EN

Movement by Perfection

Centrifugal fans

main catalogue with IEC standard motor
01/2018 edition

The Royal League in **ventilation**, control and drive technology

ZIEHL-ABEGG

Using air intelligently

Air is always there but is hardly perceived consciously. Directing air in a specific form of movement is the competence of ZIEHL-ABEGG. As the world's leading provider of fans with adapted control technology, ZIEHL-ABEGG relies on the efficiency and reliability of the products. With the trailblazing solutions from ZIEHL-ABEGG, customers use air and energy optimally for their individual requirements.

FANselect The fan selection program

With the first fully comprehensive certified fan selection program FANselect the customer can find the optimum fans and system components for his needs conveniently, precisely and quickly. The specified values conform to reality. They are determined in the ZIEHL-ABEGG InVent technology centre which houses the world's biggest combined air and noise test benches of the ventilation system branch. More information on www.fanselect.info

Other catalogues

In the ZIEHL-ABEGG catalogues, the reader can find out all about ZIEHL-ABEGG fans, motors and the perfectly adapted control technology. All the catalogues are available on www.ziehl-abegg.de website in the "Downloads" section.

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ZAvblue
ZIEHL-ABEG
Die Königsklass
der Lufttechnik,
Regeltechnik und Antriebstechnik
Mehr
Volumen
bei kleinerer
Baugröße

Welcome to the world of ZIEHL-ABEGG

Top technology “Made by ZIEHL-ABEGG”

A pioneering spirit and the courage of innovation were the driving forces behind Emil Ziehl’s development of his first external rotor motor over a hundred years ago. With this he laid the corner stone for the success story of ZIEHL-ABEGG in 1910. Today, the family company ZIEHL-ABEGG, with its headquarters in Künzelsau, develops, produces and sells high quality, high-tech components: Fans, special electric motors and their perfectly adapted, state-of-the-art control technology. Still today, Emil Ziehl’s pioneering spirit is the motivator for making good even better and finding new, revolutionary solutions. ZIEHL-ABEGG is based in Southern Germany but is at home all over the world. At the world-wide production and sales sites, thousands of employees develop, produce and sell technical, economical and ecological progress.

Welcome to the world of ventilation, control and drive technology.

Your contact into the world of ZIEHL-ABEGG

Would you like to learn more about the company ZIEHL-ABEGG, its products and applications? Your current direct contact partners can always be found at www.ziehl-abegg.com

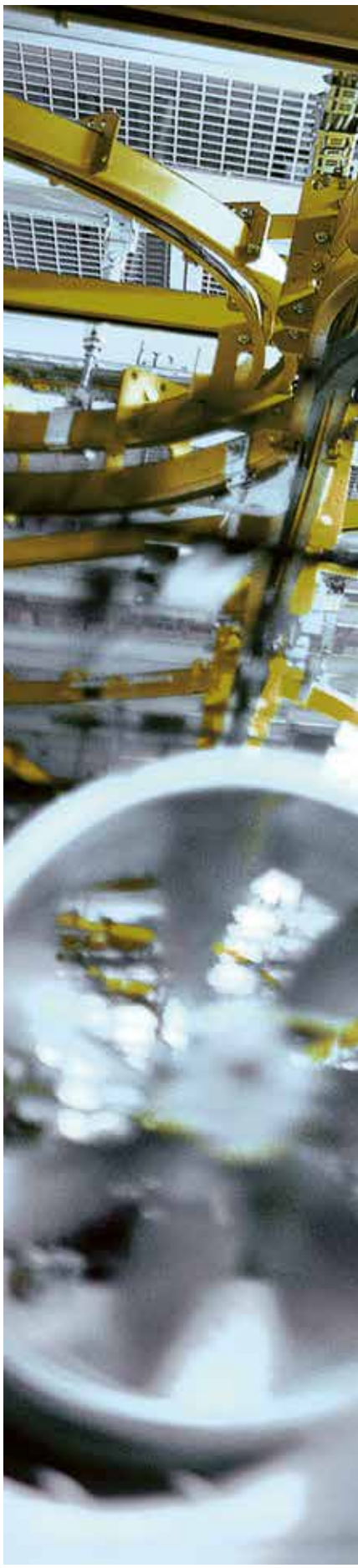
One-stop expertise

Fan, motor and control technology

Whether air conditioning, drying, cooling or ventilating, the efficient fans with adapted drive and control technology from ZIEHL-ABEGG cope with these tasks safely and reliably. Individual and also complex customer requirements are welcome challenges.

At ZIEHL-ABEGG headquarters in Künzelsau, more than 300 engineers and technicians concentrate daily on finding the best solution. In the InVent, one of the most modern technology centres of its kind, they work on the innovations of the future. Their ideas are put into practice by excellently trained specialists on state-of-the-art plants. The production as well as all processes are accompanied by prudent quality management. ZIEHL-ABEGG products are subjected to rigorous testing before being put into operation at the customer's. On the world's biggest air and noise test bench, vibrations and external noises are eliminated and thus ensure top class fan measurements in accordance with ISO and DIN. The result is top class products and services which are marked by the seals "Premium Quality" and "Premium Efficiency".

The world's biggest and most modern test bench for fans at the headquarters in Künzelsau



State-of- the art production lines to meet the highest demands

EC fans of the Royal League

Quiet, efficient, environmentally friendly

EC fans from ZIEHL-ABEGG unite state-of-the-art motor technology with innovative aerodynamics. This symbiosis scores high marks by merging revolutionary ECblue technology with premium fans. The result is efficiency and absolutely economical operation. The new generation of axial fans heads the ECblue technology: The FE2owlet has bionically designed rotor blades for almost noiseless conveyance of air. Moreover, the FE2owletbio is made from 100% recyclable bio-polyamides. Further highlights of material development at ZIEHL-ABEGG are shown in the Cpro centrifugal fan with the new ZAmid® technology. The new high performance composite material is as hard as steel but only half the weight. This is kind on the bearings and saves energy. Greater efficiency also comes from the newly developed blade geometry in the centrifugal impellers which has only become possible thanks to the innovative composite material. In standard application, EC-fans achieve maximum air flows with extraordinary efficiency despite their low noise. Together with the ECblue motors, ZIEHL-ABEGG fans achieve a dynamic response which makes them absolute leaders in environmental friendliness and efficiency.

ECblue motor technology

Maximum efficiency and minimum consumption
ECblue with the latest **ZAmid®** *Technology*
Radial fans sector

Unique bionic profile FE2owlet,
combined with ECblue technology

ECblue – highest efficiency

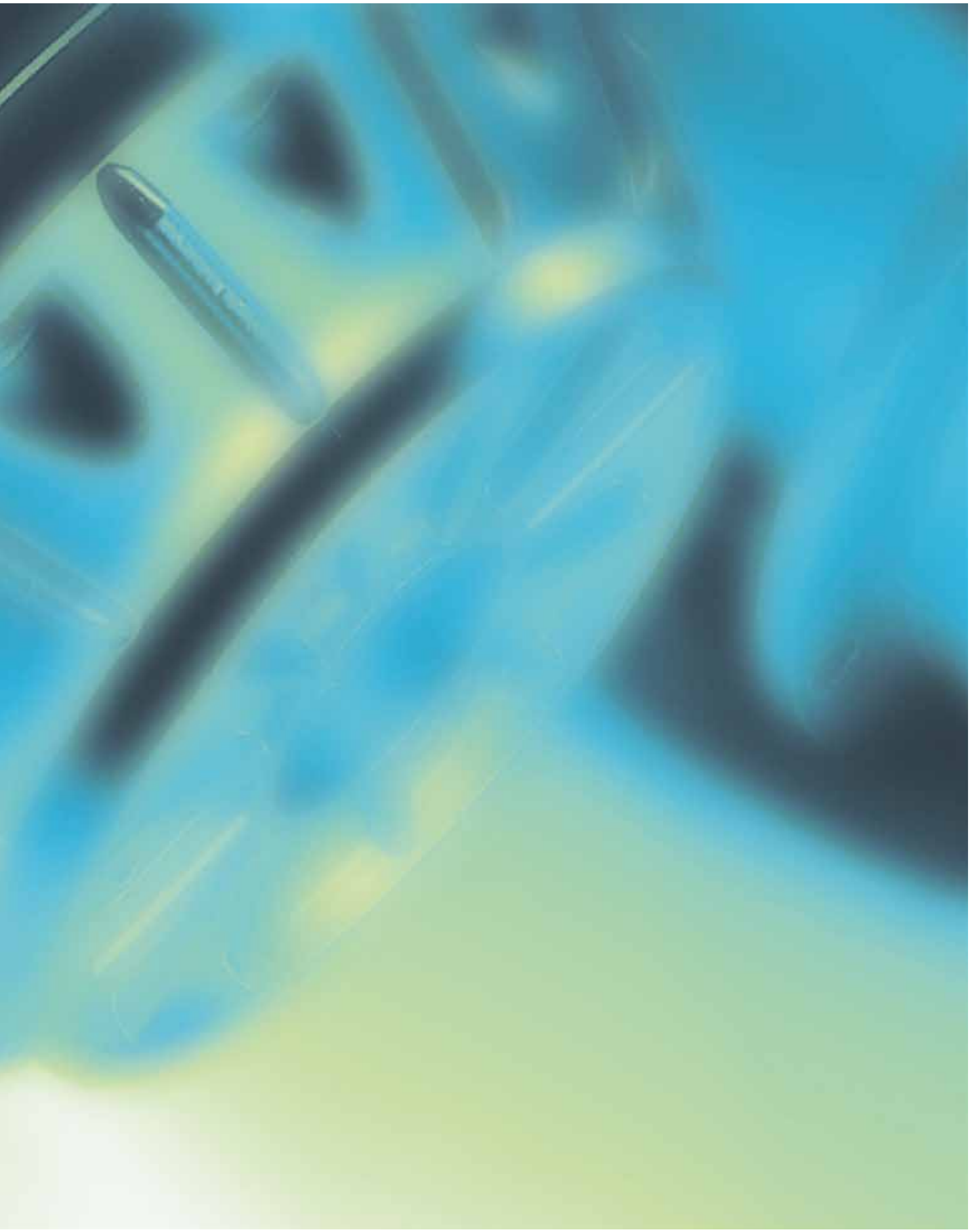
AC-fans of the Royal League

Strong, robust, extraordinary

In all applications in which the material is exposed to immense stress, the AC fans from ZIEHL-ABEGG demonstrate their quality and ability. Their solid components and robust design and technology are able to withstand even the greatest stresses. The fans are therefore used in many different areas of industry or agriculture - wherever absolute insensitivity and stability is important.

The high quality motor technology is the result of decades of experience at ZIEHL-ABEGG. Intelligently used components such as the Fcontrol frequency inverter make them environmentally friendly and efficient key players. Maintenance-free and extraordinarily performant, AC fans from ZIEHL-ABEGG are a safe and rewarding investment.

AC motor technology, robust in operation



Expertise in ventilation

ErP directive

With the Kyoto protocol, the European Union pledged to reduce CO_2 emissions by at least 20 per cent by the year 2020. One measure for achieving this is the ErP directive for improved energy efficiency and general environmental compatibility of energy-related products – also known in Germany as the Eco Design directive. It supports a resource-friendly and energy-efficient product design. The implementation of these requirements is carried out for electromotors according to the Implementing Regulation (EU) No. 640/2009 and for fans according to the Implementing Regulation (EU) No. 327/2011.
With the implementation of the ErP directive, stricter efficiency requirements for **fans in the output range from 125 W to 500 kW** apply since 2013 and 2015 in two stages. A further stage is planned for 2020. Energy efficiency is thus given the same standing as the compliance with the low voltage or EMC directive. The system efficiency requirement is a prerequisite for a CE mark and is thus essential for a product to be used in EU member states.

Notes pertaining to the ErP evaluation

In order to meet ErP requirements, a fan must achieve a particular minimum efficiency (target energy efficiency). The directive sets out the corresponding formulae for calculating the limit value for the relevant fan type. The actual efficiency in the efficiency optimum of the fan, which is used for the ErP evaluation, is designated η_{statA}. The efficiency N is a parameter in the calculation of the target energy efficiency of the ErP directive. As a reference value for the required efficiency $N_{nominal}$, ZIEHL-ABEGG specifies the actual efficiency N_{actual} relative to a motor input power of 10 kW.
All specifications relevant for ErP relate to the requirements in the 2nd stage of ErP 2015. The measured data was determined in line with measurement category A using an inlet nozzle without contact protection complying with ISO 5801.

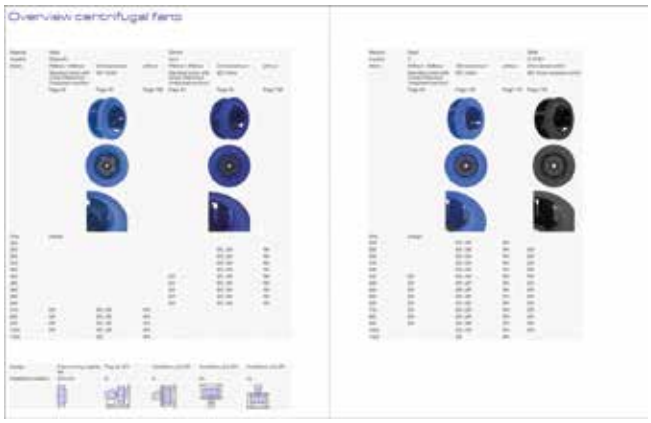
The **E**uropean **V**entilation **I**ndustry **A**ssociation (EVIA) represents the European ventilation industry in dealings with national and European institutions.
The EVIA is a key platform for fan manufacturers and provides an interface with politicians, decision-makers in the European Union and other associations that use fans in their products. The EVIA supports the use of high-efficiency fans in Europe, in order to implement the EU efficiency increase targets.
ZIEHL-ABEGG played a major role in establishing the EVIA and supports it through active participation in its working groups.

EVIA
European Ventilation Industry Association

Selection of fans step by step

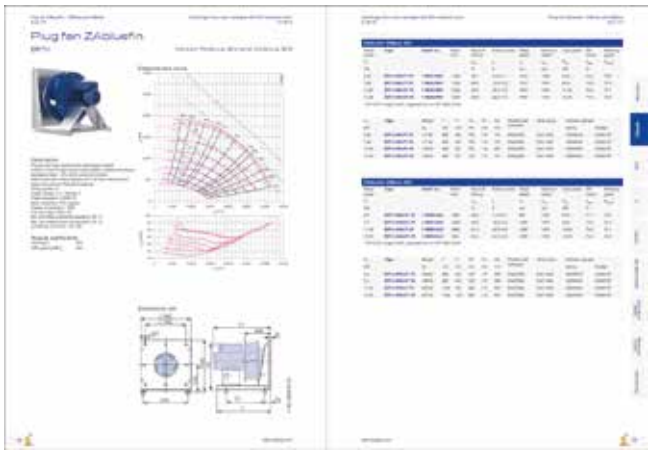
1. Centrifugal fans overview

Get an initial overview of our centrifugal fans and quickly navigate to the section of the catalogue pertaining to your needs.



2. Product details

The double product page contains all relevant product information for your selected fan.



Overview centrifugal fans

Material	Steel			ZAmid		
Impeller	ZAbluefin			Cpro		
Motor	PMblue / AMblue Standard motor with Ontop PMIcontrol (integrated solution)	ZAmotpremium IEC motor	without	PMblue / AMblue Standard motor with Ontop PMIcontrol (integrated solution)	ZAmotpremium IEC motor	without
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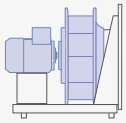
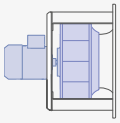
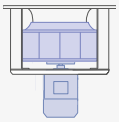
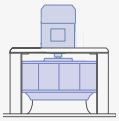
Size	Design					
225						
250					ER, GR	RH
280					ER, GR	RH
315					ER, GR	RH
355					ER, GR	RH
400				ER	ER, GR	RH
450				ER	ER, GR	RH
500				ER	ER, GR	RH
560				ER	ER, GR	RH
630				ER	ER, GR	RH
710	ER	ER, GR	RH			
800	ER	ER, GR	RH			
900	ER	ER, GR	RH			
1000	ER	ER, GR	RH			
1120		ER	RH			

Design	Free-running impeller RH	Plug fan ER	Ventilation unit GR	Ventilation unit GR	Ventilation unit GR
Installation position	H/Vu/Vo	H	H	Vo	Vu
					

Material	Steel			Steel
Impeller	C			C ATEX
Motor	PMblue / AMblue	ZAmotpremium	without	ZAmotpremiumEX
	Standard motor with Ontop PMIcontrol (integrated solution)	IEC motor		IEC motor explosion-proof
	Page 84	Page 102	Page 170	Page 136
				
				
				
Size	Design			
225		ER, GR	RH	
250		ER, GR	RH	ER
280		ER, GR	RH	ER
315		ER, GR	RH	ER
355		ER, GR	RH	ER
400	ER	ER, GR	RH	ER
450	ER	ER, GR	RH	ER
500	ER	ER, GR	RH	ER
560	ER	ER, GR	RH	ER
630	ER	ER, GR	RH	ER
710	ER	ER, GR	RH	ER
800	ER	ER, GR	RH	ER
900	ER	ER, GR	RH	ER
1000		ER, GR	RH	ER
1120		ER	RH	

Technical description

ZAbluefin

Product specification

Latest generation free running impeller with 5 backwards-curved blades in sizes 710 to 1,120 mm. Impeller made of sheet steel with surface protection provided by hygiene tested powder coating. Version with hub (locking bush or fixed hub) and inlet nozzle with measurement device for air flow measurement. Air flow rates up to around 80,000 m³/h free blowing, max. static pressure increase up to 2,100 Pa possible. GR modules for compact installation in customer applications/devices for vertical air flow. ER plug fans e.g. for vibration-damped use in central air-conditioning units with horizontal air flow.

Characteristics and special features

- Impeller with bionic 3D profile thanks to innovative design in the form of a specially wound blade geometry. The tubercle on the blade leading edge, which is based on a humpback whale, and the V-shaped serrated rear edge allow a wide characteristic map range. The highest efficiencies are achieved in conjunction with a diverging rotating diffusor.
  In combination with the innovatively corrugated blade surface, diffuse sound radiation takes place, ensuring the lowest possible sound level.
  The impellers have an application temperature range of -20 °C to 80 °C.

Motor concepts

Internal rotor motors

- PMblue EC technology: permanent magnet excited motor with built-in controller
- AMblue AC technology: Asynchronous motor with attached controller
- AC technology

Technical description

Cpro

Product specification

Free running Cpro impeller made from the ZAmid high-performance composite material with 7 backwards-curved, profiled blades in sizes 250 to 630 mm. Air flow rates up to around 30,000 m³/h free blowing, static pressure increase up to 2,500 Pa possible. Version with hub and inlet nozzle with measurement device for air flow measurement. GR modules for compact installation in customer applications/devices for horizontal and vertical air flow. ER plug fans e.g. for vibration-damped use in central air-conditioning units with horizontal air flow.

Characteristics and special features

- Impeller with rotating diffuser for extremely high efficiency levels and favourable acoustic characteristics. Reduced tonal noise as a result of special three-dimensional blade geometry. The high-quality plastic material allows for a wide application temperature range of -35 °C to +80 °C, offers a high level of chemical resistance and is also hygienically tested.

Motor concepts

Internal rotor motors

- PMblue EC technology: permanent magnet excited motor with built-in controller
- AMblue AC technology: Asynchronous motor with attached controller
- AC technology

Technical description

C

Product specification

Free running impeller with 7 backwards-curved blades in sizes 225 to 1,120 mm. Impeller made of sheet steel with surface protection provided by hygiene tested powder coating. Version with hub (taper lock or fixed hub) and inlet nozzle with measurement device for air flow measurement. Air flow rates up to around 110,000 m³/h free blowing, max. static pressure increase up to 2,500 Pa possible. GR modules for compact installation in customer applications/devices for horizontal and vertical air flow. ER plug fans e.g. for vibration-damped use in central air-conditioning units with horizontal air flow.

Characteristics and special features

- Impeller with rotating diffuser for high efficiency levels and favourable acoustic characteristics.
  Aluminium impeller for use with external rotor motors.
  The impellers have an application temperature range of -20 °C to 80 °C.

Motor concepts

Internal rotor motors

- PMblue EC technology: permanent magnet excited motor with built-in controller
- AMblue AC technology: Asynchronous motor with attached controller
- AC technology

Technical description

C Atex

Product specification

Free running impeller in explosion-proof design with 7 backwards-curved blades in sizes 250 to 1,000 mm. Impeller made of sheet steel with electrically conductive surface protection provided by powder coating. Version with fixed hub and inlet nozzle with measurement device for air flow measurement. Air flow rates up to around 70,000 m³/h free blowing, max. static pressure increase up to 2,500 Pa possible. ER plug fans e.g. for vibration-damped use in central air-conditioning units with horizontal air flow.

Characteristics and special features

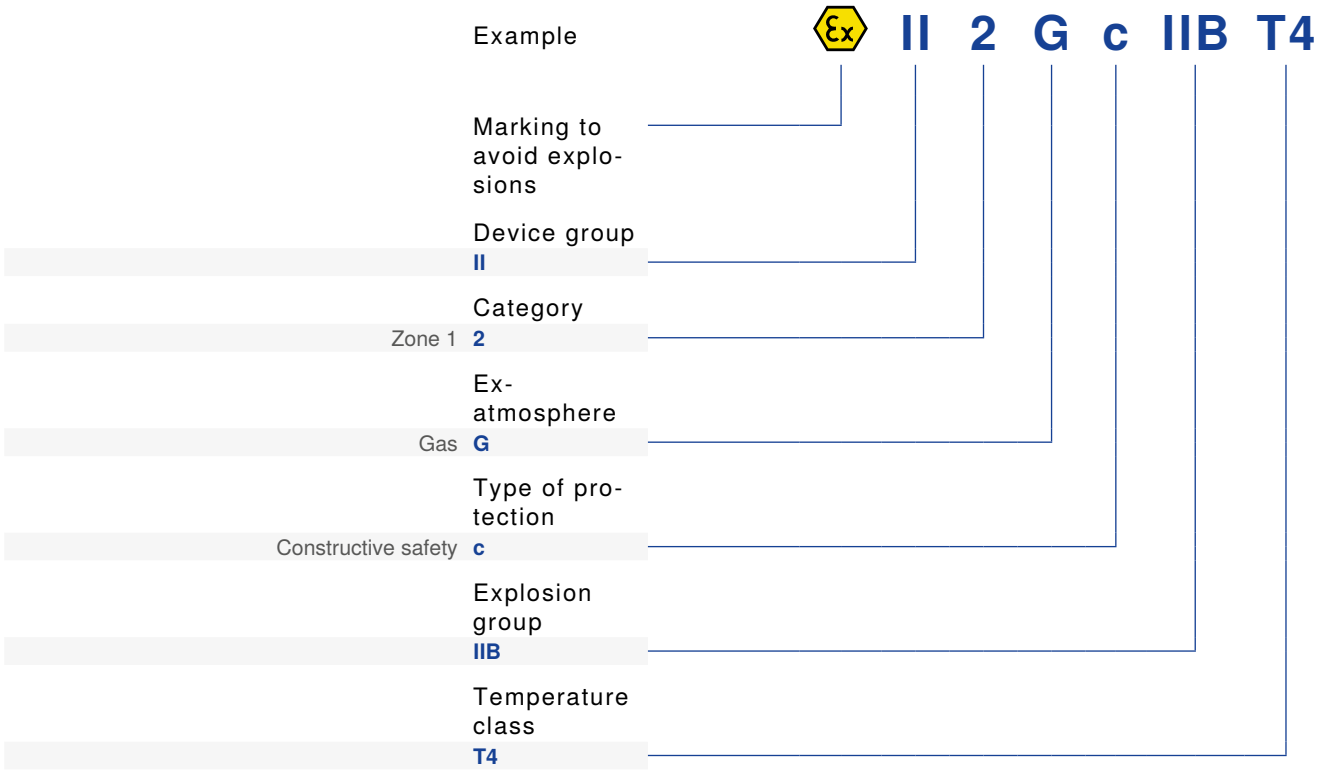
- Explosion-proof impeller design complies with the requirement in directive 2014/34/EU - based on equipment group II, equipment category 2G / 3G, explosion group IIB - and can be used in Zone 1 or Zone 2.
  Impeller with rotating diffuser for high efficiency levels and favourable acoustic characteristics.
  Design as for standard impeller with continuously welded blades on both sides and electrically conductive special coating (RAL 9005).
  Copper inlet nozzle with measurement device.

Motor concepts

Internal rotor motors

- AC technology: Explosion-proof, pressure-proof encapsulated motors complying with ATEX directive

Fan labeling



Safety information:
The use of impellers and plug-fans in **Ex-versions** assumes that regarding material selection and dimensioning of the surrounding components, the planner, operator, or end user of the device or the system acts on their own authority in accordance with the state-of-the-art of technology for safety relevant requirements, for example according to DIN EN 1127-1, EN 13237, DIN EN 60079-10, DIN EN 60079-14, DIN EN 60079-17, DIN EN 13463-1 and especially according to DIN EN 14986.

The relevant assembly instructions L-BAL-019 can be downloaded from the download area of our website at www.ziehl-abegg.com.

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

PTB

(1) EC-TYPE-EXAMINATION CERTIFICATE
(Translation)

(2) Equipment and Protective Systems intended for Use in Potentially Explosive Atmospheres - Directive 94/9/EC

(3) EC-type-examination Certificate Number:
PTB 07 ATEX 1034 X

(4) Equipment: Three-phase asynchronous motors, types 1MJ6 07. - ..... to 1MJ6 20. - .....

(5) Manufacturer: Siemens Aktiengesellschaft
Automatisierungs- und Antriebstechnik Standardantriebe

(6) Address: 91056 Erlangen, Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in the confidential report PTB Ex 07-17171.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2004 EN 60079-1:2004 EN 60079-7:2003
EN 61241-0:2006 EN 61241-1:2004

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:
II 2 G Ex d IIC T1 – T4 bzw. Ex de IIC T1 – T4 bzw.
II 2 D Ex tD A21 IP65 TXXX °C

Zertifizierungsstelle Explosionsschutz
By order:
Dr.-Ing. M. Theilen
Oberregierungsrat

Braunschweig, December 5, 2007

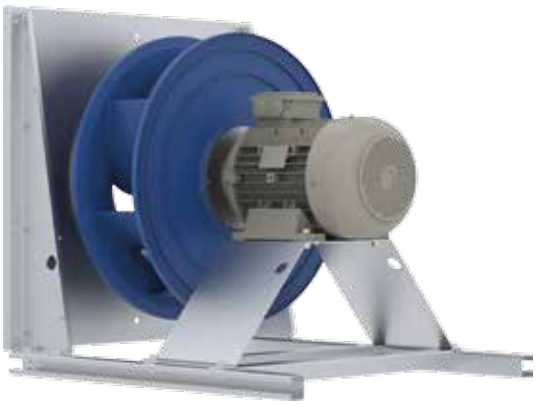
sheet 1/3

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.
Physikalisch-Technische Bundesanstalt • Bundesallee 100 • D-38116 Braunschweig

Technical description

Plug fan ER

Compact optimised construction made of galvanised sheet metal parts complying with DIN EN 10346, surface type A.
Integrated galvanised sheet steel inlet nozzle for optimum flow to impeller, with measurement device for air flow determination.
Complete fans are delivered balanced in accordance with ISO 21940-11 for the appropriate fan category in accordance with ISO 14694.
Entire unit secured on C-profiles, enabling decoupled installation using rubber or spring suspension elements. The plug fans have an application temperature range of -20 °C to 40 °C, with different temperatures available on request. Installation position H, horizontal air flow.



Plug fan ER ATEX version

Compact optimised construction made of galvanised sheet metal parts complying with DIN EN 10346, surface type A, with additional electrically conductive RAL 9005 black coating.
Integrated copper inlet nozzle for optimum flow to impeller, with screwed-in measurement device for air flow determination.
Complete fans are delivered balanced in accordance with ISO 21940-11 for the appropriate fan category in accordance with ISO 14694.
Entire unit secured on C-profiles, enabling decoupled installation using rubber or spring suspension elements. The plug fans have an application temperature range of -20 °C to 40 °C, with different temperatures available on request. Installation position H, horizontal air flow.

Technical description

Ventilation unit GR

Compact optimised construction made of galvanised sheet metal parts complying with DIN EN 10346, surface type A.
Integrated galvanised sheet steel inlet nozzle for optimum flow to impeller, with measurement device for air flow determination.
Complete fans are delivered balanced in accordance with ISO 21940-11 for the appropriate fan category in accordance with ISO 14694.
The ventilation units have an application temperature range of -20 °C to 40 °C, with different temperatures available on request.
Installation positions depending on size: H (horizontal air flow), Vo (intake from above), Vu (intake from below)

For GR ventilation units, see FANselect selection software, or on request.

Technical description

PMblue

The new standard in the HVAC sector

The permanent magnet excited synchronous internal rotor motors in the PMblue series have been specially designed for air conditioning and meet the requirements of efficiency class IE4 - Super Premium Efficiency.
Combined with our C, Cpro and new ZAbluefin impellers, huge energy saving potential is guaranteed. The motors are operated using the attachable PMI control specially developed for them by ZIEHL-ABEGG.

Advantages of PMblue motors

- Extremely energy efficient, including in partial load range
- Space-saving installation in device due to attached controller
- No system efficiency losses due to motor obstruction in the impeller
- Readily interchangeable with modern IE2/IE3 standard motors
- Low noise and low vibration
- Motor and controller one-stop, therefore perfectly coordinated
- Quick and easy commissioning, configured ready for operation, and ZAcode provides a consistent operating concept for ECblue and PMIcontrol

PMblue and PMIcontrol

A top team for maximum performance

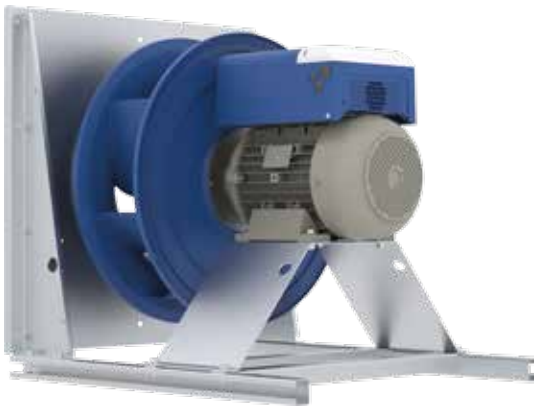
PMIcontrol turns the PMblue motor technology into a new energy-saving phenomenon. The intelligent, autonomous control technology combined with the electronics specially developed for the PM motor technology ensure maximum functionality and exceptional performance

- Satisfies the highest air conditioning requirements, complies with the 2015 ErP directives and the planned ErP 2020.
- PMIcontrol is preprogrammed with numerous options for a huge range of applications
- Scope of PMIcontrol functions expandable with add-on modules

Technical description

AMblue

The IEC internal rotor motors from the AMblue series meet the requirements for efficiency class IE2 and IE3. Combined with our C, Cpro and new ZAbluefin impellers, energy saving potential is guaranteed. The motors are operated using the attachable PMI control specially developed for them by ZIEHL-ABEGG.



Advantages of AMblue motors

- Extremely energy efficient, including in partial load range
- Space-saving installation in device due to attached controller
- No system efficiency losses due to motor obstruction in the impeller
- Readily interchangeable with modern IE2/IE3 standard motors
- Low noise and low vibration
- AMblue and PMIcontrol one-stop, therefore perfectly coordinated
- Quick and easy commissioning, configured ready for operation, and ZAcode provides a consistent operating concept for ECblue and PMIcontrol

AMblue and PMIcontrol

A top team for maximum performance

PMIcontrol fully utilises the energy saving potential of the AC standard motors, particularly in the partial load range. The intelligent, autonomous control technology combined with the electronics specially developed for asynchronous motor technology ensure maximum functionality and exceptional performance.

- Satisfies the highest air conditioning requirements, complies with the 2015 ErP directives and the planned ErP 2020.
- PMIcontrol is preprogrammed with numerous options for a huge range of applications
- Scope of PMIcontrol functions expandable with add-on modules

Type key

High-performance centrifugal impeller without motor with hub RH

RH 45 C . C R / SM 20 - B 28

Design	
Impeller size	
Impeller diameter 225mm	**22**
...	
Impeller diameter 1120 mm	**11**
Index impeller blade external-diameters	
Steel (C)	**1**
Steel (C)	**4**
ZAmid (Cpro)	**C**
Direction of rotation viewed from inlet port	
Clockwise (standard)	**R**
Hub type	
Clamping bush hub	**SM**
Fixed hub aluminium	**NA**
Fixed hub steel / grey cast	**NS**
Hub size	
Inlet ring	
Scope of delivery without inlet ring	**0**
Galvanised sheet metal with measuring device	**B**
Powder coated with measuring device	**D**
Galvanised sheet and ring line	**E**
Powder coated and ring line	**F**
Ex-inlet ring (copper) with measuring device	**X**
Drill size Ø for motor shaft end	

Ordering information / examples

The following shall be stated when ordering: Type, article no. and when ordering system components part no.

Standard impeller version
Clockwise with clamping bush hub SM20 with bush for shaft ∅ 28 including inlet ring, galvanised, with measuring device
Type RH45C.CR/SM20-B28,
Art. no. 113914VAR

Type key

Plug fan with motor ER
Ventilation unit with motor GR

ER 45 C - 4 D N . E 7 . C R

Design	
Plug fan	**ER**
Ventilation unit	**GR**
Impeller size	
Impeller diameter 250 mm	**22**
...	**...**
Impeller diameter 630 mm	**11**
Series	
Number of poles	
2-pole	**2**
4 pole	**4**
6 pole	**6**
8 pole	**8**
Type of current	
Three-phase motor	**D**
Motor with wired frequency inverter	**H**
Permanent magnet excited motor with on-top PMIcontrol	**I**
Permanent magnet excited motor without controller	**K**
Motor type	
Standard motor IEC standard	**N**
Explosion-proof standard motor IEC standard	**Y**
Motor size	
Motor design	
Foot motor IMB 3	**7**
Flange motor IMB 5	**5**
Index impeller width resp. impeller blade external-diameters	
Steel (C)	**1**
Steel (C)	**4**
ZAmid (Cpro)	**C**
Direction of rotation	

Ordering information / examples

The following shall be stated when ordering: Type, article no. and when ordering system components part no.

The suffix to the art. no. denotes the model variant.
- - - - - - /0P61 Plug fan ER with PMblue with IE4 motor
- - - - - - /2141 Plug fan ER Cpro version with IE3 motor
- - - - - - /0141 Plug fan ER with IE3 motor
- - - - - - /EX01 Plug fan ER in explosion-proof version with IE2 motor

Plug fan standard product
Including inlet ring, galvanised, with measuring device
system components not included
Type ER45C-4DN.E7.CR,
Art. no. 130584/2101

Explanation of technical details

ER45Cpro (example diagram)

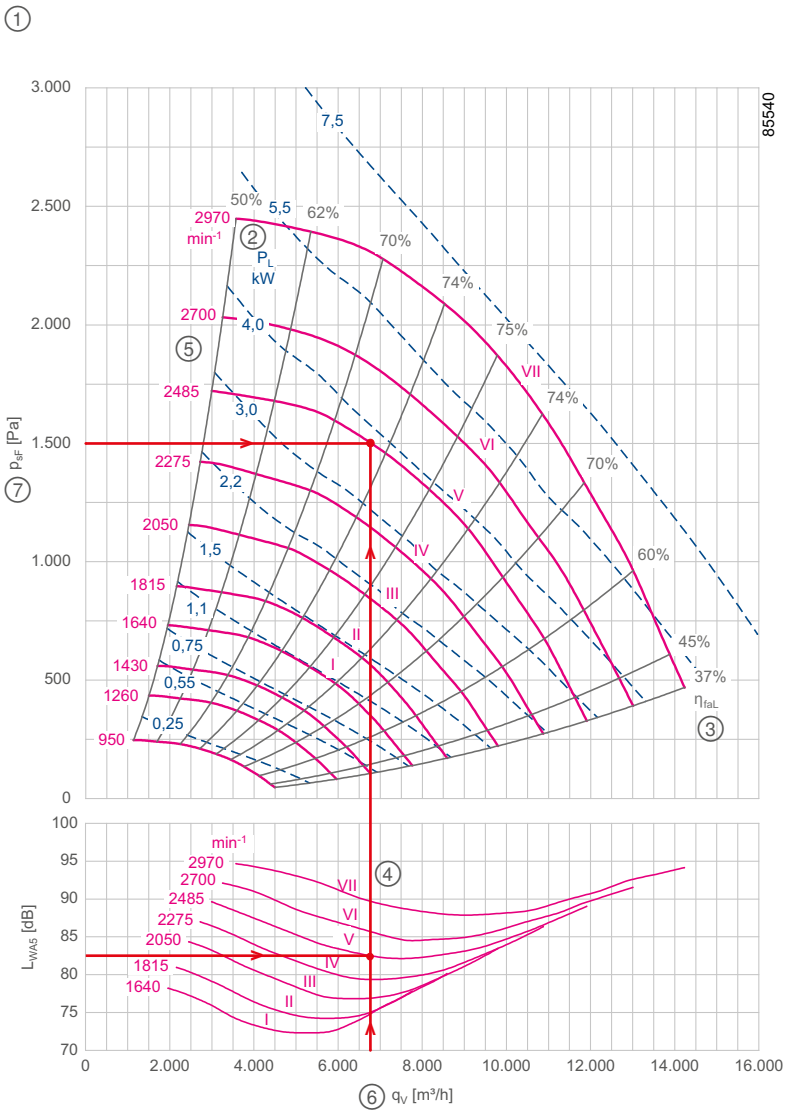


Diagram legend

① Fan size
② P_L: Impeller power requirement in kW. Applicable is: $P_L = (q_V\ [m^3/s] \times p_{sF}\ [Pa]) / \eta_{faL}$
③ η_{faL}: Efficiency of the impeller based on the static pressure rise
④ L_{WA5}: A-weighted sound power level at the inlet in dB
⑤ n: Fan speed in min^{-1}
⑥ q_v:Air flow in m^3/h
⑦ p_{sF}: Static pressure rise in Pa

All data based on measurement density rho ≈ 1.16 kg/m³.
The ZAbluefin-, Cpro- and C-series performance characteristics were measured in the AMCA certified combination test-benches of ZIEHL-ABEGG SE according to DIN 24163 Part 2 and ISO 5801. The fan acoustics were determined during this with application of the enveloping surface method according to DIN EN ISO 3745 (Class 1) and ISO 13347-3.

Selection program FANselect

The world's best selection program for fans

At www.fanselect.info, we are offering you FANselect, a selection program for axial and centrifugal fans with the matching system components.

With FANselect, you can, for instance, select and calculate the fans listed in this catalogue. FANselect provides you with an option to calculate the efficiency, the acoustics, the SFP and much more. In addition, you can also select the matching systems components. You can conveniently save your configuration in a file or print it out.

The FANselect selection program, including the customer DLL, is available for you to download at any time at www.fanselect.info.


ZIEHL-ABEGG
PMcontrol

Plug fan ZAbluefin

PMblue IE4 and AMblue IE3

Product overview

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Size 900 Page 36

Size 1000 Page 38

Size 1120 (on request)

Plug fan ZAbluefin

ER71I

Motor PMblue IE4 and AMblue IE3

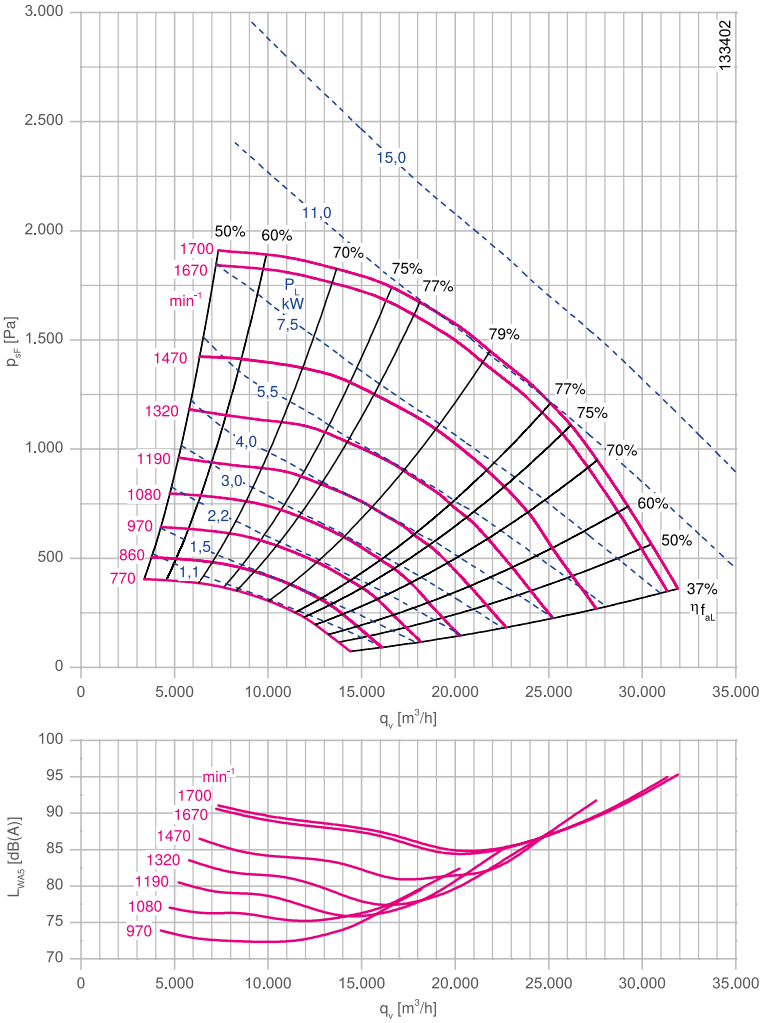
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

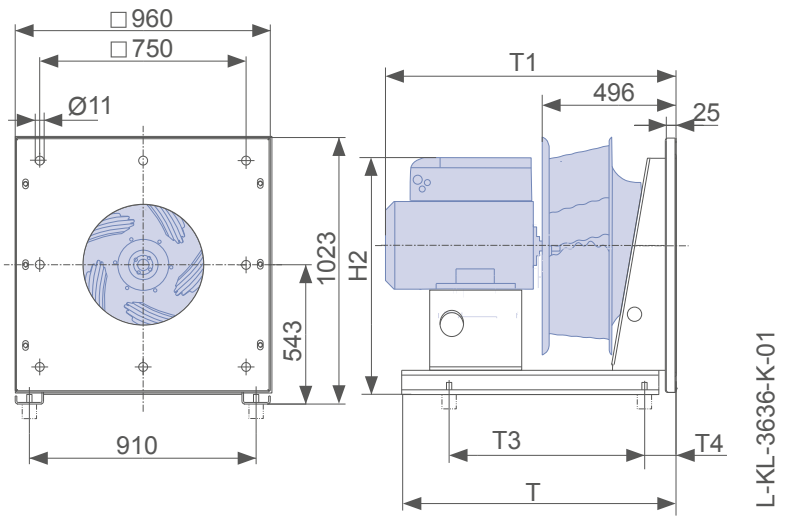
Nozzle coefficients

Standard k	530
With guard grille k_g	500

Characteristic curve



Dimensions mm



ZAbluefin-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.30	**ER71I-6IN.F7.1R**	**116051/0P61**	112M	90.1	9.4-7.4	1270	1320	5.80	73.2	75.6
7.28	**ER71I-6IN.F7.1R**	**116052/0P61**	112M	90.5	13.0-10.5	1410	1470	8.00	73.5	74.5
10.64	**ER71I-6IN.H7.1R**	**116053/0P61**	132M	93.3	20.0-15.5	1600	1670	11.50	75.8	75.7
14.90	**ER71I-6IN.H7.1R**	**116054/0P61**	132M	93.8	22.0-17.5	1790	1700	13.00	74.0	73.8

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.30	**ER71I-6IN.F7.1R**	137.00	885	864	735	115	791	00403350	00411646	02006449	00090157
7.28	**ER71I-6IN.F7.1R**	141.00	885	864	735	115	791	00403350	00411646	02006450	00090157
10.64	**ER71I-6IN.H7.1R**	176.00	885	951	735	115	867	00403350	00411646	02006450	00090157
14.90	**ER71I-6IN.H7.1R**	180.00	885	951	735	115	791	00403350	00411646	02006450	00090157

ZAbluefin-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER71I-6HN.H7.1R**	**115956/0A41**	132M	88.0	11.0-8.6	968	1320	6.40	71.4	73.8
7.5	**ER71I-4HN.H7.1R**	**115957/0A41**	132M	90.4	16.5-13.0	1460	1470	8.40	73.4	74.4
11.00	**ER71I-4HN.I7.1R**	**115958/0A41**	160M	91.4	23.0-18.0	1465	1670	12.50	74.2	74.1
15.00	**ER71I-4HN.K7.1R**	**115959/0A41**	160L	92.1	24.0-19.0	1465	1700	13.00	74.8	74.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	**ER71I-6HN.H7.1R**	168.00	885	942	735	115	808	00403350	00411646	02006450	00090157
7.5	**ER71I-4HN.H7.1R**	168.00	885	942	735	115	808	00403350	00411646	02006450	00090157
11.00	**ER71I-4HN.I7.1R**	246.00	1045	997	893	115	907	00403350	00411646	02006450	00090157
15.00	**ER71I-4HN.K7.1R**	267.00	1045	1041	893	115	907	00403350	00411646	02006450	00090157

Plug fan ZAbluefin

ER80I

Motor PMblue IE4 and AMblue IE3

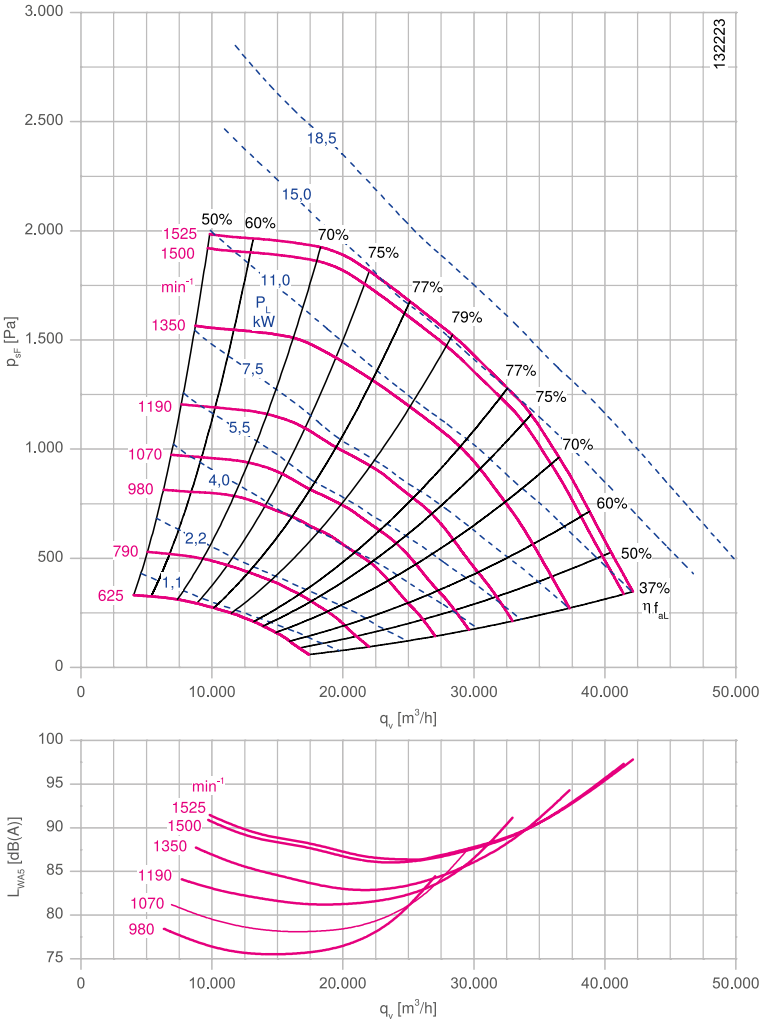
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

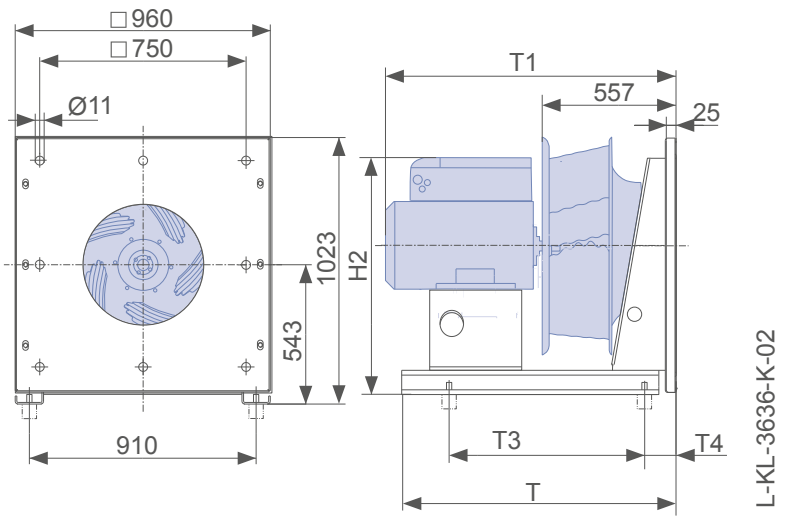
Nozzle coefficients

Standard k	670
With guard grille k_g	630

Characteristic curve



Dimensions mm



ZAbluefin-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
7.40	**ER80I-6IN.H7.1R**	**116055/0P61**	132M	93.8	13.0-10.0	1150	1190	7.80	73.5	74.5
14.80	**ER80I-6IN.H7.1R**	**116056/0P61**	132M	93.8	20.0-15.5	1450	1330	11.00	71.7	71.3
14.80	**ER80I-6IN.H7.1R**	**116057/0P61**	132M	93.8	27.0-21.0	1450	1500	15.50	75.3	74.8
17.70	**ER80I-6IN.H7.1R**	**116058/0P61**	132M	93.6	28.0-22.0	1560	1525	16.50	75.6	75.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
7.40	**ER80I-6IN.H7.1R**	188.00	885	992	735	115	806	00403350	00414162	02006450	00090157
14.80	**ER80I-6IN.H7.1R**	211.00	885	1043	735	115	867	00403350	00414162	02006450	00090157
14.80	**ER80I-6IN.H7.1R**	211.00	885	1043	735	115	867	00403350	00414162	02006450	02000407
17.70	**ER80I-6IN.H7.1R**	219.00	855	1053	735	115	866	00403350	00414162	02006450	02000407

ZAbluefin-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
7.5	**ER80I-6HN.I7.1R**	**115963/0A41**	160M	89.1	16.5-13.0	970	1190	8.80	72.0	72.9
11.00	**ER80I-6HN.K7.1R**	**115964/0A41**	160L	90.3	23.0-18.5	970	1350	13.00	72.9	72.8
15.00	**ER80I-4HN.K7.1R**	**115965/0A41**	160L	92.1	29.0-23.0	1465	1500	16.50	74.4	73.9
18.50	**ER80I-4HN.L7.1R**	**115966/0A41**	180M	92.6	29.0-23.0	1470	1525	17.50	74.8	74.3

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
7.5	**ER80I-6HN.I7.1R**	249.00	1045	1049	893	115	847	00403350	00414162	02006450	00090157
11.00	**ER80I-6HN.K7.1R**	283.00	1045	1093	893	115	907	00403350	00414162	02006450	00090157
15.00	**ER80I-4HN.K7.1R**	291.00	1045	1093	893	115	907	00403350	00414162	02006450	02000407
18.50	**ER80I-4HN.L7.1R**	336.00	1045	1145	893	115	922	00403350	00414162	02006450	02000407

Plug fan ZAbluefin

ER90I

Motor PMblue IE4 and AMblue IE3

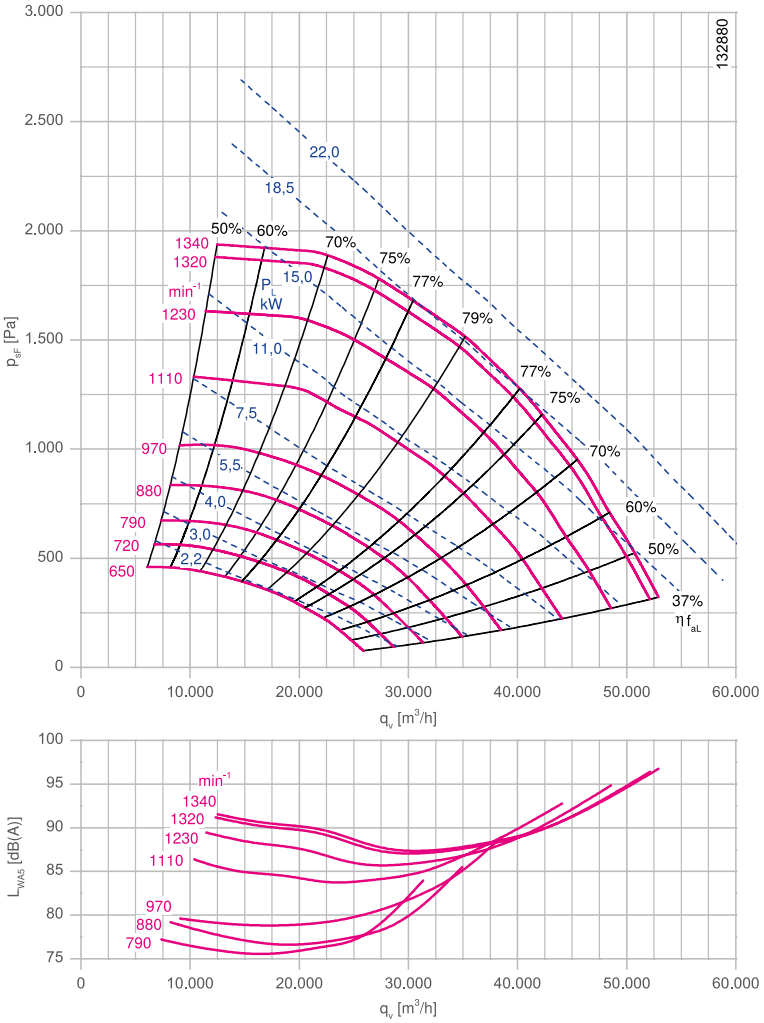
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

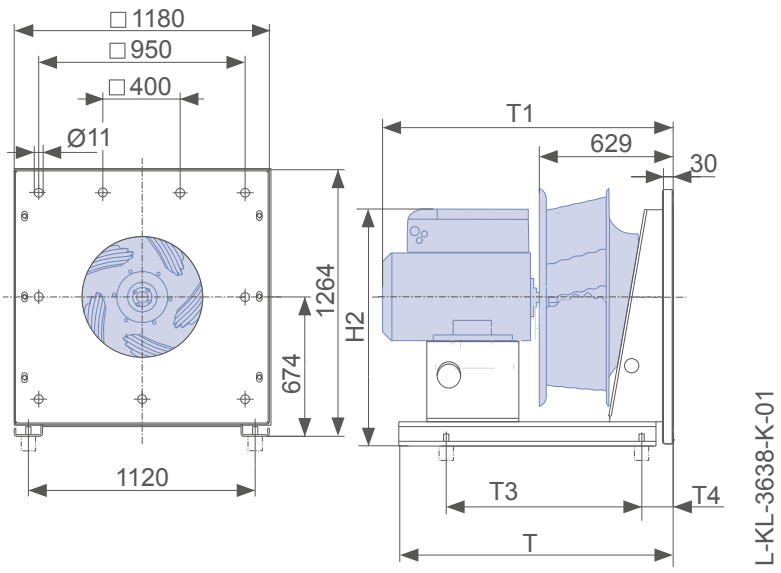
Nozzle coefficients

Standard k	850
With guard grille k_g	800

Characteristic curve



Dimensions mm



ZAbluefin-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
7.40	**ER90I-6IN.H7.1R**	**116059/0P61**	132M	92.5	12.5-10.0	950	970	7.80	74.9	76.1
14.90	**ER90I-6IN.H7.1R**	**116060/0P61**	132M	94.5	20.0-15.5	1200	1080	11.00	76.5	76.5
14.90	**ER90I-6IN.H7.1R**	**116061/0P61**	132M	94.5	27.0-21.0	1200	1210	15.50	76.5	76.2
tbd	**ER90I-8IN.K7.1R**	**116062/0P61**	160L	tbd	tbd	tbd	1320	18.50	tbd	tbd
tbd	**ER90I-8IN.K7.1R**	**116063/0P61**	160L	tbd	tbd	tbd	1340	22.00	tbd	tbd

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
7.40	**ER90I-6IN.H7.1R**	245.00	1160	1060	998	115	937	00403351	00411648	02006450	02001674
14.90	**ER90I-6IN.H7.1R**	268.00	1160	1111	998	115	998	00403351	00411648	02006451	02001674
14.90	**ER90I-6IN.H7.1R**	268.00	1160	1111	998	115	998	00403351	00411648	02006451	02000407
tbd	**ER90I-8IN.K7.1R**	tbd	1160	tbd	998	115	tbd	00403351	00411648	02006451	02000407
tbd	**ER90I-8IN.K7.1R**	tbd	1160	tbd	998	115	tbd	00403351	00411648	02006451	02000407

ZAbluefin-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
7.5	**ER90I-6HN.I7.1R**	**115970/0A41**	160M	89.1	16.5-13.0	970	970	8.60	72.2	73.1
11.00	**ER90I-6HN.K7.1R**	**115971/0A41**	160L	90.3	24.0-18.5	970	1110	13.00	73.1	73.0
15.00	**ER90I-6HN.M7.1R**	**115972/0A41**	180L	91.2	29.0-23.0	978	1230	16.50	73.9	73.4
18.50	**ER90I-6HN.N7.1R**	**115973/0A41**	200L	91.7	34.0-30.0	980	1320	21.00	74.3	73.6
22.00	**ER90I-6HN.N7.1R**	**115974/0A41**	200L	92.2	36.0-28.0	980	1340	21.00	74.7	73.9

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
7.5	**ER90I-6HN.I7.1R**	302.00	1160	1060	998	115	1054	00403351	00411648	02006450	02001674
11.00	**ER90I-6HN.K7.1R**	336.00	1160	1111	998	115	1038	00403351	00411648	02006450	02000407
15.00	**ER90I-6HN.M7.1R**	403.00	1160	1111	998	115	1054	00403351	00411648	02006451	02000407
18.50	**ER90I-6HN.N7.1R**	447.00	1320	1304	1103	115	1068	00403351	00411648	02006451	02000407
22.00	**ER90I-6HN.N7.1R**	464.00	1320	1282	1050	115	1068	00403351	00411648	02006451	02000407

Plug fan ZAbluefin

ER10I

Motor PMblue IE4 and AMblue IE3

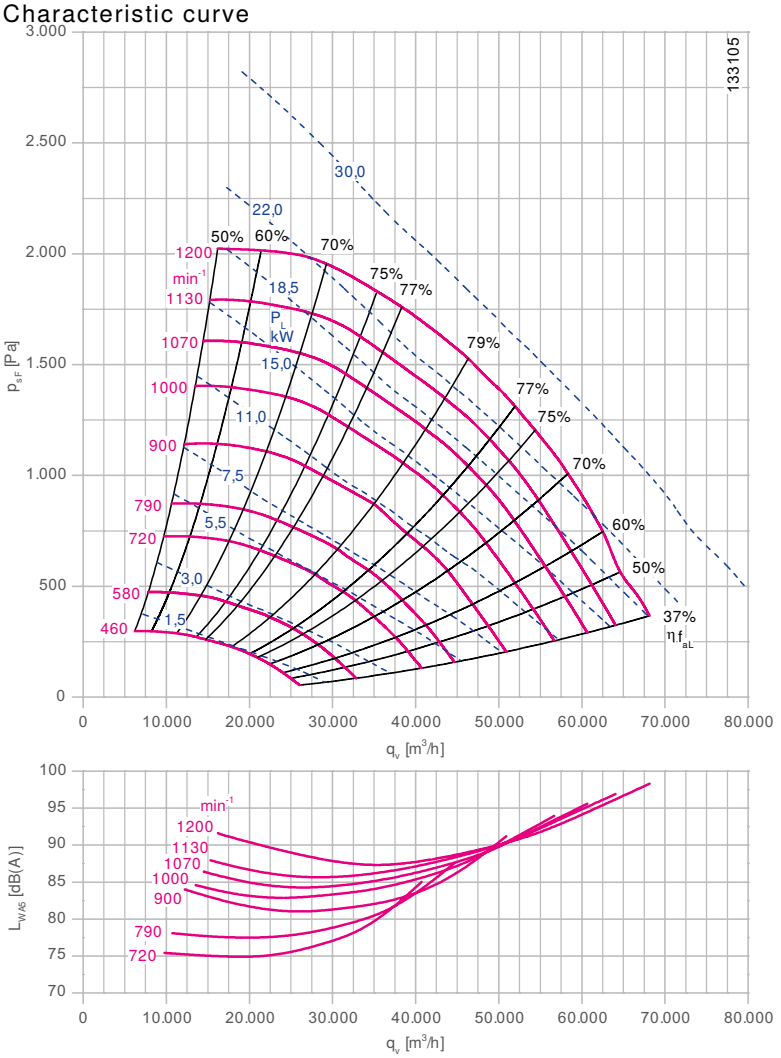
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

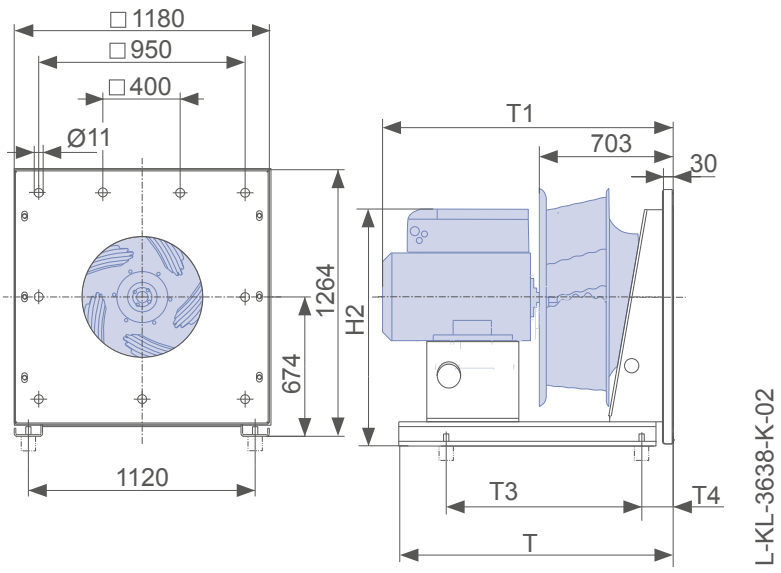
Nozzle coefficients

Standard k	1050
With guard grille k_g	1000

Characteristic curve



Dimensions mm



ZAbluefin-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
10.80	**ER10I-6IN.H7.1R**	**116064/0P61**	132M	91.9	18.0-14.5	880	900	11.00	74.3	74.2
14.60	**ER10I-8IN.K7.1R**	**116065/0P61**	160L	91.9	26.0-21.0	1000	1000	15.50	74.3	73.8
18.50	**ER10I-8IN.K7.1R**	**116066/0P61**	160L	92.4	32.0-25.0	1070	1070	19.00	74.7	74.0
22.00	**ER10I-8IN.K7.1R**	**116067/0P61**	160L	92.8	38.0-30.0	1130	1130	23.00	75.0	74.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

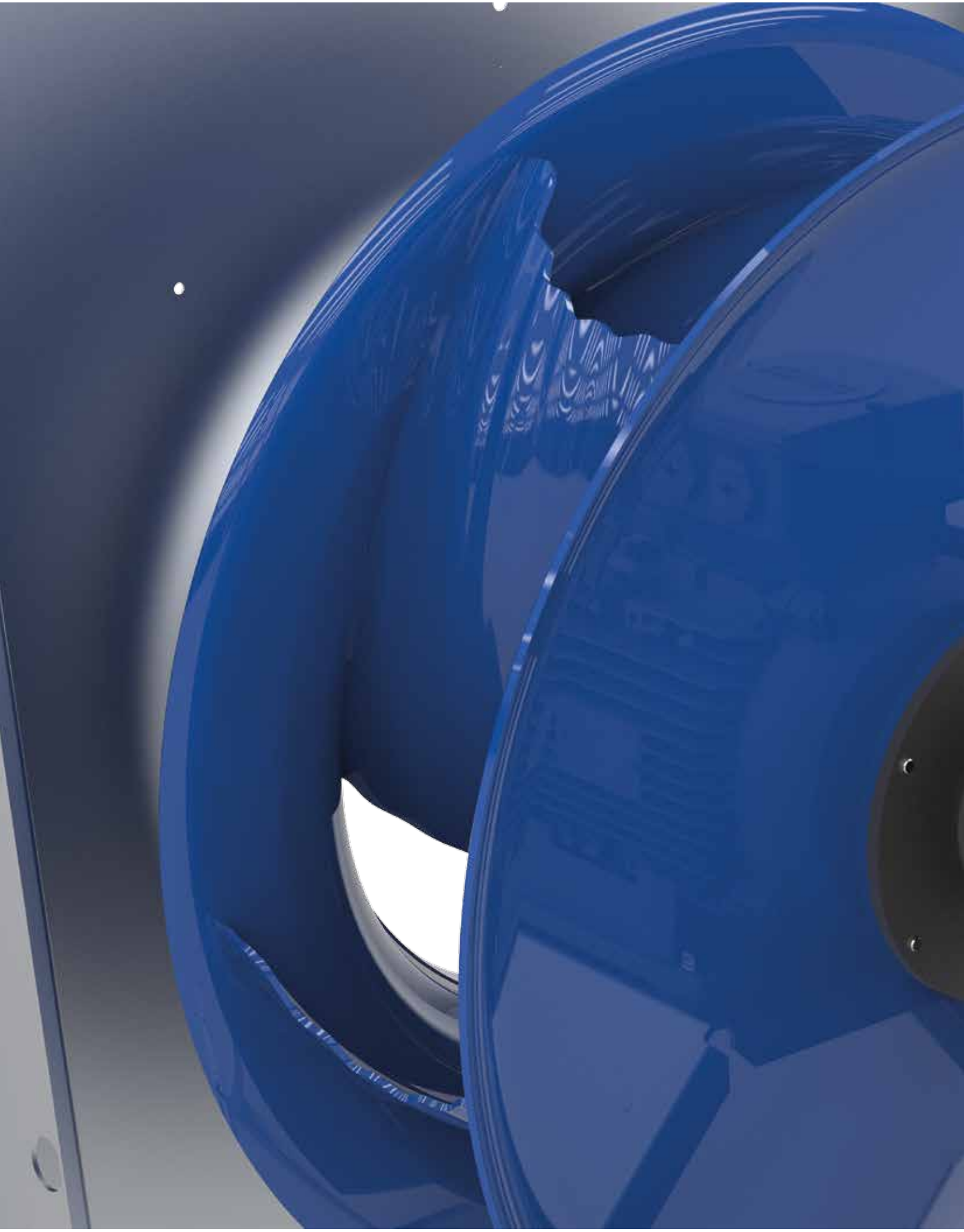
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
10.80	**ER10I-6IN.H7.1R**	306.00	1160	1182	945	115	998	00403351	00411649	02006450	02001674
14.60	**ER10I-8IN.K7.1R**	347.00	1160	1248	945	115	1026	00403351	00411649	02006451	02000407
18.50	**ER10I-8IN.K7.1R**	356.00	1160	1248	945	115	1026	00403351	00411649	tbd	tbd
22.00	**ER10I-8IN.K7.1R**	361.00	1160	1248	945	115	1026	00403351	00411649	tbd	tbd

ZAbluefin-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
11.00	**ER10I-8HN.M7.1R**	**115978/0A41**	180L	88.6	21.0-16.0	735	900	12.00	71.6	71.5
15.00	**ER10I-6HN.M7.1R**	**115979/0A41**	180L	91.2	29.0-23.0	978	1000	16.50	73.7	73.3
18.50	**ER10I-6HN.N7.1R**	**115980/0A41**	200L	91.7	33.0-27.0	980	1070	20.00	74.1	73.4
22.00	**ER10I-6HN.N7.1R**	**115981/0A41**	200L	92.2	40.0-32.0	980	1130	24.00	74.5	73.7

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
11.00	**ER10I-8HN.M7.1R**	442.00	1320	1322	1155	115	1054	00403351	00411649	02006451	02001674
15.00	**ER10I-6HN.M7.1R**	442.00	1320	1322	1155	115	1054	00403351	00411649	02006451	02000407
18.50	**ER10I-6HN.N7.1R**	486.00	1320	1353	1155	115	1068	00403351	00411649	02006451	02000407
22.00	**ER10I-6HN.N7.1R**	503.00	1320	1375	1155	115	1068	00403351	00411649	02006451	02000407



Plug fan ZAbluefin

ZAmotpremium IE3

Product overview

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Size 1000 Page 48
Size 1120 Page 50

Plug fan ZAbluefin

ER71I

Motor ZAmotpremium IE3

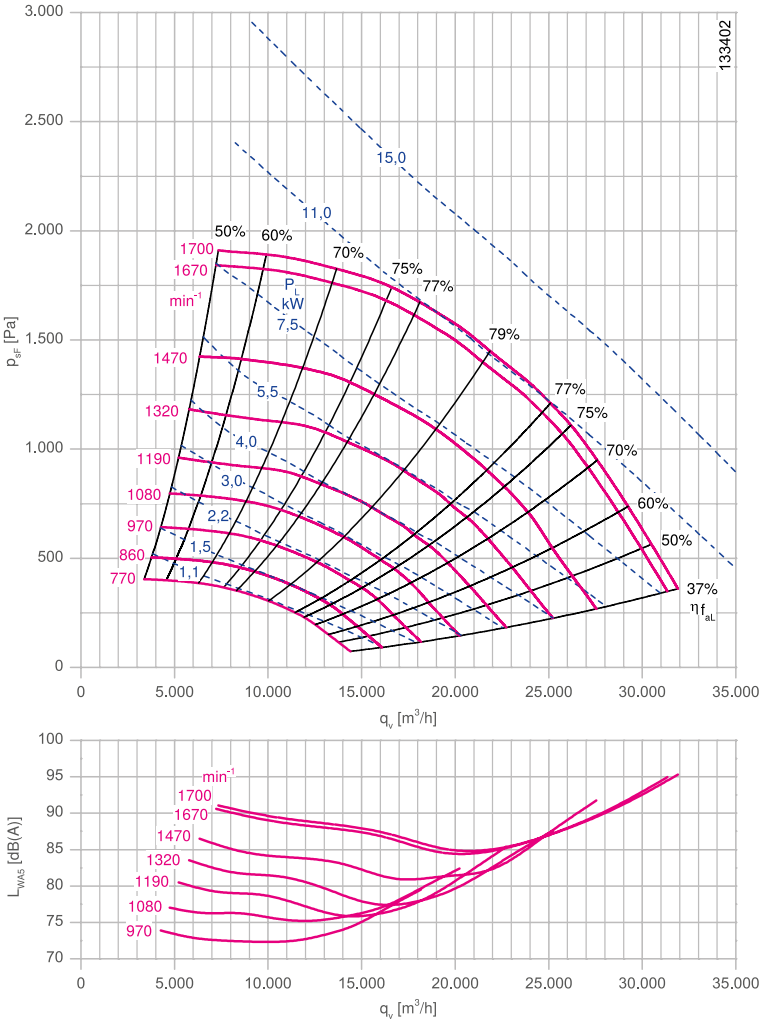
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

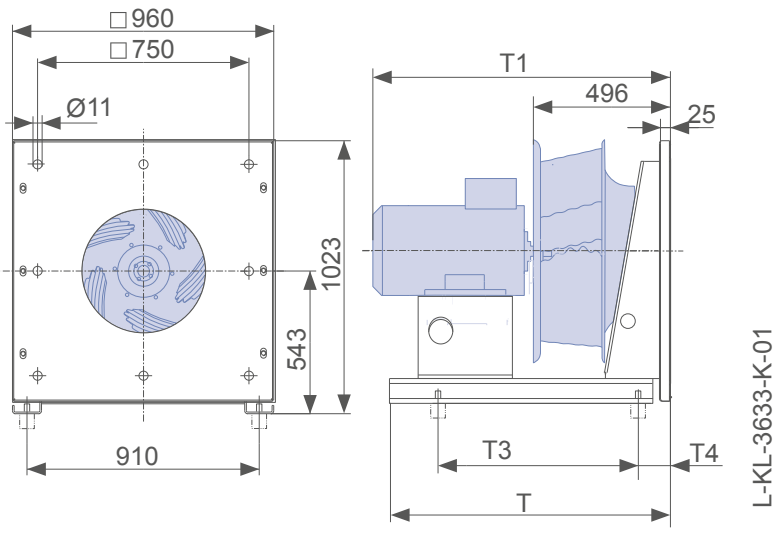
Nozzle coefficients

Standard k	530
With guard grille k_g	500

Characteristic curve



Dimensions mm



ZAbluefin-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.2	**ER71I-6DN.F7.1R**	**115953/0141**	112M	84.3	5.00	970	970	50	68.4	74.8
3.00	**ER71I-6DN.G7.1R**	**115954/0141**	132S	85.6	6.60	975	1080	55	69.5	74.4
4.00	**ER71I-6DN.H7.1R**	**115955/0141**	132M/S	86.8	8.40	970	1190	61	70.5	74.2
5.5	**ER71I-6DN.H7.1R**	**115956/0141**	132M	88.0	11.60	970	1320	68	71.4	73.8
7.5	**ER71I-4DN.H7.1R**	**115957/0141**	132M	90.4	14.30	1470	1470	50	73.4	74.4
11.00	**ER71I-4DN.I7.1R**	**115958/0141**	160M/L	91.4	20.50	1475	1670	57	74.2	74.1
15.00	**ER71I-4DN.K7.1R**	**115959/0141**	160L	92.1	28.50	1475	1700	58	74.8	74.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
2.2	**ER71I-6DN.F7.1R**	126.00	885	866	735	115	00403350	00411646	02006449	00090157	308232
3.00	**ER71I-6DN.G7.1R**	141.00	885	894	735	115	00403350	00411646	02006449	00090157	308234
4.00	**ER71I-6DN.H7.1R**	151.00	885	894	735	115	00403350	00411646	02006449	00090157	308236
5.5	**ER71I-6DN.H7.1R**	151.00	885	944	735	115	00403350	00411646	02006450	00090157	308265
7.5	**ER71I-4DN.H7.1R**	163.00	885	944	735	115	00403350	00411646	02006450	00090157	308267
11.00	**ER71I-4DN.I7.1R**	186.00	1045	993	840	115	00403350	00411646	02006450	00090157	308323
15.00	**ER71I-4DN.K7.1R**	203.00	1045	1053	893	115	00403350	00411646	02006450	02000407	308325

Plug fan ZAbluefin

ER80I

Motor ZAmotpremium IE3

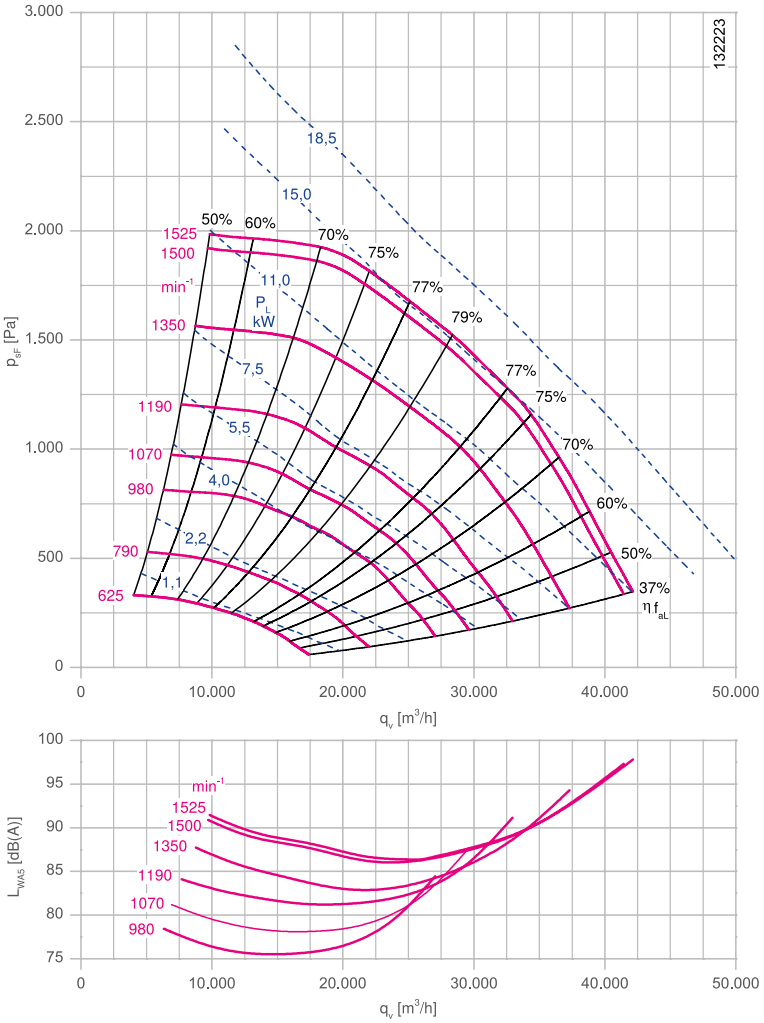
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

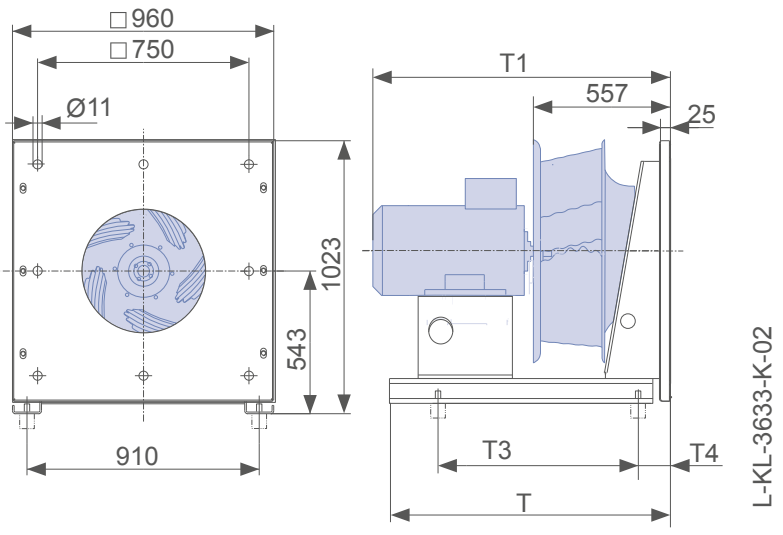
Nozzle coefficients

Standard k	670
With guard grille k_g	630

Characteristic curve



Dimensions mm



ZAbluefin-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
4.00	**ER80I-6DN.H7.1R**	**115961/0141**	132M/S	86.8	8.40	970	980	51	70.1	73.5
5.5	**ER80I-6DN.H7.1R**	**115962/0141**	132M	88.0	11.60	970	1070	55	71.1	73.4
7.5	**ER80I-6DN.I7.1R**	**115963/0141**	160M/L	89.1	16.00	980	1190	61	72.0	72.9
11.00	**ER80I-6DN.K7.1R**	**115964/0141**	160L	90.3	23.00	975	1350	69	72.9	72.8
15.00	**ER80I-4DN.K7.1R**	**115965/0141**	160L	92.1	28.50	1475	1500	51	74.4	73.9
18.50	**ER80I-4DN.L7.1R**	**115966/0141**	180M/L	92.6	35.50	1470	1525	52	74.8	74.3

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
4.00	**ER80I-6DN.H7.1R**	175.00	885	952	735	115	00403350	00414162	02006449	00090157	308236
5.5	**ER80I-6DN.H7.1R**	175.00	885	1002	735	115	00403350	00414162	02006450	00090157	308265
7.5	**ER80I-6DN.I7.1R**	220.00	1045	1045	893	115	00403350	00414162	02006450	00090157	308267
11.00	**ER80I-6DN.K7.1R**	242.00	1045	1105	893	115	00403350	00414162	02006450	00090157	308323
15.00	**ER80I-4DN.K7.1R**	227.00	1045	1105	893	115	00403350	00414162	02006450	02000407	308325
18.50	**ER80I-4DN.L7.1R**	294.00	1045	1125	893	115	00403350	00414162	02006450	02000407	308327

Plug fan ZAbluefin

ER90I

Motor ZAmotpremium IE3

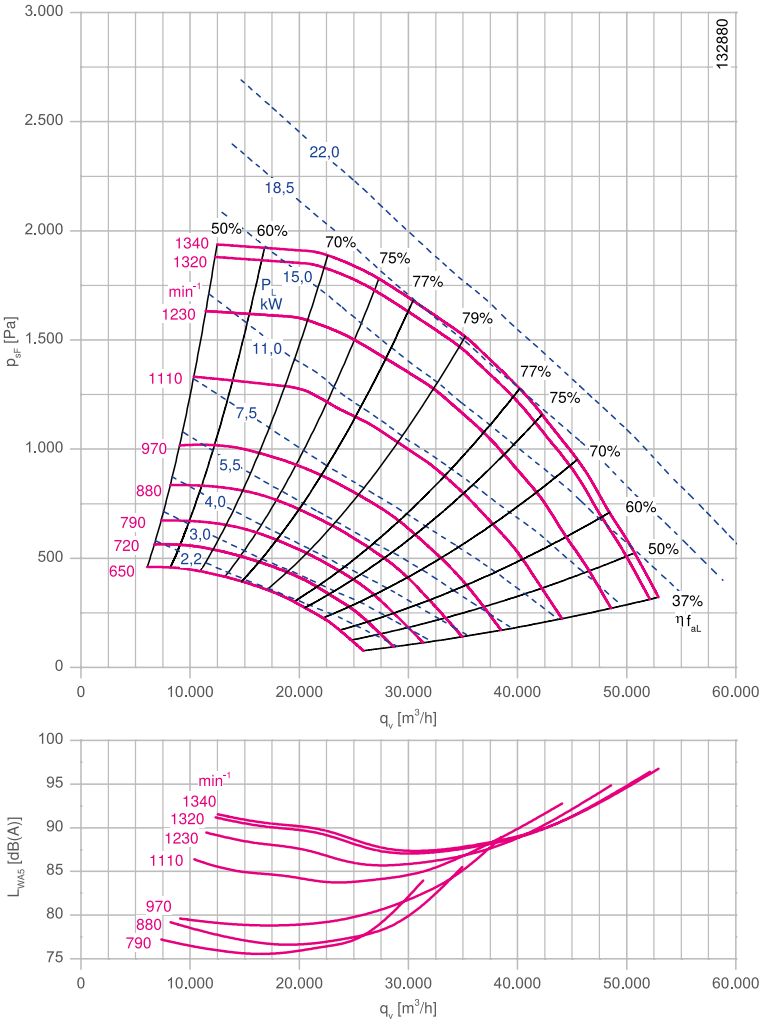
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

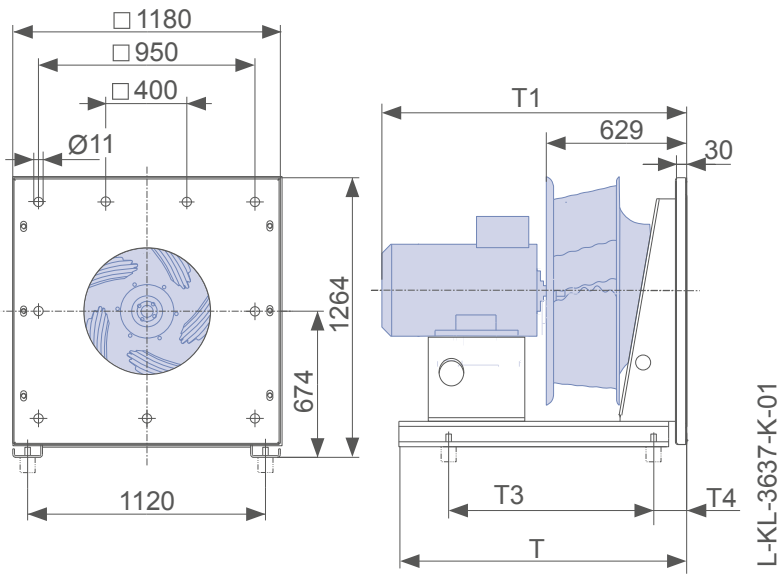
Nozzle coefficients

Standard k	850
With guard grille k_g	800

Characteristic curve



Dimensions mm



ZAbluefin-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
4.00	**ER90I-8DN.I7.1R**	**115968/0141**	160M/L	84.8	10.30	730	790	54	68.7	72.3
5.5	**ER90I-8DN.I7.1R**	**115969/0141**	160M/L	86.2	14.00	730	880	60	69.8	72.0
7.5	**ER90I-6DN.I7.1R**	**115970/0141**	160M/L	89.1	16.00	980	970	49	72.2	73.1
11.00	**ER90I-6DN.K7.1R**	**115971/0141**	160L	90.3	23.00	975	1110	57	73.1	73.0
15.00	**ER90I-6DN.M7.1R**	**115972/0141**	180L/M	91.2	29.50	975	1230	63	73.9	73.4
18.50	**ER90I-6DN.N7.1R**	**115973/0141**	200L	91.7	37.00	975	1320	68	74.3	73.6
22.00	**ER90I-6DN.N7.1R**	**115974/0141**	200L	92.2	43.00	978	1340	69	74.7	73.9

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
4.00	**ER90I-8DN.I7.1R**	253.00	1160	1129	998	115	00403351	00411648	02006450	02001674	308265
5.5	**ER90I-8DN.I7.1R**	267.00	1160	1129	945	115	00403351	00411648	02006450	02001674	308267
7.5	**ER90I-6DN.I7.1R**	274.00	1160	1129	945	115	00403351	00411648	02006450	02001674	308267
11.00	**ER90I-6DN.K7.1R**	296.00	1160	1189	788	115	00403351	00411648	02006450	02000407	308323
15.00	**ER90I-6DN.M7.1R**	364.00	1320	1193	1103	115	00403351	00411648	02006451	02000407	308325
18.50	**ER90I-6DN.N7.1R**	402.00	1320	1246	1155	115	00403351	00411648	02006451	02000407	308327
22.00	**ER90I-6DN.N7.1R**	417.00	1320	1271	1155	115	00403351	00411648	02006451	02000407	308329

Plug fan ZAbluefin

ER10I

Motor ZAmotpremium IE3

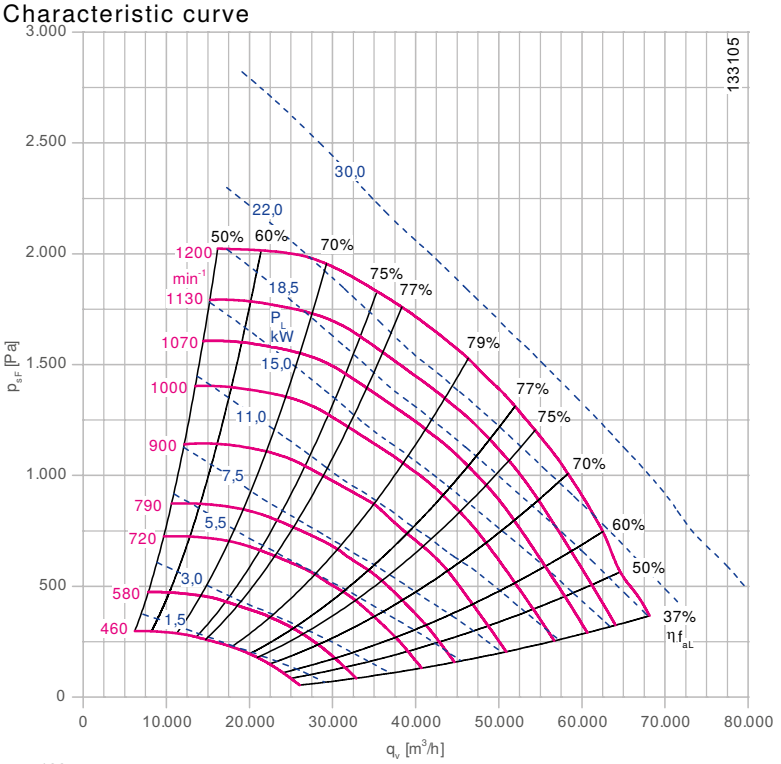
Description

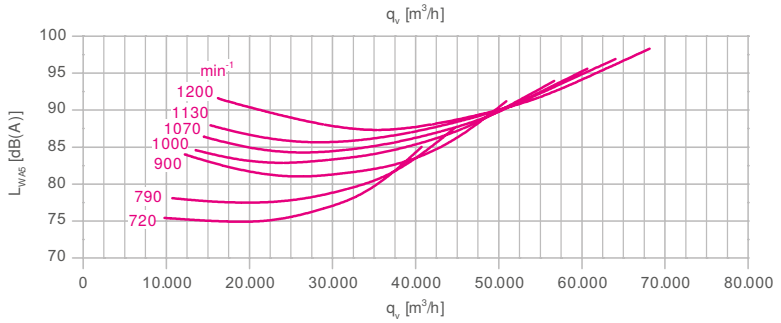
Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

Nozzle coefficients

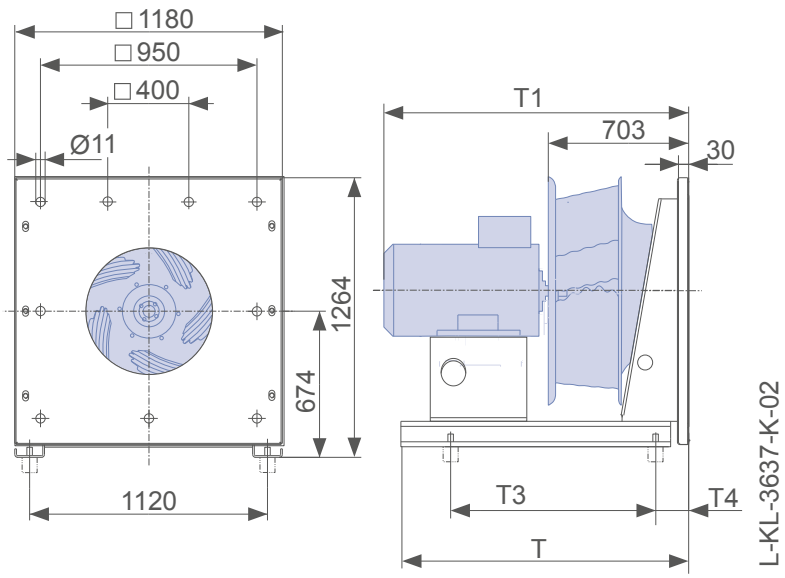
Standard k	1050
With guard grille k_g	1000

Characteristic curve





Dimensions mm



ZAbluefin-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER10I-8DN.I7.1R**	**115976/0141**	160M/L	86.2	14.00	730	720	49	69.7	71.8
7.5	**ER10I-8DN.K7.1R**	**115977/0141**	160L	87.3	19.10	728	790	54	70.6	71.4
11.00	**ER10I-8DN.M7.1R**	**115978/0141**	180L/M	88.6	24.00	725	900	62	71.6	71.5
15.00	**ER10I-6DN.M7.1R**	**115979/0141**	180L/M	91.2	29.50	975	1000	51	73.7	73.3
18.50	**ER10I-6DN.N7.1R**	**115980/0141**	200L	91.7	37.00	975	1070	55	74.1	73.4
22.00	**ER10I-6DN.N7.1R**	**115981/0141**	200L	92.2	43.00	978	1130	58	74.5	73.7
30.00	**ER10I-6DN.R7.1R**	**115982/0141**	225M/S	92.9	56.00	982	1200	61	75.1	74.0

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
5.5	**ER10I-8DN.I7.1R**	305.00	1160	1200	998	115	00403351	00411649	02006450	02001674	308267
7.5	**ER10I-8DN.K7.1R**	329.00	1160	1260	998	115	00403351	00411649	02006450	02001674	308323
11.00	**ER10I-8DN.M7.1R**	413.00	1320	1294	1155	115	00403351	00411649	02006451	02001674	308323
15.00	**ER10I-6DN.M7.1R**	403.00	1320	1264	1155	115	00403351	00411649	02006451	02000407	308325
18.50	**ER10I-6DN.N7.1R**	440.00	1320	1317	1155	115	00403351	00411649	02006451	02000407	308327
22.00	**ER10I-6DN.N7.1R**	455.00	1320	1342	1155	115	00403351	00411649	02006451	02000407	308329
30.00	**ER10I-6DN.R7.1R**	548.00	1320	1416	1155	115	00403351	00411649	02006452	02000407	308331

Plug fan ZAbluefin

ER11I

Motor ZAmotpremium IE3

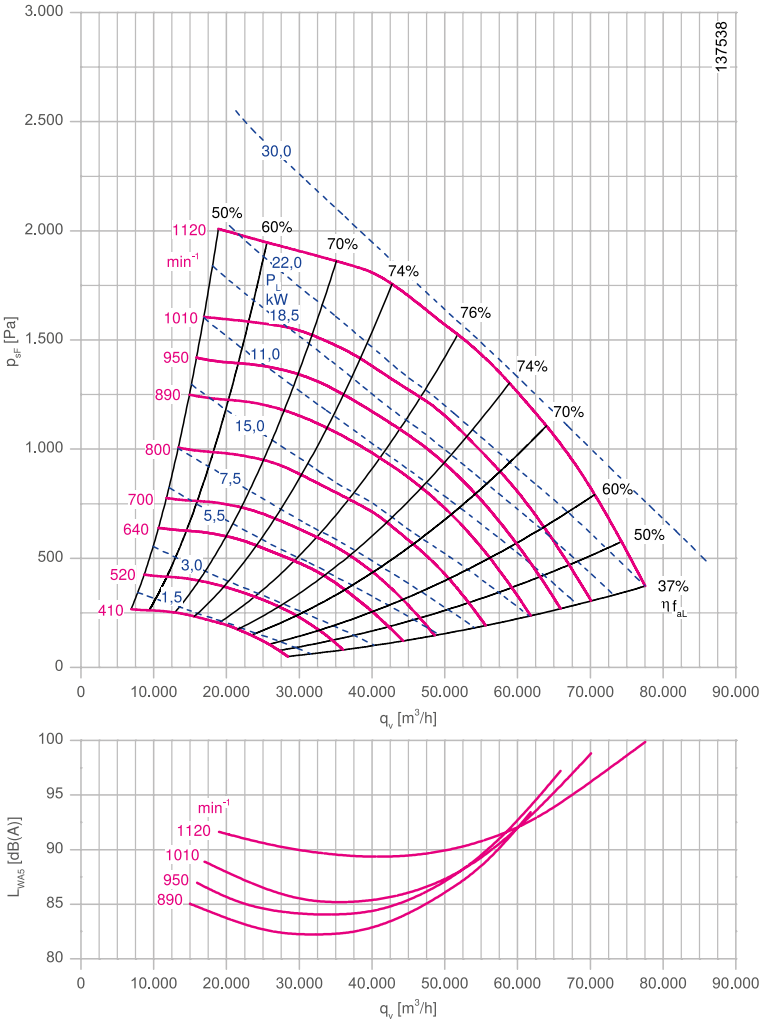
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

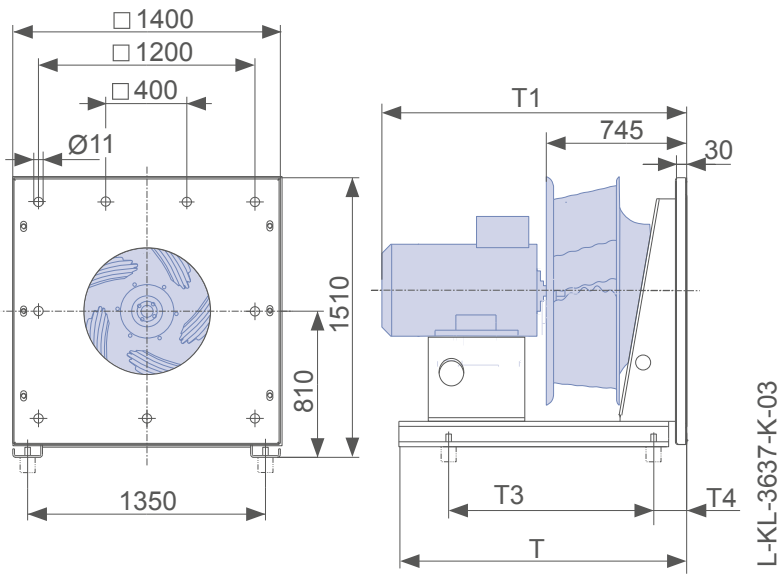
Nozzle coefficients

Standard k	1250
With guard grille k_g	1200

Characteristic curve



Dimensions mm



ZAbluefin-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual} *
15.00	**ER11I-8DN.N7.1R**	**115984/0141**	200L	89.6	33.50	730	890	61	69.8	69.3
18.50	**ER11I-8DN.P7.1R**	**115985/0141**	225S/M	90.1	39.50	732	950	65	70.2	69.5
22.00	**ER11I-6DN.N7.1R**	**115986/0141**	200L	92.2	43.00	978	1010	52	71.8	71.0
30.00	**ER11I-6DN.R7.1R**	**115987/0141**	225M/S	92.9	56.00	982	1120	57	72.4	71.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
15.00	**ER11I-8DN.N7.1R**	606.00	1380	1441	1210	130	00403352	00411650	02006452	02000407	308327
18.50	**ER11I-8DN.P7.1R**	631.00	1380	1441	1210	130	00403352	00411650	02006452	02000407	308329
22.00	**ER11I-6DN.N7.1R**	581.00	1380	1429	1210	130	00403352	00411650	02006452	02019767	308329
30.00	**ER11I-6DN.R7.1R**	676.00	1380	1503	1210	130	00403352	00411650	02006453	02019767	308331


ZIEHL-ABEGG

Plug fan Cpro

PMblue IE4 and AMblue IE3

Product overview

Size 400 Page 54

Size 450 Page 56

Size 500 Page 58

Size 560 Page 60

Size 630 Page 62

Plug fan Cpro

ER40Cpro

Motor PMblue IE4 and AMblue IE3

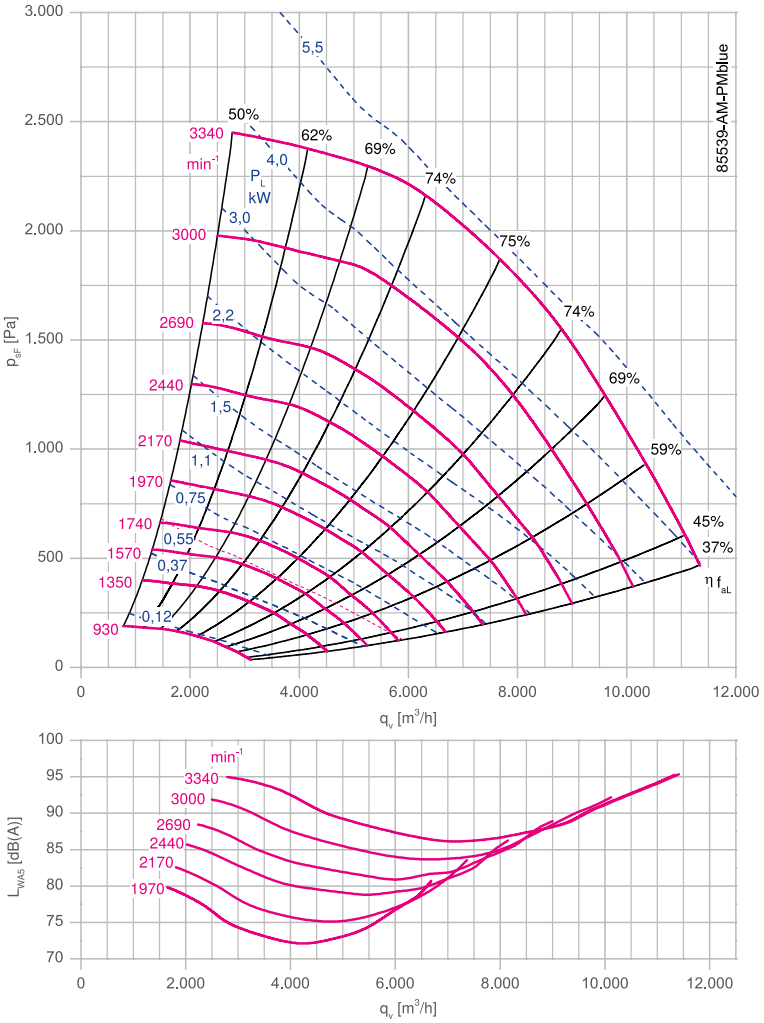
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

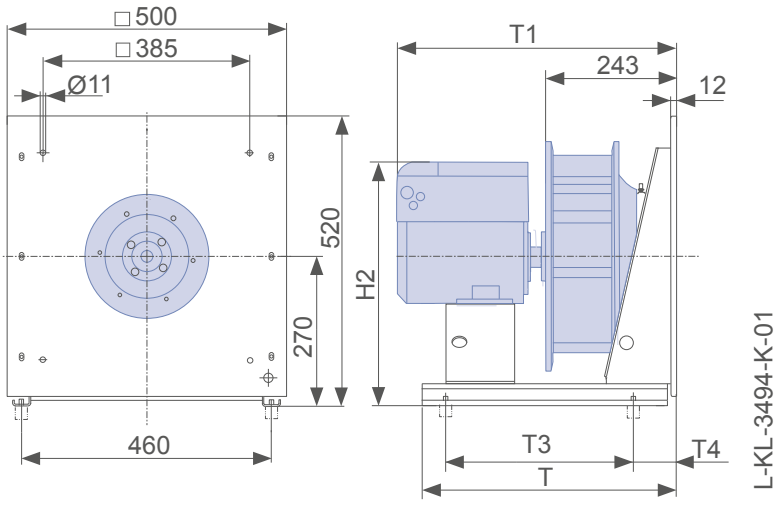
Nozzle coefficients

Standard k	154
With guard grille k_g	148

Characteristic curve



Dimensions mm



Cpro-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.30	**ER40C-8IN.D7.CR**	**115617/2P61**	090L	92.2	9.40-7.60	3300	3340	6.00	70.9	73.3

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.30	**ER40C-8IN.D7.CR**	43.00	570	632	420	115	495	00406514	00411572	02021197	00090144

Cpro-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER40C-2HN.G7.CR**	**130594/2A41**	132S	89.2	10.5-8.6	2930	3340	6.40	68.6	70.9

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	**ER40C-2HN.G7.CR**	75.00	720	686	525	115	535	00406514	00411572	02021198	00090144

Plug fan Cpro

ER45Cpro

Motor PMblue IE4 and AMblue IE3

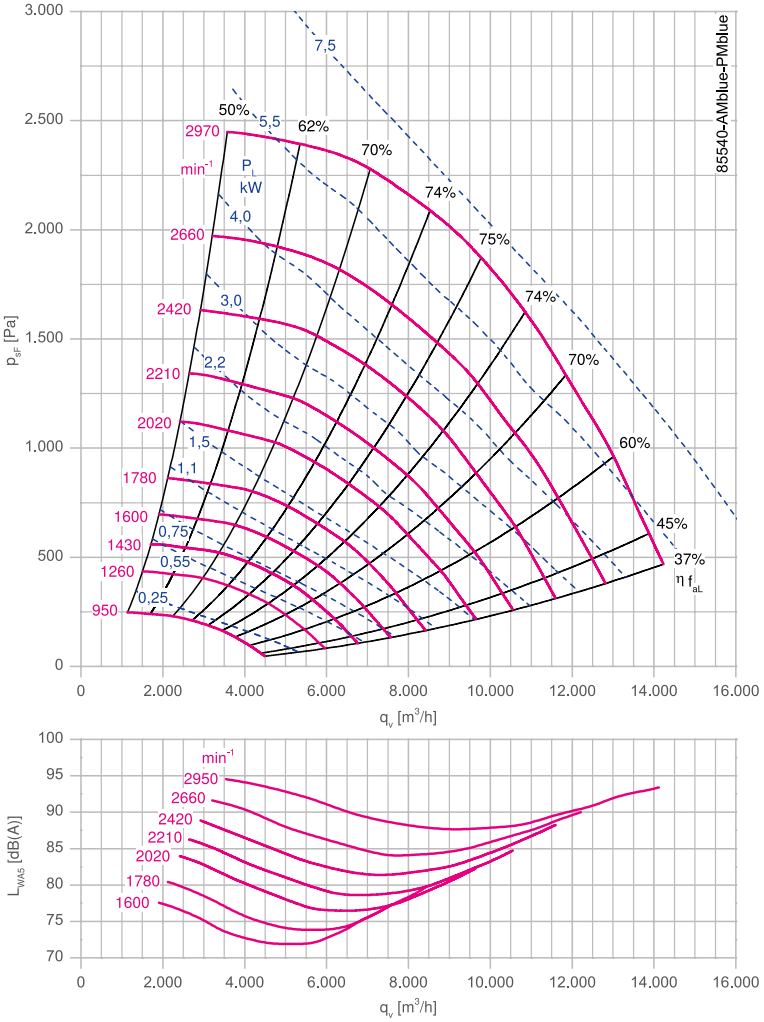
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

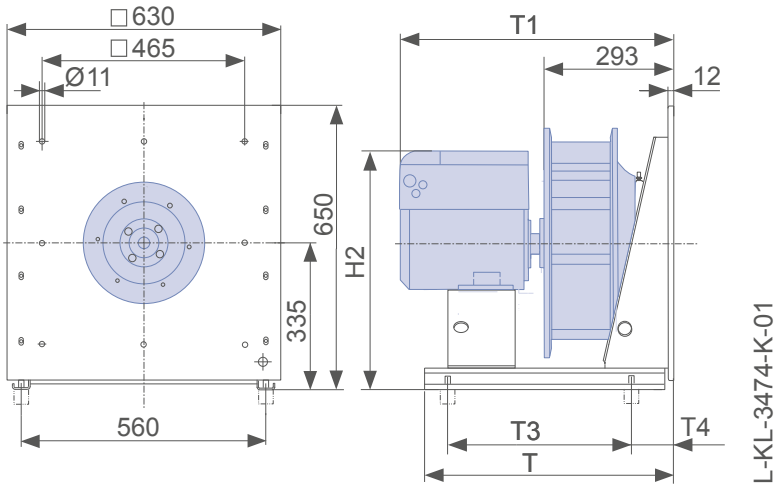
Nozzle coefficients

Standard k	197
With guard grille k_g	189

Characteristic curve



Dimensions mm



Cpro-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.30	**ER45C-8IN.D7.CR**	**115618/2P61**	090L	92.3	8.80-7.00	2730	2660	5.40	70.9	73.7
6.91	**ER45C-6IN.F7.CR**	**115619/2P61**	112M	92.8	13.0-10.0	3000	2970	7.60	71.2	72.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.30	**ER45C-8IN.D7.CR**	53.00	570	667	420	115	560	00406515	00411573	02021198	02000124
6.91	**ER45C-6IN.F7.CR**	64.00	720	674	473	115	583	00406515	00411573	02021198	02000124

Cpro-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER45C-4HN.G7.CR**	**130587/2A41**	132S	89.6	10.0-8.0	1460	2660	6.00	68.8	71.5
7.5	**ER45C-2HN.G7.CR**	**130588/2A41**	132S	90.1	15.5-12.5	2930	2970	8.00	69.2	70.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	**ER45C-4HN.G7.CR**	89.00	720	716	578	115	600	00406515	00411573	02021198	02000124
7.5	**ER45C-2HN.G7.CR**	88.00	720	716	578	115	600	00406515	00411573	02021198	02000124

Plug fan Cpro

ER50Cpro

Motor PMblue IE4 and AMblue IE3

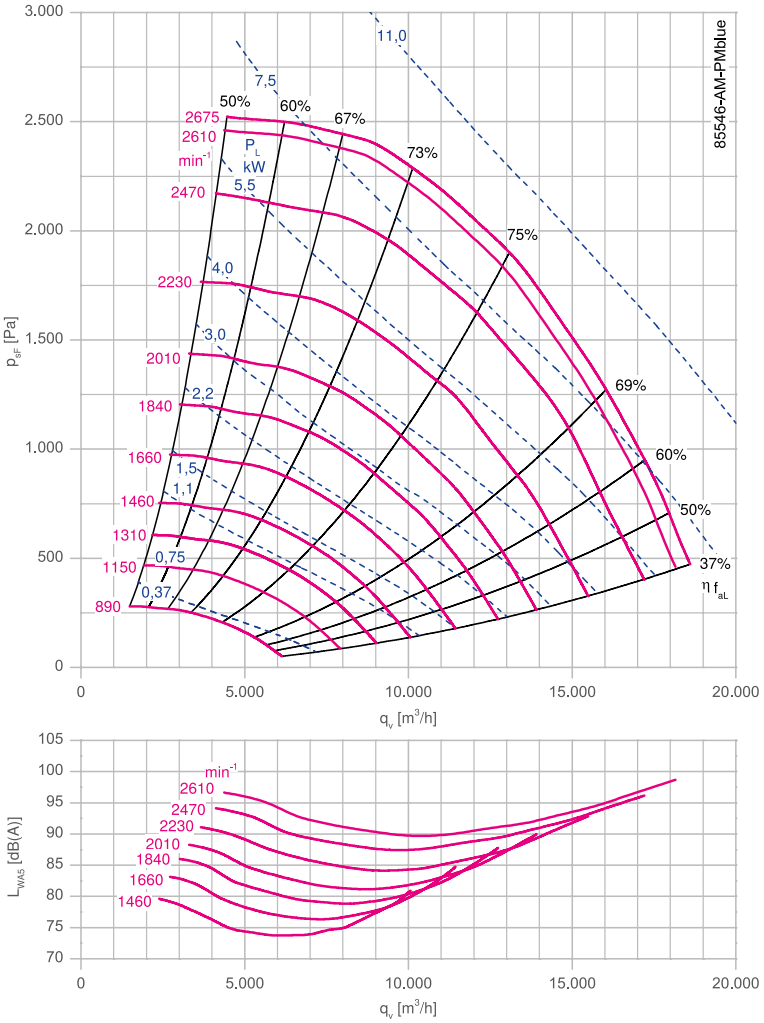
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

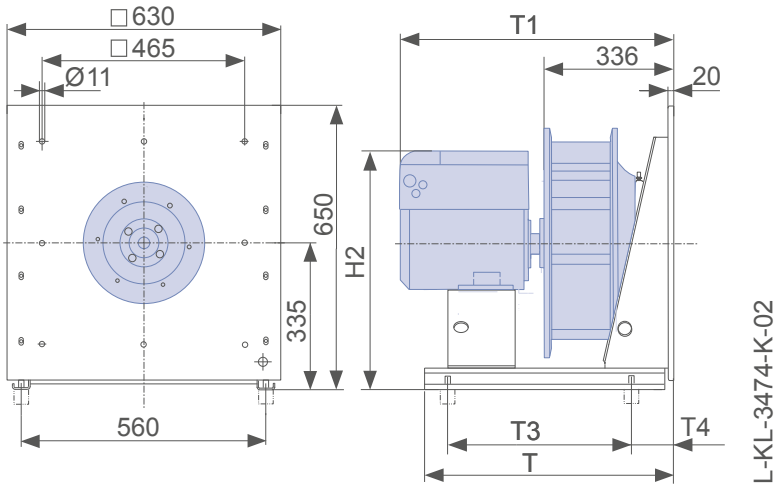
Nozzle coefficients

Standard k	252
With guard grille k_g	242

Characteristic curve



Dimensions mm



Cpro-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.37	**ER50C-6IN.F7.CR**	**115620/2P61**	112M	91.8	9.60-7.60	2250	2230	5.80	70.4	72.9
7.36	**ER50C-6IN.F7.CR**	**115621/2P61**	112M	92.1	13.5-10.5	2500	2470	8.00	70.7	71.8
9.00	**ER50C-6IN.F7.CR**	**115622/2P61**	112M	92.0	16.5-13.0	2675	2610	9.80	70.6	71.0

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.37	**ER50C-6IN.F7.CR**	66.00	728	716	578	115	583	00406515	00411574	02021198	02000124
7.36	**ER50C-6IN.F7.CR**	69.00	728	716	578	115	583	00406515	00411574	02021198	02000124
9.00	**ER50C-6IN.F7.CR**	83.00	728	795	578	115	644	00406515	00411574	02021198	02000124

Cpro-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER50C-4HN.G7.CR**	**130579/2A41**	132S	89.6	10.5-8.2	1460	2230	6.40	68.7	71.1
7.5	**ER50C-4HN.H7.CR**	**130580/2A41**	132M	90.4	16.5-13.0	1460	2470	8.80	69.3	70.3
11.00	**ER50C-4HN.I7.CR**	**130581/2A41**	160M	91.4	19.0-15.0	1465	2610	10.50	70.1	70.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	**ER50C-4HN.G7.CR**	91.00	728	758	578	115	600	00406515	00411574	02021198	02000124
7.5	**ER50C-4HN.H7.CR**	102.00	728	796	578	115	600	00406515	00411574	02021198	02000124
11.00	**ER50C-4HN.I7.CR**	182.00	888	861	735	115	699	00406515	00411574	02021199	02000124

Plug fan Cpro

ER56Cpro

Motor PMblue IE4 and AMblue IE3

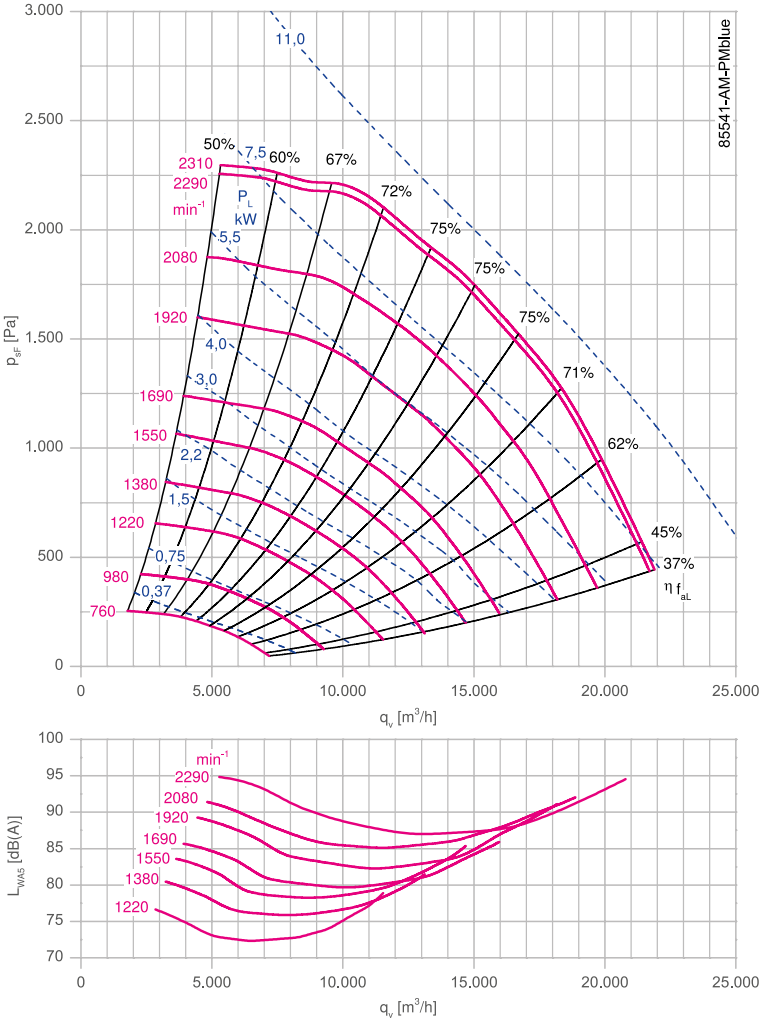
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

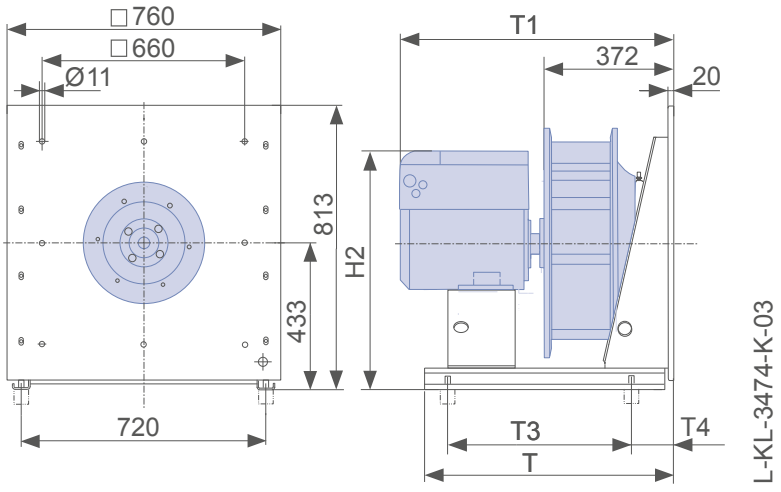
Nozzle coefficients

Standard k	308
With guard grille k_g	295

Characteristic curve



Dimensions mm



Cpro-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.45	**ER56C-6IN.F7.CR**	**115623/2P61**	112M	91.8	10.0-8.0	1900	1920	6.20	70.6	72.8
7.37	**ER56C-6IN.F7.CR**	**115624/2P61**	112M	92.0	13.0-10.5	2100	2080	8.00	70.7	71.8
9.80	**ER56C-6IN.F7.CR**	**115625/2P61**	112M	92.5	18.0-14.0	2310	2290	10.50	71.1	71.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.45	**ER56C-6IN.F7.CR**	79.00	720	752	578	115	681	00405986	00411644	02021199	02000124
7.37	**ER56C-6IN.F7.CR**	79.00	720	752	578	115	681	00405986	00411644	02021199	02000124
9.80	**ER56C-6IN.F7.CR**	96.00	720	831	578	115	742	00405986	00411644	02018876	02020907

Cpro-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER56C-4HN.G7.CR**	**130572/2A41**	132S	89.6	11.5-9.0	1460	1920	6.80	68.9	71.0
7.5	**ER56C-4HN.H7.CR**	**163660/2A41**	132M	90.4	16.5-13.5	1460	2080	8.80	69.5	70.6
11.00	**ER56C-4HN.I7.CR**	**163661/2A41**	160M	91.4	20.0-16.0	1465	2290	11.50	70.3	70.3

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	**ER56C-4HN.G7.CR**	104.00	880	794	683	115	698	00405986	00411644	02021199	02000124
7.5	**ER56C-4HN.H7.CR**	115.00	880	832	683	115	698	00405986	00411644	02021199	02000124
11.00	**ER56C-4HN.I7.CR**	194.00	880	897	735	115	797	00405986	00411644	02018876	02020907

Plug fan Cpro

ER63Cpro

Motor PMblue IE4 and AMblue IE3

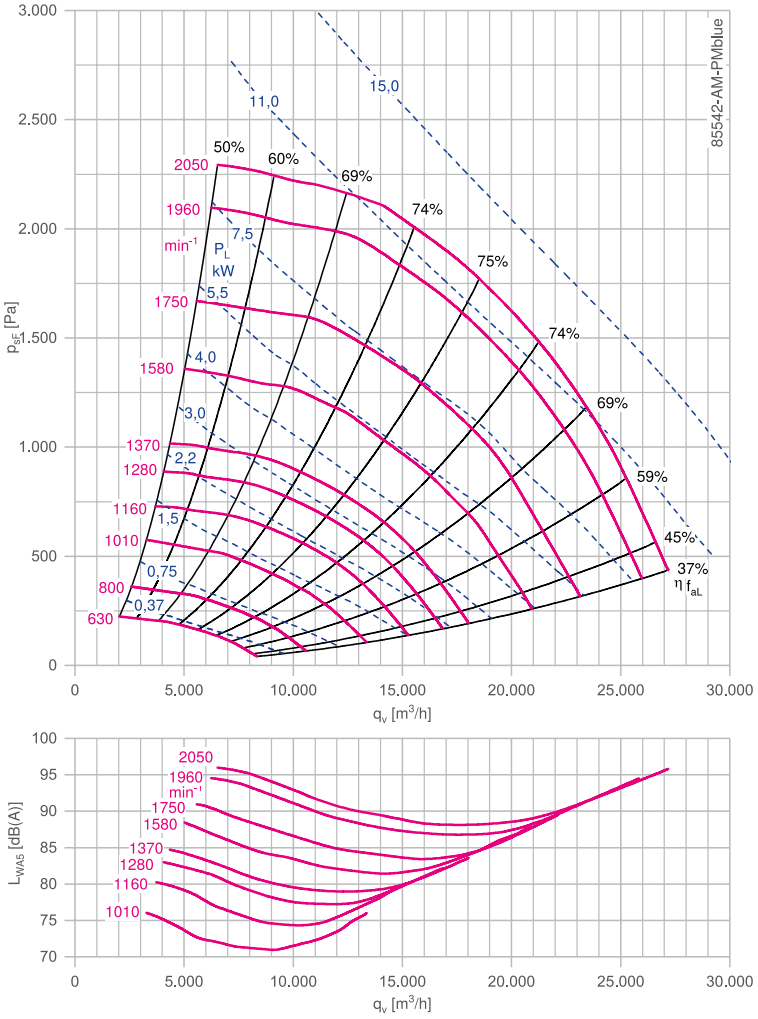
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

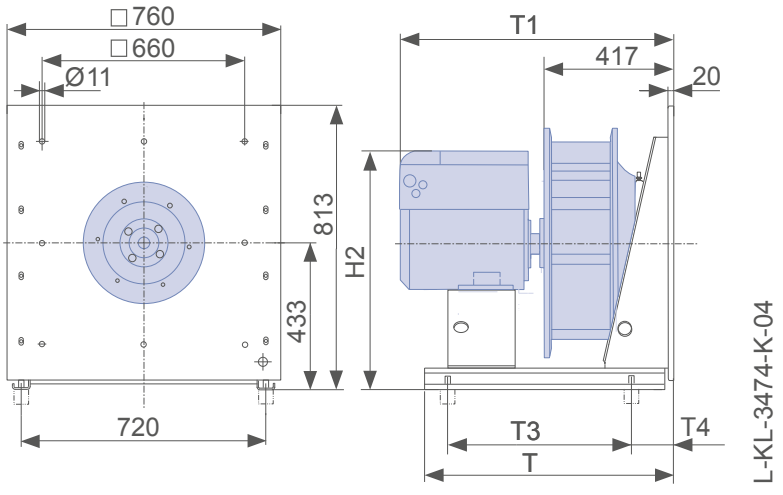
Nozzle coefficients

Standard k	381
With guard grille k_g	365

Characteristic curve



Dimensions mm



Cpro-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.26	ER63C-6IN.F7.CR	115626/2P61	112M	92.0	10.0-8.0	1550	1580	6.00	70.6	72.9
7.32	ER63C-6IN.F7.CR	115627/2P61	112M	92.5	13.5-10.5	1730	1750	8.40	71.0	71.9
10.80	ER63C-6IN.F7.CR	115628/2P61	112M	93.0	20.0-15.5	1970	1960	12.00	71.4	71.3
12.34	ER63C-6IN.H7.CR	115629/2P61	132M	92.1	23.0-18.5	2060	2050	13.50	70.7	70.5

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.26	ER63C-6IN.F7.CR	87.00	720	792	578	115	681	00405986	00411645	02021199	02000124
7.32	ER63C-6IN.F7.CR	91.00	720	792	578	115	681	00405986	00411645	02021199	02000124
10.80	ER63C-6IN.F7.CR	107.00	720	871	578	115	742	00405986	00411645	02021199	02020907
12.34	ER63C-6IN.H7.CR	130.00	880	881	735	115	757	00405986	00411645	02018876	02020907

Cpro-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	ER63C-4HN.G7.CR	130564/2A41	132S	89.6	11.0-8.6	1460	1580	6.60	68.8	70.9
7.5	ER63C-4HN.H7.CR	130565/2A41	132M	90.4	17.0-13.5	1460	1750	9.00	69.4	70.2
11.00	ER63C-4HN.I7.CR	163662/2A41	160M	91.4	23.0-18.5	1465	1960	12.50	70.2	70.1
15.00	ER63C-4HN.K7.CR	163663/2A41	160L	92.1	25.0-20.0	1465	2050	14.00	70.7	70.5

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	ER63C-4HN.G7.CR	111.00	880	834	683	115	698	00405986	00411645	02021199	02000124
7.5	ER63C-4HN.H7.CR	122.00	880	872	735	115	698	00405986	00411645	02021199	02000124
11.00	ER63C-4HN.I7.CR	201.00	880	937	735	115	797	00405986	00411645	02018876	02020907
15.00	ER63C-4HN.K7.CR	222.00	880	981	735	115	797	00405986	00411645	02018876	02020907

Plug fan Cpro

ZAmotpremium IE2 and IE3

Product overview

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Size 500 Page 78

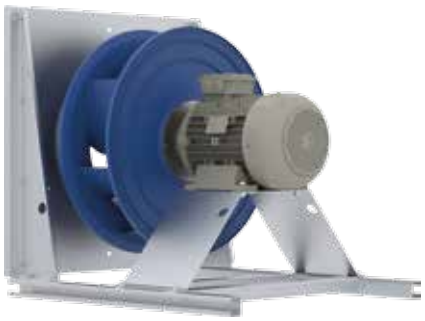
Size 560 Page 80

Size 630 Page 82

Plug fan Cpro

ER25Cpro

Motor ZAmotpremium IE2 and IE3



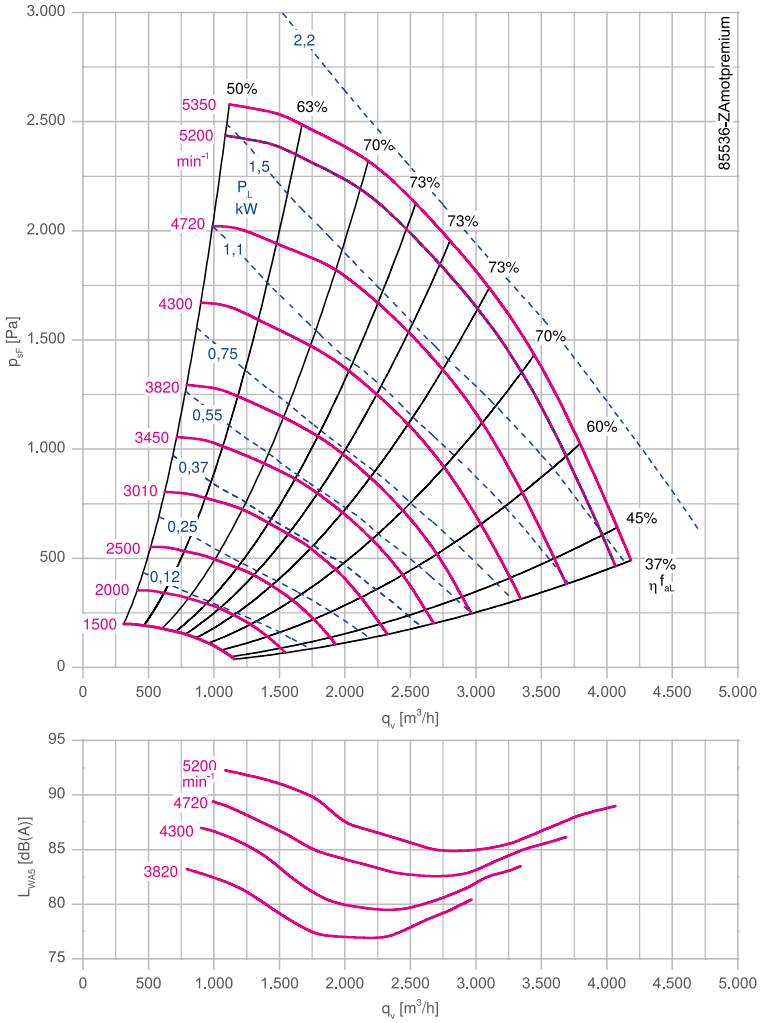
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

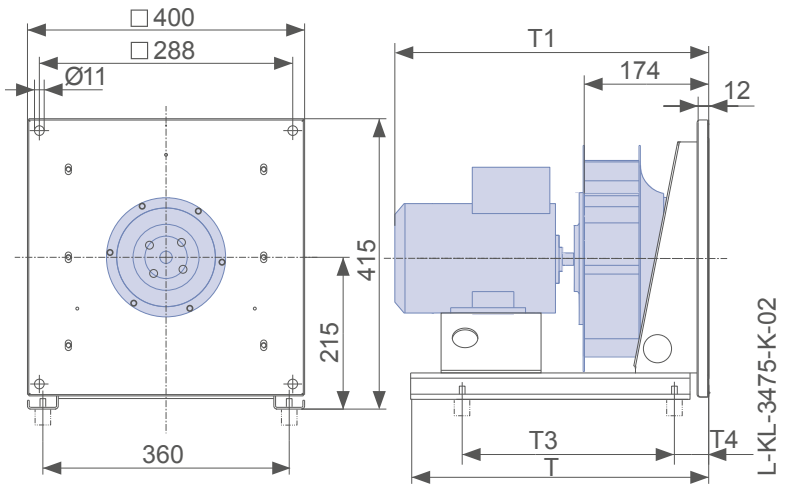
Nozzle coefficients

Standard k	60
With guard grille k_g	58

Characteristic curve



Dimensions mm



Cpro-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.75	**ER25C-2DN.B7.CR**	**130609/2101**	080M	77.4	1.70	2805	3810	68	57.9	68.4
1.1	**ER25C-2DN.B7.CR**	**130610/2101**	080M	79.6	2.40	2830	4300	76	59.5	68.5
1.5	**ER25C-2DN.C7.CR**	**130611/2101**	090S/L	81.3	3.20	2880	4720	82	60.8	68.6
2.2	**ER25C-2DN.D7.CR**	**130612/2101**	090L/S	83.2	4.40	2880	5180	90	62.2	68.9

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.75	**ER25C-2DN.B7.CR**	20.00	460	451	315	60	00403346	00411642	02021196	00090144	308228
1.1	**ER25C-2DN.B7.CR**	22.00	460	451	368	60	00403346	00411642	02021196	00090144	308228
1.5	**ER25C-2DN.C7.CR**	26.00	460	480	365	68	00403346	00411642	02021196	00090144	308230
2.2	**ER25C-2DN.D7.CR**	26.00	460	496	364	60	00403346	00411642	02021197	00090144	308232

Cpro-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.75	**ER25C-2DN.B7.CR**	**130609/2141**	080M	80.7	1.56	2850	3820	67	60.4	71.1
1.1	**ER25C-2DN.B7.CR**	**130610/2141**	080M	82.7	2.20	2885	4270	74	61.9	71.2
1.5	**ER25C-2DN.C7.CR**	**130611/2141**	090S/L	84.2	3.00	2910	4710	81	63.0	71.0
2.2	**ER25C-2DN.D7.CR**	**130612/2141**	090L/S	85.9	4.20	2910	5200	89	64.2	71.0

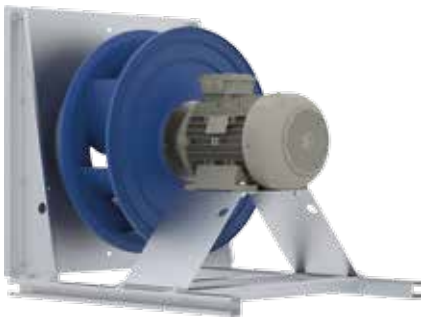
* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.75	**ER25C-2DN.B7.CR**	22.00	460	451	364	60	00403346	00411642	02021196	00090144	308228
1.1	**ER25C-2DN.B7.CR**	23.00	460	486	364	60	00403346	00411642	02021196	00090144	308228
1.5	**ER25C-2DN.C7.CR**	26.00	460	496	364	60	00403346	00411642	02021196	00090144	308230
2.2	**ER25C-2DN.D7.CR**	30.00	460	521	364	60	00403346	00411642	02021197	00090144	308232

Plug fan Cpro

ER28Cpro

Motor ZAmotpremium IE2 and IE3



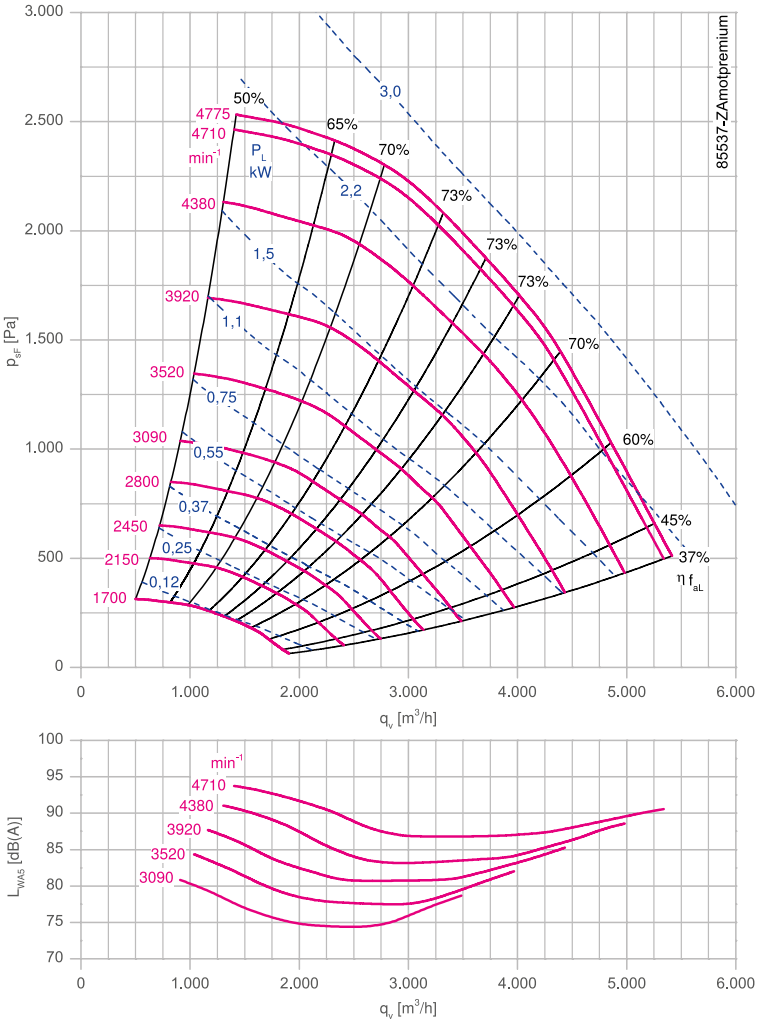
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

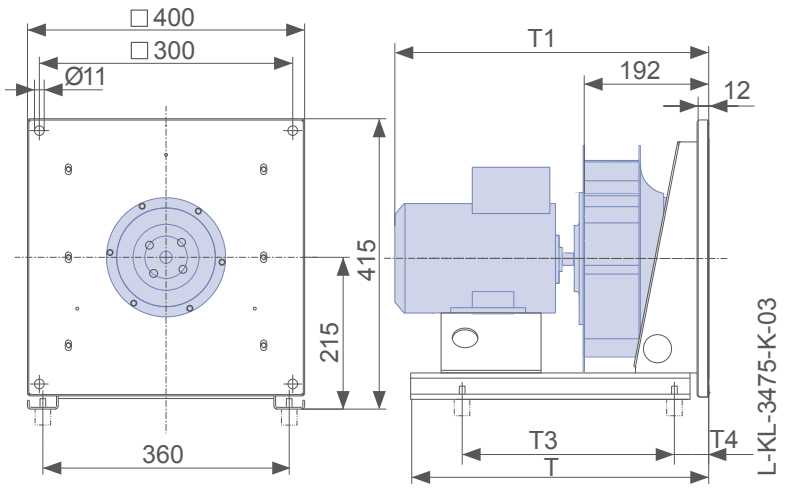
Nozzle coefficients

Standard k	75
With guard grille k_g	72

Characteristic curve



Dimensions mm



Cpro-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.75	**ER28C-2DN.B7.CR**	**130604/2101**	080M	77.4	1.70	2805	3090	55	58.0	68.7
1.1	**ER28C-2DN.B7.CR**	**130605/2101**	080M	79.6	2.40	2830	3510	62	59.6	68.7
1.5	**ER28C-2DN.C7.CR**	**130606/2101**	090S/L	81.3	3.20	2880	3920	68	60.8	68.5
2.2	**ER28C-2DN.D7.CR**	**130607/2101**	090L/S	83.2	4.40	2880	4380	76	62.3	68.6
3.00	**ER28C-2DN.E7.CR**	**130608/2101**	100L	84.6	6.10	2905	4710	81	63.3	68.7

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.75	**ER28C-2DN.B7.CR**	21.00	460	468	368	60	00406513	00411643	02021196	00090144	308228
1.1	**ER28C-2DN.B7.CR**	23.00	460	468	368	60	00406513	00411643	02021196	00090144	308228
1.5	**ER28C-2DN.C7.CR**	27.00	460	497	340	92	00406513	00411643	02021196	00090144	308230
2.2	**ER28C-2DN.D7.CR**	27.00	460	513	364	60	00406513	00411643	02021197	00090144	308232
3.00	**ER28C-2DN.E7.CR**	34.00	570	552	483	60	00406513	00411643	02021197	00090144	308234

Cpro-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.75	**ER28C-2DN.B7.CR**	**130604/2141**	080M	80.7	1.56	2850	3080	54	60.5	71.5
1.1	**ER28C-2DN.B7.CR**	**130605/2141**	080M	82.7	2.20	2885	3520	61	62.0	71.3
1.5	**ER28C-2DN.C7.CR**	**130606/2141**	090S/L	84.2	3.00	2910	3900	67	63.1	71.0
2.2	**ER28C-2DN.D7.CR**	**130607/2141**	090L/S	85.9	4.20	2910	4380	75	64.3	70.8
3.00	**ER28C-2DN.E7.CR**	**130608/2141**	100L	87.1	5.60	2920	4670	80	65.2	70.8

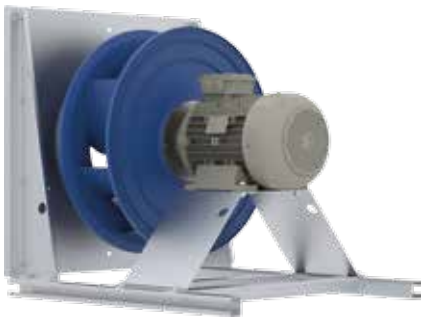
* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.75	**ER28C-2DN.B7.CR**	23.00	460	468	364	60	00406513	00411643	02021196	00090144	308228
1.1	**ER28C-2DN.B7.CR**	24.00	460	503	364	60	00406513	00411643	02021196	00090144	308228
1.5	**ER28C-2DN.C7.CR**	27.00	460	513	364	60	00406513	00411643	02021196	00090144	308230
2.2	**ER28C-2DN.D7.CR**	31.00	460	538	364	60	00406513	00411643	02021197	00090144	308232
3.00	**ER28C-2DN.E7.CR**	39.00	570	587	472	60	00406513	00411643	02021197	00090144	308234

Plug fan Cpro

ER31Cpro

Motor ZAmotpremium IE2 and IE3



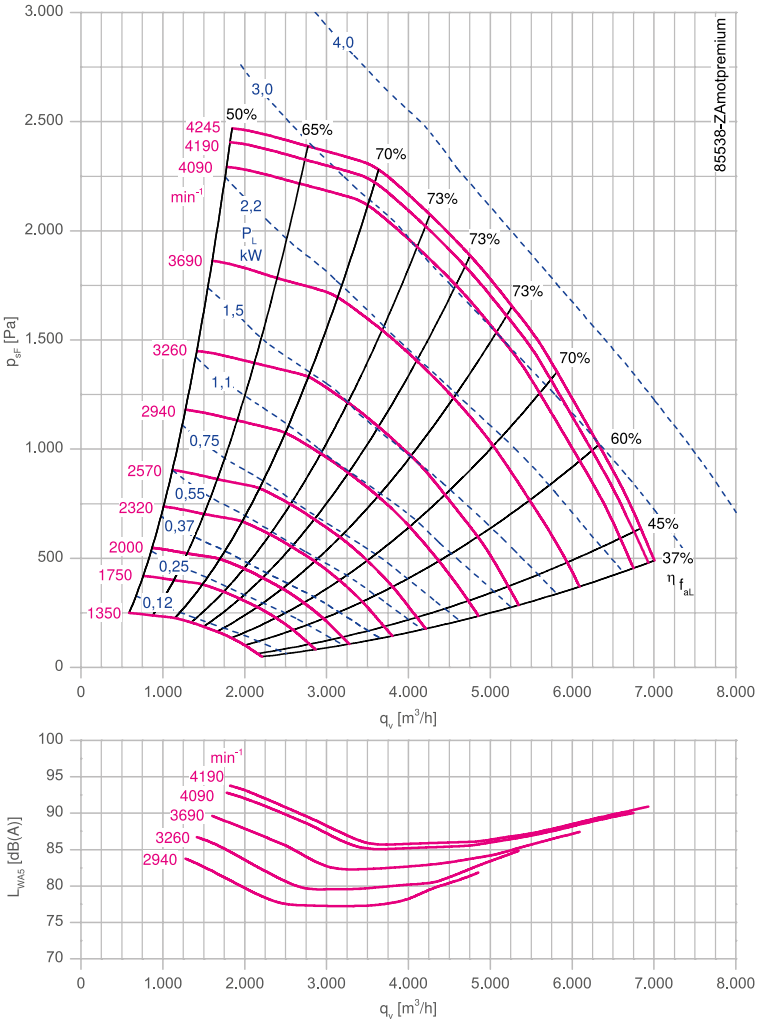
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

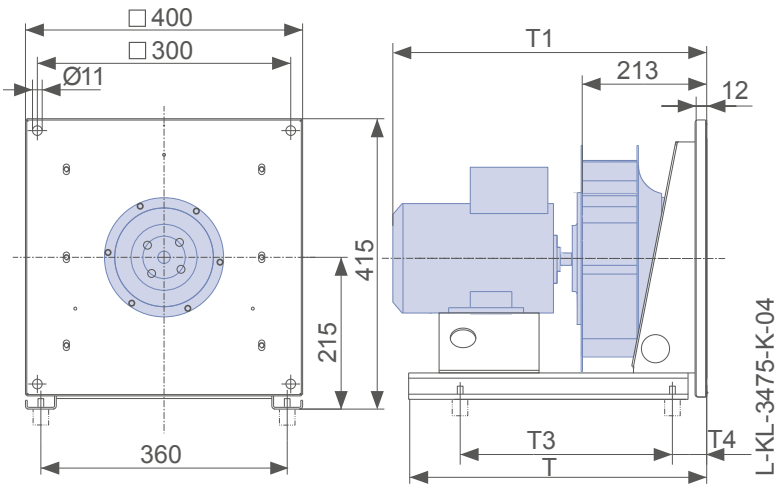
Nozzle coefficients

Standard k	95
With guard grille k_g	91

Characteristic curve



Dimensions mm



Cpro-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER31C-2DN.B7.CR**	**130599/2101**	080M	79.6	2.40	2830	2940	52	59.6	68.4
1.5	**ER31C-2DN.C7.CR**	**130600/2101**	090S/L	81.3	3.20	2880	3230	56	60.9	68.6
2.2	**ER31C-2DN.D7.CR**	**130601/2101**	090L/S	83.2	4.40	2880	3690	64	62.3	68.2
3.00	**ER31C-2DN.E7.CR**	**130602/2101**	100L	84.6	6.10	2905	4070	70	63.3	68.0
4.00	**ER31C-2DN.F7.CR**	**130603/2101**	112M	85.8	7.90	2945	4180	71	64.2	68.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER31C-2DN.B7.CR**	23.00	460	489	368	60	00406513	00411570	02021196	00090144	308228
1.5	**ER31C-2DN.C7.CR**	28.00	570	518	470	47	00406513	00411570	02021196	00090144	308230
2.2	**ER31C-2DN.D7.CR**	28.00	570	534	419	60	00406513	00411570	02021197	00090144	308232
3.00	**ER31C-2DN.E7.CR**	35.00	570	572	446	75	00406513	00411570	02021197	00090144	308234
4.00	**ER31C-2DN.F7.CR**	41.00	570	566	437	106	00406513	00411570	02021197	00090144	308236

Cpro-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER31C-2DN.B7.CR**	**130599/2141**	080M	82.7	2.20	2885	2940	51	61.9	70.9
1.5	**ER31C-2DN.C7.CR**	**130600/2141**	090S/L	84.2	3.00	2910	3260	56	63.0	70.7
2.2	**ER31C-2DN.D7.CR**	**130601/2141**	090L/S	85.9	4.20	2910	3680	63	64.3	70.4
3.00	**ER31C-2DN.E7.CR**	**130602/2141**	100L	87.1	5.60	2920	4090	70	65.2	69.9
4.00	**ER31C-2DN.F7.CR**	**130603/2141**	112M	88.1	7.30	2945	4190	71	65.9	70.4

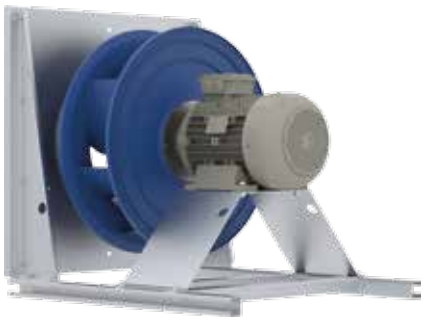
* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER31C-2DN.B7.CR**	24.00	460	524	364	60	00406513	00411570	02021196	00090144	308228
1.5	**ER31C-2DN.C7.CR**	28.00	570	534	419	60	00406513	00411570	02021196	00090144	308230
2.2	**ER31C-2DN.D7.CR**	32.00	570	559	472	60	00406513	00411570	02021197	00090144	308232
3.00	**ER31C-2DN.E7.CR**	40.00	570	607	472	60	00406513	00411570	02021197	00090144	308234
4.00	**ER31C-2DN.F7.CR**	48.00	570	591	472	60	00406513	00411570	02021197	00090144	308236

Plug fan Cpro

ER35Cpro

Motor ZAmotpremium IE2 and IE3



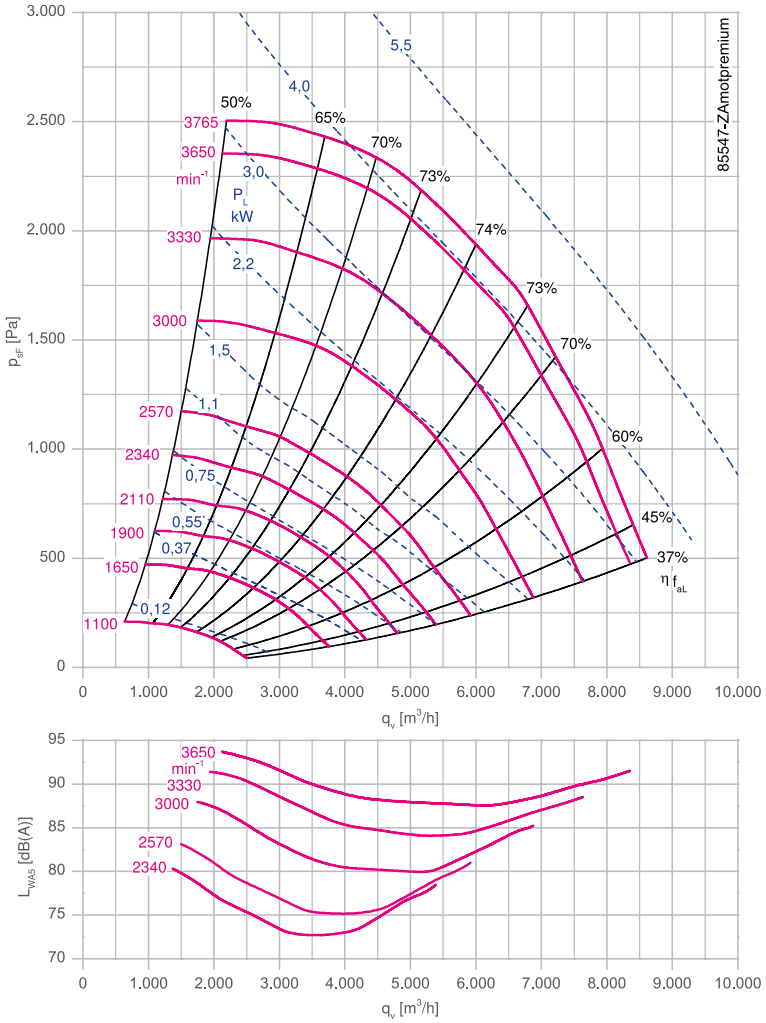
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

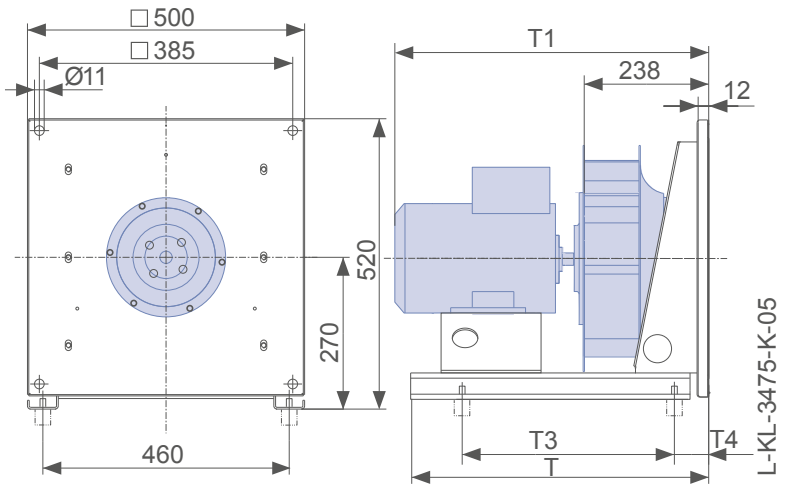
Nozzle coefficients

Standard k	121
With guard grille k_g	116

Characteristic curve



Dimensions mm



Cpro-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER35C-4DN.C7.CR**	**131399/2101**	090S/L	81.4	2.50	1425	2340	82	61.8	71.2
1.5	**ER35C-4DN.D7.CR**	**130595/2101**	090L/S	82.8	3.30	1435	2550	89	62.9	71.2
2.2	**ER35C-2DN.D7.CR**	**130596/2101**	090L/S	83.2	4.40	2880	3000	52	63.2	69.3
3.00	**ER35C-2DN.E7.CR**	**130597/2101**	100L	84.6	6.10	2905	3310	56	64.3	69.1
4.00	**ER35C-2DN.F7.CR**	**130598/2101**	112M	85.8	7.90	2945	3650	62	65.2	68.7

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER35C-4DN.C7.CR**	30.00	570	556	315	115	00406514	00411571	02021197	00090144	308228
1.5	**ER35C-4DN.D7.CR**	33.00	570	556	315	115	00406514	00411571	02021197	00090144	308230
2.2	**ER35C-2DN.D7.CR**	32.00	570	556	315	115	00406514	00411571	02021198	00090144	308232
3.00	**ER35C-2DN.E7.CR**	39.00	570	595	444	99	00406514	00411571	02021198	00090144	308234
4.00	**ER35C-2DN.F7.CR**	45.00	570	588	429	114	00406514	00411571	02021198	00090144	308236

Cpro-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER35C-4DN.C7.CR**	**131399/2141**	090S/L	84.1	2.40	1440	2330	81	63.9	73.5
1.5	**ER35C-4DN.D7.CR**	**130595/2141**	090L/S	85.3	3.20	1445	2570	89	64.9	73.2
2.2	**ER35C-2DN.D7.CR**	**130596/2141**	090L/S	85.9	4.20	2910	2980	51	65.3	71.6
3.00	**ER35C-2DN.E7.CR**	**130597/2141**	100L	87.1	5.60	2920	3330	57	66.2	71.1
4.00	**ER35C-2DN.F7.CR**	**130598/2141**	112M	88.1	7.30	2945	3650	62	67.0	70.6

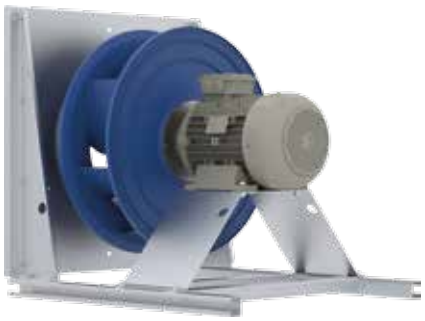
* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER35C-4DN.C7.CR**	33.00	570	556	312	115	00406514	00411571	02021197	00090144	308228
1.5	**ER35C-4DN.D7.CR**	36.00	570	581	364	115	00406514	00411571	02021197	00090144	308230
2.2	**ER35C-2DN.D7.CR**	36.00	570	581	364	115	00406514	00411571	02021198	00090144	308232
3.00	**ER35C-2DN.E7.CR**	44.00	570	630	417	115	00406514	00411571	02021198	00090144	308234
4.00	**ER35C-2DN.F7.CR**	52.00	570	613	417	115	00406514	00411571	02021198	00090144	308236

Plug fan Cpro

ER40Cpro

Motor ZAmotpremium IE2 and IE3



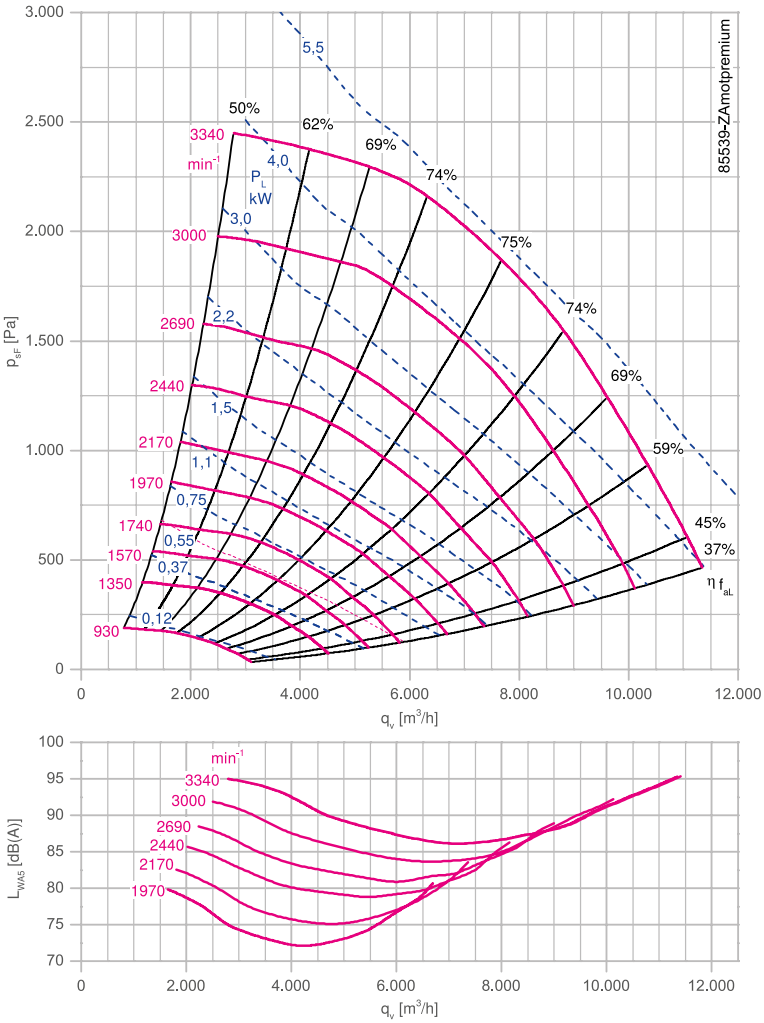
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

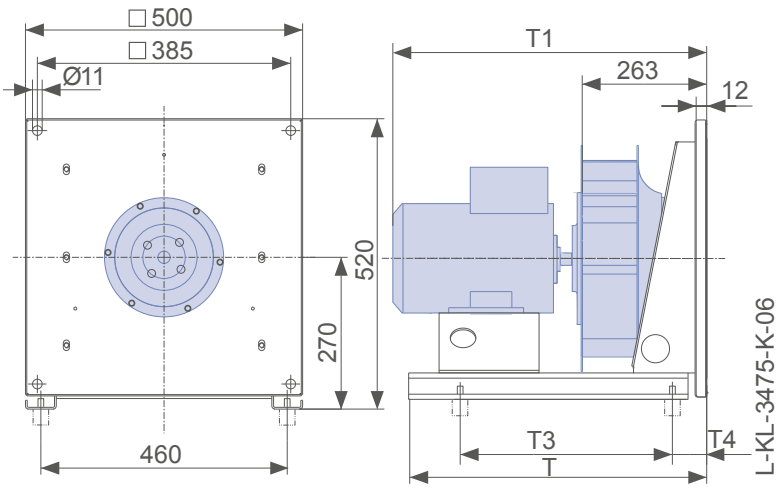
Nozzle coefficients

Standard k	154
With guard grille k_g	148

Characteristic curve



Dimensions mm



Cpro-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	ER40C-4DN.C7.CR	130589/2101	090S/L	81.4	2.50	1425	1970	69	62.6	71.7
1.5	ER40C-4DN.D7.CR	130590/2101	090L/S	82.8	3.30	1435	2150	75	63.6	71.6
2.2	ER40C-4DN.E7.CR	130591/2101	100L	84.3	4.60	1455	2440	84	64.8	71.1
3.00	ER40C-4DN.E7.CR	130592/2101	100L	85.5	6.20	1455	2680	92	65.7	70.8
4.00	ER40C-2DN.F7.CR	130593/2101	112M	85.8	7.90	2945	3000	50	66.0	69.6
5.5	ER40C-2DN.G7.CR	130594/2101	132S/M	87.0	10.40	2950	3340	57	66.9	69.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	ER40C-4DN.C7.CR	32.00	570	583	315	115	00406514	00411572	02021197	00090144	308228
1.5	ER40C-4DN.D7.CR	35.00	570	583	368	115	00406514	00411572	02021197	00090144	308230
2.2	ER40C-4DN.E7.CR	41.00	570	622	416	127	00406514	00411572	02021197	00090144	308232
3.00	ER40C-4DN.E7.CR	45.00	570	622	396	147	00406514	00411572	02021198	00090144	308234
4.00	ER40C-2DN.F7.CR	48.00	720	602	520	70	00406514	00411572	02021198	00090144	308236
5.5	ER40C-2DN.G7.CR	63.00	720	663	578	71	00406514	00411572	02021198	00090144	308265

Cpro-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	ER40C-4DN.C7.CR	130589/2141	090S/L	84.1	2.40	1440	1960	68	64.7	74.0
1.5	ER40C-4DN.D7.CR	130590/2141	090L/S	85.3	3.20	1445	2170	75	65.6	73.6
2.2	ER40C-4DN.E7.CR	130591/2141	100L	86.7	4.40	1465	2430	83	66.6	73.1
3.00	ER40C-4DN.E7.CR	130592/2141	100L	87.7	5.90	1460	2690	92	67.4	72.6
4.00	ER40C-2DN.F7.CR	130593/2141	112M	88.1	7.30	2945	3000	50	67.7	71.4
5.5	ER40C-2DN.G7.CR	130594/2141	132S/M	89.2	9.90	2950	3340	57	68.6	70.9

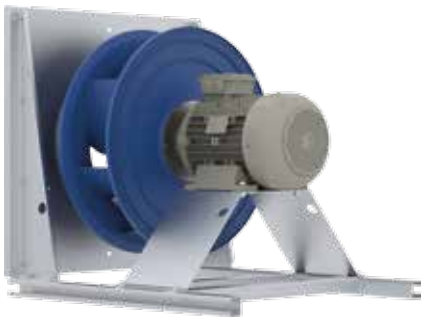
* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	ER40C-4DN.C7.CR	35.00	570	583	364	115	00406514	00411572	02021197	00090144	308228
1.5	ER40C-4DN.D7.CR	38.00	570	608	364	115	00406514	00411572	02021197	00090144	308230
2.2	ER40C-4DN.E7.CR	50.00	570	622	417	115	00406514	00411572	02021197	00090144	308232
3.00	ER40C-4DN.E7.CR	50.00	570	657	417	115	00406514	00411572	02021198	00090144	308234
4.00	ER40C-2DN.F7.CR	55.00	720	640	465	115	00406514	00411572	02021198	00090144	308236
5.5	ER40C-2DN.G7.CR	65.90	720	676	518	115	00406514	00411572	02021198	00090144	308265

Plug fan Cpro

ER45Cpro

Motor ZAmotpremium IE2 and IE3



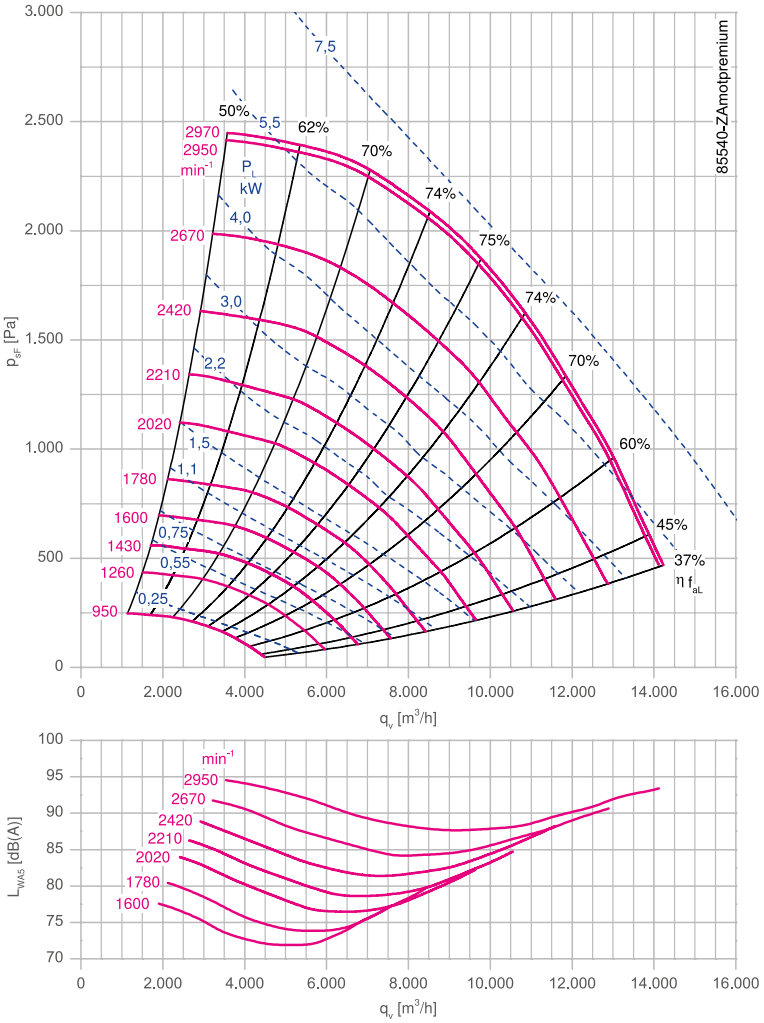
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

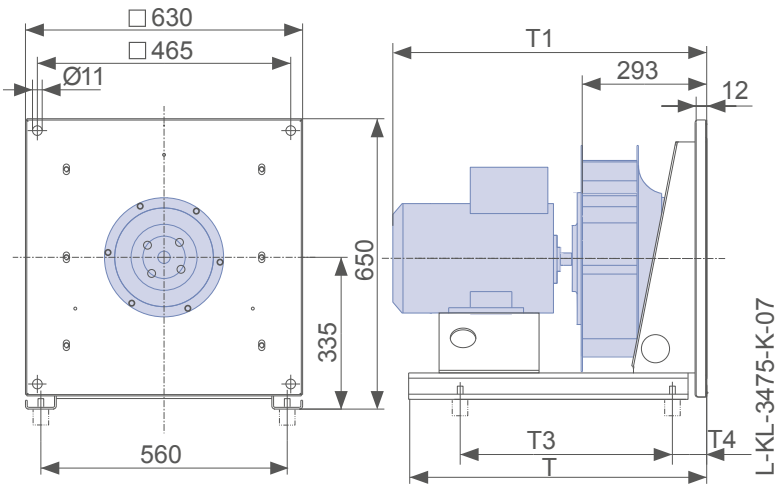
Nozzle coefficients

Standard k	197
With guard grille k_g	189

Characteristic curve



Dimensions mm



Cpro-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	ER45C-4DN.C7.CR	130582/2101	090S/L	81.4	2.50	1425	1600	56	62.5	71.7
1.5	ER45C-4DN.D7.CR	130583/2101	090L/S	82.8	3.30	1435	1780	62	63.6	71.4
2.2	ER45C-4DN.E7.CR	130584/2101	100L	84.3	4.60	1455	2010	69	64.7	71.0
3.00	ER45C-4DN.E7.CR	130585/2101	100L	85.5	6.20	1455	2210	76	65.7	70.7
4.00	ER45C-4DN.F7.CR	130586/2101	112M	86.6	8.20	1460	2420	83	66.5	70.3
5.5	ER45C-4DN.G7.CR	130587/2101	132S/M	87.7	11.40	1465	2670	91	67.3	69.9
7.5	ER45C-2DN.G7.CR	130588/2101	132S/M	88.1	14.20	2950	2950	50	67.6	68.8

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	ER45C-4DN.C7.CR	41.00	570	618	315	115	00406515	00411573	02021197	00090144	308228
1.5	ER45C-4DN.D7.CR	44.00	570	618	368	115	00406515	00411573	02021197	00090144	308230
2.2	ER45C-4DN.E7.CR	50.00	570	656	384	147	00406515	00411573	02021198	00090144	308232
3.00	ER45C-4DN.E7.CR	54.00	570	656	388	155	00406515	00411573	02021198	02000124	308234
4.00	ER45C-4DN.F7.CR	59.00	720	650	626	47	00406515	00411573	02021198	02000124	308236
5.5	ER45C-4DN.G7.CR	72.00	720	706	602	91	00406515	00411573	02021198	02000124	308265
7.5	ER45C-2DN.G7.CR	74.00	720	706	602	91	00406515	00411573	02021199	02000124	308267

Cpro-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	ER45C-4DN.C7.CR	130582/2141	090S/L	84.1	2.40	1440	1580	55	64.6	74.1
1.5	ER45C-4DN.D7.CR	130583/2141	090L/S	85.3	3.20	1445	1760	61	65.5	73.6
2.2	ER45C-4DN.E7.CR	130584/2141	100L	86.7	4.40	1465	2020	69	66.6	72.9
3.00	ER45C-4DN.E7.CR	130585/2141	100L	87.7	5.90	1460	2190	75	67.3	72.6
4.00	ER45C-4DN.F7.CR	130586/2141	112M	88.6	7.90	1460	2420	83	68.0	72.0
5.5	ER45C-4DN.G7.CR	130587/2141	132S	89.6	10.50	1470	2650	90	68.8	71.6
7.5	ER45C-2DN.G7.CR	130588/2141	132S	90.1	13.10	2950	2950	50	69.2	70.5

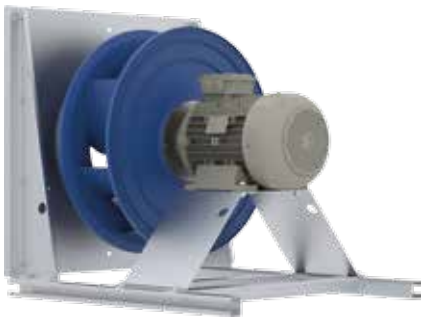
* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	ER45C-4DN.C7.CR	44.00	570	618	364	115	00406515	00411573	02021197	00090144	308228
1.5	ER45C-4DN.D7.CR	47.00	570	643	364	115	00406515	00411573	02021197	00090144	308230
2.2	ER45C-4DN.E7.CR	59.00	570	656	417	115	00406515	00411573	02021198	00090144	308232
3.00	ER45C-4DN.E7.CR	59.00	570	691	417	115	00406515	00411573	02021198	02000124	308234
4.00	ER45C-4DN.F7.CR	64.00	720	675	465	115	00406515	00411573	02021198	02000124	308236
5.5	ER45C-4DN.G7.CR	95.00	720	706	570	115	00406515	00411573	02021198	02000124	308265
7.5	ER45C-2DN.G7.CR	88.00	720	756	570	115	00406515	00411573	02021199	02000124	308267

Plug fan Cpro

ER50Cpro

Motor ZAmotpremium IE2 and IE3



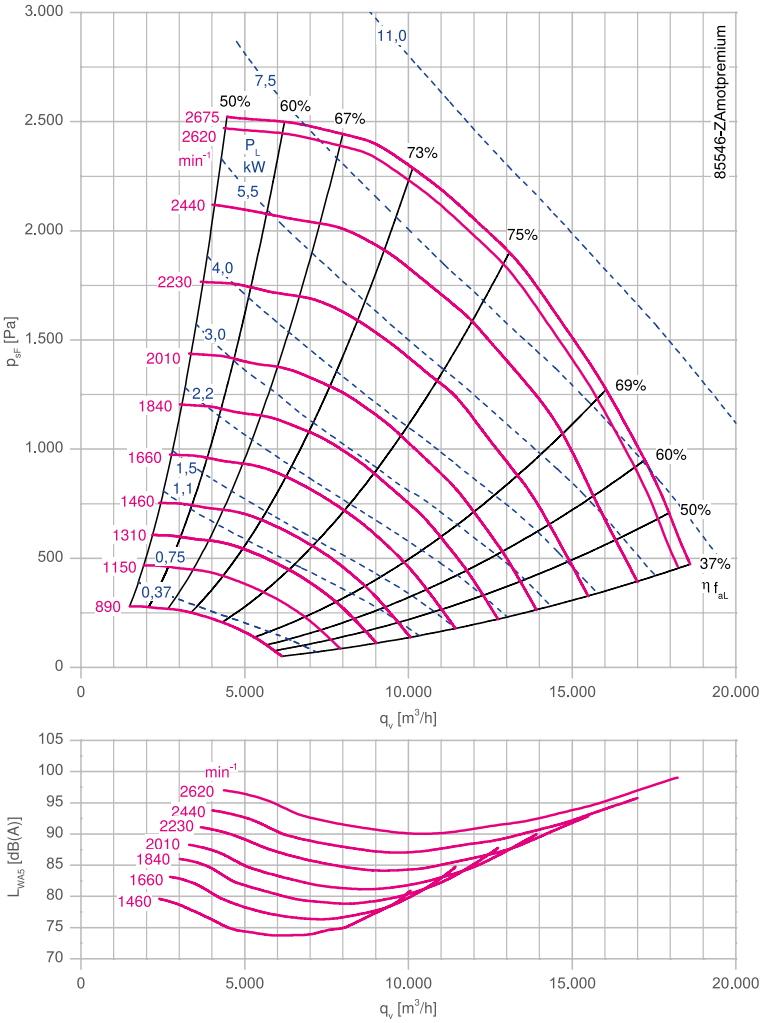
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

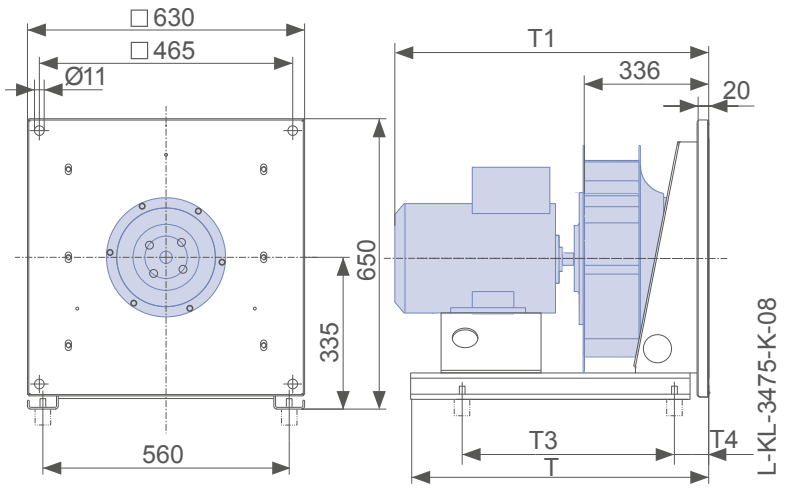
Nozzle coefficients

Standard k	252
With guard grille k_g	242

Characteristic curve



Dimensions mm



Cpro-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER50C-4DN.D7.CR	130575/2101	090L/S	82.8	3.30	1435	1460	51	63.5	71.3
2.2	ER50C-4DN.E7.CR	130576/2101	100L	84.3	4.60	1455	1660	57	64.7	70.9
3.00	ER50C-4DN.E7.CR	130577/2101	100L	85.5	6.20	1455	1830	63	65.6	70.5
4.00	ER50C-4DN.F7.CR	130578/2101	112M	86.6	8.20	1460	2010	69	66.4	70.1
5.5	ER50C-4DN.G7.CR	130579/2101	132S/M	87.7	11.30	1465	2230	76	67.3	69.6
7.5	ER50C-4DN.H7.CR	130580/2101	132M/S	88.7	14.80	1465	2430	83	68.1	69.3
11.00	ER50C-4DN.I7.CR	130581/2101	160M/L	89.8	21.00	1470	2620	89	68.9	69.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER50C-4DN.D7.CR	47.00	728	660	420	115	00406515	00411574	02021198	00090144	308230
2.2	ER50C-4DN.E7.CR	53.00	728	699	635	55	00406515	00411574	02021198	00090144	308232
3.00	ER50C-4DN.E7.CR	57.00	728	699	639	62	00406515	00411574	02021198	00090144	308234
4.00	ER50C-4DN.F7.CR	61.00	728	692	627	74	00406515	00411574	02021198	02000124	308236
5.5	ER50C-4DN.G7.CR	74.00	728	748	542	151	00406515	00411574	02021199	02000124	308265
7.5	ER50C-4DN.H7.CR	82.00	728	748	482	204	00406515	00411574	02021199	02000124	308267
11.00	ER50C-4DN.I7.CR	110.00	888	857	684	177	00406515	00411574	02021199	02000124	308323

Cpro-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER50C-4DN.D7.CR	130575/2141	090L/S	85.3	3.20	1445	1450	50	65.5	73.6
2.2	ER50C-4DN.E7.CR	130576/2141	100L	86.7	4.40	1465	1640	56	66.5	72.9
3.00	ER50C-4DN.E7.CR	130577/2141	100L	87.7	5.90	1460	1840	63	67.2	72.1
4.00	ER50C-4DN.F7.CR	130578/2141	112M	88.6	7.90	1460	2010	69	68.0	71.8
5.5	ER50C-4DN.G7.CR	130579/2141	132S	89.6	10.50	1470	2210	75	68.7	71.2
7.5	ER50C-4DN.H7.CR	130580/2141	132M	90.4	14.30	1470	2440	83	69.3	70.5
11.00	ER50C-4DN.I7.CR	130581/2141	160M/L	91.4	20.50	1475	2600	88	70.1	70.5

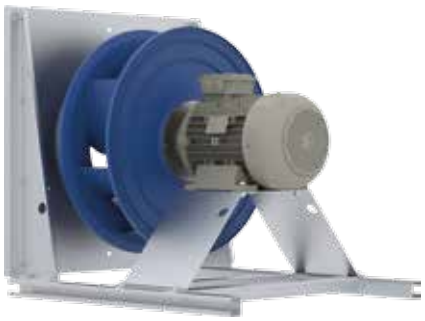
* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER50C-4DN.D7.CR	50.00	728	685	421	115	00406515	00411574	02021198	00090144	308230
2.2	ER50C-4DN.E7.CR	62.00	728	699	526	115	00406515	00411574	02021198	00090144	308232
3.00	ER50C-4DN.E7.CR	62.00	728	734	526	115	00406515	00411574	02021198	00090144	308234
4.00	ER50C-4DN.F7.CR	66.00	728	717	526	115	00406515	00411574	02021198	02000124	308236
5.5	ER50C-4DN.G7.CR	97.00	728	748	578	115	00406515	00411574	02021199	02000124	308265
7.5	ER50C-4DN.H7.CR	97.00	728	798	578	115	00406515	00411574	02021199	02000124	308267
11.00	ER50C-4DN.I7.CR	122.00	888	857	737	115	00406515	00411574	02021199	02000124	308323

Plug fan Cpro

ER56Cpro

Motor ZAmotpremium IE2 and IE3



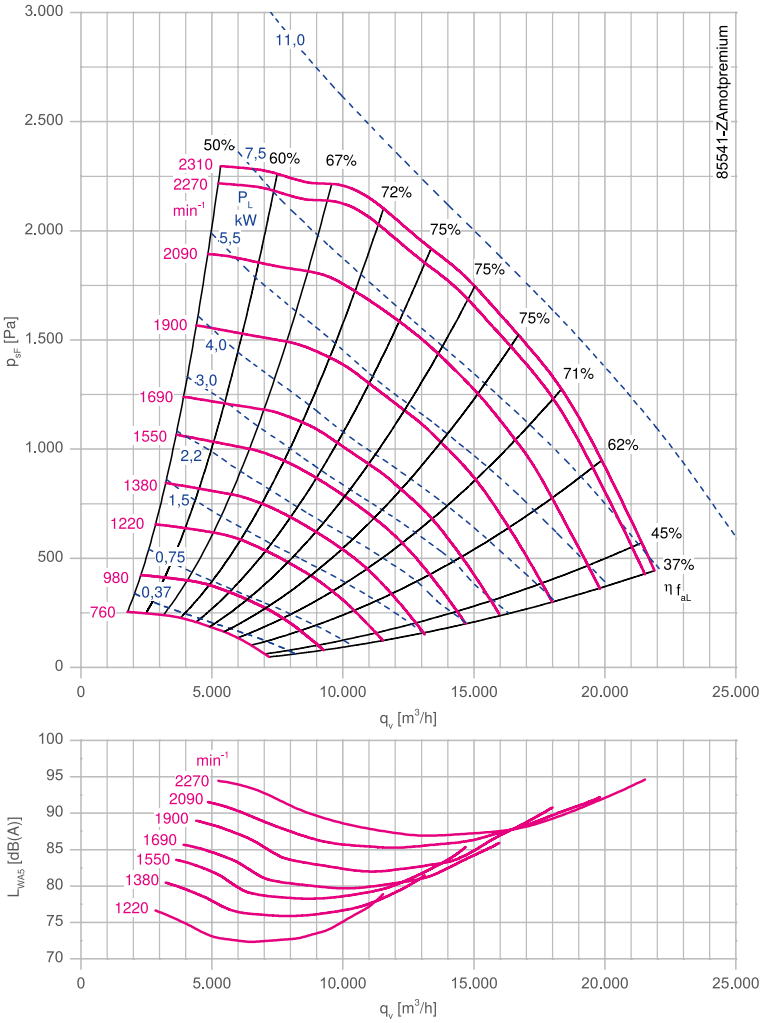
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

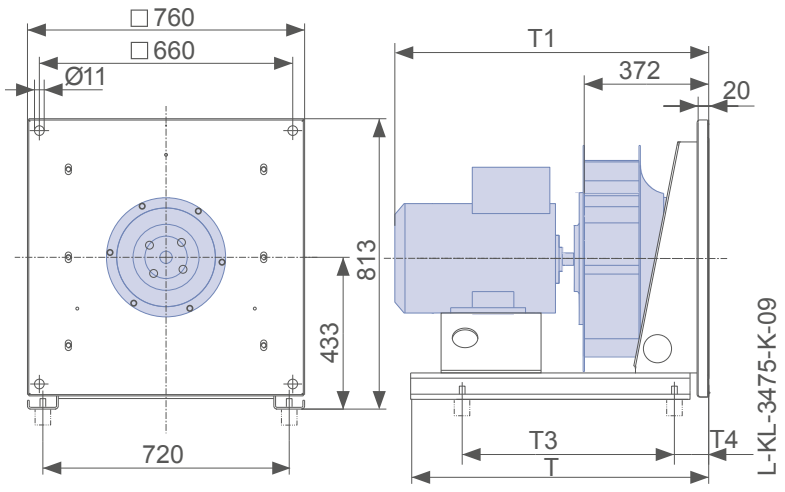
Nozzle coefficients

Standard k	308
With guard grille k_g	295

Characteristic curve



Dimensions mm



Cpro-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER56C-6DN.E7.CR	130568/2101	100L	79.8	3.70	970	1220	63	61.3	69.1
2.2	ER56C-4DN.E7.CR	130569/2101	100L	84.3	4.60	1455	1370	47	64.8	71.3
3.00	ER56C-4DN.E7.CR	130570/2101	100L	85.5	6.20	1455	1540	53	65.8	70.7
4.00	ER56C-4DN.F7.CR	130571/2101	112M	86.6	8.20	1460	1690	58	66.6	70.3
5.5	ER56C-4DN.G7.CR	130572/2101	132S/M	87.7	11.40	1465	1900	65	67.4	69.6
7.5	ER56C-4DN.H7.CR	163660/2101	132M/S	88.7	14.80	1465	2080	71	68.2	69.2
11.00	ER56C-4DN.I7.CR	163661/2101	160M/L	89.8	21.00	1470	2260	77	69.0	69.0

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER56C-6DN.E7.CR	67.00	720	734	473	115	00405986	00411644	02021198	00090144	308232
2.2	ER56C-4DN.E7.CR	63.00	720	734	645	48	00405986	00411644	02021198	00090144	308232
3.00	ER56C-4DN.E7.CR	67.00	720	734	621	72	00405986	00411644	02021199	02000124	308234
4.00	ER56C-4DN.F7.CR	71.00	720	728	599	91	00405986	00411644	02021199	02000124	308236
5.5	ER56C-4DN.G7.CR	86.00	880	784	757	51	00405986	00411644	02021199	02000124	308265
7.5	ER56C-4DN.H7.CR	94.00	880	784	624	115	00405986	00411644	02018876	02020907	308267
11.00	ER56C-4DN.I7.CR	122.00	880	893	729	115	00405986	00411644	02018876	02020907	308323

Cpro-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER56C-6DN.E7.CR	130568/2141	100L	82.5	3.05	970	1220	63	63.4	71.3
2.2	ER56C-4DN.E7.CR	130569/2141	100L	86.7	4.40	1465	1380	47	66.6	73.1
3.00	ER56C-4DN.E7.CR	130570/2141	100L	87.7	5.90	1460	1550	53	67.4	72.4
4.00	ER56C-4DN.F7.CR	130571/2141	112M	88.6	7.90	1460	1690	58	68.1	71.9
5.5	ER56C-4DN.G7.CR	130572/2141	132S	89.6	10.50	1470	1880	64	68.9	71.3
7.5	ER56C-4DN.H7.CR	163660/2141	132M	90.4	14.30	1470	2090	71	69.5	70.5
11.00	ER56C-4DN.I7.CR	163661/2141	160M/L	91.4	20.50	1475	2270	77	70.3	70.3

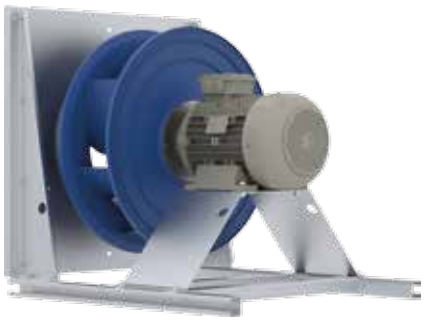
* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER56C-6DN.E7.CR	72.00	720	769	518	115	00405986	00411644	02021198	00090144	308230
2.2	ER56C-4DN.E7.CR	72.00	720	734	518	115	00405986	00411644	02021198	00090144	308232
3.00	ER56C-4DN.E7.CR	72.00	720	769	518	115	00405986	00411644	02021199	02000124	308234
4.00	ER56C-4DN.F7.CR	76.00	720	753	570	115	00405986	00411644	02021199	02000124	308236
5.5	ER56C-4DN.G7.CR	109.00	880	784	677	115	00405986	00411644	02021199	02000124	308265
7.5	ER56C-4DN.H7.CR	109.00	880	834	677	115	00405986	00411644	02018876	02020907	308267
11.00	ER56C-4DN.I7.CR	134.00	880	893	729	115	00405986	00411644	02018876	02020907	308323

Plug fan Cpro

ER63Cpro

Motor ZAmotpremium IE2 and IE3



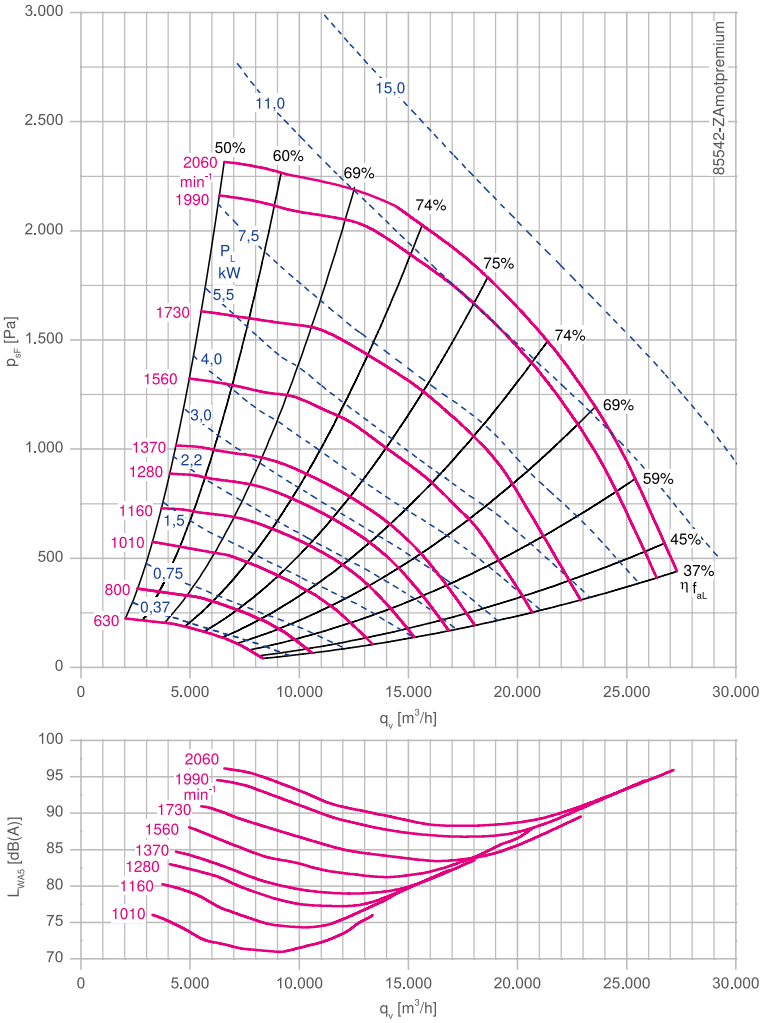
Description

Plug fan with high performance centrifugal impeller
Impeller made of ZAmid unpainted like RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

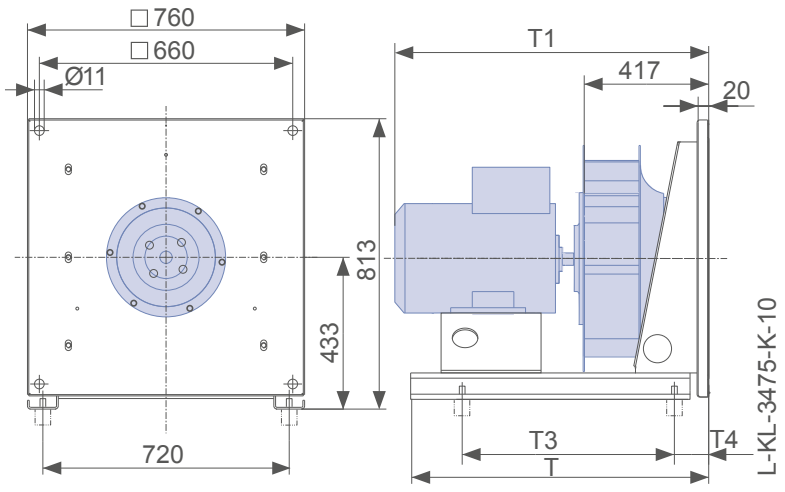
Nozzle coefficients

Standard k	381
With guard grille k_g	365

Characteristic curve



Dimensions mm



Cpro-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER63C-6DN.E7.CR	130560/2101	100L	79.8	3.70	970	1010	52	61.2	68.9
2.2	ER63C-6DN.F7.CR	130561/2101	112M	81.8	5.20	965	1160	60	62.8	68.7
3.00	ER63C-6DN.G7.CR	130562/2101	132S	83.3	7.00	970	1280	66	63.9	68.6
4.00	ER63C-4DN.F7.CR	130563/2101	112M	86.6	8.20	1460	1370	47	66.5	70.4
5.5	ER63C-4DN.G7.CR	130564/2101	132S/M	87.7	11.40	1465	1550	53	67.3	69.6
7.5	ER63C-4DN.H7.CR	130565/2101	132M/S	88.7	14.80	1465	1730	59	68.1	68.9
11.00	ER63C-4DN.I7.CR	163662/2101	160M/L	89.8	21.00	1470	1970	67	68.9	68.8
15.00	ER63C-4DN.K7.CR	163663/2101	160L/M	90.6	28.00	1475	2060	70	69.5	69.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

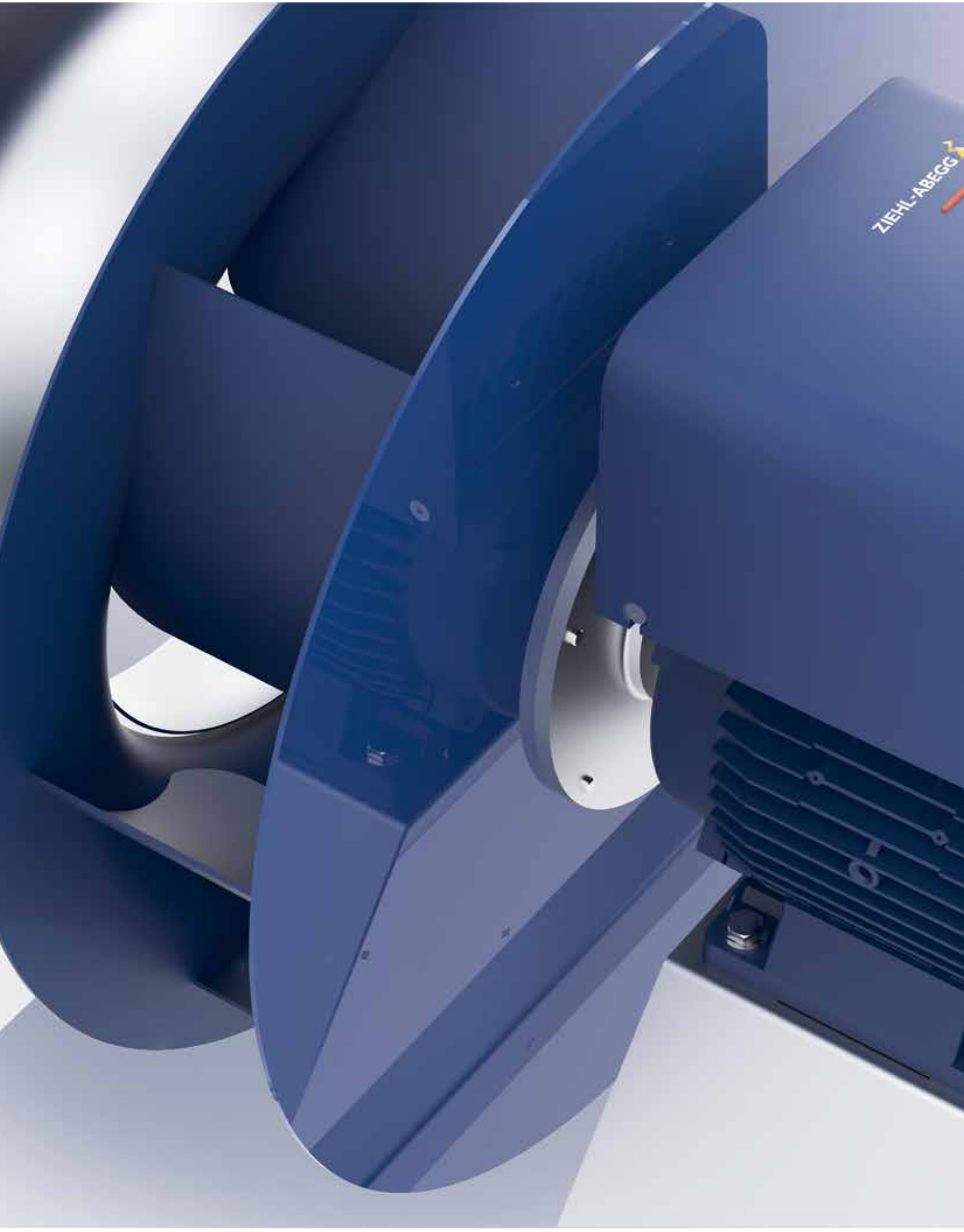
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER63C-6DN.E7.CR	75.00	720	774	578	115	00405986	00411645	02021198	00090144	308232
2.2	ER63C-6DN.F7.CR	79.00	720	768	578	115	00405986	00411645	02021198	00090144	308234
3.00	ER63C-6DN.G7.CR	91.00	880	824	749	59	00405986	00411645	02021199	02000124	308234
4.00	ER63C-4DN.F7.CR	79.00	720	768	543	143	00405986	00411645	02021199	02000124	308236
5.5	ER63C-4DN.G7.CR	94.00	880	824	803	50	00405986	00411645	02021199	02000124	308265
7.5	ER63C-4DN.H7.CR	102.00	880	824	757	96	00405986	00411645	02021199	02020907	308267
11.00	ER63C-4DN.I7.CR	130.00	880	933	729	115	00405986	00411645	02018876	02020907	308323
15.00	ER63C-4DN.K7.CR	142.00	880	933	729	115	00405986	00411645	02018876	02020907	308325

Cpro-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER63C-6DN.E7.CR	130560/2141	100L	82.5	3.05	970	1010	52	63.3	71.2
2.2	ER63C-6DN.F7.CR	130561/2141	112M	84.3	4.75	970	1140	59	64.7	71.0
3.00	ER63C-6DN.G7.CR	130562/2141	132S	85.6	6.60	975	1280	66	65.7	70.5
4.00	ER63C-4DN.F7.CR	130563/2141	112M	88.6	7.90	1460	1370	47	68.0	72.0
5.5	ER63C-4DN.G7.CR	130564/2141	132S	89.6	10.50	1470	1560	53	68.8	71.1
7.5	ER63C-4DN.H7.CR	130565/2141	132M	90.4	14.30	1470	1730	59	69.4	70.3
11.00	ER63C-4DN.I7.CR	163662/2141	160M/L	91.4	20.50	1475	1990	67	70.2	70.1
15.00	ER63C-4DN.K7.CR	163663/2141	160L	92.1	28.50	1475	2060	70	70.7	70.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER63C-6DN.E7.CR	80.00	720	809	570	115	00405986	00411645	02021198	00090144	308230
2.2	ER63C-6DN.F7.CR	79.00	720	793	570	115	00405986	00411645	02021198	00090144	308232
3.00	ER63C-6DN.G7.CR	95.00	880	824	677	115	00405986	00411645	02021199	02000124	308234
4.00	ER63C-4DN.F7.CR	84.00	720	793	570	115	00405986	00411645	02021199	02000124	308236
5.5	ER63C-4DN.G7.CR	117.00	880	824	729	115	00405986	00411645	02021199	02000124	308265
7.5	ER63C-4DN.H7.CR	117.00	880	874	729	115	00405986	00411645	02021199	02020907	308267
11.00	ER63C-4DN.I7.CR	142.00	880	933	729	115	00405986	00411645	02018876	02020907	308323
15.00	ER63C-4DN.K7.CR	159.00	880	933	729	115	00405986	00411645	02018876	02020907	308325


ZIEHL-ABEGG

Plug fan C

PMblue IE4 and AMblue IE3

Product overview

Size 400 Page 86

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Size 500 Page 90

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Plug fan C

ER40C

Motor PMblue IE4 and AMblue IE3

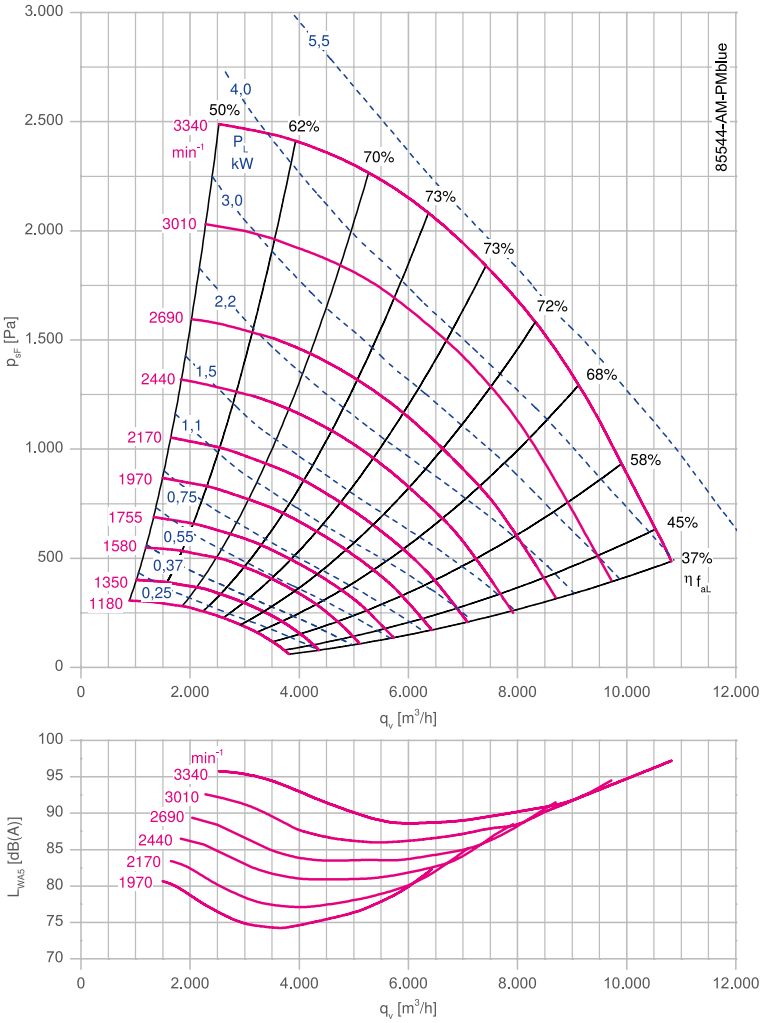
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

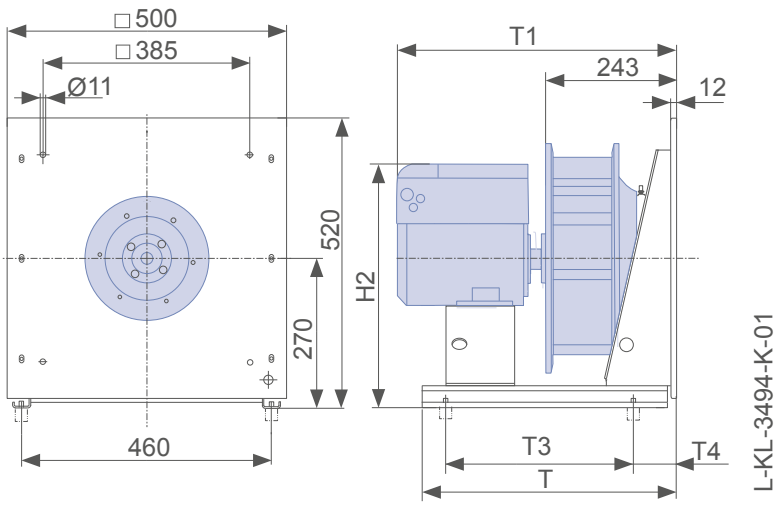
Nozzle coefficients

Standard k	154
With guard grille k_g	148

Characteristic curve



Dimensions mm



C-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.30	**ER40C-8IN.D7.1R**	**115617/0P61**	090L	92.2	9.20-7.20	3300	3340	5.80	69.0	71.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.30	**ER40C-8IN.D7.1R**	46.00	570	619	368	115	495	00406514	00411572	02021197	00090144

C-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER40C-2HN.G7.1R**	**130594/0A41**	132S	89.2	10.5-8.2	2930	3340	6.20	66.8	69.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	**ER40C-2HN.G7.1R**	78.00	720	673	525	115	535	00406514	00411572	02021198	00090144

Plug fan C

ER45C

Motor PMblue IE4 and AMblue IE3

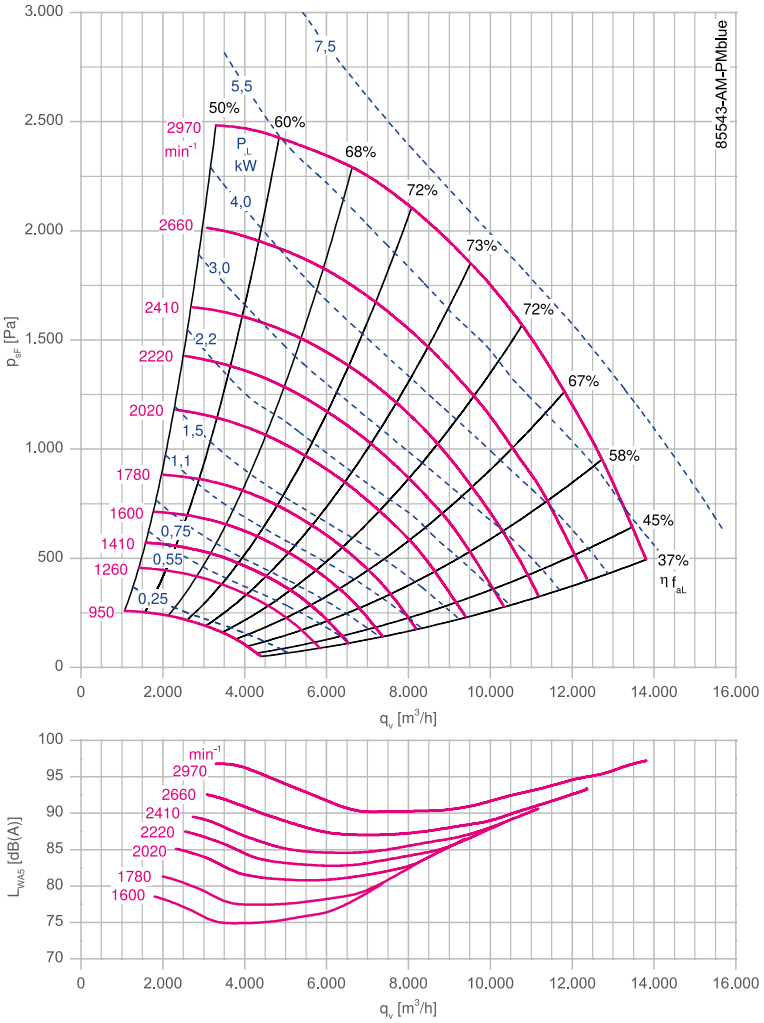
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

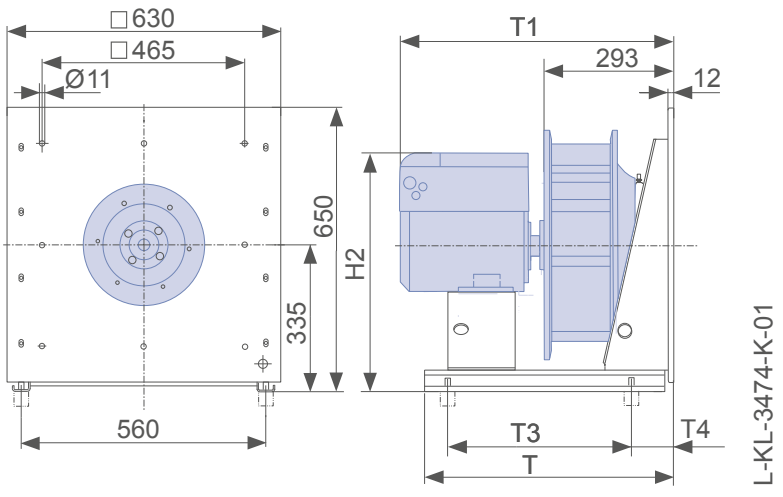
Nozzle coefficients

Standard k	197
With guard grille k_g	189

Characteristic curve



Dimensions mm



C-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.30	**ER45C-8IN.D7.1R**	**115618/0P61**	090L	92.3	8.80-7.00	2730	2660	5.40	69.5	72.4
6.91	**ER45C-6IN.F7.1R**	**115619/0P61**	112M	92.8	12.5-10.0	3000	2970	7.60	69.8	71.3

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.30	**ER45C-8IN.D7.1R**	57.00	570	653	368	115	560	00406515	00411573	02021198	02000124
6.91	**ER45C-6IN.F7.1R**	67.00	720	660	473	115	583	00406515	00411573	02021198	02000124

C-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER45C-4HN.G7.1R**	**130587/0A41**	132S	89.6	10.0-7.8	1460	2660	6.00	67.5	70.3
7.5	**ER45C-2HN.G7.1R**	**130588/0A41**	132S	90.1	15.0-12.0	2930	2970	8.00	67.8	69.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	**ER45C-4HN.G7.1R**	93.00	720	702	525	115	600	00406515	00411573	02021198	02000124
7.5	**ER45C-2HN.G7.1R**	92.00	720	702	525	115	600	00406515	00411573	02021199	02000124

Plug fan C

ER50C

Motor PMblue IE4 and AMblue IE3

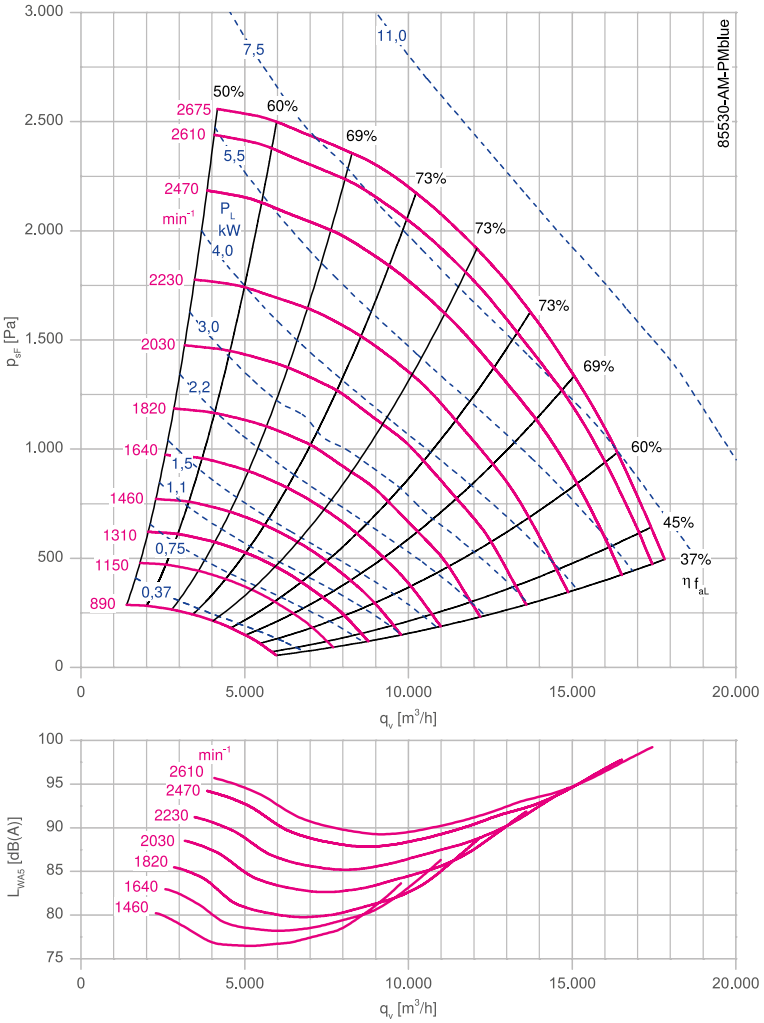
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

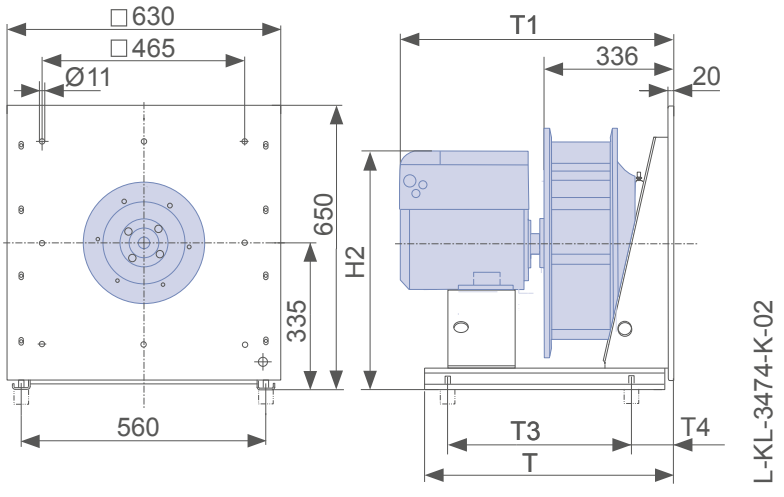
Nozzle coefficients

Standard k	252
With guard grille k_g	242

Characteristic curve



Dimensions mm



C-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.37	ER50C-6IN.F7.1R	115620/0P61	112M	91.8	9.40-7.40	2250	2230	5.80	68.9	71.5
7.36	ER50C-6IN.F7.1R	115621/0P61	112M	92.1	13.0-10.5	2500	2470	7.80	69.1	70.3
9.00	ER50C-6IN.F7.1R	115622/0P61	112M	92.0	16.0-12.5	2675	2610	9.40	69.0	69.5

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.37	ER50C-6IN.F7.1R	73.00	728	701	525	115	583	00406515	00411574	02021198	02000124
7.36	ER50C-6IN.F7.1R	76.00	728	701	525	115	583	00406515	00411574	02021198	02000124
9.00	ER50C-6IN.F7.1R	89.00	728	780	578	115	644	00406515	00411574	02021198	02000124

C-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	ER50C-4HN.G7.1R	130579/0A41	132S	89.6	10.0-8.2	1460	2230	6.20	67.2	69.7
7.5	ER50C-4HN.H7.1R	130580/0A41	132M	90.4	16.0-13.0	1460	2470	8.60	67.8	68.9
11.00	ER50C-4HN.I7.1R	130581/0A41	160M	91.4	18.5-15.0	1465	2610	10.00	68.6	69.0

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

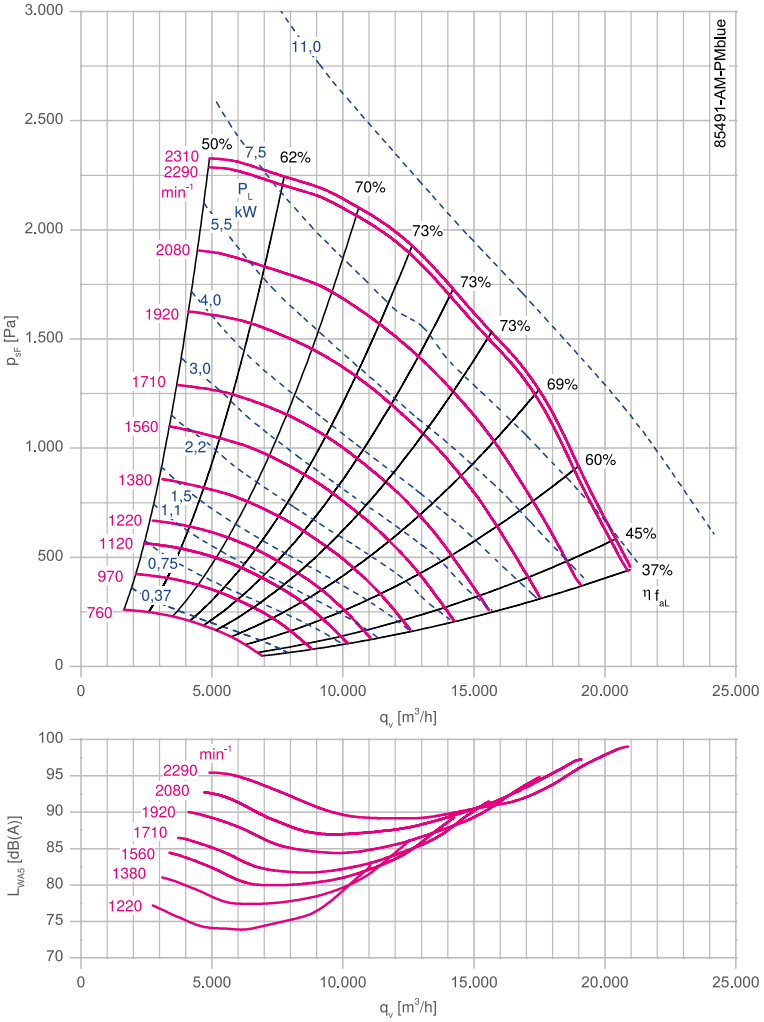
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	ER50C-4HN.G7.1R	98.00	728	743	578	115	600	00406515	00411574	02021198	02000124
7.5	ER50C-4HN.H7.1R	109.00	728	781	578	115	600	00406515	00411574	02021198	02000124
11.00	ER50C-4HN.I7.1R	188.00	888	846	735	115	699	00406515	00411574	02021199	02000124

Plug fan C

ER56C

Motor PMblue IE4 and AMblue IE3

Characteristic curve



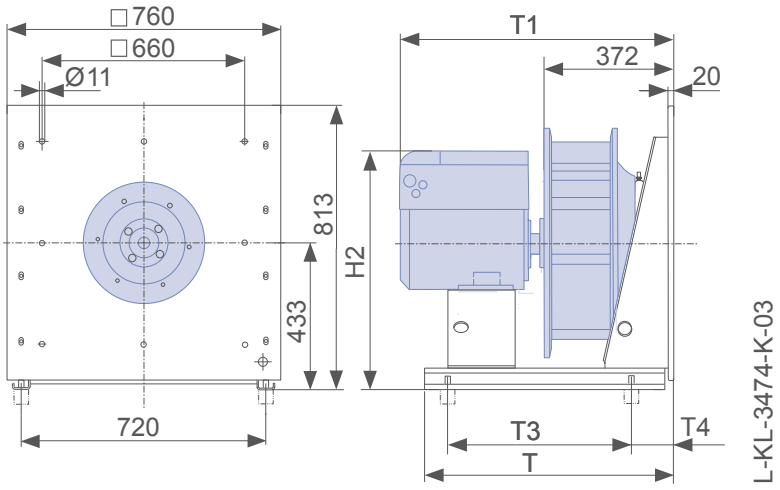
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

Nozzle coefficients

Standard k	308
With guard grille k_g	295

Dimensions mm



C-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.45	**ER56C-6IN.F7.1R**	**115623/0P61**	112M	91.8	9.80-7.80	1900	1920	6.00	68.6	70.9
7.37	**ER56C-6IN.F7.1R**	**115624/0P61**	112M	92.0	12.5-10.0	2100	2080	7.80	68.8	70.1
9.80	**ER56C-6IN.F7.1R**	**115625/0P61**	112M	92.5	17.5-14.0	2310	2290	10.00	69.1	69.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.45	**ER56C-6IN.F7.1R**	87.00	720	733	525	115	681	00405986	00411644	02021199	02000124
7.37	**ER56C-6IN.F7.1R**	87.00	720	733	525	115	681	00405986	00411644	02021199	02000124
9.80	**ER56C-6IN.F7.1R**	103.00	720	812	578	115	742	00405986	00411644	02018876	02020907

C-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER56C-4HN.G7.1R**	**130572/0A41**	132S	89.6	11.0-8.6	1460	1920	6.60	67.0	69.2
7.5	**ER56C-4HN.H7.1R**	**163660/0A41**	132M	90.4	16.0-12.5	1460	2080	8.40	67.6	68.8
11.00	**ER56C-4HN.I7.1R**	**163661/0A41**	160M	91.4	20.0-16.0	1465	2290	11.00	68.3	68.3

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	**ER56C-4HN.G7.1R**	111.00	880	775	630	115	698	00405986	00411644	02021199	02000124
7.5	**ER56C-4HN.H7.1R**	122.00	880	813	630	115	698	00405986	00411644	02018876	02000124
11.00	**ER56C-4HN.I7.1R**	202.00	880	878	735	115	797	00405986	00411644	02018876	02020907

Plug fan C

ER63C

Motor PMblue IE4 and AMblue IE3

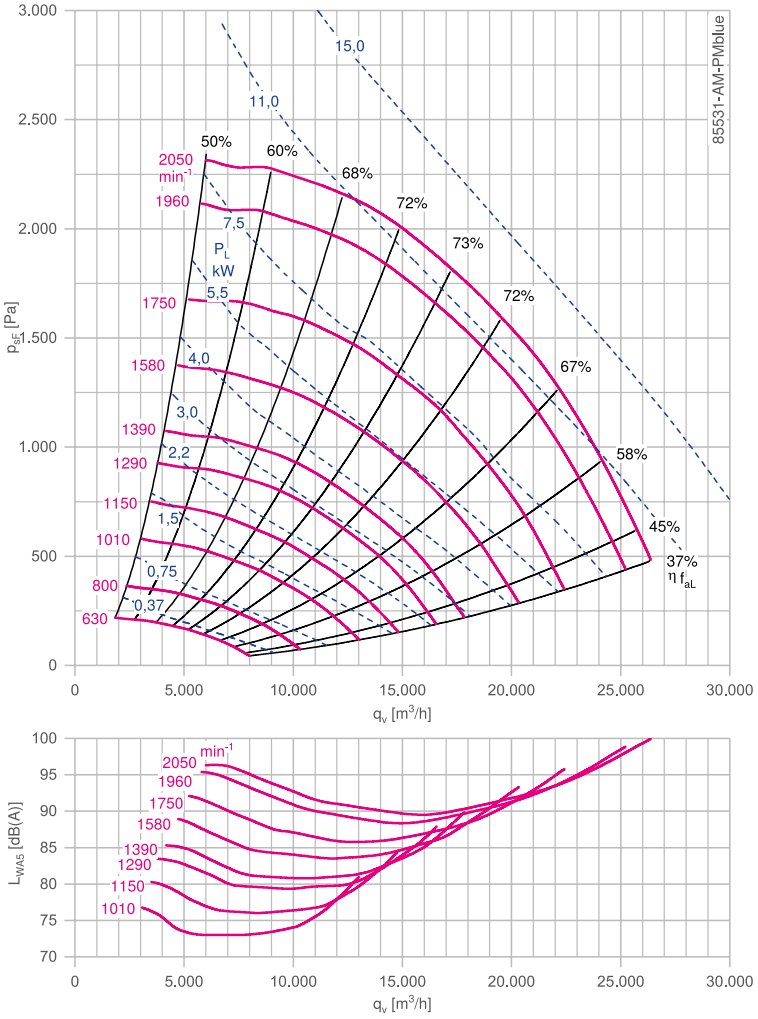
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

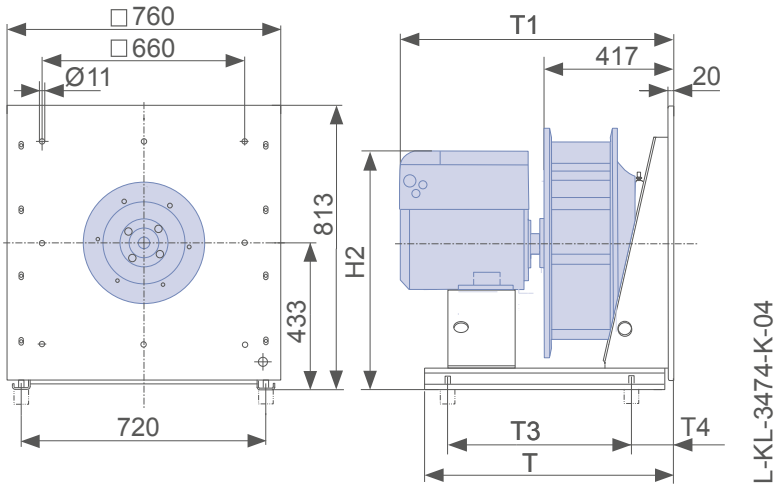
Nozzle coefficients

Standard k	381
With guard grille k_g	365

Characteristic curve



Dimensions mm



C-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.26	**ER63C-6IN.F7.1R**	**115626/0P61**	112M	92.0	10.0-8.0	1550	1580	6.20	68.5	70.8
7.32	**ER63C-6IN.F7.1R**	**115627/0P61**	112M	92.5	13.5-10.5	1730	1750	8.40	68.9	69.8
10.80	**ER63C-6IN.F7.1R**	**115628/0P61**	112M	93.0	20.0-15.5	1970	1960	12.00	69.3	69.2
12.34	**ER63C-6IN.H7.1R**	**115629/0P61**	132M	92.1	23.0-18.0	2060	2050	13.50	68.6	68.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.26	**ER63C-6IN.F7.1R**	101.00	720	773	578	115	681	00405986	00411645	02021199	02000124
7.32	**ER63C-6IN.F7.1R**	105.00	720	773	578	115	681	00405986	00411645	02021199	02000124
10.80	**ER63C-6IN.F7.1R**	122.00	720	852	578	115	742	00405986	00411645	02018876	02020907
12.34	**ER63C-6IN.H7.1R**	145.00	880	862	735	115	757	00405986	00411645	02018876	02020907

C-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	**ER63C-4HN.G7.1R**	**130564/0A41**	132S	89.6	11.0-8.6	1460	1580	6.60	66.8	69.0
7.5	**ER63C-4HN.H7.1R**	**130565/0A41**	132M	90.4	17.0-13.5	1460	1750	9.00	67.4	68.2
11.00	**ER63C-4HN.I7.1R**	**163662/0A41**	160M	91.4	23.0-18.5	1465	1960	12.50	68.1	68.0
15.00	**ER63C-4HN.K7.1R**	**163663/0A41**	160L	92.1	25.0-20.0	1465	2050	14.00	68.6	68.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	**ER63C-4HN.G7.1R**	126.00	880	815	630	115	698	00405986	00411645	02021199	02000124
7.5	**ER63C-4HN.H7.1R**	137.00	880	853	683	115	698	00405986	00411645	02021199	02000124
11.00	**ER63C-4HN.I7.1R**	216.00	880	918	735	115	797	00405986	00411645	02018876	02020907
15.00	**ER63C-4HN.K7.1R**	237.00	880	962	735	115	797	00405986	00411645	02018876	02020907

Plug fan C

ER71C

Motor PMblue IE4 and AMblue IE3

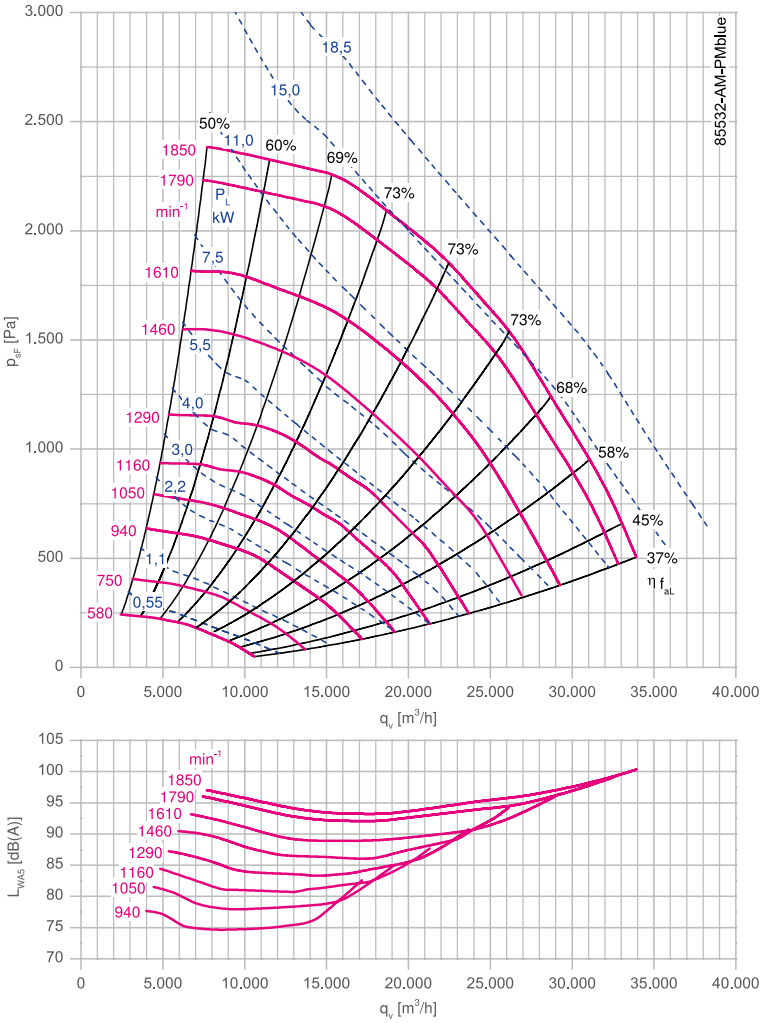
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

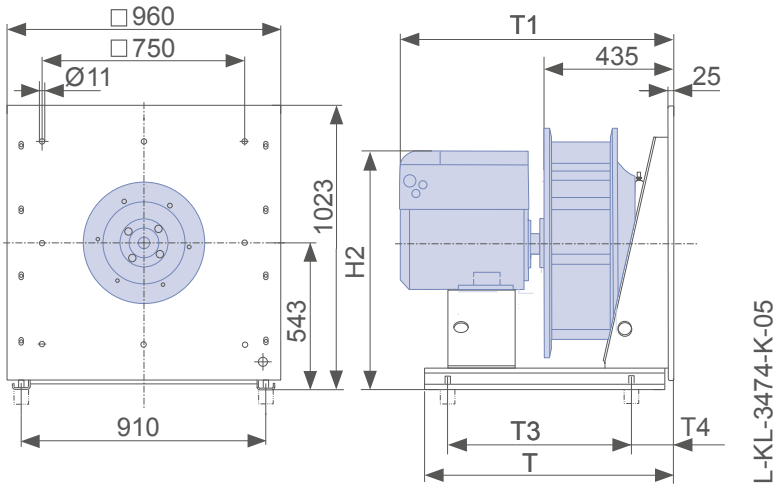
Nozzle coefficients

Standard k	490
With guard grille k_g	470

Characteristic curve



Dimensions mm



C-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.30	ER71C-6IN.F7.1R	115630/0P61	112M	90.1	10.0-8.0	1270	1290	6.20	67.0	69.3
7.28	ER71C-6IN.F7.1R	115631/0P61	112M	90.5	13.5-10.5	1410	1420	8.20	67.3	68.3
10.64	ER71C-6IN.H7.1R	115632/0P61	132M	93.3	19.5-15.5	1600	1610	11.50	69.4	69.3
14.90	ER71C-6IN.H7.1R	115633/0P61	132M	93.8	27.0-21.0	1790	1790	16.00	69.8	69.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.30	ER71C-6IN.F7.1R	136.00	885	824	630	115	791	00403350	00411646	02006450	00090157
7.28	ER71C-6IN.F7.1R	140.00	885	824	630	115	791	00403350	00411646	02006450	00090157
10.64	ER71C-6IN.H7.1R	175.00	885	913	735	115	867	00403350	00411646	02006450	00090157
14.90	ER71C-6IN.H7.1R	179.00	885	913	735	115	867	00403350	00411646	02006450	02000407

C-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	ER71C-6HN.H7.1R	130555/0A41	132M	88.0	11.5-9.0	968	1290	6.80	65.5	67.7
7.5	ER71C-4HN.H7.1R	130556/0A41	132M	90.4	16.5-13.0	1460	1460	8.80	67.3	67.9
11.00	ER71C-4HN.I7.1R	130557/0A41	160M	91.4	22.0-17.5	1465	1610	12.50	68.0	67.9
15.00	ER71C-4HN.K7.1R	130558/0A41	160L	92.1	29.0-23.0	1465	1790	16.50	68.5	68.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	ER71C-6HN.H7.1R	167.00	885	904	735	115	808	00403350	00411646	02006450	00090157
7.5	ER71C-4HN.H7.1R	167.00	885	904	735	115	808	00403350	00411646	02006450	00090157
11.00	ER71C-4HN.I7.1R	244.00	1045	969	893	115	907	00403350	00411646	02006450	00090157
15.00	ER71C-4HN.K7.1R	265.00	1045	1013	893	115	907	00403350	00411646	02006450	02000407

Plug fan C

ER80C

Motor PMblue IE4 and AMblue IE3

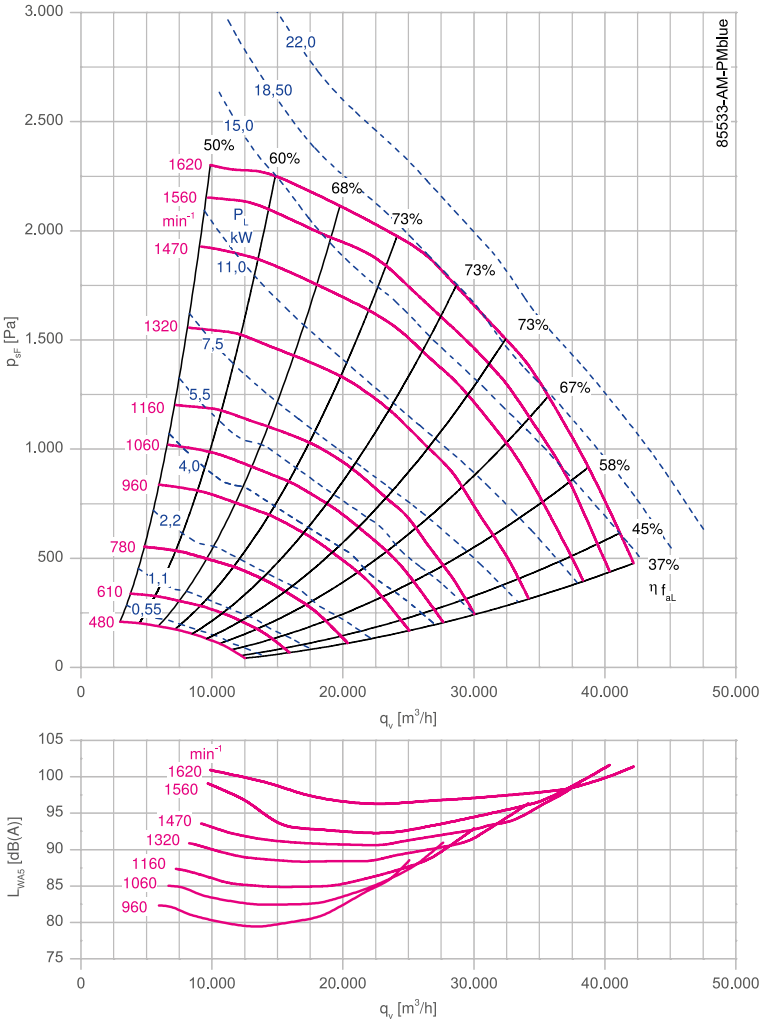
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

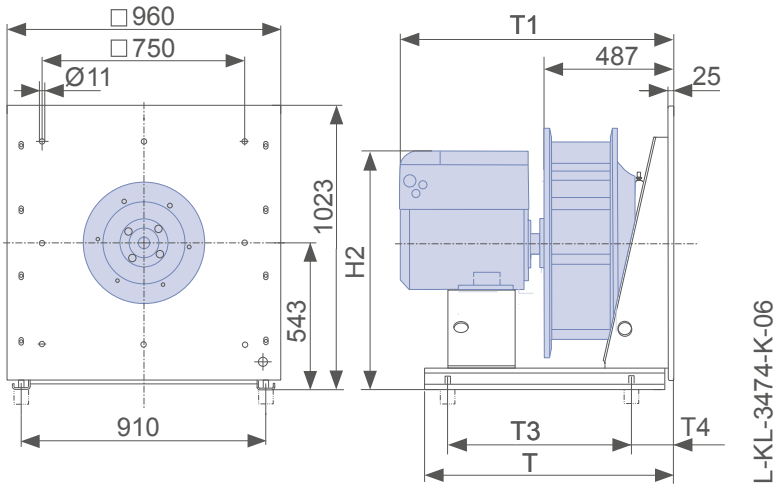
Nozzle coefficients

Standard k	620
With guard grille k_g	594

Characteristic curve



Dimensions mm



C-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
7.40	ER80C-6IN.H7.1R	115635/0P61	132M	93.8	12.5-10.0	1150	1160	7.80	67.9	69.0
14.80	ER80C-6IN.H7.1R	115636/0P61	132M	93.8	19.5-15.5	1450	1290	11.00	69.5	69.5
14.80	ER80C-6IN.H7.1R	115637/0P61	132M	93.8	27.0-21.0	1450	1470	16.00	69.5	69.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
7.40	ER80C-6IN.H7.1R	189.00	885	948	735	115	806	00403350	00414162	02006450	00090157
14.80	ER80C-6IN.H7.1R	212.00	885	999	735	115	867	00403350	00414162	02006450	00090157
14.80	ER80C-6IN.H7.1R	212.00	885	999	735	115	867	00403350	00414162	02006450	02000407

C-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	ER80C-6HN.H7.1R	130546/0A41	132M	88.0	11.5-9.2	968	1060	6.60	65.6	67.8
7.5	ER80C-6HN.I7.1R	130547/0A41	160M	89.1	16.5-13.0	970	1160	8.60	66.5	67.6
11.00	ER80C-6HN.K7.1R	130548/0A41	160L	90.3	23.0-18.5	970	1320	13.00	67.3	67.2
15.00	ER80C-4HN.K7.1R	130549/0A41	160L	92.1	29.0-23.0	1465	1470	16.50	68.7	68.3

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
5.5	ER80C-6HN.H7.1R	194.00	885	956	735	115	808	00403350	00414162	02006450	00090157
7.5	ER80C-6HN.I7.1R	250.00	1045	1021	893	115	847	00403350	00414162	02006450	00090157
11.00	ER80C-6HN.K7.1R	284.00	1045	1065	893	115	907	00403350	00414162	02006450	00090157
15.00	ER80C-4HN.K7.1R	292.00	1045	1065	893	115	907	00403350	00414162	02006450	02000407

Plug fan C

ER90C

Motor PMblue IE4 and AMblue IE3

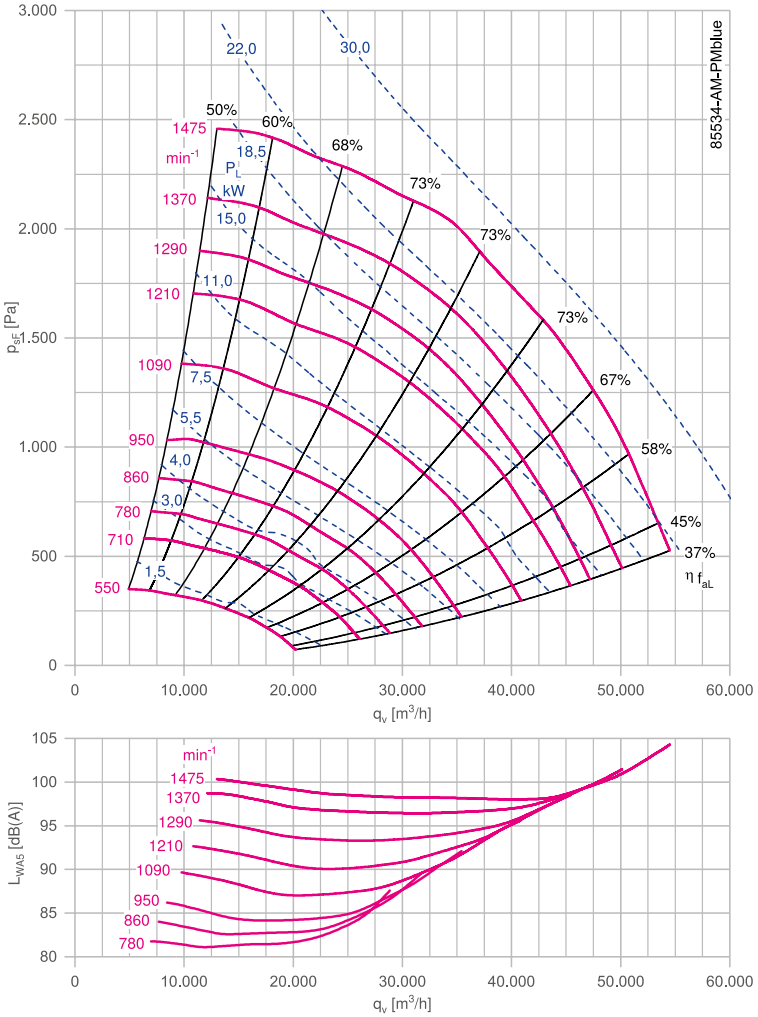
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H
Rated voltage U: 3~ 380-480 V
Rated frequency f: 50/60 Hz
Motor protection: PTC resistor
Degree of protection : IP54
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

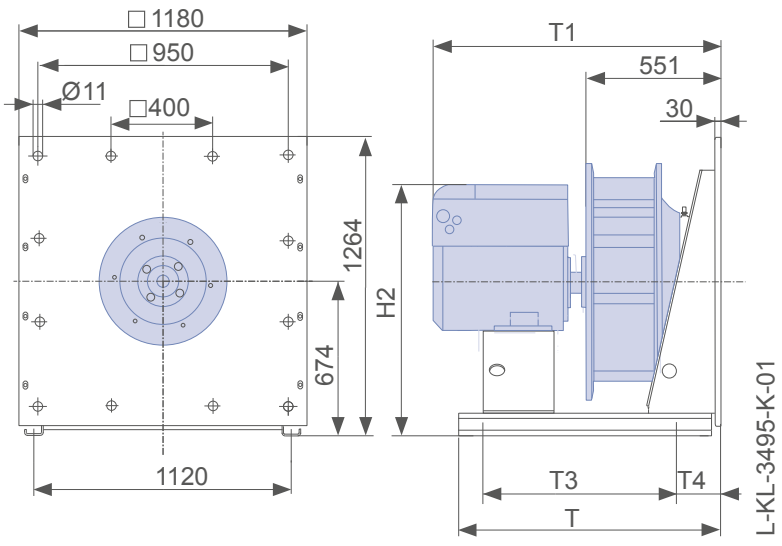
Nozzle coefficients

Standard k	789
With guard grille k_g	756

Characteristic curve



Dimensions mm



C-PMblue IE4

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
7.40	**ER90C-6IN.H7.1R**	**115638/0P61**	132M	92.5	13.0-10.5	950	950	8.00	69.3	70.5
14.90	**ER90C-6IN.H7.1R**	**115639/0P61**	132M	94.5	19.0-15.0	1200	1020	10.00	70.9	71.2
14.90	**ER90C-6IN.H7.1R**	**115640/0P61**	132M	94.5	26.0-21.0	1200	1160	15.00	70.9	70.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
7.40	**ER90C-6IN.H7.1R**	251.00	1160	1011	893	115	937	00403351	00411648	02006450	02001674
14.90	**ER90C-6IN.H7.1R**	274.00	1160	1062	893	115	998	00403351	00411648	02006450	02000407
14.90	**ER90C-6IN.H7.1R**	274.00	1160	1062	893	115	998	00403351	00411648	02006451	02000407

C-AMblue IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Input power P_{sys} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
7.5	**ER90C-6HN.I7.1R**	**130539/0A41**	160M	89.1	16.5-13.0	970	950	8.80	66.8	67.8
11.00	**ER90C-6HN.K7.1R**	**130540/0A41**	160L	90.3	24.0-19.0	970	1090	13.50	67.7	67.6
15.00	**ER90C-6HN.M7.1R**	**130541/0A41**	180L	91.2	30.0-24.0	978	1210	17.50	68.4	67.9

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper	
										Spring	Rubber
7.5	**ER90C-6HN.I7.1R**	309.00	1060	1084	893	115	978	00403351	00411648	02006450	02001674
11.00	**ER90C-6HN.K7.1R**	343.00	1160	1128	998	115	1038	00403351	00411648	02006451	02000407
15.00	**ER90C-6HN.M7.1R**	409.00	1320	1202	1103	115	1054	00403351	00411648	02006451	02000407

Plug fan C

ZAmotpremium IE2 and IE3

Product overview

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Plug fan C

ER22C

Motor ZAmotpremium IE2 and IE3

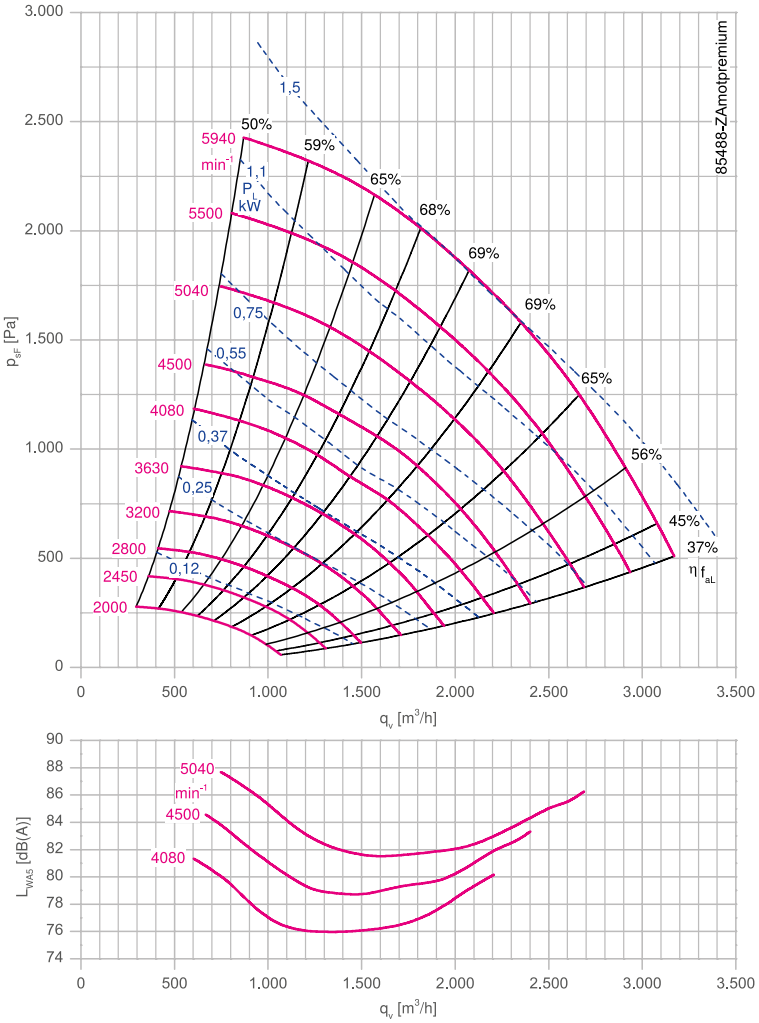
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

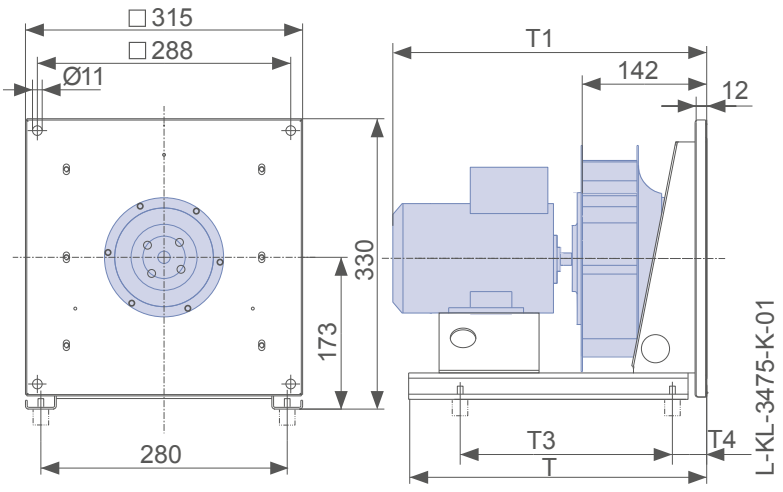
Nozzle coefficients

Standard k	47
With guard grille k_g	46

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.55	**ER22C-2DN.A7.1R**	**130613/0101**	071M	74.1	1.42	2780	4060	73	52.5	64.8
0.75	**ER22C-2DN.B7.1R**	**130614/0101**	080M	77.4	1.70	2805	4490	80	54.9	66.0
1.1	**ER22C-2DN.B7.1R**	**130615/0101**	080M	79.6	2.40	2830	5040	89	56.4	66.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.55	**ER22C-2DN.A7.1R**	15.00	460	372	316	39	00403346	00411642	02021195	00090144	308228
0.75	**ER22C-2DN.B7.1R**	17.00	460	406	355	52	00403346	00411642	02021196	00090144	308228
1.1	**ER22C-2DN.B7.1R**	19.00	460	441	358	50	00403346	00411642	02021196	00090144	308228

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.55	**ER22C-2DN.A7.1R**	**130613/0141**	071M	77.8	1.34	2850	4050	71	57.8	70.6
0.75	**ER22C-2DN.B7.1R**	**130614/0141**	080M	80.7	1.56	2850	4500	79	57.2	68.5
1.1	**ER22C-2DN.B7.1R**	**130615/0141**	080M	82.7	2.20	2885	5020	87	58.6	68.5

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

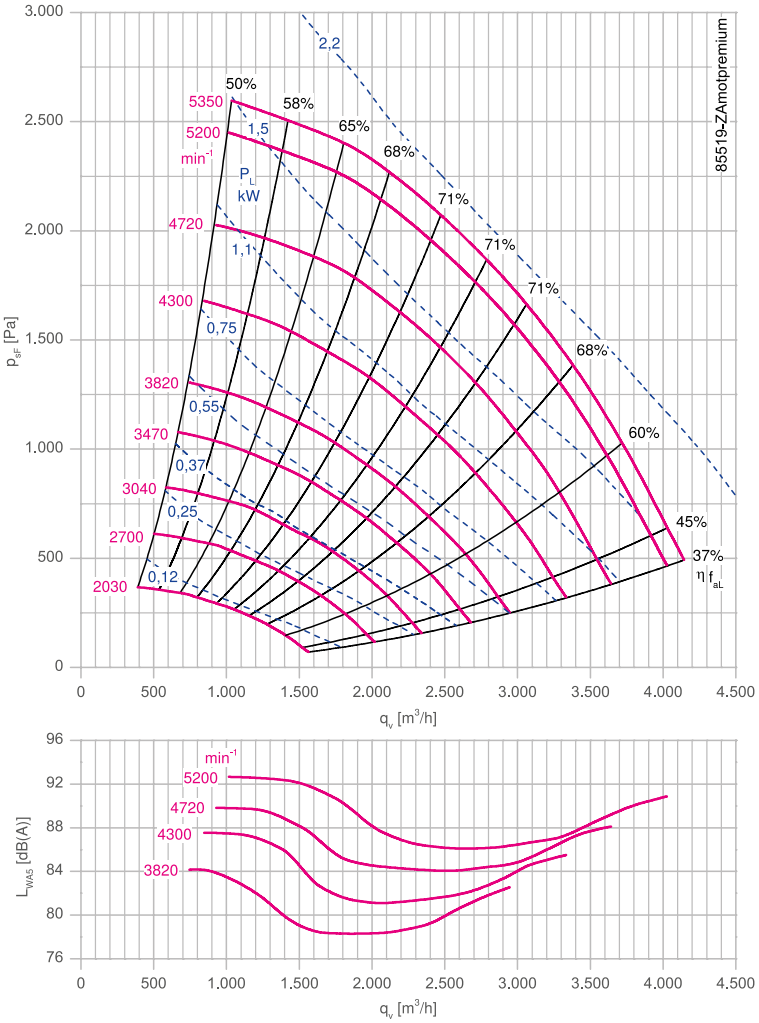
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.55	**ER22C-2DN.A7.1R**	22.00	460	412	315	60	00403346	00411642	02021195	00090144	308228
0.75	**ER22C-2DN.B7.1R**	19.00	460	424	312	60	00403346	00411642	02021196	00090144	308228
1.1	**ER22C-2DN.B7.1R**	20.00	460	459	312	60	00403346	00411642	02021196	00090144	308228

Plug fan C

ER25C

Motor ZAmotpremium IE2 and IE3

Characteristic curve



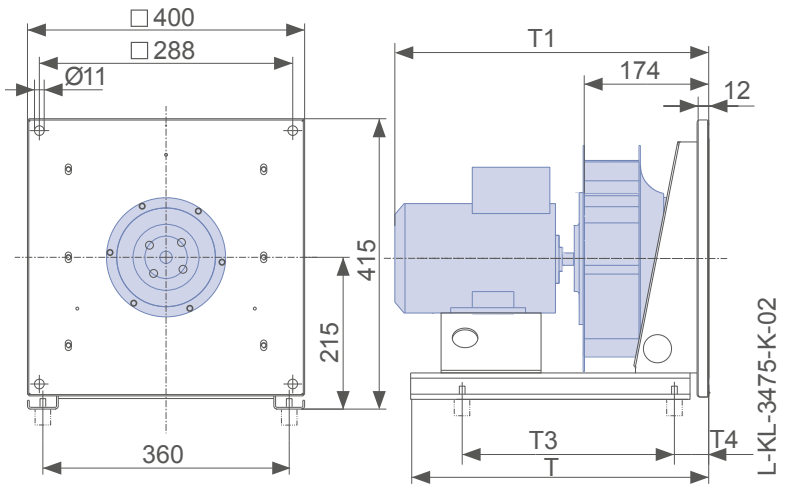
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

Nozzle coefficients

Standard k	60
With guard grille k_g	58

Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.75	**ER25C-2DN.B7.1R**	**130609/0101**	080M	77.4	1.70	2805	3810	68	56.4	67.0
1.1	**ER25C-2DN.B7.1R**	**130610/0101**	080M	79.6	2.40	2830	4300	76	58.0	67.1
1.5	**ER25C-2DN.C7.1R**	**130611/0101**	090S/L	81.3	3.20	2880	4720	82	59.2	67.1
2.2	**ER25C-2DN.D7.1R**	**130612/0101**	090L/S	83.2	4.40	2880	5180	90	60.6	67.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.75	**ER25C-2DN.B7.1R**	21.00	460	441	315	60	00403346	00411642	02021196	00090144	308228
1.1	**ER25C-2DN.B7.1R**	23.00	460	441	315	60	00403346	00411642	02021196	00090144	308228
1.5	**ER25C-2DN.C7.1R**	27.00	460	470	362	63	00403346	00411642	02021196	00090144	308230
2.2	**ER25C-2DN.D7.1R**	27.00	460	486	364	60	00403346	00411642	02021197	00090144	308232

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.75	**ER25C-2DN.B7.1R**	**130609/0141**	080M	80.7	1.56	2850	3820	67	58.7	69.5
1.1	**ER25C-2DN.B7.1R**	**130610/0141**	080M	82.7	2.20	2885	4270	74	60.2	69.6
1.5	**ER25C-2DN.C7.1R**	**130611/0141**	090S/L	84.2	3.00	2910	4710	81	61.3	69.4
2.2	**ER25C-2DN.D7.1R**	**130612/0141**	090L/S	85.9	4.20	2910	5200	89	62.5	69.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.75	**ER25C-2DN.B7.1R**	23.00	460	441	312	60	00403346	00411642	02021196	00090144	308228
1.1	**ER25C-2DN.B7.1R**	24.00	460	476	312	60	00403346	00411642	02021196	00090144	308228
1.5	**ER25C-2DN.C7.1R**	27.00	460	486	364	60	00403346	00411642	02021196	00090144	308230
2.2	**ER25C-2DN.D7.1R**	31.00	460	511	364	60	00403346	00411642	02021197	00090144	308232

Plug fan C

ER28C

Motor ZAmotpremium IE2 and IE3

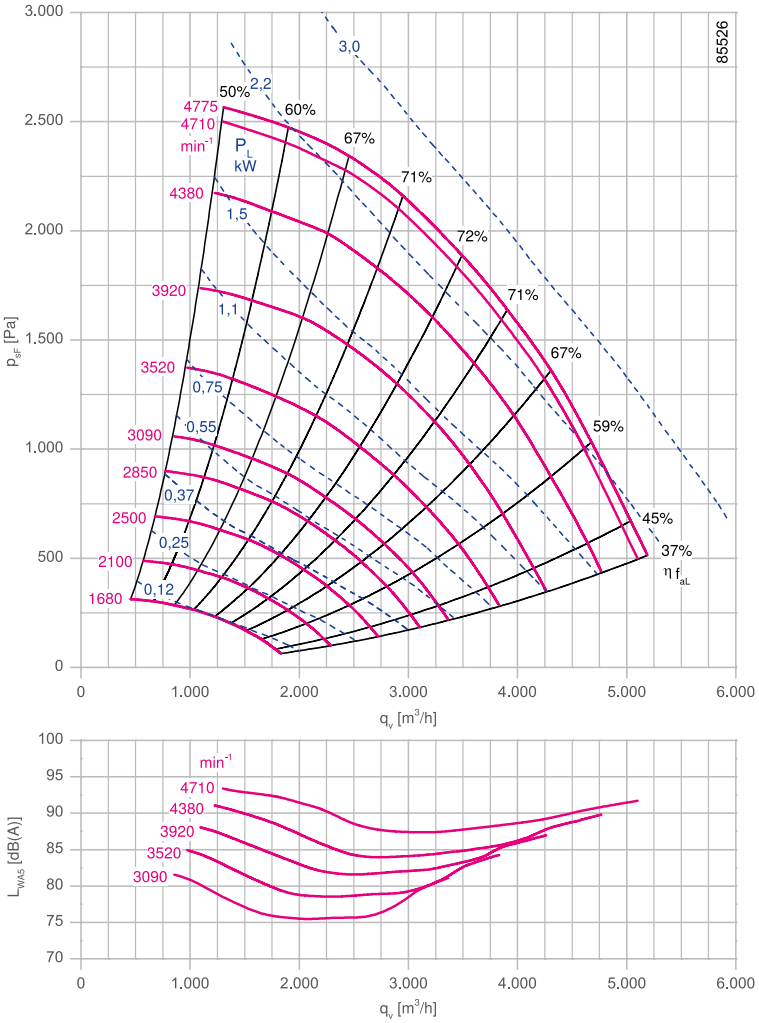
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

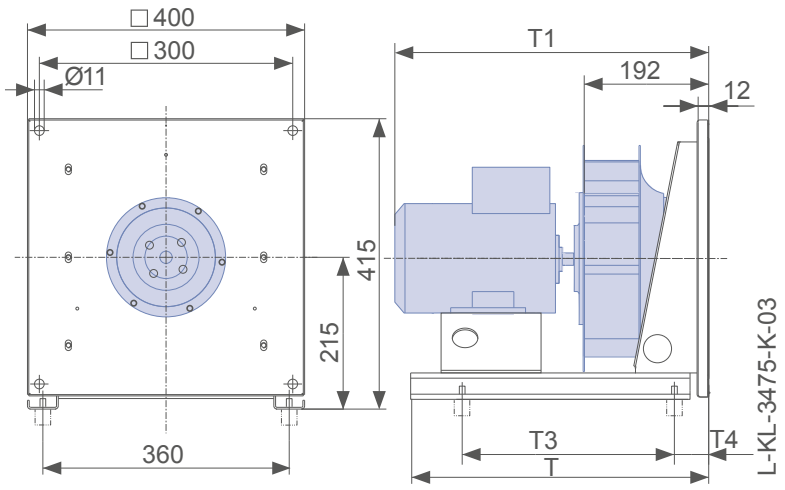
Nozzle coefficients

Standard k	75
With guard grille k_g	72

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.75	**ER28C-2DN.B7.1R**	**130604/0101**	080M	77.4	1.70	2805	3090	55	57.0	67.9
1.1	**ER28C-2DN.B7.1R**	**130605/0101**	080M	79.6	2.40	2830	3510	62	58.6	67.9
1.5	**ER28C-2DN.C7.1R**	**130606/0101**	090S/L	81.3	3.20	2880	3920	68	59.9	67.8
2.2	**ER28C-2DN.D7.1R**	**130607/0101**	090L/S	83.2	4.40	2880	4380	76	61.3	67.8
3.00	**ER28C-2DN.E7.1R**	**130608/0101**	100L	84.6	6.10	2905	4710	81	62.3	67.8

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.75	**ER28C-2DN.B7.1R**	22.00	460	457	315	60	00406513	00411643	02021196	00090144	308228
1.1	**ER28C-2DN.B7.1R**	24.00	460	457	315	60	00406513	00411643	02021196	00090144	308228
1.5	**ER28C-2DN.C7.1R**	28.00	460	486	357	73	00406513	00411643	02021196	00090144	308230
2.2	**ER28C-2DN.D7.1R**	28.00	460	502	364	60	00406513	00411643	02021197	00090144	308232
3.00	**ER28C-2DN.E7.1R**	38.00	570	552	468	59	00406513	00411643	02021197	00090144	308234

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
0.75	**ER28C-2DN.B7.1R**	**130604/0141**	080M	80.7	1.56	2850	3080	54	59.5	70.6
1.1	**ER28C-2DN.B7.1R**	**130605/0141**	080M	82.7	2.20	2885	3520	61	60.9	70.3
1.5	**ER28C-2DN.C7.1R**	**130606/0141**	090S/L	84.2	3.00	2910	3900	67	62.0	70.1
2.2	**ER28C-2DN.D7.1R**	**130607/0141**	090L/S	85.9	4.20	2910	4380	75	63.3	69.9
3.00	**ER28C-2DN.E7.1R**	**130608/0141**	100L	87.1	5.60	2920	4670	80	64.2	70.0

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

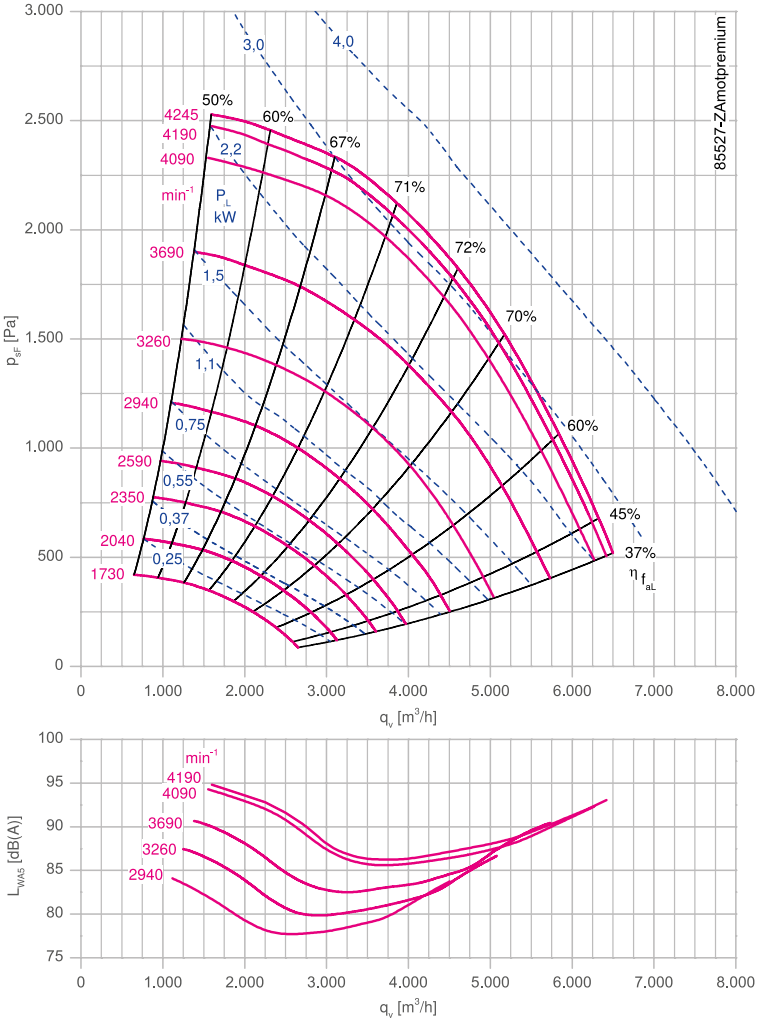
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
0.75	**ER28C-2DN.B7.1R**	24.00	460	457	364	60	00406513	00411643	02021196	00090144	308228
1.1	**ER28C-2DN.B7.1R**	25.00	460	492	364	60	00406513	00411643	02021196	00090144	308228
1.5	**ER28C-2DN.C7.1R**	28.00	460	502	364	60	00406513	00411643	02021196	00090144	308230
2.2	**ER28C-2DN.D7.1R**	32.00	460	527	364	60	00406513	00411643	02021197	00090144	308232
3.00	**ER28C-2DN.E7.1R**	40.00	570	575	472	60	00406513	00411643	02021197	00090144	308234

Plug fan C

ER31C

Motor ZAmotpremium IE2 and IE3

Characteristic curve



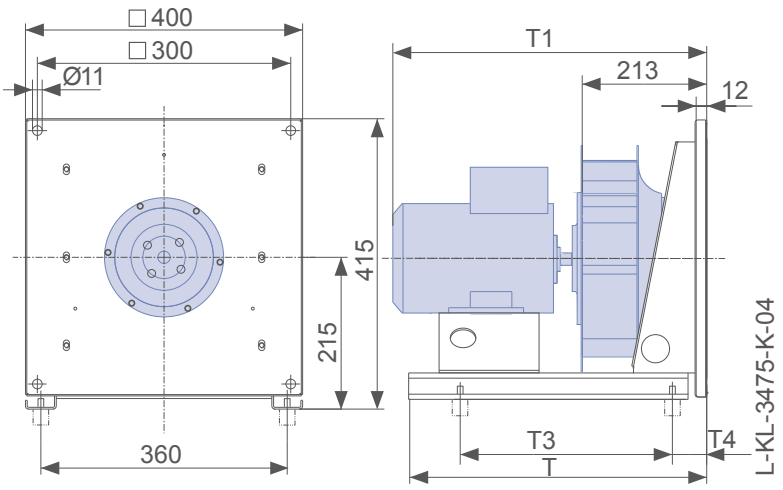
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

Nozzle coefficients

Standard k	95
With guard grille k_g	91

Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER31C-2DN.B7.1R**	**130599/0101**	080M	79.6	2.40	2830	2940	51	58.8	67.8
1.5	**ER31C-2DN.C7.1R**	**130600/0101**	090S/L	81.3	3.20	2880	3230	56	60.0	67.8
2.2	**ER31C-2DN.D7.1R**	**130601/0101**	090L/S	83.2	4.40	2880	3690	64	61.5	67.6
3.00	**ER31C-2DN.E7.1R**	**130602/0101**	100L	84.6	6.10	2905	4070	70	62.5	67.3
4.00	**ER31C-2DN.F7.1R**	**130603/0101**	112M	85.8	7.90	2945	4180	71	63.4	67.9

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER31C-2DN.B7.1R**	25.00	460	477	368	60	00406513	00411570	02021196	00090144	308228
1.5	**ER31C-2DN.C7.1R**	29.00	570	506	414	63	00406513	00411570	02021196	00090144	308230
2.2	**ER31C-2DN.D7.1R**	30.00	570	522	419	60	00406513	00411570	02021197	00090144	308232
3.00	**ER31C-2DN.E7.1R**	39.00	570	560	460	75	00406513	00411570	02021197	00090144	308234
4.00	**ER31C-2DN.F7.1R**	50.00	570	554	434	97	00406513	00411570	02021197	00090144	308236

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER31C-2DN.B7.1R**	**130599/0141**	080M	82.7	2.20	2885	2940	51	61.1	70.3
1.5	**ER31C-2DN.C7.1R**	**130600/0141**	090S/L	84.2	3.00	2910	3260	56	62.2	70.0
2.2	**ER31C-2DN.D7.1R**	**130601/0141**	090L/S	85.9	4.20	2910	3680	63	63.4	69.7
3.00	**ER31C-2DN.E7.1R**	**130602/0141**	100L	87.1	5.60	2920	4090	70	64.3	69.2
4.00	**ER31C-2DN.F7.1R**	**130603/0141**	112M	88.1	7.30	2945	4190	71	65.0	69.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER31C-2DN.B7.1R**	26.00	460	512	364	60	00406513	00411570	02021196	00090144	308228
1.5	**ER31C-2DN.C7.1R**	30.00	570	522	419	60	00406513	00411570	02021196	00090144	308230
2.2	**ER31C-2DN.D7.1R**	34.00	570	547	419	60	00406513	00411570	02021197	00090144	308232
3.00	**ER31C-2DN.E7.1R**	41.00	570	595	472	60	00406513	00411570	02021197	00090144	308234
4.00	**ER31C-2DN.F7.1R**	49.00	570	579	472	60	00406513	00411570	02021197	00090144	308236

Plug fan C

ER35C

Motor ZAmotpremium IE2 and IE3

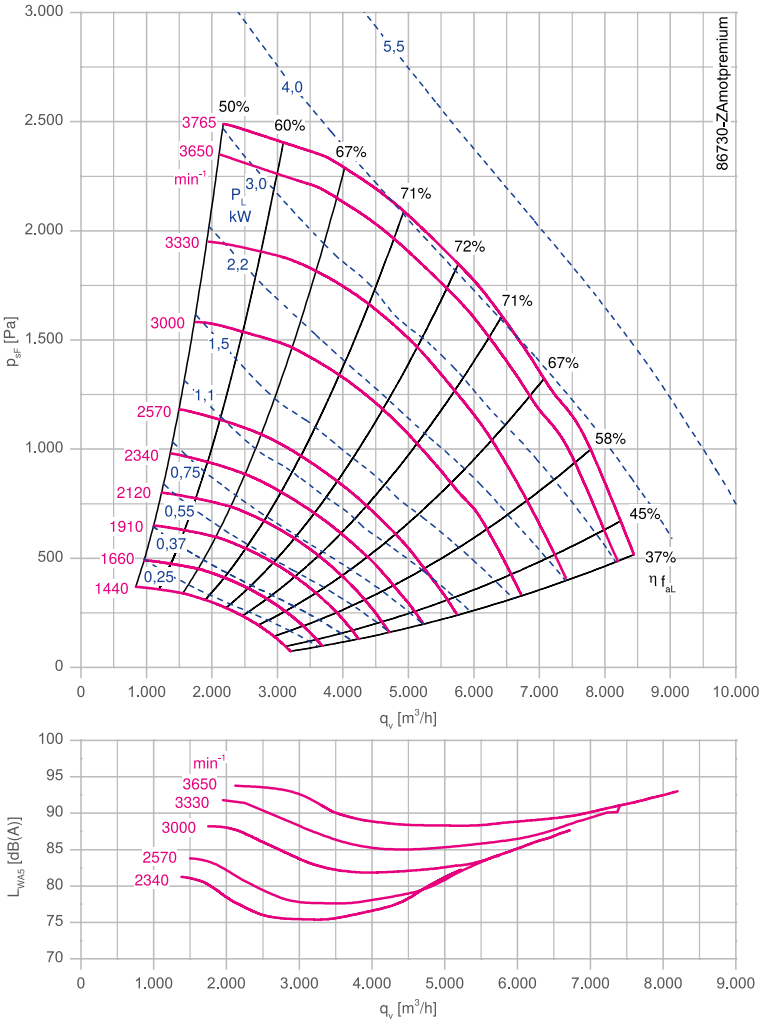
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

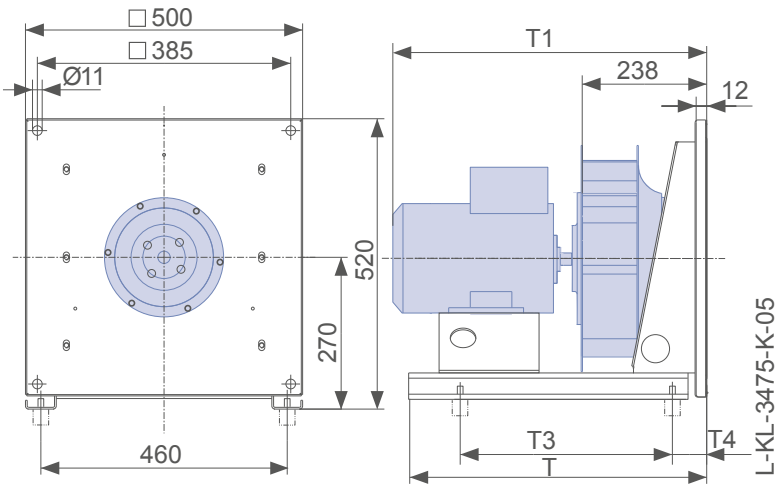
Nozzle coefficients

Standard k	121
With guard grille k_g	116

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER35C-4DN.C7.1R**	**131399/0101**	090S/L	81.4	2.50	1425	2340	82	59.9	69.4
1.5	**ER35C-4DN.D7.1R**	**130595/0101**	090L/S	82.8	3.30	1435	2550	89	60.9	69.3
2.2	**ER35C-2DN.D7.1R**	**130596/0101**	090L/S	83.2	4.40	2880	3000	52	61.2	67.4
3.00	**ER35C-2DN.E7.1R**	**130597/0101**	100L	84.6	6.10	2905	3310	57	62.3	67.3
4.00	**ER35C-2DN.F7.1R**	**130598/0101**	112M	85.8	7.90	2945	3650	62	63.1	66.8

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER35C-4DN.C7.1R**	31.00	570	544	315	115	00406514	00411571	02021197	00090144	308228
1.5	**ER35C-4DN.D7.1R**	34.00	570	544	315	115	00406514	00411571	02021197	00090144	308230
2.2	**ER35C-2DN.D7.1R**	33.00	570	544	315	115	00406514	00411571	02021198	00090144	308232
3.00	**ER35C-2DN.E7.1R**	43.00	570	583	468	75	00406514	00411571	02021198	00090144	308234
4.00	**ER35C-2DN.F7.1R**	54.00	570	576	434	101	00406514	00411571	02021198	00090144	308236

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER35C-4DN.C7.1R**	**131399/0141**	090S/L	84.1	2.40	1440	2330	81	61.9	71.6
1.5	**ER35C-4DN.D7.1R**	**130595/0141**	090L/S	85.3	3.20	1445	2570	89	62.8	71.3
2.2	**ER35C-2DN.D7.1R**	**130596/0141**	090L/S	85.9	4.20	2910	2980	51	63.2	69.7
3.00	**ER35C-2DN.E7.1R**	**130597/0141**	100L	87.1	5.60	2920	3330	57	64.1	69.1
4.00	**ER35C-2DN.F7.1R**	**130598/0141**	112M	88.1	7.30	2945	3650	61	65.2	68.7

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER35C-4DN.C7.1R**	34.00	570	544	312	115	00406514	00411571	02021197	00090144	308228
1.5	**ER35C-4DN.D7.1R**	37.00	570	569	312	115	00406514	00411571	02021197	00090144	308230
2.2	**ER35C-2DN.D7.1R**	37.00	570	569	312	115	00406514	00411571	02021198	00090144	308232
3.00	**ER35C-2DN.E7.1R**	46.00	570	618	364	115	00406514	00411571	02021198	00090144	308234
4.00	**ER35C-2DN.F7.1R**	53.00	570	601	417	115	00406514	00411571	02021198	00090144	308236

Plug fan C

ER40C

Motor ZAmotpremium IE2 and IE3

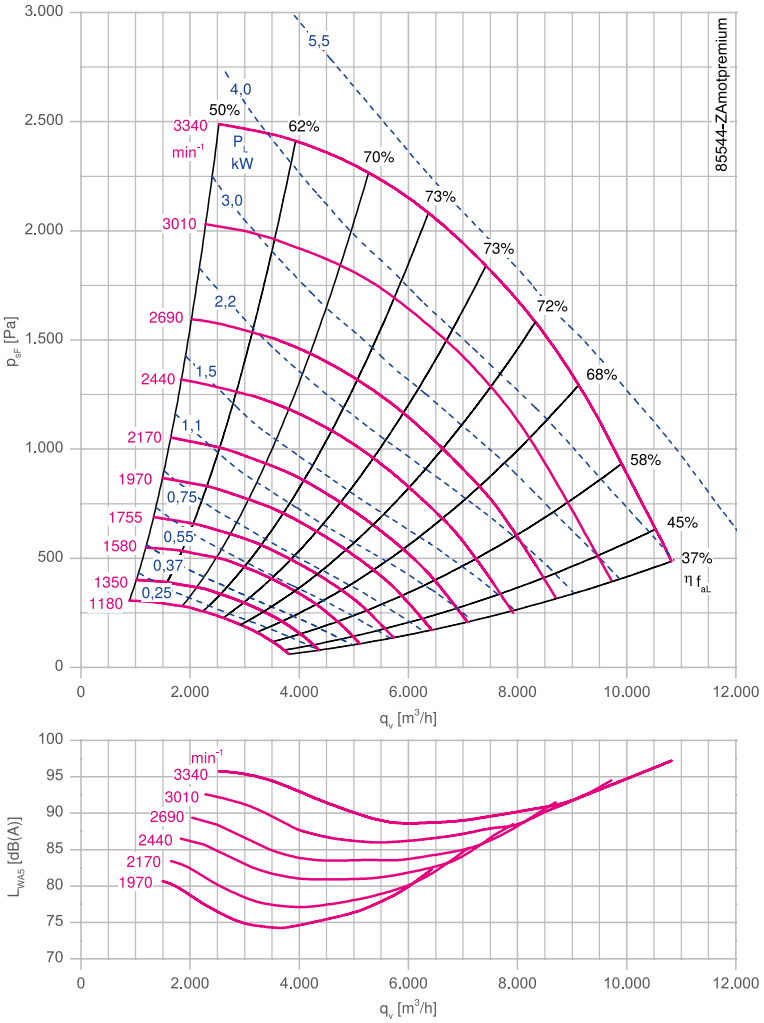
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

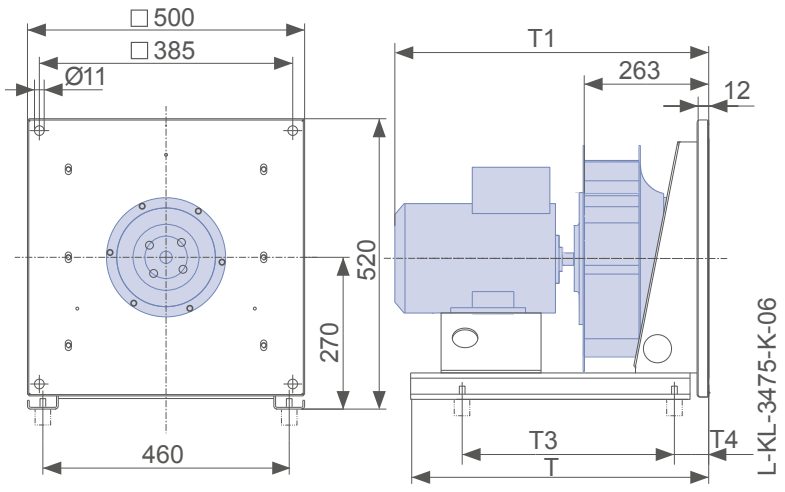
Nozzle coefficients

Standard k	154
With guard grille k_g	148

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER40C-4DN.C7.1R**	**130589/0101**	090S/L	81.4	2.50	1425	1970	69	61.0	70.2
1.5	**ER40C-4DN.D7.1R**	**130590/0101**	090L/S	82.8	3.30	1435	2150	75	62.0	70.1
2.2	**ER40C-4DN.E7.1R**	**130591/0101**	100L	84.3	4.60	1455	2440	84	63.1	69.6
3.00	**ER40C-4DN.E7.1R**	**130592/0101**	100L	85.5	6.20	1455	2680	92	64.0	69.2
4.00	**ER40C-2DN.F7.1R**	**130593/0101**	112M	85.8	7.90	2945	3000	50	64.2	67.9
5.5	**ER40C-2DN.G7.1R**	**130594/0101**	132S/M	87.0	10.40	2950	3340	57	65.1	67.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER40C-4DN.C7.1R**	35.00	570	570	315	115	00406514	00411572	02021197	00090144	308228
1.5	**ER40C-4DN.D7.1R**	38.00	570	570	315	115	00406514	00411572	02021197	00090144	308230
2.2	**ER40C-4DN.E7.1R**	44.00	570	609	428	107	00406514	00411572	02021197	00090144	308232
3.00	**ER40C-4DN.E7.1R**	48.00	570	609	412	123	00406514	00411572	02021198	00090144	308234
4.00	**ER40C-2DN.F7.1R**	59.00	720	602	520	70	00406514	00411572	02021198	00090144	308236
5.5	**ER40C-2DN.G7.1R**	69.00	720	663	578	71	00406514	00411572	02021198	00090144	308265

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	**ER40C-4DN.C7.1R**	**130589/0141**	090S/L	84.1	2.40	1440	1960	68	63.0	72.5
1.5	**ER40C-4DN.D7.1R**	**130590/0141**	090L/S	85.3	3.20	1445	2170	75	63.9	72.0
2.2	**ER40C-4DN.E7.1R**	**130591/0141**	100L	86.7	4.40	1465	2430	83	64.9	71.6
3.00	**ER40C-4DN.E7.1R**	**130592/0141**	100L	87.7	5.90	1460	2690	92	65.7	71.0
4.00	**ER40C-2DN.F7.1R**	**130593/0141**	112M	88.1	7.30	2945	3010	51	65.9	69.7
5.5	**ER40C-2DN.G7.1R**	**130594/0141**	132S/M	89.2	9.90	2950	3340	57	66.8	69.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

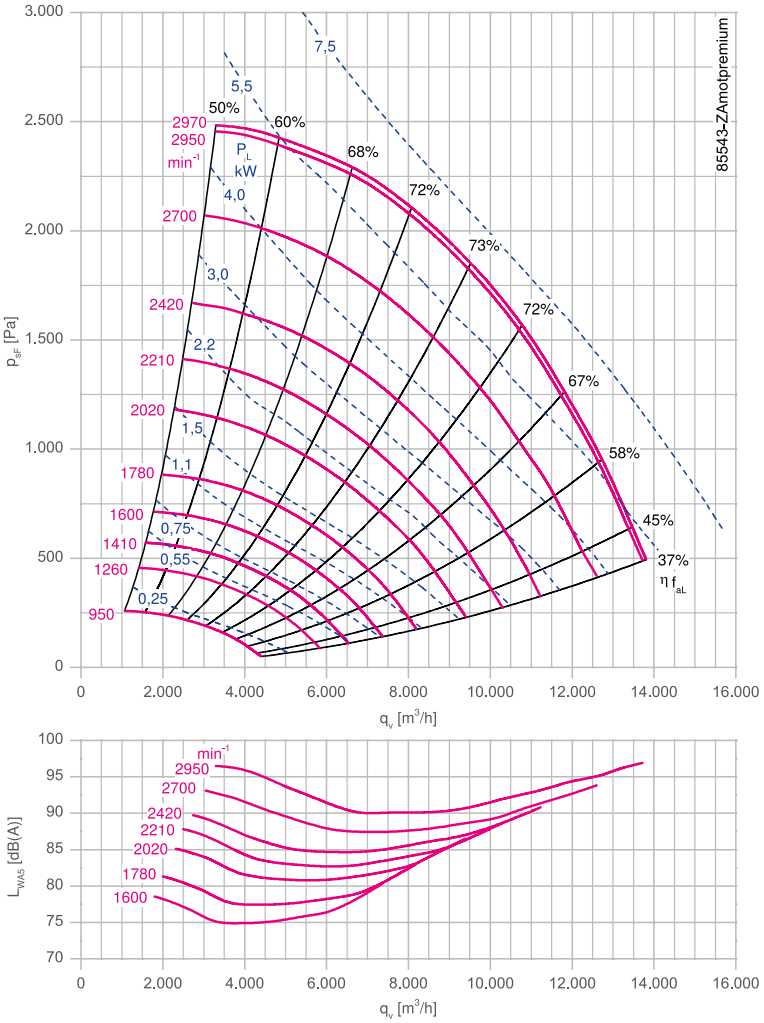
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	**ER40C-4DN.C7.1R**	38.00	570	570	312	115	00406514	00411572	02021197	00090144	308228
1.5	**ER40C-4DN.D7.1R**	41.00	570	595	312	115	00406514	00411572	02021197	00090144	308230
2.2	**ER40C-4DN.E7.1R**	53.00	570	609	417	115	00406514	00411572	02021197	00090144	308232
3.00	**ER40C-4DN.E7.1R**	53.00	570	644	417	115	00406514	00411572	02021198	00090144	308234
4.00	**ER40C-2DN.F7.1R**	58.00	720	627	465	115	00406514	00411572	02021198	00090144	308236
5.5	**ER40C-2DN.G7.1R**	69.00	720	663	518	115	00406514	00411572	02021198	00090144	308265

Plug fan C

ER45C

Motor ZAmotpremium IE2 and IE3

Characteristic curve



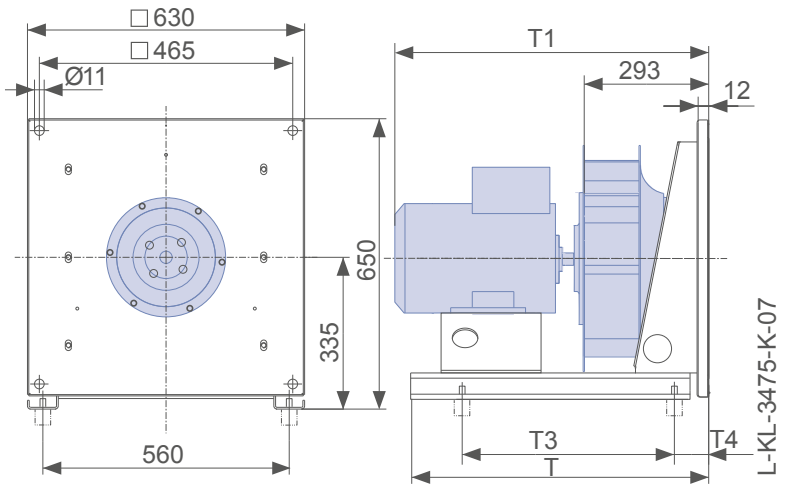
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

Nozzle coefficients

Standard k	197
With guard grille k_g	189

Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	ER45C-4DN.C7.1R	130582/0101	090S/L	81.4	2.50	1425	1600	56	61.3	70.6
1.5	ER45C-4DN.D7.1R	130583/0101	090L/S	82.8	3.30	1435	1780	62	62.3	70.2
2.2	ER45C-4DN.E7.1R	130584/0101	100L	84.3	4.60	1455	2010	69	63.5	69.9
3.00	ER45C-4DN.E7.1R	130585/0101	100L	85.5	6.20	1455	2210	76	64.3	69.4
4.00	ER45C-4DN.F7.1R	130586/0101	112M	86.6	8.20	1460	2420	83	65.2	69.1
5.5	ER45C-4DN.G7.1R	130587/0101	132S/M	87.7	11.40	1465	2670	91	66.0	68.6
7.5	ER45C-2DN.G7.1R	130588/0101	132S/M	88.1	14.20	2950	2950	50	66.3	67.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	ER45C-4DN.C7.1R	45.00	570	604	315	115	00406515	00411573	02021197	00090144	308228
1.5	ER45C-4DN.D7.1R	48.00	570	604	315	115	00406515	00411573	02021197	00090144	308230
2.2	ER45C-4DN.E7.1R	54.00	570	642	424	111	00406515	00411573	02021198	00090144	308232
3.00	ER45C-4DN.E7.1R	58.00	570	642	408	127	00406515	00411573	02021198	02000124	308234
4.00	ER45C-4DN.F7.1R	63.00	720	636	572	58	00406515	00411573	02021198	02000124	308236
5.5	ER45C-4DN.G7.1R	76.00	720	692	598	72	00406515	00411573	02021198	02000124	308265
7.5	ER45C-2DN.G7.1R	90.00	720	692	616	64	00406515	00411573	02021199	02000124	308267

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.1	ER45C-4DN.C7.1R	130582/0141	090S/L	84.1	2.40	1440	1580	55	63.3	72.9
1.5	ER45C-4DN.D7.1R	130583/0141	090L/S	85.3	3.20	1445	1760	60	64.2	72.4
2.2	ER45C-4DN.E7.1R	130584/0141	100L	86.7	4.40	1465	2020	68	65.2	71.6
3.00	ER45C-4DN.E7.1R	130585/0141	100L	87.7	5.90	1460	2190	75	66.0	71.4
4.00	ER45C-4DN.F7.1R	130586/0141	112M	88.6	7.90	1460	2420	82	66.7	70.7
5.5	ER45C-4DN.G7.1R	130587/0141	132S	89.6	10.50	1470	2700	92	67.4	70.0
7.5	ER45C-2DN.G7.1R	130588/0141	132S	90.1	13.10	2950	2950	50	67.8	69.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

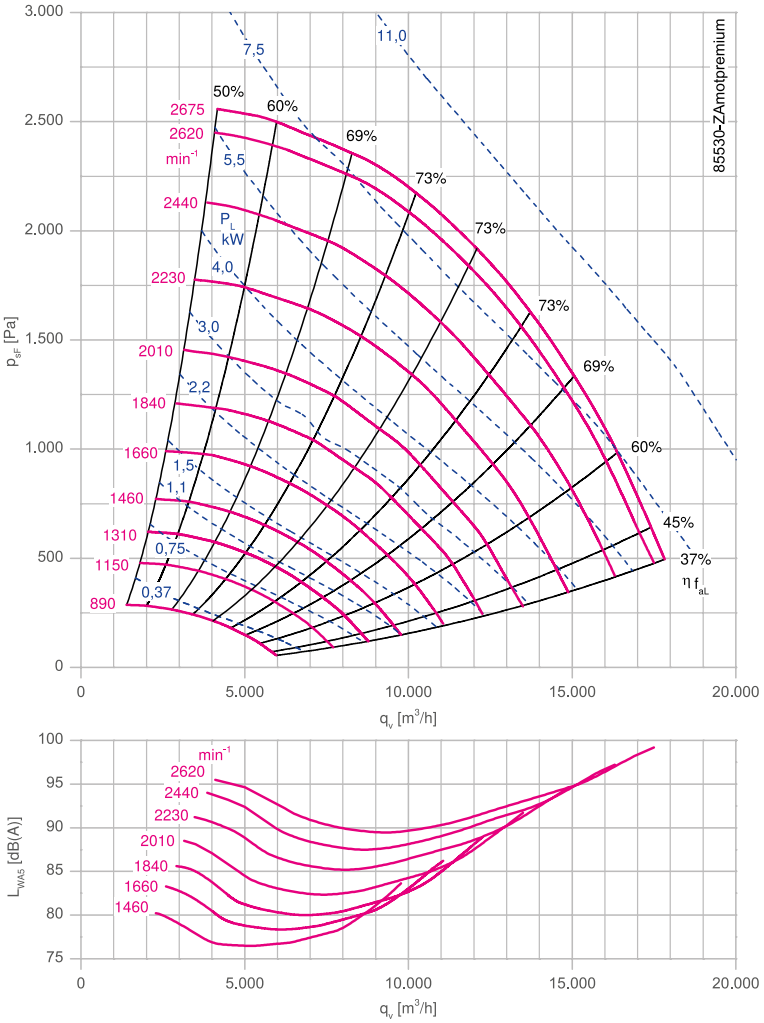
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.1	ER45C-4DN.C7.1R	48.00	570	604	312	115	00406515	00411573	02021197	00090144	308228
1.5	ER45C-4DN.D7.1R	51.00	570	629	364	115	00406515	00411573	02021197	00090144	308230
2.2	ER45C-4DN.E7.1R	63.00	570	677	417	115	00406515	00411573	02021198	00090144	308232
3.00	ER45C-4DN.E7.1R	63.00	570	677	417	115	00406515	00411573	02021198	02000124	308234
4.00	ER45C-4DN.F7.1R	68.00	720	661	465	115	00406515	00411573	02021198	02000124	308236
5.5	ER45C-4DN.G7.1R	98.00	720	692	570	115	00406515	00411573	02021198	02000124	308265
7.5	ER45C-2DN.G7.1R	91.00	720	742	518	115	00406515	00411573	02021199	02000124	308267

Plug fan C

ER50C

Motor ZAmotpremium IE2 and IE3

Characteristic curve



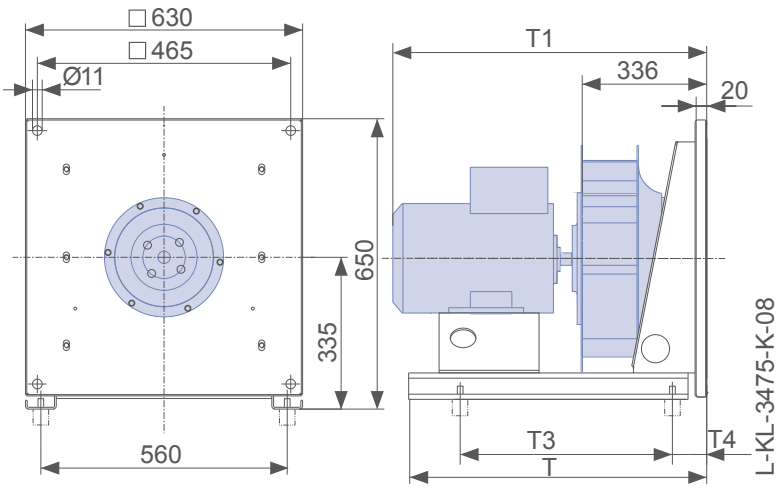
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

Nozzle coefficients

Standard k	252
With guard grille k_g	242

Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER50C-4DN.D7.1R	130575/0101	090L/S	82.8	3.30	1435	1460	51	62.1	70.0
2.2	ER50C-4DN.E7.1R	130576/0101	100L	84.3	4.60	1455	1660	57	63.2	69.4
3.00	ER50C-4DN.E7.1R	130577/0101	100L	85.5	6.20	1455	1830	63	64.2	69.2
4.00	ER50C-4DN.F7.1R	130578/0101	112M	86.6	8.20	1460	2010	69	65.0	68.8
5.5	ER50C-4DN.G7.1R	130579/0101	132S/M	87.7	11.40	1465	2230	76	65.8	68.2
7.5	ER50C-4DN.H7.1R	130580/0101	132M/S	88.7	14.80	1465	2430	83	66.6	67.9
11.00	ER50C-4DN.I7.1R	130581/0101	160M/L	89.8	21.00	1470	2620	89	67.4	67.7

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER50C-4DN.D7.1R	54.00	728	645	420	115	00406515	00411574	02021198	00090144	308230
2.2	ER50C-4DN.E7.1R	60.00	728	677	582	59	00406515	00411574	02021198	00090144	308232
3.00	ER50C-4DN.E7.1R	64.00	728	684	598	59	00406515	00411574	02021198	00090144	308234
4.00	ER50C-4DN.F7.1R	68.00	728	670	608	68	00406515	00411574	02021198	02000124	308236
5.5	ER50C-4DN.G7.1R	81.00	728	725	594	99	00406515	00411574	02021199	02000124	308265
7.5	ER50C-4DN.H7.1R	88.00	728	725	542	151	00406515	00411574	02021199	02000124	308267
11.00	ER50C-4DN.I7.1R	116.00	888	832	720	133	00406515	00411574	02021199	02000124	308323

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER50C-4DN.D7.1R	130575/0141	090L/S	85.3	3.20	1445	1450	50	64.0	72.2
2.2	ER50C-4DN.E7.1R	130576/0141	100L	86.7	4.40	1465	1640	56	65.0	71.5
3.00	ER50C-4DN.E7.1R	130577/0141	100L	87.7	5.90	1460	1840	63	65.8	70.8
4.00	ER50C-4DN.F7.1R	130578/0141	112M	88.6	7.90	1460	2010	69	66.5	70.4
5.5	ER50C-4DN.G7.1R	130579/0141	132S	89.6	10.50	1470	2210	75	67.2	69.8
7.5	ER50C-4DN.H7.1R	130580/0141	132M	90.4	14.30	1470	2440	83	67.8	69.1
11.00	ER50C-4DN.I7.1R	130581/0141	160M/L	91.4	20.50	1475	2600	88	67.2	67.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER50C-4DN.D7.1R	57.00	728	670	421	115	00406515	00411574	02021198	00090144	308230
2.2	ER50C-4DN.E7.1R	69.00	728	719	473	115	00406515	00411574	02021198	00090144	308232
3.00	ER50C-4DN.E7.1R	69.00	728	719	473	115	00406515	00411574	02021198	00090144	308234
4.00	ER50C-4DN.F7.1R	73.00	728	702	473	115	00406515	00411574	02021198	02000124	308236
5.5	ER50C-4DN.G7.1R	103.00	728	733	578	115	00406515	00411574	02021199	02000124	308265
7.5	ER50C-4DN.H7.1R	103.00	728	783	578	115	00406515	00411574	02021199	02000124	308267
11.00	ER50C-4DN.I7.1R	128.00	888	842	737	115	00406515	00411574	02021199	02000124	308323

Plug fan C

ER56C

Motor ZAmotpremium IE2 and IE3

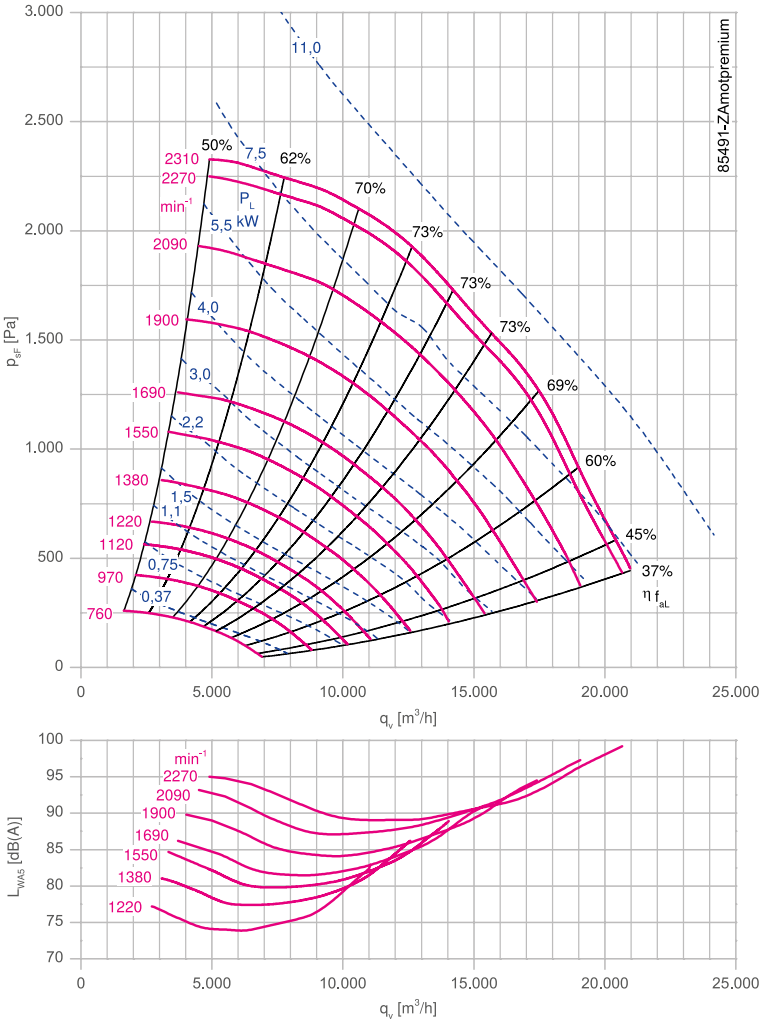
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

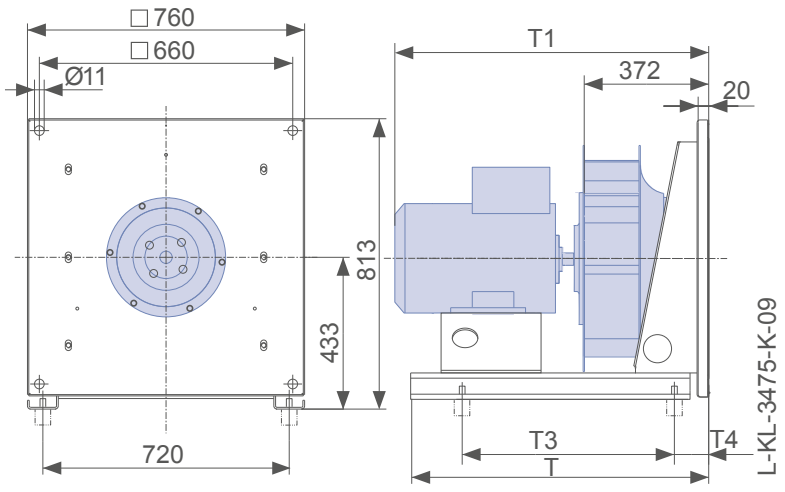
Nozzle coefficients

Standard k	308
With guard grille k_g	295

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER56C-6DN.E7.1R	130568/0101	100L	79.8	3.70	970	1220	63	59.6	67.5
2.2	ER56C-4DN.E7.1R	130569/0101	100L	84.3	4.60	1455	1370	47	63.1	69.7
3.00	ER56C-4DN.E7.1R	130570/0101	100L	85.5	6.20	1455	1540	53	63.9	68.9
4.00	ER56C-4DN.F7.1R	130571/0101	112M	86.6	8.20	1460	1690	58	64.7	68.5
5.5	ER56C-4DN.G7.1R	130572/0101	132S/M	87.7	11.40	1465	1900	65	65.5	67.8
7.5	ER56C-4DN.H7.1R	163660/0101	132M/S	88.7	14.80	1465	2080	71	66.3	67.4
11.00	ER56C-4DN.I7.1R	163661/0101	160M/L	89.8	21.00	1470	2260	77	67.1	67.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER56C-6DN.E7.1R	75.00	720	716	473	115	00405986	00411644	02021198	00090144	308232
2.2	ER56C-4DN.E7.1R	71.00	720	709	600	50	00405986	00411644	02021198	00090144	308232
3.00	ER56C-4DN.E7.1R	75.00	720	716	620	50	00405986	00411644	02021199	02000124	308234
4.00	ER56C-4DN.F7.1R	79.00	720	702	618	62	00405986	00411644	02021199	02000124	308236
5.5	ER56C-4DN.G7.1R	95.00	880	757	684	62	00405986	00411644	02021199	02000124	308265
7.5	ER56C-4DN.H7.1R	102.00	880	765	572	115	00405986	00411644	02018876	02020907	308267
11.00	ER56C-4DN.I7.1R	130.00	880	874	729	115	00405986	00411644	02018876	02020907	308323

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	ER56C-6DN.E7.1R	130568/0141	100L	82.5	3.05	970	1220	63	61.6	69.7
2.2	ER56C-4DN.E7.1R	130569/0141	100L	86.7	4.40	1465	1380	47	64.8	71.4
3.00	ER56C-4DN.E7.1R	130570/0141	100L	87.7	5.90	1460	1550	53	65.6	70.7
4.00	ER56C-4DN.F7.1R	130571/0141	112M	88.6	7.90	1460	1690	58	66.2	70.1
5.5	ER56C-4DN.G7.1R	130572/0141	132S	89.6	10.50	1470	1880	64	67.0	69.5
7.5	ER56C-4DN.H7.1R	163660/0141	132M	90.4	14.30	1470	2090	71	67.6	68.7
11.00	ER56C-4DN.I7.1R	163661/0141	160M/L	91.4	20.50	1475	2270	77	68.3	68.3

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	ER56C-6DN.E7.1R	80.00	720	751	465	115	00405986	00411644	02021198	00090144	308230
2.2	ER56C-4DN.E7.1R	80.00	720	716	465	115	00405986	00411644	02021198	00090144	308232
3.00	ER56C-4DN.E7.1R	80.00	720	751	465	115	00405986	00411644	02021199	02000124	308234
4.00	ER56C-4DN.F7.1R	84.00	720	734	518	115	00405986	00411644	02021199	02000124	308236
5.5	ER56C-4DN.G7.1R	117.00	880	765	624	115	00405986	00411644	02021199	02000124	308265
7.5	ER56C-4DN.H7.1R	117.00	880	815	624	115	00405986	00411644	02018876	02020907	308267
11.00	ER56C-4DN.I7.1R	142.00	880	874	729	115	00405986	00411644	02018876	02020907	308323

Plug fan C

ER63C

Motor ZAmotpremium IE2 and IE3

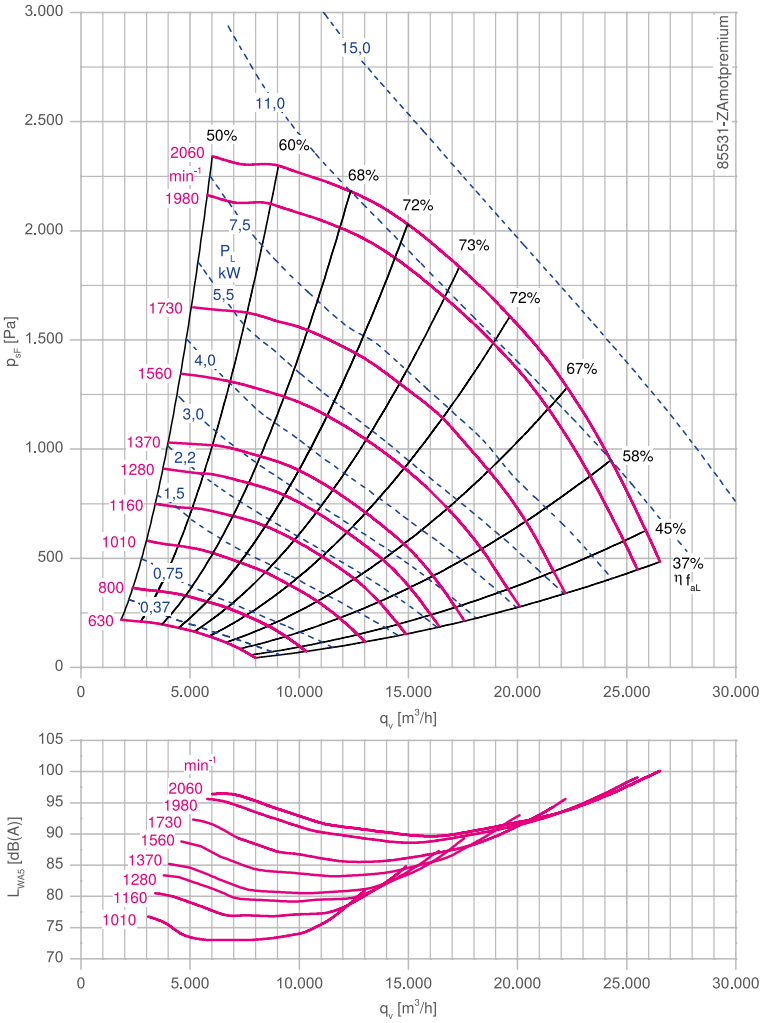
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

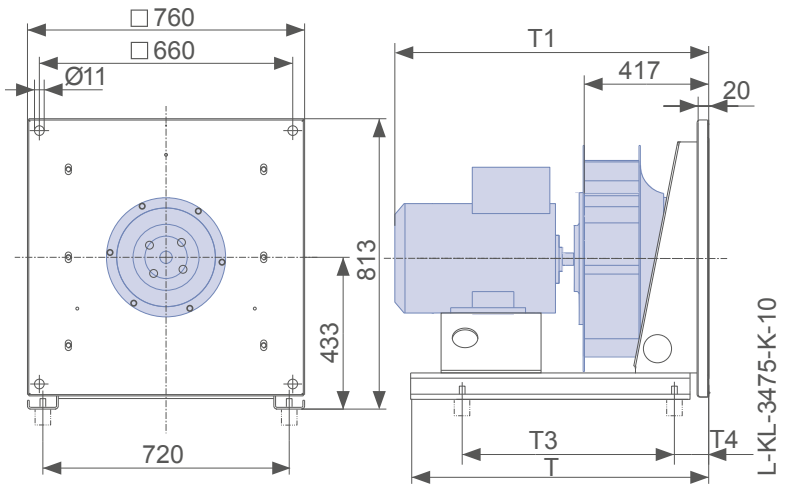
Nozzle coefficients

Standard k	381
With guard grille k_g	365

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	**ER63C-6DN.E7.1R**	**130560/0101**	100L	79.8	3.70	970	1010	52	59.5	67.3
2.2	**ER63C-6DN.F7.1R**	**130561/0101**	112M	81.8	5.20	965	1160	60	60.9	66.9
3.00	**ER63C-6DN.G7.1R**	**130562/0101**	132S	83.3	7.00	970	1280	66	62.1	66.8
4.00	**ER63C-4DN.F7.1R**	**130563/0101**	112M	86.6	8.20	1460	1370	47	64.5	68.5
5.5	**ER63C-4DN.G7.1R**	**130564/0101**	132S/M	87.7	11.40	1465	1550	53	65.3	67.6
7.5	**ER63C-4DN.H7.1R**	**130565/0101**	132M/S	88.7	14.80	1465	1730	59	66.0	66.9
11.00	**ER63C-4DN.I7.1R**	**163662/0101**	160M/L	89.8	21.00	1470	1970	67	66.9	66.8
15.00	**ER63C-4DN.K7.1R**	**163663/0101**	160L/M	90.6	28.00	1475	2060	70	67.5	67.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	**ER63C-6DN.E7.1R**	90.00	720	755	578	115	00405986	00411645	02021198	00090144	308232
2.2	**ER63C-6DN.F7.1R**	94.00	720	749	570	115	00405986	00411645	02021198	00090144	308234
3.00	**ER63C-6DN.G7.1R**	105.00	880	796	684	66	00405986	00411645	02021199	02000124	308234
4.00	**ER63C-4DN.F7.1R**	91.00	720	742	599	91	00405986	00411645	02021199	02000124	308236
5.5	**ER63C-4DN.G7.1R**	109.00	880	796	663	92	00405986	00411645	02021199	02000124	308265
7.5	**ER63C-4DN.H7.1R**	116.00	880	796	702	92	00405986	00411645	02021199	02020907	308267
11.00	**ER63C-4DN.I7.1R**	144.00	880	914	728	115	00405986	00411645	02018876	02020907	308323
15.00	**ER63C-4DN.K7.1R**	156.00	880	914	729	115	00405986	00411645	02018876	02020907	308325

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
1.5	**ER63C-6DN.E7.1R**	**130560/0141**	100L	82.5	3.05	970	1010	52	61.4	69.3
2.2	**ER63C-6DN.F7.1R**	**130561/0141**	112M	84.3	4.75	970	1140	59	62.8	69.2
3.00	**ER63C-6DN.G7.1R**	**130562/0141**	132S	85.6	6.60	975	1280	66	63.8	68.6
4.00	**ER63C-4DN.F7.1R**	**130563/0141**	112M	88.6	7.90	1460	1370	47	65.9	70.0
5.5	**ER63C-4DN.G7.1R**	**130564/0141**	132S	89.6	10.50	1470	1560	53	66.7	69.0
7.5	**ER63C-4DN.H7.1R**	**130565/0141**	132M	90.4	14.30	1470	1730	59	67.3	68.3
11.00	**ER63C-4DN.I7.1R**	**163662/0141**	160M/L	91.4	20.50	1475	1980	67	68.1	68.0
15.00	**ER63C-4DN.K7.1R**	**163663/0141**	160L	92.1	28.50	1475	2060	70	68.6	68.3

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
1.5	**ER63C-6DN.E7.1R**	95.00	720	790	570	115	00405986	00411645	02021198	00090144	308230
2.2	**ER63C-6DN.F7.1R**	94.00	720	774	570	115	00405986	00411645	02021198	00090144	308232
3.00	**ER63C-6DN.G7.1R**	109.00	880	805	572	115	00405986	00411645	02021199	02000124	308234
4.00	**ER63C-4DN.F7.1R**	99.00	720	774	518	115	00405986	00411645	02021199	02000124	308236
5.5	**ER63C-4DN.G7.1R**	131.00	880	805	677	115	00405986	00411645	02021199	02000124	308265
7.5	**ER63C-4DN.H7.1R**	131.00	880	855	677	115	00405986	00411645	02021199	02020907	308267
11.00	**ER63C-4DN.I7.1R**	156.00	880	914	729	115	00405986	00411645	02018876	02020907	308323
15.00	**ER63C-4DN.K7.1R**	173.00	880	974	729	115	00405986	00411645	02018876	02020907	308325

Plug fan C

ER71C

Motor ZAmotpremium IE2 and IE3

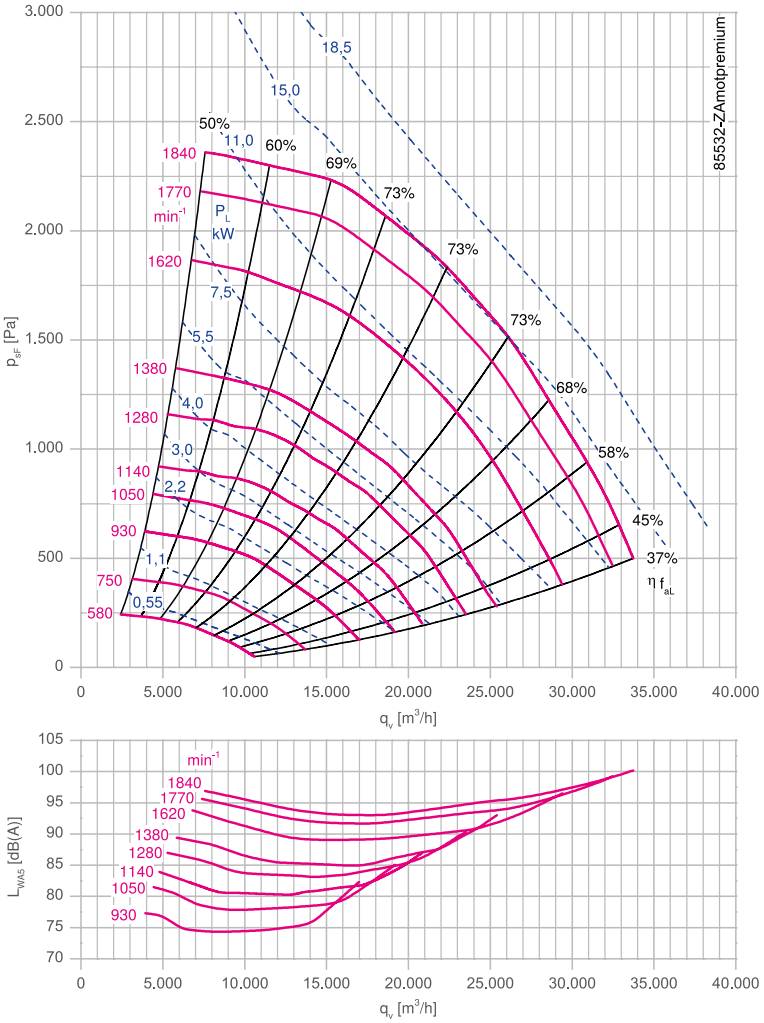
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

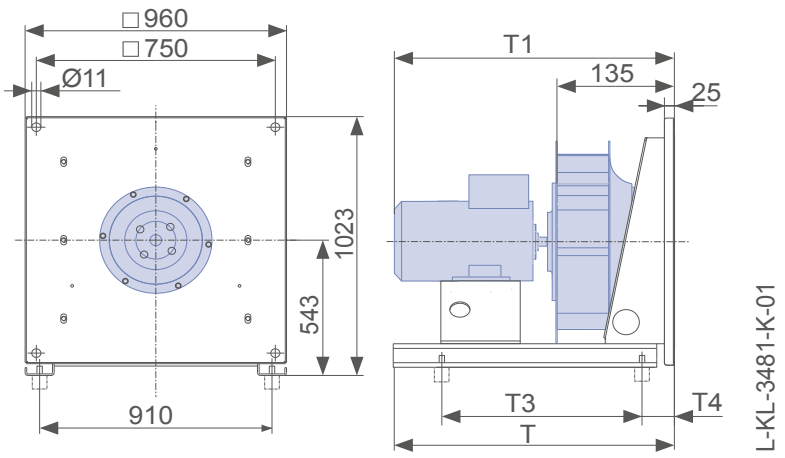
Nozzle coefficients

Standard k	490
With guard grille k_g	470

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.2	**ER71C-6DN.F7.1R**	**163664/0101**	112M	81.8	5.20	965	930	48	60.9	67.2
3.00	**ER71C-6DN.G7.1R**	**163665/0101**	132S	83.3	7.00	970	1050	54	62.0	66.7
4.00	**ER71C-6DN.H7.1R**	**130554/0101**	132M/S	84.6	8.70	970	1140	59	63.0	66.7
5.5	**ER71C-6DN.H7.1R**	**130555/0101**	132M/S	86.0	12.00	970	1280	66	64.0	66.2
7.5	**ER71C-4DN.H7.1R**	**130556/0101**	132M/S	88.7	14.80	1465	1380	47	66.0	67.3
11.00	**ER71C-4DN.I7.1R**	**130557/0101**	160M/L	89.8	21.00	1470	1620	55	66.8	66.7
15.00	**ER71C-4DN.K7.1R**	**130558/0101**	160L/M	90.6	28.00	1475	1770	60	67.4	67.0
18.50	**ER71C-4DN.L7.1R**	**130559/0101**	180M/L	91.2	35.00	1465	1840	63	67.9	67.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
2.2	**ER71C-6DN.F7.1R**	124.00	885	858	682	115	00403350	00411646	02006449	00090157	308234
3.00	**ER71C-6DN.G7.1R**	135.00	885	866	629	115	00403350	00411646	02006449	00090157	308234
4.00	**ER71C-6DN.H7.1R**	147.00	885	904	682	115	00403350	00411646	02006450	00090157	308265
5.5	**ER71C-6DN.H7.1R**	161.00	885	904	682	115	00403350	00411646	02006450	00090157	308265
7.5	**ER71C-4DN.H7.1R**	146.00	885	904	682	115	00403350	00411646	02006450	00090157	308267
11.00	**ER71C-4DN.I7.1R**	172.00	1045	969	840	115	00403350	00411646	02006450	00090157	308323
15.00	**ER71C-4DN.K7.1R**	184.00	1045	1013	893	115	00403350	00411646	02006451	02000407	308325
18.50	**ER71C-4DN.L7.1R**	268.00	1045	1049	893	115	00403350	00411646	02006451	02000407	308327

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.2	**ER71C-6DN.F7.1R**	**163664/0141**	112M	84.3	4.75	970	930	48	62.7	69.2
3.00	**ER71C-6DN.G7.1R**	**163665/0141**	132S	85.6	6.60	975	1050	54	63.7	68.6
4.00	**ER71C-6DN.H7.1R**	**130554/0141**	132M/S	86.8	8.40	970	1140	59	64.6	68.4
5.5	**ER71C-6DN.H7.1R**	**130555/0141**	132M	88.0	11.60	970	1280	66	65.4	67.7
7.5	**ER71C-4DN.H7.1R**	**130556/0141**	132M	90.4	14.30	1470	1380	47	67.3	68.7
11.00	**ER71C-4DN.I7.1R**	**130557/0141**	160M/L	91.4	20.50	1475	1590	54	68.0	67.9
15.00	**ER71C-4DN.K7.1R**	**130558/0141**	160L	92.1	28.50	1475	1770	60	68.5	68.1
18.50	**ER71C-4DN.L7.1R**	**130559/0141**	180M/L	92.6	35.50	1470	1840	63	68.9	68.4

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
2.2	**ER71C-6DN.F7.1R**	124.00	885	825	682	115	00403350	00411646	02006449	00090157	308232
3.00	**ER71C-6DN.G7.1R**	139.00	885	856	629	115	00403350	00411646	02006449	00090157	308234
4.00	**ER71C-6DN.H7.1R**	149.00	885	856	682	115	00403350	00411646	02006450	00090157	308236
5.5	**ER71C-6DN.H7.1R**	149.00	885	906	682	115	00403350	00411646	02006450	00090157	308265
7.5	**ER71C-4DN.H7.1R**	161.00	885	906	682	115	00403350	00411646	02006450	00090157	308267
11.00	**ER71C-4DN.I7.1R**	184.00	1045	965	788	115	00403350	00411646	02006450	00090157	308323
15.00	**ER71C-4DN.K7.1R**	201.00	1045	1025	840	115	00403350	00411646	02006451	02000407	308325
18.50	**ER71C-4DN.L7.1R**	268.00	1045	1029	893	115	00403350	00411646	02006451	02000407	308327

Plug fan C

ER80C

Motor ZAmotpremium IE2 and IE3

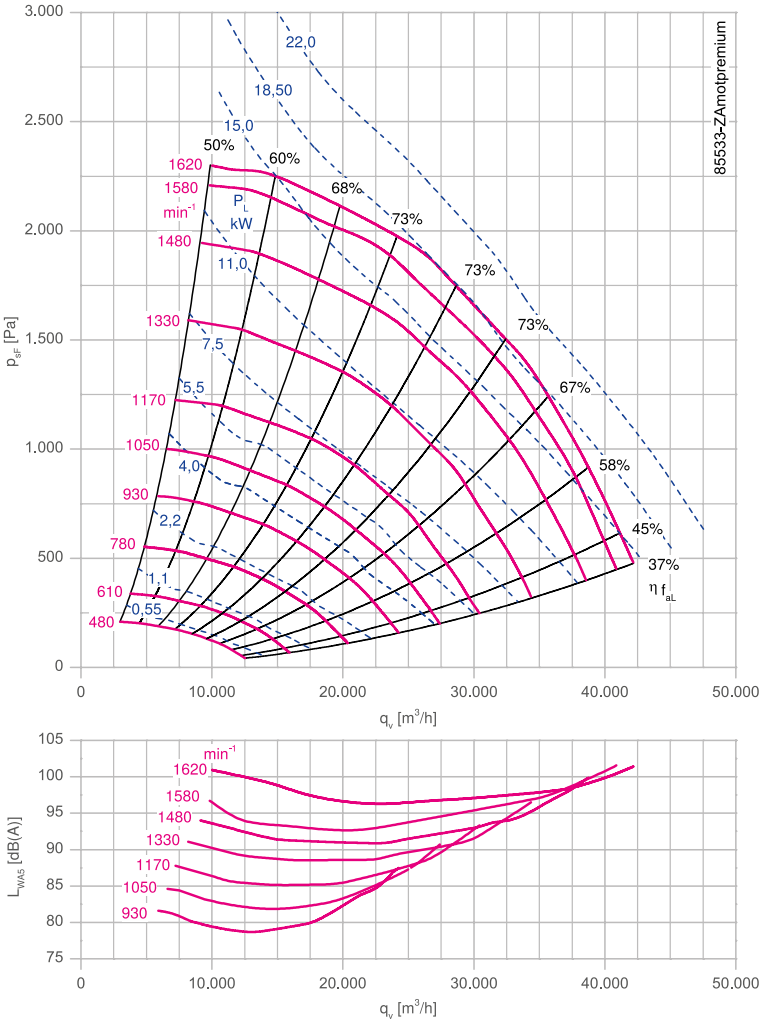
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

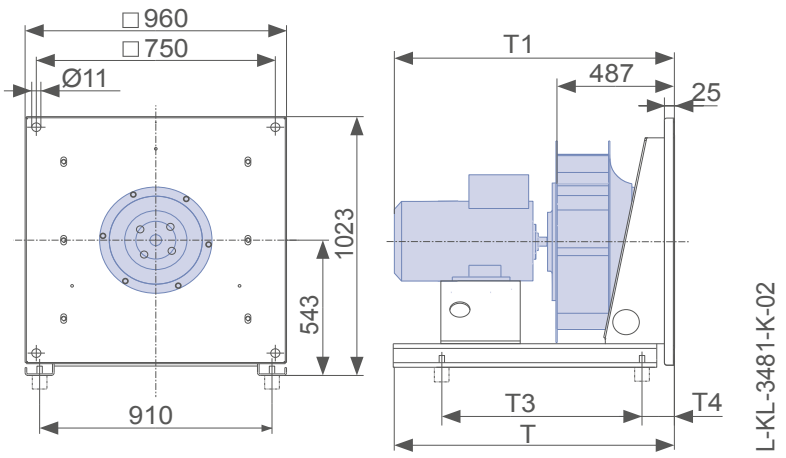
Nozzle coefficients

Standard k	620
With guard grille k_g	594

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
4.00	ER80C-6DN.H7.1R	130545/0101	132M/S	84.6	8.70	970	930	48	63.1	66.9
5.5	ER80C-6DN.H7.1R	130546/0101	132M/S	86.0	12.00	970	1050	54	64.1	66.4
7.5	ER80C-6DN.I7.1R	130547/0101	160M/L	87.2	16.20	975	1170	60	65.0	65.9
11.00	ER80C-6DN.K7.1R	130548/0101	160L/M	88.7	22.50	975	1330	68	66.2	66.1
15.00	ER80C-4DN.K7.1R	130549/0101	160L/M	90.6	28.00	1475	1480	50	67.6	67.1
18.50	ER80C-4DN.L7.1R	130550/0101	180M/L	91.2	35.00	1465	1580	54	68.0	67.3
22.00	ER80C-4DN.M7.1R	130551/0101	180LM	91.6	41.50	1465	1610	55	68.3	67.6

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
4.00	ER80C-6DN.H7.1R	174.00	885	956	734	115	00403350	00414162	02006450	00090157	308265
5.5	ER80C-6DN.H7.1R	188.00	885	956	734	115	00403350	00414162	02006450	00090157	308265
7.5	ER80C-6DN.I7.1R	226.00	1045	1065	893	115	00403350	00414162	02006450	00090157	308267
11.00	ER80C-6DN.K7.1R	233.00	1045	1065	893	115	00403350	00414162	02006450	00090157	308323
15.00	ER80C-4DN.K7.1R	212.00	1045	1065	893	115	00403350	00414162	02006451	02000407	308325
18.50	ER80C-4DN.L7.1R	295.00	1045	1101	893	115	00403350	00414162	02006451	02000407	308327
22.00	ER80C-4DN.M7.1R	276.00	1045	1139	893	115	00403350	00414162	02006451	02000407	308329

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
4.00	ER80C-6DN.H7.1R	130545/0141	132M/S	86.8	8.40	970	930	48	64.8	68.8
5.5	ER80C-6DN.H7.1R	130546/0141	132M	88.0	11.60	970	1050	54	65.6	68.0
7.5	ER80C-6DN.I7.1R	130547/0141	160M/L	89.1	16.00	980	1160	59	66.5	67.6
11.00	ER80C-6DN.K7.1R	130548/0141	160L	90.3	23.00	975	1330	68	67.4	67.3
15.00	ER80C-4DN.K7.1R	130549/0141	160L	92.1	28.50	1475	1480	50	68.7	68.3
18.50	ER80C-4DN.L7.1R	130550/0141	180M/L	92.6	35.50	1470	1560	53	69.1	68.5
22.00	ER80C-4DN.M7.1R	130551/0141	180L/M	93.0	41.00	1470	1620	55	69.4	68.7

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
4.00	ER80C-6DN.H7.1R	177.00	885	908	734	115	00403350	00414162	02006450	00090157	308236
5.5	ER80C-6DN.H7.1R	177.00	885	958	734	115	00403350	00414162	02006450	00090157	308265
7.5	ER80C-6DN.I7.1R	223.00	1045	1017	840	115	00403350	00414162	02006450	00090157	308267
11.00	ER80C-6DN.K7.1R	244.00	1045	1077	893	115	00403350	00414162	02006450	00090157	308323
15.00	ER80C-4DN.K7.1R	229.00	1045	1077	893	115	00403350	00414162	02006451	02000407	308325
18.50	ER80C-4DN.L7.1R	295.00	1045	1081	893	115	00403350	00414162	02006451	02000407	308327
22.00	ER80C-4DN.M7.1R	300.00	1045	1111	893	115	00403350	00414162	02006451	02000407	308329

Plug fan C

ER90C

Motor ZAmotpremium IE2 and IE3

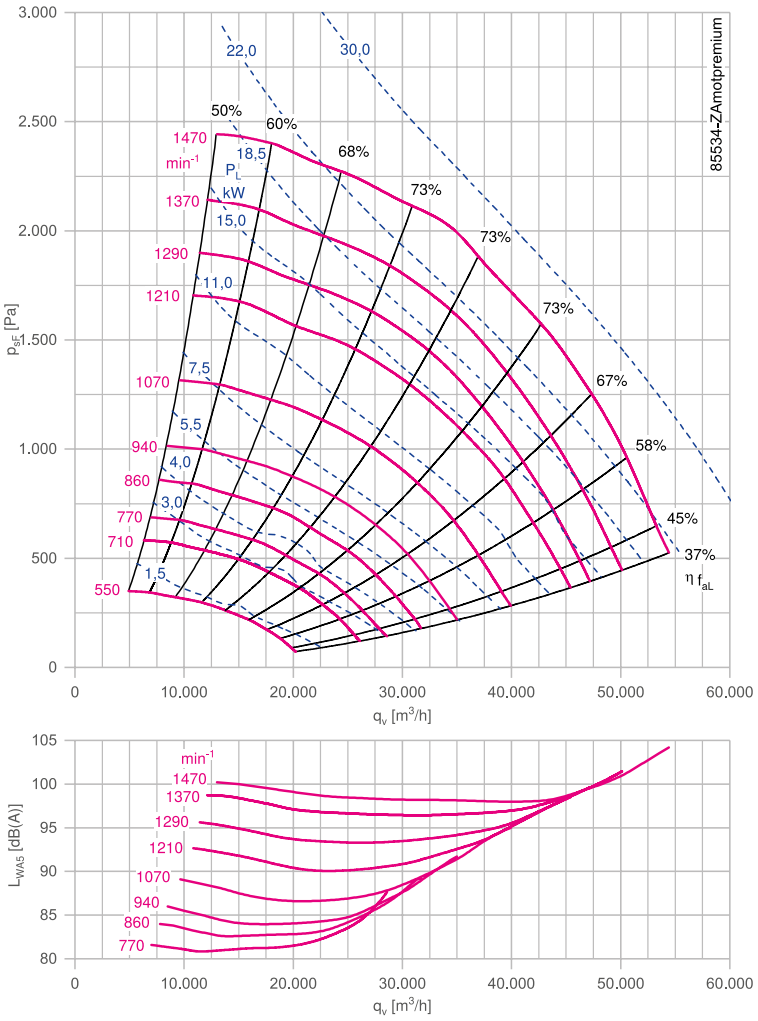
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

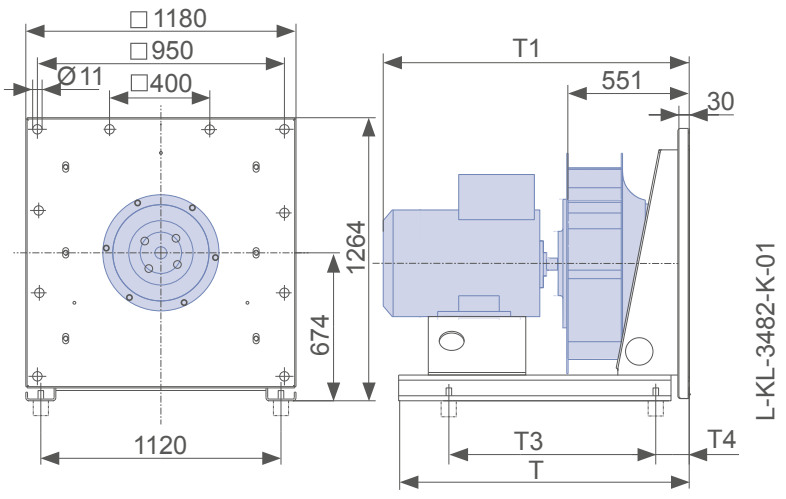
Nozzle coefficients

Standard k	789
With guard grille k_g	756

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
4.00	ER90C-8DN.I7.1R	130537/0101	160M	86.2	9.60	730	770	53	61.5	65.0
5.5	ER90C-8DN.I7.1R	130538/0101	160M	86.7	13.20	730	860	59	62.9	65.0
7.5	ER90C-6DN.I7.1R	130539/0101	160M/L	87.2	16.20	975	940	48	65.4	66.4
11.00	ER90C-6DN.K7.1R	130540/0101	160L/M	88.7	22.50	975	1070	55	66.6	66.5
15.00	ER90C-6DN.M7.1R	130541/0101	180L/M	88.7	31.00	975	1210	62	67.3	66.8
18.50	ER90C-6DN.N7.1R	130542/0101	200L	90.4	36.00	978	1290	66	67.8	67.1
22.00	ER90C-6DN.N7.1R	130543/0101	200L	90.9	42.50	978	1370	70	68.2	67.3
30.00	ER90C-4DN.N7.1R	130544/0101	200L	92.3	56.00	1470	1470	50	69.2	68.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
4.00	ER90C-8DN.I7.1R	260.00	1160	1084	953	115	00403351	00411648	02006450	02001674	308265
5.5	ER90C-8DN.I7.1R	273.00	1160	1084	1005	115	00403351	00411648	02006450	02001674	308267
7.5	ER90C-6DN.I7.1R	289.00	1160	1128	953	115	00403351	00411648	02006451	02001674	308267
11.00	ER90C-6DN.K7.1R	296.00	1160	1128	1005	115	00403351	00411648	02006451	02000407	308323
15.00	ER90C-6DN.M7.1R	356.00	1320	1202	1059	115	00403351	00411648	02006451	02000407	308325
18.50	ER90C-6DN.N7.1R	408.00	1320	1255	1164	115	00403351	00411648	02006452	02000407	308327
22.00	ER90C-6DN.N7.1R	408.00	1320	1255	1164	115	00403351	00411648	02006452	02019767	308329
30.00	ER90C-4DN.N7.1R	422.00	1320	1255	1164	115	00403351	00411648	02006452	02019767	308331

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
4.00	ER90C-8DN.I7.1R	130537/0141	160M/L	84.8	10.30	730	770	53	63.7	67.3
5.5	ER90C-8DN.I7.1R	130538/0141	160M/L	86.2	14.00	730	860	59	64.7	66.9
7.5	ER90C-6DN.I7.1R	130539/0141	160M/L	89.1	16.00	980	940	48	66.8	67.9
11.00	ER90C-6DN.K7.1R	130540/0141	160L	90.3	23.00	975	1070	55	67.8	67.7
15.00	ER90C-6DN.M7.1R	130541/0141	180L/M	91.2	29.50	975	1210	62	68.4	67.9
18.50	ER90C-6DN.N7.1R	130542/0141	200L	91.7	37.00	975	1290	66	68.8	68.1
22.00	ER90C-6DN.N7.1R	130543/0141	200L	92.2	43.00	978	1370	70	69.2	68.3
30.00	ER90C-4DN.N7.1R	130544/0141	200L	93.6	54.00	1470	1470	50	70.2	69.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
4.00	ER90C-8DN.I7.1R	259.00	1160	1080	840	115	00403351	00411648	02006450	02001674	308265
5.5	ER90C-8DN.I7.1R	273.00	1160	1080	893	115	00403351	00411648	02006450	02001674	308267
7.5	ER90C-6DN.I7.1R	280.00	1160	1080	900	115	00403351	00411648	02006451	02001674	308267
11.00	ER90C-6DN.K7.1R	302.00	1160	1140	953	115	00403351	00411648	02006451	02000407	308323
15.00	ER90C-6DN.M7.1R	371.00	1320	1144	1059	115	00403351	00411648	02006451	02000407	308325
18.50	ER90C-6DN.N7.1R	408.00	1320	1197	1164	115	00403351	00411648	02006452	02000407	308327
22.00	ER90C-6DN.N7.1R	423.00	1320	1222	1164	115	00403351	00411648	02006452	02019767	308329
30.00	ER90C-4DN.N7.1R	433.00	1320	1222	1164	115	00403351	00411648	02006452	02019767	308331

Plug fan C

ER10C

Motor ZAmotpremium IE2 and IE3

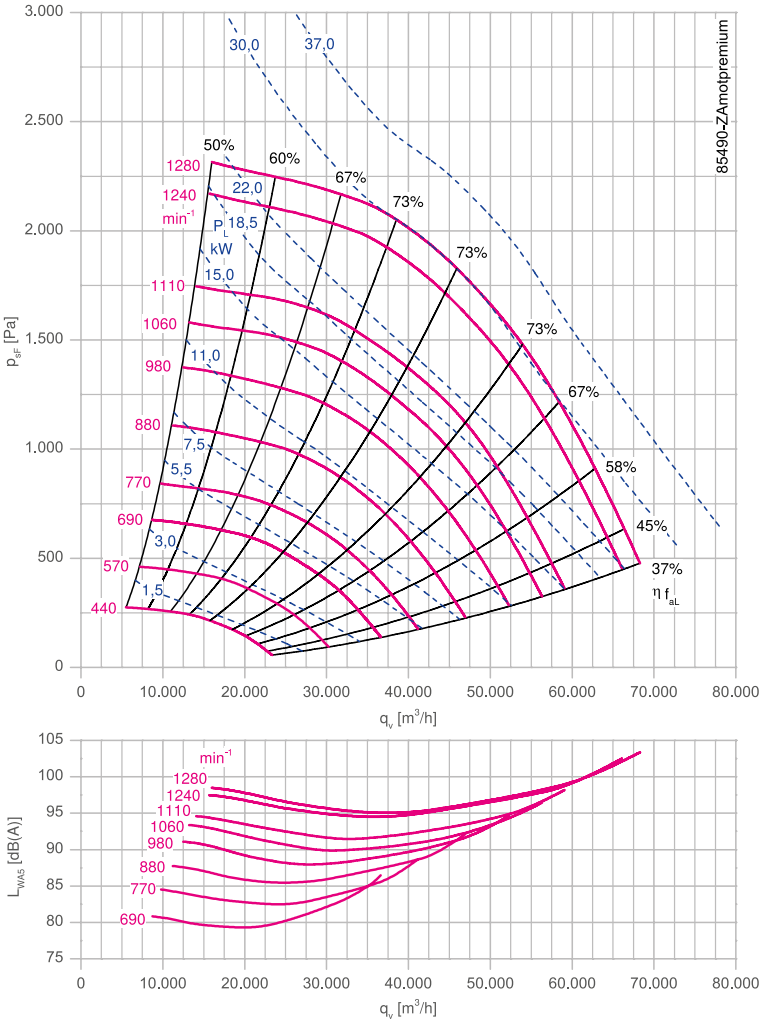
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

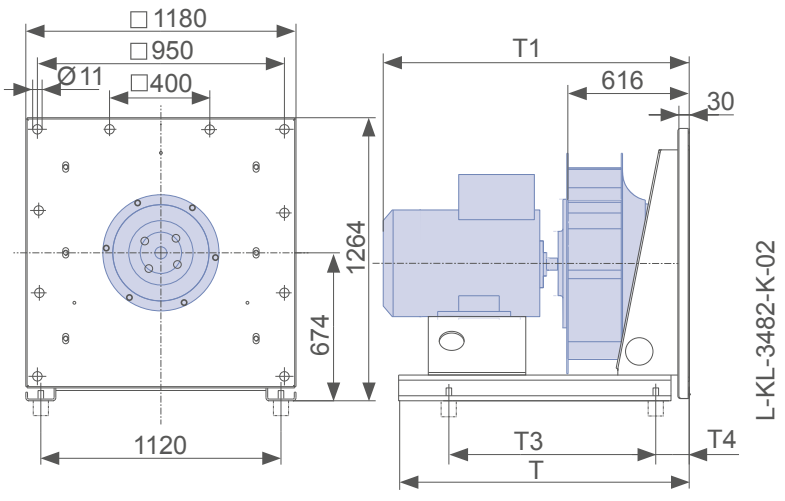
Nozzle coefficients

Standard k	999
With guard grille k_g	958

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	ER10C-8DN.I7.1R	130528/0101	160M	86.7	13.20	730	690	47	62.6	64.9
7.5	ER10C-8DN.K7.1R	130529/0101	160L	86.9	17.00	730	770	53	63.8	64.7
11.00	ER10C-8DN.M7.1R	130530/0101	180L	86.6	26.00	720	880	61	65.0	64.9
15.00	ER10C-6DN.M7.1R	130531/0101	180L/M	88.7	31.00	975	980	50	67.1	66.6
18.50	ER10C-6DN.N7.1R	130532/0101	200L	90.4	36.00	978	1060	54	67.6	66.9
22.00	ER10C-6DN.N7.1R	130533/0101	200L	90.9	42.50	978	1110	57	68.0	67.2
30.00	ER10C-6DN.R7.1R	130534/0101	225M	91.7	57.00	980	1230	63	68.6	67.4
37.00	ER10C-6DN.S7.1R	130535/0101	250M	92.2	70.00	982	1280	65	69.0	67.7

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
5.5	ER10C-8DN.I7.1R	316.00	1160	1150	1005	115	00403351	00411649	02006450	02001674	308267
7.5	ER10C-8DN.K7.1R	328.00	1160	1194	1005	115	00403351	00411649	02006451	02001674	308267
11.00	ER10C-8DN.M7.1R	388.00	1320	1268	1112	115	00403351	00411649	02006451	02000407	308325
15.00	ER10C-6DN.M7.1R	398.00	1320	1268	1112	115	00403351	00411649	02006451	02000407	308325
18.50	ER10C-6DN.N7.1R	451.00	1320	1321	1164	115	00403351	00411649	02006452	02000407	308327
22.00	ER10C-6DN.N7.1R	451.00	1320	1321	1164	115	00403351	00411649	02006452	02000407	308329
30.00	ER10C-6DN.R7.1R	519.00	1320	1362	1164	115	00403351	00411649	02006452	02019767	308331
37.00	ER10C-6DN.S7.1R	607.00	1320	1422	1164	115	00403351	00411649	02006453	02019767	

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
5.5	ER10C-8DN.I7.1R	130528/0141	160M/L	86.2	14.00	730	690	47	64.4	66.9
7.5	ER10C-8DN.K7.1R	130529/0141	160L	87.3	19.10	728	770	53	65.3	66.3
11.00	ER10C-8DN.M7.1R	130530/0141	180L/M	88.6	24.00	725	880	61	66.3	66.2
15.00	ER10C-6DN.M7.1R	130531/0141	180L/M	91.2	29.50	975	970	50	68.2	67.8
18.50	ER10C-6DN.N7.1R	130532/0141	200L	91.7	37.00	975	1060	54	68.6	67.9
22.00	ER10C-6DN.N7.1R	130533/0141	200L	92.2	43.00	978	1110	57	69.0	68.2
30.00	ER10C-6DN.R7.1R	130534/0141	225M/S	92.9	56.00	982	1240	63	69.5	68.3
37.00	ER10C-6DN.S7.1R	130535/0141	250M	93.3	67.00	985	1280	65	69.8	68.5

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
5.5	ER10C-8DN.I7.1R	316.00	1160	1146	998	115	00403351	00411649	02006450	02001674	308267
7.5	ER10C-8DN.K7.1R	340.00	1160	1206	945	115	00403351	00411649	02006451	02001674	308323
11.00	ER10C-8DN.M7.1R	423.00	1320	1240	1103	115	00403351	00411649	02006451	02000407	308323
15.00	ER10C-6DN.M7.1R	413.00	1320	1210	1112	115	00403351	00411649	02006451	02000407	308325
18.50	ER10C-6DN.N7.1R	451.00	1320	1263	1164	115	00403351	00411649	02006452	02000407	308327
22.00	ER10C-6DN.N7.1R	466.00	1320	1288	1164	115	00403351	00411649	02006452	02000407	308329
30.00	ER10C-6DN.R7.1R	559.00	1320	1362	1164	115	00403351	00411649	02006452	02019767	308331
37.00	ER10C-6DN.S7.1R	642.00	1320	1407	1164	115	00403351	00411649	02006453	02019767	

Plug fan C

ER11C.4R

Motor ZAmotpremium IE2 and IE3

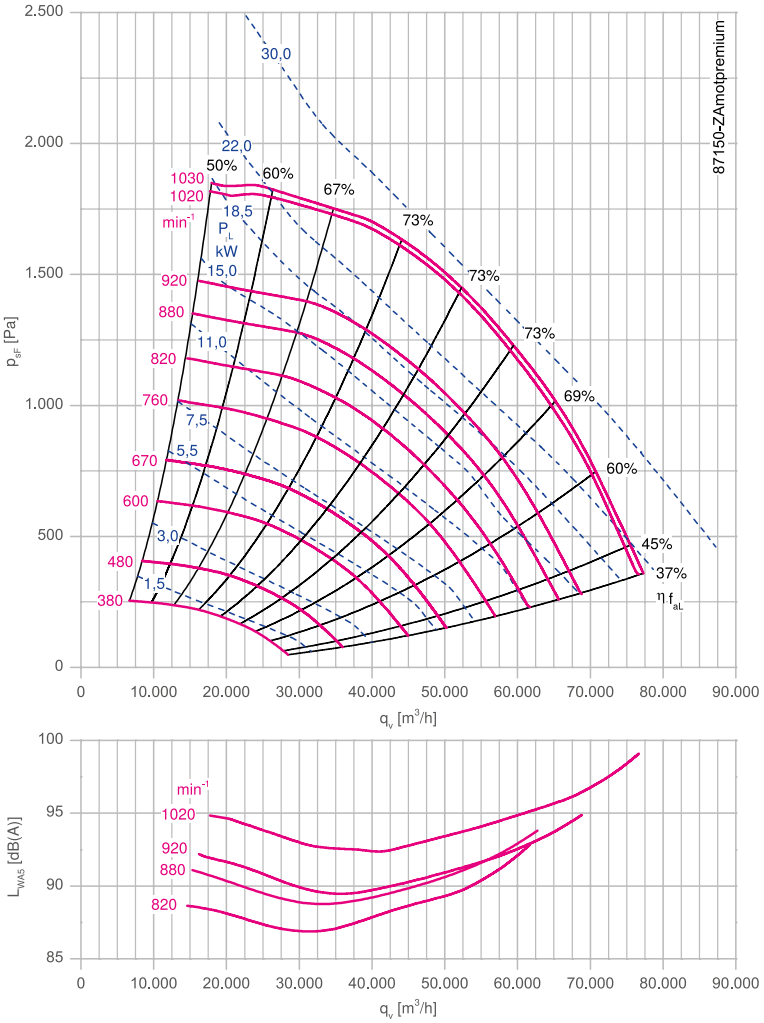
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

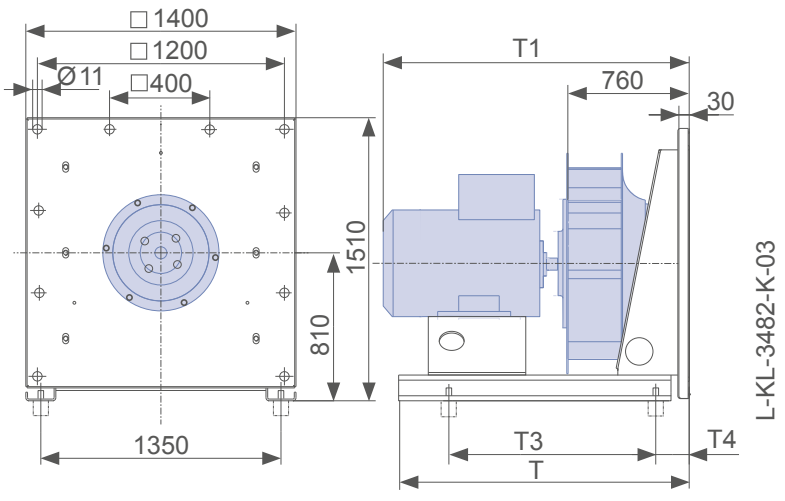
Nozzle coefficients

Standard k	1233
With guard grille k_g	1072

Characteristic curve



Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
15.00	**ER11C-8DN.N7.4R**	**114326/0101**	200L	88.9	32.00	718	820	57	65.7	65.2
18.50	**ER11C-8DN.P7.4R**	**114327/0101**	225S	89.0	38.50	730	880	60	66.1	65.4
22.00	**ER11C-8DN.R7.4R**	**114328/0101**	225M	90.3	44.00	730	920	63	66.5	65.6
30.00	**ER11C-6DN.R7.4R**	**114329/0101**	225M	91.7	57.00	980	1020	52	68.4	67.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
15.00	**ER11C-8DN.N7.4R**	566.00	1380	1340	1210	130	00403352	00411650	02006452	02000407	308325
18.50	**ER11C-8DN.P7.4R**	601.00	1380	1377	1210	130	00403352	00411650	02006452	02000407	308327
22.00	**ER11C-8DN.R7.4R**	681.00	1380	1438	1210	130	00403352	00411650	02006453	02000407	308329
30.00	**ER11C-6DN.R7.4R**	636.00	1380	1438	1210	130	00403352	00411650	02006453	02019767	308331

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
15.00	**ER11C-8DN.N7.4R**	**114326/0141**	200L	89.6	33.50	730	820	56	66.9	66.4
18.50	**ER11C-8DN.P7.4R**	**114327/0141**	225S/M	90.1	39.50	732	880	60	67.2	66.5
22.00	**ER11C-8DN.R7.4R**	**114328/0141**	225M/S	90.6	45.50	732	920	63	67.6	66.8
30.00	**ER11C-6DN.R7.4R**	**114329/0141**	225M/S	92.9	56.00	982	1020	52	69.3	68.1

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
15.00	**ER11C-8DN.N7.4R**	606.00	1380	1365	1210	130	00403352	00411650	02006452	02000407	308327
18.50	**ER11C-8DN.P7.4R**	621.00	1380	1377	1210	130	00403352	00411650	02006452	02000407	308329
22.00	**ER11C-8DN.R7.4R**	621.00	1380	1377	1210	130	00403352	00411650	02006453	02000407	308329
30.00	**ER11C-6DN.R7.4R**	676.00	1380	1439	1210	130	00403352	00411650	02006453	02019767	308331

Plug fan C

ER11C.1R

Motor ZAmotpremium IE2 and IE3

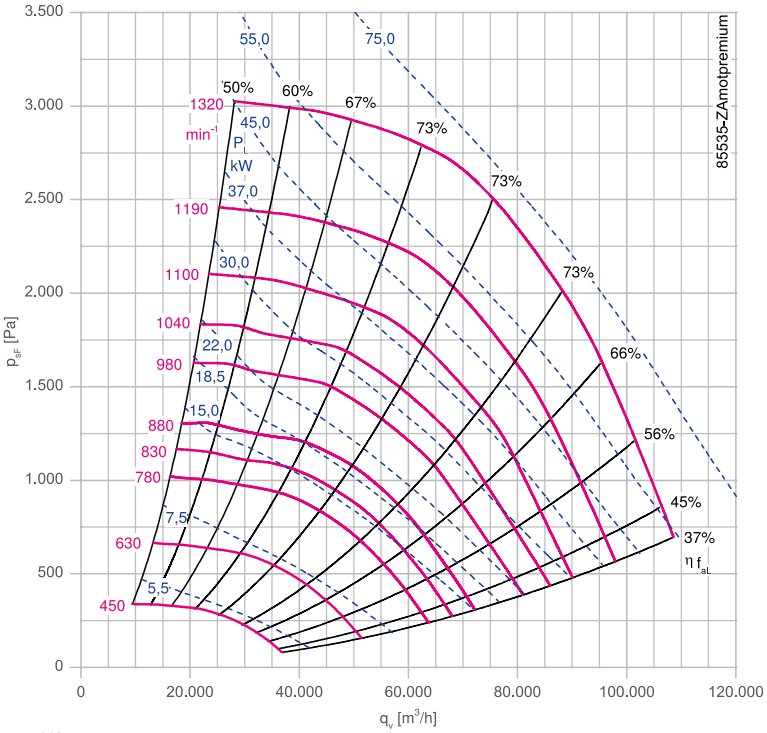
Description

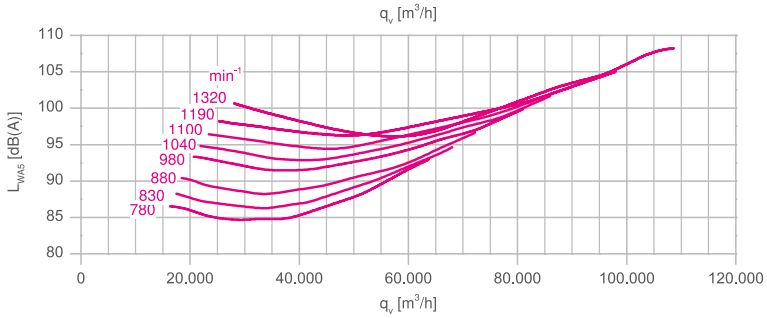
Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 1 RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Conformity: ErP 2015, CE, EAC

Nozzle coefficients

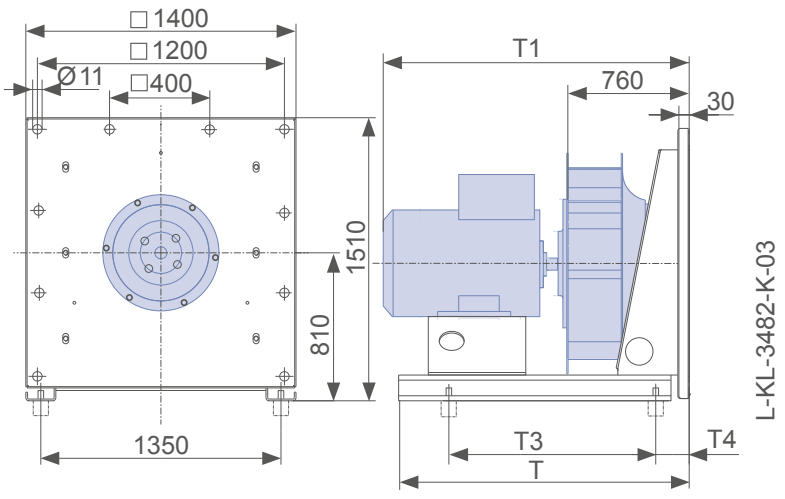
Standard k	1233
With guard grille k_g	1072

Characteristic curve





Dimensions mm



C-ZAmotpremium IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
15.00	**ER11C-8DN.N7.1R**	**112463/0101**	200L	88.9	32.00	718	780	54	65.5	65.0
18.50	**ER11C-8DN.P7.1R**	**112464/0101**	225S	89.0	38.50	730	830	57	66.0	65.3
22.00	**ER11C-8DN.R7.1R**	**112465/0101**	225M	90.3	44.00	730	880	60	66.3	65.4
30.00	**ER11C-6DN.R7.1R**	**112466/0101**	225M	91.7	57.00	980	980	50	68.2	67.0
37.00	**ER11C-6DN.S7.1R**	**112467/0101**	250M	92.2	70.00	982	1040	53	68.6	67.2
45.00	**ER11C-6DN.T7.1R**	**112468/0101**	280S	92.7	83.00	985	1100	56	69.0	67.4
55.00	**ER11C-6DN.U7.1R**	**113408/0101**	280M	93.1	99.00	985	1180	60	69.3	67.5
75.00	**ER11C-6DN.W7.1R**	**113405/0101**	315S	93.7	138.00	985	1320	67	69.7	67.5

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

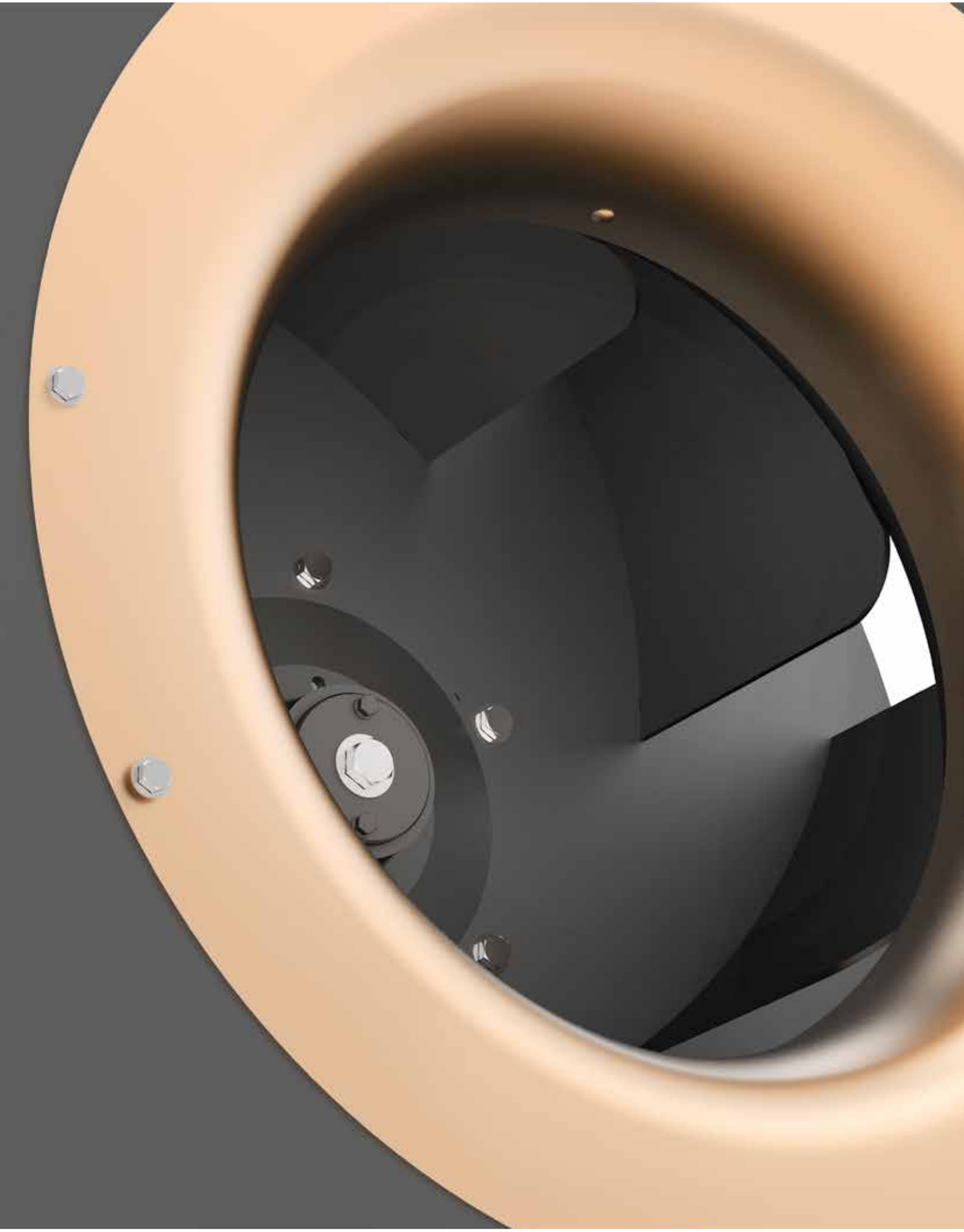
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
15.00	**ER11C-8DN.N7.1R**	656.00	1630	1475	1385	70	00403352	00411650	02006452	02000407	308325
18.50	**ER11C-8DN.P7.1R**	691.00	1630	1490	1450	70	00403352	00411650	02006452	02000407	308327
22.00	**ER11C-8DN.R7.1R**	711.00	1630	1515	1450	70	00403352	00411650	02006452	02000407	308329
30.00	**ER11C-6DN.R7.1R**	726.00	1630	1515	1450	70	00403352	00411650	02006453	02019767	308331
37.00	**ER11C-6DN.S7.1R**	811.00	1630	1576	1520	70	00403352	00411650	02006453	02019767	
45.00	**ER11C-6DN.T7.1R**	901.00	1630	1648	1430	160	00403352	00411650	02006879	02019767	
55.00	**ER11C-6DN.U7.1R**	951.00	1630	1699	1430	160	00403352	00411650	02006879	02019767	
75.00	**ER11C-6DN.W7.1R**	1215.00	1795	1738	1460	276	00403352	00411650	02006879	02019767	

C-ZAmotpremium IE3

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz	Efficiency η_{statA} %	Efficiency grade N_{actual}*
15.00	**ER11C-8DN.N7.1R**	**112463/0141**	200L	89.6	33.50	730	770	53	66.7	66.2
18.50	**ER11C-8DN.P7.1R**	**112464/0141**	225S/M	90.1	39.50	732	820	56	67.1	66.4
22.00	**ER11C-8DN.R7.1R**	**112465/0141**	225M/S	90.6	45.50	732	880	60	67.4	66.5
30.00	**ER11C-6DN.R7.1R**	**112466/0141**	225M/S	92.9	56.00	982	960	49	69.1	68.0
37.00	**ER11C-6DN.S7.1R**	**112467/0141**	250M	93.3	67.00	985	1040	53	69.4	68.0
45.00	**ER11C-6DN.T7.1R**	**112468/0141**	280S/M	93.7	82.00	985	1100	56	69.8	68.2
55.00	**ER11C-6DN.U7.1R**	**113408/0141**	280M/S	94.1	99.00	985	1190	60	70.0	68.2
75.00	**ER11C-6DN.W7.1R**	**113405/0141**	315S	94.6	136.00	990	1320	67	70.4	68.2

* ErP 2015 Target N=62 | expected limit for ErP 2020 N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
15.00	**ER11C-8DN.N7.1R**	696.00	1630	1442	1235	160	00403352	00411650	02006452	02000407	308327
18.50	**ER11C-8DN.P7.1R**	711.00	1630	1454	1235	160	00403352	00411650	02006452	02000407	308329
22.00	**ER11C-8DN.R7.1R**	711.00	1630	1454	1235	160	00403352	00411650	02006452	02000407	308329
30.00	**ER11C-6DN.R7.1R**	766.00	1630	1515	1295	160	00403352	00411650	02006453	02019767	308331
37.00	**ER11C-6DN.S7.1R**	846.00	1630	1561	1520	70	00403352	00411650	02006453	02019767	
45.00	**ER11C-6DN.T7.1R**	951.00	1630	1630	1430	160	00403352	00411650	02006879	02019767	
55.00	**ER11C-6DN.U7.1R**	1001.00	1630	1630	143	160	00403352	00411650	02006879	02019767	
75.00	**ER11C-6DN.W7.1R**	1305.00	1795	1718	1460	276	00403352	00411650	02006879	02019767	



Plug fan C ATEX

ZAmotpremiumEX IE2

Product overview

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Plug fan C ATEX

ER25C

Motor ZAmotpremiumEX IE2

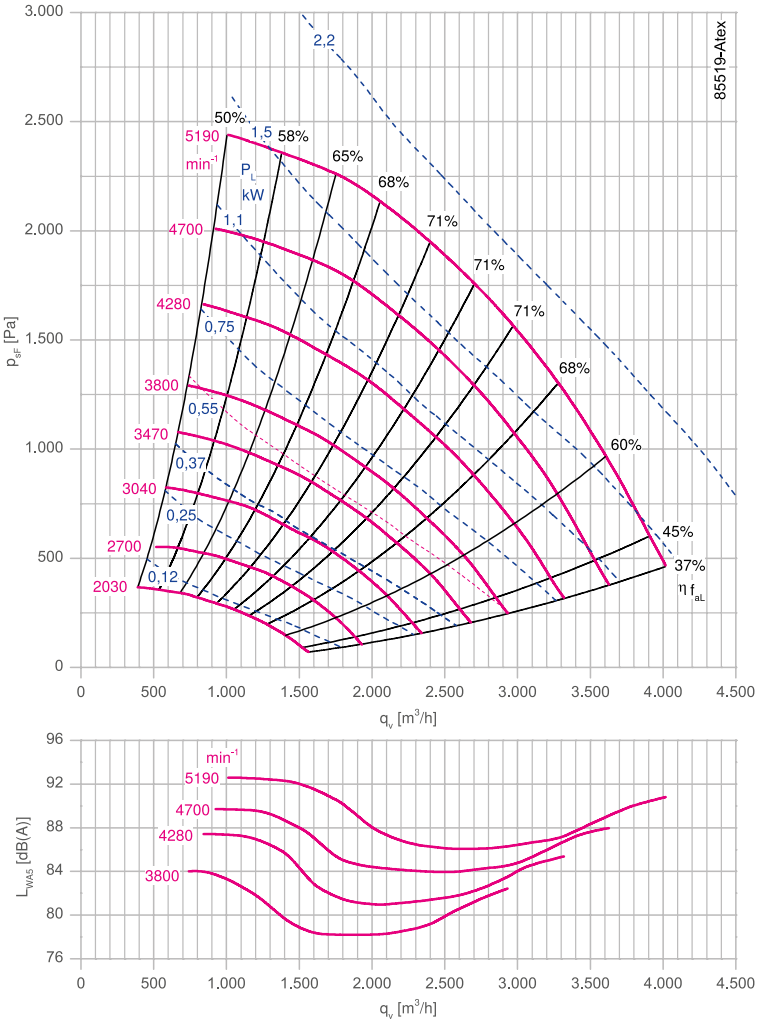
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

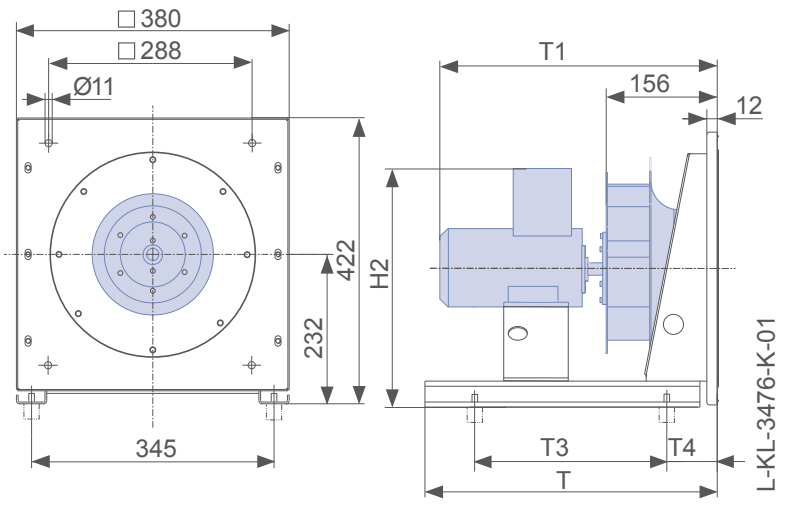
Nozzle coefficients

Standard k	55
With guard grille k_g	53

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
0.75	**ER25C-2DY.B7.1R**	**130609/EX01**	080M	77.4	1.67	2805	3800	67
1.1	**ER25C-2DY.B7.1R**	**130610/EX01**	080M	79.6	2.40	2835	4280	75
1.5	**ER25C-2DY.D7.1R**	**130611/EX01**	090L	81.3	3.20	2885	4700	82
2.2	**ER25C-2DY.D7.1R**	**130612/EX01**	090L	83.2	4.50	2890	5190	90

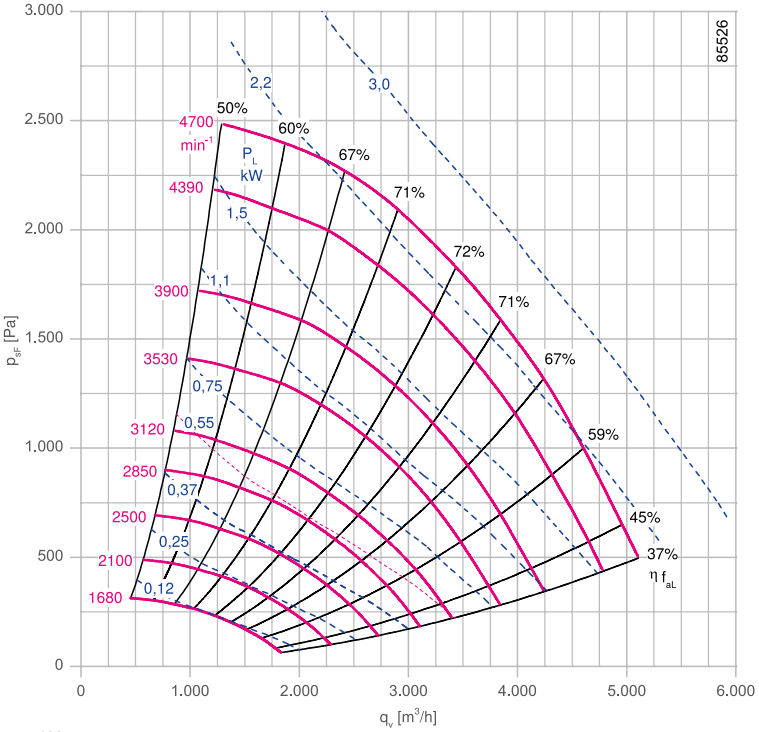
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
0.75	**ER25C-2DY.B7.1R**	35.00	452	505	370	60	440	00406430	00412699	02021196	00090144	308228
1.1	**ER25C-2DY.B7.1R**	35.00	452	505	370	60	440	00406430	00412699	02021196	00090144	308228
1.5	**ER25C-2DY.D7.1R**	45.00	452	563	370	60	445	00406430	00412699	02021196	00090144	308230
2.2	**ER25C-2DY.D7.1R**	45.00	452	563	370	60	445	00406430	00412699	02021197	00090144	308232

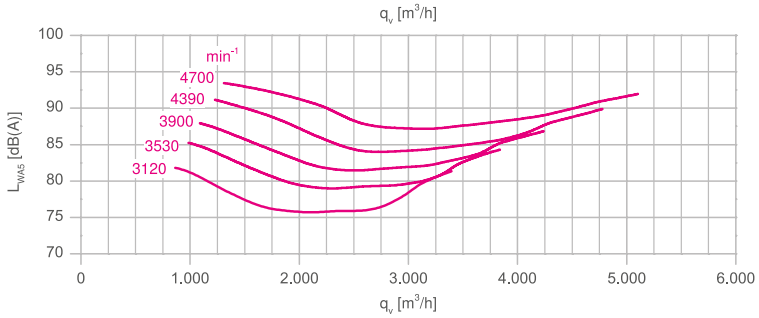
Plug fan C ATEX

ER28C

Motor ZAmotpremiumEX IE2

Characteristic curve





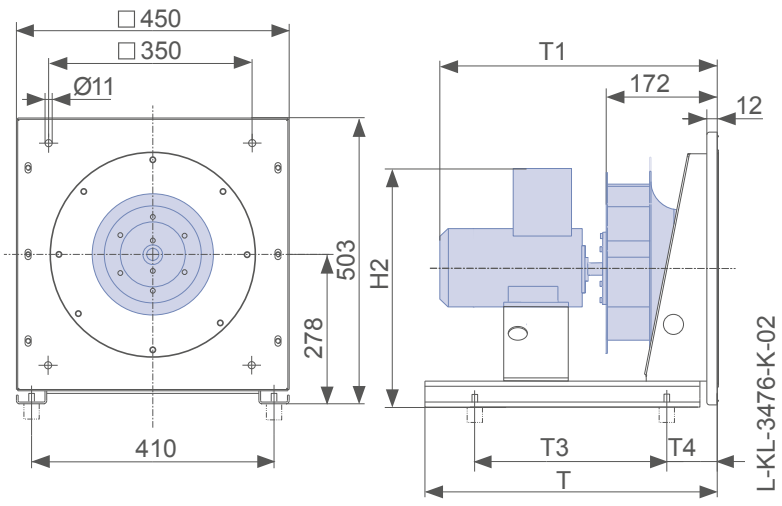
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

Nozzle coefficients

Standard k	69
With guard grille k_g	66

Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
0.75	**ER28C-2DY.B7.1R**	**130604/EX01**	080M	77.4	1.67	2805	3120	55
1.1	**ER28C-2DY.B7.1R**	**130605/EX01**	080M	79.6	2.40	2835	3530	62
1.5	**ER28C-2DY.D7.1R**	**130606/EX01**	090L	81.3	3.20	2885	3900	68
2.2	**ER28C-2DY.D7.1R**	**130607/EX01**	090L	83.2	4.50	2890	4390	76
3.00	**ER28C-2DY.E7.1R**	**130608/EX01**	100L	84.6	6.10	2905	4700	81

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
0.75	**ER28C-2DY.B7.1R**	39.00	562	521	400	60	486	00406431	00412700	02021196	00090144	308228
1.1	**ER28C-2DY.B7.1R**	39.00	562	521	400	60	486	00406431	00412700	02021196	00090144	308228
1.5	**ER28C-2DY.D7.1R**	49.00	562	579	450	60	491	00406431	00412700	02021196	00090144	308230
2.2	**ER28C-2DY.D7.1R**	49.00	562	579	450	60	491	00406431	00412700	02021197	00090144	308232
3.00	**ER28C-2DY.E7.1R**	65.00	562	625	470	60	505	00406431	00412700	02021197	00090144	308234

Plug fan C ATEX

ER31C

Motor ZAmotpremiumEX IE2

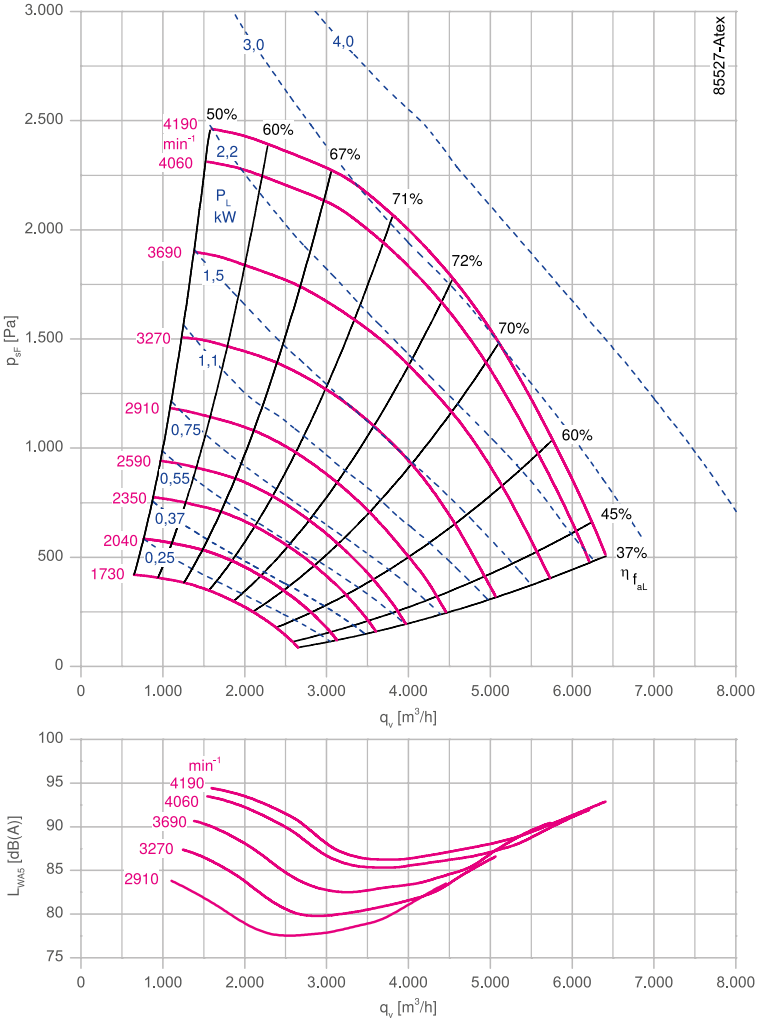
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

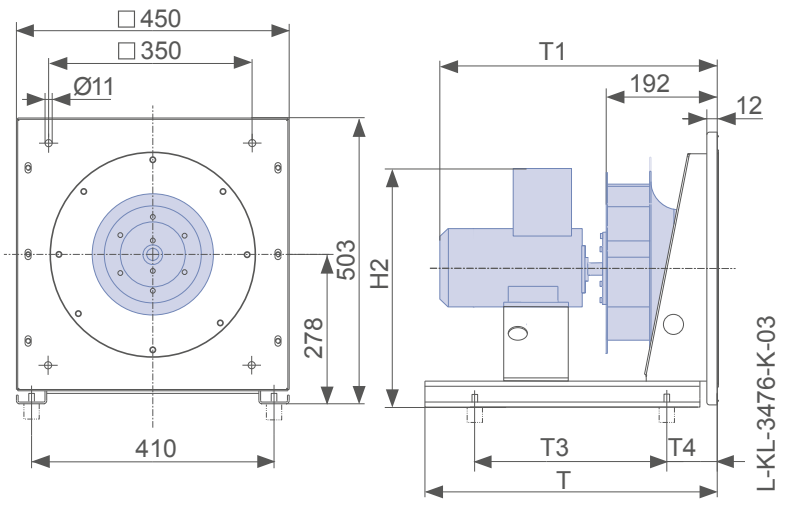
Nozzle coefficients

Standard k	87
With guard grille k_g	83

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
1.1	**ER31C-2DY.B7.1R**	**130599/EX01**	080M	79.6	2.40	2835	2910	51
1.5	**ER31C-2DY.D7.1R**	**130600/EX01**	090L	81.3	3.20	2885	3270	57
2.2	**ER31C-2DY.D7.1R**	**130601/EX01**	090L	83.2	4.50	2890	3690	64
3.00	**ER31C-2DY.E7.1R**	**130602/EX01**	100L	84.6	6.10	2905	4060	70
4.00	**ER31C-2DY.F7.1R**	**130603/EX01**	112M	85.8	7.80	2950	4190	72

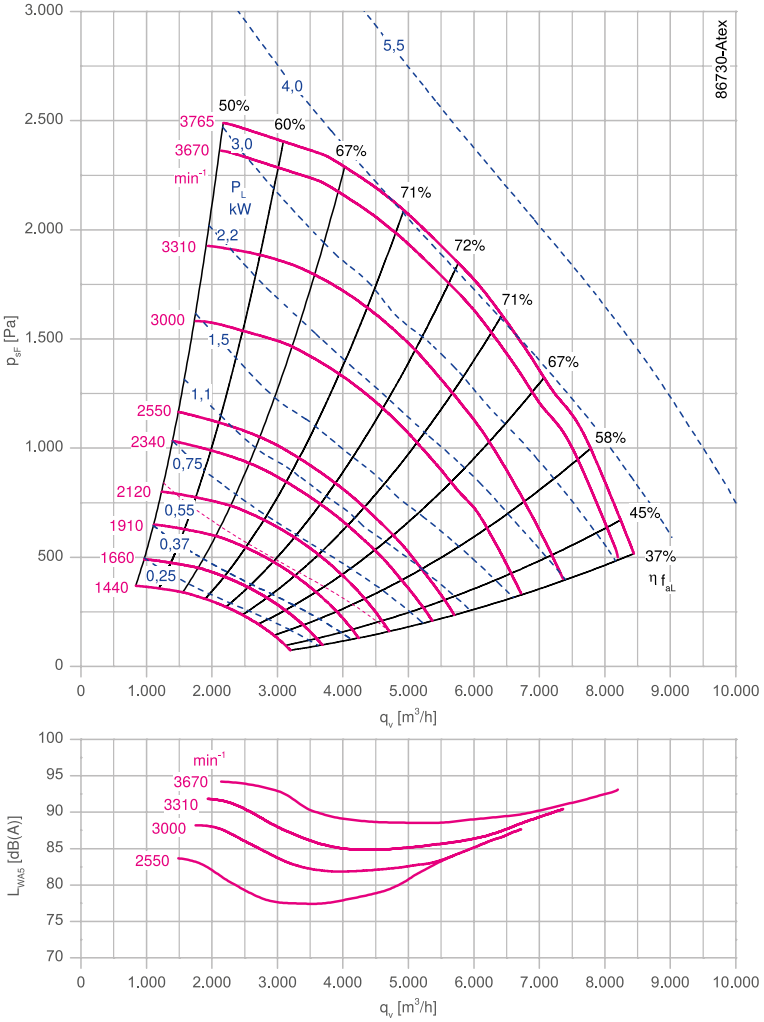
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.1	**ER31C-2DY.B7.1R**	40.00	562	541	410	60	486	00406431	00412701	02021196	00090144	308228
1.5	**ER31C-2DY.D7.1R**	51.00	562	599	460	60	491	00406431	00412701	02021196	00090144	308230
2.2	**ER31C-2DY.D7.1R**	51.00	562	599	460	60	491	00406431	00412701	02021197	00090144	308232
3.00	**ER31C-2DY.E7.1R**	67.00	562	645	480	60	505	00406431	00412701	02021197	00090144	308234
4.00	**ER31C-2DY.F7.1R**	77.00	562	628	480	60	518	00406431	00412701	02021197	00090144	308236

Plug fan C ATEX

ER35C

Motor ZAmotpremiumEX IE2

Characteristic curve



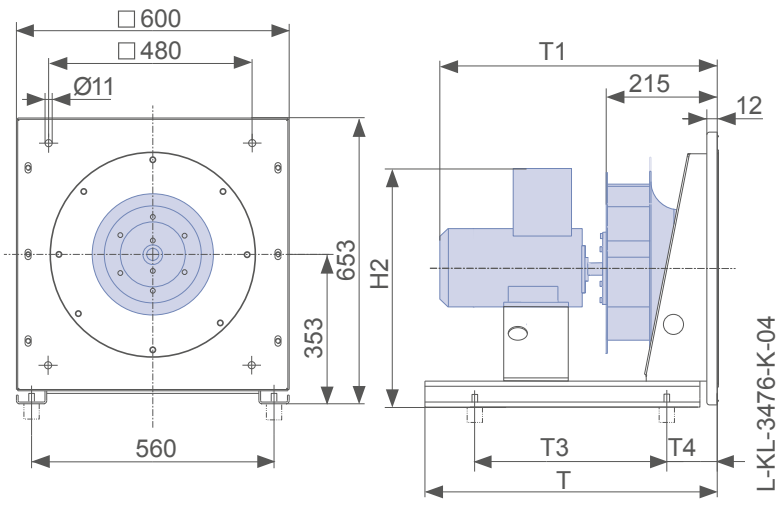
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

Nozzle coefficients

Standard k	111
With guard grille k_g	106

Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
1.5	**ER35C-4DY.D7.1R**	**130595/EX01**	090L	82.8	3.30	1435	2550	89
2.2	**ER35C-2DY.D7.1R**	**130596/EX01**	090L	83.2	4.50	2890	3000	52
3.00	**ER35C-2DY.E7.1R**	**130597/EX01**	100L	84.6	6.10	2905	3310	57
4.00	**ER35C-2DY.F7.1R**	**130598/EX01**	112M	85.8	7.80	2950	3670	63

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.5	**ER35C-4DY.D7.1R**	56.00	562	566	350	115	566	00406432	00412702	02021197	00090144	308230
2.2	**ER35C-2DY.D7.1R**	56.00	562	566	350	115	566	00406432	00412702	02021198	00090144	308232
3.00	**ER35C-2DY.E7.1R**	73.00	562	580	400	115	580	00406432	00412702	02021198	00090144	308234
4.00	**ER35C-2DY.F7.1R**	82.00	562	593	400	115	593	00406432	00412702	02021198	00090144	308236

Plug fan C ATEX

ER40C

Motor ZAmotpremiumEX IE2

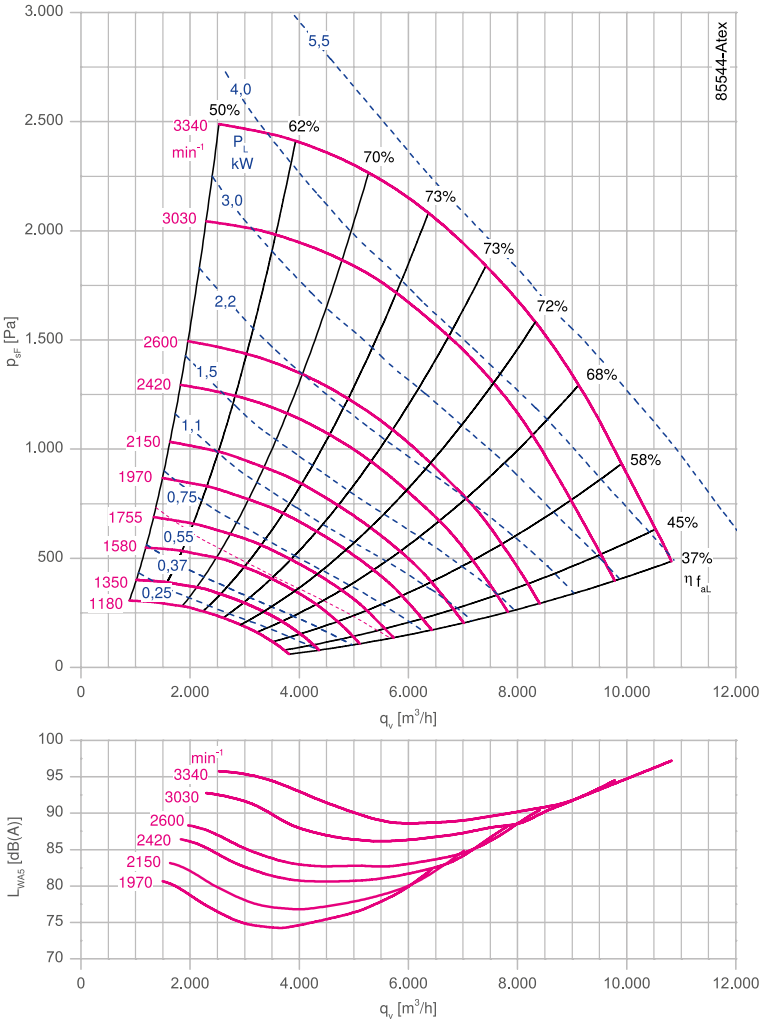
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

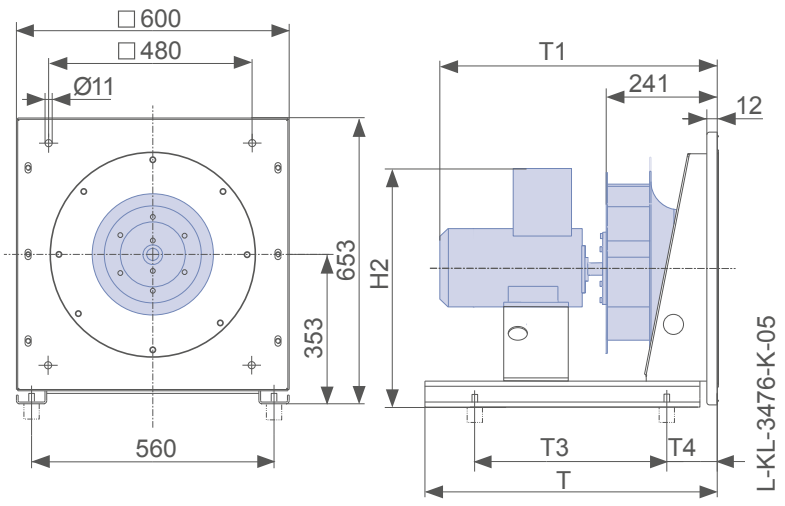
Nozzle coefficients

Standard k	141
With guard grille k_g	135

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
1.1	**ER40C-4DY.D7.1R**	**130589/EX01**	090L	81.4	2.50	1425	1970	69
1.5	**ER40C-4DY.D7.1R**	**130590/EX01**	090L	82.8	3.30	1435	2150	75
2.2	**ER40C-4DY.E7.1R**	**130591/EX01**	100L	84.3	4.70	1455	2420	84
3.00	**ER40C-4DY.E7.1R**	**130592/EX01**	100L	85.5	6.20	1455	2600	90
4.00	**ER40C-2DY.F7.1R**	**130593/EX01**	112M	85.8	7.80	2950	3030	52
5.5	**ER40C-2DY.G7.1R**	**130594/EX01**	132S	87.0	10.50	2950	3340	57

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.1	**ER40C-4DY.D7.1R**	59.00	562	647	400	115	566	00406432	00412703	02021197	00090144	308228
1.5	**ER40C-4DY.D7.1R**	59.00	562	647	400	115	566	00406432	00412703	02021197	00090144	308230
2.2	**ER40C-4DY.E7.1R**	75.00	562	693	400	115	580	00406432	00412703	02021197	00090144	308232
3.00	**ER40C-4DY.E7.1R**	75.00	562	693	400	115	580	00406432	00412703	02021198	00090144	308234
4.00	**ER40C-2DY.F7.1R**	86.00	712	676	460	115	593	00406432	00412703	02021198	00090144	308236
5.5	**ER40C-2DY.G7.1R**	111.00	712	770	520	115	627	00406432	00412703	02021198	00090144	308265

Plug fan C ATEX

ER45C

Motor ZAmotpremiumEX IE2

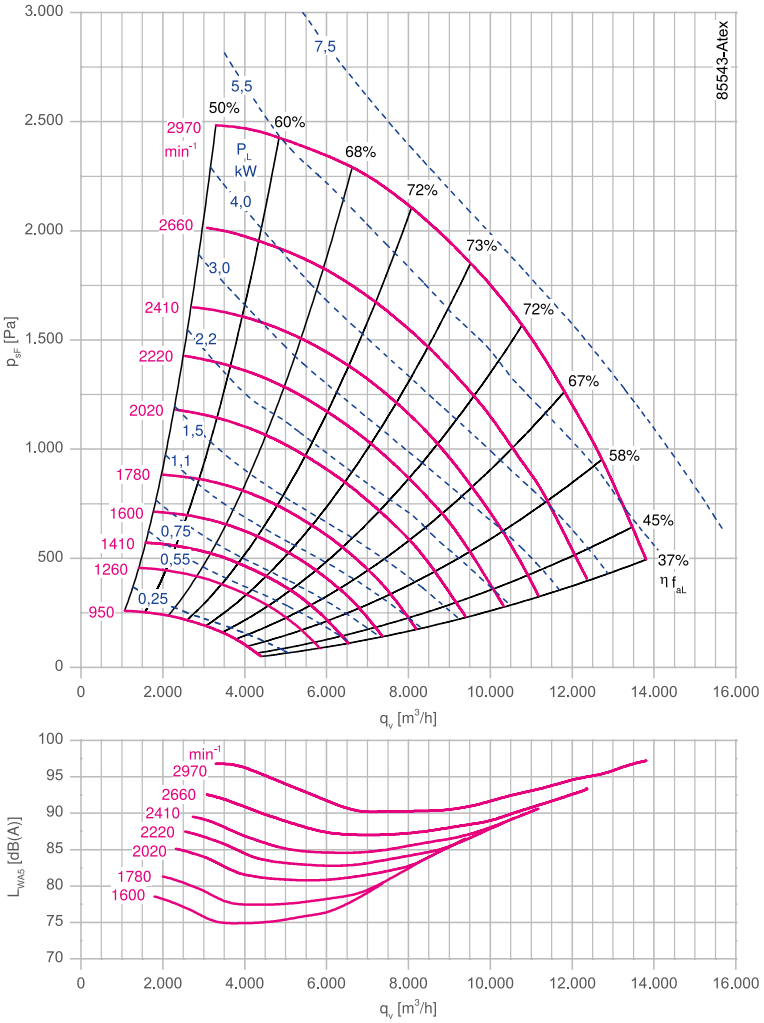
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

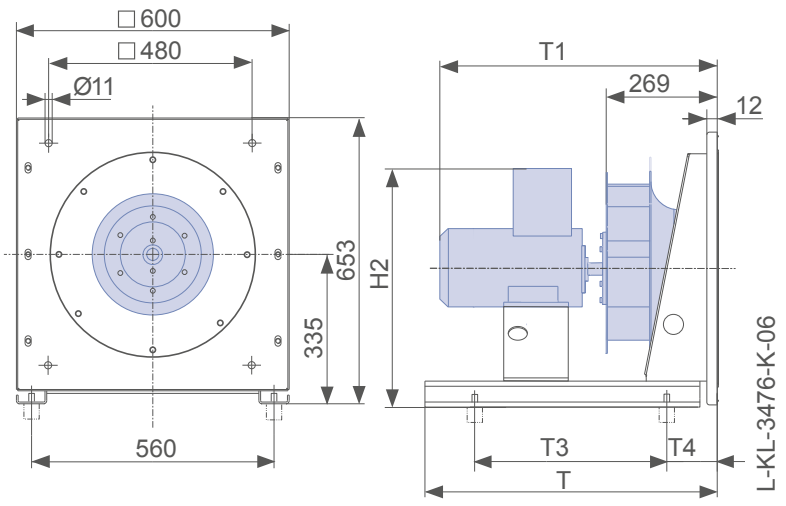
Nozzle coefficients

Standard k	181
With guard grille k_g	173

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
1.1	**ER45C-4DY.D7.1R**	**130582/EX01**	090L	81.4	2.50	1425	1600	56
1.5	**ER45C-4DY.D7.1R**	**130583/EX01**	090L	82.8	3.30	1435	1780	62
2.2	**ER45C-4DY.E7.1R**	**130584/EX01**	100L	84.3	4.70	1455	2020	70
3.00	**ER45C-4DY.E7.1R**	**130585/EX01**	100L	85.5	6.20	1455	2220	76
4.00	**ER45C-4DY.F7.1R**	**130586/EX01**	112M	86.6	8.20	1460	2410	83
5.5	**ER45C-4DY.G7.1R**	**130587/EX01**	132S	87.7	11.30	1465	2660	92
7.5	**ER45C-2DY.G7.1R**	**130588/EX01**	132S	88.1	14.10	2950	2970	51

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.1	**ER45C-4DY.D7.1R**	64.00	562	638	420	115	566	00406432	00412704	02021197	00090144	308228
1.5	**ER45C-4DY.D7.1R**	64.00	562	638	420	115	566	00406432	00412704	02021197	00090144	308230
2.2	**ER45C-4DY.E7.1R**	80.00	562	671	420	115	580	00406432	00412704	02021198	00090144	308232
3.00	**ER45C-4DY.E7.1R**	80.00	562	671	420	115	580	00406432	00412704	02021198	02000124	308234
4.00	**ER45C-4DY.F7.1R**	91.00	712	673	500	115	593	00406432	00412704	02021198	02000124	308236
5.5	**ER45C-4DY.G7.1R**	118.00	712	740	570	115	627	00406432	00412704	02021198	02000124	308265
7.5	**ER45C-2DY.G7.1R**	118.00	712	740	570	115	627	00406432	00412704	02021199	02000124	308267

Plug fan C ATEX

ER50C

Motor ZAmotpremiumEX IE2

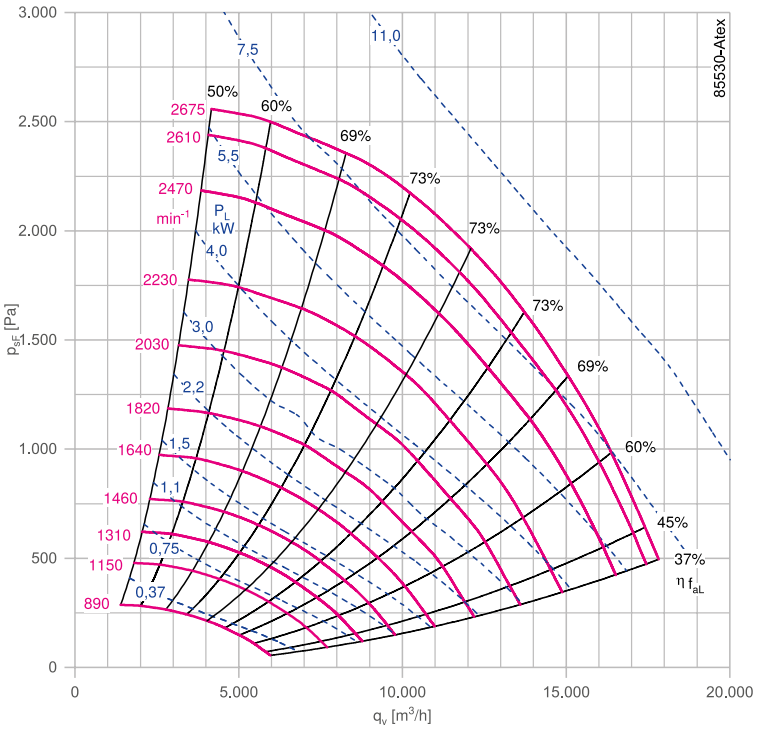
Description

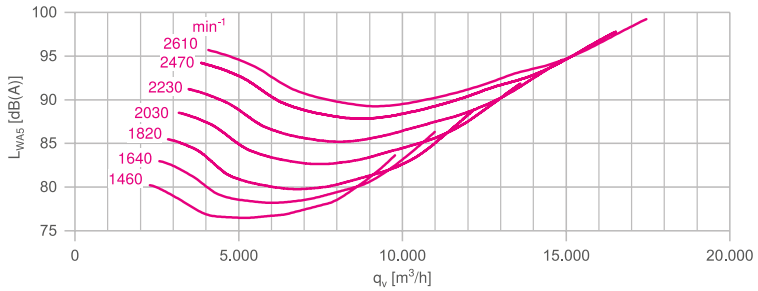
Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

Nozzle coefficients

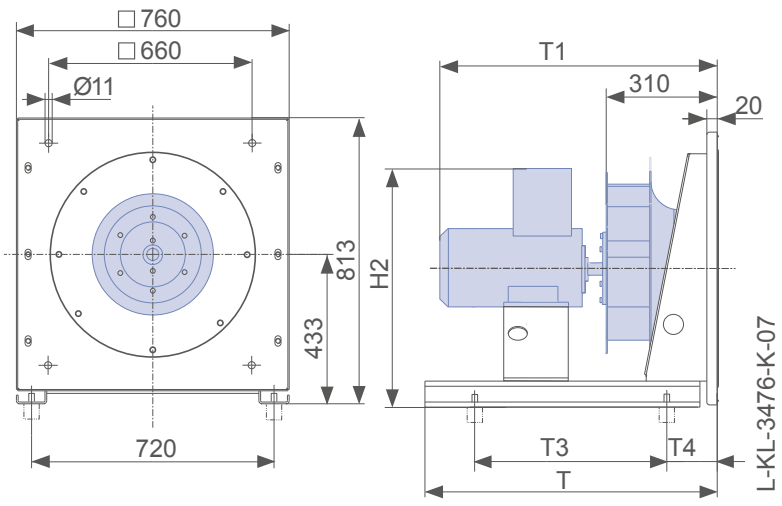
Standard k	231
With guard grille k_g	221

Characteristic curve





Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
1.5	**ER50C-4DY.D7.1R**	**130575/EX01**	090L	82.8	3.30	1435	1460	51
2.2	**ER50C-4DY.E7.1R**	**130576/EX01**	100L	84.3	4.70	1455	1640	57
3.00	**ER50C-4DY.E7.1R**	**130577/EX01**	100L	85.5	6.20	1455	1820	63
4.00	**ER50C-4DY.F7.1R**	**130578/EX01**	112M	86.6	8.20	1460	2030	70
5.5	**ER50C-4DY.G7.1R**	**130579/EX01**	132S	87.7	11.30	1465	2230	77
7.5	**ER50C-4DY.H7.1R**	**130580/EX01**	132M	88.7	14.70	1465	2470	85
11.00	**ER50C-4DY.I7.1R**	**130581/EX01**	160M	89.8	21.00	1470	2610	89

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.5	**ER50C-4DY.D7.1R**	81.00	720	722	470	115	646	00406433	00412705	02021198	00090144	308230
2.2	**ER50C-4DY.E7.1R**	97.00	720	768	470	115	660	00406433	00412705	02021198	00090144	308232
3.00	**ER50C-4DY.E7.1R**	97.00	720	768	470	115	660	00406433	00412705	02021198	00090144	308234
4.00	**ER50C-4DY.F7.1R**	107.00	720	751	470	115	673	00406433	00412705	02021198	02000124	308236
5.5	**ER50C-4DY.G7.1R**	135.00	720	840	580	115	707	00406433	00412705	02021199	02000124	308265
7.5	**ER50C-4DY.H7.1R**	140.00	720	840	580	115	707	00406433	00412705	02021199	02000124	308267
11.00	**ER50C-4DY.I7.1R**	227.00	880	1022	740	115	738	00406433	00412705	02021199	02000124	308323

Plug fan C ATEX

ER56C

Motor ZAmotpremiumEX IE2

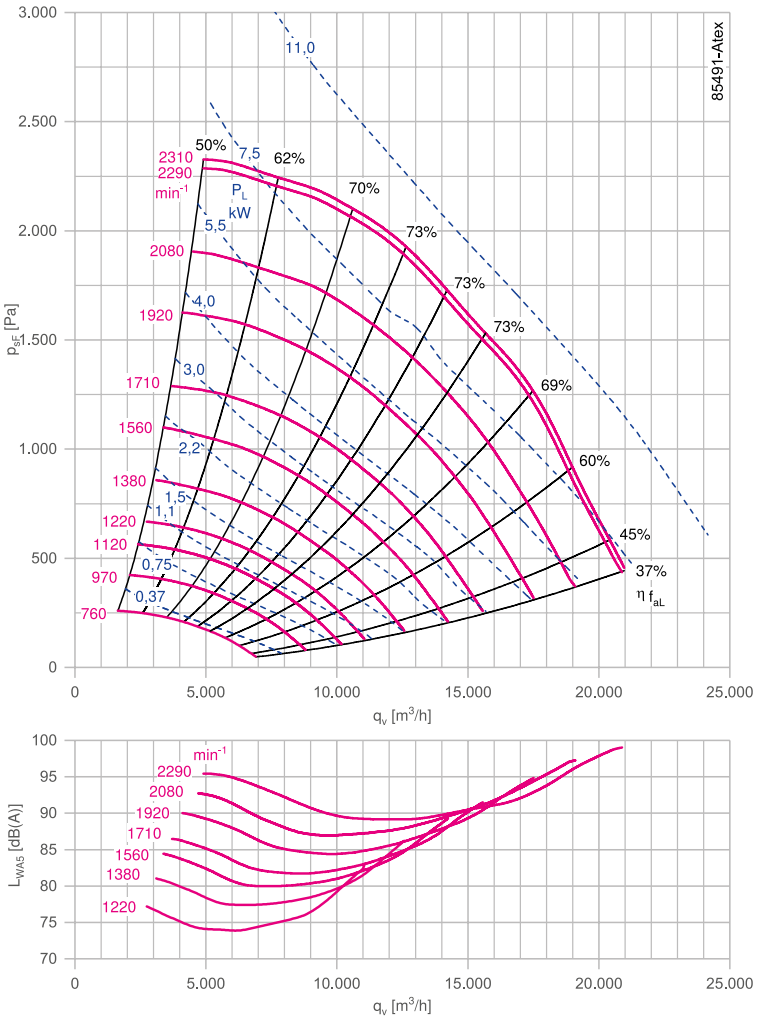
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

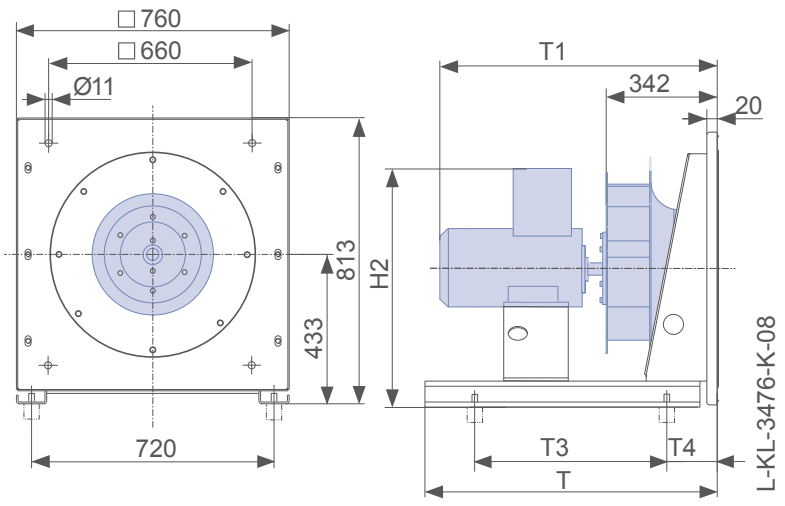
Nozzle coefficients

Standard k	284
With guard grille k_g	271

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
1.5	**ER56C-6DY.E7.1R**	**130568/EX01**	100L	79.8	3.70	970	1220	64
2.2	**ER56C-4DY.E7.1R**	**130569/EX01**	100L	84.3	4.70	1455	1380	48
3.00	**ER56C-4DY.E7.1R**	**130570/EX01**	100L	85.5	6.20	1455	1560	54
4.00	**ER56C-4DY.F7.1R**	**130571/EX01**	112M	86.6	8.20	1460	1710	59
5.5	**ER56C-4DY.G7.1R**	**130572/EX01**	132S	87.7	11.30	1465	1920	66
7.5	**ER56C-4DY.H7.1R**	**163660/EX01**	132M	88.7	14.70	1465	2080	72
11.00	**ER56C-4DY.I7.1R**	**163661/EX01**	160M	89.8	21.00	1470	2290	78

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.5	**ER56C-6DY.E7.1R**	101.00	720	800	530	115	660	00406433	00412706	02021198	00090144	308232
2.2	**ER56C-4DY.E7.1R**	101.00	720	800	530	115	660	00406433	00412706	02021198	00090144	308232
3.00	**ER56C-4DY.E7.1R**	101.00	720	800	530	115	660	00406433	00412706	02021199	02000124	308234
4.00	**ER56C-4DY.F7.1R**	111.00	720	783	530	115	673	00406433	00412706	02021199	02000124	308236
5.5	**ER56C-4DY.G7.1R**	141.00	880	872	660	115	707	00406433	00412706	02021199	02000124	308265
7.5	**ER56C-4DY.H7.1R**	146.00	880	872	660	115	707	00406433	00412706	02018876	02020907	308267
11.00	**ER56C-4DY.I7.1R**	231.00	880	1054	745	115	738	00406433	00412706	02018876	02020907	308323

Plug fan C ATEX

ER63C

Motor ZAmotpremiumEX IE2

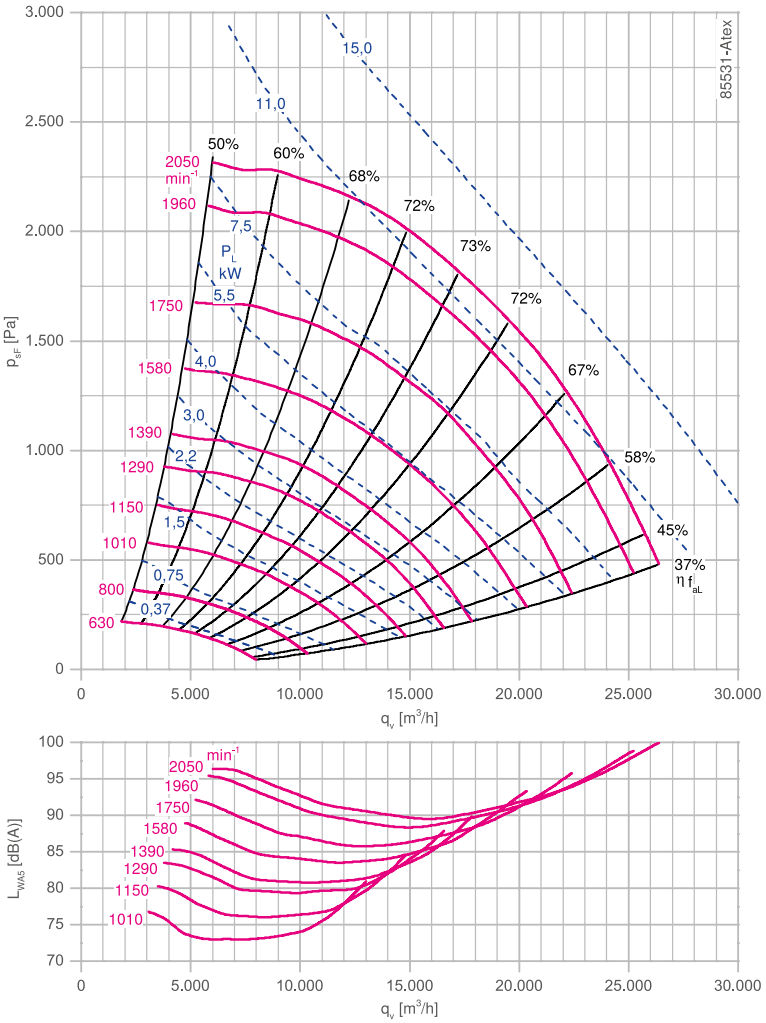
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

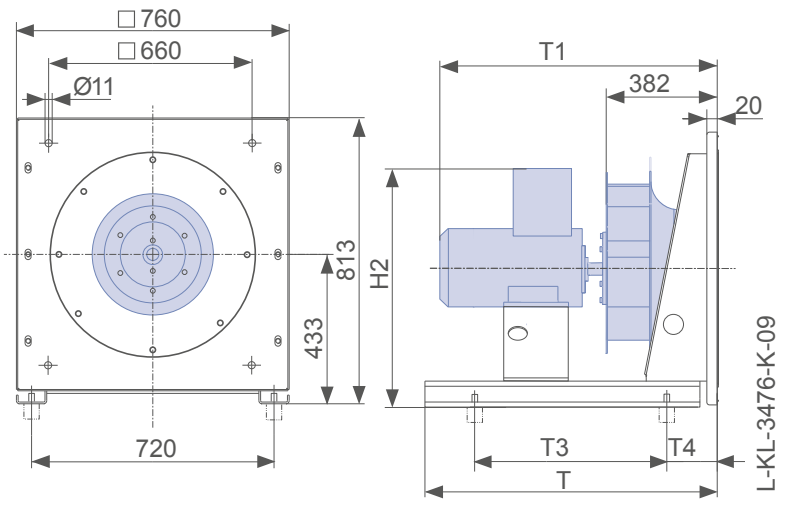
Nozzle coefficients

Standard k	350
With guard grille k_g	334

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
1.5	**ER63C-6DY.E7.1R**	**130560/EX01**	100L	79.8	3.70	970	1010	53
2.2	**ER63C-6DY.F7.1R**	**130561/EX01**	112M	81.8	5.20	965	1150	60
3.00	**ER63C-6DY.G7.1R**	**130562/EX01**	132S	83.3	7.00	970	1290	68
4.00	**ER63C-4DY.F7.1R**	**130563/EX01**	112M	86.6	8.20	1460	1390	48
5.5	**ER63C-4DY.G7.1R**	**130564/EX01**	132S	87.7	11.30	1465	1580	55
7.5	**ER63C-4DY.H7.1R**	**130565/EX01**	132M	88.7	14.70	1465	1750	60
11.00	**ER63C-4DY.I7.1R**	**163662/EX01**	160M	89.8	21.00	1470	1960	67
15.00	**ER63C-4DY.K7.1R**	**163663/EX01**	160L	90.6	28.00	1475	2050	70

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.5	**ER63C-6DY.E7.1R**	116.00	720	839	580	115	660	00406433	00412707	02021198	00090144	308232
2.2	**ER63C-6DY.F7.1R**	126.00	720	822	580	115	673	00406433	00412707	02021198	00090144	308234
3.00	**ER63C-6DY.G7.1R**	149.00	880	911	680	115	707	00406433	00412707	02021199	02000124	308234
4.00	**ER63C-4DY.F7.1R**	126.00	720	822	580	115	673	00406433	00412707	02021199	02000124	308236
5.5	**ER63C-4DY.G7.1R**	154.00	880	911	680	115	707	00406433	00412707	02021199	02000124	308265
7.5	**ER63C-4DY.H7.1R**	159.00	880	911	680	115	707	00406433	00412707	02021199	02020907	308267
11.00	**ER63C-4DY.I7.1R**	245.00	880	1093	745	115	738	00406433	00412707	02018876	02020907	308323
15.00	**ER63C-4DY.K7.1R**	262.00	880	1093	745	115	741	00406433	00412707	02018876	02020907	308325

Plug fan C ATEX

ER71C

Motor ZAmotpremiumEX IE2

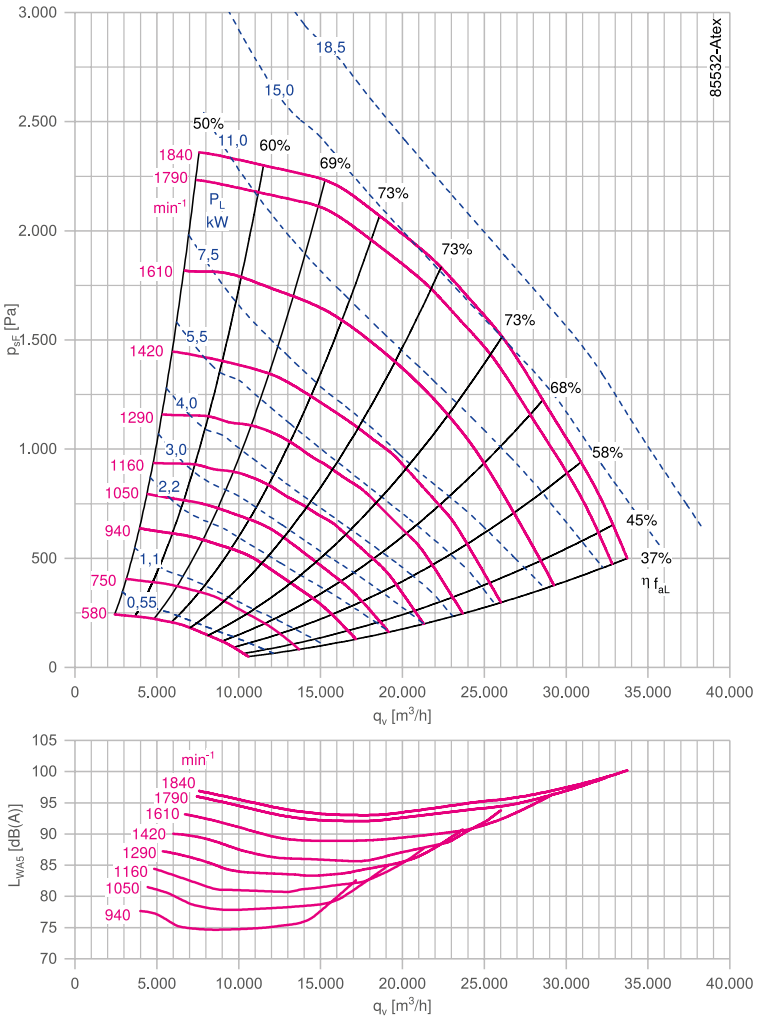
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

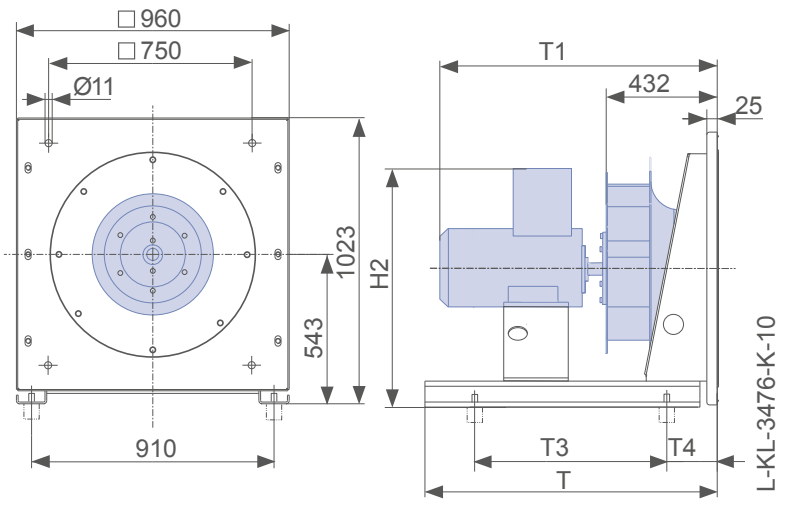
Nozzle coefficients

Standard k	450
With guard grille k_g	429

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
2.2	**ER71C-6DY.F7.1R**	**163664/EX01**	112M	81.8	5.20	965	940	49
3.00	**ER71C-6DY.G7.1R**	**163665/EX01**	132S	83.3	7.00	970	1050	55
4.00	**ER71C-6DY.H7.1R**	**130554/EX01**	132M	84.6	8.70	970	1160	60
5.5	**ER71C-6DY.H7.1R**	**130555/EX01**	132M	86.0	12.00	970	1290	67
7.5	**ER71C-4DY.H7.1R**	**130556/EX01**	132M	88.7	14.70	1465	1420	49
11.00	**ER71C-4DY.I7.1R**	**130557/EX01**	160M	89.8	21.00	1470	1610	55
15.00	**ER71C-4DY.K7.1R**	**130558/EX01**	160L	90.6	28.00	1475	1790	61
18.50	**ER71C-4DY.L7.1R**	**130559/EX01**	180M	91.2	35.00	1465	1840	63

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
2.2	**ER71C-6DY.F7.1R**	161.00	885	873	720	115	783	00406434	00412708	02006449	00090157	308234
3.00	**ER71C-6DY.G7.1R**	184.00	885	962	720	115	817	00406434	00412708	02006449	00090157	308234
4.00	**ER71C-6DY.H7.1R**	189.00	885	962	720	115	817	00406434	00412708	02006450	00090157	308265
5.5	**ER71C-6DY.H7.1R**	199.00	885	962	720	115	817	00406434	00412708	02006450	00090157	308265
7.5	**ER71C-4DY.H7.1R**	194.00	885	962	720	115	817	00406434	00412708	02006450	00090157	308267
11.00	**ER71C-4DY.I7.1R**	278.00	1045	1144	880	115	848	00406434	00412708	02006450	00090157	308323
15.00	**ER71C-4DY.K7.1R**	295.00	1045	1144	880	115	851	00406434	00412708	02006451	02000407	308325
18.50	**ER71C-4DY.L7.1R**	343.00	1045	1180	905	115	892	00406434	00412708	02006451	02000407	308327

Plug fan C ATEX

ER80C

Motor ZAmotpremiumEX IE2

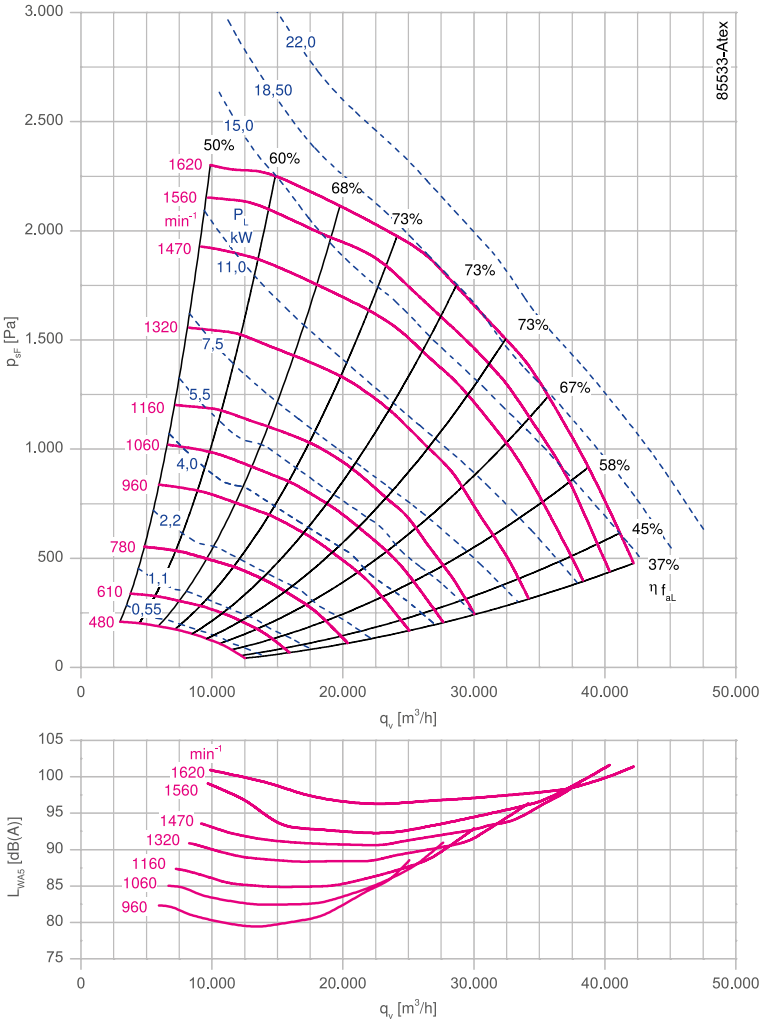
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

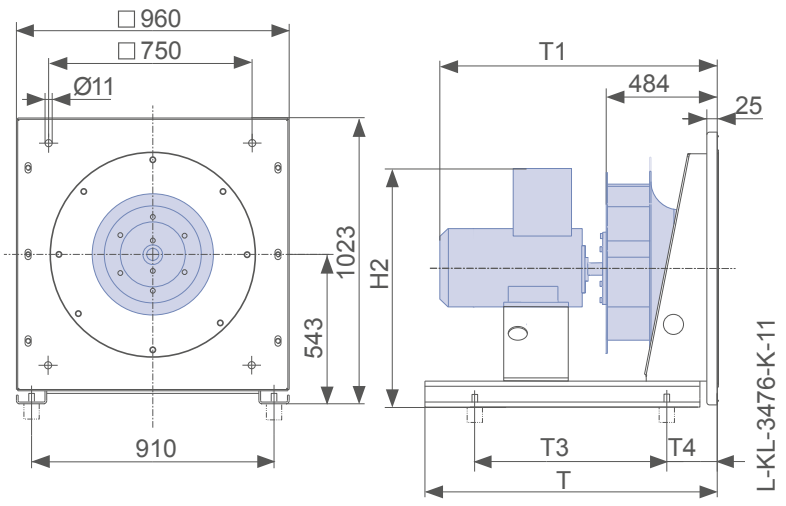
Nozzle coefficients

Standard k	569
With guard grille k_g	543

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
4.00	**ER80C-6DY.H7.1R**	**130545/EX01**	132M	84.6	8.70	970	960	50
5.5	**ER80C-6DY.H7.1R**	**130546/EX01**	132M	86.0	12.00	970	1060	55
7.5	**ER80C-6DY.I7.1R**	**130547/EX01**	160M	87.2	16.80	975	1160	60
11.00	**ER80C-6DY.K7.1R**	**130548/EX01**	160L	88.7	23.50	975	1320	68
15.00	**ER80C-4DY.K7.1R**	**130549/EX01**	160L	90.6	28.00	1475	1470	50
18.50	**ER80C-4DY.L7.1R**	**130550/EX01**	180M	91.2	35.00	1465	1560	53
22.00	**ER80C-4DY.M7.1R**	**130551/EX01**	180L	91.6	41.50	1465	1620	55

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
4.00	**ER80C-6DY.H7.1R**	214.00	885	1014	750	115	817	00406434	00414163	02006450	00090157	308265
5.5	**ER80C-6DY.H7.1R**	224.00	885	1014	750	115	817	00406434	00414163	02006450	00090157	308265
7.5	**ER80C-6DY.I7.1R**	303.00	1045	1196	880	115	848	00406434	00414163	02006450	00090157	308267
11.00	**ER80C-6DY.K7.1R**	312.00	1045	1196	880	115	851	00406434	00414163	02006450	00090157	308323
15.00	**ER80C-4DY.K7.1R**	320.00	1045	1196	880	115	851	00406434	00414163	02006451	02000407	308325
18.50	**ER80C-4DY.L7.1R**	368.00	1045	1232	905	115	892	00406434	00414163	02006451	02000407	308327
22.00	**ER80C-4DY.M7.1R**	379.00	1045	1232	905	115	892	00406434	00414163	02006451	02000407	308329

Plug fan C ATEX

ER90C

Motor ZAmotpremiumEX IE2

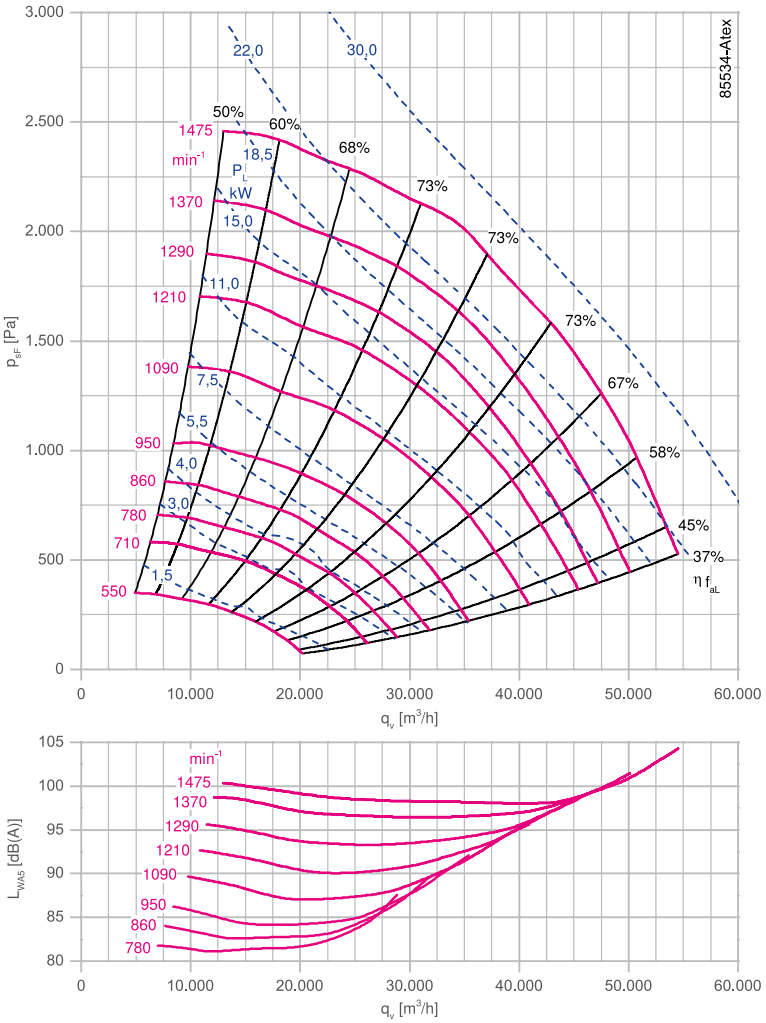
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

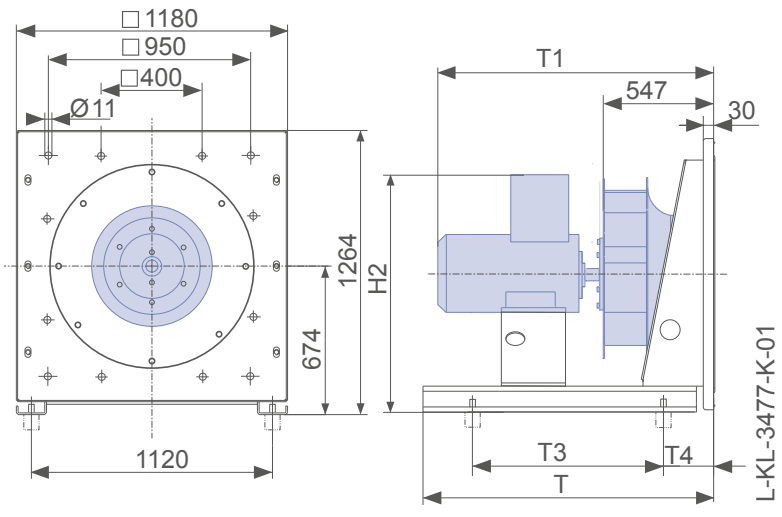
Nozzle coefficients

Standard k	724
With guard grille k_g	691

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
4.00	**ER90C-8DY.I7.1R**	**130537/EX01**	160M	87.3	8.30	720	780	54
5.5	**ER90C-8DY.I7.1R**	**130538/EX01**	160M	87.3	11.40	720	860	60
7.5	**ER90C-6DY.I7.1R**	**130539/EX01**	160M	87.2	16.80	975	950	49
11.00	**ER90C-6DY.K7.1R**	**130540/EX01**	160L	88.7	23.50	975	1090	56
15.00	**ER90C-6DY.M7.1R**	**130541/EX01**	180L	89.7	31.00	975	1210	62
18.50	**ER90C-6DY.N7.1R**	**130542/EX01**	200L	90.4	36.00	978	1290	66
22.00	**ER90C-6DY.N7.1R**	**130543/EX01**	200L	90.9	42.50	978	1370	70
30.00	**ER90C-4DY.N7.1R**	**130544/EX01**	200L	92.3	56.00	1470	1475	50

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
4.00	**ER90C-8DY.I7.1R**	378.00	1160	1258	940	115	979	00406435	00412710	02006450	02001674	308236
5.5	**ER90C-8DY.I7.1R**	378.00	1160	1258	940	115	979	00406435	00412710	02006450	02001674	308265
7.5	**ER90C-6DY.I7.1R**	370.00	1160	1258	940	115	979	00406435	00412710	02006451	02001674	308267
11.00	**ER90C-6DY.K7.1R**	379.00	1160	1258	940	115	982	00406435	00412710	02006451	02000407	308323
15.00	**ER90C-6DY.M7.1R**	450.00	1320	1294	1070	115	1023	00406435	00412710	02006451	02000407	308325
18.50	**ER90C-6DY.N7.1R**	522.00	1320	1356	1070	115	1043	00406435	00412710	02006452	02000407	308327
22.00	**ER90C-6DY.N7.1R**	522.00	1320	1356	1125	115	1043	00406435	00412710	02006452	02019767	308329
30.00	**ER90C-4DY.N7.1R**	522.00	1320	1356	1125	115	1043	00406435	00412710	02006452	02019767	308331

Plug fan C ATEX

ER10C

Motor ZAmotpremiumEX IE2

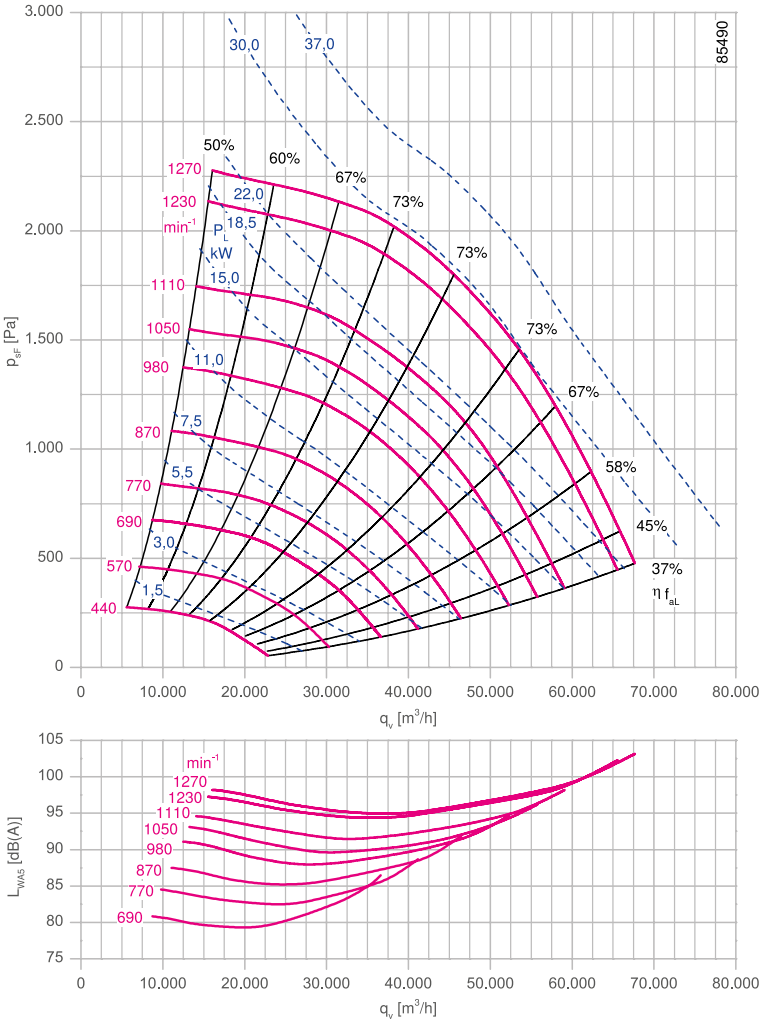
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated according to resistance class 2 RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H
Rated voltage U: 3~ 400 V
Rated frequency f: 50 Hz
Motor protection: PTC resistor
Degree of protection : IP55
Thermal class: THCL155
Min. permitted ambient temperature: -20 °C
Max. permitted ambient temperature: 40 °C
Temperature class: II 2 G c IIB T4
Conformity: EAC

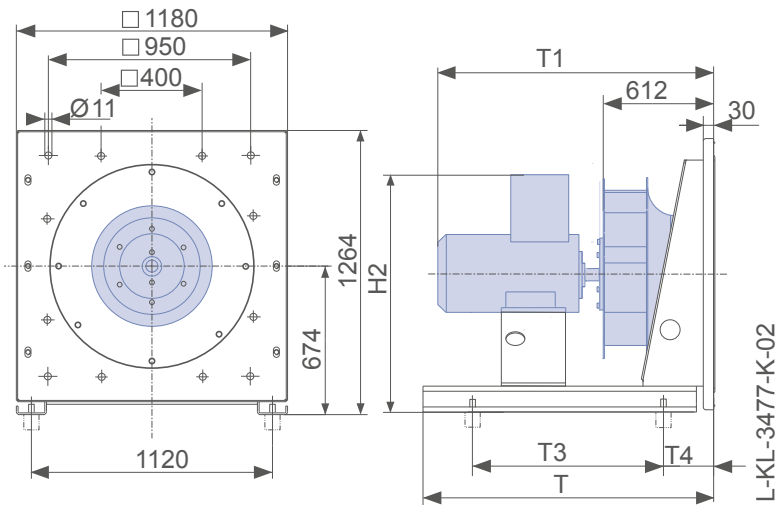
Nozzle coefficients

Standard k	916
With guard grille k_g	875

Characteristic curve



Dimensions mm



C-ATEX-ZAmotpremiumEX IE2

Rated power P_N kW	Type	Article no.	Motor size	Motor efficiency η_{mot} %	Rated current I_N A	Rated speed n_N rpm	Maximum speed n_{max} rpm	Maximum frequency f_{max} Hz
5.5	**ER10C-8DY.I7.1R**	**130528/EX01**	160M	87.3	11.40	720	690	48
7.5	**ER10C-8DY.K7.1R**	**130529/EX01**	160L	87.6	15.50	720	770	53
11.00	**ER10C-8DY.M7.1R**	**130530/EX01**	180L	87.8	23.00	720	870	60
15.00	**ER10C-6DY.M7.1R**	**130531/EX01**	180L	89.7	31.00	975	980	50
18.50	**ER10C-6DY.N7.1R**	**130532/EX01**	200L	90.4	36.00	978	1050	54
22.00	**ER10C-6DY.N7.1R**	**130533/EX01**	200L	90.9	42.50	978	1110	57
30.00	**ER10C-6DY.R7.1R**	**130534/EX01**	225M	91.7	57.00	980	1230	63
37.00	**ER10C-6DY.S7.1R**	**130535/EX01**	250M	92.2	70.00	982	1270	65

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible inlet connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
5.5	**ER10C-8DY.I7.1R**	421.00	1160	1324	1020	115	979	00406435	00412711	02006450	02001674	308265
7.5	**ER10C-8DY.K7.1R**	437.00	1160	1324	1020	115	979	00406435	00412711	02006451	02001674	308267
11.00	**ER10C-8DY.M7.1R**	505.00	1320	1360	1125	115	1023	00406435	00412711	02006451	02000407	308323
15.00	**ER10C-6DY.M7.1R**	492.00	1320	1360	1125	115	1023	00406435	00412711	02006451	02000407	308325
18.50	**ER10C-6DY.N7.1R**	565.00	1320	1422	1125	115	1043	00406435	00412711	02006452	02000407	308327
22.00	**ER10C-6DY.N7.1R**	565.00	1320	1422	1125	115	1043	00406435	00412711	02006452	02000407	308329
30.00	**ER10C-6DY.R7.1R**	653.00	1320	1536	1180	115	1058	00406435	00412711	02006452	02019767	308331
37.00	**ER10C-6DY.S7.1R**	779.00	1320	1536	1180	115	1196	00406435	00412711	02006453	02019767	

Impellers with hub

Product overview

ZAbluefin Page 166

Cpro Page 168

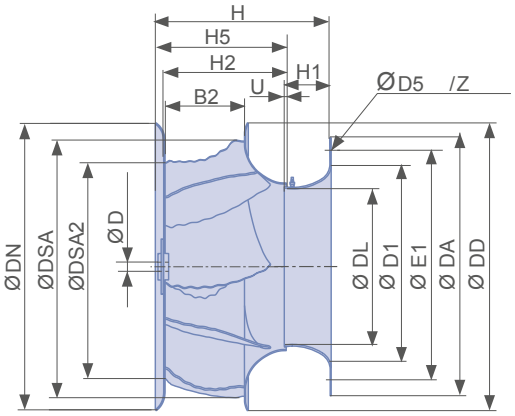
C Page 170

ZAbluefin

with clamping bush hub

Description

Scope of delivery: Bolted hub each including clamping bush hub
Bore diameter: Specification corresponding to motor classification
Surface protection hub:
SM12 - SM20: Phosphate coating
SM25: Phosphate coated and painted RAL 7011



L-KL-3640-01

Impeller RH..ZAbluefin with clamping bush hub

Type	Article no.	D	B2	DA	DD	DL	DN	DSA	DSA2	D1	D5	E1	H	H1	H2	H5	U	Z
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
RH71I.1R/SM20	**116020VAR**	28-42	224	704	812	467	812	765	655	597	10.5	670	473	116	346	369	12	12x30°
RH80I.1R/SM20	**116021VAR**	38-48	253	784	915	527	915	862	738	673	10.5	750	534	131	390	416	13	12x30°
RH90I.1R/SM25	**116022VAR**	42-55	285	874	1031	594	1031	970	831	758	10.5	840	601	147	439	469	15	16x22.5°
RH10I.1R/SM25	**116023VAR**	42-60	320	974	1160	668	1160	1092	935	853	10.5	940	676	165	494	528	17	16x22.5°
RH11I.1R/SM30	**116024VAR**	55-60	345	1075	1230	720	1230	1177	1008	910	10.5	1041	752	208	534	563	19	16x22.5°

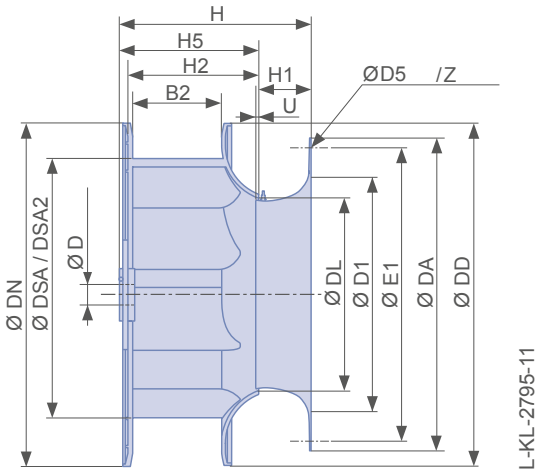
ZAbluefin

with fixed hub

On request

Cpro

with clamping bush hub



Description

Scope of delivery: Bolted hub each including clamping bush hub
Bore diameter: Specification corresponding to motor classification
Surface protection hub:
SM12 - SM20: Phosphate coating
SM25: Phosphate coated and painted RAL 7011

Impeller RH..Cpro with clamping bush hub

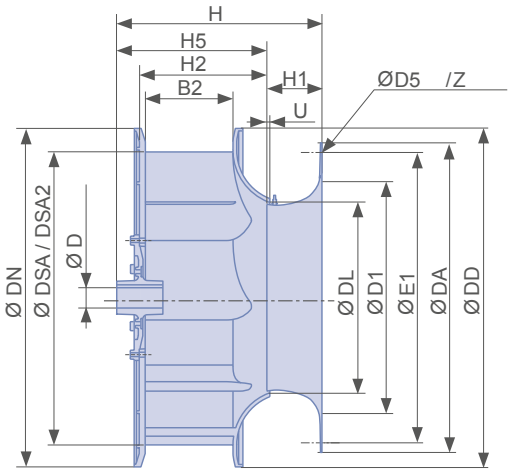
Type	Article no.	Dimensions															
		D	B2	DA	DD	DL	DN	DSA	D1	D5	E1	H	H1	H2	H5	U	Z
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
RH25C.CR/SM12-1	113908VAR	19-24	76	277	290	164	290	257	202	8.5	257	174	47	114	129	2.5	3x120°
RH28C.CR/SM12-2	113909VAR	19-28	85	303	322	182	322	286	225	8.5	283	191	52	126	142	3.0	3x120°
RH31C.CR/SM12-2	113910VAR	19-28	95	343	360	204	360	320	253	8.5	317	211	59	140	156	3.0	4x90°
RH35C.CR/SM12-2	113911VAR	19-28	106	378	406	230	406	360	286	8.5	352	234	66	156	172	3.5	4x90°
RH40C.CR/SM12-2	113912VAR	19-28	118	418	457	258	457	406	322	8.5	392	261	74	176	191	4.0	4x90°
RH40C.CR/SM20	113913VAR	38	118	418	457	258	457	406	322	8.5	392	263	74	176	193	4.0	4x90°
RH45C.CR/SM20	113914VAR	19-38	133	464	515	291	515	457	364	8.5	438	293	83	197	214	4.5	4x90°
RH50C.CR/SM20	113915VAR	24-42	150	514	579	328	579	514	410	8.5	488	327	94	221	239	5.0	4x90°
RH56C.CR/SM20	113916VAR	28-42	167	564	644	363	644	572	455	8.5	538	363	104	247	265	6.0	4x90°
RH63C.CR/SM25	113917VAR	28-42	187	634	721	407	721	640	510	10.5	600	410	117	275	300	6.5	6x60°

Cpro

with fixed hub

Description

Scope of delivery: Bolted hub with internal diameter
Bore diameter: Specification corresponding to motor classification
Surface protection hub:
NA02 - NA04 (aluminium): bare



L-KL-2796-6

Impeller RH..Cpro with fixed hub

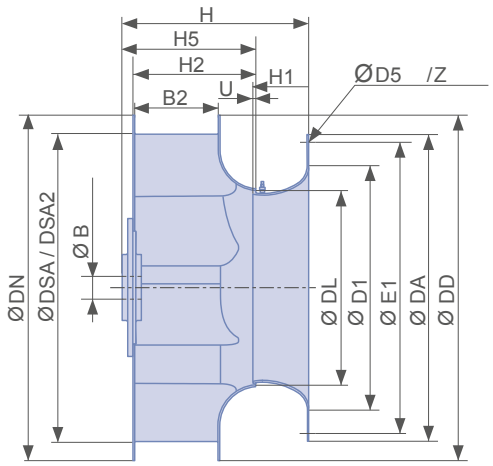
Type	Article no.	Dimensions															
		D	B2	DA	DD	DL	DN	DSA	D1	D5	E1	H	H1	H2	H5	U	Z
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
RH25C.CR/NA02	**113918VAR**	19-24	76	277	290	164	290	257	202	8.5	257	189	47	114	144	2.5	3x120°
RH28C.CR/NA04	**113919VAR**	19-28	85	303	322	182	322	286	225	8.5	283	206	52	126	157	3.0	3x120°
RH31C.CR/NA04	**113920VAR**	19-28	95	343	360	204	360	320	253	8.5	317	226	59	140	171	3.0	4x90°
RH35C.CR/NA04	**113921VAR**	19-28	106	378	406	230	406	360	286	8.5	352	249	66	156	187	3.5	4x90°
RH40C.CR/NA04	**113922VAR**	19-28	118	418	457	258	457	406	322	8.5	392	276	74	176	206	4.0	4x90°

C

with clamping bush hub

Description

Scope of delivery: Bolted hub each including clamping bush hub
Bore diameter: Specification corresponding to motor classification
Surface protection hub:
SM12 - SM20: Phosphate coating
SM25 - SM35: Phosphate coated and painted RAL 7011



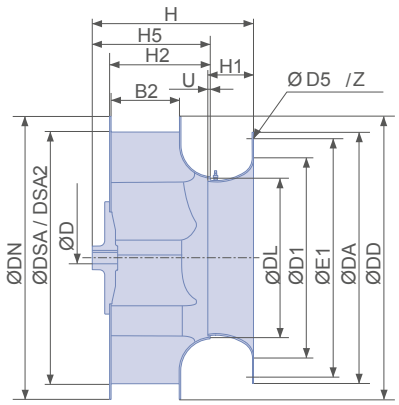
L-KL-2391-19

Impeller RH..C with clamping bush hub

Type	Article no.	Dimensions															
		D	B2	DA	DD	DL	DN	DSA	D1	D5	E1	H	H1	H2	H5	U	Z
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
RH22C.1R/SM12-1	112261VAR	14-19	62	253	257	145	257	229	179	8.5	233	147	42	92	107	2.0	3x120°
RH25C.1R/SM12-1	112262VAR	19-24	70	277	290	163	290	258	202	8.5	257	163	47	103	119	2.5	3x120°
RH28C.1R/SM12-2	112263VAR	19-28	78	303	322	181	322	286	225	8.5	283	179	52	115	130	3.0	3x120°
RH31C.1R/SM12-2	112264VAR	19-28	87	343	360	203	360	320	253	8.5	317	199	59	128	144	3.0	4x90°
RH35C.1R/SM12-2	112265VAR	19-28	98	378	406	228	406	361	286	8.5	352	222	66	144	160	3.5	4x90°
RH40C.1R/SM12-2	112266VAR	19-28	111	418	457	257	457	406	322	8.5	392	248	74	163	178	4.0	4x90°
RH40C.1R/SM20	112275VAR	38	111	418	457	257	457	406	322	8.5	392	250	74	163	180	4.0	4x90°
RH45C.1R/SM20	112267VAR	19-38	125	464	515	290	515	458	364	8.5	438	279	83	183	200	4.5	4x90°
RH50C.1R/SM20	112268VAR	24-42	140	514	579	326	579	515	410	8.5	488	312	94	206	224	5.0	4x90°
RH56C.1R/SM20	112269VAR	28-42	156	564	644	363	644	572	455	8.5	538	344	104	229	246	6.0	4x90°
RH63C.1R/SM25	112270VAR	28-42	174	634	721	406	721	641	510	10.5	600	391	117	256	281	6.5	6x60°
RH71C.1R/SM25	112271VAR	28-48	196	704	811	457	811	721	573	10.5	670	437	131	288	313	7.0	6x60°
RH80C.1R/SM25	112272VAR	38-48	221	784	914	515	914	813	646	10.5	750	490	148	325	350	8.0	6x60°
RH90C.1R/SM30	112273VAR	38-55	249	874	1030	580	1030	916	728	10.5	840	552	167	366	394	9.0	8x45°
RH10C.1R/SM30	112274VAR	42-65	280	974	1159	653	1159	1030	819	10.5	940	617	187	412	440	10.0	8x45°
RH11C.4R/SM30	114157VAR	55-60	315	1075	1287	725	1287	1145	910	10.5	1041	688	208	463	491	11.0	8x45°
RH11C.1R/SM30	112469VAR	55-75	390	1075	1287	725	1287	1145	910	10.5	1041	765	208	540	568	11.0	8x45°
RH11C.1R/SM35	113583VAR	80	390	1075	1287	725	1287	1145	910	10.5	1041	769	208	540	572	11.0	8x45°

C

with fixed hub



L-KL-2392-1

Description

Scope of delivery: Bolted hub with internal diameter
Bore diameter: Specification corresponding to motor classification
Surface protection hub:
NA02 - NA04 (aluminium): bare
NS06 - NS08 (grey cast): oiled

Impeller RH..C with fixed hub

Type	Article no.	Dimensions															
		D	B2	DA	DD	DL	DN	DSA	D1	D5	E1	H	H1	H2	H5	U	Z
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
RH22C.1R/NA02	112276VAR	14	62	253	257	145	257	229	179	8.5	233	152	42	92	112	2.0	3x120°
RH22C.1R/NA02	112276VAR	19	62	253	257	145	257	229	179	8.5	233	162	42	92	122	2.0	3x120°
RH25C.1R/NA02	112277VAR	19-24	70	277	290	163	290	258	202	8.5	257	178	47	103	134	2.5	3x120°
RH28C.1R/NA04	112278VAR	19-28	78	303	322	181	322	286	225	8.5	283	194	52	115	145	3.0	3x120°
RH31C.1R/NA04	112279VAR	19-28	87	343	360	203	360	320	253	8.5	317	214	59	128	159	3.0	4x90°
RH35C.1R/NA04	112280VAR	19-28	98	378	406	228	406	361	286	8.5	352	237	66	144	175	3.5	4x90°
RH40C.1R/NA04	112281VAR	19-28	111	418	457	257	457	406	322	8.5	392	263	74	163	193	4.0	4x90°
RH40C.1R/NS06	112290VAR	38	111	418	457	257	457	406	322	8.5	392	268	74	163	198	4.0	4x90°
RH45C.1R/NS06	112282VAR	19	125	464	515	290	515	458	364	8.5	438	287	83	183	208	4.5	4x90°
RH45C.1R/NS06	112282VAR	24-38	125	464	515	290	515	458	364	8.5	438	297	83	183	218	4.5	4x90°
RH50C.1R/NS06	112283VAR	24-42	140	514	579	326	579	515	410	8.5	488	330	94	206	242	5.0	4x90°
RH56C.1R/NS06	112284VAR	28-42	156	564	644	363	644	572	455	8.5	538	362	104	229	264	6.0	4x90°
RH63C.1R/NS07	112285VAR	28-42	174	634	721	406	721	641	510	10.5	600	402	117	256	292	6.5	6x60°
RH71C.1R/NS07	112286VAR	28-48	196	704	811	457	811	721	573	10.5	670	448	131	288	324	7.0	6x60°
RH80C.1R/NS07	112287VAR	38-48	221	784	914	515	914	813	646	10.5	750	500	148	325	361	8.0	6x60°
RH90C.1R/NS08	112288VAR	38-55	249	874	1030	580	1030	916	728	10.5	840	559	167	366	401	9.0	8x45°
RH10C.1R/NS08	112289VAR	42-65	280	974	1159	653	1159	1030	819	10.5	940	624	187	412	447	10.0	8x45°
RH11C.4R/NS08	114158VAR	55-60	315	1075	1287	725	1287	1145	910	10.5	1041	705	208	463	508	11.0	8x45°
RH11C.1R/NS08	112470VAR	55-65	390	1075	1287	725	1287	1145	910	10.5	1041	782	208	540	585	11.0	8x45°

System components

Overview

Inlet nozzle Page 174

Guard grille Page 175

Spring vibration damper / rubber damper Page 176

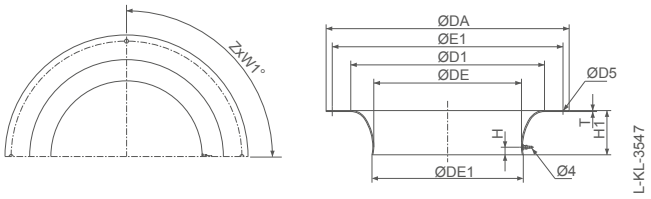
Flexible inlet connector Page 177

System components Atex Page 178

System components

Inlet nozzle

- Material: Sheet steel. galvanised
- With measuring device for air flow measurement
- Fastening diameter according to DIN EN 12 220



Inlet nozzle with pressure tap

Size	Article no. galvanized	Article no. coated	DA mm	DE mm	DE1 mm	D1 mm	D5 mm	E1 mm	H mm	H1 mm	T mm	ZxW1° (1)	Weight kg
RH71I	00414066	00414070	704	451	456	597	10.5	670	21	116	2.0	12x30°	5.4
RH80I	00414067	00414071	784	508	517	673	10.5	750	24	131	2.5	12x30°	8.4
RH90I	00414068	00414072	874	573	582	758	10.5	840	27	147	2.5	16x22.5°	10.4
RH10I	00414069	00414073	974	645	656	853	10.5	940	31	165	2.5	16x22.5°	12.9
RH11I	00401306	00401750	1075	694	707	910	10.5	1041	36	208	2.5	16x22.5°	17.0

(1) fastening inlet nozzle

Inlet nozzle with pressure tap

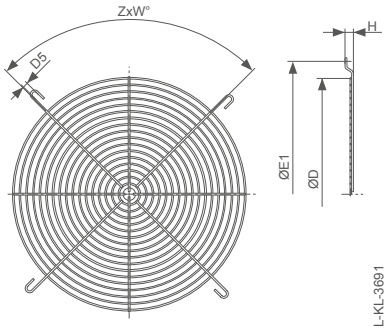
Size	Article no. galvanized	Article no. coated	DA mm	DE mm	DE1 mm	D1 mm	D5 mm	E1 mm	H mm	H1 mm	T mm	ZxW1° (1)	Weight kg
RH22C	00401503	00401736	253	135	140	179	8.5	233	12	42	1.5	6x60°	0.6
RH25C	00401504	00401737	277	153	158	202	8.5	257	12	47	1.5	6x60°	0.7
RH28C	00401505	00401738	303	171	176	225	8.5	283	12	52	1.5	6x60°	0.8
RH31C	00411860	00412243	343	193	198	253	8.5	317	12	59	1.5	8x45°	1.1
RH35C	00411861	00412244	378	218	223	286	8.5	352	12	66	1.5	8x45°	1.3
RH40C	00411862	00412245	418	246	252	322	8.5	392	13	74	2.0	8x45°	2.1
RH45C	00411863	00412246	464	278	285	364	8.5	438	14	83	2.0	8x45°	2.5
RH50C	00411864	00412247	514	312	320	410	8.5	488	16	94	2.0	8x45°	3.1
RH56C	00411865	00412248	564	347	355	455	10.5	538	18	104	2.0	8x45°	3.8
RH63C	00411866	00412249	634	389	397	510	10.5	600	20	117	2.0	12x30°	4.7
RH71C	00412791	00412795	704	437	447	573	10.5	670	23	131	2.0	12x30°	5.8
RH80C	00412792	00412796	784	493	504	646	10.5	750	25	148	2.5	12x30°	9.0
RH90C	00412793	00412797	874	555	567	728	10.5	840	29	167	2.5	16x22.5°	11.2
RH10C	00412794	00412798	974	625	637	819	10.5	940	32	187	2.5	16x22.5°	14.0
RH11C	00401306	00401750	1075	694	707	910	10.5	1041	36	208	2.5	16x22.5°	17.0

(1) fastening inlet nozzle

System components

Guard grille

- Material: Steel. coated. black RAL 9005
- Maximum mesh width ≦ 10 mm



Guard grille on suction side

Size	Article no.	D	E1	D5	H	ZxW°	Weight
		mm	mm	mm	mm	mm	kg
RH71I	00411646	610	670	9	12	6x60°	1.7
RH80I	00411647	685	750	9	12	6x60°	2.1
RH90I	00411648	755	840	9	20	8x45°	2.5
RH10I	00411649	845	940	9	20	8x45°	3.0
RH11I	00411650	935	1041	9	20	8x45°	3.4

Guard grille on suction side

Size	Article no.	D	E1	D5	H	ZxW°	Weight
		mm	mm	mm	mm	mm	kg
ER71I	00411646	610	670	9	12	6x60°	1.7
ER80I	00414162	685	750	9	12	4x90°	2.1
ER90I	00411648	755	840	9	20	8x45°	2.5
ER10I	00411649	845	940	9	20	8x45°	3.0
ER11I	00411650	935	1041	9	20	8x45°	3.4

Guard grille on suction side

Size	Article no.	D	E1	D5	H	ZxW°	Weight
		mm	mm	mm	mm	mm	kg
RH22C	00411642	182	233	6.5	8	3x120°	0.2
RH25C	00411643	203	257	6.5	8	3x120°	0.2
RH28C	00411570	245	283	6.5	8	3x120°	0.3
RH31C	00411571	266	317	6.5	8	4x90°	0.3
RH35C	00411572	308	352	6.5	8	4x90°	0.4
RH40C	00411573	350	392	6.5	8	4x90°	0.5
RH45C	00411574	392	438	6.5	8	4x90°	0.7
RH50C	00411575	434	488	6.5	8	4x90°	0.8
RH56C	00411644	476	538	6.5	8	4x90°	1.0
RH63C	00411645	535	600	9.0	12	6x60°	1.4
RH71C	00411646	610	670	9.0	12	6x60°	1.7
RH80C	00411647	685	750	9.0	12	6x60°	2.1
RH90C	00411648	755	840	9.0	20	8x45°	2.5
RH10C	00411649	845	940	9.0	20	8x45°	3.0
RH11C	00411650	935	1041	9.0	20	8x45°	3.4

Guard grille on suction side

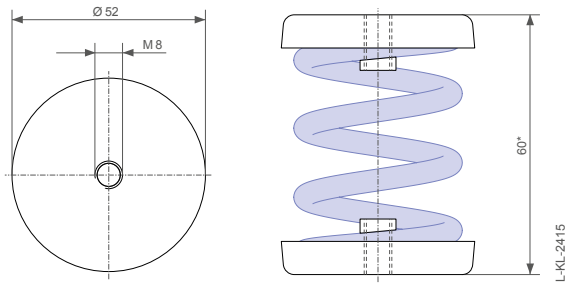
Size	Article no.	D	E1	D5	H	ZxW°	Weight
		mm	mm	mm	mm	mm	kg
ER22C ER25C	00411642	182	233	6.5	8	3x120°	0.2
ER28C	00411643	203	257	6.5	8	3x120°	0.2
ER31C	00411570	245	283	6.5	8	3x120°	0.3
ER35C	00411571	266	317	6.5	8	4x90°	0.3
ER40C	00411572	308	352	6.5	8	4x90°	0.4
ER45C	00411573	350	392	6.5	8	4x90°	0.5
ER50C	00411574	392	438	6.5	8	4x90°	0.7
ER56C	00411644	476	538	6.5	8	4x90°	1.0
ER63C	00411645	535	600	9.0	12	6x60°	1.4
ER71C	00411646	610	670	9.0	12	6x60°	1.7
ER80C	00414162	685	750	9.0	12	4x90°	2.1
ER90C	00411648	755	840	9.0	20	8x45°	2.5
ER10C	00411649	845	940	9.0	20	8x45°	3.0
ER11C	00411650	935	1041	9.0	20	8x45°	3.4

System components

Spring vibration dampers for ER modules

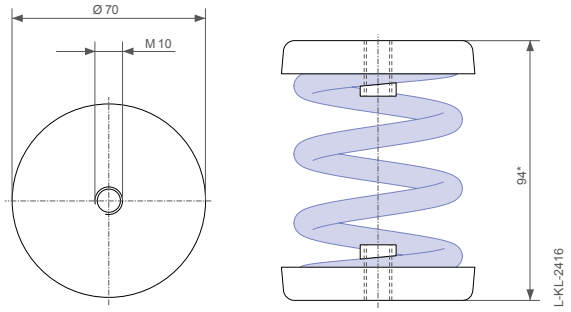
Vibration dampers are designed to prevent the transfer of vibration forces and/or structure-borne noise to the base.
When positioning the vibration dampers on the fan base frame, ensure an even load and compression. In addition to symmetrical distribution about the system centre of gravity, the counter force from the pressure increase in the fan must be taken into account. Therefore, factory specification of the vibration damper arrangement is very difficult and can never be exact.

- Material: Steel, galvanised
- Cylindrical screw spring with two spring holders



Type MSN, * unstressed

Spring vibration damper	
Type	**Article no.**
MSN 3	**02021195**
MSN 4	**02021196**
MSN 5	**02021197**
MSN 6	**02021198**
MSN 7	**02021199**
MSN 8	**02018876**

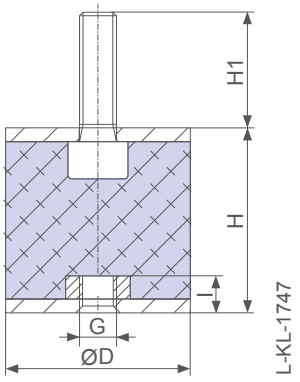


Type SD, * unstressed

Spring vibration damper	
Type	**Article no.**
SD 3	**02006449**
SD 4	**02006450**
SD 5	**02006451**
SD 6	**02006452**
SD 7	**02006453**
SD 8	**02006879**

Rubber dampers for ER modules

- Material: Rubber NR,NBR or like
- Galvanised metal plates



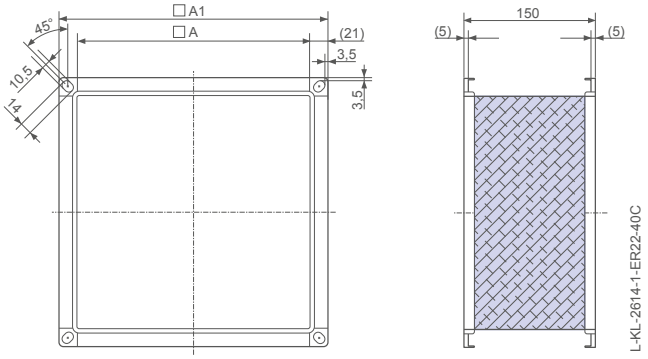
Rubber damper						
Type	**Article no.**	D	G	H	H1	I
		mm	mm	mm	mm	mm
30x30 / 55	**00090144**	30	M8	30	23	6
40x30 / 55	**02000124**	40	M8	30	23	7
50x30 / 55	**02020907**	50	M8	50	28	7
50x50 / 55	**00090157**	50	M10	50	33	8
75x50 / 40	**02001674**	75	M12	50	33	10
75x50 / 55	**02000407**	75	M12	50	33	10
75x50 / 75	**02019767**	75	M12	50	33	10

System components

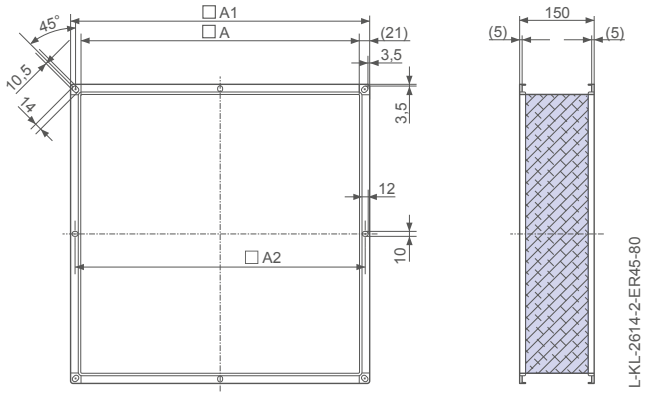
Flexible inlet connector for ER modules

As a prerequisite for good vibration and structure-borne noise damping, ducts and system components should be connected to the fan using flexible fittings, so that the entire unit can vibrate freely and no structure-borne noise bridge is created.

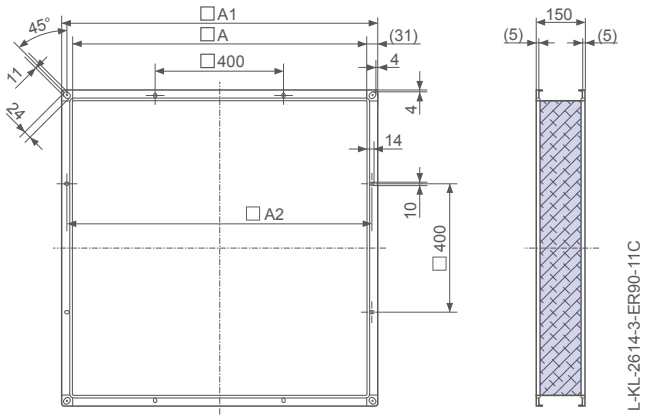
- Material: Polyester fabric, grey
- Frame: Galvanised steel



Flexible inlet connector			
Size	**Article no.**	A	A1
		mm	mm
ER22-25	**00403346**	265	307
ER28-31	**00406513**	280	322
ER35-40	**00406514**	365	407



Flexible inlet connector				
Size	**Article no.**	A	A1	A2
		mm	mm	mm
ER45-50	**00406515**	445	487	470
ER56-63	**00405986**	640	682	664
ER71-80	**00403350**	730	772	754

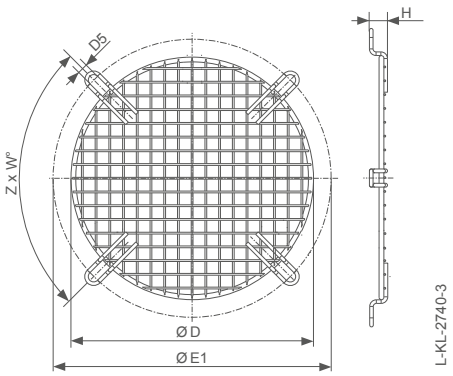


Flexible inlet connector				
Size	**Article no.**	A	A1	A2
		mm	mm	mm
ER90-10	**00403351**	920	982	950
ER11	**00403352**	1170	1232	1200

System components ATEX

Guard grille

- Material: Steel. coated. black RAL 9005
- Maximum mesh width ≦ 10 mm

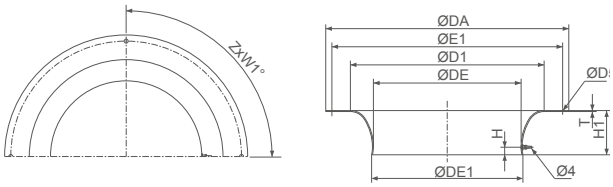


Guard grille on suction side							
Size	**Article no.**	D	E1	D5	H	ZxW°	Weight
		mm	mm	mm	mm	mm	kg
ER25C	**00412699**	203	257	6.5	8	3x120°	0.2
ER28C	**00412700**	245	283	6.5	8	3x120°	0.3
ER31C	**00412701**	266	317	6.5	8	4x90°	0.3
ER35C	**00412702**	308	352	6.5	8	4x90°	0.4
ER40C	**00412703**	350	392	6.5	8	4x90°	0.5
ER45C	**00412704**	392	438	6.5	8	4x90°	0.7
ER50C	**00412705**	434	488	6.5	8	4x90°	0.8
ER56C	**00412706**	476	538	6.5	8	4x90°	1.0
ER63C	**00412707**	535	600	9	12	6x60°	1.4
ER71C	**00412708**	610	670	9	12	6x60°	1.7
ER80C	**00414163**	685	750	9	12	4x90°	2.1
ER90C	**00412710**	790	840	9	12	4x90°	3.1
ER10C	**00412711**	886	940	9	12	4x90°	3.7

Guard grille on suction side							
Size	**Article no.**	D	E1	D5	H	ZxW°	Weight
		mm	mm	mm	mm	mm	kg
RH25C	**00412699**	203	257	6.5	8	3x120°	0.2
RH28C	**00412700**	245	283	6.5	8	3x120°	0.3
RH31C	**00412701**	266	317	6.5	8	4x90°	0.3
RH35C	**00412702**	308	352	6.5	8	4x90°	0.4
RH40C	**00412703**	350	392	6.5	8	4x90°	0.5
RH45C	**00412704**	392	438	6.5	8	4x90°	0.7
RH50C	**00412705**	434	488	6.5	8	4x90°	0.8
RH56C	**00412706**	476	538	6.5	8	4x90°	1.0
RH63C	**00412707**	535	600	9.0	12	6x60°	1.4
RH71C	**00412708**	610	670	9.0	12	6x60°	1.7
RH80C	**00414163**	685	750	9.0	12	4x90°	2.1
RH90C	**00412710**	790	840	9.0	12	4x90°	3.1
RH10C	**00412711**	886	940	9.0	12	4x90°	3.7

Inlet nozzle

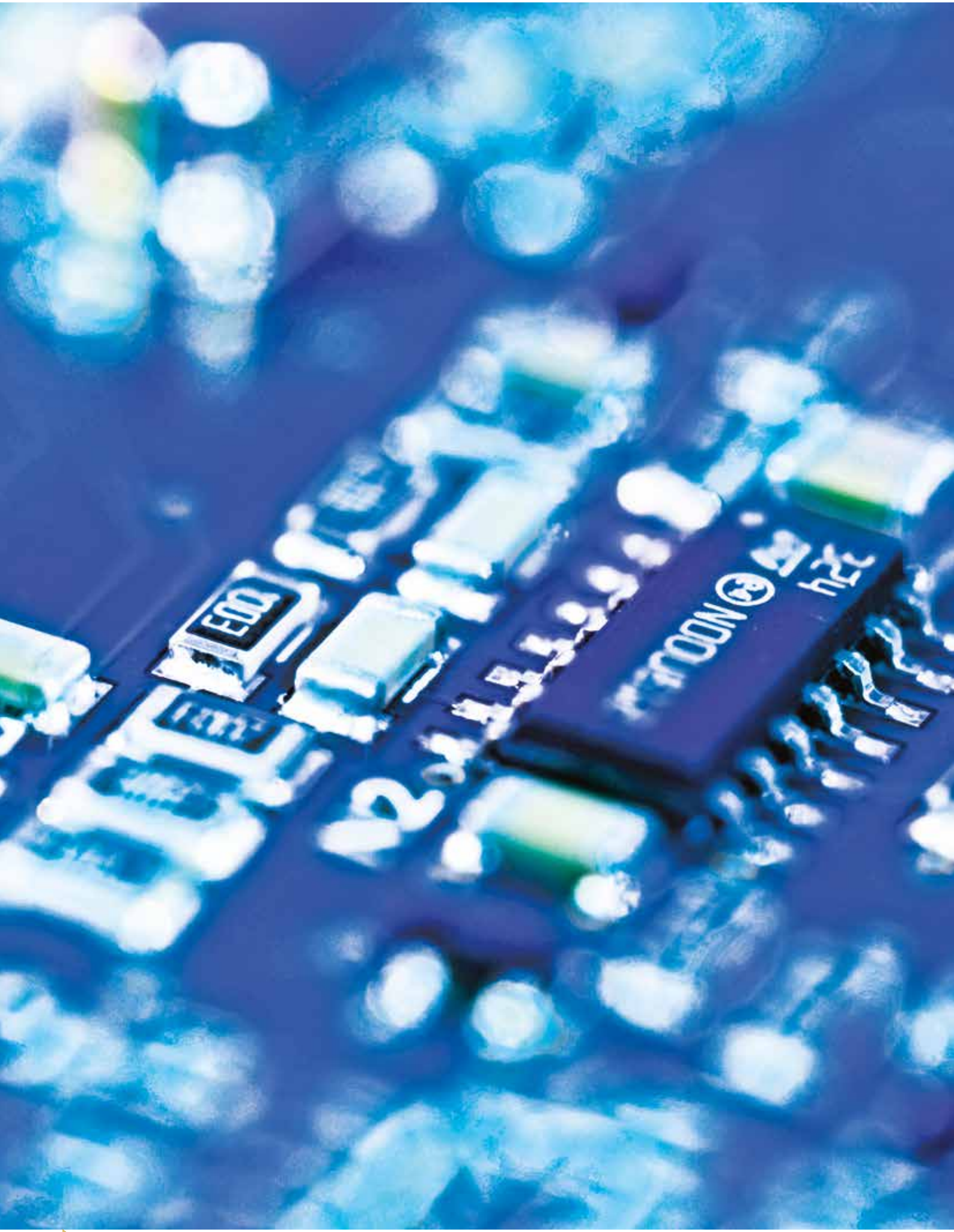
- Material: copper sheet
- With measuring device for air flow measurement
- Fastening diameter according to DIN EN 12 220



Inlet nozzle with pressure tap

Size	Article no.	DA	DE	DE1	D1	D5	E1	H	H1	T	ZxW1°	Weight
		mm	mm	mm	mm	mm	mm	mm	mm	mm	(1)	kg
RH25C	**00406305**	277	153	156	202	8.5	257	10	47	1.5	6x60°	0.8
RH28C	**00406306**	303	171	174	225	8.5	283	10	52	1.5	6x60°	0.9
RH31C	**00412722**	343	193	196	253	8.5	317	12	59	1.5	8x45°	1.2
RH35C	**00412723**	378	218	221	286	8.5	352	12	66	1.5	8x45°	1.5
RH40C	**00412724**	418	246	250	322	8.5	392	13	74	2.0	8x45°	2.4
RH45C	**00412725**	464	278	282	364	8.5	438	14	83	2.0	8x45°	2.9
RH50C	**00412726**	514	312	316	410	8.5	488	16	94	2.0	8x45°	3.6
RH56C	**00412727**	564	347	351	455	8.5	538	18	104	2.0	8x45°	4.3
RH63C	**00412728**	634	389	393	510	10.5	600	20	117	2.0	12x30°	5.4
RH71C	**00412729**	704	437	441	573	10.5	670	23	131	2.0	12x30°	6.7
RH80C	**00412730**	784	493	498	646	10.5	750	25	148	2.5	12x30°	10.3
RH90C	**00406316**	874	555	560	728	10.5	840	25	167	2.5	8x45°	12.8
RH10C	**00406317**	974	625	630	819	10.5	940	25	187	2.5	8x45°	15.8

(1) fastening inlet nozzle



Control technology

Product overview

ZAcode - Products and philosophy	Page 182
Icontrol, universal controller with display	Page 186
Icontrol, universal device control with display (2nd edition)	Page 190
Icontrol Basic without display	Page 192
Icontrol Basic with display	Page 194
Icontrol Basic 5-step	Page 196
PMcontrol Basic, modularly extendable speed controllers	Page 198
PMIcontrol Basic-M, for setting up internal rotor motors	Page 200
Control modules	Page 202
Differential pressure switch	Page 208
Add-on modules	Page 210

ZAcode

The unique fan control philosophy

Market challenge

Manufacturers of products which involve moving air are confronted with a variety of products and technologies.

In addition to fans with asynchronous motors, which are mainly controlled by frequency inverters, the proportion of EC motors (highly efficient motors with permanent magnets and integrated power electronics) is rising.
Solutions are increasingly available involving mounting frequency inverters on internal rotor motors according to the IEC standard.

That is why companies rely on different manufacturers and technologies to cover the power range of smaller than 1 kW to 30 kW.

This involves a great effort in terms of design, documentation and storage of parts as well as employee training.

Interface problems, e.g. the interaction of frequency inverters and fans of different manufacturers, involve effort and expenditure which may delay projects and lead to complaints.

ZIEHL-ABEGG's philosophy

Simple products and solutions.
From the planner via production to installation and maintenance - everyone involved with the system should have an easy time and be able to understand it.

ZIEHL-ABEGG has been busy with this challenge adapting products which cover the decisive power range accordingly. Products have been reduced to the essential, but can be easily expanded to meet requirements at any time.

ZIEHL-ABEGG's products are 100% matched to one another. This means ZIEHL-ABEGG fans and frequency inverters create an energy-saving, quiet and reliably functioning system. The same is true of the combination of control modules with ECblue fans and other products.

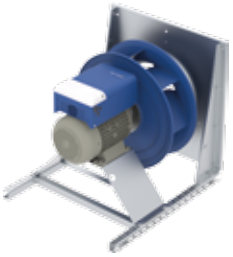
At ZIEHL-ABEGG, you have only one contact person for fans, motors and the perfectly matching one-stop control engineering.

This philosophy makes the effort involved easier in terms of planning, production, installation and maintenance.

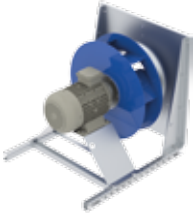
Covering the big power range from < 1 kW up to 30 kW

ECblue Basic
Power: < 1 kW up to 6 kW

AMblue / PMblue
Power: 5.5 kW up to 22 kW



Frequnzumrichter Fcontrol Basic / Icontrol Basic
Power: 1.1 kW up to 30 kW



ZAcode - the solution - your advantages

On a cross-product basis - ZAcode encompasses the key technologies on the market

- Axial and centrifugal fans
- EC technology and AC technology
- Integrated electronics and external electronics for speed control
- Communication and control intelligence

Simplicity

- Can be operated and understood by everyone

Uniformity

- Identical connection concept of the various products and technologies
- Identical communication (add-on modules for required bus systems)
- Identical functionality
- Modular expandability, thus providing a cost-effective basis
- Expandable on demand - sustainable
- Available in a wide power range of smaller than 1 kW to 30 kW

Safety and reliability

- courtesy of perfectly matched systems
- courtesy of error prevention during installation, start-up, operation and maintenance

Speed

- Uniformity ensures speed in relation to engineering. Hence, the short time to market in relation to product development. Fast start-up and service.

Cost savings

- Your processes will become more efficient, e.g. with regard to engineering
- Basic equipment of ZIEHL-ABEGG products = Buy basic equipment and pay, buy add-ons if necessary - buy only what you need!

Flexibility

- Modular system, expandable and customisable
- Customisable to current and future bus systems
- Basic expandability

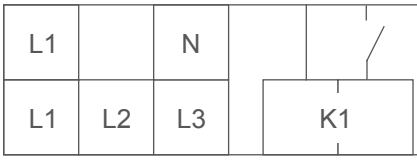
ZAcode

Simple, cross--product, uniform

Fans with ECblue Basic
< 1 kW to approx. 6 kW
Highly efficient external rotor motors with permanent magnets and integrated power electronics

The unique fan co

Same con



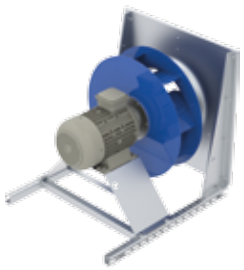
Easily expandable for inte

AM-MODBUS AM-CAN-OPEN AM-LON

Fans with asynchronous motors
< 1 kW to approx. 30 kW
Control via mounted Fcontrol Basic or Icontrol Basic frequency inverters

Expandable and combina

AM-PREMIUM UNIcon control modules



ontrol philosophy

nnectivity

	E1	D1	GND	10V	24V

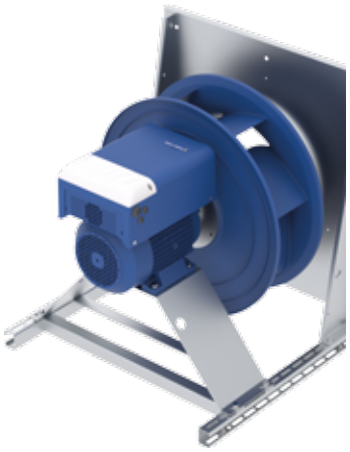
egration into bus systems

AM-PROFIBUS AM-ETHERCAT ...

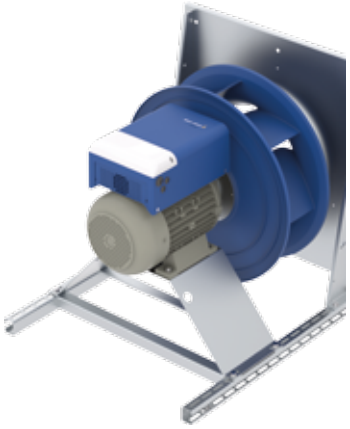


able control intelligence


PMblue centrifugal fans with mounted PMIcontrol Basic-M
< 5.5 kW to approx. 22 kW
PMblue combines PM motor with permanent magnets and mounted frequency inverter (optionally mountable PMcontrol)



AMblue centrifugal fans with mounted PMIcontrol Basic-M
< 5.5 kW to 22 kW
AMblue combines AC motor (asynchronous motor) and mounted frequency inverter



Frequency inverters

3~ Icontrol, universal controller with display

The Icontrol frequency inverters are provided preferably for the requirement-based and energy saving speed control of internal rotor motors (IEC standard motors).
All ZIEHL-ABEGG sensors can be combined with the universal frequency inverters. The actual value measured at the sensor is compared with the setpoint. This results in activation of the connected fan.It can be controlled to air flow or differential pressure especially for application in air conditioning.
Simple start-up is possible with the selectable operating modes available in the device.
Processes in other application areas can also be controlled. The frequency inverters can be used flexibly.
Versions with integrated main switch are available optionally.

0-10V — Setting of the desired speed through device or by external default, e.g. 0…10 V

0-30 / 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0...30 bar, 0...50 bar

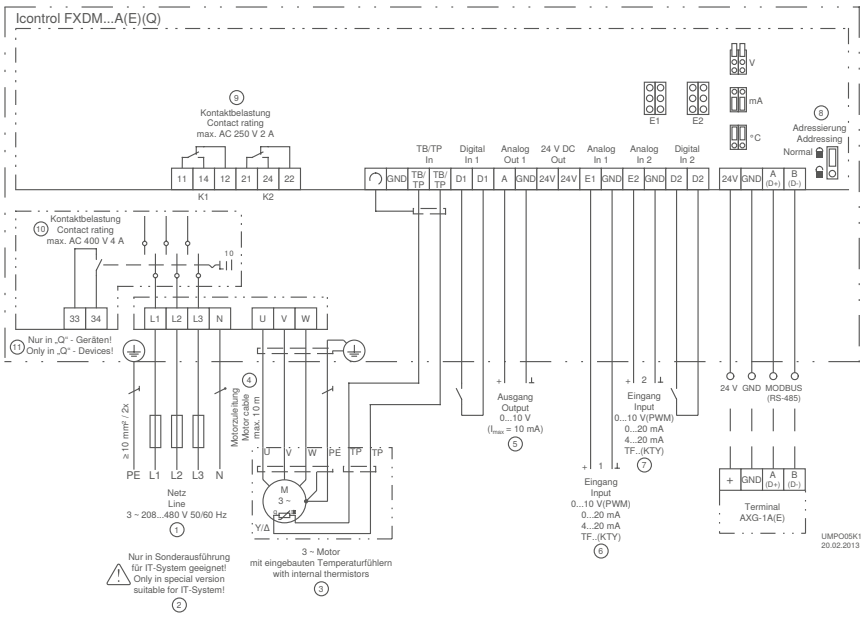
°C — Connection of thermistors,
e. g. sensors type TF..
e. g. active sensor type MTG..

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type MPG.. sensors, measuring range 0...6000 Pa, acquisition of volume flows up to 65000 m³/h

m / s — Connecting air velocity sensors, e.g. type MAL.. sensors, measuring range 0...1 m/s, 0...10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0...10 V / 0...20 mA / 4...20 mA

Connection diagram



① Mains
② 3~ motor with thermistors
③ Motor supply line
④ Output
⑤ Input 1
⑥ Input 2
⑦ Addressing
⑧ Max. contact rating
⑨ Max. contact rating

Standard conformity

Interference emission according to EN 61000-6-3 (domestic)
Interference immunity according to EN 61000-6-2 (industrial)

Equipment/characteristics:

Multifunctional display with plain text:
Various menu languages can be selected

Simple commissioning through operating modes:
Typical operating modes, e.g. for air-conditioning, refrigeration or ventilation technology can be selected.

Easy to program:
Typical settings can be made: e.g., default a minimum rotational speed, limit the maximum rotational speed, inverting and limits. Setting, e.g. for 2-stage mode

2 analogue inputs for sensors or set-point signals:
Analogue input E1 and E2: Setting through operating modes or manually programmable, e.g. 0-10 V, 0-20 mA, 4-20 mA
Analogue input E2: programmable, e.g. comparison to Sensor 1, difference Sensor 1, average calculation, setpoint input, setpoint adjustment (e.g. dependent on outdoor temperature)

2 digital inputs D1 and D2:
Programmable, e.g. enable, switchover setpoint 1 or 2, switchover control or manual mode, switchover E1 or E2, invert control function, output limitation, display of external fault, reset, reverse the rotary direction

1 analogue output A1:
Setting through operating modes or manually programmable, e.g. e.g. output signal proportional control, output signal proportional input signal, invertible, 10 V fixed voltage, group control

2 digital outputs (relays) K1 and K2:
Setting through operating modes or manual programming, e.g. operating status, limits, external fault on digital input, enabling external devices, e.g. heating, dampers, group control of fans, etc.

Integrated motor protection function:
Connection facility for PTC thermistors or alternatively thermal contacts (TB or TP).

Interface RS485 MODBUS RTU:
Integration into bus system

Settings protection:
Enable settings protection from unauthorised access, restore implemented settings

Event memory:
Query events that have occurred, operating times, etc.

Optional equipment

The Icontrol frequency inverters are also available with an integrated main switch.

Type designation FXDM…AQ
The integrated main switch has the switch positions 0 and I (On/Off). In position 0 the switch can be locked with a padlock. An integrated auxiliary contact can be used to indicate the switch position. This enables you to recognise whether the switch has been actuated, for example, when a fault indication relay drops out.

Add-on modules for frequency inverters
- IO add-on module type Z-Modul-B, Article No. 380052
  If the integrated inputs and outputs are not sufficient, other inputs and outputs can be created with the Z-Modul-B. These are also programmable:
  - 1 analog input
  - 1 analog output
  - 3 digital inputs
  - 2 digital outputs (relays)
- LON® Add-on module type Z-Modul-L, Article No. 380086
  For integration into a bus system LON® by a two-wire

Frequency inverter

3~ Icontrol, universal controller with display

Icontrol without main switch
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated power	Rated temperature	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	kW	°C	A	W	°C		kg	mm
FXDM2.6A	**308063**	400	2.6	1.1	40	6	45	55	IP54	3.20	240 x 284 x 115
FXDM4.2A	**308148**		4.2	1.5	40	10	70			6.40	250 x 302 x 195.5
FXDM5A	**308149**		5	2.2	40	10	80			6.40	250 x 302 x 195.5
FXDM7.5A	**308150**		7.5	3.0	40	10	125			7.30	250 x 302 x 195.5
FXDM8.5A	**308151**		8.5	4.0	40	10	150			7.30	250 x 302 x 195.5
FXDM12A	**308152**		12	5.5	40	16	210			7.50	250 x 302 x 195.5
FXDM17A	**308153**		17	7.5	40	20	300			7.50	250 x 302 x 195.5
FXDM25A	**308112**		25	11	40	35	480			12.50	280 x 355 x 239
FXDM32A	**308078**		32	15	50	35	750			24.50	386 x 525 x 283
FXDM39A	**308080**		39	18.5	55	50	900			26.30	386 x 525 x 283
FXDM46A	**308088**		46	22	50	50	1050			26.30	386 x 525 x 283
FXDM62A	**308092**		62	30	40	63	1250			26.30	386 x 525 x 283

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Icontrol without main switch, with UL authorisation
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated power	Rated temperature	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	kW	°C	A	W	°C		kg	mm
FXDM32A	**308078-UL**	400	32	15	50	35	750	55	IP54	23.50	386 x 525 x 283
FXDM32AE	**308079-UL**		32	15	50	35	750	55	IP20	28.10	343 x 600 x 280

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Frequency inverter

3~ Icontrol, universal controller with display

Icontrol with main switch 3~ 208...480V 50/60Hz											
Type	**Article no.**	Rated voltage	Rated current	Rated power	Rated tempera-ture	Max. line fuse	Max. heat dissipation	Maximum ambient tempera-ture	Protec-tion class	Weight	Dimensions (W x H x D)
		V	A	kW	°C	A	W	°C		kg	mm
FXDM2.6AQ	**308161**	400	2.6	1.1	40	6	45	55	IP54	3.40	240 x 284 x 149
FXDM4.2AQ	**308162**		4.2	1.5	40	10	70	55		6.60	250 x 302 x 229.5
FXDM5AQ	**308163**		5	2.2	40	10	80	55		6.60	250 x 302 x 229.5
FXDM7.5AQ	**308164**		7.5	3.0	40	10	125	55		7.50	250 x 302 x 229.5
FXDM8.5AQ	**308165**		8.5	4.0	40	10	150	55		7.50	250 x 302 x 229.5
FXDM12AQ	**308166**		12	5.5	40	16	210	55		7.70	250 x 302 x 229.5
FXDM17AQ	**308167**		17	7.5	40	20	300	55		7.70	250 x 302 x 229.5
FXDM25AQ	**308168**		25	11	40	35	480	55		12.80	280 x 355 x 273
FXDM32AQ	**308169**		32	15	50	35	750	55		25.30	386 x 525 x 317
FXDM39AQ	**308170**		39	18.5	55	50	900	55		27.10	386 x 525 x 317
FXDM46AQ	**308171**		46	22	50	50	1050	55		27.10	386 x 525 x 317
FXDM62AQ	**308172**		62	30	40	63	1250	55		27.10	386 x 525 x 317

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Frequency inverters

3~Icontrol, universal device control with display (2nd edition)

The Icontrol frequency inverters are intended primarily for requirement-based and energy-saving speed control of internal rotor motors (IEC standard motors).
All ZIEHL-ABEGG sensors can be combined with the universal frequency inverters. The actual value measured at the sensor is compared with the setpoint. This results in control of the connected fan.
Control to volumetric air flow or differential pressure is possible for example especially for use in air-conditioning technology. Simple start-up is possible with the selectable operating modes in the device.
Processes in other application areas can also be controlled. The frequency inverters can be used flexibly.

Frequency inverters of the 2nd edition enable modern operation by capacitive keys. This means that no mechanical key is pressed but operation takes place capacitively by touching the key surface.
In addition, there is a directly selectable On/Off key and two keys the function of which depends on where you currently are in the menu (softkeys). A commissioning wizard and help texts are available for commissioning. There is a 2nd control circuit in the device and the possibility of retrofitting a clock module as a timer.

0-10V — Setting of the desired speed through device or by external default, e.g. 0…10 V

0-30 / 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0...30 bar, 0...50 bar

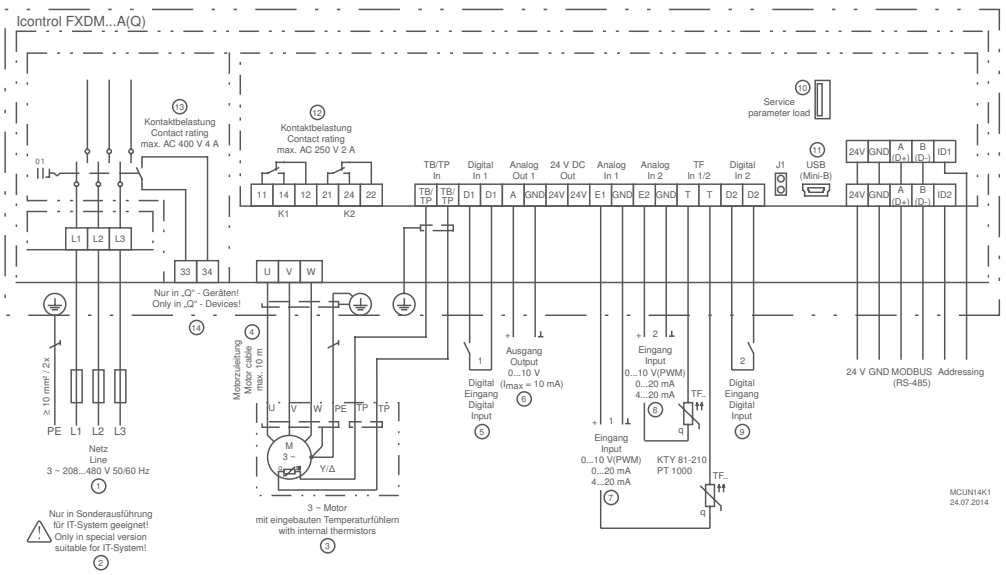
°C — Connection of thermistors,
e. g. sensors type TF..
e. g. active sensor type MTG..

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type MPG.. sensors, measuring range 0...6000 Pa, acquisition of volume flows up to 65000 m^3/h

m / s — Connecting air velocity sensors, e.g. type MAL.. sensors, measuring range 0...1 m/s, 0...10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0...10 V / 0...20 mA / 4...20 mA

Connection diagram



① Mains
② Only suitable for IT system in special version!
③ 3~ motor with built-in thermistors
④ Motor power line max. 10 m
⑤ Digital input 1
⑥ Output
⑦ Input 1
⑧ Input 2
⑨ Digital input 2
⑩ Service parameter load
⑪ USB (Mini-B)
⑫ Contact load
⑬ Contact load

Standard conformity

Interference emission according to EN 61000-6-3 (domestic)
Interference immunity according to EN 61000-6-2 (industrial)

Equipment/properties

Multifunction display with clear text display:
Different menu languages are selectable

Simple commissioning by operating modes:
Typical operating modes e.g. for air-conditioning, refrigeration or ventilation technology can be selected.

Activation of a 2nd control circuit in the selected operating mode:
By assignment of the sensor function input 2 (E2) for the 2nd control circuit.

Simple programmability:
Typical settings can be made: e.g. setting of a minimum speed, limitation of the maximum speed, inversions and limits.
Setting, e.g. for 2-step mode

2 analog inputs for sensors or setting signals:
Analog input E1 and E2: Setting by operating modes or manually programmable, e.g. 0-10 V, 0-20 mA, 4-20 mA
Analog input E2: programmable, e.g. comparison with sensor 1, difference to sensor 1, average value formation, setpoint setting, setpoint adaptation (e.g. outside temperature dependent), activation of 2nd control circuit

2 digital inputs D1 and D2:
Programmable, e.g. enable, switchover setpoint 1 or 2, switchover control or manual mode, switchover E1 or E2, invert control function, output limitation, display of external fault, reset, direction of rotation reversal

1 analog output A1:
Setting by operating modes or manually programmable, e.g. output signal proportional to modulation, output signal proportional to input signal, invertible, 10 V constant voltage, group control, activation as output for 2nd control circuit

2 digital outputs (relays) K1 and K2:
Setting by operating modes or manually programmable, e.g. operation indication, fault indication, limits, external fault at digital input, activation of external devices, e.g. heating, shutters, group control fans, etc.

Integrated motor protection function:
Connection possibility for PTC thermistors or alternatively thermostats (TB or TP).

Interface RS485 for MODBUS RTU:
Integration into bus system, addressing of the device manually or automatically possible.

Interface USB:
For software update, communication with PC, etc.

Set protection:
Activation set protection against unauthorised access, restoration of made settings

Event memory:
Query of occurred events, operating times etc.

Optional equipment

Add-on modules for frequency inverters
- IO add-on module type Z-Modul-B, Article No. **380052**
  If the integrated inputs and outputs are not sufficient, other inputs and outputs can be created with the Z-Modul-B. These are also programmable:
  - 1 analog input
  - 1 analog output
  - 3 digital inputs
  - 2 digital outputs (relays)
- Clock module Z-Modul-RTC, Article No. **380056**, for retrofitting real-time clock and timer function. The switching clock can be assigned the same functions are the digital inputs (D1...D2).

Icontrol, universal device control with display and main switch (2nd edition)
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated power	Rated temperature	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	kW	°C	A	W	°C		kg	mm
FXDM25AQ	**308288**	400	25	11	55	35	430	55	IP54	18.40	279 x 405 x 294
FXDM32AQ	**308282**		32	15	55	35	540	55		19.80	279 x 405 x 294

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Icontrol, universal device control with display (2nd edition)
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated power	Rated temperature	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	kW	°C	A	W	°C		kg	mm
FXDM25A	**308287**	400	25	11	55	35	430	55	IP54	18.20	279 x 405 x 260
FXDM32A	**308281**		32	15	55	35	540	55		19.60	279 x 405 x 260

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Frequency inverters

3~ Icontrol Basic, modularly extendable speed controllers

The Icontrol frequency inverters are intended preferably for requirement-based and energy saving speed control of internal rotor motors (IEC standard motors).
The special feature of the Icontrol Basic without display is the functional extendibility by pluggable add-on modules. This enables integration into different BUS networks. Functional extension as a controller is also possible with add-on modules.

In operation as a speed controller, the speed setting can be made by a master control by 0 – 10 V, e.g. by a ZIEHL-ABEGG control module of the UNIcon product series. The speed can also be set manually by connecting a potentiometer. Two-stage operation with adjustable speeds is also possible optionally.

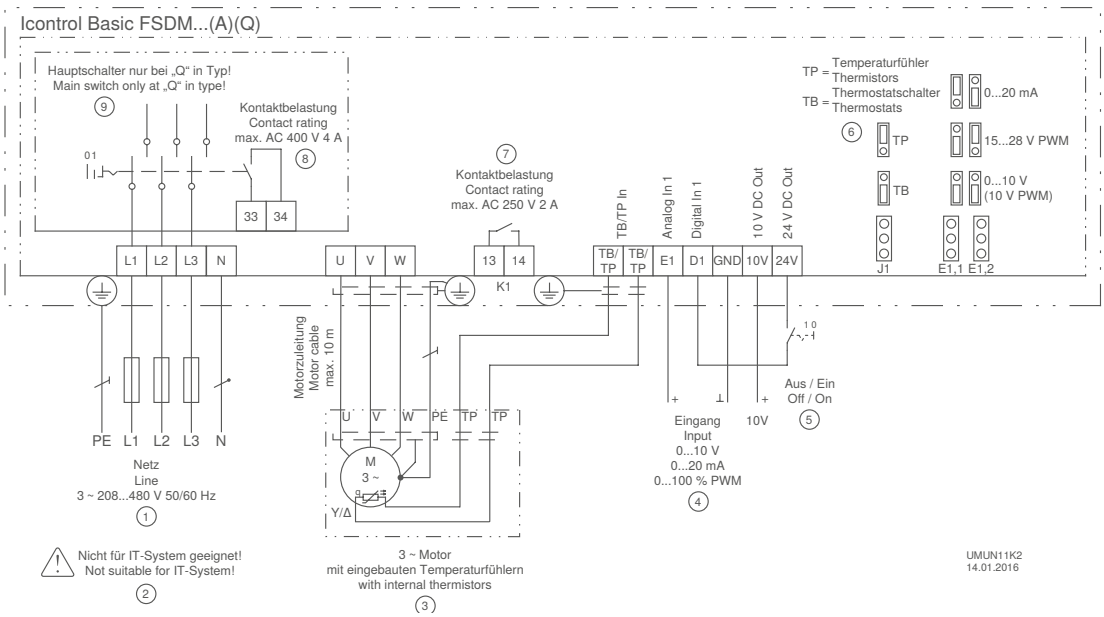
The 3~ Icontrol Basic inverters are universally suitable for many different applications: E.g. air conditioning, general ventilation tasks, combination with medium pressure axial fans MAXvent.

Input for sensors or speed settings through

Setting of the desired speed through device or by external default, e.g. 0…10 V

Add-on modules for functional extension

Connection diagram



① Line
② Only suitable for IT system in special version!
③ 3~ motor with built-in thermostats
④ Input
⑤ Off / On
⑥ TP = thermistor
TB = thermostat
⑦ Contact load max. AC 250 V 2 A
⑧ Contact load max. AC 400 V 4 A
⑨ Main switch only in “Q” in type!

Standard conformity

Interference emission according to EN 61000-6-3 (domestic)
Interference immunity according to EN 61000-6-2 (industrial)

Equipment/properties

1 analog input for speed setting:
Analog input E1: Setting by jumper to desired setting signal: 0-10 V, 0-20 mA or PWM

1 digital input:
D1 - 24 V: Enable function On/Off

1 potential-free fault indication contact:
The contact drops out in case of a fault. Max. load 250 V, 2 A.

Integrated motor protection function:
Connection possibility for thermostats “TB” or thermistors “TP”.

Optional equipment

Add-on modules for functional extension:

Article No.	Type
349045	AM-MODBUS
349050	AM-MODBUS-W
349077	AM-MODBUS-WB
349046	AM-PREMIUM
349051	AM-PREMIUM-W
349065	AM-AMPsignal
349071	AM-ETHERCAT
349064	AM-CAN-OPEN
349049	AM-LON
349063	AM-PROFIBUS
349072	AM-PROFINET

Icontrol Basic without display
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated temperature	Rated power	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	°C	kW	A	W	°C		kg	mm
FSDM2.6	**308214**	400	2.6	50	1.1	6	40	55	IP54	2.50	240 x 284 x 115
FSDM3.6	**308215**		3.6	40	1.5	6	55			2.60	240 x 284 x 115
FSDM5	**308216**		5	55	2.2	10	80			4.60	250 x 302 x 195.5
FSDM7	**308217**		7	50	3.0	10	105			4.70	250 x 302 x 195.5
FSDM8.5	**308218**		8.5	55	4.0	10	130			5.60	250 x 302 x 195.5
FSDM12	**308264**		12	55	5.5	16	175			5.70	250 x 302 x 195.5
FSDM17	**308269**		17	50	7.5	20	260			5.90	250 x 302 x 195.5
FSDM25	**308322**		25	40	11	35	480			12.30	280 x 355 x 239
FSDM32	**308324**		32	50	15	35	750			24.30	386 x 525 x 283
FSDM39	**308326**		39	55	18.5	50	900			26.10	386 x 525 x 283
FSDM46	**308328**		46	50	22	50	1050			26.10	386 x 525 x 283
FSDM62	**308330**		62	40	30	63	1250			26.10	386 x 525 x 283

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Frequency inverters

3~ Icontrol Basic, speed controller with display, main switch optional

The Icontrol frequency inverters are intended for requirement-based and energy saving speed control of internal rotor motors (IEC standard motors).
The Icontrol Basic inverters are available as speed controllers in the version with integrated display and main switch.

The speed setting can be made by a master control by 0 – 10 V, e.g. by a ZIEHL-ABEGG control module of the UNIcon product series. The speed can also be set manually by connecting a potentiometer. Two-stage operation with adjustable speeds is also possible optionally.

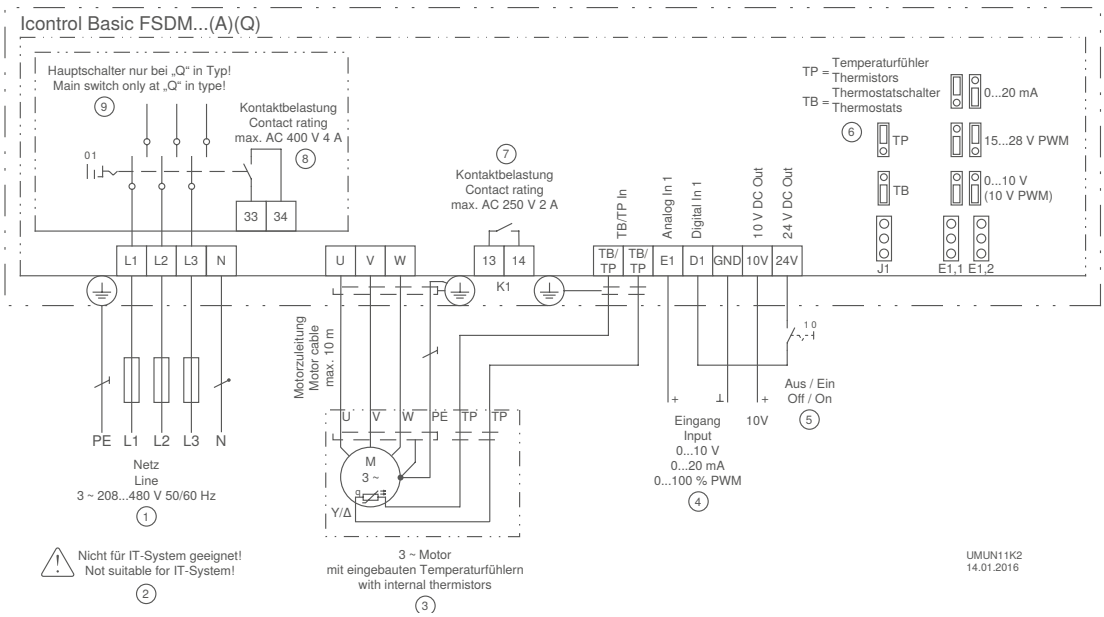
The 3~ Icontrol Basic inverters are universally suitable for many different applications: E.g. air conditioning, general ventilation tasks, combination with medium pressure axial fans MAXvent.

Input for sensors or speed settings through

0-10V

Setting of the desired speed through device or by external default, e.g. 0…10 V

Connection diagram



① Line
② Only suitable for IT system in special version!
③ 3~ motor with built-in thermostats
④ Input
⑤ Off / On
⑥ TP = thermistor
TB = thermostat
⑦ Contact load max. AC 250 V 2 A
⑧ Contact load max. AC 400 V 4 A
⑨ Main switch only in “Q” in type!

Standard conformity

Interference emission according to EN 61000-6-3 (domestic)
Interference immunity according to EN 61000-6-2 (industrial)

Equipment/properties

LC multi-function display with plain text display:
Setting of desired values: Speeds, motor parameters Display of modulation, operating states etc.

1 analog input for speed setting:
Analog input E1: Setting by jumper to desired setting signal: 0-10 V, 0-20 mA or PWM

1 digital input:
D1 - 24 V: Enable function On/Off

1 potential-free fault indication contact:
The contact drops out in case of a fault. Max. load 250 V, 2 A.

Integrated motor protection function:
Connection possibility for thermostats “TB” or thermistors “TP”.

Optional version with integrated main switch:
Switch settings 0 - I. The main switch can be locked with a padlock in position 0.

Icontrol Basic with display
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated temperature	Rated power	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	°C	kW	A	W	°C		kg	mm
FSDM2.6A	308228	400	2.6	50	1.1	6	40	55	IP54	2.70	240 x 284 x 115
FSDM3.6A	308230		3.6	40	1.5	6	55			2.80	240 x 284 x 115
FSDM5A	308232		5	55	2.2	10	80			4.80	250 x 302 x 195.5
FSDM7A	308234		7	50	3.0	10	105			4.90	250 x 302 x 195.5
FSDM8.5A	308236		8.5	55	4.0	10	130			5.80	250 x 302 x 195.5
FSDM12A	308265		12	55	5.5	16	175			5.90	250 x 302 x 195.5
FSDM17A	308267		17	50	7.5	20	260			6.10	250 x 302 x 195.5
FSDM25A	308323		25	40	11	35	480			12.50	280 x 355 x 239
FSDM32A	308325		32	50	15	35	750			24.50	386 x 525 x 283
FSDM39A	308327		39	55	18.5	50	900			26.30	386 x 525 x 283
FSDM46A	308329		46	50	22	50	1050			26.30	386 x 525 x 283
FSDM62A	308331		62	40	30	63	1250			26.30	386 x 525 x 283

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Icontrol Basic with display and main switch
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated temperature	Rated power	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	°C	kW	A	W	°C		kg	mm
FSDM2.6AQ	308229	400	2.6	50	1.1	6	40	55	IP54	2.90	240 x 284 x 149
FSDM3.6AQ	308231		3.6	40	1.5	6	55	55		3.00	240 x 284 x 149
FSDM5AQ	308233		5	55	2.2	10	80	55		5.00	250 x 302 x 229.5
FSDM7AQ	308235		7	50	3.0	10	105	55		5.10	250 x 302 x 229.5
FSDM8.5AQ	308237		8.5	55	4.0	10	130	55		6.00	250 x 302 x 229.5
FSDM12AQ	308266		12	55	5.5	16	175	55		6.10	250 x 302 x 229.5
FSDM17AQ	308268		17	50	7.5	20	260	55		6.20	250 x 302 x 229.5
FSDM25AQ	308332		25	40	11	35	480	55		12.80	280 x 355 x 273
FSDM32AQ	308333		32	50	15	35	750	55		25.30	386 x 525 x 317
FSDM39AQ	308334		39	55	18.5	50	900	55		27.10	386 x 525 x 317
FSDM46AQ	308335		46	50	22	50	1050	55		27.10	386 x 525 x 317
FSDM62AQ	308336		62	40	30	63	1250	55		27.10	386 x 525 x 317

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Frequency inverters

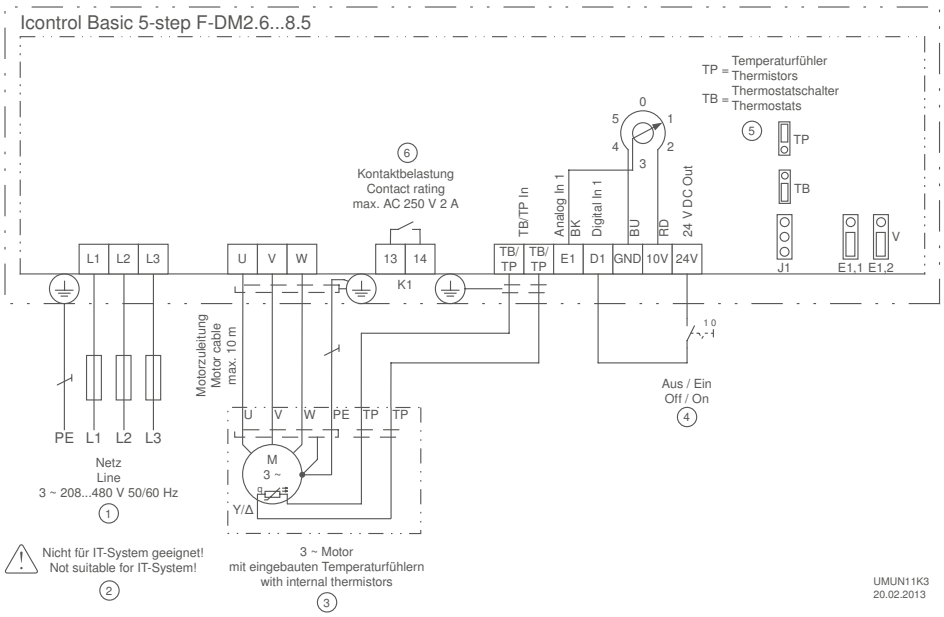
3~ Icontrol Basic 5-Step, speed controller with integrated 5-step switch

The Icontrol frequency inverters are intended preferably for requirement-based and energy saving speed control of internal rotor motors (IEC standard motors).
The Icontrol Basic inverters are available as speed controllers in the version with integrated 5-step switch.

The speed setting is made by setting manually directly on the device.

The 3~ Icontrol Basic inverters are universally suitable for many different applications: E.g. air conditioning, general ventilation tasks, agriculture, combination with medium pressure axial fans MAXvent.

Connection diagram



① Mains
② Not suitable for IT system!
③ 3~ motor with built-in thermistors
④ Off/On
⑤ TP=thermistor
TB=thermostat
⑥ Contact load

Standard conformity

Interference emission according to EN 61000-6-3 (domestic)
Interference immunity according to EN 61000-6-2 (industrial)

Equipment/properties

Easy operation and setting:
Setting of desired speeds by the 5-step switch

1 digital input:
D1 - 24 V: Enable function On/Off

1 potential-free fault indication contact:
The contact drops out in the event of a fault. Max. load 250 V, 2 A.

Integrated motor protection function:
Connection possibility for thermostats “TB” or thermistor “TP”.

Icontrol Basic 5-step
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated temperature	Rated power	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	°C	kW	A	W	°C		kg	mm
F-DM2.6	**308243**	400	2.6	50	1.1	6	40	55	IP54	2.60	240 x 284 x 132
F-DM3.6	**308244**		3.6	40	1.5	6	55	55		2.70	240 x 284 x 132
F-DM5	**308245**		5	55	2.2	10	80	55		4.70	250 x 302 x 212
F-DM7	**308246**		7	50	3.0	10	105	55		4.80	250 x 302 x 212
F-DM8.5	**308247**		8.5	55	4.0	10	130	55		5.70	250 x 302 x 212
F-DM12	**308270**		12	55	5.5	16	175	55		5.80	250 x 302 x 212
F-DM17	**308271**		17	50	7.5	20	260	55		6.00	250 x 302 x 212

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Frequency inverters

PMcontrol Basic, modularly extendable speed controllers

The PMcontrol Basic frequency inverters are intended for requirement-based, energy saving speed control of PM motors (permanent magnet excited synchronous motors).
In the “Basic” version the frequency inverters are speed controllers and can be controlled, for example, by 0 - 10 V. The products can also be extended functionally by pluggable add-on modules if necessary.
Add-on modules enable integration into different bus networks. Functional extension as a controller is also possible by add-on modules.

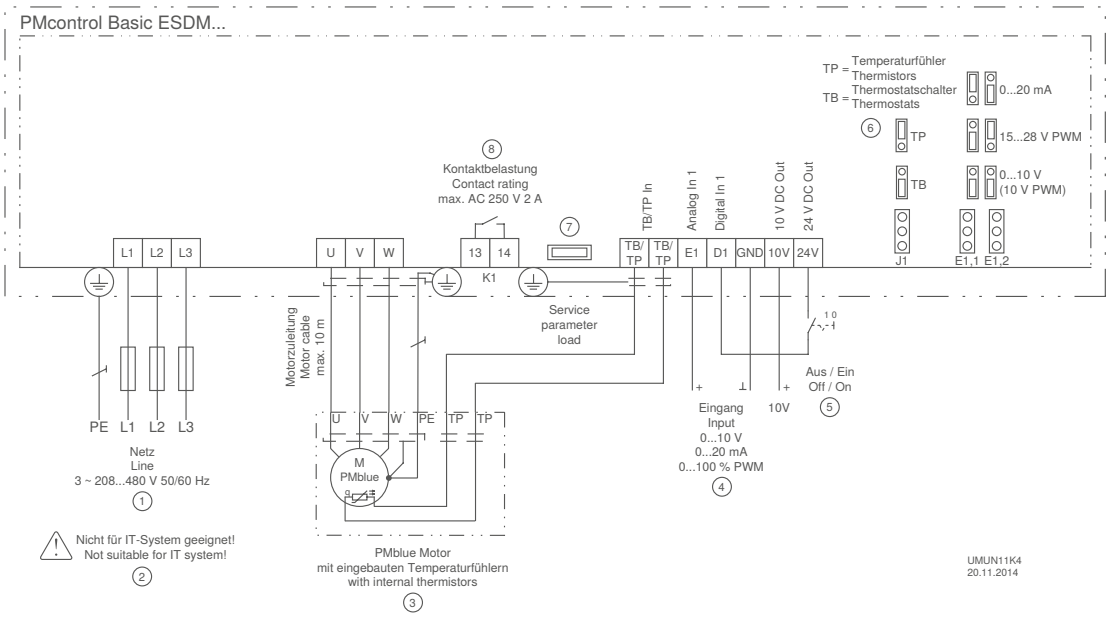
For fast commissioning, the frequency inverter is equipped with a slot for the ZAstick parameter memory. Necessary operating and motor data for optimum energetic and acoustic operation of the appropriate motor or fan are saved on the pluggable ZAstick parameter memory for the frequency inverter. As soon as voltage is applied to the frequency inverter, the data are loaded and saved as a factory setting.

Input for sensors or speed settings through

Setting of the desired speed through device or by external default, e.g. 0…10 V

Add-on modules for functional extension

Connection diagram



① Line 3~ 208 V...480 V, 50/60 Hz
② Not suitable for IT system!
③ PMblue motor with built-in thermistors
④ Input: 0...10 V, 0...20 mA, 0...100 % PWM
⑤ Enable device off/on
⑥ TP = thermistor
TB = thermostat
⑦ Interface for transfer of the motor parameters with ZAstick
⑧ Contact load max. 2 A / 250 V AC

Equipment/properties

1 analog input for speed setting:
Analog input E1: Setting by jumper to desired setting signal: 0-10 V, 0-20 mA or PWM

1 digital input:
D1 - 24 V: Enable function On/Off

1 potential-free fault indication contact:
The contact drops out in the event of a fault. Max. load capacity with 250 V, 2 A.

Integrated motor protection function:
Connection possibility for thermostat “TB” or thermistor “TP”.

Slot for ZAstick parameter memory:
As soon as voltage is applied to the frequency inverter, the data of the assigned motor or fan are loaded and saved as a factory setting. The ZAstick can stay in the slot or can be removed after installation.

Optional equipment

Add-on modules for functional extension:

Article No.	Type
349045	AM-MODBUS
349050	AM-MODBUS-W
349077	AM-MODBUS-WB
349046	AM-PREMIUM
349051	AM-PREMIUM-W
349065	AM-AMPsignal
349071	AM-ETHERCAT
349064	AM-CAN-OPEN
349049	AM-LON
349063	AM-PROFIBUS
349072	AM-PROFINET

PMcontrol Basic, modularly extendable speed controllers
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated temperature	Rated power	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	°C	kW	A	W	°C		kg	mm
ESDM8.5	**306619**	400	8.5	55	4.0	10	200	55	IP54	5.60	250 x 302 x 195.5
ESDM17	**306620**		17	55	7.5	20	400	55		5.90	250 x 302 x 195.5
ESDM32	**306621**		32	55	15	35	650	55		19.60	279 x 405 x 260

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Frequency inverters

PMIcontrol Basic-M, for setting up internal rotor motors

The PMIcontrol Basic-M frequency inverters are specially developed frequency inverters for mounting on internal rotor motors. The AMblue drive system is created by combination with IEC standard motors (asynchronous motors). The PMblue drive system is created in combination with PM motors (permanent magnet excited synchronous motors).

In the “Basic” version the frequency inverters are speed controllers and can be controlled, for example, by 0 - 10 V. The products can be extended functionally by pluggable add-on modules if necessary. Add-on modules enable integration into different bus networks. Functional extension as a controller is also possible by add-on modules.

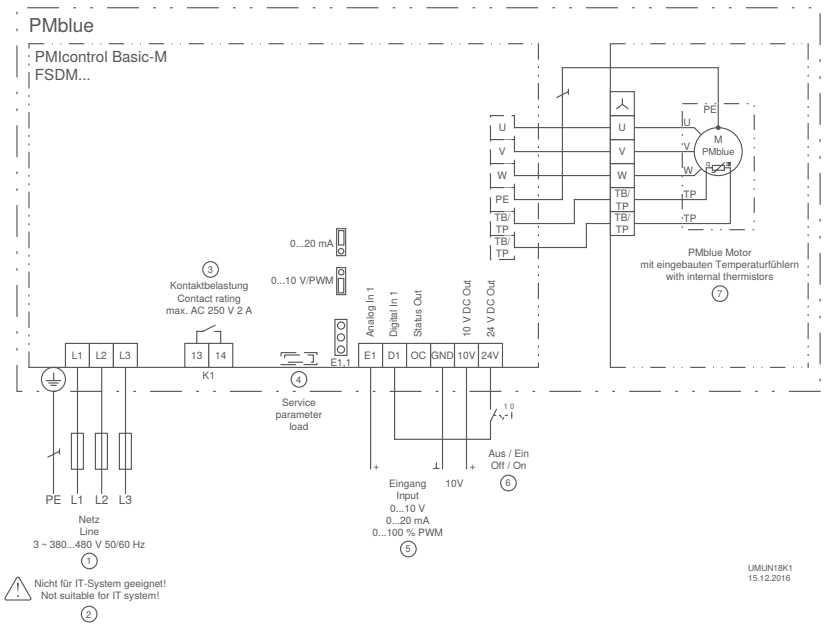
For fast commissioning, the frequency inverter is equipped with a slot for the ZAstick parameter memory. Necessary operating and motor data for optimum energetic and acoustic operation of the appropriate motor or fan are saved on the pluggable ZAstick parameter memory for the frequency inverter. This configuration also sets the frequency inverter to the respective motor technology (IEC standard motor or PM motor). As soon as voltage is applied to the frequency inverter, the data are loaded and saved as a factory setting.

Input for sensors or speed settings through

Setting of the desired speed through device or by external default, e.g. 0...10 V

Add-on modules for functional extension

Connection diagram



① Line 3~ 208...480 V, 50/60 Hz
② Not suitable for IT system!
③ Contact load max. 2A / 250 V AC
④ Interface for transfer of motor parameters with ZAstick (for PMmotor)
⑤ Input: 0...10 V, 0...20 mA, 0...100 % PWM
⑥ Enable device off/on
⑦ 3~ motor with built-in thermistors
⑧ TP = thermistor, TB = thermostat

Equipment/properties

1 analog input for speed setting:
Analog input E1: Setting by jumper to desired setting signal: 0-10 V, 0-20 mA or PWM

1 digital input:
D1 - 24 V: Enable function On/Off

1 potential-free fault indication contact:
The contact drops out in the event of a fault. Max. load capacity with 250 V, 2 A.

Integrated motor protection function:
Connection possibility for thermostat “TB” or thermistor “TP”.

Slot for ZAstick parameter memory:
As soon as voltage is applied to the frequency inverter, the data of the assigned motor or fan are loaded and saved as a factory setting. The ZAstick can stay in the slot or can be removed after installation.

Optional equipment

Add-on modules for functional extension:

Article No.	Type
349045	AM-MODBUS
349050	AM-MODBUS-W
349077	AM-MODBUS-WB
349046	AM-PREMIUM
349051	AM-PREMIUM-W
349065	AM-AMPsignal
349071	AM-ETHERCAT
349064	AM-CAN-OPEN
349049	AM-LON
349063	AM-PROFIBUS
349072	AM-PROFINET

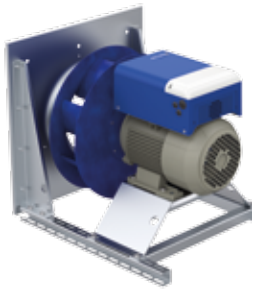
PMIcontrol Basic-M, for setting up internal rotor motors
3~ 208...480V 50/60Hz

Type	Article no.	Rated voltage	Rated current	Rated temperature	Rated power	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		V	A	°C	kW	A	W	°C		kg	mm
FSDM12	**306622**	400	12	55	5.5	20	175	55	IP54	6.10	254.2 x 344.2 x 154.5
FSDM17	**306623**		17	40	7.5	20	260	55		6.10	254.2 x 344.2 x 154.5
FSDM25	**308309**		25	40	11	35	430	55		18.60	320 x 430 x 214.5
FSDM32	**308310**		32	40	15	35	560	55		19.60	320 x 430 x 214.5
FSDM39	**308311**		39	40	18.5	50	730	55		23.20	366 x 476 x 214.5
FSDM46	**308312**		46	40	22	50	900	55		23.40	366 x 476 x 214.5

Devices with a rated temperature below 55 °C can be used up to 55 °C with a reduction in performance
rated power = power rating of the internal rotor motor. The motor rated current is decisive for the assignment of the frequency inverter.

Fan with highly efficient AMblue or PMblue drive system

We offer controller motor adapter plates for combining the PMIcontrol Basic-M with the motor.
AMblue = asynchronous motor combined with PMIcontrol Basic-M
PMblue = PM motor combined with PMIcontrol Basic-M



Adapter plate controller-motor

Manufacturer motor	Series	Size	Rated output power [kW]					
			5,5	7,5	11	15	18	22
ZIEHL-ABEGG	IMB3	132	00160850		on request		on request	
		160			00167140 00167158			
		180	on request				00167191	
		200			on request	00167158		
		225				on request		
Siemens	1LE1	132	00160883				on request	
		160			00167158			
		180	on request		00167140	00167140 00167158	00167192	
		200			on request	00167140		
		225				on request		

Control modules

UNIcon universal control module (with MODBUS Master function)

All ZIEHL-ABEGG sensors can be combined with the UNIcon CXE/AV(E) universal control module. The actual value measured at the sensor is compared with the setpoint. This results in the 0-10 V output signal. Two 0-10 V outputs are integrated. These serve to activate EC fans, frequency inverters or other devices. Optionally, connected field devices (frequency inverters/EC fans with plugged MODBUS add-on module) can be activated by the integrated MODBUS-RTU interface (MODBUS Master function). Groups of frequency inverters or ECblue fans can be conveniently addressed quickly and automatically. The device also contains two separate control circuits, a real time clock and timer functions. UNIcon universal control modules are especially suitable for the following applications: Refrigeration, air conditioning, general ventilation tasks, clean room technology. For typical applications in the areas mentioned, fast start-up is possible by selecting pre-programmed operating modes.

We supply special control modules for agriculture.

Input for sensors or speed settings through

0-10V — Setting of the desired speed through device or by external default, e.g. 0…10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0...30 bar, 0...50 bar

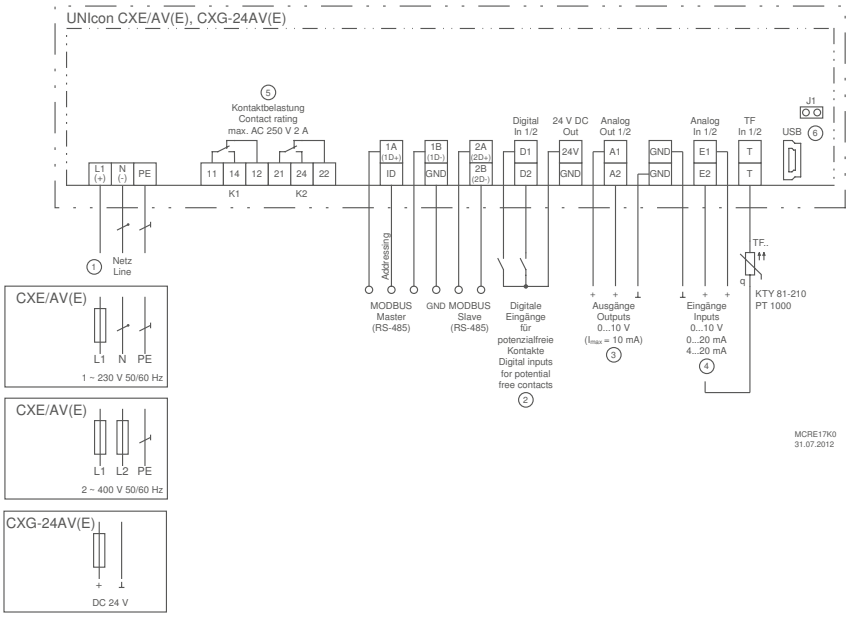
°C — Connection of thermistors,
e. g. sensors type TF..
e. g. active sensor type MTG..

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type MPG.. sensors, measuring range 0...6000 Pa, acquisition of volume flows up to 65000 m^3/h

m / s — Connecting air velocity sensors, e.g. type MAL.. sensors, measuring range 0...1 m/s, 0...10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0...10 V / 0...20 mA / 4...20 mA

Connection diagram



① Line
② Digital inputs for potential-free contacts
③ Outputs
④ Inputs
⑤ Contact load
⑥ Jumper for boot loader

Standard conformity

Interference emission according to EN 61000-6-3 (domestic)
Interference immunity according to EN 61000-6-2 (industrial)

Equipment/properties

Multifunction display with clear text display:
Different menu languages are selectable

Simple commissioning by operating modes:
Typical operating modes, e.g. for air-conditioning, refrigeration or ventilation technology can be selected.

Simple programmability:
e. g. setting of a minimum speed, limitation of the maximum speed, inversions and limits.
Setting, e.g. for 2-step mode

2 analog inputs for sensors or setting signals:
Analog input E1 and E2: Setting by operating modes or manually programmable, e.g. 0-10 V, 0-20 mA, 4-20 mA
Analog input E2: programmable, e.g. comparison with sensor 1, difference to sensor 1, average value formation, setpoint setting, setpoint adaptation (e.g. outside temperature-dependent)

2 digital inputs D1, D2:
Programmable, e.g. enable, switch over setpoint 1 or 2, switchover control or manual mode, switchover E1 or E2, control function reversal, output limitation, display of external fault

2 analog outputs for controlling external speed controllers, EC fans, other devices:
Analog output A1 and A2: Setting by operating modes or manually programmable, e.g. output signal proportional to modulation, output signal proportional to input signal, invertible, 10 V constant voltage, group control

2 digital outputs (relays) K1 and K2:
Setting by operating modes or manually programmable, e.g. operating indication, fault indication, limits, external fault at digital input, activation of external devices, e.g. heating, group control fans, etc.

2 interfaces RS485:
a) For connecting ZIEHL-ABEGG field devices with MODBUS RTU interface (e.g. field devices with integrated add-on module “AM-MODBUS”). With the possibility of automatic addressing of these field devices.
b) MODBUS Slave function of the UNIcon, for connection to a master control station (GLT).

Set protection/memory for settings:
Activation of set protection against unauthorised access, restoration of made settings

Event memory:
Query of occurred events, operating times etc.

Integrated real-time clock with timer:
The timer function behaves like a digital input, the desired function can be selected accordingly. Up to four switching times per day can be set for the desired function.

Optional equipment

Z-Modul-B02, article no. 380099, as additional I/O expansion.
- Two additional inputs E3 + E4 (0-10 V), option to program as digital inputs (see inputs D1,D2)
- One additional analog output (0-10 V), adjustable (see output A1, A2)

UNIcon universal control module

Line	Type	Article no.	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
			A	W	°C		kg	mm
1~ 230V 50/60Hz	CXE/AV	320053	10	5	55	IP54	0.90	223 x 200 x 115
1~ 230V 50/60Hz	CXE/AVE	320056	10	5	55	IP00	0.65	166 x 106 x 55 mm / mounting depth: max. 105
2~ 400V 50/60Hz	CXE/AV	320055	10	5	55	IP54	0.90	223 x 200 x 115

Panel-mounting AVE (when installed IP54)

UNIcon universal control module

Line voltage	Type	Article no.	Max. line fuse	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
			A	W	°C		kg	mm
	CXG-24AV	320057	10	5	55	IP54	0.75	223 x 200 x 115
24VDC	CXG-24AVE	320058	10	5	55	IP00	0.50	166 x 106 x 55 mm / mounting depth: max. 105

Panel-mounting AVE (when installed IP54)

Control modules

UNIcon sensor control module for differential pressure/air flow (2nd edition)

The sensor control module for differential pressure and volume flow measures and indicates the pressure or, optionally, the volume flow in a ventilation system. The calculation of the volume flow is performed by entering the K-factor of the fan inlet ring.

Depending on the desired setpoint and control range, the sensor control module generates 0-10 V to control the EC fan or e.g., a frequency inverter.

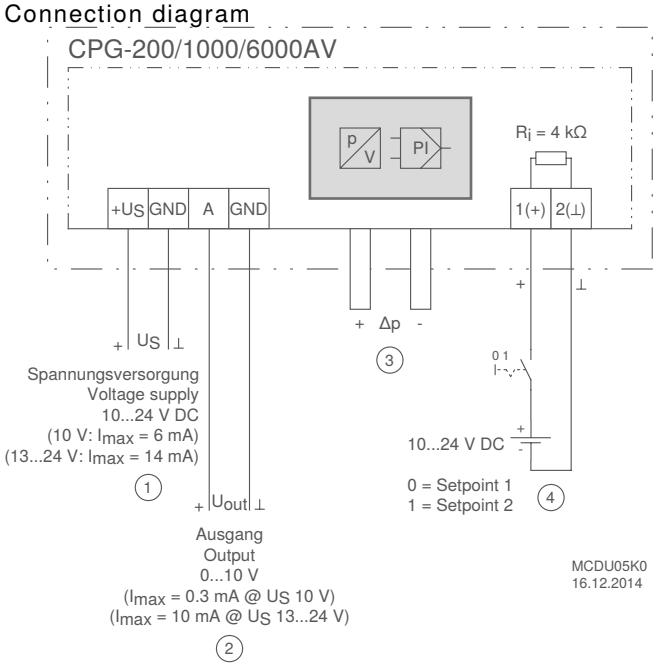
The sensor control module is supplied by the fan or frequency inverter which it controls, e.g., with 10-24 V DC. No additional supply voltage is necessary.

Input for sensors or speed settings through

△Pa — Pressure sensor and control intelligence are combined in one device

m³ — Air flow sensor (by input of K-factor) and control intelligence are combined in one device

Connection diagram



① Line
② Outout
③ Connection sockets
④ Voltage input for switch

Standard conformity

Interference emission according to EN 61000-6-3 (domestic)
Interference immunity according to EN 61000-6-2 (industrial)

Equipment/properties

Integrated display:
For pressure or volumetric air flow display and for programming
It is possible to switch over the display from SI units to Imperial units.
A zero point calibration of the integrated sensor is possible into the menu of the unit.

Simple commissioning by operating modes:
Operation as pressure or volumetric air flow sensor
Operation as pressure or volumetric air flow controller

Simple programmability by 3 buttons:
Selection of measuring range, input of setpoints (1/2),
Control range, K-factor for volumetric air flow determination,
minimum or maximum output signal.

Different measuring ranges can be selected depending on the version:
CPG-200AV: 0-50 / 100 / 150 / 200 Pa
CPG-1000AV: 0-200 / 300 / 500 / 1000 Pa
CPG-6000AV: 0-2000 / 3000 / 4000 / 6000 Pa
Maximum air flow measuring range: 65,000 m^3/h

Voltage input for switch over:
Setpoint 1 or 2

1 analog output:
For activation of EC fans, frequency inverters, other devices

Application/Function

The sensor control module is connected to the ventilation system via 2 pressure ports (pressure socket + and -).
The differential pressure registered on the ventilation system affects the sensor on a silicone membrane in the device. The deformation of the membrane is registered through a measuring element and transmitted to the integrated electronics. Function: Pressure rise on +, compared to pressure on - connection.
Optionally, the device can be operated as a pressure sensor, i.e., pressure indicator and proportional output signal 0-10 V corresponding to the set measurement range.
Optional operation as a volume flow sensor, i.e. volume flow (by entering the K-factor of the centrifugal fans) and 0-10 V proportional output signal corresponding to the set measurement range.
Optional operation as a control module for pressure or volume flow. The entered setpoint is compared to the actual value; the 0-10 V output signal results from that. That is used to trigger EC fans, frequency inverters or other devices.

UNIcon sensor control module for pressure
DC10...24

Type	Article no.	Minimum ambient temperature °C	Maximum ambient temperature °C	Protection class	Weight kg	Dimensions (W x H x D) mm
CPG-200AV	**320063**	-10	60	IP54	0.23	106.3 x 137 x 56
CPG-1000AV	**320064**	-10	60	IP54	0.23	106.3 x 137 x 56
CPG-6000AV	**320065**	-10	60	IP54	0.23	106.3 x 137 x 56

Dimensions with cable gland

Control modules

UNIcon temperature control module (2nd edition)

The CTG temperature control module can be combined with various temperature sensors.

The actual value measured on the sensor is compared with the set-point. That produces the 0-10 V output signal. This is used to trigger EC fans, frequency inverters or other devices.

The control module is supplied with 10-24 V DC from the fan or frequency inverter it is triggering. No additional power supply necessary.

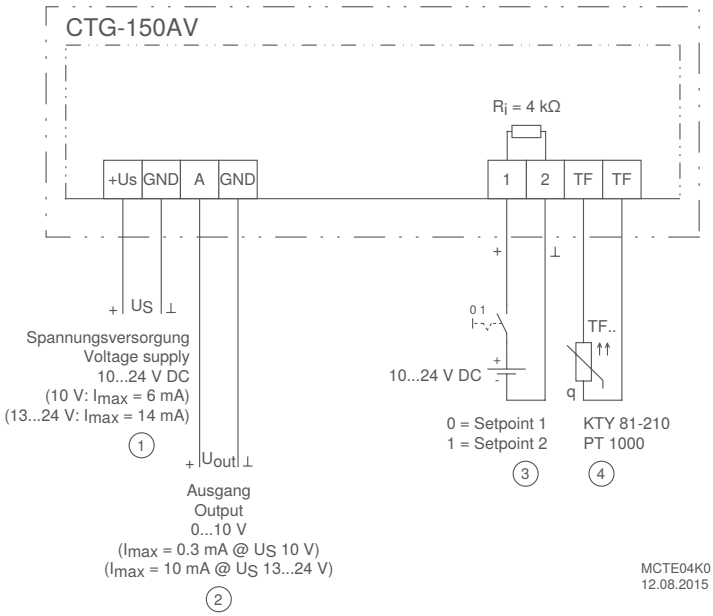
Optionally, the module can also be used as a temperature display. The 0-10 V output signal is then proportional to the set measurement range.

Input for sensors or speed settings through

°C

Connection of temperature sensors,
e.g. Type TF.. sensors, device measurement range -50...+150 °C

Connection diagram



① Input 10...24V DC
② Output 0...10 V
③ Temperature sensor
KTY 81-210 or PT 1000
④ Voltage input for switch

Standard conformity

Interference emission according to EN 61000-6-3 (domestic)
Interference immunity according to EN 61000-6-1 (domestic)

Equipment/Characteristics

Integrated display:
For temperature display and for programming

Simple commissioning of the operating modes:
Operation as temperature sensor or temperature controller

Easy to program using 3 buttons:
Select measurement range, enter setpoint (1/2), control range, Minimum or maximum output signal

Adjustable measurement range when using as temperature sensor:
-50 °C...+150 °C

Voltage input for switch over
Setpoint 1 or 2

1 analogue output:
To control EC fans, frequency inverters, other devices

UNIcon temperature control module

Type	Article no.	Minimum ambient temperature °C	Maximum ambient temperature °C	Protection class	Weight kg	Dimensions (W x H x D) mm
CTG-150AV	320073	-10	60	IP54	0.21	106.3 x 137 x 56
CTG-150AV	320081	-10	60	IP54	0.21	106.3 x 114 x 56

Dimensions with cable gland

Article no. 320081 without visible cable entry. This is done at the rear flush mounted.

Sensors

Differential pressure sensors (2nd edition)

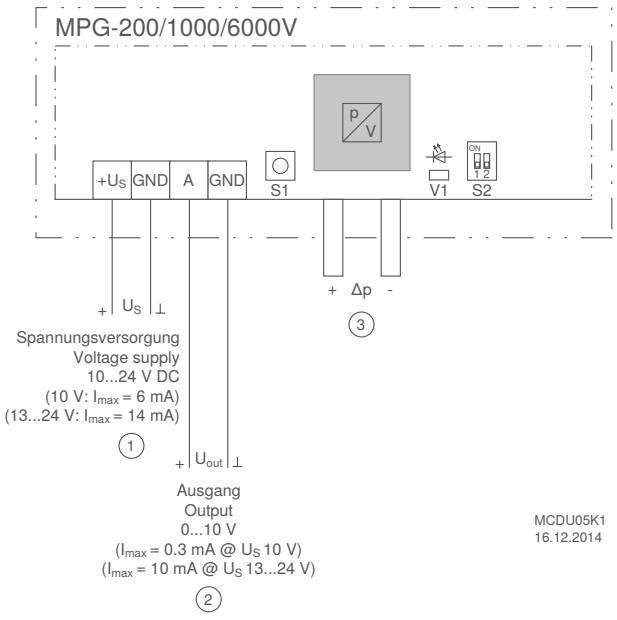
Sensors for measuring differential pressure. Used in air ducts, faninlet nozzles (e.g. in air conditioning box devices), roof fans, etc. The differential pressure sensor is connected to the ventilation system by two pressure connections. The differential pressure thus acts on a silicone membrane, the change in position of which is evaluated electronically.
The sensor generates a 0 – 10 V signal proportionally over the respective measuring range. Depending on the connected control unit, the control can thus be made based on differential pressure or air flow.

The sensors have switchable measuring ranges.
With three versions, the pressure range from 0 up to 6000 Pa can be covered. Each version has four calibrated, selectable measuring ranges.
Through the gradation of the units, exact measuring results with only three versions are possible..

△Pa

m³

Connections



MCDU05K1
16.12.2014

① Voltage supply
② Output
③ Connection sockets

Standard conformity

Interference emission according to EN 61000-6-3 (domestic)
Interference immunity according to EN 61000-6-2 (industrial)

Equipment/Properties

Electrical connection:
Electrical connection at 3-pole clamp into the unit.

Measuring range:
Three versions cover the measuring range from 0 up to 6000 Pa. Each version, has four selectable measuring ranges, for exact measuring results into the corresponding application.

Status LED:
Information regarding the status of the unit through LED into the connection area.

Zero point calibration:
Through integrated push button into the connection area.

Differential pressure sensor
DC10...24

Type	Article no.	Measuring range	Minimum ambient temperature °C	Maximum ambient temperature °C	Protection class	Weight kg	Dimensions (W x H x D) mm
MPG-200V	384057	0...200/150/100/50 Pa	-10	70	IP54	0.21	106.3 x 137 x 56
MPG-1000V	384058	0...1000/500/300/200 Pa	-10	70		0.21	106.3 x 137 x 56
MPG-6000V	384059	0...6000/4000/3000/2000 Pa	-10	70		0.21	106.3 x 137 x 56

Dimensions with cable gland

Add-on modules

AM-MODBUS (-W) for Basic Frequency inverter and ECblue

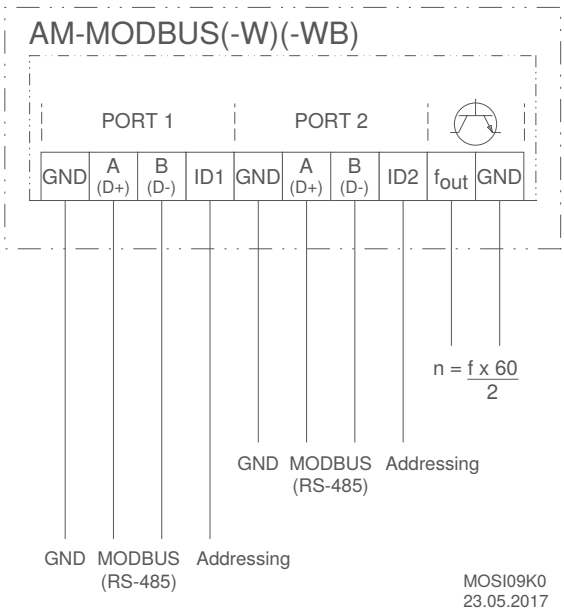
Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without integrated display as well as ECblue motors and fans.
With the AM-MODBUS/-W add-on modules, the devices integrated into MODBUS networks or the A-G-247NW operator terminal can be connected. Parameterization and data polling by radio (with AM-MODBUS-W) are optionally possible.
Whole groups of frequency inverters or ECblue motors and fans that are equipped with these AM-MODBUS add-on modules can be addressed quickly and automatically by a ZIEHL-ABEGG UNIcon control module with MODBUS-Master function. These devices are then controlled conveniently by the UNIcon “master” device.

Equipment/properties

2 x interface RS485:
For integration into a MODBUS RTU network (MODBUS Slave). With the possibility of automatic addressing by a UNIcon control module with MODBUS-Master function.

Add-on module - AM-MODBUS (-W)		
Type	**Article no.**	Weight kg
AM-MODBUS	**349045**	0.03
AM-MODBUS-W	**349050**	0.03

Connection diagram



Add-on modules

AM-MODBUS-WB for Basic Frequency inverter and ECblue fans

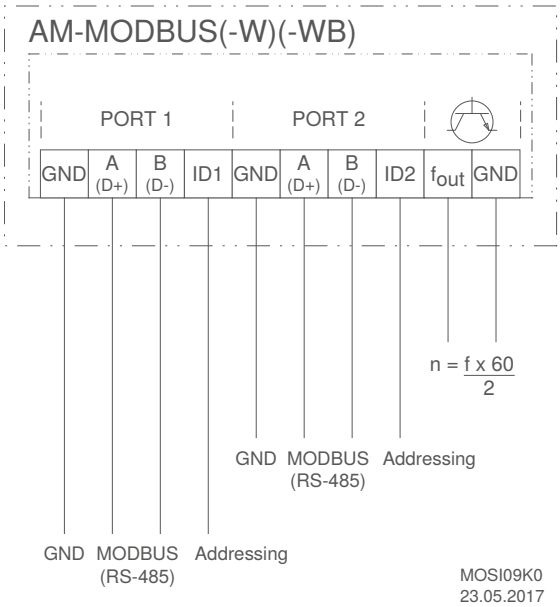
Pluggable add-on modules for function extensions of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without an integrated display, as well as ECblue motors and fans.
With the AM-MODBUS-WB add-on modules, access to the respective frequency inverter or ECblue fan can take place wirelessly using Bluetooth.
For this purpose, the ZIEHL-ABEGG “ZAset mobile” app for mobile terminals is available in the Android and IOS Store.

The devices can be integrated into MODBUS networks with the AM-MODBUS-WB add-on modules. Whole groups of frequency inverters or ECblue motors and fans, which are equipped with these AM-MODBUS-WB add-on modules, can be addressed quickly and automatically by means of a ZIEHL-ABEGG UNIcon control module with MODBUS master function. These devices are then controlled conveniently by the UNIcon “master” device.

Bluetooth®

Add-on module - AM-MODBUS-WB		
Type	**Article no.**	Weight kg
AM-MODBUS-WB	**349077**	0.04

Connection diagram



Add-on modules

AM-PREMIUM (-W) for Basic Frequency inverter and ECblue

Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without integrated display as well as ECblue motors and fans.
With the AM-PREMIUM/-W add-on modules, the devices can be functionally extended as a control unit. In addition, it is possible to link to MODBUS networks or connect operator terminals (A-G-247NW / AXG-1A / AXG-1AE). Radio parameterization and data polling (with AM-PREMIUM-W) is also possible as an option.

Input for sensors or speed settings through

0-10V — Setting of the desired speed through device or by external default, e.g. 0…10 V

0-30 0-50 bar — Connecting pressure sensors (refrigeration), e.g. type MBG.. sensors, measuring range 0...30 bar, 0...50 bar

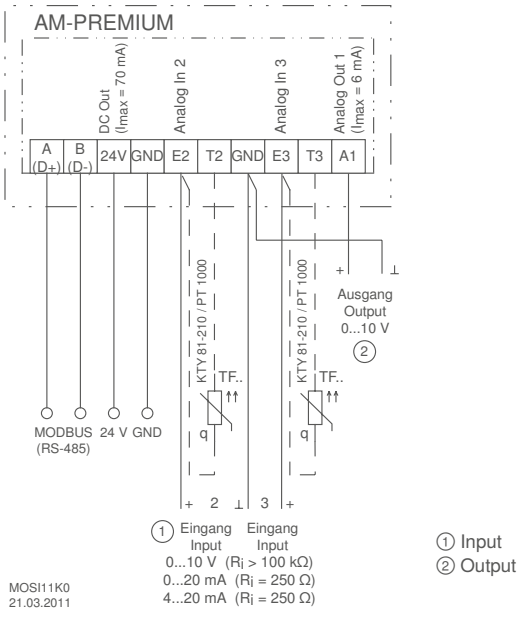
°C — Connection of thermistors, e. g. sensors type TF.. e. g. active sensor type MTG..

△Pa — Connecting differential pressure sensors (air conditioning), e.g. type MPG.. sensors, measuring range 0...6000 Pa, acquisition of volume flows up to 65000 m³/h

m / s — Connecting air velocity sensors, e.g. type MAL.. sensors, measuring range 0...1 m/s, 0...10 m/s

CO_2 % °C — Connecting additional sensors, e.g. combination sensors, CO_2, sensor signal 0...10 V / 0...20 mA / 4...20 mA

Connection diagram



MOSI11K0
21.03.2011

Equipment/properties

Simple start-up by operating modes:
When an operator terminal is connected to the AM-PREMIUM add-on module plugged into the frequency inverter (for AM-PREMIUM-W via radio), typical operating modes, e.g. for air conditioning, refrigerant or ventilation technology can be selected.

2 analog inputs for sensors or setting signals:
analog input E2 and E3: Setting by operating modes or manually programmable, e.g. 0-10 V, 0,20 mA, 4-20 mA
analog input E3: Programmable, e.g. comparison with sensor E2, difference to sensor E2, average value formation, setpoint setting, setpoint adaptation (e.g. outdoor temperature-dependent) connection of passive thermistors: On E2 and T2, E3 and T3.

1 analog output A1:
Setting by operating modes or manually programmable, e.g. output signal proportional to modulation, output signal proportional to input signal, invertible, 10 V constant voltage, group control.

Functional extension: Digital input D1 in the basic device:
programmable, e.g. enable, switch over setpoint 1 or 2, switch over control or manual mode, switch over E1 or E3, control function inversion, output limitation, external fault, reset, reversal of direction of rotation.

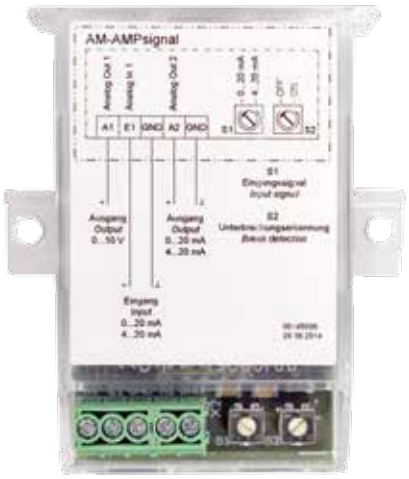
Functional extension: Digital output K1 in the basic device:
setting by operating modes or manually programmable, e.g. operating indication, fault indication, limits, external fault at digital input, activation of external devices, e.g. heating, shutters, group control fans, etc.

1 x interface RS485:
For linking to a MODBUS RTU network (MODBUS Slave). Manual addressing of the devices in the network

Add-on module AM-PREMIUM (-W)		
Type	**Article no.**	Weight kg
AM-PREMIUM	**349046**	0.03
AM-PREMIUM-W	**349051**	0.04

Add-on modules

AM-AMPsignal for Basic Frequency inverter and ECblue fans



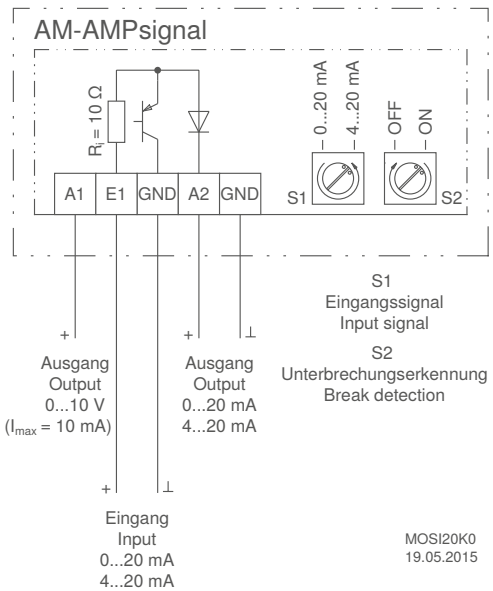
Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without integrated display as well as ECblue motors and fans.
The add-on module AM-AMPsignal transforms a current signal (0-20 mA, 4-20 mA) into a voltage signal (0-10 V). Several basic frequency inverters or ECblue fans can then be controlled by one current signal.

Equipment/properties

2 integrated rotary switches
Setting input signal (4-20mA, 0-20mA) by rotary switch “S1”.
Setting fractured wire detection (detection active, not active) by rotary switch “S2”.

Add-on module AM-AMPsignal		
Type	**Article no.**	Weight kg
AM-AMPsignal	**349065**	0.03

Connection diagram



Add-on modules

AM-ETHERCAT for Basic Frequency inverter and ECblue

Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without integrated display as well as ECblue motors and fans.
With the AM-ETHERCAT add-on modules the frequency inverters or ECblue fans can be integrated into EtherCat networks.

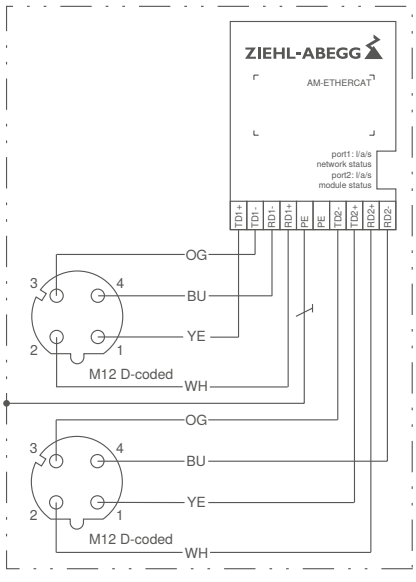
A device master data filed (ESI file) is required for integration of the device into an EtherCat network. If there is any doubt about the use or procurement of the ESI file for this add-on module, our Control Technology Support Department will be very glad to help.

Equipment/properties

4 integrated LED
For status display and error message:
Network status, status module, status port 1 / port 2.

Add-on module AM-ETHERCAT		
Type	**Article no.**	Weight kg
AM-ETHERCAT	**349071**	0.03

Connection diagram



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12.08.2015

Add-on modules

AM-CAN-OPEN for Basic Frequency inverter and ECblue

Pluggable add-on modules for a function extension of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without integrated display as well as ECblue motors and fans.
With the AM-CAN-OPEN add-on modules the devices can be integrated into CANopen networks.

An Electronic Datasheet (EDS file) is required for a device integration into the CANopen network.
This file is provided free of charge by our Control Engineering Support Department.

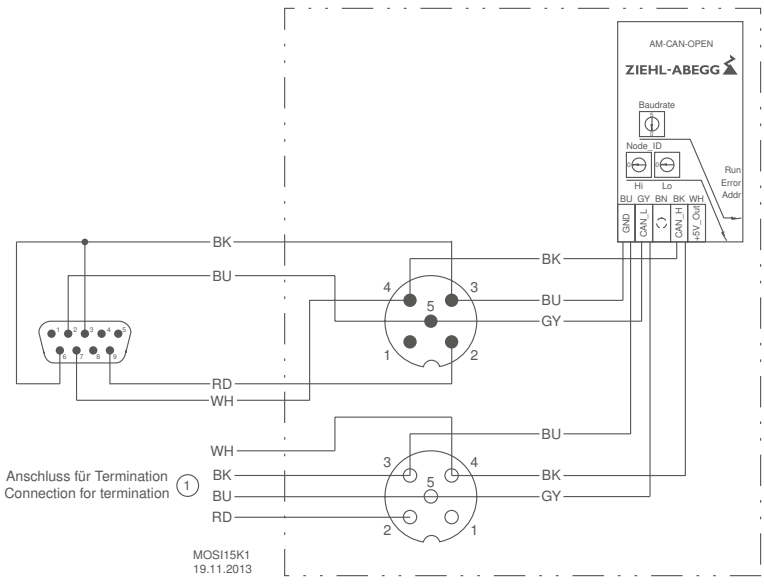
Equipment/properties

3 integrated LEDs
For status display and error message.

3 integrated rotary switches
2 rotary switches for manual address setting.
1 rotary switch for setting the baud rate

Add-on module - AM-CAN-OPEN		
Type	**Article no.**	Weight kg
AM-CAN-OPEN	**349064**	0.03

Connection diagram



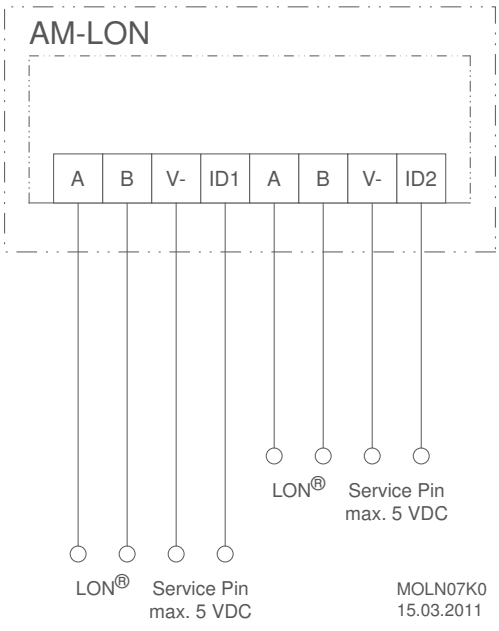
Add-on modules

AM-LON for Basic Frequency inverter and ECblue

Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without integrated display as well as ECblue motors and fans.
With AM-LON add-on modules the devices can be integrated into LON networks.

Add-on module - AM-LON		
Type	**Article no.**	Weight kg
AM-LON	**349049**	0.03

Connection diagram



Add-on modules

AM-PROFIBUS for Basic Frequency inverter and ECblue

Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” without integrated display as well as ECblue motors and fans.
With the AM-PROFIBUS add-on modules the devices can be integrated into PROFIBUS networks.
A device master data file (GSD file) is required for integration of the device into the PROFIBUS network. This is provided free by our Control Engineering Support Department.

Equipment/properties

3 integrated LEDs
For status display and error message.

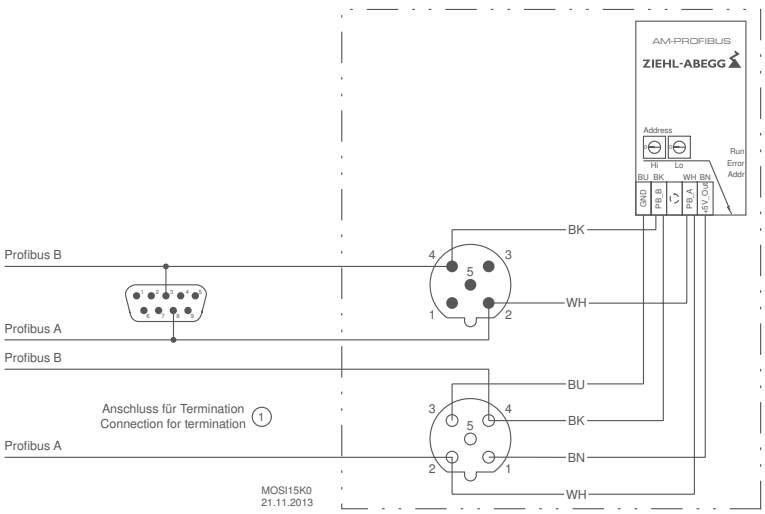
2 integrated rotary switches
For manual address setting.

Automatic baud rate detection

Optionally available connectors
Plug with connecting wires 80 mm:
5-pole, M12, wall installation M16, Article No. 00161258
5-pole, M12, wall installation M20, Article No. 00161263
Socket with connecting wires 80 mm:
5-pole, M12, wall installation M16, Article No. 00161259
5-pole, M12, wall installation M20, Article No. 00161264

Add-on module AM-PROFIBUS		
Type	**Article no.**	Weight kg
AM-PROFIBUS	**349063**	0.03

Connection diagram



Add-on modules

AM-PROFINET for Basic Frequency inverter and ECblue fans

Pluggable add-on modules for function extension of the “Icontrol Basic" and “Fcontrol” and “Fcontrol Basic” without integrated display (also for functional extension of ECblue fans).
With the AM-PROFINET add-on modules the frequency inverters or ECblue fans can be integrated into PROFINETnetworks.

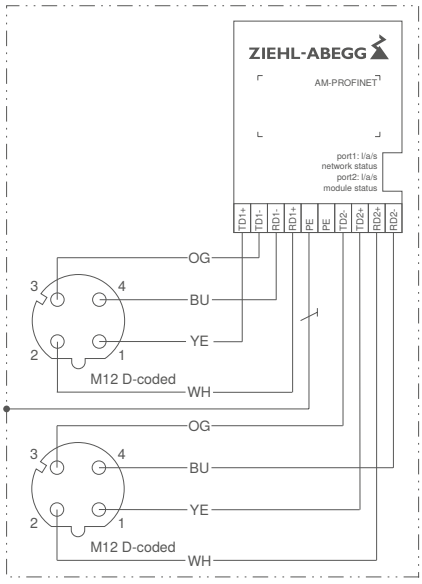
A device master data file (GSD file) is required for integration of the device into the PROFINET network. If there is any doubt about the use or procurement of the GSD file for this add-on module, our Control Engineering Support Department will be very glad to help.

Equipment/properties

4 integrated LED
For status display and error message:
Network status, status module, status port 1 / port 2.

Add-on module AM-PROFINET		
Type	**Article no.**	Weight kg
AM-PROFINET	**349072**	0.03

Connection diagram



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General notes

Overview

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Explanation of technical details

Symbols, Units of measure

Symbol	Unit	Description
p_{sF}	Pa	Static pressure increase
p_{fd}	Pa	Dynamic pressure
q_v	m^3/h	Air flow
n_N	min-1	Rated speed
P_1	kW	Input power
P_{sys}	kW	Input power system (including controller)
U_N	V	Rated voltage
f_N	Hz	Rated frequency
I_N	A	Rated current
I_A	A	Starting current
ΔI	%	Percentage increase of current based on rated current for speed control by voltage reduction
C_{400V}	µF	Capacity
$t_{R(min)}$	°C	Minimum permitted ambient temperature
$t_{R(max)}$	°C	Maximum permitted ambient temperature
L_{WA5}	dB(A)	A-rated suction-side sound power level
η_{statA}	%	Overall efficency. static according to measurement category A at optimum duty point without losses of electronic speed control according to calculation method ErP-commission regulartion No. 327/2011 annex II
N_{actual}	-	Actual efficiency grade of the fan based on an electrical input power of 10 kW at its point of optimum energy efficiency
N_{target}	-	Target efficiency grade at motor input power 10 kW
L_{pA}	dB(A)	A-weighted suction-side or pressure-side acoustic pressure level related to a certain measurement distance
P_{spez}	$Wh/1000m^3$	Specific power

Conversion factors

Pressure

		SI-unit	Additional units		
		Pa (N/m^2)	**mbar**	**in.wg**	**psi ($lbf./in^2$)**
SI-unit	**Pa (N/m^2)**	**1**	0.01	0.004015	0.000145
Additional units	**mbar**	100	**1**	0.401463	0.014504
	in.wg	249.10	2.49	**1**	0.036127
	psi ($lbf./in^2$)	6894.76	68.95	27.68	**1**

Air flow

		SI-unit	Additional units		
		m^3/s	**m^3/h**	**l/s**	**cfm**
SI-unit	**m^3/s**	**1**	3600	1000	2118.9
Additional units	**m^3/h**	0.000278	**1**	0.277778	0.588578
	l/s	0.001	3.6	**1**	2.1189
	cfm	0.000472	1.699011	0.471947	**1**

Temperature

		°C	**°F**
SI-unit	**°C**	1	(°C × 1.8) + 32
Additional units	**°F**	(°F – 32) / 1.8	1

Dynamic pressure

Calculation of the dynamic pressure:

$$p_{d2} = k_{d2} \cdot q_v^2$$

p_{fd2}	Dynamic pressure at fan outlet in Pa
k_{d2}	Constant factor for calculation of the dynamic pressure
q_v	Air flow in m^3/h

k-factors for calculation of the dynamic pressure

ZAbluefin		Cpro		C	
Size	k_{d2}	Size	k_{d2}	Size	k_{d2}
				22C.1R	$2.33 \cdot 10^{-5}$
		25C.CR	$1.23 \cdot 10^{-5}$	25C.1R	$1.44 \cdot 10^{-5}$
		28C.CR	$7.94 \cdot 10^{-6}$	28C.1R	$9.43 \cdot 10^{-6}$
		31C.CR	$5.08 \cdot 10^{-6}$	31C.1R	$6.05 \cdot 10^{-6}$
		35C.CR	$3.22 \cdot 10^{-6}$	35C.1R	$3.75 \cdot 10^{-6}$
		40C.CR	$2.04 \cdot 10^{-6}$	40C.1R	$2.31 \cdot 10^{-6}$
		45C.CR	$1.27 \cdot 10^{-6}$	45C.1R	$1.43 \cdot 10^{-6}$
		50C.CR	$7.89 \cdot 10^{-7}$	50C.1R	$9.02 \cdot 10^{-7}$
		56C.CR	$5.14 \cdot 10^{-7}$	56C.1R	$5.89 \cdot 10^{-7}$
		63C.CR	$3.27 \cdot 10^{-7}$	63C.1R	$3.77 \cdot 10^{-7}$
71I.1R	$1.78 \cdot 10^{-7}$			71C.1R	$2.35 \cdot 10^{-7}$
80I.1R	$1.11 \cdot 10^{-7}$			80C.1R	$1.45 \cdot 10^{-7}$
90I.1R	$6.90 \cdot 10^{-8}$			90C.1R	$9.02 \cdot 10^{-8}$
10I.1R	$4.31 \cdot 10^{-8}$			10C.1R	$5.64 \cdot 10^{-8}$
11I.1R	$3.20 \cdot 10^{-8}$			11C.4R	$3.61 \cdot 10^{-8}$
				11C.1R	$2.35 \cdot 10^{-8}$

Example:

Type RH**45**C-ZID.GG.CR. article no. 114613

Size	Constant
RH25C.CR	60
RH28C.CR	75
RH31C.CR	95
RH35C.CR	121
RH40C.CR	154
RH45C.CR	**197**
RH50C.CR	252
RH56C.CR	308
RH63C.CR	381

$p_{d2} = 197 \cdot q_v^2$

Aerodynamics and acoustics

Measurement method

The characteristic curve diagram shows the pressure increase Δp_{sF} in Pa as a funktion of the air flow rate q_v in m^3/h.

Technical conditions of supply

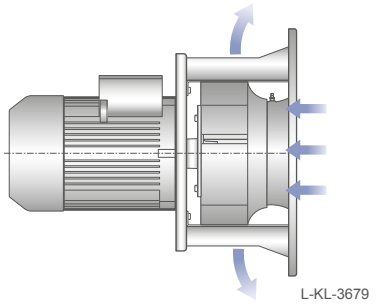
The specified performance data meet the requirements for accuracy class AN2 for impellers without motor and accuracy class AN3 for fans with standard motors in line with **ISO 13348** and apply to the rated data and air performance curves at the rated voltage. The continuous line in the characteristic curve represents the optimum reliable operating range for fans.

Fan test bench

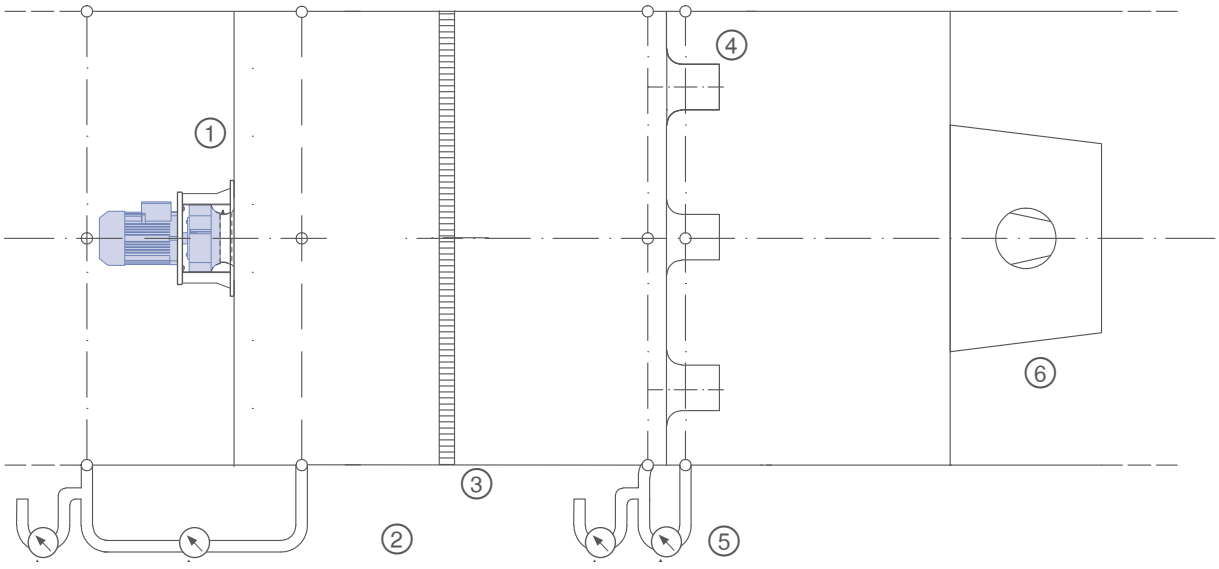
The fan characteristic curves are determined on a combined air performance and acoustic test bench.
The fan characteristic curves are measured in compliance to **DIN EN ISO 5801**, respectively **AMCA 210-99**. The sound power levels are measured in compliance with **DIN EN ISO 3745** and **ISO 13347-3** using the enveloping surface measuring method.
The figure below shows an example of the measuring setup. The fan intake is installed in the measuring chamber at free inlet and free exhaust (installation type A as per **DIN EN ISO 5801** respectively **AMCA 210-99**).

Air density

The air temperature and humidity are conditioned during the measurement using heat exchangers and kept largely constant. The characteristic curves shown refer to the measuring density. The mean measuring density is 1.16 kg/m³.



Installation type A according to ISO 5801



① Test fan
② p_{sF}
③ Flow straightener
④ Nozzles
⑤ Δp Differential pressure
⑥ Auxiliary fan

Aerodynamics and acoustics

Noise level data

Unless otherwise indicated, this catalogue specifies the suction side, A-evaluated sound power levels L_{WA}.
The sound power levels are determined by using the enveloping surface method in compliance with ISO 13347-3, accuracy class 1 and/or
DIN EN ISO 3745.

This is done by measuring the sound pressure level Lp of the individual third-octave bands at 12 points on the enveloping surface (Fig. Ia). The measured sound pressure levels for the third-octave bands are initially used to calculate the sound power level for the third-octave bands and then the suction side sound power level LW. To do this, the fans are installed with a free inlet (from the measuring chamber) and free exhaust (into the surrounding area). The standard measurements are carried out without the need for additional parts, e.g. guard grille. The measuring equipment used complies with DIN EN 61672.

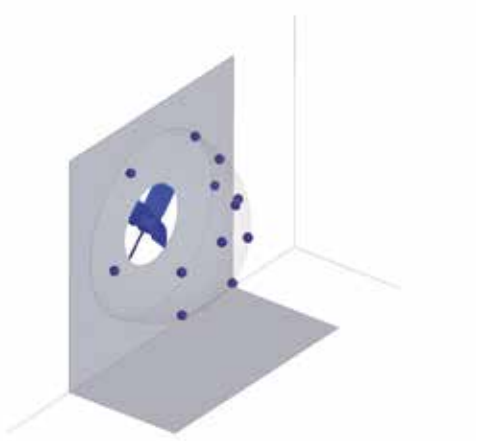


Fig.Ia: Position of microphones

Because of the different weighting of the third-octave sound power level, the A-evaluation, which is typically carried out, takes into account the subjective nature of human sound perception. The A-tested sound power level is the standard variable used to assess the sound characteristics of technical equipment.

Calculation of pressure side sound power level and total sound power level

For axial fans, the pressure side sound power level is approximately equal to the suction side level. The total sound power level is calculated by adding up the power from the sound power levels of both the suction and the pressure side (see DIN 45 635 Part 1, Appendix F, DIN EN ISO 3745). Thus, it is approximately 3 dB higher than the suction side sound power level specified in the catalogue.

Fig. Ib: Fan test-bench

Aerodynamics and Acoustics

Noise level data

Determination of total sound power level during the interaction of several sound sources

The total sound power level of several individual sound sources operating concurrently is calculated by adding the power of the individual levels in compliance with DIN EN ISO 3745. This equation is the basis for the diagrams in Fig. II and III.

To add up several sound sources with the same level, please see diagram (Fig. II) for complete level information; e.g. 6 identical sound sources operating concurrently results in a total level that is approx. 8 dB higher.

The total sound power level of two sound sources with different levels can be seen in diagram Fig. III. For example, two sound sources whose sound power levels differ by 4 dB produce a total sound power level that is around 1.5 dB higher than that of the louder sound source.

Determination of sound pressure level

The A-tested sound pressure level LpA for rooms with average absorption capacity for a distance of 1m from the fan axis is calculated by subtracting 7 dB from the A sound power level L_{WA}. In most cases, this assumption is correct and provides a sufficient level of accuracy. However, the sound characteristics can be hugely influenced by the individual installation situation.
Absorption of the sound pressure level, depending on the distance with partial reflection, is shown in Fig. IV.

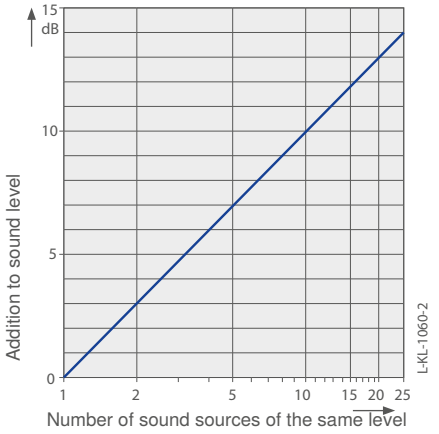


Fig. II: Addition of several sound sources

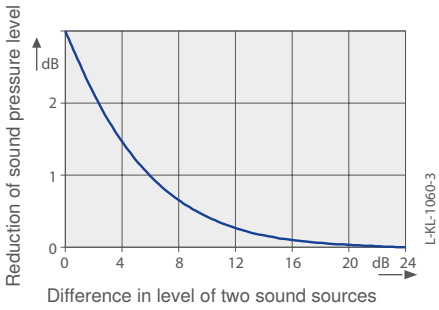


Fig. III: Sound sources of different levels

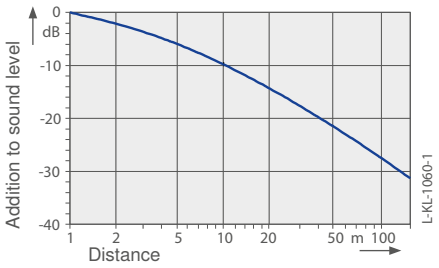


Fig. IV: Reduction of sound pressure level

Electrical connection and motor

Fan drive

The standard motor connected to the fan impeller, in three-phase AC (3~) or single phase AC (1~) design, complies with the requirements of IEC 60034-30.
AC technology:
The rated voltage for three-phase AC motors is 400V 50Hz, for single-phase AC motors 230V 50Hz
AMblue centrifugal fans operated as a system solution with on-top PMIcontrol have a wide voltage range of 3~ 380-480V 50/60Hz (rated voltage min. 400V)
PM technology:
PM centrifugal fans with permanent magnet technology are operated with on-top PMIcontrol. These system solutions have a wide voltage range depending on the version
3~ 380-480V, 50/60Hz (rated voltage min. 400V)

Electrical connection

Voltage

The three-phase AC motors or single-phase AC motors are suitable for 400 V ± 10 % or 230 V ± 10 %, and for 50/60 Hz. For PMblue and AMblue system solutions, the wide voltage range 380-480V specified on the rating plate is applicable. Please refer to the data sheet.

Motor connection

Mains connection via terminal box or connecting cable according to drawings. Cable length tolerance ± 3 cm.

Terminal box

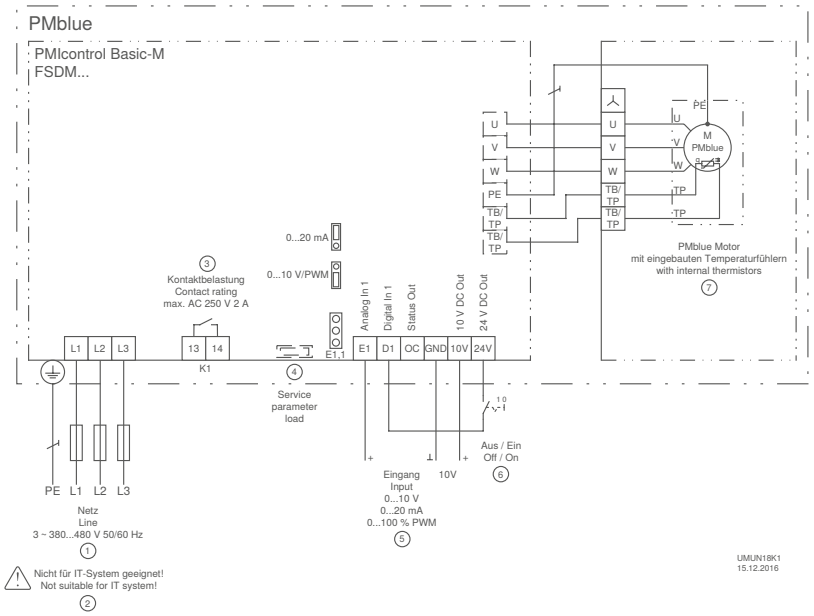
The terminal boxes for the motors are made of impact proof, weather resistant plastic or die-cast aluminium. Alternatively, the PMblue and AMblue system solutions have a connection area with a choice of left or right cable entry.
All terminal boxes and the connection area for the PMblue and AMblue are supplied with stoppers. The appropriate cable glands must be used, and only one cable may be fed in at each screwed connection.
For special connection conditions for use of frequency inverters, refer to “Operation on the frequency inverter”.

Operation on the frequency inverter

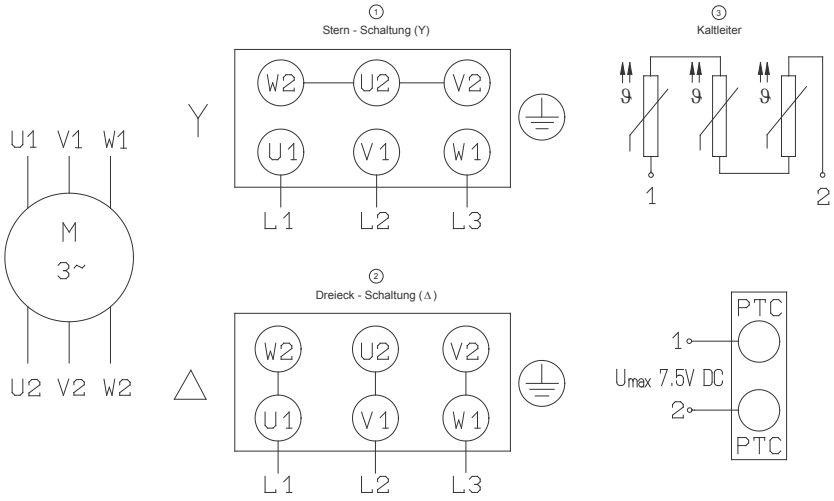
ZIEHL-ABEGG centrifugal fans are suitable for operation on frequency inverters if the following points are observed:
The technical parameters, including maximum permitted speed and frequency of the fan and the current consumption of the motor, which are listed on the fan and motor name plate, must be properly entered in the inverter configuration. Maximum values may not be exceeded. Likewise, the minimum run-up times for the impellers combined with the motors must be observed.
Please observe the corresponding installation instructions of the frequency inverter that is used!
The specified measures with regard to EMC-compatible installation must be observed and implemented.
Technically correct high-frequency earthing of the complete drive system must be carried out on both sides on the motor and the inverter.
When using frequency inverters without effective all-pole filters, the power cabling between the inverter and the motor must be shielded and connected correctly on both sides. EMC screwed connections must be used at the cable entries. Maintenance or emergency switches installed between inverter and motor must also be shielded.
Continuous operation of the fan / motor below 15% of the nominal speed is not environmentally and technically reasonable.
For electrical bridging of vibration dampers, use high-frequency equipotential bonding conductors made of braided flat copper strips with a minimum cross-section of 16mm².

Connection diagrams

PMblue / AMblue



Three-phase asynchronous motor with PTC thermistor for one speed



Reversible rotation by interchanging phases

Rated voltage:
Motor size ≤ 90: 230 V Δ / 400 V Y
Motor size ≥ 100: 400 V Δ / 690 V Y

Technical description

Forces and stress during operation

Series RH..Cpro

Type	Number of pole	Start-up time [s]
ER/RH25C.CR	2	04
ER/RH28C.CR	2	06
ER/RH31C.CR	2	07
ER/RH35C.CR	2 4	07 04
ER/RH40C.CR	2 4	06 05
ER/RH45C.CR	2 4	05 08
ER/RH50C.CR	4	12
ER/RH56C.CR	4 6	13 08
ER/RH63C.CR	4 6	15 16

Series RH..C

Type	Number of pole	Start-up time [s]
ER/RH22C.1R	2	03
ER/RH25C.1R	2	04
ER/RH28C.1R	2	06
ER/RH31C.1R	2	07
ER/RH35C.1R	2 4	07 02
ER/RH40C.1R	2 4	06 05
ER/RH45C.1R	2 4	05 08
ER/RH50C.1R	4	12
ER/RH56C.1R	4 6	13 08
ER/RH63C.1R	4 6	15 16
ER/RH71C.1R	4 6	13 18
ER/RH80C.1R	4 6	13 21
ER/RH90C.1R	4 6 8	11 19 25
ER/RH10C.1R	6 8	18 27
ER/RH11C.4R	6 8	21 24
ER/RH11C.1R	6 8	21 24

Series RH..I ZAbluefin

RH71I.1/SM20	4 6	12 17
RH80I.1R/SM20	4 6	12 19
RH80I.1R/SM20	4 6 8	12 16 20
RH10I.1R/SM25	6 8	15 22
RH11I.1R/SM30	8	20
RH11I.1R/SM25	6 8	16 20

Forces and stress during operation

The rotating impeller is stressed through centrifugal and compressive forces in addition to the normal residual imbalance. Residual imbalance denotes the initial imbalance and its amplification during installation (seating related imbalance) and the conditions that change during the course of operation (deformation due to the setting of material through influences of temperature/ stress).

The residual imbalance increases during operation due to sedimentary deposition as well as through the wear and tear of the impeller. Due to the changing residual imbalance during operation, a systematic verification and, if applicable, a rebalancing of the wheel is required (see assembly instructions L-BAL-018).

Additional impeller stress occurs (Wöhler diagram) through start-up / stop procedures, as well as through control operations (acceleration / deceleration phases). Superimposed stress caused by system vibrations and impacts as well as the dynamic oscillations from the system that affect the fan impeller also lead to an increase in impeller stress. „Superimposed characteristic frequencies" from other system parts (e.g., pipelines, frame structure, etc.) and rotational vibration caused by the drive (frequency inverter, operation) are additional sources of stress. Likewise, additional stress can appear due to temperature effects, fluids, and corrosion / wear (during operation and during standstill).

All of the above-mentioned additional forces are principally of a transient and dynamic nature and cannot be exactly recorded or calculated. A significant indication of the presence of additional stress is an increase in the frequency of vibration (see assembly instructions L-BAL-018). It is important to ensure that the additional stress is kept as low as possible by responding appropriately.

For the starting times for the impellers please see the tables to the left.

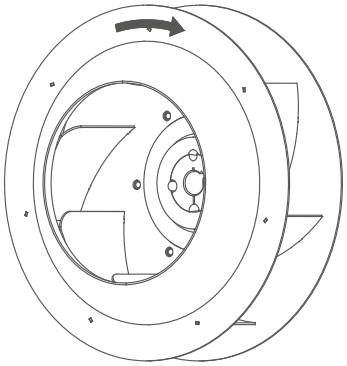
Stresses due to start / stop procedures connected with dynamic control in impellers generally lead to fatigue fractures in the shroud and the blade's trailing edge (the crack expands from the weld seam obliquely toward the middle of the blade). If such a use is planned, this is to be stated during the enquiry.

Technical description

Forces and stress during operation

Direction of rotation

Clockwise rotation when looking at the inlet of the impeller. In the opposite direction. i.e. impellers with forward curved blades. there is the danger that the motor will overload. It is therefore absolutely necessary to check the direction of rotation before putting the fan into operation.



L-KL-2414

Series RH..ZAbluefin

Type	Max. speed min^{-1}	Clamping bush hub	Moment of inertia with clamping bush hub kgm^2	Impeller with clamping bush hub
RH71I.1R	1700	SM20	3.633	47
RH80I.1R	1525	SM20	6.975	68
RH90I.1R	1340	SM25	11.273	88
RH10I.1R	1200	SM25	20.691	126
RH11I.1R	1120	SM30	34.839	207

Series RH..Cpro

Type	Max. speed min^{-1}	Clamping bush hub	Moment of inertia with clamping bush hub kgm^2	Impeller with clamping bush hub	Fixed hub	Moment of inertia with fixed hub kgm^2	Impeller with fixed hub
RH25C.CR	5350	SM12-1	0.018	3	NA02	0.015	2
RH28C.CR	4775	SM12-2	0.030	4	NA04	0.023	2
RH31C.CR	4245	SM12-2	0.044	4	NA04	0.038	3
RH35C.CR	3765	SM12-2	0.074	5	NA04	0.068	4
RH40C.CR	3340	SM12-2	0.124	6	NA04	0.118	5
RH40C.CR	3340	SM20	0.140	8			
RH45C.CR	2970	SM20	0.213	9			
RH50C.CR	2675	SM20	0.352	11			
RH56C.CR	2310	SM20	0.610	14			
RH63C.CR	2060	SM25	1.084	21			

Series RH..C

Type	Max. speed min^{-1}	Clamping bush hub	Moment of inertia with clamping bush hub kgm^2	Impeller with clamping bush hub	Fixed hub	Moment of inertia with fixed hub kgm^2	Impeller with fixed hub
RH22C.1R	5940	SM12-1	0.018	3	NA02	0.015	2
RH25C.1R	5350	SM12-1	0.026	3	NA02	0.024	3
RH28C.1R	4775	SM12-2	0.042	4	NA04	0.036	3
RH31C.1R	4245	SM12-2	0.073	6	NA04	0.066	4
RH35C.1R	3765	SM12-2	0.113	7	NA04	0.107	5
RH40C.1R	3340	SM12-2	0.211	9	NA04	0.205	8
RH40C.1R	3340	SM20	0.224	11	NS06	0.223	11
RH45C.1R	2970	SM20	0.350	13	NS06	0.346	13
RH50C.1R	2675	SM20	0.667	18	NS06	0.664	18
RH56C.1R	2310	SM20	1.062	22	NS06	1.059	23
RH63C.1R	2060	SM25	2.157	36	NS07	2.158	38
RH71C.1R	1840	SM25	3.430	44	NS07	3.431	46
RH80C.1R	1620	SM25	6.996	68	NS07	7.000	69
RH90C.1R	1475	SM30	11.415	91	NS08	11.417	93
RH10C.1R	1280	SM30	22.039	133	NS08	22.043	138
RH11C.4R	1030	SM30	39.889	190	NS08	39.893	191
RH11C.1R	1190	SM30	50.483	240	NS08*	50.487	244
RH11C.1R	1320	SM35	50.547	245			

* max. shaft diameter 65

Installation and usage information

Measuring device for determining air volume

The active pressure process compares the static pressure before the inlet ring with the static pressure in the inlet ring at the place of greatest constriction (lowest free nozzle cross sectional area). Using the energy conservation principle, the active pressure (differential pressure of the static pressures) can be assigned to the airflow as follows:

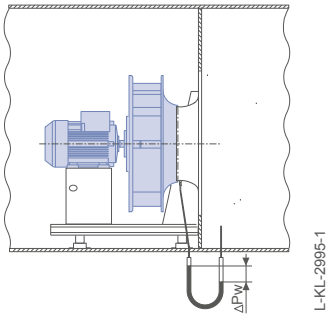
Under normal conditions at 20 °C:

$$q_V = k \cdot \sqrt{\Delta p_w}$$

Under fluctuating air conditions:

$$q_V = \sqrt{\frac{\rho_{20}}{\rho_{Betr}}} \cdot k_{20} \cdot \sqrt{\Delta p_w}$$

q_v	Air flow in m³/h
Δp_w	Differential pressure of the static pressures in Pa
k	Coefficient for specific nozzle properties, nozzle factor
ρ_S	Standard air density with 1.2 kg/m³
ρ	Air density at current operating point in kg/m³



Nozzle coefficients

Size	ZAbluefin		Cpro		C series		C ATEX	
	Standard k	With guard grille k_g	Standard k	With guard grille k_g	Standard k	With guard grille k_g	Standard k	With guard grille k_g
225					47	46		
250			60	58	60	58	55	53
280			75	72	75	72	69	66
315			95	91	95	91	87	83
355			121	116	121	116	111	106
400			154	148	154	148	141	135
450			197	189	197	189	181	173
500			252	242	252	242	231	221
560			308	295	308	295	284	271
630			381	365	381	365	350	334
710	530	500			490	470	450	429
800	670	630			620	594	569	543
900	850	800			789	756	724	691
1000	1050	1000			999	958	916	875
1120	1250	1200			1233	1072		

p = 1.20 kg/m³

Example:
If an active pressure of 700 Pa is measured for size ER63C, the air flow can be calculated as follows, using this simplified formula:

$$q_v = k \cdot \sqrt{\Delta p_w} = 381 \cdot \sqrt{700} = 10080 \text{ m}^3/\text{h}$$

The corresponding active pressure / air flow characteristic curves can be downloaded from our website in the Download section under Product Information.

The nozzle coefficients (k factors) were determined under laboratory conditions and with an undisturbed supply. If inlet guard grilles are used (fitted in front of the inlet nozzle), these nozzle factors cannot be used for air flow determination because of a change in the supply flow and other static pressures.

Notes pertaining to the measuring method
The measured values, which were determined using the active pressure method, are subject to a tolerance of +/- 8.0% as they pertain to the airflow result. This tolerance is reached above a minimum air velocity of approx. 29.53 ft/s at the place of greatest constriction.
The tolerances cannot be clearly quantified below this minimum air velocity.

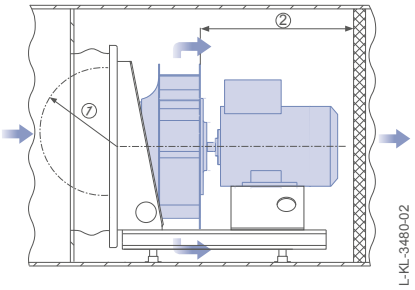
This airflow measuring method is only suitable for acceptance measurements on site.
For a more accurate airflow determination in the existing installation setup, a counter calibration of the airflow has to be carried out on site to measure the active pressure. The nozzle factors determined during this process apply exclusively to this installation setup.

Installation and usage information

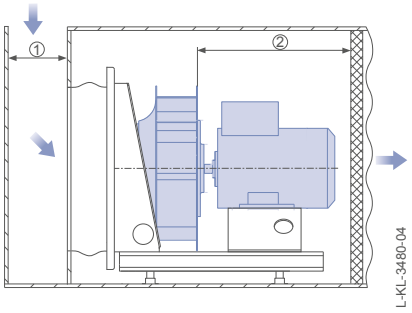
Installation instructions

The following installation instructions are based on experience from applications and measurements on our test benches.
These are general guidelines, as variations may occur in your device due to differences in its construction.
The respective DSA dimension can be found in the chapter “Impellers with hub”.

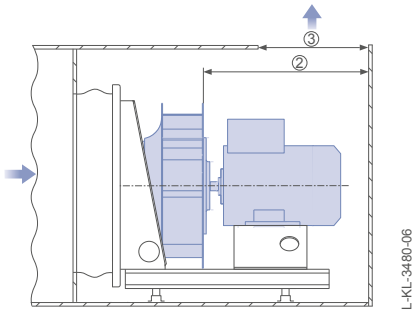
- The performance depends on the distance to components on the intake ① and pressure side ②
- Intake side ① ≧ 0.5 x DSA
- Optimum on pressure side ② ≧ 1.0 x DSA, absolute minimum ② ≧ 0.7 x DSA (exception: cooling battery or humidifier after the fan)

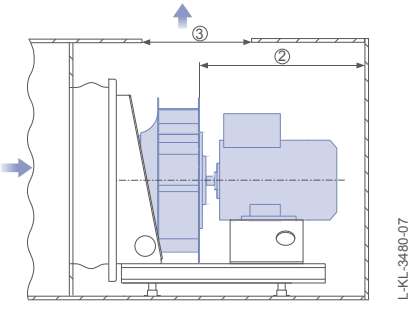


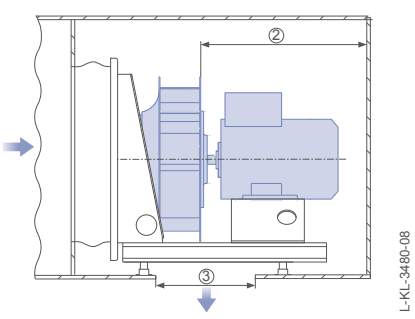
- Changes to the flow direction before the fan create significant turbulence in the intake area
- Intake side ① ≧ 1.0 x DSA, with guide blades this can be reduced to ① 0.7 x DSA, otherwise there are increased acoustics and power loss



- The position of the opening can be above or below the fan, size ③ ≧ 0.8 x DSA
- Ideal design if the opening extends over the entire width of the device



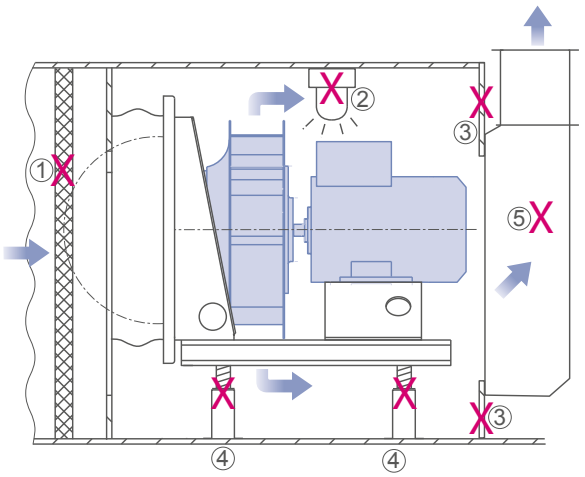




Installation and usage information

Possible sources of faults during installation

- 90° change in flow direction and reduction in cross-section ⑤
- Obstructions on the pressure side (long lamp, fluorescent lamp) ②
- Interference on the intake side (battery too close) ①
- Obstruction on the pressure side (high bottom rails) ④
- Constriction at outlet ③



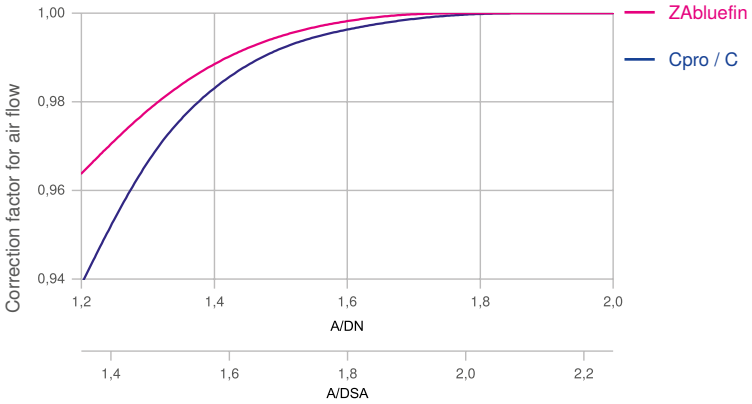
Installation and usage information

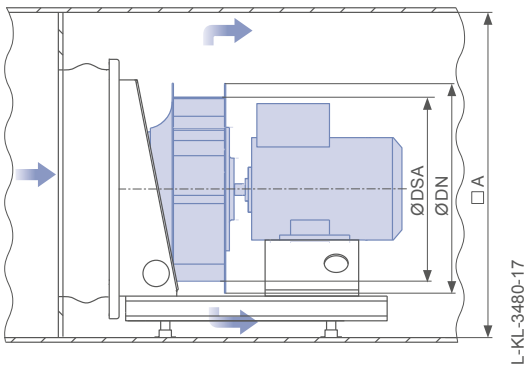
Impact of installation in the air handling units

Changes when installing into air handling unit

The characteristic curve of the fan and the acoustic power as compared with the characteristic-curve information are influenced by installation of the fan in an air handling unit. Likewise, using a guard grille also influences the characteristic curve and the acoustics. ZIEHL-ABEGG analysed this influence on the behaviour of centrifugal fans in experiments. These influences can be calculated in the FANselect selection program. The diagram is merely intended to display a qualitative tendency of the empirically ascertained correction factors.

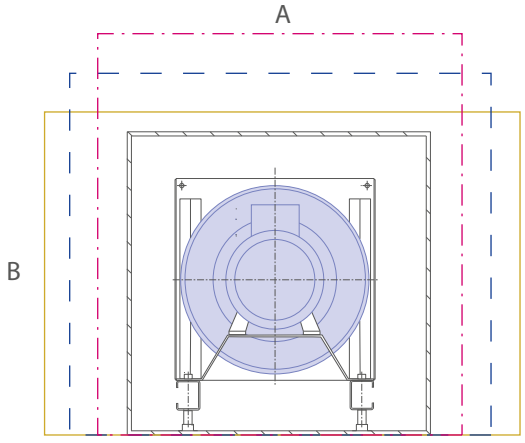
The installation losses when installed in a device housing can largely be ignored if the housing side A has a length of 1.8 x DSA (effective blade diameter).





Approximate calculation of influence of an air conditioning cabinet

When installed in a rectangular device housing, the ratio of the housing sides can be calculated using the following formula:



$$\frac{A + B}{2} = 1.8 \times DSA$$

$$\frac{1.8 + 1.8}{2} = 1.8 \times DSA$$

$$\frac{2.0 + 1.6}{2} = 1.8 \times DSA$$

$$\frac{2.2 + 1.4}{2} = 1.8 \times DSA$$

L-KL-3480-16

General notes

The information and data contained in this catalogue were composed to the best of our best ability and do not absolve the user from its duty to check the suitability of the products with respect to its intended application.

The customer is obligated to inform the supplier about general information concerning the intended use, the type of installation, the operating conditions and any other conditions that need to be taken into consideration if the order is not based on catalogue information.

ZIEHL-ABEGG SE reserves the right to make design changes, which are used for continuous technical improvement.

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