	710	980	1400	1400	1120	1139	6	13	8641
090-475010	4750,0	95,40	849,6	○	1000	980	1600	1600	1250	1459	7	11	9862
090-600010	6000,0	120,50	1074,2	○	1250	980	1800	1800	1400	1878	7	11	12313

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 900$ daPa
 Total pressure increase $\Delta pt_1 = 827$ daPa
 Specific supply $Yt_2 \approx 728$ daJ/kg

reference density of $\rho_{00} = 1,205$ kg/m³
 density at inlet operation of $\rho_{01} = 1,118$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 1000 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
100-001030	10,0	0,20	4,19	●	7,5	2915	140	100	125	1,9	1	13	229
100-001630	16,0	0,32	5,51	●	7,5	2915	160	100	125	1,8	2	13	229
100-002530	25,0	0,50	7,21	●	11	2920	200	112	125	1,8	2	13	241
100-003130	31,5	0,63	8,66	●	11	2920	200	125	125	1,9	2	13	242
100-004030	40,0	0,80	10,3	○	15	2925	224	140	125	1,9	2	13	275
100-005030	50,0	1,00	12,3	○	15	2925	250	160	125	2,0	4	11	275
100-006330	63,0	1,27	14,9	○	18,5	2940	250	180	140	2,1	4	11	332
100-008030	80,0	1,61	18,7	○	22	2940	280	200	160	2,2	4	11	322
100-010030	100,0	2,01	22,6	○	30	2950	315	224	180	3,0	5	11	379
100-012530	125,0	2,51	27,5	○	30	2950	315	250	200	2,9	4	11	382
100-016030	160,0	3,21	34,5	○	37	2960	355	280	224	3,7	4	11	468
100-020030	200,0	4,02	42,8	○	55	2970	400	315	250	4,3	4	11	515
100-025015	250,0	5,02	57,1	○	75	1480	500	355	280	48,8	4	13	1275
100-025030	250,0	5,02	52,6	○	75	2975	400	355	280	4,8	5	11	613
100-031515	315,0	6,33	69,6	○	75	1480	560	400	315	52,9	3	13	1344
100-031530	315,0	6,33	65,9	○	75	2975	450	400	315	6,1	5	11	654
100-040015	400,0	8,03	86,0	○	110	1480	630	450	355	62,5	4	13	1457
100-040030	400,0	8,03	83,4	○	90	2975	500	450	355	7,5	5	11	863
100-050030	500,0	10,04	103,3	○	110	2975	500	500	400	9,5	6	9	976
100-063030	630,0	12,65	131,2	○	160	2980	560	560	450	11,7	7	9	1020
100-080015	800,0	16,07	163,4	○	200	1480	800	630	500	104	5	13	2318
100-080030	800,0	16,07	164,8	○	200	2980	630	630	500	13,8	7	9	1172
100-100015	1000,0	20,08	201,8	○	250	1480	800	710	560	110	5	13	2268
100-125015	1250,0	25,10	251,8	○	315	1480	900	800	630	149	5	13	3299
100-160015	1600,0	32,13	318,2	○	355	1480	1000	900	710	176	6	11	3530
100-200015	2000,0	40,17	396,3	○	500	1480	1000	1000	800	218	6	11	3901
100-250015	2500,0	50,21	498,2	○	560	1480	1120	1120	900	312	7	11	4701
100-315015	3150,0	63,26	625,6	○	710	1480	1250	1250	1000	361	7	11	5457
100-400015	4000,0	80,33	793,5	○	900	1480	1400	1400	1120	490	7	11	6640
100-500010	5000,0	100,42	986,6	○	1120	980	1600	1600	1250	1676	7	11	11395

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 1000$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 911$ daPa

density at inlet operation of

$\rho_1 = 1,096$ kg/m³

Specific supply

$Yt_2 \approx 807$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1120 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 1120 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
112-001030	10,0	0,20	4,90	☐	7,5	2915	140	100	125	3,1	1	13	272
112-001630	16,0	0,32	6,38	☐	11	2920	160	100	125	2,9	1	13	251
112-002530	25,0	0,50	8,25	☐	15	2925	200	112	125	2,9	2	13	278
112-003130	31,5	0,63	9,90	☐	15	2925	200	125	125	2,9	2	13	279
112-004030	40,0	0,80	11,7	■	18,5	2940	224	140	125	3,1	2	13	320
112-005030	50,0	1,00	14,0	■	18,5	2940	250	160	125	3,1	4	11	321
112-006330	63,0	1,27	17,0	■	22	2940	250	180	140	3,1	4	11	328
112-008030	80,0	1,61	21,1	■	30	2950	280	200	160	3,3	4	11	372
112-010030	100,0	2,01	25,5	■	30	2950	315	224	180	3,6	4	11	383
112-012530	125,0	2,51	30,8	■	37	2960	315	250	200	3,8	3	11	413
112-016030	160,0	3,21	38,6	■	45	2960	355	280	224	4,4	4	11	540
112-020030	200,0	4,02	47,7	■	55	2970	400	315	250	5,0	4	11	565
112-025015	250,0	5,02	64,5	■	75	1480	500	355	280	59,1	4	13	1376
112-025030	250,0	5,02	58,9	■	75	2975	400	355	280	5,6	4	11	666
112-031515	315,0	6,33	78,7	■	90	1480	560	400	315	62,9	3	13	1463
112-031530	315,0	6,33	73,7	■	90	2975	450	400	315	7,2	5	11	843
112-040015	400,0	8,03	96,9	■	110	1480	630	450	355	73,1	4	13	1618
112-040030	400,0	8,03	93,2	■	110	2975	500	450	355	9,5	5	11	925
112-050030	500,0	10,04	116,4	■	132	2975	500	500	400	10,9	5	11	986
112-063015	630,0	12,65	146,9	■	160	1480	710	560	450	101	4	13	1880
112-063030	630,0	12,65	144,6	■	160	2980	560	560	450	12,4	6	9	1026
112-080015	800,0	16,07	183,1	■	200	1480	800	630	500	120	4	13	2501
112-080030	800,0	16,07	181,7	■	200	2980	630	630	500	14,6	6	9	1178
112-100015	1000,0	20,08	225,9	■	250	1480	800	710	560	125	4	13	2463
112-125015	1250,0	25,10	281,2	■	315	1480	900	800	630	178	5	13	3525
112-160015	1600,0	32,13	356,2	■	400	1480	1000	900	710	211	5	13	3586
112-200015	2000,0	40,17	445,1	■	500	1480	1000	1000	800	251	5	13	3960
112-250015	2500,0	50,21	555,5	■	630	1480	1120	1120	900	347	6	11	5241
112-315015	3150,0	63,26	694,9	■	800	1480	1250	1250	1000	415	7	11	5872
112-400015	4000,0	80,33	884,2	■	1000	1480	1400	1400	1120	553	7	11	7033

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 1120 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta pt_1 = 1009 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,084 \text{ kg/m}^3$

Specific supply

$Yt_2 \approx 901 \text{ daJ/kg}$

☐ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

☐ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 1250 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
125-001030	10,0	0,20	5,74	☐	11	2920	140	100	125	4,0	1	13	336
125-001630	16,0	0,32	7,40	☐	11	2920	160	100	125	3,8	1	13	335
125-002530	25,0	0,50	9,45	☐	15	2925	200	112	125	3,8	1	13	341
125-003130	31,5	0,63	11,4	☐	15	2925	200	125	125	3,8	2	13	342
125-004030	40,0	0,80	13,4	■	18,5	2940	224	140	125	3,7	2	13	350
125-005030	50,0	1,00	15,8	■	18,5	2940	250	160	125	3,8	2	13	369
125-006330	63,0	1,27	19,2	■	22	2940	250	180	140	3,8	2	13	408
125-008030	80,0	1,61	23,8	■	30	2950	280	200	160	4,3	3	11	514
125-010030	100,0	2,01	28,7	■	37	2960	315	224	180	5,0	3	11	556
125-012530	125,0	2,51	34,9	■	45	2960	315	250	200	5,3	3	11	591
125-016030	160,0	3,21	43,0	■	55	2970	355	280	224	5,6	3	11	640
125-020030	200,0	4,02	53,2	■	75	2975	400	315	250	6,4	3	11	719
125-025030	250,0	5,02	65,8	■	75	2975	400	355	280	6,9	3	11	740
125-031530	315,0	6,33	82,2	■	90	2975	450	400	315	8,0	4	11	847
125-040030	400,0	8,03	105,2	■	132	2975	500	450	355	11,6	4	11	938
125-050030	500,0	10,04	129,5	■	160	2980	500	500	400	12,4	4	11	1008
125-063015	630,0	12,65	164,5	■	200	1480	710	560	450	12,4	3	13	2585
125-063030	630,0	12,65	162,3	■	200	2980	560	560	450	14,8	4	11	1131
125-080015	800,0	16,07	204,6	■	250	1480	800	630	500	14,2	3	13	2490
125-100015	1000,0	20,08	252,3	■	315	1480	800	710	560	15,7	3	13	3316
125-125015	1250,0	25,10	313,2	■	355	1480	900	800	630	20,3	4	13	3582
125-160015	1600,0	32,13	396,1	■	500	1480	1000	900	710	23,8	4	13	3908
125-200015	2000,0	40,17	500,3	■	560	1480	1000	1000	800	30,5	5	13	4484
125-250015	2500,0	50,21	621,4	■	710	1480	1120	1120	900	41,0	5	13	5320
125-315015	3150,0	63,26	777,1	■	900	1480	1250	1250	1000	49,6	6	11	6547
125-400015	4000,0	80,33	984,2	■	1200	1480	1400	1400	1120	62,1	6	11	7698

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 1250 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta pt_1 = 1113 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,072 \text{ kg/m}^3$

Specific supply

$Yt_2 \approx 1002 \text{ daJ/kg}$

☐ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

☐ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 1400 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
140-001030	10,0	0,20	6,81	□	15	2925	140	100	125	4,9	1	13	378
140-001630	16,0	0,32	8,69	□	15	2925	160	100	125	4,7	1	13	376
140-002530	25,0	0,50	10,9	□	18,5	2940	200	112	125	4,6	1	13	378
140-003130	31,5	0,63	13,1	□	18,5	2940	200	125	125	4,5	2	13	379
140-004030	40,0	0,80	15,3	□	22	2940	224	140	125	4,6	2	13	402
140-005030	50,0	1,00	18,0	■	22	2940	250	160	125	4,6	2	13	425
140-006330	63,0	1,27	21,8	■	30	2950	250	180	140	4,8	2	13	548
140-008030	80,0	1,61	27,0	■	37	2960	280	200	160	5,4	3	11	583
140-010030	100,0	2,01	32,4	■	37	2960	315	224	180	5,7	3	11	597
140-012530	125,0	2,51	39,3	■	45	2960	315	250	200	6,1	3	11	633
140-016030	160,0	3,21	48,4	■	55	2970	355	280	224	6,5	2	11	685
140-020030	200,0	4,02	59,8	■	75	2975	400	315	250	7,3	3	11	723
140-025030	250,0	5,02	73,8	■	90	2975	400	355	280	8,0	3	11	806
140-031530	315,0	6,33	92,1	■	110	2975	450	400	315	10,4	3	11	910
140-040030	400,0	8,03	117,6	■	132	2975	500	450	355	13,2	4	11	1010
140-050015	500,0	10,04	150,6	■	200	1480	630	500	400	119	2	13	2235
140-050030	500,0	10,04	144,6	■	160	2980	500	500	400	14,0	4	11	1082
140-063015	630,0	12,65	184,9	■	200	1480	710	560	450	144	3	13	2463
140-063030	630,0	12,65	181,0	■	200	2980	560	560	450	16,5	4	11	1138
140-080015	800,0	16,07	229,7	■	250	1480	800	630	500	179	3	13	2668
140-100015	1000,0	20,08	285,0	■	315	1480	800	710	560	196	3	13	3551
140-125015	1250,0	25,10	350,1	■	400	1480	900	800	630	233	3	13	3615
140-160015	1600,0	32,13	447,6	■	500	1480	1000	900	710	273	5	13	4374
140-200015	2000,0	40,17	558,3	■	630	1480	1000	1000	800	350	5	13	4941
140-250015	2500,0	50,21	692,9	■	800	1480	1120	1120	900	455	5	13	6207
140-315015	3150,0	63,26	875,9	■	1000	1480	1250	1250	1000	629	5	13	6730

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 1400$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 1231$ daPa

density at inlet operation of

$\rho_1 = 1,058$ kg/m³

Specific supply

$Yt_2 \approx 1118$ daJ/kg

□ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1600 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 1600 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
160-001630	16,0	0,32	10,6	□	18,5	2940	160	100	125	6,1	1	13	450
160-002530	25,0	0,50	13,1	□	22	2940	200	112	125	6,0	2	13	465
160-003130	31,5	0,63	15,5	□	22	2940	200	125	125	5,8	2	13	465
160-004030	40,0	0,80	18,1	□	30	2950	224	140	125	6,7	2	13	581
160-005030	50,0	1,00	21,0	■	30	2950	250	160	125	6,7	2	13	606
160-006330	63,0	1,27	25,8	■	30	2950	250	180	140	6,8	2	13	638
160-008030	80,0	1,61	31,5	■	37	2960	280	200	160	6,9	2	13	643
160-010030	100,0	2,01	37,5	■	45	2960	315	224	180	7,4	3	11	689
160-012530	125,0	2,51	45,4	■	55	2970	315	250	200	7,4	2	11	712
160-016030	160,0	3,21	56,1	■	75	2975	355	280	224	8,1	2	11	841
160-020030	200,0	4,02	69,1	■	75	2975	400	315	250	9,0	3	11	854
160-025030	250,0	5,02	84,6	■	110	2975	400	355	280	11,0	3	11	936
160-031530	315,0	6,33	105,3	■	132	2975	450	400	315	12,2	3	11	981
160-040030	400,0	8,03	134,1	■	160	2980	500	450	355	15,0	4	11	1037
160-050015	500,0	10,04	174,6	■	200	1480	630	500	400	158	2	13	2860
160-050030	500,0	10,04	164,8	■	200	2980	500	500	400	16,3	4	11	1113
160-063015	630,0	12,65	212,7	■	250	1480	710	560	450	182	2	13	2741
160-063030	630,0	12,65	206,0	■	250	2980	560	560	450	24,5	4	11	1379
160-080015	800,0	16,07	263,4	■	315	1480	800	630	500	218	3	13	3605
160-100015	1000,0	20,08	326,2	■	355	1480	800	710	560	243	3	13	3704
160-125015	1250,0	25,10	399,6	■	500	1480	900	800	630	275	3	13	4202
160-160015	1600,0	32,13	513,8	■	560	1480	1000	900	710	378	4	13	5050
160-200015	2000,0	40,17	635,7	■	710	1480	1000	1000	800	443	4	13	5616
160-250015	2500,0	50,21	785,1	■	900	1480	1120	1120	900	530	5	13	6518
160-315015	3150,0	63,26	990,7	■	1200	1480	1250	1250	1000	749	5	13	7472

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 1600 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta pt_1 = 1383 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,040 \text{ kg/m}^3$

Specific supply

$Yt_2 \approx 1271 \text{ daJ/kg}$

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 1800 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
180-001630	16,0	0,32	12,74	□	22	2940	160	100	125	11,2	1	13	570
180-002530	25,0	0,50	15,20	□	30	2950	200	112	125	8,5	1	13	578
180-003130	31,5	0,63	18,17	□	30	2950	200	125	125	8,4	2	13	578
180-004030	40,0	0,80	20,86	□	37	2960	224	140	125	8,2	2	13	636
180-005030	50,0	1,00	24,23	■	37	2960	250	160	125	8,2	2	13	638
180-006330	63,0	1,27	29,64	■	37	2960	250	180	140	8,3	2	13	645
180-008030	80,0	1,61	36,06	■	45	2960	280	200	160	8,8	2	13	681
180-010030	100,0	2,01	42,69	■	55	2970	315	224	180	8,8	3	11	711
180-012530	125,0	2,51	51,71	■	75	2975	315	250	200	9,0	2	11	746
180-016030	160,0	3,21	63,4	■	75	2975	355	280	224	9,5	2	11	847
180-020030	200,0	4,02	78,1	■	90	2975	400	315	250	11,9	2	11	871
180-025030	250,0	5,02	95,5	■	110	2975	400	355	280	12,8	2	11	942
180-031530	315,0	6,33	118,5	■	132	2975	450	400	315	16,7	3	11	1103
180-040030	400,0	8,03	150,7	■	200	2980	500	450	355	19,9	3	11	1198
180-050030	500,0	10,04	185,0	■	200	2980	500	500	400	21,1	3	11	1263
180-063015	630,0	12,65	241,1	■	315	1480	710	560	450	240	2	13	3665
180-063030	630,0	12,65	231,0	■	250	2980	560	560	450	27,7	4	11	1695
180-080015	800,0	16,07	297,6	■	355	1480	800	630	500	260	2	13	3699
180-100015	1000,0	20,08	367,9	■	400	1480	800	710	560	288	3	13	3886
180-125015	1250,0	25,10	449,3	■	500	1480	900	800	630	361	3	13	4514
180-160015	1600,0	32,13	576,6	■	630	1480	1000	900	710	464	4	13	5600
180-200015	2000,0	40,17	712,7	■	800	1480	1000	1000	800	515	4	13	6219
180-250015	2500,0	50,21	879,3	■	1000	1480	1120	1120	900	655	5	13	6664
180-315015	3150,0	63,26	1108,2	■	1200	1480	1250	1250	1000	834	5	13	7859

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 1800 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 1529 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,023 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 1423 \text{ daJ/kg}$

□ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 2000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 2000 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
200-002530	25,0	0,50	17,7	□	30	2950	200	112	125	13,4	1	13	757
200-003130	31,5	0,63	21,1	□	30	2950	200	125	125	13,2	2	13	758
200-004030	40,0	0,80	24,0	□	37	2960	224	140	125	12,9	2	13	792
200-005030	50,0	1,00	27,7	□	45	2960	250	160	125	13,2	2	13	821
200-006330	63,0	1,27	33,8	□	45	2960	250	180	140	13,2	2	13	785
200-008030	80,0	1,61	40,9	■	55	2970	280	200	160	13,1	2	13	797
200-010030	100,0	2,01	47,9	■	75	2975	315	224	180	13,4	3	11	845
200-012530	125,0	2,51	58,2	■	75	2975	315	250	200	13,3	2	11	851
200-016030	160,0	3,21	71,1	■	90	2975	355	280	224	15,4	2	11	984
200-020030	200,0	4,02	88,1	■	110	2975	400	315	250	17,1	2	11	1029
200-025030	250,0	5,02	106,8	■	132	2975	400	355	280	18,0	2	11	1054
200-031530	315,0	6,33	132,6	■	160	2980	450	400	315	19,6	3	11	1270
200-040030	400,0	8,03	167,4	■	200	2980	500	450	355	23,9	3	11	1362
200-050015	500,0	10,04	223,3	■	250	1480	630	500	400	281	2	13	3597
200-050030	500,0	10,04	205,3	■	250	2980	500	500	400	27,6	3	11	1523
200-063015	630,0	12,65	270,1	■	315	1480	710	560	450	308	2	13	4170
200-080015	800,0	16,07	332,2	■	400	1480	800	630	500	329	2	13	4153
200-100015	1000,0	20,08	410,1	■	500	1480	800	710	560	363	2	13	4750
200-125015	1250,0	25,10	499,4	■	560	1480	900	800	630	445	3	13	5116
200-160015	1600,0	32,13	639,6	■	710	1480	1000	900	710	536	4	13	5867
200-200015	2000,0	40,17	790,2	■	900	1480	1000	1000	800	643	4	13	6628
200-250015	2500,0	50,21	983,3	■	1200	1480	1120	1120	900	804	4	13	7482

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 2000$ daPa
 Total pressure increase $\Delta p_{t1} = 1671$ daPa
 Specific supply $Y_{t2} \approx 1573$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,006$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 2250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 2250 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
225-002530	25,0	0,50	20,7	☐	37	2960	200	112	125	16,6	1	7	843
225-003130	31,5	0,63	24,8	☐	37	2960	200	125	125	16,0	1	7	843
225-004030	40,0	0,80	28,2	☐	45	2960	224	140	125	16,4	2	7	910
225-005030	50,0	1,00	31,9	☐	55	2970	250	160	125	16,4	2	7	904
225-006330	63,0	1,27	38,6	☐	55	2970	250	180	140	16,0	2	7	913
225-008030	80,0	1,61	46,6	☑	75	2975	280	200	160	16,2	2	7	1027
225-010030	100,0	2,01	54,8	☑	90	2975	315	224	180	16,3	2	7	1045
225-012530	125,0	2,51	66,2	☑	90	2975	315	250	200	18,4	1	7	1068
225-016030	160,0	3,21	80,7	☑	110	2975	355	280	224	19,2	2	7	1157
225-020030	200,0	4,02	98,9	☑	132	2975	400	315	250	20,8	2	7	1172
225-025030	250,0	5,02	121,0	☑	160	2980	400	355	280	21,7	2	7	1216
225-031530	315,0	6,33	148,6	☑	200	2980	450	400	315	23,2	3	7	1326
225-040030	400,0	8,03	186,2	☑	250	2980	500	450	355	32,2	3	7	1533
225-050015	500,0	10,04	256,6	☑	315	1480	630	500	400	356	1	15	4140
225-050030	500,0	10,04	228,2	☑	250	2980	500	500	400	32,5	3	7	1704
225-063015	630,0	12,65	307,1	☑	355	1480	710	560	450	375	2	13	4334
225-080015	800,0	16,07	377,8	☑	500	1480	800	630	500	420	2	13	4810
225-100015	1000,0	20,08	463,6	☑	560	1480	800	710	560	482	2	13	5229
225-125015	1250,0	25,10	562,6	☑	630	1480	900	800	630	528	3	13	5671
225-160015	1600,0	32,13	715,6	☑	800	1480	1000	900	710	695	4	13	6673
225-200015	2000,0	40,17	887,2	☑	1000	1480	1000	1000	800	760	4	13	7078
225-250015	2500,0	50,21	1101,4	☑	1200	1480	1120	1120	900	976	4	13	7954

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 2250 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 1842 \text{ daPa}$

density at inlet operation of

$\rho_1 = 0,985 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 1758 \text{ daJ/kg}$

☐ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

☐ does not require labeling according to ErP 2009/125/EG

☑ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 2500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 2500 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
250-002530	25,0	0,50	24,5	□	45	2960	200	112	125	21,1	2	7	1045
250-003130	31,5	0,63	29,0	□	45	2960	200	125	125	20,3	2	7	1044
250-004030	40,0	0,80	32,5	□	45	2960	224	140	125	19,9	2	7	1092
250-005030	50,0	1,00	36,8	□	55	2970	250	160	125	19,9	2	7	1075
250-006330	63,0	1,27	44,1	□	75	2975	250	180	140	19,5	2	7	1231
250-008030	80,0	1,61	53,2	□	75	2975	280	200	160	19,5	2	7	1201
250-010030	100,0	2,01	62,3	■	90	2975	315	224	180	22,8	2	7	1286
250-012530	125,0	2,51	75,0	■	90	2975	315	250	200	22,5	2	7	1293
250-016030	160,0	3,21	91,4	■	110	2975	355	280	224	23,3	3	7	1351
250-020030	200,0	4,02	111,4	■	132	2975	400	315	250	26,4	3	7	1374
250-025030	250,0	5,02	135,7	■	160	2980	400	355	280	26,3	3	7	1453
250-031530	315,0	6,33	167,5	■	200	2980	450	400	315	28,2	3	7	1532
250-040030	400,0	8,03	209,5	■	250	2980	500	450	355	38,6	4	7	1813
250-050015	500,0	10,04	292,6	■	355	1480	630	500	400	463	2	15	4517
250-050030	500,0	10,04	256,6	■	315	2980	500	500	400	38,9	4	7	1988
250-063015	630,0	12,65	349,5	■	400	1480	710	560	450	466	3	13	4874
250-080015	800,0	16,07	427,3	■	500	1480	800	630	500	576	3	13	5309
250-100015	1000,0	20,08	523,8	■	630	1480	800	710	560	595	3	13	5787
250-125015	1250,0	25,10	635,2	■	710	1480	900	800	630	637	3	13	6046
250-160015	1600,0	32,13	797,3	■	900	1480	1000	900	710	869	4	13	6839
250-200015	2000,0	40,17	981,4	■	1200	1480	1000	1000	800	889	4	13	7567
250-250015	2500,0	50,21	1215,3	■	1450	1480	1120	1120	900	1132	4	13	9196

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 2500$ daPa
 Total pressure increase $\Delta p_{t1} = 2006$ daPa
 Specific supply $Y_{t2} \approx 1942$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 0,966$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 2800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design KXE	volume flow and mass flow in NP at 2800 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor KXE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
280-002530	25,0	0,50	29,1	☐	37	2960	200	112	125	26,0	2	7	1098
280-003130	31,5	0,63	34,6	☐	45	2960	200	125	125	25,3	2	7	1125
280-004030	40,0	0,80	38,4	☐	45	2960	224	140	125	24,8	2	7	1139
280-005030	50,0	1,00	43,1	☐	55	2970	250	160	125	24,6	2	7	1157
280-006330	63,0	1,27	51,5	☐	75	2975	250	180	140	27,7	2	7	1343
280-008030	80,0	1,61	61,4	☐	75	2975	280	200	160	27,4	2	7	1310
280-010030	100,0	2,01	71,2	☑	90	2975	315	224	180	27,9	2	7	1379
280-012530	125,0	2,51	85,8	☑	110	2975	315	250	200	27,8	2	7	1411
280-016030	160,0	3,21	103,9	☑	132	2975	355	280	224	28,2	2	7	1437
280-020030	200,0	4,02	126,1	☑	160	2980	400	315	250	31,7	3	7	1477
280-025030	250,0	5,02	153,9	☑	200	2980	400	355	280	31,5	3	7	1597
280-031530	315,0	6,33	188,7	☑	250	2980	450	400	315	40,9	3	7	1736
280-040030	400,0	8,03	236,0	☑	315	2980	500	450	355	45,0	3	7	2008
280-050030	500,0	10,04	288,8	☑	315	2980	500	500	400	45,5	3	7	2115
280-063030	630,0	12,65	358,1	☑	400	2980	560	560	450	58,8	4	7	2298

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 2800 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 2195 \text{ daPa}$

density at inlet operation of

$\rho_1 = 0,943 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 2159 \text{ daJ/kg}$

☐ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

☐ does not require labeling according to ErP 2009/125/EG

☑ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 3150 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0 and SFV2.4

fan type structural design	volume flow and mass flow in NP at 3150 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
315-002530	25,0	0,50	35,7	□	45	2960	200	112	125	38,0	2	7	1232
315-003130	31,5	0,63	41,8	□	55	2970	200	125	125	36,2	2	7	1347
315-004030	40,0	0,80	45,9	□	55	2970	224	140	125	36,4	2	7	1365
315-005030	50,0	1,00	50,7	□	75	2975	250	160	125	35,7	2	7	1465
315-006330	63,0	1,27	61,0	□	75	2975	250	180	140	34,6	2	7	1441
315-008030	80,0	1,61	71,7	□	90	2975	280	200	160	34,0	2	7	1407
315-010030	100,0	2,01	82,4	■	110	2975	315	224	180	35,0	2	7	1457
315-012530	125	2,51	99,0	■	132	2975	315	250	200	34,2	2	7	1463
315-016030	160	3,21	118,7	■	132	2975	355	280	224	35,6	2	7	1539
315-020030	200	4,02	143,3	■	160	2980	400	315	250	38,9	3	7	1578
315-025030	250	5,02	173,9	■	200	2980	400	355	280	42,6	3	7	1674
315-031530	315	6,33	213,8	■	250	2980	450	400	315	48,2	3	7	1841
315-040030	400	8,03	266,7	■	315	2980	500	450	355	54,4	3	7	2256
315-050030	500	10,04	324,3	■	355	2980	500	500	400	58,8	3	7	2364

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 3150$ daPa
 Total pressure increase $\Delta pt_1 = 2404$ daPa
 Specific supply $Yt_2 \approx 2408$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 0,919$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 125 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design RGE	volume flow and mass flow in NP at 125 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor RGE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
012-000530	5,6	0,11	0,52	●	1,1	2835	140	100	125	0,06	4	9	85
012-000930	9,0	0,18	0,61	●	1,1	2835	140	112	125	0,07	4	9	85
012-001130	11,2	0,22	0,67	●	1,1	2835	140	125	125	0,06	4	9	85
012-001430	14,0	0,28	0,75	●	1,1	2835	160	140	125	0,07	5	9	87
012-001830	18,0	0,36	0,86	●	1,1	2835	180	160	125	0,09	5	9	94
012-002230	22,4	0,45	0,98	●	1,1	2835	180	180	140	0,09	5	9	97
012-002830	28,0	0,56	1,14	●	1,5	2850	200	200	160	0,10	5	9	101
012-003530	35,0	0,70	1,33	●	1,5	2850	224	224	180	0,12	6	9	109
012-004530	45,0	0,90	1,61	●	2,2	2850	250	250	200	0,15	6	9	119
012-005615	56,0	1,12	1,90	○	2,2	1420	315	280	224	1,1	5	9	181
012-005630	56,0	1,12	1,91	○	2,2	2850	280	280	224	0,17	6	9	125
012-007115	71,0	1,43	2,30	○	3	1430	355	315	250	1,2	5	9	184
012-007130	71,0	1,43	2,35	○	3	2875	315	315	250	0,20	6	9	131
012-009015	90,0	1,81	2,80	○	3	1430	355	355	280	1,2	5	9	193
012-009030	90,0	1,81	2,87	○	4	2900	355	355	280	0,25	7	9	148
012-011215	112,0	2,25	3,42	○	4	1440	400	400	315	1,4	6	9	219
012-014015	140,0	2,81	4,14	○	5,5	1450	450	450	355	1,8	6	9	266
012-018015	180,0	3,62	5,20	○	7,5	1450	500	500	400	2,1	6	9	300
012-022415	224,0	4,50	6,39	○	7,5	1450	560	560	450	2,8	6	9	318
012-028015	280,0	5,62	7,91	○	11	1460	630	630	500	4,0	7	9	414
012-035515	355,0	7,13	10,01	○	11	1460	710	710	560	5,1	8	9	516
012-045015	450,0	9,04	12,49	○	15	1460	800	800	630	6,6	8	9	593
012-056015	560,0	11,25	15,42	○	18,5	1460	900	900	710	9,1	8	9	697
012-071015	710,0	14,26	20,00	○	22	1460	1000	1000	800	11,8	8	9	864
012-090010	900,0	18,08	24,38	○	30	980	1120	1120	900	33,8	8	9	1311
012-112010	1120,0	22,49	30,07	○	37	980	1250	1250	1000	50,1	8	11	1526
012-140008	1400,0	28,12	37,50	○	45	740	1400	1400	1120	108,8	8	11	2337
012-180008	1800,0	36,15	47,99	○	55	740	1600	1600	1250	145,8	8	11	3003

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 125$ daPa
 Total pressure increase $\Delta p_{t1} = 124$ daPa
 Specific supply $Y_{t2} \approx 103$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,190$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 160 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 160 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
016-000630	6,3	0,13	0,61	●	1,1	2835	140	100	125	0,09	4	9	89
016-001030	10,0	0,20	0,74	●	1,1	2835	140	112	125	0,09	4	9	89
016-001230	12,5	0,25	0,83	●	1,1	2835	160	125	125	0,10	4	9	89
016-001630	16,0	0,32	0,95	●	1,1	2835	160	140	125	0,10	4	9	94
016-002030	20,0	0,40	1,09	●	1,5	2850	180	160	125	0,11	5	9	96
016-002530	25,0	0,50	1,27	●	1,5	2850	200	180	140	0,13	5	9	108
016-003130	31,5	0,63	1,49	●	2,2	2850	200	200	160	0,15	5	9	110
016-004030	40,0	0,80	1,79	○	2,2	2850	224	224	180	0,17	5	9	118
016-005030	50,0	1,00	2,15	○	3	2875	250	250	200	0,19	6	9	123
016-006315	63,0	1,27	2,60	○	3	1430	315	280	224	1,4	4	11	199
016-006330	63,0	1,27	2,60	○	3	2875	280	280	224	0,22	6	9	129
016-008015	80,0	1,61	3,17	○	4	1440	355	315	250	1,6	5	11	217
016-008030	80,0	1,61	3,23	○	4	2900	315	315	250	0,25	6	9	141
016-010015	100,0	2,01	3,89	○	5,5	1450	400	355	280	1,9	5	11	241
016-010030	100,0	2,01	3,93	○	5,5	2900	355	355	280	0,31	6	9	161
016-012515	125,0	2,51	4,66	○	5,5	1450	400	400	315	2,0	5	11	257
016-012530	125,0	2,51	4,78	○	5,5	2900	400	400	315	0,40	7	9	179
016-016015	160,0	3,21	5,89	○	7,5	1450	450	450	355	2,3	6	9	279
016-016026	160,0	3,21	6,04	○	7,5	2634	450	450	355	0,55	7	9	342
016-020015	200,0	4,02	7,28	○	11	1460	500	500	400	3,4	6	9	378
016-020023	200,0	4,02	7,47	○	11	2338	500	500	400	0,82	8	9	438
016-025015	250,0	5,02	8,96	○	11	1460	560	560	450	3,9	6	9	395
016-031515	315,0	6,33	11,2	○	15	1460	630	630	500	5,0	6	9	430
016-040015	400,0	8,03	14,2	○	18,5	1460	710	710	560	6,9	7	9	557
016-050015	500,0	10,04	17,6	○	22	1460	800	800	630	8,2	8	9	669
016-063015	630,0	12,65	22,0	○	30	1470	900	900	710	11,5	8	9	793
016-080010	800,0	16,07	27,6	○	30	980	1000	1000	800	36,4	7	9	1300
016-100010	1000,0	20,08	34,5	○	37	980	1120	1120	900	44,1	8	9	1412
016-125010	1250,0	25,10	43,0	○	55	980	1250	1250	1000	65,2	8	11	1774
016-160008	1600,0	32,13	54,6	○	75	740	1400	1400	1120	145,9	8	11	2667
016-200008	2000,0	40,17	68,0	○	75	740	1600	1600	1250	195,5	8	11	3245

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 160$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta p_{t1} = 158$ daPa

density at inlet operation of

$\rho_1 = 1,186$ kg/m³

Specific supply

$Y_{t2} \approx 132$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 200 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 200 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
020-000730	7,1	0,14	0,73	●	1,1	2835	140	100	125	0,12	3	9	96
020-001130	11,2	0,22	0,91	●	1,1	2835	140	112	125	0,12	3	9	97
020-001430	14,0	0,28	1,03	●	1,1	2835	160	125	125	0,13	4	9	97
020-001830	18,0	0,36	1,21	●	1,5	2850	180	140	125	0,15	4	9	105
020-002230	22,4	0,45	1,40	●	1,5	2850	180	160	125	0,15	4	9	105
020-002830	28,0	0,56	1,65	●	2,2	2850	200	180	140	0,18	5	9	109
020-003530	35,0	0,70	1,96	○	2,2	2850	224	200	160	0,20	5	9	120
020-004530	45,0	0,90	2,38	○	3	2875	224	224	180	0,21	5	9	128
020-005630	56,0	1,12	2,87	○	4	2900	250	250	200	0,24	6	9	131
020-007115	71,0	1,43	3,54	○	4	1440	355	280	224	2,1	4	11	236
020-007130	71,0	1,43	3,56	○	4	2900	280	280	224	0,28	6	9	139
020-009015	90,0	1,81	4,27	○	5,5	1450	355	315	250	2,1	4	11	234
020-009030	90,0	1,81	4,37	○	5,5	2900	315	315	250	0,32	6	9	155
020-011215	112,0	2,25	5,23	○	7,5	1450	400	355	280	2,4	5	11	275
020-011230	112,0	2,25	5,33	○	7,5	2915	355	355	280	0,41	6	9	180
020-014015	140,0	2,81	6,47	○	7,5	1450	450	400	315	3,2	5	11	303
020-014030	140,0	2,81	6,54	○	7,5	2915	400	400	315	0,56	7	9	194
020-018015	180,0	3,62	8,10	○	11	1460	450	450	355	3,7	5	11	360
020-018030	180,0	3,62	8,27	○	11	2920	450	450	355	0,69	7	9	240
020-022415	224,0	4,50	10,03	○	11	1460	500	500	400	4,4	6	9	384
020-022426	224,0	4,50	10,21	○	11	2634	500	500	400	0,90	7	9	441
020-028015	280,0	5,62	12,5	○	15	1460	560	560	450	5,4	6	9	472
020-028023	280,0	5,62	12,7	○	15	2338	560	560	450	1,2	7	9	590
020-035515	355,0	7,13	15,6	○	18,5	1460	630	630	500	6,7	6	9	522
020-045015	450,0	9,04	19,6	○	22	1460	710	710	560	8,8	6	9	587
020-056015	560,0	11,25	24,2	○	30	1470	800	800	630	11,1	7	9	741
020-071015	710,0	14,26	30,4	○	37	1470	900	900	710	14,6	7	9	934
020-090015	900,0	18,08	38,8	○	45	1470	1000	1000	800	20,4	8	9	1071
020-112010	1120,0	22,49	48,0	○	55	980	1120	1120	900	66,8	8	11	1682
020-140010	1400,0	28,12	59,8	○	75	980	1250	1250	1000	79,1	8	11	2068
020-180010	1800,0	36,15	76,8	○	90	980	1400	1400	1120	117	8	11	2507
020-224008	2240,0	44,99	95,2	○	110	740	1600	1600	1250	290	8	11	3694

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 200$ daPa
 Total pressure increase $\Delta p_{t1} = 196$ daPa
 Specific supply $Y_{t2} \approx 165$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,181$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 250 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
025-000530	5,0	0,10	0,73	●	1,1	2835	140	100	125	0,17	3	9	106
025-000830	8,0	0,16	0,90	●	1,1	2835	140	100	125	0,17	3	9	106
025-001230	12,5	0,25	1,15	●	1,5	2850	160	112	125	0,18	3	9	107
025-001630	16,0	0,32	1,34	●	1,5	2850	160	125	125	0,18	3	9	108
025-002030	20,0	0,40	1,56	●	2,2	2850	180	140	125	0,21	4	9	111
025-002530	25,0	0,50	1,85	●	2,2	2850	200	160	125	0,24	4	9	112
025-003130	31,5	0,63	2,18	○	3	2875	200	180	140	0,23	4	9	121
025-004030	40,0	0,80	2,64	○	3	2875	224	200	160	0,25	5	9	123
025-005030	50,0	1,00	3,19	○	4	2900	250	224	180	0,29	5	9	129
025-006330	63,0	1,27	3,9	○	5,5	2900	250	250	200	0,30	5	9	143
025-008015	80,0	1,61	4,8	○	5,5	1450	355	280	224	3,1	4	11	258
025-008030	80,0	1,61	4,8	○	5,5	2900	280	280	224	0,39	6	9	158
025-010015	100,0	2,01	5,9	○	7,5	1450	400	315	250	3,5	4	11	272
025-010030	100,0	2,01	5,9	○	7,5	2915	315	315	250	0,44	6	9	174
025-012515	125,0	2,51	7,2	○	11	1460	400	355	280	3,7	4	11	333
025-012530	125,0	2,51	7,3	○	11	2920	355	355	280	0,57	6	9	201
025-016015	160,0	3,21	9,1	○	11	1460	450	400	315	4,7	5	11	382
025-016030	160,0	3,21	9,2	○	11	2920	400	400	315	0,68	6	9	231
025-020015	200,0	4,02	11,3	○	15	1460	500	450	355	5,5	5	11	408
025-020030	200,0	4,02	11,4	○	15	2925	450	450	355	0,92	7	9	257
025-025015	250,0	5,02	13,8	○	15	1460	500	500	400	5,9	5	11	459
025-025030	250,0	5,02	14,1	○	15	2925	500	500	400	1,1	7	9	292
025-031515	315,0	6,33	17,3	○	18,5	1460	560	560	450	7,2	6	9	486
025-031526	315,0	6,33	17,6	○	22	2634	560	560	450	1,8	7	9	611
025-040015	400,0	8,03	21,7	○	30	1470	630	630	500	9,6	6	9	648
025-040023	400,0	8,03	22,3	○	30	2338	630	630	500	2,3	7	9	732
025-050015	500,0	10,04	26,9	○	30	1470	710	710	560	10,9	6	9	702
025-063015	630,0	12,65	33,8	○	37	1470	800	800	630	14,7	7	9	764
025-080015	800,0	16,07	42,7	○	55	1475	900	900	710	19,7	7	9	994
025-100015	1000,0	20,08	53,7	○	75	1480	1000	1000	800	24,2	8	9	1254
025-125015	1250,0	25,10	66,8	○	75	1480	1120	1120	900	37,4	8	9	1534
025-160010	1600,0	32,13	85,0	○	90	980	1250	1250	1000	119	8	11	2363
025-200010	2000,0	40,17	105,9	○	132	980	1400	1400	1120	158	8	11	2672
025-250010	2500,0	50,21	132,0	○	200	980	1600	1600	1250	193	8	11	3631

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 250$ daPa
 Total pressure increase $\Delta p_{t1} = 244$ daPa
 Specific supply $Y_{t2} \approx 206$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,181$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 315 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 315 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
031-000530	5,6	0,11	0,90	●	1,5	2850	140	100	125	0,25	3	9	109
031-000930	9,0	0,18	1,15	●	1,5	2850	140	100	125	0,24	3	9	109
031-001430	14,0	0,28	1,51	●	2,2	2850	160	112	125	0,27	3	9	108
031-001830	18,0	0,36	1,78	●	2,2	2850	180	125	125	0,29	3	9	112
031-002230	22,4	0,45	2,08	●	3	2875	180	140	125	0,28	3	9	115
031-002830	28,0	0,56	2,48	●	3	2875	200	160	125	0,31	4	9	118
031-003530	35,0	0,70	2,94	○	4	2900	224	180	140	0,34	4	9	126
031-004530	45,0	0,90	3,61	○	4	2900	224	200	160	0,32	4	9	128
031-005615	56,0	1,12	4,52	○	5,5	1450	315	224	180	4,1	3	11	271
031-005630	56,0	1,12	4,3	○	5,5	2900	250	224	180	0,41	5	9	147
031-007115	71,0	1,43	5,5	○	7,5	1450	355	250	200	4,3	4	11	284
031-007130	71,0	1,43	5,4	○	7,5	2915	280	250	200	0,48	5	9	162
031-009015	90,0	1,81	6,7	○	7,5	1450	355	280	224	4,4	4	11	304
031-009030	90,0	1,81	6,7	○	7,5	2915	280	280	224	0,49	5	9	172
031-011215	112,0	2,25	8,2	○	11	1460	400	315	250	4,9	4	11	351
031-011230	112,0	2,25	8,2	○	11	2920	315	315	250	0,64	6	9	209
031-014015	140,0	2,81	10,1	○	11	1460	450	355	280	5,9	4	11	371
031-014030	140,0	2,81	10,1	○	11	2920	355	355	280	0,73	6	9	218
031-018015	180,0	3,62	12,7	○	15	1460	450	400	315	6,0	5	11	421
031-018030	180,0	3,62	12,8	○	15	2925	400	400	315	0,91	6	9	248
031-022415	224,0	4,50	15,7	○	18,5	1460	500	450	355	7,1	5	11	483
031-022430	224,0	4,50	15,9	○	18,5	2940	450	450	355	1,3	6	9	294
031-028015	280,0	5,62	19,5	○	22	1460	560	500	400	10,0	5	11	553
031-028030	280,0	5,62	19,8	○	22	2940	500	500	400	1,7	7	9	345
031-035515	355,0	7,13	24,3	○	30	1470	560	560	450	10,3	6	9	623
031-035526	355,0	7,13	24,8	○	30	2634	560	560	450	2,1	7	9	694
031-045015	450,0	9,04	30,5	○	37	1470	630	630	500	12,0	6	9	668
031-045023	450,0	9,04	31,4	○	37	2338	630	630	500	3,0	7	9	879
031-056015	560,0	11,25	37,8	○	45	1470	710	710	560	16,2	6	9	792
031-071015	710,0	14,26	47,7	○	55	1475	800	800	630	19,4	6	9	979
031-090015	900,0	18,08	60,8	○	75	1480	900	900	710	27,4	7	9	1200
031-112015	1120,0	22,49	75,4	○	90	1480	1000	1000	800	36,7	8	9	1471
031-140015	1400,0	28,12	93,9	○	110	1480	1120	1120	900	46,3	8	9	1654
031-180010	1800,0	36,15	119,8	○	132	980	1250	1250	1000	157,9	7	11	2517
031-224010	2240,0	44,99	148,7	○	200	980	1400	1400	1120	198,6	8	11	2874

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 315$ daPa
 Total pressure increase $\Delta p_{t1} = 306$ daPa
 Specific supply $Y_{t2} \approx 259$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,168$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 355 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 355 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
035-000830	7,5	0,15	1,17	●	1,5	2850	140	100	125	0,31	2	11	113
035-001230	12,5	0,25	1,56	●	2,2	2850	160	100	125	0,32	3	9	112
035-001930	19,0	0,38	2,06	●	3	2875	180	125	125	0,34	3	9	115
035-002430	23,6	0,47	2,42	●	3	2875	180	140	125	0,34	3	9	118
035-003030	30,0	0,60	2,93	●	4	2900	200	160	125	0,36	4	9	119
035-003830	37,5	0,75	3,48	○	4	2900	224	180	140	0,39	4	9	127
035-004830	47,5	0,95	4,23	○	5,5	2900	250	200	160	0,46	4	9	142
035-006030	60,0	1,21	5,16	○	5,5	2900	250	224	180	0,47	4	9	148
035-007530	75,0	1,51	6,38	○	7,5	2915	280	250	200	0,54	5	9	175
035-009515	95,0	1,91	8,0	○	11	1460	400	280	224	5,7	4	11	350
035-009530	95,0	1,91	7,9	○	11	2920	315	280	224	0,65	5	9	205
035-011815	118,0	2,37	9,7	○	11	1460	400	315	250	5,8	4	11	355
035-011830	118,0	2,37	9,6	○	11	2920	315	315	250	0,73	5	9	210
035-015015	150,0	3,01	12,2	○	15	1460	450	355	280	6,9	4	11	439
035-015030	150,0	3,01	12,1	○	15	2925	355	355	280	0,9	6	9	235
035-019015	190,0	3,82	15,0	○	18,5	1460	450	400	315	7,0	4	11	464
035-019030	190,0	3,82	15,2	○	18,5	2940	400	400	315	1,2	6	9	271
035-023615	236,0	4,74	18,5	○	22	1460	500	450	355	8,8	5	11	523
035-023630	236,0	4,74	18,8	○	22	2940	450	450	355	1,6	6	9	324
035-030015	300,0	6,03	23,4	○	30	1470	560	500	400	11,3	5	11	609
035-030030	300,0	6,03	23,7	○	30	2950	500	500	400	2,0	7	9	401
035-037515	375,0	7,53	28,8	○	37	1470	560	560	450	11,7	5	11	637
035-047515	475,0	9,54	36,3	○	45	1470	630	630	500	14,9	6	9	696
035-060015	600,0	12,05	45,5	○	55	1475	710	710	560	18,5	6	9	921
035-075015	750,0	15,06	56,6	○	75	1480	800	800	630	21,7	6	9	1098
035-095015	950,0	19,08	72,2	○	90	1480	900	900	710	30,6	7	9	1273
035-118015	1180,0	23,70	89,3	○	110	1480	1000	1000	800	40,5	7	9	1509
035-150015	1500,0	30,13	113,0	○	132	1480	1120	1120	900	53,1	8	9	1711
035-190010	1900,0	38,16	142,1	○	200	980	1250	1250	1000	179,7	7	11	2710
035-236010	2360,0	47,40	176,0	○	200	980	1400	1400	1120	248,9	7	11	3285

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 355$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 343$ daPa

density at inlet operation of

$\rho_1 = 1,164$ kg/m³

Specific supply

$Yt_2 \approx 292$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 400 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
040-000630	6,3	0,13	1,19	●	1,5	2850	140	100	125	0,38	2	11	124
040-001030	10,0	0,20	1,54	●	2,2	2850	140	100	125	0,39	2	11	114
040-001630	16,0	0,32	2,06	●	3	2875	160	112	125	0,38	3	9	116
040-002030	20,0	0,40	2,40	●	3	2875	180	125	125	0,40	3	9	116
040-002530	25,0	0,50	2,85	●	4	2900	200	140	125	0,42	3	9	130
040-003130	31,5	0,63	3,43	●	4	2900	200	160	125	0,42	3	9	131
040-004030	40,0	0,80	4,12	○	5,5	2900	224	180	140	0,46	4	9	150
040-005030	50,0	1,00	4,96	○	5,5	2900	250	200	160	0,55	4	9	154
040-006330	63,0	1,27	6,05	○	7,5	2915	250	224	180	0,54	4	9	173
040-008030	80,0	1,61	7,6	○	11	2920	280	250	200	0,62	5	9	193
040-010030	100,0	2,01	9,3	○	11	2920	315	280	224	0,79	5	9	207
040-012515	125,0	2,51	11,6	○	15	1460	400	315	250	6,9	4	11	425
040-012530	125,0	2,51	11,4	○	15	2925	315	315	250	0,85	5	9	225
040-016015	160,0	3,21	14,5	○	18,5	1460	450	355	280	8,8	4	11	454
040-016030	160,0	3,21	14,4	○	18,5	2940	355	355	280	1,2	6	9	255
040-020015	200,0	4,02	18,0	○	22	1460	500	400	315	10,0	4	11	511
040-020030	200,0	4,02	18,0	○	22	2940	400	400	315	1,6	6	9	313
040-025015	250,0	5,02	22,0	○	30	1470	500	450	355	10,9	5	11	581
040-025030	250,0	5,02	22,2	○	30	2950	450	450	355	1,8	6	9	377
040-031515	315,0	6,33	27,6	○	30	1470	560	500	400	12,9	5	11	614
040-031530	315,0	6,33	28,0	○	30	2950	500	500	400	2,1	6	9	403
040-040015	400,0	8,03	34,8	○	37	1470	630	560	450	15,7	5	11	683
040-040030	400,0	8,03	35,8	○	45	2960	560	560	450	2,9	7	9	484
040-050015	500,0	10,04	42,9	○	55	1475	630	630	500	18,1	6	9	875
040-050026	500,0	10,04	44,3	○	55	2634	630	630	500	3,8	7	9	1003
040-063015	630,0	12,65	53,7	○	75	1480	710	710	560	20,7	6	9	1032
040-063023	630,0	12,65	55,7	○	75	2338	710	710	560	5,2	7	9	1151
040-080015	800,0	16,07	67,8	○	75	1480	800	800	630	28,3	6	9	1149
040-100015	1000,0	20,08	85,3	○	110	1480	900	900	710	37,6	7	9	1426
040-125015	1250,0	25,10	106,2	○	132	1480	1000	1000	800	48,9	7	9	1626
040-160015	1600,0	32,13	135,5	○	160	1480	1120	1120	900	63,0	8	11	1900
040-200015	2000,0	40,17	168,9	○	200	1480	1250	1250	1000	93,8	8	11	2183
040-250015	2500,0	50,21	210,2	○	250	1480	1400	1400	1120	127	8	11	2719

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 400$ daPa
 Total pressure increase $\Delta p_{t1} = 385$ daPa
 Specific supply $Y_{t2} \approx 328$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,159$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 450 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 450 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
045-000930	8,5	0,17	1,57	●	2,2	2850	140	100	125	0,48	2	11	125
045-001330	13,2	0,27	2,05	●	3	2875	160	100	125	0,47	2	11	127
045-002130	21,2	0,43	2,82	●	4	2900	180	125	125	0,47	3	9	128
045-002730	26,5	0,53	3,35	●	4	2900	200	140	125	0,50	3	9	131
045-003430	33,5	0,67	4,04	●	5,5	2900	200	160	125	0,50	3	9	144
045-004230	42,5	0,85	4,85	○	5,5	2900	224	180	140	0,54	4	9	151
045-005330	53,0	1,06	5,85	○	7,5	2915	250	200	160	0,63	4	9	168
045-006730	67,0	1,35	7,31	○	11	2920	280	224	180	0,70	5	9	192
045-008530	85,0	1,71	9,00	○	11	2920	280	250	200	0,71	5	9	195
045-010630	106,0	2,13	11,0	○	15	2925	315	280	224	0,92	5	9	238
045-013215	132,0	2,65	13,7	○	15	1460	400	315	250	9,3	3	11	439
045-013230	132,0	2,65	13,5	○	15	2925	315	315	250	1,0	5	9	256
045-017015	170,0	3,41	17,3	○	18,5	1460	450	355	280	10,4	4	11	460
045-017030	170,0	3,41	17,1	○	18,5	2940	355	355	280	1,3	6	9	287
045-021215	212,0	4,26	21,4	○	30	1470	500	400	315	11,7	4	11	562
045-021230	212,0	4,26	21,3	○	30	2950	400	400	315	1,7	6	9	366
045-026515	265,0	5,32	26,2	○	30	1470	500	450	355	12,6	4	11	587
045-026530	265,0	5,32	26,4	○	30	2950	450	450	355	2,0	6	9	380
045-033515	335,0	6,73	33,0	○	37	1470	560	500	400	14,7	5	11	660
045-033530	335,0	6,73	33,6	○	37	2960	500	500	400	2,4	6	9	445
045-042515	425,0	8,54	41,4	○	45	1470	630	560	450	19,2	5	11	770
045-042530	425,0	8,54	42,6	○	55	2970	560	560	450	3,2	7	9	532
045-053015	530,0	10,64	50,9	○	55	1475	630	630	500	20,9	5	11	886
045-053030	530,0	10,64	52,7	○	75	2975	630	630	500	4,4	7	9	724
045-067015	670,0	13,46	64,0	○	75	1480	710	710	560	26,8	6	9	1080
045-085015	850,0	17,07	80,8	○	90	1480	800	800	630	35,8	6	9	1231
045-106015	1060,0	21,29	101,2	○	110	1480	900	900	710	43,1	7	9	1498
045-132015	1320,0	26,51	125,9	○	160	1480	1000	1000	800	57,0	7	11	1742
045-170015	1700,0	34,14	161,5	○	200	1480	1120	1120	900	77,4	8	11	1942
045-212015	2120,0	42,58	200,6	○	250	1480	1250	1250	1000	107	8	11	2251

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 450$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 431$ daPa

density at inlet operation of

$\rho_1 = 1,153$ kg/m³

Specific supply

$Yt_2 \approx 369$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 500 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
050-000730	7,1	0,14	1,57	●	2,2	2850	140	100	125	0,58	2	11	126
050-001130	11,2	0,22	2,08	●	3	2875	140	100	125	0,54	2	11	128
050-001830	18,0	0,36	2,78	●	4	2900	180	112	125	0,55	3	9	129
050-002230	22,4	0,45	3,27	●	4	2900	180	125	125	0,55	3	9	129
050-002830	28,0	0,56	3,89	●	5,5	2900	200	140	125	0,58	3	9	145
050-003530	35,0	0,70	4,62	●	5,5	2900	224	160	125	0,62	3	9	145
050-004530	45,0	0,90	5,66	○	7,5	2915	224	180	140	0,62	3	9	165
050-005630	56,0	1,12	6,82	○	7,5	2915	250	200	160	0,73	4	9	169
050-007130	71,0	1,43	8,54	○	11	2920	280	224	180	0,81	4	9	207
050-009030	90,0	1,81	10,5	○	15	2925	280	250	200	0,83	4	9	225
050-011230	112,0	2,25	12,9	○	15	2925	315	280	224	1,0	5	9	252
050-014015	140,0	2,81	16,5	○	18,5	1460	450	315	250	12,2	4	11	475
050-014030	140,0	2,81	15,9	○	18,5	2940	355	315	250	1,4	5	9	278
050-018015	180,0	3,62	20,4	○	22	1460	450	355	280	12,0	4	11	522
050-018030	180,0	3,62	20,0	○	22	2940	355	355	280	1,5	5	9	295
050-022415	224,0	4,50	25,1	○	30	1470	500	400	315	14,3	4	11	603
050-022430	224,0	4,50	24,9	○	30	2950	400	400	315	1,9	6	9	367
050-028015	280,0	5,62	31,2	○	37	1470	560	450	355	16,6	5	11	638
050-028030	280,0	5,62	31,0	○	37	2960	450	450	355	2,3	6	9	423
050-035515	355,0	7,13	38,7	○	45	1470	560	500	400	17,1	5	11	737
050-035530	355,0	7,13	39,5	○	45	2960	500	500	400	2,9	6	9	471
050-045015	450,0	9,04	48,5	○	55	1475	630	560	450	21,7	5	11	880
050-045030	450,0	9,04	49,9	○	55	2970	560	560	450	3,8	6	9	538
050-056015	560,0	11,25	59,9	○	75	1480	710	630	500	30,0	5	11	1076
050-056030	560,0	11,25	62,0	○	75	2975	630	630	500	5,0	7	9	769
050-071015	710,0	14,26	75,2	○	90	1480	710	710	560	30,5	6	9	1151
050-071030	710,0	14,26	78,7	○	90	2975	710	710	560	7,4	7	9	846
050-090015	900,0	18,08	94,7	○	110	1480	800	800	630	40,4	6	9	1264
050-112015	1120,0	22,49	118,9	○	132	1480	900	900	710	52,8	7	11	1566
050-140015	1400,0	28,12	147,9	○	160	1480	1000	1000	800	68,9	7	11	1836
050-180015	1800,0	36,15	189,7	○	250	1480	1120	1120	900	98,1	7	11	2115
050-224015	2240,0	44,99	234,8	○	250	1480	1250	1250	1000	125	8	11	2539

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 500$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 477$ daPa

density at inlet operation of

$\rho_1 = 1,148$ kg/m³

Specific supply

$Yt_2 \approx 409$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 560 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 560 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
056-000830	7,5	0,15	1,82	●	3	2875	140	100	125	0,68	2	11	140
056-001530	15,0	0,30	2,81	●	3	2875	160	100	125	0,67	2	11	140
056-002430	23,6	0,47	3,87	●	5,5	2900	180	125	125	0,66	3	9	152
056-003030	30,0	0,60	4,60	●	5,5	2900	200	140	125	0,69	3	9	156
056-003830	37,5	0,75	5,46	●	7,5	2915	224	160	125	0,71	3	9	169
056-004830	47,5	0,95	6,65	○	7,5	2915	250	180	140	0,77	4	9	178
056-006030	60,0	1,21	8,12	○	11	2920	250	200	160	0,84	4	9	213
056-007530	75,0	1,51	10,04	○	11	2920	280	224	180	0,93	4	9	221
056-009515	95,0	1,91	13,1	●	15	1460	400	250	200	13,0	3	11	467
056-009530	95,0	1,91	12,4	○	15	2925	315	250	200	1,2	5	9	241
056-011815	118,0	2,37	15,7	○	18,5	1460	400	280	224	13,3	3	11	474
056-011830	118,0	2,37	15,1	○	18,5	2940	315	280	224	1,3	5	9	274
056-015015	150,0	3,01	19,5	○	22	1460	450	315	250	14,4	3	11	529
056-015030	150,0	3,01	18,9	○	22	2940	355	315	250	1,7	5	9	286
056-019015	190,0	3,82	24,1	○	30	1470	450	355	280	14,3	3	11	645
056-019030	190,0	3,82	23,9	○	30	2950	400	355	280	2,1	6	9	374
056-023615	236,0	4,74	29,5	○	37	1470	500	400	315	16,7	4	11	684
056-023630	236,0	4,74	29,2	○	37	2960	400	400	315	2,2	6	9	407
056-030015	300,0	6,03	37,2	○	45	1470	560	450	355	19,3	4	11	738
056-030030	300,0	6,03	37,4	○	45	2960	450	450	355	2,6	6	9	444
056-037515	375,0	7,53	45,7	○	55	1475	560	500	400	19,7	4	11	825
056-037530	375,0	7,53	46,4	○	55	2970	500	500	400	3,5	6	9	519
056-047515	475,0	9,54	57,2	○	75	1480	630	560	450	28,7	5	11	1046
056-047530	475,0	9,54	58,8	○	75	2975	560	560	450	4,5	6	9	733
056-060015	600,0	12,05	71,6	○	90	1480	710	630	500	33,8	5	11	1103
056-060030	600,0	12,05	74,1	○	90	2975	630	630	500	6,0	7	9	790
056-075015	750,0	15,06	88,6	○	110	1480	710	710	560	39,2	5	11	1212
056-075030	750,0	15,06	92,8	○	110	2975	710	710	560	8,3	7	9	930
056-095015	950,0	19,08	112,7	○	132	1480	800	800	630	53,0	7	11	1492
056-118015	1180,0	23,70	139,8	○	160	1480	900	900	710	61,3	7	11	1731
056-150015	1500,0	30,13	176,9	○	200	1480	1000	1000	800	79,1	7	11	1935
056-190015	1900,0	38,16	223,2	○	250	1480	1120	1120	900	109	7	11	2134

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 560$ daPa
 Total pressure increase $\Delta p_{t1} = 531$ daPa
 Specific supply $Y_{t2} \approx 458$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,148$ kg/m³

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 630 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 630 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
063-000830	8,0	0,16	2,16	●	3	2875	140	100	125	0,83	2	11	151
063-001230	12,5	0,25	2,81	●	4	2900	160	100	125	0,80	2	11	142
063-002030	20,0	0,40	3,87	●	5,5	2900	180	112	125	0,82	2	11	163
063-002530	25,0	0,50	4,49	●	5,5	2900	200	125	125	0,82	3	9	164
063-003130	31,5	0,63	5,42	●	7,5	2915	200	140	125	0,82	3	9	181
063-004030	40,0	0,80	6,55	●	7,5	2915	224	160	125	0,86	3	9	181
063-005030	50,0	1,00	7,92	●	11	2920	250	180	140	0,94	4	9	210
063-006330	63,0	1,27	9,56	○	11	2920	250	200	160	1,0	4	9	214
063-008030	80,0	1,61	12,0	○	15	2925	280	224	180	1,1	4	9	238
063-010030	100,0	2,01	14,6	○	18,5	2940	315	250	200	1,6	4	9	263
063-012530	125,0	2,51	17,9	○	22	2940	315	280	224	1,6	4	9	282
063-016015	160,0	3,21	23,7	○	30	1470	450	315	250	17,4	3	11	658
063-016030	160,0	3,21	22,5	○	30	2950	355	315	250	1,9	5	11	363
063-020015	200,0	4,02	29,1	○	37	1470	500	355	280	18,8	4	11	699
063-020030	200,0	4,02	28,3	○	30	2950	400	355	280	2,5	5	11	378
063-025015	250,0	5,02	35,4	○	45	1470	500	400	315	20,1	4	11	751
063-025030	250,0	5,02	35,1	○	45	2960	400	400	315	2,6	5	11	432
063-031515	315,0	6,33	44,0	○	55	1475	560	450	355	22,7	4	11	855
063-031530	315,0	6,33	44,1	○	55	2970	450	450	355	3,2	6	9	491
063-040015	400,0	8,03	54,9	○	75	1480	630	500	400	32,8	5	11	1020
063-040030	400,0	8,03	55,8	○	75	2975	500	500	400	4,4	6	9	713
063-050015	500,0	10,04	67,6	○	75	1480	630	560	450	33,2	5	11	1058
063-050030	500,0	10,04	69,3	○	75	2975	560	560	450	5,0	6	9	736
063-063015	630,0	12,65	84,3	○	90	1480	710	630	500	38,8	5	11	1251
063-063030	630,0	12,65	88,0	○	110	2975	630	630	500	7,7	6	9	829
063-080015	800,0	16,07	107,8	○	132	1480	800	710	560	57,7	6	13	1484
063-080030	800,0	16,07	111,8	○	132	2975	710	710	560	10,5	7	9	1008
063-100015	1000,0	20,08	133,8	○	160	1480	800	800	630	64,8	6	13	1609
063-125015	1250,0	25,10	166,1	○	200	1480	900	900	710	76,4	7	11	1841
063-160015	1600,0	32,13	211,7	○	250	1480	1000	1000	800	102,8	7	11	2030

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 630$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 593$ daPa

density at inlet operation of

$\rho_1 = 1,148$ kg/m³

Specific supply

$Yt_2 \approx 514$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 710 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 710 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
071-000930	8,5	0,17	2,57	●	4	2900	140	100	125	1,00	2	11	171
071-001330	13,2	0,27	3,34	●	5,5	2900	160	100	125	0,98	2	11	182
071-002130	21,2	0,43	4,58	●	5,5	2900	180	112	125	1,00	2	11	183
071-002730	26,5	0,53	5,34	●	7,5	2915	200	125	125	0,98	3	9	196
071-003430	33,5	0,67	6,49	●	7,5	2915	200	140	125	0,99	3	9	200
071-004230	42,5	0,85	7,83	●	11	2920	224	160	125	1,03	3	9	220
071-005330	53,0	1,06	9,44	●	11	2920	250	180	140	1,2	4	11	232
071-006730	67,0	1,35	11,6	○	15	2925	280	200	160	1,3	4	9	250
071-008530	85,0	1,71	14,4	○	18,5	2940	280	224	180	1,7	4	11	284
071-010630	106,0	2,13	17,4	○	18,5	2940	315	250	200	1,9	4	11	289
071-013230	132,0	2,65	21,2	○	30	2950	315	280	224	1,9	4	11	358
071-017015	170,0	3,41	28,4	○	37	1470	450	315	250	21,1	3	11	711
071-017030	170,0	3,41	27,0	○	30	2950	355	315	250	2,4	5	11	367
071-021215	212,0	4,26	34,8	○	37	1470	500	355	280	23,8	3	11	738
071-021230	212,0	4,26	33,9	○	37	2960	400	355	280	2,8	5	11	389
071-026515	265,0	5,32	42,3	○	45	1470	500	400	315	24,0	3	11	838
071-026530	265,0	5,32	41,7	○	45	2960	400	400	315	2,9	5	11	435
071-033515	335,0	6,73	52,7	○	75	1480	560	450	355	30,2	4	11	1010
071-033530	335,0	6,73	52,6	○	75	2975	450	450	355	4,1	6	9	659
071-042515	425,0	8,54	65,7	○	75	1480	630	500	400	38,2	4	11	1075
071-042530	425,0	8,54	66,6	○	75	2975	500	500	400	4,8	6	9	715
071-053015	530,0	10,64	80,7	○	90	1480	630	560	450	38,6	4	11	1206
071-053030	530,0	10,64	82,5	○	90	2975	560	560	450	6,1	6	9	757
071-067015	670,0	13,46	101,3	○	132	1480	710	630	500	53,6	5	13	1367
071-067030	670,0	13,46	104,9	○	132	2975	630	630	500	9,4	6	9	949
071-085015	850,0	17,07	128,4	○	160	1480	800	710	560	66,6	6	13	1541
071-106015	1060,0	21,29	159,1	○	200	1480	800	800	630	74,0	6	13	1695
071-132015	1320,0	26,51	196,3	○	250	1480	900	900	710	92,0	7	11	1915

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 710$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 664$ daPa

density at inlet operation of

$\rho_1 = 1,125$ kg/m³

Specific supply

$Yt_2 \approx 578$ daJ/kg

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design RGE	volume flow and mass flow in NP at 800 daPa		shaft power in NP PW ⁽³⁾ kW	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾ PM kW	impeller speed nL min ⁻¹	inlet AÖ mm	discharge		mass moment of inertia I kgm ²	performance curve type	number of blades z	weight without motor RGE kg
	\dot{V}_1 m ³ /min	\dot{m} kg/s						B1 mm	B2 mm				
080-000930	9,0	0,18	3,11	●	5,5	2900	140	100	125	1,3	1	13	185
080-001430	14,0	0,28	4,04	●	5,5	2900	160	100	125	1,3	2	13	185
080-002230	22,4	0,45	5,51	●	7,5	2915	180	112	125	1,2	2	13	198
080-002830	28,0	0,56	6,44	●	7,5	2915	200	125	125	1,3	2	13	199
080-003530	35,0	0,70	7,63	●	11	2920	224	140	125	1,3	4	11	222
080-004530	45,0	0,90	9,35	●	11	2920	224	160	125	1,3	3	11	222
080-005630	56,0	1,12	11,2	●	15	2925	250	180	140	1,4	4	11	247
080-007130	71,0	1,43	13,9	●	15	2925	280	200	160	1,8	3	11	256
080-009030	90,0	1,81	17,2	○	18,5	2940	280	224	180	2,0	4	11	286
080-011230	112,0	2,25	20,7	○	22	2940	315	250	200	2,2	4	11	297
080-014030	140,0	2,81	25,3	○	30	2950	355	280	224	2,5	4	11	362
080-018015	180,0	3,62	34,2	○	37	1470	450	315	250	25,5	3	13	722
080-018030	180,0	3,62	32,4	○	37	2960	355	315	250	2,6	4	11	378
080-022415	224,0	4,50	41,3	○	45	1470	500	355	280	33,3	3	13	798
080-022430	224,0	4,50	40,1	○	45	2960	400	355	280	3,3	5	11	477
080-028015	280,0	5,62	51,3	○	55	1475	560	400	315	36,5	4	13	1021
080-028030	280,0	5,62	50,4	○	55	2970	450	400	315	4,3	5	11	516
080-035515	355,0	7,13	62,9	○	75	1480	560	450	355	38,0	4	13	1033
080-035530	355,0	7,13	63,0	○	75	2975	450	450	355	5,1	5	11	667
080-045015	450,0	9,04	78,2	○	90	1480	630	500	400	45,4	4	13	1239
080-045030	450,0	9,04	79,1	○	90	2975	500	500	400	6,0	6	9	737
080-056015	560,0	11,25	96,0	○	110	1480	710	560	450	51,9	5	13	1312
080-056030	560,0	11,25	99,1	○	110	2975	560	560	450	8,2	6	9	900
080-071015	710,0	14,26	122,0	○	132	1480	710	630	500	61,5	5	13	1488
080-090015	900,0	18,08	152,6	○	200	1480	800	710	560	82,4	6	13	1698
080-112015	1120,0	22,49	189,1	○	250	1480	900	800	630	104	6	13	1936
080-140015	1400,0	28,12	236,0	○	250	1480	900	900	710	126	6	13	2291

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 800 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 742 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,116 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 649 \text{ daJ/kg}$

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 900 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 900 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
090-000930	9,5	0,19	3,73	●	7,5	2915	140	100	125	1,5	1	13	219
090-001430	15,0	0,30	4,86	●	7,5	2915	160	100	125	1,5	2	13	200
090-002430	23,6	0,47	6,58	●	7,5	2915	180	112	125	1,5	2	13	200
090-003030	30,0	0,60	7,77	●	11	2920	200	125	125	1,6	2	13	218
090-003830	37,5	0,75	9,20	●	11	2920	224	140	125	1,6	4	11	224
090-004830	47,5	0,95	11,0	●	15	2925	250	160	125	1,7	3	11	238
090-006030	60,0	1,21	13,5	●	15	2925	250	180	140	1,7	4	11	249
090-007530	75,0	1,51	16,5	●	18,5	2940	280	200	160	2,3	3	11	279
090-009530	95,0	1,91	20,3	○	22	2940	315	224	180	2,6	4	11	340
090-011830	118,0	2,37	24,4	○	30	2950	315	250	200	2,5	4	11	394
090-015030	150,0	3,01	30,6	○	37	2960	355	280	224	3,0	4	11	430
090-019015	190,0	3,82	40,9	○	45	1470	450	315	250	37,0	3	13	939
090-019030	190,0	3,82	38,8	○	45	2960	400	315	250	3,8	5	11	463
090-023615	236,0	4,74	49,2	○	55	1475	500	355	280	40,1	3	13	995
090-023630	236,0	4,74	47,3	○	55	2970	400	355	280	3,7	5	11	487
090-030015	300,0	6,03	61,9	○	75	1480	560	400	315	43,1	3	13	1139
090-030030	300,0	6,03	60,4	○	75	2975	450	400	315	5,4	5	11	647
090-037515	375,0	7,53	75,0	○	90	1480	560	450	355	45,2	4	13	1191
090-037530	375,0	7,53	74,4	○	90	2975	450	450	355	5,9	5	11	709
090-047515	475,0	9,54	92,9	○	110	1480	630	500	400	53,9	4	13	1340
090-047530	475,0	9,54	94,4	○	110	2975	500	500	400	7,6	6	9	872
090-060015	600,0	12,05	115,9	○	132	1480	710	560	450	68,7	4	13	1452
090-060030	600,0	12,05	118,7	○	132	2975	560	560	450	10,2	6	9	915
090-075015	750,0	15,06	144,6	○	160	1480	710	630	500	78,1	5	13	1568
090-095015	950,0	19,08	180,5	○	200	1480	800	710	560	95	6	13	1803
090-118015	1180,0	23,70	222,6	○	250	1480	900	800	630	117	6	13	2145

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 900$ daPa
 Total pressure increase $\Delta pt_1 = 827$ daPa
 Specific supply $Yt_2 \approx 728$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,118$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 1000 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
100-001030	10,0	0,20	4,42	●	7,5	2915	140	100	125	1,9	1	13	239
100-001630	16,0	0,32	5,81	●	7,5	2915	160	100	125	1,8	2	13	239
100-002530	25,0	0,50	7,60	●	11	2920	200	112	125	1,8	2	13	257
100-003130	31,5	0,63	9,13	●	11	2920	200	125	125	1,9	2	13	258
100-004030	40,0	0,80	10,9	●	15	2925	224	140	125	1,9	2	13	280
100-005030	50,0	1,00	13,0	●	15	2925	250	160	125	2,0	4	11	280
100-006330	63,0	1,27	15,7	●	18,5	2940	250	180	140	2,1	4	11	331
100-008030	80,0	1,61	19,7	●	22	2940	280	200	160	2,2	4	11	323
100-010030	100,0	2,01	23,8	○	30	2950	315	224	180	3,0	5	11	392
100-012530	125,0	2,51	29,0	○	37	2960	315	250	200	2,9	4	11	405
100-016030	160,0	3,21	36,7	○	45	2960	355	280	224	3,7	4	11	456
100-020030	200,0	4,02	45,5	○	55	2970	400	315	250	4,3	4	11	476
100-025015	250,0	5,02	58,8	○	75	1480	500	355	280	48,8	4	13	1166
100-025030	250,0	5,02	56,0	○	75	2975	400	355	280	4,8	5	11	618
100-031515	315,0	6,33	71,7	○	90	1480	560	400	315	52,9	3	13	1238
100-031530	315,0	6,33	70,1	○	75	2975	450	400	315	6,1	5	11	652
100-040015	400,0	8,03	88,6	○	110	1480	630	450	355	62,5	4	13	1313
100-040030	400,0	8,03	88,7	○	110	2975	500	450	355	7,7	5	11	835
100-050015	500,0	10,04	108,7	○	132	1480	630	500	400	63,9	4	13	1400
100-050030	500,0	10,04	109,8	○	132	2975	500	500	400	9,5	6	9	886
100-063015	630,0	12,65	134,9	○	160	1480	710	560	450	86	4	13	1532
100-063030	630,0	12,65	139,6	○	160	2980	560	560	450	11,7	7	9	924
100-080015	800,0	16,07	170,5	○	200	1480	800	630	500	106	5	13	1746
100-100015	1000,0	20,08	210,5	○	250	1480	800	710	560	111	5	13	1873

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta p_{t2} = 1000 \text{ daPa}$

reference density of

$\rho_0 = 1,205 \text{ kg/m}^3$

Total pressure increase

$\Delta p_{t1} = 911 \text{ daPa}$

density at inlet operation of

$\rho_1 = 1,096 \text{ kg/m}^3$

Specific supply

$Y_{t2} \approx 807 \text{ daJ/kg}$

○ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1120 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 1120 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
112-001030	10,0	0,20	5,16	□	7,5	2915	140	100	125	3,0	1	13	279
112-001630	16,0	0,32	6,73	□	11	2920	160	100	125	2,9	1	13	267
112-002530	25,0	0,50	8,69	□	15	2925	200	112	125	2,9	2	13	283
112-003130	31,5	0,63	10,43	□	15	2925	200	125	125	2,9	2	13	284
112-004030	40,0	0,80	12,4	□	18,5	2940	224	140	125	3,0	2	13	324
112-005030	50,0	1,00	14,7	□	18,5	2940	250	160	125	3,1	4	11	326
112-006330	63,0	1,27	17,9	□	22	2940	250	180	140	3,1	4	11	329
112-008030	80,0	1,61	22,3	□	30	2950	280	200	160	3,3	4	11	384
112-010030	100,0	2,01	26,9	■	30	2950	315	224	180	3,6	4	11	396
112-012530	125,0	2,51	32,8	■	37	2960	315	250	200	3,8	3	11	413
112-016030	160,0	3,21	41,0	■	45	2960	355	280	224	4,4	4	11	498
112-020030	200,0	4,02	50,7	■	55	2970	400	315	250	5,0	4	11	517
112-025015	250,0	5,02	66,5	■	75	1480	500	355	280	59,1	4	13	1251
112-025030	250,0	5,02	62,7	■	75	2975	400	355	280	5,6	4	11	664
112-031515	315,0	6,33	81,1	■	90	1480	560	400	315	62,9	3	13	1319
112-031530	315,0	6,33	78,5	■	90	2975	450	400	315	7,2	5	11	783
112-040015	400,0	8,03	99,9	■	110	1480	630	450	355	73,1	4	13	1395
112-040030	400,0	8,03	99,1	■	110	2975	500	450	355	9,5	5	11	848
112-050015	500,0	10,04	122,4	■	160	1480	630	500	400	84,7	4	13	1561
112-050030	500,0	10,04	123,8	■	160	2980	500	500	400	11	5	11	901
112-063015	630,0	12,65	151,5	■	200	1480	710	560	450	101,1	4	13	1683
112-080015	800,0	16,07	188,8	■	250	1480	800	630	500	123	4	13	1822

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 1120$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 1009$ daPa

density at inlet operation of

$\rho_1 = 1,084$ kg/m³

Specific supply

$Yt_2 \approx 901$ daJ/kg

□ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 1250 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	RGE	\dot{V}_1 m ³ /min						\dot{m} kg/s	PW ⁽³⁾ kW				
125-001030	10,0	0,20	6,04	□	11	2920	140	100	125	3,9	1	13	336
125-001630	16,0	0,32	7,80	□	11	2920	160	100	125	3,7	1	13	335
125-002530	25,0	0,50	9,96	□	15	2925	200	112	125	3,8	1	13	350
125-003130	31,5	0,63	12,0	□	15	2925	200	125	125	3,7	2	13	351
125-004030	40,0	0,80	14,2	□	18,5	2940	224	140	125	3,7	2	13	357
125-005030	50,0	1,00	16,6	□	18,5	2940	250	160	125	3,8	2	13	377
125-006330	63,0	1,27	20,3	□	22	2940	250	180	140	3,8	2	13	394
125-008030	80,0	1,61	25,1	□	30	2950	280	200	160	4,3	3	11	508
125-010030	100,0	2,01	30,2	□	37	2960	315	224	180	5,0	3	11	538
125-012530	125,0	2,51	37,1	■	45	2960	315	250	200	5,3	3	11	566
125-016030	160,0	3,21	45,7	■	55	2970	355	280	224	5,6	3	11	600
125-020030	200,0	4,02	56,6	■	75	2975	400	315	250	6,4	3	11	711
125-025030	250,0	5,02	70,0	■	90	2975	400	355	280	6,6	3	11	750
125-031530	315,0	6,33	87,5	■	110	2975	450	400	315	8,2	4	11	814
125-040015	400,0	8,03	112,4	■	132	1480	630	450	355	99,2	2	13	1738
125-040030	400,0	8,03	111,9	■	132	2975	500	450	355	11,6	4	11	862
125-050015	500,0	10,04	137,5	■	160	1480	630	500	400	99	2	13	1822
125-050030	500,0	10,04	139,5	■	160	2980	500	500	400	12,1	5	11	964
125-063015	630,0	12,65	171,2	■	200	1480	710	560	450	120	4	13	1965
125-080015	800,0	16,07	213,7	■	250	1480	800	630	500	144	4	13	2096

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 1250$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 1113$ daPa

density at inlet operation of

$\rho_1 = 1,072$ kg/m³

Specific supply

$Yt_2 \approx 1002$ daJ/kg

□ ErP 2009/125/EG fulfilled from 01.01.2015

● ErP 2009/125/EG not fulfilled, please inquire

□ does not require labeling according to ErP 2009/125/EG

■ does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 1400 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
140-001030	10,0	0,20	7,18	☐	15	2925	140	100	125	4,9	1	13	386
140-001630	16,0	0,32	9,16	☐	15	2925	160	100	125	4,7	1	13	385
140-002530	25,0	0,50	11,5	☐	18,5	2940	200	112	125	4,6	1	13	385
140-003130	31,5	0,63	13,8	☐	18,5	2940	200	125	125	4,5	2	13	385
140-004030	40,0	0,80	16,2	☐	22	2940	224	140	125	4,5	2	13	412
140-005030	50,0	1,00	18,9	☐	22	2940	250	160	125	4,6	2	13	436
140-006330	63,0	1,27	23,0	☐	30	2950	250	180	140	4,8	2	13	541
140-008030	80,0	1,61	28,4	☐	37	2960	280	200	160	5,4	3	11	562
140-010030	100,0	2,01	34,4	☐	45	2960	315	224	180	6,1	3	11	603
140-012530	125,0	2,51	41,8	■	55	2970	315	250	200	6,0	3	11	616
140-016030	160,0	3,21	51,4	■	75	2975	355	280	224	6,6	3	11	705
140-020030	200,0	4,02	63,6	■	75	2975	400	315	250	7,3	3	11	715
140-025030	250,0	5,02	78,5	■	90	2975	400	355	280	8,0	3	11	758
140-031530	315,0	6,33	97,9	■	110	2975	450	400	315	10,4	3	11	830

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta p_{t2} = 1400$ daPa
 Total pressure increase $\Delta p_{t1} = 1231$ daPa
 Specific supply $Y_{t2} \approx 1118$ daJ/kg

reference density of $\rho_0 = 1,205$ kg/m³
 density at inlet operation of $\rho_1 = 1,058$ kg/m³

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- ☐ does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1600 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 1600 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
160-001630	16,0	0,32	11,2	<input type="checkbox"/>	18,5	2940	160	100	125	6,0	1	13	434
160-002530	25,0	0,50	13,8	<input type="checkbox"/>	22	2940	200	112	125	6,0	2	13	449
160-003130	31,5	0,63	16,4	<input type="checkbox"/>	22	2940	200	125	125	5,8	2	13	450
160-004030	40,0	0,80	19,0	<input type="checkbox"/>	30	2950	224	140	125	6,7	2	13	576
160-005030	50,0	1,00	22,2	<input type="checkbox"/>	30	2950	250	160	125	6,7	2	13	602
160-006330	63,0	1,27	27,2	<input type="checkbox"/>	30	2950	250	180	140	6,8	2	13	610
160-008030	80,0	1,61	33,5	<input type="checkbox"/>	37	2960	280	200	160	6,9	2	13	615
160-010030	100,0	2,01	39,8	<input type="checkbox"/>	45	2960	315	224	180	7,4	3	11	657
160-012530	125,0	2,51	48,3	<input type="checkbox"/>	55	2970	315	250	200	7,4	2	11	672
160-016030	160,0	3,21	59,7	<input checked="" type="checkbox"/>	75	2975	355	280	224	8,1	2	11	782
160-020030	200,0	4,02	73,5	<input checked="" type="checkbox"/>	90	2975	400	315	250	8,8	3	11	789
160-025030	250,0	5,02	90,0	<input checked="" type="checkbox"/>	110	2975	400	355	280	11,0	3	11	854
160-031530	315,0	6,33	112,0	<input checked="" type="checkbox"/>	132	2975	450	400	315	12,2	3	11	892

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase

$\Delta pt_2 = 1600$ daPa

reference density of

$\rho_0 = 1,205$ kg/m³

Total pressure increase

$\Delta pt_1 = 1383$ daPa

density at inlet operation of

$\rho_1 = 1,040$ kg/m³

Specific supply

$Yt_2 \approx 1271$ daJ/kg

ErP 2009/125/EG fulfilled from 01.01.2015

ErP 2009/125/EG not fulfilled, please inquire

does not require labeling according to ErP 2009/125/EG

does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Type selection for pressure series 1800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	volume flow and mass flow in NP at 1800 daPa		shaft power in NP	ErP 2009/125/EG	recommended motor see instructions ⁽¹⁾	impeller speed	inlet	discharge		mass moment of inertia	performance curve type	number of blades	weight without motor
	\dot{V}_1 m ³ /min	\dot{m} kg/s						PW ⁽³⁾ kW	PM kW				
180-001630	16,0	0,32	13,43	☐	22	2940	160	100	125	11,2	1	13	474
180-002530	25,0	0,50	16,02	☐	30	2950	200	112	125	8,4	1	13	573
180-003130	31,5	0,63	19,14	☐	30	2950	200	125	125	8,4	2	13	573
180-004030	40,0	0,80	21,99	☐	37	2960	224	140	125	8,2	2	13	593
180-005030	50,0	1,00	25,53	☐	37	2960	250	160	125	8,2	2	13	618
180-006330	63,0	1,27	31,24	☐	37	2960	250	180	140	8,3	2	13	616
180-008030	80,0	1,61	38,36	☐	45	2960	280	200	160	8,8	2	13	644
180-010030	100,0	2,01	45,41	☐	55	2970	315	224	180	8,8	3	11	670
180-012530	125,0	2,51	55,01	☐	75	2975	315	250	200	9,0	2	11	736
180-016030	160,0	3,21	67,5	■	75	2975	355	280	224	9,5	2	11	787
180-020030	200,0	4,02	83,1	■	90	2975	400	315	250	11,9	2	11	807
180-025030	250,0	5,02	101,6	■	110	2975	400	355	280	12,8	2	11	861
180-031530	315,0	6,33	126,1	■	160	2980	450	400	315	16,7	3	11	916

Comments ⁽¹⁾ ⁽²⁾ ⁽³⁾ on type selection see sheet TA 2

Total pressure increase $\Delta pt_2 = 1800 \text{ daPa}$
Total pressure increase $\Delta pt_1 = 1529 \text{ daPa}$
Specific supply $Yt_2 \approx 1423 \text{ daJ/kg}$

reference density of $\rho_0 = 1,205 \text{ kg/m}^3$
density at inlet operation of $\rho_1 = 1,023 \text{ kg/m}^3$

- ErP 2009/125/EG fulfilled from 01.01.2015
- ErP 2009/125/EG not fulfilled, please inquire
- ☐ does not require labeling according to ErP 2009/125/EG
- does not require labeling according to ErP 2009/125/EG, but ErP 2009/125/EG has been fulfilled

Sound table acc. to types for pressure series 100 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MXE	z								
010-000530	9	84	81	62	49	72	75	13	8
010-000830	9	83	80	61	48	71	74	13	8
010-001030	9	82	79	60	47	70	74	13	8
010-001230	9	82	80	61	48	71	73	13	8
010-001630	9	82	79	60	47	71	73	13	8
010-002030	9	82	80	61	48	71	73	13	8
010-002530	9	83	81	62	49	73	74	13	8
010-003130	9	84	83	65	51	74	75	14	8
010-004030	9	85	84	66	52	75	76	14	8
010-005015	9	82	80	66	51	71	73	15	10
010-005030	9	86	86	68	54	77	77	14	8
010-006315	9	83	81	67	52	71	74	15	10
010-006330	9	87	87	70	56	78	78	14	8
010-008015	9	84	83	69	54	73	75	15	10
010-010015	9	85	84	71	56	75	76	15	10
010-012515	9	86	86	72	57	76	77	15	10
010-016015	9	88	88	75	59	78	78	16	10
010-020015	9	89	89	77	61	79	79	16	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 125 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
012-000530	9	86	82	64	51	73	77	13	8
012-000930	9	85	81	63	50	72	76	13	8
012-001130	9	84	80	62	49	72	75	13	8
012-001430	9	84	81	62	49	72	75	13	8
012-001830	9	83	81	63	49	73	75	13	8
012-002230	9	84	81	64	50	73	75	14	8
012-002830	9	85	83	65	51	74	76	14	8
012-003530	9	86	84	67	53	76	77	14	8
012-004530	9	87	86	69	55	77	78	14	8
012-005615	9	84	81	69	54	72	75	15	10
012-005630	9	88	87	70	56	78	79	14	8
012-007115	9	85	83	70	55	74	76	15	10
012-007130	9	89	89	72	58	80	80	14	8
012-009015	9	86	84	71	56	75	77	15	10
012-009030	9	91	91	75	60	82	82	15	8
012-011215	9	87	86	73	58	77	78	15	10
012-014015	9	89	88	75	60	78	79	16	10
012-018015	9	90	89	77	61	80	80	16	10
012-022415	9	91	91	79	63	81	81	16	10
012-028015	9	93	93	81	65	82	82	16	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 160 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
016-000630	9	88	83	67	54	75	79	13	8
016-001030	9	87	82	66	52	73	78	13	8
016-001230	9	86	82	65	52	74	78	13	8
016-001630	9	86	82	65	52	73	77	13	8
016-002030	9	85	82	65	51	74	77	13	8
016-002530	9	86	84	67	53	75	77	14	8
016-003130	9	87	85	68	54	76	78	14	8
016-004030	9	88	86	70	56	77	79	14	8
016-005030	9	89	88	71	57	79	80	14	8
016-006315	11	87	83	72	57	74	77	15	10
016-006330	9	90	89	73	58	80	81	14	8
016-008015	11	87	85	73	58	75	78	15	10
016-008030	9	92	91	75	60	82	82	14	8
016-010015	11	89	87	74	59	77	79	15	10
016-010030	9	93	93	77	62	83	84	15	7
016-012515	11	89	88	76	60	78	80	16	10
016-012530	9	94	94	79	64	85	85	15	7
016-016015	9	91	90	78	62	80	81	16	10
016-020015	9	92	91	80	64	82	82	16	10
016-025015	9	93	93	81	65	83	83	16	10
016-031515	9	95	95	83	67	84	84	16	10
016-040015	9	96	96	85	68	86	86	17	10
016-050015	9	98	98	87	70	87	87	17	10
016-063015	9	99	99	89	72	88	88	18	10
016-080010	9	98	97	88	70	86	86	18	12
016-100010	9	99	99	90	71	87	87	19	12

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 200 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
020-000730	9	92	86	72	58	78	83	13	6
020-001130	9	91	85	70	57	77	82	13	6
020-001430	9	88	84	68	54	75	80	13	8
020-001830	9	88	84	68	54	75	79	14	8
020-002230	9	88	84	68	54	75	79	14	8
020-002830	9	88	86	69	55	77	80	14	8
020-003530	9	89	87	71	57	78	80	14	8
020-004530	9	90	88	72	58	79	81	14	8
020-005630	9	91	90	74	59	81	82	14	8
020-007115	11	89	86	75	59	76	80	15	10
020-007130	9	93	92	76	61	83	84	14	7
020-009015	11	90	86	75	60	77	80	15	10
020-009030	9	94	93	77	62	84	85	14	7
020-011215	11	91	88	77	61	79	81	16	10
020-011230	9	95	95	79	64	85	86	15	7
020-014015	11	92	90	79	63	81	82	16	10
020-014030	9	96	96	81	66	87	87	15	7
020-018015	11	93	91	80	64	81	83	16	10
020-018030	9	98	98	83	68	88	88	15	7
020-022415	9	94	93	82	66	83	84	16	10
020-028015	9	96	95	83	67	85	86	17	10
020-035515	9	97	96	85	68	86	86	17	10
020-045015	9	98	98	87	70	87	87	17	10
020-056015	9	99	100	89	71	89	89	17	10
020-071015	9	101	101	90	72	90	90	18	10
020-090015	9	103	103	93	75	91	91	18	10
020-112010	11	100	100	92	73	88	88	19	11
020-140010	11	102	102	93	74	90	89	19	11

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
025-000530	9	96	89	76	62	81	87	14	6
025-000830	9	94	88	74	61	79	86	14	6
025-001230	9	93	87	73	59	79	84	14	6
025-001630	9	92	87	72	59	78	83	14	6
025-002030	9	90	85	70	57	77	81	14	8
025-002530	9	90	87	71	57	78	82	14	8
025-003130	9	91	87	72	58	78	82	14	8
025-004030	9	92	89	73	59	80	83	14	8
025-005030	9	92	90	75	60	81	83	14	7
025-006330	9	93	91	76	62	82	84	14	7
025-008015	11	91	87	77	62	78	82	15	10
025-008030	9	95	93	78	63	84	86	15	7
025-010015	11	92	89	78	63	80	83	15	10
025-010030	9	96	95	79	65	86	87	15	7
025-012515	11	93	90	79	64	80	83	16	10
025-012530	9	97	96	81	66	87	88	15	7
025-016015	11	94	92	82	65	82	85	16	10
025-016030	9	98	98	83	68	89	89	15	7
025-020015	11	95	94	83	67	84	86	16	10
025-020030	9	100	100	85	70	90	90	15	7
025-025015	11	96	95	84	67	85	86	16	10
025-025030	9	101	101	86	71	91	91	16	7
025-031515	9	98	97	85	69	87	88	17	10
025-040015	9	99	98	87	70	88	89	17	10
025-050015	9	100	100	89	72	89	89	17	10
025-063015	9	101	101	91	73	90	90	18	10
025-080015	9	103	103	92	74	92	92	18	10
025-100015	9	105	105	95	77	93	93	18	10
025-125015	9	106	106	96	78	94	94	19	9

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 315 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
031-000530	9	98	91	78	65	82	89	14	6
031-000930	9	96	89	77	63	81	88	14	6
031-001430	9	95	89	75	62	80	86	14	6
031-001830	9	94	89	75	61	80	86	14	6
031-002230	9	94	89	75	61	80	86	14	6
031-002830	9	93	89	74	60	80	84	14	8
031-003530	9	93	90	75	61	81	84	14	7
031-004530	9	94	91	76	62	82	85	14	7
031-005615	11	94	88	80	64	79	84	16	9
031-005630	9	95	92	77	63	83	86	14	7
031-007115	11	93	89	79	64	79	84	16	10
031-007130	9	96	94	79	64	85	87	14	7
031-009015	11	94	89	80	65	80	85	16	10
031-009030	9	97	95	80	66	86	88	15	7
031-011215	11	95	91	81	66	81	85	16	10
031-011230	9	98	97	82	67	88	89	15	7
031-014015	11	96	93	83	67	83	86	16	10
031-014030	9	99	98	84	69	89	90	15	7
031-018015	11	97	94	83	67	84	87	16	10
031-018030	9	101	100	85	70	90	91	15	7
031-022415	11	98	95	85	69	85	88	17	10
031-022430	9	102	102	87	71	92	92	15	7
031-028015	11	99	97	87	70	87	89	17	10
031-028030	9	103	103	89	73	94	93	16	7
031-035515	9	100	99	88	71	88	90	17	10
031-035530	9	105	105	91	75	95	95	16	7
031-045015	9	101	100	90	73	90	91	17	10
031-045030	9	107	107	93	77	96	96	16	7
031-056015	9	102	102	91	74	91	92	17	10
031-071015	9	103	103	93	75	92	93	18	10
031-090015	9	105	105	95	77	94	94	18	10
031-112015	9	107	106	97	78	95	95	18	9
031-140015	9	108	108	99	80	96	96	19	9

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 355 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
035-000830	11	98	91	79	65	82	90	14	6
035-001230	9	97	90	77	64	81	88	14	6
035-001930	9	96	90	76	62	81	87	14	6
035-002430	9	96	90	77	63	81	87	14	6
035-003030	9	94	90	75	62	81	86	14	7
035-003830	9	95	91	76	62	82	86	14	7
035-004830	9	95	92	77	63	83	86	14	7
035-006030	9	96	93	79	64	84	87	14	7
035-007530	9	97	95	81	66	86	88	15	7
035-009515	11	96	91	82	66	82	86	16	10
035-009530	9	98	97	82	67	88	89	15	7
035-011815	11	96	92	83	67	82	87	16	10
035-011830	9	99	98	83	68	88	90	15	7
035-015015	11	97	94	84	68	84	87	16	10
035-015030	9	100	99	85	70	90	91	15	7
035-019015	11	98	94	85	68	85	88	16	10
035-019030	9	102	101	87	72	92	92	15	7
035-023615	11	99	96	86	70	86	89	17	10
035-023630	9	103	103	88	73	93	93	16	7
035-030015	11	100	98	88	71	88	90	17	10
035-030030	9	105	104	90	74	95	95	16	7
035-037515	11	101	99	89	72	89	91	17	10
035-047515	9	102	101	91	74	91	92	17	10
035-060015	9	103	103	92	75	92	93	17	10
035-075015	9	105	104	94	76	93	94	18	10
035-095015	9	106	106	96	78	95	95	18	10
035-118015	9	108	107	98	79	96	96	19	9
035-150015	9	109	109	100	81	97	97	19	9

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 400 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
040-000630	11	100	92	82	68	83	92	14	6
040-001030	11	99	91	79	66	82	90	14	6
040-001630	9	98	91	78	64	82	89	14	6
040-002030	9	97	91	77	64	82	88	14	6
040-002530	9	97	92	79	65	83	88	14	6
040-003130	9	98	93	80	66	84	89	14	6
040-004030	9	96	92	79	64	83	87	14	7
040-005030	9	97	93	79	65	84	88	14	7
040-006330	9	97	94	80	66	85	88	15	7
040-008030	9	99	96	82	67	87	89	15	7
040-010030	9	100	98	83	68	88	90	15	7
040-012515	11	98	93	84	68	83	88	16	10
040-012530	9	100	98	84	69	89	91	15	7
040-016015	11	98	95	85	69	85	89	16	10
040-016030	9	102	100	86	70	91	92	15	7
040-020015	11	99	96	86	70	86	89	16	10
040-020030	9	103	102	88	72	93	93	15	7
040-025015	11	100	97	87	71	87	90	17	10
040-025030	9	104	104	89	74	94	94	16	7
040-031515	11	101	99	89	72	89	91	17	10
040-031530	9	106	105	91	75	95	96	16	7
040-040015	11	102	101	91	74	90	92	17	10
040-040030	9	107	107	94	78	97	97	16	7
040-050015	9	103	102	91	74	92	93	17	10
040-063015	9	104	103	93	76	93	94	17	10
040-080015	9	106	105	95	77	94	95	18	10
040-100015	9	107	107	97	79	96	96	18	9
040-125015	9	109	108	99	80	97	97	19	9

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 450 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

Type selection

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
045-000930	11	101	92	82	68	83	92	14	6
045-001330	11	99	92	81	67	83	91	14	6
045-002130	9	98	92	80	66	83	89	14	6
045-002730	9	99	93	81	66	84	90	14	6
045-003430	9	99	94	81	67	85	90	14	6
045-004230	9	97	93	80	65	84	89	14	7
045-005330	9	98	94	81	66	85	89	14	7
045-006730	9	99	96	82	68	87	90	15	7
045-008530	9	100	97	83	68	88	91	15	7
045-010630	9	101	98	85	70	89	91	15	7
045-013215	11	100	94	86	70	85	90	16	9
045-013230	9	101	99	85	70	90	92	15	7
045-017015	11	100	96	86	70	86	90	16	10
045-017030	9	103	101	87	72	92	93	15	7
045-021215	11	101	97	88	71	87	91	16	10
045-021230	9	104	103	89	73	93	94	15	7
045-026515	11	101	98	89	72	88	91	17	10
045-026530	9	105	105	90	75	95	95	16	7
045-033515	11	102	100	90	73	90	92	17	10
045-033530	9	107	106	93	77	96	97	16	7
045-042515	11	103	101	91	74	91	93	17	10
045-042530	9	108	108	94	78	98	98	16	7
045-053015	11	104	102	92	75	92	94	17	10
045-053030	9	109	110	96	79	99	99	16	7
045-067015	9	106	104	94	77	94	95	18	10
045-085015	9	107	106	96	78	95	96	18	10
045-106015	9	108	108	98	80	96	97	18	9
045-132015	11	109	109	99	81	97	98	19	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 500 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
050-000730	11	103	93	84	70	85	94	14	6
050-001130	11	101	92	83	69	84	93	14	6
050-001830	9	100	93	81	67	84	91	14	5
050-002230	9	100	93	81	67	84	91	14	6
050-002830	9	100	94	82	68	85	91	14	5
050-003530	9	100	95	82	68	86	91	14	5
050-004530	9	101	96	83	69	87	92	14	5
050-005630	9	99	95	82	67	86	90	14	7
050-007130	9	100	97	84	69	88	91	15	7
050-009030	9	101	98	85	70	88	92	15	7
050-011230	9	102	99	85	70	90	93	15	7
050-014015	11	101	96	87	71	86	91	16	10
050-014030	9	103	101	86	71	92	93	15	7
050-018015	11	101	96	88	72	87	91	16	10
050-018030	9	104	102	88	73	92	94	15	7
050-022415	11	102	98	89	73	88	92	17	10
050-022430	9	105	104	90	74	94	95	15	7
050-028015	11	103	100	90	74	90	93	17	10
050-028030	9	106	106	92	76	96	97	16	7
050-035515	11	103	100	91	74	90	93	17	10
050-035530	9	108	107	94	78	97	98	16	7
050-045015	11	104	102	92	75	92	94	17	10
050-045030	9	109	109	95	79	99	99	16	7
050-056015	11	105	104	94	76	93	95	18	10
050-056030	9	111	111	97	81	100	100	17	7
050-071015	9	107	105	96	78	95	96	18	9
050-071030	9	112	113	100	83	102	102	17	7
050-090015	9	108	107	97	79	96	97	18	9
050-112015	11	109	108	99	80	97	98	18	10
050-140015	11	110	110	101	82	98	99	19	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 560 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
056-000830	11	104	94	86	72	86	95	14	6
056-001530	11	102	93	84	70	85	93	14	6
056-002430	9	101	94	83	69	85	93	14	5
056-003030	9	101	95	84	70	86	93	14	5
056-003830	9	102	96	84	70	87	93	14	5
056-004830	9	100	95	83	69	86	91	15	7
056-006030	9	101	96	83	68	87	92	15	7
056-007530	9	102	98	84	70	89	92	15	7
056-009515	11	102	95	88	72	86	92	16	9
056-009530	9	102	99	85	70	90	93	15	7
056-011815	11	102	96	88	72	86	92	16	9
056-011830	9	103	100	86	71	91	94	15	7
056-015015	11	102	97	89	73	88	93	16	9
056-015030	9	104	102	88	72	92	95	15	7
056-019015	11	103	98	90	73	88	93	17	9
056-019030	9	105	104	90	75	94	96	16	7
056-023615	11	103	99	90	73	89	93	17	10
056-023630	9	106	105	91	76	95	97	16	7
056-030015	11	104	101	91	74	91	94	17	10
056-030030	9	108	107	93	77	97	98	16	7
056-037515	11	105	101	92	75	91	95	17	10
056-037530	9	109	108	94	78	98	99	16	7
056-047515	11	106	103	94	76	93	95	17	10
056-047530	9	110	110	96	80	100	100	17	7
056-060015	11	106	105	95	77	94	96	18	10
056-060030	9	112	112	98	82	101	101	17	7
056-075015	11	107	106	96	78	95	97	18	10
056-075030	9	113	113	100	83	103	103	17	7
056-095015	11	109	108	98	80	97	98	18	10
056-118015	11	110	109	100	81	98	99	19	10
056-150015	11	111	111	102	83	99	100	19	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 630 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
063-000830	11	105	95	86	72	86	96	14	6
063-001230	11	104	95	86	72	86	95	14	6
063-002030	11	102	94	83	69	85	93	14	6
063-002530	9	102	96	84	69	87	94	14	5
063-003130	9	103	96	85	70	87	94	14	5
063-004030	9	103	97	85	71	88	94	14	5
063-005030	9	104	99	86	71	90	95	15	5
063-006330	9	104	99	86	72	90	95	15	5
063-008030	9	103	99	86	71	90	94	15	7
063-010030	9	104	100	87	72	91	94	15	7
063-012530	9	104	101	88	73	92	95	15	7
063-016015	11	104	99	91	74	89	94	17	9
063-016030	11	105	102	89	74	93	95	15	7
063-020015	11	104	100	91	74	90	94	17	10
063-020030	11	106	104	91	75	95	97	16	7
063-025015	11	105	100	92	75	90	95	17	10
063-025030	11	107	105	92	76	96	97	16	7
063-031515	11	105	102	93	76	91	95	17	10
063-031530	9	109	108	94	78	98	99	16	7
063-040015	11	106	103	94	77	93	96	17	10
063-040030	9	110	109	96	80	99	100	16	7
063-050015	11	107	104	95	77	93	96	17	10
063-050030	9	111	111	98	81	101	101	17	7
063-063015	11	108	105	96	78	95	97	18	10
063-063030	9	113	113	100	83	102	103	17	7
063-080015	13	109	107	98	80	96	98	18	10
063-080030	9	115	114	102	85	104	104	17	7
063-100015	13	110	108	99	81	97	99	18	10
063-100030	9	116	116	104	86	105	105	18	7
063-125015	11	111	110	101	83	99	100	19	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 710 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
071-000930	11	106	96	89	74	87	98	15	6
071-001330	11	105	96	87	73	87	96	15	6
071-002130	11	104	95	86	71	87	95	15	6
071-002730	9	104	97	86	72	88	95	15	5
071-003430	9	105	97	87	72	88	96	15	5
071-004230	9	105	98	87	73	90	96	15	5
071-005330	11	105	99	88	73	90	96	15	6
071-006730	9	104	99	87	72	90	95	15	7
071-008530	11	104	99	88	72	90	95	15	7
071-010630	11	104	101	88	73	92	95	15	7
071-013230	11	105	101	89	74	92	96	15	7
071-017015	11	106	100	93	76	90	96	17	9
071-017030	11	106	103	90	75	94	97	15	7
071-021215	11	106	101	94	77	91	96	17	9
071-021230	11	107	105	92	76	96	98	16	7
071-026515	11	107	101	94	77	92	97	17	9
071-026530	11	108	106	93	77	96	98	16	7
071-033515	11	107	102	95	77	92	97	17	10
071-033530	9	110	109	95	79	99	100	16	7
071-042515	11	107	104	95	78	94	97	17	10
071-042530	9	111	110	97	81	100	101	16	7
071-053015	11	108	105	96	78	94	98	18	10
071-053030	9	112	112	99	82	102	102	17	7
071-067015	13	109	106	97	79	96	98	18	10
071-067030	9	114	114	101	84	103	104	17	7
071-085015	13	110	108	99	81	97	99	18	10
071-106015	13	111	109	100	82	98	100	18	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 800 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
080-000930	13	107	96	90	75	88	99	15	6
080-001430	13	106	96	88	74	88	97	15	6
080-002230	13	105	96	87	73	88	96	15	6
080-002830	13	105	97	87	73	88	96	15	6
080-003530	11	105	99	88	73	90	97	15	6
080-004530	11	106	99	88	74	90	97	15	6
080-005630	11	106	100	89	74	91	97	15	6
080-007130	11	107	102	90	75	93	98	15	6
080-009030	11	105	101	89	74	91	96	15	7
080-011230	11	106	102	89	74	93	96	15	7
080-014030	11	106	103	91	75	94	97	15	7
080-018015	13	107	101	94	77	91	97	17	9
080-018030	11	107	104	92	76	95	98	15	7
080-022415	13	107	102	95	78	92	97	17	9
080-022430	11	108	106	93	77	96	99	16	7
080-028015	13	108	103	95	78	93	97	17	10
080-028030	11	110	108	95	79	98	100	16	7
080-035515	13	108	103	96	78	93	98	17	10
080-035530	11	111	109	96	80	99	101	16	7
080-045015	13	108	105	96	79	94	98	18	10
080-045030	9	112	111	98	82	101	102	16	7
080-056015	13	109	106	97	80	96	98	18	10
080-056030	9	114	113	100	83	103	104	17	7
080-071015	13	110	107	99	81	97	100	18	10
080-090015	13	111	109	101	82	98	100	18	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 900 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
090-000930	13	109	97	92	77	89	100	15	6
090-001430	13	107	97	90	75	89	99	15	6
090-002430	13	107	97	89	74	89	98	15	6
090-003030	13	107	98	89	74	90	98	15	6
090-003830	11	107	100	90	75	91	98	15	5
090-004830	11	107	101	90	75	92	98	15	5
090-006030	11	108	101	91	76	92	99	15	5
090-007530	11	108	103	91	76	94	99	15	5
090-009530	11	107	102	90	75	93	97	15	7
090-011830	11	107	103	91	75	93	98	15	7
090-015030	11	108	104	92	76	95	98	16	7
090-019015	13	109	102	95	78	92	99	17	9
090-019030	11	109	106	93	78	97	99	16	7
090-023615	13	109	103	96	79	93	99	17	9
090-023630	11	110	107	94	78	97	100	16	7
090-030015	13	110	105	97	80	94	99	17	9
090-030030	11	111	109	96	80	99	101	16	7
090-037515	13	110	105	97	80	95	100	17	9
090-037530	11	112	110	97	81	100	102	16	7
090-047515	13	110	106	98	80	95	99	18	10
090-047530	9	114	113	100	83	103	104	17	7
090-060015	13	111	107	99	81	97	100	18	10
090-060030	9	115	114	101	84	104	105	17	7
090-075015	13	112	108	100	82	98	101	18	10
090-095015	13	112	110	102	83	99	101	19	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
100-001030	13	113	101	95	80	92	104	15	6
100-001630	13	112	101	94	79	92	103	15	6
100-002530	13	110	101	92	77	92	101	15	6
100-003130	13	109	100	91	76	92	100	15	6
100-004030	13	108	100	91	76	92	99	15	6
100-005030	11	109	102	91	76	93	100	15	5
100-006330	11	109	102	92	77	93	100	15	5
100-008030	11	110	104	93	78	95	101	15	5
100-010030	11	108	103	92	76	94	99	15	7
100-012530	11	109	104	92	77	95	99	15	7
100-016030	11	109	105	93	78	96	100	16	7
100-020030	11	110	107	94	79	98	101	16	7
100-025015	13	110	104	98	80	94	101	17	9
100-025030	11	111	108	96	80	98	101	16	7
100-031515	13	111	105	98	81	95	101	18	9
100-031530	11	112	110	97	81	100	102	16	7
100-040015	13	110	106	98	81	96	100	18	10
100-040030	11	113	112	99	82	102	103	16	7
100-050030	9	115	113	101	84	103	105	17	7
100-063030	9	116	115	103	86	105	106	17	7
100-080030	9	118	117	105	87	106	107	17	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1120 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MXE	z								
112-001030	13	114	102	98	82	93	106	15	6
112-001630	13	113	102	95	80	93	104	15	6
112-002530	13	111	102	93	78	93	102	15	6
112-003130	13	110	101	93	78	93	102	15	6
112-004030	13	109	101	92	77	93	101	15	6
112-005030	11	110	103	93	78	94	101	15	5
112-006330	11	110	103	94	78	94	101	15	5
112-008030	11	111	105	94	79	96	102	15	5
112-010030	11	111	106	95	80	97	102	15	5
112-012530	11	112	107	95	80	97	102	15	5
112-016030	11	110	106	95	79	97	101	16	7
112-020030	11	111	108	96	80	98	102	16	7
112-025015	13	112	105	100	82	95	102	18	9
112-025030	11	112	109	97	81	99	102	16	7
112-031515	13	112	106	100	82	96	102	18	9
112-031530	11	113	110	98	82	101	103	16	7
112-040015	13	112	107	100	82	96	101	18	10
112-040030	11	114	112	100	83	102	104	17	7
112-050030	11	115	113	101	84	103	105	17	7
112-063030	9	117	116	103	86	105	107	17	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
125-001030	13	116	103	99	84	94	107	15	6
125-001630	13	114	103	98	82	94	106	15	6
125-002530	13	113	103	96	81	94	104	15	6
125-003130	13	112	103	95	80	94	103	15	6
125-004030	13	111	103	95	79	94	102	15	6
125-005030	13	111	103	95	79	94	102	15	6
125-006330	13	111	104	95	80	95	102	16	6
125-008030	11	112	106	96	81	97	103	16	5
125-010030	11	113	107	97	81	98	103	16	5
125-012530	11	113	108	98	82	98	104	16	5
125-016030	11	111	107	96	80	97	102	16	7
125-020030	11	112	108	97	80	99	103	16	7
125-025030	11	113	109	98	82	100	103	16	7
125-031530	11	114	111	99	83	101	104	16	7
125-040030	11	115	113	101	84	103	105	17	7
125-050030	11	116	114	102	85	104	106	17	7
125-063030	11	117	116	104	87	106	107	17	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MXE	z								
140-001030	13	117	104	100	84	95	108	15	6
140-001630	13	116	104	99	83	95	107	15	6
140-002530	13	114	104	97	82	95	105	15	6
140-003130	13	114	104	96	81	95	105	15	6
140-004030	13	112	103	96	80	95	104	15	6
140-005030	13	112	104	96	80	95	103	15	6
140-006330	13	113	105	96	81	96	104	16	5
140-008030	11	114	107	97	82	98	105	16	5
140-010030	11	114	108	98	82	99	105	16	5
140-012530	11	114	108	98	83	99	105	16	5
140-016030	11	115	110	99	83	100	105	16	5
140-020030	11	113	109	98	82	100	104	16	7
140-025030	11	114	110	99	83	100	105	16	7
140-031530	11	115	112	100	84	102	105	16	7
140-040030	11	116	114	102	86	104	106	17	7
140-050030	11	117	115	103	86	105	107	17	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1600 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
160-001630	13	118	105	101	86	96	109	16	5
160-002530	13	116	105	100	84	97	107	16	5
160-003130	13	115	105	99	83	96	107	16	5
160-004030	13	114	105	98	82	96	105	16	5
160-005030	13	114	106	98	82	97	105	16	5
160-006330	13	115	106	99	83	97	106	16	5
160-008030	13	115	108	99	84	99	106	16	5
160-010030	11	116	109	100	84	100	107	16	5
160-012530	11	116	110	101	85	100	107	16	5
160-016030	11	116	111	101	85	102	107	16	5
160-020030	11	115	110	100	84	101	105	16	7
160-025030	11	115	111	101	84	101	106	17	7
160-031530	11	116	113	102	85	103	107	17	7
160-040030	11	118	115	104	87	105	108	17	7
160-050030	11	118	115	105	88	105	108	17	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MXE	z								
180-001630	13	119	106	103	87	97	111	16	5
180-002530	13	118	106	101	85	98	109	16	5
180-003130	13	117	106	101	85	97	108	16	5
180-004030	13	116	106	100	84	97	107	16	5
180-005030	13	116	107	100	84	98	107	16	5
180-006330	13	116	107	101	85	98	107	16	5
180-008030	13	117	109	101	85	100	108	16	5
180-010030	11	117	110	102	86	101	108	16	5
180-012530	11	118	111	102	86	102	108	16	5
180-016030	11	118	112	103	86	102	108	16	5
180-020030	11	118	113	103	87	104	109	16	5
180-025030	11	119	114	104	88	104	109	17	5
180-031530	11	118	113	103	86	104	108	17	7
180-040030	11	119	115	105	88	106	109	17	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 2000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
200-002530	13	119	107	103	87	99	110	16	5
200-003130	13	119	107	103	87	98	110	16	5
200-004030	13	118	107	102	86	98	109	16	5
200-005030	13	117	108	102	86	99	108	16	5
200-006330	13	118	108	102	86	99	109	16	5
200-008030	13	118	110	103	87	101	109	16	5
200-010030	11	119	111	103	87	102	109	16	5
200-012530	11	119	112	104	87	102	110	16	5
200-016030	11	119	113	104	88	103	110	16	5
200-020030	11	120	114	105	88	105	110	16	5
200-025030	11	120	115	106	89	105	111	17	5
200-031530	11	119	114	104	87	105	109	17	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 2250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

Type selection

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
225-002530	7	120	108	104	88	99	112	16	5
225-003130	7	120	108	103	88	99	111	16	5
225-004030	7	119	108	103	87	99	110	16	5
225-005030	7	119	109	102	86	100	110	16	5
225-006330	7	119	109	103	87	100	110	16	5
225-008030	7	120	111	103	87	102	110	16	5
225-010030	7	120	112	104	87	102	110	16	5
225-012530	7	120	112	104	88	103	111	16	5
225-016030	7	120	113	104	88	104	110	17	5
225-020030	7	120	114	105	88	105	111	17	5
225-025030	7	121	115	106	89	106	111	17	5

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 2500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MXE	z								
250-002530	7	122	109	105	89	100	113	16	5
250-003130	7	121	109	105	89	100	113	16	5
250-004030	7	120	109	104	88	100	112	16	5
250-005030	7	120	110	104	88	101	111	16	5
250-006330	7	121	110	105	88	101	112	16	5
250-008030	7	121	112	105	89	103	112	16	5
250-010030	7	121	113	105	89	103	112	16	5
250-012530	7	121	113	106	89	104	112	16	5
250-016030	7	121	114	106	89	105	112	17	5
250-020030	7	122	115	107	90	106	112	17	5
250-025030	7	122	116	107	91	106	113	17	5

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 2800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

Type selection

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
MXE	z								
280-002530	7	123	110	107	91	101	114	16	5
280-003130	7	123	110	107	91	101	114	16	5
280-004030	7	122	110	106	90	101	113	16	5
280-005030	7	122	111	106	90	102	113	16	5
280-006330	7	123	112	107	90	103	114	16	5
280-008030	7	123	113	107	91	104	114	17	5
280-010030	7	123	114	107	91	105	113	17	5
280-012530	7	123	114	108	91	105	114	17	5
280-016030	7	123	115	108	91	106	114	17	5

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 3150 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
MXE	z								
315-002530	7	125	111	109	93	102	116	16	5
315-003130	7	125	111	109	92	102	116	17	5
315-004030	7	124	111	108	92	102	115	17	5
315-005030	7	124	112	109	92	103	115	17	5
315-006330	7	124	113	109	92	104	115	17	5
315-008030	7	125	114	109	93	105	115	17	5
315-010030	7	124	115	109	92	106	115	17	5
315-012530	7	125	115	110	93	106	115	17	5

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 100 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MAE	z								
010-000530	9	84	81	62	49	72	75	13	8
010-000830	9	83	80	60	48	71	74	13	8
010-001030	9	82	79	60	47	70	74	13	8
010-001230	9	82	80	61	48	71	73	13	8
010-001630	9	82	79	60	47	71	73	13	8
010-002030	9	82	80	61	48	71	73	13	8
010-002530	9	83	81	62	49	73	74	13	8
010-003130	9	84	83	64	51	74	75	14	8
010-004030	9	85	84	66	52	75	76	14	8
010-005015	9	82	80	66	51	71	73	14	10
010-005030	9	86	86	68	54	77	77	14	8
010-006315	9	83	81	67	52	71	74	14	10
010-006330	9	87	87	70	56	78	78	14	8
010-008015	9	84	83	69	54	73	75	15	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 125 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MAE	z								
012-000530	9	86	82	64	51	73	77	13	8
012-000930	9	85	81	62	50	72	76	13	8
012-001130	9	84	80	62	49	72	75	13	8
012-001430	9	84	81	62	49	72	75	13	8
012-001830	9	84	81	63	50	73	75	13	8
012-002230	9	84	82	64	50	73	75	13	8
012-002830	9	85	83	65	51	74	76	13	8
012-003530	9	86	84	66	53	76	77	14	8
012-004530	9	87	86	68	55	77	78	14	8
012-005615	9	84	81	68	54	72	75	15	10
012-005630	9	88	87	70	56	78	79	14	8
012-007115	9	85	83	69	55	74	76	15	10
012-007130	9	90	89	72	58	80	80	14	8
012-009015	9	86	84	71	56	75	77	15	10
012-009030	9	91	91	74	60	82	82	14	8
012-011215	9	87	86	73	58	77	78	15	10
012-014015	9	89	88	75	60	78	79	15	10
012-018015	9	90	89	77	61	80	80	15	10
012-022415	9	91	91	79	63	81	81	16	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 160 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MAE	z								
016-000630	9	88	83	67	54	75	79	13	8
016-001030	9	87	82	65	52	73	78	13	8
016-001230	9	86	82	65	52	74	78	13	8
016-001630	9	86	82	65	52	73	77	13	8
016-002030	9	85	82	65	51	74	77	13	8
016-002530	9	86	84	67	53	75	77	13	8
016-003130	9	87	85	68	54	76	78	14	8
016-004030	9	88	86	69	56	77	79	14	8
016-005030	9	89	88	71	57	79	80	14	8
016-006315	11	87	83	71	57	74	77	15	10
016-006330	9	90	89	72	58	80	81	14	8
016-008015	11	87	85	72	58	75	78	15	10
016-008030	9	92	91	75	61	82	83	14	8
016-010015	11	89	87	74	59	77	79	15	10
016-010030	9	93	93	76	62	83	84	14	7
016-012515	11	89	88	75	60	78	80	15	10
016-012530	9	94	94	78	64	85	85	15	7
016-016015	9	91	90	77	62	80	81	15	10
016-020015	9	92	92	80	64	82	82	16	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 200 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MAE	z								
020-000730	9	92	86	71	58	78	83	13	6
020-001130	9	91	85	70	57	77	82	13	6
020-001430	9	88	84	67	54	75	80	13	8
020-001830	9	88	84	68	54	75	79	13	8
020-002230	9	88	84	68	54	75	79	13	8
020-002830	9	88	86	69	55	77	80	13	8
020-003530	9	89	87	71	57	78	80	14	8
020-004530	9	90	88	72	58	79	81	14	8
020-005630	9	91	90	73	59	81	82	14	8
020-007115	11	89	86	74	59	76	80	15	10
020-007130	9	93	92	75	61	83	84	14	7
020-009015	11	90	86	75	60	77	80	15	10
020-009030	9	94	93	77	63	84	85	14	7
020-011215	11	91	88	77	62	79	81	15	10
020-011230	9	95	95	79	64	85	86	14	7
020-014015	11	92	90	78	63	81	82	15	10
020-014030	9	96	96	80	66	87	87	15	7
020-018015	11	93	91	80	64	81	83	16	10
020-018030	9	98	98	83	68	88	88	15	7
020-022415	9	94	93	82	66	83	84	16	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MAE	z								
025-000530	9	96	89	76	62	81	87	13	6
025-000830	9	94	88	74	61	79	86	13	6
025-001230	9	93	87	73	59	79	84	13	6
025-001630	9	92	87	72	59	78	84	13	6
025-002030	9	90	85	70	57	77	81	14	8
025-002530	9	90	87	71	57	78	82	14	8
025-003130	9	91	87	72	58	78	82	14	8
025-004030	9	92	89	73	59	80	83	14	8
025-005030	9	93	90	74	61	81	84	14	7
025-008015	11	91	87	77	62	78	82	15	10
025-008030	9	95	93	78	64	84	86	14	7
025-010015	11	92	89	78	63	80	83	15	10
025-010030	9	96	95	79	65	86	87	14	7
025-012515	11	93	90	79	64	80	84	15	10
025-012530	9	97	96	81	66	87	88	14	7
025-016015	11	94	92	81	66	82	85	16	10
025-016030	9	98	98	83	68	89	89	15	7
025-020015	11	95	94	83	67	84	86	16	10
025-020030	9	100	100	85	70	90	90	15	7
025-025015	11	96	95	83	67	85	86	16	10
025-025030	9	101	101	86	71	91	91	15	7
025-006330	9	93	91	75	62	82	84	14	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 315 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MAE	z								
031-000530	9	98	91	78	65	82	89	13	6
031-000930	9	96	89	76	63	81	88	13	6
031-001430	9	95	89	75	62	80	86	13	6
031-001830	9	94	89	75	61	80	86	13	6
031-002230	9	94	89	75	61	80	86	14	6
031-002830	9	93	89	74	60	80	84	14	7
031-003530	9	93	90	75	61	81	85	14	7
031-004530	9	94	91	76	62	82	85	14	7
031-005615	11	94	88	79	64	79	84	15	9
031-005630	9	95	92	77	63	83	86	14	7
031-007115	11	93	89	79	64	79	84	15	10
031-007130	9	96	94	79	65	85	87	14	7
031-009015	11	94	89	80	65	80	85	15	10
031-009030	9	97	95	80	66	86	88	14	7
031-011215	11	95	91	81	66	81	85	15	10
031-011230	9	98	97	82	67	88	89	14	7
031-014015	11	96	93	82	67	83	86	16	10
031-014030	9	99	98	83	69	89	90	15	7
031-018015	11	97	94	83	67	84	87	16	10
031-018030	9	101	100	85	71	90	91	15	7
031-022415	11	98	95	85	69	85	88	16	10
031-022430	9	102	102	86	71	92	92	15	7
031-028015	11	99	97	86	70	87	89	16	10
031-028030	9	103	103	89	73	94	93	15	7
031-035515	9	100	99	88	71	88	90	16	10
031-035530	9	105	105	91	75	95	95	15	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 355 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MAE	z								
035-000830	11	98	91	79	65	82	90	13	6
035-001230	9	97	90	77	64	81	88	13	6
035-001930	9	95	90	76	62	81	87	13	6
035-002430	9	96	90	77	63	81	87	14	6
035-003030	9	94	90	75	62	81	86	14	7
035-003830	9	95	91	76	62	82	86	14	7
035-004830	9	95	92	77	63	83	86	14	7
035-006030	9	96	93	78	64	84	87	14	7
035-007530	9	97	95	80	66	86	88	14	7
035-009515	11	96	91	82	66	82	86	15	10
035-009530	9	98	97	82	68	88	89	14	7
035-011815	11	96	92	82	67	82	87	15	10
035-011830	9	99	98	83	68	88	90	14	7
035-015015	11	97	94	83	68	84	87	16	10
035-015030	9	100	99	85	70	90	91	15	7
035-019015	11	98	94	85	69	85	88	16	10
035-019030	9	102	101	87	72	92	92	15	7
035-023615	11	99	96	86	70	86	89	16	10
035-023630	9	103	103	88	73	93	93	15	7
035-030015	11	100	98	87	71	88	90	16	10
035-030030	9	105	104	90	75	95	95	15	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 400 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MAE	z								
040-000630	11	100	92	81	68	83	92	14	6
040-001030	11	99	91	79	66	82	90	13	6
040-001630	9	97	90	78	64	82	89	13	6
040-002030	9	97	91	77	64	82	88	13	6
040-002530	9	97	92	79	65	83	88	14	6
040-003130	9	98	93	79	66	84	89	14	6
040-004030	9	96	92	78	64	83	87	14	7
040-005030	9	97	93	79	65	84	88	14	7
040-006330	9	97	94	80	66	85	88	14	7
040-008030	9	99	96	82	67	87	89	14	7
040-010030	9	100	98	83	69	88	90	14	7
040-012515	11	98	93	84	68	83	88	16	10
040-012530	9	100	98	84	70	89	91	14	7
040-016015	11	98	95	85	69	85	89	16	10
040-016030	9	102	100	86	71	91	92	15	7
040-020015	11	99	96	86	70	86	89	16	10
040-020030	9	103	102	87	72	93	93	15	7
040-025015	11	100	97	87	71	87	90	16	10
040-025030	9	104	104	89	74	94	94	15	7
040-031515	11	101	99	89	72	89	91	16	10
040-031530	9	106	105	91	76	95	96	15	7
040-040015	11	102	101	90	74	90	92	17	10
040-040030	9	107	107	93	78	97	97	16	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 450 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MAE	z								
045-000930	11	101	92	82	68	83	92	14	6
045-001330	11	99	92	80	67	83	91	14	6
045-002130	9	98	92	79	66	83	89	14	6
045-002730	9	99	93	80	66	84	90	14	6
045-003430	9	99	94	81	67	85	90	14	6
045-004230	9	97	93	80	66	84	89	14	7
045-005330	9	98	94	80	66	85	89	14	7
045-006730	9	99	96	82	68	87	90	14	7
045-008530	9	100	97	83	69	88	91	14	7
045-010630	9	101	98	85	70	89	91	15	7
045-013215	11	100	94	85	70	85	90	16	9
045-013230	9	101	99	85	70	90	92	15	7
045-017015	11	100	96	86	70	86	90	16	10
045-017030	9	103	101	87	72	92	93	15	7
045-021215	11	101	97	87	71	87	91	16	10
045-021230	9	104	103	88	73	94	94	15	7
045-026515	11	101	98	88	72	88	91	16	10
045-026530	9	105	105	90	75	95	95	15	7
045-033515	11	102	100	90	74	90	92	16	10
045-033530	9	107	106	93	77	96	97	15	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MAE	z								
050-000730	11	103	93	84	70	85	94	14	6
050-001130	11	101	92	82	69	84	93	14	6
050-001830	9	100	93	81	67	84	91	14	6
050-002230	9	100	93	81	67	84	91	14	6
050-002830	9	100	94	82	68	85	91	14	5
050-003530	9	100	95	82	68	86	91	14	5
050-004530	9	101	96	83	69	87	92	14	5
050-005630	9	99	95	82	68	86	90	14	7
050-007130	9	100	97	84	69	88	91	14	7
050-009030	9	101	98	85	70	88	92	14	7
050-011230	9	102	99	85	70	90	93	15	7
050-014015	11	101	96	87	71	86	91	16	10
050-014030	9	103	101	86	72	92	93	15	7
050-018015	11	101	96	88	72	87	91	16	10
050-018030	9	104	102	88	73	92	94	15	7
050-022415	11	102	98	89	73	88	92	16	10
050-022430	9	105	104	89	74	94	95	15	7
050-028015	11	103	100	90	74	90	93	16	10
050-028030	9	106	106	92	77	96	97	15	7
050-035515	11	103	100	91	74	90	93	16	10
050-035530	9	108	107	94	78	97	98	15	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 560 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MAE	z								
056-000830	11	104	94	86	72	86	95	14	6
056-001530	11	102	93	83	70	85	93	14	6
056-002430	9	101	94	83	69	85	93	14	5
056-003030	9	101	95	84	70	86	93	14	5
056-003830	9	102	96	84	70	87	93	14	5
056-004830	9	100	95	83	69	86	91	14	7
056-006030	9	101	96	83	68	87	92	14	7
056-007530	9	102	98	84	70	89	92	14	7
056-009515	11	102	95	88	72	86	92	16	9
056-009530	9	102	99	85	71	90	93	14	7
056-011815	11	102	96	88	72	86	92	16	9
056-011830	9	103	100	86	72	91	94	15	7
056-015015	11	102	97	89	73	88	93	16	9
056-015030	9	104	102	87	73	92	95	15	7
056-019015	11	103	98	89	73	88	93	16	9
056-019030	9	105	104	90	75	94	96	15	7
056-023615	11	103	99	90	74	89	93	16	10
056-023630	9	106	105	91	76	95	97	15	7
056-030015	11	104	101	91	75	91	94	16	10
056-030030	9	108	107	93	78	97	98	15	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 630 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MAE	z								
063-000830	11	105	95	86	72	86	96	14	6
063-001230	11	104	95	85	72	86	95	14	6
063-002030	11	102	94	83	69	85	93	14	6
063-002530	9	102	96	83	70	87	94	14	5
063-003130	9	103	96	84	70	87	94	14	5
063-004030	9	103	97	85	71	88	94	14	5
063-005030	9	104	99	86	71	90	95	14	5
063-006330	9	104	99	86	72	90	95	14	5
063-008030	9	103	99	85	71	90	94	14	7
063-010030	9	104	100	87	72	91	94	15	7
063-012530	9	104	101	87	73	92	95	15	7
063-016015	11	104	99	90	74	89	94	16	9
063-016030	11	105	102	89	74	93	95	15	7
063-020015	11	104	100	91	75	90	94	16	10
063-020030	11	106	104	91	76	95	97	15	7
063-025015	11	105	100	91	75	90	95	16	10
063-025030	11	107	105	92	77	96	97	15	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 710 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MAE	z								
071-000930	11	106	96	88	74	87	98	14	6
071-001330	11	105	96	87	73	87	96	14	6
071-002130	11	104	95	85	71	87	95	14	6
071-002730	9	104	97	86	72	88	95	14	5
071-003430	9	105	97	87	72	88	96	14	5
071-004230	9	105	98	87	73	90	96	14	5
071-005330	11	105	99	87	73	90	96	14	6
071-006730	9	104	99	87	72	90	95	14	7
071-008530	11	104	99	87	73	90	95	15	7
071-010630	11	104	101	88	73	92	95	15	7
071-013230	11	105	101	89	74	92	96	15	7
071-017015	11	106	100	92	76	90	96	16	9
071-017030	11	106	103	90	75	94	97	15	7
071-021215	11	106	101	93	77	91	96	16	9
071-021230	11	107	105	92	77	96	98	15	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 800 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MAE	z								
080-000930	13	107	96	89	75	88	99	14	6
080-001430	13	106	96	88	74	88	97	14	6
080-002230	13	105	96	87	73	88	96	14	6
080-002830	13	105	97	87	73	88	96	14	6
080-003530	11	105	99	88	73	90	97	14	6
080-004530	11	106	99	88	74	90	97	14	6
080-005630	11	106	100	89	74	91	97	14	6
080-007130	11	107	102	90	75	93	98	14	6
080-009030	11	105	101	89	74	91	96	15	7
080-011230	11	106	102	89	74	93	96	15	7
080-014030	11	106	103	90	75	94	97	15	7
080-018015	13	107	101	94	77	91	97	16	9
080-018030	11	107	104	91	77	95	98	15	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 900 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
MAE	z								
090-000930	13	109	97	91	77	89	100	14	6
090-001630	13	107	97	89	75	89	99	14	6
090-002430	13	107	97	88	74	89	98	14	6
090-003030	13	107	98	88	74	90	98	14	6
090-003830	11	107	100	89	75	91	98	14	5
090-004830	11	107	101	89	75	92	98	14	5
090-006030	11	108	101	90	76	92	99	14	5
090-007530	11	108	103	91	77	94	99	14	5
090-009530	11	107	102	90	75	93	97	15	7
090-011830	11	107	103	90	75	93	98	15	7
090-015030	11	108	104	92	77	95	98	15	7
090-019015	13	109	102	95	78	92	99	16	9
090-019030	11	109	106	93	78	97	99	15	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{W Ai2} dB(A)	L _{W Ai1} dB(A)	L _{W Aa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
MAE	z								
100-001030	13	113	101	95	80	92	104	14	6
100-001630	13	112	101	93	79	92	103	14	6
100-002530	13	110	101	92	77	92	101	14	6
100-003130	13	109	100	91	76	92	100	14	6
100-004030	13	108	100	90	76	92	99	15	6
100-005030	11	109	102	91	76	93	100	15	5
100-006330	11	109	102	92	77	93	100	15	5
100-008030	11	110	104	93	78	95	101	15	5
100-010030	11	108	103	91	76	94	99	15	7
100-012530	11	109	104	92	77	95	99	15	7
100-016030	11	109	105	93	78	96	100	15	7
100-020030	11	110	107	94	79	98	101	15	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 125 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
012-000530	9	86	82	64	51	73	77	14	8
012-000930	9	85	81	63	49	72	76	14	8
012-001130	9	84	80	63	49	72	75	14	8
012-001430	9	84	81	63	49	72	75	14	8
012-001830	9	83	81	63	49	73	75	14	8
012-002230	9	84	81	64	50	73	75	14	8
012-002830	9	85	83	65	51	74	76	14	8
012-003530	9	86	84	67	53	76	77	14	8
012-004530	9	87	86	69	54	77	78	15	8
012-005615	9	84	81	69	53	72	75	15	10
012-005630	9	88	87	70	56	78	79	15	8
012-007115	9	85	83	70	54	74	76	15	10
012-007130	9	90	89	72	57	80	80	15	8
012-009015	9	86	84	71	55	75	77	16	10
012-009030	9	91	91	75	59	82	82	15	8
012-011215	9	87	86	73	57	77	78	16	10
012-014015	9	89	88	75	59	78	79	16	10
012-018015	9	90	89	77	61	80	80	16	10
012-022415	9	91	91	79	62	81	81	17	10
012-028015	9	93	93	81	64	82	82	17	10
012-035515	9	95	94	83	65	84	84	18	10
012-045015	9	96	96	85	67	85	85	18	10
012-056015	9	97	97	87	69	86	86	18	10
012-071015	9	98	99	88	70	87	87	19	10
012-090010	9	97	97	88	69	85	85	19	12
012-112010	11	98	98	90	70	86	86	20	11

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 160 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
016-000630	9	88	83	67	53	75	79	14	8
016-001030	9	87	82	66	52	73	78	14	8
016-001230	9	86	82	65	51	74	78	14	8
016-001630	9	86	82	65	51	73	77	14	8
016-002030	9	85	82	65	51	74	77	14	8
016-002530	9	86	84	67	53	75	77	14	8
016-003130	9	87	85	68	54	76	78	14	8
016-004030	9	88	86	70	55	77	79	15	8
016-005030	9	89	88	71	56	79	80	15	8
016-006315	11	87	83	72	56	74	77	16	10
016-006330	9	90	89	73	58	80	81	15	8
016-008015	11	87	85	73	57	75	78	16	10
016-008030	9	92	91	75	60	82	83	15	8
016-010015	11	89	87	74	58	77	79	16	10
016-010030	9	93	93	77	62	83	84	15	7
016-012515	11	89	88	76	60	78	80	16	10
016-012530	9	94	94	79	63	85	85	15	7
016-016015	9	91	90	78	61	80	81	16	10
016-020015	9	92	92	80	63	82	82	17	10
016-025015	9	93	93	81	64	83	83	17	10
016-031515	9	95	95	83	66	84	84	17	10
016-040015	9	96	96	85	67	86	86	18	10
016-050015	9	98	98	87	69	87	87	18	10
016-063015	9	99	99	89	71	88	88	18	10
016-080010	9	98	97	88	69	86	86	19	12
016-100010	9	99	99	90	71	87	87	19	12
016-125010	11	100	100	92	72	88	88	20	11

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 200 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
020-000730	9	92	86	71	58	78	83	14	6
020-001130	9	91	85	70	56	77	82	14	6
020-001430	9	88	84	68	54	75	80	14	8
020-001830	9	88	84	68	54	75	79	14	8
020-002230	9	88	84	68	54	75	79	14	8
020-002830	9	88	86	69	55	77	80	14	8
020-003530	9	89	87	71	56	78	80	15	8
020-004530	9	90	88	72	58	79	81	15	8
020-005630	9	91	90	73	59	81	82	15	8
020-007115	11	89	86	75	59	76	80	16	10
020-007130	9	93	92	76	61	83	84	15	7
020-009015	11	90	86	75	59	77	80	16	10
020-009030	9	94	93	77	62	84	85	15	7
020-011215	11	91	88	77	61	79	81	16	10
020-011230	9	95	95	79	64	85	86	15	7
020-014015	11	92	90	79	62	81	82	16	10
020-018015	11	93	91	80	63	81	83	17	10
020-018030	9	98	98	83	67	88	88	16	7
020-022415	9	94	93	82	65	83	84	17	10
020-028015	9	96	95	83	66	85	86	17	10
020-035515	9	97	96	85	67	86	86	17	10
020-045015	9	98	98	87	69	87	87	18	10
020-056015	9	99	100	89	71	89	89	18	10
020-071015	9	101	101	90	72	90	90	18	10
020-090015	9	103	103	93	74	91	91	19	10
020-112010	11	100	100	92	72	88	88	20	11
020-140010	11	102	102	93	73	90	89	20	11
020-180010	11	103	104	96	75	91	91	21	11
020-014030	9	96	96	81	65	87	87	15	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
025-000530	9	96	89	76	62	81	87	14	6
025-000830	9	94	88	74	60	79	86	14	6
025-001230	9	93	87	73	59	79	84	14	6
025-001630	9	92	87	72	58	78	84	14	6
025-002030	9	90	85	70	56	77	81	14	8
025-002530	9	90	87	71	57	78	82	14	8
025-003130	9	91	87	72	58	78	82	15	8
025-004030	9	92	89	73	59	80	83	15	8
025-005030	9	93	90	75	60	81	84	15	7
025-006330	9	93	91	76	61	82	84	15	7
025-008015	11	91	87	77	61	78	82	16	10
025-008030	9	95	93	78	63	84	86	15	7
025-010015	11	92	89	78	62	80	83	16	10
025-010030	9	96	95	79	64	86	87	15	7
025-012515	11	93	90	79	63	80	83	16	10
025-012530	9	97	96	81	66	87	88	15	7
025-016015	11	94	92	81	65	82	85	17	10
025-016030	9	98	98	83	68	89	89	16	7
025-020015	11	95	94	83	66	84	86	17	10
025-020030	9	100	100	85	69	90	90	16	7
025-025015	11	96	95	83	66	85	86	17	10
025-025030	9	101	101	86	70	91	91	16	7
025-031515	9	98	97	85	68	87	88	17	10
025-040015	9	99	98	87	70	88	89	18	10
025-050015	9	100	100	89	71	89	89	18	10
025-063015	9	101	101	91	73	90	90	18	10
025-080015	9	103	103	92	74	92	92	18	10
025-100015	9	105	105	95	76	93	93	19	10
025-125015	9	106	106	96	77	94	94	19	9
025-160010	11	104	104	96	75	91	91	20	11
025-200010	11	105	105	98	77	93	92	21	11
025-250010	11	106	107	99	78	94	93	21	11

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 315 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
031-000530	9	98	91	78	64	82	89	14	6
031-000930	9	96	89	77	62	81	88	14	6
031-001430	9	95	89	75	61	80	86	14	6
031-001830	9	94	89	75	61	80	86	14	6
031-002230	9	94	89	75	61	80	86	14	6
031-002830	9	93	89	74	60	80	84	15	7
031-003530	9	93	90	75	60	81	84	15	7
031-004530	9	94	91	76	61	82	85	15	7
031-005615	11	94	88	80	63	79	84	16	9
031-005630	9	95	92	77	62	83	86	15	7
031-007115	11	93	89	79	63	79	84	16	10
031-007130	9	96	94	79	64	85	87	15	7
031-009015	11	94	89	80	64	80	85	16	10
031-009030	9	97	95	80	65	86	88	15	7
031-011215	11	95	91	81	65	81	85	16	10
031-011230	9	98	97	82	66	88	89	15	7
031-014015	11	96	93	83	66	83	86	17	10
031-014030	9	99	98	84	68	89	90	16	7
031-018015	11	97	94	83	66	84	87	17	10
031-018030	9	101	100	85	70	90	91	16	7
031-022415	11	98	95	85	68	85	88	17	10
031-022430	9	102	102	86	70	92	92	16	7
031-028015	11	99	97	86	69	87	89	17	10
031-028030	9	103	103	89	73	94	93	16	7
031-035515	9	100	99	88	70	88	90	18	10
031-035530	9	105	105	91	74	95	95	17	7
031-045015	9	101	100	89	72	90	91	18	10
031-056015	9	102	102	91	73	91	92	18	10
031-071015	9	103	103	93	74	92	93	18	10
031-090015	9	105	105	95	76	94	94	19	10
031-112015	9	107	106	97	77	95	95	19	9
031-140015	9	108	108	99	79	96	96	20	9
031-180010	11	106	105	98	77	93	93	21	11
031-180015	11	109	109	101	81	97	97	20	10
031-224010	11	107	107	100	79	94	94	21	11
031-280010	11	108	108	101	80	95	95	22	11
031-355010	11	110	110	103	82	97	96	22	11
031-450010	11	111	112	106	83	98	97	22	11

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 355 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
035-000830	11	98	91	79	64	82	90	14	6
035-001230	9	97	90	77	63	81	88	14	6
035-001930	9	96	90	76	62	81	87	14	6
035-002430	9	96	90	77	62	81	87	15	6
035-003030	9	94	90	75	61	81	86	15	7
035-003830	9	95	91	76	62	82	86	15	7
035-004830	9	95	92	77	62	83	86	15	7
035-006030	9	96	93	78	64	84	87	15	7
035-007530	9	97	95	81	65	86	88	15	7
035-009515	11	96	91	82	66	82	86	16	10
035-009530	9	98	97	82	67	88	89	15	7
035-011815	11	96	92	83	66	82	87	16	10
035-011830	9	99	98	83	68	88	90	15	7
035-015015	11	97	94	84	67	84	87	17	10
035-015030	9	100	99	85	69	90	91	16	7
035-019015	11	98	94	85	68	85	88	17	10
035-019030	9	102	101	87	71	92	92	16	7
035-023615	11	99	96	86	69	86	89	17	10
035-023630	9	103	103	88	72	93	93	16	7
035-030015	11	100	98	88	70	88	90	17	10
035-030030	9	105	104	90	74	95	95	16	7
035-037515	11	101	99	89	71	89	91	18	10
035-047515	9	102	101	91	73	91	92	18	10
035-060015	9	103	103	92	74	92	93	18	10
035-075015	9	105	104	94	75	93	94	19	10
035-095015	9	106	106	96	77	95	95	19	10
035-118015	9	108	107	98	78	96	96	19	9
035-150015	9	109	109	100	80	97	97	20	9
035-190010	11	107	106	99	78	94	94	21	11
035-190015	11	110	110	102	82	98	98	20	10
035-236010	11	108	108	100	79	95	95	21	11
035-300010	11	109	109	102	81	96	96	22	11
035-375010	11	111	111	104	82	97	97	22	11
035-475010	11	112	113	107	84	99	98	23	11

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{PA} dB(A)	L _{PA5} dB(A)	L _{PA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
040-000630	11	100	92	82	67	83	92	14	6
040-001030	11	99	91	79	65	82	90	14	6
040-001630	9	98	91	78	64	82	89	14	6
040-002030	9	97	91	77	63	82	88	14	6
040-002530	9	97	92	79	64	83	88	15	6
040-003130	9	98	93	80	65	84	89	15	6
040-004030	9	96	92	78	64	83	87	15	7
040-005030	9	97	93	79	64	84	88	15	7
040-006330	9	97	94	80	65	85	88	15	7
040-008030	9	99	96	82	66	87	89	15	7
040-010030	9	100	98	83	68	88	90	15	7
040-012515	11	98	93	84	67	83	88	17	10
040-012530	9	100	98	84	69	89	91	16	7
040-016015	11	98	95	85	68	85	89	17	10
040-016030	9	102	100	86	70	91	92	16	7
040-020015	11	99	96	86	69	86	89	17	10
040-020030	9	103	102	87	71	93	93	16	7
040-025015	11	100	97	87	70	87	90	17	10
040-025030	9	104	104	89	73	94	94	16	7
040-031515	11	101	99	89	71	89	91	17	10
040-031530	9	106	105	91	75	95	96	16	7
040-040015	11	102	101	90	73	90	92	18	10
040-040030	9	107	107	94	77	97	97	17	7
040-050015	9	103	102	91	73	92	93	18	10
040-063015	9	104	104	93	75	93	94	18	10
040-080015	9	106	105	95	76	94	95	19	10
040-100015	9	107	107	97	78	96	96	19	9
040-125015	9	109	108	99	79	97	97	19	9
040-160015	11	110	110	101	81	98	98	20	10
040-200015	11	111	111	103	82	99	99	20	10
040-250010	11	109	109	101	80	96	96	21	11
040-315010	11	110	110	103	82	97	97	22	11
040-400010	11	112	112	106	84	98	98	22	11
040-500010	11	113	114	107	85	100	99	23	11

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 450 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
045-000930	11	101	92	82	68	83	92	15	6
045-001330	11	99	92	81	66	83	91	15	6
045-002130	9	98	92	80	65	83	89	15	6
045-002730	9	99	93	80	66	84	90	15	6
045-003430	9	99	94	81	66	85	90	15	6
045-004230	9	97	93	80	65	84	89	15	7
045-005330	9	98	94	81	66	85	89	15	7
045-006730	9	99	96	82	67	87	90	15	7
045-008530	9	100	97	83	68	88	91	15	7
045-010630	9	101	98	85	69	89	91	16	7
045-013215	11	100	94	86	69	85	90	17	9
045-013230	9	101	99	85	69	90	92	16	7
045-017015	11	100	96	86	69	86	90	17	10
045-017030	9	103	101	87	71	92	93	16	7
045-021215	11	101	97	88	70	87	91	17	10
045-021230	9	104	103	89	72	93	94	16	7
045-026515	11	101	98	89	71	88	91	17	10
045-026530	9	105	105	90	74	95	95	16	7
045-033515	11	102	100	90	73	90	92	18	10
045-033530	9	107	106	93	76	96	97	17	7
045-042515	11	103	101	91	73	91	93	18	10
045-042530	9	108	108	94	77	98	98	17	7
045-053015	11	104	102	92	74	92	94	18	10
045-053030	9	109	110	96	79	99	99	17	7
045-067015	9	106	104	94	76	94	95	18	10
045-085015	9	107	106	96	78	95	96	19	10
045-106015	9	108	108	98	79	96	97	19	9
045-132015	11	109	109	99	80	97	98	19	10
045-170015	11	111	111	102	82	99	99	20	10
045-212015	11	112	112	104	83	100	100	20	10
045-265010	11	110	109	102	81	97	97	21	11
045-335010	11	111	111	104	83	98	98	22	11
045-425010	11	113	113	107	84	99	99	22	11
045-530010	11	114	114	108	85	100	100	23	11

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
050-000730	11	103	93	84	69	85	94	15	6
050-001130	11	101	92	83	68	84	93	15	6
050-001830	9	100	93	81	66	84	91	15	5
050-002230	9	100	93	81	66	84	91	15	6
050-002830	9	100	94	82	67	85	91	15	5
050-003530	9	100	95	82	67	86	91	15	5
050-004530	9	101	96	83	68	87	92	15	5
050-005630	9	99	95	82	67	86	90	15	7
050-007130	9	100	97	84	69	88	91	15	7
050-009030	9	101	98	85	69	88	92	15	7
050-011230	9	102	99	85	69	90	93	16	7
050-014015	11	101	96	87	70	86	91	17	10
050-014030	9	103	101	86	71	92	93	16	7
050-018015	11	101	96	88	71	87	91	17	10
050-018030	9	104	102	88	72	92	94	16	7
050-022415	11	102	98	89	72	88	92	17	10
050-022430	9	105	104	90	73	94	95	16	7
050-028015	11	103	100	90	73	90	93	18	10
050-028030	9	106	106	92	75	96	97	17	7
050-035515	11	103	100	91	73	90	93	18	10
050-035530	9	108	107	94	77	97	98	17	7
050-045015	11	104	102	92	74	92	94	18	10
050-045030	9	109	109	95	78	99	99	17	7
050-056015	11	105	104	94	75	93	95	18	10
050-056030	9	111	111	97	80	100	100	17	7
050-071015	9	107	105	96	77	95	96	19	9
050-071030	9	112	113	100	82	102	102	18	7
050-090015	9	108	107	97	78	96	97	19	9
050-112015	11	109	108	99	80	97	98	19	10
050-140015	11	110	110	101	81	98	99	20	10
050-180015	11	111	111	102	82	100	100	20	10
050-224015	11	113	113	104	83	101	101	20	10
050-280010	11	110	110	103	82	98	98	21	11
050-355010	11	112	112	106	84	99	99	22	11
050-450010	11	114	114	108	85	100	100	22	11
050-560010	11	115	115	109	86	101	101	23	11

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 560 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
056-000830	11	104	94	86	71	86	95	15	6
056-001530	11	102	93	84	69	85	93	15	6
056-002430	9	101	94	83	69	85	93	15	5
056-003030	9	101	95	84	69	86	93	15	5
056-003830	9	102	96	84	69	87	93	15	5
056-004830	9	100	95	83	68	86	91	15	7
056-006030	9	101	96	83	68	87	92	15	7
056-007530	9	102	98	84	69	89	92	15	7
056-009515	11	102	95	88	71	86	92	17	9
056-009530	9	102	99	85	70	90	93	16	7
056-011815	11	102	96	88	71	86	92	17	9
056-011830	9	103	100	86	71	91	94	16	7
056-015015	11	102	97	89	72	88	93	17	9
056-015030	9	104	102	87	72	92	95	16	7
056-019015	11	103	98	89	72	88	93	17	9
056-019030	9	105	104	90	74	94	96	16	7
056-023615	11	103	99	90	72	89	93	18	10
056-023630	9	106	105	91	75	95	97	16	7
056-030015	11	104	101	91	74	91	94	18	10
056-030030	9	108	107	93	76	97	98	17	7
056-037515	11	105	101	92	74	91	95	18	10
056-037530	9	109	108	94	77	98	99	17	7
056-047515	11	106	103	94	75	93	95	18	10
056-047530	9	110	110	96	79	100	100	17	7
056-060015	11	106	105	95	77	94	96	18	10
056-060030	9	112	112	98	81	101	101	17	7
056-075015	11	107	106	96	78	95	97	19	10
056-075030	9	113	113	100	82	103	103	18	7
056-095015	11	109	108	98	79	97	98	19	10
056-118015	11	110	109	100	81	98	99	19	10
056-150015	11	111	111	102	82	99	100	20	10
056-190010	13	110	108	101	80	96	98	21	11
056-236010	11	111	110	103	82	97	99	21	11
056-300010	11	112	111	105	83	99	100	22	11
056-375010	11	113	113	107	85	100	100	22	11
056-475010	11	115	115	108	86	101	101	23	11
056-600010	11	116	116	110	87	102	102	23	11

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 630 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
063-000830	11	105	95	86	71	86	96	15	6
063-001230	11	104	95	86	71	86	95	15	6
063-002030	11	102	94	83	68	85	93	15	6
063-002530	9	102	96	84	69	87	94	15	5
063-003130	9	103	96	85	70	87	94	15	5
063-004030	9	103	97	85	70	88	94	15	5
063-005030	9	104	99	86	71	90	95	15	5
063-006330	9	104	99	86	71	90	95	15	5
063-008030	9	103	99	86	70	90	94	16	7
063-010030	9	104	100	87	71	91	94	16	7
063-012530	9	104	101	88	72	92	95	16	7
063-016015	11	104	99	91	73	89	94	17	9
063-016030	11	105	102	89	73	93	95	16	7
063-020015	11	104	100	91	74	90	94	18	10
063-020030	11	106	104	91	74	95	97	16	7
063-025015	11	105	100	92	74	90	95	18	10
063-025030	11	107	105	92	76	96	97	16	7
063-031515	11	105	102	93	75	91	95	18	10
063-031530	9	109	108	94	77	98	99	17	7
063-040015	11	106	103	94	76	93	96	18	10
063-040030	9	110	109	96	79	99	100	17	7
063-050015	11	107	104	95	77	93	96	18	10
063-050030	9	111	111	97	80	101	101	17	7
063-063015	11	108	105	96	77	95	97	19	10
063-063030	9	113	113	100	82	102	103	17	7
063-080015	13	109	107	98	79	96	98	19	10
063-080030	9	115	114	102	84	104	104	18	7
063-100015	13	110	108	99	80	97	99	19	10
063-125015	11	111	110	101	82	99	100	20	10
063-160015	11	112	112	103	83	100	101	20	10
063-200015	11	113	113	104	84	101	101	20	10
063-250015	11	115	115	106	85	103	103	21	10
063-315015	11	116	116	108	87	104	104	21	9
063-400010	11	114	114	108	85	101	101	22	11
063-500010	11	115	115	109	86	102	102	23	11
063-630010	11	117	117	112	88	103	103	23	11

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 710 daPa 50 Hz 180°C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
071-000930	11	106	96	88	73	87	98	15	6
071-001330	11	105	96	87	72	87	96	15	6
071-002130	11	104	95	86	70	87	95	15	6
071-002730	9	104	97	86	71	88	95	15	5
071-003430	9	105	97	87	72	88	96	15	5
071-004230	9	105	98	87	72	90	96	15	5
071-005330	11	105	99	88	72	90	96	16	6
071-006730	9	104	99	87	71	90	95	16	7
071-008530	11	104	99	87	72	90	95	16	7
071-010630	11	104	101	88	72	92	95	16	7
071-013230	11	105	101	89	73	92	96	16	7
071-017015	11	106	100	93	75	90	96	18	9
071-017030	11	106	103	90	74	94	97	16	7
071-021215	11	106	101	93	76	91	96	18	9
071-021230	11	107	105	92	76	96	98	16	7
071-026515	11	107	101	94	76	92	97	18	9
071-026530	11	108	106	93	77	96	98	17	7
071-033515	11	107	102	94	76	92	97	18	10
071-033530	9	110	109	95	78	99	100	17	7
071-042515	11	107	104	95	77	94	97	18	10
071-042530	9	111	110	97	80	100	101	17	7
071-053015	11	108	105	96	77	94	98	18	10
071-053030	9	112	112	99	81	102	102	17	7
071-067015	13	109	106	97	78	96	98	19	10
071-067030	9	114	114	101	83	103	104	18	7
071-085015	13	110	108	99	80	97	99	19	10
071-106015	13	111	109	100	81	98	100	19	10
071-132015	11	112	111	102	83	100	101	20	10
071-170015	11	114	113	104	84	101	102	20	10
071-212015	11	115	114	105	85	102	103	20	10
071-265015	11	116	116	107	87	104	104	21	10
071-335010	11	114	113	107	85	101	102	22	11
071-425010	11	116	115	109	86	102	103	22	11
071-530010	11	117	116	111	88	103	103	23	11

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
080-000930	13	107	96	90	74	88	99	15	6
080-001430	13	106	96	88	73	88	97	15	6
080-002230	13	105	96	87	72	88	96	15	6
080-002830	13	105	97	87	72	88	96	15	6
080-003530	11	105	99	88	73	90	97	15	6
080-004530	11	106	99	88	73	90	97	15	6
080-005630	11	106	100	89	73	91	97	16	6
080-007130	11	107	102	90	74	93	98	16	6
080-009030	11	105	101	89	73	91	96	16	7
080-011230	11	106	102	89	73	93	96	16	7
080-014030	11	106	103	90	74	94	97	16	7
080-018015	13	107	101	94	76	91	97	18	9
080-018030	11	107	104	92	75	95	98	16	7
080-022415	13	107	102	94	77	92	97	18	9
080-022430	11	108	106	93	76	96	99	17	7
080-028015	13	108	103	95	77	93	97	18	10
080-028030	11	110	108	95	78	98	100	17	7
080-035515	13	108	103	96	77	93	98	18	10
080-035530	11	111	109	96	79	99	101	17	7
080-045015	13	108	105	96	78	94	98	18	10
080-045030	9	112	111	98	81	101	102	17	7
080-056030	9	114	113	100	82	103	104	18	7
080-071015	13	110	107	99	80	97	100	19	10
080-090015	13	111	109	101	81	98	100	19	10
080-112015	11	112	111	102	82	99	101	19	10
080-140015	11	113	112	103	84	101	102	20	10
080-180015	11	114	113	104	84	102	103	20	10
080-224015	11	116	115	106	86	103	104	20	10
080-280015	11	117	117	108	87	104	105	21	9
080-355010	11	115	114	108	86	101	102	22	11
080-450010	11	117	116	110	88	103	104	23	11
080-560010	11	118	117	112	89	104	104	23	11

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 900 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
090-000930	13	109	97	92	76	89	100	15	6
090-001430	13	107	97	89	74	89	99	15	6
090-002430	13	107	97	89	73	89	98	15	6
090-003030	13	107	98	89	73	90	98	15	6
090-003830	11	107	100	89	74	91	98	15	5
090-004830	11	107	101	90	74	92	98	15	5
090-006030	11	108	101	91	75	92	99	16	5
090-007530	11	108	103	91	76	94	99	16	5
090-009530	11	107	102	90	74	93	97	16	7
090-011830	11	107	103	91	74	93	98	16	7
090-015030	11	108	104	92	76	95	98	16	7
090-019015	13	109	102	95	77	92	99	18	9
090-019030	11	109	106	93	77	97	99	16	7
090-023615	13	109	103	96	78	93	99	18	9
090-023630	11	110	107	94	77	97	100	17	7
090-030015	13	110	105	97	79	94	99	18	9
090-030030	11	111	109	96	79	99	101	17	7
090-037515	13	110	105	97	79	95	100	18	9
090-037530	11	112	110	97	80	100	102	17	7
090-047515	13	110	106	98	79	95	99	19	10
090-047530	9	114	113	100	82	103	104	17	7
090-060030	9	115	114	101	84	104	105	18	7
090-075015	13	112	108	100	81	98	101	19	10
090-095015	13	112	110	102	83	99	101	19	10
090-118015	13	113	111	103	83	100	102	20	10
090-150015	13	115	113	104	84	101	103	20	10
090-190010	13	113	110	105	84	98	101	21	11
090-236010	13	114	112	106	85	99	102	22	11
090-300010	13	115	114	108	86	101	103	22	11
090-375010	13	116	115	109	87	102	104	22	11
090-475010	11	118	117	111	88	104	105	23	11
090-600010	11	119	118	113	90	105	106	23	11

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
100-001030	13	113	101	95	80	92	104	15	6
100-001630	13	112	101	94	78	92	103	15	6
100-002530	13	110	101	92	76	92	101	16	6
100-003130	13	109	100	91	76	92	100	16	6
100-004030	13	108	100	91	75	92	99	16	6
100-005030	11	109	102	91	75	93	100	16	5
100-006330	11	109	102	92	76	93	100	16	5
100-008030	11	110	104	93	77	95	101	16	5
100-010030	11	108	103	92	75	94	99	16	7
100-012530	11	109	104	92	76	95	99	16	7
100-016030	11	109	105	93	77	96	100	16	7
100-020030	11	110	107	94	78	98	101	17	7
100-025015	13	110	104	98	80	94	101	18	9
100-025030	11	111	108	95	79	98	101	17	7
100-031515	13	111	105	98	80	95	101	18	9
100-031530	11	112	110	97	80	100	102	17	7
100-040015	13	110	106	98	80	96	100	19	10
100-040030	11	113	112	99	81	102	103	17	7
100-050030	9	115	113	101	83	103	105	17	7
100-063030	9	116	115	103	85	105	106	18	7
100-080015	13	112	109	102	82	99	101	19	10
100-080030	9	118	117	105	87	106	107	18	7
100-100015	13	113	110	103	83	99	102	19	10
100-125015	13	114	112	103	84	101	103	20	10
100-160015	11	115	114	105	85	102	104	20	10
100-200015	11	116	115	107	87	104	105	20	9
100-250015	11	118	117	109	88	105	106	21	9
100-315015	11	119	119	111	90	106	107	21	9
100-400015	11	121	120	112	91	108	108	22	9
100-500010	11	119	117	112	89	104	106	23	11

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1120 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
112-001030	13	114	102	97	82	93	106	16	6
112-001630	13	113	102	95	80	93	104	16	6
112-002530	13	111	102	93	78	93	102	16	6
112-003130	13	110	101	93	77	93	102	16	6
112-004030	13	109	101	92	76	93	101	16	6
112-005030	11	110	103	93	77	94	101	16	5
112-006330	11	110	103	93	77	94	101	16	5
112-008030	11	111	105	94	78	96	102	16	5
112-010030	11	111	106	95	79	97	102	16	5
112-012530	11	112	107	95	79	97	102	16	5
112-016030	11	110	106	95	78	97	101	17	7
112-020030	11	111	108	96	79	98	102	17	7
112-025015	13	112	105	100	81	95	102	18	9
112-025030	11	112	109	97	80	99	102	17	7
112-031515	13	112	106	100	81	96	102	19	9
112-031530	11	113	110	98	81	101	103	17	7
112-040015	13	112	107	100	81	96	101	19	10
112-040030	11	114	112	99	82	102	104	17	7
112-050030	11	115	113	101	84	103	105	17	7
112-063015	13	113	109	102	83	98	102	19	10
112-063030	9	117	116	103	85	105	107	18	7
112-080015	13	113	110	103	83	99	102	19	10
112-080030	9	118	117	105	87	107	108	18	7
112-100015	13	114	111	103	83	100	103	19	10
112-125015	13	115	113	105	85	101	104	20	10
112-160015	13	116	114	106	86	103	105	20	10
112-200015	13	117	116	108	87	104	106	20	10
112-250015	11	119	117	110	89	106	107	21	9
112-315015	11	120	119	112	90	107	108	21	9
112-400015	11	121	121	113	92	108	109	22	9

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
KXE	z								
125-001030	13	116	103	99	83	94	107	16	6
125-001630	13	114	103	97	82	94	106	16	6
125-002530	13	113	103	96	80	94	104	16	6
125-003130	13	112	103	95	79	94	103	16	6
125-004030	13	111	103	94	78	94	102	16	6
125-005030	13	111	103	94	78	94	102	16	6
125-006330	13	111	104	95	79	95	102	16	6
125-008030	11	112	106	96	80	97	103	16	5
125-010030	11	113	107	97	80	98	103	17	5
125-012530	11	113	108	97	81	98	104	17	5
125-016030	11	111	107	96	79	97	102	17	7
125-020030	11	112	108	96	80	99	103	17	7
125-025030	11	113	109	98	81	100	103	17	7
125-031530	11	114	111	99	82	101	104	17	7
125-040030	11	115	113	101	83	103	105	17	7
125-050030	11	116	114	102	84	104	106	18	7
125-063015	13	114	109	102	83	99	103	19	10
125-063030	11	117	116	104	86	106	107	18	7
125-080015	13	114	111	103	84	100	104	19	10
125-100015	13	115	112	104	85	101	104	20	10
125-125015	13	116	113	106	86	102	105	20	10
125-160015	13	117	115	107	87	103	105	20	10
125-200015	13	118	116	109	88	105	107	21	10
125-250015	13	119	118	111	90	106	108	21	10
125-315015	11	121	120	112	91	107	109	21	9
125-400015	11	122	121	114	92	109	110	22	9

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1400 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
140-001030	13	117	104	99	83	95	108	16	6
140-001630	13	116	104	98	82	95	107	16	6
140-002530	13	114	104	97	81	95	105	16	6
140-003130	13	114	104	96	80	95	105	16	6
140-004030	13	112	103	95	79	95	104	16	6
140-005030	13	112	104	95	79	95	103	16	6
140-006330	13	113	105	96	80	96	104	16	5
140-008030	11	114	107	97	81	98	105	16	5
140-010030	11	114	108	98	81	99	105	17	5
140-012530	11	114	108	98	82	99	105	17	5
140-016030	11	115	110	99	82	100	105	17	5
140-020030	11	113	109	98	81	100	104	17	7
140-025030	11	114	110	99	82	100	105	17	7
140-031530	11	115	112	100	83	102	105	17	7
140-040030	11	116	114	102	85	104	106	18	7
140-050015	13	115	110	104	84	99	105	19	9
140-050030	11	117	115	103	86	105	107	18	7
140-063015	13	115	110	104	85	100	105	19	10
140-063030	11	118	116	105	87	106	108	18	7
140-080015	13	116	112	105	85	101	105	20	10
140-100015	13	116	112	106	86	102	106	20	10
140-125015	13	117	114	107	87	103	106	20	10
140-160015	13	118	116	109	88	104	107	20	10
140-200015	13	119	117	110	89	105	108	21	10
140-250015	13	120	118	111	90	107	108	21	10
140-315015	13	122	120	113	92	108	110	21	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1600 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
KXE	z								
160-001630	13	118	105	101	85	96	109	16	5
160-002530	13	116	105	99	83	97	107	16	5
160-003130	13	115	105	99	82	96	107	16	5
160-004030	13	114	105	98	81	96	105	17	5
160-005030	13	114	106	98	81	97	105	17	5
160-006330	13	115	106	99	82	97	106	17	5
160-008030	13	115	108	99	83	99	106	17	5
160-010030	11	116	109	100	83	100	107	17	5
160-012530	11	116	110	101	84	100	107	17	5
160-016030	11	116	111	101	84	102	107	17	5
160-020030	11	115	110	100	83	101	105	17	7
160-025030	11	115	111	101	83	101	106	17	7
160-031530	11	116	113	102	84	103	107	17	7
160-040030	11	118	115	104	86	105	108	18	7
160-050015	13	117	111	106	86	100	107	20	9
160-050030	11	118	115	105	87	105	108	18	7
160-063015	13	117	112	106	87	101	107	20	9
160-063030	11	119	117	106	88	107	109	18	7
160-080015	13	117	113	106	87	102	106	20	10
160-100015	13	118	113	108	87	102	107	20	10
160-125015	13	118	115	108	88	103	107	20	10
160-160015	13	120	117	110	89	105	108	21	10
160-200015	13	121	117	111	90	106	109	21	10
160-250015	13	121	119	112	91	107	109	21	10
160-315015	13	123	121	114	92	109	110	22	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
180-001630	13	119	106	102	86	97	111	16	5
180-002530	13	118	106	101	84	98	109	16	5
180-003130	13	117	106	100	84	97	108	16	5
180-004030	13	116	106	99	83	97	107	17	5
180-005030	13	116	107	99	83	98	107	17	5
180-006330	13	116	107	100	84	98	107	17	5
180-008030	13	117	109	101	84	100	108	17	5
180-010030	11	117	110	102	85	101	108	17	5
180-012530	11	118	111	102	85	102	108	17	5
180-016030	11	118	112	103	85	102	108	17	5
180-020030	11	118	113	103	86	104	109	17	5
180-025030	11	119	114	104	87	104	109	17	5
180-031530	11	118	113	103	86	104	108	17	7
180-040030	11	119	115	105	87	106	109	18	7
180-050030	11	119	116	106	88	106	109	18	7
180-063015	13	119	113	108	88	102	108	20	9
180-063030	11	120	118	107	88	108	110	18	7
180-080015	13	119	114	109	89	103	108	20	9
180-100015	13	119	114	109	89	103	108	20	10
180-125015	13	119	115	110	89	104	108	20	10
180-160015	13	121	117	111	90	106	109	21	10
180-200015	13	122	118	112	91	107	110	21	10
180-250015	13	122	120	113	92	108	110	21	10
180-315015	13	124	121	115	93	109	111	22	9

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 2000 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
KXE	z								
200-002530	13	119	107	103	86	99	110	17	5
200-003130	13	119	107	102	86	98	110	17	5
200-004030	13	118	107	101	85	98	109	17	5
200-005030	13	117	108	101	85	99	108	17	5
200-006330	13	118	108	102	85	99	109	17	5
200-008030	13	118	110	102	86	101	109	17	5
200-010030	11	119	111	103	86	102	109	17	5
200-012530	11	119	112	103	86	102	110	17	5
200-016030	11	119	113	104	87	103	110	17	5
200-020030	11	120	114	105	88	105	110	17	5
200-025030	11	120	115	105	88	105	111	17	5
200-031530	11	119	114	104	86	105	109	18	7
200-040030	11	120	116	105	88	106	110	18	7
200-050015	13	120	113	110	90	102	110	20	9
200-050030	11	120	117	106	88	107	111	18	7
200-063015	13	120	114	109	89	103	109	20	9
200-080015	13	120	115	110	89	104	109	20	9
200-100015	13	121	116	111	90	105	110	20	9
200-125015	13	121	116	111	90	105	109	21	10
200-160015	13	122	118	113	91	107	110	21	10
200-200015	13	123	119	114	92	107	111	21	10
200-250015	13	124	120	115	93	109	112	22	9

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 2250 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
225-002530	7	120	108	103	87	99	112	17	5
225-003130	7	120	108	103	86	99	111	17	5
225-004030	7	119	108	102	86	99	110	17	5
225-005030	7	119	109	102	85	100	110	17	5
225-006330	7	119	109	103	86	100	110	17	5
225-008030	7	120	111	103	86	102	110	17	5
225-010030	7	120	112	103	86	102	110	17	5
225-012530	7	120	112	104	87	103	111	17	5
225-016030	7	120	113	104	87	104	110	17	5
225-020030	7	120	114	105	87	105	111	17	5
225-025030	7	121	115	106	88	106	111	18	5
225-031530	7	119	114	104	87	105	110	18	7
225-040030	7	120	116	106	88	106	110	18	7
225-050015	15	121	113	110	90	103	111	20	9
225-050030	7	121	117	107	89	107	111	18	7
225-063015	13	122	115	111	91	104	111	20	9
225-080015	13	122	116	111	91	105	111	20	9
225-100015	13	122	117	112	92	106	111	21	9
225-125015	13	122	117	112	91	106	111	21	9
225-160015	13	123	119	114	93	107	111	21	9
225-200015	13	124	120	115	94	108	112	22	9
225-250015	13	125	121	116	94	109	113	22	9

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 2500 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
KXE	z								
250-002530	7	122	109	105	88	100	113	17	5
250-003130	7	121	109	105	88	100	113	17	5
250-004030	7	120	109	104	87	100	112	17	5
250-005030	7	120	110	104	87	101	111	17	5
250-006330	7	121	110	105	87	101	112	17	5
250-008030	7	121	112	105	88	103	112	17	5
250-010030	7	121	113	105	88	103	112	17	5
250-012530	7	121	113	106	88	104	112	17	5
250-016030	7	121	114	106	89	105	112	17	5
250-020030	7	122	115	107	89	106	112	17	5
250-025030	7	122	116	107	90	106	113	18	5
250-031530	7	123	118	108	91	108	113	18	5
250-040030	7	122	117	108	89	107	112	18	7
250-050015	15	123	114	112	92	104	112	20	9
250-050030	7	122	118	108	90	108	112	18	7
250-063015	13	123	116	113	93	105	113	21	9
250-080015	13	124	117	113	93	106	113	21	9
250-100015	13	124	118	114	93	107	113	21	9
250-125015	13	124	119	115	94	108	113	21	9
250-160015	13	124	120	115	94	108	113	21	9
250-200015	13	125	120	116	94	109	113	22	9
250-250015	13	126	122	117	95	110	114	22	9

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 2800 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
KXE	z								
280-002530	7	123	110	107	90	101	114	17	5
280-003130	7	123	110	107	90	101	114	17	5
280-004030	7	122	110	106	89	101	113	17	5
280-005030	7	122	111	106	89	102	113	17	5
280-006330	7	123	112	107	89	103	114	17	5
280-008030	7	123	113	107	90	104	114	17	5
280-010030	7	123	114	107	90	105	113	17	5
280-012530	7	123	114	108	90	105	114	18	5
280-016030	7	123	115	108	90	106	114	18	5
280-020030	7	123	117	108	91	107	114	18	5
280-025030	7	124	117	109	91	107	114	18	5
280-031530	7	124	118	110	92	109	115	18	5
280-040030	7	125	120	111	93	110	115	18	5
280-050030	7	126	121	112	94	111	116	18	5
280-063030	7	124	120	111	93	110	114	19	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 3150 daPa 50 Hz 180 °C

Efficiency grade N61, measuring category „C“, suction side tube test, SFV 1.0 and SFV2.4

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
KXE	z								
315-002530	7	125	111	109	92	102	116	17	5
315-003130	7	125	111	109	92	102	116	17	5
315-004030	7	124	111	108	91	102	115	17	5
315-005030	7	124	112	108	91	103	115	17	5
315-006330	7	124	113	109	91	104	115	17	5
315-008030	7	125	114	109	92	105	115	17	5
315-010030	7	124	115	109	92	106	115	18	5
315-012530	7	125	115	110	92	106	115	18	5
315-016030	7	125	116	110	92	107	115	18	5
315-020030	7	125	118	110	93	108	115	18	5
315-025030	7	125	118	111	93	108	116	18	5
315-031530	7	126	120	112	94	110	116	18	5
315-040030	7	127	121	113	94	111	117	18	5
315-050030	7	127	121	113	94	112	117	19	5

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 125 daPa 50 Hz 180°C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
012-000530	9	86	82	73	60	73	77	13	8
012-000930	9	85	81	73	60	72	76	13	8
012-001130	9	84	80	74	60	72	75	13	8
012-001430	9	84	81	74	61	72	75	13	8
012-001830	9	83	81	74	61	73	75	14	8
012-002230	9	84	81	75	61	73	75	14	8
012-002830	9	85	83	76	62	74	76	14	8
012-003530	9	86	84	76	62	76	77	14	8
012-004530	9	87	86	77	63	77	78	14	8
012-005615	9	84	81	73	58	72	75	15	10
012-005630	9	88	87	78	63	78	79	14	8
012-007115	9	85	83	74	59	74	76	15	10
012-007130	9	90	89	79	64	80	80	14	8
012-009015	9	86	84	75	59	75	77	15	10
012-009030	9	91	91	80	65	82	82	15	8
012-011215	9	87	86	76	60	77	78	15	10
012-014015	9	89	88	77	62	78	79	16	10
012-018015	9	90	89	79	63	80	80	16	10
012-022415	9	91	91	80	64	81	81	16	10
012-028015	9	93	93	82	66	82	82	17	10
012-035515	9	95	94	84	67	84	84	17	10
012-045015	9	96	96	86	68	85	85	17	10
012-056015	9	97	97	88	70	86	86	18	10
012-071015	9	98	99	89	71	87	87	18	10
012-090010	9	97	97	88	69	85	85	19	12
012-112010	11	98	98	90	71	86	86	19	11
012-140008	11	97	97	90	70	85	84	20	12
012-180008	11	99	99	92	72	86	86	20	12

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 160 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
RGE	z								
016-000630	9	88	83	74	60	75	79	13	8
016-001030	9	87	82	74	61	73	78	13	8
016-001230	9	86	82	74	61	74	78	13	8
016-001630	9	86	82	75	61	73	77	14	8
016-002030	9	85	82	75	62	74	77	14	8
016-002530	9	86	84	76	62	75	77	14	8
016-003130	9	87	85	77	63	76	78	14	8
016-004030	9	88	86	77	63	77	79	14	8
016-005030	9	89	88	78	64	79	80	14	8
016-006315	11	87	83	75	59	74	77	15	10
016-006330	9	90	89	79	65	80	81	14	8
016-008015	11	87	85	76	60	75	78	15	10
016-008030	9	92	91	80	66	82	83	15	8
016-010015	11	89	87	77	61	77	79	15	10
016-010030	9	93	93	81	66	83	84	15	7
016-012515	11	89	88	78	62	78	80	16	10
016-012530	9	94	94	82	67	85	85	15	7
016-016015	9	91	90	79	63	80	81	16	10
016-016026	9	95	95	84	68	85	86	15	8
016-020015	9	92	92	81	65	82	82	16	10
016-020023	9	97	97	85	70	87	87	16	8
016-025015	9	93	93	82	66	83	83	16	10
016-031515	9	95	95	84	67	84	84	17	10
016-040015	9	96	96	86	69	86	86	17	10
016-050015	9	98	98	88	70	87	87	18	10
016-063015	9	99	99	90	72	88	88	18	10
016-080010	9	98	97	89	70	86	86	19	12
016-100010	9	99	99	90	71	87	87	19	12
016-125010	11	100	100	92	73	88	88	19	11
016-160008	11	99	99	92	72	87	87	20	12
016-200008	11	101	101	94	74	88	87	21	12

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 200 daPa 50 Hz 180°C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
020-000730	9	92	86	76	62	78	83	14	6
020-001130	9	91	85	76	62	77	82	14	6
020-001430	9	88	84	75	62	75	80	14	8
020-001830	9	88	84	76	62	75	79	14	8
020-002230	9	88	84	76	63	75	79	14	8
020-002830	9	88	86	77	63	77	80	14	8
020-003530	9	89	87	78	64	78	80	14	8
020-004530	9	90	88	79	64	79	81	14	8
020-005630	9	91	90	80	65	81	82	14	8
020-007115	11	89	86	77	61	76	80	16	10
020-007130	9	93	92	81	66	83	84	15	7
020-009015	11	90	86	77	62	77	80	15	10
020-009030	9	94	93	82	67	84	85	15	7
020-011215	11	91	88	79	63	79	81	16	10
020-011230	9	95	95	83	68	85	86	15	7
020-014015	11	92	90	80	64	81	82	16	10
020-014030	9	96	96	84	69	87	87	15	7
020-018015	11	93	91	81	65	81	83	16	10
020-018030	9	98	98	86	70	88	88	15	7
020-022415	9	94	93	83	67	83	84	16	10
020-022426	9	98	99	86	71	87	88	16	8
020-028015	9	96	95	84	67	85	86	17	10
020-028023	9	100	100	88	72	90	90	16	8
020-035515	9	97	96	85	69	86	86	17	10
020-045015	9	98	98	87	70	87	87	17	10
020-056015	9	99	100	89	72	89	89	18	10
020-071015	9	101	101	91	73	90	90	18	10
020-090015	9	103	103	93	75	91	91	18	10
020-112010	11	100	100	92	73	88	88	19	11
020-140010	11	102	102	93	74	90	89	20	11
020-180010	11	103	104	96	76	91	91	20	11
020-224008	11	103	103	96	76	90	89	21	12

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 250 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

Type selection

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
RGE	z								
025-000530	9	96	89	78	64	81	87	14	6
025-000830	9	94	88	77	63	79	86	14	6
025-001230	9	93	87	77	63	79	84	14	6
025-001630	9	92	87	77	64	78	84	14	6
025-002030	9	90	85	77	63	77	81	14	8
025-002530	9	90	87	78	64	78	82	14	8
025-003130	9	91	87	78	64	78	82	14	8
025-004030	9	92	89	79	65	80	83	14	8
025-005030	9	93	90	80	66	81	84	14	7
025-006330	9	93	91	81	67	82	84	14	7
025-008015	11	91	87	79	63	78	82	16	10
025-008030	9	95	93	82	67	84	86	15	7
025-010015	11	92	89	80	64	80	83	16	10
025-010030	9	96	95	83	68	86	87	15	7
025-012515	11	93	90	81	65	80	84	16	10
025-012530	9	97	96	84	69	87	88	15	7
025-016015	11	94	92	83	66	82	85	16	10
025-016030	9	98	98	86	71	89	89	15	7
025-020015	11	95	94	84	68	84	86	16	10
025-020030	9	100	100	87	72	90	90	15	7
025-025015	11	96	95	84	68	85	86	17	10
025-025030	9	101	101	88	72	91	91	16	7
025-031515	9	98	97	86	69	87	88	17	10
025-031526	9	102	102	89	73	92	92	16	8
025-040015	9	99	98	88	71	88	89	17	10
025-040023	9	104	104	91	75	93	93	16	8
025-050015	9	100	100	89	72	89	89	17	10
025-063015	9	101	101	91	74	90	90	18	10
025-080015	9	103	103	92	75	92	92	18	10
025-100015	9	105	105	95	77	93	93	18	10
025-125015	9	106	106	97	78	94	94	19	9
025-160010	11	104	104	96	76	91	91	20	11
025-200010	11	105	105	98	78	93	92	20	11
025-250010	11	106	107	99	78	94	93	21	11

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 315 daPa 50 Hz 180°C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
031-000530	9	98	91	80	66	82	89	14	6
031-000930	9	96	89	79	65	81	88	14	6
031-001430	9	95	89	79	65	80	86	14	6
031-001830	9	94	89	79	65	80	86	14	6
031-002230	9	94	89	79	65	80	86	14	6
031-002830	9	93	89	79	65	80	84	14	7
031-003530	9	93	90	80	66	81	85	14	7
031-004530	9	94	91	81	66	82	85	14	7
031-005615	11	94	88	80	65	79	84	16	9
031-005630	9	95	92	82	67	83	86	14	7
031-007115	11	93	89	80	65	79	84	16	10
031-007130	9	96	94	83	68	85	87	14	7
031-009015	11	94	89	81	66	80	85	16	10
031-009030	9	97	95	84	69	86	88	15	7
031-011215	11	95	91	82	66	81	85	16	10
031-011230	9	98	97	85	70	88	89	15	7
031-014015	11	96	93	84	67	83	86	16	10
031-014030	9	99	98	86	71	89	90	15	7
031-018015	11	97	94	84	68	84	87	16	10
031-018030	9	101	100	87	72	90	91	15	7
031-022415	11	98	95	86	69	85	88	17	10
031-022430	9	102	102	88	73	92	92	15	7
031-028015	11	99	97	87	70	87	89	17	10
031-028030	9	103	103	90	74	94	93	16	7
031-035515	9	100	99	89	72	88	90	17	10
031-035526	9	104	104	92	75	94	94	16	8
031-045015	9	101	100	90	73	90	91	17	10
031-045023	9	106	106	94	77	95	95	17	8
031-056015	9	102	102	91	74	91	92	17	10
031-071015	9	103	103	93	75	92	93	18	10
031-090015	9	105	105	95	77	94	94	18	10
031-112015	9	107	106	97	78	95	95	19	9
031-140015	9	108	108	99	80	96	96	19	9
031-180010	11	106	105	98	78	93	93	20	11
031-224010	11	107	107	100	80	94	94	20	11

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 355 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
RGE	z								
035-000830	11	98	91	80	66	82	90	14	6
035-001230	9	97	90	80	66	81	88	14	6
035-001930	9	96	90	80	66	81	87	14	6
035-002430	9	96	90	80	66	81	87	14	6
035-003030	9	94	90	80	66	81	86	14	7
035-003830	9	95	91	81	67	82	86	14	7
035-004830	9	95	92	82	67	83	86	14	7
035-006030	9	96	93	82	68	84	87	14	7
035-007530	9	97	95	84	69	86	88	15	7
035-009515	11	96	91	83	67	82	86	16	10
035-009530	9	98	97	85	70	88	89	15	7
035-011815	11	96	92	83	68	82	87	16	10
035-011830	9	99	98	86	71	88	90	15	7
035-015015	11	97	94	84	68	84	87	16	10
035-015030	9	100	99	87	72	90	91	15	7
035-019015	11	98	94	85	69	85	88	16	10
035-019030	9	102	101	88	73	92	92	15	7
035-023615	11	99	96	87	70	86	89	17	10
035-023630	9	103	103	90	74	93	93	16	7
035-030015	11	100	98	88	71	88	90	17	10
035-030030	9	105	104	91	75	95	95	16	7
035-037515	11	101	99	89	72	89	91	17	10
035-047515	9	102	101	91	74	91	92	17	10
035-060015	9	103	103	92	75	92	93	18	10
035-075015	9	105	104	94	76	93	94	18	10
035-095015	9	106	106	96	78	95	95	18	10
035-118015	9	108	107	98	79	96	96	19	9
035-150015	9	109	109	100	81	97	97	19	9
035-190010	11	107	106	99	79	94	94	20	11
035-236010	11	108	108	100	80	95	95	20	11

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 400 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
040-000630	11	100	92	82	68	83	92	14	6
040-001030	11	99	91	81	67	82	90	14	6
040-001630	9	98	91	81	67	82	89	14	6
040-002030	9	97	91	80	66	82	88	14	6
040-002530	9	97	92	82	67	83	88	14	6
040-003130	9	98	93	82	68	84	89	14	6
040-004030	9	96	92	82	68	83	87	14	7
040-005030	9	97	93	83	68	84	88	14	7
040-006330	9	97	94	84	69	85	88	15	7
040-008030	9	99	96	85	70	87	89	15	7
040-010030	9	100	98	86	71	88	90	15	7
040-012515	11	98	93	84	68	83	88	16	10
040-012530	9	100	98	87	72	89	91	15	7
040-016015	11	98	95	86	69	85	89	16	10
040-016030	9	102	100	88	73	91	92	15	7
040-020015	11	99	96	87	70	86	89	17	10
040-020030	9	103	102	89	74	93	93	15	7
040-025015	11	100	97	88	71	87	90	17	10
040-025030	9	104	104	90	75	94	94	16	7
040-031515	11	101	99	89	72	89	91	17	10
040-031530	9	106	105	92	76	95	96	16	7
040-040015	11	102	101	91	74	90	92	17	10
040-040030	9	107	107	94	78	97	97	16	7
040-050015	9	103	102	92	74	92	93	17	10
040-050026	9	107	107	95	78	97	97	17	8
040-063015	9	104	104	93	76	93	94	18	10
040-063023	9	109	109	97	80	99	99	17	8
040-080015	9	106	105	95	77	94	95	18	10
040-100015	9	107	107	97	79	96	96	18	9
040-125015	9	109	108	99	80	97	97	19	9
040-160015	11	110	110	101	82	98	98	19	10
040-200015	11	111	111	103	83	99	99	20	10
040-250015	11	112	113	104	84	100	100	20	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 450 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
RGE	z								
045-000930	11	101	92	83	69	83	92	14	6
045-001330	11	99	92	82	68	83	91	14	6
045-002130	9	98	92	82	68	83	89	14	6
045-002730	9	99	93	83	68	84	90	14	6
045-003430	9	99	94	83	69	85	90	14	6
045-004230	9	97	93	83	68	84	89	14	7
045-005330	9	98	94	84	69	85	89	15	7
045-006730	9	99	96	85	70	87	90	15	7
045-008530	9	100	97	86	71	88	91	15	7
045-010630	9	101	98	87	72	89	91	15	7
045-013215	11	100	94	86	70	85	90	16	9
045-013230	9	101	99	87	72	90	92	15	7
045-017015	11	100	96	87	71	86	90	16	10
045-017030	9	103	101	89	73	92	93	15	7
045-021215	11	101	97	88	71	87	91	17	10
045-021230	9	104	103	90	75	94	94	16	7
045-026515	11	101	98	89	72	88	91	17	10
045-026530	9	105	105	91	76	95	95	16	7
045-033515	11	102	100	91	74	90	92	17	10
045-033530	9	107	106	94	77	96	97	16	7
045-042515	11	103	101	91	74	91	93	17	10
045-042530	9	108	108	95	79	98	98	16	7
045-053015	11	104	102	92	75	92	94	17	10
045-053030	9	109	110	96	80	99	99	16	7
045-067015	9	106	104	95	77	94	95	18	10
045-085015	9	107	106	96	78	95	96	18	10
045-106015	9	108	108	98	80	96	97	18	9
045-132015	11	109	109	100	81	97	98	19	10
045-170015	11	111	111	102	83	99	99	19	10
045-212015	11	112	112	104	84	100	100	20	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 500 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
050-000730	11	103	93	84	70	85	94	14	6
050-001130	11	101	92	84	70	84	93	14	6
050-001830	9	100	93	83	69	84	91	14	5
050-002230	9	100	93	83	69	84	91	14	6
050-002830	9	100	94	84	69	85	91	14	5
050-003530	9	100	95	84	70	86	91	14	5
050-004530	9	101	96	85	70	87	92	14	5
050-005630	9	99	95	84	70	86	90	15	7
050-007130	9	100	97	86	71	88	91	15	7
050-009030	9	101	98	87	72	88	92	15	7
050-011230	9	102	99	87	72	90	93	15	7
050-014015	11	101	96	88	71	86	91	16	10
050-014030	9	103	101	88	73	92	93	15	7
050-018015	11	101	96	88	72	87	91	17	10
050-018030	9	104	102	89	74	92	94	15	7
050-022415	11	102	98	89	73	88	92	17	10
050-022430	9	105	104	91	75	94	95	16	7
050-028015	11	103	100	91	74	90	93	17	10
050-028030	9	106	106	93	77	96	97	16	7
050-035515	11	103	100	91	74	90	93	17	10
050-035530	9	108	107	94	78	97	98	16	7
050-045015	11	104	102	93	75	92	94	17	10
050-045030	9	109	109	96	79	99	99	16	7
050-056015	11	105	104	94	76	93	95	18	10
050-056030	9	111	111	98	81	100	100	17	7
050-071015	9	107	105	96	78	95	96	18	9
050-071030	9	112	113	100	83	102	102	17	7
050-090015	9	108	107	97	79	96	97	18	9
050-112015	11	109	108	99	80	97	98	18	10
050-140015	11	110	110	101	82	98	99	19	10
050-180015	11	112	112	103	84	100	100	19	10
050-224015	11	113	113	104	84	101	101	20	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 560 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
RGE	z								
056-000830	11	104	94	86	72	86	95	14	6
056-001530	11	102	93	85	70	85	93	14	6
056-002430	9	101	94	85	70	85	93	14	5
056-003030	9	101	95	85	71	86	93	15	5
056-003830	9	102	96	86	71	87	93	15	5
056-004830	9	100	95	85	70	86	91	15	7
056-006030	9	101	96	85	71	87	92	15	7
056-007530	9	102	98	86	72	89	92	15	7
056-009515	11	102	95	88	72	86	92	16	9
056-009530	9	102	99	87	72	90	93	15	7
056-011815	11	102	96	89	72	86	92	16	9
056-011830	9	103	100	88	73	91	94	15	7
056-015015	11	102	97	90	73	88	93	17	9
056-015030	9	104	102	89	74	92	95	15	7
056-019015	11	103	98	90	73	88	93	17	9
056-019030	9	105	104	91	76	94	96	16	7
056-023615	11	103	99	90	73	89	93	17	10
056-023630	9	106	105	92	77	95	97	16	7
056-030015	11	104	101	92	75	91	94	17	10
056-030030	9	108	107	94	78	97	98	16	7
056-037515	11	105	101	92	75	91	95	17	10
056-037530	9	109	108	95	79	98	99	16	7
056-047515	11	106	103	94	76	93	95	17	10
056-047530	9	110	110	97	81	100	100	16	7
056-060015	11	106	105	95	78	94	96	18	10
056-060030	9	112	112	99	82	101	101	17	7
056-075015	11	107	106	97	79	95	97	18	10
056-075030	9	113	113	100	83	103	103	17	7
056-095015	11	109	108	98	80	97	98	18	10
056-118015	11	110	109	100	81	98	99	19	10
056-150015	11	111	111	102	83	99	100	19	10
056-190015	11	113	112	104	85	101	101	19	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 630 daPa 50 Hz 180°C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
063-000830	11	105	95	87	72	86	96	14	6
063-001230	11	104	95	86	72	86	95	14	6
063-002030	11	102	94	85	70	85	93	14	6
063-002530	9	102	96	85	71	87	94	14	5
063-003130	9	103	96	86	71	87	94	15	5
063-004030	9	103	97	86	72	88	94	15	5
063-005030	9	104	99	87	73	90	95	15	5
063-006330	9	104	99	88	73	90	95	15	5
063-008030	9	103	99	87	73	90	94	15	7
063-010030	9	104	100	88	73	91	94	15	7
063-012530	9	104	101	89	74	92	95	15	7
063-016015	11	104	99	91	74	89	94	17	9
063-016030	11	105	102	90	75	93	95	15	7
063-020015	11	104	100	91	74	90	94	17	10
063-020030	11	106	104	92	76	95	97	16	7
063-025015	11	105	100	92	75	90	95	17	10
063-025030	11	107	105	93	77	96	97	16	7
063-031515	11	105	102	93	76	91	95	17	10
063-031530	9	109	108	94	79	98	99	16	7
063-040015	11	106	103	94	77	93	96	17	10
063-040030	9	110	109	96	80	99	100	16	7
063-050015	11	107	104	95	78	93	96	17	10
063-050030	9	111	111	98	81	101	101	16	7
063-063015	11	108	105	96	78	95	97	18	10
063-063030	9	113	113	100	83	102	103	17	7
063-080015	13	109	107	98	80	96	98	18	10
063-080030	9	115	114	102	85	104	104	17	7
063-100015	13	110	108	99	81	97	99	18	10
063-125015	11	111	110	101	83	99	100	19	10
063-160015	11	112	112	103	84	100	101	19	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 710 daPa 50 Hz 180°C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
RGE	z								
071-000930	11	106	96	89	74	87	98	15	6
071-001330	11	105	96	88	73	87	96	15	6
071-002130	11	104	95	87	72	87	95	15	6
071-002730	9	104	97	87	72	88	95	15	5
071-003430	9	105	97	88	73	88	96	15	5
071-004230	9	105	98	88	73	90	96	15	5
071-005330	11	105	99	89	74	90	96	15	6
071-006730	9	104	99	88	73	90	95	15	7
071-008530	11	104	99	89	74	90	95	15	7
071-010630	11	104	101	90	74	92	95	15	7
071-013230	11	105	102	90	75	92	96	15	7
071-017015	11	106	100	93	76	90	96	17	9
071-017030	11	106	103	92	76	94	97	15	7
071-021215	11	106	101	94	77	91	96	17	9
071-021230	11	107	105	93	77	96	98	16	7
071-026515	11	107	101	94	77	92	97	17	9
071-026530	11	108	106	94	78	96	98	16	7
071-033515	11	107	103	95	77	92	97	17	10
071-033530	9	110	109	96	80	99	100	16	7
071-042515	11	107	104	96	78	94	97	18	10
071-042530	9	111	110	98	81	100	101	16	7
071-053015	11	108	105	96	78	94	98	18	10
071-053030	9	112	112	99	83	102	102	16	7
071-067015	13	109	106	97	79	96	98	18	10
071-067030	9	114	114	101	84	103	104	17	7
071-085015	13	110	108	99	81	97	99	18	10
071-106015	13	111	109	101	82	98	100	18	10
071-132015	11	112	111	102	84	100	101	19	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 800 daPa 50 Hz 180°C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
080-000930	13	107	96	90	75	88	99	15	6
080-001430	13	106	96	89	74	88	97	15	6
080-002230	13	105	96	88	73	88	96	15	6
080-002830	13	105	97	88	73	88	96	15	6
080-003530	11	105	99	89	74	90	97	15	6
080-004530	11	106	99	89	74	90	97	15	6
080-005630	11	106	100	90	75	91	97	15	6
080-007130	11	107	102	91	76	93	98	15	6
080-009030	11	105	101	90	75	91	96	15	7
080-011230	11	106	102	91	75	93	96	15	7
080-014030	11	106	103	92	76	94	97	15	7
080-018015	13	107	101	94	77	91	97	17	9
080-018030	11	107	104	93	77	95	98	15	7
080-022415	13	107	102	95	77	92	97	17	9
080-022430	11	108	106	94	78	96	99	16	7
080-028015	13	108	103	95	78	93	97	17	10
080-028030	11	110	108	96	79	98	100	16	7
080-035515	13	108	103	96	78	93	98	17	10
080-035530	11	111	109	97	81	99	101	16	7
080-045015	13	108	105	96	79	94	98	18	10
080-045030	9	112	111	99	82	101	102	16	7
080-056015	13	109	106	97	80	96	98	18	10
080-056030	9	114	113	100	84	103	104	17	7
080-071015	13	110	107	99	81	97	100	18	10
080-090015	13	111	109	101	82	98	100	18	10
080-112015	13	112	111	102	84	99	101	19	10
080-140015	13	113	112	103	84	101	102	19	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 900 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
RGE	z								
090-000930	13	109	97	92	77	89	100	15	6
090-001430	13	107	97	90	75	89	99	15	6
090-002430	13	107	97	89	75	89	98	15	6
090-003030	13	107	98	89	75	90	98	15	6
090-003830	11	107	100	90	75	91	98	15	5
090-004830	11	107	101	90	75	92	98	15	5
090-006030	11	108	101	91	76	92	99	15	5
090-007530	11	108	103	92	77	94	99	15	5
090-009530	11	107	102	91	76	93	97	15	7
090-011830	11	107	103	92	76	93	98	16	7
090-015030	11	108	104	93	77	95	98	16	7
090-019015	13	109	102	95	78	92	99	17	9
090-019030	11	109	106	94	78	97	99	16	7
090-023615	13	109	103	96	79	93	99	17	9
090-023630	11	110	107	95	79	97	100	16	7
090-030015	13	110	105	97	80	94	99	17	9
090-030030	11	111	109	97	81	99	101	16	7
090-037515	13	110	105	97	80	95	100	18	9
090-037530	11	112	110	98	82	100	102	16	7
090-047515	13	110	106	98	80	95	99	18	10
090-047530	9	114	113	100	83	103	104	17	7
090-060015	13	111	107	99	81	97	100	18	10
090-060030	9	115	114	102	85	104	105	17	7
090-075015	13	112	108	101	82	98	101	18	10
090-095015	13	112	110	102	84	99	101	19	10
090-118015	13	113	111	103	84	100	102	19	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1000 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
100-001030	13	113	101	95	80	92	104	15	6
100-001630	13	112	101	94	79	92	103	15	6
100-002530	13	110	101	92	77	92	101	15	6
100-003130	13	109	100	92	77	92	100	15	6
100-004030	13	108	100	91	76	92	99	15	6
100-005030	11	109	102	92	77	93	100	15	5
100-006330	11	109	102	92	77	93	100	15	5
100-008030	11	110	104	93	78	95	101	15	5
100-010030	11	108	103	92	77	94	99	16	7
100-012530	11	109	104	93	77	95	99	16	7
100-016030	11	109	105	94	78	96	100	16	7
100-020030	11	110	107	95	79	98	101	16	7
100-025015	13	110	104	98	80	94	101	17	9
100-025030	11	111	108	96	80	98	101	16	7
100-031515	13	111	105	98	81	95	101	18	9
100-031530	11	112	110	97	81	100	102	16	7
100-040015	13	110	106	98	81	96	100	18	10
100-040030	11	113	112	99	83	102	103	16	7
100-050015	13	111	107	99	81	96	101	18	10
100-050030	9	115	113	101	84	103	105	17	7
100-063015	13	112	108	100	82	97	101	18	10
100-063030	9	116	115	103	86	105	106	17	7
100-080015	13	113	110	102	84	99	102	18	10
100-100015	13	113	110	103	85	100	103	19	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1120 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
RGE	z								
112-001030	13	114	102	97	82	93	106	15	6
112-001630	13	113	102	95	80	93	104	15	6
112-002530	13	111	102	93	78	93	102	15	6
112-003130	13	110	101	93	78	93	102	15	6
112-004030	13	109	101	92	77	93	101	15	6
112-005030	11	110	103	93	78	94	101	15	5
112-006330	11	110	103	94	78	94	101	15	5
112-008030	11	111	105	95	79	96	102	15	5
112-010030	11	111	106	95	80	97	102	16	5
112-012530	11	112	107	96	80	97	102	16	5
112-016030	11	110	106	96	80	97	101	16	7
112-020030	11	111	108	96	80	98	102	16	7
112-025015	13	112	105	100	82	95	102	18	9
112-025030	11	112	109	98	81	99	102	16	7
112-031515	13	112	106	100	82	96	102	18	9
112-031530	11	113	110	98	82	101	103	16	7
112-040015	13	112	107	100	82	96	101	18	10
112-040030	11	114	112	100	83	102	104	16	7
112-050015	13	112	107	101	83	97	102	18	10
112-050030	11	115	113	101	85	103	105	17	7
112-063015	13	113	109	102	83	98	102	18	10
112-080015	13	113	110	103	84	99	102	18	10

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1250 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{W<i>A</i>i2} dB(A)	L _{W<i>A</i>i1} dB(A)	L _{W<i>A</i>a} dB(A)	L̄ _{pA} dB(A)	L̄ _{pA5} dB(A)	L̄ _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
125-001030	13	116	103	99	83	94	107	15	6
125-001630	13	114	103	97	82	94	106	15	6
125-002530	13	113	103	96	80	94	104	15	6
125-003130	13	112	103	95	80	94	103	15	6
125-004030	13	111	103	95	79	94	102	16	6
125-005030	13	111	103	95	79	94	102	16	6
125-006330	13	111	104	95	80	95	102	16	6
125-008030	11	112	106	97	81	97	103	16	5
125-010030	11	113	107	97	81	98	103	16	5
125-012530	11	113	108	98	82	98	104	16	5
125-016030	11	111	107	96	80	97	102	16	7
125-020030	11	112	108	97	81	99	103	16	7
125-025030	11	113	109	98	82	100	103	16	7
125-031530	11	114	111	99	83	101	104	16	7
125-040015	13	114	108	102	83	98	103	18	9
125-040030	11	115	113	101	85	103	105	16	7
125-050015	13	114	109	102	84	98	104	18	9
125-050030	11	117	114	103	86	104	107	17	7
125-063015	13	114	110	103	84	99	104	18	10
125-080015	13	115	111	104	85	100	104	19	10

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1400 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

Type selection

fan type structural design	number of blades	L _{WAi2} dB(A)	L _{WAi1} dB(A)	L _{WAa} dB(A)	L _{pA} dB(A)	L _{pA5} dB(A)	L _{pA6} dB(A)	L _S dB	ΔL _{KA} dB(A)
RGE	z								
140-001030	13	117	104	99	84	95	108	15	6
140-001630	13	116	104	98	83	95	107	15	6
140-002530	13	114	104	97	81	95	105	15	6
140-003130	13	114	104	96	81	95	105	15	6
140-004030	13	112	103	95	80	95	104	16	6
140-005030	13	112	104	96	80	95	103	16	6
140-006330	13	113	105	96	80	96	104	16	5
140-008030	11	114	107	97	82	98	105	16	5
140-010030	11	114	108	98	82	99	105	16	5
140-012530	11	114	109	98	83	99	105	16	5
140-016030	11	113	108	97	81	98	103	16	7
140-020030	11	113	109	98	82	100	104	16	7
140-025030	11	114	110	99	83	100	105	16	7
140-031530	11	115	112	100	84	102	105	16	7

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1600 daPa 50 Hz 180 °C

Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L _{W<i>A</i>i2} dB(A)	L _{W<i>A</i>i1} dB(A)	L _{W<i>A</i>a} dB(A)	L̄ _{pA} dB(A)	L̄ _{pA5} dB(A)	L̄ _{pA6} dB(A)	L _s dB	ΔL _{KA} dB(A)
RGE	z								
160-001630	13	118	105	101	85	96	109	16	5
160-002530	13	116	105	99	84	97	107	16	5
160-003130	13	115	105	99	83	96	107	16	5
160-004030	13	114	105	98	82	96	105	16	5
160-005030	13	114	106	98	82	97	105	16	5
160-006330	13	115	106	99	83	97	106	16	5
160-008030	13	115	108	99	83	99	106	16	5
160-010030	11	116	109	100	84	100	107	16	5
160-012530	11	116	110	101	85	100	107	16	5
160-016030	11	116	111	101	85	102	107	16	5
160-020030	11	115	110	100	84	101	105	16	7
160-025030	11	115	111	101	85	101	106	16	7
160-031530	11	116	113	102	86	103	107	17	7

Type selection

Comments on sound tables see sheet TA 3

Sound table acc. to types for pressure series 1800 daPa 50 Hz 180 °C

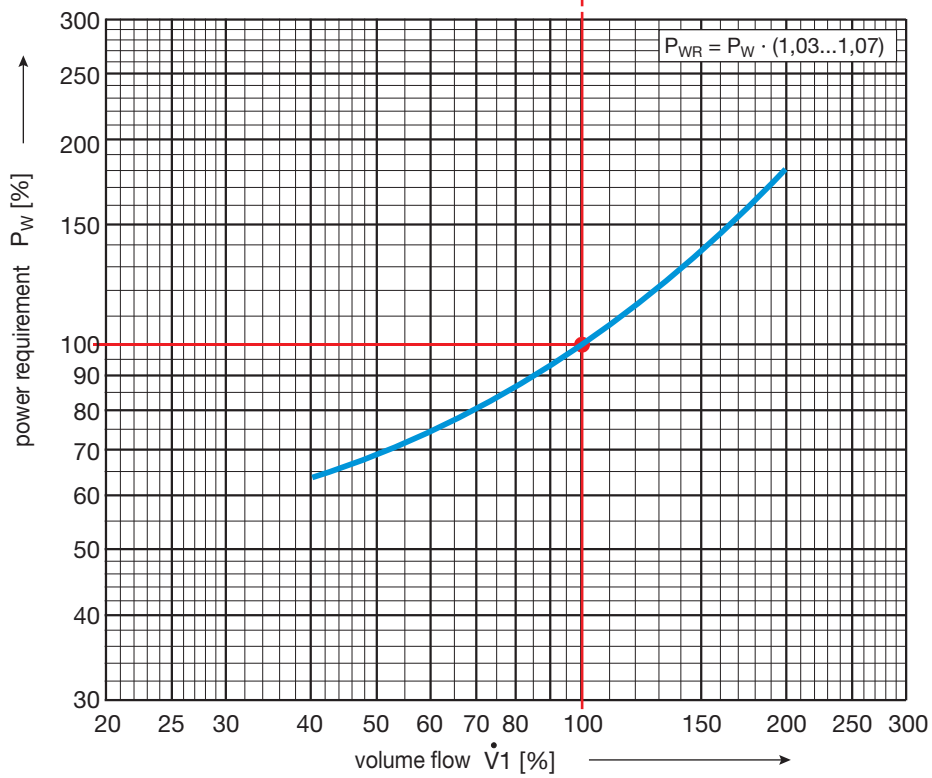
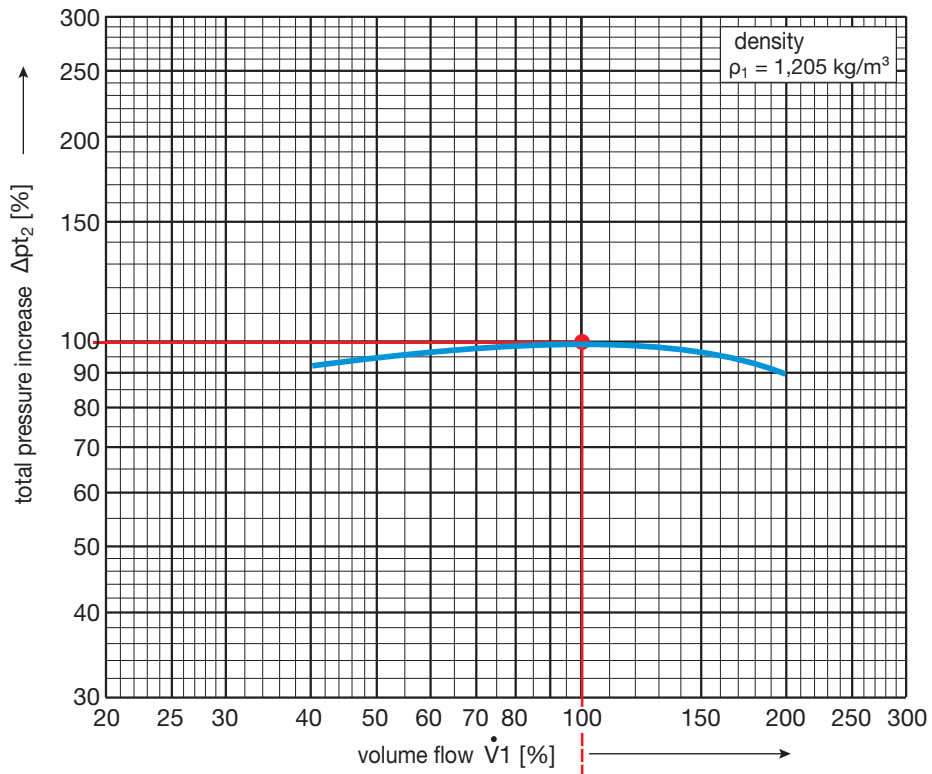
Efficiency degrees N61, measuring category „C“, inlet duct test bench, SFV 1.0

fan type structural design	number of blades	L_{WAi2} dB(A)	L_{WAi1} dB(A)	L_{WAa} dB(A)	\bar{L}_{pA} dB(A)	\bar{L}_{pA5} dB(A)	\bar{L}_{pA6} dB(A)	L_S dB	ΔL_{KA} dB(A)
RGE	z								
180-001630	13	119	106	102	87	97	111	16	5
180-002530	13	118	106	101	85	98	109	16	5
180-003130	13	117	106	100	85	97	108	16	5
180-004030	13	116	106	100	84	97	107	16	5
180-005030	13	116	107	100	84	98	107	16	5
180-006330	13	116	107	100	84	98	107	16	5
180-008030	13	117	109	101	85	100	108	16	5
180-010030	11	117	110	102	86	101	108	16	5
180-012530	11	118	111	102	86	102	108	16	5
180-016030	11	118	112	103	86	102	108	16	5
180-020030	11	118	113	103	87	104	109	16	5
180-025030	11	119	114	104	88	104	109	16	5
180-031530	11	118	113	103	87	104	108	17	7

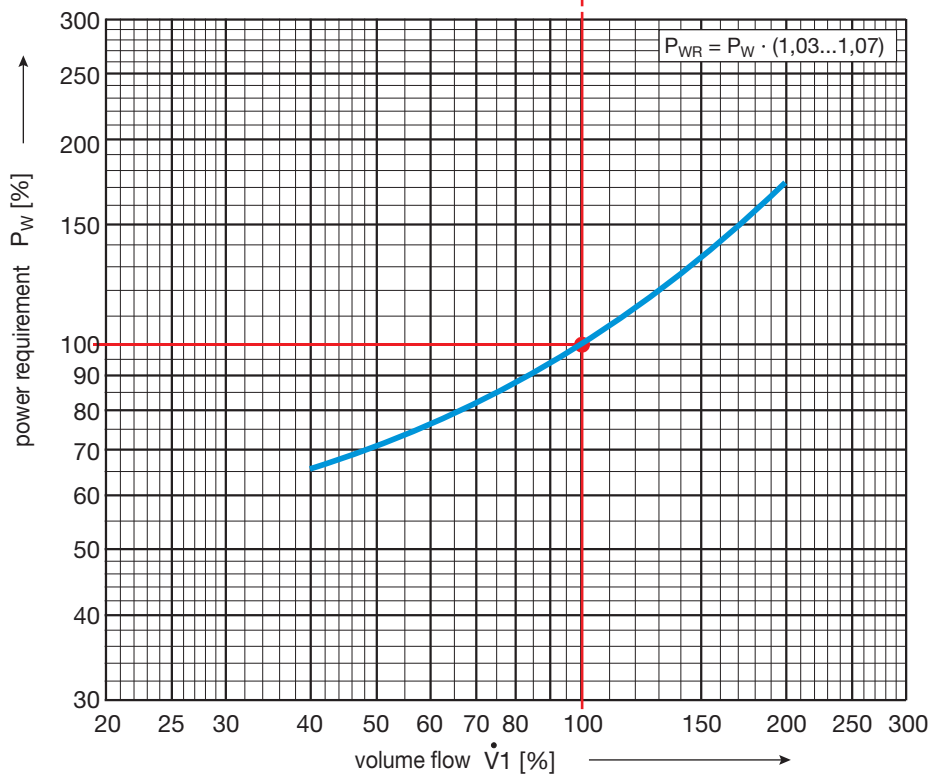
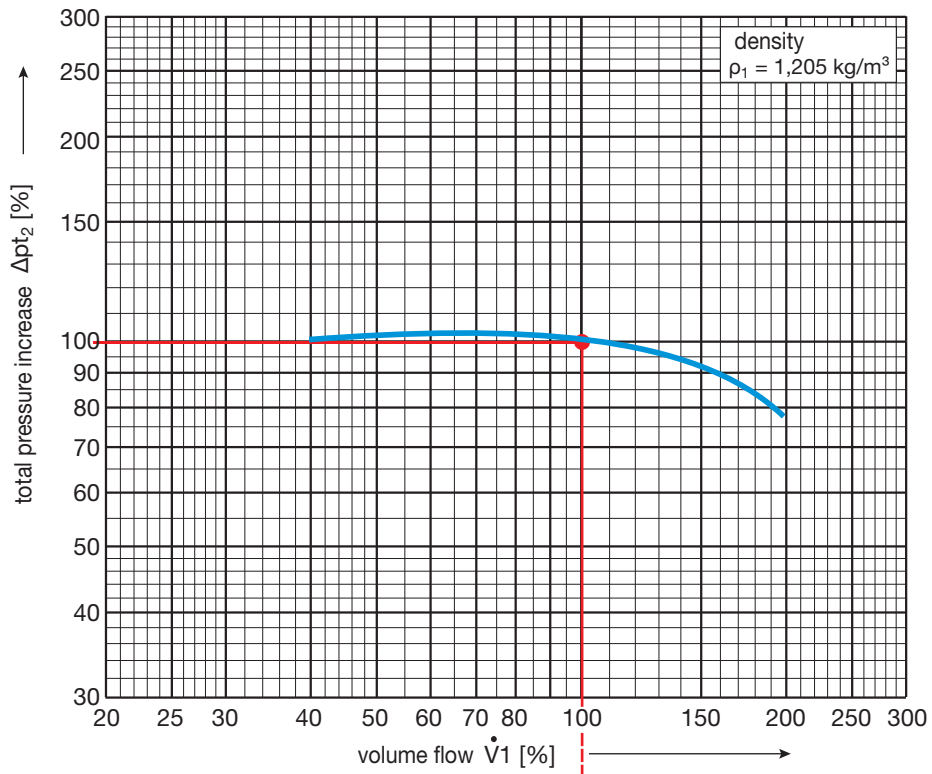
Comments on sound tables see sheet TA 3

Discharge performance curve 1

Type selection

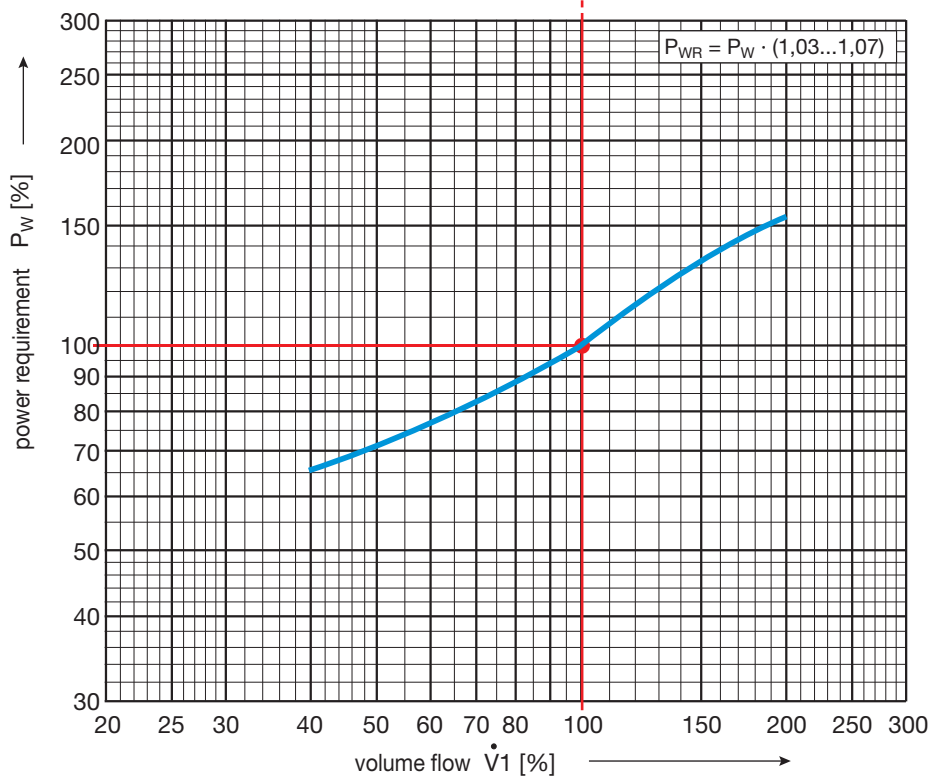
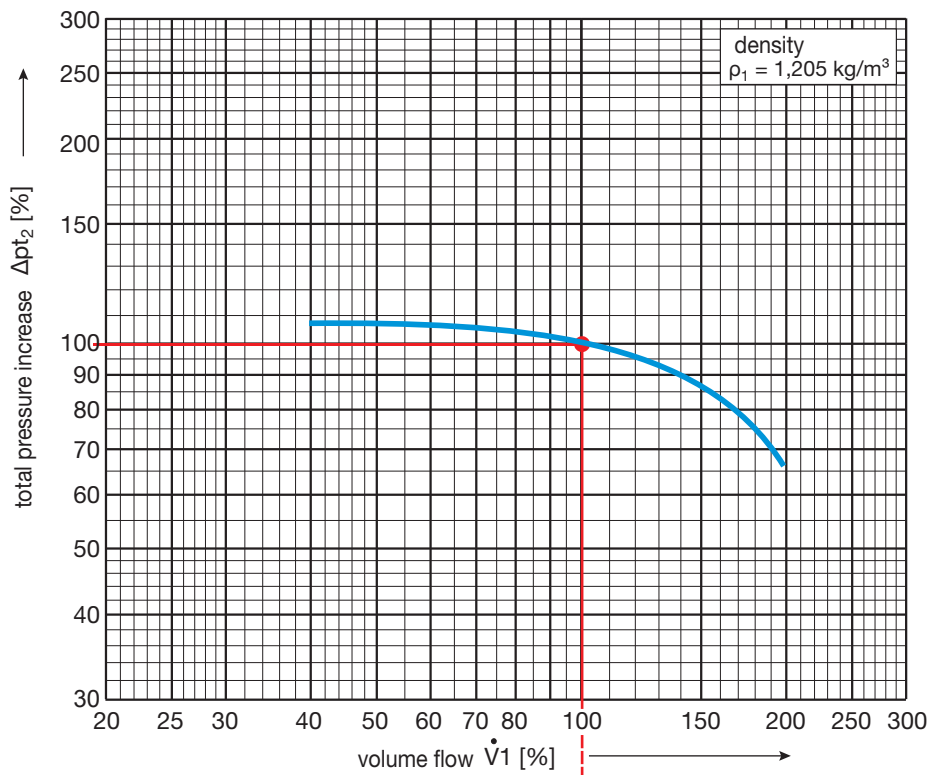


Discharge performance curve 2

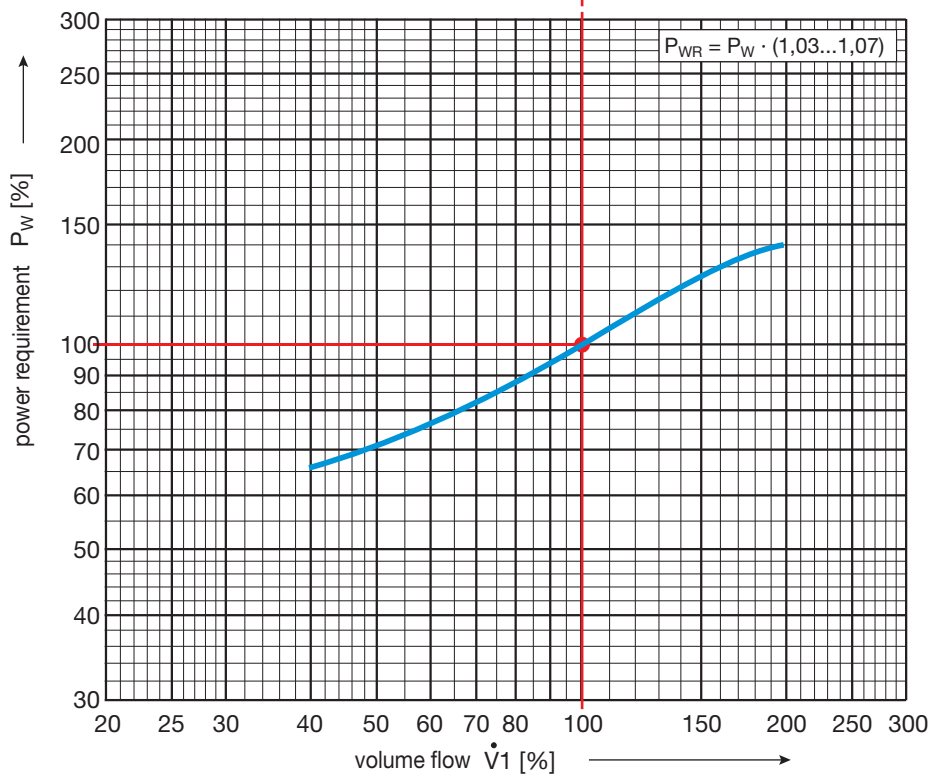
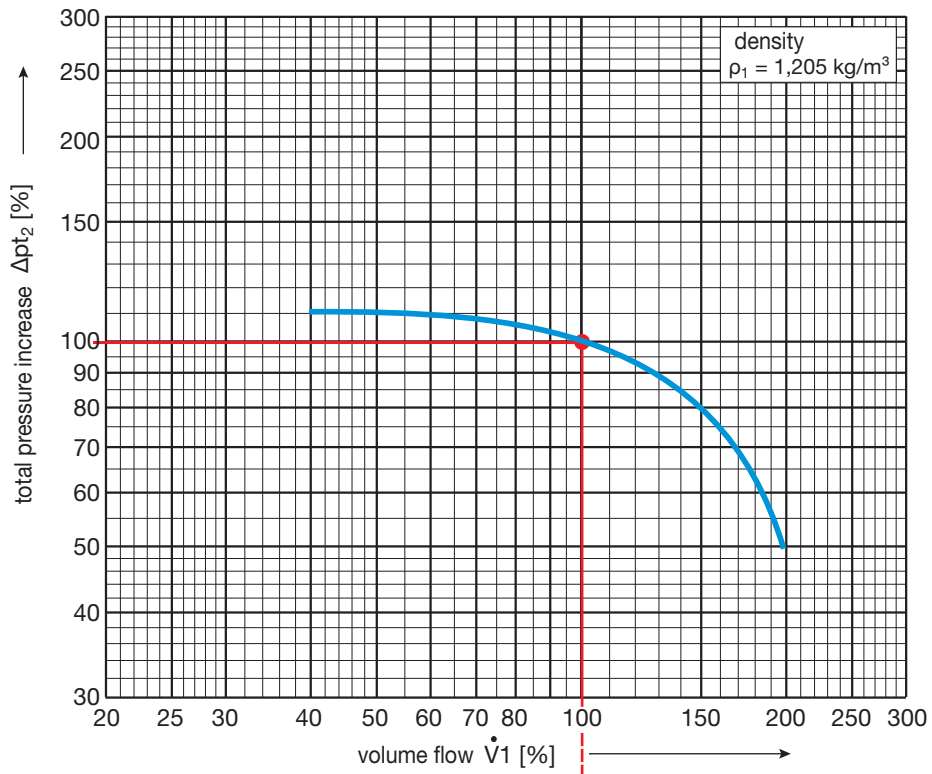


Discharge performance curve 3

Type selection



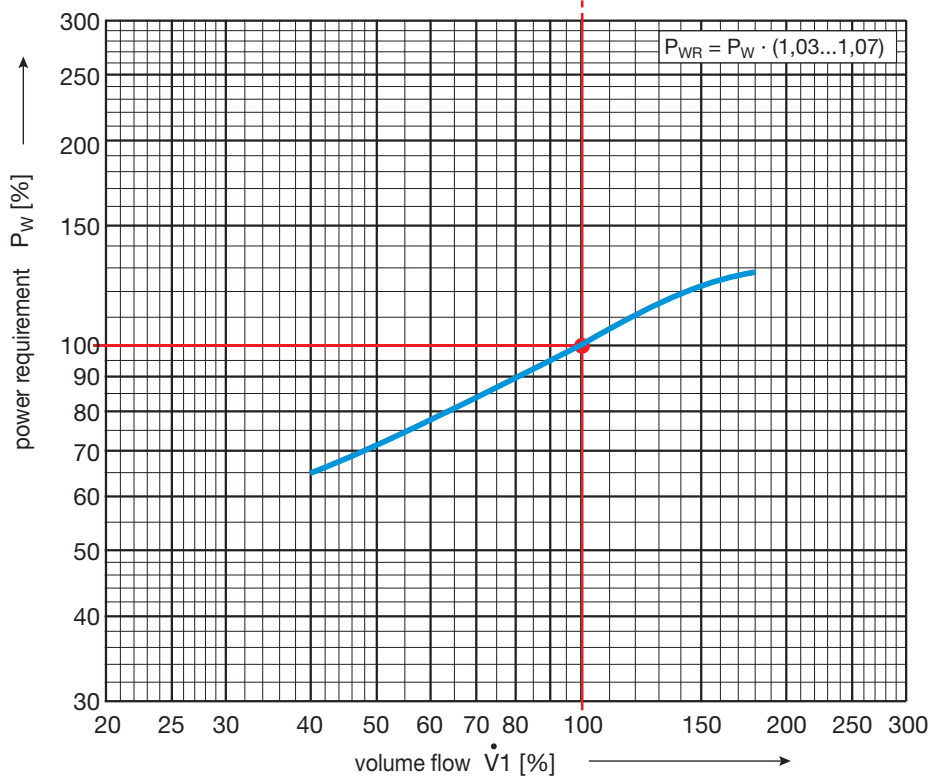
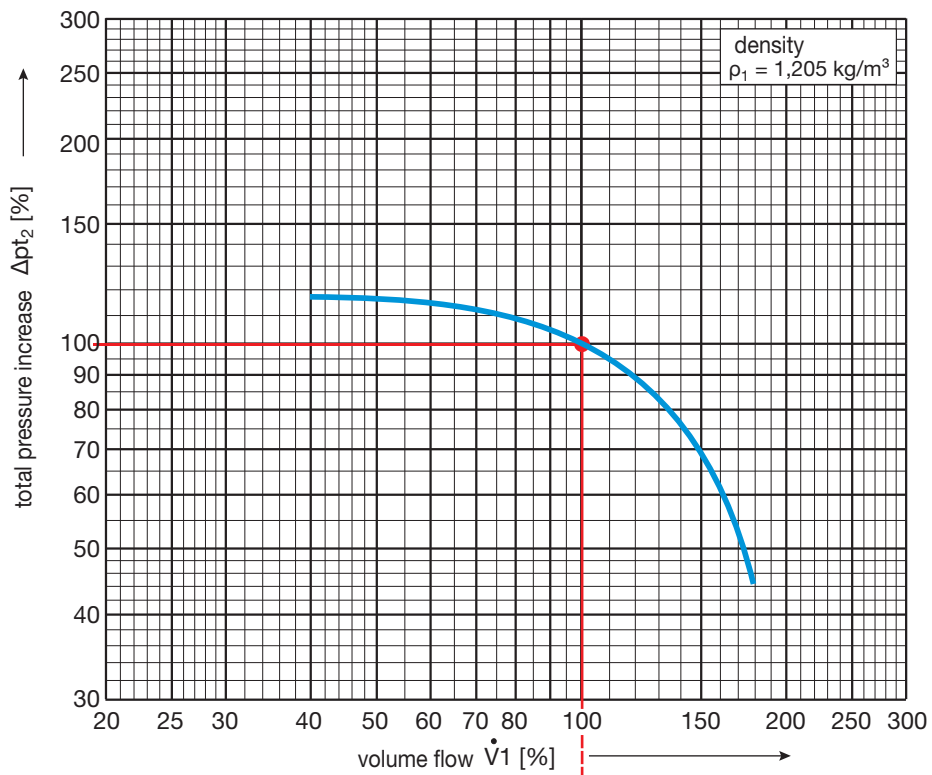
Discharge performance curve 4



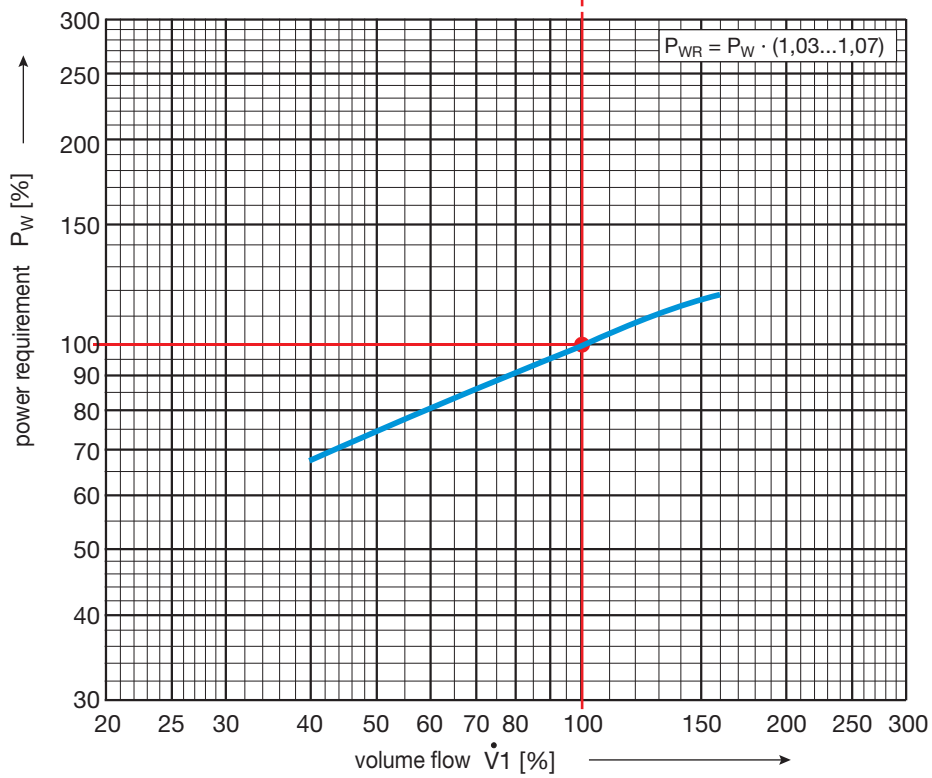
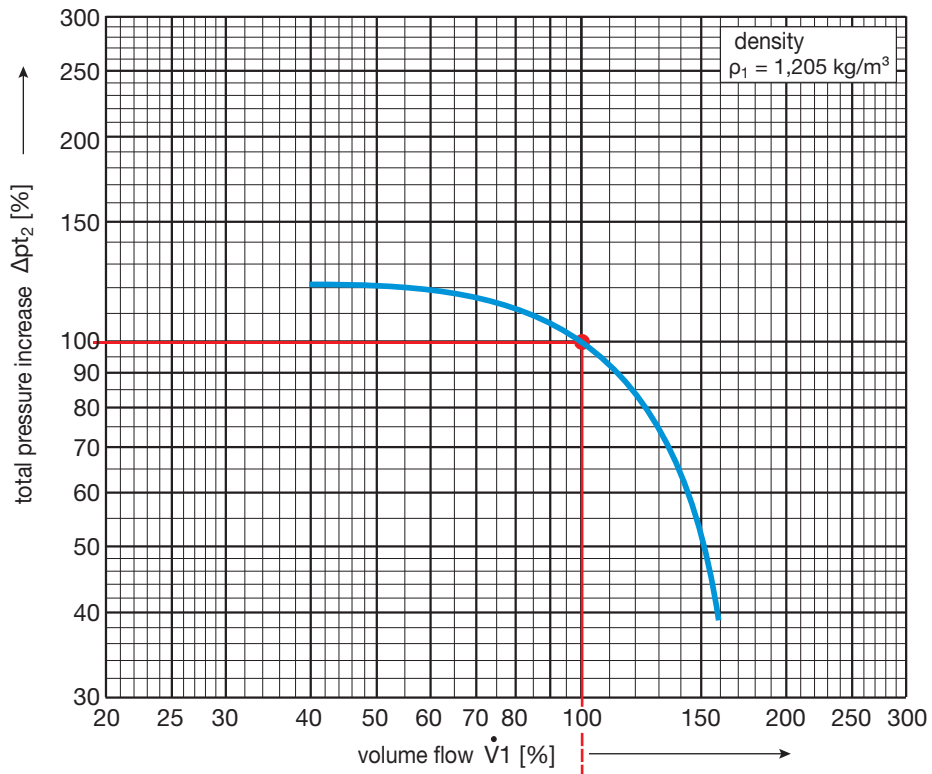
Type selection

Discharge performance curve 5

Type selection



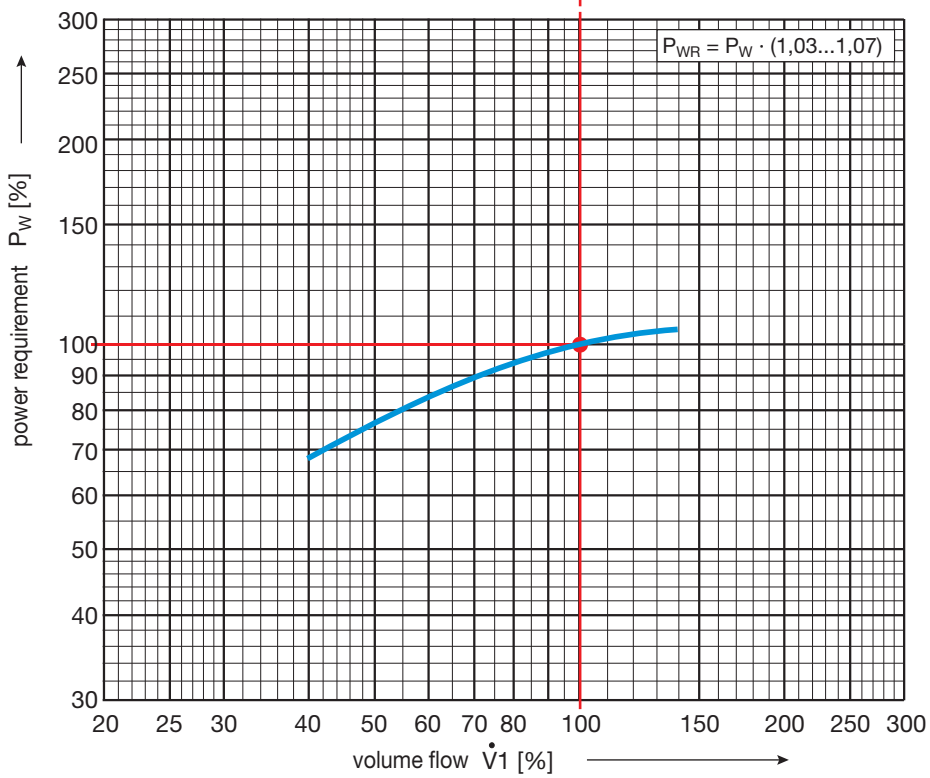
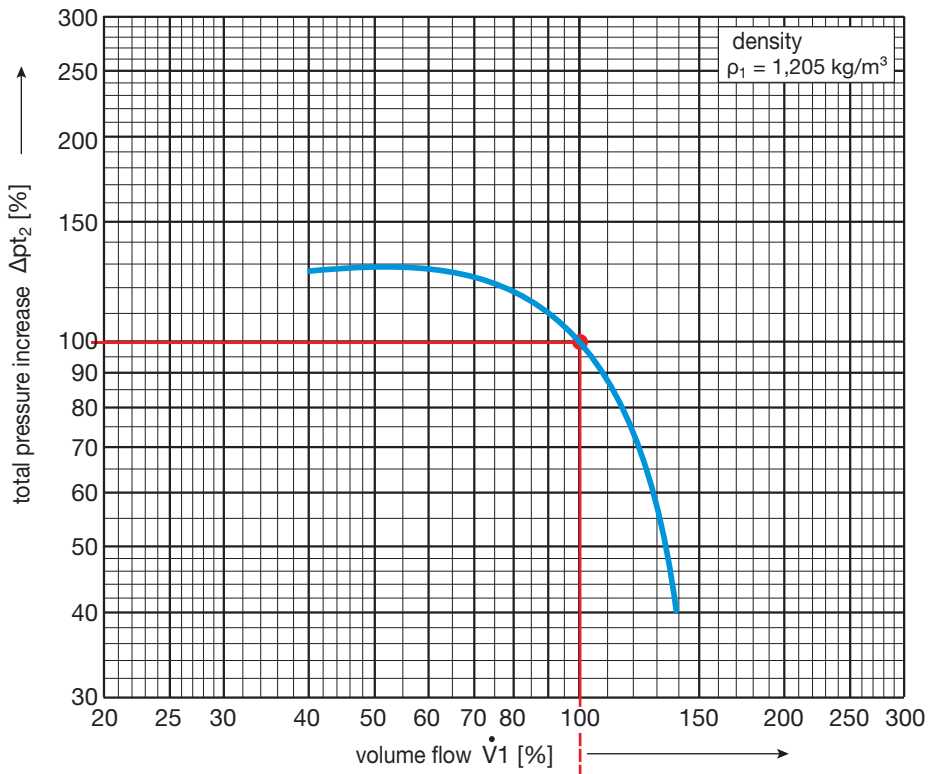
Discharge performance curve 6



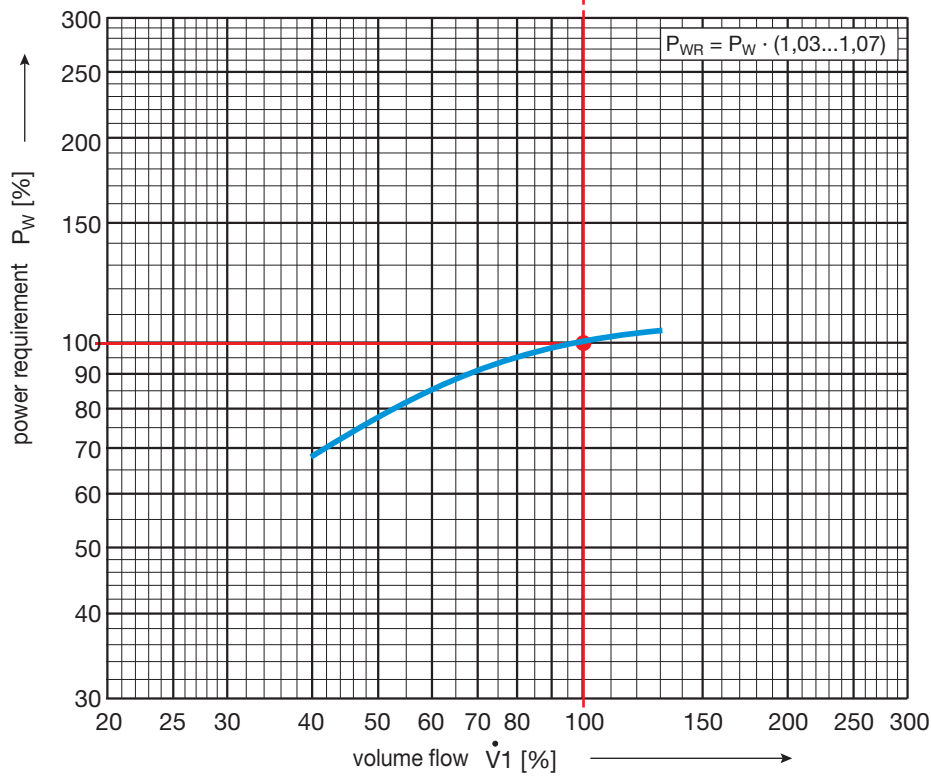
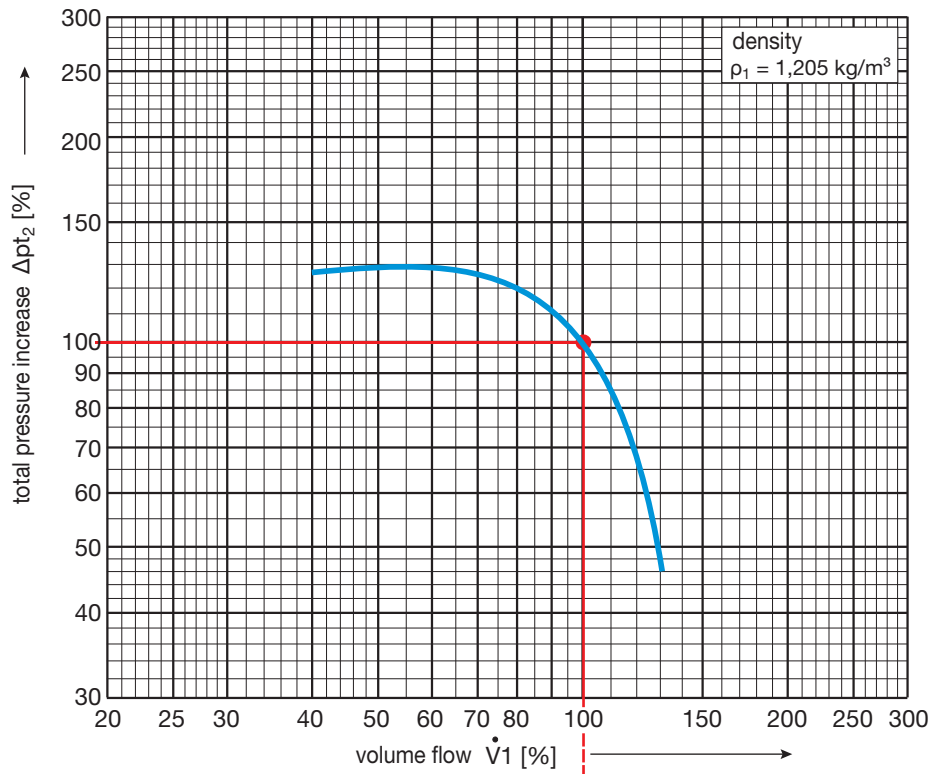
Type selection

Discharge performance curve 7

Type selection



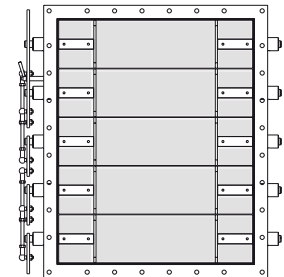
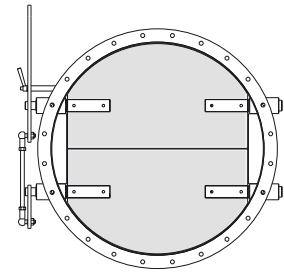
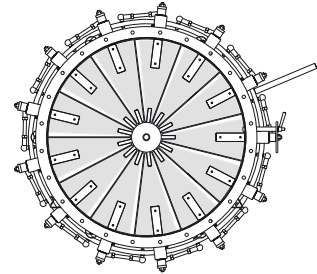
Discharge performance curve 8



Type selection

Chapter 3 - Dampers - DO

- General remarks
- Design characteristics
- Drives
- Instructions for installation
- Inlet guide vane
- Damper and Louvre damper
- Dimensions



Technical description

Article number and order code

article number = component size

DR D1 0 3 - 000 031 -00

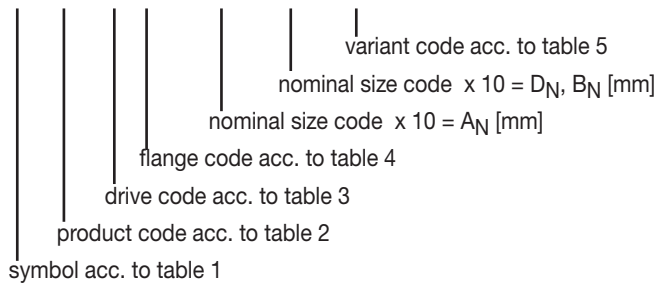


table 1

DR	inlet guide vane
DK	damper
DJ	louvre damper

table 2

D1	inlet guide vane with set leverage
D2	inlet guide vane with set collar
D3	damper
D4	louvre damper

table 3

0	hand lever
1	actuator

table 4

2	flat frames acc. to DIN 24193 (German Industrial Standard) series 3
3	flange acc. to DIN 24154 (German Industrial Standard) series 2, edition July 90

table 5

00	temperature from -10°C to 180°C
01	temperature from 181°C to 300°C
02	temperature from 301°C to 500°C

Technical description

General informations

Dampers control the volume flow of radial fans to adapt the fans to the different operating conditions of a system.

The alteration of flow with the help of dampers is an inexpensive but quite energy-consuming method of control. Inlet guide vanes prove to be much more reasonable. The form of the adjustable guiding vanes reduces the impact loss that results from guiding the air flow on entering the impeller.

Our product range includes dampers, louvre dampers and inlet guide vanes. Dampers of standard design can be used up to a maximum operating temperature of +180°C.

Dampers made of special material can be supplied if required.

Please note:

When closed, dampers are not completely airtight in the direction of the flow. The corresponding leak rate depends on the number of valves, the gap area and the existing pressure. Overlapping guiding vanes will reduce the leak rate. Inlet guide vanes with a nominal diameter of less than 900 mm have no central support and are open in the middle.

Inlet guide vane

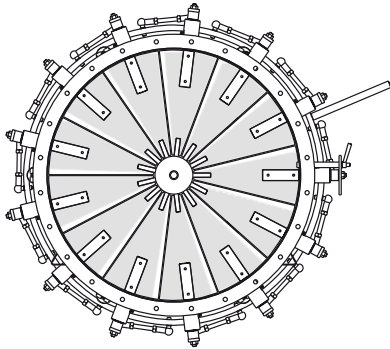


figure 1

Damper

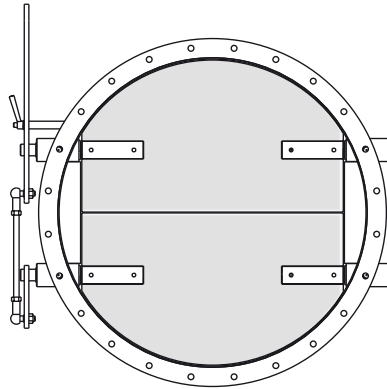


figure 2

Louvre damper

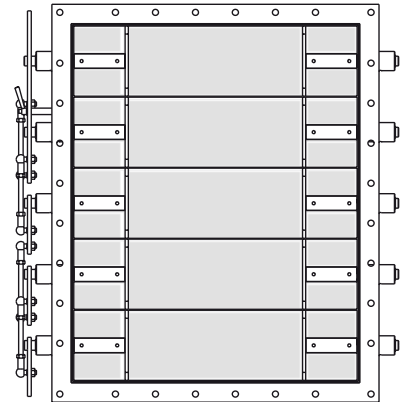


figure 3

Technical description

Design characteristics

All dampers are designed in accordance with the operating conditions that were made known to us.

In general, the shafts of the valves or vanes run in sleeve bearings. These bearings offer an extensive range of application, their advantages are a low friction coefficient, high chemical stability and a wide range of operating temperatures.

Thanks to the aerodynamic design of the central support, the guiding blades of inlet guide vanes from nominal diameter size 900 mm upwards run in two bearings. Hence, the stress on the main bearing is relieved which leads to an extended service life of the bearing in general and reduces the power required for actuating the blades. Maintenance-free ball-and-socket joints and hinged joints transmit the power free-from-float on the individual axes. Misalignments which might occur due to tolerances in construction and varying thermal expansions are thus compensated and a continuous smooth running is guaranteed.

A supporting structure is offered for inlet guide vanes from nominal diameter 800 mm upwards which reduces stress on the inlet. The problem of different vibration behaviour of inlet guide vane and fan is solved by mounting the supporting stand on the fan housing (see figure 4). If the power is transmitted from actuator to inlet guide vane by a set leverage, a supporting structure as per figure 5 becomes necessary. This support takes up the actuator as well.

Support for inlet guide vane

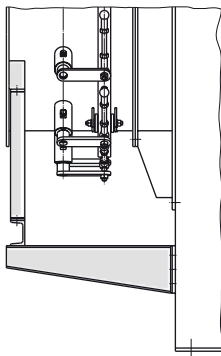


figure 4

Support for inlet guide vane taking up the actuator

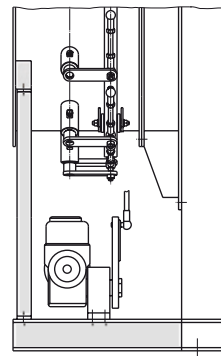


figure 5

There are two structural designs of inlet guide vanes:

Inlet guide vane type D1 with set leverage

type – D1 – is offered for light-duty operation. The parallel adjustment of blades is effected by a simple set leverage with hinged joints.

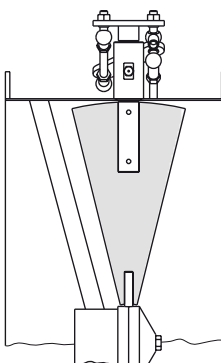


figure 6

Inlet guide vane type D2 with set collar

type – D2 – is suitable for heavy-duty operation. The parallel blade adjustment is effected by a set collar. The set collar moves on rolls which are supported on shafts.

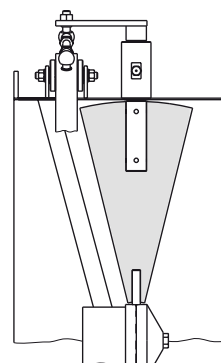


figure 7

Technical description

Drives

Dampers can be operated by hand lever or by actuators. Actuators can be driven electrically, pneumatically or hydraulically according to requirements. In general, dampers are provided with electric actuators.

On request, drives are provided with additional limit switches and potentiometers. A control device for remote control is available as well.

Inlet guide vane type D1

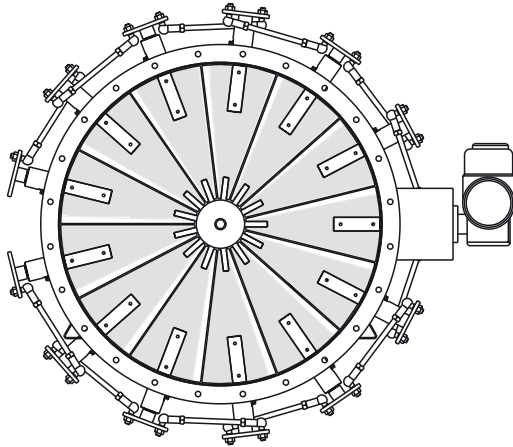


figure 8

Inlet guide vane type D2

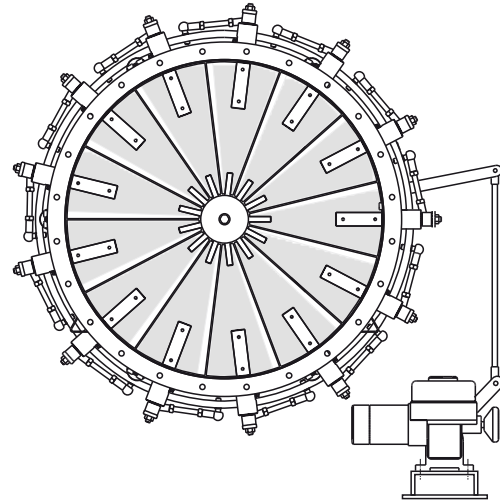


figure 9

Damper

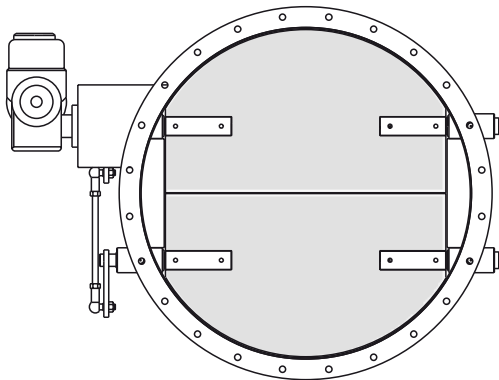


figure 10

Louvre damper

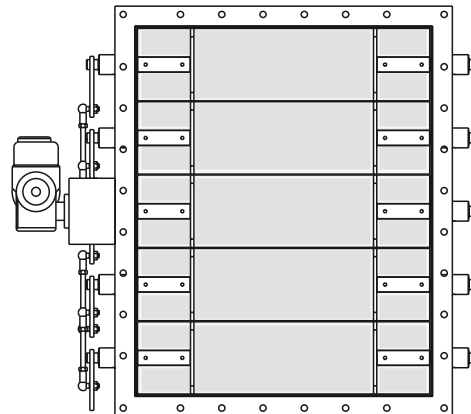


figure 11

Technical description

Instructions for installation

Inlet guide vane

Inlet guide vanes must always be arranged directly at the inlet. We recommend the installation of a guarded inlet nozzle to minimise losses.

When viewed on the inlet guide vane, the direction of the pre-whirl must equal the sense of rotation of the fan.

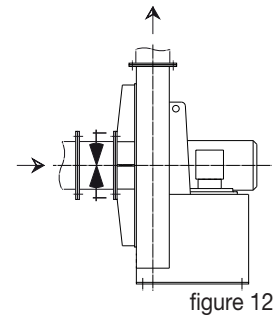


figure 12

Damper

Dampers can be mounted at inlet or discharge or at any other point within the system. If mounted at the inlet, there must be sufficient space between the damper and the fan to ensure a constant flow towards the impeller.

In case a damper is directly attached to the inlet, it may only be used as start-up damper. If it is connected directly to the discharge, the position of the rotating axis has to be observed.

For the connection to the square discharge end piece, a transition piece must always be provided.

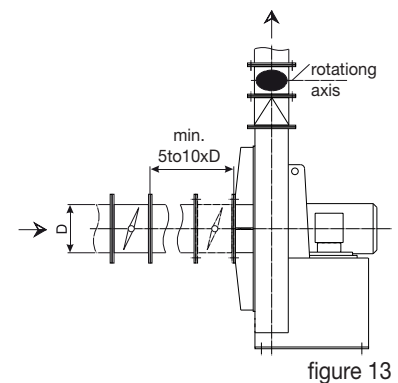


figure 13

Louvre damper

Louvre dampers can be directly arranged at the discharge or at any other point within the system. If directly mounted on discharge, the position of the rotating axis has to be observed.

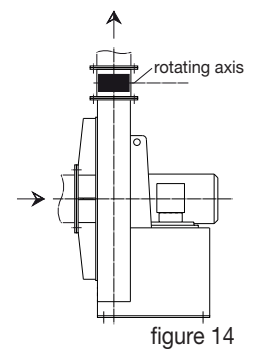


figure 14

Louvre damper at suction box

The louvre damper is directly arranged at the suction box. The valves rotary axes are positioned diagonally to the suction box.

Valves working in parallel or opposite direction are also available. Please specify when ordering.

We recommend louvre dampers with parallel valve adjustment in the fan's sense of rotation in order to produce a pre-whirl.

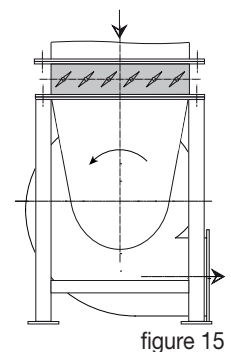


figure 15

Inlet guide vane

Control range

Compared to the damper and louvre damper the inlet guide vane offers much better control. Depending on the position of the blades, the inlet guide vane generates a pre-whirl which changes the fan performance curve. The power requirement curve of the fan also changes in accordance with the change of the blade angle. The direction of the pre-whirl must always equal the sense of rotation of the fan.

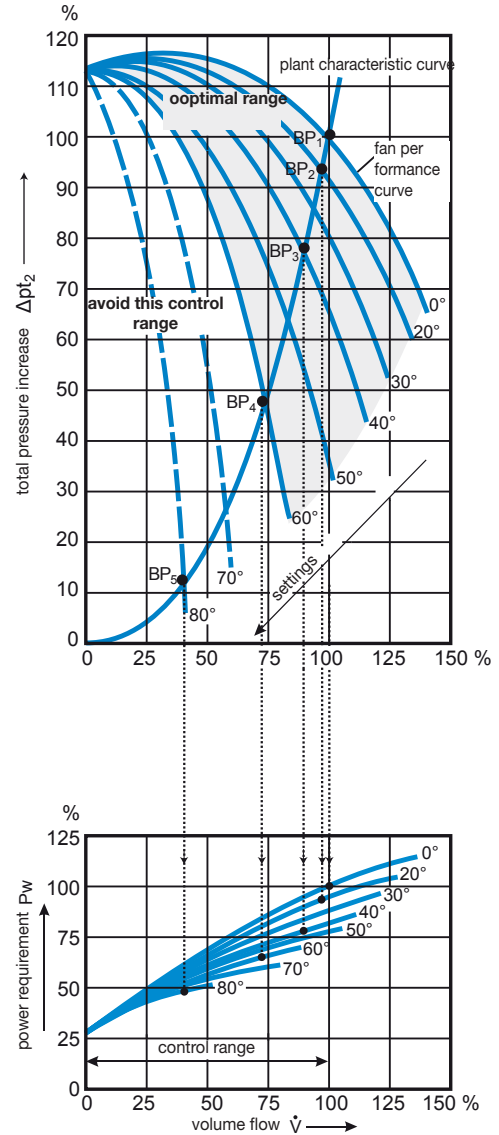
Installation resistance

Drag coefficient for open inlet guide vanes:

$$\zeta = 0,25 \text{ bis } 0,5$$

Stall at the guiding blade of the inlet guide vane

Excessive reduction of flow with an inlet guide vane will result in a critical stall at the guiding blades but only under certain conditions. These are unfavourable flow conditions and a small range of angle when the guiding blades are strongly or even almost closed. Such critical stalls can be prevented with an optimum design of the aerodynamic inflow and by avoiding the special critical angle of the blades. Therefore, select the ideal fan size where the performance curves of the system and of the fan meet in the calculated operating point and set the control range in the upper two-third part of the inlet guide vane position. Do not set the inlet guide vanes to a position of more than 60°.



Damper and Louvre Damper

Control range

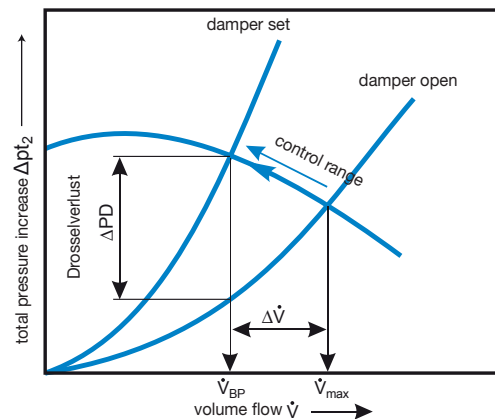
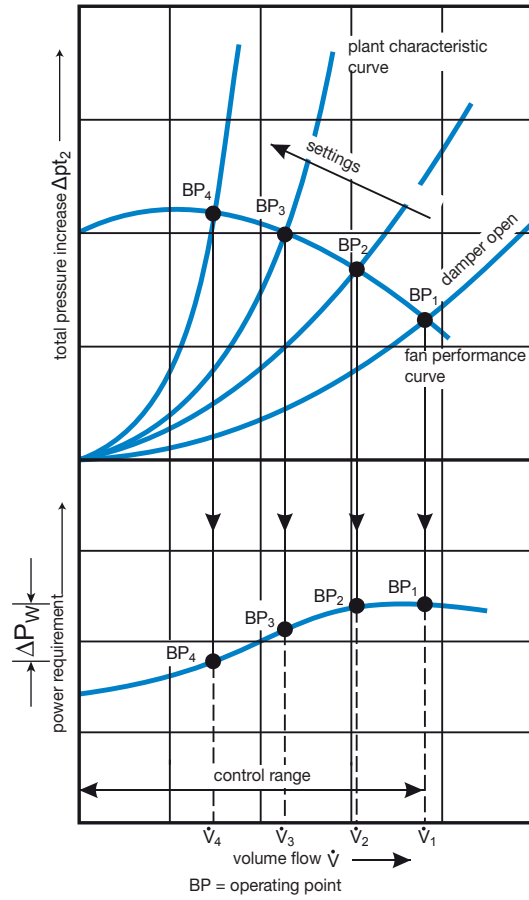
The easiest method to reduce the flow is to use a damper or a louvre damper but this also leads to high power loss. The resulting pressure loss depends on the angle of the adjusted damper vanes. The more the damper is closed, the higher the pressure loss is in the system. An additional resistance is generated which will lead to an alteration of the plant's performance curve. The power requirement curve of the fan is not affected.

Installation resistance

Drag coefficients for open dampers:

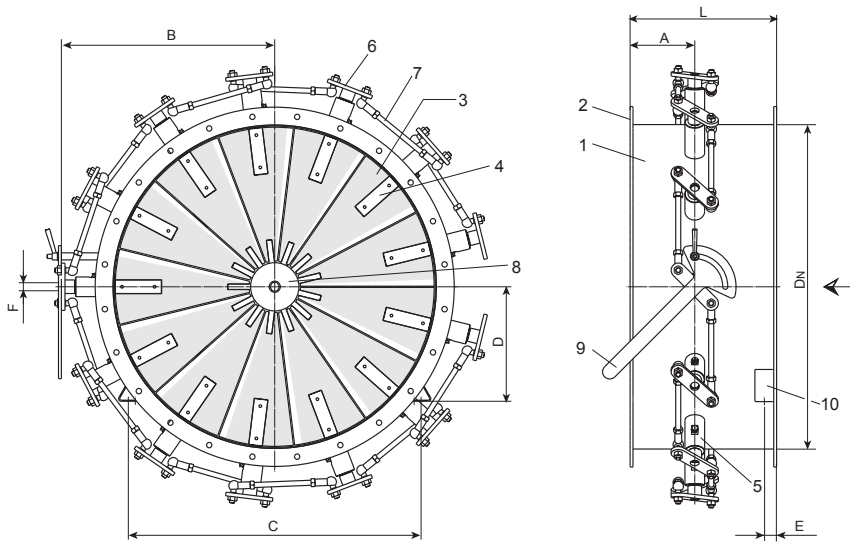
Dampers: $\zeta = 0,25$ bis $0,5$

Louvre dampers: $\zeta = 0,5$ bis $1,0$



Dimensions

Inlet guide vane D1 with set leverage



- 1 inlet guide vane housing
- 2 flat flange
- 3 guiding blade
- 4 shaft
- 5 bearings
- 6 set linkage
- 7 joint rod
- 8 central support
- 9 hand lever
- 10 claw for support

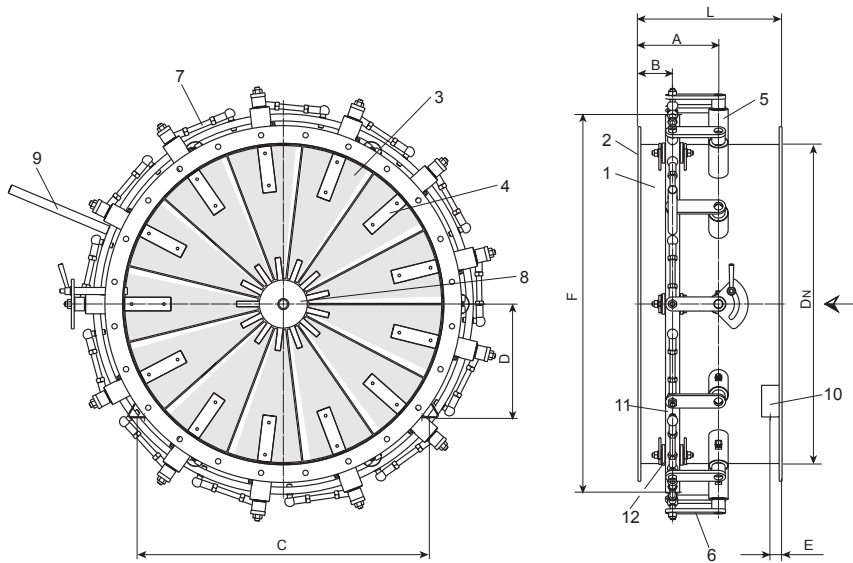
Flat flanges according to DIN 24154 (German Industrial Standard) series 2, edition July 90.

The specified actuating forces refer to a system pressure of $\Delta p_t = 3150 \text{ daPa}$.

Dampers

article number component size	nominal size	dimensions								weight kg	actuating torque Nm	number of valves
		DN mm	L mm	A mm	B mm	C mm	D mm	E mm	F mm			
table 3 ↓	table 5 ↓											
DRD1.3-000 031-..	315	225	135	260,0	—	—	—	15	30	29	9	
DRD1.3-000 035-..	355	225	135	279,0	—	—	—	15	32	36	9	
DRD1.3-000 040-..	400	225	135	301,0	—	—	—	15	35	48	9	
DRD1.3-000 045-..	450	250	135	325,5	460	125	33	15	43	63	9	
DRD1.3-000 050-..	500	250	135	352,5	490	150	33	15	47	82	9	
DRD1.3-000 056-..	560	250	135	383,5	490	235	33	15	50	116	9	
DRD1.3-000 063-..	630	315	180	440,5	540	250	33	20	75	156	11	
DRD1.3-000 071-..	710	315	180	479,0	600	275	33	20	92	193	11	
DRD1.3-000 080-..	800	315	180	522,0	640	310	33	20	102	263	11	
DRD1.3-000 090-..	900	400	220	587,5	780	320	33	25	177	280	13	
DRD1.3-000 100-..	1000	400	220	642,0	860	350	33	25	188	300	13	
DRD1.3-000 112-..	1120	400	220	703,5	940	410	35	25	232	335	13	
DRD1.3-000 125-..	1250	450	255	781,5	1040	460	40	30	337	488	15	
DRD1.3-000 140-..	1400	450	255	860,5	1180	500	40	30	370	700	15	
DRD1.3-000 160-..	1600	450	255	942,5	1280	570	40	30	419	1024	15	

Inlet guide vane D2 with set collar



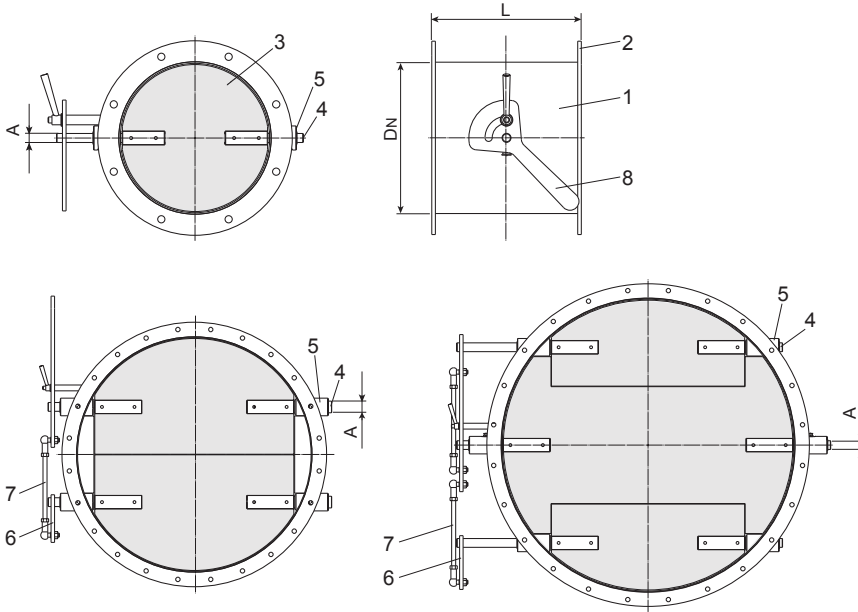
- 1 damper housing
- 2 flat flange
- 3 guiding blade
- 4 shaft
- 5 bearings
- 6 set linkage
- 7 joint rod
- 8 central support
- 9 hand lever
- 10 claw for support
- 11 set collar
- 12 guide roll

Flat flanges according to DIN 24154 (German Industrial Standard) series 2, edition July 90.

The specified actuating forces on the collar refer to a system pressure of $\Delta p_t = 3150 \text{ daPa}$.

article number component size	nominal size	dimensions								weight	set distance	actuating force	number of valves
		DN mm	L mm	A mm	B mm	C mm	D mm	E mm	F mm				
table 3 ↓	table 5 ↓												
DRD2.3-000 031-..	315	225	135	65	—	—	—	—	456	34	95	409	9
DRD2.3-000 035-..	355	225	135	65	—	—	—	—	495	37	94	506	9
DRD2.3-000 040-..	400	225	135	65	—	—	—	—	538	40	93	673	9
DRD2.3-000 045-..	450	250	135	65	460	125	33	—	587	48	97	893	9
DRD2.3-000 050-..	500	250	135	65	490	150	33	—	641	52	95	1172	9
DRD2.3-000 056-..	560	250	135	65	490	235	33	—	703	60	98	1658	9
DRD2.3-000 063-..	630	315	180	80	540	250	33	—	802	98	140	1551	11
DRD2.3-000 071-..	710	315	180	80	600	275	33	—	879	108	138	1928	11
DRD2.3-000 080-..	800	315	180	80	640	310	33	—	965	160	134	2662	11
DRD2.3-000 090-..	900	400	220	90	780	320	33	—	1063	199	175	1566	13
DRD2.3-000 100-..	1000	400	220	90	860	350	33	—	1172	216	173	1916	13
DRD2.3-000 112-..	1120	400	220	90	940	410	35	—	1295	250	180	2573	13
DRD2.3-000 125-..	1250	450	255	95	1040	460	40	—	1449	369	202	3050	15
DRD2.3-000 140-..	1400	450	255	95	1180	500	40	—	1603	384	223	4375	15
DRD2.3-000 160-..	1600	450	255	95	1280	570	40	—	1775	452	216	6400	15
DRD2.3-000 180-..	1800	450	255	95	1600	520	40	—	2037	548	223	8775	19
DRD2.3-000 200-..	2000	450	255	95	1800	580	40	—	2237	605	228	11160	19

Damper D3



- 1 damper housing
- 2 flat flange
- 3 control element
- 4 shaft
- 5 bearings
- 6 set linkage
- 7 joint rod
- 8 hand lever

Flat flanges according to DIN 24154 (German Industrial Standard) series 2, edition July 90.

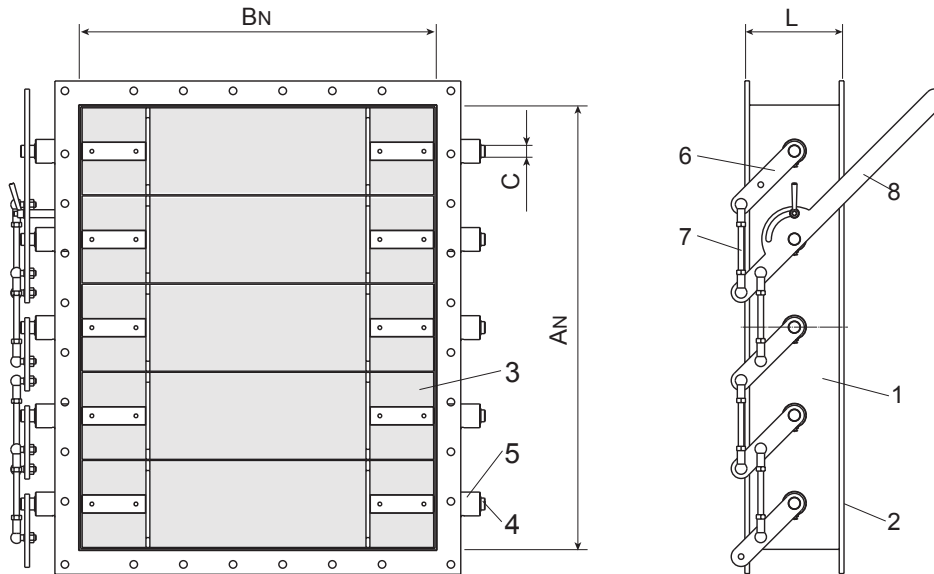
The given actuating torques refer to a system pressure of $p_{\text{pt}} = 3150 \text{ daPa}$.

Dampers

article number component size table 3 ↓ table 5 ↓	nominal size DN mm	dimensions		weight kg	actuating torque Nm	number of valves
		L mm	A mm			
DKD3.3-000 007-..	71	100	15	2,2	3,0	1
DKD3.3-000 008-..	80	100	15	2,4	3,0	1
DKD3.3-000 009-..	90	100	15	2,5	3,0	1
DKD3.3-000 010-..	100	100	15	2,8	3,0	1
DKD3.3-000 011-..	112	140	15	3,3	4,0	1
DKD3.3-000 012-..	125	140	15	3,6	4,5	1
DKD3.3-000 014-..	140	140	15	4,5	5,0	1
DKD3.3-000 016-..	160	160	15	5,2	5,5	1
DKD3.3-000 018-..	180	180	15	6,1	6,0	1
DKD3.3-000 020-..	200	200	15	7,2	7,5	1
DKD3.3-000 022-..	224	225	15	9,0	8,5	1
DKD3.3-000 025-..	250	250	15	10,0	10,0	1
DKD3.3-000 028-..	280	280	20	16,0	13,0	1
DKD3.3-000 031-..	315	315	20	18,0	16,0	1
DKD3.3-000 035-..	355	355	20	22,0	20,0	1
DKD3.3-000 040-..	400	400	20	26,0	26,0	1
DKD3.3-000 045-..	450	450	20	27,0	32,0	1
DKD3.3-000 050-..	500	315	25	52,0	44,0	2
DKD3.3-000 056-..	560	355	25	62,0	53,0	2
DKD3.3-000 063-..	630	400	25	70,0	68,0	2
DKD3.3-000 071-..	710	450	30	103,0	90,0	2
DKD3.3-000 080-..	800	500	30	122,0	114,0	2
DKD3.3-000 090-..	900	630	30	164,0	146,0	3
DKD3.3-000 100-..	1000	710	30	195,0	180,0	3
DKD3.3-000 112-..	1120	800	30	242,0	218,0	3
DKD3.3-000 125-..	1250	900	35	360,0	302,0	3
DKD3.3-000 140-..	1400	1000	35	436,0	378,0	3
DKD3.3-000 160-..	1600	1120	35	521,0	479,0	3
DKD3.3-000 180-..	1800	1250	35	628,0	604,0	3
DKD3.3-000 200-..	2000	1400	35	788,0	759,0	3

Dimensions

Louvre damper D4



- 1 louvre damper housing
- 2 flat flange
- 3 control element
- 4 shaft
- 5 bearings
- 6 set linkage
- 7 joint rod
- 8 hand lever

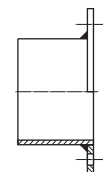
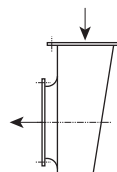
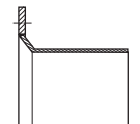
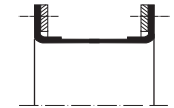
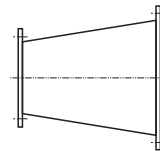
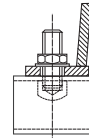
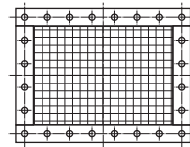
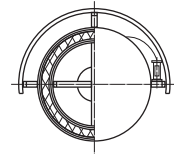
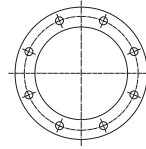
Flat flanges according to DIN 24193 (German Industrial Standard) series 3.

The specified actuating forces refer to a system pressure of $\Delta p_t = 3150 \text{ daPa}$.

article number component size table 3 table 5 ↓ ↓	nominal size		dimensions		weight kg	actuating torque Nm	number of valves
	AN mm	BN mm	L mm	C mm			
DJD4.2-010 012-..	100	125	140	15	3,4	7	1
DJD4.2-011 012-..	112	125	140	15	3,3	8	1
DJD4.2-012 012-..	125	125	140	15	3,6	9	1
DJD4.2-014 012-..	140	125	140	15	3,9	10	1
DJD4.2-016 012-..	160	125	200	15	5,2	12	1
DJD4.2-018 014-..	180	140	200	15	5,8	14	1
DJD4.2-020 016-..	200	160	200	15	6,5	17	1
DJD4.2-022 018-..	224	180	250	15	8,3	20	1
DJD4.2-025 020-..	250	200	250	15	9,2	26	1
DJD4.2-028 022-..	280	224	180	20	18,0	35	2
DJD4.2-031 025-..	315	250	180	20	20,0	48	2
DJD4.2-035 028-..	355	280	180	20	23,0	71	2
DJD4.2-040 031-..	400	315	200	20	27,0	90	2
DJD4.2-045 035-..	450	355	225	20	31,0	104	2
DJD4.2-050 040-..	500	400	250	20	36,0	118	2
DJD4.2-056 045-..	560	450	200	25	48,0	136	3
DJD4.2-063 050-..	630	500	225	25	55,0	164	3
DJD4.2-071 056-..	710	560	250	25	63,0	192	3
DJD4.2-080 063-..	800	630	200	25	95,0	271	4
DJD4.2-090 071-..	900	710	225	25	108,0	309	4
DJD4.2-100 080-..	1000	800	250	25	129,0	393	4
DJD4.2-112 090-..	1120	900	250	30	225,0	555	5
DJD4.2-125 100-..	1250	1000	250	30	256,0	691	5
DJD4.2-140 112-..	1400	1120	280	30	290,0	864	5
DJD4.2-160 125-..	1600	1250	280	35	409,0	1250	6
DJD4.2-180 140-..	1800	1400	315	35	494,0	1594	6
DJD4.2-200 160-..	2000	1600	315	35	702,0	2191	8
DJD4.2-224 180-..	2240	1800	355	35	909,0	2742	8
DJD4.2-250 200-..	2500	2000	355	35	1034,0	3423	8

Chapter 4 - Equipment - ZB

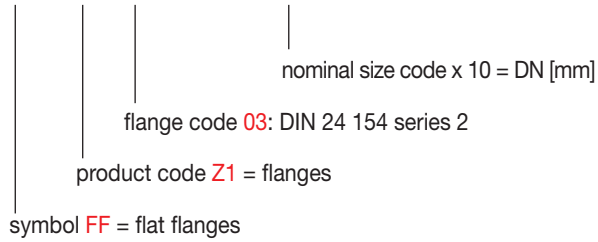
- Flat flanges
- Guards
- Transition pieces
- Inlet nozzles
- Suction boxes
- Round filters
- Anti-vibration mounts
- Flexible connections and chutes
- Flange pieces



Flat flange - round

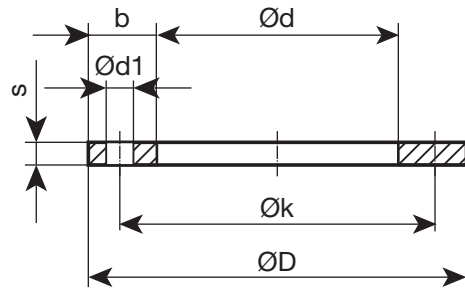
article no. = component size

FF Z1 03 - 000 063 - 00



Flat flange - round

acc. to DIN 24154 R2 (flange code 3)
edition July 90

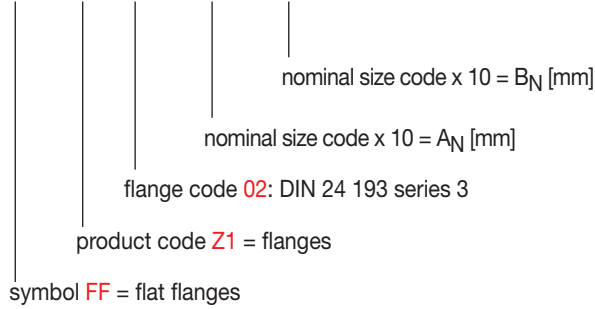


article no. component size	nominal size DN mm	weight kg	dimensions					screws	
			b x s mm	d mm	D mm	k mm	d1 mm	number	thread
FF Z1 03-000007-00	71	0,44	30 x 6	73	133	110	10	4	M8
FF Z1 03-000008-00	80	0,48	30 x 6	82	142	118	10	4	M8
FF Z1 03-000009-00	90	0,53	30 x 6	92	152	128	10	4	M8
FF Z1 03-000010-00	100	0,55	30 x 6	102	162	139	10	4	M8
FF Z1 03-000011-00	112	0,63	30 x 6	115	175	151	10	4	M8
FF Z1 03-000012-00	125	0,68	30 x 6	127	187	165	10	4	M8
FF Z1 03-000014-00	140	0,87	35 x 6	142	212	182	12	8	M10
FF Z1 03-000016-00	160	0,98	35 x 6	162	232	200	12	8	M10
FF Z1 03-000018-00	180	1,08	35 x 6	182	252	219	12	8	M10
FF Z1 03-000020-00	200	1,19	35 x 6	203	273	241	12	8	M10
FF Z1 03-000022-00	224	1,32	35 x 6	227	297	265	12	8	M10
FF Z1 03-000025-00	250	1,45	35 x 6	253	323	292	12	8	M10
FF Z1 03-000028-00	280	2,51	40 x 8	283	363	332	12	8	M10
FF Z1 03-000031-00	315	2,98	40 x 8	318	398	366	12	8	M10
FF Z1 03-000035-00	355	3,10	40 x 8	358	438	405	12	8	M10
FF Z1 03-000040-00	400	3,44	40 x 8	404	484	448	12	12	M10
FF Z1 03-000045-00	450	3,84	40 x 8	454	534	497	12	12	M10
FF Z1 03-000050-00	500	4,13	40 x 8	504	584	551	12	12	M10
FF Z1 03-000056-00	560	5,90	50 x 8	564	664	629	15	16	M12
FF Z1 03-000063-00	630	6,59	50 x 8	634	734	698	15	16	M12
FF Z1 03-000071-00	710	7,38	50 x 8	714	814	775	15	16	M12
FF Z1 03-000080-00	800	8,19	50 x 8	804	904	861	15	24	M12
FF Z1 03-000090-00	900	9,17	50 x 8	904	1004	958	15	24	M12
FF Z1 03-000100-00	1000	10,20	50 x 8	1005	1105	1067	15	24	M12
FF Z1 03-000112-00	1120	16,90	60 x 10	1125	1245	1200	19	32	M16
FF Z1 03-000125-00	1250	18,80	60 x 10	1255	1375	1337	19	32	M16
FF Z1 03-000140-00	1400	21,00	60 x 10	1405	1525	1475	19	32	M16
FF Z1 03-000160-00	1600	23,80	60 x 10	1605	1725	1675	19	40	M16
FF Z1 03-000180-00	1800	26,80	60 x 10	1805	1925	1875	19	40	M16
FF Z1 03-000200-00	2000	29,70	60 x 10	2005	2125	2073	19	40	M16

Flat flange - angular

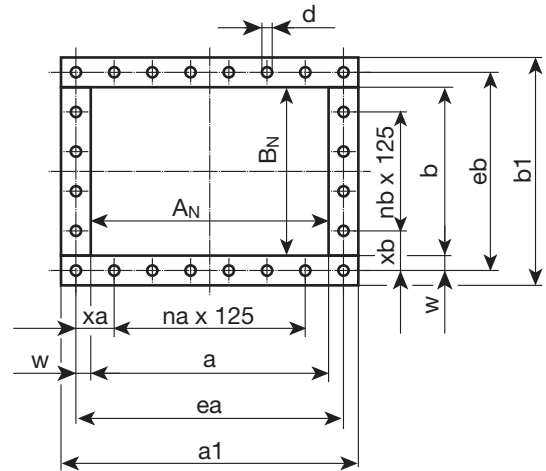
article no. = component size

FF Z1 02 - 063 050 - 00



Flat flange - angular

acc. to DIN 24193 R3 (flange code 2)



article no. component size	nominal size		weight		dimensions										screws			
	DN mm		kg		a mm	b mm	ea mm	eb mm	xa mm	xb mm	na	nb	w mm	a1 mm	b1 mm	d mm	number	thread
FF Z1 02-010012-00	100 / 125		0,78		102	127	136	161	-	80,5	-	-	17	162	187	10	6	M8
FF Z1 02-011012-00	112 / 125		0,81		114	127	148	161	-	80,5	-	-	17	174	187	10	6	M8
FF Z1 02-012012-00	125/ 125		0,85		127	127	161	161	80,5	80,5	-	-	17	187	187	10	8	M8
FF Z1 02-014012-00	140 / 125		0,89		142	127	176	161	88,0	80,5	-	-	17	202	187	10	8	M8
FF Z1 02-016012-00	160 / 125		0,99		162	127	196	161	98,0	80,5	-	-	17	222	187	10	8	M8
FF Z1 02-018014-00	180 / 140		1,08		182	142	216	176	108,0	88,0	-	-	17	242	202	10	8	M8
FF Z1 02-020016-00	200 / 160		1,20		202	162	236	196	118,0	98,0	-	-	17	262	222	10	8	M8
FF Z1 02-022018-00	224 / 180		1,32		226	182	260	216	130,0	108,0	-	-	17	286	242	10	8	M8
FF Z1 02-025020-00	250 / 200		1,45		252	202	286	236	143,0	118,0	-	-	17	312	262	10	8	M8
FF Z1 02-028022-00	280 / 224		2,14		282	226	316	260	158,0	130,0	-	-	17	342	286	10	8	M8
FF Z1 02-031025-00	315 / 250		2,37		317	252	351	286	113,0	143,0	1	-	17	377	312	10	10	M8
FF Z1 02-035028-00	355 / 280		2,63		357	282	391	316	133,0	158,0	1	-	17	417	342	10	10	M8
FF Z1 02-040031-00	400 / 315		2,93		402	317	436	351	155,5	113,0	1	1	17	462	377	10	12	M8
FF Z1 02-045035-00	450 / 355		5,71		452	357	512	417	68,5	146,0	3	1	30	552	457	15	16	M12
FF Z1 02-050040-00	500 / 400		6,30		502	402	562	462	93,5	168,5	3	1	30	602	502	15	16	M12
FF Z1 02-056045-00	560 / 450		8,75		562	452	622	512	123,5	68,5	3	3	30	662	552	15	20	M12
FF Z1 02-063050-00	630 / 500		9,69		632	502	692	562	158,5	93,5	3	3	30	732	602	15	20	M12
FF Z1 02-071056-00	710 / 560		10,79		712	562	772	622	73,5	123,5	5	3	30	812	662	15	24	M12
FF Z1 02-080063-00	800 / 630		12,04		802	632	862	692	118,5	158,5	5	3	30	902	732	15	24	M12
FF Z1 02-090071-00	900 / 710		13,46		902	712	962	772	168,5	73,5	5	5	30	1002	812	15	28	M12
FF Z1 02-100080-00	1000 / 800		14,96		1002	802	1062	862	93,5	118,5	7	5	30	1102	902	15	32	M12
FF Z1 02-112090-00	1120 / 900		24,22		1122	902	1192	972	158,5	173,5	7	5	35	1242	1022	19	32	M16
FF Z1 02-125100-00	1250 / 1000		26,82		1252	1002	1322	1072	98,5	98,5	9	7	35	1372	1122	19	40	M16
FF Z1 02-140112-00	1400 / 1120		29,86		1402	1122	1472	1192	173,5	158,5	9	7	35	1522	1242	19	40	M16
FF Z1 02-160125-00	1600 / 1250		56,77		1602	1252	1692	1342	158,5	108,5	11	9	45	1762	1412	24	48	M20
FF Z1 02-180140-00	1800 / 1400		63,37		1802	1402	1892	1492	133,5	183,5	13	9	45	1962	1562	24	52	M20
FF Z1 02-200160-00	2000 / 1600		70,91		2002	1602	2092	1692	108,5	158,5	15	11	45	2162	1762	24	60	M20
FF Z1 02-224180-00	2240 / 1800		89,55		2242	1802	2342	1902	108,5	138,5	17	13	50	2422	1982	24	68	M20
FF Z1 02-250200-00	2500 / 2000		111,00		2502	2002	2612	2112	118,5	118,5	19	15	55	2702	2202	24	76	M20

Flat flanges for silencers with baffles

article no. = component size

FF Z1 06 - 037 062 - 00

nominal size code x 10 = H [mm]

nominal size code x 10 = B [mm]

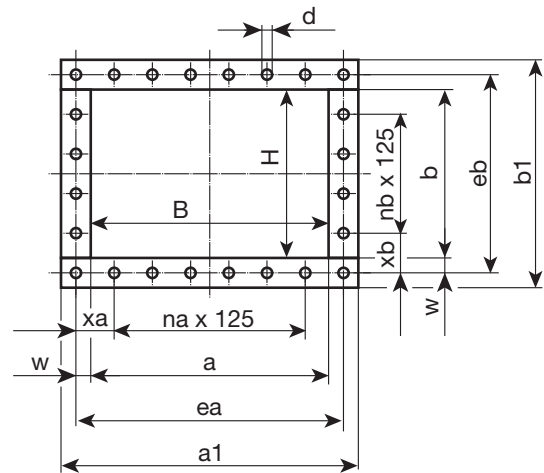
flange code **06**: for silencers series 1

product code **Z1** = flanges

symbol **FF** = flat flanges

Flat flanges for silencers with baffles

appropriate for silencers with baffles
series 1 (flange code 6)

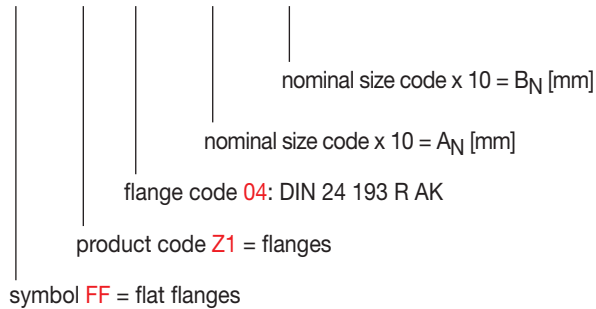


article no. component size	nominal size B / H mm	weight kg	dimensions											screws		
			a mm	b mm	ea mm	eb mm	xa mm	xb mm	na	nb	w mm	a1 mm	b1 mm	d mm	num- ber	thread
FF Z1 06-037025-00	375 / 250	2,60	377	252	411	286	143,0	143,0	1	-	17	437	312	10	10	M8
FF Z1 06-037037-00	375 / 375	3,07	377	377	411	411	143,0	143,0	1	1	17	437	437	10	12	M8
FF Z1 06-037050-00	375 / 500	3,54	377	502	411	536	143,0	80,5	1	3	17	437	562	10	16	M8
FF Z1 06-037062-00	375 / 625	4,01	377	627	411	661	143,0	143,0	1	3	17	437	687	10	16	M8
FF Z1 06-075050-00	750 / 500	10,60	752	502	812	562	93,5	93,5	5	3	30	852	602	15	24	M12
FF Z1 06-075075-00	750 / 750	12,60	752	752	812	812	93,5	93,5		5	30	852	852	15	28	M12
FF Z1 06-075100-00	750 / 1000	14,60	752	1002	812	1062	93,5	93,5	5	7	30	852	1102	15	32	M12
FF Z1 06-112100-00	1125 / 1000	17,50	1127	1002	1187	1062	156,0	93,5	7	7	30	1227	1102	15	36	M12
FF Z1 06-112125-00	1125 / 1250	19,50	1127	1252	1187	1312	156,0	93,5	7	9	30	1227	1352	15	40	M12
FF Z1 06-112150-00	1125 / 1500	21,50	1127	1502	1187	1562	156,0	93,5	7	11	30	1227	1602	15	44	M12
FF Z1 06-150125-00	1500 / 1250	23,20	1502	1252	1562	1312	93,5	93,5	11	9	30	1602	1352	15	48	M12
FF Z1 06-150150-00	1500 / 1500	25,20	1502	1502	1562	1562	93,5	93,5	11	11	30	1602	1602	15	52	M12
FF Z1 06-150175-00	1500 / 1750	27,20	1502	1752	1562	1812	93,5	93,5	11	13	30	1602	1852	15	56	M12
FF Z1 06-181715-00	1875 / 1750	71,40	1877	1752	1967	1842	171,0	108,5	13	13	45	2037	1912	24	60	M20
FF Z1 06-187200-00	1875 / 2000	76,10	1877	2002	1967	2092	171,0	108,5	13	15	45	2037	2162	24	64	M20
FF Z1 06-225200-00	2250 / 2000	83,20	2252	2002	2342	2092	108,5	108,5	17	15	45	2412	2162	24	72	M20
FF Z1 06-225225-00	2250 / 2250	87,90	2252	2252	2342	2342	108,5	108,5	17	17	45	2412	2412	24	76	M20
FF Z1 06-225250-00	2250 / 2500	92,60	2252	2502	2342	2592	108,5	108,5	17	19	45	2412	2662	24	80	M20
FF Z1 06-262275-00	2625 / 2750	131,70	2627	2752	2737	2862	181,0	118,5	19	21	55	2827	2952	24	88	M20
FF Z1 06-262300-00	2625 / 3000	137,60	2627	3002	2737	3112	181,0	118,5	19	23	55	2827	3202	24	92	M20
FF Z1 06-300275-00	3000 / 2750	140,50	3002	2752	3112	2862	118,5	118,5	23	21	55	3202	2952	24	96	M20
FF Z1 06-300325-00	3000 / 3250	152,30	3002	3252	3112	3362	118,5	118,5	23	25	55	3202	3452	24	104	M20
FF Z1 06-337325-00	3375 / 3250	161,20	3377	3252	3487	3362	181,0	118,5	25	25	55	3577	3452	24	108	M20
FF Z1 06-337350-00	3375 / 3500	167,10	3377	3502	3487	3612	181,0	118,5	25	27	55	3577	3702	24	112	M20
FF Z1 06-375375-00	3750 / 3750	181,80	3752	3752	3862	3862	118,5	118,5	29	29	55	3952	3952	24	124	M20
FF Z1 06-375400-00	3750 / 4000	187,70	3752	4002	3862	4112	118,5	118,5	29	31	55	3952	4202	24	128	M20
FF Z1 06-412425-00	4125 / 4250	202,50	4127	4252	4237	4362	181,0	118,5	31	33	55	4327	4452	24	136	M20
FF Z1 06-412450-00	4125 / 4500	217,20	4127	4502	4237	4612	181,0	118,5	31	35	55	4327	4702	24	140	M20

Flat flange for suction boxes

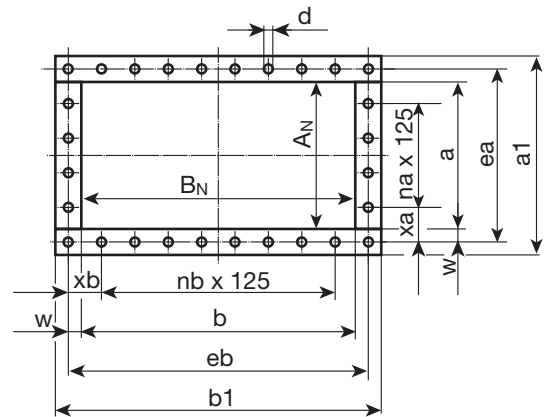
article no. = component size

FF Z1 04 - 014 031 - 00



Flat flange for suction boxes

acc. DIN 24 193 series 3 for suction boxes
(flange code 4)

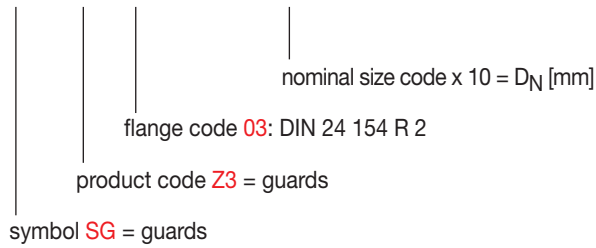


article no. component size	nominal size A_N / B_N mm	weight kg	dimensions												screws	
			a mm	b mm	e_a mm	e_b mm	x_a mm	x_b mm	n_a	n_b	w mm	a_1 mm	b_1 mm	d mm	num- ber	thread
FF Z1 04-012028-00	125 / 280	1,8	127	282	161	316	80,5	158,0	-	-	17	187	342	10	8	M8
FF Z1 04-014031-00	140 / 315	2,0	142	317	176	351	88,0	113,0	-	1	17	202	377	10	10	M8
FF Z1 04-016035-00	160 / 355	2,2	162	357	196	391	98,0	133,0	-	1	17	222	417	10	10	M8
FF Z1 04-018040-00	180 / 400	2,4	182	402	216	436	108,0	155,5	-	1	17	242	462	10	10	M8
FF Z1 04-020045-00	200 / 450	4,7	202	452	262	512	131,0	68,5	-	3	30	302	552	15	14	M12
FF Z1 04-022050-00	224 / 500	5,2	226	502	282	562	143,0	93,5	-	3	30	326	602	15	14	M12
FF Z1 04-025056-00	250 / 560	7,2	252	562	312	622	156,0	123,5	-	3	30	352	662	15	14	M12
FF Z1 04-028063-00	280 / 630	8,0	282	632	342	692	171,0	158,5	-	3	30	382	732	15	14	M12
FF Z1 04-031071-00	315 / 710	8,9	317	712	377	772	126,0	73,5	1	5	30	417	812	15	20	M12
FF Z1 04-035080-00	355 / 800	9,9	357	802	417	862	146,0	118,5	1	5	30	457	902	15	20	M12
FF Z1 04-040090-00	400 / 900	11,0	402	902	462	962	168,5	168,5	1	5	30	502	1002	15	20	M12
FF Z1 04-045100-00	450 / 1000	12,2	452	1002	512	1062	68,5	93,5	3	7	30	552	1102	15	28	M12
FF Z1 04-050112-00	500 / 1120	14,0	502	1122	572	1192	98,5	158,5	3	7	35	622	1242	19	28	M16
FF Z1 04-056125-00	560 / 1250	15,5	562	1252	632	1322	128,5	98,5	3	9	35	682	1372	19	32	M16
FF Z1 04-063140-00	630 / 1400	24,3	632	1402	702	1472	163,5	173,5	3	9	35	752	1522	19	32	M16
FF Z1 04-071160-00	710 / 1600	46,4	712	1602	802	1692	88,5	158,5	5	11	45	872	1762	24	40	M20
FF Z1 04-080180-00	800 / 1800	52,1	802	1802	892	1892	133,5	133,5	5	11	45	962	1962	24	44	M20
FF Z1 04-090200-00	900 / 2000	57,7	902	2002	992	2092	183,5	108,5	5	15	45	1062	2162	24	48	M20
FF Z1 04-100224-00	1000/ 2240	72,6	1002	2242	1102	2342	113,5	108,5	7	17	50	1182	2422	24	56	M20
FF Z1 04-112250-00	1120 / 2500	90,2	1122	2502	1232	2612	178,5	118,5	7	19	55	1322	2702	24	60	M20
FF Z1 04-125280-00	1250 / 2800	100,4	1252	2802	1362	2912	118,5	143,5	9	21	55	1452	3002	24	68	M20
FF Z1 04-140315-00	1400 / 3150	112,2	1402	3152	1512	3262	193,5	193,5	9	23	55	1602	3352	24	72	M20
FF Z1 04-160355-00	1600 / 3550	126,4	1602	3552	1712	3662	168,5	143,5	11	27	55	1802	3752	24	84	M20

Guards - round

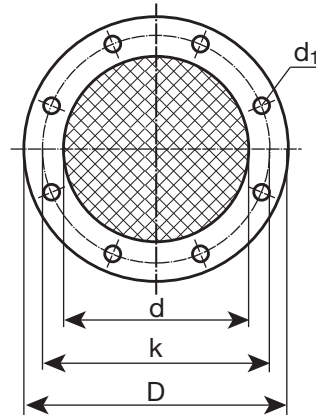
article no. = component size

SG Z3 03 - 000 063 - 00



Guards - round

Flat flange according to DIN 24154 series 2
edition July '90

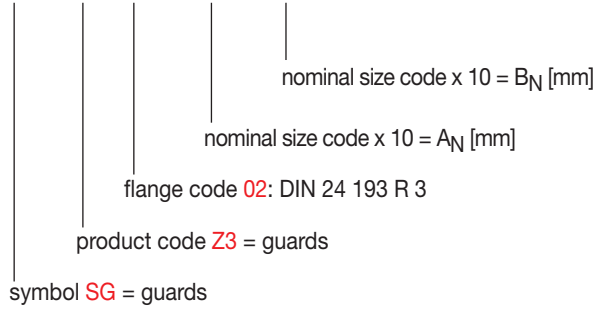


article no. component size	nominal size	weight	dimensions				screws	
	D_N mm		kg	d mm	k mm	D mm	d_1 mm	number
SG Z3 03-000007-00	71	0,16	73	110	133	10	4	M8
SG Z3 03-000008-00	80	0,18	82	118	142	10	4	M8
SG Z3 03-000009-00	90	0,20	92	128	152	10	4	M8
SG Z3 03-000010-00	100	0,21	102	139	162	10	4	M8
SG Z3 03-000011-00	112	0,24	115	151	175	10	4	M8
SG Z3 03-000012-00	125	0,27	127	165	187	10	4	M8
SG Z3 03-000014-00	140	0,33	142	182	212	12	8	M10
SG Z3 03-000016-00	160	0,39	162	200	232	12	8	M10
SG Z3 03-000018-00	180	0,44	182	219	252	12	8	M10
SG Z3 03-000020-00	200	0,50	203	241	273	12	8	M10
SG Z3 03-000022-00	224	0,57	227	265	297	12	8	M10
SG Z3 03-000025-00	250	0,64	253	292	323	12	8	M10
SG Z3 03-000028-00	280	0,83	283	332	363	12	8	M10
SG Z3 03-000031-00	315	0,99	318	366	398	12	8	M10
SG Z3 03-000035-00	355	1,09	358	405	438	12	8	M10
SG Z3 03-000040-00	400	1,26	404	448	484	12	12	M10
SG Z3 03-000045-00	450	1,47	454	497	534	12	12	M10
SG Z3 03-000050-00	500	1,66	504	551	584	12	12	M10
SG Z3 03-000056-00	560	2,26	564	629	664	15	16	M12
SG Z3 03-000063-00	630	2,64	634	698	734	15	16	M12
SG Z3 03-000071-00	710	3,10	714	775	814	15	16	M12
SG Z3 03-000080-00	800	3,64	804	861	904	15	24	M12
SG Z3 03-000090-00	900	4,31	904	958	1004	15	24	M12
SG Z3 03-000100-00	1000	7,56	1005	1067	1105	15	24	M12
SG Z3 03-000112-00	1120	9,75	1125	1200	1245	19	32	M16
SG Z3 03-000125-00	1250	11,47	1255	1337	1375	19	32	M16
SG Z3 03-000140-00	1400	13,60	1405	1475	1525	19	32	M16
SG Z3 03-000160-00	1600	16,67	1605	1675	1725	19	40	M16
SG Z3 03-000180-00	1800	20,09	1805	1875	1925	19	40	M16
SG Z3 03-000200-00	2000	23,78	2005	2073	2125	19	40	M16

Guards - angular

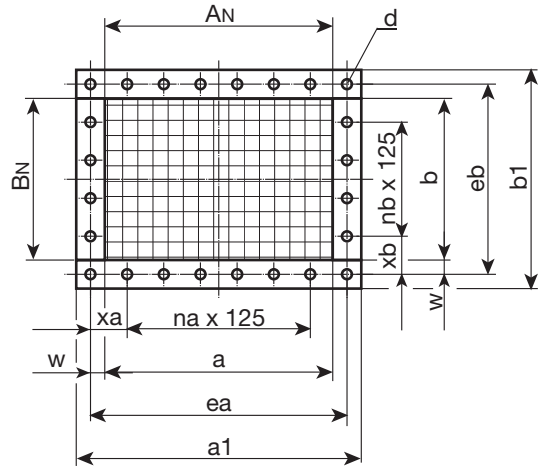
article no. = component size

SG Z3 02 - 063 050 - 00



Guards - angular

Flat flange according to DIN 24193 series 3

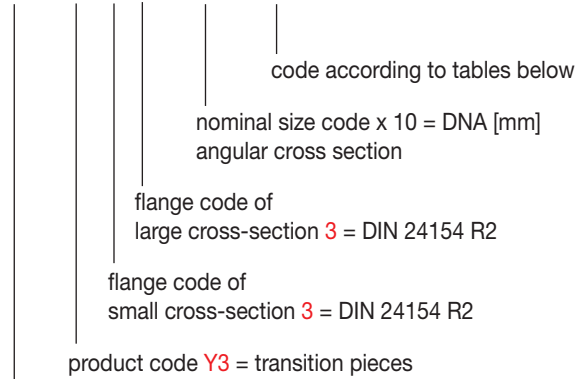


article no. component size	nominal size AN / BN mm	weight kg	dimensions											screws		
			a mm	b mm	ea mm	eb mm	xa mm	xb mm	na	nb	w mm	a1 mm	b1 mm	d mm	num- ber	thread
SG Z3 02-010012-00	100 / 125	0,13	102	127	136	161	-	80,5	-	-	17	162	187	10	6	M8
SG Z3 02-011012-00	112 / 125	0,14	114	127	148	161	-	80,5	-	-	17	174	187	10	6	M8
SG Z3 02-012012-00	125 / 125	0,15	127	127	161	161	80,5	80,5	-	-	17	187	187	10	8	M8
SG Z3 02-014012-00	140 / 125	0,17	142	127	176	161	88,0	80,5	-	-	17	202	187	10	8	M8
SG Z3 02-016012-00	160 / 125	0,20	162	127	196	161	98,0	80,5	-	-	17	222	187	10	8	M8
SG Z3 02-018014-00	180 / 140	0,23	182	142	216	176	108,0	88,0	-	-	17	242	202	10	8	M8
SG Z3 02-020016-00	200 / 160	0,27	202	162	236	196	118,0	98,0	-	-	17	262	222	10	8	M8
SG Z3 02-022018-00	224 / 180	0,33	226	182	260	216	130,0	108,0	-	-	17	286	242	10	8	M8
SG Z3 02-025020-00	250 / 200	0,39	252	202	286	236	143,0	118,0	-	-	17	312	262	10	8	M8
SG Z3 02-028022-00	280 / 224	0,46	282	226	316	260	158,0	130,0	-	-	17	342	286	10	8	M8
SG Z3 02-031025-00	315 / 250	0,55	317	252	351	286	113,0	143,0	1	-	17	377	312	10	10	M8
SG Z3 02-035028-00	355 / 280	0,67	357	282	391	316	133,0	158,0	1	-	17	417	342	10	10	M8
SG Z3 02-040031-00	400 / 315	0,82	402	317	436	351	155,5	113,0	1	1	17	462	377	10	12	M8
SG Z3 02-045035-00	450 / 355	1,19	452	357	512	417	68,5	146,0	3	1	30	552	457	15	16	M12
SG Z3 02-050040-00	500 / 400	1,42	502	402	562	462	93,5	168,5	3	1	30	602	502	15	16	M12
SG Z3 02-056045-00	560 / 450	2,87	562	452	622	512	123,5	68,5	3	3	30	662	552	15	20	M12
SG Z3 02-063050-00	630 / 500	3,46	632	502	692	562	158,5	93,5	3	3	30	732	602	15	20	M12
SG Z3 02-071056-00	710 / 560	4,22	712	562	772	622	73,5	123,5	5	3	30	812	662	12	24	M12
SG Z3 02-080063-00	800 / 630	5,18	802	632	862	692	118,5	158,5	5	3	30	902	732	15	24	M12
SG Z3 02-090071-00	900 / 710	6,39	902	712	962	772	168,5	73,5	5	5	30	1002	812	15	28	M12
SG Z3 02-100080-00	1000 / 800	7,80	1002	802	1062	862	93,5	118,5	7	5	30	1102	902	15	32	M12
SG Z3 02-112090-00	1120 / 900	11,69	1122	902	1192	972	158,5	173,5	7	5	35	1242	1022	19	32	M16
SG Z3 02-125100-00	1250 / 1000	14,50	1252	1002	1322	1072	98,5	98,5	9	7	35	1372	1122	19	40	M16
SG Z3 02-140112-00	1400 / 1120	17,81	1402	1122	1472	1192	173,5	158,5	9	7	35	1522	1242	19	40	M16
SG Z3 02-160125-00	1600 / 1250	23,44	1602	1252	1692	1342	158,5	108,5	11	9	45	1762	1412	24	48	M20
SG Z3 02-180140-00	1800 / 1400	28,87	1802	1402	1892	1492	133,5	183,5	13	9	45	1962	1562	24	52	M20
SG Z3 02-200160-00	2000 / 1600	35,88	2002	1602	2092	1692	108,5	158,5	15	11	45	2162	1762	24	60	M20
SG Z3 02-224180-00	2240 / 1800	45,22	2242	1802	2342	1902	108,5	138,5	17	13	50	2422	1982	24	68	M20
SG Z3 02-250200-00	2500 / 2000	56,05	2502	2002	2612	2112	118,5	118,5	19	15	55	2702	2202	24	76	M20

Transition piece - round-round

article no. = component size

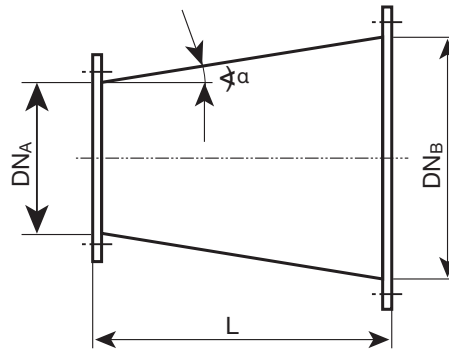
US Y3 3 3 - 018 001 - 00



symbol **US** = transition piece

Transition piece - round-round

Flat flange acc. to DIN 24154 R2 edition July 90



Transition piece DNA/DNB = 1 step					
DN _A mm	article no. component size	DN _B mm	L mm	< α ca.	weight ¹⁾ kg
90	US Y3 33-009001-00	100	100	7,0°	1,5
100	US Y3 33-010001-00	112	100	7,0°	1,6
112	US Y3 33-011001-00	125	100	7,0°	1,8
125	US Y3 33-012001-00	140	100	7,0°	2,1
140	US Y3 33-014001-00	160	100	7,0°	2,5
160	US Y3 33-016001-00	180	100	7,0°	2,8
180	US Y3 33-018001-00	200	100	7,0°	3,3
200	US Y3 33-020001-00	224	100	7,0°	3,7
224	US Y3 33-022001-00	250	100	15,0°	3,8
250	US Y3 33-025001-00	280	125	15,0°	5,7
280	US Y3 33-028001-00	315	125	15,0°	7,3
315	US Y3 33-031001-00	355	125	15,0°	8,5
355	US Y3 33-035001-00	400	140	15,0°	9,9
400	US Y3 33-040001-00	450	140	15,0°	11,0
450	US Y3 33-045001-00	500	160	15,0°	13,0
500	US Y3 33-050001-00	560	200	15,0°	18,0
560	US Y3 33-056001-00	630	200	15,0°	24,0
630	US Y3 33-063001-00	710	200	15,0°	28,0
710	US Y3 33-071001-00	800	225	15,0°	33,0
800	US Y3 33-080001-00	900	225	15,0°	39,0
900	US Y3 33-090001-00	1000	250	15,0°	52,0
1000	US Y3 33-100001-00	1120	250	15,0°	68,0
1120	US Y3 33-112001-00	1250	250	15,0°	79,0
1250	US Y3 33-125001-00	1400	280	15,0°	92,0
1400	US Y3 33-140001-00	1600	355	15,0°	107,0
1600	US Y3 33-160001-00	1800	355	15,0°	124,0
1800	US Y3 33-180001-00	2000	400	15,0°	144,0
2000	US Y3 33-200001-00	2240	560	15,0°	167,0

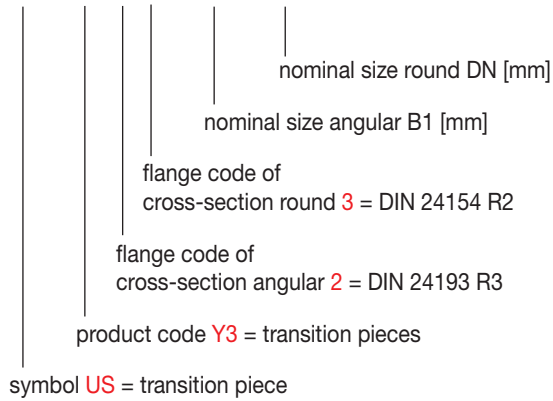
1) weight inclusive flanges

Transition piece DNA/DNB = 2 steps					
DN _A mm	article no. component size	DN _B mm	L mm	< α ca.	weight ¹⁾ kg
90	US Y3 33-009002-00	112	100	15,0°	1,6
100	US Y3 33-010002-00	125	100	15,0°	1,7
112	US Y3 33-011002-00	140	100	15,0°	2,1
125	US Y3 33-012002-00	160	100	15,0°	2,3
140	US Y3 33-014002-00	180	100	15,0°	2,7
160	US Y3 33-016002-00	200	100	15,0°	3,2
180	US Y3 33-018002-00	224	100	15,0°	3,6
200	US Y3 33-020002-00	250	100	15,0°	3,9
224	US Y3 33-022002-00	280	125	15,0°	5,9
250	US Y3 33-025002-00	315	125	15,0°	6,5
280	US Y3 33-028002-00	355	140	15,0°	8,3
315	US Y3 33-031002-00	400	140	15,0°	9,7
355	US Y3 33-035002-00	450	180	15,0°	11,0
400	US Y3 33-040002-00	500	180	15,0°	14,0
450	US Y3 33-045002-00	560	200	15,0°	18,0
500	US Y3 33-050002-00	630	200	15,0°	22,0
560	US Y3 33-056002-00	710	280	15,0°	28,0
630	US Y3 33-063002-00	800	280	15,0°	32,0
710	US Y3 33-071002-00	900	355	15,0°	40,0
800	US Y3 33-080002-00	1000	355	15,0°	46,0
900	US Y3 33-090002-00	1120	400	15,0°	57,0
1000	US Y3 33-100002-00	1250	400	15,0°	66,0
1120	US Y3 33-112002-00	1400	500	15,0°	86,0
1250	US Y3 33-125002-00	1600	560	22,5°	103,0
1400	US Y3 33-140002-00	1800	560	22,5°	122,0
1600	US Y3 33-160002-00	2000	630	22,5°	142,0

Transition piece - angular-round

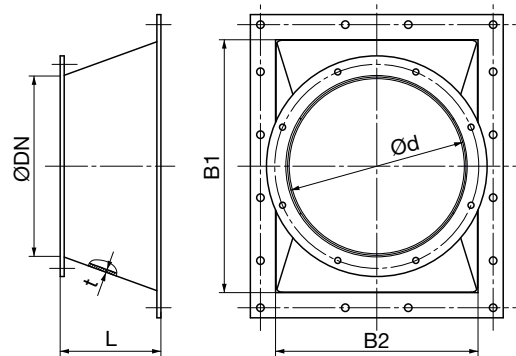
article no. = component size

US Y3 2 3 - 125 071 - 00



Transition piece - angular-round

flange round according DIN 24154 R2 edition July 90
flange angular according DIN 24193 R3



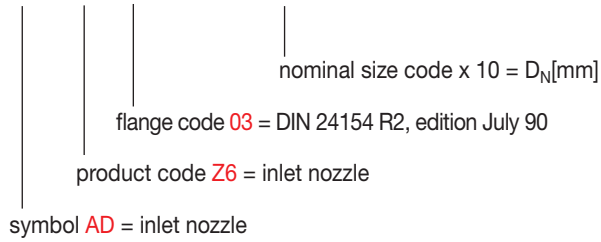
article no. component size	nominal size	weight (incl. flanges) kg	dimensions				
	DN mm		B1 mm	B2 mm	d* mm	L mm	t mm
US Y3 23-125100-...	100	1,97	100	125	98	80	2,5
US Y3 23-125112-...	112	2,14	112	125	112	80	2,5
US Y3 23-125125-...	125	2,28	125	125	125	80	2,5
US Y3 23-125140-...	140	2,68	140	125	140	90	2,5
US Y3 23-125160-...	160	3,05	160	125	160	100	2,5
US Y3 23-140180-...	180	3,50	180	140	180	110	2,5
US Y3 23-160200-...	200	4,10	200	160	201	125	2,5
US Y3 23-180224-...	224	4,78	224	180	225	140	2,5
US Y3 23-200250-...	250	5,64	250	200	251	160	2,5
US Y3 23-224280-...	280	8,10	280	224	281	180	2,5

* d suitable for flanges according to DIN 24154 R2

Inlet nozzle

article no. = component size

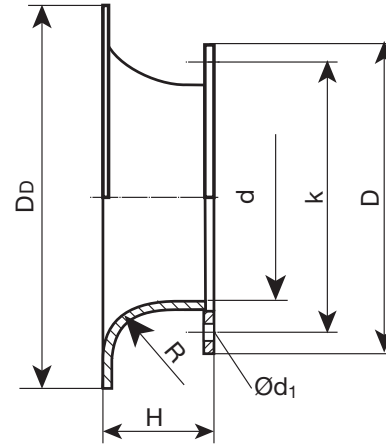
AD Z6 03 - 000 063 - 00



Inlet nozzle

Flat flange acc. to DIN 24154 R2
edition July 90

Pressure loss:
 $p_v = \zeta \cdot p_d(DN)$ [daPa]
 $\zeta = 0,25 - 0,35$



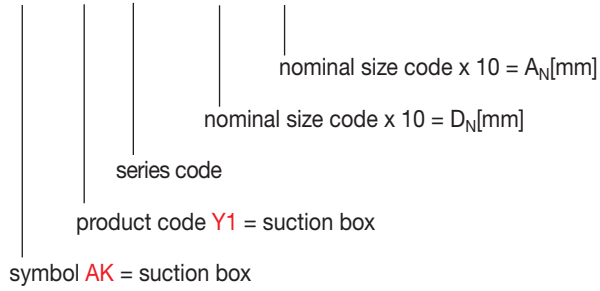
article no. component size	nominal size	weight ¹⁾ kg	dimensions							screws	
	DN mm		d mm	D _D mm	H mm	R mm	D mm	k mm	d ₁ mm	number	thread
AD Z6 03-000012-00	125	1,68	126	250	31	20	187	165	9,5	4	M8
AD Z6 03-000014-00	140	1,97	141	265	33	22	212	182	11,5	8	M10
AD Z6 03-000016-00	160	2,55	158	315	35	24	232	200	11,5	8	M10
AD Z6 03-000018-00	180	2,82	178	335	38	27	252	219	11,5	8	M10
AD Z6 03-000020-00	200	3,38	199	375	42	30	273	241	11,5	8	M10
AD Z6 03-000022-00	224	3,77	224	400	47	34	297	265	11,5	8	M10
AD Z6 03-000025-00	250	4,57	251	450	52	38	323	292	11,5	8	M10
AD Z6 03-000028-00	280	6,90	282	530	59	42	363	332	11,5	8	M10
AD Z6 03-000031-00	315	7,78	316	560	66	48	398	366	11,5	8	M10
AD Z6 03-000035-00	355	10,17	355	600	72	53	438	405	11,5	8	M10
AD Z6 03-000040-00	400	12,34	398	670	79	59	484	448	11,5	12	M10
AD Z6 03-000045-00	450	16,91	447	800	88	66	534	497	11,5	12	M10
AD Z6 03-000050-00	500	22,14	501	850	98	74	584	551	11,5	12	M10
AD Z6 03-000056-00	560	28,36	562	950	108	82	664	629	14,0	16	M12
AD Z6 03-000063-00	630	30,42	631	996	120	92	734	698	14,0	16	M12
AD Z6 03-000071-00	710	46,01	708	1150	133	103	814	775	14,0	16	M12
AD Z6 03-000080-00	800	56,31	794	1285	142	114	904	861	14,0	24	M12
AD Z6 03-000090-00	900	65,59	891	1400	161	130	1004	958	14,0	24	M12
AD Z6 03-000100-00	1000	79,47	1000	1550	181	125	1105	1067	14,0	24	M12
AD Z6 03-000112-00	1120	66,80	1120	1442	206	161	1245	1200	18,0	32	M16
AD Z6 03-000125-00	1250	113,80	1265	1595	193	165	1375	1337	18,0	32	M16
AD Z6 03-000140-00	1400	151,60	1403	1803	245	200	1525	1475	18,0	32	M16
AD Z6 03-000160-00	1600	188,50	1575	2023	267	224	1725	1675	18,0	40	M16
AD Z6 03-000180-00	1800	272,20	1768	2268	293	250	1925	1875	18,0	40	M16
AD Z6 03-000200-00	2000	338,50	1985	2545	328	280	2125	2073	18,0	40	M16

1) weight inclusive flanges

Suction box, series 2

article no. = component size

AK Y1 02 - 063 050 - 00



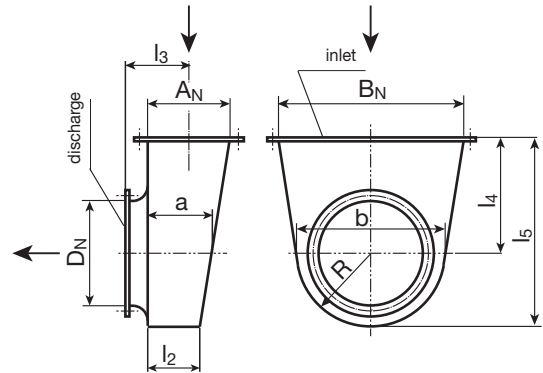
Suction box, series 2

Angular flanges according to DIN 24193 R3-AK, see sheet ZB5.

Round connection according to DIN 24154 R2, see sheet ZB2.

Important! Provide support to reduce the load of the suction box.

Pressure loss:
 $p_v = \zeta \cdot p_d(DN)$ [daPa]
 $\zeta = 0,25 - 0,35$

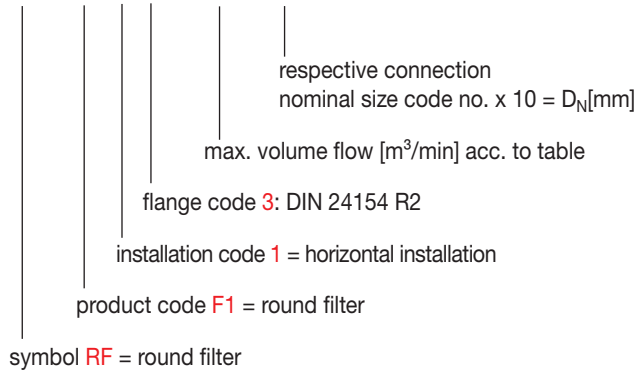


article no. component size	nominal size		weight ¹⁾ kg	dimensions					
	DN mm	A _N x B _N		a x b mm	l ₂ mm	l ₃ mm	l ₄ mm	l ₅ mm	R mm
AK Y1 02-016012-00	160	125 x 280	13	80 x 224	80	125,0	200	312	112
AK Y1 02-018014-00	180	140 x 315	19	90 x 250	80	132,5	220	345	125
AK Y1 02-020016-00	200	160 x 355	23	100 x 280	80	142,5	240	380	140
AK Y1 02-022018-00	224	180 x 400	29	112x 315	80	152,5	270	430	160
AK Y1 02-025020-00	250	200 x 450	39	125 x 355	80	162,5	300	480	180
AK Y1 02-028022-00	280	224 x 500	49	140 x 400	90	168,5	340	540	200
AK Y1 02-031025-00	315	250 x 560	63	160 x 450	100	188,0	380	604	224
AK Y1 02-035028-00	355	280 x 630	79	180 x 500	112	209,0	430	680	250
AK Y1 02-040031-00	400	315 x 710	98	200 x 560	125	232,5	480	760	280
AK Y1 02-045035-00	450	355 x 800	123	224 x 630	140	261,5	540	855	315
AK Y1 02-050040-00	500	400x 900	202	250 x 710	160	294,0	600	955	355
AK Y1 02-056045-00	560	450 x 1000	260	280 x 800	180	329,0	670	1070	400
AK Y1 02-063050-00	630	500 x 1120	320	315 x 900	200	366,0	760	1210	450
AK Y1 02-071056-00	710	560 x 1250	484	355 x 1000	224	409,0	850	1350	500
AK Y1 02-080063-00	800	630 x 1400	619	400 x 1120	250	453,0	960	1520	560
AK Y1 02-090071-00	900	710 x 1600	805	450 x 1250	280	512,0	1080	1710	630
AK Y1 02-100080-00	1000	800 x 1800	1012	500 x 1400	315	577,0	1200	1910	710
AK Y1 02-112090-00	1120	900 x 2000	1063	560 x 1600	355	650,0	1340	2140	800
AK Y1 02-125100-00	1250	1000 x 2240	1324	630 x 1800	400	687,0	1500	2400	900
AK Y1 02-140112-00	1400	1120 x 2500	1683	710 x 2000	450	799,0	1680	2680	1000
AK Y1 02-160125-00	1600	1250 x 2800	2505	800 x 2240	500	886,0	1920	3040	1120
AK Y1 02-180140-00	1800	1400 x 3150	2608	900 x 2500	560	987,0	2160	3410	1250
AK Y1 02-200160-00	2000	1600 x 3550	3334	1000 x 2800	630	1122,0	2400	3800	1400

Round filter

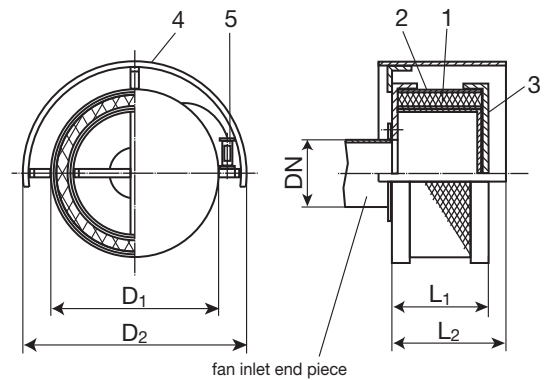
article no. = component size

RF F1 1 3 - 032 025 - 00



Round filter

horizontal installation



- 1 filter cartridge
- 2 fence wire
- 3 cover
- 4 rainhood
- 5 U-tube manometer

article no. component size	weight kg	max. D_N mm	max. volume flow		dimensions				replacement cartridge article no. component size	weight kg
			m ³ /min	m ³ /s	D_1 mm	D_2 mm	L_1 mm	L_2 mm		
RF F1 13-008 ...-00	5,5	160	8	0,133	335	460	95	165	FP F1 01-008040	0,18
RF F1 13-014 ...-00	9,0	200	14	0,233	375	550	95	185	FP F1 01-014040	0,28
RF F1 13-018 ...-00	10,0	224	18	0,300	375	550	125	215	FP F1 01-018040	0,38
RF F1 13-032 ...-00	12,0	250	32	0,533	375	550	245	335	FP F1 01-032040	0,68
RF F1 13-056 ...-00 ¹⁾	14,0	315	56	0,933	500	700	285	395	FP F1 01-056040	1,05
RF F1 13-071 ...-00 ¹⁾	16,0	315	71	1,183	500	700	355	465	FP F1 01-071040	1,36
RF F1 13-112 ...-00 ¹⁾	24,0	355	112	1,866	500	700	575	685	FP F1 01-112040	2,10
RF F1 13-140 ...-00 ¹⁾	28,0	450	140	2,330	630	940	595	755	FP F1 01-140040	3,20

Technical description

- degree of dedusting:** > 95% with a grain size of 30 - 50 μ m
pressure loss: approx. 20 daPa for \dot{V}_{max}
filter material: latex-glued animal hair and plant fibres

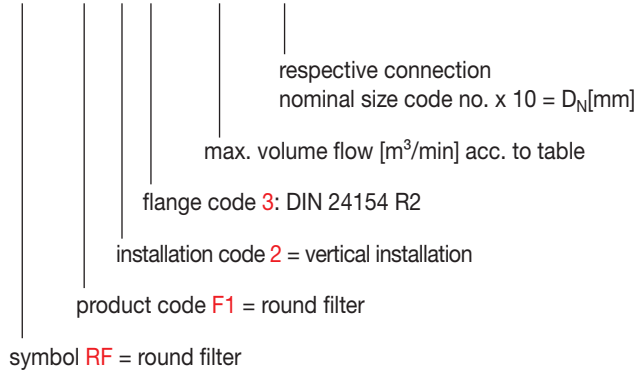
Clean the filter cartridge by blowing, spraying or washing. The filter cartridge must be dry when it is replaced.
 U-tube manometer pressure gauge measuring range up to 50daPa
 Article no. = component size - UM F1 00-000050

1) Important: An additionally extended base frame must be provided to ensure stability of the MXE design model when installed on anti-vibration mounts for pressure series ≤ 250 daPa and motor size ≤ 112 M.

Round filter

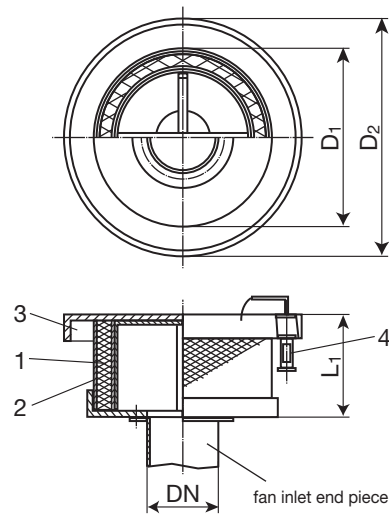
article no. = component size

RF F1 2 3 - 032 025 - 00



Round filter

vertical installation



- 1 filter cartridge
- 2 fence wire
- 3 cover
- 4 U-tube manometer

article no. component size	weight kg	max. D_N mm	max. volume flow		dimensions			replacement cartridge article no. component size	weight kg
			m ³ /min	m ³ /s	D_1 mm	D_2 mm	L_1 mm		
RF F1 23-008...-00	3,5	160	8	0,133	335	500	95	FP F1-008040	0,18
RF F1 23-014...-00	6,8	200	14	0,233	375	560	95	FP F1-014040	0,28
RF F1 23-018...-00	7,5	224	18	0,300	375	630	125	FP F1-018040	0,38
RF F1 23-032...-00	8,0	250	32	0,533	375	630	245	FP F1-032040	0,68
RF F1 23-056...-00	8,5	315	56	0,933	500	800	285	FP F1-056040	1,05
RF F1 23-071...-00	9,5	315	71	1,183	500	900	355	FP F1-071040	1,36
RF F1 23-112...-00	15,0	355	112	1,866	500	1120	575	FP F1-112040	2,10
RF F1 23-140...-00	16,0	450	140	2,330	630	1250	595	FP F1-140040	3,20

Technical description

degree of dedusting: > 95% with a grain size of 30 - 50 μm
pressure loss: approx. 20 daPa for \dot{V}_{max}
filter material: latex-glued animal hair and plant fibres

Clean the filter cartridge by blowing, spraying or washing. The filter cartridge must be dry when it is replaced.

U-tube manometer pressure gauge measuring range up to 50daPa

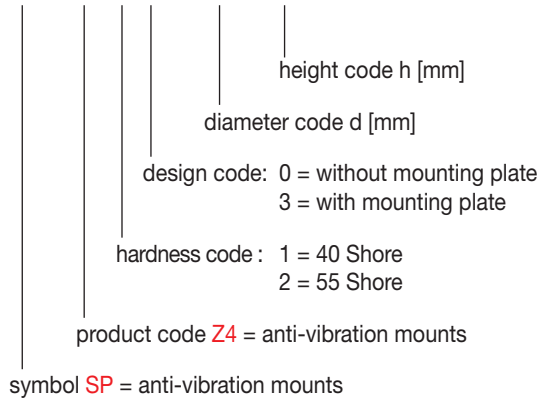
Article no. = component size - UM F1 00-000050

1) Important: An additionally extended base frame must be provided to ensure stability of the MXE design model when installed on anti-vibration mounts for pressure series ≤ 250 daPa and motor size $\leq 112\text{M}$.

Anti-vibration mounts

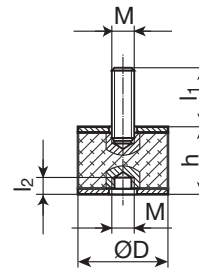
article no. = component size

SP Z4 2 . - 075 055 - 00



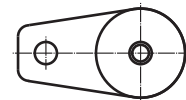
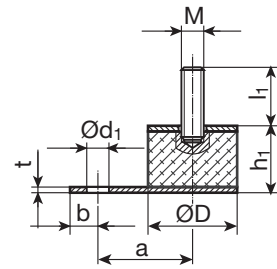
Design 0

with set screw and inside thread



Design 3

with set screw and mounting plate



article no. component size	Typ Nr.	dimensions									thread	hard- ness code	shore- hard- ness A	sur- face cm ²	weight design 0 kg	weight design 3 kg
		D mm	a mm	b mm	d ₁ mm	t mm	h mm	h ₁ mm	l ₁ mm	l ₂ mm						
SPZ42.-050045-00	01	50	50	15	16,5	4	45	54	28	10	M10	2	55	19,6	0,20	0,25
SPZ42.-075055-00	02	75	75	20	20	4	55	65	37	12	M12	2	55	44,2	0,45	0,65
SPZ42.-100055-00	03	100	100	25	26	5	55	65	43	21	M16	2	55	78,5	0,85	1,35
SPZ42.-150075-00	04	150	150	35	26	6	75	85	43	21	M16	2	55	176,5	2,60	3,50
SPZ42.-150055-00	08	150	150	35	26	6	55	61	43	21	M16	2	55	176,5	1,90	2,60
SPZ41.-075055-00	05	75	75	20	20	4	55	65	37	12	M12	1	40	44,2	0,45	0,65
SPZ41.-100075-00	06	100	100	25	26	5	75	85	43	21	M16	1	40	78,5	1,15	1,85
SPZ41.-150075-00	07	150	150	35	26	6	75	85	43	21	M16	1	40	176,5	2,60	3,50

Technical data

F in N is the admissible loading per mount.

Loading = weight = (weight of fan + motor) · 9,81 m/s²

f₀ in mm = spring deflection or depth of impression

η in% = reduction efficiency (vibration reducing)

article no. component size	speed range in R.P.M.													
	3000 load F in N from to		1500 load F in N from to		1000 load F in N from to			750 load F in N from to			500 load F in N from to			
	f ₀ mm	η %	f ₀ mm	η %	f ₀ mm	η %	f ₀ mm	η %	f ₀ mm	η %	f ₀ mm	η %	f ₀ mm	η %
SPZ42.-050045-00	250 - 550	2 95	400 - 880	3 85	—	—	—	—	—	—	—	—	—	—
SPZ42.-075055-00	485 - 970	2 95	730 - 1450	3 85	—	—	—	—	—	—	—	—	—	—
SPZ42.-100055-00	800 - 1600	2 95	1200 - 2400	3 85	—	—	—	—	—	—	—	—	—	—
SPZ42.-150075-00	1200 - 2400	2 95	1800 - 3650	3 85	—	—	—	—	—	—	—	—	—	—
SPZ42.-150055-00	—	—	5400 - 8100	3 85	—	—	—	—	—	—	—	—	—	—
SPZ41.-075055-00	—	—	—	—	550 - 1000	6 82	800 - 1400	8 75	—	—	—	—	—	—
SPZ41.-100075-00	—	—	—	—	1350 - 2700	6 82	2000 - 3600	8 75	2800 - 4500	10 60	—	—	—	—
SPZ41.-150075-00	—	—	—	—	1900 - 3850	6 82	2900 - 5100	8 75	4000 - 6400	10 60	—	—	—	—

Arrangement of anti-vibration mounts

Arrangement of anti-vibration mounts with mounting plate

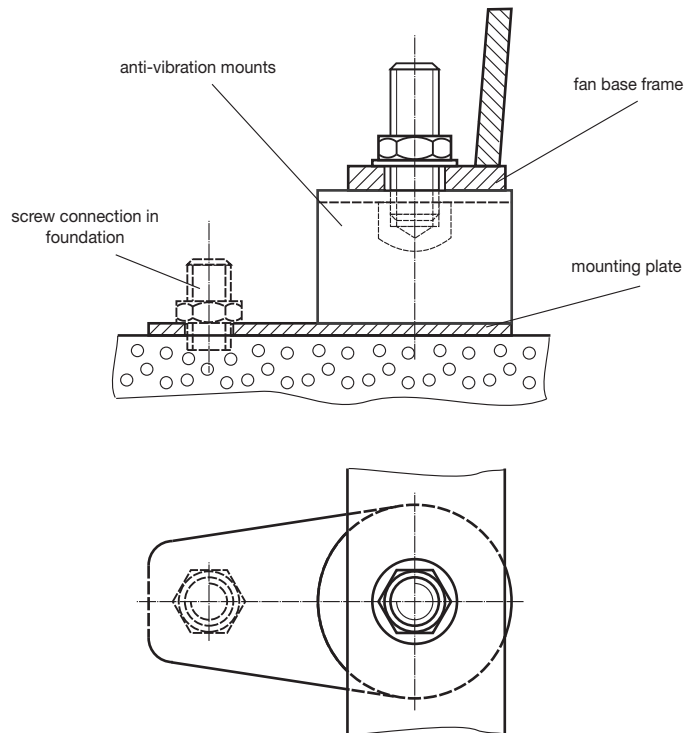
Screwed to foundation

Please note:

Pegs can only be screwed using a drilling template.

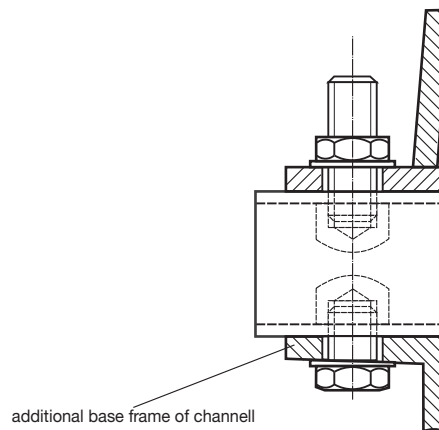
The anchor bolts may only be screwed with appropriate foundation holes.

Grout the foundation bolt holes after aligning the fan.



Arrangement on an additional base frame

Additional base frame



Flexible connections

Description

Flexible connections are intended to prevent the transmission of structure-borne sound and vibrational forces. They should also avoid the transmissions of forces from the duct to the fan. At the same time, alignment errors of the duct work to be connected are compensated. The flexible connections should always be arranged directly at the fan connection flange except when a damper is mounted on the fan. If the fan is mounted on anti-vibration mounts, always provide flexible connections at inlet and discharge. The flexible connections must be installed in compressed form to enable the absorption of tension movements; see installation length.

Structural design K1

Flexible connection, round with hose clamps for flange pieces or cylindrical connection pieces.

Structural design K2, K3

Flexible connection, round or angular, fitted with two back flanges, suitable for direct flange mounting.

Instructions for installation

Structural design K1 with cylindrical connection piece.

Structural design K2 and K3 with flange connection.

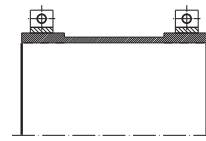
Chute

Provide chutes in accordance with arrangement and loading in case of:

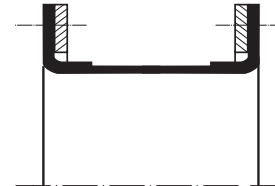
- temperatures above 90°C
- flow velocities above 30 m/s
- pressure loading above 1000 daPa
- aggressive and abrasive media
- arrangement at inlet (so that the flexible connection is fixed with the chute at the given vacuum and does not restrict the entry cross-section to the fan)
- high acoustic requirements (chute effect is similar to duct with comparable absorption values)

Structural design

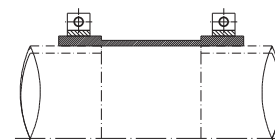
Structural design K1



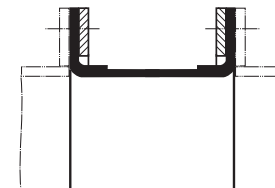
Structural design K2 und K3



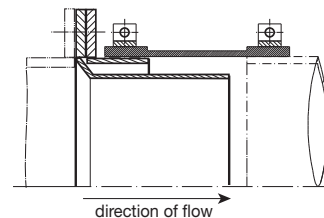
Structural design K1 with cylindrical pipe connection



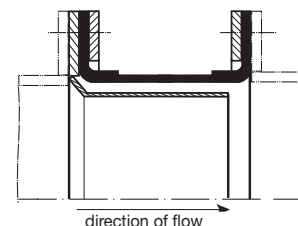
Structural design K2 and K3 with flange connection



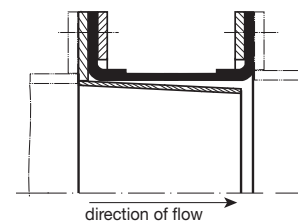
Structural design K1 with baffle



Structural design K2 with baffle



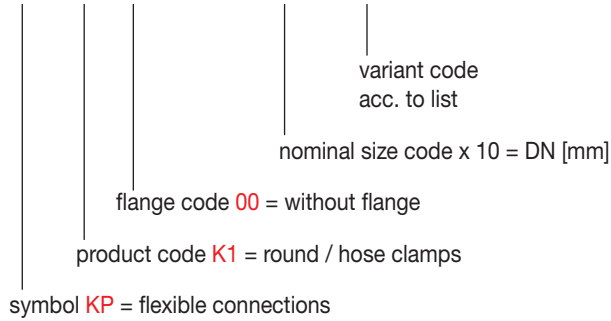
Structural design K3 with baffle



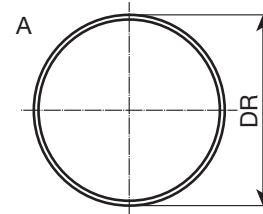
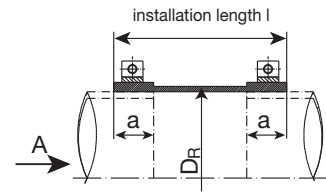
Flexible connection round with hose clamps

article no. = component size

KP K1 00 - 000 031 - 00



Flexible connection round with hose clamps



article no. component size	nominal size	weight kg	D _R mm	l mm	hose clamps code no.
	DN				
KP K1 00-000007-..	71	0,21	72	160	SS V1 00-000007-00
KP K1 00-000008-..	80	0,25	80	160	SS V1 00-000008-00
KP K1 00-000009-..	90	0,30	90	160	SS V1 00-000009-00
KP K1 00-000010-..	100	0,34	100	160	SS V1 00-000010-00
KP K1 00-000011-..	112	0,37	115	160	SS V1 00-000011-00
KP K1 00-000012-..	125	0,42	125	160	SS V1 00-000012-00
KP K1 00-000014-..	140	0,47	140	160	SS V1 00-000014-00
KP K1 00-000016-..	160	0,52	161	160	SS V1 00-000016-00
KP K1 00-000018-..	180	0,58	181	160	SS V1 00-000018-00
KP K1 00-000020-..	200	0,65	202	160	SS V1 00-000020-00
KP K1 00-000022-..	224	0,73	226	160	SS V1 00-000022-00
KP K1 00-000025-..	250	0,82	252	160	SS V1 00-000025-00
KP K1 00-000028-..	280	0,92	281	160	SS V1 00-000028-00
KP K1 00-000031-..	315	1,03	316	160	SS V1 00-000031-00
KP K1 00-000035-..	355	1,15	356	160	SS V1 00-000035-00
KP K1 00-000040-..	400	1,29	402	160	SS V1 00-000040-00
KP K1 00-000045-..	450	1,44	452	160	SS V1 00-000045-00
KP K1 00-000050-..	500	1,62	502	160	SS V1 00-000050-00
KP K1 00-000056-..	560	1,81	562	160	SS V1 00-000056-00
KP K1 00-000063-..	630	2,03	632	160	SS V1 00-000063-00
KP K1 00-000071-..	710	2,28	712	160	SS V1 00-000071-00
KP K1 00-000080-..	800	2,55	802	160	SS V1 00-000080-00
KP K1 00-000090-..	900	2,86	902	160	SS V1 00-000090-00
KP K1 00-000100-..	1000	3,21	1003	200	SS V1 00-000100-00
KP K1 00-000112-..	1120	3,60	1123	200	SS V1 00-000112-00
KP K1 00-000125-..	1250	4,10	1253	200	SS V1 00-000125-00
KP K1 00-000140-..	1400	4,50	1403	200	SS V1 00-000140-00
KP K1 00-000160-..	1600	5,10	1603	200	SS V1 00-000160-00
KP K1 00-000180-..	1800	5,70	1803	200	SS V1 00-000180-00
KP K1 00-000200-..	2000	6,40	2003	200	SS V1 00-000200-00

- installation length l:
l = 160mm to DN 900
l = 200mm from DN 1000
- a = 40mm
- axial motion intake ± 6% *
- lateral motion intake ± 3% *
* ref. to length
- designs for temperatures > 180°C on request
- pressure loading: ± 3150 daPa max.

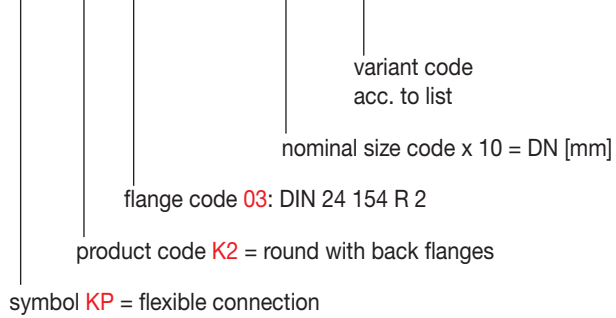
variant list

- 01 rubber to 90°C
- 02 polyester to 90°C
- 03 glass fabric to 180°C

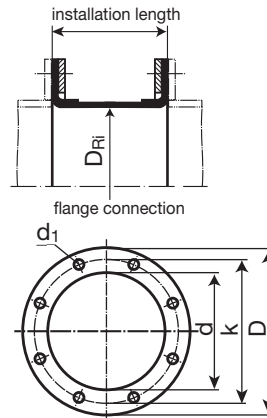
Flexible connection round with back flanges

article no. = component size

KP K2 03 - 000 031 - 00



Flexible connection round with back flanges



- connection flange acc. DIN 24154 R2 (edition July 90)
- installation length l:
l = 150mm to DN 900
l = 200mm from DN 1000
- axial motion intake ± 6% *
- lateral motion intake ± 3% *
- * ref. to length
- designs for temperatures >180°C on request
- pressure loading: ±3150 daPa max.

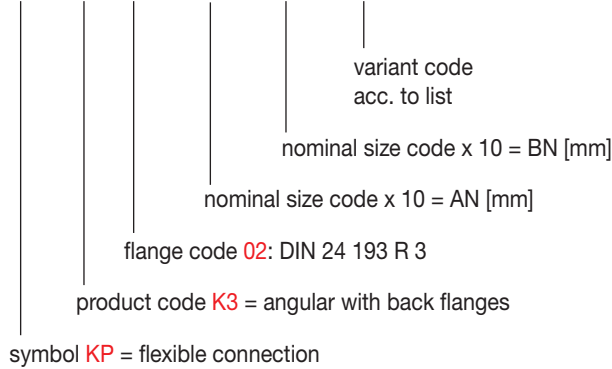
article no. component size	nominal size DN mm	weight ¹⁾ kg	dimensions						screws	
			DRi mm	d mm	k mm	D mm	l mm	d ₁ mm	number	thread
KP K2 03-000007- ..	71	1,15	67	73	110	133	150	9,5	4	M8
KP K2 03-000008- ..	80	1,25	75	82	118	142	150	9,5	4	M8
KP K2 03-000009- ..	90	1,37	85	92	128	152	150	9,5	4	M8
KP K2 03-000010- ..	100	1,44	95	102	139	162	150	9,5	4	M8
KP K2 03-000011- ..	112	1,62	110	115	151	175	150	9,5	4	M8
KP K2 03-000012- ..	125	1,75	120	127	165	187	150	9,5	4	M8
KP K2 03-000014- ..	140	2,19	135	142	182	212	150	11,5	8	M10
KP K2 03-000016- ..	160	2,46	156	162	200	232	150	11,5	8	M10
KP K2 03-000018- ..	180	2,70	176	182	219	252	150	11,5	8	M10
KP K2 03-000020- ..	200	2,97	197	203	241	273	150	11,5	8	M10
KP K2 03-000022- ..	224	3,29	221	227	265	297	150	11,5	8	M10
KP K2 03-000025- ..	250	3,62	247	253	292	323	150	11,5	8	M10
KP K2 03-000028- ..	280	5,86	276	283	332	363	150	11,5	8	M10
KP K2 03-000031- ..	315	6,88	311	318	366	398	150	11,5	8	M10
KP K2 03-000035- ..	355	7,22	351	358	405	438	150	11,5	8	M10
KP K2 03-000040- ..	400	8,01	397	404	448	484	150	11,5	12	M10
KP K2 03-000045- ..	450	8,93	447	454	497	534	150	11,5	12	M10
KP K2 03-000050- ..	500	9,64	497	504	551	584	150	11,5	12	M10
KP K2 03-000056- ..	560	13,50	557	564	629	664	150	14,0	16	M12
KP K2 03-000063- ..	630	15,07	626	634	698	734	150	14,0	16	M12
KP K2 03-000071- ..	710	16,86	706	714	775	814	150	14,0	16	M12
KP K2 03-000080- ..	800	18,73	796	804	861	904	150	14,0	24	M12
KP K2 03-000090- ..	900	20,49	896	904	958	1004	150	14,0	24	M12
KP K2 03-000100- ..	1000	23,07	997	1005	1067	1105	200	14,0	24	M12
KP K2 03-000112- ..	1120	37,02	1117	1125	1200	1245	200	18,0	32	M16
KP K2 03-000125- ..	1250	41,19	1247	1255	1337	1375	200	18,0	32	M16
KP K2 03-000140- ..	1400	46,01	1397	1405	1475	1525	200	18,0	32	M16
KP K2 03-000160- ..	1600	52,07	1597	1605	1675	1725	200	18,0	40	M16
KP K2 03-000180- ..	1800	58,60	1797	1805	1875	1925	200	18,0	40	M16
KP K2 03-000200- ..	2000	64,99	1997	2005	2073	2125	200	18,0	40	M16

¹⁾ weight incl. back flanges

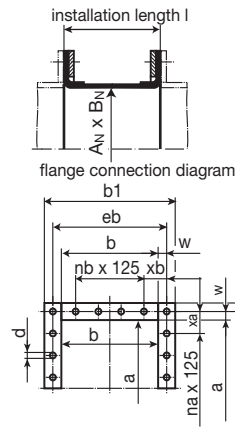
Flexible connection angular with back flanges

article no. = component size

KP K3 02 - 063 050 - 00



Flexible connection angular with back flanges



- Connection flange acc.DIN 24193 R 3
- installation length l:
l = 150 mm to AN/BN 1000/800
l = 200 mm from AN/BN 1120/900
l = 250 mm from AN/BN 2240/1800
- axial motion intake ± 6% *
- lateral motion intake ± 3% *
- * ref. to length
- designs for temperatures >180°C on request
- pressure loading: ± 3150 daPa max.

article no. component size	nominal size AN/ BN mm	weight ¹⁾ kg	dimensions											screws			
			a mm	b mm	ea mm	eb mm	xa mm	xb mm	na	nb	w	a1	b1	l mm	d mm	num- ber	thread
KP K3 02-010012- ..	100/ 125	1,84	102	127	136	161	-	80,5	-	-	17	162	187	150	10	6	M8
KP K3 02-011012- ..	112/ 125	1,95	114	127	148	161	-	80,5	-	-	17	174	187	150	10	6	M8
KP K3 02-012012- ..	125/ 125	2,08	127	127	161	161	80,5	80,5	-	-	17	187	187	150	10	8	M8
KP K3 02-014012- ..	140/ 125	2,24	142	127	176	161	88,0	80,5	-	-	17	202	187	150	10	8	M8
KP K3 02-016012- ..	160/ 125	2,47	162	127	196	161	98,0	80,5	-	-	17	222	187	150	10	8	M8
KP K3 02-018014- ..	180/ 140	2,70	182	142	216	176	108,0	88,0	-	-	17	242	202	150	10	8	M8
KP K3 02-020016- ..	200/ 160	3,00	202	162	236	196	118,0	98,0	-	-	17	262	222	150	10	8	M8
KP K3 02-022018- ..	224/ 180	3,30	226	182	260	216	130,0	108,0	-	-	17	286	242	150	10	8	M8
KP K3 02-025020- ..	250/ 200	3,62	252	202	286	236	143,0	118,0	-	-	17	312	262	150	10	8	M8
KP K3 02-028022- ..	280/ 224	5,08	282	226	316	260	158,0	130,0	-	-	17	342	286	150	10	8	M8
KP K3 02-031025- ..	315/ 250	5,62	317	252	351	286	113,0	143,0	1	-	17	377	312	150	10	10	M8
KP K3 02-035028- ..	355/ 280	6,24	357	282	391	316	133,0	158,0	1	-	17	417	342	150	10	10	M8
KP K3 02-040031- ..	400/ 315	7,65	402	317	436	351	155,5	113,0	1	1	17	462	377	150	10	12	M8
KP K3 02-045035- ..	450/ 355	12,90	452	357	512	417	68,5	146,0	3	1	30	552	457	150	14	16	M12
KP K3 02-050040- ..	500/ 400	14,25	502	402	562	462	93,5	168,5	3	1	30	602	502	150	14	16	M12
KP K3 02-056045- ..	560/ 450	19,33	562	452	622	512	123,5	68,5	3	3	30	662	552	150	14	20	M12
KP K3 02-063050- ..	630/ 500	21,41	632	502	692	562	158,5	93,5	3	3	30	732	602	150	14	20	M12
KP K3 02-071056- ..	710/ 560	23,85	712	562	772	622	73,5	123,5	5	3	30	812	662	150	14	24	M12
KP K3 02-080063- ..	800/ 630	26,62	802	632	862	692	118,5	158,5	5	3	30	902	732	150	14	24	M12
KP K3 02-090071- ..	900/ 710	29,77	902	712	962	772	168,5	73,5	5	5	30	1002	812	150	14	28	M12
KP K3 02-100080- ..	1000/ 800	33,09	1002	802	1062	862	93,5	118,5	7	5	30	1102	902	150	14	32	M12
KP K3 02-112090- ..	1120/ 900	52,55	1122	902	1192	972	158,5	173,5	7	5	35	1242	1022	200	18	32	M16
KP K3 02-125100- ..	1250/ 1000	58,47	1252	1002	1322	1072	98,5	98,5	9	7	35	1372	1122	200	18	40	M16
KP K3 02-140112- ..	1400/ 1120	65,11	1402	1122	1472	1192	173,5	158,5	9	7	35	1522	1242	200	18	40	M16
KP K3 02-160125- ..	1600/ 1250	119,79	1602	1252	1692	1342	158,5	108,5	11	9	45	1762	1412	200	22	48	M20
KP K3 02-180140- ..	1800/ 1400	134,55	1802	1402	1892	1492	133,5	183,5	13	9	45	1962	1562	200	22	52	M20
KP K3 02-200160- ..	2000/ 1600	150,59	2002	1602	2092	1692	108,5	158,5	15	11	45	2162	1762	200	22	60	M20
KP K3 02-224180- ..	2240/ 1800	190,53	2242	1802	2342	1902	108,5	138,5	17	13	50	2422	1982	250	22	68	M20
KP K3 02-250200- ..	2500/ 2000	235,41	2502	2002	2612	2112	118,5	118,5	19	15	55	2702	2202	250	22	76	M20

1) weight incl. back flanges

Chute - round

article no. = component size

LE K0 03 - 000 125 - 00

nominal size code x 10 = DN [mm]

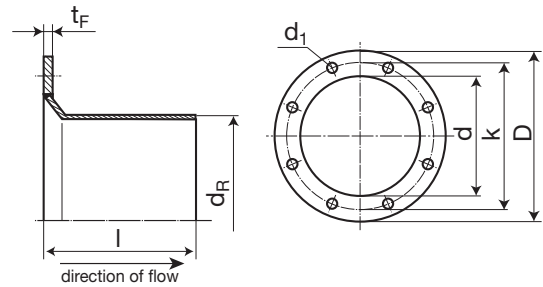
flange code 03: DIN 24 154 R 2

product code K0 = flexible connections in general

symbol LE = chute

Chute - round

Flat flange according to DIN 24154 R 2
(edition July '90)



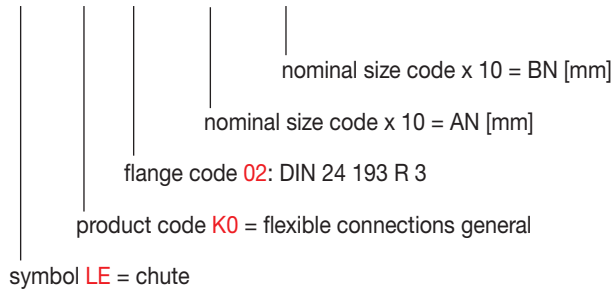
article no. component size	nominal size	weight ¹⁾ kg	dimensions							screws	
	DN mm		l mm	d _R mm	t _F mm	d mm	k mm	D mm	d ₁ mm	number	thread
LE K0 03-000007-00	71	0,82	135	59	6	73	110	133	9,5	4	M8
LE K0 03-000008-00	80	0,91	135	67	6	82	118	142	9,5	4	M8
LE K0 03-000009-00	90	1,03	135	77	6	92	128	152	9,5	4	M8
LE K0 03-000010-00	100	1,12	135	88	6	102	139	162	9,5	4	M8
LE K0 03-000011-00	112	1,09	135	93	6	115	151	175	9,5	4	M8
LE K0 03-000012-00	125	1,75	135	110	6	127	165	187	9,5	4	M8
LE K0 03-000014-00	140	2,14	135	130	6	142	182	212	11,5	8	M10
LE K0 03-000016-00	160	2,17	135	145	6	162	200	232	11,5	8	M10
LE K0 03-000018-00	180	2,40	135	161	6	182	219	252	11,5	8	M10
LE K0 03-000020-00	200	2,68	135	182	6	203	241	273	11,5	8	M10
LE K0 03-000022-00	224	3,01	135	206	6	227	265	297	11,5	8	M10
LE K0 03-000025-00	250	3,36	135	232	6	253	292	323	11,5	8	M10
LE K0 03-000028-00	280	4,58	135	251	8	283	332	363	11,5	8	M10
LE K0 03-000031-00	315	5,34	135	286	8	318	366	398	11,5	8	M10
LE K0 03-000035-00	355	5,79	135	326	8	358	405	438	11,5	8	M10
LE K0 03-000040-00	400	6,52	135	372	8	404	448	484	11,5	12	M10
LE K0 03-000045-00	450	7,33	135	422	8	454	497	534	11,5	12	M10
LE K0 03-000050-00	500	8,04	135	472	8	504	551	584	11,5	12	M10
LE K0 03-000056-00	560	10,3	135	532	8	564	629	664	14,0	16	M12
LE K0 03-000063-00	630	12,6	135	602	8	634	698	734	14,0	16	M12
LE K0 03-000071-00	710	14,2	135	682	8	714	775	814	14,0	16	M12
LE K0 03-000080-00	800	15,0	135	772	8	804	861	904	14,0	24	M12
LE K0 03-000090-00	900	17,9	135	872	8	904	958	1004	14,0	24	M12
LE K0 03-000100-00	1000	23,0	180	963	8	1005	1067	1105	14,0	24	M12
LE K0 03-000112-00	1120	31,3	180	1083	10	1125	1200	1245	18,0	32	M16
LE K0 03-000125-00	1250	34,9	180	1213	10	1255	1337	1375	18,0	32	M16
LE K0 03-000140-00	1400	39,1	180	1363	10	1405	1475	1525	18,0	32	M16
LE K0 03-000160-00	1600	44,6	180	1563	10	1605	1675	1725	18,0	40	M16
LE K0 03-000180-00	1800	50,2	180	1763	10	1805	1875	1925	18,0	40	M16
LE K0 03-000200-00	2000	55,8	180	1963	10	2005	2073	2125	18,0	40	M16

1) weight incl. flange

Chute - angular

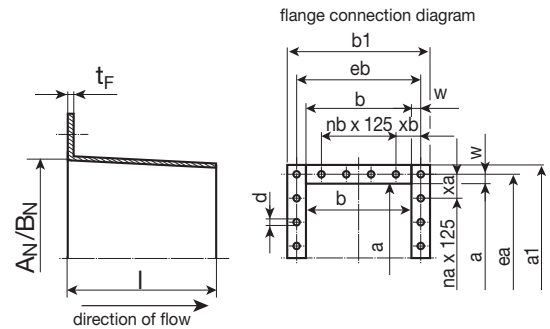
article no. = component size

LE K0 02 - 063 050 - 00



Chute - angular

Connection flange according to DIN 24193 R 3



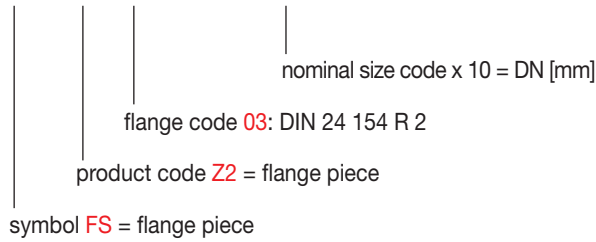
article no. component size	nominal size AN/ BN mm	weight 1) kg	dimensions													screws		
			l mm	t _F mm	a mm	b mm	e _a mm	e _b mm	x _a mm	x _b mm	n _a	n _a	w mm	a ₁ mm	b ₁ mm	d mm	num- ber	thread
LE K0 02-010012-00	100 / 125	1,39	135	2,5	102	127	136	161	—	80,5	—	—	17	162	187	10	6	M8
LE K0 02-011012-00	112 / 125	1,47	135	2,5	114	127	148	161	—	80,5	—	—	17	174	187	10	6	M8
LE K0 02-012012-00	125 / 125	1,55	135	2,5	127	127	161	161	80,5	80,5	—	—	17	187	187	10	8	M8
LE K0 02-014012-00	140 / 125	1,65	135	2,5	142	127	176	161	88,0	80,5	—	—	17	202	187	10	8	M8
LE K0 02-016012-00	160 / 125	1,81	135	2,5	162	127	196	161	98,0	80,5	—	—	17	222	187	10	8	M8
LE K0 02-018014-00	180 / 140	2,04	135	2,5	182	142	216	176	108,0	88,0	—	—	17	242	202	10	8	M8
LE K0 02-020016-00	200 / 160	2,30	135	2,5	202	162	236	196	118,0	98,0	—	—	17	262	222	10	8	M8
LE K0 02-022018-00	224 / 180	2,58	135	2,5	226	182	260	216	130,0	108,0	—	—	17	286	242	10	8	M8
LE K0 02-025020-00	250 / 200	2,88	135	2,5	252	202	286	236	143,0	118,0	—	—	17	312	262	10	8	M8
LE K0 02-028022-00	280 / 224	3,18	135	2,5	282	226	316	260	158,0	130,0	—	—	17	342	286	10	8	M8
LE K0 02-031025-00	315 / 250	3,57	135	2,5	317	252	351	286	113,0	143,0	1	—	17	377	312	10	10	M8
LE K0 02-035028-00	355 / 280	4,02	135	2,5	357	282	391	316	133,0	158,0	1	—	17	417	342	10	10	M8
LE K0 02-040031-00	400 / 315	4,54	135	2,5	402	317	436	351	155,5	113,0	1	1	17	462	377	10	12	M8
LE K0 02-045035-00	450 / 355	5,88	135	2,5	452	357	512	417	68,5	146,0	3	1	30	552	457	14	16	M12
LE K0 02-050040-00	500 / 400	6,57	135	2,5	502	402	562	462	93,5	168,5	3	1	30	602	502	14	16	M12
LE K0 02-056045-00	560 / 450	7,37	135	2,5	562	452	622	512	123,5	68,5	3	3	30	662	552	14	20	M12
LE K0 02-063050-00	630 / 500	8,24	135	2,5	632	502	692	562	158,5	93,5	3	3	30	732	602	14	20	M12
LE K0 02-071056-00	710 / 560	11,10	135	3,0	712	562	772	622	73,5	123,5	5	3	30	812	662	14	24	M12
LE K0 02-080063-00	800 / 630	12,50	135	3,0	802	632	862	692	118,5	158,5	5	3	30	902	732	14	24	M12
LE K0 02-090071-00	900 / 710	14,10	135	3,0	902	712	962	772	168,5	73,5	5	5	30	1002	812	14	28	M12
LE K0 02-100080-00	1000 / 800	15,70	135	3,0	1002	802	1062	862	93,5	118,5	7	5	30	1102	902	14	32	M12
LE K0 02-112090-00	1120 / 900	21,40	185	3,0	1122	902	1192	972	158,5	173,5	7	5	35	1242	1022	18	32	M16
LE K0 02-125100-00	1250 / 1000	26,00	185	3,0	1252	1002	1322	1072	98,5	98,5	9	7	35	1372	1122	18	40	M16
LE K0 02-140112-00	1400 / 1120	29,10	185	3,0	1402	1122	1472	1192	173,5	158,5	9	7	35	1522	1242	18	40	M16
LE K0 02-160125-00	1600 / 1250	35,80	185	3,0	1602	1252	1692	1342	158,5	108,5	11	9	45	1762	1412	22	48	M20
LE K0 02-180140-00	1800 / 1400	40,20	185	3,0	1802	1402	1892	1492	133,5	183,5	13	9	45	1962	1562	22	52	M20
LE K0 02-200160-00	2000 / 1600	45,20	185	3,0	2002	1602	2092	1692	108,5	158,5	15	11	45	2162	1762	22	60	M20
LE K0 02-224180-00	2240 / 1800	62,20	235	3,0	2242	1802	2342	1902	108,5	138,5	17	13	50	2422	1982	22	68	M20
LE K0 02-250200-00	2500 / 2000	71,50	235	3,0	2502	2002	2612	2112	118,5	118,5	19	15	55	2702	2202	22	76	M20

1) weight incl. flange

Flange piece - round

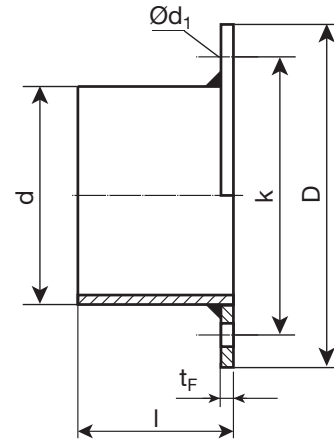
article no. = component size

FS Z2 03 - 000 063 - 00



Flange piece - round

Flat flange according to DIN 24154 R 2 (edition July '90)

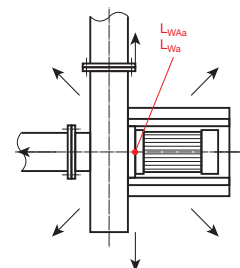
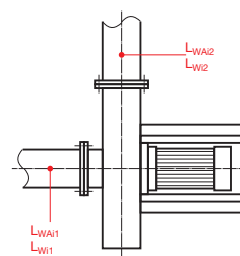
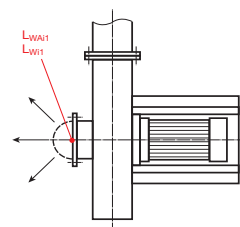
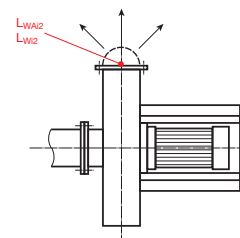


article no. component size	nominal size DN mm	weight ¹⁾ kg	dimensions						screws	
			t _F mm	d mm	l mm	D mm	k mm	d ₁ mm	number	thread
FS Z2 03-000007-00	71	0,65	6	72	80	133	110	9,5	4	M8
FS Z2 03-000008-00	80	0,86	6	80	80	142	118	9,5	4	M8
FS Z2 03-000009-00	90	0,96	6	90	80	152	128	9,5	4	M8
FS Z2 03-000010-00	100	1,03	6	100	80	162	139	9,5	4	M8
FS Z2 03-000011-00	112	1,18	6	115	80	175	151	9,5	4	M8
FS Z2 03-000012-00	125	1,28	6	125	80	187	165	9,5	4	M8
FS Z2 03-000014-00	140	1,68	6	140	80	212	182	11,5	8	M10
FS Z2 03-000016-00	160	1,76	6	161	80	232	200	11,5	8	M10
FS Z2 03-000018-00	180	1,96	6	181	80	252	219	11,5	8	M10
FS Z2 03-000020-00	200	2,17	6	202	80	273	241	11,5	8	M10
FS Z2 03-000022-00	224	2,42	6	226	80	297	265	11,5	8	M10
FS Z2 03-000025-00	250	2,68	6	252	80	323	292	11,5	8	M10
FS Z2 03-000028-00	280	3,89	8	281	80	363	332	11,5	8	M10
FS Z2 03-000031-00	315	4,53	8	316	80	398	366	11,5	8	M10
FS Z2 03-000035-00	355	4,85	8	356	80	438	405	11,5	8	M10
FS Z2 03-000040-00	400	5,41	8	402	80	484	448	11,5	12	M10
FS Z2 03-000045-00	450	6,06	8	452	80	534	497	11,5	12	M10
FS Z2 03-000050-00	500	6,60	8	502	80	584	551	11,5	12	M10
FS Z2 03-000056-00	560	8,66	8	562	80	664	629	14,0	16	M12
FS Z2 03-000063-00	630	10,32	8	632	80	734	698	14,0	16	M12
FS Z2 03-000071-00	710	11,58	8	712	80	814	775	14,0	16	M12
FS Z2 03-000080-00	800	12,92	8	802	80	904	861	14,0	24	M12
FS Z2 03-000090-00	900	14,49	8	902	80	1004	958	14,0	24	M12
FS Z2 03-000100-00	1000	17,60	8	1003	100	1105	1067	14,0	24	M12
FS Z2 03-000112-00	1120	25,19	10	1123	100	1245	1200	18,0	32	M16
FS Z2 03-000125-00	1250	28,05	10	1253	100	1375	1337	18,0	32	M16
FS Z2 03-000140-00	1400	31,36	10w	1403	100	1525	1475	18,0	32	M16
FS Z2 03-000160-00	1600	35,64	10	1603	100	1725	1675	18,0	40	M16
FS Z2 03-000180-00	1800	40,12	10	1803	100	1925	1875	18,0	40	M16
FS Z2 03-000200-00	2000	44,50	10	2003	100	2125	2073	18,0	40	M16

1) weight incl. flange

Chapter 5 - Acoustic technology - ST

- General remarks
- Parameter
- Level change



General specification

Introduction

For design and construction of ventilation plants, compliance with the given noise limits is necessary to protect the neighbourhood from sound irritation. The fan in particular is one of the most critical sound sources within a complete plant which should be paid particular attention to. This new brochure „Sound data for radial fans“ is structured in a way that the designing engineer can find in it all sound data specifications necessary for acoustic calculation (Chapter „Type selection/Sound tables“). Complicated computing can be omitted as the individual sound data for each fan is indicated in the sound lists acc. to types. The specific acoustic term is exactly detailed. The given sound data is the result of many years of measuring experience in a sound test room. The used meters are precision sound meters of the company Bruel & Kjaer.

Sound guarantee

In order to maintain and prove the agreed sound specifications, it is necessary to measure noise according to the given standard regulations. For sound measurements at fans, standardised regulations as described in DIN 45635, sheet 1 „Machine noise measurement“, resp. DIN 45635 part 38 „Fan noise measurement“ apply. The standard describes the precondition for determination of the sound radiated directly from the fan into the environment (sound emission), according to standardised methods, so that the results can be compared. The measuring method described in the standard is only valid for free sound radiation i.e. in a reflexion-free environment. In practise, however, optimum conditions are generally not given. Sound values measured under operational conditions differ more or less from the values measured in a reflexion-free environment, thus

$$\text{fan noise level in the system} = \text{fan noise level specification} + \text{addition* (adjustment)}$$

The experimental values for the addition depend on the number of influenceable parameters.

* Additions of 3 to 9 dB are quite realistic.

Tolerances acc. DIN 24166

Basic criteria.

Certain deviations from the agreed operational values are permissible in consequence of unavoidable design, calculation and production tolerances (together designated as „as-built tolerances“). The permissible deviations depend on the class of accuracy of the fan. The selection of the accuracy class for a certain fan depends on different criteria. It might be necessary to adapt the accuracy class to the ambient or operating conditions. Uncertainties concerning the definition of the operational values due to special installation conditions (e.g. disturbances at the inlet and discharge) are not included in the as-built tolerances and must be considered separately.

Tolerances depending on accuracy class

class of accuracy DIN 24166	0	1	2	3
tolerance for sound values L_{W1} L_p	+ 3 dB	+ 3 dB	+ 4 dB	+ 6 dB

Should there be no special agreements the following accuracy classes apply:

shaft power $P_W > 50$ kW class 1

shaft power $P_W < 50$ kW class 2

Special design fans (e.g. impellers for material transport, rubber-lined or coated designs, impellers with highly curved blades) are class 3. Class 2 applies to slightly modified impellers or divergent flow conditions.

Parameter

Source sound power level = Duct sound power level

The source sound power level or internal sound power level L_{Wi} indicates the sound energy of the total radiated sound emitted from the fan (at suction inlet or discharge), and serves for the design and calculation of silencers. It depends on the construction and design data of the fan (i.e. volume flow, pressure difference and efficiency): but it does not depend on the position, the distance, the assembly location or measuring room.

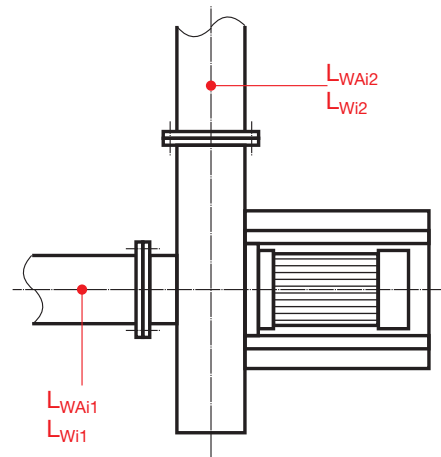
The source sound power level is defined in DIN 45635 part 38:

for the inlet duct sound power level L_{Wi1} [L_{W3}]

and for the discharge duct sound power level L_{Wi2} [L_{W4}].

figure 1

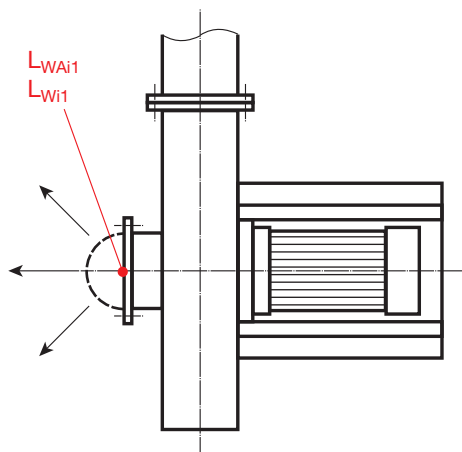
- L_{Wai1} [L_{WA3}] [dB(A)]
- L_{Wai2} [L_{WA4}] [dB(A)]
- L_{Wi1} [L_{W3}] [dB]
- L_{Wi2} [L_{W4}] [dB]



Free inlet resp. free discharge sound power level

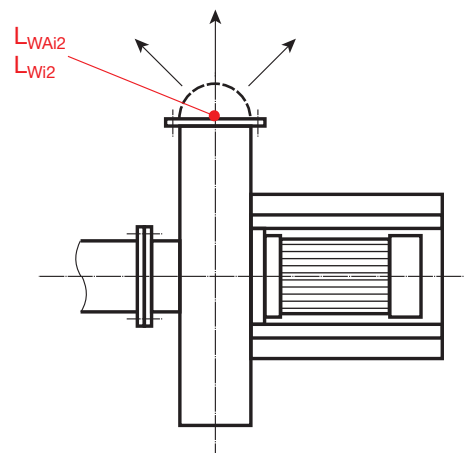
If the fan is connected to an air system either at the inlet or at the discharge, the source sound power level will be radiated directly at the disconnected side into the free field environment. According to DIN 45635 part 38 it is L_{W5} [L_{Wi1}] for free inlet sound power level and L_{W6} [L_{Wi2}] for free discharge sound power level.

figure 2



- L_{Wai1} [L_{WA5}] [dB(A)]
- L_{Wai2} [L_{WA6}] [dB(A)]
- L_{Wi1} [L_{W5}] [dB]
- L_{Wi2} [L_{W6}] [dB]

figure 3



Remark

The sound power level radiated to the open environment is approximately as high as the sound power level radiated inside a duct system disregarding the orifice reflection.

[...] designation according to DIN 45635 part 38

Parameter

Sound power level of housing

The housing sound power level or external sound power level is the sound power radiated from the housing (including pedestal) to the environment when the fan is ducted. Mostly it is applied for projecting plants to determine the sound radiation of machines and plant components, acc. DIN 45635 T 38 for housing sound power level L_{WA} [L_{W2}].

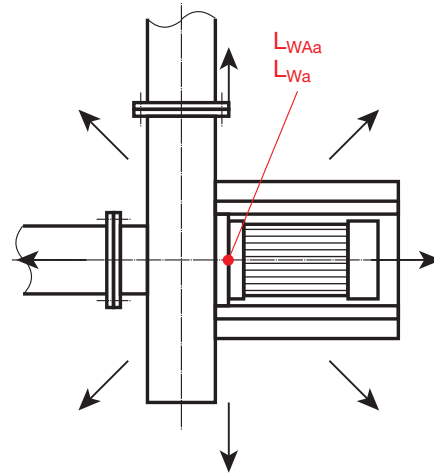
figure 4

$$L_{WAa} [L_{WA2}] \quad [dB(A)]$$

$$L_{Wa} [L_{W2}] \quad [dB(A)]$$

$$L_{Wa} = \bar{L}_p + L_S \quad [dB]$$

$$L_{WAa} = \bar{L}_{pA} + L_S \quad [dB(A)]$$



Measuring surface index

The measuring surface index is the logarithmic ratio of the measuring surface area to the reference surface area.

$$LS = 10 \lg \frac{S}{S_0} \quad [dB]$$

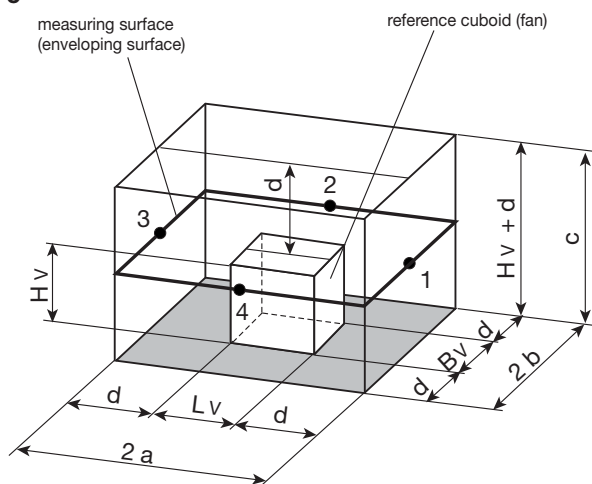
S = measuring surface area
 S₀ = 1 m² = reference surface area

Measuring surface area

The measuring surface is an imaginary surface (enveloping surface) which envelops the fan in a measuring distance of 1 m. The surface area of the measuring surface is the surface area S.

figure 5

L_V = fan length
 B_V = fan width
 H_V = fan height
 d = measuring distance = 1 m



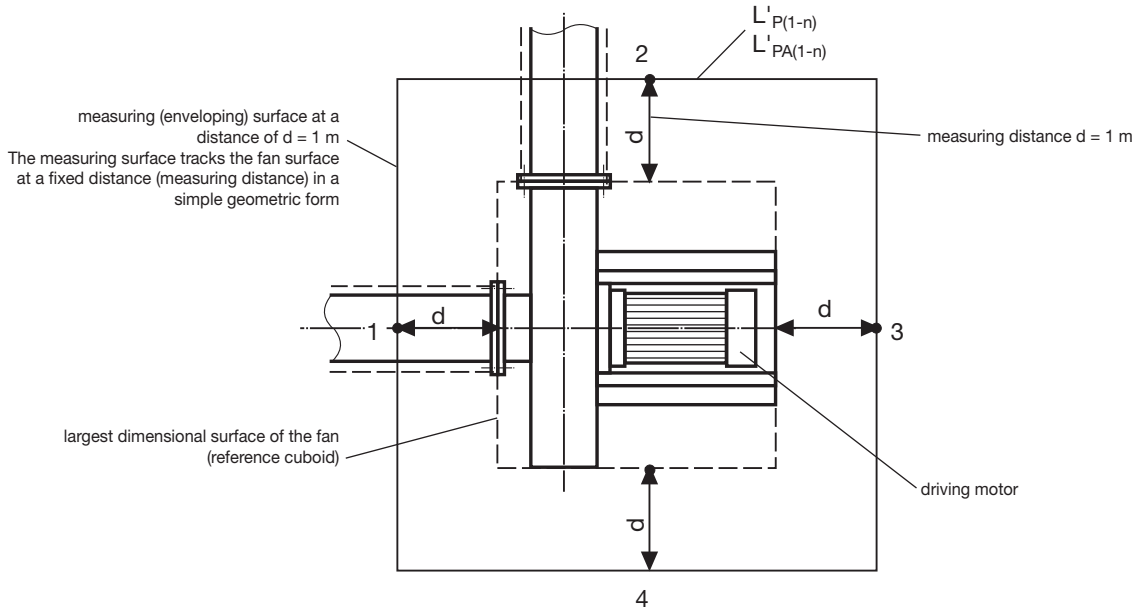
Measuring surface area

$$S = 4 (ab + ac + bc) \quad [m^2]$$

Sound pressure level on measuring surface

The sound pressure level which is energetically averaged over the measuring surface and, if necessary, corrected by the influences of extraneous noise and ambient feedback is denoted in DIN45635 part 1 as measuring surface sound pressure level, \bar{L}'_p . It is measured at a distance of 1 m from the contour of the fan with connected inlet and discharge, disregarding the radiation of the duct system itself.

figure 6



- measuring points L'_p (1, 2, 3, 4, ... n)

- L'_p in dB sound pressure level measured value (1 to n)
- \bar{L}'_p in dB energetically averaged sound pressure level
- \bar{L}'_p in dB measuring surface sound pressure level
- K_0 in dB air pressure and air temperature correction
- K_1 in dB extraneous noise correction (level addition)
- K_2 in dB ambient noise correction (ambient influence)
- n number of measuring points

Notification of sound pressure level

$$\bar{L}'_p = \frac{L'_{p1} + \dots + L'_{pn}}{n}$$

Note!

If the difference between the smallest and highest sound pressure level L'_p measured on the enveloping surface is less than 5dB, simple arithmetic averaging may be used.

Measuring surface sound pressure level

$$\bar{L}'_p = \bar{L}'_p - K_0 - K_1 - K_2 \quad [\text{dB}]$$

A-weighted measuring surface sound pressure level

$$\bar{L}'_{pA} = \bar{L}'_{pA} - K_0 - K_1 - K_2 \quad [\text{dB(A)}]$$

see A-weighting - sheet ST 6

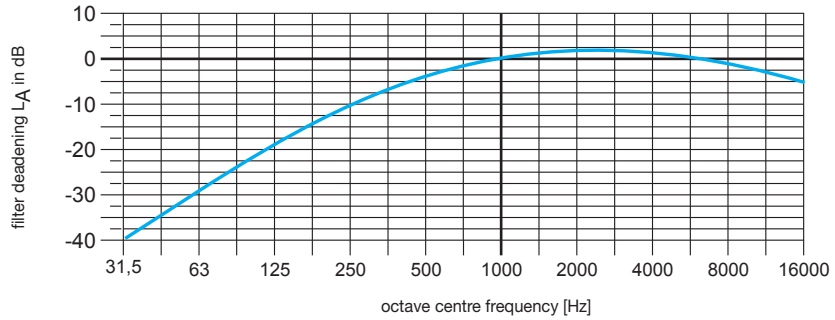
Noise weighting - weighting curve A

Every day experience shows that noise is assessed differently, depending on the perception of sound volume in different persons. In order to obtain an objective assessment which is adapted to the human ear, weighting curves as laid down in DIN 45633 were developed.

diagram 1

Frequency weighting according to DIN 45633

Weighting curve A



Precalculation according to the A-weighting curve (sequence of functions in the sound level meter)

table 1

designation	character	unit	octave centre frequency fm [Hz]							
			63	125	250	500	1000	2000	4000	8000
source sound power level	L_{Wi2}	dB	111							
relative sound power level	ΔL_{Wrel}	dB	-4	-5,5	-5,5	-11	-16	-21	-22	-34
octave spectrum of sound power level	$\Delta L_{Wi2 - OKt}$	dB	107	105,5	105,5	100	95	90	98	77
A-weighting	ΔLA	dB(A)	-26,2	-16,1	-8,6	-3,2	0	+1,2	-1,0	-1,1
octave spectrum of the A-weighted sound power level sources	$\Delta L_{Wai2 - OKt}$	dB(A)	80,8	89,4	96,9	96,8	95	91,2	88	75,9
A-weighted source sound power level $L_{Wai2} \approx 101$ dB(A)						+3 = 99,9 +1,0 = 100,9 + 0,5 = 101,4 dB(A)				

Determining the A-weighted parameters

Correction value for A-weighting

The correction value ΔL_{KA} is the difference between the unweighted parameter and the weighted ones. The correction value ΔL_{KA} for each fan type is listed in the corresponding sound table.

A-weighted total sound power level

$$L_{Wai1,2} = L_{Wi1,2} - \Delta L_{KA} \quad [dB(A)]$$

A-weighted housing-sound power level

$$L_{WAa} = L_{Wa} - \Delta L_{KA} \quad [dB(A)]$$

A-weighted measuring surface sound pressure level

$$L_{pA} = L_p - \Delta L_{KA} \quad [dB(A)]$$

Parameter

Determining the sound spectrum

If the sound spectrum is to be determined, the unweighted parameter must be corrected by the relative sound power level ΔL_{Wrel} .

Relative sound power level

table 2

speed range [min-1] von bis	impeller speed n[min-1]	no. of blades z	impeller geometry $\chi = D_1 / D_2$ ^①	octave centre frequency fm [Hz]							
				63	125	250	500	1000	2000	4000	8000
				relative sound power level ΔL_{Wrel} [dB]							
< 3700 > 2250	3000	11 - 14	A	-9,0	-6,0	-5,5	-4,5	-10	-17	-25	-35
			B	-5,0	-5,5	-7,0	-6,0	-12	-17	-23	-29
< 2250 > 1125	1500	9 - 11	A	-5,0	-5,0	-4,5	-10	-16	-24	-34	-47
			B	-4,0	-5,5	-5,5	-11	-16	-21	-27	-34
< 1125 > 560	750	9 - 11	A	-3,0	-4,0	-9,0	-13	-18	-25	-32	-40
			B								
< 560 > 280	375	9 - 11	A	-2,0	-5,5	-10	-15	-22	-29	-37	-46
			B								

① Impeller geometry A applies to impellers with a geometrical index of $\chi < 0.4$, complying with type 1 to 3 fan performance (refer to type selection sheets).
 Impeller geometry B applies to impellers with a geometrical index of $\chi \geq 0.4$, complying with type 4 to 7 fan performance (refer to type selection).

Octave total sound power level

$$L_{Wi1,2okt} = L_{Wi1,2} + \Delta L_{Wrel} \quad [dB]$$

Octave housing sound power level

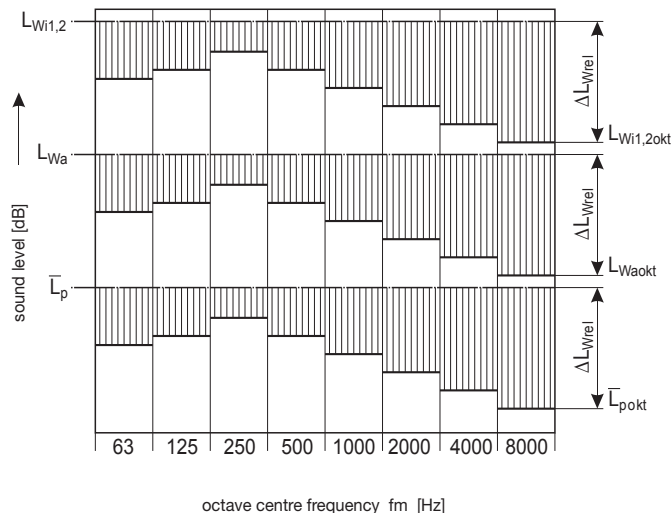
$$L_{Waokt} = L_{Wa} + \Delta L_{Wrel} \quad [dB]$$

Octave measuring surface sound pressure level

$$\bar{L}_{pokt} = \bar{L}_p + \Delta L_{Wrel} \quad [dB]$$

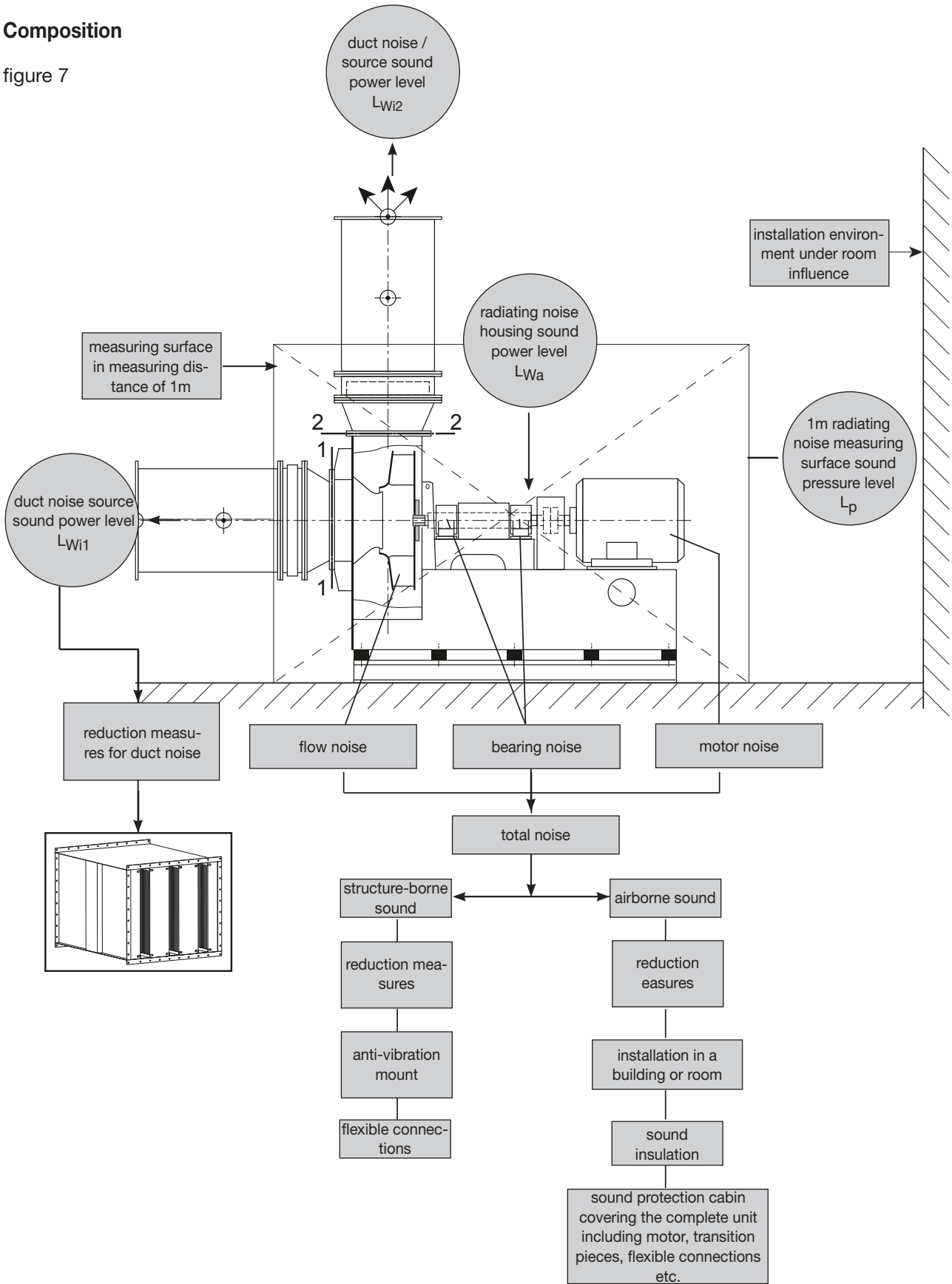
Graphical representation

diagram 2.1



Composition

figure 7



Terms

L_W	dB	sound power level
\bar{L}_p	dB	measuring surface sound pressure level
\bar{L}_{pA}	dB(A)	A-weighted measuring surface sound pressure level
L_{Wi}	dB	source sound power level = duct sound
L_{WAi}	dB(A)	A-weighted source sound power level
L_{Wi2} [LW4]	dB	source sound power level – at discharge
L_{Wi1} [LW3]	dB	source sound power level – at inlet
L_{Wa} [LW2]	dB	housing resp. external sound power level
L_{Wa}	dB(A)	A-weighted housing sound power level
$L_{Wi2-okt}$	dB	octave-source sound power level – at discharge
$L_{Wi1-okt}$	dB	octave-source sound power level – at inlet
L_{Waokt}	dB	octave-housing sound power level
\bar{L}_{pokt}	dB	octave-measuring-sound pressure level
L_S	dB	measuring surface index
ΔL	dB	level difference
ΔL_{KA}	dB(A)	correction value for A-weighting
A-Bewertung	dB	A-weighting acc. DIN 45633 sheet 1
ΔL_{Wrel}	dB	relative octave spectrum = rel. sound power level difference
ΔL_{WS}	dB	specific sound power level difference

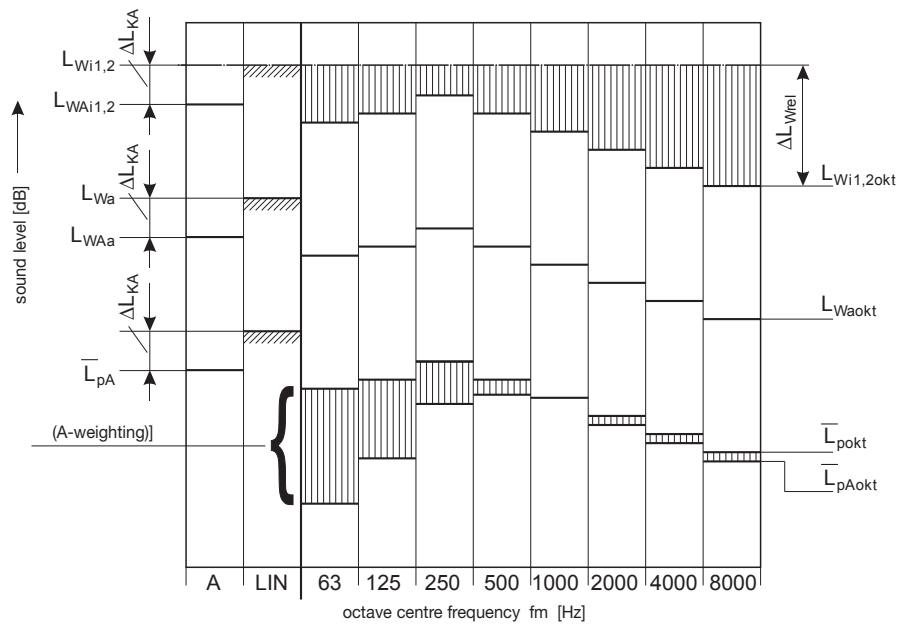
Composition

L_{Wi}	=	L_{WiNP}	} holding for L_{Wi}, L_{Wi2}	[dB] ¹⁾
L_{WiBP}	=	$L_{WiNP} + \Delta L_{WS}$		[dB]
L_{Wai}	=	$L_{Wi} - \Delta L_{KA}$		[dB(A)] ¹⁾
L_{Wiokt}	=	$L_{Wi} - \Delta L_{Wrel}$		[dB]
L_{Wa}	=	L_{WaNP}	[dB] ¹⁾	
L_{WAa}	=	$L_{Wa} - \Delta L_{KA}$	[dB(A)]	
L_{Waokt}	=	$L_{Wa} - \Delta L_{Wrel}$	[dB]	
\bar{L}_{pA}	=	\bar{L}_{pANP}	[dB(A)] ¹⁾	
\bar{L}_p	=	$\bar{L}_{pA} - \Delta L_{KA}$	[dB]	
\bar{L}_{pokt}	=	$\bar{L}_p + \Delta L_{Wrel}$	[dB]	
L_{Wa}	=	$\bar{L}_p + L_S$	[dB]	
L_{WAa}	=	$\bar{L}_{pA} + L_S$	[dB(A)]	
\bar{L}_p	=	$\bar{L}_p - K_0 - K_1 - K_2$	[dB]	
\bar{L}_{pA}	=	$\bar{L}_{pA} - K_0 - K_1 - K_2$	[dB(A)]	

1) Values according NP (nominal point resp. design point) see sound lists acc. to types. In case of deviations from the NP the specific sound power level changes. For all further calculations the specific sound power level difference must then be taken into account.

Graphical representation

Diagramm 2.2



Level change

Level decrease in the inlet or outlet opening with respect to 1m distance from the hemisphere radius

source sound power level $L_{WAI1,2}$ see sound lists acc. to types

Level decrease

$$\Delta L_{1m} = 8 + 20 \lg r \quad \text{with} \quad r = r_{DN} + 1m$$

Restriction

In the case of surface sound sources the sound pressure level near the sound source decreases but slowly. Only for distances of $r \geq 0,4 \sqrt{S_{DN}} = r_{DN}$ the computation acc. the equation can be applied for calculation.

$$L_{pA1} = L_{WAI1,2} - \Delta L_{1m} \quad [\text{dB(A)}]$$

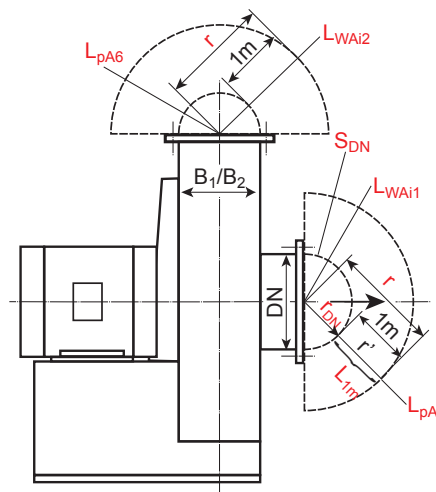
level reduction acc. table 3

A-weighted sound power level

A-weighted sound pressure level in r m distance

- r = distance from the centre of the sound source
- r_{DN} = hemispherical radius = DN/2
- r' = at a distance of 1m from hemispherical radius
- S_{DN} = hemispherical surface
- $S_{DN} = 2 \cdot \pi \cdot r_{DN}^2$

figure 8



Level decrease designation referring to 1m

table 3

DN mm	B ₁ /B ₂ mm	ΔL _{1m} dB	DN mm	B ₁ /B ₂ mm	ΔL _{1m} dB	DN mm	B ₁ /B ₂ mm	ΔL _{1m} dB
100	-	8,5	280	280 / 224	9,5	800	800 / 630	11
112	-	8,5	315	315 / 250	9,5	900	900 / 710	11,5
125	-	8,5	355	355 / 280	9,5	1000	1000 / 800	11,5
140	-	8,5	400	400 / 315	9,5	1120	1120 / 900	12
160	160 / 125	9	450	450 / 355	10	1250	1250 / 1000	12,5
180	180 / 140	9	500	500 / 400	10	1400	1400 / 1120	13
200	200 / 160	9	560	560 / 450	10,5	1600	1600 / 1250	13
224	224 / 180	9	630	630 / 500	10,5	1800	1800 / 1400	13,5

All values refer to free-field conditions. Consider tolerances, level addition and reflexion.

Free inlet or discharge sound referring to a distance of 1m from the hemisphere radius of the inlet or discharge opening

$$\bar{L}_{pA5} = L_{WAI1} - \Delta L_{1m} \quad [\text{dB(A)}]$$

$$\bar{L}_{pA6} = L_{WAI2} - \Delta L_{1m} \quad [\text{dB(A)}]$$

\bar{L}_{pA5} ; \bar{L}_{pA6} see type-related sound tables.

Level change

Level decrease greater than 1m at the inlet or outlet opening without duct connection

source sound power level $L_{WAI1,2}$ see sound tables according to types

Level decrease

theoretical value
actual value
restriction

$$\Delta L_r = 10 \lg 2 \pi r^2$$

$$\textcircled{1} \Delta L_r = 8 + 20 \lg r$$

$$\textcircled{2} \Delta L_r = 8 + 16,7 \lg r$$

$$r_{\min} \geq 0,4 \cdot \sqrt{s_{DN}}$$

$$s_{DN} = \frac{\pi}{2} \cdot DN^2$$

$$L_{pAr} = L_{WAI1,2} - \Delta L_r \text{ [dB(A)]}$$

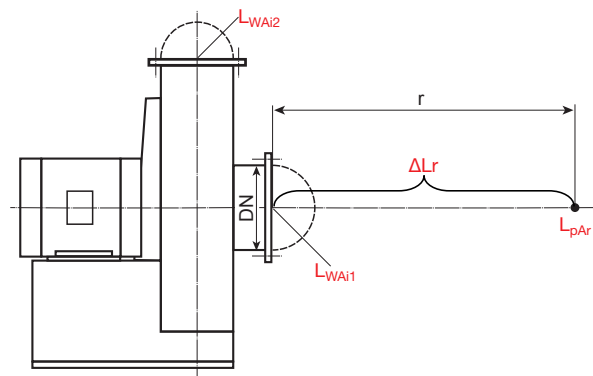
level decrease according diagram 3

A-weighted sound power level

A-weighted sound pressure level in r m distance

r = distance from the centre of the sound source

figure 9

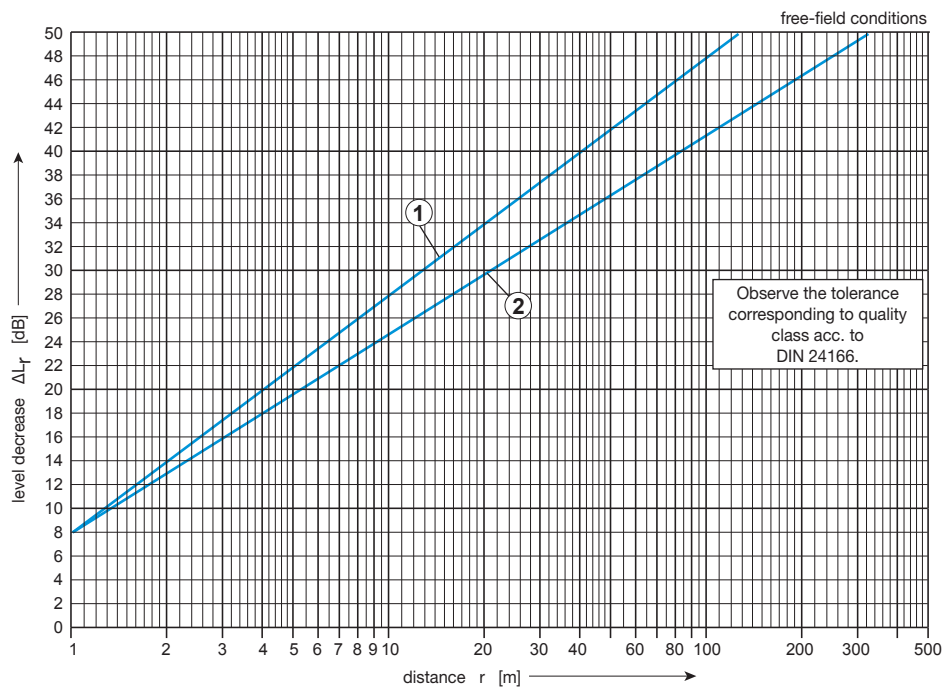


Level decrease

diagram 3

Consider tolerances, level addition and reflexion.

- ① theoretical level decrease
- ② actual level decrease



Noise interaction under operating conditions

In order to transfer measurements for the fan taken in optimum conditions to working conditions, it is indispensable to observe and take into account the following sources of interference:

- Noise of drive motors
- Background noise generated by other machines
- Level increase by room influence (reflexion)
- Level increase by deviation from nominal point (fan is deviating from order values when operating in the plant)
- Level increase caused by dampers (inlet guide vanes, valves, shutters etc.)
- Level increase caused by flexible connections (they represent “noise leak” areas in the system)
- Level increase caused by plant components as for instance ducts, bends, baffles, suction boxes, changes of cross section, transition pieces etc.
- Level increase caused by stalls in the plant

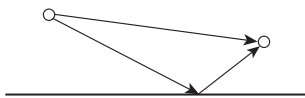
In principle, the sources of interference produced by the plant itself as well as interference caused by set-up (locality) are to be calculated and determined by the designer of the plant.

The additional and correctional values listed on the following sheets are to be used in estimated calculations only.

Sources of interference

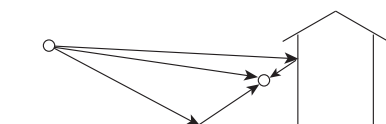
- Noise of drive motors
Noise of drive motors considerably varies among the different makes. Exact values can be found in the respective motor catalogue. In any case the sound level must be known. It must be less than about 8dB below the required maximum value in order to avoid a level addition. If the noise values of fan and motor are the same, the sound level will increase by 3 dB(A) (see level addition).
- Background noise
Any noise at the measuring points that is not caused by and directly radiated from the tested fan is considered as background noise. In order to avoid a level addition it must be about 8 dB(A) below the required value (see level addition).
- Sound reflexion – free-field conditions
If any large, not sound absorbing surface is placed near the source of sound, the sound will be reflected from there. Reflexion from ground may cause an increase in noise level of about 3 dB(A).

Level increase by reflexion from ground



Level increase by reflexion from ground and surface reflexion

A further reflexion must also be considered if additional surfaces (walls, buildings, machines etc.) are close by. This may cause an increase in the sound level of an additional 3 dB(A).

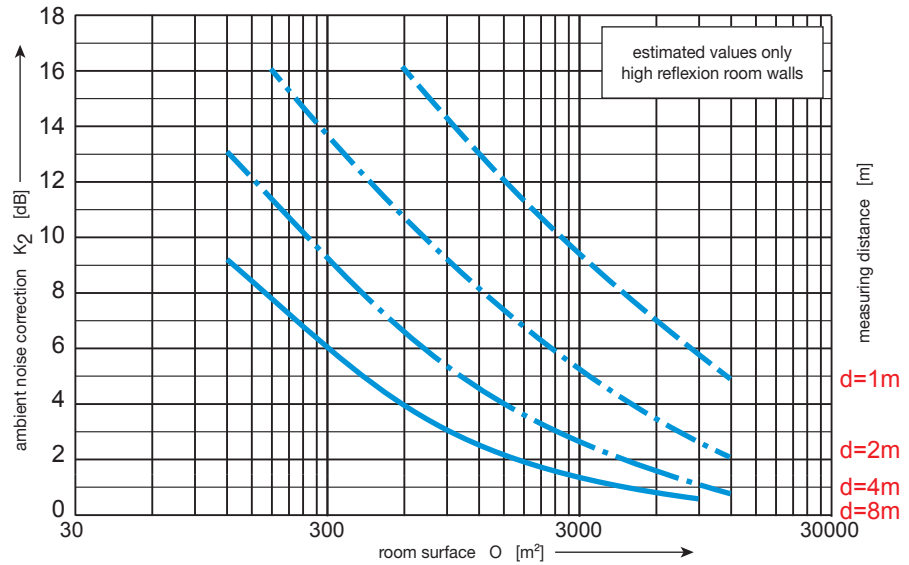


Level increase by influence of room

If the sound source is located inside a room, an increase of up to 10 dB(A) can occur. Among other factors, the increase depends on the size of the room and the kind of the room boundaries as well as on the complicated reflection and absorption ratio. The smaller the room and the higher the measuring distance, the higher the measuring distance by reflection will be (see diagram 5).

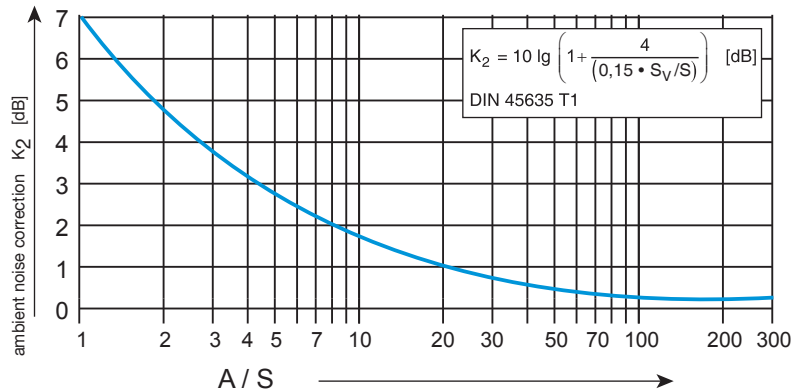
Ambient correction K2 depending on surface and the measuring distance

diagram 5



Ambient correction K2 depending on the sound absorbing surface

diagram 6



- A = equivalent sound absorbing surface
- A = 0,15 · Sv, Sv = total sound surface of room
- Sv = 2 (L · B + L · H + B · H)
- S = measuring surface and its contents of fan (see sheet ST4)

Level change

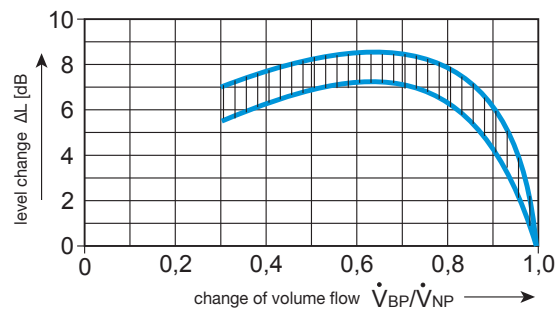
Level increase due to damper

Variable inlet guide vane

The employment of a variable inlet guide vane will modify the fan's characteristic curve. Depending on the guiding blades' angle a rotational swirl is created which causes a change of the inlet flow conditions. In consequence, the specific sound power level changes depending on the volume flow and the guiding blades' angle. Changes as in diagram 7.

Level increase due to variable inlet guide vane

diagram 7

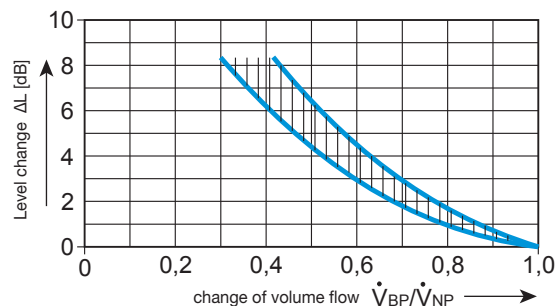


Damper

Using a damper will cause an additional plant resistance. The valves must be considered as an additional sound source. The noise behaviour depends on the design and number of valves (1– n valves) as well as the flow velocity and the position of the valves (open – closed). There are no secured measuring values in connection with fans yet. The values listed in the diagram below can be used as guide values.

Level increase due to damper

diagram 8



Level increase at frequency inverter operation

REITZ can only give information about a potential level increase of the motor at variable speed control operation when the related frequency inverter has been included in our scope of supply and the pertaining tuning works have been carried out by us, since even different parameter settings at the frequency inverter may result in a deviation of the level increase in comparison to mains operation within a margin from 5 – 15 dB(A).

Hence, we cannot guarantee the drive sound values in case the motor and the frequency inverter have been procured and supplied by the customer and the parametrization has been carried out in the customer's responsibility.

We would be glad to submit an offer for suitable motors and frequency inverters.

Level increase by deviation from nominal point

As the fan can work at any point of its characteristic curve depending on the plant resistance, the actual working point in the plant is designated as operating point. The specific sound power level changes in dependence of the volume flow. The minimum of noise generation of the fan approximately coincides with the optimum efficiency at $\dot{V}_{BP}/\dot{V}_{NP} = 1 = NP$. See diagram 9 for the respective deviations of volume flow.

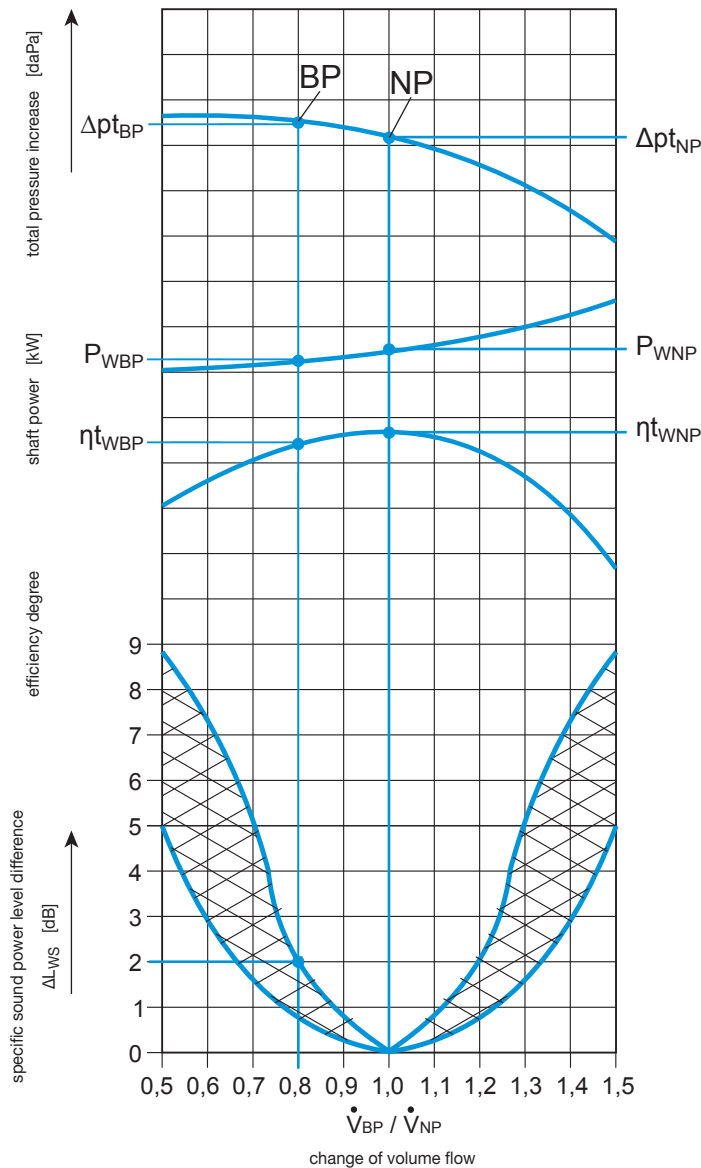
Level increase by deviation from nominal point

Fan performance curve

NP = nominal point = list data

BP = operating point = working point of plant

diagram 9

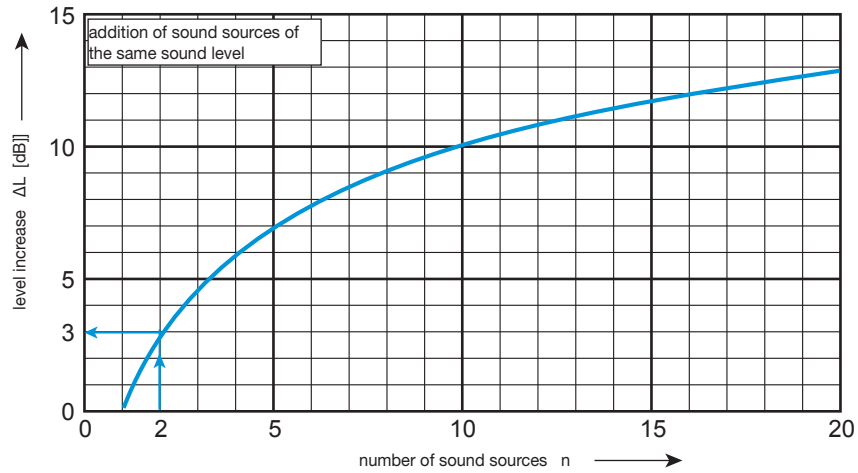


Level addition - general remarks

A second sound source (e.g. 2 fans or as usual one fan and a drive motor) causes a sound pressure level increase according to diagram 10 and 11.

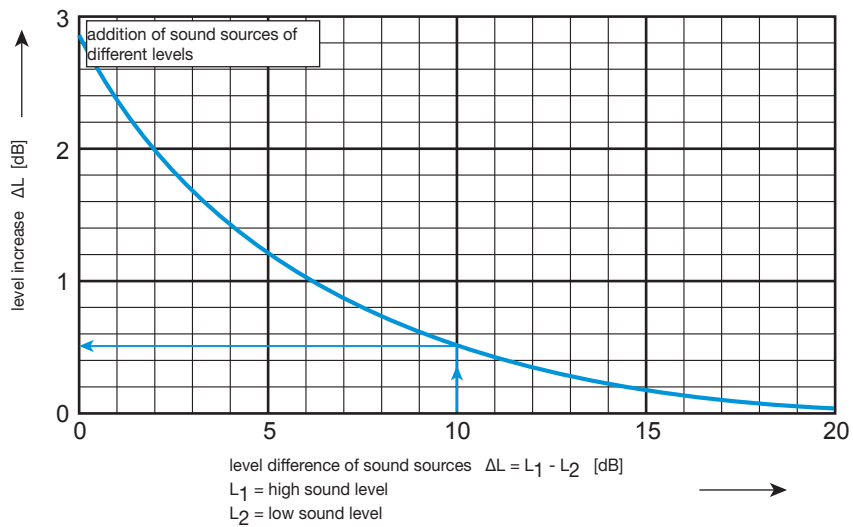
Addition of sound sources of the same sound level

diagram 10



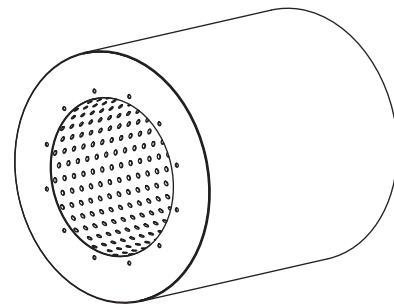
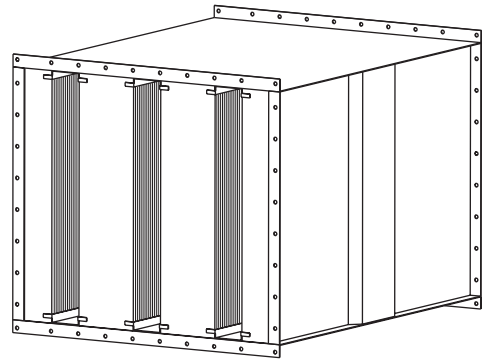
Addition of sound sources of different levels

diagram 11



Chapter 6 - Silencers - SD

- Silencers with baffles
- Design characteristics
- Acoustic data
- Technical data
- Tubular silencers
- Design characteristics
- Acoustic data
- Technical data



Silencers with baffles - Design characteristics

Design characteristics

General informations

The standard silencer of series 1 is designed especially for radial fans. The design in the selection table is based on a flow rate of $c_s = 15 \text{ m/s}$, 18 m/s and 20 m/s .

Technical data:

baffle thickness $d = 250 \text{ mm}$

baffle distance $s = 125 \text{ mm}$

lateral baffle $d/2 = 125 \text{ mm}$

cross-section ratio $A_s/A_{tot} = 0,333$

A_s = cross-sectional area, open

A_{tot} = cross-sectional area, total

pressure loss in the silencer, see sheet SD 9

max. air velocity $c_s \text{ max} = 20 \text{ m/s}$

max. temperature resistance 120°C

reference temperature = 20°C

design description see below

Design variant 3

Silencer housing made of sheet steel is continuously stiffened with beads or flat iron and provided with lead frames. Design variant 3 is designed for a constant, not altering or cyclic system pressure by changes in operating conditions of $\Delta p_t -3150 \text{ daPa}$ to $+3150 \text{ daPa}$. The static load-bearing capacity when installed in vertical position is $\leq 3000 \text{ kg}$.

The baffles are fixed in the housing with channel sections. Baffles provided with hydrophobic and non-abrasive impregnated surfaces made of 1.0 mm thick galvanized sheet steel. The perforation cover has 40% transparency.

The housing is primarily coated. On request, it can also be supplied with a top coat.

Design variant 4

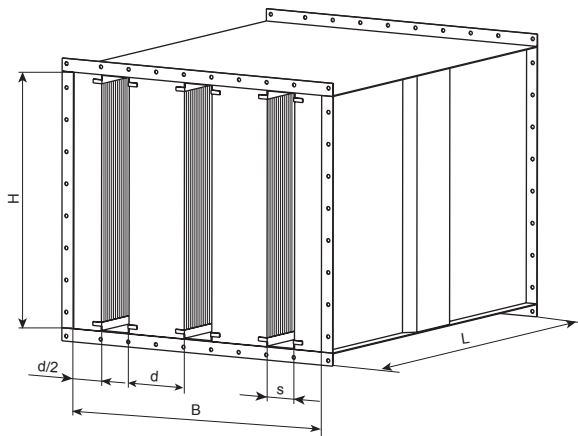
As design variant 3 but with detachable side and removable baffles.

Options:

- pressure-resistant and shock-proof
- temperature-resistant up to 300°C
- stainless steels
- provided with lugs for fixing
- welded gastight design
- with profiles at inlet
- baffles with foil covering
- surface galvanised
- surface hot-dipped galvanised

Silencers with baffles - Acoustic data

Standard silencers with baffles



article no. = component size

KS S1 1 3-03 08 04 - 00

length code x 250 =
L [mm] acc. to table 1 (**)

height code x 125 = H [mm]

width code x 375 = B [mm]

design code 3

series code: series 1

product code: S1 = silencers with baffles

symbol KS = silencers with baffles

Selection table

article number component size	number of baffles	width	height	air volume			flow noise					
							at cs = 15 / 18 / 20 m/s					
design (3)	length (**)	Stück 1)	B [mm]	H [mm]	V̇ (m³/min)			L _w [dB]			L _{WA} [dB(A)]	
KSS113-0102..-00	0	375	250	28	31	35	51	54	57	42	47	51
KSS113-0103..-00	0	375	375	40	50	56	53	56	59	44	49	53
KSS113-0104..-00	0	375	500	56	63	71	54	57	60	45	50	54
KSS113-0105..-00	0	375	625	71	80	90	55	58	61	46	51	55
KSS113-0204..-00	1	750	500	112	125	140	57	60	63	48	53	57
KSS113-0206..-00	1	750	750	160	200	224	59	62	65	50	55	59
KSS113-0208..-00	1	750	1000	224	250	280	60	63	66	51	56	60
KSS113-0308..-00	2	1125	1000	315	400	450	61	64	67	52	57	61
KSS113-0310..-00	2	1125	1250	400	500	560	62	65	68	53	58	62
KSS113-0312..-00	2	1125	1500	500	560	630	63	66	69	54	59	63
KSS113-0410..-00	3	1500	1250	560	630	710	64	67	70	55	60	64
KSS113-0412..-00	3	1500	1500	630	800	900	65	68	71	56	61	65
KSS113-0414..-00	3	1500	1750	710	900	1000	65	68	71	56	61	65
KSS113-0514..-00	4	1875	1750	900	1120	1250	66	69	72	57	62	66
KSS113-0516..-00	4	1875	2000	1120	1250	1400	67	70	73	58	63	67
KSS113-0616..-00	5	2250	2000	1250	1600	1800	68	71	74	59	64	68
KSS113-0618..-00	5	2250	2250	1400	1800	2000	68	71	74	59	64	68
KSS113-0620..-00	5	2250	2500	1600	2000	2240	69	72	75	60	65	69
KSS113-0722..-00	6	2625	2750	2000	2240	2500	70	73	76	61	66	70
KSS113-0724..-00	6	2625	3000	2240	2500	2800	70	73	76	61	66	70
KSS113-0822..-00	7	3000	2750	2500	2800	3150	70	73	76	61	66	70
KSS113-0826..-00	7	3000	3250	2800	3150	3550	71	74	77	62	67	71
KSS113-0926..-00	8	3375	3250	3150	3550	4000	71	74	77	62	67	71
KSS113-0928..-00	8	3375	3500	3550	4000	4500	72	75	78	63	68	72
KSS113-1030..-00	9	3750	3750	4000	4500	5000	72	75	78	63	68	72
KSS113-1032..-00	9	3750	4000	4500	5000	5600	73	76	79	64	69	73
KSS113-1134..-00	10	4125	4250	5000	5600	6300	73	76	79	64	69	73
KSS113-1136..-00	10	4125	4500	5600	6300	7100	74	77	80	65	70	74

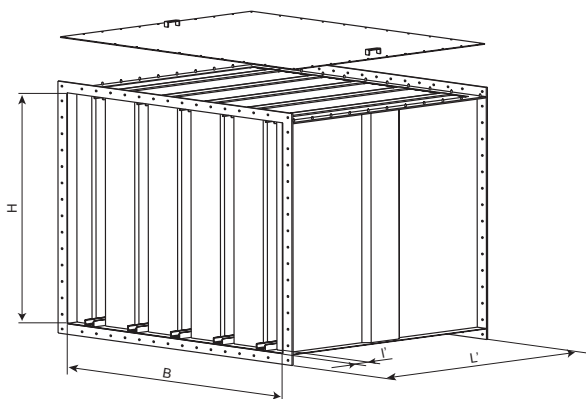
table 1 ()** length of silencer L

length code	02	03	04	05	06	07	08	09	10
L [mm]	500	750	1000	1250	1500	1750	2000	2250	2500

1) Since in general lateral baffles are applied, there is an additional 1/2 baffle installed at the right and left hand side (see figure).

Silencers with baffles - Acoustic data

Silencer with baffles with detachable side wall and removable baffles²⁾



article no. = component size

KS S1 1 4 - 03 08 04 - 00

length code x 250 =
L [mm] acc. to table 2 (**)

height code x 125 = H [mm]

width code x 375 = B [mm]

design code **3**

series code: series **1**

product code: **S1** = silencers with baffles

symbol **KS** = silencers with baffles

Silencer elongation

article number component size design length (4) (**)	number of baffles Stück ¹⁾	width B [mm]	height H [mm]	extension 2 l' [mm]
KSS114-0102..-00	0	375	250	+ 70
KSS114-0103..-00	0	375	375	+ 70
KSS114-0104..-00	0	375	500	+ 70
KSS114-0105..-00	0	375	625	+ 70
KSS114-0204..-00	1	750	500	+ 110
KSS114-0206..-00	1	750	750	+ 110
KSS114-0208..-00	1	750	1000	+ 110
KSS114-0308..-00	2	1125	1000	+ 110
KSS114-0310..-00	2	1125	1250	+ 110
KSS114-0312..-00	2	1125	1500	+ 110
KSS114-0410..-00	3	1500	1250	+ 110
KSS114-0412..-00	3	1500	1500	+ 110
KSS114-0414..-00	3	1500	1750	+ 110
KSS114-0514..-00	4	1875	1750	+ 170
KSS114-0516..-00	4	1875	2000	+ 170
KSS114-0616..-00	5	2250	2000	+ 170
KSS114-0618..-00	5	2250	2250	+ 170
KSS114-0620..-00	5	2250	2500	+ 170
KSS114-0722..-00	6	2625	2750	+ 210
KSS114-0724..-00	6	2625	3000	+ 210

Other sizes available on request

for silencer length $L \leq L_{\max}$. $L' = L + 2 l'$

with L = length of baffles

L' = length of silencer

2 l' = silencer-extension

table 2 (**) silencer length L

length code	02	03	04	05	06	07	08	09	10
L [mm]	500	750	1000	1250	1500	1750	2000	2250	2500

1) Since in general lateral baffles are applied, there is an additional 1/2 baffle installed at the right and left hand side (see figure).

2) Remove of baffles at one side B x L' only.

Silencers with baffles - Acoustic data

Insertion loss in dependance of octave centre frequency

table 3

octave centre frequency fm [HZ]	attenuation De [dB] - silencer length								
	500	750	1000	1250	1500	1750	2000	2250	2500
63	3	3	4	4	5	6	6	7	7
125	5	6	8	10	12	13	15	17	19
250	10	13	17	20	23	27	30	33	36
500	17	24	30	35	41	47	48	48	48
1000	24	32	40	48	48	48	48	48	48
2000	20	26	32	38	44	48	48	48	48
4000	14	16	19	22	25	27	30	32	35
8000	11	12	13	15	17	18	20	21	22

A-weighted level difference of silencer

table 4

impeller speed n _L [min ⁻¹]		level difference ΔL _A [dB(A)] in dependence of the silencer length L [mm]								
from - to	rate	500	750	1000	1250	1500	1750	2000	2250	2500
4500 > 2250	3000	20	24	27	29	31	32	33	35	36
2250 > 1125	1500	20	23	26	28	30	32	33	34	35
1125 > 560	750	22	24	26	28	30	31	32	34	34
560 > 280	375	23	25	27	28	30	31	32	33	34

A-weighted sound power level directly after silencer

$$L_{Wi,1,2} = L_{WAi,1,2} + \Delta L_{KA}$$

ΔL_{KA} : correction value for A-weighting
 $L_{WAi,1,2}$: A-weighted source sound power level at inlet, at discharge

$$L_{WA} = L_{Wi,1,2} - \Delta L_A \quad [\text{dB(A)}]$$

ΔL_A : A-weighted level difference (table 4)
 $L_{Wi,1,2}$: source sound power level at inlet, at discharge
 L_{WA} : A-weighted power level directly downstream of silencer

Note

In the A-weighted level difference of the silencer, A-weighting is included in the calculation, therefore the A-weighted acoustic power level source in unadjusted power level source is to be converted.

Remark

The A-weighted level difference is only valid for radial fans as the value depends on the frequency spectrum of the fan.

Silencers with baffles - Acoustic data

Flow noise in the silencer

When designing silencers the flow noise inside the silencer must be about 10 dB lower than the permitted calculated level behind the silencer in order to avoid a level addition. For this reason the air flow noise has to be considered when choosing the silencer's cross-section B x H and the air flow rate c_s .

Sound power level

$$L_W = L_{c_s} + L_k \quad [\text{dB}]$$

L_{c_s} flow noise acc. to diagram 1
 L_k correction value for the flow cross section acc. to table 5

Sound power level of the flow noise

diagram 1

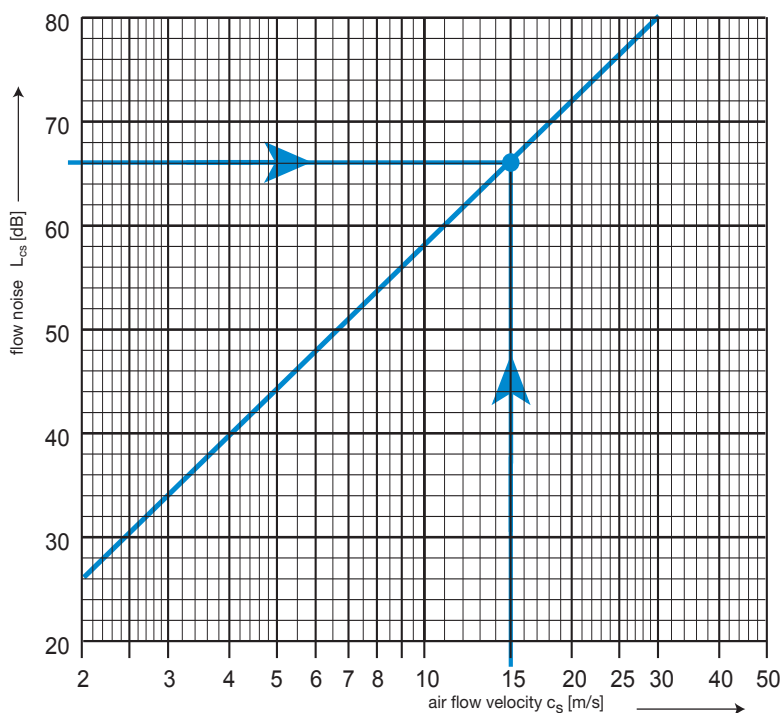


table 5

B x H		LK [dB]
375 x	250	- 15
	375	- 14
	500	- 12
750 x	625	- 11
	500	- 9
	750	- 7
	1000	- 6
1125 x	1000	5
	1250	4
	1500	3
1500 x	1250	2
	1500	1
	1750	1
1875 x	1750	0
	2000	1
	2000	2
2250 x	2250	2
	2500	3
2625 x	2750	4
	3000	4
3000 x	2750	4
	3250	5
3375 x	3250	5
	3500	6
3750 x	3750	6
	4000	7
4125 x	4250	7
	4400	8

A-weighted sound power level – correction values

$L_{WA} = L_W - 9 \text{ dB(A)}$ [dB(A)] applies for $c_s = 15 \text{ m/s}$

$L_{WA} = L_W - 7 \text{ dB(A)}$ [dB(A)] applies for $c_s = 18 \text{ m/s}$

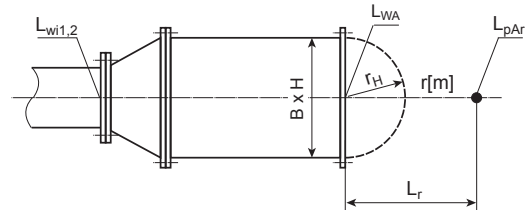
$L_{WA} = L_W - 6 \text{ dB(A)}$ [dB(A)] applies for $c_s = 20 \text{ m/s}$

Silencers with baffles - Acoustic data

Level reduction referred to r m distance

$$L_{pAr} = L_{WA} - \Delta L_r \quad [\text{dB(A)}] \quad \text{mit} \quad \Delta L_r = 8 + 20 \lg r \quad [\text{dB}]$$

L_{pAr} : A-weighted sound pressure level r m distance
 L_{WA} : A-weighted surface sound power level after silencer (see sheet SD 5)
 ΔL_r : Level reduction according to table 6



Restriction

For surface sound sources, the sound pressure close to the sound source only decrease at a slow rate. Calculations using the above-mentioned formula for ΔL_r can only be made for distance from $r > r_H$ onwards.

$$r_H = 0,565 \cdot \sqrt{B \cdot H}$$

- r_H [m] = radius of hemisphere (minimum distance)
- r [m] = distance from the centre of the sound source
- B, H [m] = silencer cross-section
- ΔL_{r_H} = level decrease in the distance of r_H

Level reduction

table 6

SD B x H mm	r_H m	ΔL_{1m} dB	ΔL_{2m} dB	ΔL_{3m} dB	ΔL_{4m} dB	ΔL_{6m} dB	ΔL_{8m} dB	ΔL_{10m} dB
375 x 250	0,17	8	14	17	20	23	26	28
375 x 375	0,21	8	14	17	20	23	26	28
375 x 500	0,24	8	14	17	20	23	26	28
375 x 625	0,27	8	14	17	20	23	26	28
750 x 500	0,35	8	14	17	20	23	26	28
750 x 750	0,42	8	14	17	20	23	26	28
750 x 1000	0,49	8	14	17	20	23	26	28
1125 x 1000	0,60	8	14	17	20	23	26	28
1125 x 1250	0,67	8	14	17	20	23	26	28
1125 x 1500	0,73	8	14	17	20	23	26	28
1500 x 1250	0,77	8	14	17	20	23	26	28
1500 x 1500	0,85	8	14	17	20	23	26	28
1500 x 1750	0,91	8	14	17	20	23	26	28
1875 x 1750	1,00	8	14	17	20	23	26	28

SD B x H mm	r_H m	ΔL_{1m} dB	ΔL_{2m} dB	ΔL_{3m} dB	ΔL_{4m} dB	ΔL_{6m} dB	ΔL_{8m} dB	ΔL_{10m} dB
1875 x 2000	1,09	9	14	17	20	23	26	28
2250 x 2000	1,20	9	14	17	20	23	26	28
2250 x 2250	1,27	10	14	17	20	23	26	28
2250 x 2500	1,34	10	14	17	20	23	26	28
2625 x 2750	1,52	11	14	17	20	23	26	28
2625 x 3000	1,59	12	14	17	20	23	26	28
3000 x 2750	1,62	12	14	17	20	23	26	28
3000 x 3250	1,76	12	14	17	20	23	26	28
3375 x 3250	1,87	13	14	17	20	23	26	28
3375 x 3500	1,94	13	14	17	20	23	26	28
3750 x 3750	2,12	14	-	17	20	23	26	28
3750 x 4000	2,19	14	-	17	20	23	26	28
4125 x 4250	2,37	15	-	17	20	23	26	28
4125 x 4500	2,43	15	-	17	20	23	26	28

SD B x H mm	ΔL_{20m} dB	ΔL_{30m} dB	ΔL_{40m} dB	ΔL_{60m} dB	ΔL_{80m} dB	ΔL_{100m} dB	ΔL_{200m} dB	ΔL_{300m} dB	ΔL_{400m} dB	ΔL_{500m} dB
alle SD	34	37	40	44	46	48	54	57	60	62

All values refer to free-field conditions.
Consider tolerances, level addition and reflexion.

Silencers with baffles - Technical data

Technical data

General informations

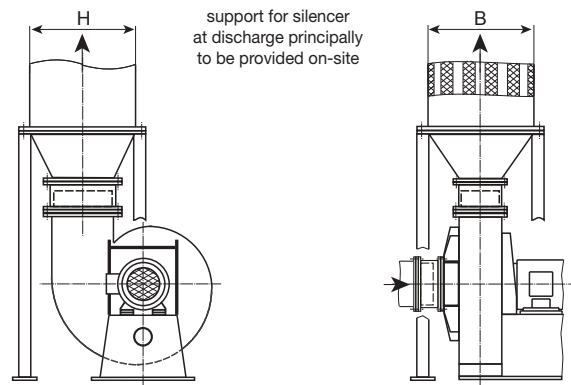
The required silencer should be arranged very close to the fan, as then the entire downstream plant system will be charged with the reduced sound values only.

When mounting the fan on anti-vibration mounts, provide flexible connections at inlet and discharge. For acoustical reasons the flexible connections should have chutes since they then have the effect of a duct. In case of high noise requirements provide flexible connections and transition pieces with sound insulation up to the silencer centre.

Silencer arranged at discharge

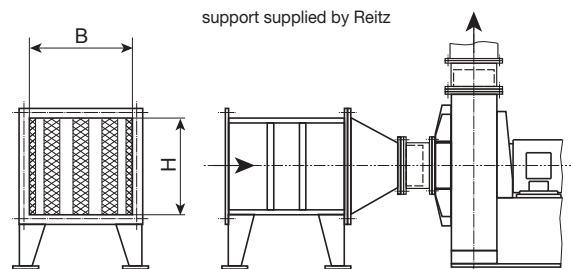
The silencer at discharge has principally to be mounted in a way to enable the air flow streaming through the baffles parallel to the height of the housing. When designing the transition piece the length of the edges has to be fixed adequately, i.e. the housing width „B2“ (see dimension sheet) is always coordinated to the silencer width „B“. The height of discharge part „B1“ is always analogously coordinated to the silencer height „H“.

This way it is also quite impossible that a horizontal arrangement of the absorber (discharge position 90° and 270°) would cause a horizontal arrangement of the baffles.



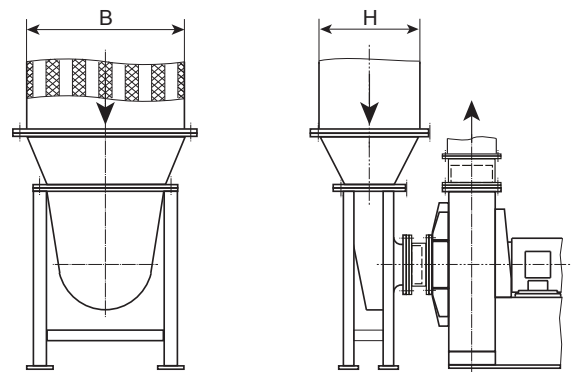
Silencer arranged at inlet

The arrangement of the silencer at inlet always has to provide a vertical position of the baffles.



Silencer arranged at the suction box at inlet

For design reasons, the position of the baffles is chosen in longitudinal direction to avoid an additional swirl of the incoming air.



Silencers with baffles - Technical data

Pressure losses

Pressure loss inside the silencer

Flow rate c_s in m/s	Pressure loss in silencer Δp_{SD} in daPa								
	Silencer length L in mm								
	500	750	1000	1250	1500	1750	2000	2250	2500
15	10	10,5	11	11	11,5	12	12	12,5	13
18	14,5	15	15,5	16	16,5	17	17,5	18	18,5
20	18	18,5	19	19,5	20	20,5	21	22	22,5

In case of free inlet there is an additional pressure loss at the inlet

$\Delta P_E = 15$ daPa at $c_s = 15$ m/s

$\Delta P_E = 23$ daPa at $c_s = 18$ m/s

$\Delta P_E = 28$ daPa at $c_s = 20$ m/s

Pressure loss through protective grid with a free surface of 90 %

$\Delta P_{SG} = 3$ daPa at $c_s = 15$ m/s

$\Delta P_{SG} = 5$ daPa at $c_s = 18$ m/s

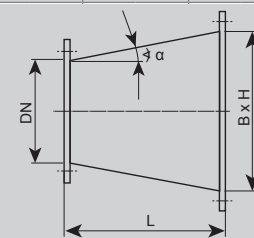
$\Delta P_{SG} = 6$ daPa at $c_s = 20$ m/s

Pressure losses caused by transition pieces, ducts and bends are to be calculated by the customer.

Transition pieces

For calculating the silencer's space requirement please take the needed length of the transition pieces from the table. The lengths of the pieces are chosen so that $\alpha \leq 30^\circ$.

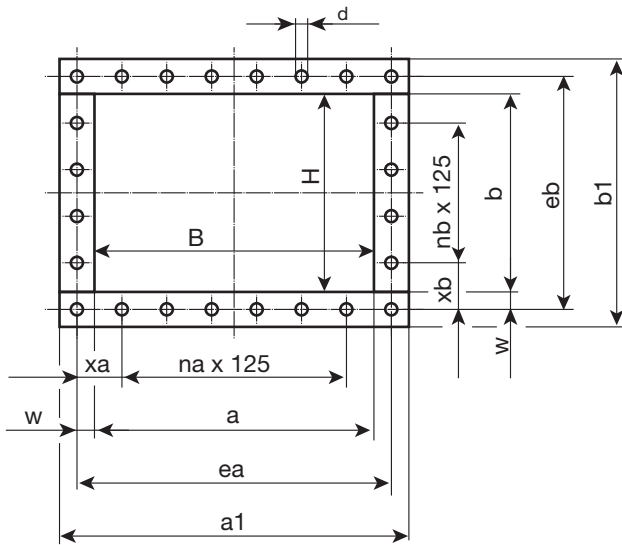
connection DN ¹⁾	silence width x height																	
	375 x 250 375 x 375	375 x 500 375 x 625	750 x 500 750 x 750	750 x 1000	1125 x 1000 1125 x 1250	1125 x 1500 1500 x 1250 1500 x 1500	1500 x 1750 1875 x 1750 1875 x 2000	2250 x 2000 2250 x 2250 2250 x 2500	2625 x 2750 2625 x 3000 3000 x 2750	3375 x 3250 3375 x 3500 3750 x 3750 3750 x 4000	4125 x 4250 4125 x 4500							
DN ¹⁾	weight and length of transition piece																	
	L	kg	L	kg	L	kg	L	kg	L	kg	L	kg	L	kg	L	kg	L	kg
100	315	9,3	500	16,5	800	42,2	1000	56,5										
112	315	9,5	500	16,8	800	42,6	1000	57	1250	103								
125	315	9,7	500	17	710	40,2	1000	58,2	1250	104								
140	315	10	450	16,3	710	40,7	900	54,5	1250	105	1600	160						
160	315	10,3	450	16,7	710	41,3	900	55,2	1250	106	1600	162						
180	315	10,6	400	15,9	710	41,9	900	55,9	1120	100	1600	163	2000	300				
200	315	10,9	400	16,2	710	42,4	900	56,7	1120	101	1600	164	2000	302				
224	250	9,8	400	16,6	630	40,3	800	53,5	1120	102	1500	159	2000	304	2500	544		
250	250	10,2	400	17,6	630	40,9	800	54,3	1120	103	1500	160	2000	306	2500	548		
280	250	11,4	355	17,2	560	39,9	800	56,1	1120	106	1500	163	1800	288	2500	553	3350	900
315	250	12,2	355	18	560	40,9	800	57,5	1120	108	1500	166	1800	294	2500	558	3350	908
355	250	12,6	355	17,3	560	41,7	710	54,5	1000	101	1400	160	1800	297	2500	564	2800	812
400			315	18	560	42,8	710	55,9	1000	103	1400	163	1800	300	2240	528	2800	819
450			315	18,9	560	44	630	53,4	900	98	1250	153	1800	304	2240	535	2800	827
500					560	45,1	630	54,6	900	100	1250	156	1800	308	2240	541	2800	835
560					500	44,9	630	57,4	800	96	1250	160	1600	292	2240	550	2800	846
630					500	46,7	630	59,5	800	99	1250	164	1600	297	2240	559	2800	857
710					500	48,9	630	61,9	710	94	1120	156	1600	302	2000	525	2800	869
800					630	64,6	710	97	1120	160	1600	308	2000	535	2800	883	3550	1675
900					630	68	710	100	1000	152	1400	290	1800	508	2500	833	3550	1699
1000							710	104	1000	156	1400	296	1800	517	2500	846	3550	1723
1120							710	114	900	155	1120	270	1600	493	2240	807	3550	1757
1250									900	161	1120	276	1600	503	2240	822	3350	1713
1400									900	169	1120	265	1600	516	2240	730	3350	1746
1600											1000	274	1600	533	1800	747	3150	1710
1800											1000	284	1600	551	1800	765	3150	1751
2000											1000	296	1600	571	1800	783	2800	1638



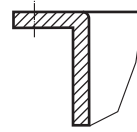
1) bei rechteckigen Querschnitten ist jeweils vom Kleinmaß auszugehen, z.B. 500/400 Bezugsmaß DN = 400

Silencers with baffles - Technical data

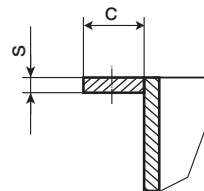
Connection dimensions



for silencer design 3 $\leq B \times H$ 1500 x 1750



for silencer design 3 $> B \times H$ 1500 x 1750



Attention

For nominal size 375/250 there will be a hole in the middle axis on the short side of the flange.

nominal size		c x s	weight kg	dimensions in mm											hole Ød	number of holes
width B	height H			a	b	ea	eb	xa	xb	na	nb	w	a1	b1		
375	250	30 x 3	2,04	377	252	411	286	143	143	1	-	17	437	312	10	10
375	375	30 x 3	2,38	377	377	411	411	143	143	1	1	17	437	437	10	12
375	500	30 x 3	2,72	377	502	411	536	143	80,5	1	3	17	437	562	10	16
375	625	30 x 3	3,06	377	627	411	661	143	143	1	3	17	437	687	10	16
750	500	50 x 3	11,42	752	502	812	562	93,5	93,5	5	3	30	852	602	14	24
750	750	50 x 3	12,85	752	752	812	812	93,5	93,5	5	5	30	852	852	14	28
750	1000	50 x 3	14,73	752	1002	812	1062	93,5	93,5	5	7	30	852	1102	14	32
1125	1000	50 x 3	17,56	1127	1002	1187	1062	156	93,5	7	7	30	1227	1102	14	36
1125	1250	50 x 3	19,45	1127	1252	1187	1312	156	93,5	7	9	30	1227	1352	14	40
1125	1500	50 x 3	21,33	1127	1502	1187	1562	156	93,5	7	11	30	1227	1602	14	44
1500	1250	50 x 3	23,03	1502	1252	1562	1312	93,5	93,5	11	9	30	1602	1352	14	48
1500	1500	50 x 3	24,91	1502	1502	1562	1562	93,5	93,5	11	11	30	1602	1602	14	52
1500	1750	50 x 3	26,80	1502	1752	1562	1812	93,5	93,5	11	13	30	1602	1852	14	56
1875	1750	80 x 10	76,29	1877	1752	1967	1842	171	108,5	13	13	45	2037	1912	22	60
1875	2000	80 x 10	81,12	1877	2002	1967	2092	171	108,5	13	15	45	2037	2162	22	64
2250	2000	80 x 10	88,37	2252	2002	2342	2092	108,5	108,5	17	15	45	2412	2162	22	72
2250	2250	80 x 10	93,20	2252	2252	2342	2342	108,5	108,5	17	17	45	2412	2412	22	76
2250	2500	80 x 10	98,03	2252	2502	2342	2592	108,5	108,5	17	19	45	2412	2662	22	80
2650	2750	100 x 10	174,53	2627	2752	2737	2862	181	118,5	19	21	55	2827	2952	22	88
2650	3000	100 x 10	182,08	2627	3002	2737	3112	181	118,5	19	23	55	2827	3202	22	92
3000	2750	100 x 10	185,85	3002	2752	3112	2862	118,5	118,5	23	21	55	3202	2952	22	96
3000	3250	100 x 10	200,95	3002	3252	3112	3362	118,5	118,5	23	25	55	3202	3452	22	104
3375	3250	100 x 10	212,28	3377	3252	3487	3362	181	118,5	25	25	55	3577	3452	22	108
3375	3500	100 x 10	219,83	3377	3502	3487	3612	181	118,5	25	27	55	3577	3702	22	112
3750	3750	100 x 10	238,70	3752	3752	3862	3862	118,5	118,5	29	29	55	3952	3952	22	124
3750	4000	100 x 10	246,25	3752	4002	3862	4112	118,5	118,5	29	31	55	3952	4202	22	128
4125	4250	100 x 10	265,13	4127	4252	4237	4362	181	118,5	31	33	55	4327	4452	22	136
4125	4500	100 x 10	272,68	4127	4502	4237	4612	181	118,5	31	35	55	4327	4702	22	140

Silencers with baffles - Technical data

Weights

cross-section of silencer		weight in kg for design 3								
width B mm	height H mm	silencer lengths L in mm								
		500	750	1000	1250	1500	1750	2000	2250	2500
375	250	32	46	62	76	91	106	122	138	152
375	375	39	56	74	92	110	129	146	166	186
375	500	45	66	87	109	130	150	171	195	222
375	625	51	76	100	123	149	172	196	222	246
750	500	73	107	141	174	209	243	278	315	349
750	750	89	132	177	221	265	309	354	398	442
750	1000	107	158	212	264	318	370	422	476	529
1125	1000	141	210	279	349	419	488	559	628	699
1125	1250	163	243	323	405	485	567	648	728	809
1125	1500	185	277	371	459	550	642	735	826	917
1500	1250	201	300	400	502	603	702	802	903	1003
1500	1500	228	341	455	568	682	796	911	1023	1136
1500	1750	255	382	509	636	763	891	1019	1145	1272
1875	1750	399	549	700	849	1000	1150	1300	1450	1601
1875	2000	439	604	770	936	1102	1268	1434	1601	1767
2250	2000	502	695	888	1080	1273	1466	1659	1850	2044
2250	2250	546	757	967	1179	1387	1599	1812	2022	2234
2250	2500	590	818	1047	1277	1506	1735	2130	2358	2588
2625	2750	897	1178	1460	1741	2024	2306	2585	2868	3149
2625	3000	954	1256	1559	1861	2163	2465	2768	3070	3374
3000	2750	989	1304	1619	1938	2254	2571	2886	3203	3519
3000	3250	1112	1474	1836	2200	2560	2922	3285	3647	4008
3375	3250	1213	1614	2015	2416	2817	3218	3619	4019	4421
3375	3500	1280	1706	2134	2560	2988	3413	3840	4266	4693
3750	3750	1456	1954	2449	2946	3441	3938	4433	4928	5425
3750	4000	1529	2054	2577	3102	3626	4149	4674	5198	5721
4125	4250	1722	2322	2923	3523	4124	4727	5326	5926	6526
4125	4500	1799	2429	3060	3692	4322	4953	5585	6216	6849

Silencers with baffles - Technical data

Weights

cross-section of silencer		weight in kg for design 4								
width B mm	height H mm	baffle length L in mm								
		actual silencer length L in mm (see sheet SD 4)								
		500	750	1000	1250	1500	1750	2000	2250	2500
375	250	36	51	65	80	94	107	130	145	161
375	375	45	63	80	98	114	132	161	178	196
375	500	55	75	95	117	136	156	189	210	232
375	625	63	87	111	134	157	180	221	244	268
750	500	95	130	160	191	224	257	319	351	384
750	750	122	163	204	245	286	328	408	449	491
750	1000	151	199	250	299	349	398	498	549	600
1125	1000	222	297	372	446	521	596	744	817	892
1125	1250	260	345	430	518	606	693	971	949	1037
1125	1500	298	407	493	590	790	888	986	1082	1179
1500	1250	391	512	631	752	1023	1144	1264	1385	1505
1500	1500	446	581	716	850	1162	1297	1432	1576	1702
1500	1750	501	650	800	949	1300	1450	1599	1749	1899
1875	1750	736	915	1097	1277	1459	1639	1821	2001	2182
1875	2000	806	1004	1202	1400	1598	1795	1993	2191	2389
2250	2000	933	1162	1392	1619	1848	2077	2306	2533	2762
2250	2250	1015	1263	1510	1759	2008	2255	2504	2751	3000
2250	2500	1097	1364	1631	1899	2166	2433	2702	2969	3236
2625	2750	1354	1680	2004	2329	2984	2980	3303	3629	3953
2625	3000	1469	1815	2160	2508	2856	3202	3549	3895	4243
3000	2750	1539	1901	2264	2630	2993	3357	3720	4084	4448

Tubular silencer

Desing characteristics

General remarks

The tubular silencer is designed especially for radial fans. The design is based on a flow rate of $c_s = 15$ m/s, 18 m/s and 20 m/s.

Pressure loss: as for ducts of the same nominal width, for design variant 4: 20 daPa bei $c_s = 15$ m/s

Technical data:

external diameter	D
nominal size	DN
wall thickness	d = 100 mm or 150 mm
core diameter	2d = 300 mm

Design variants 2 and 4 (welded)

This tubular silencer is intended for installation in ducts subject to pressure loads. The end faces are equipped with flanges with hole circles in accordance to DIN 24 154 2 (edition July '90). The sound-absorbing filling consists of moisture-resistant, nonflammable mineral matting behind an anti-crumbling layer and galvanised perforated metal plate. The silencer's surfaces are made of 3 mm carbon steel, welded and primarily coated.

The maximum pressure load is $\Delta p_t = -2400$ daPa to +3150 daPa.

Maximum temperature resistance 120°C.

Design variant 4 is equipped with a sound absorbing core.

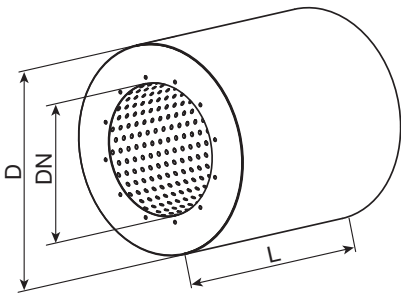
Options:

- with supports
- galvanised
- temperature-resistant
- pressure-resistant and shock proof
- stainless steel design
- special flanges
- foil covering at inlet

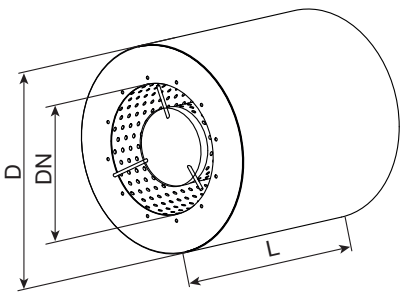
Tubular silencer

Acoustic data

Design variant 2



Design variant 4



article no. = component size

RS S2 1 . - ... - 00

RS: symbol RS = tubular silencers
 S2: product code: S2 = tubular silencers
 1: series code series 1
 .: design code acc. table 7
 -: nominal size code x 10 = DN [mm]
 ...: length code x 10 = L [mm] acc. table 8 (**)
 -: length code x 10 = L [mm] acc. table 8 (**)
 00: nominal size code x 10 = DN [mm]

Selection table

article no. = component size	design	nominal size DN	external diameter D	air volume			flow noise					
							at cs = 15 / 18 / 20 m/s					
				design length (*) (**)	mm	mm	\dot{V} (m ³ /min)	L _W [dB]			L _{WA} [dB(A)]	
RSS21. - 012...-00	2	125	325	11	13	15	46	50	52	37	43	46
RSS21. - 014...-00	2	140	340	14	16	18	48	52	54	39	45	48
RSS21. - 016...-00	2	160	360	18	21	24	49	53	55	40	46	49
RSS21. - 018...-00	2	180	380	23	27	30	50	54	56	41	47	50
RSS21. - 020...-00	2	200	400	28	34	37	51	55	57	42	48	51
RSS21. - 022...-00	2	224	425	35	42	47	52	56	58	43	49	52
RSS21. - 025...-00	2	250	450	44	53	59	53	57	59	44	50	53
RSS21. - 028...-00	2	280	580	55	66	74	54	58	60	45	51	54
RSS21. - 031...-00	2	315	615	70	84	93	55	59	61	46	52	55
RSS21. - 035...-00	2	355	655	89	107	118	56	60	62	47	53	56
RSS21. - 040...-00	2	400	700	113	135	150	57	61	63	48	54	57
RSS21. - 045...-00	4	450	750	91	97	108	55	59	62	47	52	56
RSS21. - 050...-00	4	500	800	117	140	156	57	61	63	48	54	57
RSS21. - 056...-00	4	560	860	144	172	192	58	62	64	49	55	58
RSS21. - 063...-00	4	630	930	189	226	252	59	63	65	50	56	59

table 7 (*) design

design code	design
2	description acc. sheet SD 13
4	

table 8 (**) silencer length L

length code	050	075	100	125	150	175	200	225	250
L [mm]	500	750	1000	1250	1500	1750	2000	2250	2500

Tubular silencer

A-weighted level difference

table 9

article no. = component size design length (*) (**)	nominal size DN mm	level difference ΔL_A [dB(A)] in dependence of the silencer length L [mm]								
		500	750	1000	1250	1500	1750	2000	2250	2500
RSS21.- 012...-00	125	26	31	34	36	39	40	43	44	46
RSS21.- 014...-00	140	25	29	32	35	37	39	41	42	45
RSS21.- 016...-00	160	23	27	30	33	35	37	38	40	41
RSS21.- 018...-00	180	22	26	29	32	33	35	37	38	40
RSS21.- 020...-00	200	21	25	28	30	32	34	36	37	38
RSS21.- 022...-00	224	21	24	27	29	31	33	34	36	37
RSS21.- 025...-00	250	20	23	27	28	31	31	34	35	36
RSS21.- 028...-00	280	19	23	27	28	30	31	34	35	36
RSS21.- 031...-00	315	18	23	26	28	30	31	34	35	36
RSS21.- 035...-00	355	17	22	25	27	30	31	33	35	35
RSS21.- 040...-00	400	16	21	24	27	29	30	33	34	35
RSS21.- 045...-00	450	-	26	29	32	33	36	38	39	40
RSS21.- 050...-00	500	-	25	28	31	33	34	37	38	39
RSS21.- 056...-00	560	-	24	27	29	31	33	34	35	38
RSS21.- 063...-00	630	-	24	26	28	30	31	33	33	34

A-weighted sound power level directly after silencer

$$L_{Wi,2} = L_{WAi,2} + \Delta L_{KA} \quad [\text{dB}]$$

ΔL_{KA} correction value for A-weighting
 $L_{WAi,2}$ A-weighted total sound power level at inlet, at discharge

$$L_{WA} = L_{Wi,2} - \Delta L_A \quad [\text{dB(A)}]$$

ΔL_A A-weighted noise level difference (table 9)
 $L_{Wi,2}$ total sound power level at inlet, at discharge
 L_{WA} A-weighted sound power level directly downstream of silencer

Remark

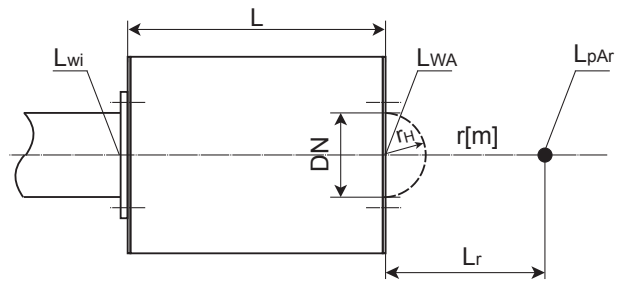
The A-weighted level difference is only valid for radial fans as the value depends on the frequency spectrum of the fan.

Tubular silencer

Level reduction referred to r m distance

$$L_{pAr} = L_{WA} - \Delta L_r \quad [\text{dB(A)}]$$

L_{pAr} : A-weighted sound pressure level in r m distance
 L_{WA} : A-weighted sound power level after silencer (see sheet SD 15)
 ΔL_r : level decrease acc. table 10



r = Abstand vom Mittelpunkt der Schallquelle

Level reduction

table 10

	ΔL_{1m} dB	ΔL_{2m} dB	ΔL_{3m} dB	ΔL_{4m} dB	ΔL_{6m} dB	ΔL_{8m} dB	ΔL_{10m} dB	ΔL_{20m} dB	ΔL_{30m} dB	ΔL_{40m} dB	ΔL_{60m} dB	ΔL_{80m} dB	ΔL_{100m} dB	ΔL_{200m} dB	ΔL_{300m} dB	ΔL_{400m} dB	ΔL_{500m} dB
design 2 + 4	8	14	17	20	23	26	28	33	37	40	44	47	49	57	62	65	67

All values refer to free-field conditions.

Consider tolerances, level addition and reflexion.

Tubular silencer

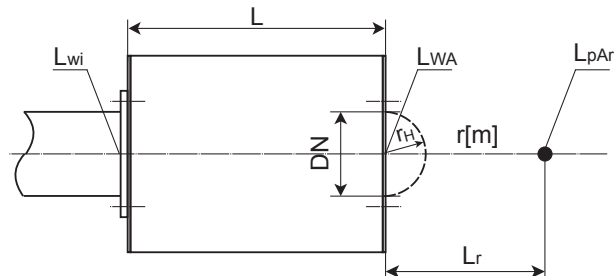
Level reduction - example

Fan type

KXE035-009515-00

$$L_{wi2} = 96 \text{ dB(A)}$$

$$n = 1500 \text{ min}^{-1}$$



required

permitted noise $L_{pAr \text{ zul.}} = 55 \text{ dB(A)}$ at
a distance of 10 m

1. Selection of the silencer nominal size

chosen

nominal size DN = 355 acc. sheet SD 14

further data

air speed $c_s = 18 \text{ m/s}$
flow noise $L_{WA} = 53 \text{ dB(A)}$

2. Selection of silencer length

item	designation	correction	value	unit	rule for calculation
1	source sound power level $L_{W1,2}$	--	96	dB(A)	see General Acoustics
2	correction value for A-weighting ΔL_{KA}	+ 10	106	dB	see General Acoustics
3	addition	+ 3	109	dB	tolerance acc. to DIN 24166 - class 1
4	Level reduction referred to 10 m ΔL_r	- 27	82	dB	see table 10 - sheet SD 16
5	permitted sound level in a distance of 10 m ΔL_{pAr}	--	55	dB(A)	required guarantee value
6	needed attenuation of silencer ΔL_A	27	--	dB(A)	item 4 - item 5: $82 - 55 = 27 \text{ dB(A)}$
7	selected silencer $L = 1250 \text{ mm}$ ΔL_A	27	55	dB(A)	acc. table 9 - sheet SD 15
8	exit noise close to silencer L_{WA}	27	82	dB(A)	item 3 - item 7: $109 - 27 = 82 \text{ dB(A)}$

Attenuation versus silencer lengths

table 11

tubular silencer design 2										
DN	length	Octave - spectrum								
		63	125	250	500	1000	2000	4000	8000	Hz
125	500	5	10	16	27	43	45	40	30	dB
	750	7	13	23	38	48	48	48	37	dB
	1000	8	16	29	48	48	48	48	44	dB
	1250	9	19	35	48	48	48	48	48	dB
	1500	11	22	41	48	48	48	48	48	dB
	1750	12	25	46	48	48	48	48	48	dB
	2000	14	28	47	48	48	48	48	48	dB
	2250	15	31	47	48	48	48	48	48	dB
140	500	5	9	15	26	41	40	34	25	dB
	750	6	11	21	36	48	48	45	32	dB
	1000	7	14	27	45	48	48	48	38	dB
	1250	8	17	32	48	48	48	48	41	dB
	1500	9	20	38	48	48	48	48	46	dB
	1750	11	23	43	48	48	48	48	48	dB
	2000	12	26	47	48	48	48	48	48	dB
	2250	13	28	47	48	48	48	48	48	dB
160	500	4	8	13	22	35	35	28	21	dB
	750	5	10	18	32	48	47	36	27	dB
	1000	6	12	23	41	48	48	45	32	dB
	1250	7	15	28	47	48	48	48	36	dB
	1500	8	18	33	48	48	48	48	39	dB
	1750	9	20	38	48	48	48	48	42	dB
	2000	10	23	42	48	48	48	48	45	dB
	2250	11	25	45	48	48	48	48	48	dB
180	500	3	7	12	21	32	31	24	19	dB
	750	4	9	17	30	44	42	31	24	dB
	1000	5	11	21	38	48	48	38	27	dB
	1250	6	14	26	46	48	48	43	31	dB
	1500	7	16	30	48	48	48	48	34	dB
	1750	8	18	35	48	48	48	48	36	dB
	2000	9	20	39	48	48	48	48	38	dB
	2250	10	23	43	48	48	48	48	41	dB
200	500	3	6	11	20	29	28	20	16	dB
	750	4	8	15	28	40	38	26	21	dB
	1000	5	10	20	36	48	47	32	24	dB
	1250	5	12	24	44	48	48	37	28	dB
	1500	6	15	28	48	48	48	42	30	dB
	1750	7	17	32	48	48	48	46	32	dB
	2000	8	19	36	48	48	48	48	34	dB
	2250	9	21	40	48	48	48	48	36	dB
224	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	dB
	2000	7	17	33	47	48	48	42	32	dB
	2250	8	19	37	47	48	48	45	33	dB
250	500	2	5	10	18	25	24	17	15	dB
	750	3	7	14	25	35	31	23	19	dB
	1000	4	9	18	33	45	39	27	22	dB
	1250	5	11	22	40	48	47	31	26	dB
	1500	5	13	26	46	48	48	35	28	dB
	1750	6	15	30	46	48	48	39	31	

Attenuation versus silencer lengths

table 12

DN	length	tubular silencer design 4								
		Octave - spectrum								
		63	125	250	500	1000	2000	4000	8000	Hz
450	750	5	8	18	30	42	36	22	16	dB
	1000	6	10	23	38	48	45	27	19	dB
	1250	6	13	28	45	48	48	31	22	dB
	1500	7	15	32	48	48	48	35	25	dB
	1750	9	18	37	48	48	48	40	29	dB
	2000	10	21	40	48	48	48	43	31	dB
	2250	11	24	44	48	48	48	46	33	dB
	2500	12	27	48	48	48	48	50	36	dB
500	750	4	7	17	27	37	31	19	14	dB
	1000	5	10	21	34	46	38	23	16	dB
	1250	6	12	25	41	48	46	26	18	dB
	1500	7	14	29	48	48	48	30	21	dB
	1750	8	16	34	48	48	48	33	23	dB
	2000	9	19	37	48	48	48	36	25	dB
	2250	10	22	40	48	48	48	39	27	dB
	2500	11	24	44	48	48	48	41	28	dB
560	750	4	7	15	25	32	26	16	12	dB
	1000	4	9	19	31	40	32	19	13	dB
	1250	5	11	23	37	48	38	21	15	dB
	1500	6	13	26	43	48	44	24	16	dB
	1750	7	15	30	48	48	48	26	18	dB
	2000	7	17	34	48	48	48	29	18	dB
	2250	8	19	37	48	48	48	31	20	dB
	2500	9	21	40	48	48	48	33	21	dB
630	750	3	7	14	22	27	21	13	10	dB
	1000	4	8	17	28	34	26	15	11	dB
	1250	5	10	20	33	40	31	16	11	dB
	1500	5	12	23	38	47	35	18	11	dB
	1750	5	13	27	44	48	40	20	12	dB
	2000	6	15	30	48	48	44	22	13	dB
	2250	6	17	34	48	48	48	23	13	dB
	2500	7	18	37	48	48	48	25	14	dB
	1750	8	18	35	48	48	48	48	36	dB
	2000	9	20	39	48	48	48	48	38	dB
	2250	10	23	43	48	48	48	48	41	dB
2500	11	25	45	48	48	48	48	43	dB	

Tubular silencer

Weight

table 13

article no. = component size length (**)	nominal size	weight in kg								
		silencer lengths L in mm								

design variant 2	DN mm	500 (**) 050	750 (**) 075	1000 (**) 100	1250 (**) 125	1500 (**) 150	1750 (**) 175	2000 (**) 200	2250 (**) 225	2500 (**) 250
RSS212-012...-00	125	13	17	21	25	29	34	39	44	48
RSS212-014...-00	140	13	18	22	26	32	37	42	47	53
RSS212-016...-00	160	14	20	25	28	36	42	48	53	59
RSS212-018...-00	180	15	20	26	31	37	43	49	54	60
RSS212-020...-00	200	16	22	27	32	39	45	52	58	64
RSS212-022...-00	224	18	24	30	34	42	49	56	62	69
RSS212-025...-00	250	19	25	31	37	44	52	59	66	73
RSS212-028...-00	280	29	37	47	39	65	75	86	96	107
RSS212-031...-00	315	31	41	52	59	74	86	98	110	122
RSS212-035...-00	355	34	43	52	65	76	88	100	112	124
RSS212-040...-00	400	37	48	60	67	82	95	108	121	134

design variant 4	DN mm	500 (**) 050	750 (**) 075	1000 (**) 100	1250 (**) 125	1500 (**) 150	1750 (**) 175	2000 (**) 200	2250 (**) 225	2500 (**) 250
RSS214-045...-00	450	-	62	84	104	125	145	165	186	206
RSS214-050...-00	500	-	69	92	115	138	161	183	207	229
RSS214-056...-00	560	-	72	96	120	144	168	192	216	240
RSS214-063...-00	630	-	78	103	128	153	179	204	229	254

flanges

designs 2 + 4:

flat flange acc. DIN 24154 R2 edition July 90

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