EN

Movement by Perfection

Centrifugal fans

main catalogue with IEC standard motor
06/2022 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 technology branch. More information under 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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Wir entwickeln und produzieren die
effizientesten Ventilatoren für die Zukunft
ZIEHL-AB
Die König
der Lu
Regeltechnik und An
Einzigartige
Kunststoffproduktion
für bionische Hightech-
Ventilatoren

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

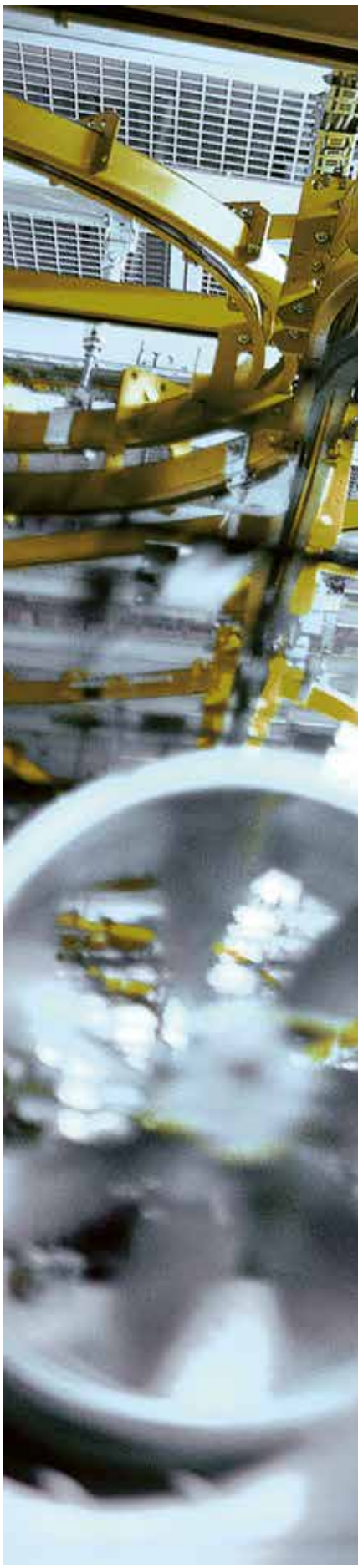
One-stop expertise

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 400 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 FE3owlet 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 ZAbluefin 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

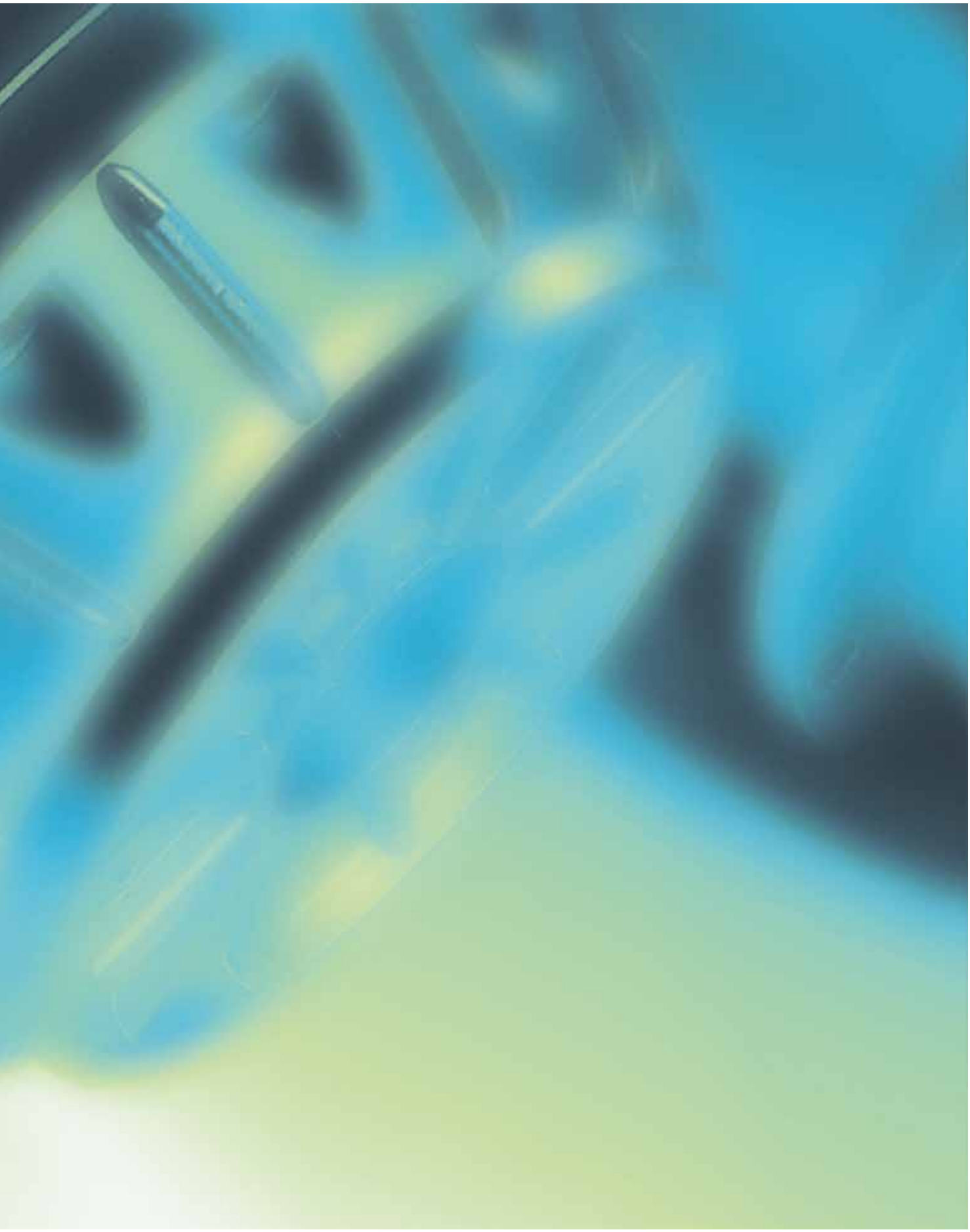
AC-fans of the Royal League

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 2009/125/ EG for improved energy efficiency and general environmental compatibility of energy-related products – also known in Germany as the Ecodesign Directive. It supports a resource-friendly and energy-efficient product design. These requirements are implemented for electric motors in accordance with Commission Regulation (EU) 2019/1781 and for fans in accordance with Commission Regulation (EU) 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. The currently valid fan regulation is in the process of being revised and a next stage with higher efficiency requirements is planned. 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 on EN17166

Inlet nozzles and fan housing represent significant elements according to EN17166.
By using different significant elements to the ZIEHL-ABEGG SE measurement set-up, the exporter becomes the fan manufacturer according to Regulation 327/2011 and is responsible for the measurement data taking into account EN17166.

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.

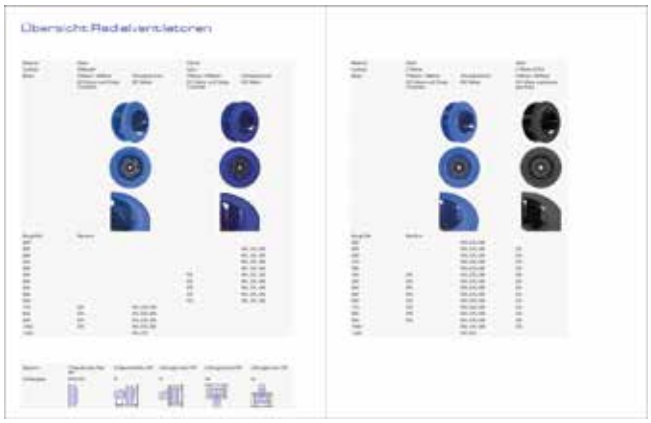
The **E**uropean **V**entilation **I**ndustry **A**ssociation (EVIA) represents the European ventilation industry in dealings with national and European institutions.
The EVIA is a key platform for fan manufacturers and provides an interface with politicians, decision-makers in the European Union and 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

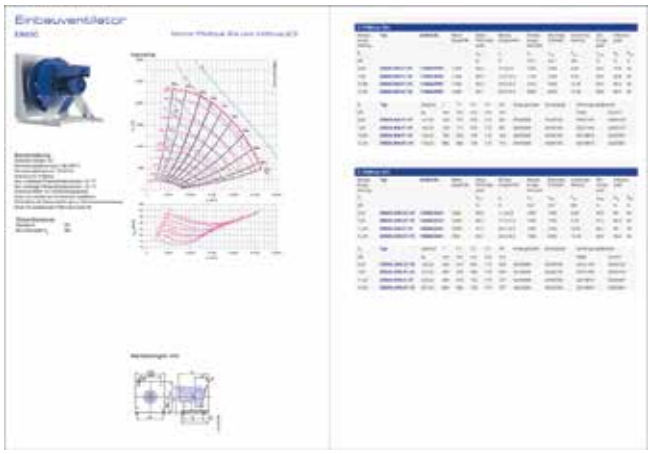
1. Centrifugal fans overview

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



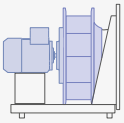
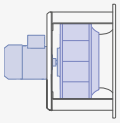
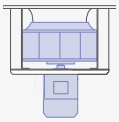
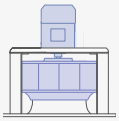
2. Product details

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



Overview centrifugal fans

Material	Steel			ZAmid		
Impeller	ZAbluefin			Cpro		
Motor	PMblue	ZAmotpremium	without	PMblue	ZAmotpremium	without
	Standard motor with Ontop PMIcontrol (integrated solution)	IEC motor		Standard motor with Ontop PMIcontrol (integrated solution)	IEC motor	
	Page 30	Page 42	Page 208	Page 72	Page 92	Page 210
						
						
						
Size	Design					
225						
250		ER, GR	RH	ER	ER, GR	RH
280		ER, GR	RH	ER	ER, GR	RH
315		ER, GR	RH	ER	ER, GR	RH
355		ER, GR	RH	ER	ER, GR	RH
400		ER, GR	RH	ER	ER, GR	RH
450		ER, GR	RH	ER	ER, GR	RH
500		ER, GR	RH	ER	ER, GR	RH
560		ER, GR	RH	ER	ER, GR	RH
630		ER, GR	RH	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	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	ZAmotpremium	without	ZAmotbasicEx
	Standard motor with Ontop PMIcontrol (integrated solution)	IEC motor		IEC motor explosion-proof
	Page 112	Page 144	Page 212	Page 178
				
				
				
Size	Design			
225		ER, GR	RH	
250	ER	ER, GR	RH	ER
280	ER	ER, GR	RH	ER
315	ER	ER, GR	RH	ER
355	ER	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	ER, GR	RH	ER
1120	ER	ER	RH	

Technical description

ZAbluefin with steel design

Product specification

Latest generation free running impeller ZAbluefin with 5 backward curved blades in sizes 250 to 1120 (10” to 45”).

Innovative design in shape of biomimetic 3D profiled blades and diverging rotating diffusor for a static impeller peak efficiency of up to 79%.

The special corrugated blade surface ensures diffuse sound emission and low sound level.
Impeller made of sheet steel, robot welded, with surface protection through hygienically-tested powder coating in ultramarine blue (RAL 5002). Impeller with clamping bush hub, alternatively with fixed hub, mounted directly on the motor shaft.
Air flow up to 80,000 m³/h (47,000 cfm) free blowing, max. static pressure increase up to 2,100 Pa (8.4 in.wg.) possible.
The impellers can be used in the temperature range from -20 °C to +80 °C (-4 °F to +176 °F). Dynamically balanced impeller on delivered motor in accordance with ISO 14964, fan oscillation speed <= 2.8 mm/s ex factory.

Performance data impeller in accuracy class AN2 in accordance with ISO 13348.

Motor concepts

- Asynchronous internal rotor motor in accordance with the IEC standard
- Permanent magnet excited synchronous internal rotor motors in accordance with the IEC standard of the PMblue model range

Technical description

Cpro

Product specification

Free running impeller Cpro with 7 backward curved, profiled blades in sizes 250 to 630 (10” to 25”).

Impeller with rotating unbladed diffusor for highest static impeller efficiency up to 75% and favorable acoustic behaviour.
Reduced tonal noise through special 3D blade geometry.
Due to the high-performance composite material ZAmid, it has a wide temperature range of -35°C to +80°C (-31°F to +176°F) as well as a high chemical resistance and hygienically tested in accordance with ISO 846.
Impeller colour similar to ultramarine blue (RAL 5002).
Air flow flow up to 30,000 m³/h (17,600 cfm) free blowing, max. static pressure increase up to 2,500 Pa (10 in.wg.) possible.
Impeller with clamping bush hub, alternatively fixed hub, mounted directly on the motor shaft. Dynamically balanced impeller on delivered motor in accordance with ISO 14964, fan oscillation speed = 2.8 mm/s ex factory.

Performance data impeller in accuracy class AN2 in accordance with ISO 13348

Motor concepts

- Asynchronous internal rotor motor in accordance with the IEC standard
- Permanent magnet excited synchronous internal rotor motors in accordance with the IEC standard of the PMblue model range

Technical description

C-Series

Product specification

Free running impeller C-Series with 7 backward curved blades in sizes 225 to 1120 (9” to 45”).

Impeller with rotating, unbladed diffuser for high efficiency and favorable acoustic behavior.
Impeller made of sheet steel, robot welded, a surface protection with hygienic proofed, resistant powder coating in ultramarine blue (RAL 5002).
Impeller with clamping bush hub, alternatively fixed hub, directly mounted on the motor shaft.
Air flow up to 110,000 m³/h (64,700 cfm) free blowing, max. static pressure increase up to 2,500 Pa (10 in.wg.) possible.
The impellers can be used in application temperature range from -20 °C to +80 °C (-4 °F to +176 °F).
Delivered motor and impeller are dynamically balanced according ISO 14964, fan oscillation speed = 2.8 mm/s.
Performance data of the impeller according the accuracy class AN2 of the ISO 13348.

Motor concepts

- Asynchronous internal rotor motor in accordance with the IEC standard
- Permanent magnet excited synchronous internal rotor motors in accordance with the IEC standard of the PMblue model range

Technical description

C-ATEX

Product specification

Free running C-ATEX impeller in explosion-proof design with 7 backward curved blades in sizes 250 to 1000 (10” to 40”).

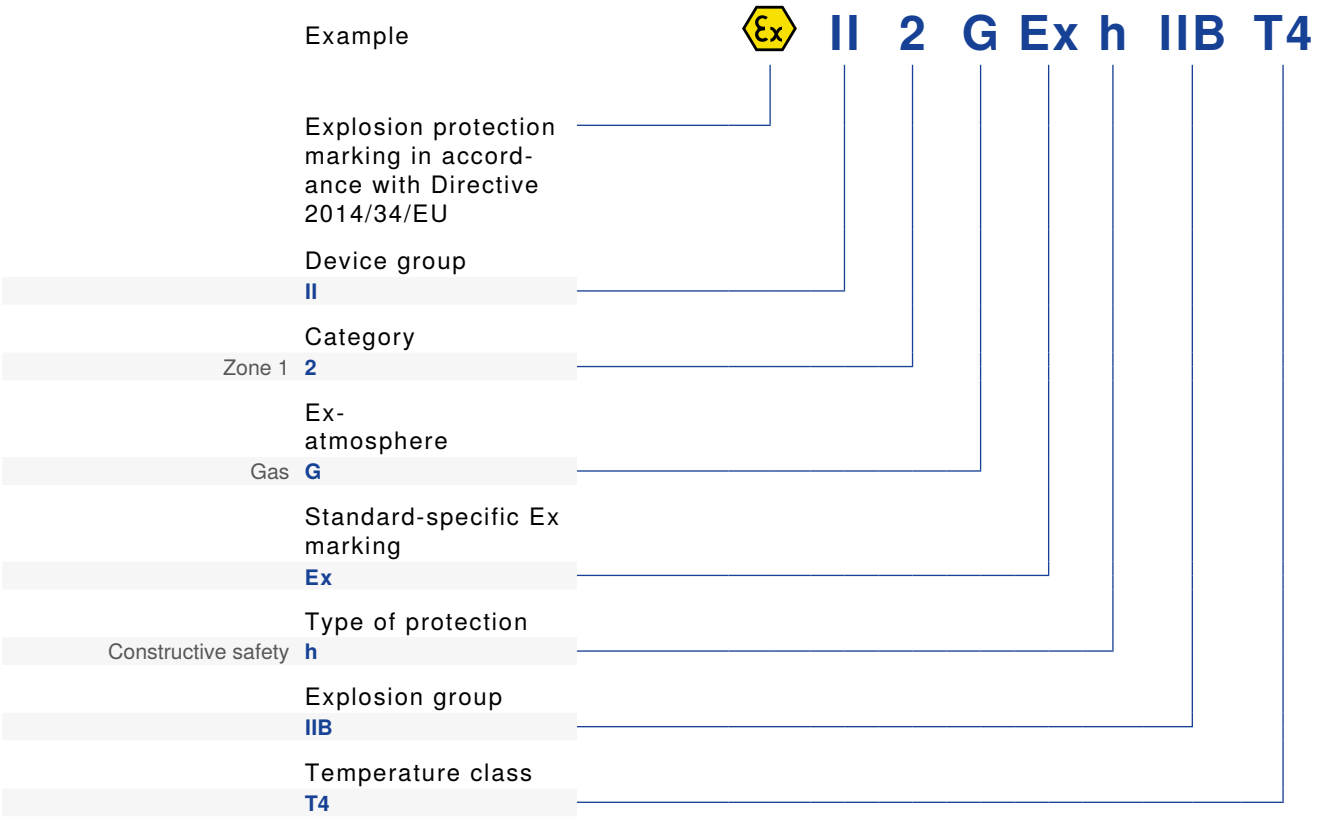
Impeller made of sheet steel, continuously welded and with electrically conductive surface provided by powder coating in jet black (RAL 9005).
Impeller in explosion-proof design in accordance with the requirements of directive 2014/34/EU according to device group II, device category 2G (EPL Gb, Zone 1) or 3G (EPL Gc, Zone 2), for explosion group IIA and IIB and temperature class T3 or T4 (depending on the motor).
Impeller with additionally secured fixed hub mounted directly on the motor shaft.
Air flow of up to 70,000 m³/h (41,200 cfm) free blowing, max. static pressure increase up to 2,500 Pa (10 in.wg.) possible. The impellers can be used in the temperature range from -20 °C to +60 °C (-4 °F to +140 °F). (Storage and transport from -30 °C to +80 °C in accordance with BAL, standard motors up to +40 °C). Dynamically balanced impeller on delivered motor in accordance with ISO 14964.

Performance data impeller in accuracy class AN2 in accordance with ISO 13348.

Motor concepts

- Asynchronous internal rotor motor, explosion-proof, pressure-proof encapsulated motors in accordance with the ATEX directive and IEC standard

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 EN 1127-1, EN IEC 60079-10, EN IEC 60079-14, EN IEC 60079-17, EN ISO 80079-36, EN ISO 80079-37 and especially according to 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

EG-Baumusterprüfbescheinigung

(1)
(2) Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen – Richtlinie 94/9/EG
(3) EG-Baumusterprüfbescheinigungsnummer
PTB 07 ATEX 1034 X
(4) Gerät: Drehstromasynchronmotoren Typen 1MJ6 07-.... bis 1MJ6 20-....
(5) Hersteller: Siemens Aktiengesellschaft Automatisierungs- und Antriebstechnik Standardantriebe
(6) Anschrift: 91056 Erlangen, Deutschland
(7) Die Bauart dieses Gerätes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage und den dann aufgeführten Unterlagen zu dieser Baumusterprüfbescheinigung festgelegt.
(8) Die Physikalisch-Technische Bundesanstalt bescheinigt als benannte Stelle Nr. 0102 nach Artikel 9 der Richtlinie des Rates der Europäischen Gemeinschaften vom 23. März 1994 (94/9/EG) die Erfüllung der grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Geräten und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie.
Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht PTB Ex 07-17171 festgehalten.
(9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit
EN 60079-0:2004 EN 60079-1:2004 EN 60079-7:2003
EN 61241-0:2006 EN 61241-1:2004
(10) Falls das Zeichen „X" hinter der Bescheinigungsnummer steht, wird auf besondere Bedingungen für die sichere Anwendung des Gerätes in der Anlage zu dieser Bescheinigung hingewiesen.
(11) Diese EG-Baumusterprüfbescheinigung bezieht sich nur auf Konzeption und Prüfung des festgelegten Gerätes gemäß Richtlinie 94/9/EG. Weitere Anforderungen dieser Richtlinie gelten für die Herstellung und das Inverkehrbringen dieses Gerätes. Diese Anforderungen werden nicht durch diese Bescheinigung abgedeckt.
(12) Die Kennzeichnung des Gerätes muß die folgenden Angaben enthalten:
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
Im Auftrag
Braunschweig, 5. Dezember 2007
Dr.-Ing. M. Trapp
Oberregierungsrat
Seite 1/3

Technical description

Plug fan ER

Product specification

Plug fans ER for use, e.g. in vibration-damped use in central air conditioning units with horizontal air flow.
Compact, optimised design made of galvanized sheet metal parts in accordance with DIN EN 10346 in surface type A, alternatively also with additional surface protection through hygienically tested powder coating in pebble grey (RAL 7034).
Integrated galvanized sheet steel inlet nozzle, alternatively also additional powder coated, 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.
On the suction side, an guard grille can be mounted in addition to an optional square flexible connector, or the ZAflow (up to size 630) to improve the air performance.
Plug fans ER have a temperature range of -20°C to +40°C (-4°F to 104°F); deviating temperature ranges on request.

Installation positions: only H (horizontal air flow).

Plug fan ER-ATEX

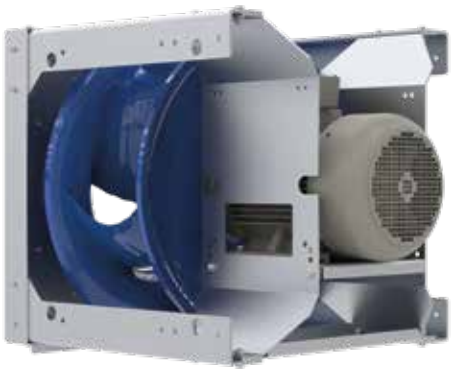
Plug fans ER-ATEX for use, e.g. for vibration-damped use in central air conditioning units with horizontal air flow.
Compact, optimised design made of galvanized sheet metal parts in accordance with DIN EN 10346 in surface type A, with electrically conductive surface provided by powder coating in jet black (RAL 9005).

Screwed inlet nozzle for optimal flow to impeller out of copper, with measuring device for volume flow determination. Complete fans are delivered in accordance to ISO 21940-11 for the appropriate fan category in accordance with ISO 14694 with residual vibration strength 2.8 mm/s ex factory in application category BV-3.
Entire unit fitted on C-profiles, enabling decoupled installation using rubber or spring suspension elements. Version according to device group II, device category 2G or 3G and explosion group IIB in accordance with the requirements of directive 2014/34/EU. Permissible operating temperature: -20°C* to +40°C (-4°F to +104°F) or +60°C (+140°F) according to the motor power plate.
ER..C plug fans in Ex design are not ready-to-use products, but are instead designed as components for air conditioning, ventilation and extraction systems. They may only be operated when they are installed as intended and safety is ensured through the use of protective devices complying with DIN EN ISO 13857 and DIN EN 60529 as well as the constructional explosion protection measures stipulated by DIN EN 14986.

Installation positions: only H (horizontal air flow).

Technical description

Ventilation unit GR



Product specification

Ventilation unit GR for compact installation in customer applications/ devices for horizontal and vertical air flow.
Compact design made of zinc-plated sheet metal parts in accordance with DIN EN 10346 in surface type A, alternatively also with surface protection through hygienically tested powder coating in yellow grey (RAL 7034).

Integrated zinc-plated sheet steel inlet nozzle for optimum flow to impeller, with measuring device for volume flow determination. Use of standard IEC motors IMB3 (foot motor). 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 (-4 °F to +104 °F), with different temperatures available on request. An extraction guard grille can be mounted, or alternatively the ZAflow (up to size 630) to improve the air flow.

Installation positions depending on size: H (horizontal air flow), Vo (intake from above), Vu (intake from below)

Technical description

Motor concepts

IEC standard motor asynchronous

Asynchronous internal rotor motor in accordance with IEC standard, 3~400 V 50 Hz, optionally in energy efficiency class IE3 or IE4. Executed as foot motor IMB3, protection class IP55, thermal class THCL 155, motor protection by PTC thermistor. Motor tested and approved for frequency converter operation up to the specified maximum speed of the fan.

IEC standard motor asynchronous ATEX

Asynchronous internal rotor motor, explosion-proof, pressure-proof encapsulated motors in accordance with the ATEX directive and IEC standard, 3~ 400 V 50 Hz, in energy efficiency class IE3. Designed as foot motor IMB3 (installation only permitted with horizontal motor shaft); motor foot at bottom, protection class IP55 or higher, thermal class THCL 155, motor protection by PTC thermistor. Speed controllable with a frequency inverter. Motor data for frequency inverter operation stated on additional name plate. Motor tested and approved for frequency inverter operation up to the specified maximum speed of the fan. With three phase motors of ignition protection types Ex db IIB T4 Gb or Ex db eb IIB T4 Gb (depending on the motor version, must be checked in individual cases); efficiency IE3. A triggering device with Ex approval is required as a protective device (e.g. U-EK230E from ZIEHL-ABEGG).

Technical description

PMblue

The new standard in the HVAC sector

The permanent magnet excited synchronous internal rotor motors in accordance with the IEC standard in the PMblue model range have been specially designed for air conditioning technology and meet the requirements of efficiency IE4 / Super Premium Efficiency. Motor tested and approved for frequency inverter operation up to the specified maximum speed of the fan.

The standard motor is operated using the attachable PMIcontrol specially developed for them by ZIEHL-ABEGG.

Space-saving installation in the device thanks to built-in controller (no external PM controller required). Synchronous standard motor and controller from a single source are perfectly coordinated and lead to maximum energy efficiency, low noise and low vibration operation, even in the partial load range. Quick and easy start-up, configured ready for operation, and ZAcode provides a consistent operating concept for PMIcontrol and ECblue. The PMIcontrol enables bus capability, e.g. MODbus, etc. using add-on modules.

PMblue stand-alone

A top team for maximum performance

The permanent magnet excited synchronous internal rotor motors in accordance with the IEC standard in the PMblue stand-alone model range have been specially designed for air conditioning technology and meet the requirements of efficiency IE4 / Super Premium Efficiency.

The highest energy-saving potential is guaranteed combined with our free running wheels. Motor tested and approved for controller operation up to the specified maximum speed of the fan.

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 blade outer-diameter	
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 nozzle, 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. blade outer-diameter	
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
- - - - - - /EX41 Plug fan ER in explosion-proof version with IE3 motor

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

Explanation of technical details

① ER45Cpro (example diagram)

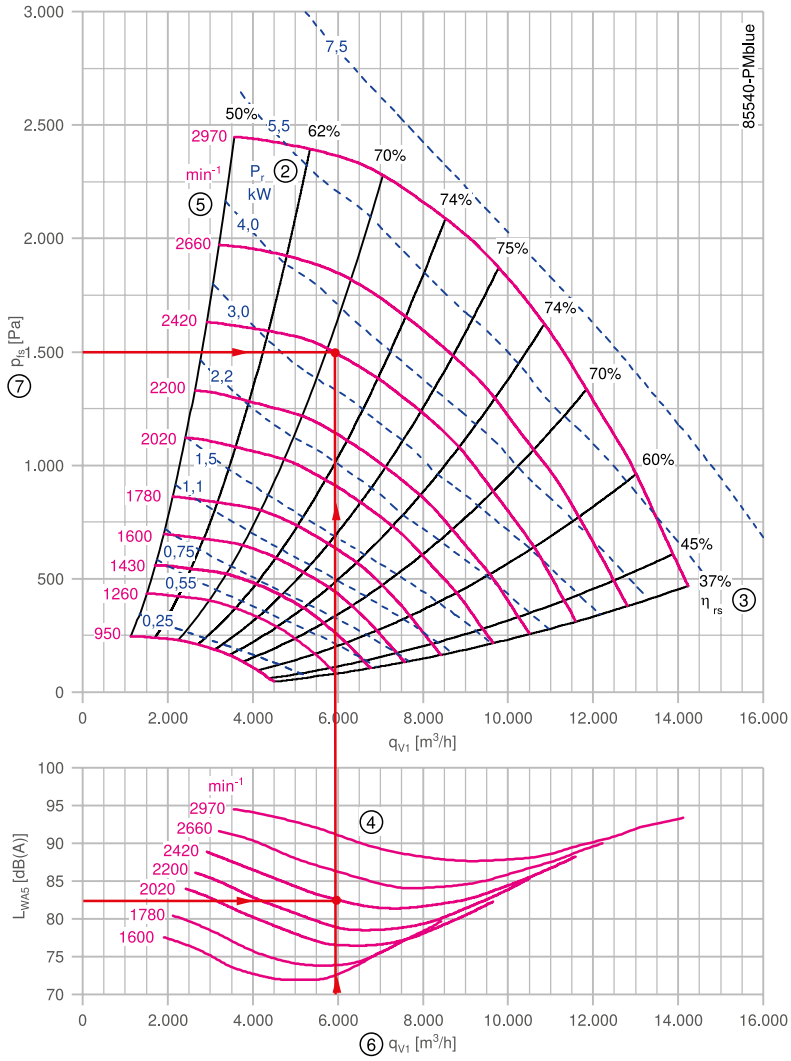


Diagram legend

① Fan size
② P_r: Impeller power requirement in kW. Applicable is: $P_r = (q_{V1}\ [m^3/s] \times p_{fs}\ [Pa]) / \eta_{rs}$
③ η_{rs}: 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_{V1}:Air flow in m^3/h
⑦ p_{fs}: 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

Product overview

Plug fan ZAbluefin

ER71I

Motor PMblue IE4

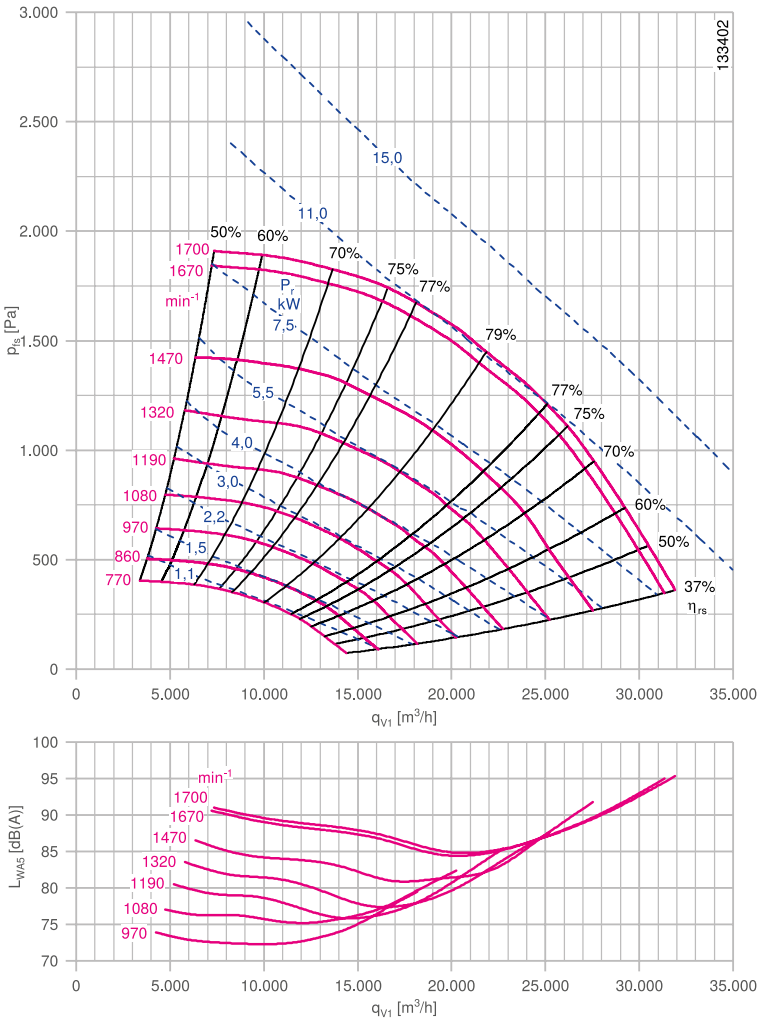
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

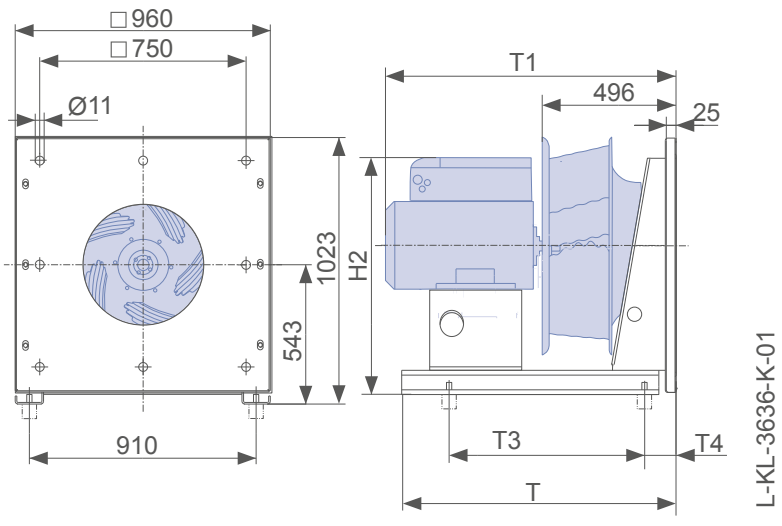
Nozzle coefficients

Standard k	530
With guard grille k_g	500

Characteristic curve



Dimensions mm



ZAbluefin-PMblue IE4

Rated power	Type	Article no.	Motor size	Motor efficiency	Rated current	Rated speed	Maximum speed	Input power	Efficiency	Efficiency grade
P_N				η_{mot}	I_N	n_N	n_{max}	P_{ed}	η_{statA}	N_{actual} *
kW				%	A	rpm	rpm	kW	%	
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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N	Type	Weight	T	T1	T3	T4	H2	Flexible connector	Guard grille	Vibration damper	
kW		kg	mm	mm	mm	mm	mm			Spring	Rubber
5.30	**ER71I-6IN.F7.1R**	137.00	885	861	683	115	792	00403350	00411646	02006450	00090157
7.28	**ER71I-6IN.F7.1R**	141.00	885	862	683	115	792	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	867	00403350	00411646	02006450	00090157

Plug fan ZAbluefin

ER80I

Motor PMblue IE4

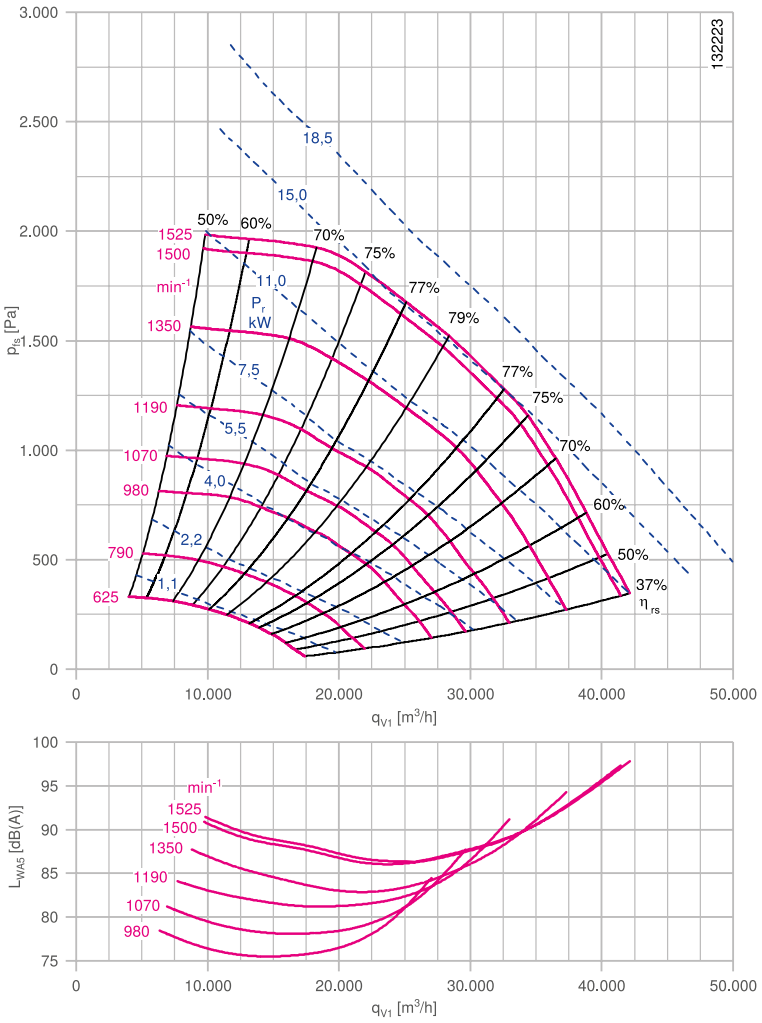
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

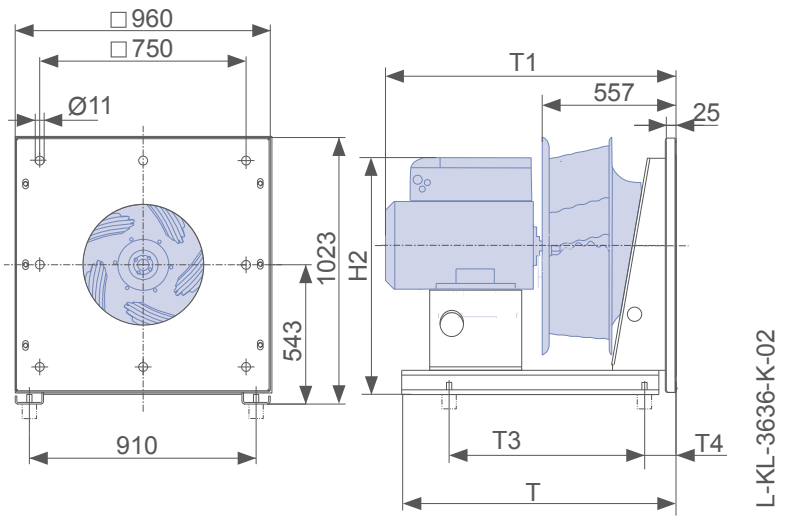
Nozzle coefficients

Standard k	670
With guard grille k_g	630

Characteristic curve



Dimensions mm



ZAbluefin-PMblue IE4

Rated power	Type	Article no.	Motor size	Motor efficiency	Rated current	Rated speed	Maximum speed	Input power	Efficiency	Efficiency grade
P_N				η_{mot}	I_N	n_N	n_{max}	P_{ed}	η_{statA}	N_{actual} *
kW				%	A	rpm	rpm	kW	%	
7.40	**ER80I-6IN.H7.1R**	**116055/0P61**	132M	91.0	13.0-10.0	1150	1190	7.80	73.5	74.5
14.80	**ER80I-6IN.H7.1R**	**116056/0P61**	132M	95.5	20.0-15.5	1450	1330	11.00	71.7	71.3
14.80	**ER80I-6IN.H7.1R**	**116057/0P61**	132M	95.5	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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N	Type	Weight	T	T1	T3	T4	H2	Flexible connector	Guard grille	Vibration damper	
kW		kg	mm	mm	mm	mm	mm			Spring	Rubber
7.40	**ER80I-6IN.H7.1R**	188.00	885	992	735	115	807	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	885	1053	735	115	867	00403350	00414162	02006450	02000407

Plug fan ZAbluefin

ER90I

Motor PMblue IE4

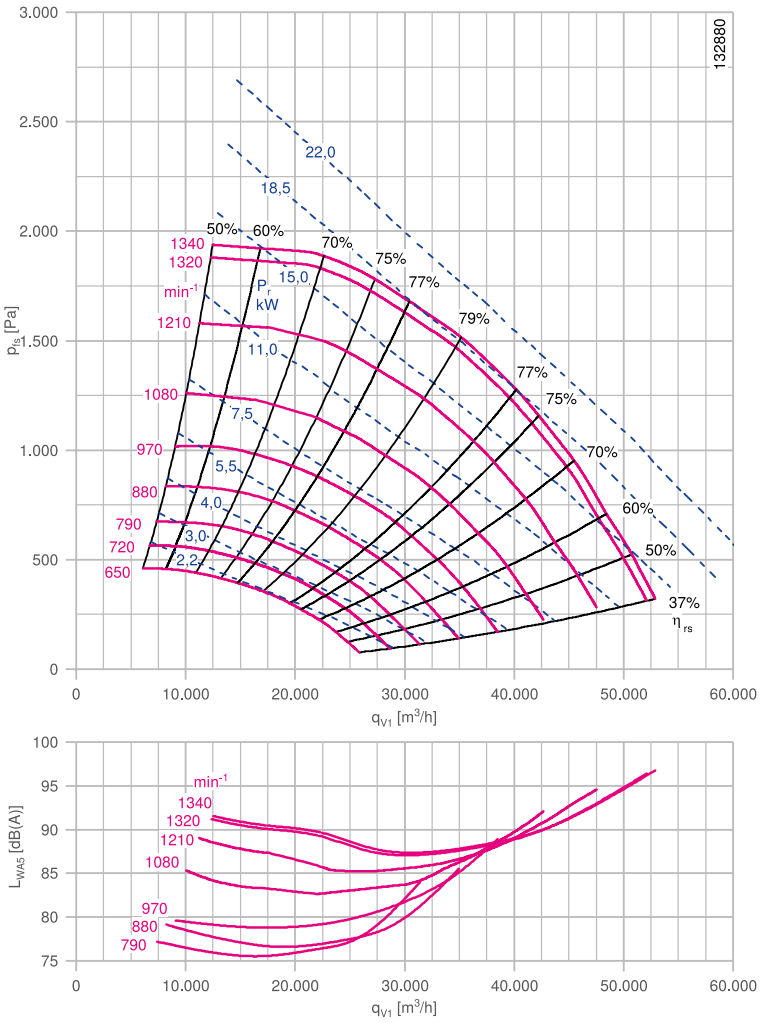
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

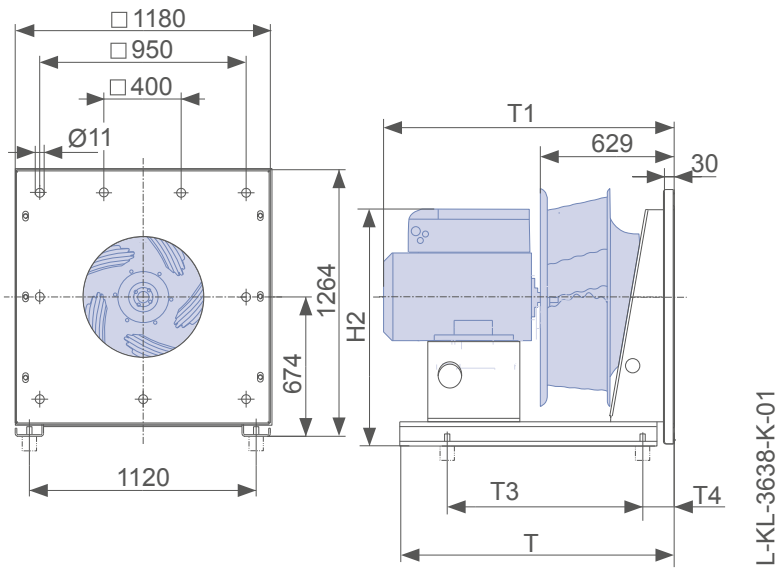
Nozzle coefficients

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_{ed} 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
18.50	**ER90I-8IN.K7.1R**	**116062/0P61**	160L	93.4	33.0-26.0	1320	1320	19.50	75.6	75.0
22.00	**ER90I-8IN.K7.1R**	**116063/0P61**	160L	93.7	34.0-27.0	1370	1340	20.00	75.9	75.2

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper	
										Spring	Rubber
7.40	**ER90I-6IN.H7.1R**	245.00	1160	1060	893	115	938	00403351	00411648	02006450	02001674
14.90	**ER90I-6IN.H7.1R**	268.00	1160	1111	788	115	998	00403351	00411648	02006450	02001674
14.90	**ER90I-6IN.H7.1R**	268.00	1160	1111	945	115	998	00403351	00411648	02006451	02000407
18.50	**ER90I-8IN.K7.1R**	308.00	1160	1177	998	115	1025	00403351	00411648	02006451	02000407
22.00	**ER90I-8IN.K7.1R**	318.00	1160	1177	998	115	1025	00403351	00411648	02006451	02000407

Plug fan ZAbluefin

ER10I

Motor PMblue IE4

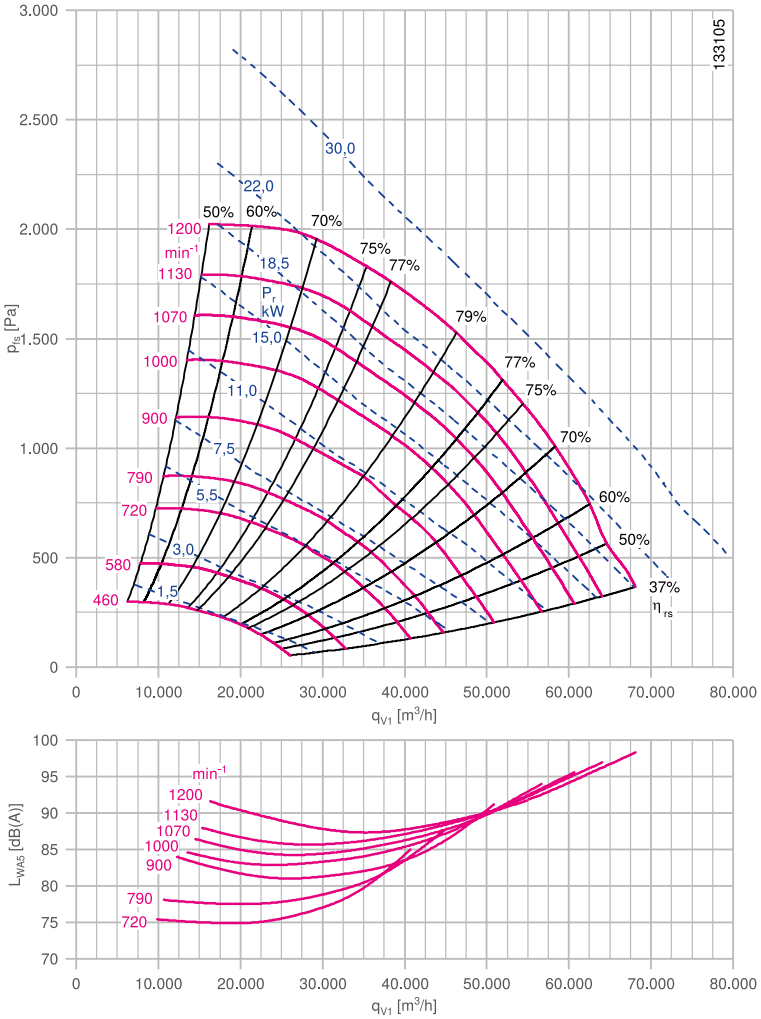
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

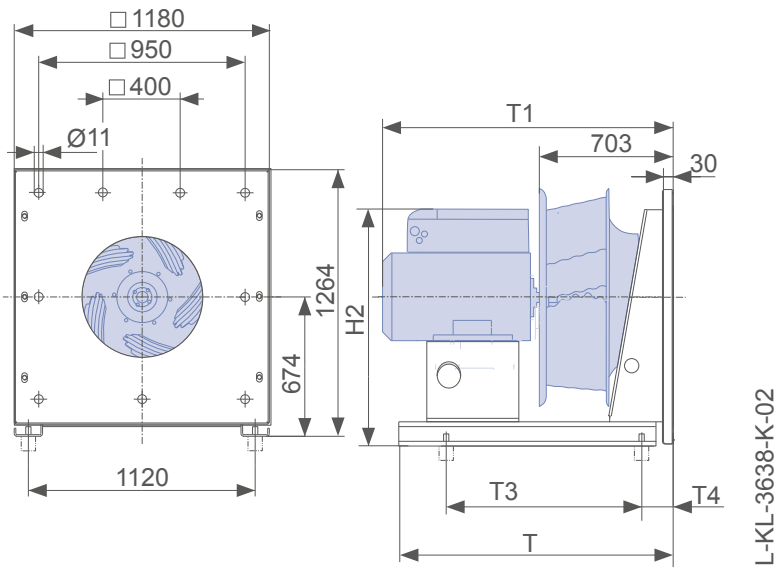
Nozzle coefficients

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_{ed} 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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible 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	998	115	1026	00403351	00411649	02006451	02001674
18.50	**ER10I-8IN.K7.1R**	356.00	1160	1248	998	115	1025	00403351	00411649	02006451	02001674
22.00	**ER10I-8IN.K7.1R**	361.00	1160	1248	998	115	1025	00403351	00411649	02006451	02001674

Plug fan ZAbluefin

ER11I

Motor PMblue IE4

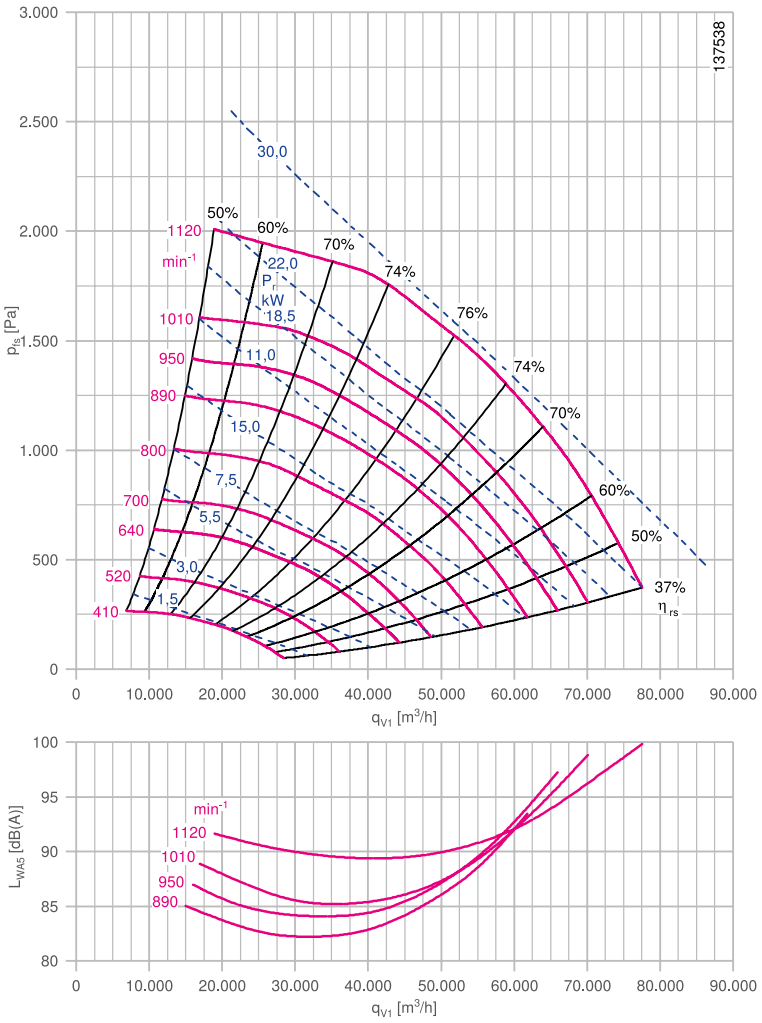
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

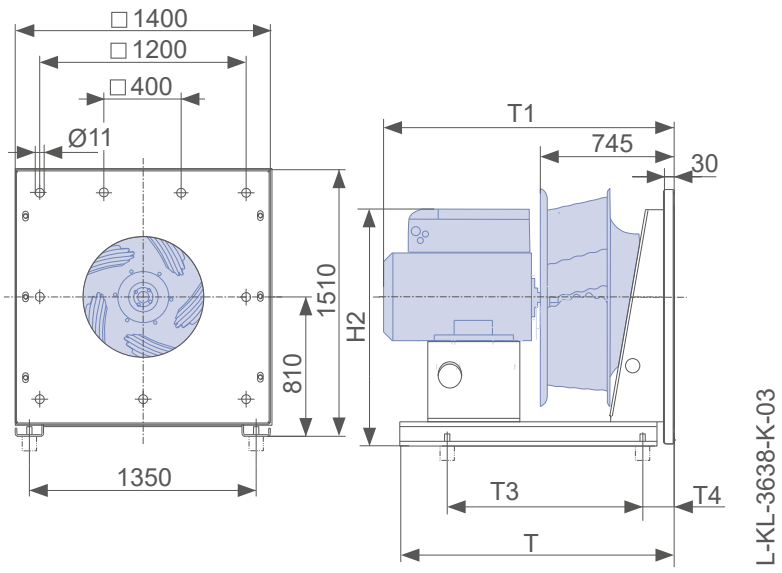
Nozzle coefficients

Standard k	1250
With guard grille k_g	1200

Characteristic curve



Dimensions mm



ZAbluefin-PMblue IE4

Rated power	Type	Article no.	Motor size	Motor efficiency	Rated current	Rated speed	Maximum speed	Input power	Efficiency	Efficiency grade
P_N				η_{mot}	I_N	n_N	n_{max}	P_{ed}	η_{statA}	N_{actual} *
kW				%	A	rpm	rpm	kW	%	
14.70	**ER11I-8IN.K7.1R**	**116068/0P61**	160L	90.0	27.0-21.0	890	890	15.50	70.1	69.6
18.40	**ER11I-8IN.K7.1R**	**116069/0P61**	160L	92.4	32.0-25.0	950	950	19.00	72.0	71.3
22.00	**ER11I-8IN.K7.1R**	**116070/0P61**	160L	92.8	37.0-29.0	1000	1000	22.00	72.3	71.5

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N	Type	Weight	T	T1	T3	T4	H2	Flexible connector	Guard grille	Vibration damper	
kW		kg	mm	mm	mm	mm	mm			Spring	Rubber
14.70	**ER11I-8IN.K7.1R**	477.00	1380	1335	1212	130	1162	00403352	00411650	02006452	02000407
18.40	**ER11I-8IN.K7.1R**	487.00	1380	1335	1212	130	1161	00403352	00411650	02006452	02000407
22.00	**ER11I-8IN.K7.1R**	487.00	1380	1361	1212	130	1161	00403352	00411650	02006452	02000407

Plug fan ZAbluefin

ZAmotpremium IE3

Product overview

Plug fan ZAbluefin

ER25I

Motor ZAmotpremium IE3

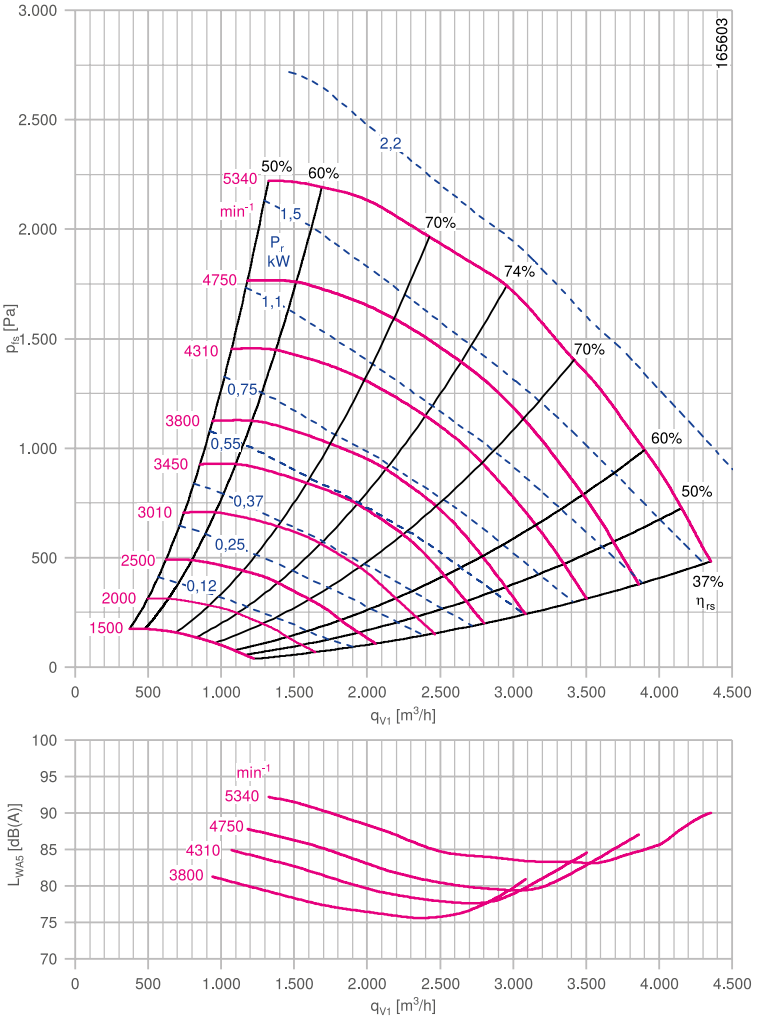
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

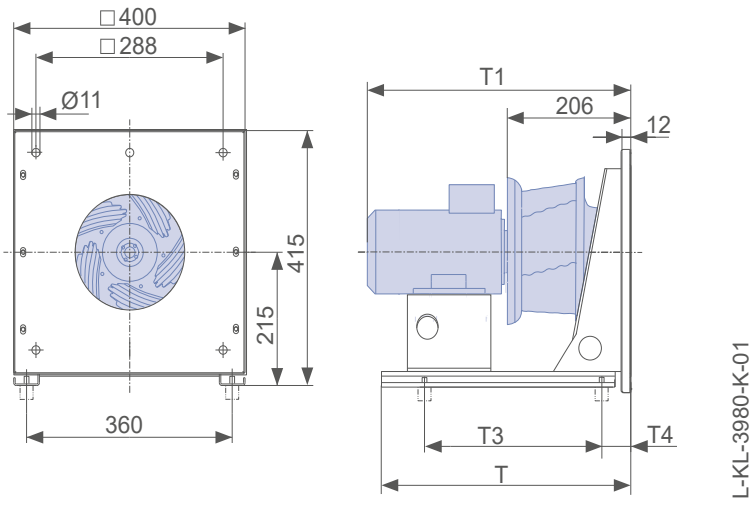
Nozzle coefficients

Standard k	67
With guard grille k_g	63
With inlet guide grille k_{ZAflow}	66

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}*
0.75	**ER25I-2DN.B7.1R**	**117051/0141**	080M	80.7	1.56	2850	3800	67	60.9	71.9
1.10	**ER25I-2DN.B7.1R**	**117052/0141**	080M	82.7	2.20	2885	4310	75	62.4	71.8
1.50	**ER25I-2DN.C7.1R**	**117053/0141**	090S/L	84.2	3.00	2910	4750	82	63.5	71.6
2.20	**ER25I-2DN.D7.1R**	**117054/0141**	090L/S	85.9	4.20	2910	5340	92	64.8	71.4

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
0.75	**ER25I-2DN.B7.1R**	23.00	460	453	368	60	00403346	00411643	02021195	00090144	308228	00415082
1.10	**ER25I-2DN.B7.1R**	24.00	460	488	368	60	00403346	00411643	02021196	00090144	308228	00415082
1.50	**ER25I-2DN.C7.1R**	27.00	460	498	368	60	00403346	00411643	02021196	00090144	308230	00415082
2.20	**ER25I-2DN.D7.1R**	31.00	460	538	368	60	00403346	00411643	02021196	00090144	308232	00415082

Plug fan ZAbluefin

ER28I

Motor ZAmotpremium IE3

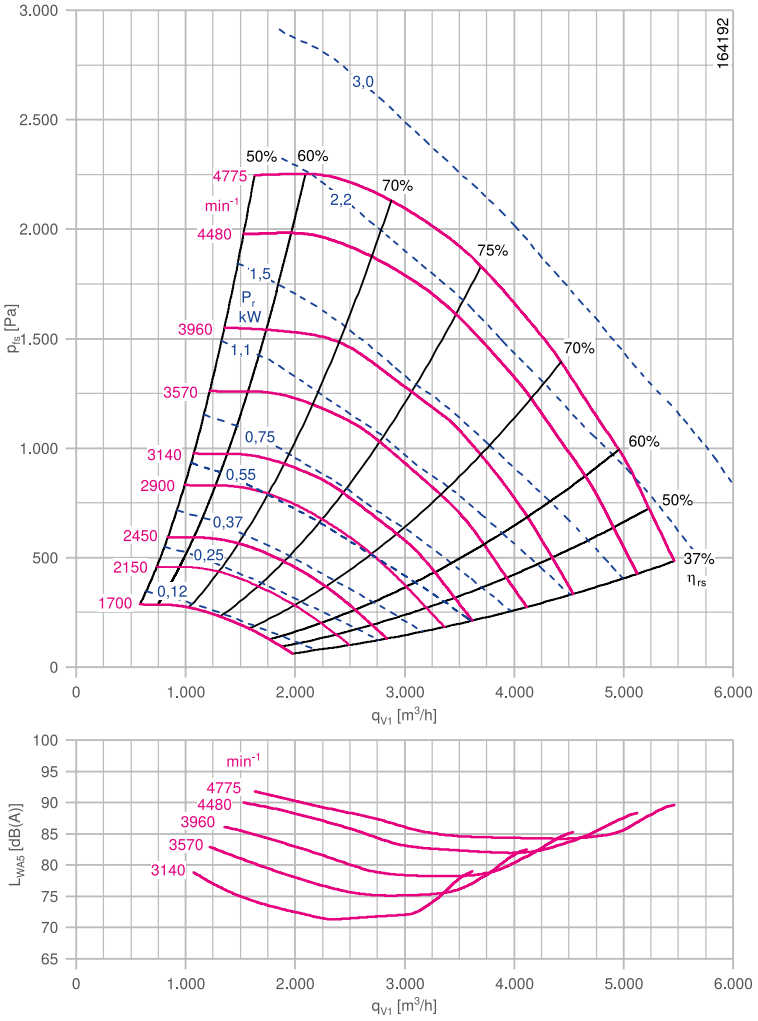
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

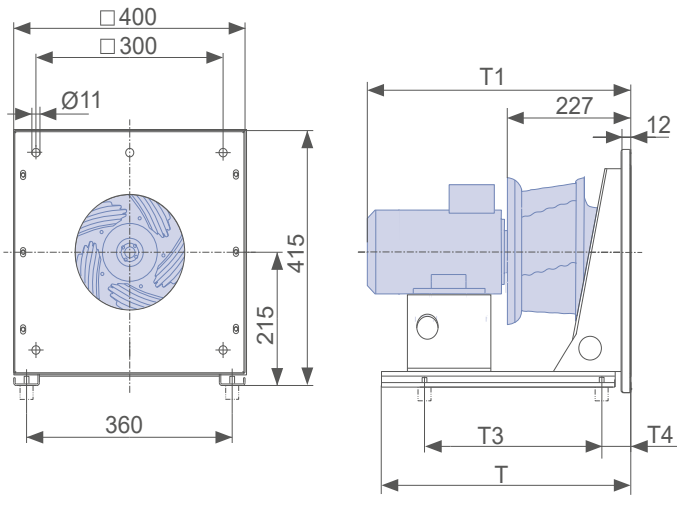
Nozzle coefficients

Standard k	85
With guard grille k_g	80
With inlet guide grille k_{ZAflow}	83

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}*
0.75	**ER28I-2DN.B7.1R**	**117055/0141**	080M	80.7	1.56	2850	3140	55	61.9	72.9
1.10	**ER28I-2DN.B7.1R**	**117056/0141**	080M	82.7	2.20	2885	3570	62	63.4	72.8
1.50	**ER28I-2DN.C7.1R**	**117057/0141**	090S/L	84.2	3.00	2910	3960	68	64.6	72.6
2.20	**ER28I-2DN.D7.1R**	**117058/0141**	090L/S	85.9	4.20	2910	4480	77	65.9	72.3
3.00	**ER28I-2DN.E7.1R**	**117059/0141**	100L	87.1	5.60	2920	4775	82	66.8	72.4

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
0.75	**ER28I-2DN.B7.1R**	23.00	460	471	368	60	00406513	00411643	02021195	00090144	308228	00415082
1.10	**ER28I-2DN.B7.1R**	24.00	460	506	368	60	00406513	00411643	02021195	00090144	308228	00415082
1.50	**ER28I-2DN.C7.1R**	27.00	460	516	368	60	00406513	00411643	02021196	00090144	308230	00415082
2.20	**ER28I-2DN.D7.1R**	31.00	460	556	368	60	00406513	00411643	02021196	00090144	308232	00415082
3.00	**ER28I-2DN.E7.1R**	40.00	570	590	473	60	00406513	00411643	02021196	00090144	308234	00415082

Plug fan ZAbluefin

ER31I

Motor ZAmotpremium IE3

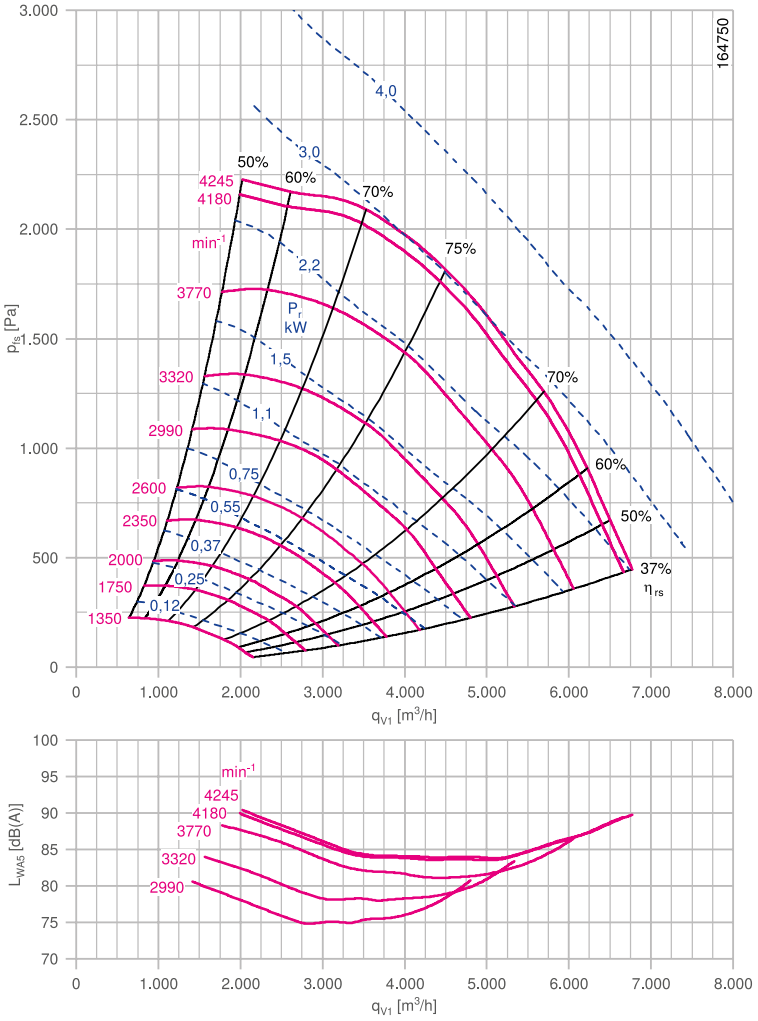
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

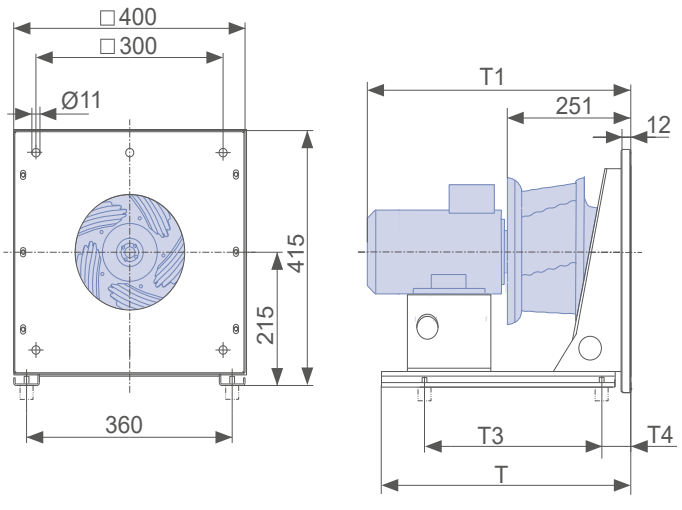
Nozzle coefficients

Standard k	106
With guard grille k_g	100
With inlet guide grille k_{ZAflow}	104

Characteristic curve



Dimensions mm



L-KL-3980-K-03

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}*
1.10	**ER31I-2DN.B7.1R**	**117060/0141**	080M	82.7	2.20	2885	2990	52	63.7	73.0
1.50	**ER31I-2DN.C7.1R**	**117061/0141**	090S/L	84.2	3.00	2910	3320	57	64.8	72.8
2.20	**ER31I-2DN.D7.1R**	**117062/0141**	090L/S	85.9	4.20	2910	3770	65	66.1	72.5
3.00	**ER31I-2DN.E7.1R**	**117063/0141**	100L	87.1	5.60	2920	4180	72	67	72.0
4.00	**ER31I-2DN.F7.1R**	**117064/0141**	112M	88.1	7.30	2945	4245	72	67.8	72.7

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER31I-2DN.B7.1R**	26.00	460	527	368	60	00406513	00411571	02021195	00090144	308228	00415083
1.50	**ER31I-2DN.C7.1R**	29.00	570	537	420	60	00406513	00411571	02021196	00090144	308230	00415083
2.20	**ER31I-2DN.D7.1R**	33.00	570	577	473	60	00406513	00411571	02021196	00090144	308232	00415083
3.00	**ER31I-2DN.E7.1R**	41.00	570	611	473	60	00406513	00411571	02021196	00090144	308234	00415083
4.00	**ER31I-2DN.F7.1R**	49.00	570	594	473	60	00406513	00411571	02021197	00090144	308236	00415083

Plug fan ZAbluefin

ER35I

Motor ZAmotpremium IE3

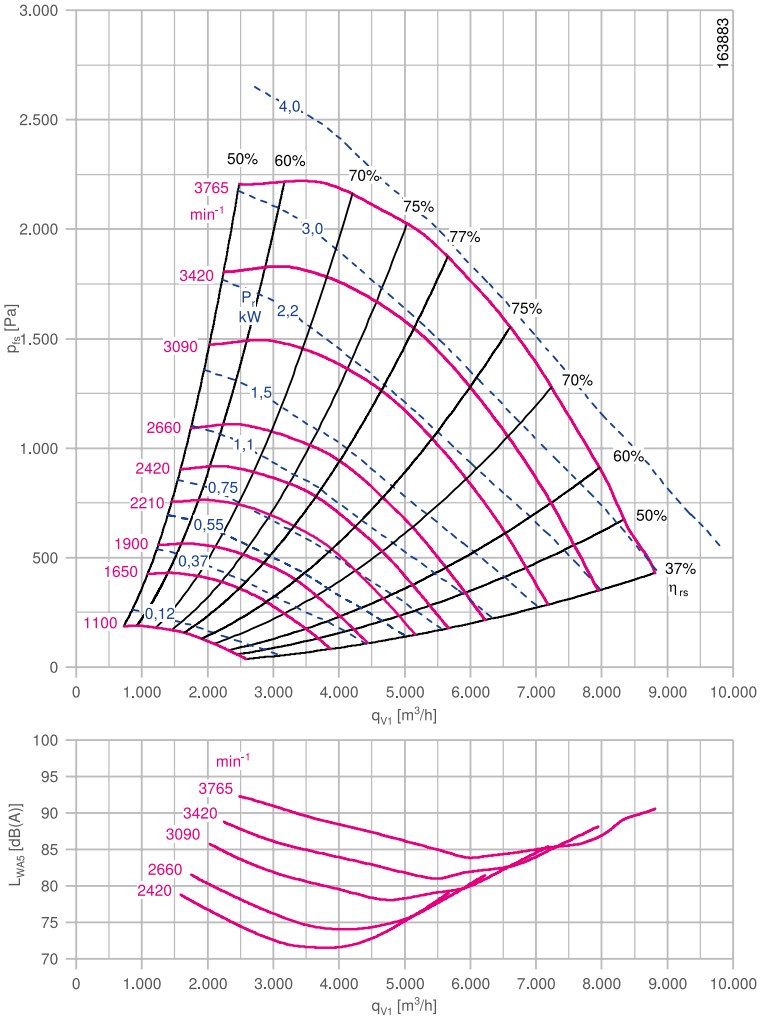
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

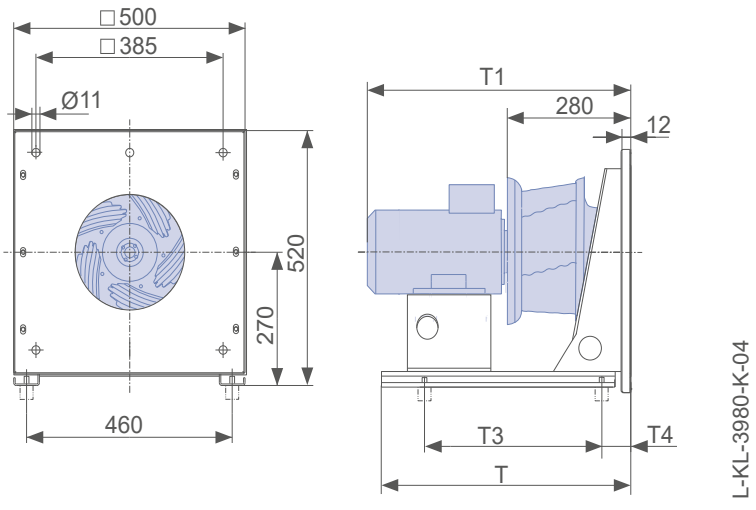
Nozzle coefficients

Standard k	140
With guard grille k_g	130
With inlet guide grille k_{ZAflow}	137

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}*
1.10	**ER35I-4DN.C7.1R**	**117065/0141**	090S/L	84.1	2.40	1440	2420	84	66.0	75.6
1.50	**ER35I-4DN.D7.1R**	**117066/0141**	090L/S	85.3	3.20	1445	2660	92	66.9	75.3
2.20	**ER35I-2DN.D7.1R**	**117067/0141**	090L/S	85.9	4.20	2910	3090	53	67.4	73.7
3.00	**ER35I-2DN.E7.1R**	**117068/0141**	100L	87.1	5.60	2920	3420	59	68.3	73.4
4.00	**ER35I-2DN.F7.1R**	**117069/0141**	112M	88.1	7.30	2945	3765	64	69.1	72.9

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER35I-4DN.C7.1R**	34.00	570	562	315	115	00406514	00411572	02021196	00090144	308228	00415083
1.50	**ER35I-4DN.D7.1R**	37.00	570	587	368	115	00406514	00411572	02021197	00090144	308230	00415083
2.20	**ER35I-2DN.D7.1R**	37.00	570	602	368	115	00406514	00411572	02021197	00090144	308232	00415083
3.00	**ER35I-2DN.E7.1R**	45.00	570	636	420	115	00406514	00411572	02021197	00090144	308234	00415083
4.00	**ER35I-2DN.F7.1R**	53.00	570	619	420	115	00406514	00411572	02021197	00090144	308236	00415083

Plug fan ZAbluefin

ER40I

Motor ZAmotpremium IE3

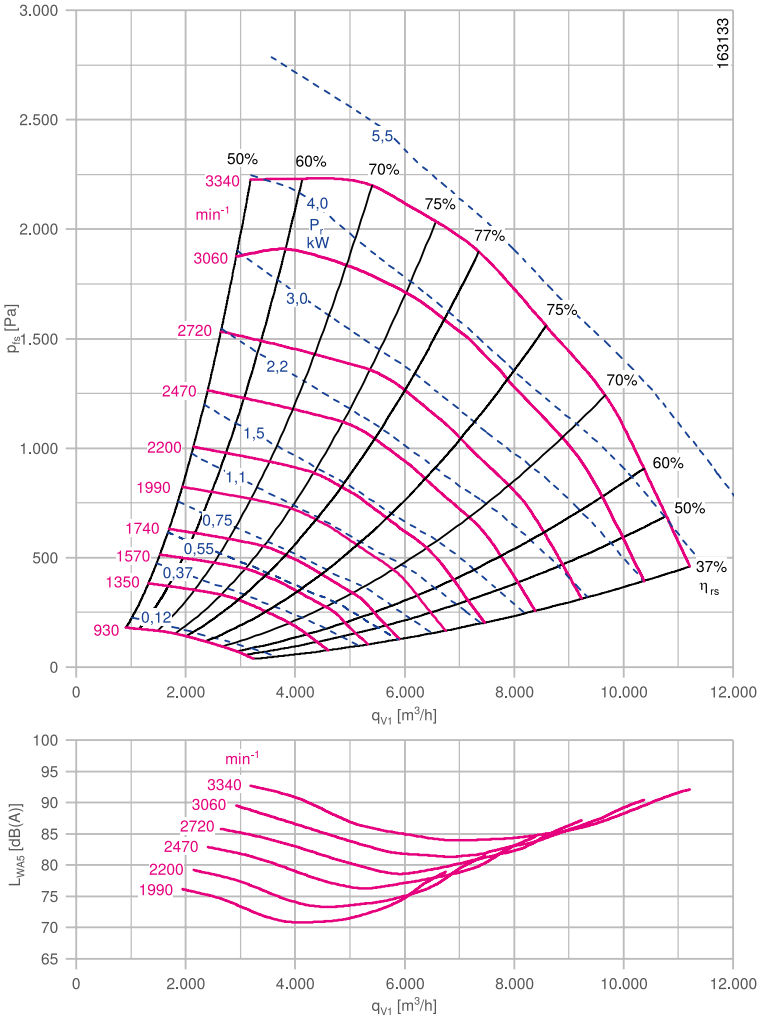
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

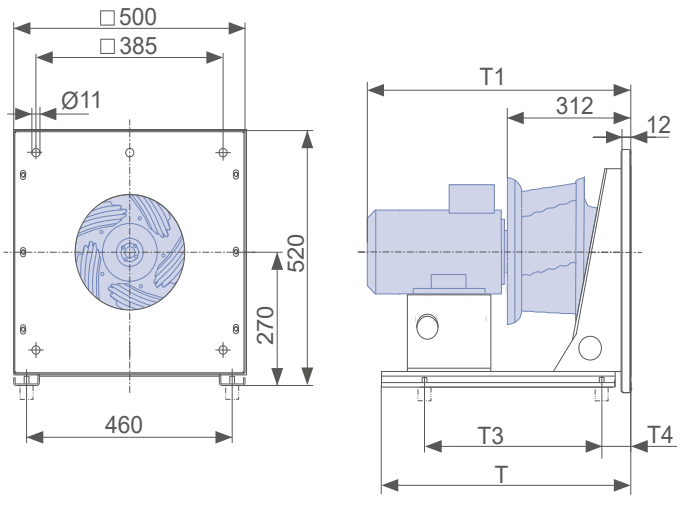
Nozzle coefficients

Standard k	180
With guard grille k_g	170
With inlet guide grille k_{ZAflow}	176

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}*
1.10	**ER40I-4DN.C7.1R**	**117070/0141**	090S/L	84.1	2.40	1440	1990	69	66.4	75.8
1.50	**ER40I-4DN.D7.1R**	**117071/0141**	090L/S	85.3	3.20	1445	2200	76	67.3	75.4
2.20	**ER40I-4DN.E7.1R**	**117072/0141**	100L	86.7	4.40	1465	2470	84	68.4	75.0
3.00	**ER40I-4DN.E7.1R**	**117073/0141**	100L	87.7	5.90	1460	2720	93	69.2	74.5
4.00	**ER40I-2DN.F7.1R**	**117074/0141**	112M	88.1	7.30	2945	3060	52	69.5	73.2
5.50	**ER40I-2DN.G7.1R**	**117075/0141**	132S/M	89.2	9.90	2950	3340	57	70.4	73.0

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER40I-4DN.C7.1R**	38.00	570	590	368	115	00406514	00411573	02021196	00090144	308228	00415084
1.50	**ER40I-4DN.D7.1R**	41.00	570	615	368	115	00406514	00411573	02021197	00090144	308230	00415084
2.20	**ER40I-4DN.E7.1R**	53.00	570	629	420	115	00406514	00411573	02021197	00090144	308232	00415084
3.00	**ER40I-4DN.E7.1R**	53.00	570	664	420	115	00406514	00411573	02021197	00090144	308234	00415084
4.00	**ER40I-2DN.F7.1R**	58.00	720	647	473	115	00406514	00411573	02021197	00090144	308236	00415084
5.50	**ER40I-2DN.G7.1R**	69.00	720	686	525	115	00406514	00411573	02021198	00090144	308265	00415084

Plug fan ZAbluefin

ER45I

Motor ZAmotpremium IE3

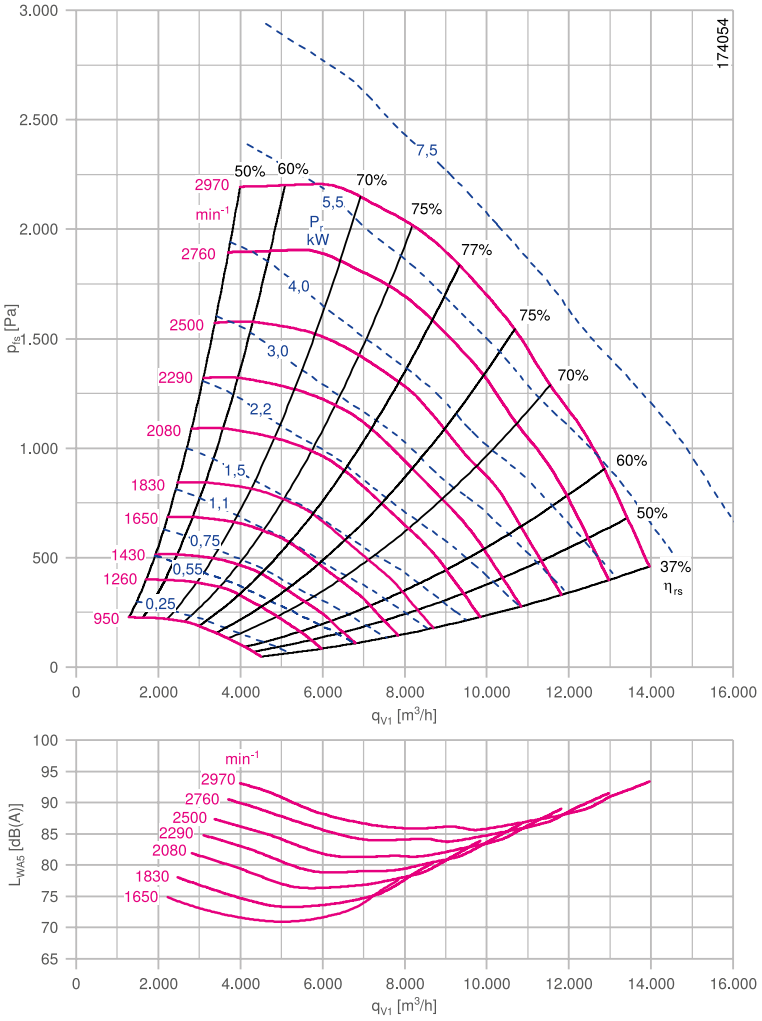
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

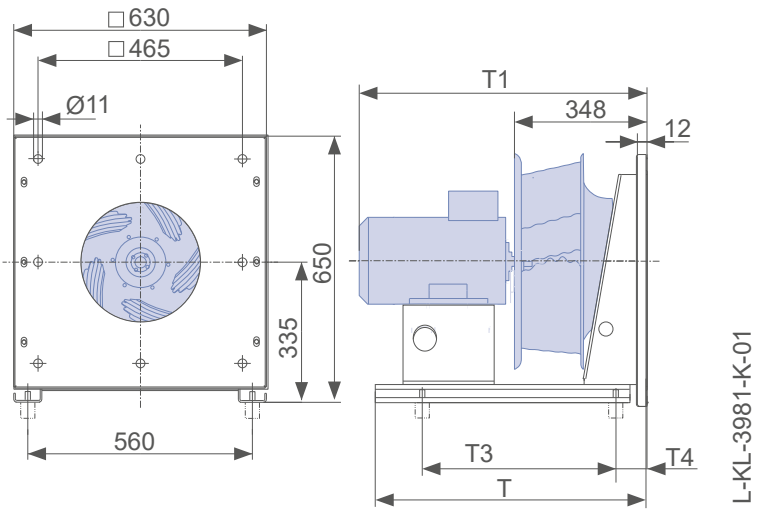
Nozzle coefficients

Standard k	220
With guard grille k_g	210
With inlet guide grille k_{ZAflow}	216

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}*
1.10	**ER45I-4DN.C7.1R**	**117076/0141**	090S/L	84.1	2.40	1440	1650	57	66.2	75.6
1.50	**ER45I-4DN.D7.1R**	**117077/0141**	090L/S	85.3	3.20	1445	1830	63	67.1	75.2
2.20	**ER45I-4DN.E7.1R**	**117078/0141**	100L	86.7	4.40	1465	2080	71	68.2	74.6
3.00	**ER45I-4DN.E7.1R**	**117079/0141**	100L	87.7	5.90	1460	2290	78	69.0	74.1
4.00	**ER45I-4DN.F7.1R**	**117080/0141**	112M	88.6	7.90	1460	2500	86	69.7	73.7
5.50	**ER45I-4DN.G7.1R**	**117081/0141**	132S	89.6	10.50	1470	2760	94	70.5	73.1
7.50	**ER45I-2DN.G7.1R**	**117082/0141**	132S	90.1	13.10	2950	2970	50	70.9	72.6

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER45I-4DN.C7.1R**	49.00	570	629	368	115	00406515	00411574	02021197	00090144	308228	00415084
1.50	**ER45I-4DN.D7.1R**	52.00	570	654	368	115	00406515	00411574	02021197	00090144	308230	00415084
2.20	**ER45I-4DN.E7.1R**	64.00	570	667	420	115	00406515	00411574	02021197	00090144	308232	00415084
3.00	**ER45I-4DN.E7.1R**	64.00	570	702	420	115	00406515	00411574	02021198	02000124	308234	00415084
4.00	**ER45I-4DN.F7.1R**	68.00	720	686	473	115	00406515	00411574	02021198	02000124	308236	00415084
5.50	**ER45I-4DN.G7.1R**	99.00	720	767	578	115	00406515	00411574	02021198	02000124	308265	00415084
7.50	**ER45I-2DN.G7.1R**	92.00	720	767	525	115	00406515	00411574	02021198	02000124	308267	00415084

Plug fan ZAbluefin

ER50I

Motor ZAmotpremium IE3

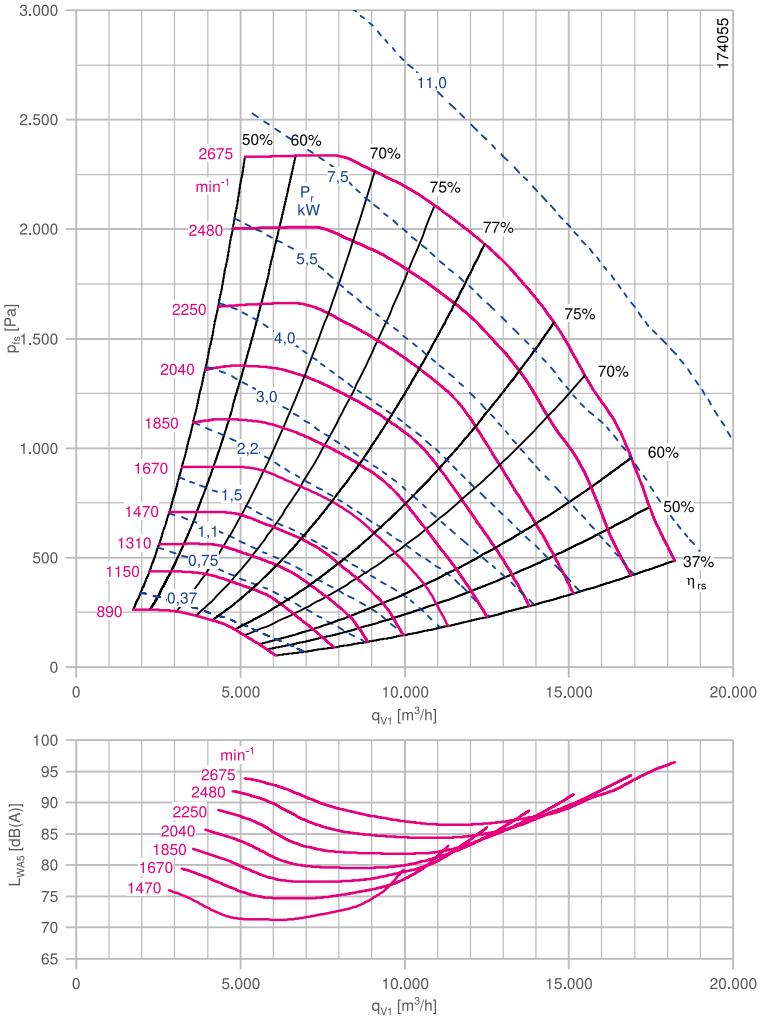
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

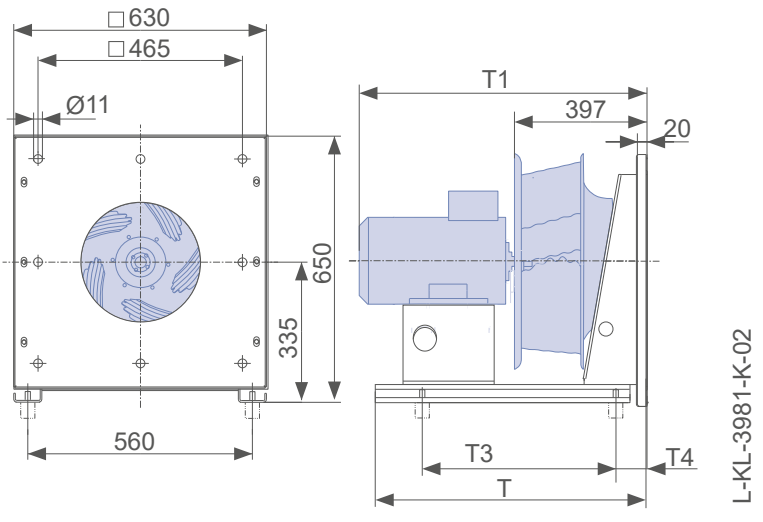
Nozzle coefficients

Standard k	280
With guard grille k_g	265
With inlet guide grille k_{ZAflow}	274

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}*
1.50	**ER50I-4DN.D7.1R**	**117083/0141**	090L/S	85.3	3.20	1445	1470	51	67.4	75.5
2.20	**ER50I-4DN.E7.1R**	**117084/0141**	100L	86.7	4.40	1465	1670	57	68.6	74.9
3.00	**ER50I-4DN.E7.1R**	**117085/0141**	100L	87.7	5.90	1460	1850	63	69.3	74.4
4.00	**ER50I-4DN.F7.1R**	**117086/0141**	112M	88.6	7.90	1460	2040	70	70.1	73.8
5.50	**ER50I-4DN.G7.1R**	**117087/0141**	132S	89.6	10.50	1470	2250	77	70.8	73.3
7.50	**ER50I-4DN.H7.1R**	**117088/0141**	132M	90.4	14.30	1470	2480	84	71.5	72.7
11.00	**ER50I-4DN.I7.1R**	**117089/0141**	160M/L	91.4	20.50	1475	2675	91	72.3	72.5

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.50	**ER50I-4DN.D7.1R**	59.00	728	697	420	115	00406515	00411575	02021197	00090144	308230	00415085
2.20	**ER50I-4DN.E7.1R**	71.00	728	710	525	115	00406515	00411575	02021197	00090144	308232	00415085
3.00	**ER50I-4DN.E7.1R**	71.00	728	745	420	115	00406515	00411575	02021197	00090144	308234	00415085
4.00	**ER50I-4DN.F7.1R**	75.00	728	729	525	115	00406515	00411575	02021198	02000124	308236	00415085
5.50	**ER50I-4DN.G7.1R**	105.00	728	810	578	115	00406515	00411575	02021198	02000124	308265	00415085
7.50	**ER50I-4DN.H7.1R**	105.00	728	810	578	115	00406515	00411575	02021198	02000124	308267	00415085
11.00	**ER50I-4DN.I7.1R**	130.00	888	869	735	115	00406515	00411575	02021199	02000124	308323	00415085

Plug fan ZAbluefin

ER56I

Motor ZAmotpremium IE3

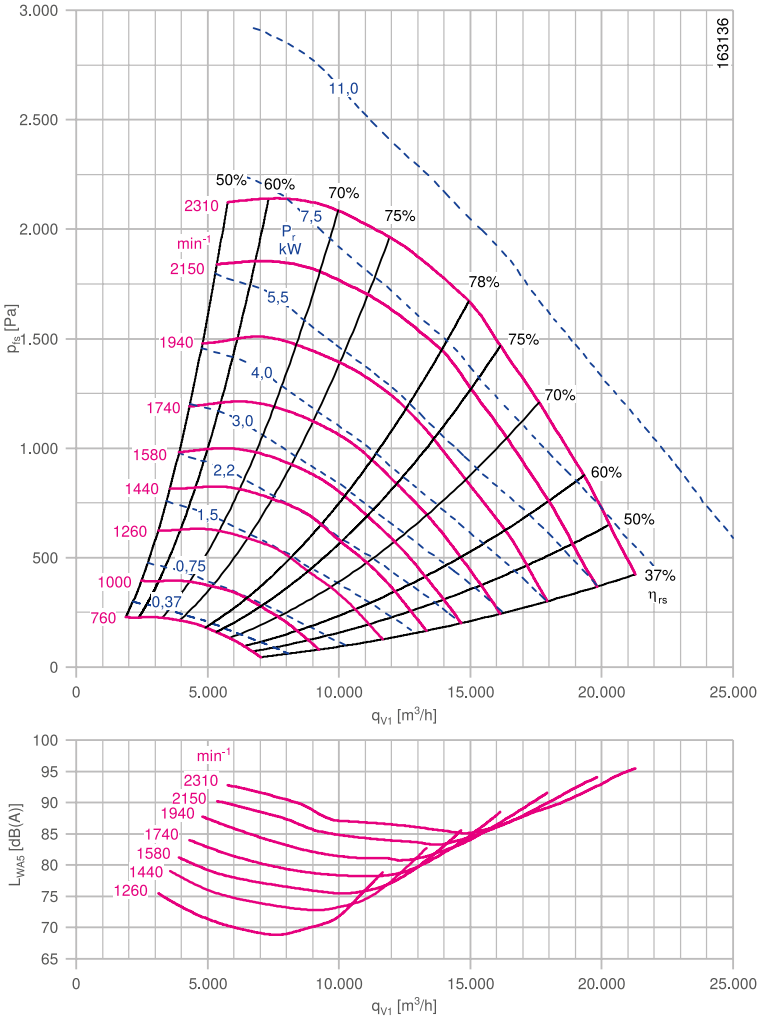
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

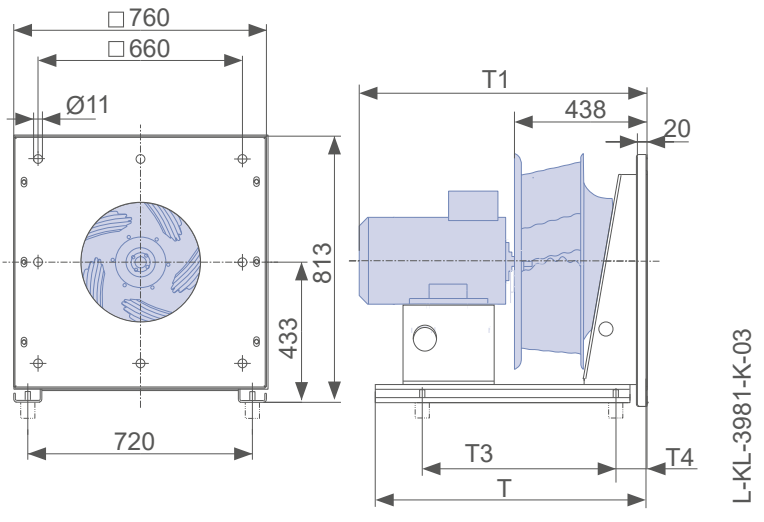
Nozzle coefficients

Standard k	355
With guard grille k_g	335
With inlet guide grille k_{ZAflow}	348

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}*
1.50	**ER56I-6DN.E7.1R**	**117090/0141**	100L	82.5	3.60	970	1260	65	65.9	73.8
2.20	**ER56I-4DN.E7.1R**	**117091/0141**	100L	86.7	4.40	1465	1440	49	69.2	75.5
3.00	**ER56I-4DN.E7.1R**	**117092/0141**	100L	87.7	5.90	1460	1580	54	70.0	75.1
4.00	**ER56I-4DN.F7.1R**	**117093/0141**	112M	88.6	7.90	1460	1740	60	70.7	74.5
5.50	**ER56I-4DN.G7.1R**	**117094/0141**	132S	89.6	10.50	1470	1940	66	71.5	73.9
7.50	**ER56I-4DN.H7.1R**	**117095/0141**	132M	90.4	14.30	1470	2150	73	72.2	73.2
11.00	**ER56I-4DN.I7.1R**	**117096/0141**	160M/L	91.4	20.50	1475	2310	78	73.0	73.0

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.50	**ER56I-6DN.E7.1R**	82.00	720	781	525	115	00405986	00411644	02021198	00090144	308230	00415085
2.20	**ER56I-4DN.E7.1R**	82.00	720	746	525	115	00405986	00411644	02021198	00090144	308232	00415085
3.00	**ER56I-4DN.E7.1R**	82.00	720	781	525	115	00405986	00411644	02021199	02000124	308234	00415085
4.00	**ER56I-4DN.F7.1R**	86.00	720	764	525	115	00405986	00411644	02021199	02000124	308236	00415085
5.50	**ER56I-4DN.G7.1R**	119.00	880	845	630	115	00405986	00411644	02021199	02020907	308265	00415085
7.50	**ER56I-4DN.H7.1R**	119.00	880	845	683	115	00405986	00411644	02018876	02020907	308267	00415085
11.00	**ER56I-4DN.I7.1R**	144.00	880	904	735	115	00405986	00411644	02018876	02020907	308323	00415085

Plug fan ZAbluefin

ER63I

Motor ZAmotpremium IE3

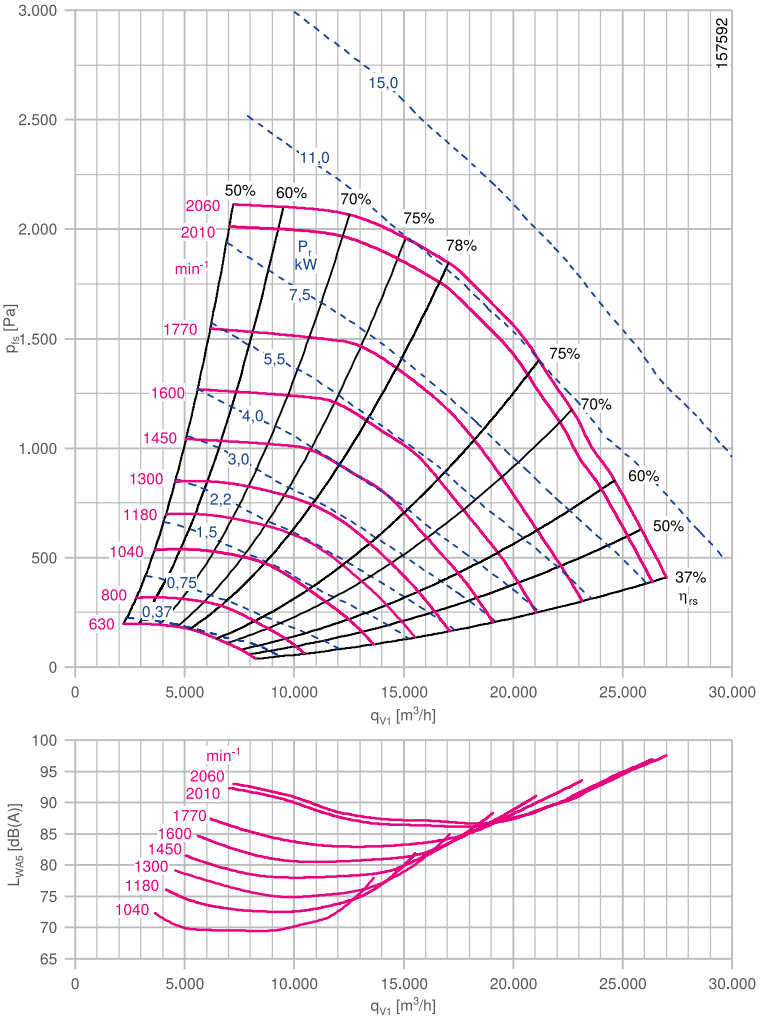
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

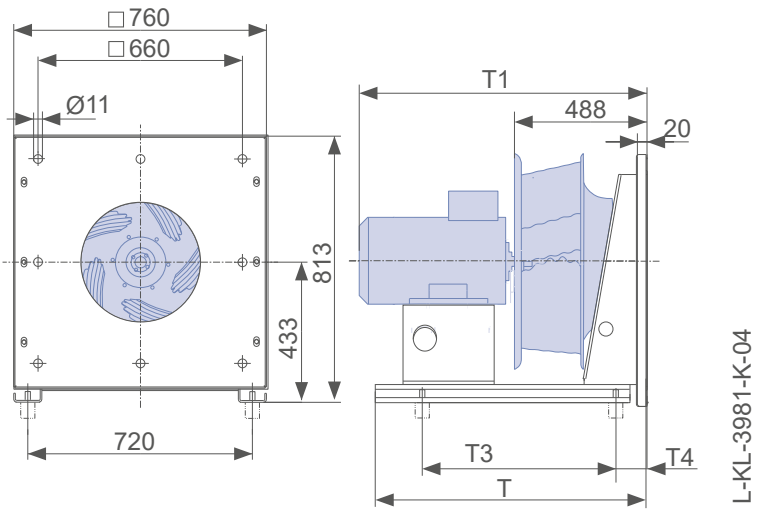
Nozzle coefficients

Standard k	420
With guard grille k_g	400
With inlet guide grille k_{ZAflow}	412

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}*
1.50	**ER63I-6DN.E7.1R**	**117097/0141**	100L	82.5	3.60	970	1040	54	66.3	74.1
2.20	**ER63I-6DN.F7.1R**	**117098/0141**	112M	84.3	5.00	970	1180	61	67.7	73.9
3.00	**ER63I-6DN.G7.1R**	**117099/0141**	132S	85.6	6.60	975	1300	67	68.8	73.7
4.00	**ER63I-4DN.F7.1R**	**117100/0141**	112M	88.6	7.90	1460	1450	50	71.2	74.8
5.50	**ER63I-4DN.G7.1R**	**117101/0141**	132S	89.6	10.50	1470	1600	54	72.0	74.3
7.50	**ER63I-4DN.H7.1R**	**117102/0141**	132M	90.4	14.30	1470	1770	60	72.6	73.6
11.00	**ER63I-4DN.I7.1R**	**117103/0141**	160M/L	91.4	20.50	1475	2010	68	73.4	73.3
15.00	**ER63I-4DN.K7.1R**	**117104/0141**	160L	92.1	28.50	1475	2060	70	74.0	73.8

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.50	**ER63I-6DN.E7.1R**	95.00	720	824	578	115	00405986	00411645	02021198	00090144	308230	00415086
2.20	**ER63I-6DN.F7.1R**	94.00	720	808	578	115	00405986	00411645	02021198	00090144	308232	00415086
3.00	**ER63I-6DN.G7.1R**	110.00	880	839	630	115	00405986	00411645	02021199	02000124	308234	00415086
4.00	**ER63I-4DN.F7.1R**	99.00	720	808	578	115	00405986	00411645	02021199	02000124	308236	00415086
5.50	**ER63I-4DN.G7.1R**	132.00	880	889	683	115	00405986	00411645	02021199	02020907	308265	00415086
7.50	**ER63I-4DN.H7.1R**	132.00	880	889	735	115	00405986	00411645	02021199	02020907	308267	00415086
11.00	**ER63I-4DN.I7.1R**	157.00	880	948	735	115	00405986	00411645	02018876	02020907	308323	00415086
15.00	**ER63I-4DN.K7.1R**	174.00	880	1008	735	115	00405986	00411645	02018876	02020907	308325	00415086

Plug fan ZAbluefin

ER71I

Motor ZAmotpremium IE3

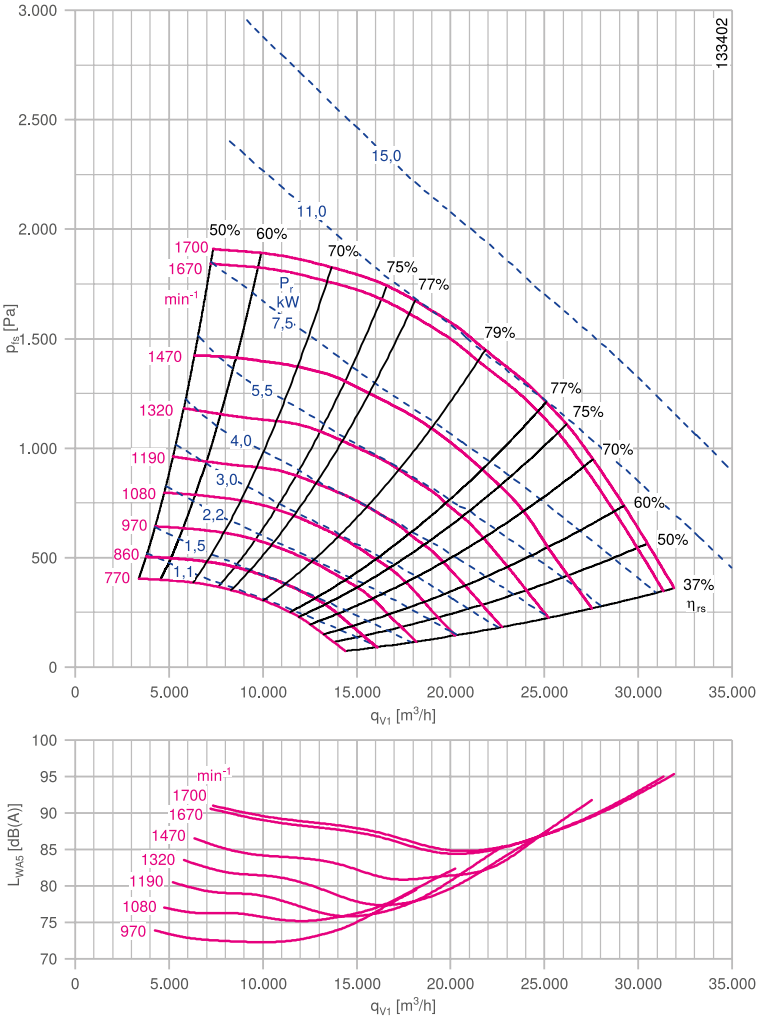
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

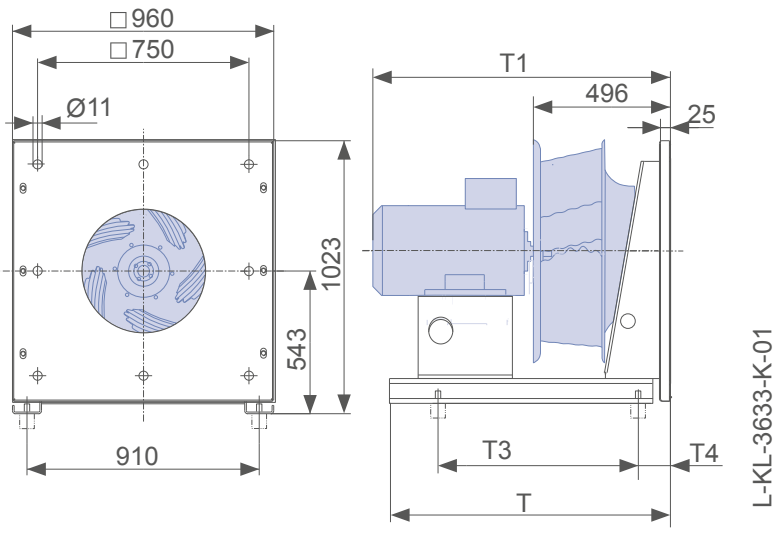
Nozzle coefficients

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}*
2.20	**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
5.50	**ER71I-6DN.H7.1R**	**115956/0141**	132M	88.0	11.60	970	1320	68	71.4	73.8
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
2.20	**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	683	115	00403350	00411646	02006449	00090157	308234
4.00	**ER71I-6DN.H7.1R**	151.00	885	894	683	115	00403350	00411646	02006449	00090157	308236
5.50	**ER71I-6DN.H7.1R**	151.00	885	944	735	115	00403350	00411646	02006450	00090157	308265
7.50	**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

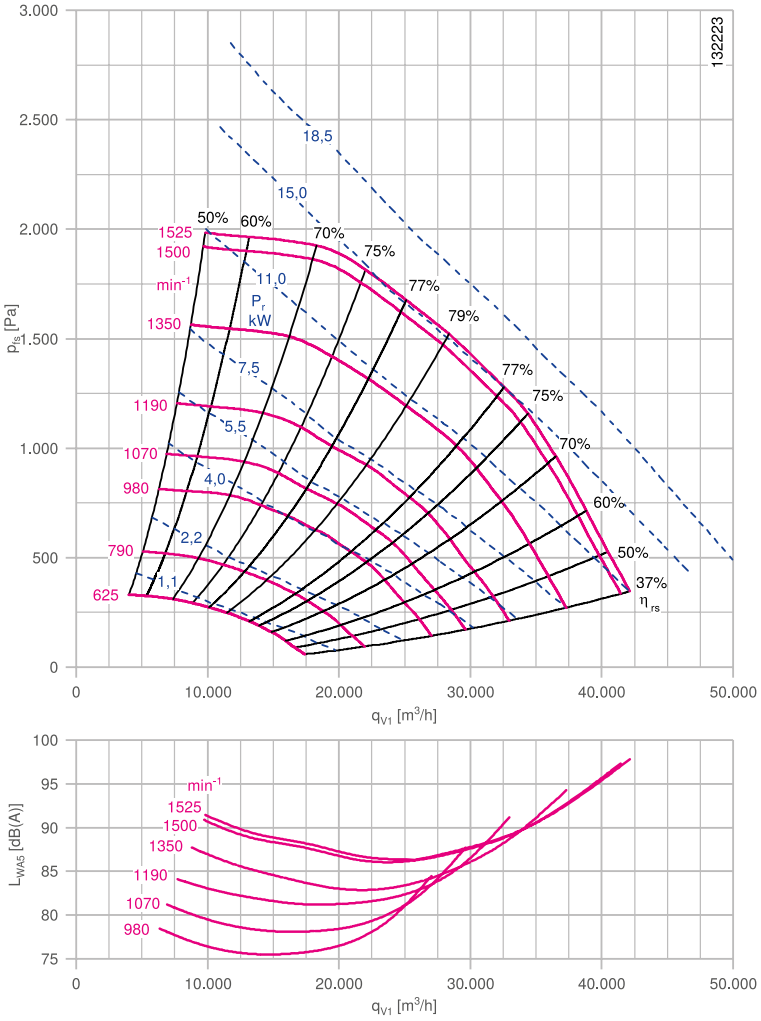
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

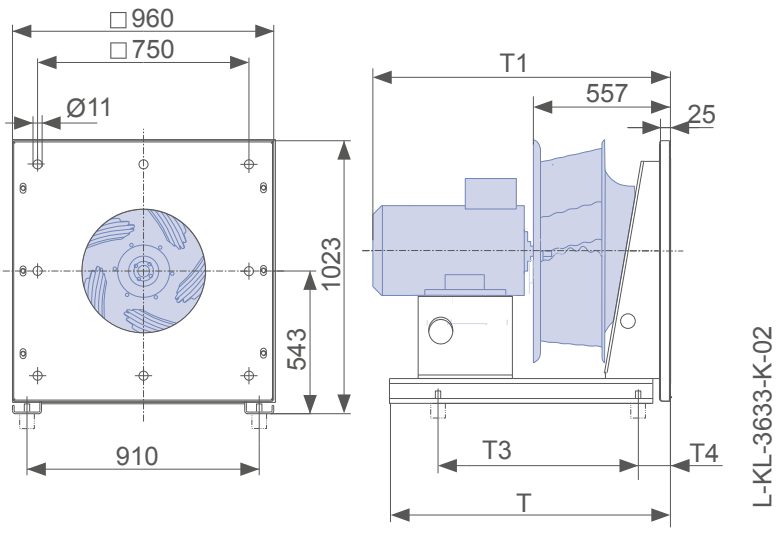
Nozzle coefficients

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
5.50	**ER80I-6DN.H7.1R**	**115962/0141**	132M	88.0	11.60	970	1070	55	71.1	73.4
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
4.00	**ER80I-6DN.H7.1R**	175.00	885	952	683	115	00403350	00414162	02006449	00090157	308236
5.50	**ER80I-6DN.H7.1R**	175.00	885	1002	630	115	00403350	00414162	02006449	00090157	308265
7.50	**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

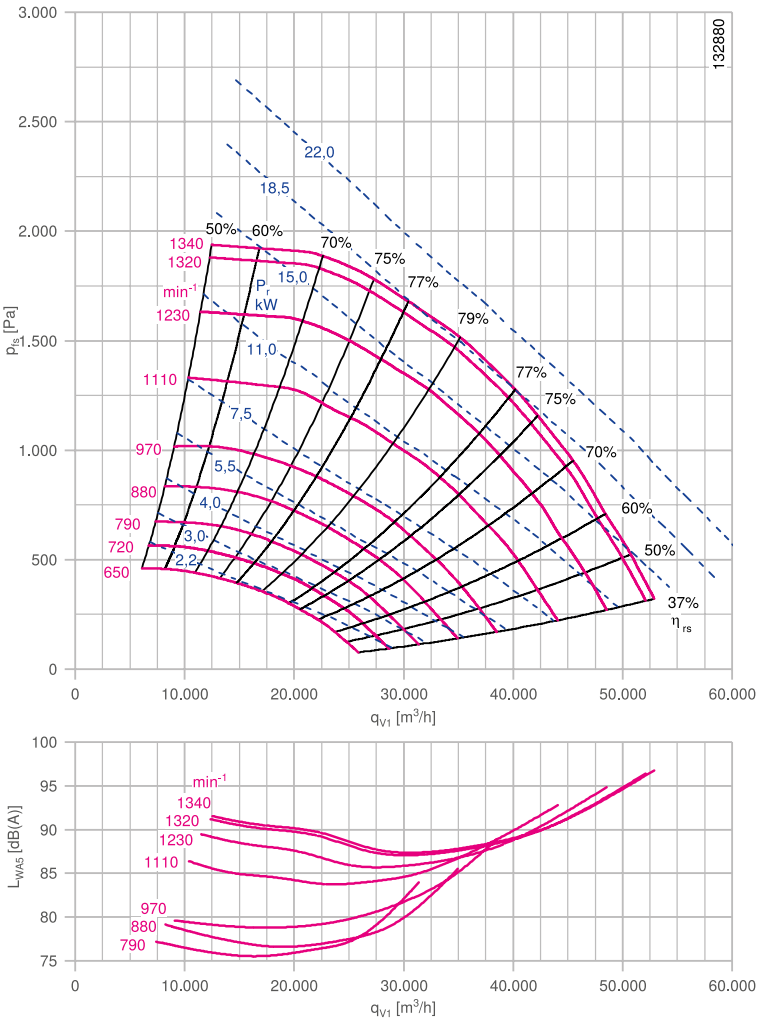
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

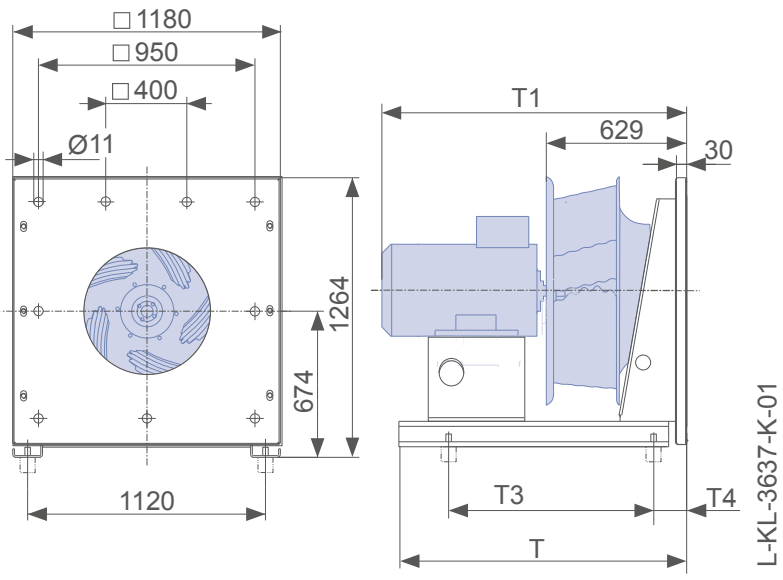
Nozzle coefficients

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
5.50	**ER90I-8DN.I7.1R**	**115969/0141**	160M/L	86.2	14.00	730	880	60	69.8	72.0
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible 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
5.50	**ER90I-8DN.I7.1R**	267.00	1160	1129	945	115	00403351	00411648	02006450	02001674	308267
7.50	**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

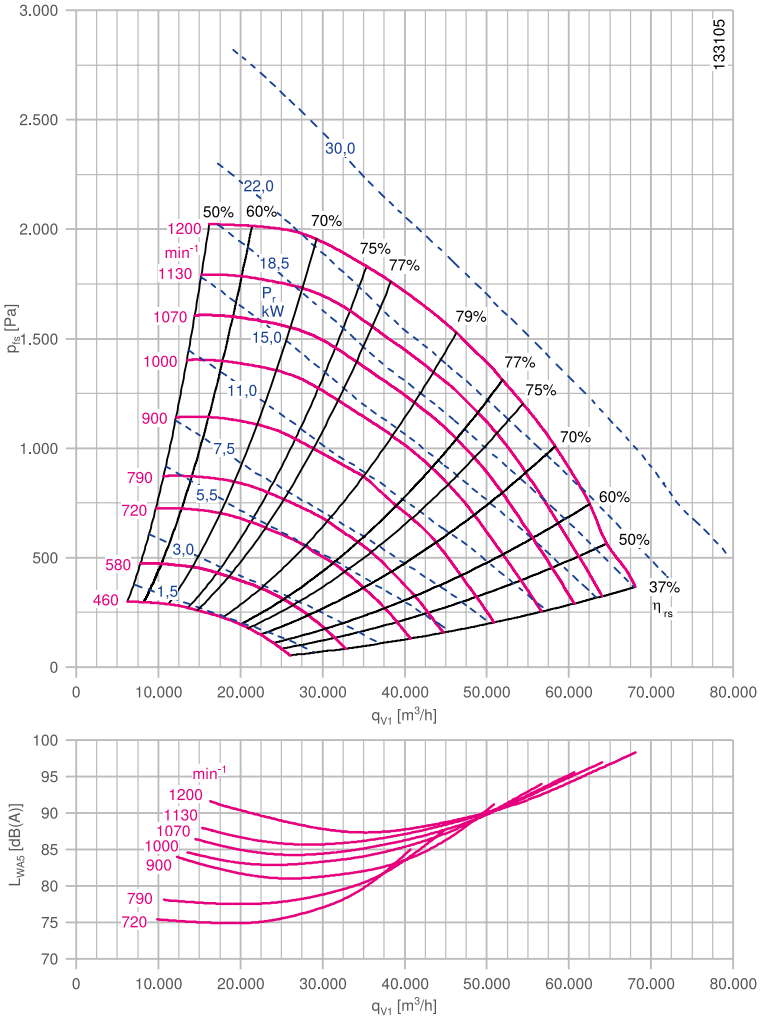
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

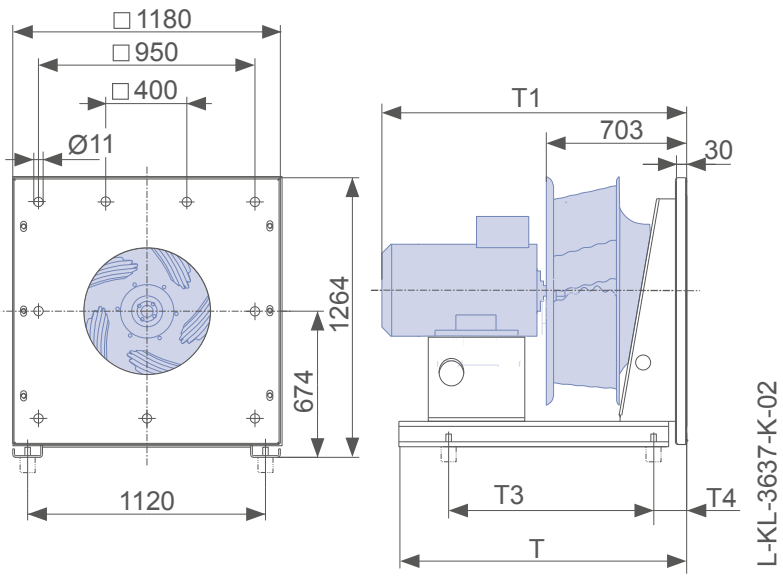
Nozzle coefficients

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}*
5.50	**ER10I-8DN.I7.1R**	**115976/0141**	160M/L	86.2	14.00	730	720	49	69.7	71.8
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
5.50	**ER10I-8DN.I7.1R**	305.00	1160	1200	998	115	00403351	00411649	02006450	02001674	308267
7.50	**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

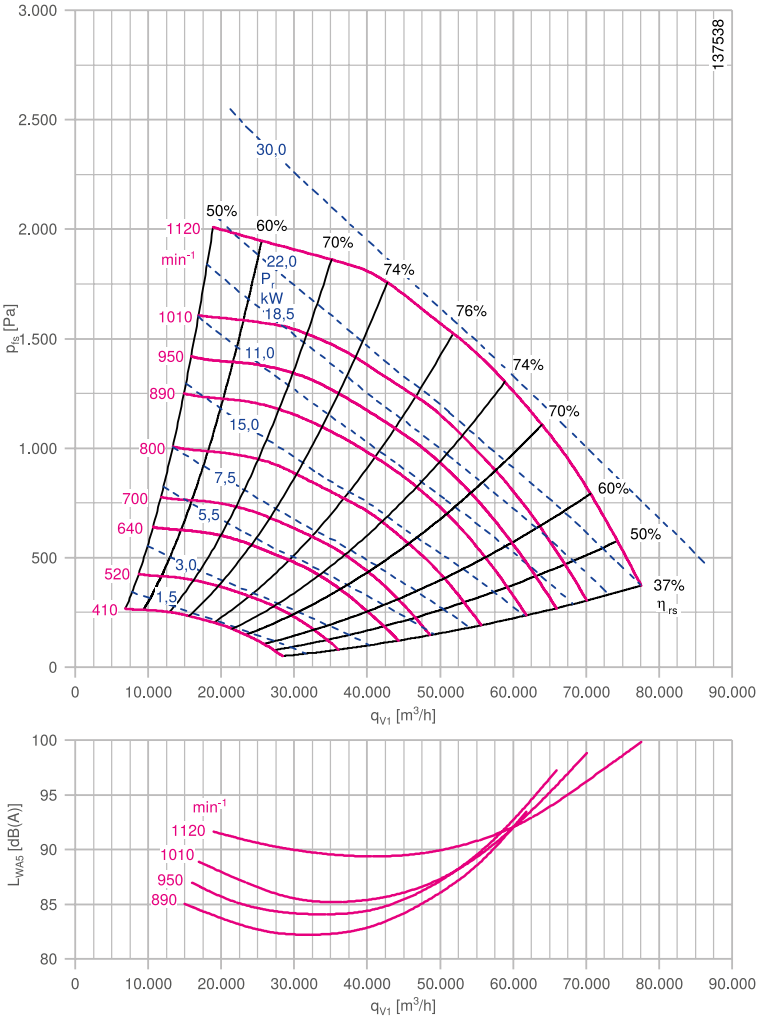
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

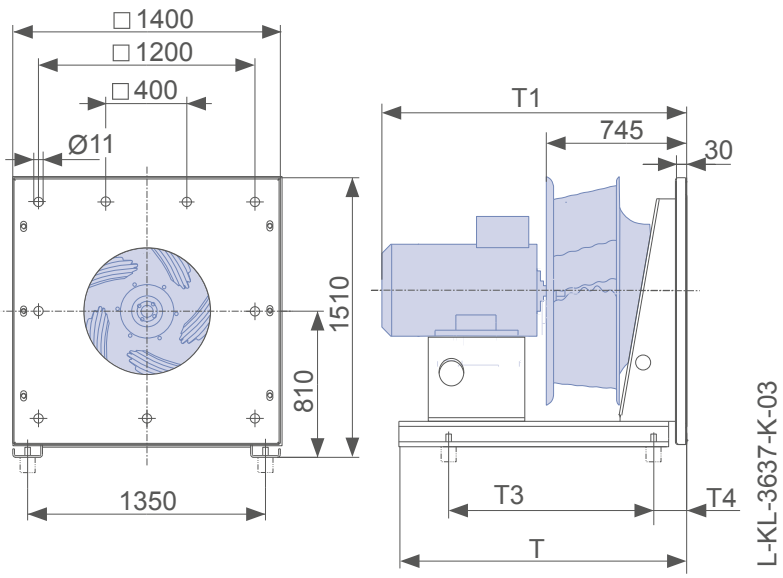
Nozzle coefficients

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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
15.00	**ER11I-8DN.N7.1R**	606.00	1380	1429	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

Product overview

Plug fan Cpro

ER25Cpro

Motor PMblue IE4

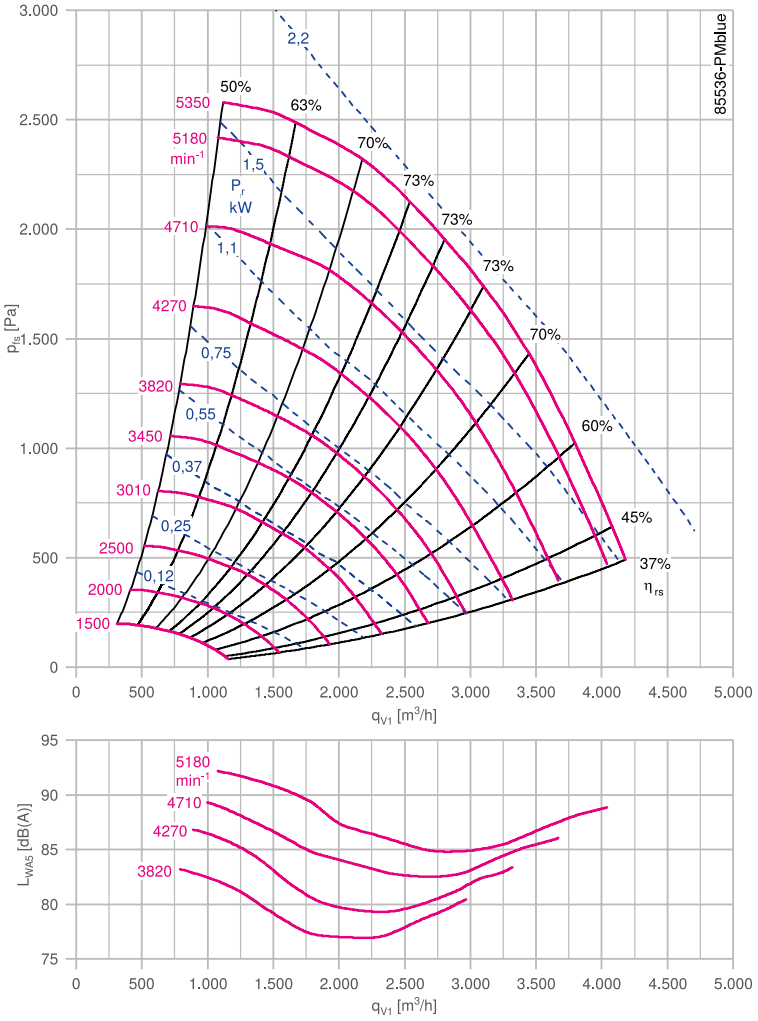
Description

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 (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

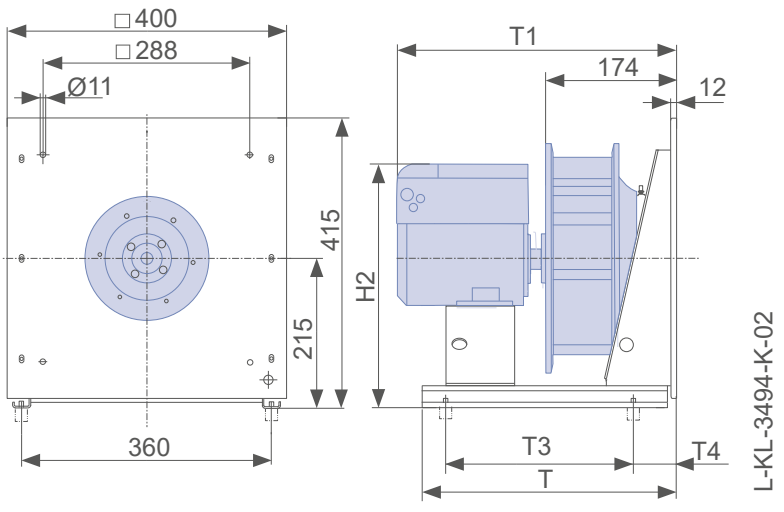
Nozzle coefficients

Standard k	60
With guard grille k_g	58
With inlet guide grille k_{ZAflow}	59

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual} *
2.20	**ER25C-6IN.A7.CR**	**116095/2P61**	071M	86.4	3.7-2.9	4500	5180	2.30	64.6	71.5

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER25C-6IN.A7.CR**	21.00	460	486	368	60	408	00403346	00411643	02021196	00090144	00415082

Plug fan Cpro

ER28Cpro

Motor PMblue IE4

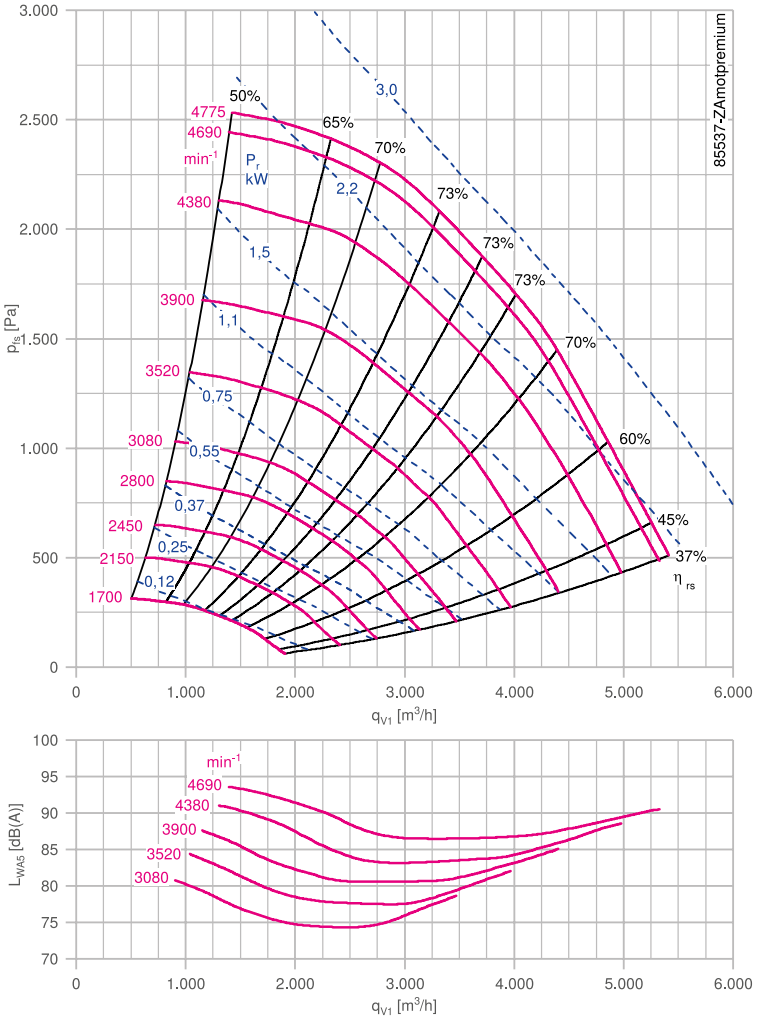
Description

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 (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

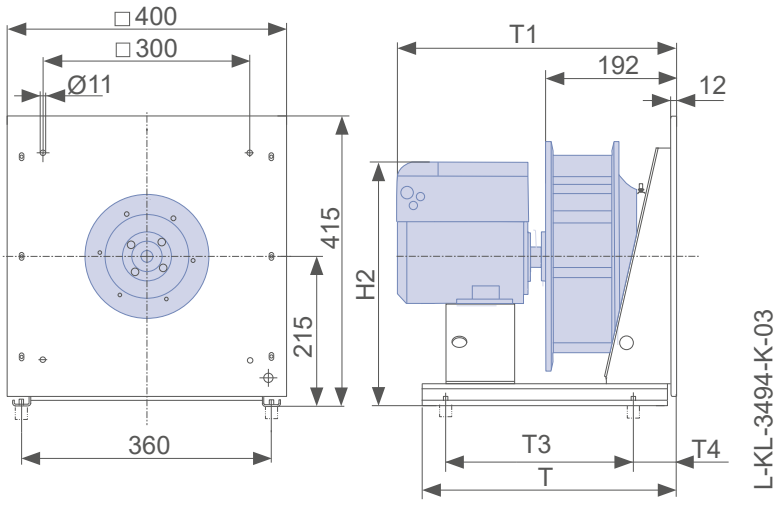
Nozzle coefficients

Standard k	75
With guard grille k_g	72
With inlet guide grille k_{ZAflow}	74

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.20	**ER28C-6IN.A7.CR**	**116096/2P61**	071M	86.4	4.0-3.1	4500	4380	2.40	64.7	71.2
3.00	**ER28C-6IN.A7.CR**	**116097/2P61**	071M	87.7	5.0-3.9	4500	4690	3.00	65.7	71.3

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER28C-6IN.A7.CR**	22.00	460	505	368	60	408	00406513	00411643	02021196	00090144	00415082
3.00	**ER28C-6IN.A7.CR**	23.00	460	505	368	60	408	00406513	00411643	02021196	00090144	00415082

Plug fan Cpro

ER31Cpro

Motor PMblue IE4

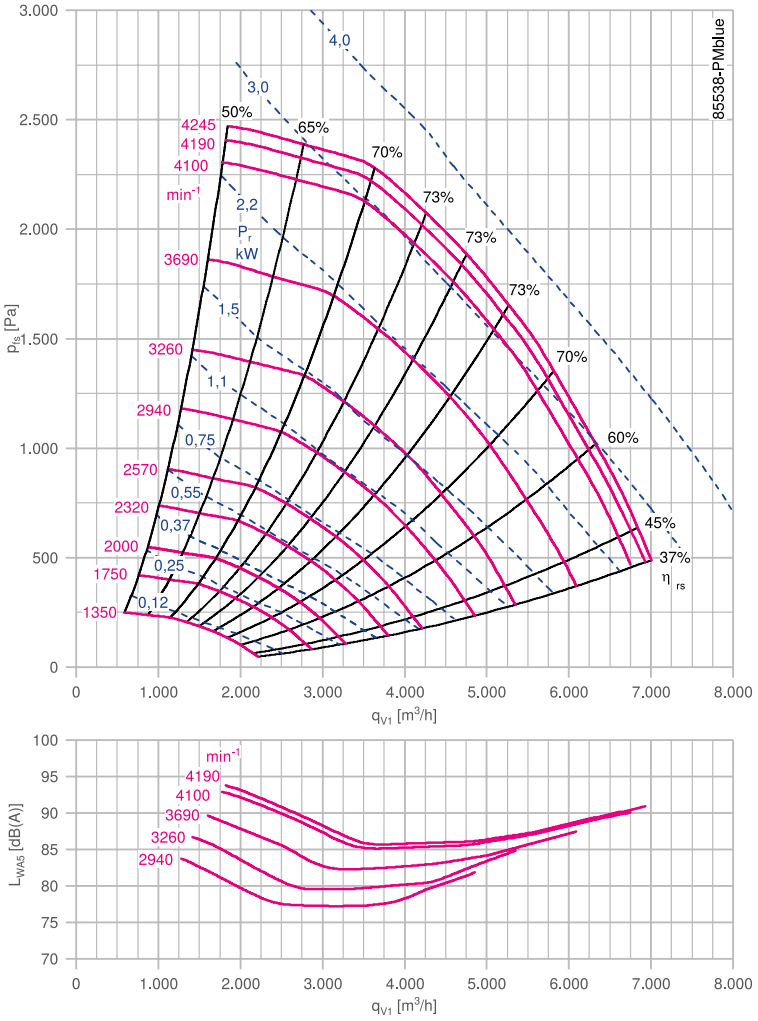
Description

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 (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

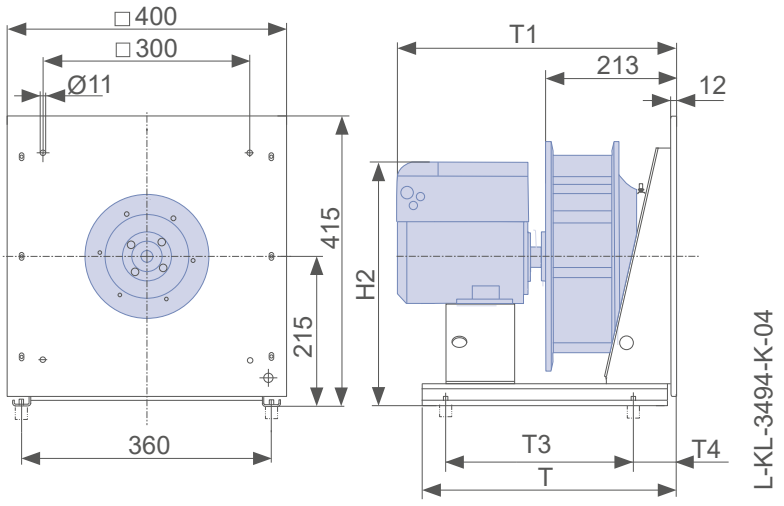
Nozzle coefficients

Standard k	95
With guard grille k_g	91
With inlet guide grille k_{ZAflow}	93

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.20	**ER31C-6IN.A7.CR**	**116098/2P61**	071M	86.4	5.2-3.3	3600	3690	2.60	64.7	70.8
4.00	**ER31C-8IN.C7.CR**	**116100/2P61**	090S/L	88.7	5.8-4.6	4500	4100	3.50	66.4	71.2

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER31C-6IN.A7.CR**	24.00	460	525	368	60	408	00406513	00411571	02021196	02001048	00415083
4.00	**ER31C-8IN.C7.CR**	29.00	570	525	473	60	428	00406513	00411571	02021196	00090144	00415083

Plug fan Cpro

ER35Cpro

Motor PMblue IE4

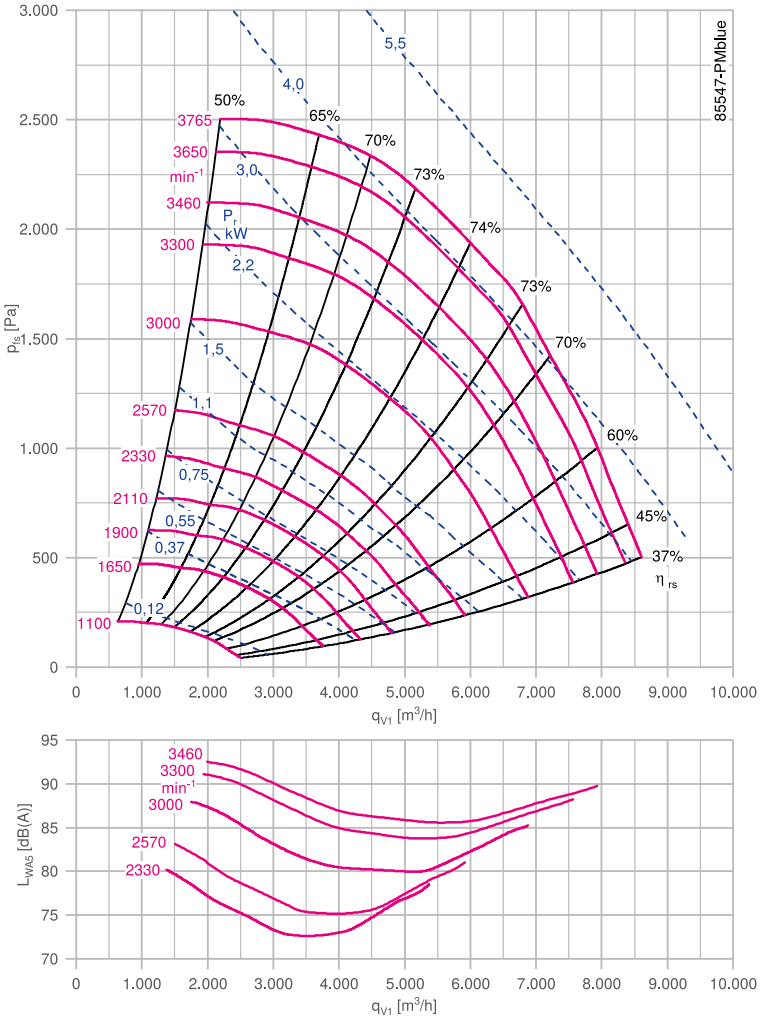
Description

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 (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

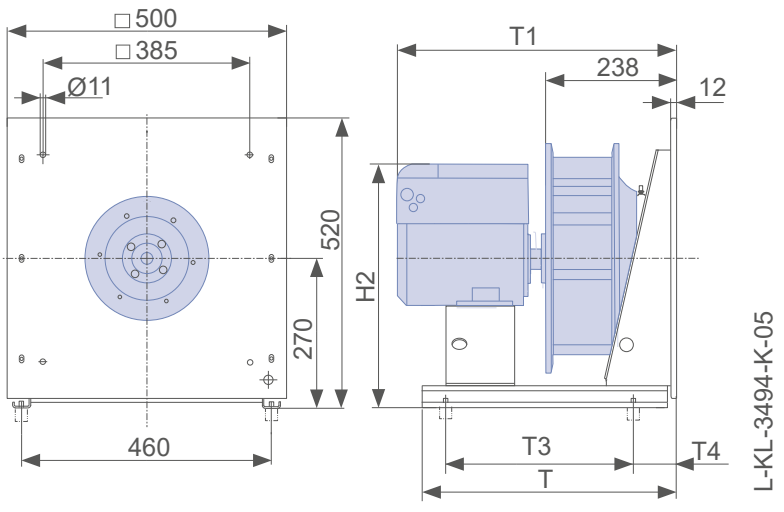
Nozzle coefficients

Standard k	121
With guard grille k_g	116
With inlet guide grille k_{ZAflow}	119

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.20	**ER35C-6IN.A7.CR**	**116101/2P61**	071M	86.4	4.2-3.3	3000	3000	2.50	65.7	71.9
4.00	**ER35C-8IN.C7.CR**	**116102/2P61**	090S/L	88.7	5.2-4.2	3600	3300	3.20	67.4	72.5
4.00	**ER35C-8IN.C7.CR**	**116103/2P61**	090S/L	88.7	6.2-5.0	3600	3460	3.70	67.4	71.8

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER35C-6IN.A7.CR**	28.00	570	548	315	115	463	00406514	00411572	02021197	00090144	00415083
4.00	**ER35C-8IN.C7.CR**	35.00	570	548	368	115	483	00406514	00411572	02021197	00090144	00415083
4.00	**ER35C-8IN.C7.CR**	35.00	570	548	368	115	483	00406514	00411572	02021197	00090144	00415083

Plug fan Cpro

ER40Cpro

Motor PMblue IE4

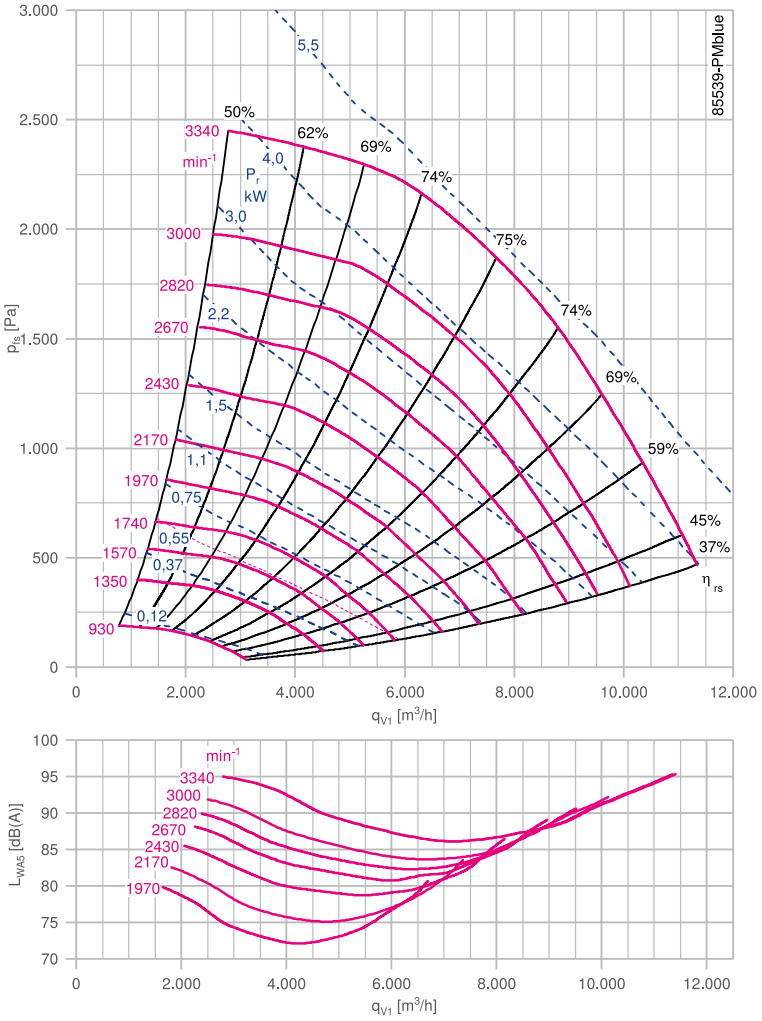
Description

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 (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

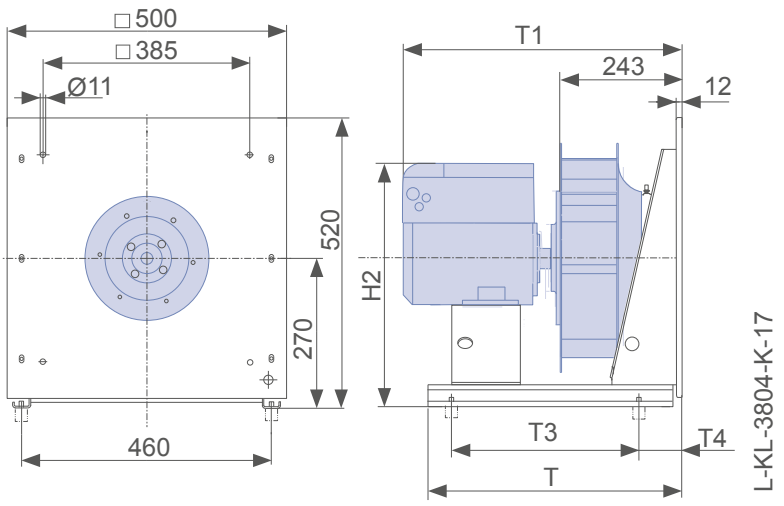
Nozzle coefficients

Standard k	154
With guard grille k_g	148
With inlet guide grille k_{ZAflow}	151

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
3.00	**ER40C-8IN.C7.CR**	**116104/2P61**	090S/L	87.7	3.8-3.0	3000	2430	2.30	67.4	74.0
4.00	**ER40C-8IN.C7.CR**	**116105/2P61**	090S/L	88.7	5.0-3.9	3000	2670	3.10	68.2	73.5
4.00	**ER40C-8IN.C7.CR**	**116106/2P61**	090S/L	88.7	6.0-4.8	3000	2820	3.60	68.2	72.8
5.30	**ER40C-8IN.D7.CR**	**115617/2P61**	090L	92.2	9.4-7.6	3300	3340	6.00	70.9	73.3

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
3.00	**ER40C-8IN.C7.CR**	35.00	570	575	368	115	483	00406514	00411573	02021197	00090144	00415084
4.00	**ER40C-8IN.C7.CR**	37.00	570	576	368	115	482	00406514	00411573	02021197	00090144	00415084
4.00	**ER40C-8IN.C7.CR**	37.00	570	576	368	115	482	00406514	00411573	02021197	00090144	00415084
5.30	**ER40C-8IN.D7.CR**	43.00	570	631	420	115	496	00406514	00411573	02021197	00090144	00415084

Plug fan Cpro

ER45Cpro

Motor PMblue IE4

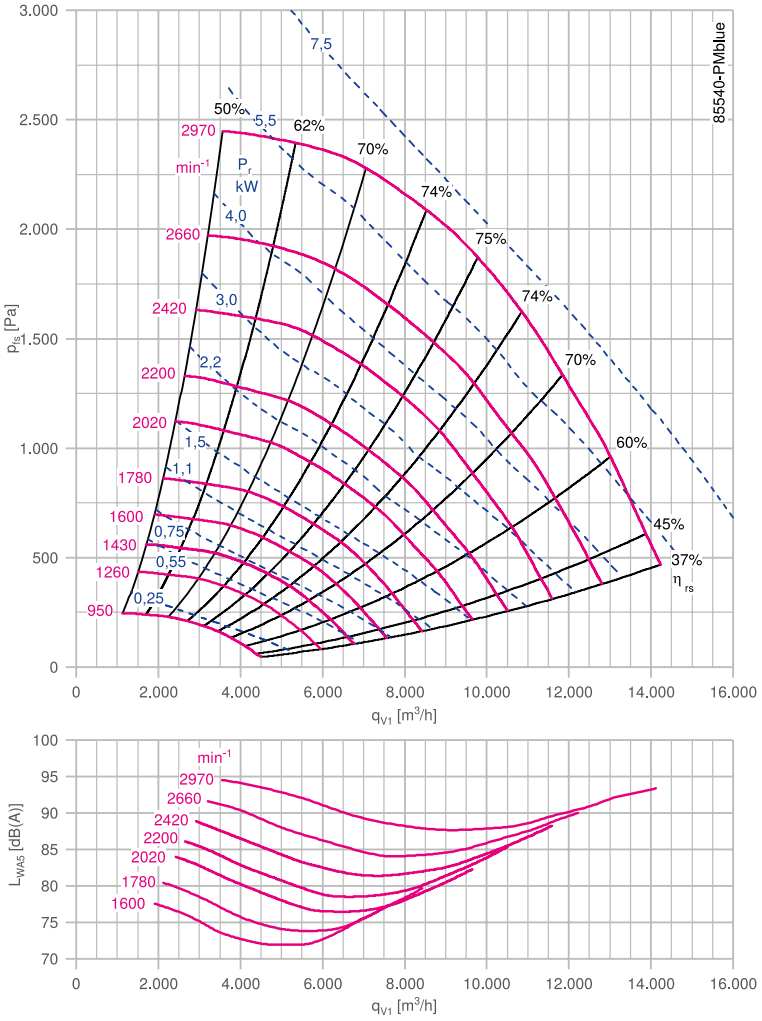
Description

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 (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

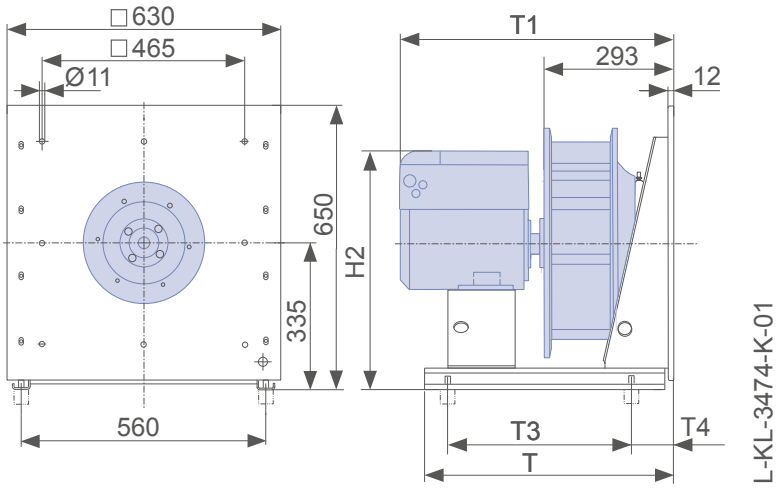
Nozzle coefficients

Standard k	197
With guard grille k_g	189
With inlet guide grille k_{ZAflow}	193

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.20	**ER45C-8IN.C7.CR**	**116107/2P61**	090S/L	88.1	3.9-3.1	1800	2020	2.40	67.7	74.1
5.30	**ER45C-8IN.D7.CR**	**115618/2P61**	090L	92.3	8.8-7.0	2730	2660	5.40	70.9	73.7
5.50	**ER45C-8IN.C7.CR**	**116109/2P61**	090S/L	89.7	5.4-4.4	3000	2200	3.10	68.9	74.2
6.91	**ER45C-6IN.F7.CR**	**115619/2P61**	112M	92.8	13.0-10.0	3000	2970	7.60	71.3	72.6

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER45C-8IN.C7.CR**	45.00	570	610	368	115	547	00406515	00411574	02021197	02000124	00415084
5.30	**ER45C-8IN.D7.CR**	52.00	570	666	420	115	561	00406515	00411574	02021198	02000124	00415084
5.50	**ER45C-8IN.C7.CR**	50.00	570	609	420	115	548	00406515	00411574	02021198	02000124	00415084
6.91	**ER45C-6IN.F7.CR**	64.00	720	671	525	115	584	00406515	00411574	02021198	02000124	00415084

Plug fan Cpro

ER50Cpro

Motor PMblue IE4

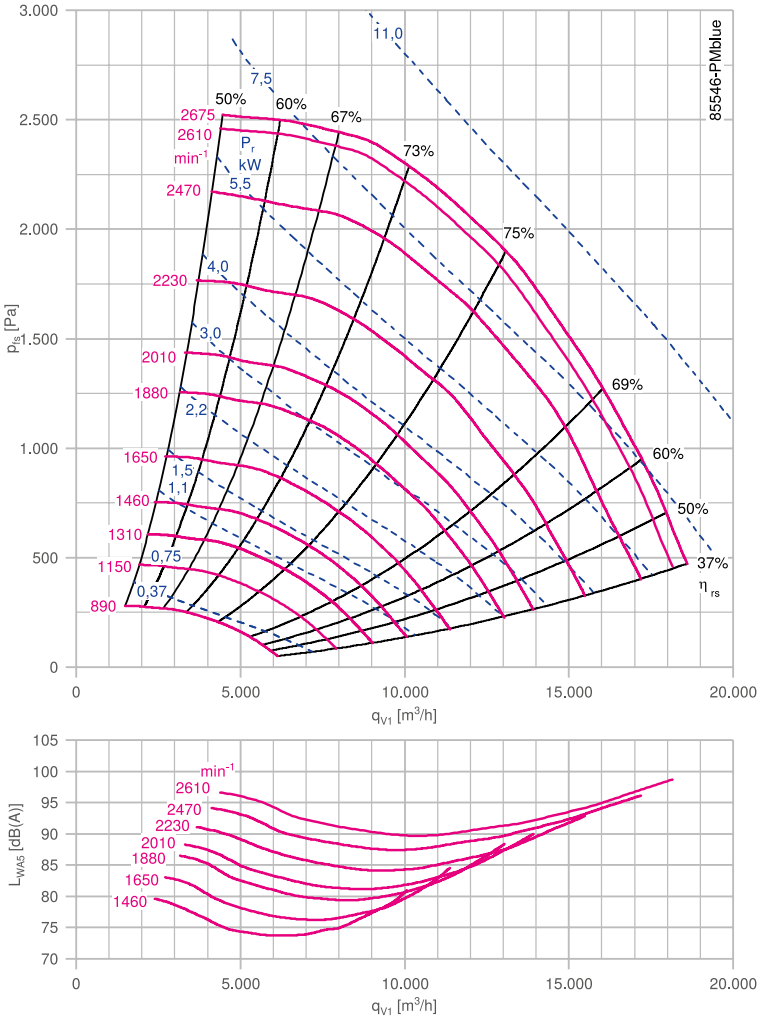
Description

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 (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

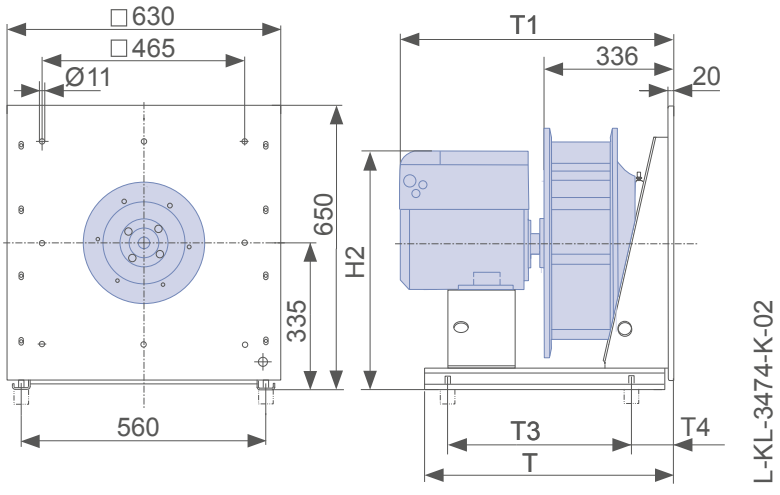
Nozzle coefficients

Standard k	252
With guard grille k_g	242
With inlet guide grille k_{ZAflow}	247

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
3.00	**ER50C-8IN.C7.CR**	**116110/2P61**	090S/L	89.1	4.0-3.2	1800	1650	2.40	68.3	74.8
4.00	**ER50C-8IN.C7.CR**	**116112/2P61**	090S/L	89.9	5.6-4.4	1800	1880	3.40	69	73.7
5.37	**ER50C-6IN.F7.CR**	**115620/2P61**	112M	91.8	9.6-7.6	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	70.9

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
3.00	**ER50C-8IN.C7.CR**	49.00	728	659	473	115	547	00406515	00411575	02021197	00090144	00415085
4.00	**ER50C-8IN.C7.CR**	53.00	728	653	473	115	547	00406515	00411575	02021197	02000124	00415085
5.37	**ER50C-6IN.F7.CR**	66.00	728	713	578	115	584	00406515	00411575	02021198	02000124	00415085
7.36	**ER50C-6IN.F7.CR**	69.00	728	713	578	115	584	00406515	00411575	02021198	02000124	00415085
9.00	**ER50C-6IN.F7.CR**	82.00	728	792	578	115	644	00406515	00411575	02021198	02000124	00415085

Plug fan Cpro

ER56Cpro

Motor PMblue IE4

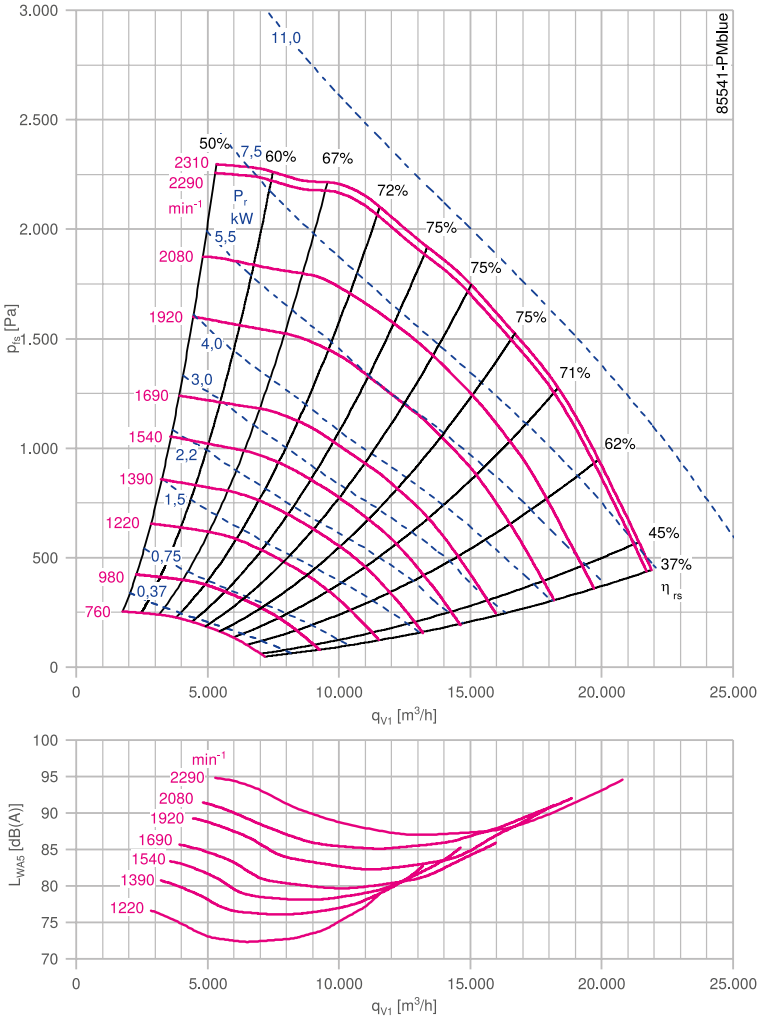
Description

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 (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

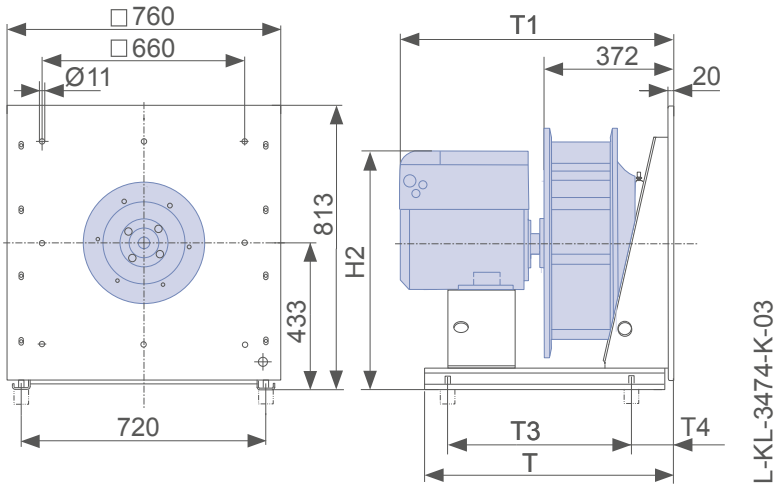
Nozzle coefficients

Standard k	308
With guard grille k_g	295
With inlet guide grille k_{ZAflow}	302

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
3.00	**ER56C-8IN.C7.CR**	**116113/2P61**	090S/L	89.1	3.9-3.1	1500	1390	2.40	68.5	75.0
3.00	**ER56C-8IN.C7.CR**	**116114/2P61**	090S/L	89.1	5.2-4.2	1500	1540	3.30	68.5	73.6
4.00	**ER56C-6IN.F7.CR**	**116115/2P61**	112M	89.9	6.6-5.2	1500	1690	4.20	69.1	73
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	71.9
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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
3.00	**ER56C-8IN.C7.CR**	59.00	720	688	473	115	645	00405986	00411644	02021198	00090144	00415085
3.00	**ER56C-8IN.C7.CR**	59.00	720	688	473	115	645	00405986	00411644	02021198	00090144	00415085
4.00	**ER56C-6IN.F7.CR**	73.00	720	727	525	115	669	00405986	00411644	02021199	02000124	00415085
5.45	**ER56C-6IN.F7.CR**	79.00	720	749	578	115	682	00405986	00411644	02021199	02000124	00415085
7.37	**ER56C-6IN.F7.CR**	79.00	720	749	578	115	682	00405986	00411644	02021199	02000124	00415085
9.80	**ER56C-6IN.F7.CR**	95.00	720	828	578	115	742	00405986	00411644	02018876	00407339	00415085

Plug fan Cpro

ER63Cpro

Motor PMblue IE4

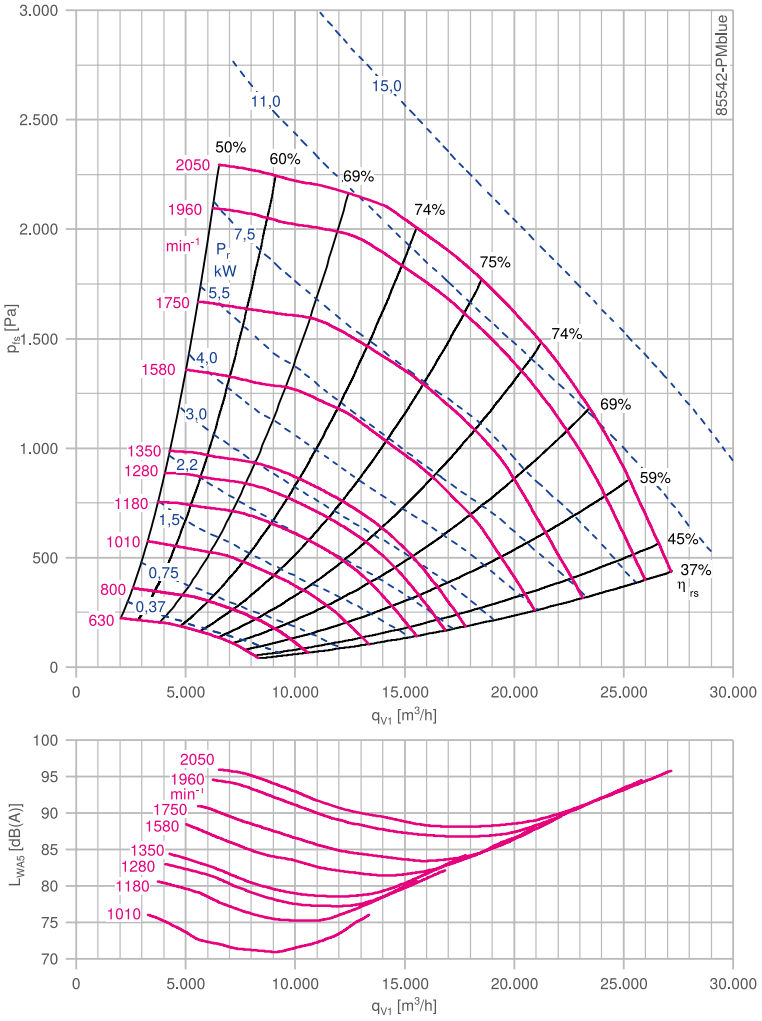
Description

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 (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

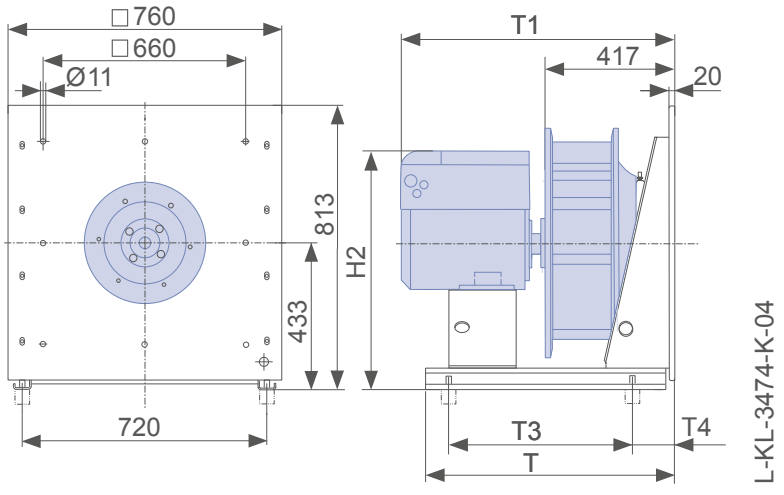
Nozzle coefficients

Standard k	381
With guard grille k_g	365
With inlet guide grille k_{ZAflow}	373

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
3.00	**ER63C-8IN.C7.CR**	**116116/2P61**	090S/L	89.1	4.4-3.5	1500	1180	2.70	68.4	74.5
4.00	**ER63C-6IN.F7.CR**	**116117/2P61**	112M	89.9	6.6-5.2	1500	1350	3.90	69.0	73.3
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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
3.00	**ER63C-8IN.C7.CR**	67.00	720	724	473	115	645	00405986	00411645	02021198	00090144	00415086
4.00	**ER63C-6IN.F7.CR**	82.00	720	767	578	115	668	00405986	00411645	02021198	02000124	00415086
5.26	**ER63C-6IN.F7.CR**	86.00	720	789	578	115	682	00405986	00411645	02021199	02000124	00415086
7.32	**ER63C-6IN.F7.CR**	89.00	720	789	578	115	682	00405986	00411645	02021199	02000124	00415086
10.80	**ER63C-6IN.F7.CR**	106.00	720	868	578	115	742	00405986	00411645	02021199	02020907	00415086
12.34	**ER63C-6IN.H7.CR**	129.00	880	881	735	115	757	00405986	00411645	02018876	02020907	00415086

Plug fan Cpro

ZAmotpremium IE3

Product overview

Plug fan Cpro

ER25Cpro

Motor ZAmotpremium IE3

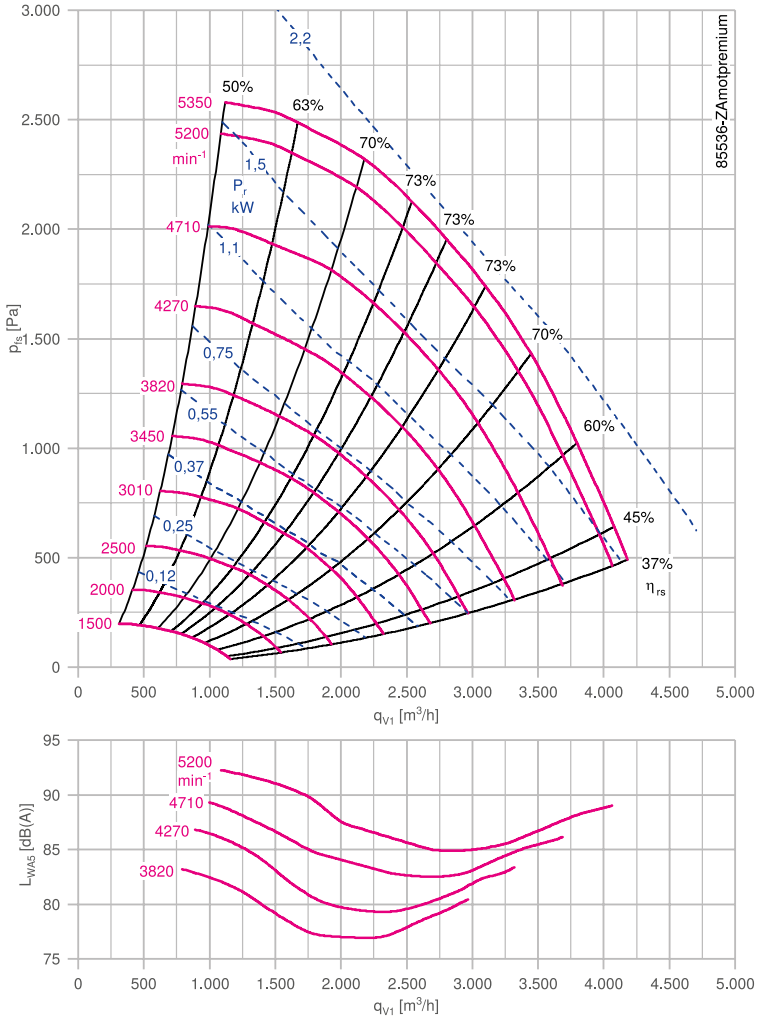
Description

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 (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

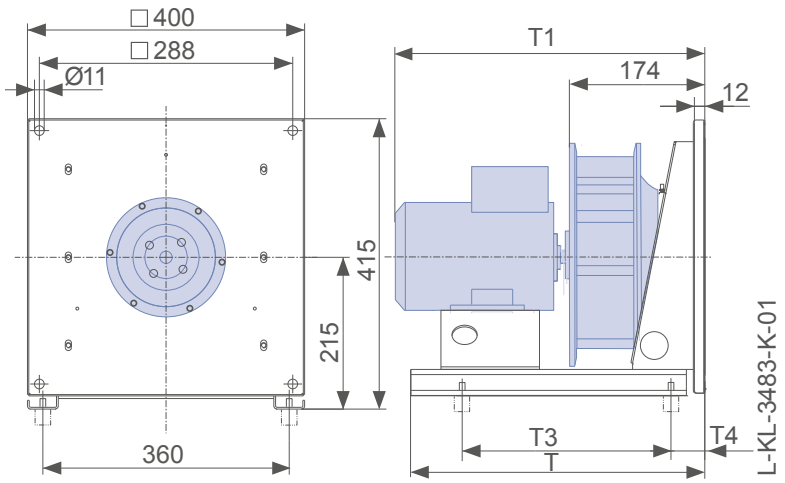
Nozzle coefficients

Standard k	60
With guard grille k_g	58
With inlet guide grille k_{ZAflow}	59

Characteristic curve



Dimensions mm



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
1.10	**ER25C-2DN.B7.CR**	**130610/2141**	080M	82.7	2.20	2885	4270	74	61.9	71.2
1.50	**ER25C-2DN.C7.CR**	**130611/2141**	090S/L	84.2	3.00	2910	4710	81	63.0	71.0
2.20	**ER25C-2DN.D7.CR**	**130612/2141**	090L/S	85.9	4.20	2910	5240	90	64.2	71.0

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
0.75	**ER25C-2DN.B7.CR**	22.00	460	451	368	60	00403346	00411643	02021195	00090144	308228	00415082
1.10	**ER25C-2DN.B7.CR**	23.00	460	486	368	60	00403346	00411643	02021195	00090144	308228	00415082
1.50	**ER25C-2DN.C7.CR**	26.00	460	496	368	60	00403346	00411643	02021196	00090144	308230	00415082
2.20	**ER25C-2DN.D7.CR**	30.00	460	536	368	60	00403346	00411643	02021196	00090144	308232	00415082

Plug fan Cpro

ER28Cpro

Motor ZAmotpremium IE3

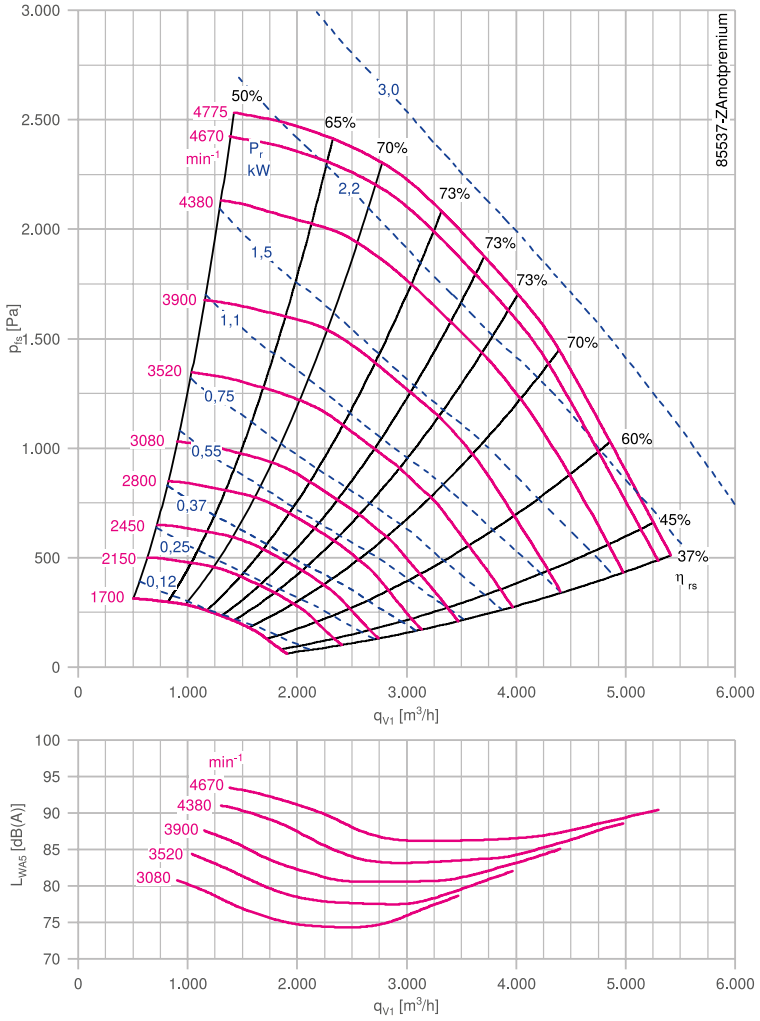
Description

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 (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

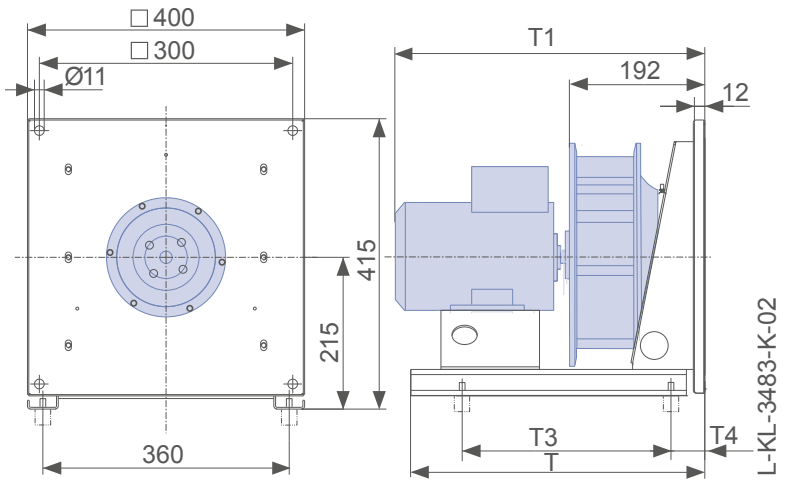
Nozzle coefficients

Standard k	75
With guard grille k_g	72
With inlet guide grille k_{ZAflow}	74

Characteristic curve



Dimensions mm



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
1.10	**ER28C-2DN.B7.CR**	**130605/2141**	080M	82.7	2.20	2885	3520	61	62.0	71.3
1.50	**ER28C-2DN.C7.CR**	**130606/2141**	090S/L	84.2	3.00	2910	3900	67	63.1	71.0
2.20	**ER28C-2DN.D7.CR**	**130607/2141**	090L/S	85.9	4.20	2910	4370	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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
0.75	**ER28C-2DN.B7.CR**	23.00	460	468	368	60	00406513	00411643	02021195	00090144	308228	00415082
1.10	**ER28C-2DN.B7.CR**	24.00	460	503	368	60	00406513	00411643	02021195	00090144	308228	00415082
1.50	**ER28C-2DN.C7.CR**	27.00	460	513	368	60	00406513	00411643	02021196	00090144	308230	00415082
2.20	**ER28C-2DN.D7.CR**	31.00	460	553	368	60	00406513	00411643	02021196	00090144	308232	00415082
3.00	**ER28C-2DN.E7.CR**	39.00	570	587	473	60	00406513	00411643	02021196	00090144	308234	00415082

Plug fan Cpro

ER31Cpro

Motor ZAmotpremium IE3

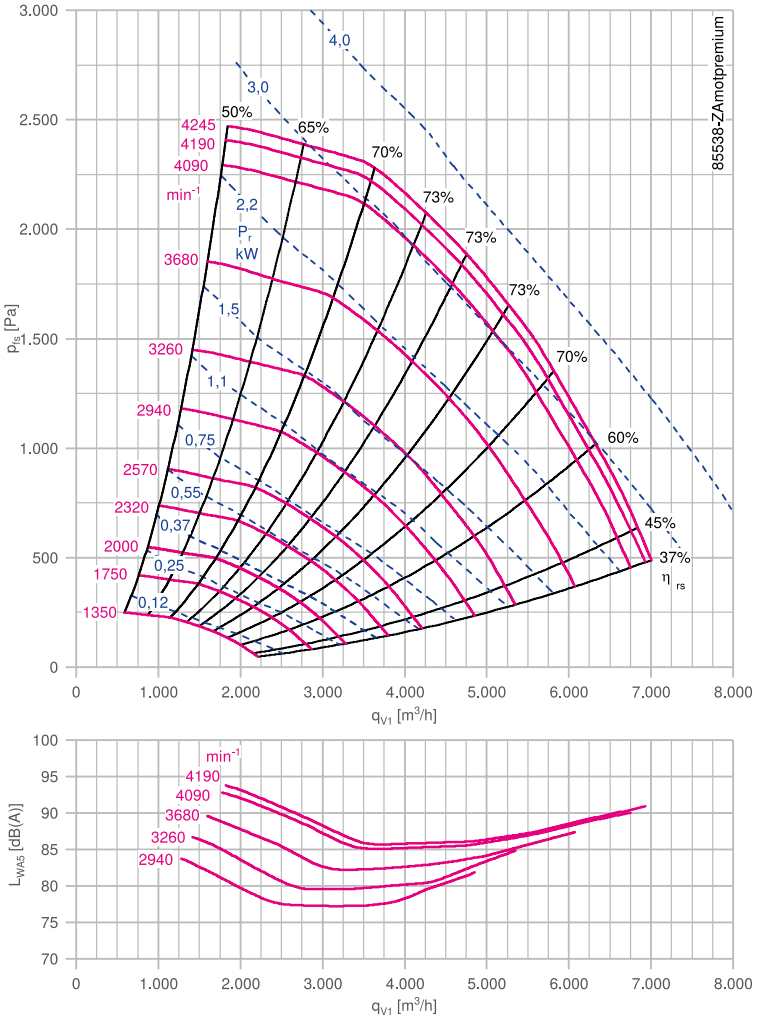
Description

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 (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

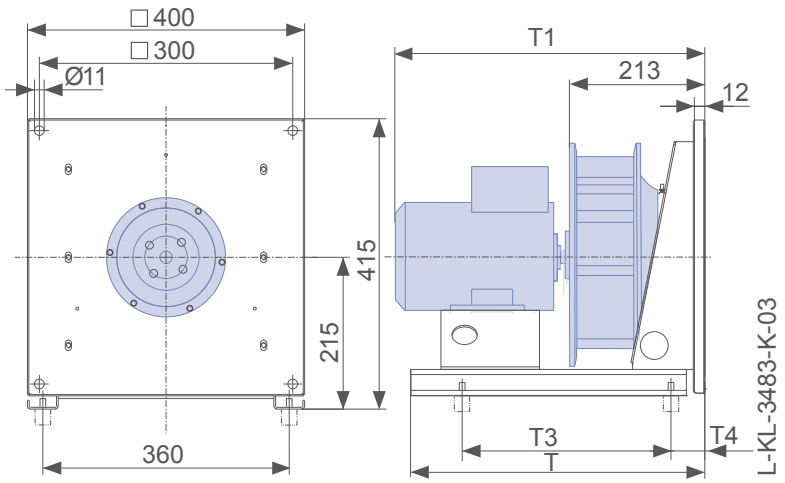
Nozzle coefficients

Standard k	95
With guard grille k_g	91
With inlet guide grille k_{ZAflow}	93

Characteristic curve



Dimensions mm



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}*
1.10	**ER31C-2DN.B7.CR**	**130599/2141**	080M	82.7	2.20	2885	2940	51	61.9	70.9
1.50	**ER31C-2DN.C7.CR**	**130600/2141**	090S/L	84.2	3.00	2910	3260	56	63.0	70.7
2.20	**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	4180	71	65.9	70.4

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER31C-2DN.B7.CR**	24.00	460	524	368	60	00406513	00411571	02021195	00090144	308228	00415083
1.50	**ER31C-2DN.C7.CR**	28.00	570	534	420	60	00406513	00411571	02021195	00090144	308230	00415083
2.20	**ER31C-2DN.D7.CR**	32.00	570	574	473	60	00406513	00411571	02021196	00090144	308232	00415083
3.00	**ER31C-2DN.E7.CR**	40.00	570	607	473	60	00406513	00411571	02021196	00090144	308234	00415083
4.00	**ER31C-2DN.F7.CR**	48.00	570	591	473	60	00406513	00411571	02021196	00090144	308236	00415083

Plug fan Cpro

ER35Cpro

Motor ZAmotpremium IE3

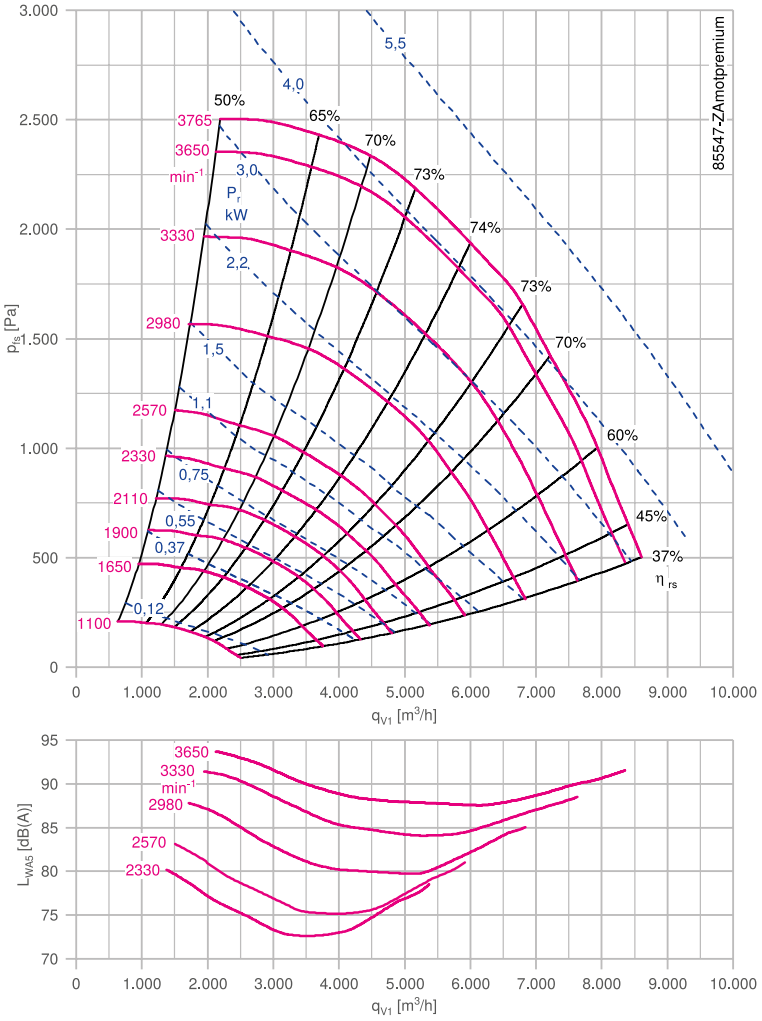
Description

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 (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

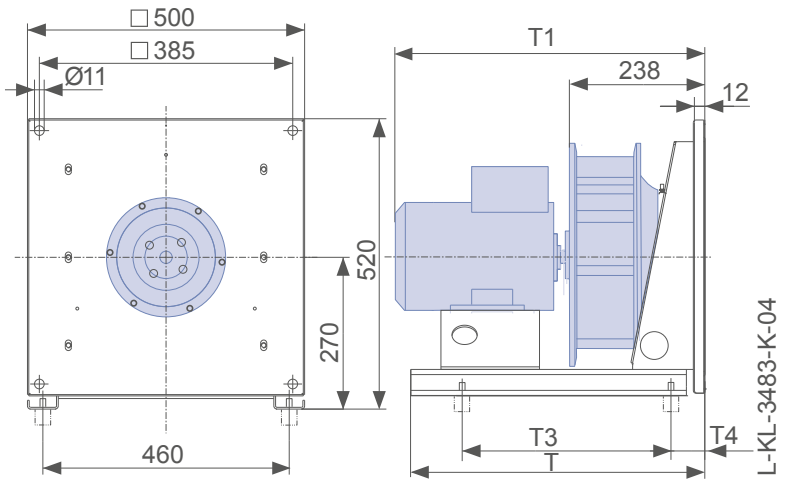
Nozzle coefficients

Standard k	121
With guard grille k_g	116
With inlet guide grille k_{ZAflow}	119

Characteristic curve



Dimensions mm



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}*
1.10	**ER35C-4DN.C7.CR**	**131399/2141**	090S/L	84.1	2.40	1440	2330	81	63.9	73.5
1.50	**ER35C-4DN.D7.CR**	**130595/2141**	090L/S	85.3	3.20	1445	2570	89	64.9	73.2
2.20	**ER35C-2DN.D7.CR**	**130596/2141**	090L/S	85.9	4.20	2910	2970	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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER35C-4DN.C7.CR**	32.00	570	556	315	115	00406514	00411572	02021196	00090144	308228	00415083
1.50	**ER35C-4DN.D7.CR**	35.00	570	581	368	115	00406514	00411572	02021197	00090144	308230	00415083
2.20	**ER35C-2DN.D7.CR**	35.00	570	596	368	115	00406514	00411572	02021197	00090144	308232	00415083
3.00	**ER35C-2DN.E7.CR**	44.00	570	630	420	115	00406514	00411572	02021197	00090144	308234	00415083
4.00	**ER35C-2DN.F7.CR**	51.00	570	613	420	115	00406514	00411572	02021197	00090144	308236	00415083

Plug fan Cpro

ER40Cpro

Motor ZAmotpremium IE3

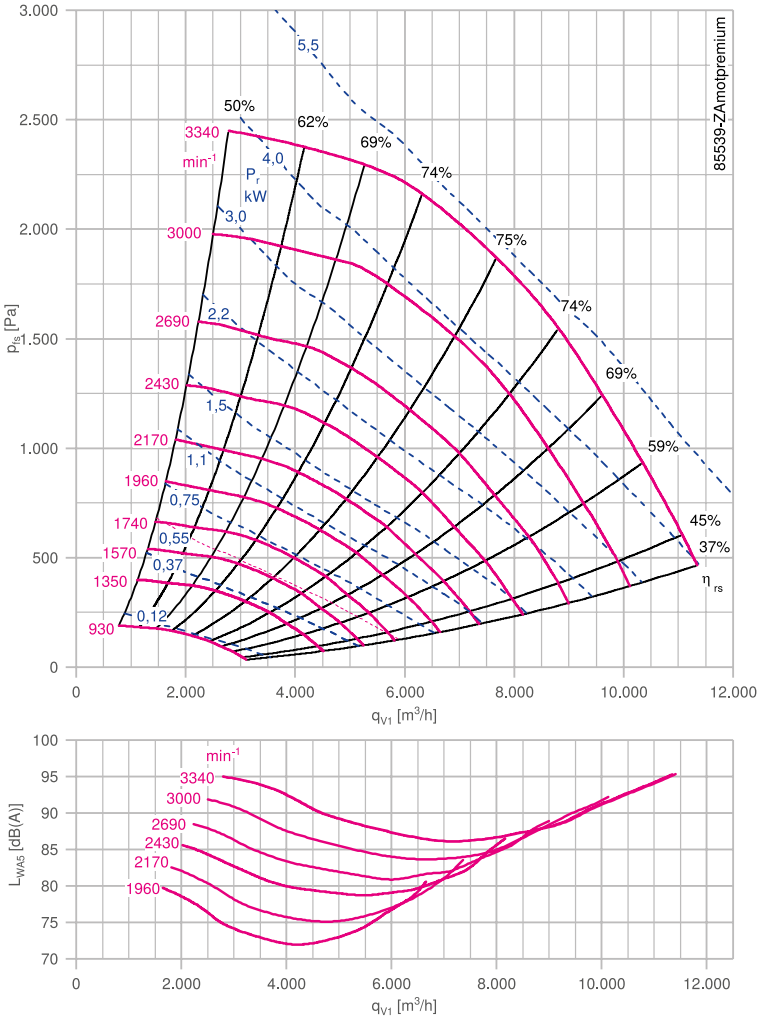
Description

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 (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

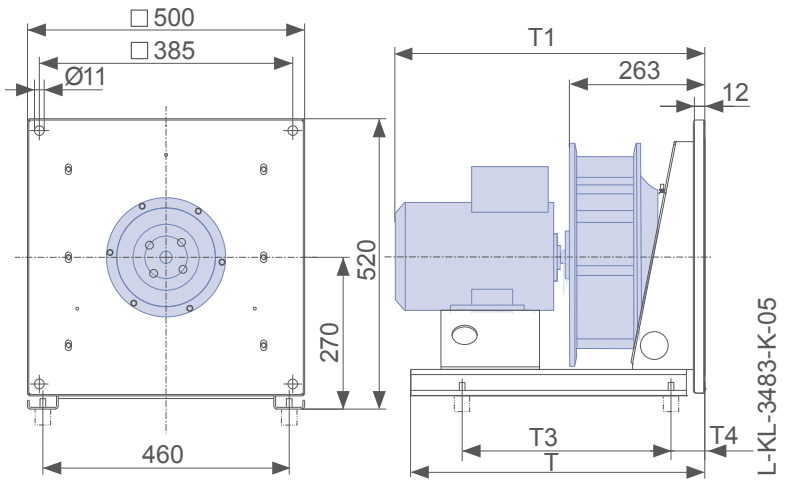
Nozzle coefficients

Standard k	154
With guard grille k_g	148
With inlet guide grille k_{ZAflow}	151

Characteristic curve



Dimensions mm



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}*
1.10	**ER40C-4DN.C7.CR**	**130589/2141**	090S/L	84.1	2.40	1440	1960	68	64.7	74.0
1.50	**ER40C-4DN.D7.CR**	**130590/2141**	090L/S	85.3	3.20	1445	2170	75	65.6	73.6
2.20	**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	51	67.7	71.4
5.50	**ER40C-2DN.G7.CR**	**130594/2141**	132S/M	89.2	9.90	2950	3340	57	68.6	70.9

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER40C-4DN.C7.CR**	34.00	570	583	368	115	00406514	00411573	02021196	00090144	308228	00415084
1.50	**ER40C-4DN.D7.CR**	37.00	570	608	368	115	00406514	00411573	02021196	00090144	308230	00415084
2.20	**ER40C-4DN.E7.CR**	49.00	570	622	420	115	00406514	00411573	02021197	00090144	308232	00415084
3.00	**ER40C-4DN.E7.CR**	49.00	570	657	420	115	00406514	00411573	02021197	00090144	308234	00415084
4.00	**ER40C-2DN.F7.CR**	54.00	720	640	473	115	00406514	00411573	02021197	00090144	308236	00415084
5.50	**ER40C-2DN.G7.CR**	66.00	720	676	473	115	00406514	00411573	02021197	00090144	308265	00415084

Plug fan Cpro

ER45Cpro

Motor ZAmotpremium IE3

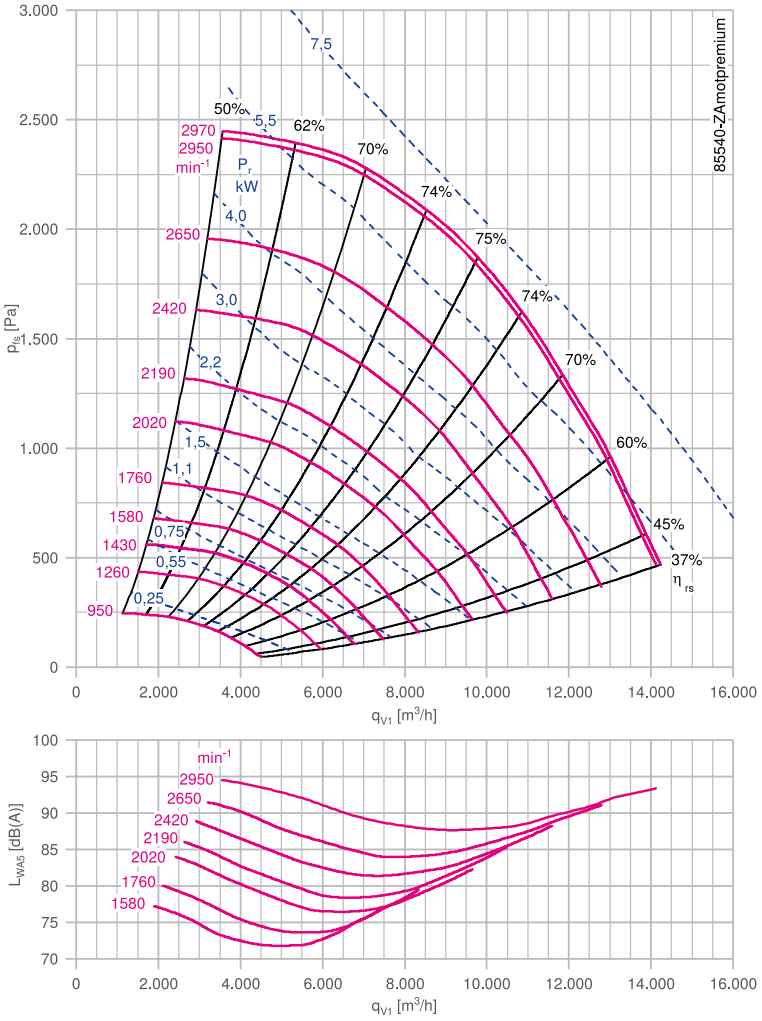
Description

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 (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

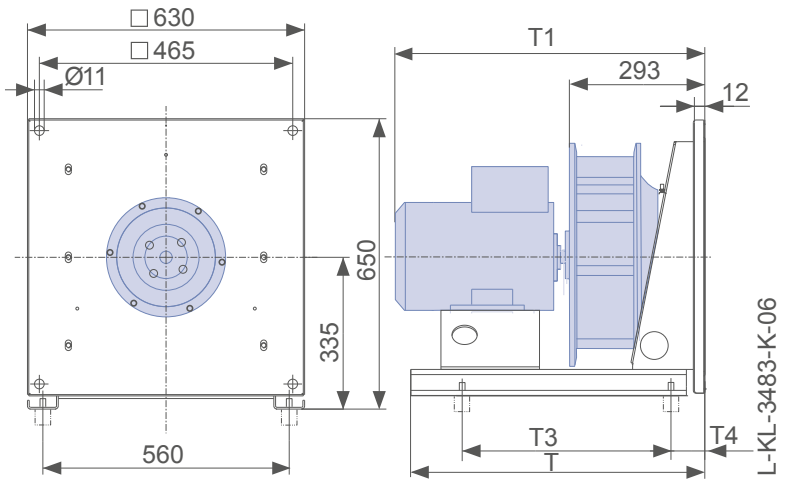
Nozzle coefficients

Standard k	197
With guard grille k_g	189
With inlet guide grille k_{ZAflow}	193

Characteristic curve



Dimensions mm



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}*
1.10	**ER45C-4DN.C7.CR**	**130582/2141**	090S/L	84.1	2.40	1440	1580	55	64.6	74.1
1.50	**ER45C-4DN.D7.CR**	**130583/2141**	090L/S	85.3	3.20	1445	1760	61	65.5	73.6
2.20	**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
5.50	**ER45C-4DN.G7.CR**	**130587/2141**	132S	89.6	10.50	1470	2650	90	68.8	71.6
7.50	**ER45C-2DN.G7.CR**	**130588/2141**	132S	90.1	13.10	2950	2950	50	69.2	70.5

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER45C-4DN.C7.CR**	44.00	570	618	368	115	00406515	00411574	02021197	00090144	308228	00415084
1.50	**ER45C-4DN.D7.CR**	47.00	570	643	368	115	00406515	00411574	02021197	00090144	308230	00415084
2.20	**ER45C-4DN.E7.CR**	59.00	570	656	420	115	00406515	00411574	02021197	00090144	308232	00415084
3.00	**ER45C-4DN.E7.CR**	59.00	570	691	420	115	00406515	00411574	02021197	00090144	308234	00415084
4.00	**ER45C-4DN.F7.CR**	63.00	720	675	473	115	00406515	00411574	02021198	02000124	308236	00415084
5.50	**ER45C-4DN.G7.CR**	94.00	720	756	578	115	00406515	00411574	02021198	02000124	308265	00415084
7.50	**ER45C-2DN.G7.CR**	87.00	720	756	578	115	00406515	00411574	02021198	02000124	308267	00415084

Plug fan Cpro

ER50Cpro

Motor ZAmotpremium IE3

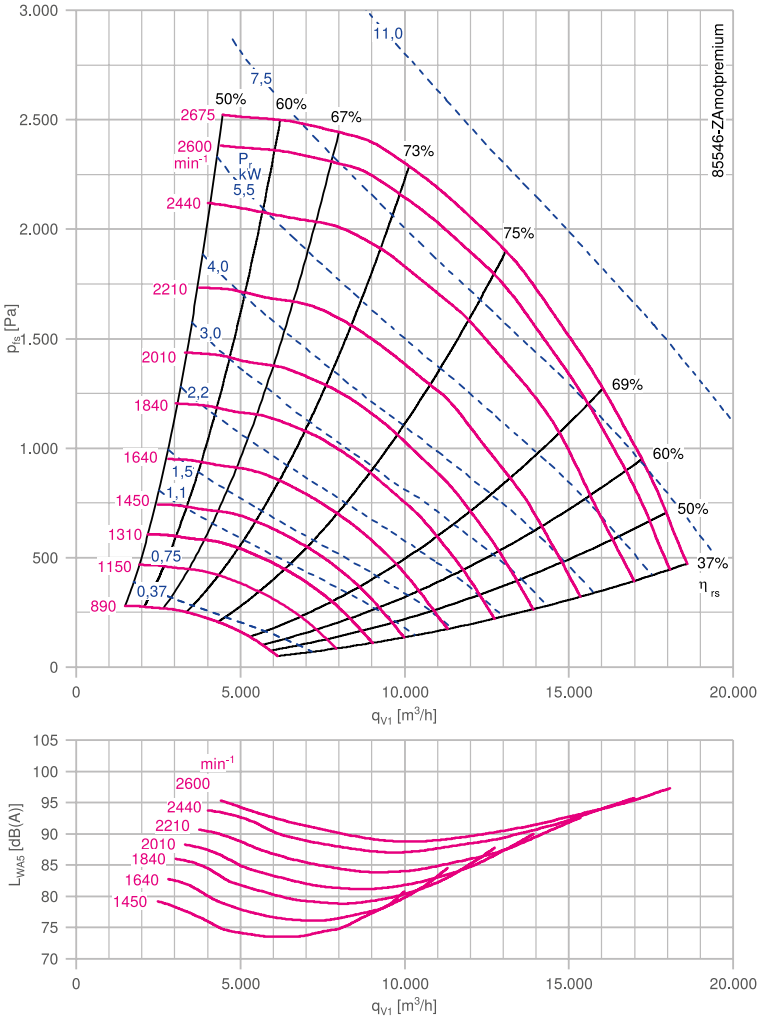
Description

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 (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

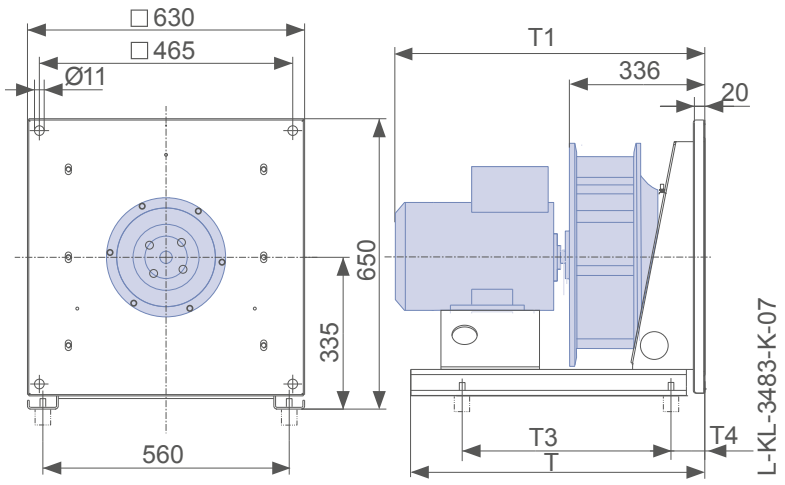
Nozzle coefficients

Standard k	252
With guard grille k_g	242
With inlet guide grille k_{ZAflow}	247

Characteristic curve



Dimensions mm



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}*
1.50	**ER50C-4DN.D7.CR**	**130575/2141**	090L/S	85.3	3.20	1445	1450	50	65.5	73.6
2.20	**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
5.50	**ER50C-4DN.G7.CR**	**130579/2141**	132S	89.6	10.50	1470	2210	75	68.7	71.2
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.50	**ER50C-4DN.D7.CR**	50.00	728	685	420	115	00406515	00411575	02021197	00090144	308230	00415085
2.20	**ER50C-4DN.E7.CR**	62.00	728	699	525	115	00406515	00411575	02021197	00090144	308232	00415085
3.00	**ER50C-4DN.E7.CR**	62.00	728	734	525	115	00406515	00411575	02021197	00090144	308234	00415085
4.00	**ER50C-4DN.F7.CR**	66.00	728	717	473	115	00406515	00411575	02021197	02000124	308236	00415085
5.50	**ER50C-4DN.G7.CR**	96.00	728	798	578	115	00406515	00411575	02021198	02000124	308265	00415085
7.50	**ER50C-4DN.H7.CR**	97.00	728	798	578	115	00406515	00411575	02021198	02000124	308267	00415085
11.00	**ER50C-4DN.I7.CR**	121.00	888	857	630	115	00406515	00411575	02021198	02000124	308323	00415085

Plug fan Cpro

ER56Cpro

Motor ZAmotpremium IE3

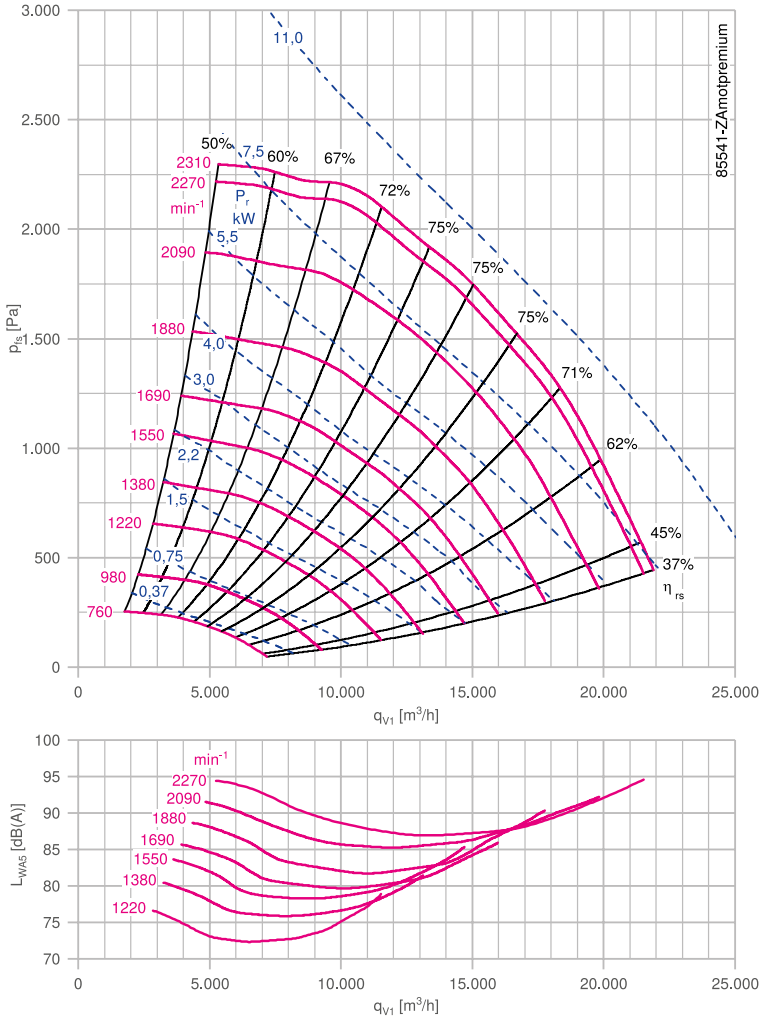
Description

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 (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

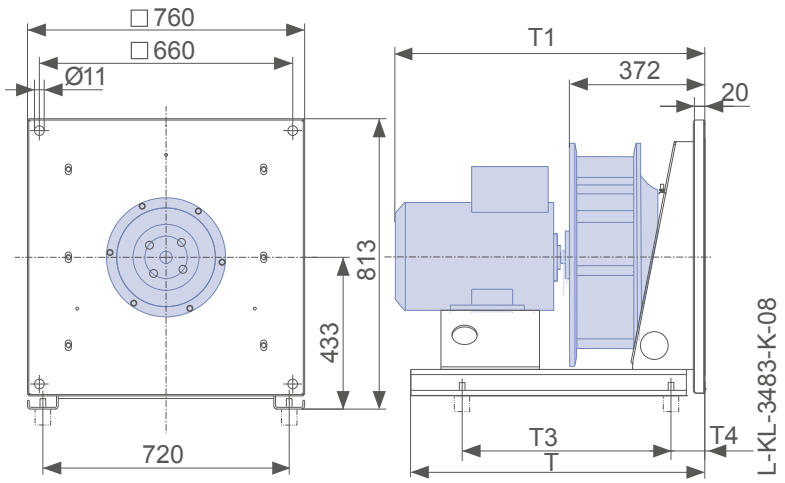
Nozzle coefficients

Standard k	308
With guard grille k_g	295
With inlet guide grille k_{ZAflow}	302

Characteristic curve



Dimensions mm



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}*
1.50	**ER56C-6DN.E7.CR**	**130568/2141**	100L	82.5	3.05	970	1220	63	63.4	71.3
2.20	**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	1,550	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
5.50	**ER56C-4DN.G7.CR**	**130572/2141**	132S	89.6	10.50	1470	1880	64	68.9	71.3
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.50	**ER56C-6DN.E7.CR**	72.00	720	769	525	115	00405986	00411644	02021198	00090144	308230	00415085
2.20	**ER56C-4DN.E7.CR**	71.00	720	734	525	115	00405986	00411644	02021198	00090144	308232	00415085
3.00	**ER56C-4DN.E7.CR**	72.00	720	769	525	115	00405986	00411644	02021198	02000124	308234	00415085
4.00	**ER56C-4DN.F7.CR**	76.00	720	753	525	115	00405986	00411644	02021199	02000124	308236	00415085
5.50	**ER56C-4DN.G7.CR**	109.00	880	834	683	115	00405986	00411644	02021199	02000124	308265	00415085
7.50	**ER56C-4DN.H7.CR**	109.00	880	834	683	115	00405986	00411644	02021199	00407339	308267	00415085
11.00	**ER56C-4DN.I7.CR**	134.00	880	893	735	115	00405986	00411644	02018876	00407339	308323	00415085

Plug fan Cpro

ER63Cpro

Motor ZAmotpremium IE3

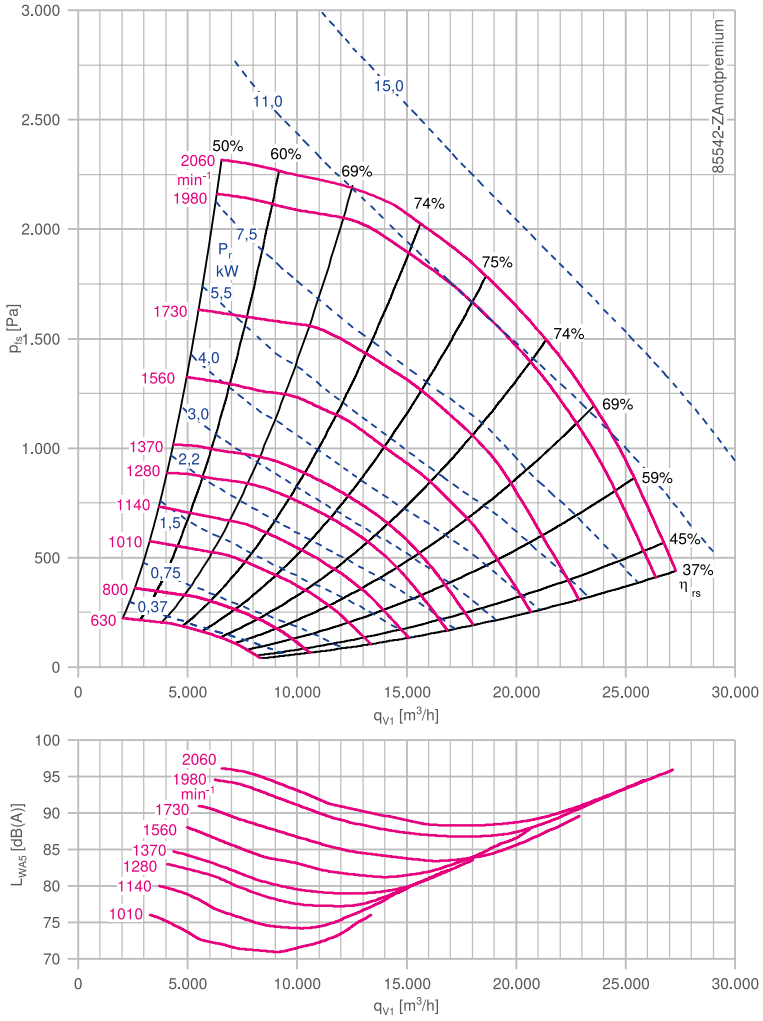
Description

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 (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

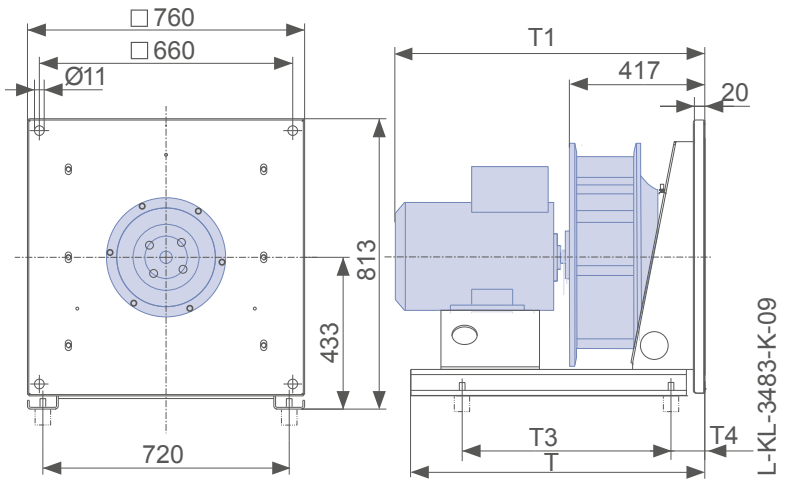
Nozzle coefficients

Standard k	381
With guard grille k_g	365
With inlet guide grille k_{ZAflow}	373

Characteristic curve



Dimensions mm

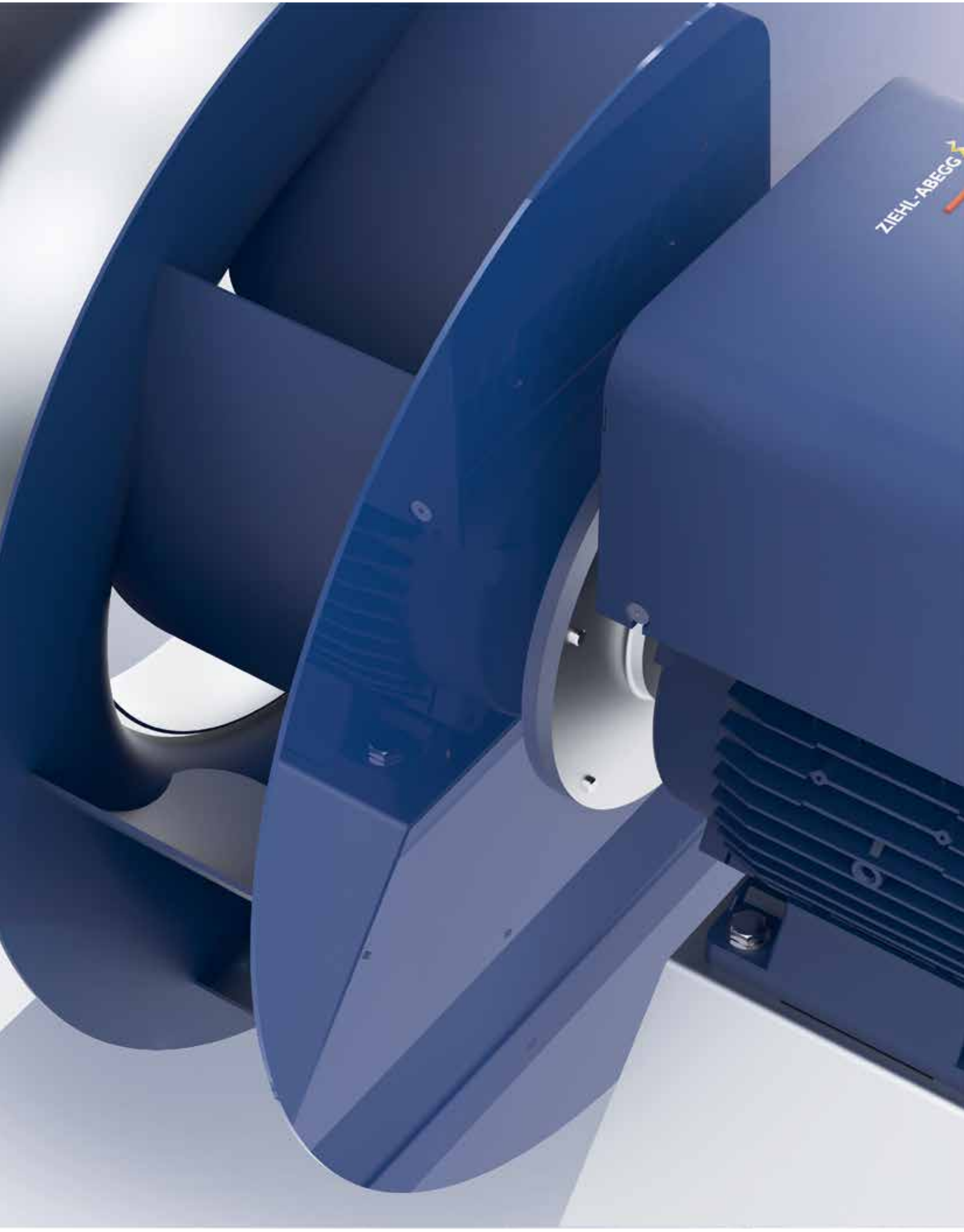


Cpro-ZAmotpremium IE3

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}*
1.50	**ER63C-6DN.E7.CR**	**130560/2141**	100L	82.5	3.05	970	1010	52	63.3	71.2
2.20	**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
5.50	**ER63C-4DN.G7.CR**	**130564/2141**	132S	89.6	10.50	1470	1560	53	68.8	71.1
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.50	**ER63C-6DN.E7.CR**	80.00	720	809	525	115	00405986	00411645	02021198	00090144	308230	00415086
2.20	**ER63C-6DN.F7.CR**	79.00	720	793	525	115	00405986	00411645	02021198	00090144	308232	00415086
3.00	**ER63C-6DN.G7.CR**	95.00	880	824	630	115	00405986	00411645	02021198	02000124	308234	00415086
4.00	**ER63C-4DN.F7.CR**	82.00	720	793	578	115	00405986	00411645	02021198	02000124	308236	00415086
5.50	**ER63C-4DN.G7.CR**	116.00	880	874	735	115	00405986	00411645	02021199	02000124	308265	00415086
7.50	**ER63C-4DN.H7.CR**	116.00	880	874	735	115	00405986	00411645	02021199	02020907	308267	00415086
11.00	**ER63C-4DN.I7.CR**	142.00	880	933	683	115	00405986	00411645	02021199	00407339	308323	00415086
15.00	**ER63C-4DN.K7.CR**	159.00	880	993	735	115	00405986	00411645	02018876	00407339	308325	00415086


ZIEHL-ABEGG

Plug fan C

PMblue IE4

Product overview

Plug fan C

ER25C

Motor PMblue IE4

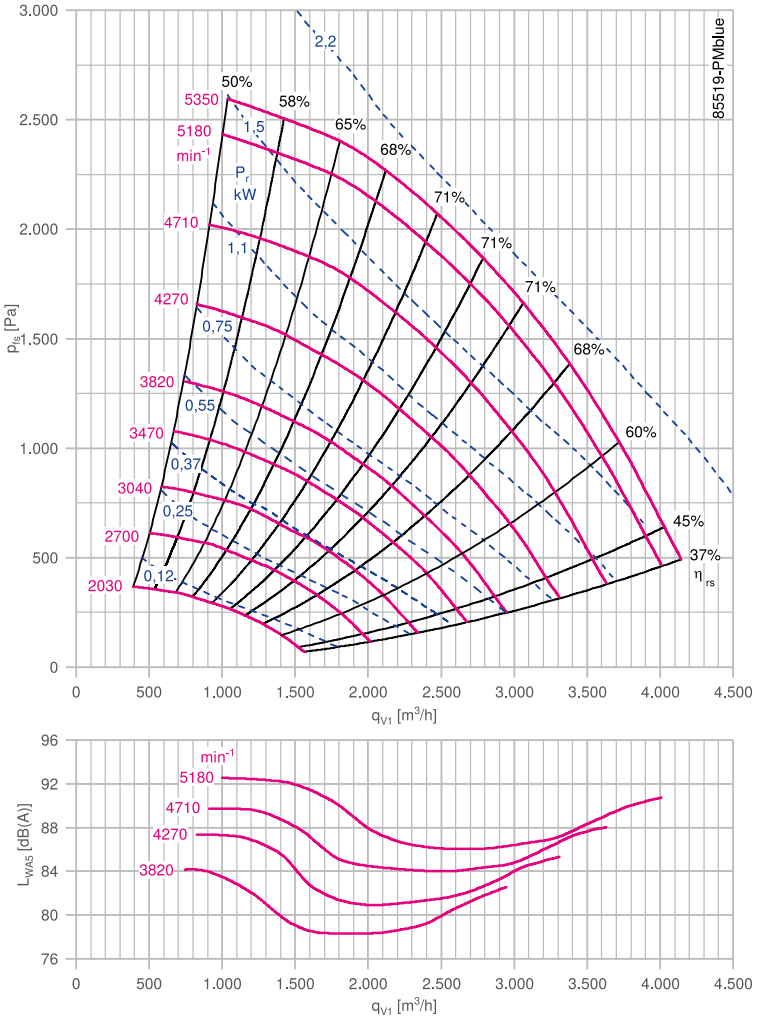
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

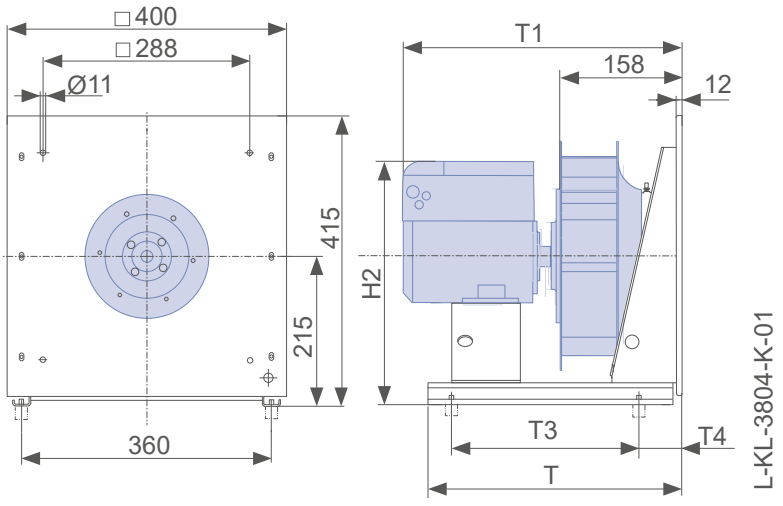
Nozzle coefficients

Standard k	60
With guard grille k_g	58
With inlet guide grille k_{ZAflow}	59

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.20	**ER25C-6IN.A7.1R**	**116095/0P61**	071M	86.4	3.6-2.9	4500	5180	2.20	62.9	69.9

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER25C-6IN.A7.1R**	22.00	460	477	315	60	408	00403346	00411643	02021196	00090144	00415082

Plug fan C

ER28C

Motor PMblue IE4

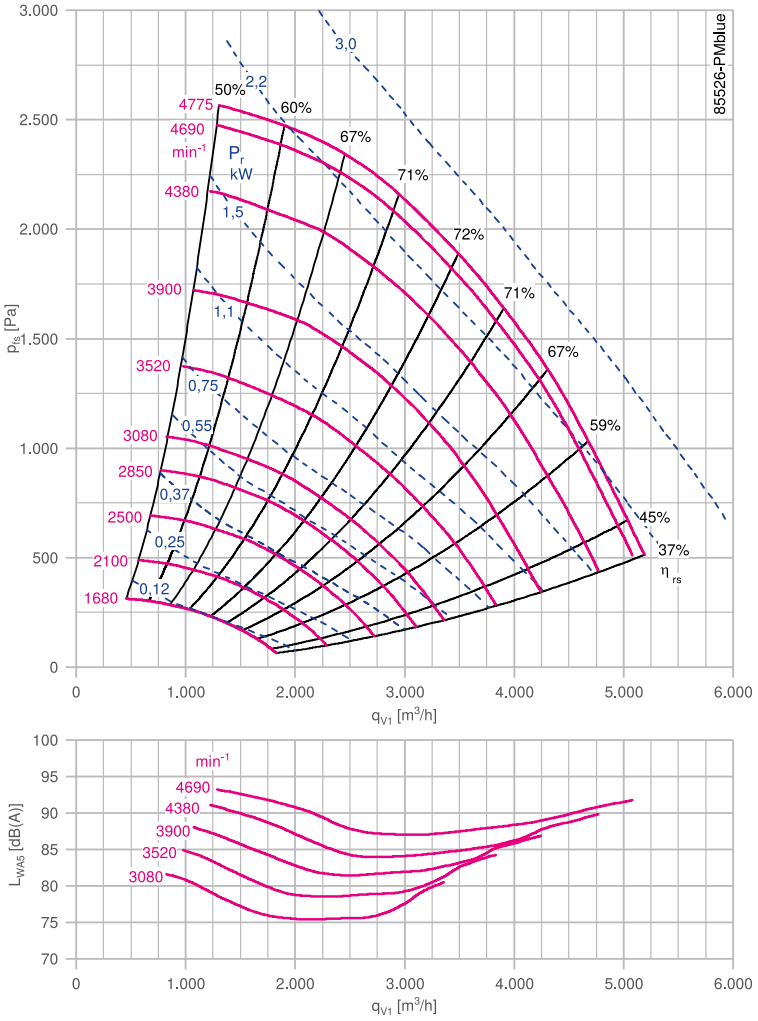
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

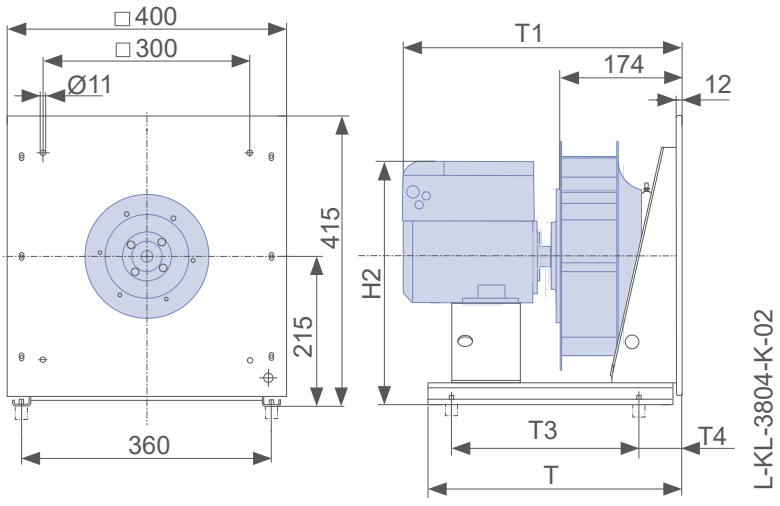
Nozzle coefficients

Standard k	75
With guard grille k_g	72
With inlet guide grille k_{ZAflow}	74

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual} *
2.20	**ER28C-6IN.A7.1R**	**116096/0P61**	071M	86.4	3.8-3.0	4500	4380	2.30	63.6	70.3
3.00	**ER28C-6IN.A7.1R**	**116097/0P61**	071M	87.7	4.8-3.8	4500	4690	2.90	64.6	70.4

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER28C-6IN.A7.1R**	23.00	460	493	368	60	408	00406513	00411643	02021196	02001048	00415082
3.00	**ER28C-6IN.A7.1R**	24.00	460	493	368	60	408	00406513	00411643	02021196	02001048	00415082

Plug fan C

ER31C

Motor PMblue IE4

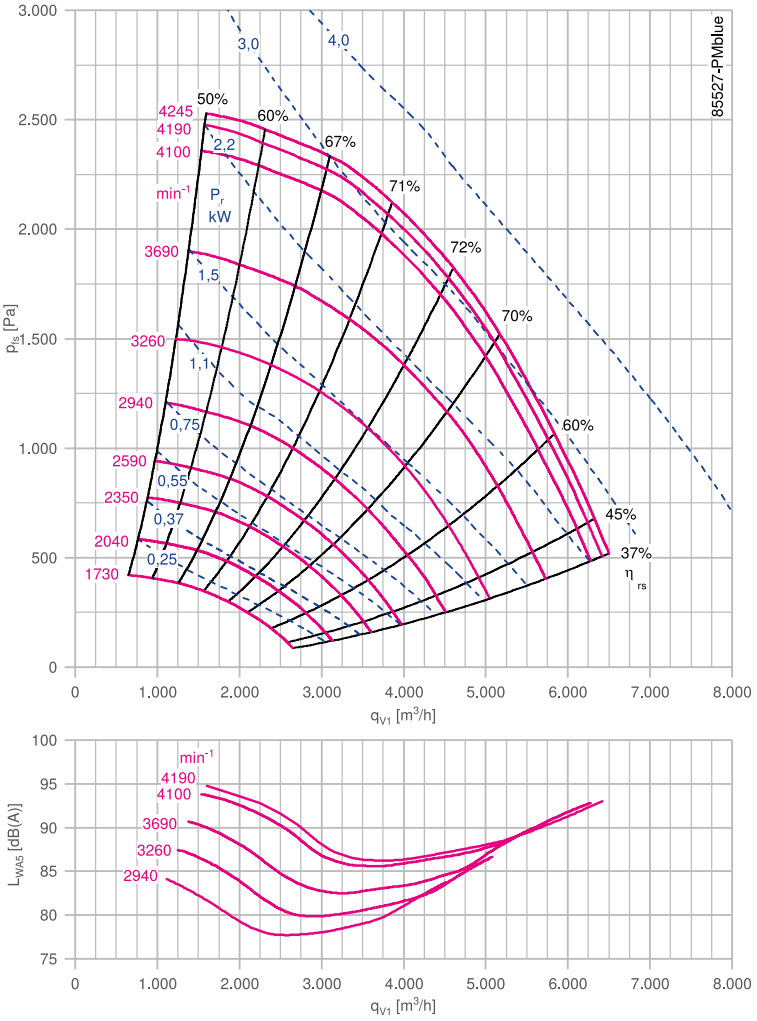
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

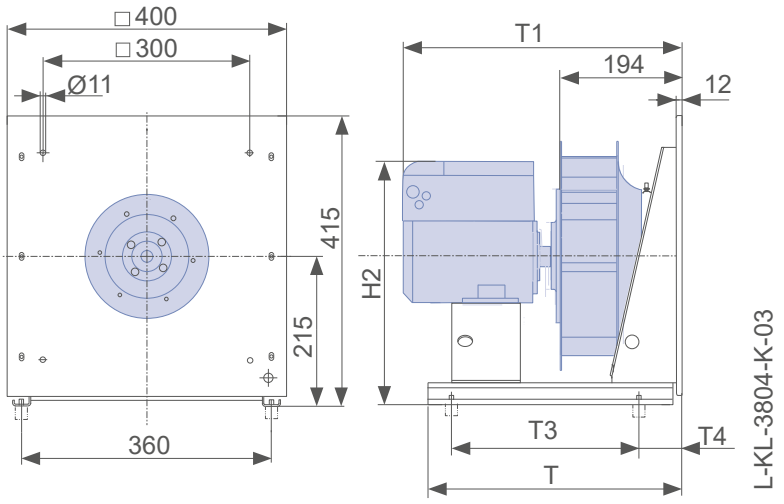
Nozzle coefficients

Standard k	95
With guard grille k_g	91
With inlet guide grille k_{ZAflow}	93

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.20	**ER31C-6IN.A7.1R**	**116098/0P61**	071M	86.4	4.0-3.2	3600	3690	2.50	63.8	70.1
4.00	**ER31C-8IN.C7.1R**	**116100/0P61**	090S/L	88.7	5.6-4.4	4500	4100	3.30	65.5	70.4

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER31C-6IN.A7.1R**	26.00	460	498	368	60	408	00406513	00411571	02021196	02001048	00415083
4.00	**ER31C-8IN.C7.1R**	31.00	570	513	420	60	428	00406513	00411571	02021196	00090144	00415083

Plug fan C

ER35C

Motor PMblue IE4

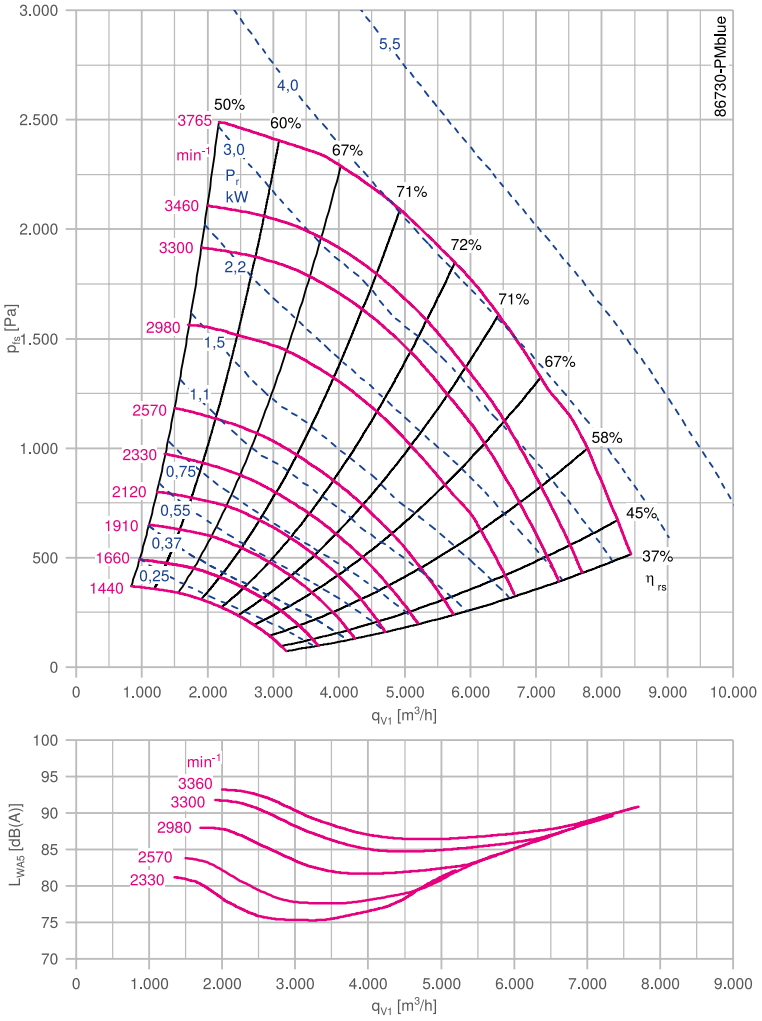
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

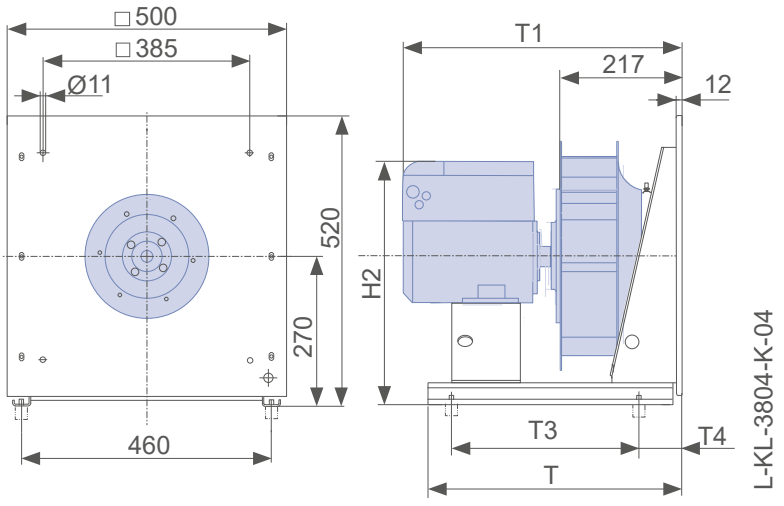
Nozzle coefficients

Standard k	121
With guard grille k_g	116
With inlet guide grille k_{ZAflow}	119

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual} *
2.20	**ER35C-6IN.A7.1R**	**116101/0P61**	071M	86.4	4.0-3.1	3000	3000	2.40	63.6	70.0
4.00	**ER35C-8IN.C7.1R**	**116102/0P61**	090S/L	88.7	5.0-4.0	3600	3300	3.10	65.3	70.5
4.00	**ER35C-8IN.C7.1R**	**116103/0P61**	090S/L	88.7	6.0-4.8	3600	3460	3.60	65.3	69.8

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER35C-6IN.A7.1R**	30.00	570	536	263	115	463	00406514	00411572	02021197	00090144	00415083
4.00	**ER35C-8IN.C7.1R**	37.00	570	536	315	115	483	00406514	00411572	02021197	02001048	00415083
4.00	**ER35C-8IN.C7.1R**	37.00	570	536	315	115	483	00406514	00411572	02021197	02001048	00415083

Plug fan C

ER40C

Motor PMblue IE4

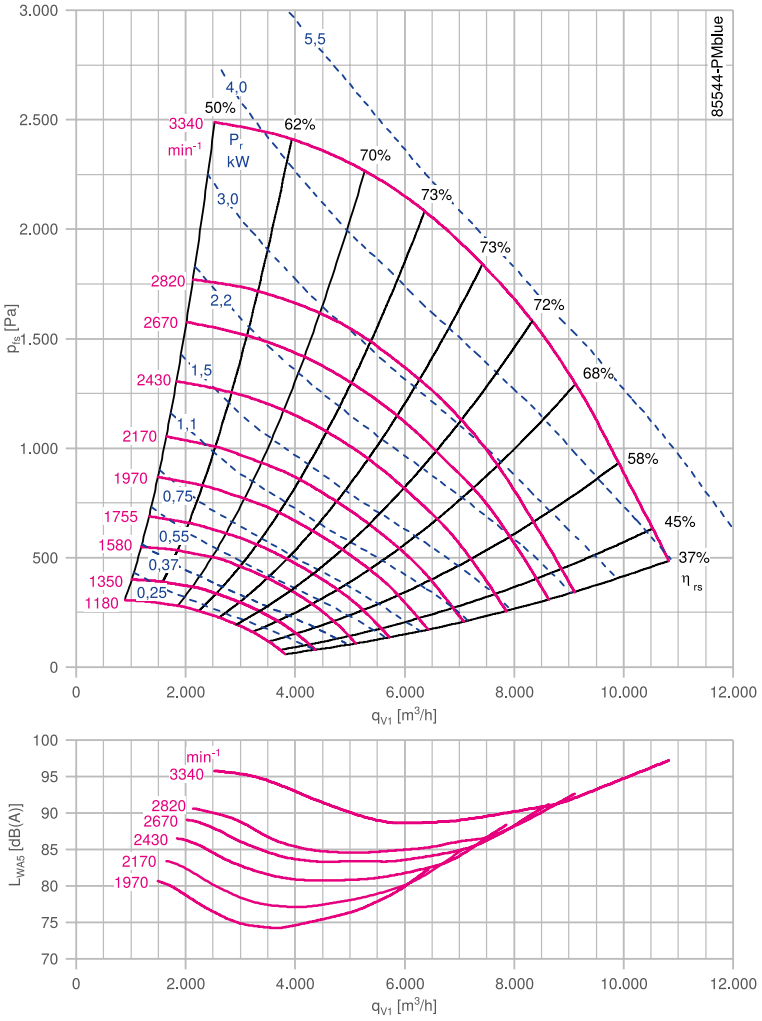
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

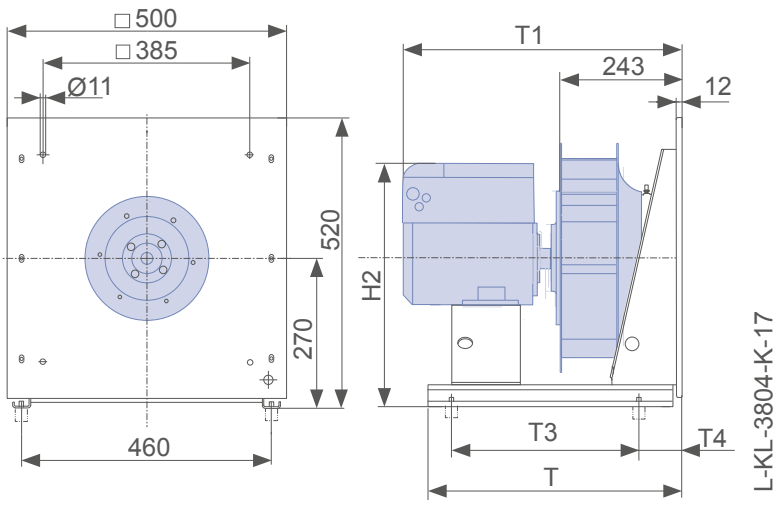
Nozzle coefficients

Standard k	154
With guard grille k_g	148
With inlet guide grille k_{ZAflow}	151

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual} *
3.00	**ER40C-8IN.C7.1R**	**116104/0P61**	090S/L	87.7	3.7-2.9	3000	2430	2.20	65.6	72.3
4.00	**ER40C-8IN.C7.1R**	**116105/0P61**	090S/L	88.7	4.8-3.8	3000	2670	3.00	66.4	71.9
4.00	**ER40C-8IN.C7.1R**	**116106/0P61**	090S/L	88.7	5.8-4.6	3000	2820	3.50	66.4	71.1
5.30	**ER40C-8IN.D7.1R**	**115617/0P61**	090L	92.2	9.2-7.2	3300	3340	5.80	69.0	71.6

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

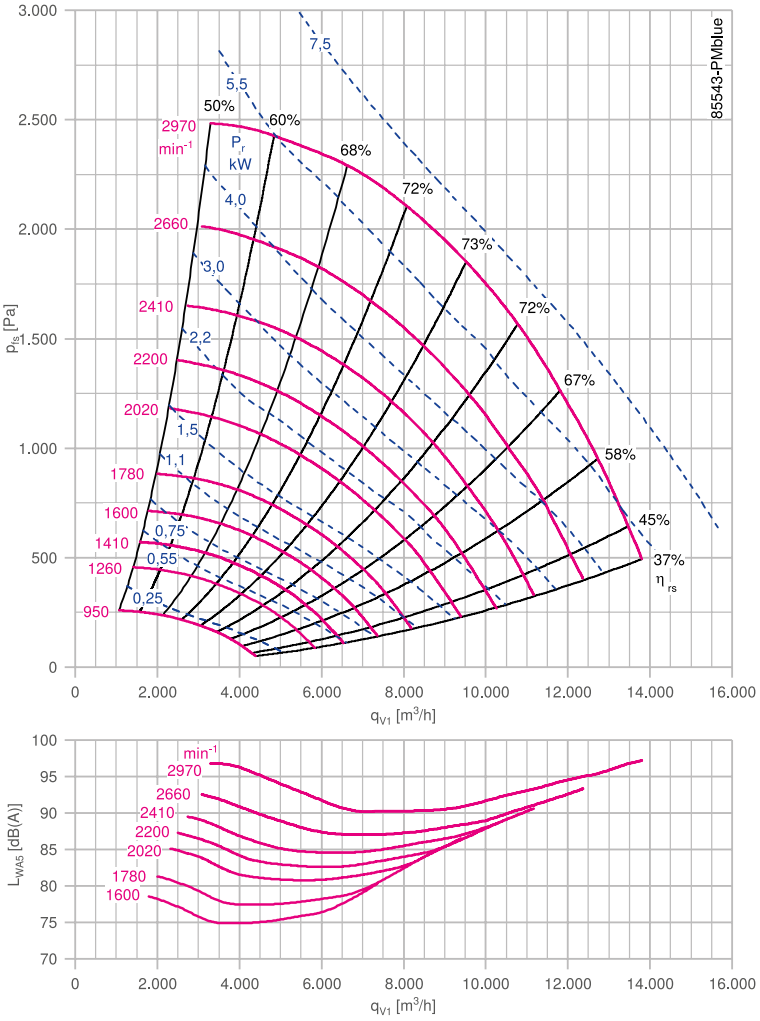
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
3.00	**ER40C-8IN.C7.1R**	38.00	570	562	315	115	483	00406514	00411573	02021197	00090144	00415084
4.00	**ER40C-8IN.C7.1R**	40.00	570	563	368	115	482	00406514	00411573	02021197	00090144	00415084
4.00	**ER40C-8IN.C7.1R**	40.00	570	563	368	115	482	00406514	00411573	02021197	00090144	00415084
5.30	**ER40C-8IN.D7.1R**	46.00	570	618	368	115	496	00406514	00411573	02021197	00090144	00415084

Plug fan C

ER45C

Motor PMblue IE4

Characteristic curve



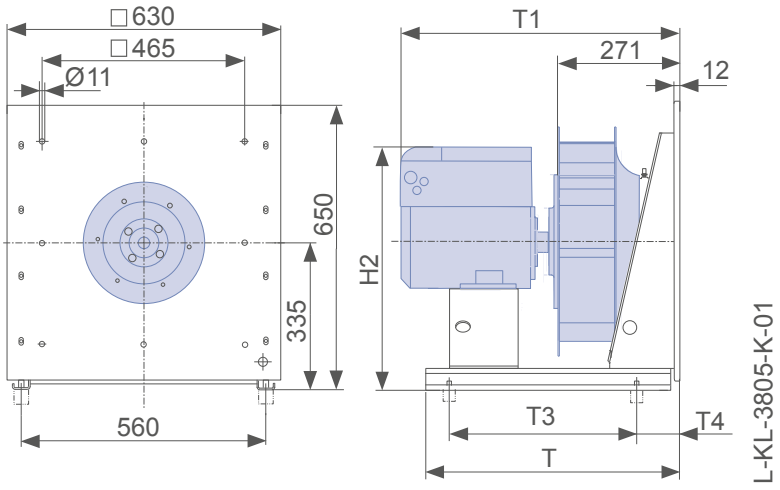
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

Nozzle coefficients

Standard k	197
With guard grille k_g	189
With inlet guide grille k_{ZAflow}	193

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
2.20	**ER45C-8IN.C7.1R**	**116107/0P61**	090S/L	88.1	3.9-3.1	1800	2020	2.40	66.3	72.8
5.30	**ER45C-8IN.D7.1R**	**115618/0P61**	090L	92.3	8.8-7.0	2730	2660	5.40	69.5	72.4
5.50	**ER45C-8IN.C7.1R**	**116109/0P61**	090S/L	89.7	5.4-4.4	3000	2200	3.00	68.9	74.2
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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
2.20	**ER45C-8IN.C7.1R**	49.00	570	596	315	115	547	00406515	00411574	02021197	02000124	00415084
5.30	**ER45C-8IN.D7.1R**	56.00	570	652	420	115	561	00406515	00411574	02021198	02000124	00415084
5.50	**ER45C-8IN.C7.1R**	54.00	570	595	368	115	548	00406515	00411574	02021198	02000124	00415084
6.91	**ER45C-6IN.F7.1R**	68.00	720	657	473	115	584	00406515	00411574	02021198	02000124	00415084

Plug fan C

ER50C

Motor PMblue IE4

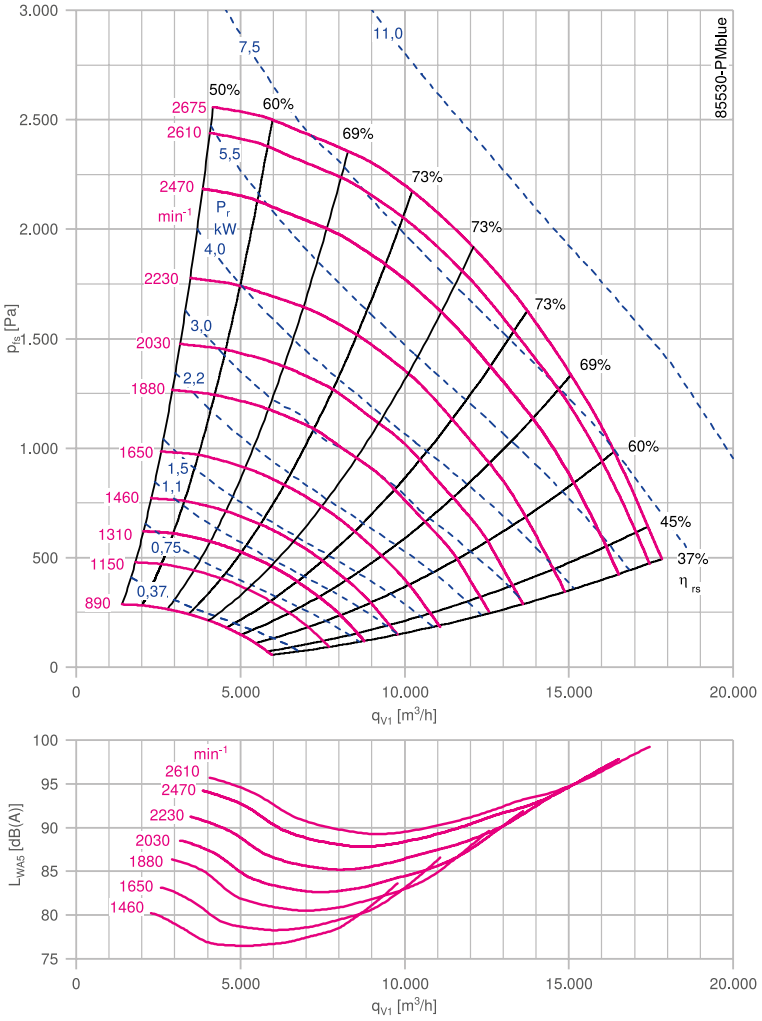
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

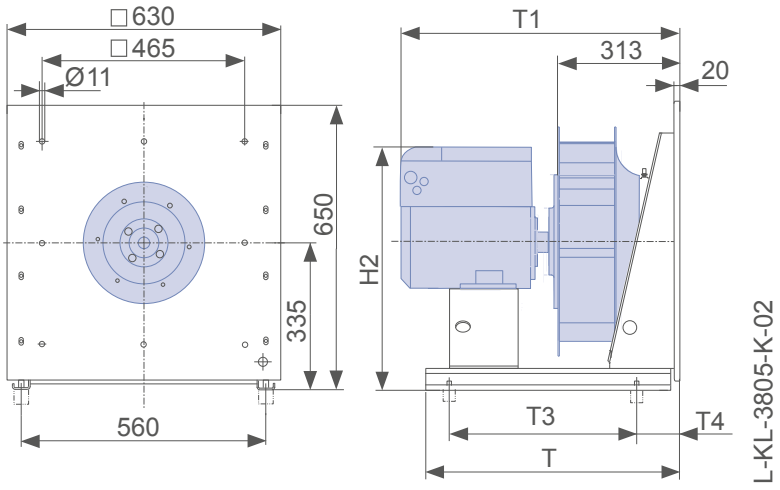
Nozzle coefficients

Standard k	252
With guard grille k_g	242
With inlet guide grille k_{ZAflow}	247

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
3.00	**ER50C-8IN.C7.1R**	**116110/0P61**	090S/L	89.1	3.9-3.1	1800	1650	2.30	66.8	73.4
4.00	**ER50C-8IN.C7.1R**	**116112/0P61**	090S/L	89.9	5.6-4.4	1800	1880	3.40	67.4	72.3
5.37	**ER50C-6IN.F7.1R**	**115620/0P61**	112M	91.8	9.4-7.4	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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
3.00	**ER50C-8IN.C7.1R**	56.00	728	644	420	115	547	00406515	00411575	02021197	00090144	00415085
4.00	**ER50C-8IN.C7.1R**	60.00	728	638	368	115	547	00406515	00411575	02021197	02000124	00415085
5.37	**ER50C-6IN.F7.1R**	73.00	728	698	525	115	584	00406515	00411575	02021198	02000124	00415085
7.36	**ER50C-6IN.F7.1R**	76.00	728	698	525	115	584	00406515	00411575	02021198	02000124	00415085
9.00	**ER50C-6IN.F7.1R**	89.00	728	777	578	115	644	00406515	00411575	02021198	02000124	00415085

Plug fan C

ER56C

Motor PMblue IE4

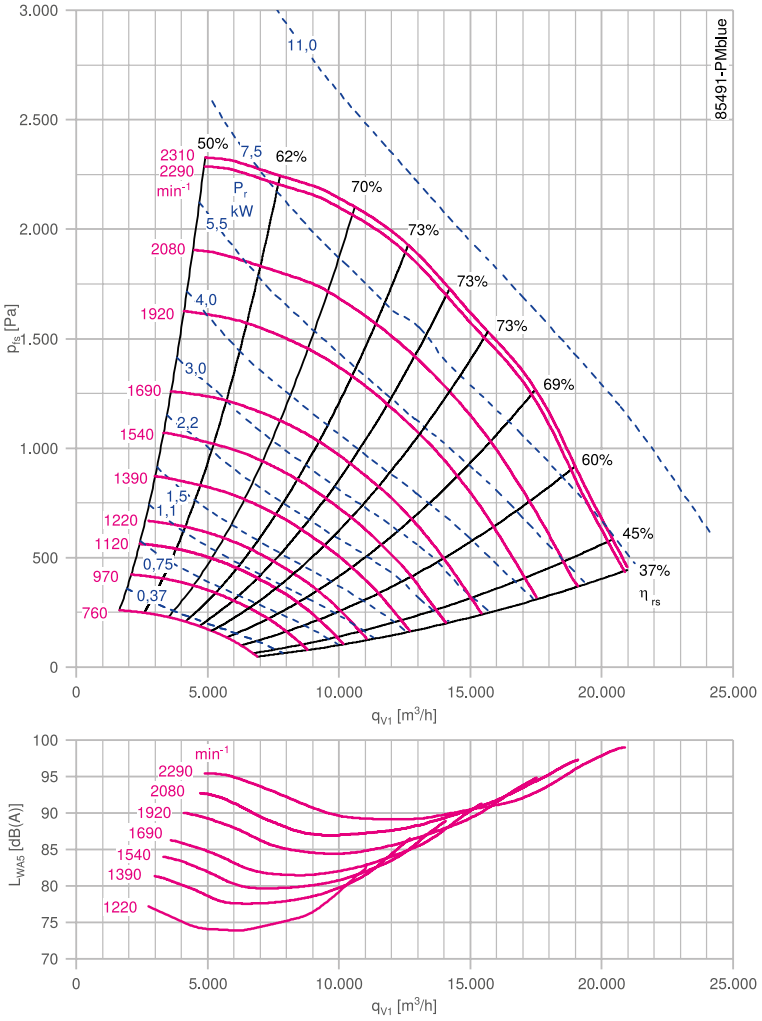
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

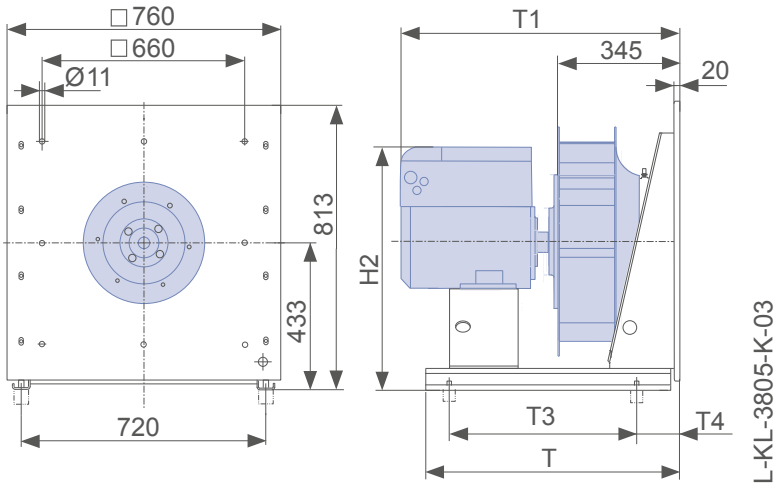
Nozzle coefficients

Standard k	308
With guard grille k_g	295
With inlet guide grille k_{ZAflow}	302

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual} *
3.00	**ER56C-8IN.C7.1R**	**116113/0P61**	090S/L	89.1	3.8-3.0	1500	1390	2.30	66.6	73.2
3.00	**ER56C-8IN.C7.1R**	**116114/0P61**	090S/L	89.1	5.2-4.0	1500	1540	3.20	66.6	71.8
4.00	**ER56C-6IN.F7.1R**	**116115/0P61**	112M	89.9	6.6-5.2	1500	1690	4.00	67.2	71.2
5.45	**ER56C-6IN.F7.1R**	**115623/0P61**	112M	91.8	9.8-7.8	1900	1920	6.00	68.6	71.0
7.37	**ER56C-6IN.F7.1R**	**115624/0P61**	112M	92.0	12.5-10.0	2100	2080	7.80	68.8	70.0
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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
3.00	**ER56C-8IN.C7.1R**	68.00	720	654	420	115	645	00405986	00411644	02021198	00090144	00415085
3.00	**ER56C-8IN.C7.1R**	68.00	720	654	420	115	645	00405986	00411644	02021199	00090144	00415085
4.00	**ER56C-6IN.F7.1R**	81.00	720	708	473	115	669	00405986	00411644	02021199	02000124	00415085
5.45	**ER56C-6IN.F7.1R**	87.00	720	730	525	115	682	00405986	00411644	02021199	02000124	00415085
7.37	**ER56C-6IN.F7.1R**	87.00	720	730	525	115	682	00405986	00411644	02021199	02000124	00415085
9.80	**ER56C-6IN.F7.1R**	103.00	720	809	578	115	742	00405986	00411644	02018876	02020907	00415085

Plug fan C

ER63C

Motor PMblue IE4

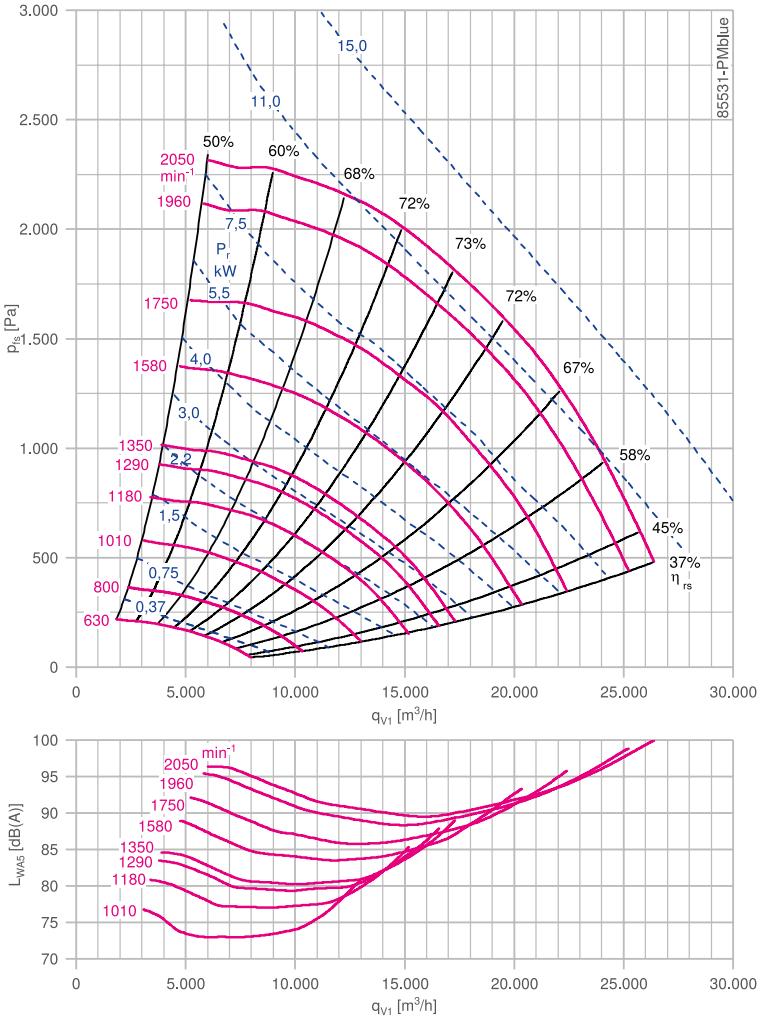
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

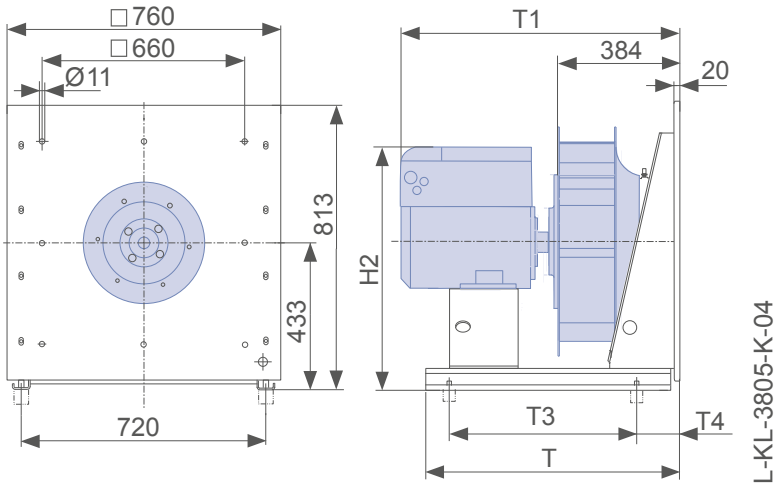
Nozzle coefficients

Standard k	381
With guard grille k_g	365
With inlet guide grille k_{ZAflow}	373

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
3.00	**ER63C-8IN.C7.1R**	**116116/0P61**	090S/L	89.1	4.4-3.5	1500	1180	2.70	66.4	72.5
4.00	**ER63C-6IN.F7.1R**	**116117/0P61**	112M	89.9	6.4-5.2	1500	1350	3.80	66.9	71.3
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	68.3

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Inlet guide grille ZAflow
										Spring	Rubber	
3.00	**ER63C-8IN.C7.1R**	83.00	720	704	473	115	645	00405986	00411645	02021198	00090144	00415086
4.00	**ER63C-6IN.F7.1R**	95.00	720	748	525	115	669	00405986	00411645	02021199	02000124	00415086
5.26	**ER63C-6IN.F7.1R**	102.00	720	770	578	115	682	00405986	00411645	02021199	02000124	00415086
7.32	**ER63C-6IN.F7.1R**	105.00	720	770	578	115	682	00405986	00411645	02021199	02000124	00415086
10.80	**ER63C-6IN.F7.1R**	122.00	720	849	578	115	742	00405986	00411645	02018876	02020907	00415086
12.34	**ER63C-6IN.H7.1R**	145.00	880	862	735	115	757	00405986	00411645	02018876	02020907	00415086

Plug fan C

ER71C

Motor PMblue IE4

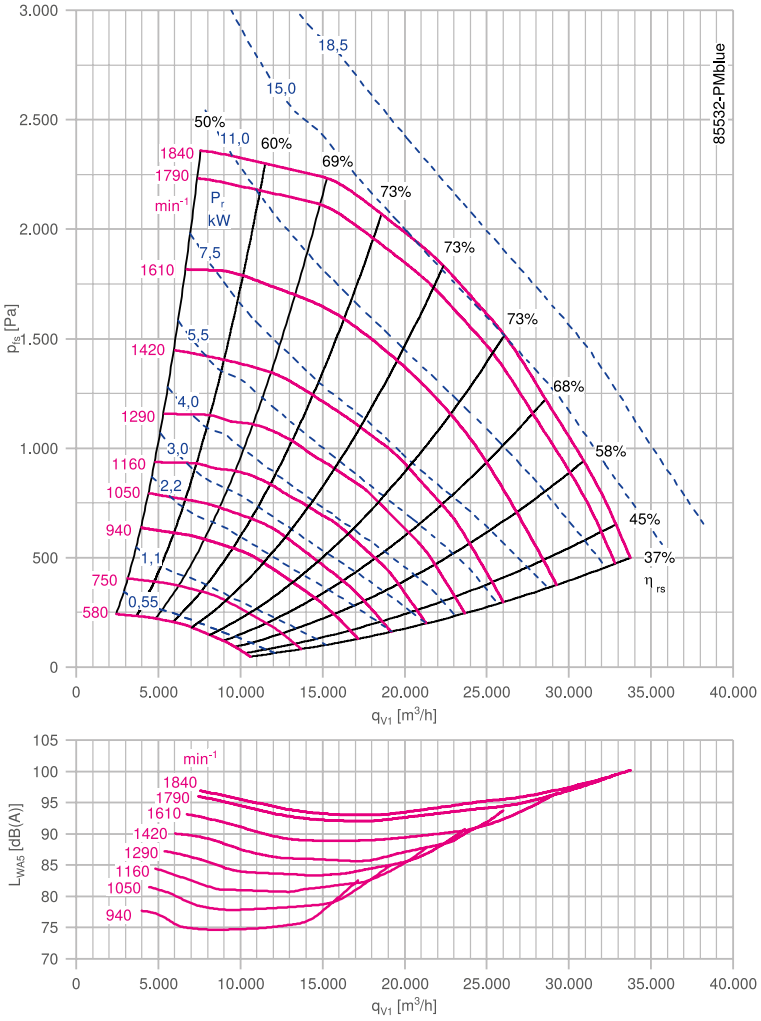
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

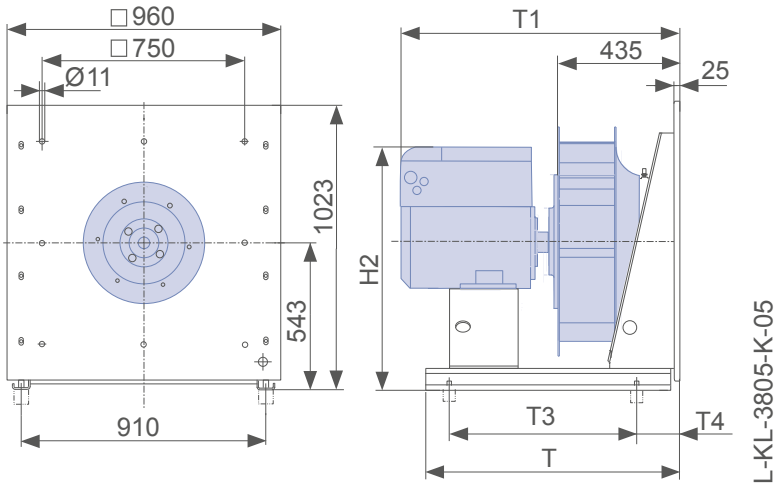
Nozzle coefficients

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_{ed} 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
16.70	**ER71C-6IN.H7.1R**	**116040/0P61**	132M	93.5	29.0-23.0	1850	1840	17.50	69.6	69.0

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper	
										Spring	Rubber
5.30	**ER71C-6IN.F7.1R**	136.00	885	821	630	115	792	00403350	00411646	02006450	00090157
7.28	**ER71C-6IN.F7.1R**	140.00	885	821	630	115	792	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
16.70	**ER71C-6IN.H7.1R**	194.00	885	958	735	115	866	00403350	00411646	02006450	02000407

Plug fan C

ER80C

Motor PMblue IE4

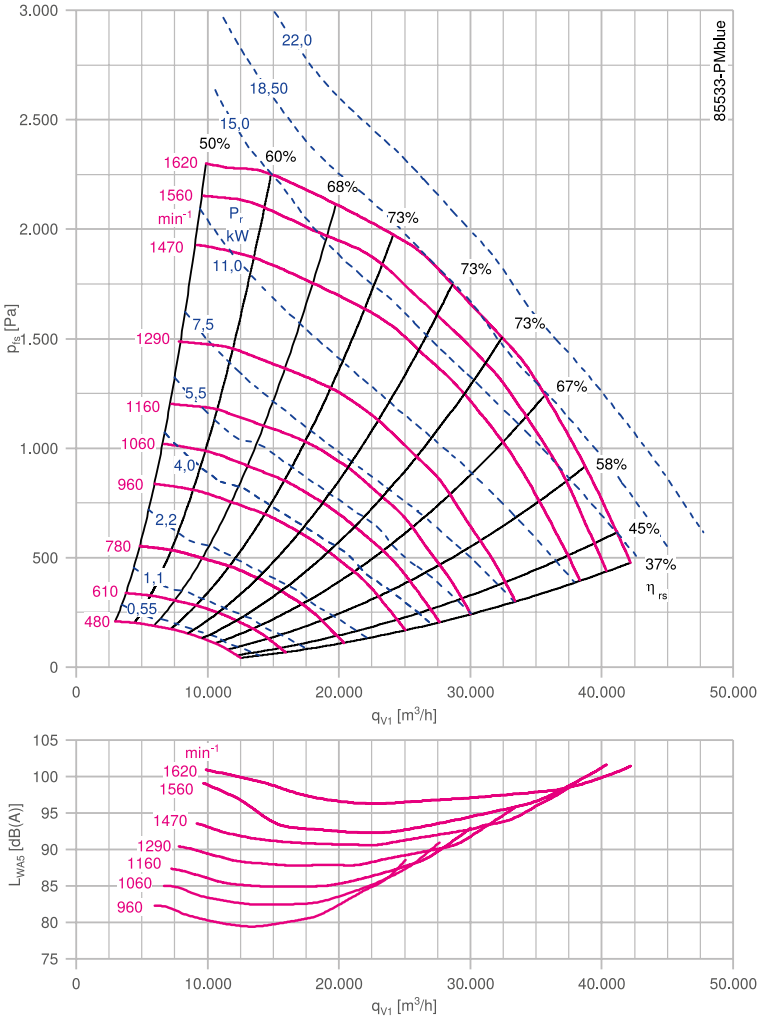
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

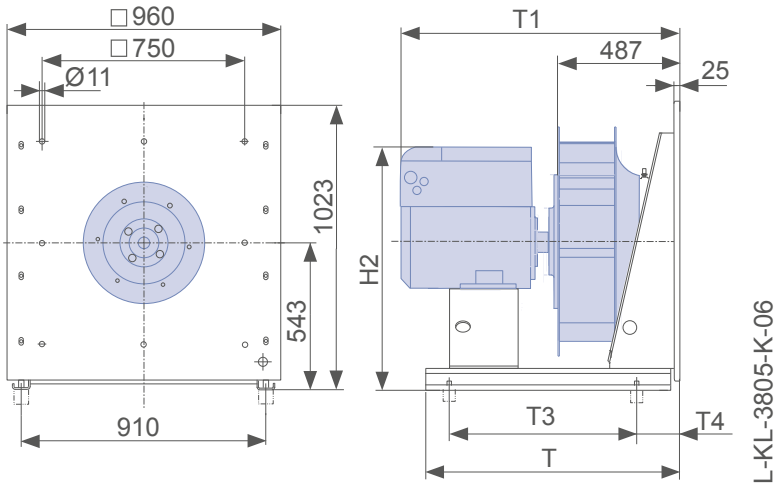
Nozzle coefficients

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
7.40	ER80C-6IN.H7.1R	115635/0P61	132M	91.0	12.5-10.0	1150	1160	7.80	67.9	69.0
14.80	ER80C-6IN.H7.1R	115636/0P61	132M	95.5	19.5-15.5	1450	1290	11.00	69.5	69.5
14.80	ER80C-6IN.H7.1R	115637/0P61	132M	95.5	27.0-21.0	1450	1470	16.00	71.2	70.8
17.70	ER80C-6IN.H7.1R	116041/0P61	132M	93.6	31.0-25.0	1560	1560	19.00	69.8	69.2
19.80	ER80C-6IN.H7.1R	116042/0P61	132M	93.5	35.0-28.0	1620	1620	21.00	69.7	69.0

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper	
										Spring	Rubber
7.40	ER80C-6IN.H7.1R	189.00	885	948	735	115	807	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
17.70	ER80C-6IN.H7.1R	221.00	885	1010	735	115	866	00403350	00414162	02006450	02000407
19.80	ER80C-6IN.H7.1R	221.00	885	1010	735	115	866	00403350	00414162	02006450	02000407

Plug fan C

ER90C

Motor PMblue IE4

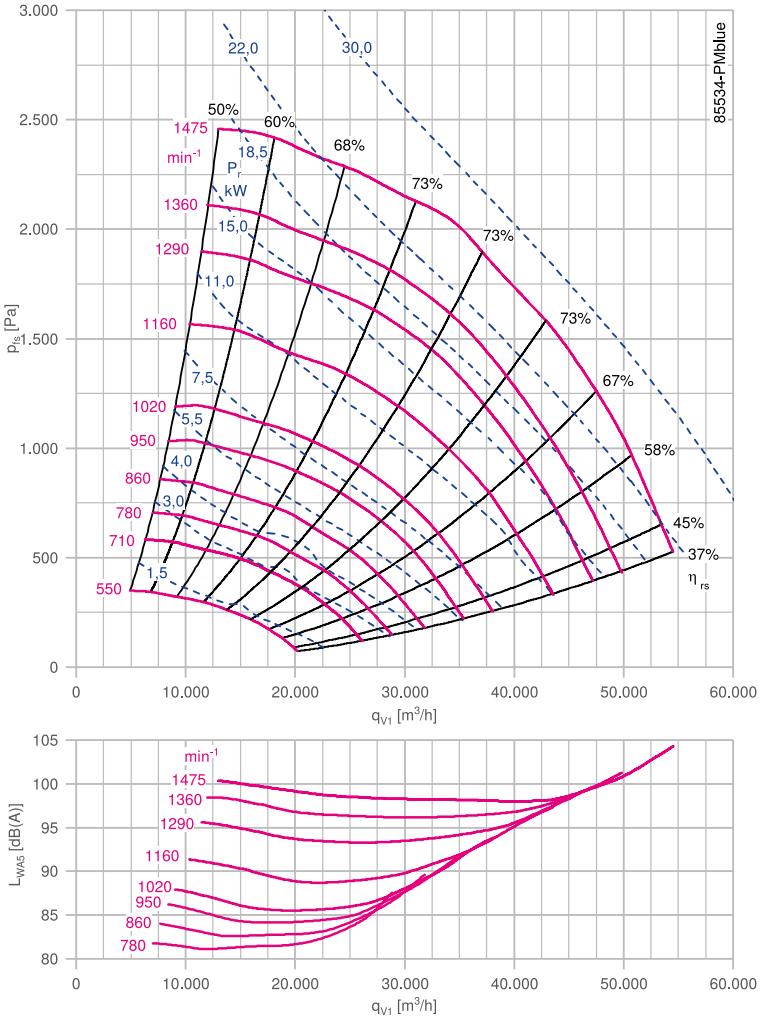
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

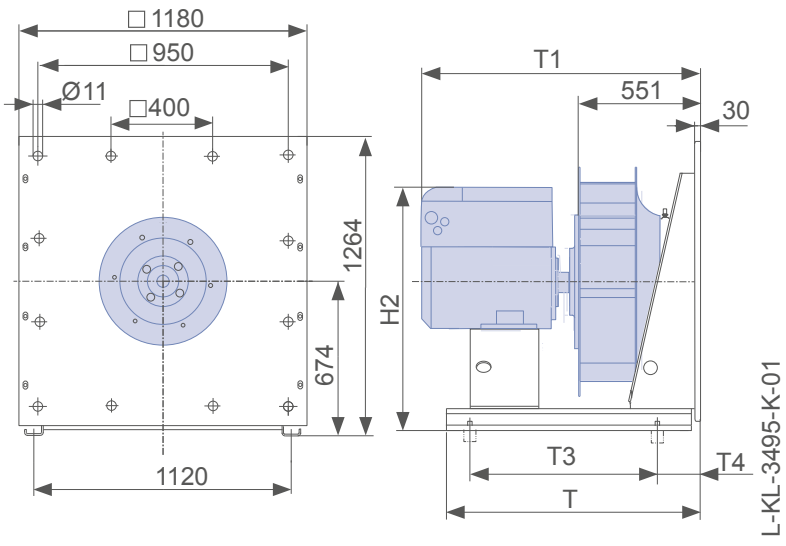
Nozzle coefficients

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_{ed} 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	69.4	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
18.50	**ER90C-8IN.K7.1R**	**116043/0P61**	160L	93.4	33.0-26.0	1320	1290	19.50	70.1	69.4
22.00	**ER90C-8IN.K7.1R**	**116044/0P61**	160L	93.7	38.0-30.0	1370	1360	23.00	70.3	69.5

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper	
										Spring	Rubber
7.40	**ER90C-6IN.H7.1R**	251.00	1160	1011	788	115	938	00403351	00411648	02006450	02001674
14.90	**ER90C-6IN.H7.1R**	274.00	1160	1062	735	115	998	00403351	00411648	02006450	02000407
14.90	**ER90C-6IN.H7.1R**	274.00	1160	1062	840	115	998	00403351	00411648	02006451	02000407
18.50	**ER90C-8IN.K7.1R**	314.00	1160	1128	998	115	1025	00403351	00411648	02006451	02000407
22.00	**ER90C-8IN.K7.1R**	324.00	1160	1128	998	115	1025	00403351	00411648	02006451	02000407

Plug fan C

ER10C

Motor PMblue IE4

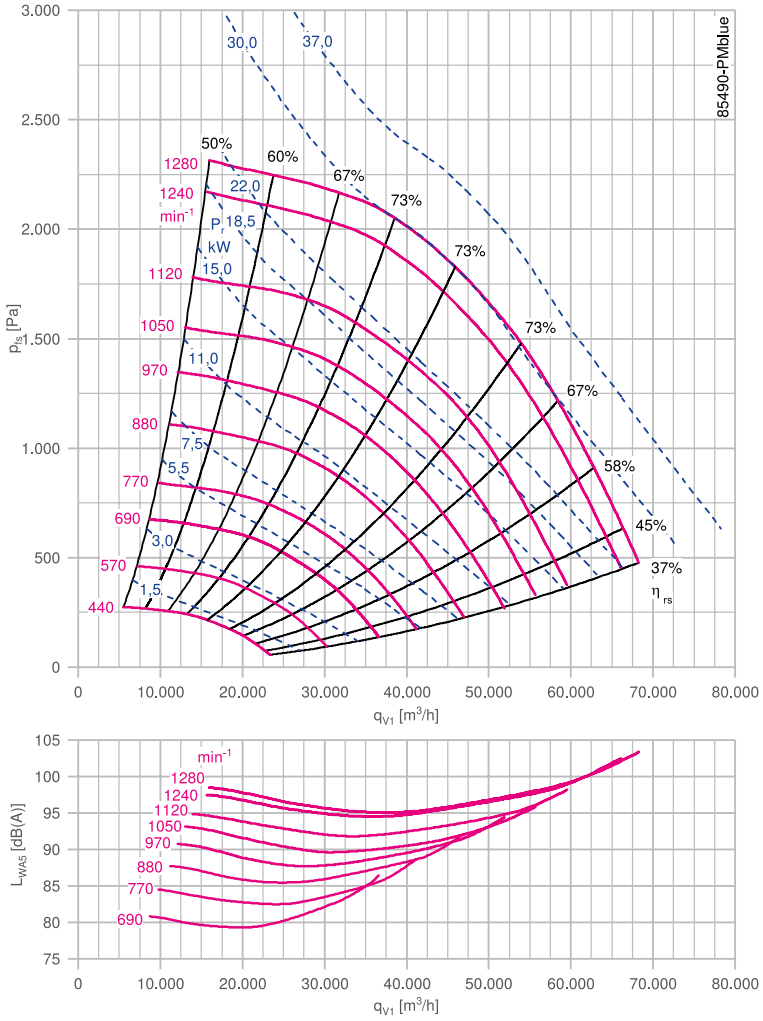
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

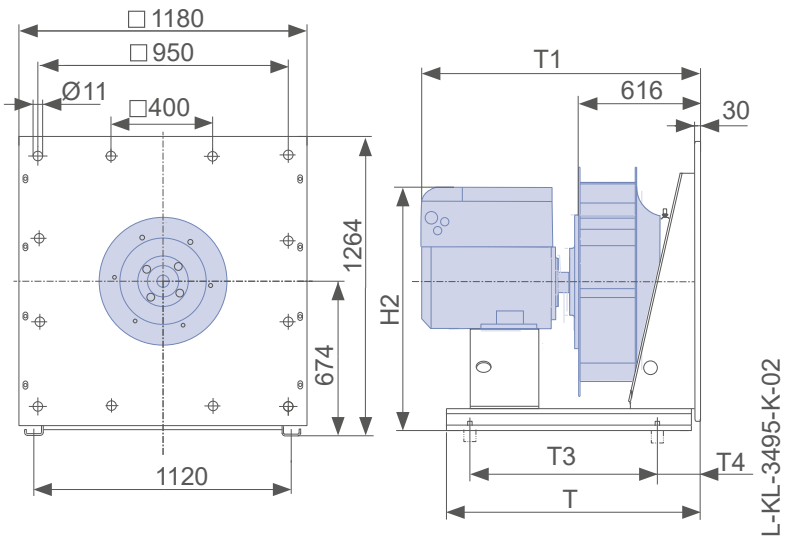
Nozzle coefficients

Standard k	999
With guard grille k_g	958

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
18.50	**ER10C-8IN.K7.1R**	**116045/0P61**	160L	92.4	32.0-26.0	1070	1050	19.50	69.1	68.5
22.00	**ER10C-8IN.K7.1R**	**116046/0P61**	160L	92.8	39.0-31.0	1130	1120	24.00	69.4	68.6

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper	
										Spring	Rubber
18.50	**ER10C-8IN.K7.1R**	367.00	1160	1194	998	115	1025	00403351	00411649	02006451	02001674
22.00	**ER10C-8IN.K7.1R**	372.00	1160	1194	998	115	1025	00403351	00411649	02006451	02000407

Plug fan C

ER11C.4R

Motor PMblue IE4

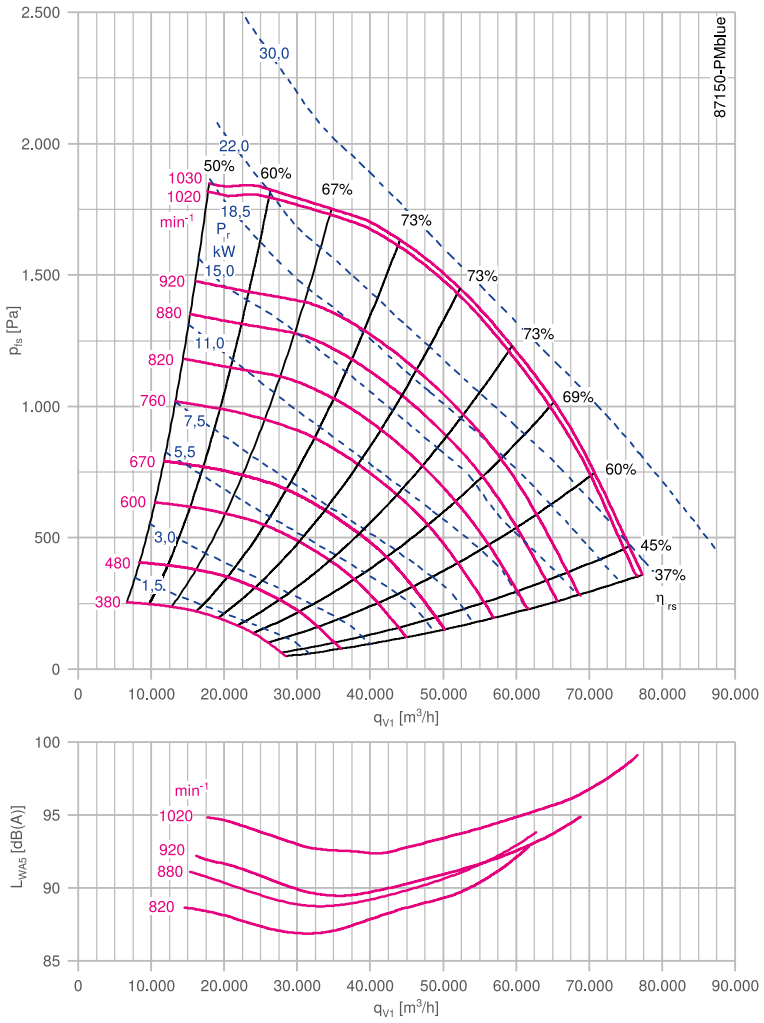
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

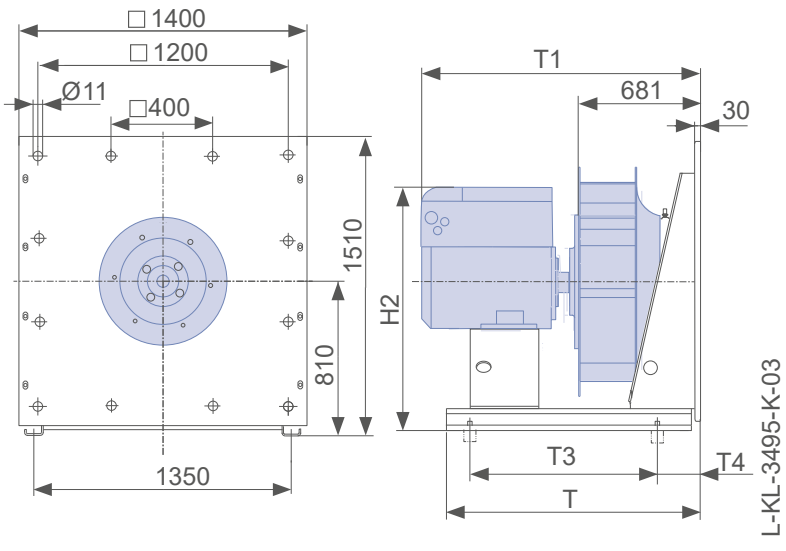
Nozzle coefficients

Standard k	1233
With guard grille k_g	1072

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
18.40	**ER11C-8IN.K7.4R**	**116047/0P61**	160L	92.4	34.0-27.0	950	880	20.00	68.9	68.3
21.40	**ER11C-8IN.K7.4R**	**116048/0P61**	160L	92.7	38.0-30.0	920	920	23.00	69.2	68.3

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper	
										Spring	Rubber
18.40	**ER11C-8IN.K7.4R**	487.00	1380	1271	1212	130	1161	00403352	00411650	02006452	02000407
21.40	**ER11C-8IN.K7.4R**	487.00	1380	1297	1212	130	1161	00403352	00411650	02006452	02000407

Plug fan C

ER11C.1R

Motor PMblue IE4

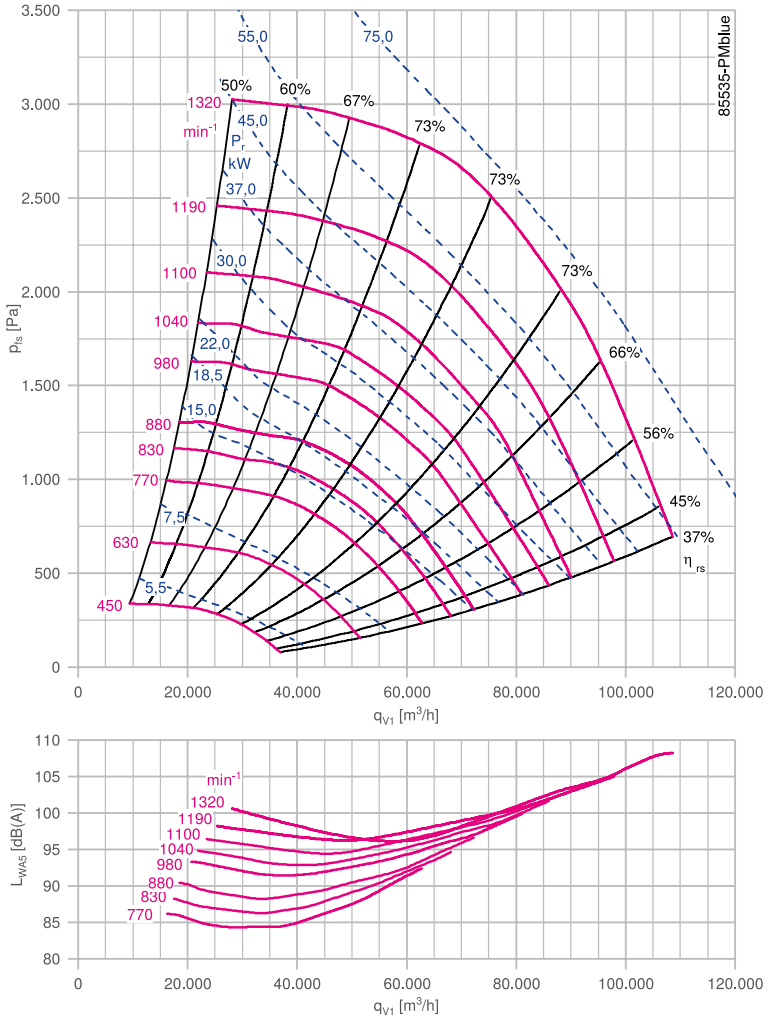
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Motor with built-on PMIcontrol basic-M
Fitting position H (horizontal)
Rated voltage U_N: 3~ 380-480 V
Rated frequency f_N: 50/60 Hz
Motor protection: PTC resistor
Degree of protection: IP54
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

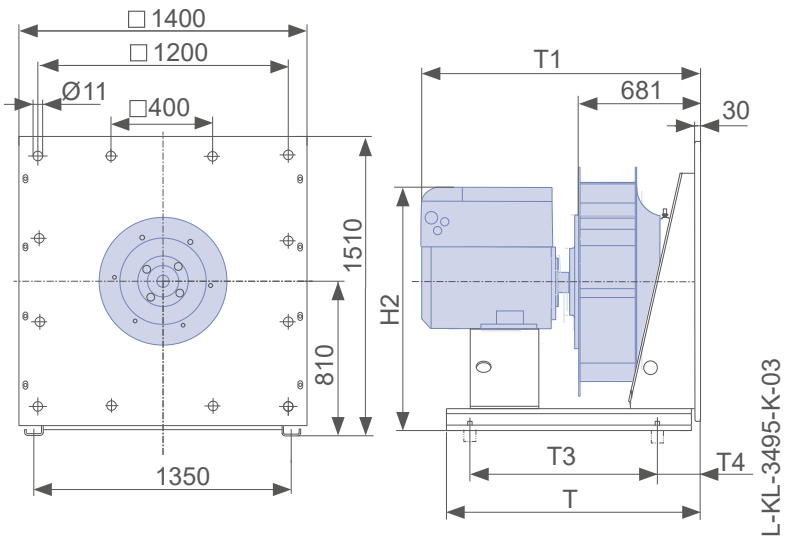
Nozzle coefficients

Standard k	1233
With guard grille k_g	1072

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_{ed} kW	Efficiency η_{statA} %	Efficiency grade N_{actual}*
21.40	**ER11C-8IN.K7.1R**	**116049/0P61**	160L	92.7	33.0-26.0	920	830	19.50	69.0	68.3
21.40	**ER11C-8IN.K7.1R**	**116050/0P61**	160L	92.7	39.0-31.0	920	880	23.00	69.0	68.2

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper	
										Spring	Rubber
21.40	**ER11C-8IN.K7.1R**	586.00	1630	1374	1432	160	1161	00403352	00411650	02006452	02000407
21.40	**ER11C-8IN.K7.1R**	586.00	1630	1374	1432	160	1161	00403352	00411650	02006452	02000407

Plug fan C

ZAmotpremium IE3

Product overview

Plug fan C

ER22C

Motor ZAmotpremium IE3

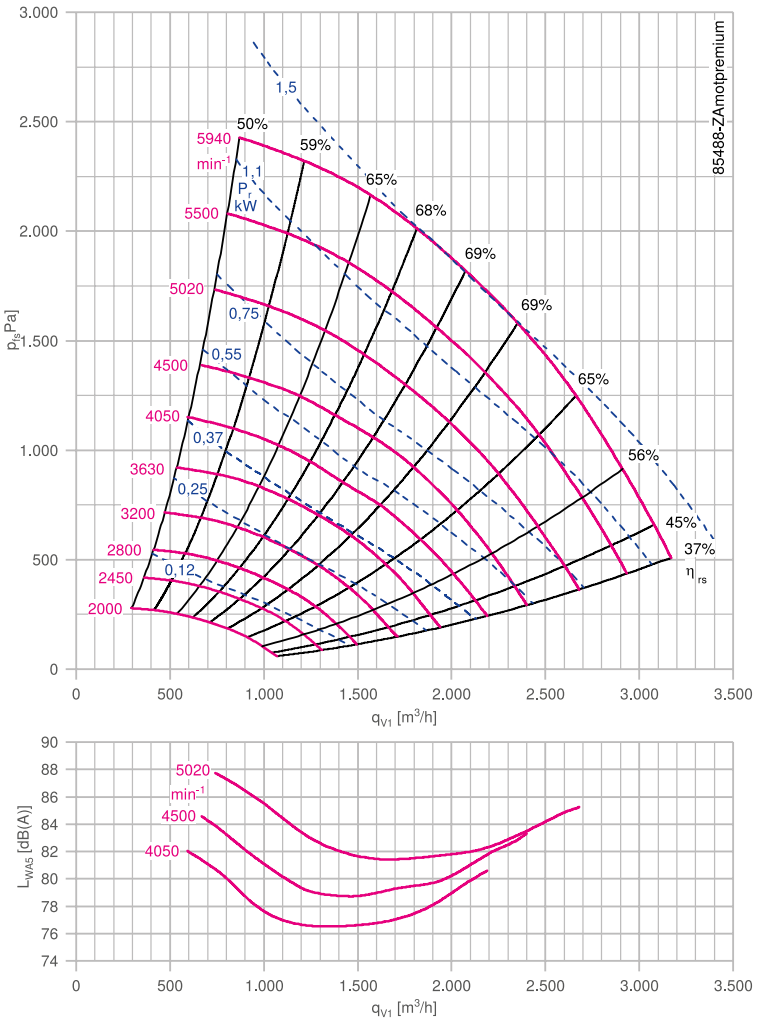
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

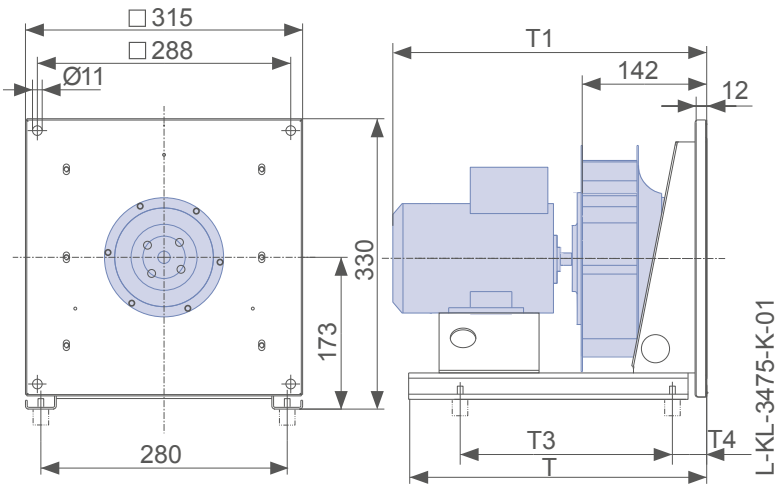
Nozzle coefficients

Standard k	47
With guard grille k_g	46

Characteristic curve



Dimensions mm



C-ZAmotpremium IE3

Rated power	Type	Article no.	Motor size	Motor efficiency	Rated current	Rated speed	Maximum speed	Maximum frequency	Efficiency	Efficiency grade
P_N				η_{mot}	I_N	n_N	n_{max}	f_{max}	η_{statA}	N_{actual}*
kW				%	A	rpm	rpm	Hz	%	
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
1.10	**ER22C-2DN.B7.1R**	**130615/0141**	080M	82.7	2.20	2885	5020	87	58.6	68.5

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

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

Plug fan C

ER25C

Motor ZAmotpremium IE3

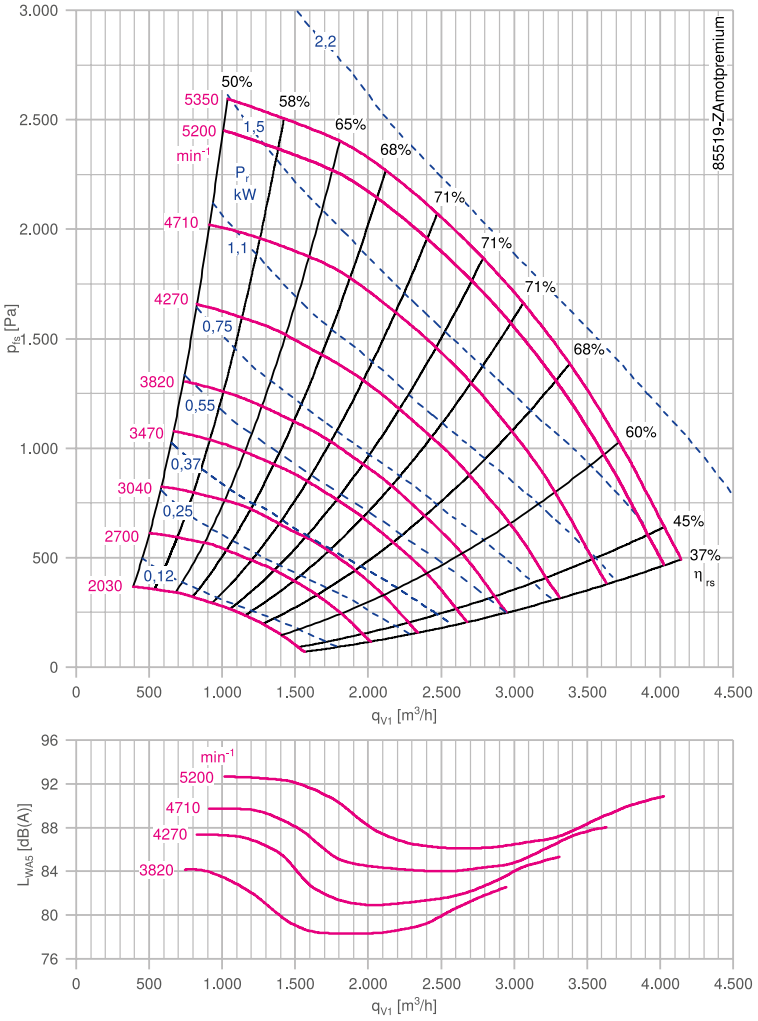
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

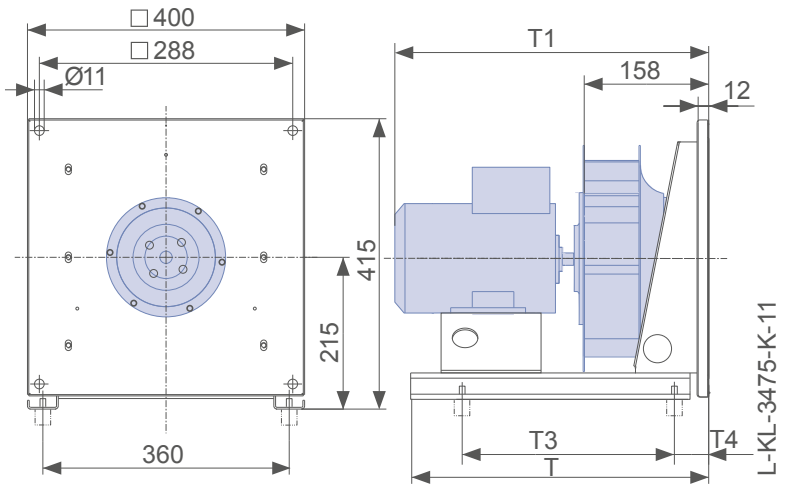
Nozzle coefficients

Standard k	60
With guard grille k_g	58
With inlet guide grille k_{ZAflow}	59

Characteristic curve



Dimensions mm



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
1.10	**ER25C-2DN.B7.1R**	**130610/0141**	080M	82.7	2.20	2885	4270	74	60.2	69.6
1.50	**ER25C-2DN.C7.1R**	**130611/0141**	090S/L	84.2	3.00	2910	4710	81	61.3	69.4
2.20	**ER25C-2DN.D7.1R**	**130612/0141**	090L/S	85.9	4.20	2910	5200	89	62.5	69.4

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
0.75	**ER25C-2DN.B7.1R**	23.00	460	441	315	60	00403346	00411643	02021195	00090144	308228	00415082
1.10	**ER25C-2DN.B7.1R**	24.00	460	476	315	60	00403346	00411643	02021196	00090144	308228	00415082
1.50	**ER25C-2DN.C7.1R**	27.00	460	486	368	60	00403346	00411643	02021196	00090144	308230	00415082
2.20	**ER25C-2DN.D7.1R**	31.00	460	526	368	60	00403346	00411643	02021196	00090144	308232	00415082

Plug fan C

ER28C

Motor ZAmotpremium IE3

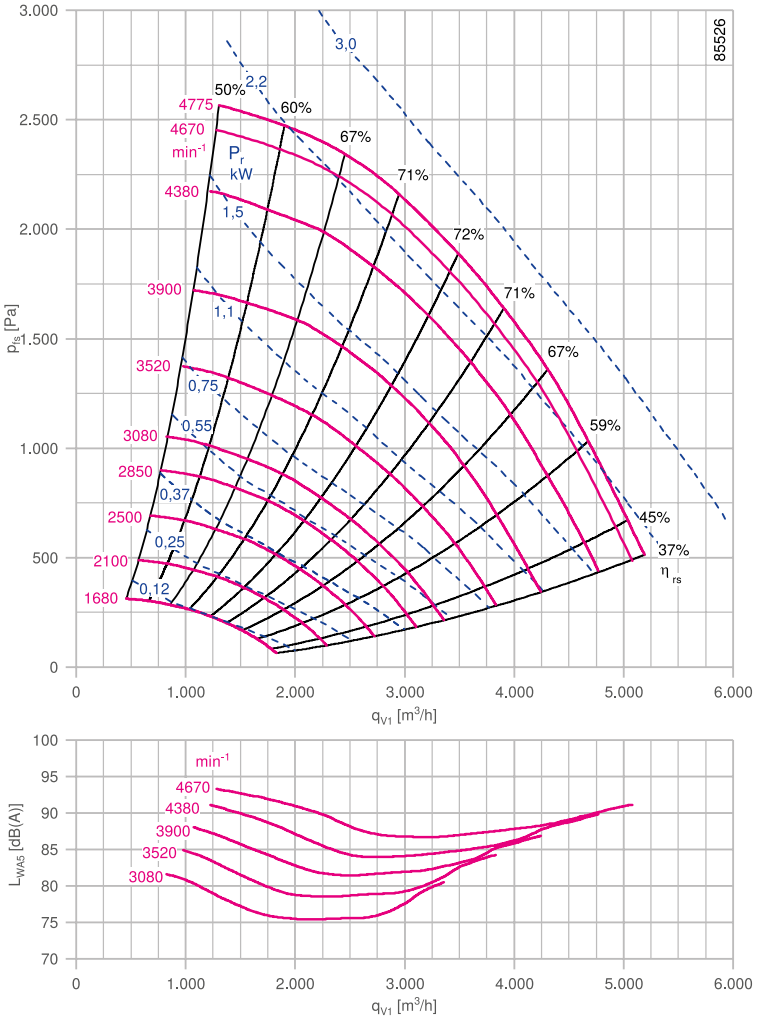
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

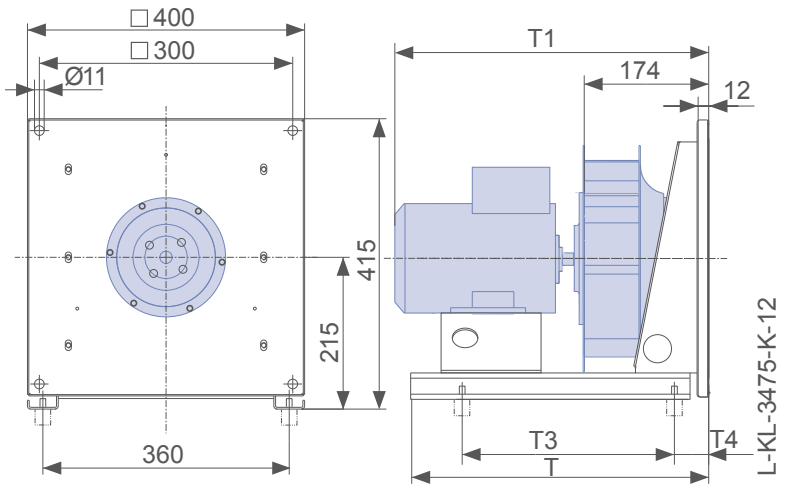
Nozzle coefficients

Standard k	75
With guard grille k_g	72
With inlet guide grille k_{ZAflow}	74

Characteristic curve



Dimensions mm



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
1.10	**ER28C-2DN.B7.1R**	**130605/0141**	080M	82.7	2.20	2885	3520	61	60.9	70.3
1.50	**ER28C-2DN.C7.1R**	**130606/0141**	090S/L	84.2	3.00	2910	3900	67	62.0	70.1
2.20	**ER28C-2DN.D7.1R**	**130607/0141**	090L/S	85.9	4.20	2910	4370	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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
0.75	**ER28C-2DN.B7.1R**	24.00	460	457	368	60	00406513	00411643	02021195	00090144	308228	00415082
1.10	**ER28C-2DN.B7.1R**	25.00	460	492	368	60	00406513	00411643	02021195	00090144	308228	00415082
1.50	**ER28C-2DN.C7.1R**	28.00	460	502	368	60	00406513	00411643	02021196	00090144	308230	00415082
2.20	**ER28C-2DN.D7.1R**	32.00	460	542	368	60	00406513	00411643	02021196	00090144	308232	00415082
3.00	**ER28C-2DN.E7.1R**	40.00	570	575	473	60	00406513	00411643	02021196	00090144	308234	00415082

Plug fan C

ER31C

Motor ZAmotpremium IE3

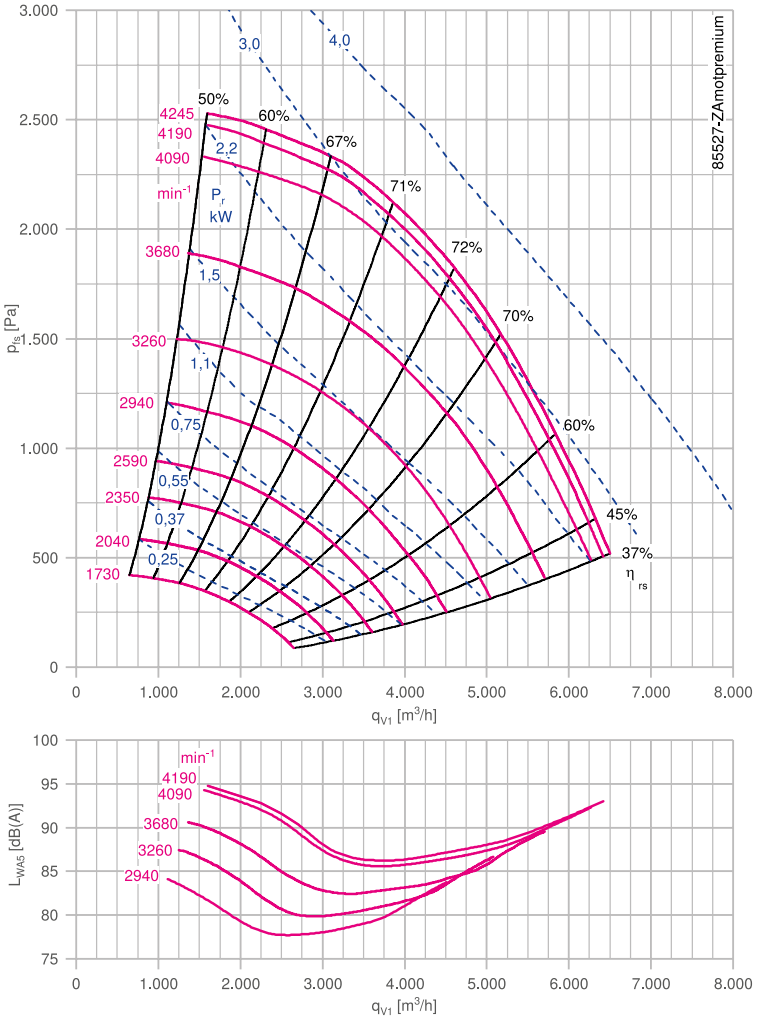
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

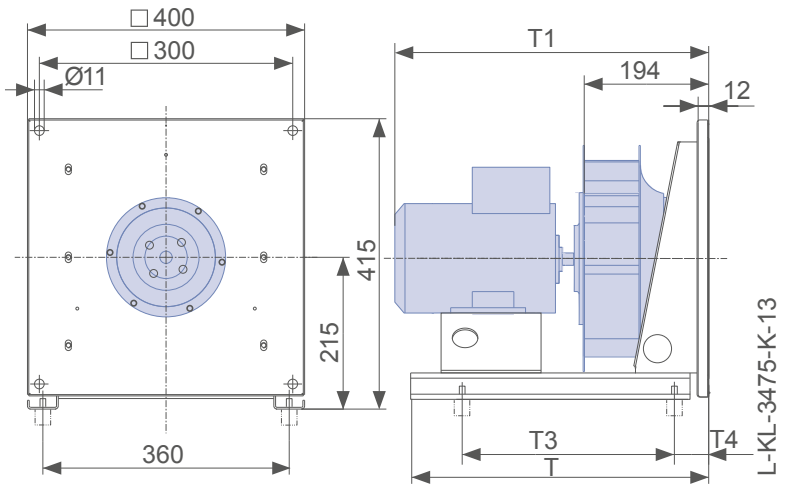
Nozzle coefficients

Standard k	95
With guard grille k_g	91
With inlet guide grille k_{ZAflow}	93

Characteristic curve



Dimensions mm



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} *
1.10	**ER31C-2DN.B7.1R**	**130599/0141**	080M	82.7	2.20	2885	2940	51	61.1	70.3
1.50	**ER31C-2DN.C7.1R**	**130600/0141**	090S/L	84.2	3.00	2910	3260	56	62.2	70.0
2.20	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER31C-2DN.B7.1R**	26.00	460	512	368	60	00406513	00411571	02021195	00090144	308228	00415083
1.50	**ER31C-2DN.C7.1R**	30.00	570	522	420	60	00406513	00411571	02021196	00090144	308230	00415083
2.20	**ER31C-2DN.D7.1R**	34.00	570	562	420	60	00406513	00411571	02021196	00090144	308232	00415083
3.00	**ER31C-2DN.E7.1R**	41.00	570	595	473	60	00406513	00411571	02021196	00090144	308234	00415083
4.00	**ER31C-2DN.F7.1R**	49.00	570	579	473	60	00406513	00411571	02021197	00090144	308236	00415083

Plug fan C

ER35C

Motor ZAmotpremium IE3

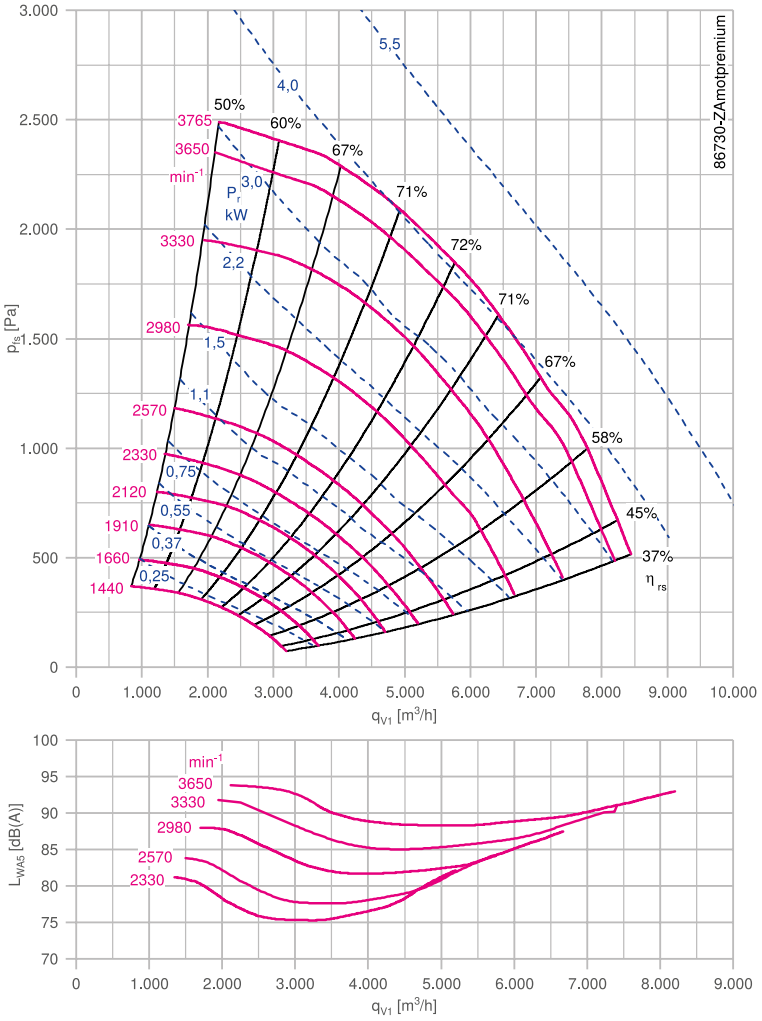
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

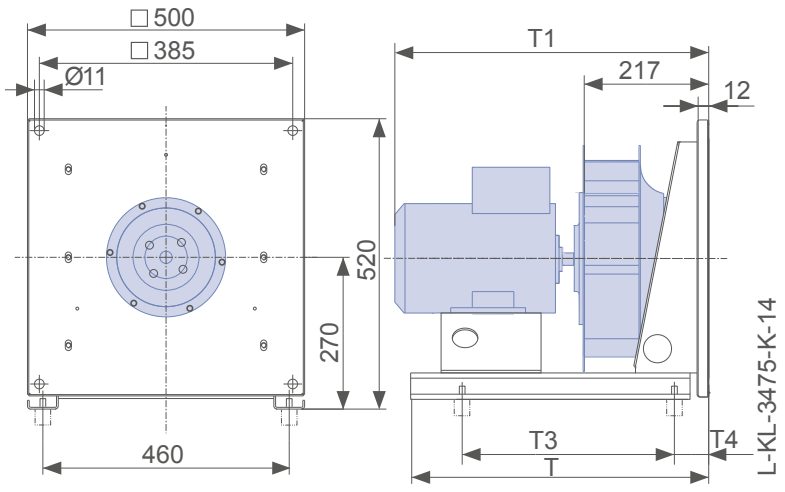
Nozzle coefficients

Standard k	121
With guard grille k_g	116
With inlet guide grille k_{ZAflow}	119

Characteristic curve



Dimensions mm



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}*
1.10	**ER35C-4DN.C7.1R**	**131399/0141**	090S/L	84.1	2.40	1440	2330	81	61.9	71.6
1.50	**ER35C-4DN.D7.1R**	**130595/0141**	090L/S	85.3	3.20	1445	2570	89	62.8	71.3
2.20	**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 setpoint N=62 | expected setpoint for next ErP level N=64

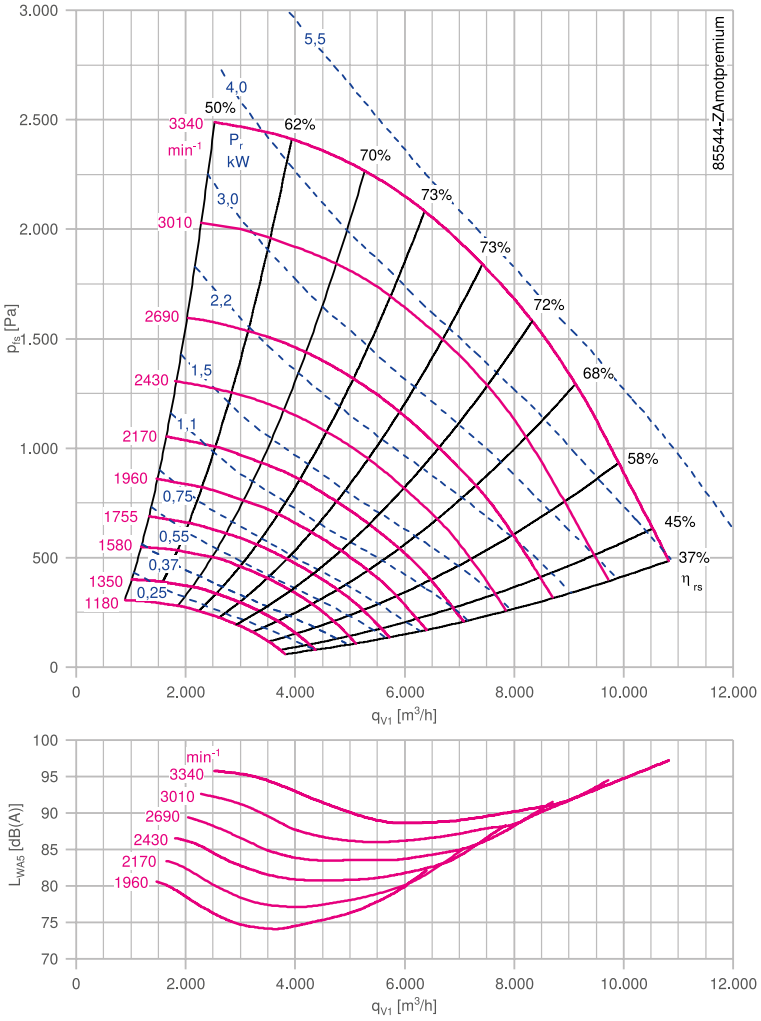
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER35C-4DN.C7.1R**	34.00	570	544	315	115	00406514	00411572	02021196	00090144	308228	00415083
1.50	**ER35C-4DN.D7.1R**	37.00	570	569	315	115	00406514	00411572	02021197	00090144	308230	00415083
2.20	**ER35C-2DN.D7.1R**	37.00	570	584	315	115	00406514	00411572	02021197	00090144	308232	00415083
3.00	**ER35C-2DN.E7.1R**	46.00	570	618	368	115	00406514	00411572	02021197	00090144	308234	00415083
4.00	**ER35C-2DN.F7.1R**	53.00	570	601	420	115	00406514	00411572	02021197	00090144	308236	00415083

Plug fan C

ER40C

Motor ZAmotpremium IE3

Characteristic curve



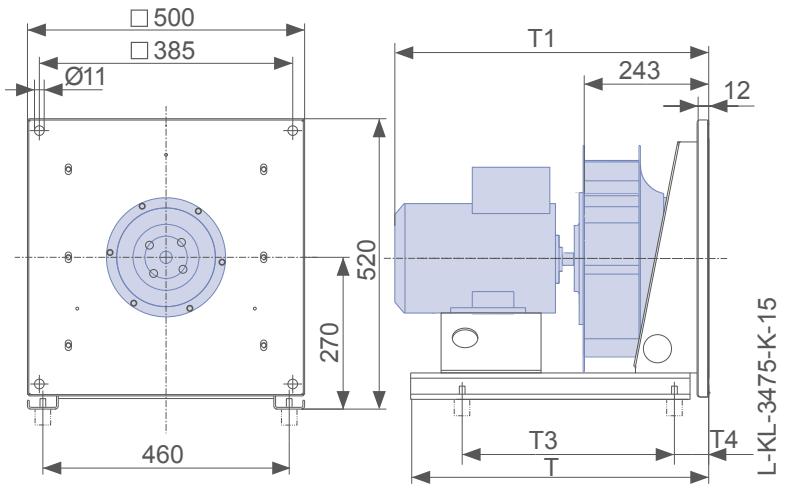
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

Nozzle coefficients

Standard k	154
With guard grille k_g	148
With inlet guide grille k_{ZAflow}	151

Dimensions mm



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}*
1.10	**ER40C-4DN.C7.1R**	**130589/0141**	090S/L	84.1	2.40	1440	1960	68	63.0	72.5
1.50	**ER40C-4DN.D7.1R**	**130590/0141**	090L/S	85.3	3.20	1445	2170	75	63.9	72.0
2.20	**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
5.50	**ER40C-2DN.G7.1R**	**130594/0141**	132S/M	89.2	9.90	2950	3340	57	66.8	69.2

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER40C-4DN.C7.1R**	38.00	570	570	315	115	00406514	00411573	02021196	00090144	308228	00415084
1.50	**ER40C-4DN.D7.1R**	41.00	570	595	315	115	00406514	00411573	02021197	00090144	308230	00415084
2.20	**ER40C-4DN.E7.1R**	53.00	570	609	420	115	00406514	00411573	02021197	00090144	308232	00415084
3.00	**ER40C-4DN.E7.1R**	53.00	570	644	420	115	00406514	00411573	02021197	00090144	308234	00415084
4.00	**ER40C-2DN.F7.1R**	58.00	720	627	420	115	00406514	00411573	02021197	00090144	308236	00415084
5.50	**ER40C-2DN.G7.1R**	69.00	720	663	473	115	00406514	00411573	02021198	00090144	308265	00415084

Plug fan C

ER45C

Motor ZAmotpremium IE3

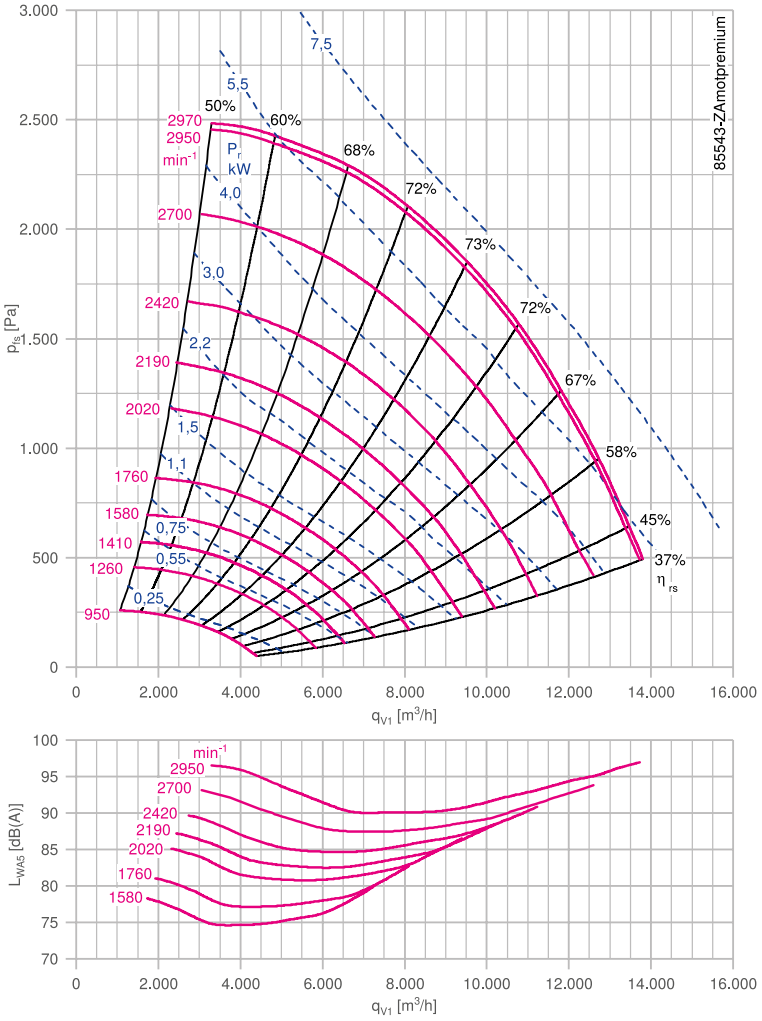
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

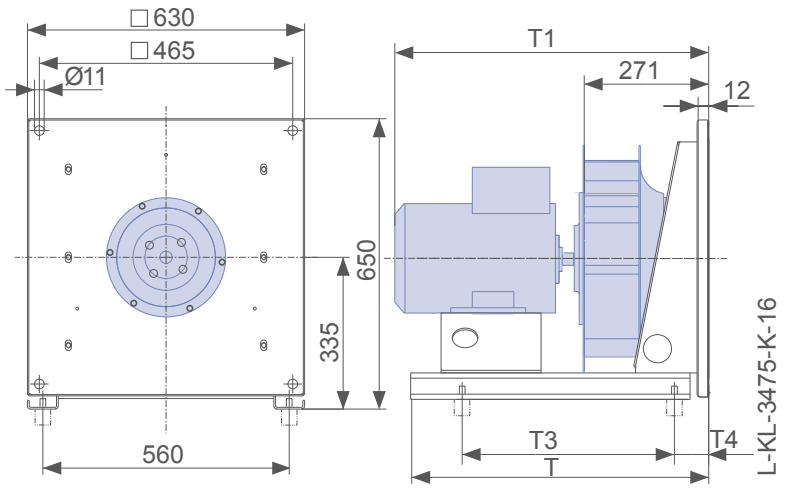
Nozzle coefficients

Standard k	197
With guard grille k_g	189
With inlet guide grille k_{ZAflow}	193

Characteristic curve



Dimensions mm



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}*
1.10	**ER45C-4DN.C7.1R**	**130582/0141**	090S/L	84.1	2.40	1440	1580	55	63.3	72.9
1.50	**ER45C-4DN.D7.1R**	**130583/0141**	090L/S	85.3	3.20	1445	1760	60	64.2	72.4
2.20	**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
5.50	**ER45C-4DN.G7.1R**	**130587/0141**	132S	89.6	10.50	1470	2700	92	67.4	70.0
7.50	**ER45C-2DN.G7.1R**	**130588/0141**	132S	90.1	13.10	2950	2950	50	67.8	69.2

* ErP 2015 setpoint N=62 | expected setpoint for next ErP level N=64

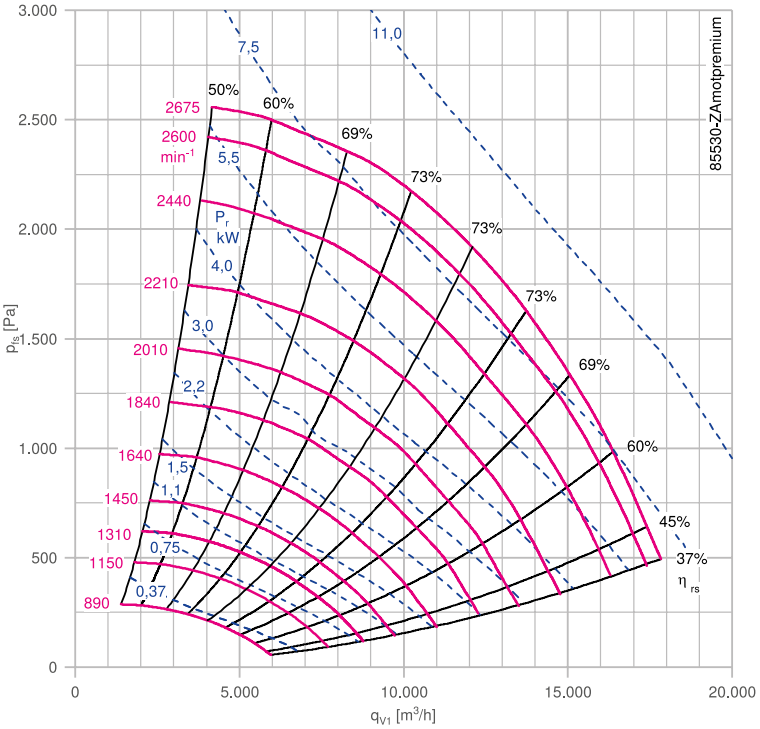
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.10	**ER45C-4DN.C7.1R**	48.00	570	604	315	115	00406515	00411574	02021197	00090144	308228	00415084
1.50	**ER45C-4DN.D7.1R**	51.00	570	629	368	115	00406515	00411574	02021197	00090144	308230	00415084
2.20	**ER45C-4DN.E7.1R**	63.00	570	642	368	115	00406515	00411574	02021197	00090144	308232	00415084
3.00	**ER45C-4DN.E7.1R**	63.00	570	677	420	115	00406515	00411574	02021198	00090144	308234	00415084
4.00	**ER45C-4DN.F7.1R**	68.00	720	661	473	115	00406515	00411574	02021198	02000124	308236	00415084
5.50	**ER45C-4DN.G7.1R**	98.00	720	742	525	115	00406515	00411574	02021198	02000124	308265	00415084
7.50	**ER45C-2DN.G7.1R**	91.00	720	742	420	115	00406515	00411574	02021198	02000124	308267	00415084

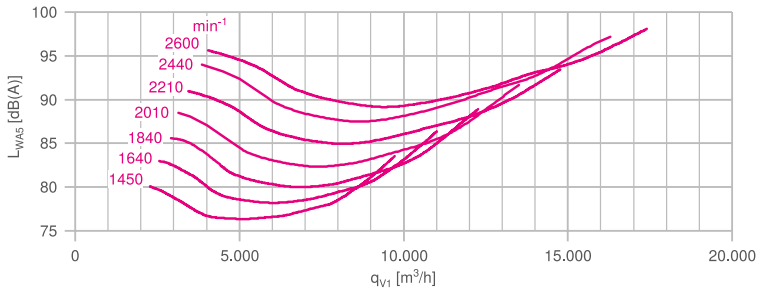
Plug fan C

ER50C

Motor ZAmotpremium IE3

Characteristic curve





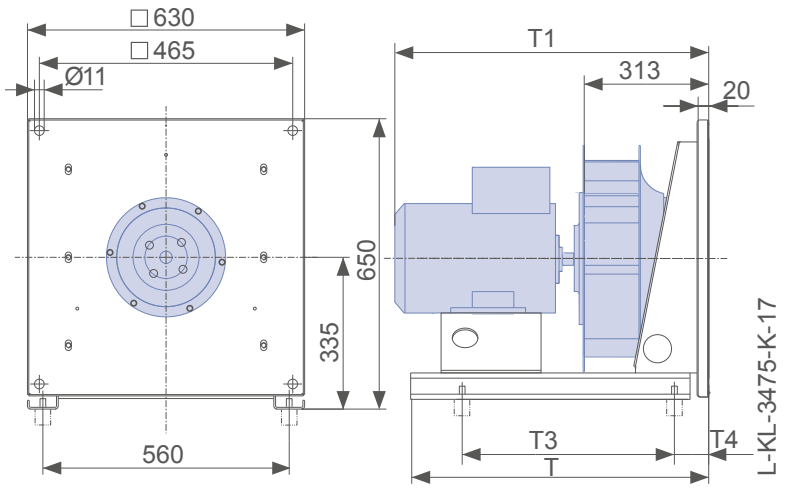
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

Nozzle coefficients

Standard k	252
With guard grille k_g	242
With inlet guide grille k_{ZAflow}	247

Dimensions mm



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}*
1.50	**ER50C-4DN.D7.1R**	**130575/0141**	090L/S	85.3	3.20	1445	1450	50	64.0	72.2
2.20	**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
5.50	**ER50C-4DN.G7.1R**	**130579/0141**	132S	89.6	10.50	1470	2210	75	67.2	69.8
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.50	**ER50C-4DN.D7.1R**	57.00	728	670	420	115	00406515	00411575	02021197	00090144	308230	00415085
2.20	**ER50C-4DN.E7.1R**	69.00	728	684	473	115	00406515	00411575	02021197	00090144	308232	00415085
3.00	**ER50C-4DN.E7.1R**	69.00	728	719	420	115	00406515	00411575	02021197	00090144	308234	00415085
4.00	**ER50C-4DN.F7.1R**	73.00	728	702	473	115	00406515	00411575	02021198	02000124	308236	00415085
5.50	**ER50C-4DN.G7.1R**	103.00	728	783	578	115	00406515	00411575	02021198	02000124	308265	00415085
7.50	**ER50C-4DN.H7.1R**	103.00	728	783	578	115	00406515	00411575	02021198	02000124	308267	00415085
11.00	**ER50C-4DN.I7.1R**	128.00	888	842	735	115	00406515	00411575	02021199	02000124	308323	00415085

Plug fan C

ER56C

Motor ZAmotpremium IE3

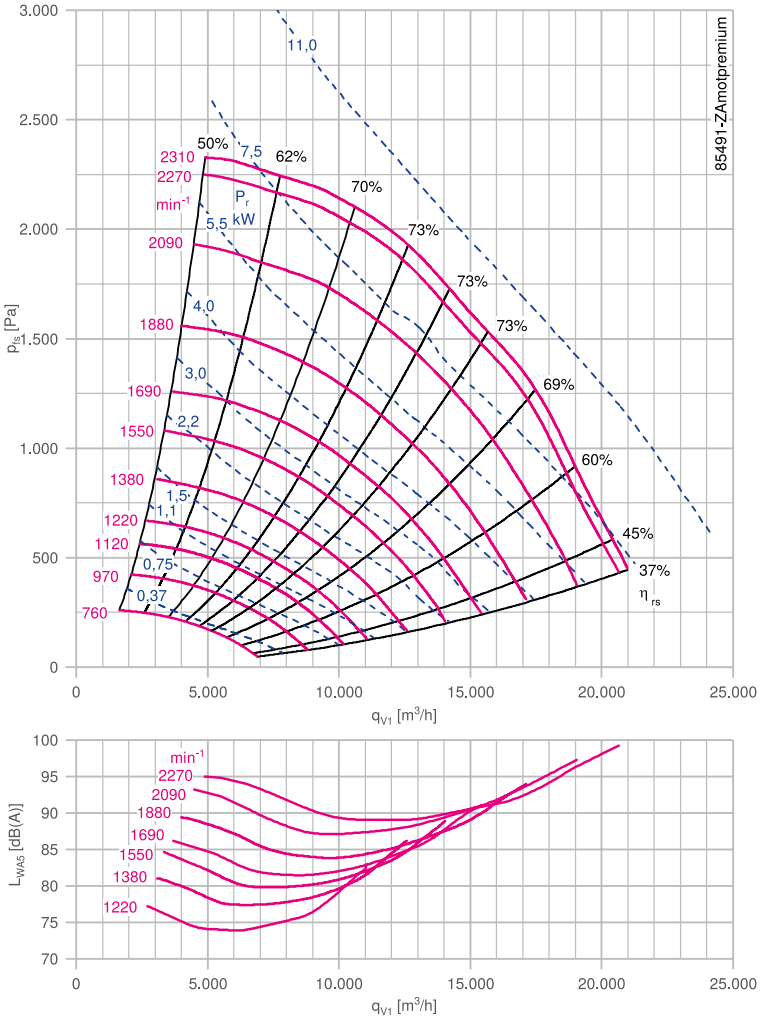
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

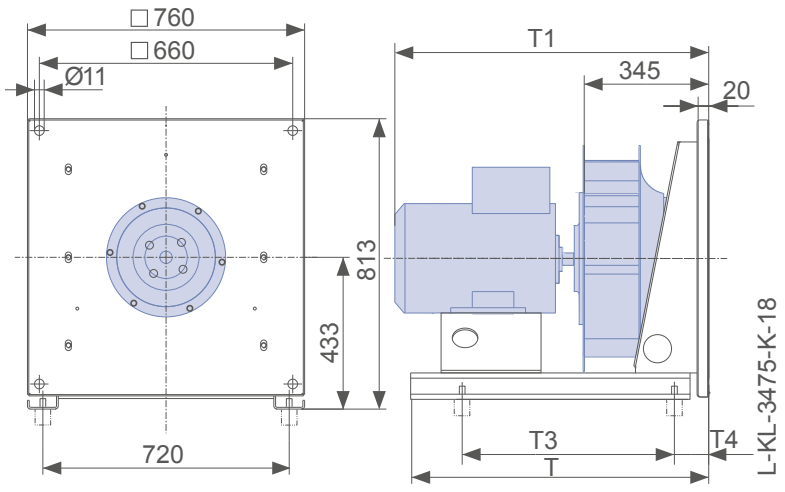
Nozzle coefficients

Standard k	308
With guard grille k_g	295
With inlet guide grille k_{ZAflow}	302

Characteristic curve



Dimensions mm



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}*
1.50	**ER56C-6DN.E7.1R**	**130568/0141**	100L	82.5	3.05	970	1220	63	61.6	69.7
2.20	**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	1,550	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
5.50	**ER56C-4DN.G7.1R**	**130572/0141**	132S	89.6	10.50	1470	1880	64	67.0	69.5
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

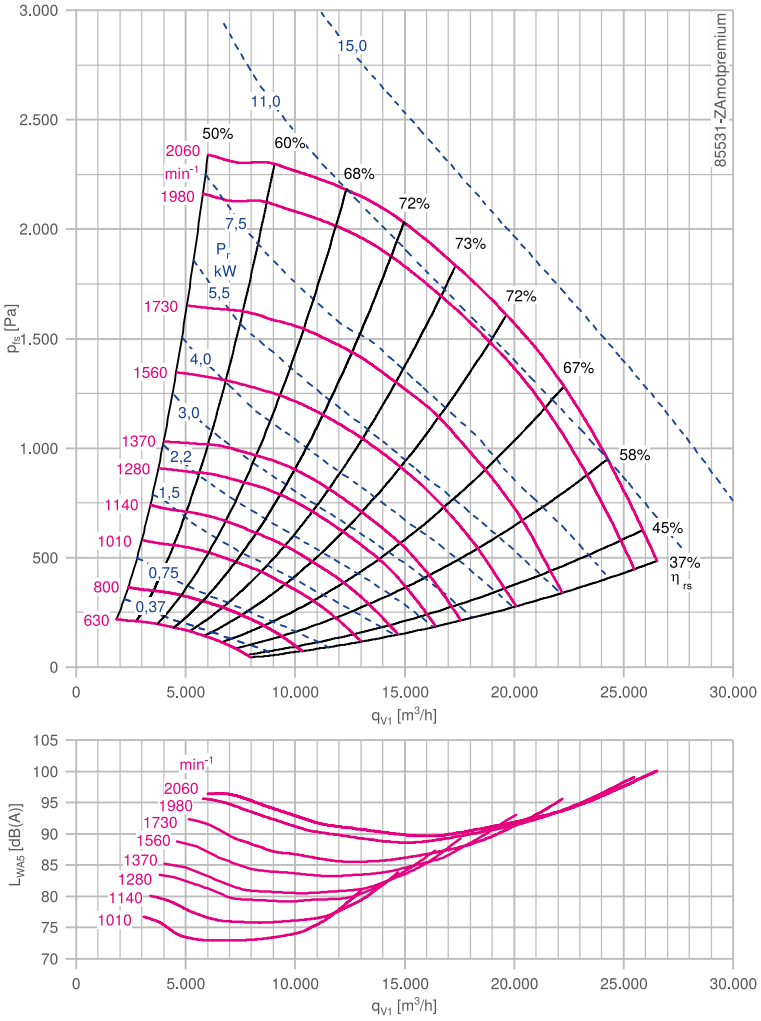
P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.50	**ER56C-6DN.E7.1R**	80.00	720	751	473	115	00405986	00411644	02021198	00090144	308230	00415085
2.20	**ER56C-4DN.E7.1R**	80.00	720	716	473	115	00405986	00411644	02021198	00090144	308232	00415085
3.00	**ER56C-4DN.E7.1R**	80.00	720	751	473	115	00405986	00411644	02021199	02000124	308234	00415085
4.00	**ER56C-4DN.F7.1R**	84.00	720	734	525	115	00405986	00411644	02021199	02000124	308236	00415085
5.50	**ER56C-4DN.G7.1R**	117.00	880	815	630	115	00405986	00411644	02021199	02000124	308265	00415085
7.50	**ER56C-4DN.H7.1R**	117.00	880	815	683	115	00405986	00411644	02021199	00407339	308267	00415085
11.00	**ER56C-4DN.I7.1R**	142.00	880	874	735	115	00405986	00411644	02018876	00407339	308323	00415085

Plug fan C

ER63C

Motor ZAmotpremium IE3

Characteristic curve



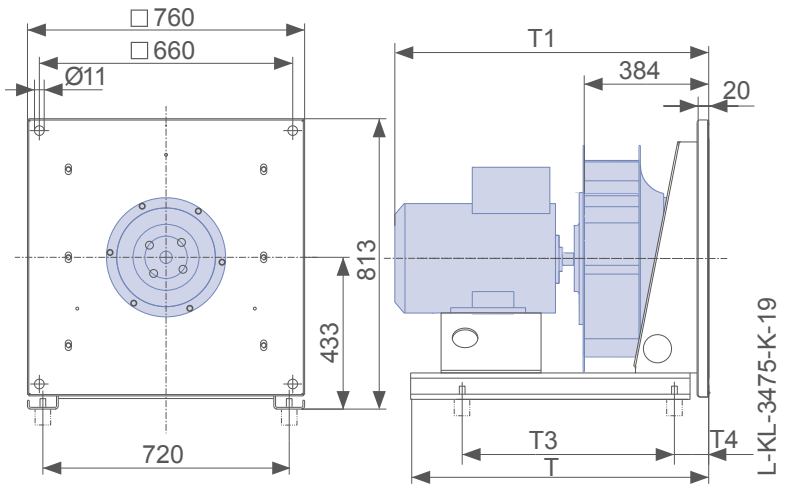
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

Nozzle coefficients

Standard k	381
With guard grille k_g	365
With inlet guide grille k_{ZAflow}	373

Dimensions mm



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}*
1.50	**ER63C-6DN.E7.1R**	**130560/0141**	100L	82.5	3.05	970	1010	52	61.4	69.3
2.20	**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
5.50	**ER63C-4DN.G7.1R**	**130564/0141**	132S	89.6	10.50	1470	1560	53	66.7	69.0
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~	Inlet guide grille ZAflow
									Spring	Rubber		
1.50	**ER63C-6DN.E7.1R**	95.00	720	790	473	115	00405986	00411645	02021198	00090144	308230	00415086
2.20	**ER63C-6DN.F7.1R**	94.00	720	774	473	115	00405986	00411645	02021198	00090144	308232	00415086
3.00	**ER63C-6DN.G7.1R**	109.00	880	805	578	115	00405986	00411645	02021199	02000124	308234	00415086
4.00	**ER63C-4DN.F7.1R**	99.00	720	774	525	115	00405986	00411645	02021199	02000124	308236	00415086
5.50	**ER63C-4DN.G7.1R**	131.00	880	855	630	115	00405986	00411645	02021199	02000124	308265	00415086
7.50	**ER63C-4DN.H7.1R**	131.00	880	855	683	115	00405986	00411645	02021199	02020907	308267	00415086
11.00	**ER63C-4DN.I7.1R**	156.00	880	914	735	115	00405986	00411645	02018876	00407339	308323	00415086
15.00	**ER63C-4DN.K7.1R**	173.00	880	974	735	115	00405986	00411645	02018876	02020907	308325	00415086

Plug fan C

ER71C

Motor ZAmotpremium IE3

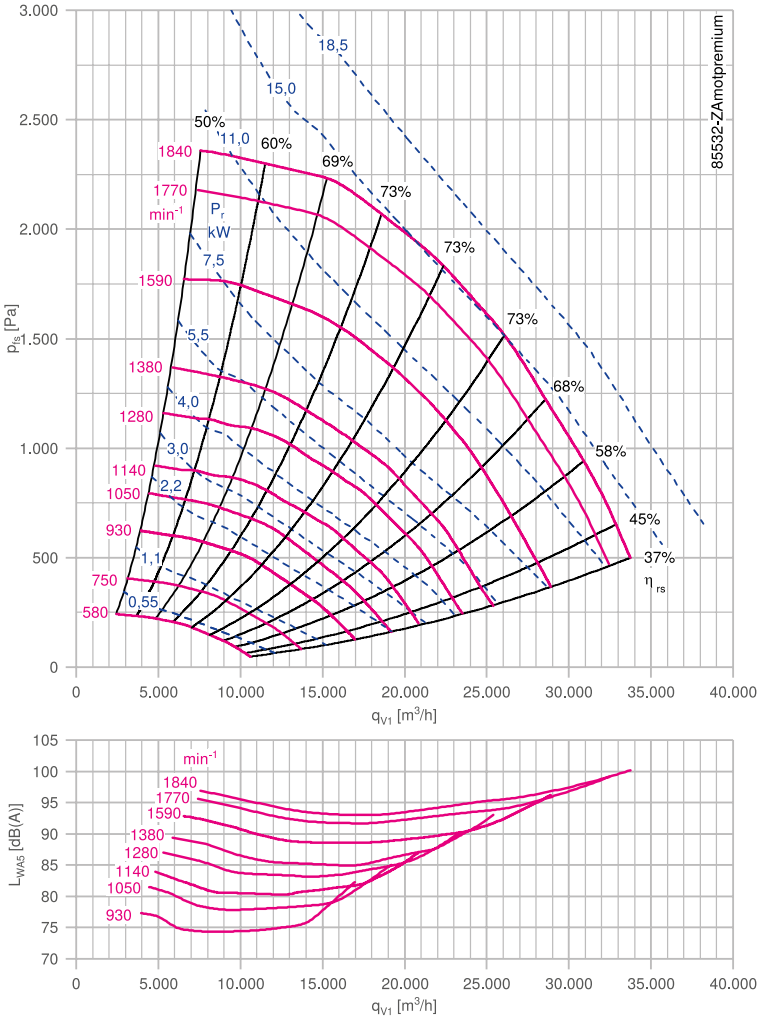
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

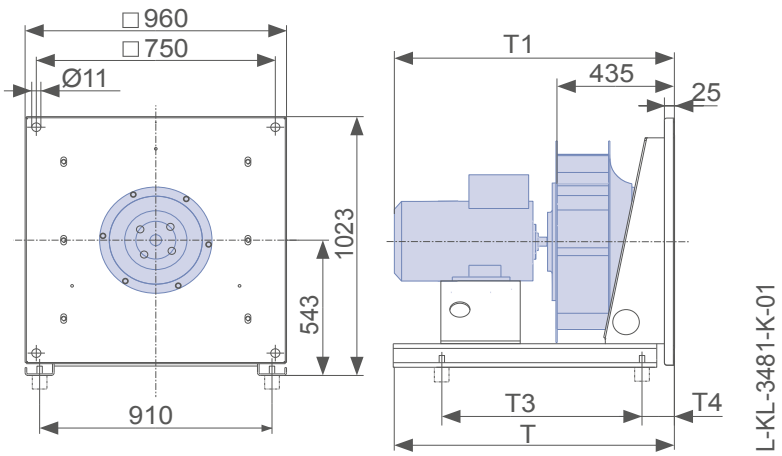
Nozzle coefficients

Standard k	490
With guard grille k_g	470

Characteristic curve



Dimensions mm



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}*
2.20	**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
5.50	**ER71C-6DN.H7.1R**	**130555/0141**	132M	88.0	11.60	970	1280	66	65.4	67.7
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
2.20	**ER71C-6DN.F7.1R**	124.00	885	825	683	115	00403350	00411646	00090157	02006449	308232
3.00	**ER71C-6DN.G7.1R**	139.00	885	856	630	115	00403350	00411646	00090157	02006449	308234
4.00	**ER71C-6DN.H7.1R**	149.00	885	856	630	115	00403350	00411646	00090157	02006449	308236
5.50	**ER71C-6DN.H7.1R**	149.00	885	906	630	115	00403350	00411646	00090157	02006450	308265
7.50	**ER71C-4DN.H7.1R**	161.00	885	906	683	115	00403350	00411646	00090157	02006450	308267
11.00	**ER71C-4DN.I7.1R**	184.00	1045	965	788	115	00403350	00411646	00090157	02006450	308323
15.00	**ER71C-4DN.K7.1R**	201.00	1045	1025	840	115	00403350	00411646	02000407	02006450	308325
18.50	**ER71C-4DN.L7.1R**	268.00	1045	1029	893	115	00403350	00411646	02000407	02006450	308327

Plug fan C

ER80C

Motor ZAmotpremium IE3

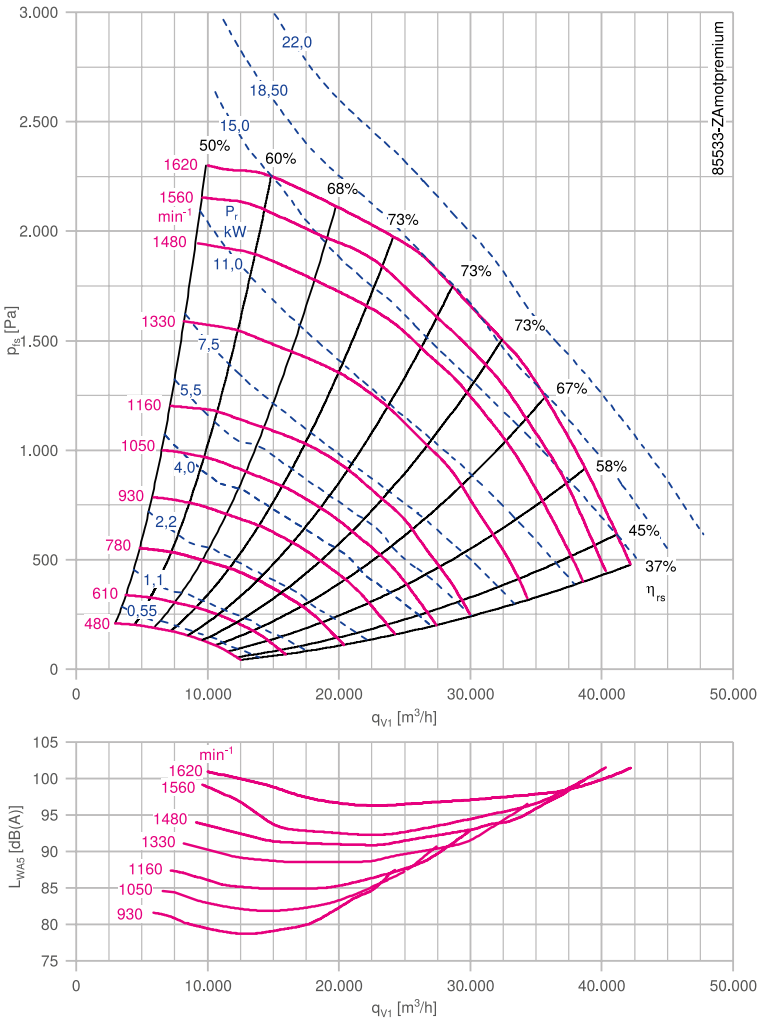
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

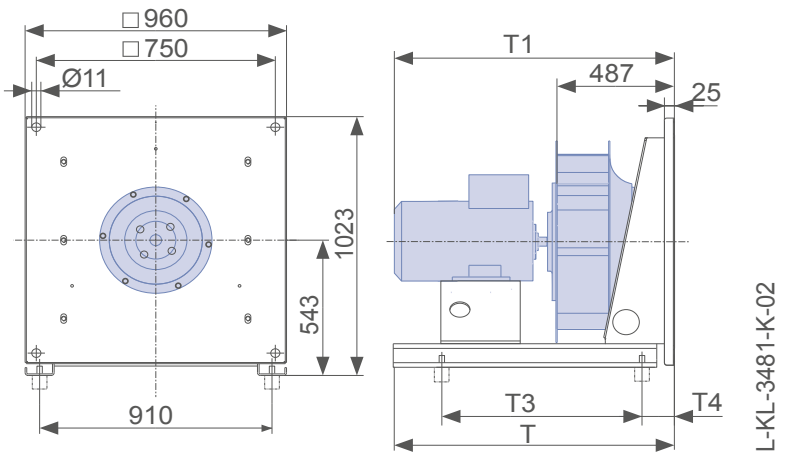
Nozzle coefficients

Standard k	620
With guard grille k_g	594

Characteristic curve



Dimensions mm



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
5.50	**ER80C-6DN.H7.1R**	**130546/0141**	132M	88.0	11.60	970	1050	54	65.6	68.0
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
4.00	**ER80C-6DN.H7.1R**	177.00	885	908	683	115	00403350	00414162	00090157	02006449	308236
5.50	**ER80C-6DN.H7.1R**	177.00	885	958	683	115	00403350	00414162	00090157	02006450	308265
7.50	**ER80C-6DN.I7.1R**	223.00	1045	1017	840	115	00403350	00414162	00090157	02006450	308267
11.00	**ER80C-6DN.K7.1R**	244.00	1045	1077	893	115	00403350	00414162	00090157	02006450	308323
15.00	**ER80C-4DN.K7.1R**	229.00	1045	1077	893	115	00403350	00414162	02000407	02006450	308325
18.50	**ER80C-4DN.L7.1R**	295.00	1045	1081	893	115	00403350	00414162	02000407	02006450	308327
22.00	**ER80C-4DN.M7.1R**	300.00	1045	1111	893	115	00403350	00414162	02000407	02006450	308329

Plug fan C

ER90C

Motor ZAmotpremium IE3

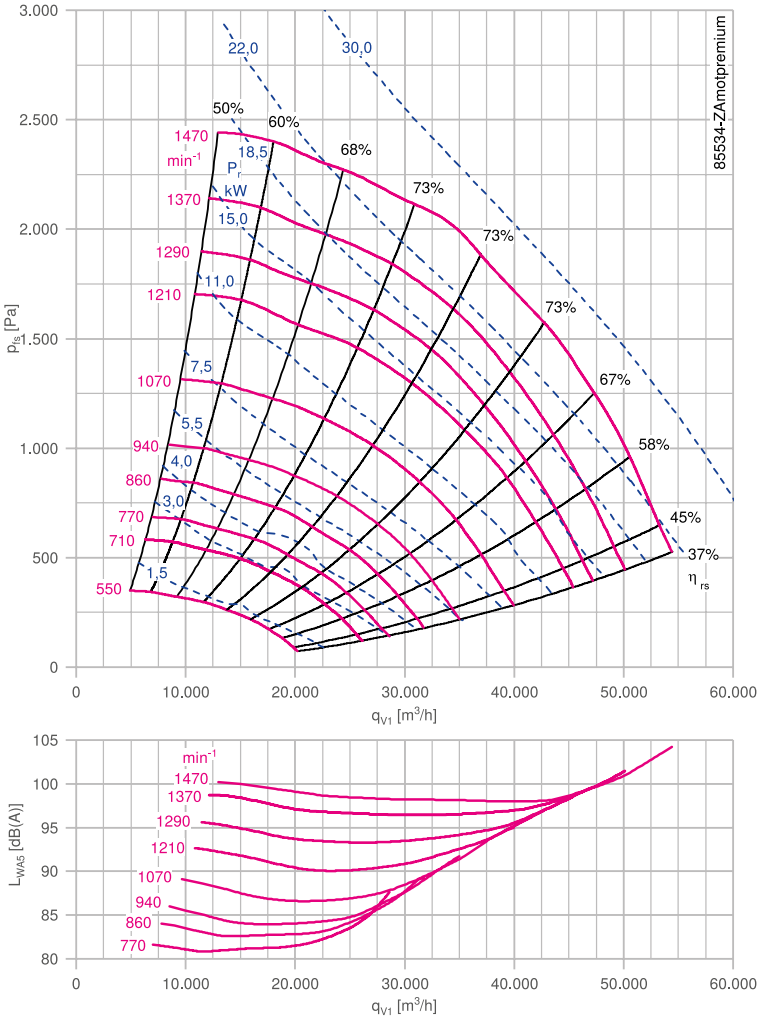
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

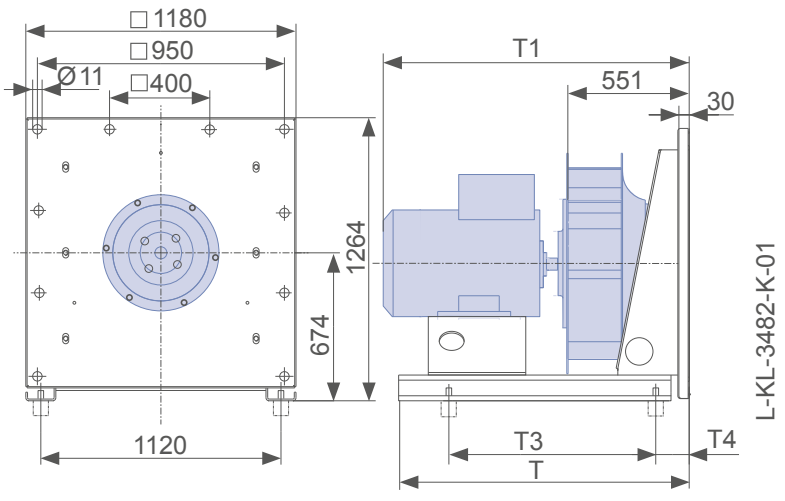
Nozzle coefficients

Standard k	789
With guard grille k_g	756

Characteristic curve



Dimensions mm



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
5.50	**ER90C-8DN.I7.1R**	**130538/0141**	160M/L	86.2	14.00	730	860	59	64.7	66.9
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
4.00	**ER90C-8DN.I7.1R**	259.00	1160	1080	840	115	00403351	00411648	02001674	02006450	308265
5.50	**ER90C-8DN.I7.1R**	273.00	1160	1080	893	115	00403351	00411648	02001674	02006450	308267
7.50	**ER90C-6DN.I7.1R**	280.00	1160	1080	893	115	00403351	00411648	02001674	02006450	308267
11.00	**ER90C-6DN.K7.1R**	302.00	1160	1140	945	115	00403351	00411648	02000407	02006451	308323
15.00	**ER90C-6DN.M7.1R**	371.00	1320	1144	1050	115	00403351	00411648	02000407	02006451	308325
18.50	**ER90C-6DN.N7.1R**	408.00	1320	1197	1050	115	00403351	00411648	02000407	02006451	308327
22.00	**ER90C-6DN.N7.1R**	423.00	1320	1222	893	115	00403351	00411648	02019767	02006451	308329
30.00	**ER90C-4DN.N7.1R**	433.00	1320	1222	1155	115	00403351	00411648	02019767	02006452	308331

Plug fan C

ER10C

Motor ZAmotpremium IE3

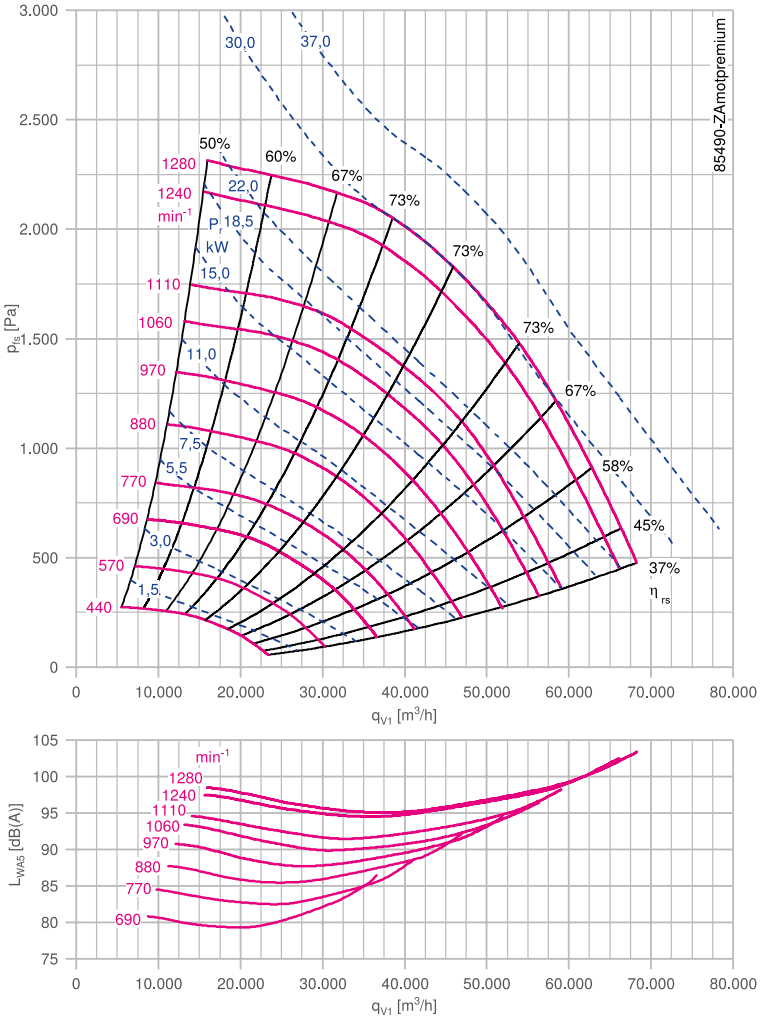
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

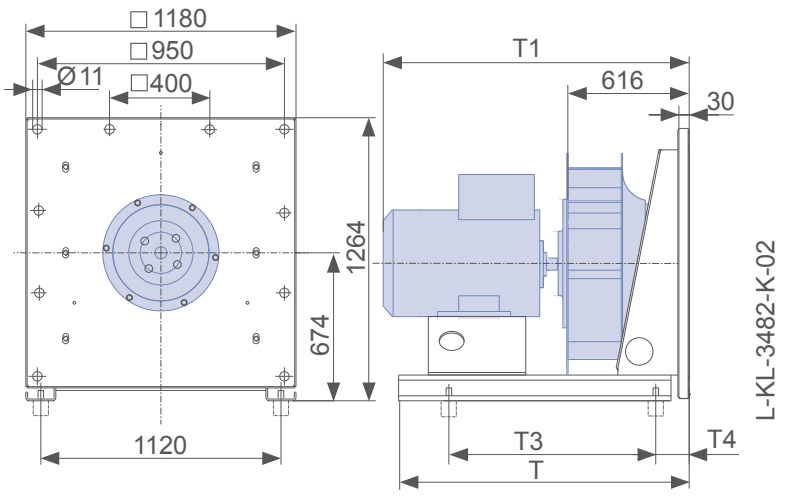
Nozzle coefficients

Standard k	999
With guard grille k_g	958

Characteristic curve



Dimensions mm



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}*
5.50	**ER10C-8DN.I7.1R**	**130528/0141**	160M/L	86.2	14.00	730	690	47	64.4	66.9
7.50	**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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
5.50	**ER10C-8DN.I7.1R**	316.00	1160	1146	998	115	00403351	00411649	02001674	02006450	308267
7.50	**ER10C-8DN.K7.1R**	340.00	1160	1206	945	115	00403351	00411649	02001674	02006450	308323
11.00	**ER10C-8DN.M7.1R**	423.00	1320	1240	1103	115	00403351	00411649	02000407	02006451	308323
15.00	**ER10C-6DN.M7.1R**	413.00	1320	1210	1103	115	00403351	00411649	02000407	02006451	308325
18.50	**ER10C-6DN.N7.1R**	451.00	1320	1263	1155	115	00403351	00411649	02000407	02006451	308327
22.00	**ER10C-6DN.N7.1R**	466.00	1320	1288	1050	115	00403351	00411649	02000407	02006451	308329
30.00	**ER10C-6DN.R7.1R**	559.00	1320	1362	1155	115	00403351	00411649	02019767	02006452	308331
37.00	**ER10C-6DN.S7.1R**	642.00	1320	1407	1155	115	00403351	00411649	02019767	02006452	

Plug fan C

ER11C.4R

Motor ZAmotpremium IE3

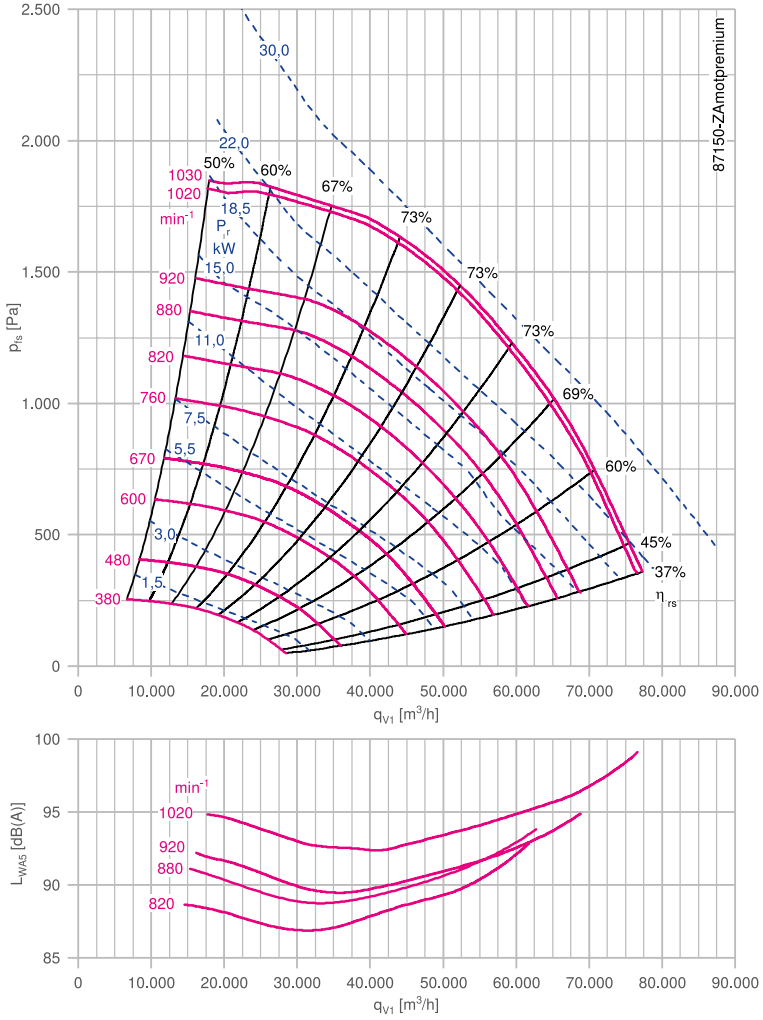
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

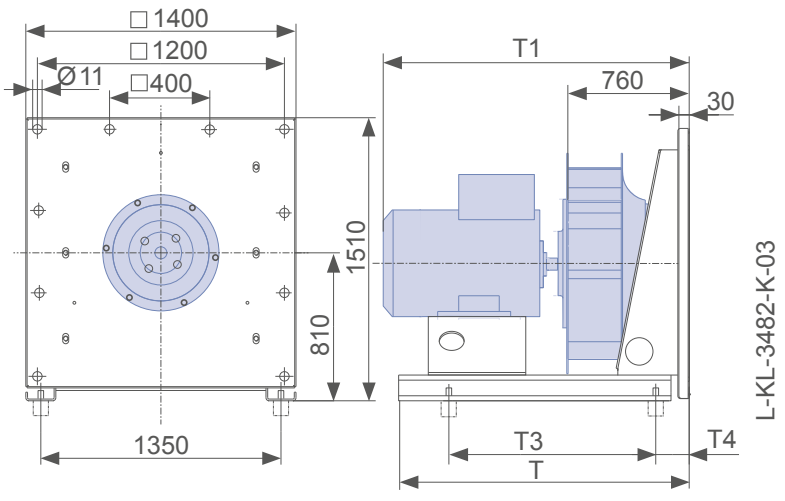
Nozzle coefficients

Standard k	1233
With guard grille k_g	1072

Characteristic curve



Dimensions mm



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 setpoint N=62 | expected setpoint for next ErP level N=64

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

Plug fan C

ER11C.1R

Motor ZAmotpremium IE3

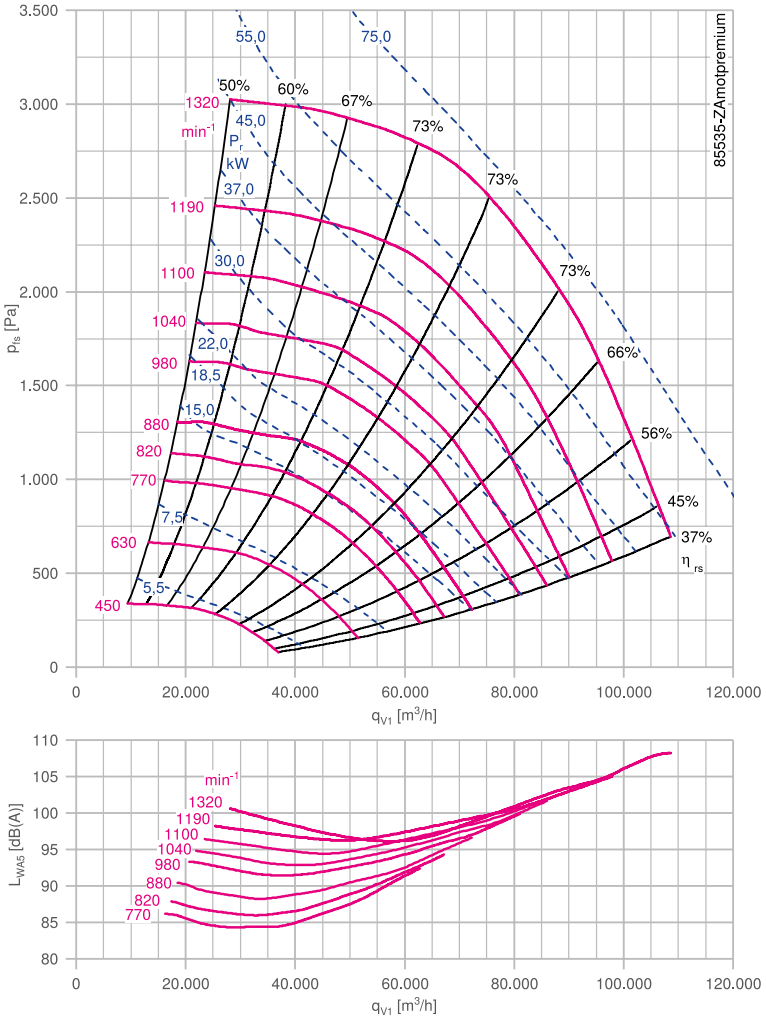
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 1 (L-TI-0585) RAL 5002 (ultramarine blue)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP55
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Approvals: CE, UKCA, EAC
Conformity: ErP 2015

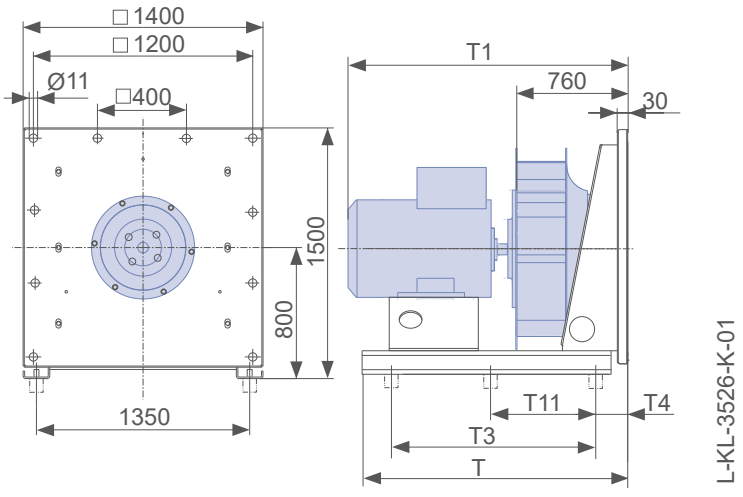
Nozzle coefficients

Standard k	1233
With guard grille k_g	1072

Characteristic curve



Dimensions mm



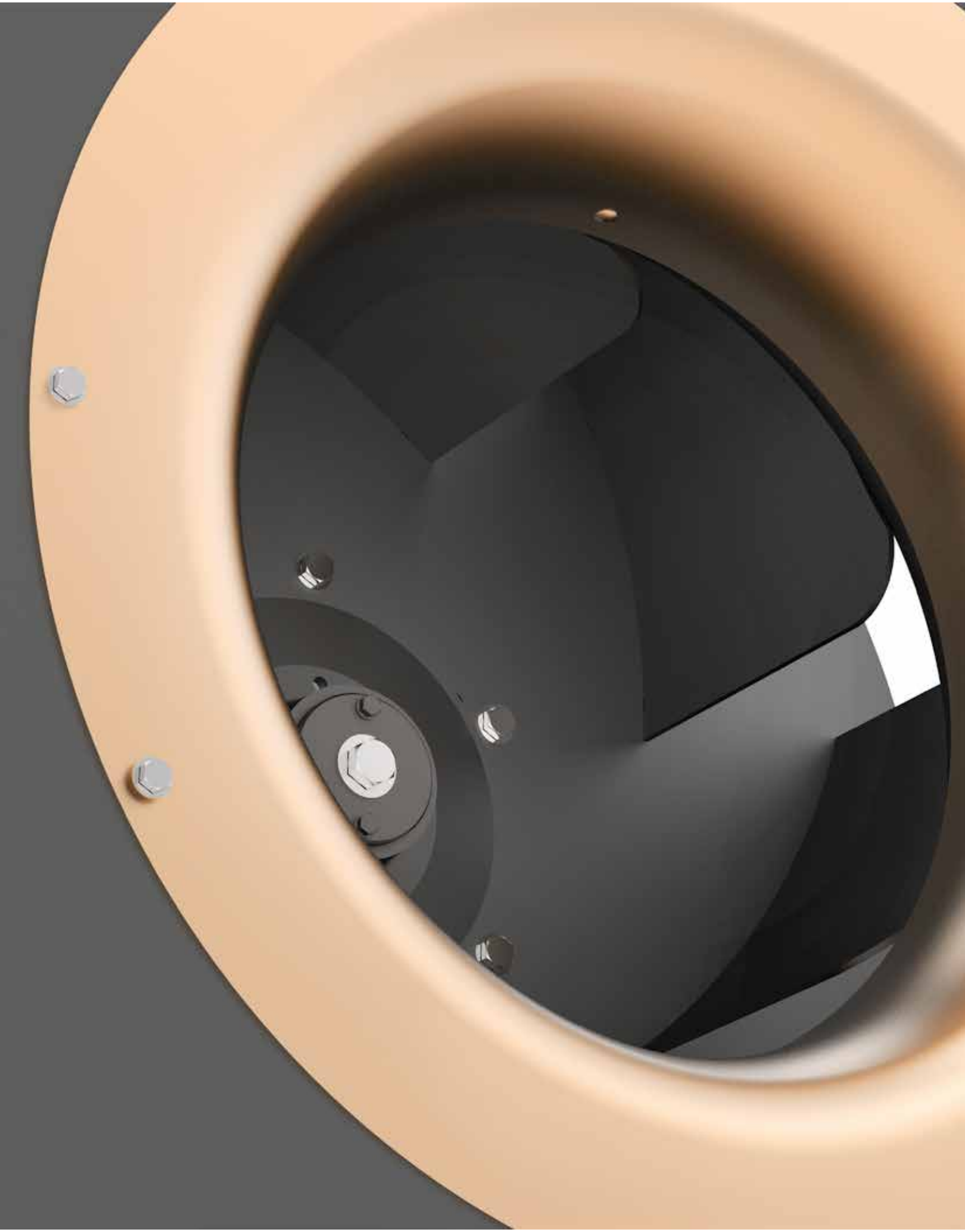
C-ZAmotpremium IE3

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 setpoint N=62 | expected setpoint for next ErP level N=64

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
									Spring	Rubber	
15.00	**ER11C-8DN.N7.1R**	696.00	1630	1442	1235	160	00403352	00411650	02000407	02006452	308327
18.50	**ER11C-8DN.P7.1R**	711.00	1630	1454	1235	160	00403352	00411650	02000407	02006452	308329
22.00	**ER11C-8DN.R7.1R**	711.00	1630	1454	1235	160	00403352	00411650	02000407	02006452	308329
30.00	**ER11C-6DN.R7.1R**	766.00	1630	1516	1432	160	00403352	00411650	02019767	02006453	308331
37.00	**ER11C-6DN.S7.1R**	846.00	1630	1561	1400	160	00403352	00411650	02019767	02006453	
45.00	**ER11C-6DN.T7.1R**	951.00	1630	1630	1430	160	00403352	00411650	02019767	02006453	
55.00	**ER11C-6DN.U7.1R**	1001.00	1630	1630	1430	160	00403352	00411650	02019767	02006453	
75.00	**ER11C-6DN.W7.1R**	1305.00	1795	1718	1460	276	00403352	00411650	02019767	02006453	

From motor size 280 are six vibration dampers intended. T11 = 730 mm



C-ATEX plug fan

ZAmotbasicEx IE3

Product overview

C-ATEX plug fan

ER25C

Motor ZAmotbasicEx IE3

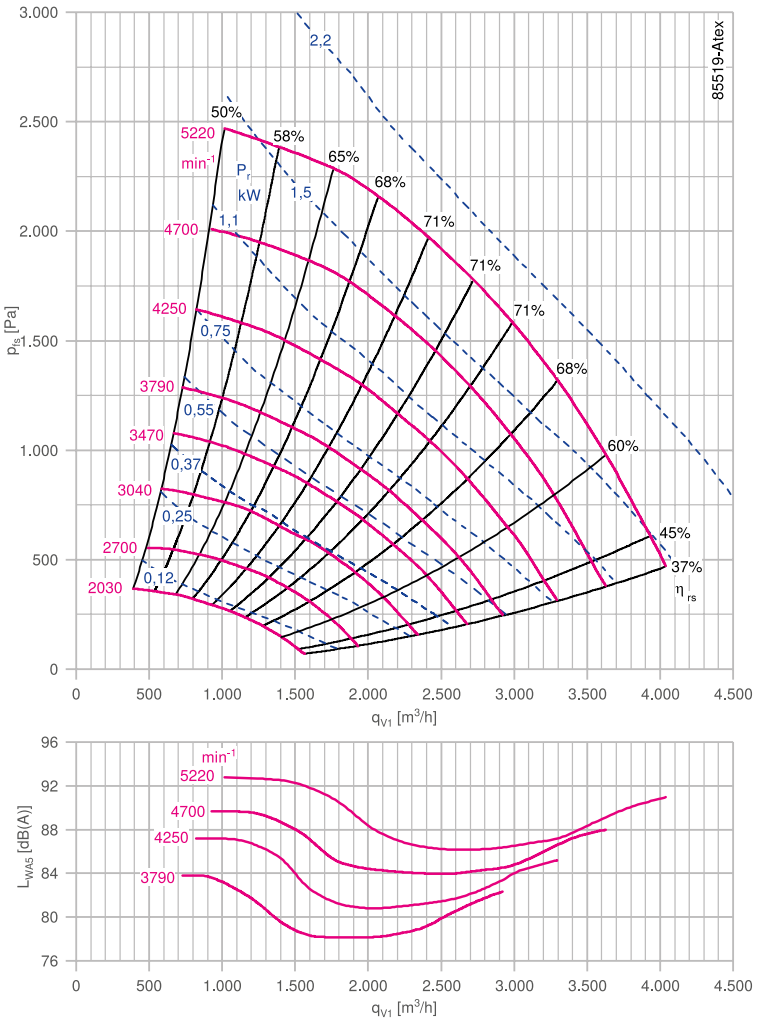
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

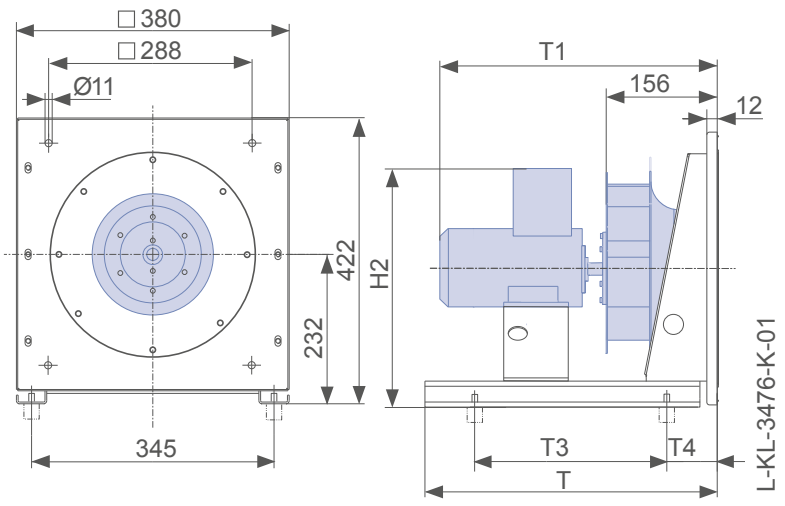
Nozzle coefficients

Standard k	60
With guard grille k_g	53

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx 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
0.75	**ER25C-2DY.B7.1R**	**130609/EX41**	080M	81.0	1.63	2825	3790	67
1.10	**ER25C-2DY.B7.1R**	**130610/EX41**	080M	83.0	2.33	2835	4250	75
1.50	**ER25C-2DY.D7.1R**	**130611/EX41**	090L/S	84.2	3.10	2900	4700	81
2.20	**ER25C-2DY.D7.1R**	**130612/EX41**	090L/S	86.3	4.43	2870	5220	91

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
0.75	**ER25C-2DY.B7.1R**	36.00	452	457	366	60	396	00406430	00412699	02021196	00090144	308228
1.10	**ER25C-2DY.B7.1R**	37.00	452	457	366	60	396	00406430	00412699	02021196	00090144	308228
1.50	**ER25C-2DY.D7.1R**	55.00	452	521	366	60	415	00406430	00412699	02021197	00090144	308230
2.20	**ER25C-2DY.D7.1R**	58.00	452	521	366	60	415	00406430	00412699	02021197	00090144	308232

C-ATEX plug fan

ER28C

Motor ZAmotbasicEx IE3

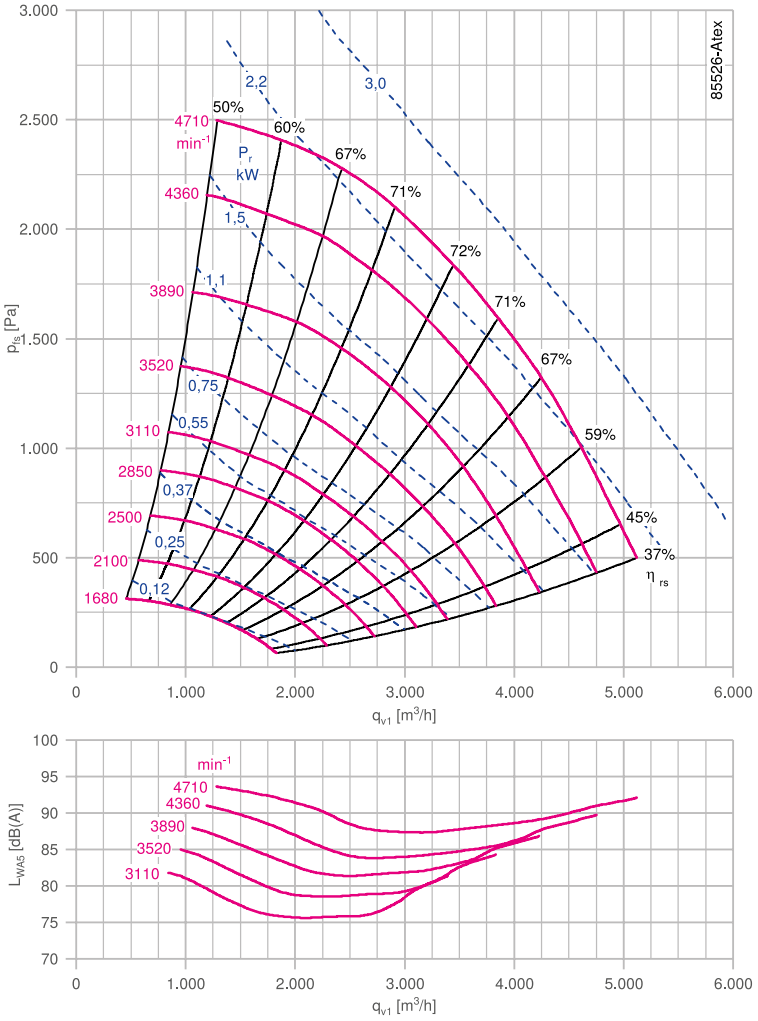
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

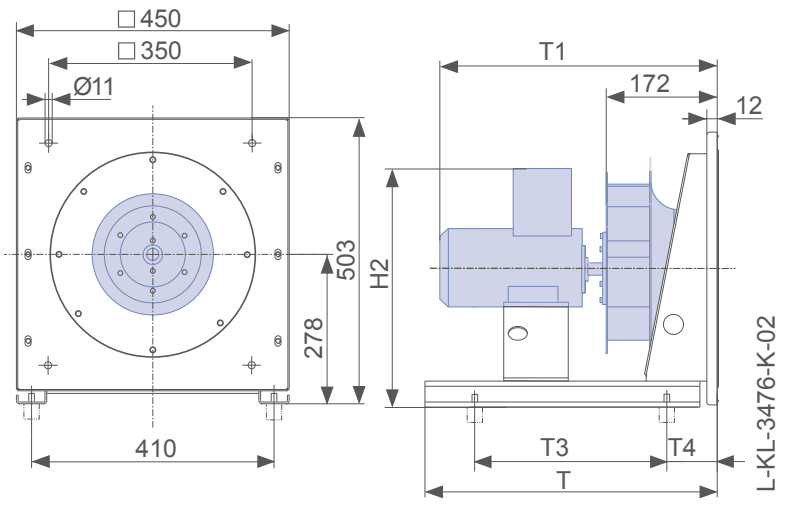
Nozzle coefficients

Standard k	75
With guard grille k_g	66

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx IE3

Rated power	Type	Article no.	Motor size	Motor efficiency	Rated current	Rated speed	Maximum speed	Maximum frequency
P_N				η_{mot}	I_N	n_N	n_{max}	f_{max}
kW				%	A	rpm	rpm	Hz
0.75	**ER28C-2DY.B7.1R**	**130604/EX41**	080M	81.0	1.63	2825	3110	55
1.10	**ER28C-2DY.B7.1R**	**130605/EX41**	080M	83.0	2.33	2835	3520	62
1.50	**ER28C-2DY.D7.1R**	**130606/EX41**	090L/S	84.2	3.10	2900	3890	67
2.20	**ER28C-2DY.D7.1R**	**130607/EX41**	090L/S	86.3	4.43	2870	4360	76
3.00	**ER28C-2DY.E7.1R**	**130608/EX41**	100L	87.3	5.77	2910	4710	81

P_N	Type	Weight	T	T1	T3	T4	H2	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
kW		kg	mm	mm	mm	mm	mm			Spring	Rubber	
0.75	**ER28C-2DY.B7.1R**	40.00	562	473	368	60	441	00406431	00412700	02021196	00090144	308228
1.10	**ER28C-2DY.B7.1R**	41.00	562	473	420	60	441	00406431	00412700	02021197	00090144	308228
1.50	**ER28C-2DY.D7.1R**	59.00	562	537	420	60	460	00406431	00412700	02021197	00090144	308230
2.20	**ER28C-2DY.D7.1R**	62.00	562	537	420	60	460	00406431	00412700	02021197	00090144	308232
3.00	**ER28C-2DY.E7.1R**	68.00	562	581	420	60	473	00406431	00412700	02021197	00090144	308234

C-ATEX plug fan

ER31C

Motor ZAmotbasicEx IE3

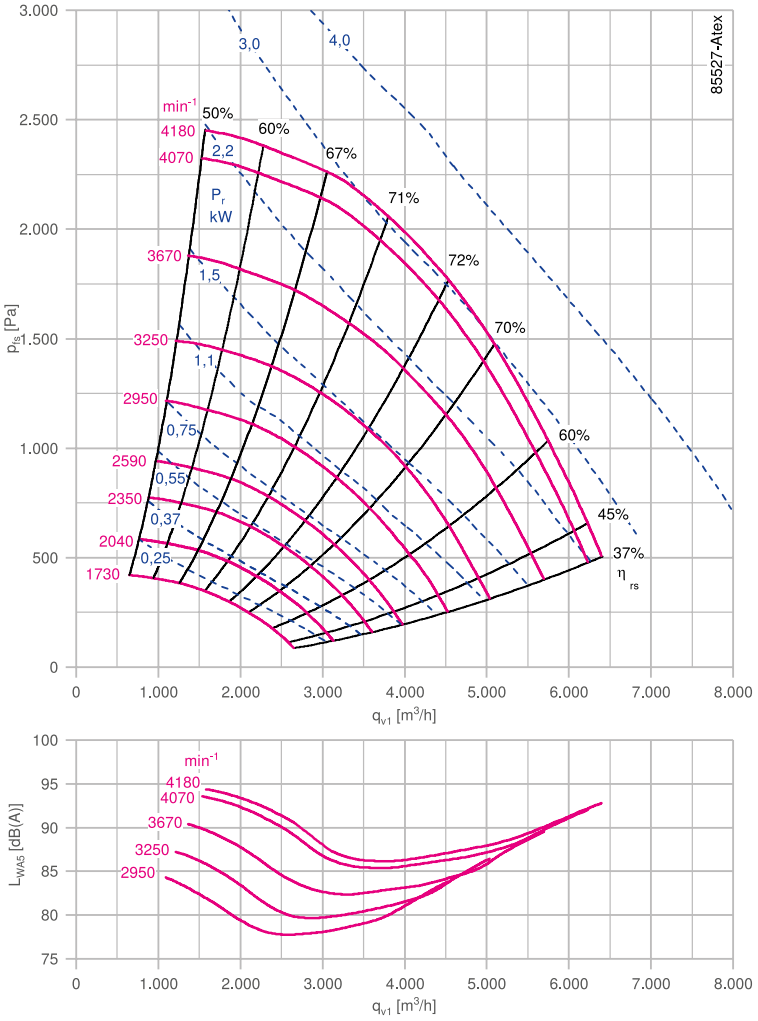
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

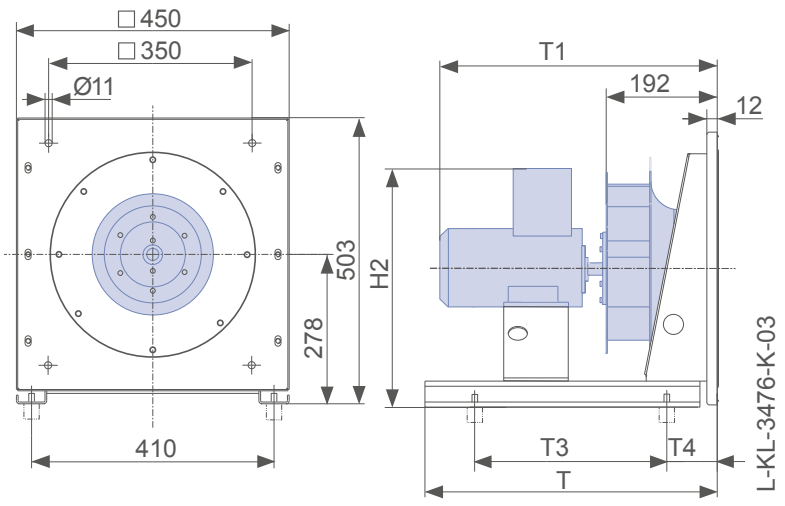
Nozzle coefficients

Standard k	95
With guard grille k_g	83

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx IE3

Rated power	Type	Article no.	Motor size	Motor efficiency	Rated current	Rated speed	Maximum speed	Maximum frequency
P_N				η_{mot}	I_N	n_N	n_{max}	f_{max}
kW				%	A	rpm	rpm	Hz
1.10	**ER31C-2DY.B7.1R**	**130599/EX41**	080M	83.0	2.33	2835	2950	52
1.50	**ER31C-2DY.D7.1R**	**130600/EX41**	090L/S	84.2	3.10	2900	3250	56
2.20	**ER31C-2DY.D7.1R**	**130601/EX41**	090L/S	86.3	4.43	2870	3670	64
3.00	**ER31C-2DY.E7.1R**	**130602/EX41**	100L	87.3	5.77	2910	4070	70
4.00	**ER31C-2DY.F7.1R**	**130603/EX41**	112M	88.4	7.59	2900	4180	72

P_N	Type	Weight	T	T1	T3	T4	H2	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
kW		kg	mm	mm	mm	mm	mm			Spring	Rubber	
1.10	**ER31C-2DY.B7.1R**	42.00	562	493	420	60	441	00406431	00412701	02021196	00090144	308228
1.50	**ER31C-2DY.D7.1R**	60.00	562	557	473	60	460	00406431	00412701	02021197	00090144	308230
2.20	**ER31C-2DY.D7.1R**	63.00	562	557	473	60	460	00406431	00412701	02021197	00090144	308232
3.00	**ER31C-2DY.E7.1R**	69.00	562	601	473	60	473	00406431	00412701	02021197	00090144	308234
4.00	**ER31C-2DY.F7.1R**	90.00	562	619	473	60	486	00406431	00412701	02021198	00090144	308236

C-ATEX plug fan

ER35C

Motor ZAmotbasicEx IE3

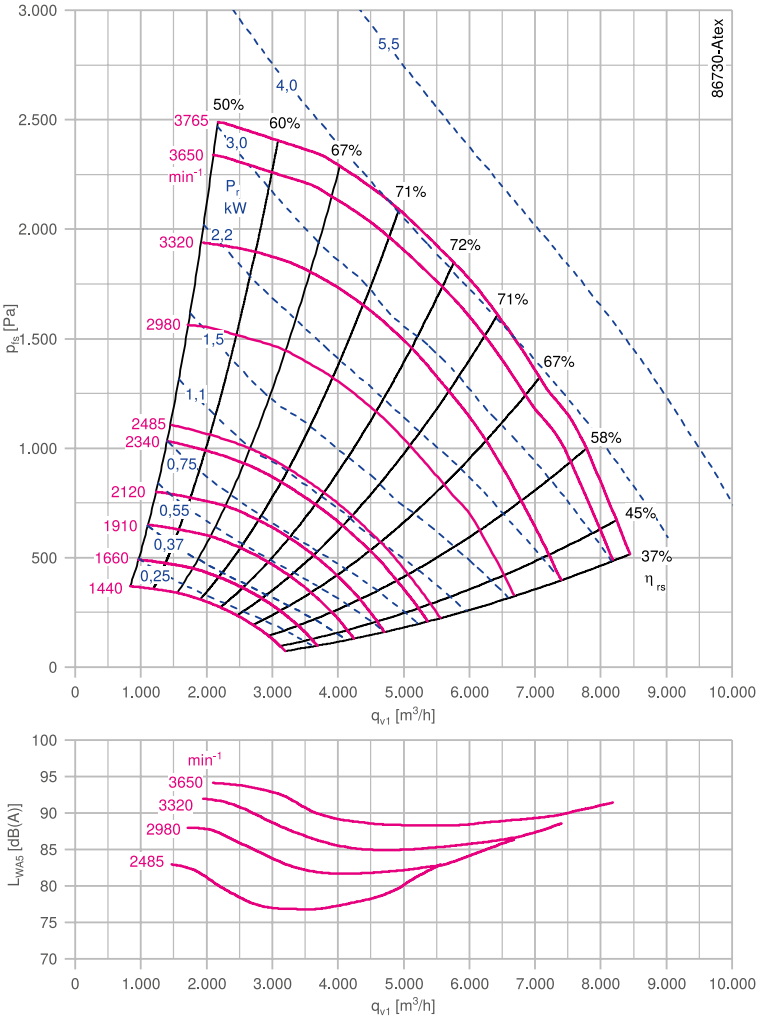
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

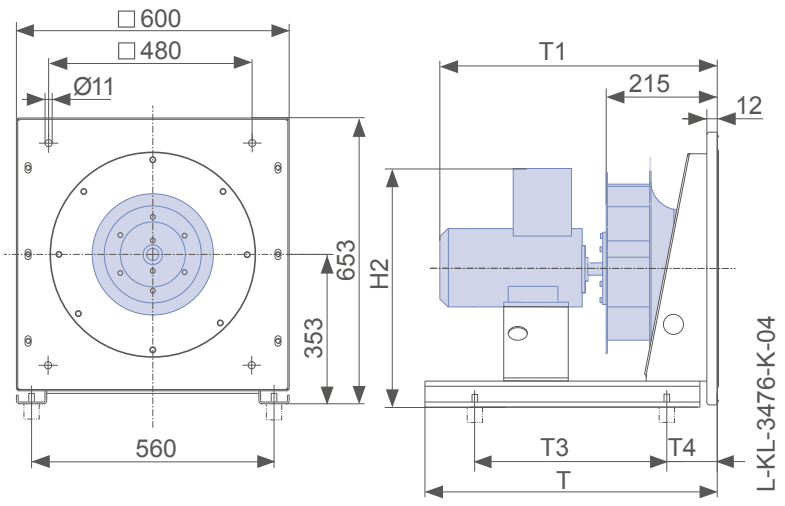
Nozzle coefficients

Standard k	121
With guard grille k_g	106

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx IE3

Rated power	Type	Article no.	Motor size	Motor efficiency	Rated current	Rated speed	Maximum speed	Maximum frequency
P_N				η_{mot}	I_N	n_N	n_{max}	f_{max}
kW				%	A	rpm	rpm	Hz
1.5	**ER35C-4DY.D7.1R**	**130595/EX41**	090L/S	85.5	3.21	1445	2485	86
2.2	**ER35C-2DY.D7.1R**	**130596/EX41**	090L/S	86.3	4.43	2870	2980	52
3.0	**ER35C-2DY.E7.1R**	**130597/EX41**	100L	87.3	5.77	2910	3320	57
4.0	**ER35C-2DY.F7.1R**	**130598/EX41**	112M	88.4	7.59	2900	3650	63

P_N	Type	Weight	T	T1	T3	T4	H2	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
kW		kg	mm	mm	mm	mm	mm			Spring	Rubber	
1.5	**ER35C-4DY.D7.1R**	65.00	562	579	368	115	535	00406432	00412702	02021198	00090144	308230
2.2	**ER35C-2DY.D7.1R**	68.00	562	579	368	115	535	00406432	00412702	02021198	00090144	308232
3.0	**ER35C-2DY.E7.1R**	75.00	562	623	420	115	548	00406432	00412702	02021198	00090144	308234
4.0	**ER35C-2DY.F7.1R**	96.00	562	641	420	115	561	00406432	00412702	02021199	00090144	308236

C-ATEX plug fan

ER40C

Motor ZAmotbasicEx IE3

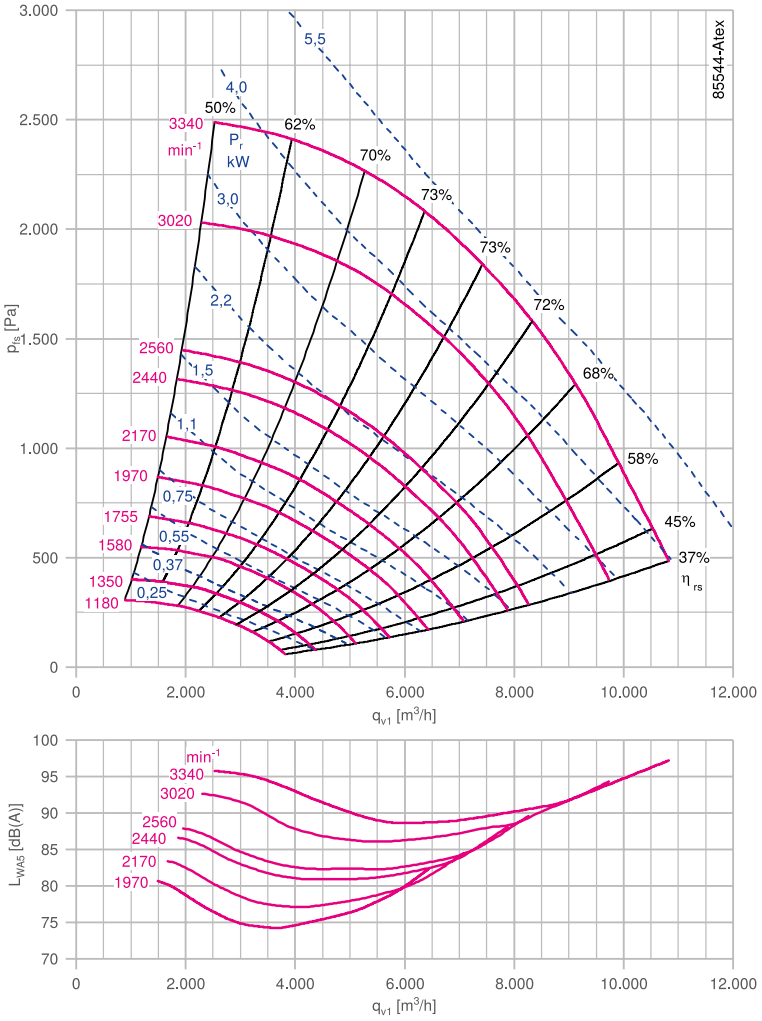
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

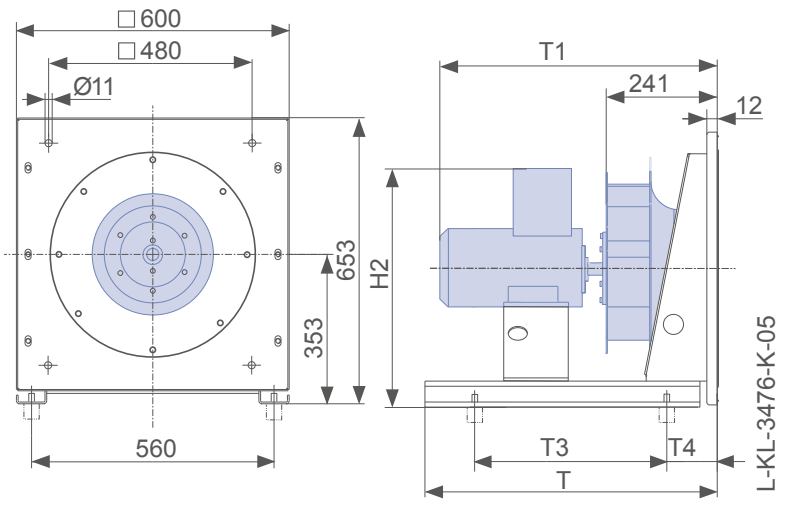
Nozzle coefficients

Standard k	154
With guard grille k_g	135

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx 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
1.1	**ER40C-4DY.D7.1R**	**130589/EX41**	090L/S	84.5	2.35	1450	1970	68
1.5	**ER40C-4DY.D7.1R**	**130590/EX41**	090L/S	85.5	3.21	1445	2170	75
2.2	**ER40C-4DY.E7.1R**	**130591/EX41**	100L	87.0	4.62	1435	2440	85
3.0	**ER40C-4DY.E7.1R**	**130592/EX41**	100L	88.0	6.15	1440	2563	89
4.0	**ER40C-2DY.F7.1R**	**130593/EX41**	112M	88.4	7.59	2900	3020	52
5.5	**ER40C-2DY.G7.1R**	**130594/EX41**	132S/M	89.4	10.60	2940	3340	57

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.1	**ER40C-4DY.D7.1R**	71.00	562	605	420	115	535	00406432	00412703	02021198	00090144	308228
1.5	**ER40C-4DY.D7.1R**	68.00	562	605	368	115	535	00406432	00412703	02021198	00090144	308230
2.2	**ER40C-4DY.E7.1R**	78.00	562	649	420	115	548	00406432	00412703	02021198	00090144	308232
3.0	**ER40C-4DY.E7.1R**	88.00	562	649	420	115	548	00406432	00412703	02021198	00090144	308234
4.0	**ER40C-2DY.F7.1R**	100.00	712	667	473	115	561	00406432	00412703	02021199	00090144	308236
5.5	**ER40C-2DY.G7.1R**	136.00	712	720	571	115	582	00406432	00412703	02021199	00090144	308265

C-ATEX plug fan

ER45C

Motor ZAmotbasicEx IE3

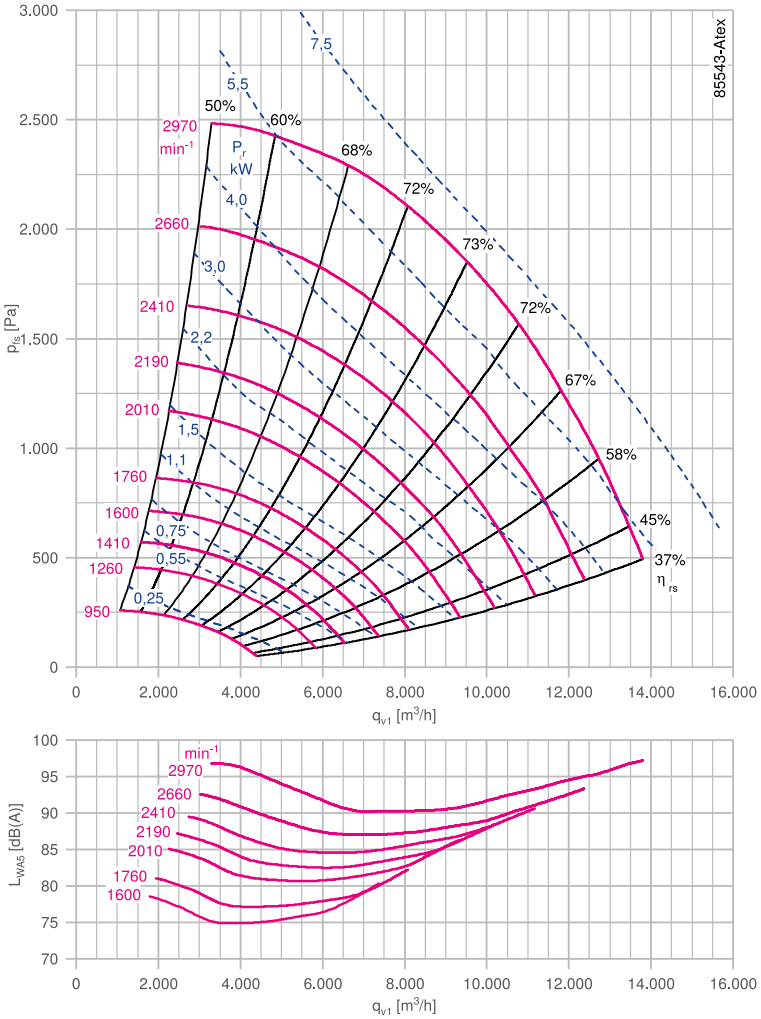
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

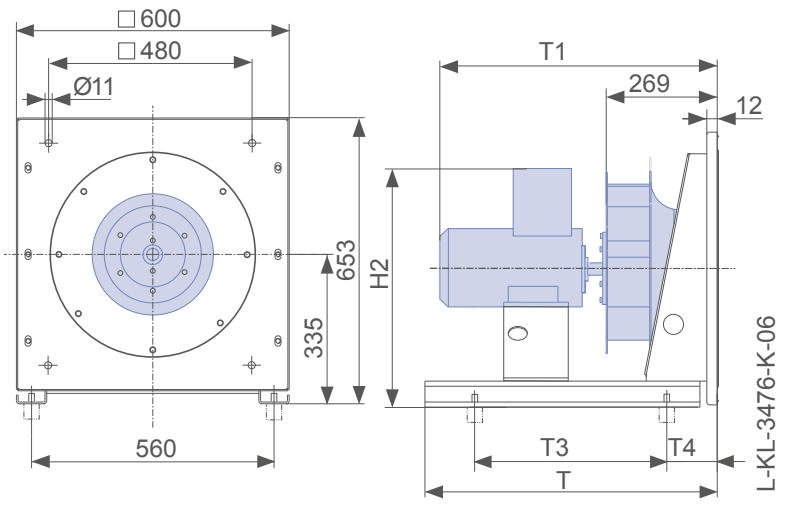
Nozzle coefficients

Standard k	197
With guard grille k_g	173

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx 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
1.1	**ER45C-4DY.D7.1R**	**130582/EX41**	090L/S	84.5	2.35	1450	1600	55
1.5	**ER45C-4DY.D7.1R**	**130583/EX41**	090L/S	85.5	3.21	1445	1760	61
2.2	**ER45C-4DY.E7.1R**	**130584/EX41**	100L	87.0	4.62	1435	2010	70
3.0	**ER45C-4DY.E7.1R**	**130585/EX41**	100L	88.0	6.15	1440	2190	76
4.0	**ER45C-4DY.F7.1R**	**130586/EX41**	112M	88.8	8.34	1450	2410	83
5.5	**ER45C-4DY.G7.1R**	**130587/EX41**	132S/M	89.7	10.40	1460	2660	91
7.5	**ER45C-2DY.G7.1R**	**130588/EX41**	132S/M	90.3	14.10	2935	2970	51

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.1	**ER45C-4DY.D7.1R**	76.00	562	639	420	115	535	00406432	00412704	02021197	00090144	308228
1.5	**ER45C-4DY.D7.1R**	73.00	562	639	368	115	535	00406432	00412704	02021197	00090144	308230
2.2	**ER45C-4DY.E7.1R**	83.00	615	683	420	115	548	00406432	00412704	02021198	00090144	308232
3.0	**ER45C-4DY.E7.1R**	93.00	615	683	420	115	548	00406432	00412704	02021198	02000124	308234
4.0	**ER45C-4DY.F7.1R**	103.00	712	701	525	115	561	00406432	00412704	02021198	02000124	308236
5.5	**ER45C-4DY.G7.1R**	139.00	712	749	571	115	582	00406432	00412704	02021199	02000124	308265
7.5	**ER45C-2DY.G7.1R**	147.00	712	749	571	115	582	00406432	00412704	02021199	02000124	308267

C-ATEX plug fan

ER50C

Motor ZAmotbasicEx IE3

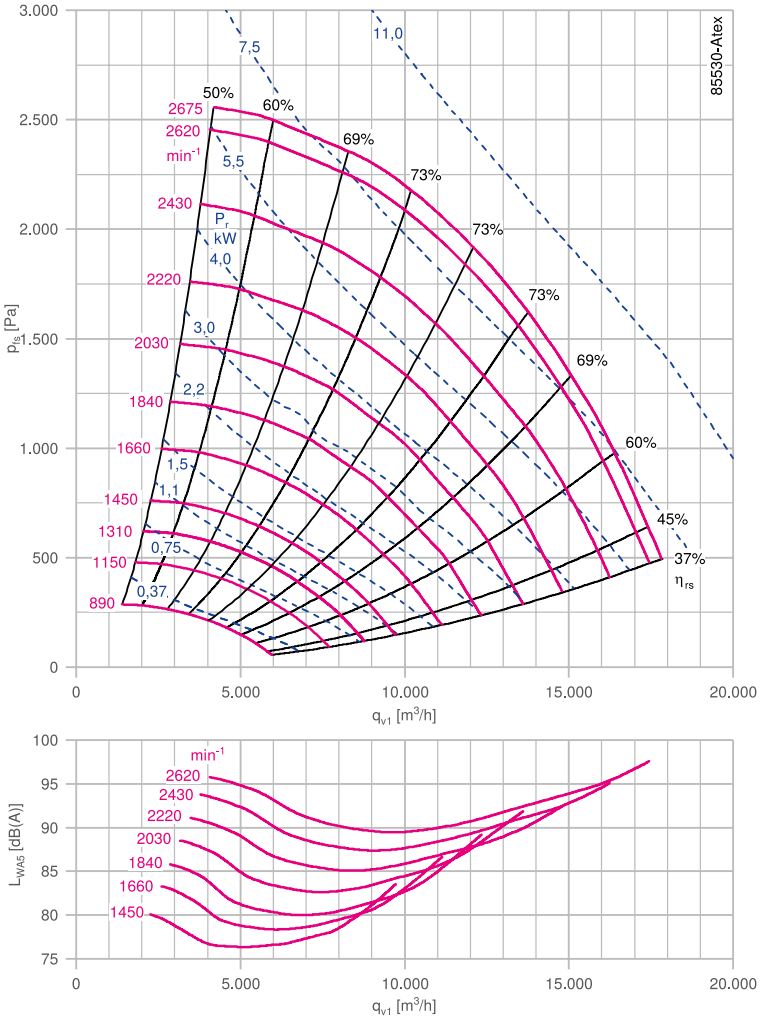
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

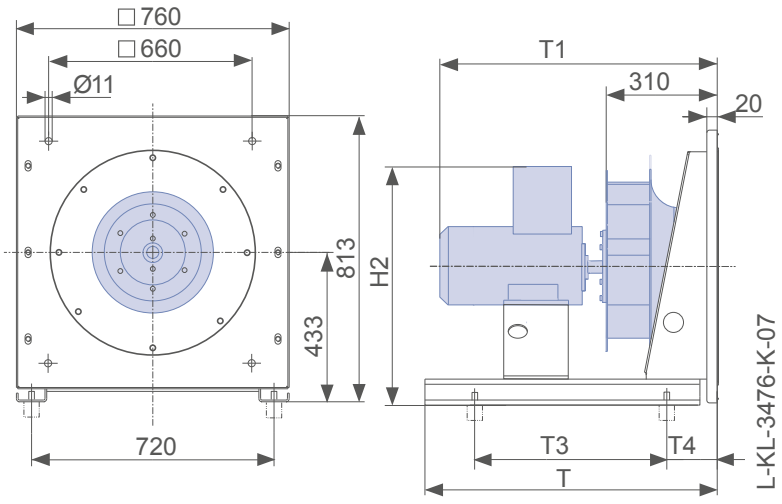
Nozzle coefficients

Standard k	252
With guard grille k_g	221

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx 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
1.5	**ER50C-4DY.D7.1R**	**130575/EX41**	090L/S	85.5	3.21	1445	1450	50
2.2	**ER50C-4DY.E7.1R**	**130576/EX41**	100L	87.0	4.62	1435	1660	58
3.0	**ER50C-4DY.E7.1R**	**130577/EX41**	100L	88.0	6.15	1440	1840	64
4.0	**ER50C-4DY.F7.1R**	**130578/EX41**	112M	88.8	8.34	1450	2030	70
5.5	**ER50C-4DY.G7.1R**	**130579/EX41**	132S/M	89.7	10.40	1460	2220	76
7.5	**ER50C-4DY.H7.1R**	**130580/EX41**	132M/S	90.4	14.30	1465	2430	83
11.0	**ER50C-4DY.I7.1R**	**130581/EX41**	160M/L	91.6	20.90	1470	2620	89

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.5	**ER50C-4DY.D7.1R**	93.00	720	680	420	115	616	00406433	00412705	02021198	00090144	308230
2.2	**ER50C-4DY.E7.1R**	101.00	720	724	473	115	629	00406433	00412705	02021199	00090144	308232
3.0	**ER50C-4DY.E7.1R**	111.00	720	724	525	115	629	00406433	00412705	02021199	00090144	308234
4.0	**ER50C-4DY.F7.1R**	121.00	720	742	525	115	642	00406433	00412705	02021199	02000124	308236
5.5	**ER50C-4DY.G7.1R**	157.00	720	790	578	115	662	00406433	00412705	02018876	02000124	308265
7.5	**ER50C-4DY.H7.1R**	157.00	720	790	578	115	662	00406433	00412705	02018876	02000124	308267
11.0	**ER50C-4DY.I7.1R**	256.00	880	953	735	115	783	00406433	00412705	02018876	02000124	308323

C-ATEX plug fan

ER56C

Motor ZAmotbasicEx IE3

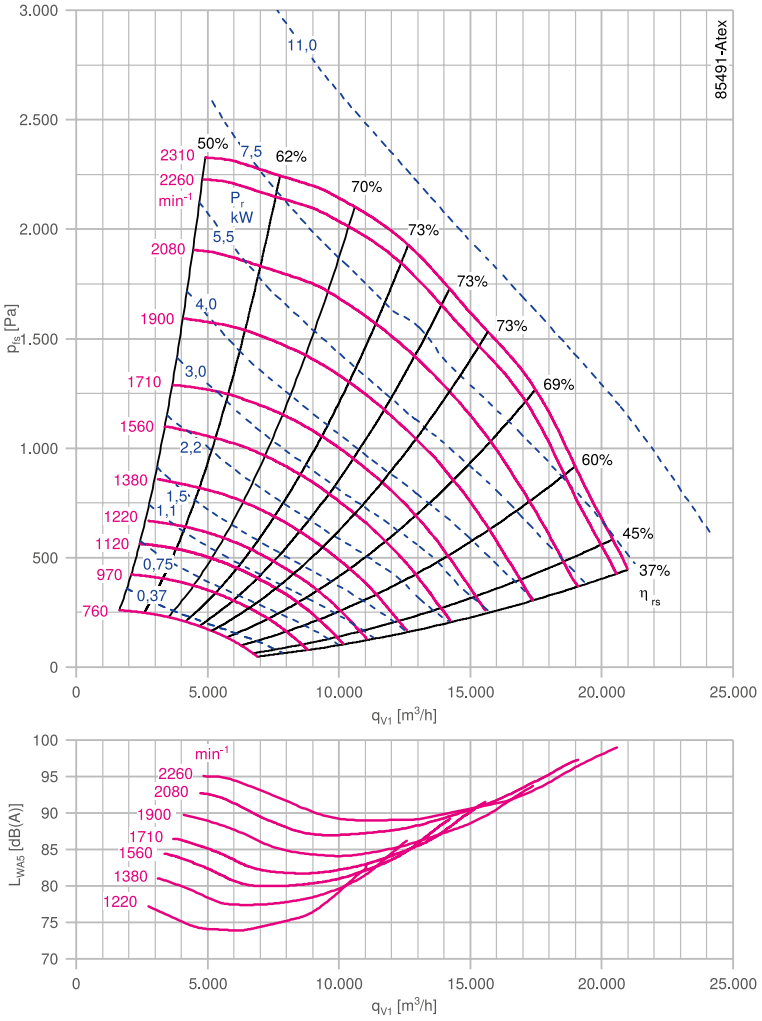
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

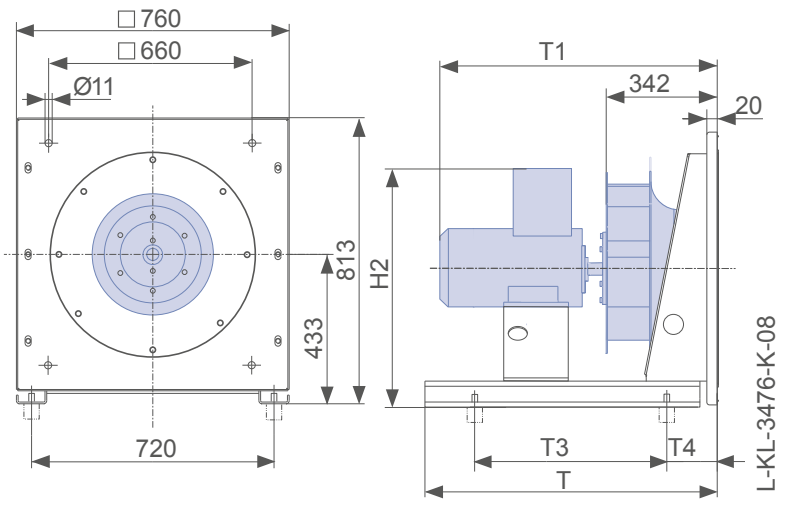
Nozzle coefficients

Standard k	308
With guard grille k_g	271

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx 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
1.5	**ER56C-6DY.E7.1R**	**130568/EX41**	100L	82.5	3.70	955	1220	64
2.2	**ER56C-4DY.E7.1R**	**130569/EX41**	100L	87.0	4.62	1435	1380	48
3.0	**ER56C-4DY.E7.1R**	**130570/EX41**	100L	88.0	6.15	1440	1560	54
4.0	**ER56C-4DY.F7.1R**	**130571/EX41**	112M	88.8	8.34	1450	1710	59
5.5	**ER56C-4DY.G7.1R**	**130572/EX41**	132S/M	89.7	10.40	1460	1900	65
7.5	**ER56C-4DY.H7.1R**	**163660/EX41**	132M/S	90.4	14.30	1465	2080	71
11.0	**ER56C-4DY.I7.1R**	**163661/EX41**	160M/L	91.6	20.90	1470	2260	77

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
1.5	**ER56C-6DY.E7.1R**	108.00	720	756	525	115	629	00406433	00412706	02021198	00090144	308232
2.2	**ER56C-4DY.E7.1R**	106.00	720	756	525	115	629	00406433	00412706	02021199	00090144	308232
3.0	**ER56C-4DY.E7.1R**	116.00	720	756	578	115	629	00406433	00412706	02021199	02000124	308234
4.0	**ER56C-4DY.F7.1R**	125.00	720	774	578	115	642	00406433	00412706	02021199	02000124	308236
5.5	**ER56C-4DY.G7.1R**	163.00	880	822	683	115	662	00406433	00412706	02018876	02000124	308265
7.5	**ER56C-4DY.H7.1R**	163.00	880	822	683	115	662	00406433	00412706	02018876	02020907	308267
11.0	**ER56C-4DY.I7.1R**	260.00	880	985	735	115	783	00406433	00412706	02018876	02020907	308323

C-ATEX plug fan

ER63C

Motor ZAmotbasicEx IE3

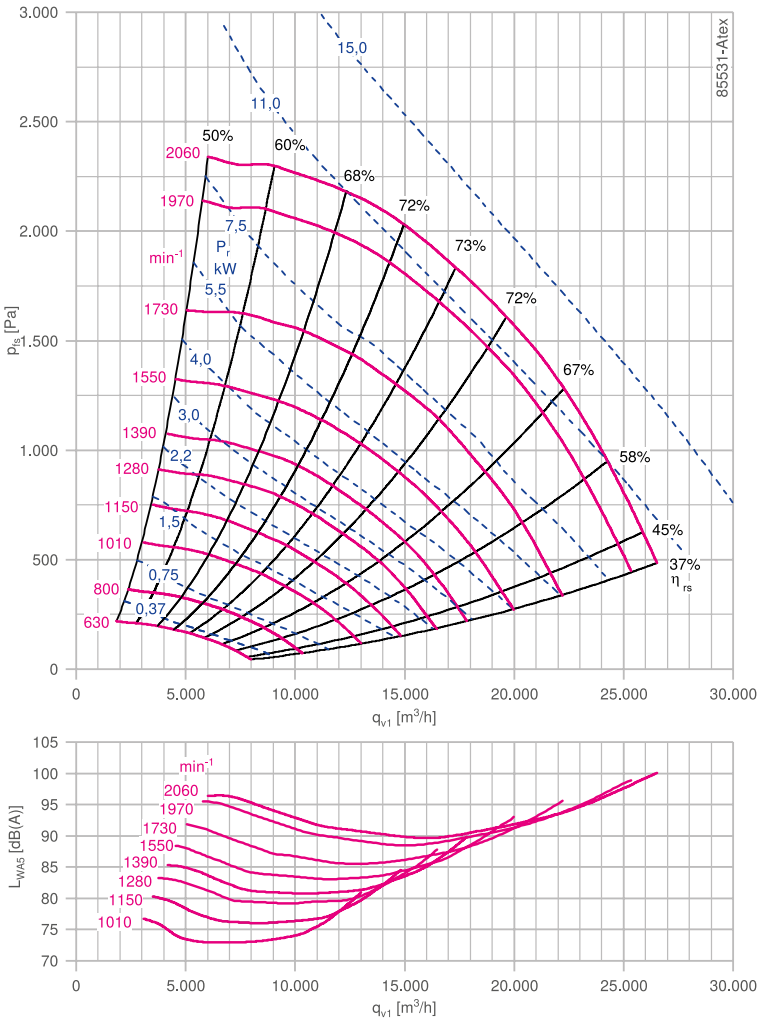
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

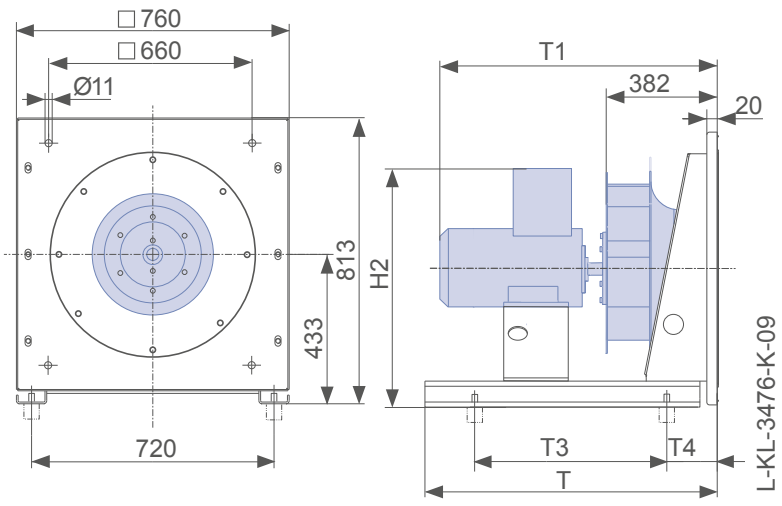
Nozzle coefficients

Standard k	381
With guard grille k_g	334

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx IE3

Rated power	Type	Article no.	Motor size	Motor efficiency	Rated current	Rated speed	Maximum speed	Maximum frequency
P_N				η_{mot}	I_N	n_N	n_{max}	f_{max}
kW				%	A	rpm	rpm	Hz
1.5	**ER63C-6DY.E7.1R**	**130560/EX41**	100L	82.5	3.70	955	1010	53
2.2	**ER63C-6DY.F7.1R**	**130561/EX41**	112M	84.5	5.29	960	1150	60
3.0	**ER63C-6DY.G7.1R**	**130562/EX41**	132S/M	85.6	6.93	970	1280	66
4.0	**ER63C-4DY.F7.1R**	**130563/EX41**	112M	88.8	8.34	1450	1390	48
5.5	**ER63C-4DY.G7.1R**	**130564/EX41**	132S/M	89.7	10.40	1460	1,550	53
7.5	**ER63C-4DY.H7.1R**	**130565/EX41**	132M/S	90.4	14.30	1465	1730	59
11.0	**ER63C-4DY.I7.1R**	**163662/EX41**	160M/L	91.6	20.90	1470	1970	67
15.0	**ER63C-4DY.K7.1R**	**163663/EX41**	160L/M	92.3	27.90	1470	2060	70

P_N	Type	Weight	T	T1	T3	T4	H2	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
kW		kg	mm	mm	mm	mm	mm			Spring	Rubber	
1.5	**ER63C-6DY.E7.1R**	122.00	720	795	525	115	629	00406433	00412707	02021198	00090144	308232
2.2	**ER63C-6DY.F7.1R**	139.00	720	813	578	115	642	00406433	00412707	02021199	00090144	308234
3.0	**ER63C-6DY.G7.1R**	170.00	880	861	683	115	662	00406433	00412707	02021199	02000124	308234
4.0	**ER63C-4DY.F7.1R**	139.00	720	813	578	115	642	00406433	00412707	02021199	02000124	308236
5.5	**ER63C-4DY.G7.1R**	176.00	880	861	578	115	662	00406433	00412707	02021199	02000124	308265
7.5	**ER63C-4DY.H7.1R**	176.00	880	861	683	115	662	00406433	00412707	02018876	02020907	308267
11.0	**ER63C-4DY.I7.1R**	275.00	880	1024	735	115	783	00406433	00412707	02018876	02020907	308323
15.0	**ER63C-4DY.K7.1R**	277.00	880	1024	735	115	783	00406433	00412707	02018876	02020907	308325

C-ATEX plug fan

ER71C

Motor ZAmotbasicEx IE3

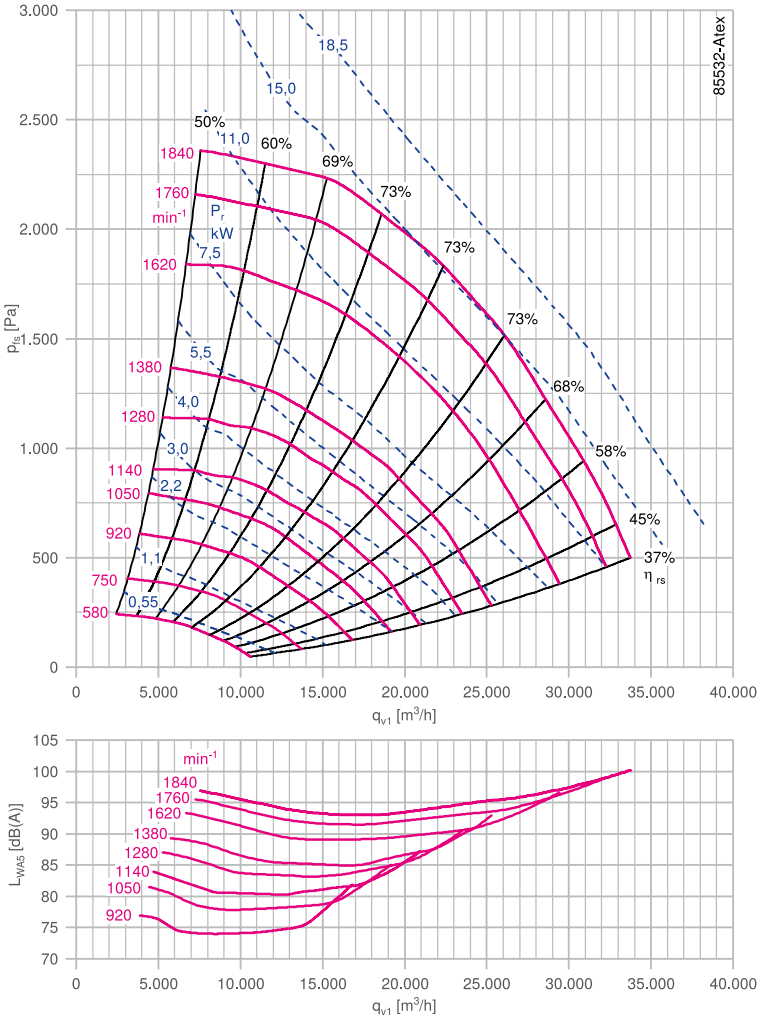
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 3 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

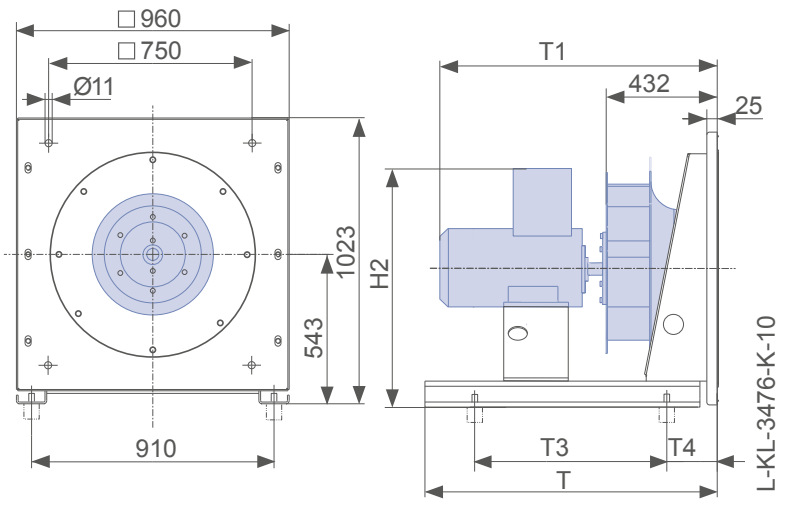
Nozzle coefficients

Standard k	490
With guard grille k_g	429

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx 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
2.2	**ER71C-6DY.F7.1R**	**163664/EX41**	112M	84.5	5.29	960	920	48
3.0	**ER71C-6DY.G7.1R**	**163665/EX41**	132S/M	85.6	6.93	970	1050	54
4.0	**ER71C-6DY.H7.1R**	**130554/EX41**	132M/S	86.8	9.11	965	1140	59
5.5	**ER71C-6DY.H7.1R**	**130555/EX41**	132M/S	88.0	12.90	970	1280	66
7.5	**ER71C-4DY.H7.1R**	**130556/EX41**	132M/S	90.4	14.30	1465	1380	47
11.0	**ER71C-4DY.I7.1R**	**130557/EX41**	160M/L	91.6	20.90	1470	1620	55
15.0	**ER71C-4DY.K7.1R**	**130558/EX41**	160L/M	92.3	27.90	1470	1760	60
18.5	**ER71C-4DY.L7.1R**	**130559/EX41**	180M/L	92.6	35.20	1470	1840	63

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
2.2	**ER71C-6DY.F7.1R**	174.00	885	864	630	115	752	00406434	00412708	02006449	00090157	308234
3.0	**ER71C-6DY.G7.1R**	203.00	885	912	735	115	772	00406434	00412708	02006450	00090157	308234
4.0	**ER71C-6DY.H7.1R**	217.00	885	912	735	115	772	00406434	00412708	02006450	00090157	308265
5.5	**ER71C-6DY.H7.1R**	217.00	885	912	735	115	772	00406434	00412708	02006450	00090157	308265
7.5	**ER71C-4DY.H7.1R**	209.00	885	912	735	115	772	00406434	00412708	02006450	00090157	308267
11.0	**ER71C-4DY.I7.1R**	308.00	1045	1075	893	115	893	00406434	00412708	02006450	00090157	308323
15.0	**ER71C-4DY.K7.1R**	308.00	1045	1075	788	115	893	00406434	00412708	02006450	02000407	308325
18.5	**ER71C-4DY.L7.1R**	363.00	1045	1110	893	115	913	00406434	00412708	02006451	02000407	308327

C-ATEX plug fan

ER80C

Motor ZAmotbasicEx IE3

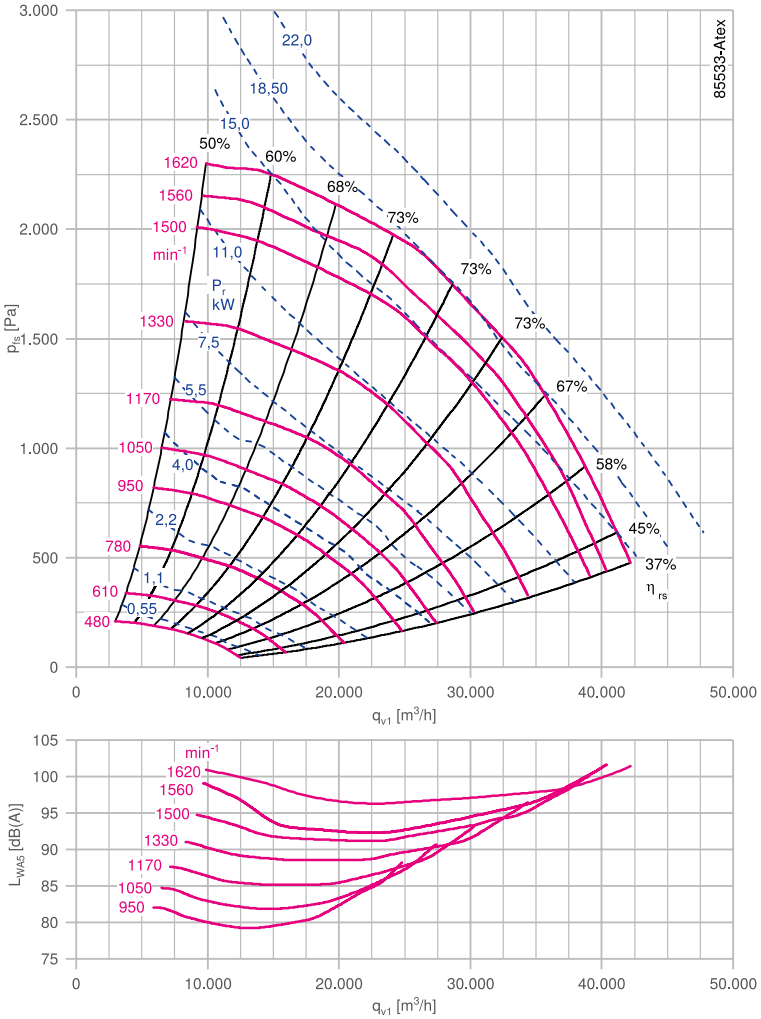
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

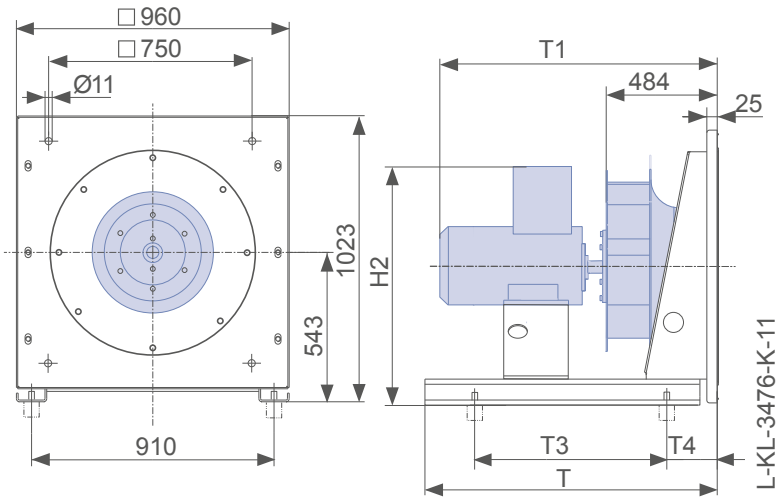
Nozzle coefficients

Standard k	620
With guard grille k_g	543

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx 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
4.0	**ER80C-6DY.H7.1R**	**130545/EX41**	132M/S	86.8	9.11	965	950	49
5.5	**ER80C-6DY.H7.1R**	**130546/EX41**	132M/S	88.0	12.90	970	1050	54
7.5	**ER80C-6DY.I7.1R**	**130547/EX41**	160M/L	89.3	14.80	975	1170	60
11.0	**ER80C-6DY.K7.1R**	**130548/EX41**	160L/M	90.5	21.90	975	1330	68
15.0	**ER80C-4DY.K7.1R**	**130549/EX41**	160L/M	92.3	27.90	1470	1500	51
18.5	**ER80C-4DY.L7.1R**	**130550/EX41**	180M/L	92.6	35.20	1470	1560	53
22.0	**ER80C-4DY.M7.1R**	**130551/EX41**	180L/M	93.2	41.00	1470	1620	55

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
4.0	**ER80C-6DY.H7.1R**	242.00	885	964	735	115	772	00406434	00414163	02006450	00090157	308265
5.5	**ER80C-6DY.H7.1R**	242.00	885	964	735	115	772	00406434	00414163	02006450	00090157	308265
7.5	**ER80C-6DY.I7.1R**	310.00	1045	1127	893	115	893	00406434	00414163	02006450	00090157	308267
11.0	**ER80C-6DY.K7.1R**	333.00	1045	1127	893	115	893	00406434	00414163	02006450	00090157	308323
15.0	**ER80C-4DY.K7.1R**	333.00	1045	1127	840	115	893	00406434	00414163	02006450	02000407	308325
18.5	**ER80C-4DY.L7.1R**	388.00	1045	1162	893	115	913	00406434	00414163	02006451	02000407	308327
22.0	**ER80C-4DY.M7.1R**	388.00	1045	1162	893	115	913	00406434	00414163	02006451	02000407	308329

C-ATEX plug fan

ER90C

Motor ZAmotbasicEx IE3

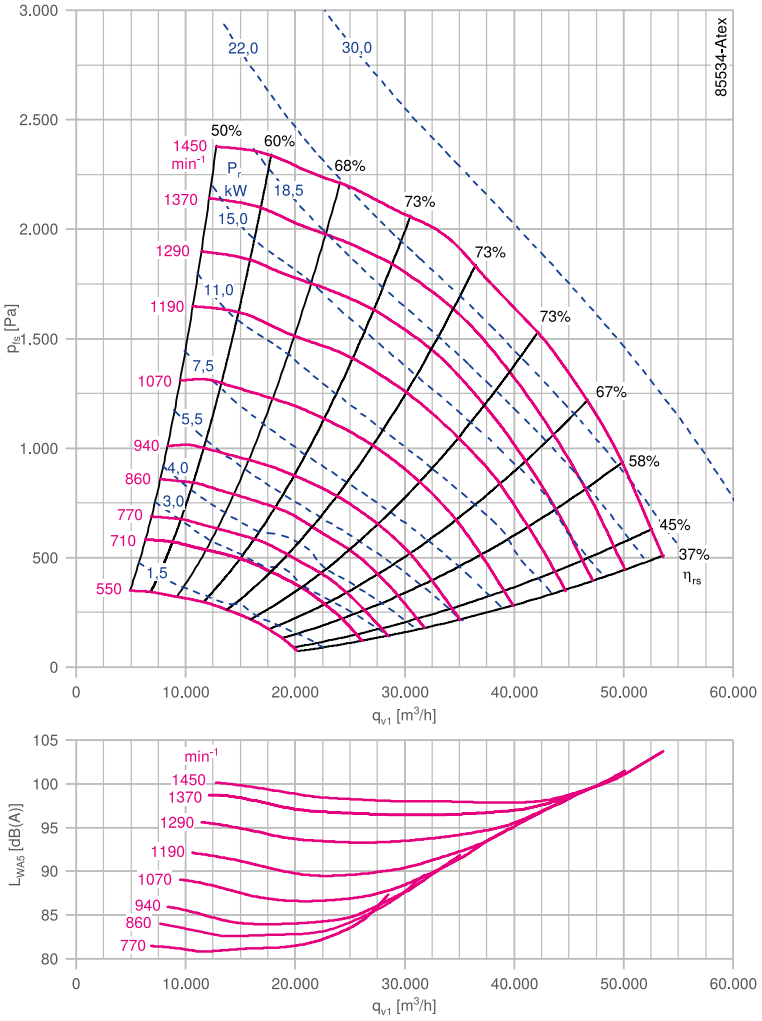
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

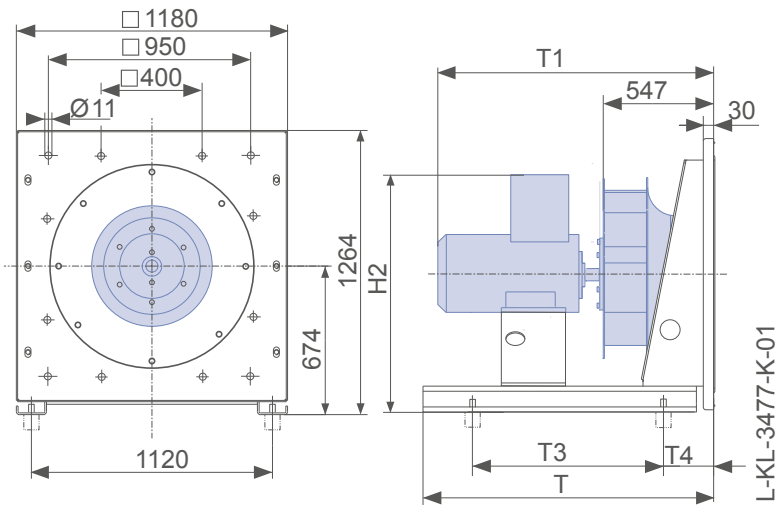
Nozzle coefficients

Standard k	789
With guard grille k_g	691

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx 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
4.0	**ER90C-8DY.I7.1R**	**130537/EX41**	160M/L	86.0	9.87	730	770	53
5.5	**ER90C-8DY.I7.1R**	**130538/EX41**	160M/L	87.3	12.50	725	860	59
7.5	**ER90C-6DY.I7.1R**	**130539/EX41**	160M/L	89.3	14.80	975	940	48
11.0	**ER90C-6DY.K7.1R**	**130540/EX41**	160L/M	90.5	21.90	975	1070	55
15.0	**ER90C-6DY.M7.1R**	**130541/EX41**	180L/M	91.4	28.20	978	1190	61
18.5	**ER90C-6DY.N7.1R**	**130542/EX41**	200L/M	91.9	35.90	980	1290	66
22.0	**ER90C-6DY.N7.1R**	**130543/EX41**	200L/M	92.4	42.40	980	1370	70
30.0	**ER90C-4DY.N7.1R**	**130544/EX41**	200L/M	93.7	57.10	1480	1450	49

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
4.0	**ER90C-8DY.I7.1R**	388.00	1160	1189	840	115	1024	00406435	00412710	02006450	02001674	308236
5.5	**ER90C-8DY.I7.1R**	378.00	1160	1189	788	115	1024	00406435	00412710	02006450	02001674	308265
7.5	**ER90C-6DY.I7.1R**	378.00	1160	1189	945	115	1024	00406435	00412710	02006451	02001674	308267
11.0	**ER90C-6DY.K7.1R**	401.00	1160	1189	998	115	1024	00406435	00412710	02006451	02000407	308323
15.0	**ER90C-6DY.M7.1R**	458.00	1320	1224	945	115	1044	00406435	00412710	02006451	02000407	308325
18.5	**ER90C-6DY.N7.1R**	504.00	1320	1293	1155	115	1069	00406435	00412710	02006452	02000407	308327
22.0	**ER90C-6DY.N7.1R**	526.00	1320	1293	1155	115	1069	00406435	00412710	02006452	02019767	308329
30.0	**ER90C-4DY.N7.1R**	526.00	1320	1293	1155	115	1069	00406435	00412710	02006452	02019767	308331

C-ATEX plug fan

ER10C

Motor ZAmotbasicEx IE3

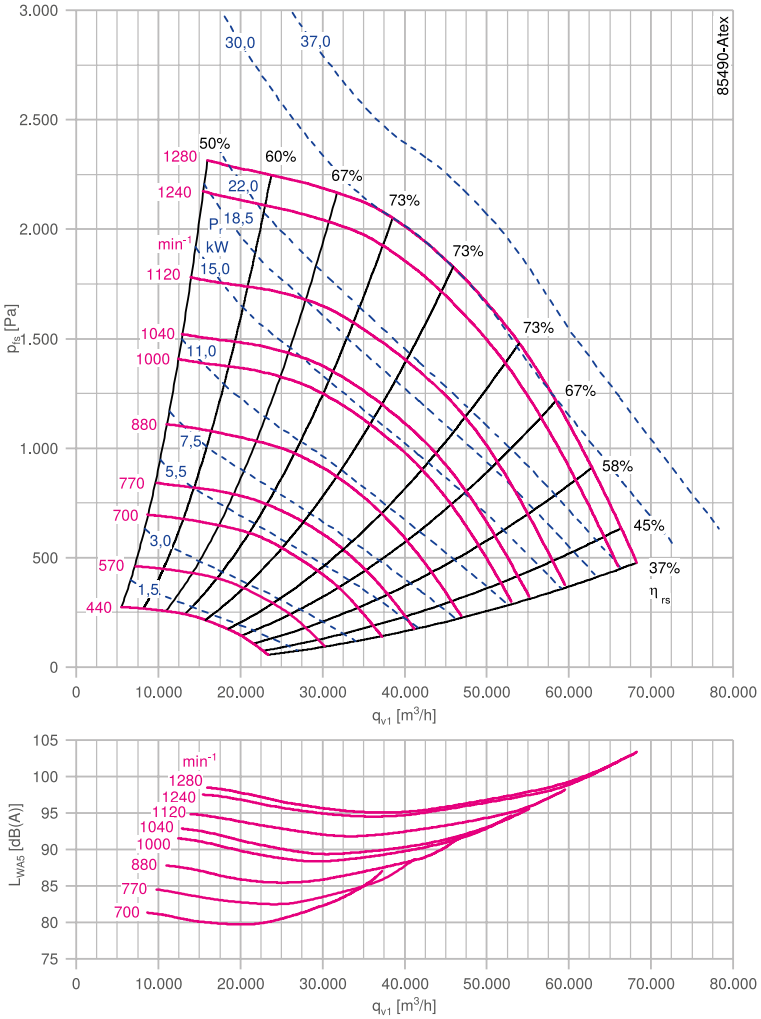
Description

Plug fan with high performance centrifugal impeller
Impeller made of bright sheet metal powder-coated resistance class 2 (L-TI-0585) RAL 9005 (jet black)
Inlet nozzle with measuring device for air flow measurement
Fitting position H (horizontal)
Rated voltage U_N: 3~ 400 V
Rated frequency f_N: 50 Hz
Motor protection: PTC resistor
Degree of protection: IP56
Thermal class: THCL155
Min. permitted medium temperature $t_{R(min)}$: -20 °C
Max. permitted medium temperature $t_{R(max)}$ at n_{max}: 40 °C
Ex marking fan (mechanical): II 2G c IIB T4
Ex marking motor (electrical): II 2G Ex h IIB T4 Gb
Approvals: EAC

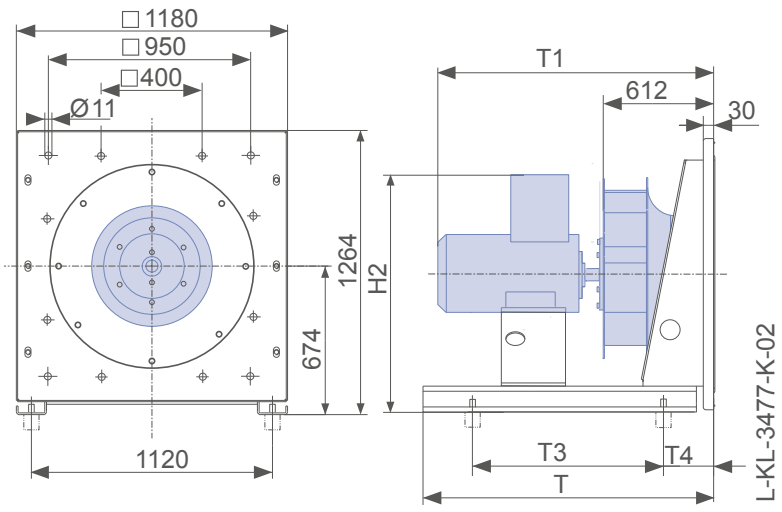
Nozzle coefficients

Standard k	916
With guard grille k_g	875

Characteristic curve



Dimensions mm



C-ATEX-ZAmotbasicEx 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
5.5	ER10C-8DY.I7.1R	130528/EX41	160M/L	87.3	12.50	725	700	48
7.5	ER10C-8DY.K7.1R	130529/EX41	160L/M	88.4	18.00	731	770	53
11.0	ER10C-8DY.M7.1R	130530/EX41	180L/M	89.7	23.30	730	880	60
15.0	ER10C-6DY.M7.1R	130531/EX41	180L/M	91.4	28.20	978	1000	51
18.5	ER10C-6DY.N7.1R	130532/EX41	200L/M	91.9	35.90	980	1040	53
22.0	ER10C-6DY.N7.1R	130533/EX41	200L/M	92.4	42.40	980	1120	57
30.0	ER10C-6DY.R7.1R	130534/EX41	225M/S	93.1	56.00	982	1240	63
37.0	ER10C-6DY.S7.1R	130535/EX41	250M/S	93.5	67.20	985	1280	65

P_N kW	Type	Weight kg	T mm	T1 mm	T3 mm	T4 mm	H2 mm	Flexible connector	Guard grille	Vibration damper		Frequency inverters 3~
										Spring	Rubber	
5.5	ER10C-8DY.I7.1R	420.00	1160	1255	840	115	1024	00406435	00412711	02006450	02001674	308265
7.5	ER10C-8DY.K7.1R	455.00	1160	1255	998	115	1024	00406435	00412711	02006451	02001674	308267
11.0	ER10C-8DY.M7.1R	501.00	1320	1290	1103	115	1044	00406435	00412711	02006451	02000407	308323
15.0	ER10C-6DY.M7.1R	501.00	1320	1290	998	115	1044	00406435	00412711	02006451	02000407	308325
18.5	ER10C-6DY.N7.1R	546.00	1320	1359	945	115	1069	00406435	00412711	02006451	02000407	308327
22.0	ER10C-6DY.N7.1R	568.00	1320	1359	1155	115	1069	00406435	00412711	02006452	02000407	308329
30.0	ER10C-6DY.R7.1R	774.00	1320	1459	1155	115	1187	00406435	00412711	02006452	02019767	308331
37.0	ER10C-6DY.S7.1R	877.00	1320	1517	1155	115	1207	00406435	00412711	02006452	02019767	

Impellers with hub

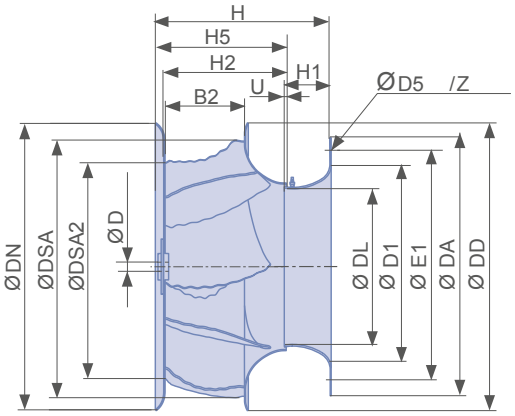
Product overview

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



Impeller RH..ZAbluefin with clamping bush hub

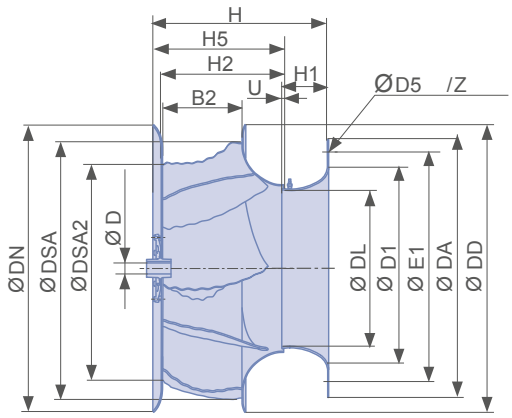
Type	Article no.	D	B2	DA	DD	DL	DN	DSA	DSA2	D1	D5	E1	H	H1	H2	H5	U	Z
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
RH25I.1R/SM12	117016VAR	19-24	78	277	298	169	285	274	224	206	8.5	257	195	40	122	159	3.8	6x60°
RH28I.1R/SM12	117017VAR	19-28	86	303	331	190	316	305	249	232	8.5	283	216	45	135	175	4.2	6x60°
RH31I.1R/SM12	117018VAR	19-28	97	343	370	214	354	341	279	291	8.5	317	240	50	152	195	4.8	8x45°
RH35I.1R/SM12	117019VAR	24-28	109	378	419	241	398	384	313	295	8.5	352	269	57	171	218	5.4	8x45°
RH40I.1R/SM12	117020VAR	24-28	122	418	469	271	448	433	353	331	8.5	392	301	64	192	244	6	8x45°
RH40I.1R/SM20	117021VAR	38	122	418	469	271	448	433	353	331	8.5	392	301	64	192	244	6	8x45°
RH45I.1R/SM20	117022VAR	24-38	138	464	528	306	504	487	398	374	8.5	438	338	72	217	273	6.8	8x45°
RH50I.1R/SM20	117023VAR	24-42	155	514	594	339	567	548	448	416	8.5	488	378	80	244	306	7.5	8x45°
RH56I.1R/SM20	117024VAR	28-42	172	564	659	382	630	609	497	466	10.5	538	420	90	271	339	8.4	8x45°
RH63I.1R/SM20	117025VAR	28-42	193	634	738	428	705	683	557	525	10.5	600	469	101	304	378	9.5	12x30°
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/SM20	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	840	676	165	494	528	17	16x22.5°
RH11I.1R/SM30	116024VAR	55-65	345	1075	1230	720	1230	1177	1008	910	10.5	1041	752	208	534	563	19	16x22.5°

ZAbluefin

with fixed hub

Description

Scope of delivery: Bolted hub with internal diameter
Bore diameter: Specification corresponding to motor classification
Surface protection hub:
NA11 – NA12 (aluminium): bare
NS07 – NS08 (grey cast): oiled



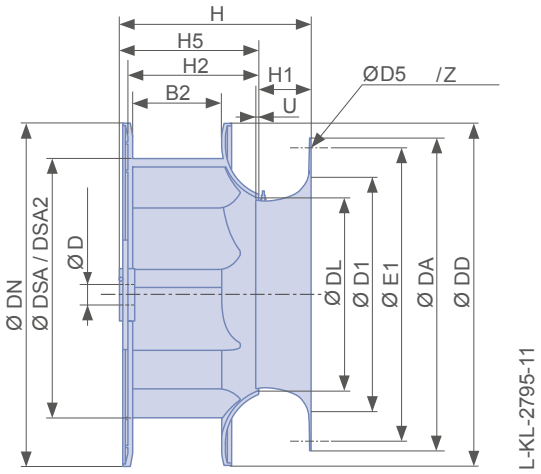
L-KL-3678-01

Impeller RH..ZAbluefin with fixed 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	
RH25I.1R/NA11	**117026VAR**	19-24	78	277	298	169	285	274	224	206	8.5	257	195	40	122	159	3.8	6x60°
RH28I.1R/NA11	**117027VAR**	19-28	86	303	331	190	316	305	249	232	8.5	283	216	45	135	175	4.2	6x60°
RH31I.1R/NA11	**117028VAR**	19-28	97	343	370	214	354	341	279	291	8.5	317	240	50	152	195	4.8	8x45°
RH35I.1R/NA11	**117029VAR**	24-28	109	378	419	241	398	384	313	295	8.5	352	269	57	171	218	5.4	8x45°
RH40I.1R/NA11	**117030VAR**	24-28	122	418	469	271	448	433	353	331	8.5	392	301	64	192	244	6	8x45°
RH40I.1R/NA12	**117031VAR**	38	122	418	469	271	448	433	353	331	8.5	392	301	64	192	244	6	8x45°
RH45I.1R/NA12	**117032VAR**	24-38	138	464	528	306	504	487	398	374	8.5	438	338	72	217	273	6.8	8x45°
RH50I.1R/NA12	**117033VAR**	24-42	155	514	594	339	567	548	448	416	8.5	488	378	80	244	306	7.5	8x45°
RH56I.1R/NA12	**117034VAR**	28-42	172	564	659	382	630	609	497	466	10.5	538	420	90	271	339	8.4	8x45°
RH63I.1R/NA12	**117035VAR**	28-42	193	634	738	428	705	683	557	525	10.5	600	469	101	304	378	9.5	12x30°
RH71I.1R/NS07	on request																	
RH80I.1R/NS07	on request																	
RH90I.1R/NS08	on request																	
RH10I.1R/NS08	on request																	
RH11I.1R/NS08	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

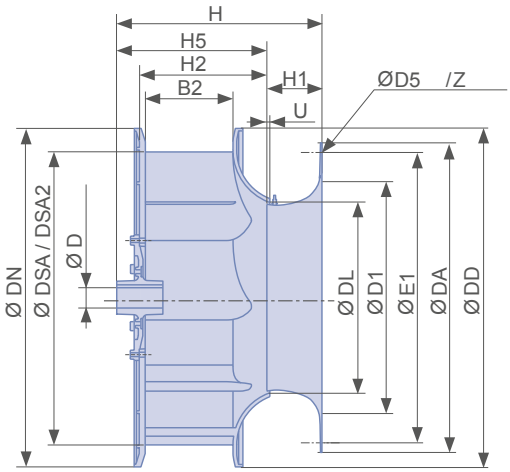
Type	Article no.	Dimensions															
		D	B2	DA	DD	DL	DN	DSA	D1	D5	E1	H	H1	H2	H5	U	Z
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
RH25C.CR/SM12-1	113908VAR	19-24	76	277	290	164	290	257	202	8.5	257	174	47	114	129	2.5	6x60°
RH28C.CR/SM12-2	113909VAR	19-28	85	303	322	182	322	286	225	8.5	283	191	52	126	142	3.0	6x60°
RH31C.CR/SM12-2	113910VAR	19-28	95	343	360	204	360	320	253	8.5	317	211	59	140	156	3.0	8x45°
RH35C.CR/SM12-2	113911VAR	19-28	106	378	406	230	406	360	286	8.5	352	234	66	156	172	3.5	8x45°
RH40C.CR/SM12-2	113912VAR	19-28	118	418	457	258	457	406	322	8.5	392	261	74	176	191	4.0	8x45°
RH40C.CR/SM20	113913VAR	38	118	418	457	258	457	406	322	8.5	392	263	74	176	193	4.0	8x45°
RH45C.CR/SM20	113914VAR	19-38	133	464	515	291	515	457	364	8.5	438	293	83	197	214	4.5	8x45°
RH50C.CR/SM20	113915VAR	24-42	150	514	579	328	579	514	410	8.5	488	327	94	221	239	5.0	8x45°
RH56C.CR/SM20	113916VAR	28-42	167	564	644	363	644	572	455	8.5	538	363	104	247	265	6.0	8x45°
RH63C.CR/SM25	113917VAR	28-42	187	634	721	407	721	640	510	10.5	600	410	117	275	300	6.5	12x30°

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



Impeller RH..Cpro with fixed hub

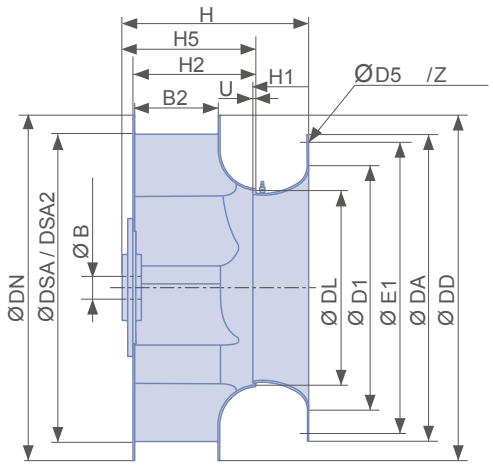
Type	Article no.	Dimensions															
		D	B2	DA	DD	DL	DN	DSA	D1	D5	E1	H	H1	H2	H5	U	Z
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
RH25C.CR/NA02	**113918VAR**	19-24	76	277	290	164	290	257	202	8.5	257	189	47	114	144	2.5	6x60°
RH28C.CR/NA04	**113919VAR**	19-28	85	303	322	182	322	286	225	8.5	283	206	52	126	157	3.0	6x60°
RH31C.CR/NA04	**113920VAR**	19-28	95	343	360	204	360	320	253	8.5	317	226	59	140	171	3.0	8x45°
RH35C.CR/NA04	**113921VAR**	19-28	106	378	406	230	406	360	286	8.5	352	249	66	156	187	3.5	8x45°
RH40C.CR/NA04	**113922VAR**	19-28	118	418	457	258	457	406	322	8.5	392	276	74	176	206	4.0	8x45°

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



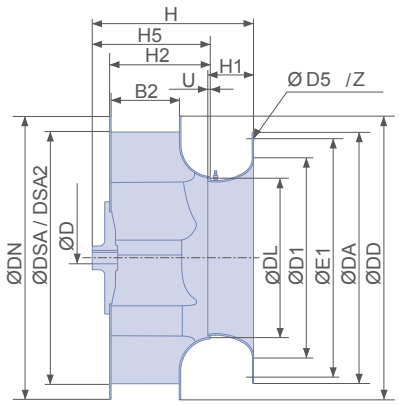
L-KL-2391-19

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	6x60°
RH25C.1R/SM12-1	112262VAR	19-24	70	277	290	163	290	258	202	8.5	257	163	47	103	119	2.5	6x60°
RH28C.1R/SM12-2	112263VAR	19-28	78	303	322	181	322	286	225	8.5	283	179	52	115	130	3.0	6x60°
RH31C.1R/SM12-2	112264VAR	19-28	87	343	360	203	360	320	253	8.5	317	199	59	128	144	3.0	8x45°
RH35C.1R/SM12-2	112265VAR	19-28	98	378	406	228	406	361	286	8.5	352	222	66	144	160	3.5	8x45°
RH40C.1R/SM12-2	112266VAR	19-28	111	418	457	257	457	406	322	8.5	392	248	74	163	178	4.0	8x45°
RH40C.1R/SM20	112275VAR	38	111	418	457	257	457	406	322	8.5	392	250	74	163	180	4.0	8x45°
RH45C.1R/SM20	112267VAR	19-38	125	464	515	290	515	458	364	8.5	438	279	83	183	200	4.5	8x45°
RH50C.1R/SM20	112268VAR	24-42	140	514	579	326	579	515	410	8.5	488	312	94	206	224	5.0	8x45°
RH56C.1R/SM20	112269VAR	28-42	156	564	644	363	644	572	455	8.5	538	344	104	229	246	6.0	8x45°
RH63C.1R/SM25	112270VAR	28-42	174	634	721	406	721	641	510	10.5	600	391	117	256	281	6.5	12x30°
RH71C.1R/SM25	112271VAR	28-48	196	704	811	457	811	721	573	10.5	670	437	131	288	313	7.0	12x30°
RH80C.1R/SM25	112272VAR	38-48	221	784	914	515	914	813	646	10.5	750	490	148	325	350	8.0	12x30°
RH90C.1R/SM30	112273VAR	38-55	249	874	1030	580	1030	916	728	10.5	840	552	167	366	394	9.0	16x22.5°
RH10C.1R/SM30	112274VAR	42-65	280	974	1159	653	1159	1030	819	10.5	940	617	187	412	440	10.0	16x22.5°
RH11C.4R/SM30	114157VAR	55-60	315	1075	1287	725	1287	1145	910	10.5	1041	688	208	463	491	11.0	16x22.5°
RH11C.1R/SM30	112469VAR	55-75	390	1075	1287	725	1287	1145	910	10.5	1041	765	208	540	568	11.0	16x22.5°
RH11C.1R/SM35	113583VAR	80	390	1075	1287	725	1287	1145	910	10.5	1041	769	208	540	572	11.0	16x22.5°

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	6x60°
RH22C.1R/NA02	112276VAR	19	62	253	257	145	257	229	179	8.5	233	162	42	92	122	2.0	6x60°
RH25C.1R/NA02	112277VAR	19-24	70	277	290	163	290	258	202	8.5	257	178	47	103	134	2.5	6x60°
RH28C.1R/NA04	112278VAR	19-28	78	303	322	181	322	286	225	8.5	283	194	52	115	145	3.0	6x60°
RH31C.1R/NA04	112279VAR	19-28	87	343	360	203	360	320	253	8.5	317	214	59	128	159	3.0	8x45°
RH35C.1R/NA04	112280VAR	19-28	98	378	406	228	406	361	286	8.5	352	237	66	144	175	3.5	8x45°
RH40C.1R/NA04	112281VAR	19-28	111	418	457	257	457	406	322	8.5	392	263	74	163	193	4.0	8x45°
RH40C.1R/NS06	112290VAR	38	111	418	457	257	457	406	322	8.5	392	268	74	163	198	4.0	8x45°
RH45C.1R/NS06	112282VAR	19	125	464	515	290	515	458	364	8.5	438	287	83	183	208	4.5	8x45°
RH45C.1R/NS06	112282VAR	24-38	125	464	515	290	515	458	364	8.5	438	297	83	183	218	4.5	8x45°
RH50C.1R/NS06	112283VAR	24-42	140	514	579	326	579	515	410	8.5	488	330	94	206	242	5.0	8x45°
RH56C.1R/NS06	112284VAR	28-42	156	564	644	363	644	572	455	8.5	538	362	104	229	264	6.0	8x45°
RH63C.1R/NS07	112285VAR	28-42	174	634	721	406	721	641	510	10.5	600	402	117	256	292	6.5	12x30°
RH71C.1R/NS07	112286VAR	28-48	196	704	811	457	811	721	573	10.5	670	448	131	288	324	7.0	12x30°
RH80C.1R/NS07	112287VAR	38-48	221	784	914	515	914	813	646	10.5	750	500	148	325	361	8.0	12x30°
RH90C.1R/NS08	112288VAR	38-55	249	874	1030	580	1030	916	728	10.5	840	559	167	366	401	9.0	16x22.5°
RH10C.1R/NS08	112289VAR	42-65	280	974	1159	653	1159	1030	819	10.5	940	624	187	412	447	10.0	16x22.5°
RH11C.4R/NS08	114158VAR	55-60	315	1075	1287	725	1287	1145	910	10.5	1041	705	208	463	508	11.0	16x22.5°
RH11C.1R/NS08	112470VAR	55-65	390	1075	1287	725	1287	1145	910	10.5	1041	782	208	540	585	11.0	16x22.5°

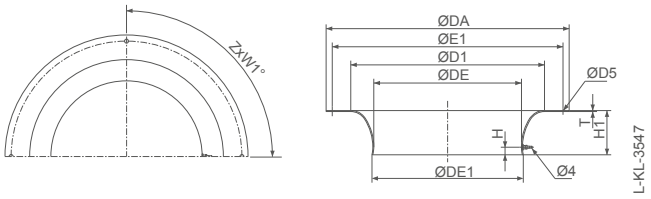
System components

Overview

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°	Weight kg
RH25I	00414630	00414639	277	162	166	206	8.5	257	13.3	40	1.5	6x60°	0.6
RH28I	00414631	00414640	303	182	186	232	8.5	283	13.4	45	1.5	6x60°	0.8
RH31I	00414632	00414641	343	205	209	261	8.5	317	13.6	50	1.5	8x45°	1.0
RH35I	00414633	00414642	378	232	235	295	8.5	352	13.8	57	1.5	8x45°	1.2
RH40I	00414634	00414643	418	260	265	331	8.5	392	15	64	2.0	8x45°	1.9
RH45I	00414635	00414644	464	294	298	374	8.5	438	16.3	72	2.0	8x45°	2.3
RH50I	00414636	00414645	514	327	332	416	8.5	488	18.5	80	2.0	8x45°	2.9
RH56I	00414637	00414646	564	366	371	466	10.5	538	22.8	90	2.0	8x45°	3.4
RH63I	00414638	00414647	634	412	418	525	10.5	600	23.2	101	2.0	12x30°	4.3
RH71I	00414066	00414070	704	451	456	597	10.5	670	27.8	116	2.0	12x30°	5.4
RH80I	00414067	00414071	784	508	517	673	10.5	750	30	131	2.5	12x30°	8.4
RH90I	00414068	00414072	874	573	582	758	10.5	840	35	147	2.5	16x22.5°	10.4
RH10I	00414069	00414073	974	645	656	853	10.5	940	39	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

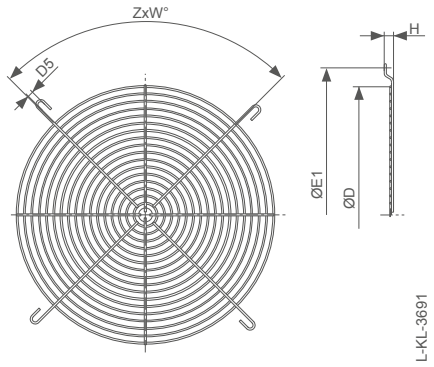
Size	Article no. galvanized	Article no. coated	DA mm	DE mm	DE1 mm	D1 mm	D5 mm	E1 mm	H mm	H1 mm	T mm	ZxW1°	Weight kg
RH22C	00401503	00401736	253	135	140	179	8.5	233	12	42	1.5	6x60°	0.6
RH25C	00401504	00401737	277	153	158	202	8.5	257	12	47	1.5	6x60°	0.7
RH28C	00401505	00401738	303	171	176	226	8.5	283	12	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	22.5	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		kg
RH25I	00411643	203	257	6.5	8	3x120°	0.2
RH28I	00411570	245	283	6.5	8	3x120°	0.3
RH31I	00411571	266	317	6.5	8	4x90°	0.3
RH35I	00411572	308	352	6.5	8	4x90°	0.4
RH40I	00411573	350	392	6.5	8	4x90°	0.5
RH45I	00411574	392	438	6.5	8	4x90°	0.7
RH50I	00411575	434	488	6.5	8	4x90°	0.8
RH56I	00411644	476	538	6.5	8	4x90°	1.0
RH63I	00411645	535	600	9.0	12	6x60°	1.4
RH71I	00411646	610	670	9.0	12	6x60°	1.7
RH80I	00411647	685	750	9.0	12	6x60°	2.1
RH90I	00411648	755	840	9.0	20	8x45°	2.5
RH10I	00411649	845	940	9.0	20	8x45°	3.0
RH11I	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		kg
ER25I	00411643	203	257	6.5	8	3x120°	0.2
ER28I	00411643	203	257	6.5	8	3x120°	0.2
ER31I	00411571	266	317	6.5	8	4x90°	0.3
ER35I	00411572	308	352	6.5	8	4x90°	0.4
ER40I	00411573	350	392	6.5	8	4x90°	0.5
ER45I	00411574	392	438	6.5	8	4x90°	0.7
ER50I	00411575	434	488	6.5	8	4x90°	0.8
ER56I	00411644	476	538	6.5	8	4x90°	1.0
ER63I	00411645	535	600	9.0	12	6x60°	1.4
ER71I	00411646	610	670	9.0	12	6x60°	1.7
ER80I	00414162	685	750	9.0	12	6x60°	2.1
ER90I	00411648	755	840	9.0	20	8x45°	2.5
ER10I	00411649	845	940	9.0	20	8x45°	3.0
ER11I	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		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		kg
ER22C	00411642	182	233	6.5	8	3x120°	0.2
ER25C	00411643	203	257	6.5	8	3x120°	0.2
ER28C	00411643	203	257	6.5	8	3x120°	0.2
ER31C	00411571	266	317	6.5	8	4x90°	0.3
ER35C	00411572	308	352	6.5	8	4x90°	0.4
ER40C	00411573	350	392	6.5	8	4x90°	0.5
ER45C	00411574	392	438	6.5	8	4x90°	0.7
ER50C	00411575	434	488	6.5	8	4x90°	0.8
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	6x60°	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

Inlet guide grille ZAflow

- Material: POM
- ZAflow S can be used as contact protection in accordance with DIN EN ISO 13857

ZAflow helps to significantly improve the air flow on the suction side, especially in confined installation situations. Experience has shown that the total sound level of a typical ventilation system can be easily optimised by 3 to 6 dB. For this purpose, the ZAflow is bolted to the suction side of the nozzle plate with up to six screws, depending on the bolt circle. In addition, the ZAflow “S” can also be used as a guard grille. Contact protection is guaranteed in accordance to DIN EN ISO 13857 Table 4.

ZAbluefin and C-steel/Cpro/C-Alu for RH/GR/ER

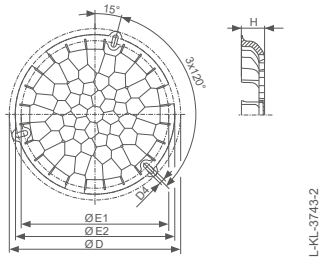
Size	Article no.	D	E1	E2	D4	H	ZxW$_1$	Weight
		mm	mm	mm	mm	mm		kg
250	00415082	305	283	257	9	50	3x120°	0.2
280	00415082	305	283	257	9	50	3x120°	0.2
315	00415083	373	352	317	9	63	4x90°	0.3
355	00415083	373	352	317	9	63	4x90°	0.3
400	00415084	459	438	392	9	80	4x90°	0.6
450	00415084	459	438	392	9	80	4x90°	0.6
500	00415085	560	538	488	9	100	4x90°	1.0
560	00415085	560	538	488	9	100	4x90°	1.0
630	00415086	697	670	600	11	119	6x60°	1.6

ZAvblue for RH/GR

Size	Article no.	D	E1	E2	D4	H	ZxW$_1$	Weight
		mm	mm	mm	mm	mm		kg
250	00415082	305	283	257	9	50	3x120°	0.2
280	00415083	373	352	317	9	63	4x90°	0.3
315	00415083	373	352	317	9	63	4x90°	0.3
355	00415084	459	438	392	9	80	4x90°	0.6
400	00415084	459	438	392	9	80	4x90°	0.6
450	00415085	560	538	488	9	100	4x90°	1.0
500	00415085	560	538	488	9	100	4x90°	1.0
560	00415086	697	670	600	11	119	6x60°	1.6
630	00415086	697	670	600	11	119	6x60°	1.6

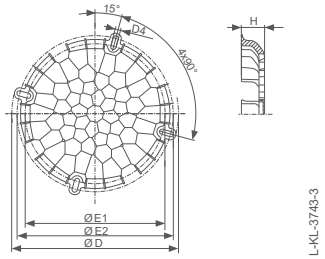
ZAvblue with EC055/ZApilot for RH/GR

Size	Article no.	D	E1	E2	D4	H	ZxW$_1$	Weight
		mm	mm	mm	mm	mm		kg
175	00414468S	170	158	145	5	25	4x90°	0.1
190	00414468S	170	158	145	5	25	4x90°	0.1
200	00414468S	170	158	145	5	25	4x90°	0.1
220	00414553S	238	207 / 227	198	5	27	4x90°	0.1
225	00414553S	238	207 / 227	198	5	27	4x90°	0.1
250	00414553S	238	207 / 227	198	5	27	4x90°	0.1



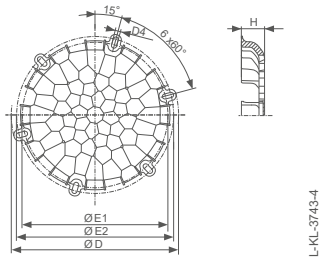
M3x120°

Article no.	Designation
00415082	M233



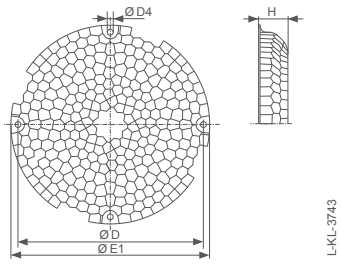
M4x90°

Article no.	Designation
00415083	M295
00415084	M375
00415085	M468



M6x60°

Article no.	Designation
00415086	M558



S4x90°

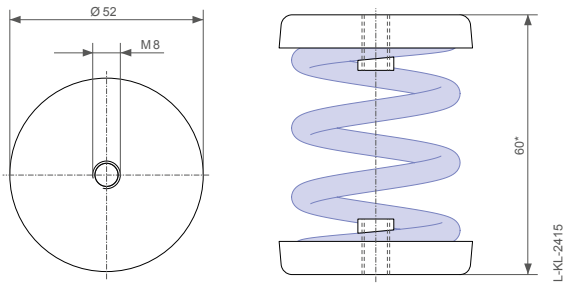
Article no.	Designation
00414468S	S145
00414553S	S198

System components

Spring vibration dampers for ER modules

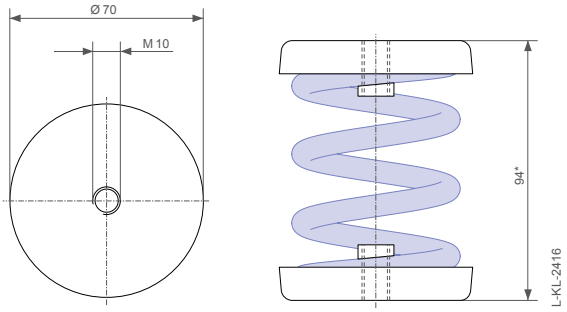
Vibration dampers are designed to prevent the transfer of vibration forces and/or structure-borne noise to the base.
When positioning the vibration dampers on the fan base frame, ensure an even load and compression. In addition to symmetrical distribution about the system centre of gravity, the counter 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**

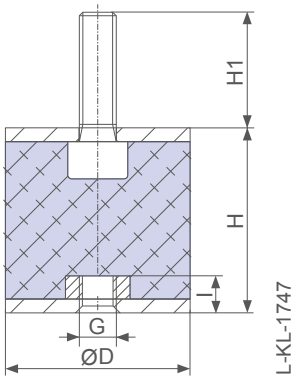


Type SD, * unstressed

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 damper for ER modules

- Material: Rubber NR, NBR or similar
- Zinc-plated metal plates



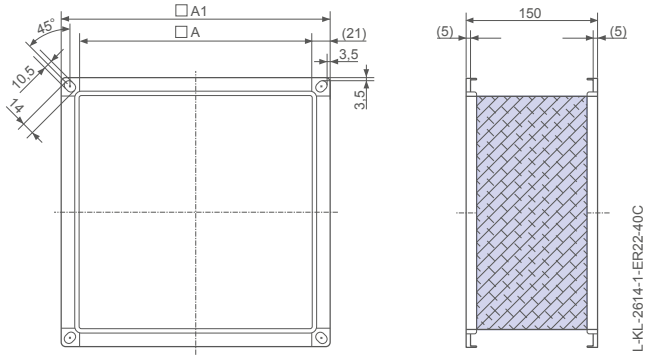
Rubber damper						
Type	**Article no.**	D	G	H	H1	I
		mm	mm	mm	mm	mm
30x30 / 55	**00090144**	30	M8	30	23	6
40x30 / 55	**02000124**	40	M8	30	23	7
50x30 / 55	**02020907**	50	M8	50	28	7
50x50 / 55	**00090157**	50	M10	50	33	8
75x50 / 40	**02001674**	75	M12	50	33	10
75x50 / 55	**02000407**	75	M12	50	33	10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

System components

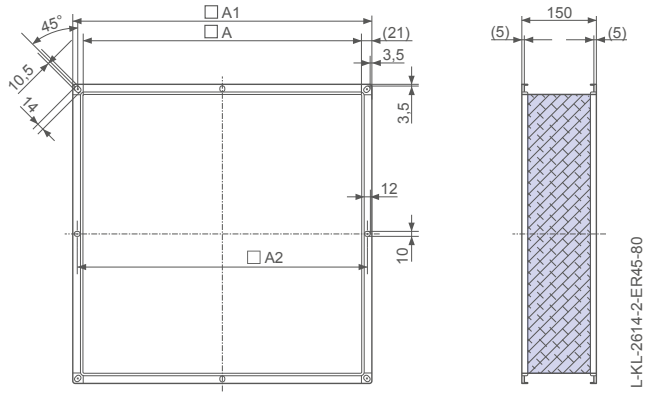
Compensators for ER modules

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

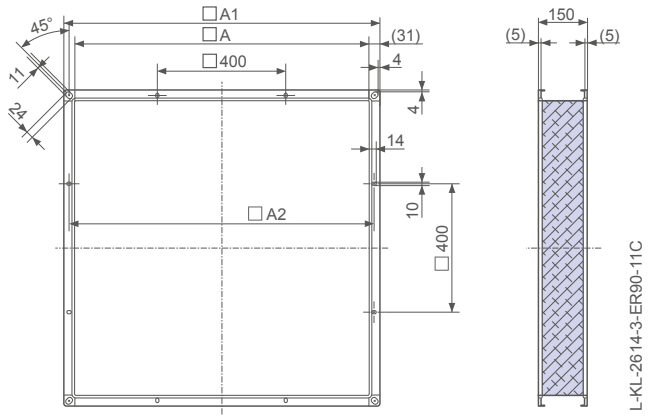
- Material: Polyester fabric, grey
- Frame: Galvanised steel



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



Flexible 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

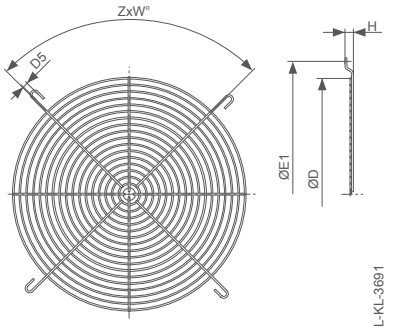


Flexible connector				
Size	**Article no.**	A	A1	A2
		mm	mm	mm
ER90-10	**00403351**	920	982	950
ER11	**00403352**	1170	1232	1200

System components ATEX

Guard grille

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



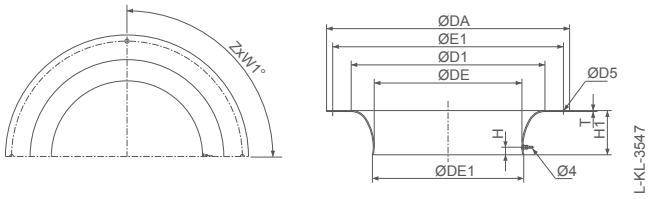
Guard grille on suction side							
Size	**Article no.**	D	E1	D5	H	ZxW°	Weight
		mm	mm	mm	mm		kg
ER25C	**00412699**	203	257	6.5	8	3x120°	0.2
ER28C	**00412700**	245	283	6.5	8	3x120°	0.3
ER31C	**00412701**	266	317	6.5	8	4x90°	0.3
ER35C	**00412702**	308	352	6.5	8	4x90°	0.4
ER40C	**00412703**	350	392	6.5	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		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

System components ATEX

Inlet nozzle

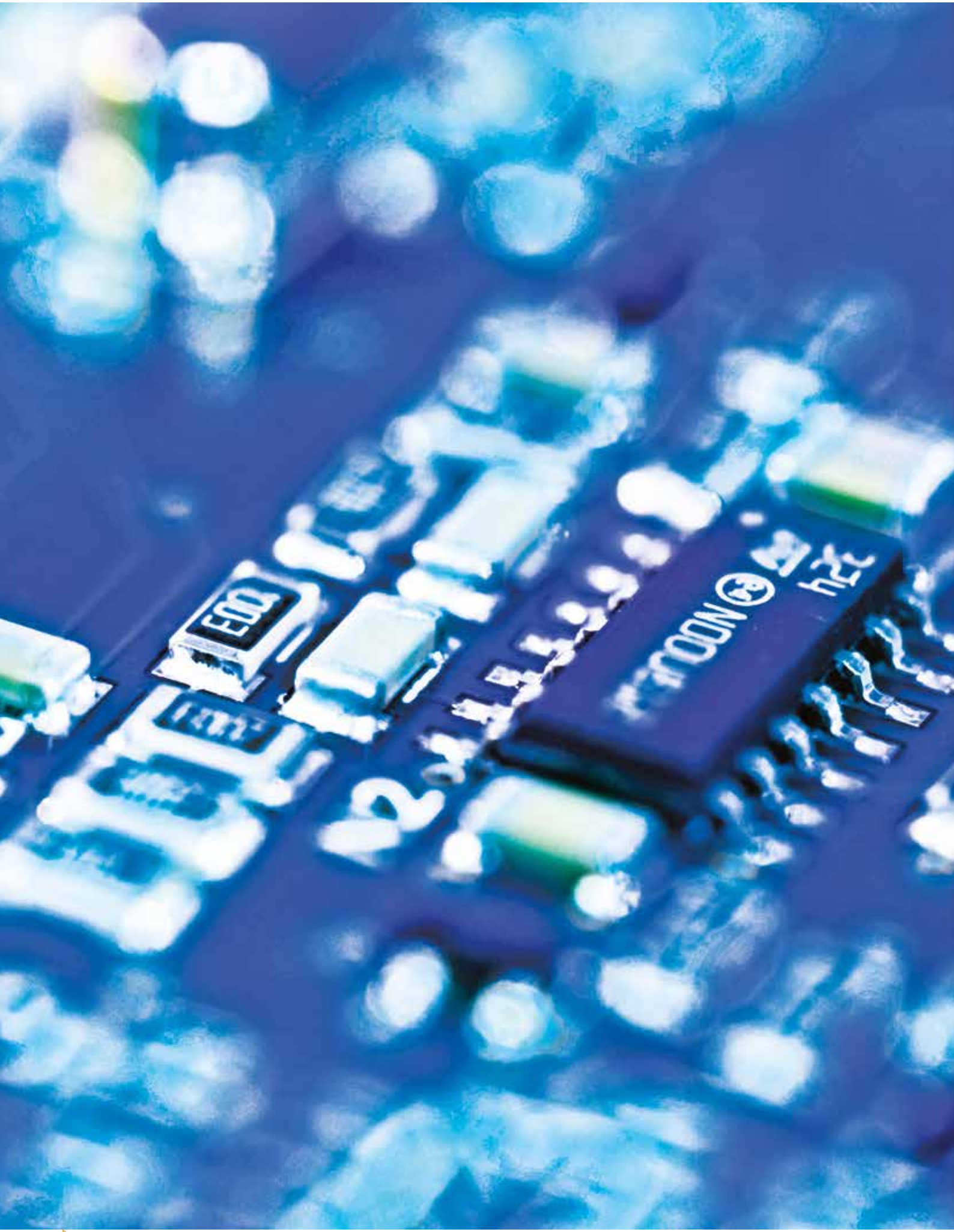
- Material: copper sheet
- With measuring device for air flow measurement
- Fastening diameter according to DIN EN 12 220



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		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

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.

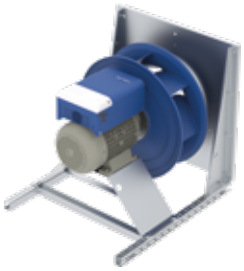
At ZIEHL-ABEGG, you have only one contact person for fans, motors and the perfectly matching one-stop control engineering.

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

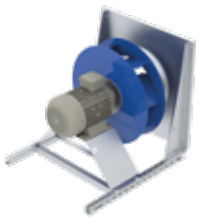
Covering the big power range from < 1 kW up to 30 kW

ECblue Basic
Power: < 1 kW up to 6 kW

AMblue / PMblue
Power: 2.2 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

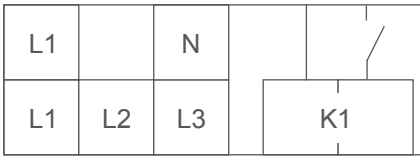
Simple, cross--product, uniform

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

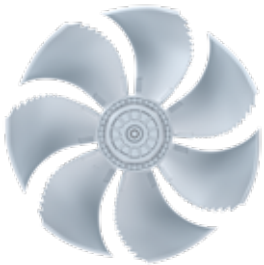


Easily expandable for inte

AM-MODBUS | AM-CAN-OPEN | AM-LON



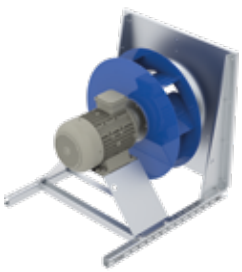
Fans with asynchronous motors
< 1 kW to approx. 30 kW
Control via mounted Fcontrol Basic or Icontrol Basic frequency inverters




Expandable and combina

AM-PREMIUM | UNIconcontrol modules





ntrol philosophy

nectivity

E1	D1	GND	10V	24V

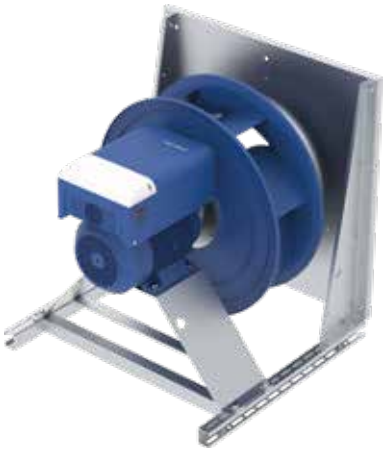
gration into bus systems

AM-PROFIBUS AM-ETHERCAT ...



able control intelligence


PMblue centrifugal fans with mounted PMIcontrol Basic-M
< 2.2 kW to approx. 22 kW
PMblue combines PM motor with permanent magnets and mounted frequency inverter (optionally mountable PMcontrol)



Centrifugal fans with mounted PMIcontrol Basic-M
< 2.2 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

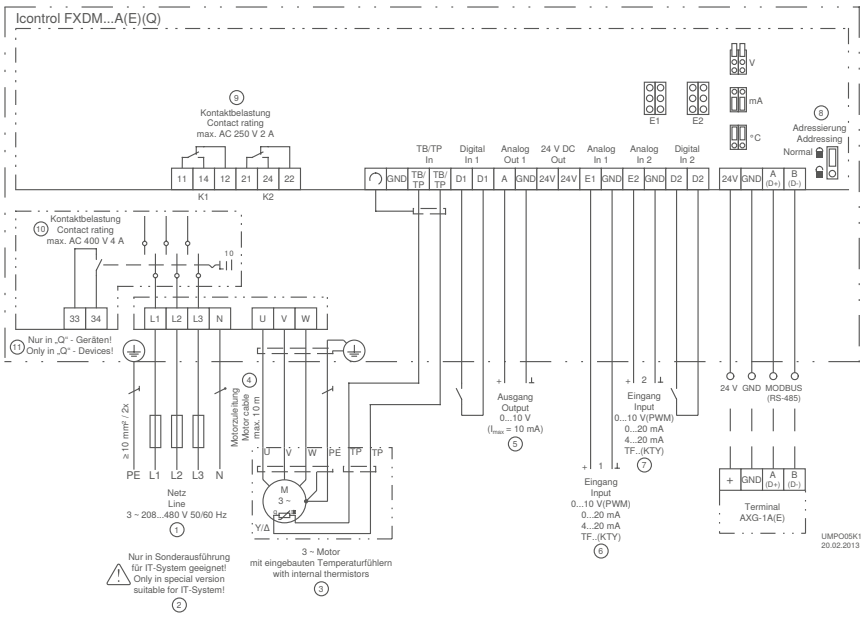
°C — Connection of thermistors,
e. g. sensors type TF..
e. g. active sensor type MTG..

△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	240x284x115
FXDM4.2A	**308148**		4.2	1.5	40	10	70			6.40	250x302x195.5
FXDM5A	**308149**		5	2.2	40	10	80			6.40	250x302x195.5
FXDM7.5A	**308150**		7.5	3	40	10	125			7.30	250x302x195.5
FXDM8.5A	**308151**		8.5	4	40	10	150			7.30	250x302x195.5
FXDM12A	**308152**		12	5.5	40	16	210			7.50	250x302x195.5
FXDM17A	**308153**		17	7.5	40	20	300			7.50	250x302x195.5
FXDM25A	**308112**		25	11	40	35	480			12.50	280x355x239
FXDM32A	**308078**		32	15	50	35	750			24.50	386x525x283
FXDM39A	**308080**		39	18.5	55	50	900			26.30	386x525x283
FXDM46A	**308088**		46	22	50	50	1050			26.30	386x525x283
FXDM62A	**308092**		62	30	40	63	1250			26.30	386x525x283

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 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
FXDM2.6AQ	**308161**	400	2.6	1.1	40	6	45	55	IP54	3.40	240x284x149
FXDM4.2AQ	**308162**		4.2	1.5	40	10	70	55		6.60	250x302x229.5
FXDM5AQ	**308163**		5	2.2	40	10	80	55		6.60	250x302x229.5
FXDM7.5AQ	**308164**		7.5	3	40	10	125	55		7.50	250x302x229.5
FXDM8.5AQ	**308165**		8.5	4	40	10	150	55		7.50	250x302x229.5
FXDM12AQ	**308166**		12	5.5	40	16	210	55		7.70	250x302x229.5
FXDM17AQ	**308167**		17	7.5	40	20	300	55		7.70	250x302x229.5
FXDM25AQ	**308168**		25	11	40	35	480	55		12.80	280x355x273
FXDM32AQ	**308169**		32	15	50	35	750	55		25.30	386x525x317
FXDM39AQ	**308170**		39	18.5	55	50	900	55		27.10	386x525x317
FXDM46AQ	**308171**		46	22	50	50	1050	55		27.10	386x525x317
FXDM62AQ	**308172**		62	30	40	63	1250	55		27.10	386x525x317

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

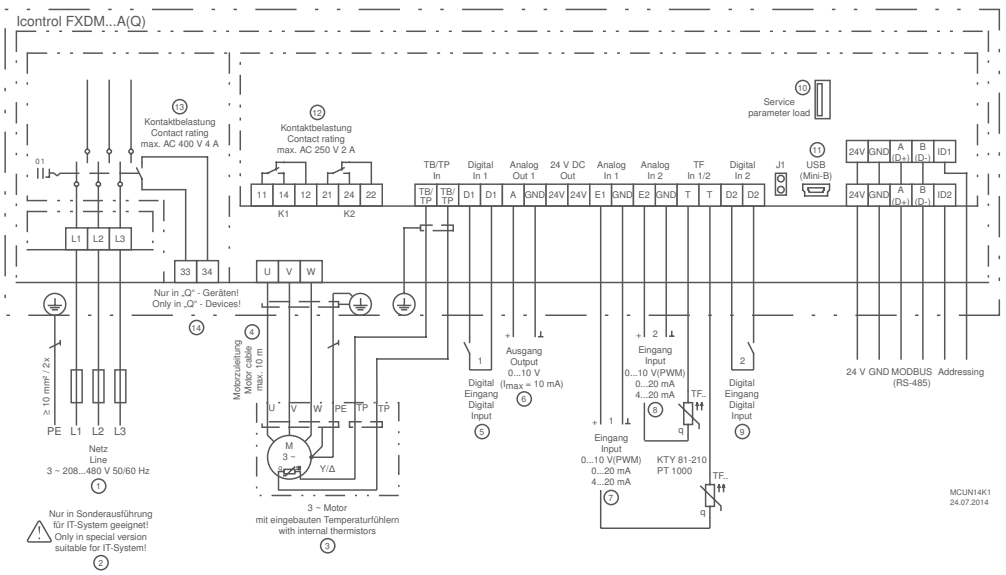
°C — Connection of thermistors,
e. g. sensors type TF..
e. g. active sensor type MTG..

△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 plain text display:
Various menu languages can be selected

Easy startup via operating modes:
Typical operating modes can be selected, e.g. for air conditioning, refrigeration or ventilation technology.

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

Easy to programme:
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-stage operation

2 analogue inputs for sensors or signal setting:
Analogue 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, switch over setpoint 1 or 2, switch over control or manual mode, switch over E1 or E2, control mode reversal, output limitation, display of external fault, reset, direction of rotation reversal

1 analogue 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	279x405x294
FXDM32AQ	**308282**		32	15	55	35	540	55		19.80	279x405x294

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	279x405x260
FXDM32A	**308281**		32	15	55	35	540	55		19.60	279x405x260

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 primarily 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 expansion as a control unit 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 from the UNIcon product series. The speed can also be set manually by connecting a potentiometer. Two-stage operation with adjustable speeds is possible optionally.

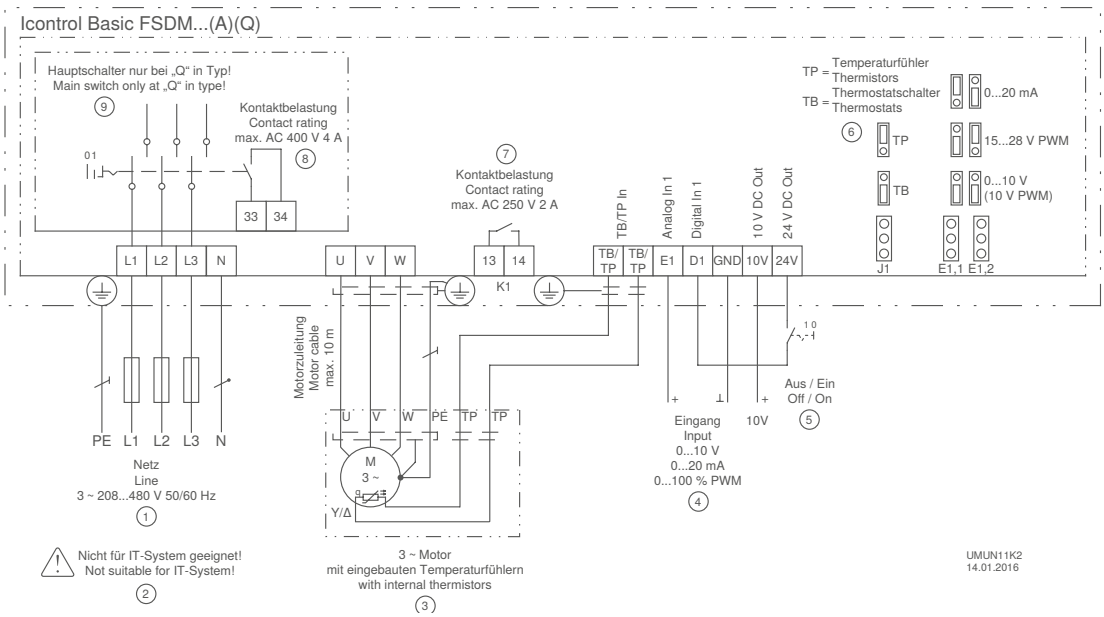
The 3~ Icontrol Basic are universally suitable for many different applications: E.g. air conditioning technology, general ventilation tasks, combination with medium pressure axial fans MAXvent.

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
349077	AM-MODBUS-WB
349046	AM-PREMIUM
349065	AM-AMPsignal
349071	AM-ETHERCAT
349064	AM-CAN-OPEN
349049	AM-LON
349063	AM-PROFIBUS
349072	AM-PROFINET
349084	AM-BACNET

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	240x284x115
FSDM3.6	**308215**		3.6	40	1.5	6	55			2.60	240x284x115
FSDM5	**308216**		5	55	2.2	10	80			4.60	250x302x195.5
FSDM7	**308217**		7	50	3	10	105			4.70	250x302x195.5
FSDM8.5	**308218**		8.5	55	4	10	130			5.60	250x302x195.5
FSDM12	**308264**		12	55	5.5	16	175			5.70	250x302x195.5
FSDM17	**308269**		17	50	7.5	20	260			5.90	250x302x195.5
FSDM25	**308322**		25	40	11	35	480			12.30	280x355x239
FSDM32	**308324**		32	50	15	35	750			24.30	386x525x283
FSDM39	**308326**		39	55	18.5	50	900			26.10	386x525x283
FSDM46	**308328**		46	50	22	50	1050			26.10	386x525x283
FSDM62	**308330**		62	40	30	63	1250			26.10	386x525x283

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 primarily for requirement-based and energy-saving speed control of internal rotor motors (IEC standard motors).
The Icontrol Basic are available as speed controllers in the version with integrated display and 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 from the UNIcon product series. The speed can also be set manually by connecting a potentiometer. Two-stage operation with adjustable speeds is possible optionally.

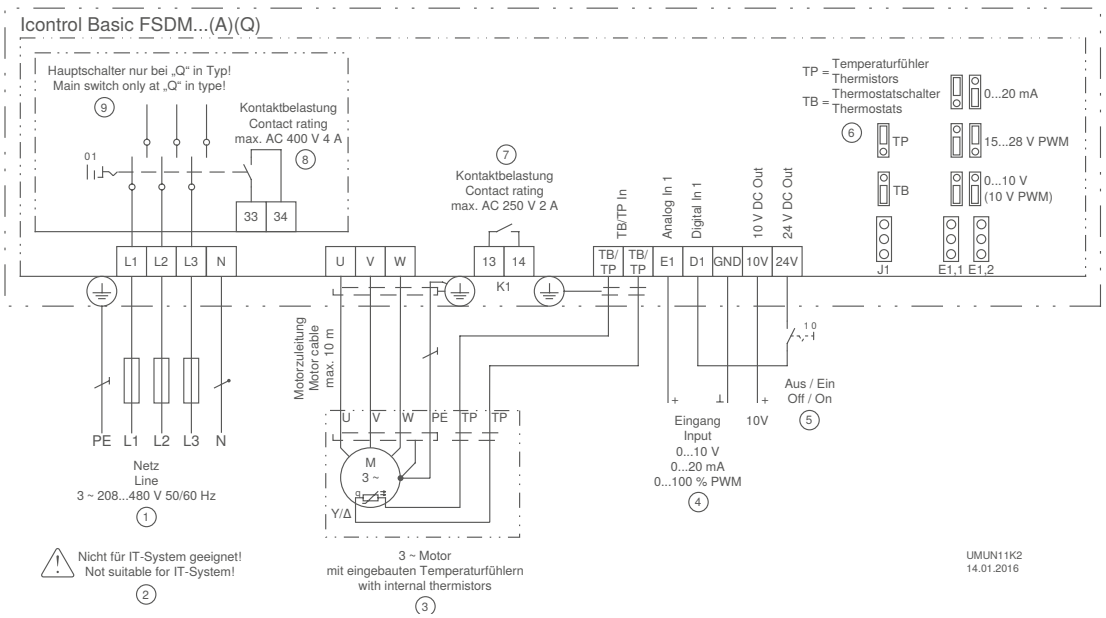
The 3~ Icontrol Basic are universally suitable for many different applications: E.g. air conditioning technology, general ventilation tasks, combination with medium pressure axial fans MAXvent.

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	240x284x115
FSDM3.6A	308230		3.6	40	1.5	6	55			2.80	240x284x115
FSDM5A	308232		5	55	2.2	10	80			4.80	250x302x195.5
FSDM7A	308234		7	50	3	10	105			4.90	250x302x195.5
FSDM8.5A	308236		8.5	55	4	10	130			5.80	250x302x195.5
FSDM12A	308265		12	55	5.5	16	175			5.90	250x302x195.5
FSDM17A	308267		17	50	7.5	20	260			6.10	250x302x195.5
FSDM25A	308323		25	40	11	35	480			12.50	280x355x239
FSDM32A	308325		32	50	15	35	750			24.50	386x525x283
FSDM39A	308327		39	55	18.5	50	900			26.30	386x525x283
FSDM46A	308329		46	50	22	50	1050			26.30	386x525x283
FSDM62A	308331		62	40	30	63	1250			26.30	386x525x283

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	240x284x149
FSDM3.6AQ	308231		3.6	40	1.5	6	55	55		3.00	240x284x149
FSDM5AQ	308233		5	55	2.2	10	80	55		5.00	250x302x229.5
FSDM7AQ	308235		7	50	3	10	105	55		5.10	250x302x229.5
FSDM8.5AQ	308237		8.5	55	4	10	130	55		6.00	250x302x229.5
FSDM12AQ	308266		12	55	5.5	16	175	55		6.10	250x302x229.5
FSDM17AQ	308268		17	50	7.5	20	260	55		6.20	250x302x229.5
FSDM25AQ	308332		25	40	11	35	480	55		12.80	280x355x273
FSDM32AQ	308333		32	50	15	35	750	55		25.30	386x525x317
FSDM39AQ	308334		39	55	18.5	50	900	55		27.10	386x525x317
FSDM46AQ	308335		46	50	22	50	1050	55		27.10	386x525x317
FSDM62AQ	308336		62	40	30	63	1250	55		27.10	386x525x317

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.

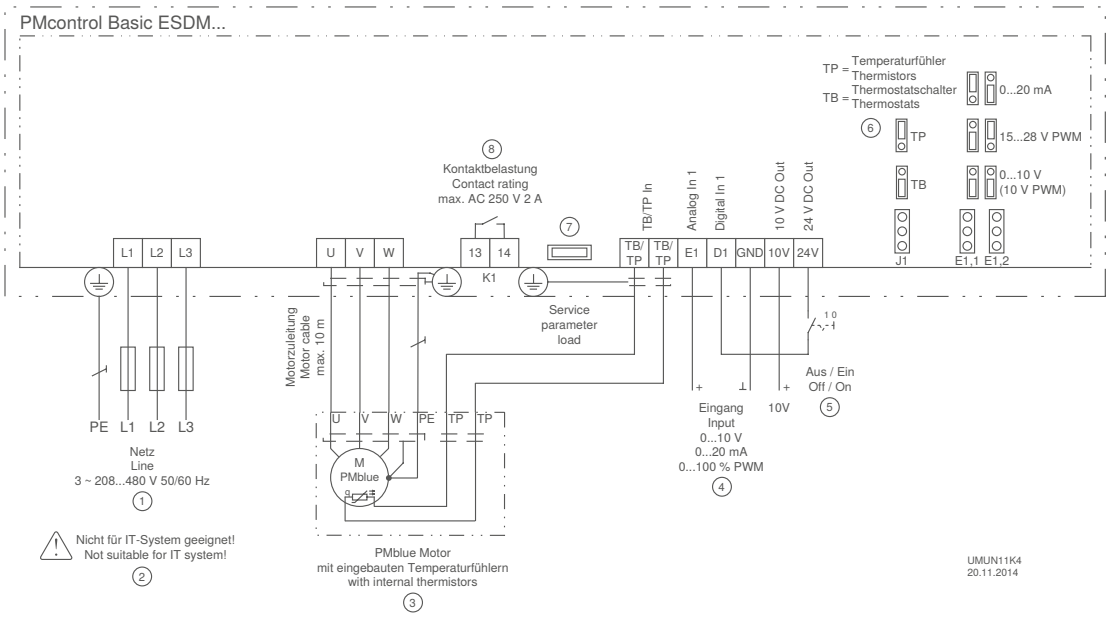
For fast commissioning, the frequency inverter is equipped with a slot for the ZAstick parameter memory. Necessary operating and motor data for optimum energetic and acoustic operation of the appropriate motor or fan are saved on the pluggable ZAstick parameter memory for the frequency inverter. As soon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

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 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
349077	AM-MODBUS-WB
349046	AM-PREMIUM
349065	AM-AMPsignal
349071	AM-ETHERCAT
349064	AM-CAN-OPEN
349049	AM-LON
349063	AM-PROFIBUS
349072	AM-PROFINET
349084	AM-BACNET

PMcontrol Basic, modularly expandable speed controller
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	10	200	55	IP54	5.60	250x302x195.5
ESDM17	**306620**		17	55	7.5	20	400	55		5.90	250x302x195.5
ESDM32	**306621**		32	55	15	35	650	55		19.60	279x405x260

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 expansion as a control unit is also possible via additional modules.

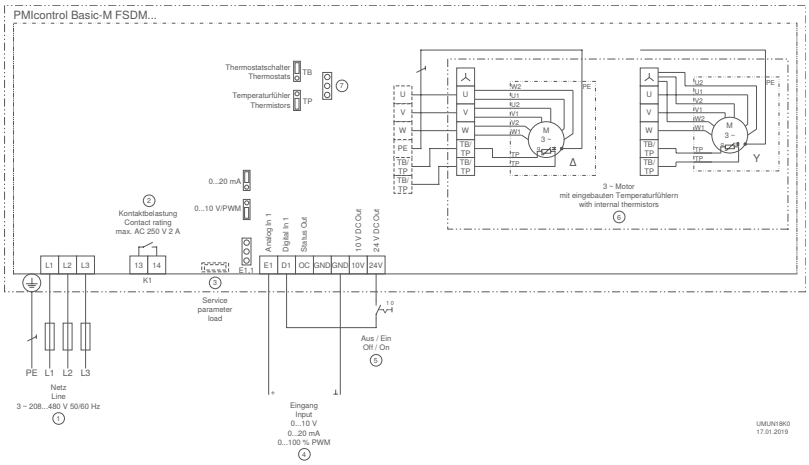
For fast start-up, the frequency inverter is equipped with a slot for the ZAstick parameter memory. Necessary operating and motor data for optimum energetic and acoustic operation of the appropriate motor or fan are saved on the pluggable ZAstick parameter memory for the frequency inverter. This parametrisation 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 default 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
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

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 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
349077	AM-MODBUS-WB
349046	AM-PREMIUM
349065	AM-AMPsignal
349071	AM-ETHERCAT
349064	AM-CAN-OPEN
349049	AM-LON
349063	AM-PROFIBUS
349072	AM-PROFINET
349084	AM-BACNET

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
FSDM5	**308340-UL**	400	5.0	55	2.2	10	80	55	IP54	3.42	203x285x141
FSDM7.5	**308341-UL**		7.5	50	3	10	120	55		3.47	203x285x141
FSDM8.5	**308342-UL**		8.5	40	4	10	140	55		3.47	203x285x141
FSDM12	**306622-UL**		12.0	55	5.5	20	175	55		6.10	254.2x344.2x154.5
FSDM17	**306623-UL**		17.0	50	7.5	20	260	55		6.10	254.2x344.2x154.5
FSDM25	**308309-UL**		25.0	40	11	35	430	55		18.60	320x430x214.5
FSDM32	**308310-UL**		32.0	50	15	35	560	55		19.60	320x430x214.5
FSDM39	**308311-UL**		39.0	40	18.5	50	730	55		22.60	366x476x214.5
FSDM46	**308312-UL**		46.0	40	22	50	900	55		22.70	366x476x214.5

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 sheets 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

Frequency inverters

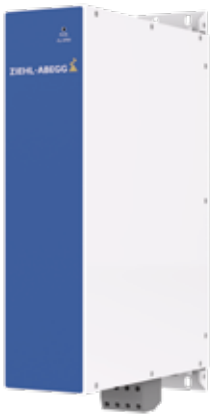
PMIcontrol Basic-M, for setting up internal rotor motors

Adapter sheet controller-motor

Manufacturer motor	Series	Size	Rated output power [kW]								
			2,2	3,0	4,0	5,5	7,5	11	15	18,5	22
ZIEHL-ABEGG	IMB3	090	00167300	-	-	-	-	-	-	-	-
		100	00167300	00167300	-	-	-	-	-	-	-
		112	00167300	-	00167300	-	-	-	-	-	-
		132	-	00167300	00167300	00160850	00160850	-	-	-	-
		160	-	-	00167301	00160850	00160850	00167158	00167158	-	-
		180	-	-	-	-	-	00167158	00167158	00167191	00167191
		200	-	-	-	-	-	-	00167158	00167191	00167191
		225	-	-	-	-	-	-	-	00167191	00167191
Siemens	1LE1	090	00167302	-	-	-	-	-	-	-	-
		100	00167302	00167302	-	-	-	-	-	-	-
		112	00167302	-	00167302	-	-	-	-	-	-
		132	-	00167302	00167302	00160883	00160883	-	-	-	-
		160	-	-	-	00160883	00160883	00167158	-	-	-
		180	-	-	-	-	-	00167140	00167158	00167192	00167192
		200	-	-	-	-	-	-	00167140	00167192	00167192
		225	-	-	-	-	-	-	-	00167192	00167192

Active harmonic filter

for frequency inverters or ECblue fans (EC motors)

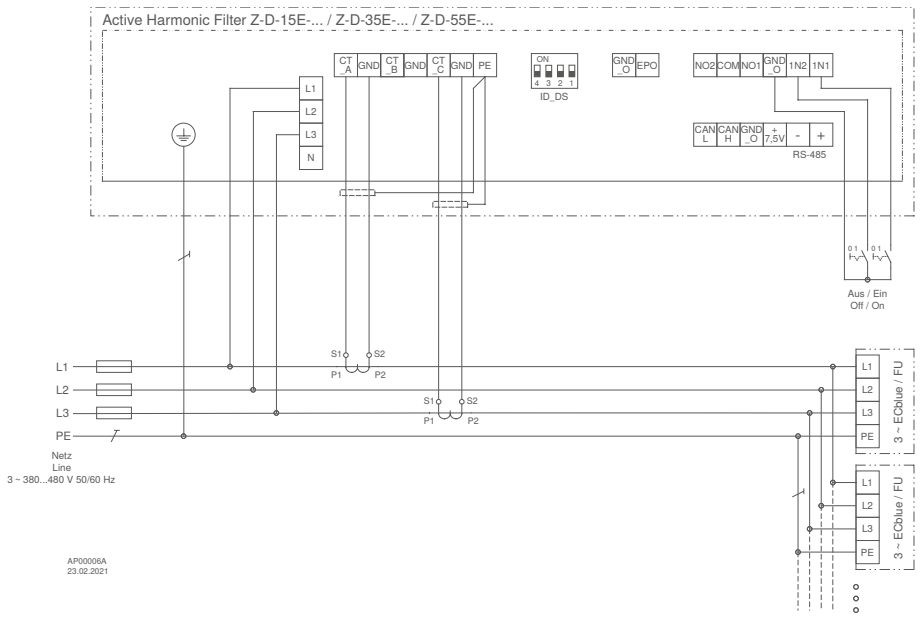


Active harmonic filters primarily reduce harmonics. These are caused by the characteristic power consumption of non-linear loads. Products with power electronics have become indispensable in our daily life. These are LED lamps, IT and telecommunication devices, as well as frequency inverters, pumps, compressors, uninterruptible power supplies, charging stations of electric cars, inverters of solar systems and many more.

Especially critical infrastructure institutions that contribute to the maintenance of important societal functions as well as use sensitive electrical equipment, such as hospitals, data centers or airports, attach great importance to reliability, voltage quality and stability of their supply.

With the different available sizes of the active harmonic filters of 15 A, 35 or 55 A a wide range of applications can be covered. The combination of this filters with ZIEHL-ABEGG ECblue fans and further control technology products, guarantees a perfect matching system, which also fulfills the requirements of the future.

Connection diagram



Equipment/properties

Active harmonic filter for the reduction of harmonic distortion of non-linear loads. Innovative SiC technology and Schottky diodes, combined with a continuously optimized algorithm, ensure highly harmonic compension. This active harmonic filter typically reduces the total harmonic distortion of the current (THDi) from 35% to below 5% for a fan or frequency power range of 8 - 30 kW, depending from chosen filter version. Different power ranges on request.

1x active harmonic filter with 2x calibrated current transformers, according to the maximum load current.

Auto Mode avaiable including
- Compensation of 2nd to 60th order harmonics
- Power factor correction
- Compensation of mains unbalance

Integrated LED:
For status display and error message

Interface RS485:
Setting and control via a computer

Note for product selection:

The rated current 15 / 35 / 55 A of the active filter, is the harmonically distorted current of the connected power electronic (e. g. ECblue fans, frequency inverters). This is to be determined via the respective THDi value of the connected power electronics.

Please request the required values to select the rated current for filter selection at ZIEHL-ABEGG.

The rated current of the current transformer (e. g. …-060 / -100 / -200) depends from the connected load.

Active harmonic filter
3~ 380…480V 50/60Hz

Type	Article no.	Rated current	Rated temperature	Max. heat dissipation	Maximum ambient temperature	Protection class	Weight	Dimensions (W x H x D)
		A	°C	W	°C		kg	mm
Z-D-15E-060	349114	15	40	207	50	IP20	10.00	89x417x260
Z-D-35E-100	349117	35	40	415	50		17.00	105x560x360
Z-D-55E-200	349120	55	40	721	50		19.00	105x560x360

Products with UL authorisation on request

Control module

UNIcon universal control module with MODBUS Master function (2nd edition)

c UL us LISTED

All ZIEHL-ABEGG sensors can be combined with the UNIcon CXE/CXG 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 and other devices.
Optionally, connected field devices can be activated by MODBUS-RTU. ZIEHL-ABEGG frequency inverters or ECblue fans can be conveniently addressed quickly and automatically. Universal control module 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 applications in the areas mentioned, fast start-up is possible by selecting preset operating modes.

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

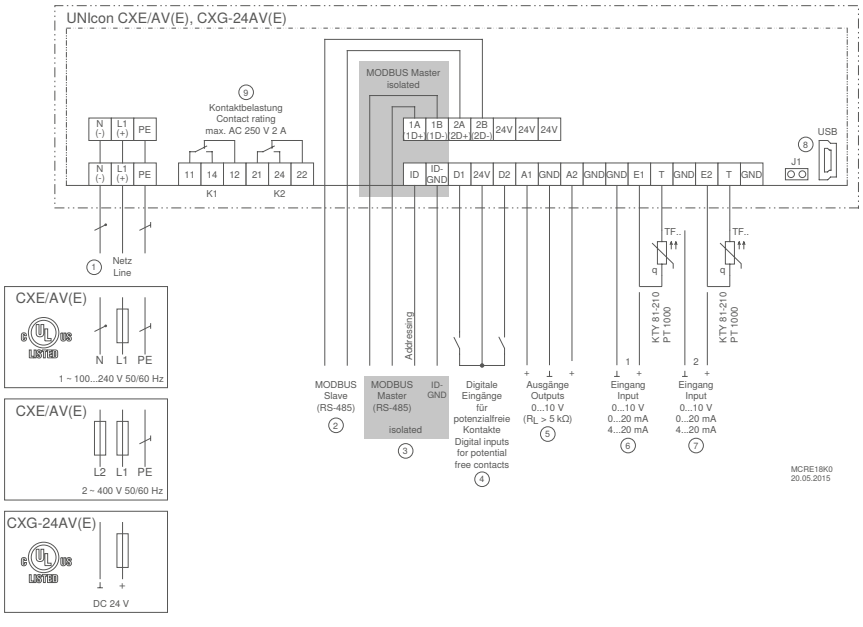
°C — Connection of thermistors,
e. g. sensors type TF..
e. g. active sensor type MTG..

△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



① Line
② MODBUS Slave
③ MODBUS Master
④ Digital inputs for potential-free
⑤ Outputs A1 and A2
⑥ Input E1
⑦ Input E2
⑧ Jumpter for boot loader
⑨ Digital outputs (Relais)

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

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:
③ 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.
② 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)

AM-BACNET-U, article no. 349088, for integration of the UNIcon MODBUS Master 2nd edition
into BACNET networks.

UNIcon universal control module, with UL authorisation (2nd edition)
1~ 100...240V 50/60Hz

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
CXE/AV	320066	10	10	55	IP54	0.63	166x175x60
CXE/AVE	320067	10	10	55	IP00	0.55	182x118x57.5

UNIcon universal control module, with UL authorisation (2nd edition)
24 V DC, max. 70 mA

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	320068	10	10	55	IP54	0.60	166x175x60
CXG-24AVE	320069	10	10	55	IP00	0.52	182x118x57.5

UNIcon universal control module, without UL authorisation (2nd edition)
2~ 400V 50/60Hz

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
CXE/AV	320070	10	10	55	IP54	0.74	166x175x60

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.

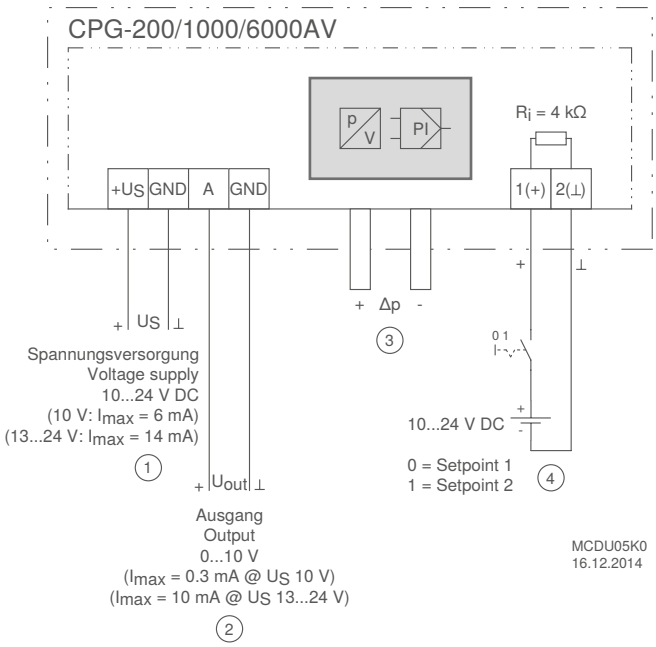
The sensor control module is supplied by the fan or frequency inverter which it controls, e.g., with 10-24 V DC. No additional supply voltage is necessary.

Input for sensors or speed settings through

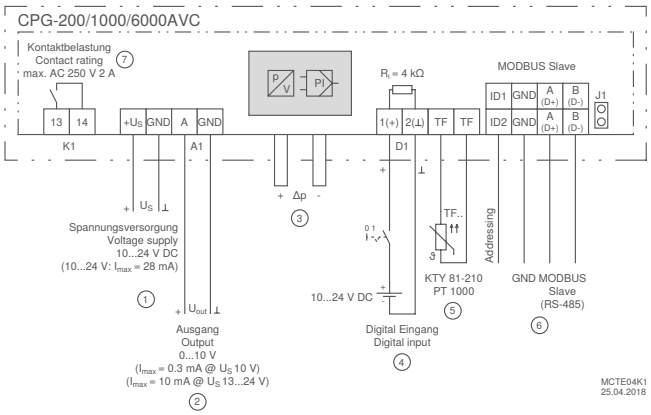
△Pa — Pressure sensor and control intelligence are combined in one device

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



① Voltage supply 10...24 V DC
② Output 0...10 V
③ Pressure connections
④ Digital input (voltage ON/OFF)
⑤ Outdoor temperature sensor KTY81-210 or PT 1000
⑥ MODBUS Slave interface RS-485 (J1 plugged = Bus terminating resistor 150 Ω active)
⑦ Contact rating max. AC 250 V 2 A

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.

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(C): 0-50 / 100 / 150 / 200 Pa
CPG-1000AV(C): 0-200 / 300 / 500 / 1000 Pa
CPG-6000AV(C): 0-2000 / 3000 / 4000 / 6000 Pa
Maximum air flow measuring range: 65,000 m^3/h

Voltage input D1 (digital input):
Version CPG-...AV: switch over setpoint 1 or 2
Extended versions CPG-...AVC:
Enable, display of external fault, switch over setpoint 1 or 2

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

Additional CPG-...AVC
Digital output K1 in CPG-...AVC:
Operating indication, fault indication, external fault at digital input, indication of limits.

Real-time clock with timer in CPG-...AVC:
For example automatic setpoint switch over

Possibility to shift the setpoint depanding from outdoor temperature with CPG-...AVC:
In operation as pressure- or volumetric air flow controller the set-point can be shifted depending from outdoor temperature (to bring in less air during cold outdoor temperature)

CPG-...AVC with interface RS485 für MODBUS RTU:
Integration into network, manually or automatic addressing possible.

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 V

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	106.3x137x56
CPG-1000AV	320064	-10	60	IP54	0.23	106.3x137x56
CPG-6000AV	320065	-10	60	IP54	0.23	106.3x137x56
CPG-200AVC	320075	-10	60	IP54	0.25	106.3x137x56
CPG-1000AVC	320076	-10	60	IP54	0.25	106.3x137x56
CPG-6000AVC	320077	-10	60	IP54	0.25	106.3x137x56

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.

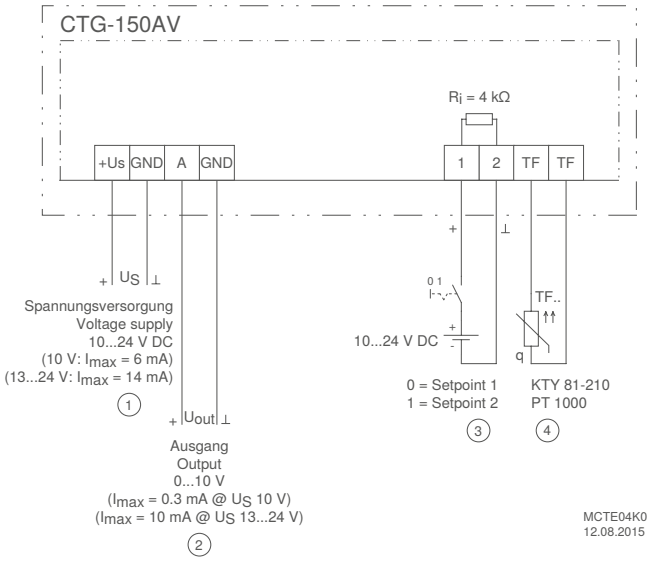
The control module is supplied with 10-24 V DC from the fan or frequency inverter it is triggering. No additional power supply necessary.

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.

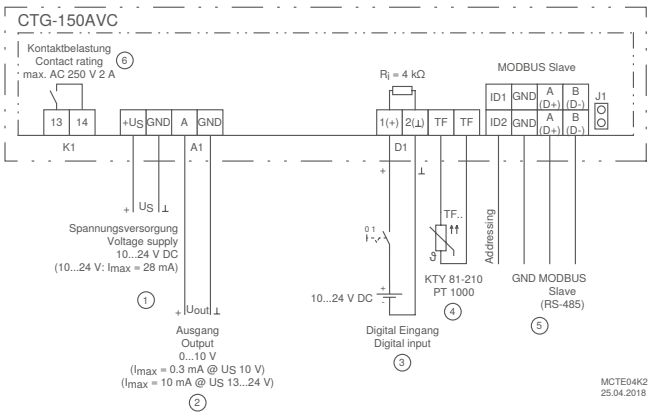
Input for sensors or speed settings through

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



① Input 10...24 V DC
② Output 0...10 V
③ Digital input (voltage ON/OFF)
④ Temperature sensor KTY 81-210 or PT 1000
⑤ MODBUS Slave interface RS-485 (J1 plugged = Bus terminating resistor 150 Ω active)
⑥ Contact rating max. AC 250 V 2 A

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 D1 (digital input)
Versions CTG-150AV: Switchover setpoint 1 or 2
Extended versions: CTG-150AVC:
Enable, display of external fault, switch over setpoint 1 or 2

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

Additional CTG-150AVC:
Digital output K1 in CPG-150AVC:
Operating indication, fault indication, external fault at digital input, indication of limits two-posititon controller “heating/cooling”

Real-time clock with timer in CTG-150AVC:
For example automatic setpoint switch over

CTG-150AVC with interface RS485 for MODBUS RTU:
Integration into network, manually or automatic addressing possible

UNIcon temperature control module
DC10...24 V

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	106.3x137x56
CTG-150AVC	320074	-10	60	IP54	0.22	106.3x137x56

Dimensions with cable gland

Sensors

Differential pressure sensors (2nd edition)

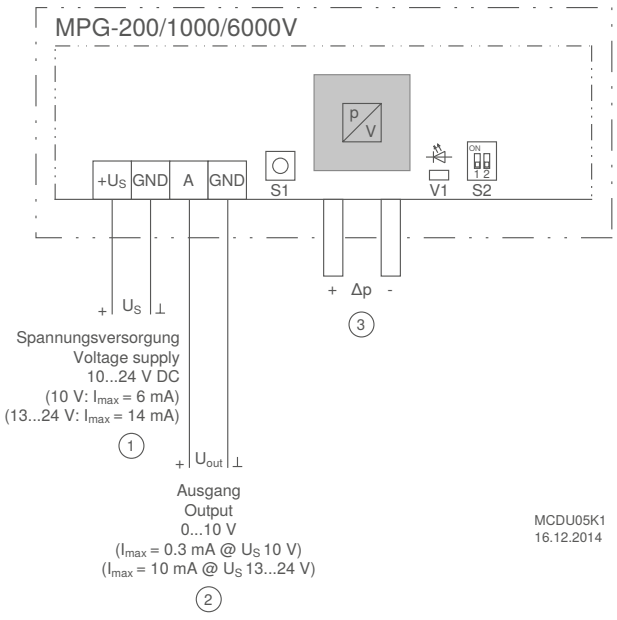
Sensors for measuring differential pressure. Used in air ducts, faninlet nozzles (e.g. in air conditioning box devices), roof fans, etc. The differential pressure sensor is connected to the ventilation system by two pressure connections. The differential pressure thus acts on a silicone membrane, the 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 via integrated 3-pole terminal in the device.

Measurement range:
Three instrument versions cover the measuring range from 0 to 6000 Pa.
Each device has four adjustable measuring ranges, for precise measuring results in the corresponding application.

Status LED:
Information about the device status via LED in the connection compartment.

Zero point calibration:
Adjustment of the sensor via key in the connection compartment.

Differential pressure sensor
DC 10…24 V

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	106.3x137x56
MPG-1000V	384058	0...1000/500/300/200 Pa	-10	70		0.21	106.3x137x56
MPG-6000V	384059	0...6000/4000/3000/2000 Pa	-10	70		0.21	106.3x137x56

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 can be integrated into MODBUS networks or the A-G-247NW operating terminal can be connected. Parametrisation and data retrieval via radio (with AM-MODBUS-W) is optionally possible.
Whole groups of frequency inverters or ECblue motors and fans, which are equipped with these AM-MODBUS 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.

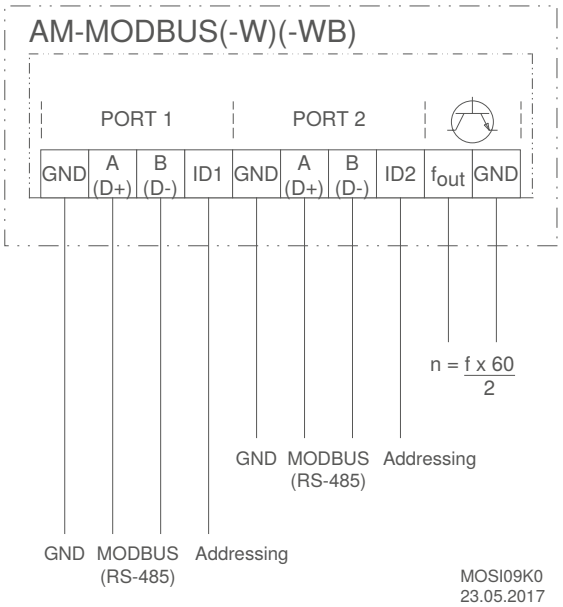
Equipment/properties

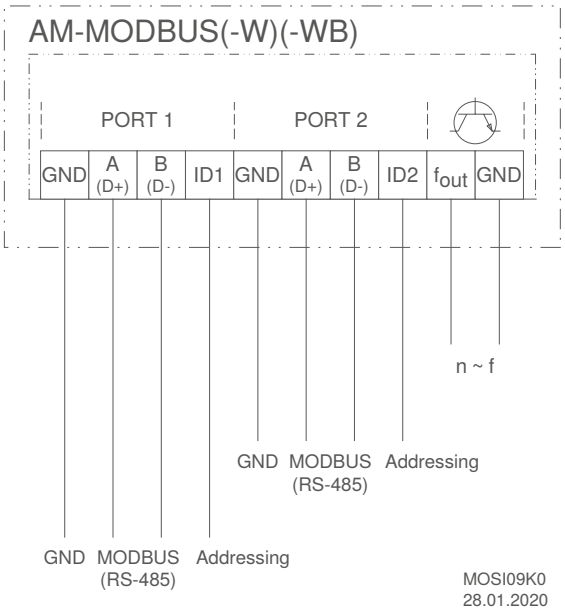
2 x interface RS485:
For integration into a MODBUS RTU network (MODBUS Slave). With the possibility of automatic addressing by a UNIcon control module with MODBUS-Master function.

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

Add-on module - AM-MODBUS (-W) (2nd edition)		
Type	**Article no.**	Weight kg
AM-MODBUS	**349087**	0.03

Connection diagram





Add-on modules

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

Bluetooth®

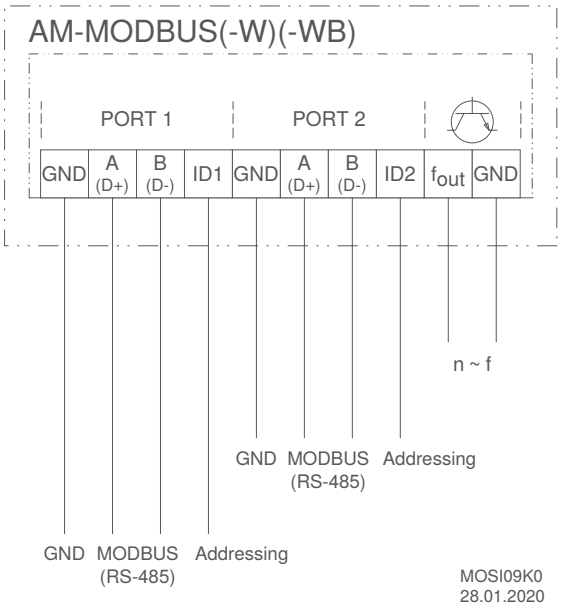
cULus

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.

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

Connection diagram



Add-on modules

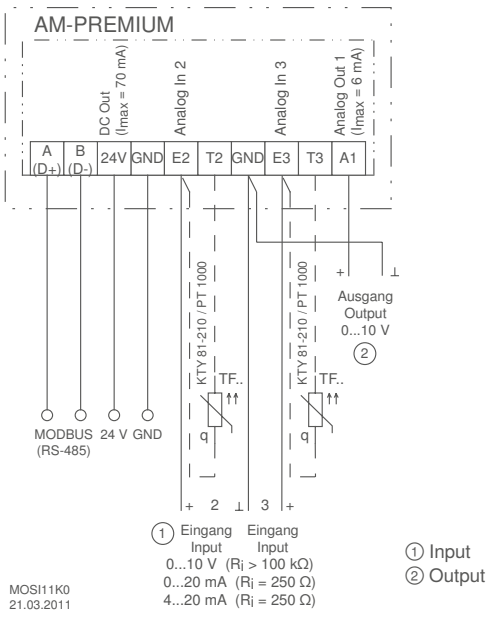
AM-PREMIUM (-W) for Basic Frequency inverter and ECblue

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 operating 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



Equipment/properties

Easy startup via operating modes:
When an operating terminal is connected to the AM-PREMIUM add-on module plugged into the frequency inverter (for AM-PREMIUM-W via radio), typical operating modes, such as for air conditioning, refrigeration or ventilation technology, can be selected.

2 analogue inputs for sensors or signal setting:
Analogue input E2 and E3: Setting by operating modes or manually programmable, e.g. 0-10 V, 0.20 mA, 4-20 mA
Analogue input E3: Programmable, e.g. comparison with sensor E2, difference to sensor E2, average value formation, setpoint setting, setpoint adaptation (e.g. outside temperature-dependent), connection of passive temperature sensors: On E2 and T2, E3 and T3.

1 analogue 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 base unit:
Programmable, e.g. enable, switch over setpoint 1 or 2, switch over control or manual mode, switch over E2 or E3, control mode reversal, output limitation, external fault, reset, direction of rotation reversal

Functional extension: Digital output K1 in base unit:
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, dampers, group control fans, etc.

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

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

Add-on modules

AM-AMPsignal for Basic Frequency inverter and ECblue fans

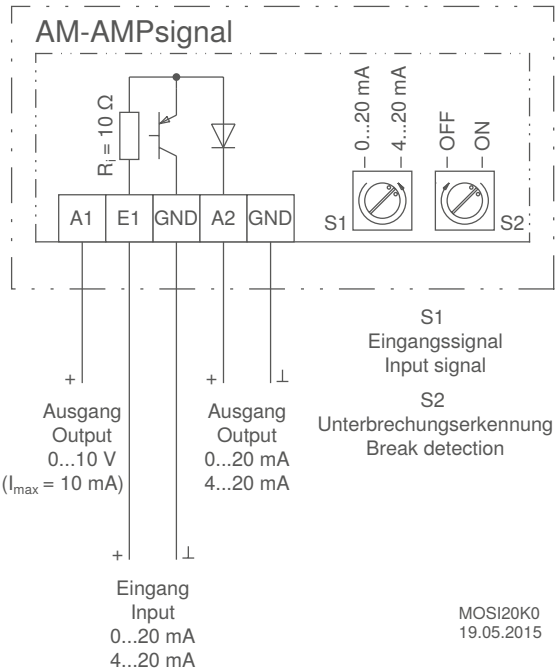
Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” frequency inverters without integrated display as well as ECblue motors and fans.
The add-on module AM-AMPsignal transforms a current signal (0-20 mA, 4-20 mA) into a voltage signal (0-10 V). Several basic frequency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

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.

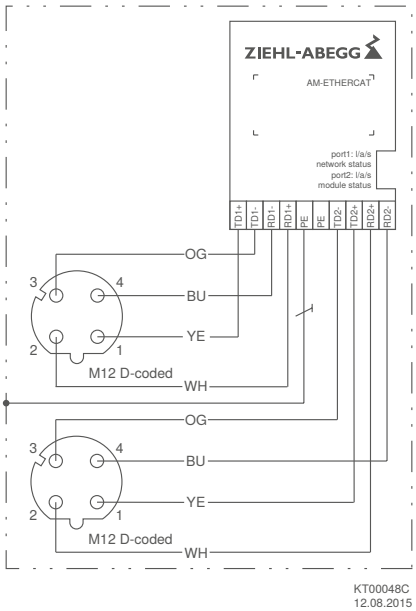
A device master data filed (ESI file) is required for integration of the device into an EtherCat network. If there is any doubt about the use or procurement of the ESI file for this add-on module, our Control Technology Support Department will be very glad to help.

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



KT00048C
12.08.2015

Add-on modules

AM-BACNET for Basic frequency inverters and ECblue fans

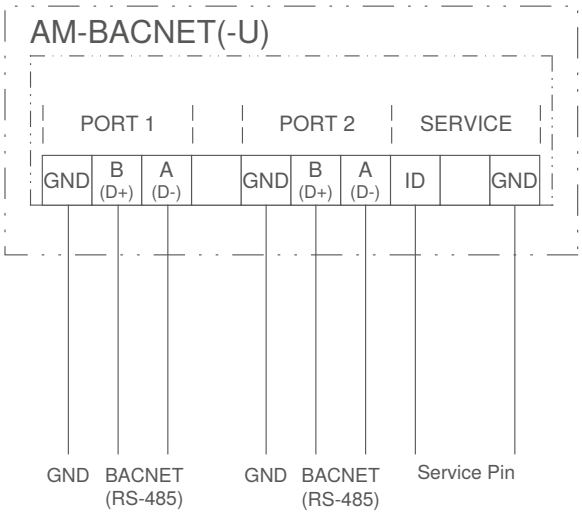
Pluggable add-on modules for function extension of the “Icontrol Basic” and “Fcontrol Basic” basic frequency inverters without integrated display as well as ECblue fans.
With AM-BACNET add-on modules, the frequency inverters or ECblue fans can be integrated into BACNET networks.

Equipment/properties

4 integrated LED
For status display and error message

Add-on module AM-BACNET		
Type	**Article no.**	Weight kg
AM-BACNET	**349084**	0.03

Connection diagram



MOSI24K0
17.10.2018

Add-on modules

AM-CAN-OPEN 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-CAN-OPEN add-on modules, the devices can be integrated into CANopen networks.

An electronic data sheet (EDS file) is required to integrate the device into a CANopen network.
This is provided free of charge by our Control Technology Support Department.

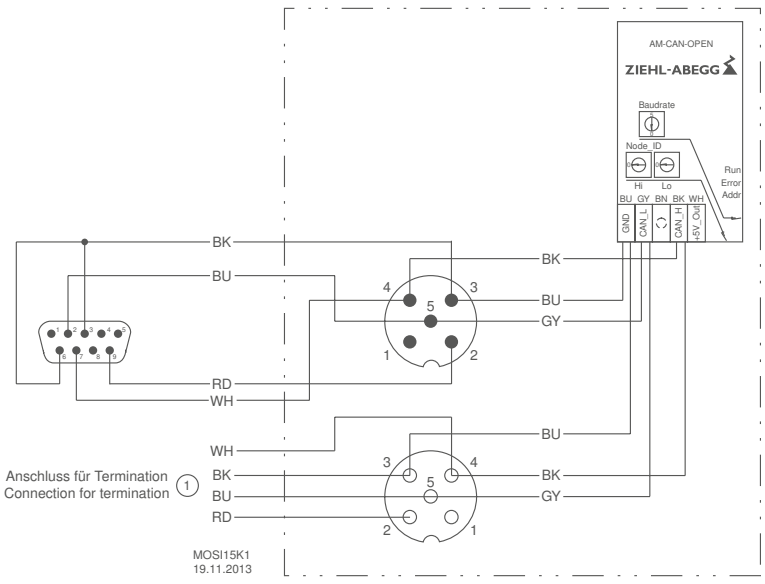
Equipment/properties

3 integrated LEDs
For status display and error messages.

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



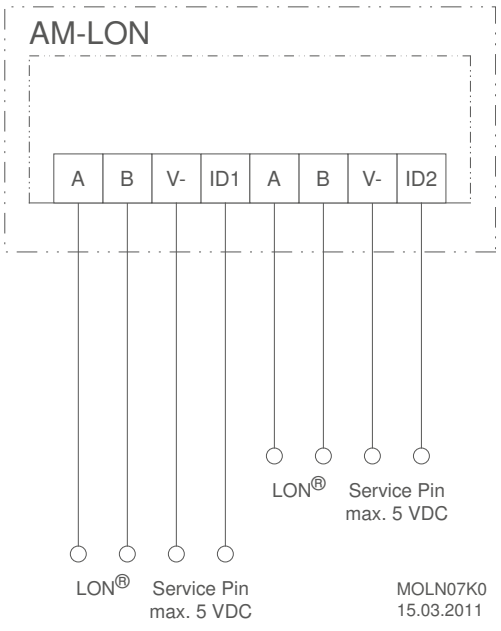
Add-on modules

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 the AMLON 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 (-PD) 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. The AM-PROFIBUS-PD is used for integration into PROFIBUS-PD (Powerdrive) 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.

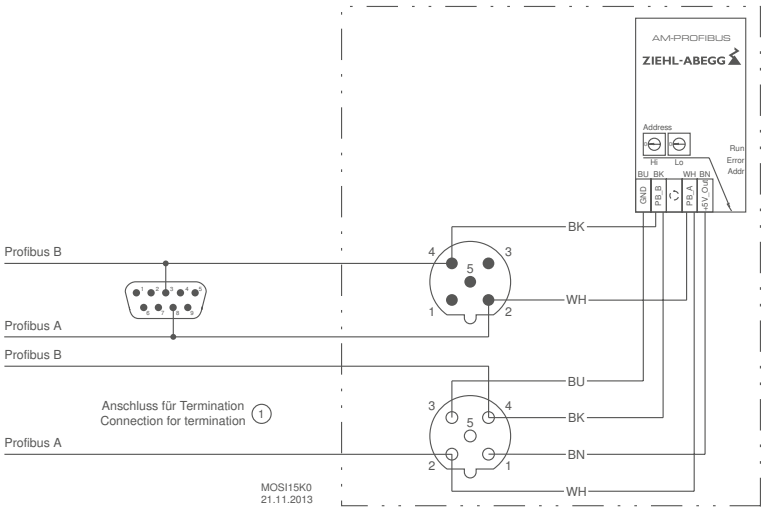
2 integrated rotary switches
For manual address setting.

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
AM-PROFIBUS-PD	**349103**	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 (as well as ECblue motors and fans).
With the AM-PROFINET add-on modules the frequency inverters or ECblue fans can be integrated into PROFINETnetworks.

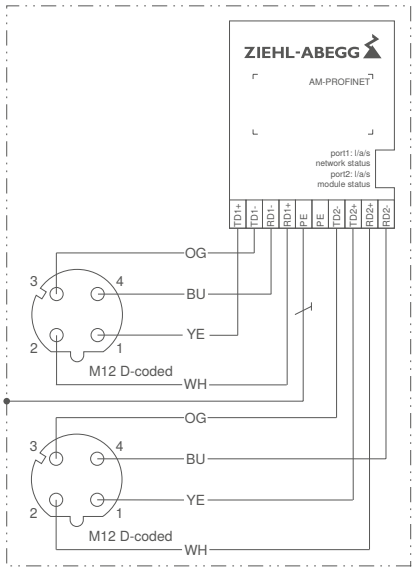
A device master data file (GSD file) is required for integration of the device into the PROFINET network. If there is any doubt about the use or procurement of the GSD file for this add-on module, our Control Engineering Support Department will be very glad to help.

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



KT00048D
09.12.2015

General notes

Overview

Explanation of technical details

Symbols, Units of measure

Symbol	Unit	Description
p_{fs}	Pa	Static pressure increase
p_{fd}	Pa	Dynamic pressure
q_{V1}	m³/h	Air flow
n_N	min-1	Rated speed
P_e	kW	Input power
P_{ed}	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/1000m³	Specific power

Conversion factors

Pressure

		SI-unit	Additional units		
		Pa (N/m²)	mbar	in.wg	psi (lbf./in²)
SI-unit	**Pa (N/m²)**	**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./in²)	6894.76	68.95	27.68	**1**

Air flow

		SI-unit	Additional units		
		m³/s	m³/h	l/s	cfm
SI-unit	**m³/s**	**1**	3600	1000	2118.9
Additional units	**m³/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

Explanation of technical details

Dynamic pressure

Calculation of the dynamic pressure:

$$p_{fd2} = k_{d2} \cdot q_{v1}^{2}$$

p_{fd2}	Dynamic pressure at fan outlet in Pa
k_{d2}	Constant factor for calculation of the dynamic pressure
q_{v1}	Air flow in m^3/h

k-factors for calculation of the dynamic pressure

ZAbluefin		Cpro		C-Stahl		Cplus		C3000	
Size	k_{d2}	Size	k_{d2}	Size	k_{d2}	Size	k_{d2}	Size	k_{d2}
				22C.1R	$2.34 \cdot 10^{-5}$				
25I.1R	$1.12 \cdot 10^{-5}$	25C.CR	$1.23 \cdot 10^{-5}$	25C.1R	$1.44 \cdot 10^{-5}$				
28I.1R	$7.51 \cdot 10^{-6}$	28C.CR	$7.92 \cdot 10^{-6}$	28C.1R	$9.39 \cdot 10^{-6}$	28C.5R	$9.39 \cdot 10^{-6}$		
31I.1R	$4.69 \cdot 10^{-6}$	31C.CR	$5.09 \cdot 10^{-6}$	31C.1R	$6.47 \cdot 10^{-6}$	31C.5R	$6.02 \cdot 10^{-6}$		
35I.1R	$2.95 \cdot 10^{-6}$	35C.CR	$3.22 \cdot 10^{-6}$	35C.1R	$3.74 \cdot 10^{-6}$	35C.5R	$3.77 \cdot 10^{-6}$		
40I.1R	$1.85 \cdot 10^{-6}$	40C.CR	$2.04 \cdot 10^{-6}$	40C.1R	$2.31 \cdot 10^{-6}$	40C.5R	$2.33 \cdot 10^{-6}$		
45I.1R	$1.14 \cdot 10^{-6}$	45C.CR	$1.27 \cdot 10^{-6}$	45C.1R	$1.43 \cdot 10^{-6}$	45C.5R	$1.44 \cdot 10^{-6}$		
50I.1R	$7.16 \cdot 10^{-7}$	50C.CR	$7.85 \cdot 10^{-7}$	50C.1R	$9.00 \cdot 10^{-7}$	50C.5R	$9.00 \cdot 10^{-7}$		
56I.1R	$4.67 \cdot 10^{-7}$	56C.CR	$5.15 \cdot 10^{-7}$	56C.1R	$5.88 \cdot 10^{-7}$	56C.5R	$5.93 \cdot 10^{-7}$	56C.PR	$6.83 \cdot 10^{-7}$
63I.1R	$2.98 \cdot 10^{-7}$	63C.CR	$3.26 \cdot 10^{-7}$	63C.1R	$3.76 \cdot 10^{-7}$			63C.PR	$4.11 \cdot 10^{-7}$
71I.1R	$1.76 \cdot 10^{-7}$			71C.1R	$2.36 \cdot 10^{-7}$			71C.PR	$2.55 \cdot 10^{-7}$
80I.1R	$1.08 \cdot 10^{-7}$			80C.1R	$1.46 \cdot 10^{-7}$			80C.PR	$1.46 \cdot 10^{-7}$
90I.1R	$6.69 \cdot 10^{-8}$			90C.1R	$9.00 \cdot 10^{-8}$			90C.PR	$9.91 \cdot 10^{-8}$
10I.1R	$4.23 \cdot 10^{-8}$			10C.1R	$5.63 \cdot 10^{-8}$			10C.PR	$6.81 \cdot 10^{-8}$
11I.1R	$3.12 \cdot 10^{-8}$			11C.4R	$3.59 \cdot 10^{-8}$				
				11C.1R	$2.35 \cdot 10^{-8}$				

Example:

Type RH**45**C-ZID.GG.CR, article no. 117038

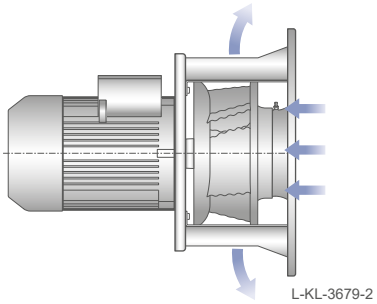
Size	Constant
RH25C.CR	60
RH28C.CR	75
RH31C.CR	95
RH35C.CR	121
RH40C.CR	154
RH45C.CR	**197**
RH50C.CR	252
RH56C.CR	308
RH63C.CR	381

$p_{fd2} = 197 \cdot q_{v1}^{2}$

Aerodynamics and acoustics

Measurement method

The characteristic curve diagram shows the pressure increase Δp_{fs} in Pa as a funktion of the air flow rate q_{V1} in m^3/h.


L-KL-3679-2

Technical conditions of supply

The specified performance data meet the respective requirements for accuracy

- AN2 for impellers without motor
- AN3 for fans with standard motors
- AN2 for impellers with ECblue motors (except EC055)
- AN3 for impellers with EC motor EC055 (see type key)
- AN4 for fans with AC external rotor motors

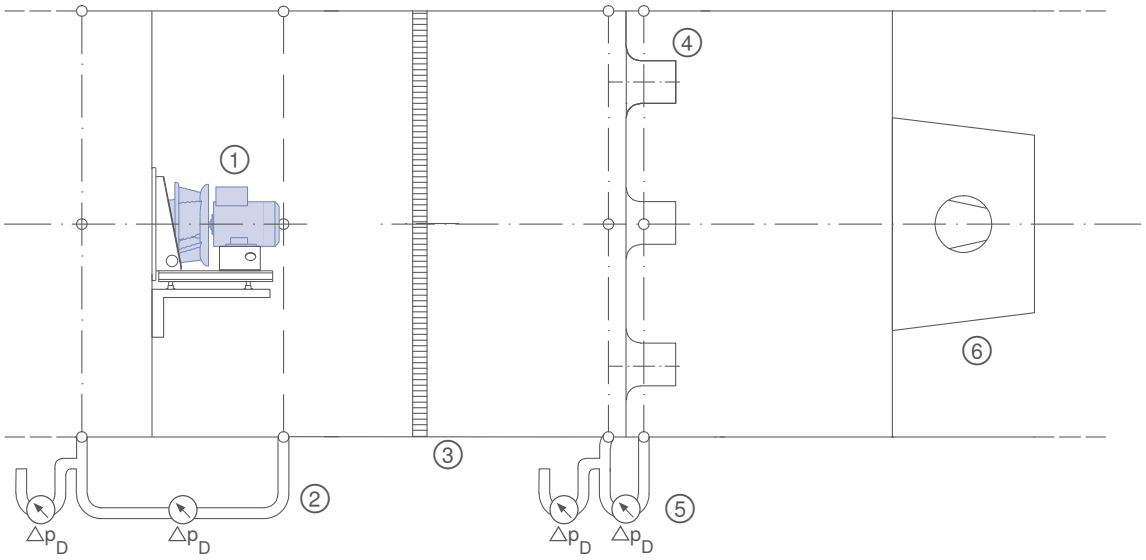
in line with **ISO 13348** and apply to the rated data and air performance curves at the rated voltage. The continuous line in the characteristic curve represents the optimum reliable operating range for fans.

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.



① Test fan
② p_{fs} static pressure increase
③ Flow straightener
④ Nozzles
⑤ Δp_D Differential pressure measuring nozzle
⑥ Auxiliary fan

Aerodynamics and acoustics

Noise level data

Unless otherwise indicated, this catalogue specifies the suction side, A-evaluated sound power levels L_{WA5}.
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 L_p 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 L_{WA5}. 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.

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.

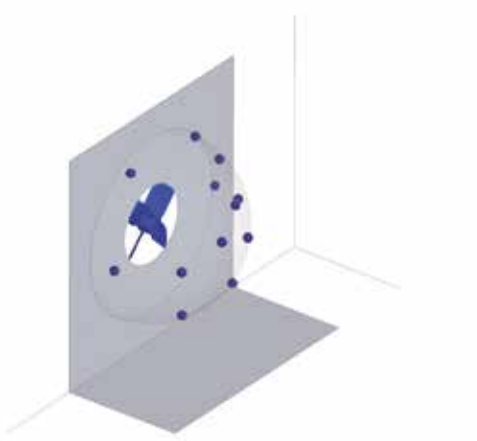


Fig.Ia: Position of microphones

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 L_{pA} for rooms with average absorption capacity for a distance of 1m from the fan axle is calculated by subtracting 7 dB from the A sound power level L_{WA5}. 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.

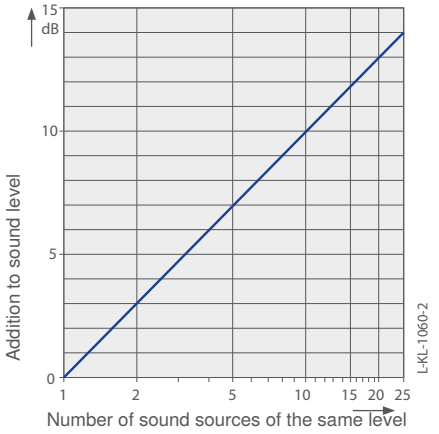


Fig. II: Addition of several sound sources

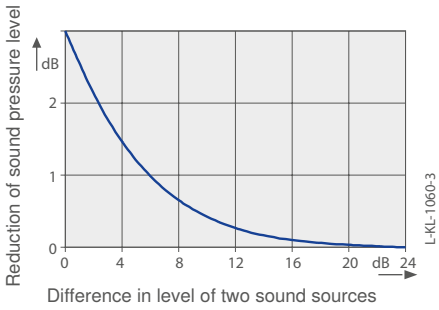


Fig. III: Sound sources of different levels

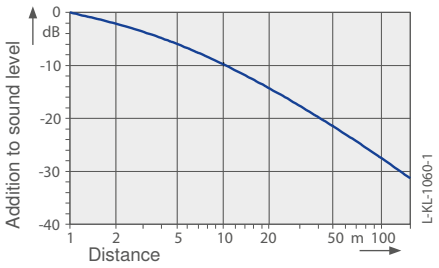


Fig. IV: Reduction of sound pressure level

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 400 V 50 Hz, for single-phase AC motors 230 V 50 Hz
AMblue centrifugal fans operated as a system solution with on-top PMIcontrol have a wide voltage range of 3~ 380-480 V 50/60 Hz (rated voltage min. 400 V)
PM technology:
PMblue centrifugal fans with permanent magnet technology are operated with OnTop-PMIcontrol Basic-M. These system solutions have a wide voltage range depending on the version
3~ 208-480 V, 50/60 Hz (rated voltage min. 400 V)

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 380-480 V specified on the name plate is applicable. Please refer to the data sheet.

Motor connection

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

Terminal box

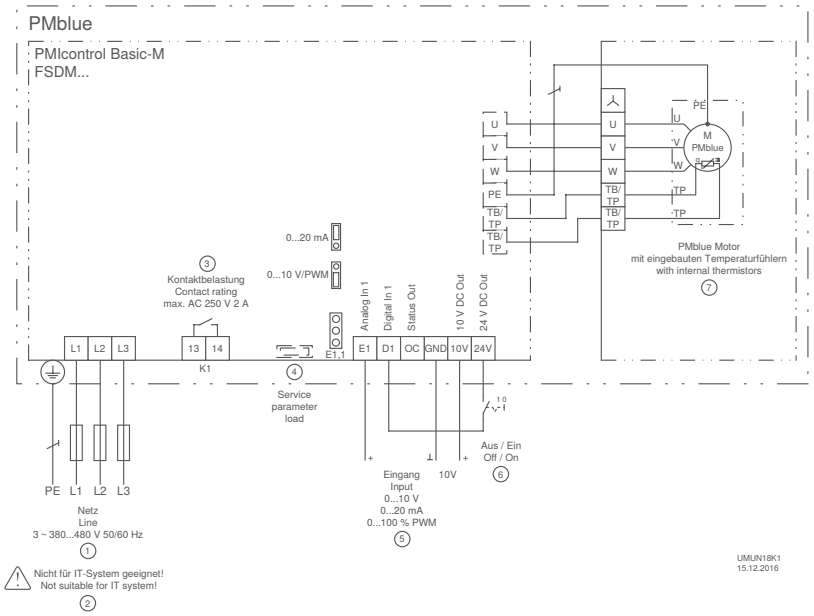
The terminal boxes for the motors are made of impact proof, weatherproof plastic or die-cast aluminium. Alternatively, the PMblue and AMblue system solutions have a connection area with a choice of left or right cable entry.
All terminal boxes and the connection area for the PMblue and AMblue are supplied with sealing plugs. 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

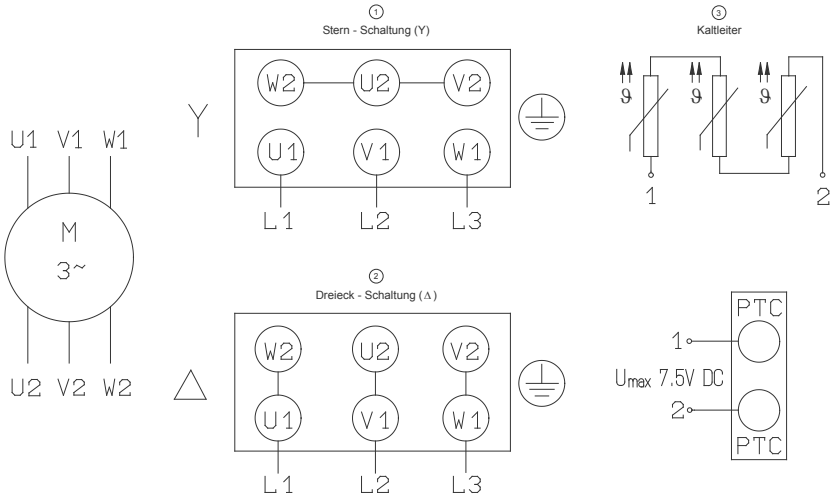
ZIEHL-ABEGG centrifugal fans are suitable for operation on frequency inverters if the following points are observed:
The technical parameters, including maximum permitted speed and frequency of the fan and the current consumption of the motor, which are listed on the fan and motor name plate, must be 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

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 impeller 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.

Stresses due to start / stop procedures combined with dynamic control cause damage to impellers. If such a use is planned, this is to be stated during the enquiry.

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..I ZAbluefin

Type	Number of pole	Start-up time [s]
RH25I.1R/SM12	2	5
RH28I.1R/SM12	2	5
RH31I.1R/SM12	2	6
RH35I.1R/SM12	2 4	5 6
RH40I.1R/SM12	2 4	5 7
RH45I.1R/SM20	2 4	4 9
RH50I.1R/SM20	4	10
RH56I.1R/SM20	4 6	9 11
RH63I.1R/SM20	4 6	10 14
RH71I.1R/SM20	4 6	12 17
RH80I.1R/SM20	4 6	12 19
RH90I.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

Series RH..C

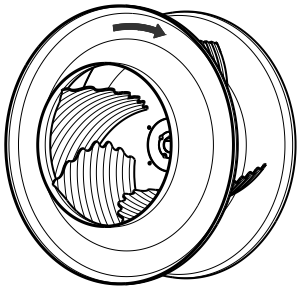
Type	Number of pole	Start-up time [s]
ER/RH22C.1R	2	03
ER/RH25C.1R	2	04
ER/RH28C.1R	2	06
ER/RH31C.1R	2	07
ER/RH35C.1R	2 4	07 02
ER/RH40C.1R	2 4	06 05
ER/RH45C.1R	2 4	05 08
ER/RH50C.1R	4	12
ER/RH56C.1R	4 6	13 08
ER/RH63C.1R	4 6	15 16
ER/RH71C.1R	4 6	13 18
ER/RH80C.1R	4 6	13 21
ER/RH90C.1R	4 6 8	11 19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

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-2414-1

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	Fixed hub	Moment of inertia with fixed hub kgm^2	Impeller with fixed hub
RH25I.1R	5340	SM12	0.032	3.5	NA11	0.031	2.9
RH28I.1R	4775	SM12	0.047	4.1	NA11	0.046	3.5
RH31I.1R	4245	SM12	0.085	5.6	NA11	0.084	5.0
RH35I.1R	3765	SM12	0.133	7	NA11	0.132	7.0
RH40I.1R	3340	SM12	0.255	10	NA11	0.254	10.0
	3340	SM20	0.262	12	NA12	0.255	10.0
RH45I.1R	2970	SM20	0.434	15	NA12	0.427	13.0
RH50I.1R	2675	SM20	0.826	21	NA12	0.820	19.0
RH56I.1R	2310	SM20	1.246	25	NA12	1.239	23.0
RH63I.1R	2060	SM20	2.481	38	NA12	2.474	37.0
RH71I.1R	1700	SM20	3.633	47	NS07	auf Anfrage	
RH80I.1R	1525	SM20	6.975	68	NS07	auf Anfrage	
RH90I.1R	1340	SM20	11.273	88	NS08	auf Anfrage	
RH10I.1R	1200	SM25	20.691	126	NS08	auf Anfrage	
RH11I.1R	1120	SM30	34.839	207	NS08	auf Anfrage	

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			

Technical description

Forces and stress during operation

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 nozzle with the static pressure in the inlet nozzle 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 air flow as follows:

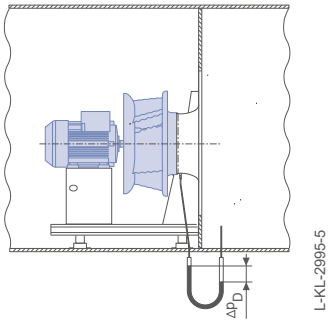
Under normal conditions at 20 °C:

$$q_{V1} = k \cdot \sqrt{\Delta p_D}$$

Under fluctuating air conditions:

$$q_{V1} = \sqrt{\frac{\rho_N}{\rho_D}} \cdot k_{20} \cdot \sqrt{\Delta p_D}$$

q_{V1}	**Air flow in m³/h**
Δp_D	**Differential pressure of the static pressures in Pa**
k	**Coefficient for specific nozzle properties, nozzle factor**
ρ_N	Standard air density with 1.2 kg/m³
ρ_D	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	With inlet guide grille k_{ZAflow}	Standard k	With guard grille k_g	With inlet guide grille k_{ZAflow}	Standard k	With guard grille k_g	With inlet guide grille k_{ZAflow}	Standard k	With guard grille k_g
225							47	46	46		
250	67	63	66	60	58	59	60	58	59	55	53
280	85	80	83	75	72	74	75	72	74	69	66
315	106	100	104	95	91	93	95	91	93	87	83
355	140	130	137	121	116	119	121	116	119	111	106
400	180	170	176	154	148	151	154	148	151	141	135
450	220	210	216	197	189	193	197	189	193	181	173
500	280	265	274	252	242	247	252	242	247	231	221
560	355	335	348	308	295	302	308	295	302	284	271
630	420	400	412	381	365	373	381	365	373	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 a differential pressure of 700 Pa is measured for size ER63I, the air volume flow can be calculated using the simplified formula as follows:

$$q_{V1} = k \cdot \sqrt{\Delta p_D} = 420 \cdot \sqrt{700} = 11112 \text{ m}^3/\text{h}$$

The nozzle coefficients (k-factors) were determined under laboratory conditions with an undisturbed inflow. If suction side guard grilles (mounted in front of the inlet nozzle) are also used, use the factor k_g.

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 air flow result. This tolerance is reached above a minimum air velocity of approx. 9.0 m/s at the place of greatest constriction.
The tolerances cannot be clearly quantified below this minimum air velocity.

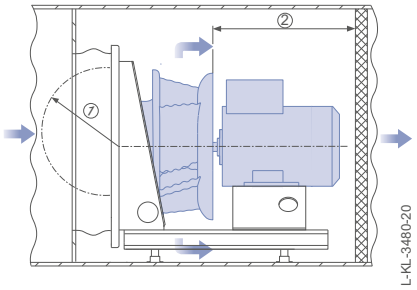
This air flow measuring method is only suitable for acceptance measurements on site.
For a more accurate air flow determination in the existing installation setup, a counter calibration of the air flow has to be carried out on site to measure the active pressure. The nozzle factors determined during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

Installation and usage information

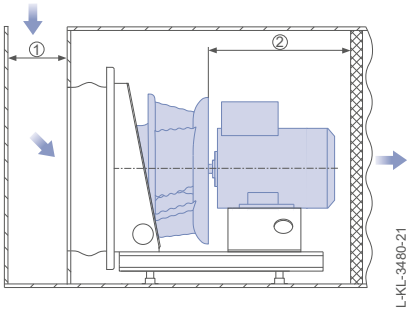
Installation instructions

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”.

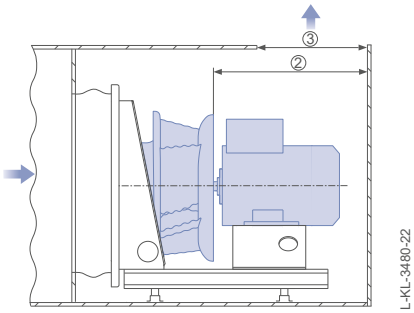
- The performance depends on the distance to components on the intake ① and pressure side ②
- Intake side ① ≧ 0.5 x DSA
- Optimum on pressure side ② ≧ 1.0 x DSA, absolute minimum ② ≧ 0.7 x DSA (exception: cooling battery or humidifier after the fan)

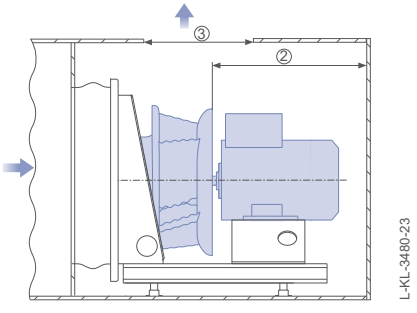


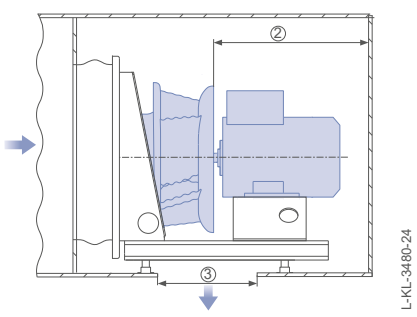
- Changes to the flow direction before the fan create significant turbulence in the intake area
- Intake side ① ≧ 1.0 x DSA, with guide blades this can be reduced to ① 0.7 x DSA, otherwise there are increased acoustics and power loss



- 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



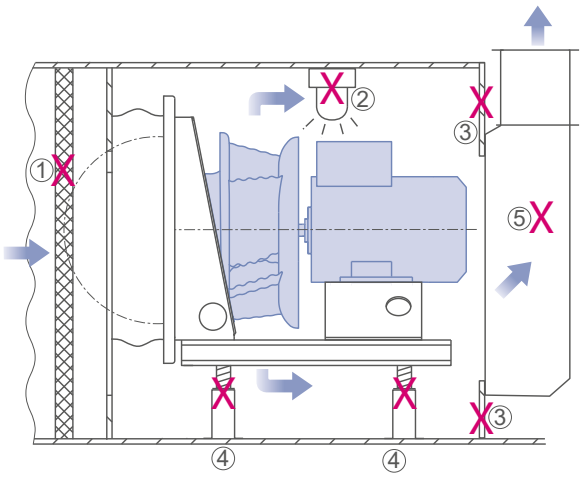




Installation and usage information

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



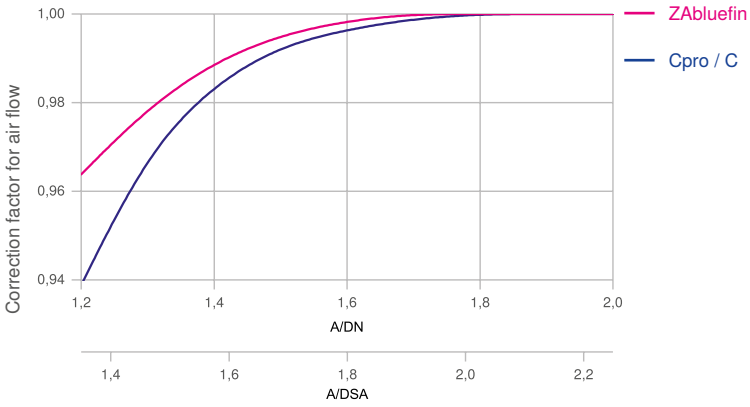
Installation and usage information

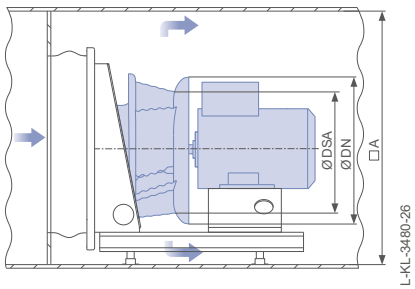
Impact of installation in the air handling units

Changes when installing into air handling unit

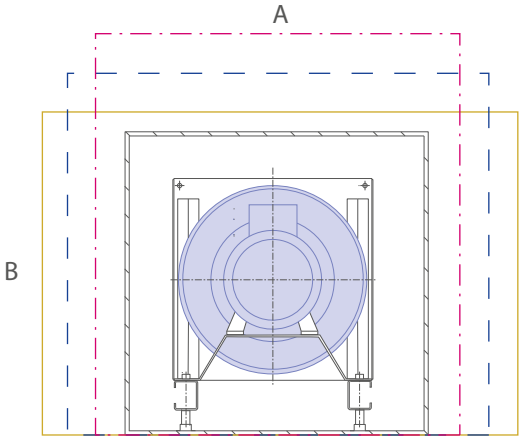
The characteristic curve of the fan and the acoustic power as compared with the characteristic-curve information are influenced by installation of the fan in an air handling unit. Likewise, using a guard grille also influences the characteristic curve and the acoustics. ZIEHL-ABEGG analysed this influence 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.

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