



Movement by Perfection

Centrifugal fans

for air handling units
November 2013 Edition

The Royal League in ventilation, control and drive technology

ZIEHL-ABEGG 

Air with IQ

Air is inert by nature. Influences in nature such as temperature gradients start moving the air – but unfortunately, in a rather uncontrolled way and not always to people's advantage. In order to make air movement useful, we recommend our intelligent ventilation and control engineering solutions. They are not only effective and reliable but are also aimed at a multitude of specific requirements. As the world's leading system supplier of fans with matching control engineering, you will certainly be able to find fans for your sector and application in our product range. Educated minds don't leave anything to chance. Instead, they trust ZIEHL-ABEGG's extensive expertise.

FANselect

Reach your goal easily, quickly, and without any complications!

The world's most precise program for fans and systems components.

For more information log on to our website at www.fanselect.info

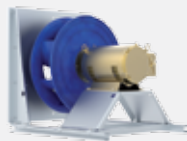
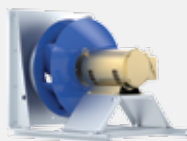


Additional catalogs

Our extensive catalogs in Axial Fans, Centrifugal Fans, Centrifugal Fans for air handling units, Control Technology and other catalogs are available on our www.ziehl-abegg.com website in the "Download" area. We would be glad to send printed catalogs on request.

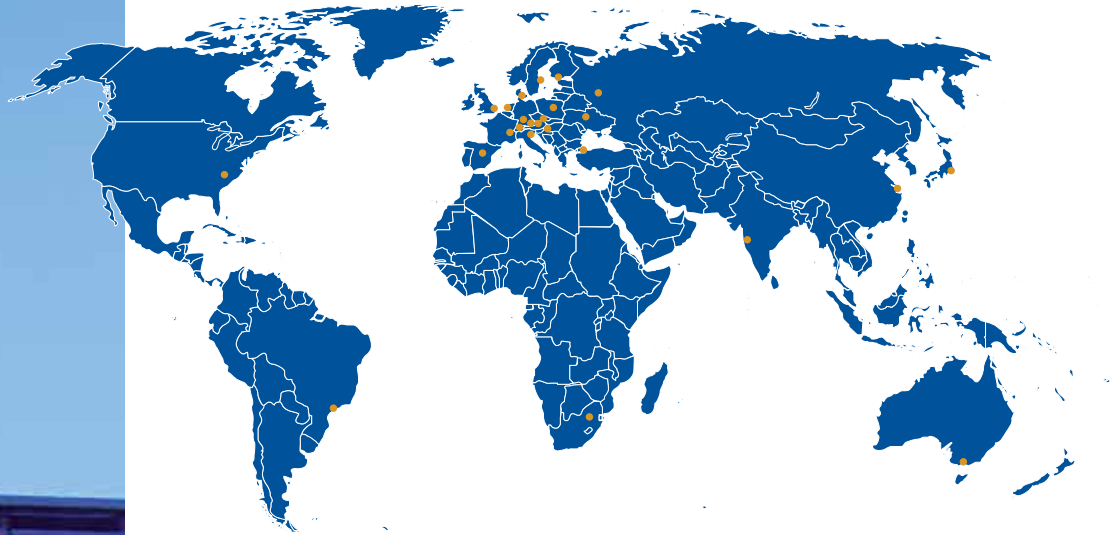


Contents

The Company ZIEHL-ABEGG			Page 4
Plenum fan Cpro-Series	Technical data Dimensions		Page 22
Plenum fan C-Series	Technical data Dimensions		Page 42
Ventilation unit Cpro-Series	Technical data Dimensions		Page 74
Ventilation unit C-Series	Technical data Dimensions		Page 92
Impeller Cpro-Series			Page 110
Impeller C-Series			Page 114
System components			Page 118
General notes			Page 124
			Page 138



No one can get past the Royal League



ZIEHL-ABEGG has stood for movement by perfection in the ventilation technology, control technology and drive technology sectors for more than 100 years. What started with the invention of the first external rotor motor by Emil Ziehl is now being carried on at the company's sites around the world. We are the pioneers, masterminds and developers of technologies for the future which more than satisfy all demands to preserve an environment worth living in and to meet all our customers' requirements and wishes.

Think ahead to the future - discover ZIEHL-ABEGG

We look forward to seeing you in ventilation, control and drive technologies. Where ideas are the daily challenge and where the latest, outstanding technologies are developed.

Welcome to the best.

Welcome to the Royal League



From fans and motors to matching control technology

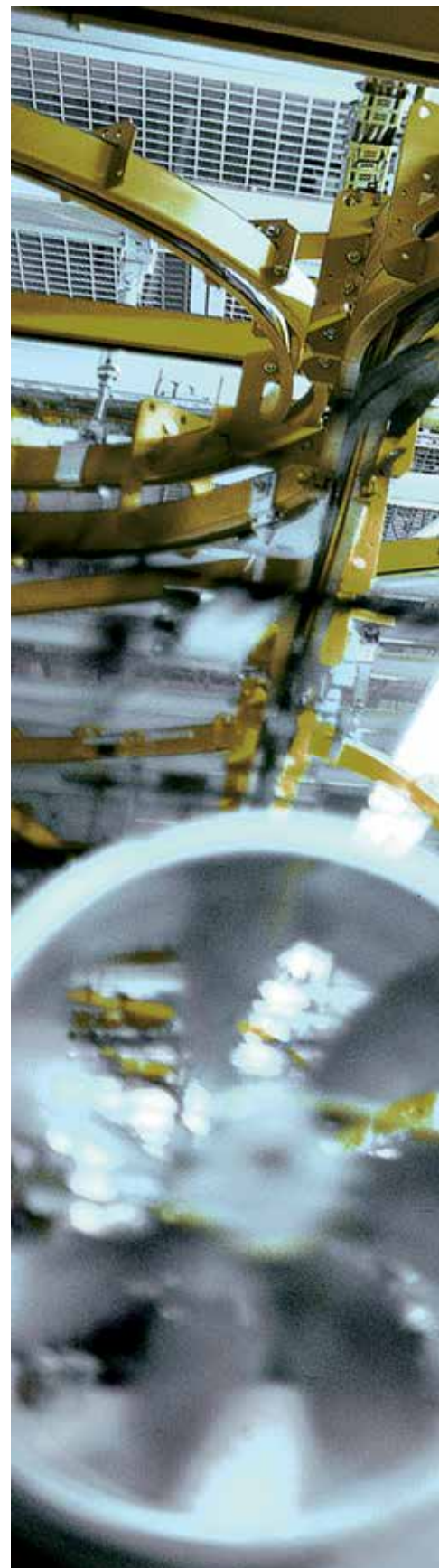
Our unique selling point – your advantage

What is important to us is to correctly match our systems to your exact needs. Be it refrigeration, air conditioning, use in your manufacturing processes or anywhere else - we reliably move air wherever it is required and at the right time. At the headquarters in Künzelsau more than 100 engineers and technicians work in one of the most modern technology centers of this kind.

We supply the highest quality standards with **the world's largest air and noise testbench for fans**, which can completely mask vibrations and external noises thus guaranteeing fan measurements of the highest class according to ISO and DIN. That is the reason ZIEHL-ABEGG products with the **Premium Quality** and **Premium Efficiency** are certified - that is the reason our products and services are in the Royal League.

The world's largest and most modern testbench for fans at the headquarters in Künzelsau

Picture on right:
Most modern production lines for fans with the highest demands in the world





Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

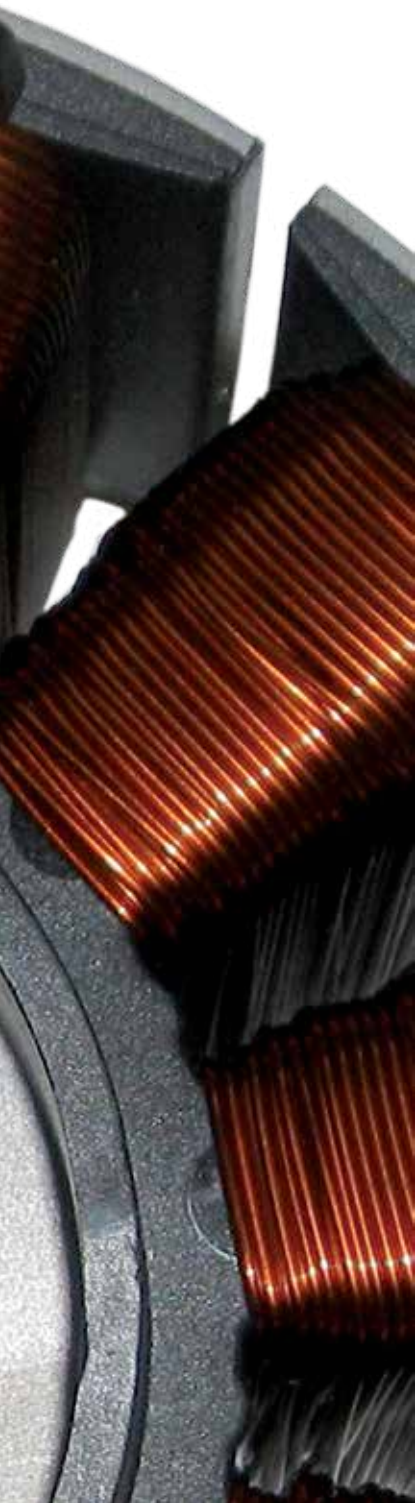
System
components

General notes

The Royal League of EC fans

So quiet, so efficient, so ECblue

ECblue is unifying the latest motor technology and innovative aerodynamics, is unbeatable in its efficiency and definitely saves energy costs. The latest generation of axial fans with ECblue technology such as the FE2owlet is a genuine revolution. The toothed bionic profile of the rotor used here makes this fan nearly totally silent. We provide pure innovation with fans such as the Cpro centrifugal fan in new **ZAmid® Technology**. The high-performance composite material we developed is as hard as steel and guarantees, along with longer service lives, the reliable production of fans with newly developed blade geometry at the highest level. The unique rotor blades, combined with ECblue motors, achieve unsurpassed air dynamics, putting them into the top class of environmental friendliness with the highest energy-savings potential. When used in any application, including process fans up to 1112°F (600°C), the highest volume flow rates provide extraordinary efficiency at extremely low noise levels.





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



Unique bionic profile FE2owlet,
combined with ECblue technology



The Royal League of AC fans

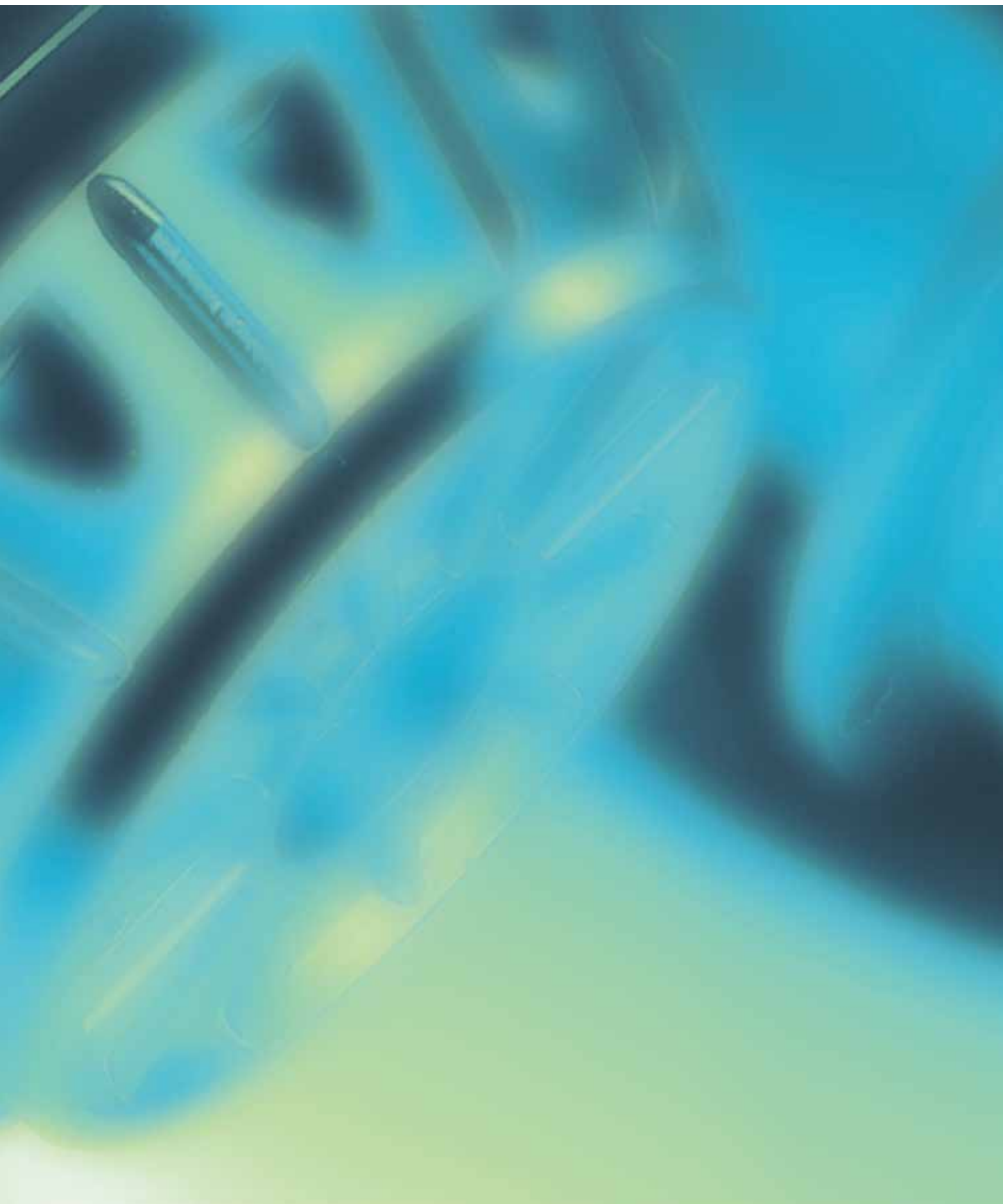


So powerful, so insusceptible, so AC technology

In the AC motor technology sector, our development efforts are completely dedicated to the future. We now supply our modern fans combined with AC technology wherever unusual temperature ranges and materials are needed for demanding applications. The simple, and yet sturdily constructed, high-quality motor technology remains consistent even during exceptional demands. AC fans are used in many industrial sectors and in agriculture whenever absolute ruggedness and stability are the top priority. Intelligently used components such as the ZIEHL-ABEGG Fcontrol frequency inverters turn the combination of fans and AC motors into a modern, ecologically sound and efficient top-class performer. Our modern AC motors are maintenance-free and promise a secure investment in the future.

AC motor technology, robust in operation





Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

System
components

General notes

Expertise in ventilation

Certified Ratings

ZIEHL-ABEGG Inc. certifies that the type ER25Cpro-ER63Cpro, ER35C-ER11C, GR28Cpro-GR63Cpro and GR35C-GR63C Plenum Fans shown herein are licensed to bear the AMCA seal for Sound and Air performance and FEG. The models ER11C are not licensed for FEG. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 and AMCA publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Certified Rating Program (CRP)

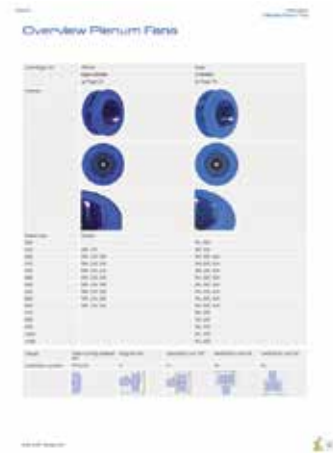
AMCA International's Certified Ratings Program (CRP) assures that a product line has been tested and rated in conformance with AMCA International's test standards and rating requirements. The purpose is to give the buyer, specifier and user of air movement equipment assurance that published ratings are reliable and accurate.



Selection of fans step by step

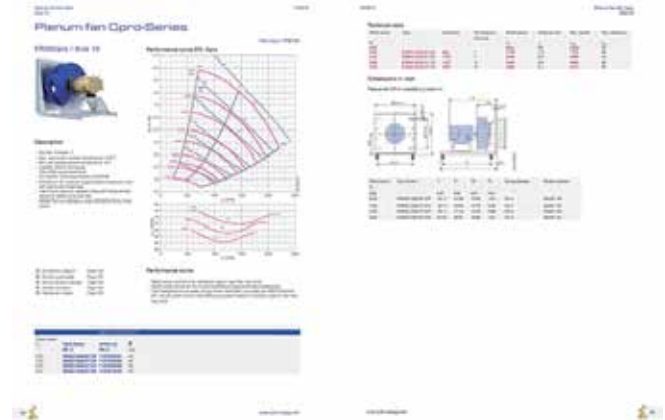
1. Centrifugal fans overview

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



2. Product details

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



Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

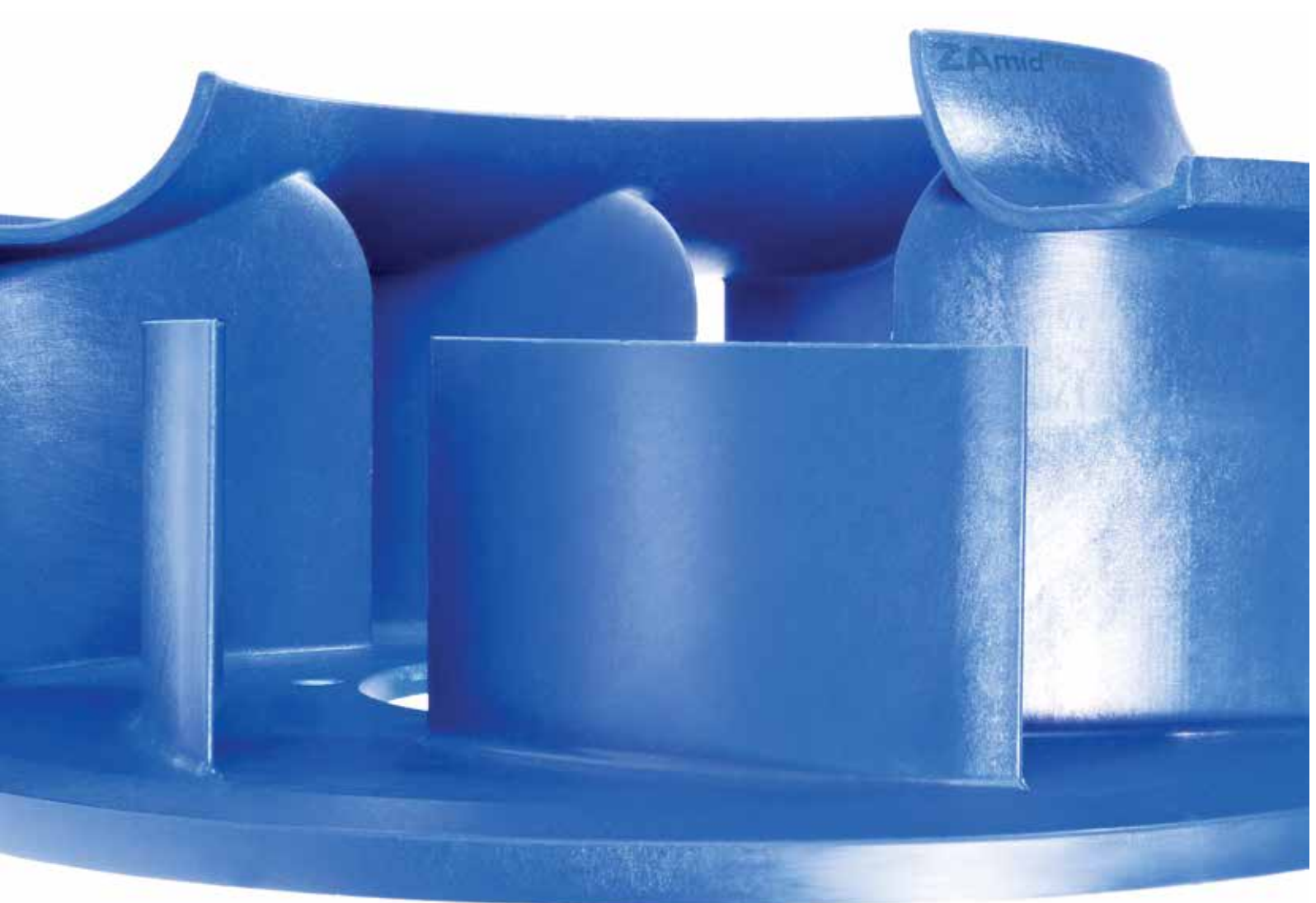
System components

General notes

Pure innovation

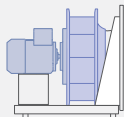
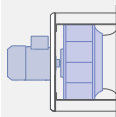
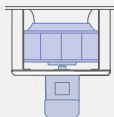
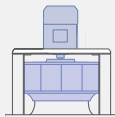
ZAmid[®] Technology

ZAmid[®] Technology is the name of our newly developed, high-performance composite material. The high-tech material is unbelievably light-weight yet strong and hard as steel. The result is a reduction in the overall weight of the fan while guaranteeing the greatest stability in handling and during subsequent processing. The new generation of Cpro **ZAmid[®]** fans, combined with our sophisticated development of an impressive, three-dimensional blade geometry, turns this fan into a marvel of flow engineering. Cpro **ZAmid[®]** is cast in one piece, without any weld seams. This makes it ductile to the air and process-reliable in use. It is suitable for high peripheral speeds (70m/s, no restriction as compared to a steel impeller) and can withstand high centrifugal forces. Cpro **ZAmid[®]** is ideal for the same operational temperatures as a comparable steel impeller and has low tonal noise/reduced by up to 5 dB.



Overview Plenum Fans

Centrifugal fan	ZAmid	Steel
	Cpro-Series	C-Series
	Page 22	Page 74
Impeller		
		
		
Size	Design	
9		RH, ER
10	RH, ER	RH, ER
11	RH, ER, GR	RH, ER, GR
12.5	RH, ER, GR	RH, ER, GR
14	RH, ER, GR	RH, ER, GR
16	RH, ER, GR	RH, ER, GR
18	RH, ER, GR	RH, ER, GR
20	RH, ER, GR	RH, ER, GR
22	RH, ER, GR	RH, ER, GR
25	RH, ER, GR	RH, ER, GR
28		RH, ER
32		RH, ER
36		RH, ER
40		RH, ER
45		RH, ER

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
					

High-performance centrifugal impeller RH..Cpro / RH..C

Technical description

RH25Cpro..63Cpro

Single inlet, backward curved impeller
Energy-optimized for operation without spiral housing using special three-dimensional blade geometry with rotating bladeless diffuser for high efficiencies and favorable acoustic behavior
Air flow rate up to 16,000 CFM and up to 10 in.wg

Ø10-25 inch (250-630mm) available in 9 sizes

Impeller made of high-strength composite material ZAmid in ultramarine blue.
Meets the requirements for microbial inertness, therefore suitable for stricter hygiene requirements as well as clean rooms.

Flame classification UL94/HB; flame classification UL94/5VA on request

Design hub and bush for attachment to NEMA motors

Taperlock bush hub or fixed hub – Balance quality G2,5 size 16-25inch (400-630mm) / G6,3 size 10-14inch (250-355mm)

Inlet ring made of galvanized steel sheet with measuring device for determination of flow rate

Permissible ambient temperature: -4°F to 176°F (-20°C to 80°C)



Impeller RH..Cpro

RH22C..RH11C

Single inlet, backward curved impeller
Energy-optimized for operation without spiral housing using special blade geometry with rotating bladeless diffuser for high efficiencies and favorable acoustic behavior

Air flow rate up to 65,000 CFM and up to 12 in.wg

Ø9-45 inch (225-1120mm) available in 15 sizes

Impeller made of steel, welded and powder coated

Color: RAL 5002 (ultramarine blue)

Design hub and bush for attachment to NEMA motors

Taperlock bush hub or fixed hub – Balance quality G2,5 size 16-45inch (400-1120mm) / G6,3 size 9-14inch (225-355mm)

Inlet ring made of galvanized steel sheet with measuring device for determination of flow rate

Permissible ambient temperature: -4°F to 176°F (-20°C to 80°C)



Impeller RH..C

Plenum fan ER..Cpro / ER..C Ventilation unit GR..Cpro / GR..C

Technical description

ER-Design

Compact, optimized construction made of galvanized sheet steel ER22C - ER11C resp. ER25Cpro - ER63Cpro.
Integrated inlet ring designed for optimum airflow, made of galvanized steel sheet with measuring device for determination of flow rate
Impeller balanced with hub; admissible vibration severity less than 2.8 mm/s in conformity with ISO 14694
Whole unit fastened on C profiles or welded base frame (ER11C) and hence can be set up on rubber dampers or spring suspension
Fitting position horizontal motor shaft
Standard design for ambient temperatures -4°F up to 104°F (-20°C up to 40°C)
Higher corrosion protection on request

NEMA premium efficiency motor 230/460V, 60Hz, three phase; Foot mounted
NEMA premium motor in 575V, 60Hz and 200/208V, 60Hz on request
Motor suitable for frequency inverter operation
Motor allocation safe against overloading at 60Hz operation directly at mains

GR-Design

NEMA premium efficiency motor 230/460V, 60Hz, three phase; Flange mounted
Other technical details for motor see ER-Design

For vertical airflow

GR28C – GR63C resp. GR28C - GR63Cpro
Bolted supporting structure made of galvanized sheet steel
Inlet ring designed for optimum airflow, made of galvanized steel sheet with measuring device for determination of flow rate
Fitting position vertical motor shaft
Vu = impeller intake from below
Vo = impeller intake from above

Module decoupled by rubber dampers
Standard design for ambient temperatures -4°F up to 104°F (-20°C up to 40°C)
Galvanized components can be coated with epoxy/polyester powder coating RAL7032 for a surcharge

For horizontal airflow

GR28C – GR63C resp. GR28C – GR63Cpro
Bolted supporting structure made of galvanized sheet steel
Inlet ring designed for optimum airflow, made of galvanized steel sheet with measuring device for determination of flow rate
Fitting position horizontal motor shaft

Standard design for ambient temperatures -4°F up to 104°F (-20°C up to 40°C)
Galvanized components can be coated with epoxy/polyester powder coating RAL7032 for a surcharge

Application:

Air conditioning and refrigeration technology (especially AHU systems), ventilation, separation systems

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 catalog. FANselect provides you a facility for calculating the efficiency, the acoustics, the SFP and much more. In addition, you can also select the matching systems components. You can comfortably 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.



Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

System components

General notes

Type key

Plenum fan with motor ER..Cpro / ER..C,
Ventilation unit with motor GR..Cpro / GR..C

Example		ER 45 C - 4 D M . E 7 . C R									
Design											
Plug fan	ER										
Ventilation unit	GR										
Impeller size											
Impeller diameter 225mm	22										
	...										
Impeller diameter 1120 mm	11										
Series											
Number of poles											
2-pole	2										
4 pole	4										
6 pole	6										
8 pole	8										
Type of current											
External rotor EC.motor with controller	H										
Three-phase current	D										
Motor design											
Offset flange	M										
Flange at outer rotor diameter	Y										
Motor size											
Motor length											
IMB 3	7										
IMB 5	5										
Index impeller width resp. impeller blade external-diameters											
Steel (C)	1										
Steel (C)	4										
ZAmid (Cpro)	C										
Direction of rotation											
right	R										
left	L										

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.

----- /BV03 Plenum fan ER Cpro-Series with NEMA PE Motor
----- /AS03 Plenum fan ER C-Series with NEMA PE Motor

Plenum fan standard product

Including inlet ring, galvanized, with measuring device system components not included

Type ER45C-4DM.E7.CR,
Art-No. 112814/BV03



Type key

High-performance centrifugal impeller
without motor with hub RH..Cpro / RH..C



Example

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

Centrifugal impeller	RH
Impeller size	
Impeller diameter 225mm	22
...	
Impeller diameter 1120 mm	11
Series	
Index impeller blade external-diameters	
Steel (C)	1
Steel (C)	4
ZAmid (Cpro)	C
Direction of rotation viewed from inlet port	
Clockwise (standard)	R
Hub type	
Taperlock bush hub	SM
Hub size	
Inlet ring	
Scope of delivery without inlet ring	0
Galvanized sheet metal with measuring device	B
Plastic coating with measuring device	D
Galvanized sheet with ring circuit*	E
Plastic coating with ring circuit*	F
Ex-inlet ring (copper) with measuring device	X
* optional for a surcharge	
Drill size Ø for motor shaft end	

Ordering information / examples

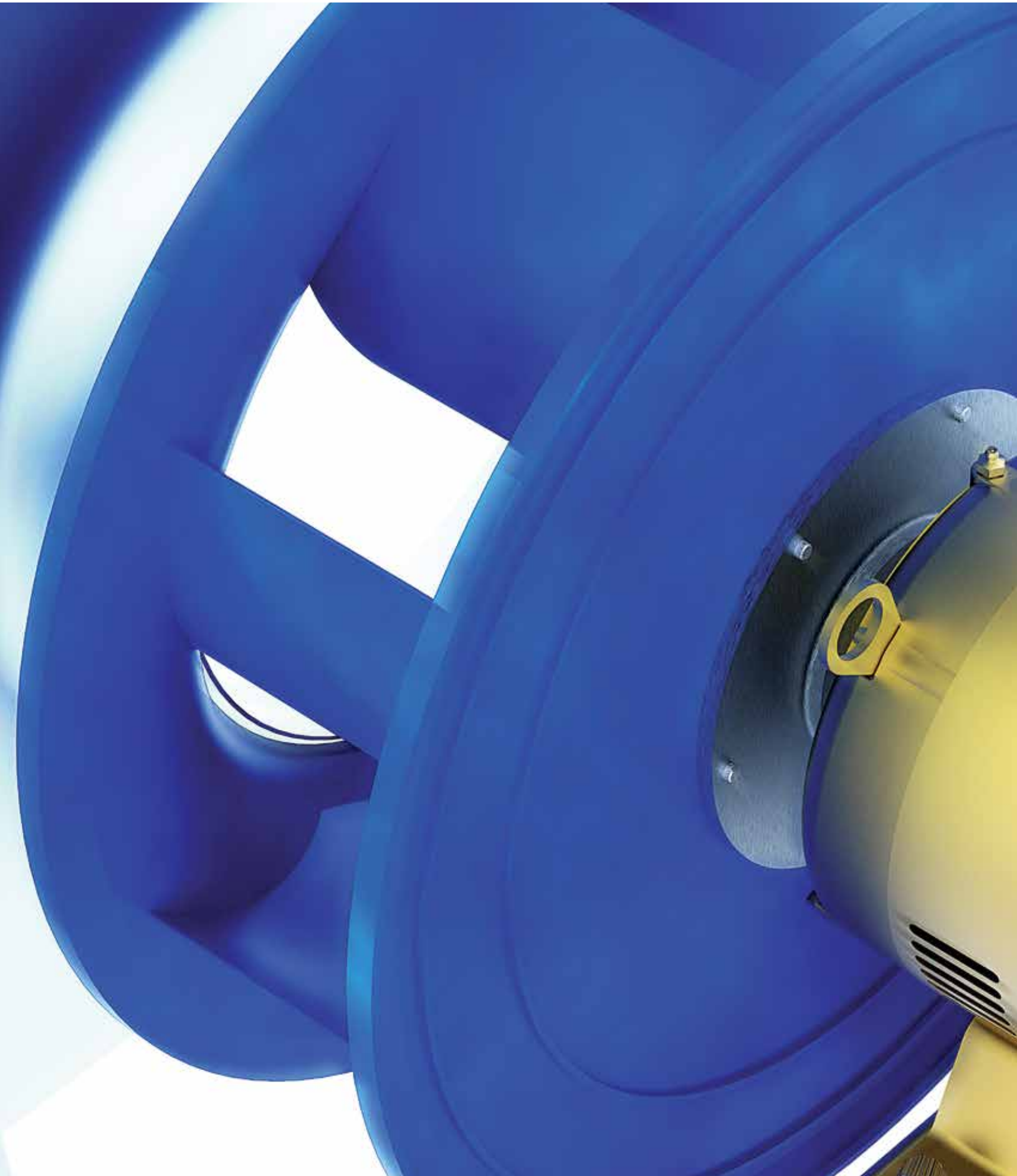
The following shall be stated when ordering: Type, article no. and when ordering system components part no.

Standard impeller version

Clockwise with taperlock bush hub SM20 with bush including inlet ring, galvanized, with measuring device

Type RH45C.CR/SM20-000,

Art.-No. on request



Plenum fan ER..Cpro

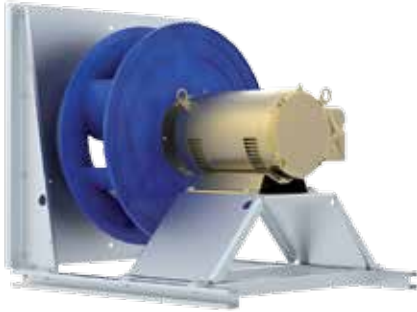
Product overview

ER25Cpro / Size 10	Page 24
ER28Cpro / Size 11	Page 26
ER31Cpro / Size 12.5	Page 28
ER35Cpro / Size 14	Page 30
ER40Cpro / Size 16	Page 32
ER45Cpro / Size 18	Page 34
ER50Cpro / Size 20	Page 36
ER56Cpro / Size 22	Page 38
ER63Cpro / Size 25	Page 40

Plenum fan Cpro-Series

Motor PEM

ER25Cpro

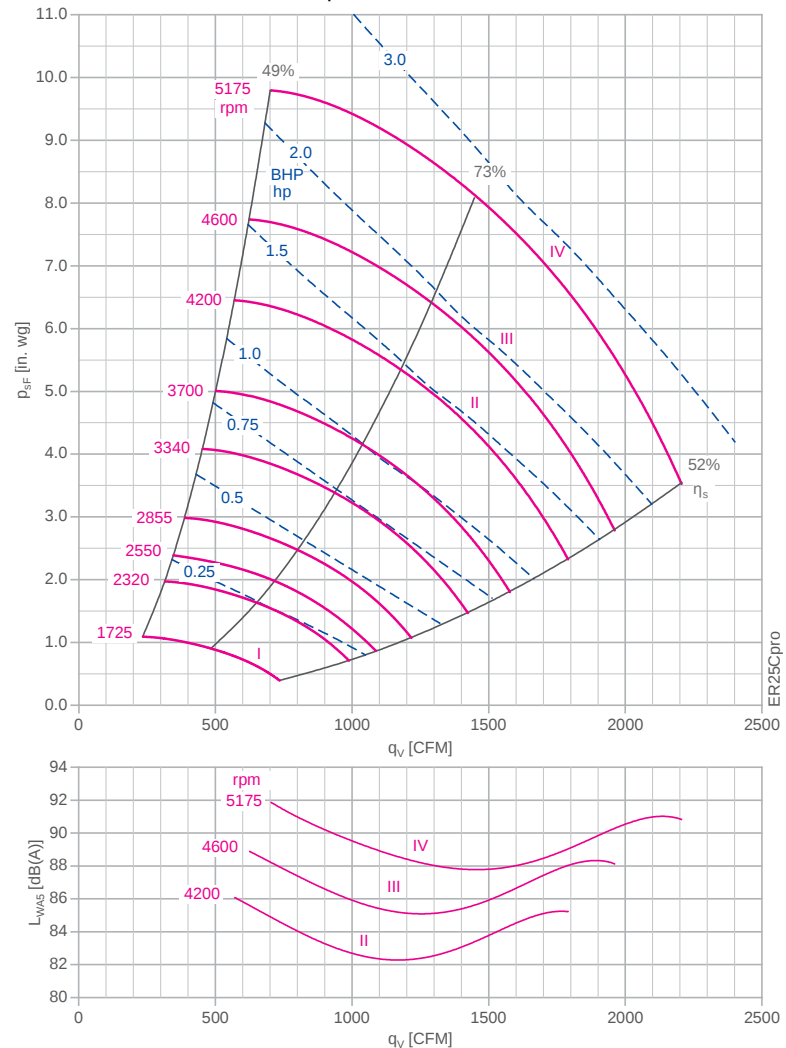


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104°F / 40°C
- Min. permissible ambient temperature: -4°F / -20°C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- ER-plenum fan made as rugged bolted construction built with galvanized sheet steel
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460V, 60Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
0.50	ER25C-4DM.B7.CR	112776/BV01	46
1.50	ER25C-2DM.C7.CR	112779/BV03	60
2.00	ER25C-2DM.D7.CR	112780/BV03	68
5.00	ER25C-2DM.E7.CR	112781/BV03	90

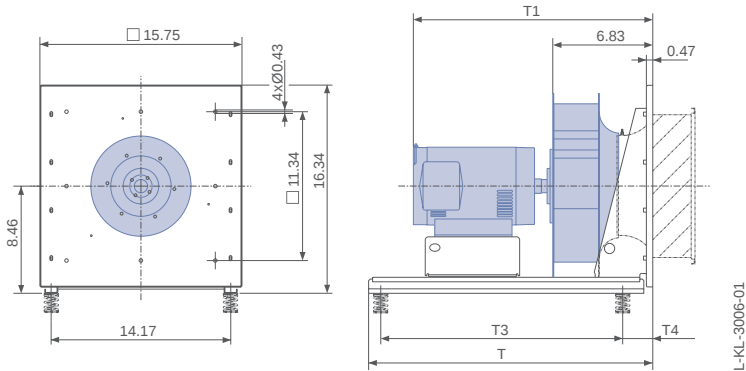


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
0.50	ER25C-4DM.B7.CR	056	I	1725	1.0	1725	60
1.50	ER25C-2DM.C7.CR	143T	II	3450	2.0	4200	73
2.00	ER25C-2DM.D7.CR	145T	III	3450	2.6	4600	80
5.00	ER25C-2DM.E7.CR	182T	IV	3450	6.1	5175	90

Dimensions in Inch

Plenum fan ER in installation position H

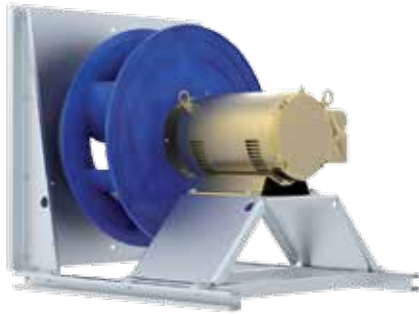


Rated power	Type	T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
0.50	ER25C-4DM.B7.CR	18.11	15.38	13.94	1.81	MSN 4	30x30 / 40
1.50	ER25C-2DM.C7.CR	18.11	16.62	13.78	2.68	MSN 4	30x30 / 55
2.00	ER25C-2DM.D7.CR	18.11	17.13	14.25	2.68	MSN 5	30x30 / 55
5.00	ER25C-2DM.E7.CR	22.44	20.01	18.90	1.57	MSN 5	30x30 / 55

Plenum fan Cpro-Series

Motor PEM

ER28Cpro

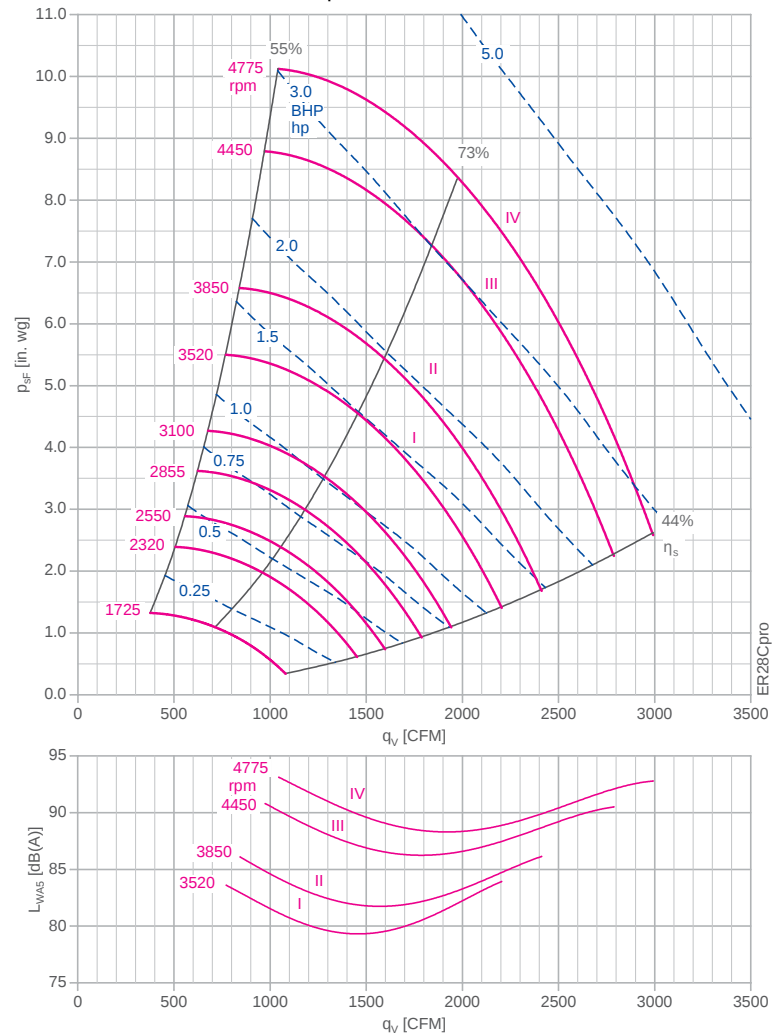


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104°F / 40°C
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- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
1.00	ER28C-4DM.C7.CR	112786/BV03	64
1.50	ER28C-2DM.C7.CR	112787/BV03	60
2.00	ER28C-2DM.D7.CR	112788/BV03	68
3.00	ER28C-2DM.D7.CR	112789/BV03	77
5.00	ER28C-2DM.E7.CR	112790/BV03	93

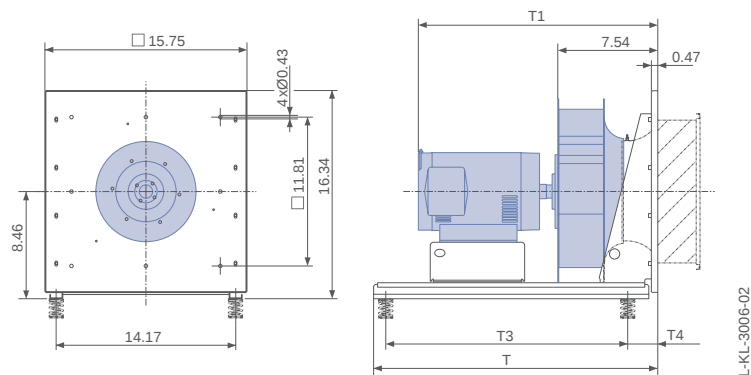


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
1.00	ER28C-4DM.C7.CR	143T		1760	1.5	2590	90
1.50	ER28C-2DM.C7.CR	143T	I	3450	2.1	3520	61
2.00	ER28C-2DM.D7.CR	145T	II	3450	2.5	3850	67
3.00	ER28C-2DM.D7.CR	145T	III	3450	3.7	4450	77
5.00	ER28C-2DM.E7.CR	182T	IV	3450	5.6	4775	83

Dimensions in Inch

Plenum fan ER in installation position H

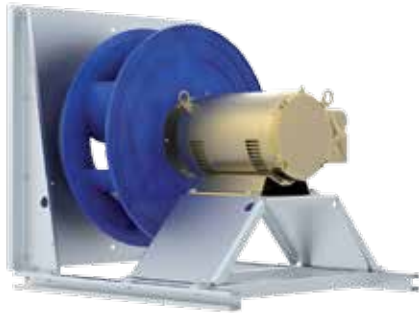


Rated power	Type	T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
1.00	ER28C-4DM.C7.CR	18.11	17.30	13.70	3.03	MSN 4	30x30 / 40
1.50	ER28C-2DM.C7.CR	18.11	17.30	13.70	3.03	MSN 4	30x30 / 40
2.00	ER28C-2DM.D7.CR	18.11	17.80	13.23	3.50	MSN 4	30x30 / 55
3.00	ER28C-2DM.D7.CR	18.11	19.18	12.68	4.06	MSN 5	30x30 / 55
5.00	ER28C-2DM.E7.CR	22.44	20.68	18.98	1.89	MSN 5	30x30 / 55

Plenum fan Cpro-Series

Motor PEM

ER31Cpro

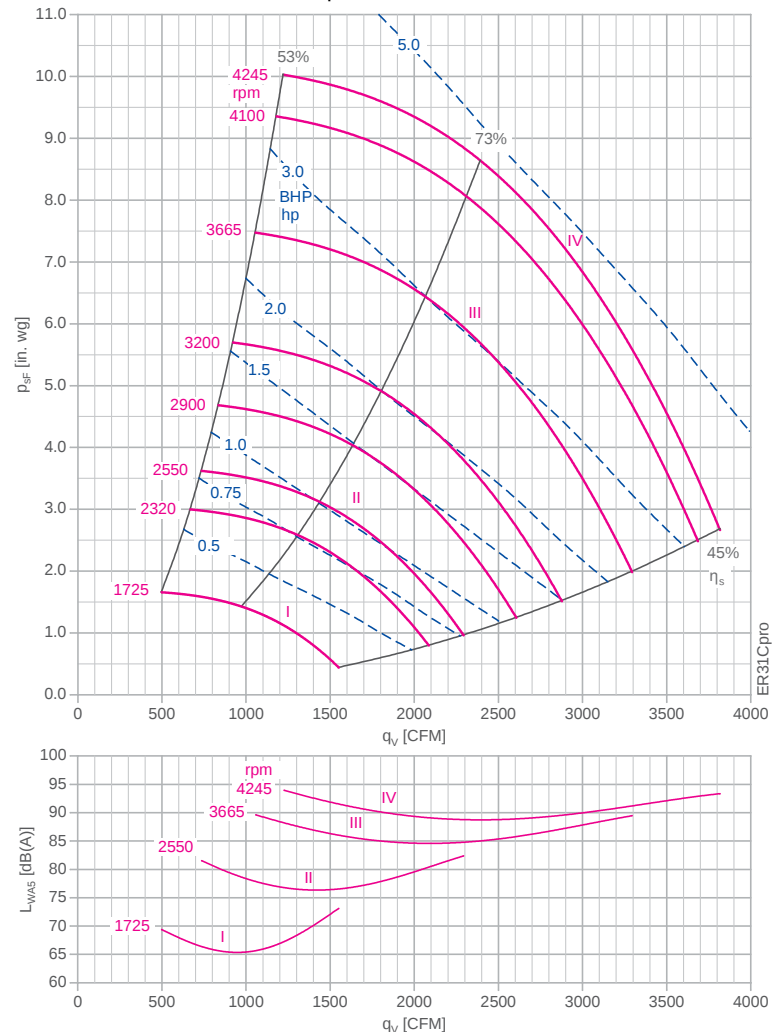


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104°F / 40°C
- Min. permissible ambient temperature: -4°F / -20°C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- ER-plenum fan made as rugged bolted construction built with galvanized sheet steel
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460V, 60Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
0.50	ER31C-4DM.B7.CR	112791/BV01	49
1.00	ER31C-4DM.C7.CR	112793/BV03	66
1.50	ER31C-4DM.D7.CR	112794/BV03	64
2.00	ER31C-4DM.D7.CR	112795/BV03	71
3.00	ER31C-2DM.D7.CR	112796/BV03	79
5.00	ER31C-2DM.E7.CR	112797/BV03	93

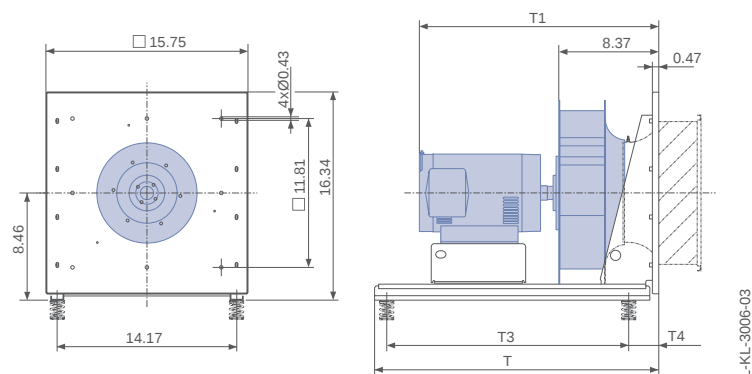


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
0.50	ER31C-4DM.B7.CR	056	I	1725	1.0	1725	60
1.00	ER31C-4DM.C7.CR	143T	II	1760	1.5	2550	89
1.50	ER31C-4DM.D7.CR	145T		1755	2.1	2610	89
2.00	ER31C-4DM.D7.CR	145T		1725	2.7	2610	90
3.00	ER31C-2DM.D7.CR	145T	III	3450	3.7	3665	64
5.00	ER31C-2DM.E7.CR	182T	IV	3450	5.6	4245	74

Dimensions in Inch

Plenum fan ER in installation position H

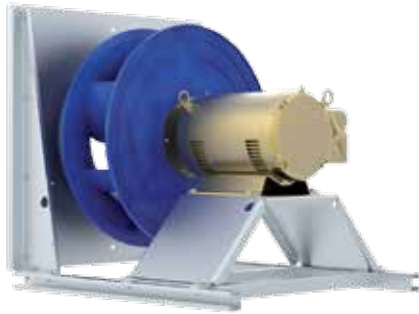


Rated power	Type	T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
0.50	ER31C-4DM.B7.CR	18.11	16.85	14.09	2.44	MSN 4	30x30 / 40
1.00	ER31C-4DM.C7.CR	18.11	18.10	13.23	3.70	MSN 4	30x30 / 55
1.50	ER31C-4DM.D7.CR	18.11	19.98	12.36	4.57	MSN 5	30x30 / 55
2.00	ER31C-4DM.D7.CR	18.11	19.98	12.36	4.57	MSN 5	30x30 / 55
3.00	ER31C-2DM.D7.CR	18.11	19.98	12.13	4.80	MSN 5	40x30 / 55
5.00	ER31C-2DM.E7.CR	22.44	21.48	18.90	2.44	MSN 5	40x30 / 55

Plenum fan Cpro-Series

Motor PEM

ER35Cpro

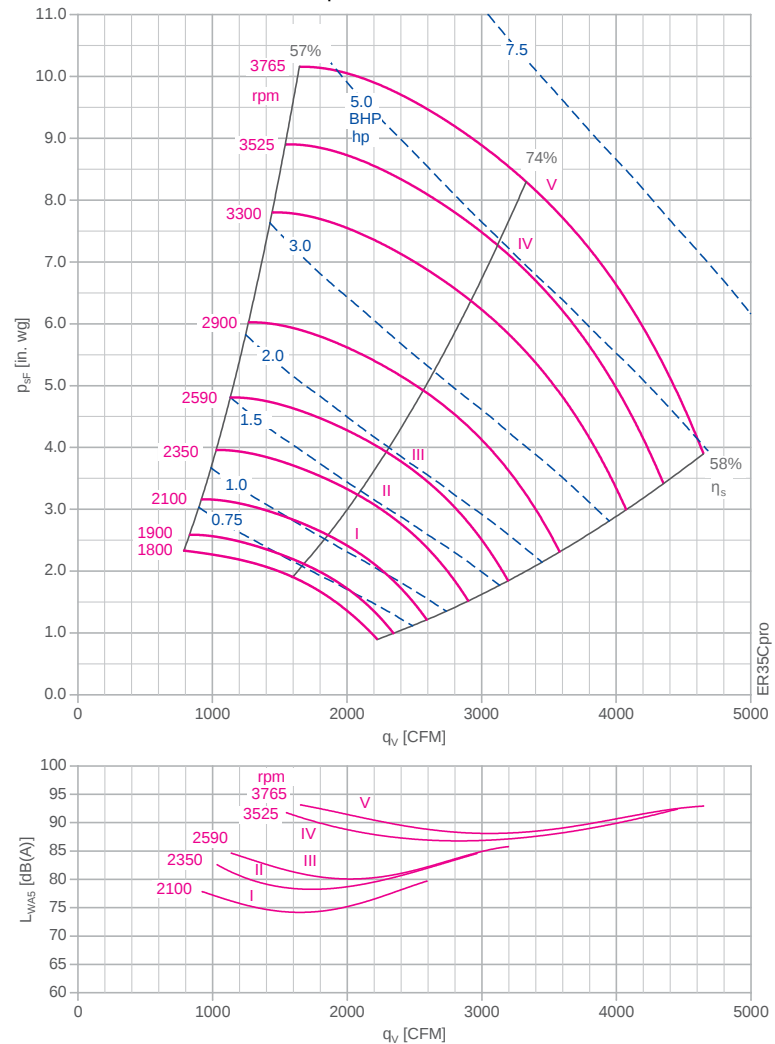


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104°F / 40°C
- Min. permissible ambient temperature: -4°F / -20°C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- ER-plenum fan made as rugged bolted construction built with galvanized sheet steel
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460V, 60Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power

P_N [hp]	Type ER..C	Article no. ER..C	max.
1.00	ER35C-4DM.C7.CR	112799/BV03	75
1.50	ER35C-4DM.D7.CR	112800/BV03	73
2.00	ER35C-4DM.D7.CR	112801/BV03	79
5.00	ER35C-2DM.E7.CR	112803/BV03	101
7.50	ER35C-2DM.F7.CR	112804/BV03	112

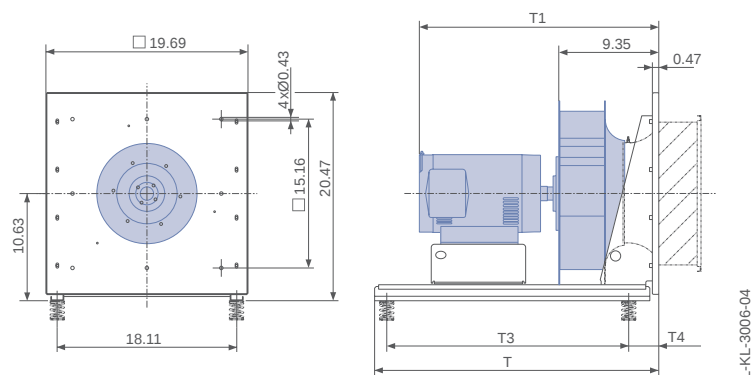


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
1.00	ER35C-4DM.C7.CR	143T	I	1760	1.5	2100	73
1.50	ER35C-4DM.D7.CR	145T	II	1755	2.1	2350	81
2.00	ER35C-4DM.D7.CR	145T	III	1725	2.7	2590	90
5.00	ER35C-2DM.E7.CR	182T	IV	3450	5.6	3525	61
7.50	ER35C-2DM.F7.CR	184T	V	3470	8.0	3765	65

Dimensions in Inch

Plenum fan ER in installation position H

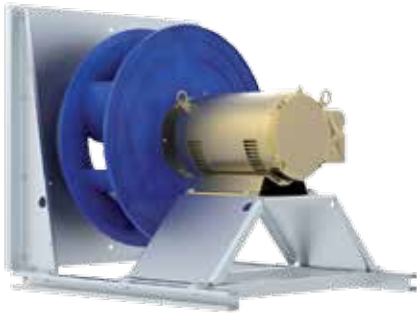


Rated power	Type	T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
1.00	ER35C-4DM.C7.CR	22.44	18.99	17.48	1.81	MSN 5	30x30 / 55
1.50	ER35C-4DM.D7.CR	22.44	19.99	18.19	1.81	MSN 5	30x30 / 55
2.00	ER35C-4DM.D7.CR	22.44	20.87	18.43	1.81	MSN 5	30x30 / 55
5.00	ER35C-2DM.E7.CR	22.44	22.37	17.64	3.23	MSN 6	40x30 / 55
7.50	ER35C-2DM.F7.CR	22.44	23.87	17.56	3.70	MSN 6	40x30 / 55

Plenum fan Cpro-Series

Motor PEM

ER40Cpro

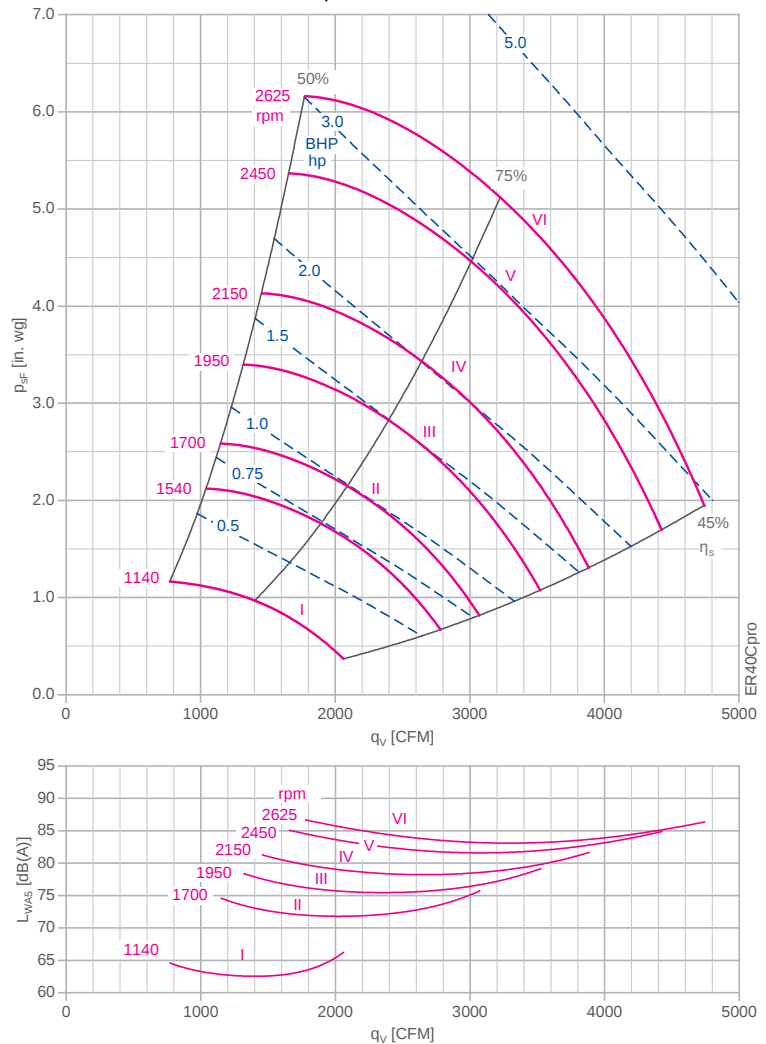


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104°F / 40°C
- Min. permissible ambient temperature: -4°F / -20°C
- Impeller: ZAMid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- ER-plenum fan made as rugged bolted construction built with galvanized sheet steel
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460V, 60Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power

P_N [hp]	Type ER..C	Article no. ER..C	max.
0.75	ER40C-6DM.C7.CR	112805/BV01	75
1.00	ER40C-6DM.D7.CR	112806/BV03	79
1.50	ER40C-4DM.D7.CR	112807/BV03	79
2.00	ER40C-4DM.D7.CR	112808/BV03	84
3.00	ER40C-4DM.E7.CR	112809/BV03	112
5.00	ER40C-4DM.F7.CR	112810/BV03	126

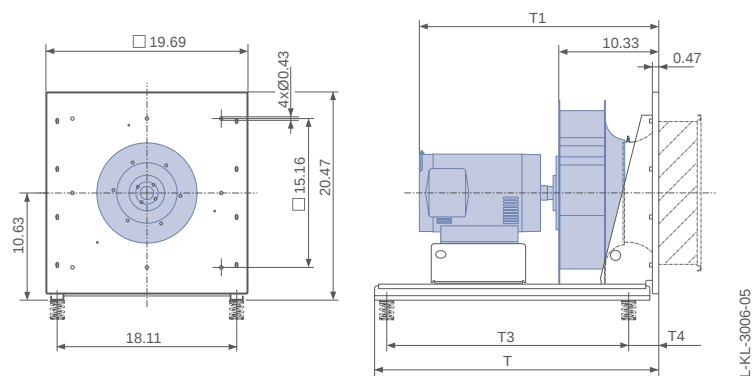


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
0.75	ER40C-6DM.C7.CR	143T	I	1140	1.5	1140	60
1.00	ER40C-6DM.D7.CR	145T	II	1150	1.8	1700	89
1.50	ER40C-4DM.D7.CR	145T	III	1755	2.1	1950	67
2.00	ER40C-4DM.D7.CR	145T	IV	1725	2.7	2150	75
3.00	ER40C-4DM.E7.CR	182T	V	1755	4.0	2450	84
5.00	ER40C-4DM.F7.CR	184T	VI	1750	6.6	2625	90

Dimensions in Inch

Plenum fan ER in installation position H

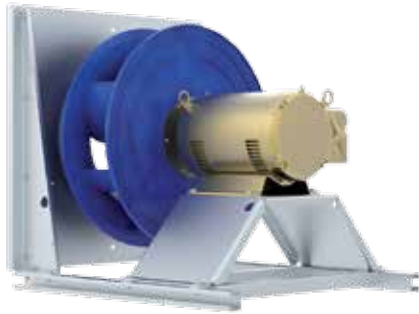


Rated power	Type	T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
0.75	ER40C-6DM.C7.CR	22.44	21.33	17.48	1.81	MSN 5	30x30 / 40
1.00	ER40C-6DM.D7.CR	22.44	21.13	18.58	1.81	MSN 5	30x30 / 40
1.50	ER40C-4DM.D7.CR	22.44	21.13	18.66	1.81	MSN 5	30x30 / 40
2.00	ER40C-4DM.D7.CR	22.44	22.01	18.90	1.81	MSN 5	30x30 / 40
3.00	ER40C-4DM.E7.CR	22.44	23.51	16.69	4.17	MSN 6	30x30 / 55
5.00	ER40C-4DM.F7.CR	22.44	25.01	16.93	4.33	MSN 6	30x30 / 55

Plenum fan Cpro-Series

Motor PEM

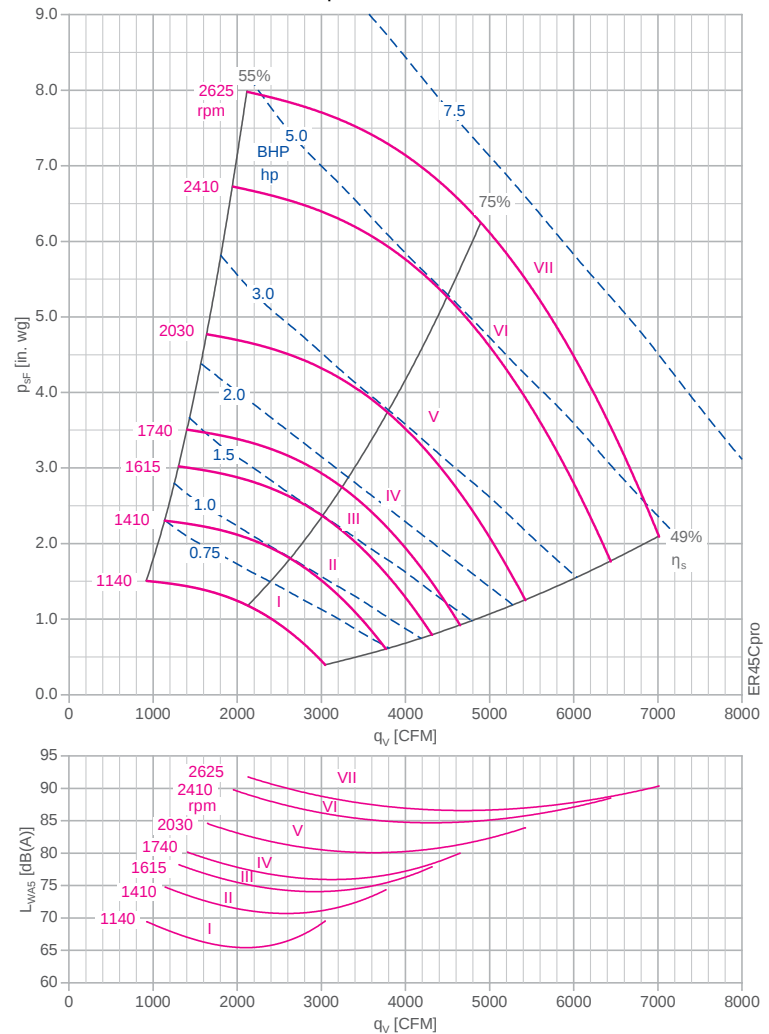
ER45Cpro



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104°F / 40°C
- Min. permissible ambient temperature: -4°F / -20°C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- ER-plenum fan made as rugged bolted construction built with galvanized sheet steel
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460V, 60Hz, three phase

Performance curve ER..Cpro



- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
0.75	ER45C-6DM.C7.CR	112812/BV01	97
1.00	ER45C-6DM.D7.CR	112813/BV03	101
1.50	ER45C-6DM.E7.CR	112814/BV03	130
2.00	ER45C-6DM.F7.CR	112815/BV03	150
3.00	ER45C-4DM.E7.CR	112816/BV03	135
5.00	ER45C-4DM.F7.CR	112817/BV03	148
7.50	ER45C-4DM.G7.CR	112818/BV03	194

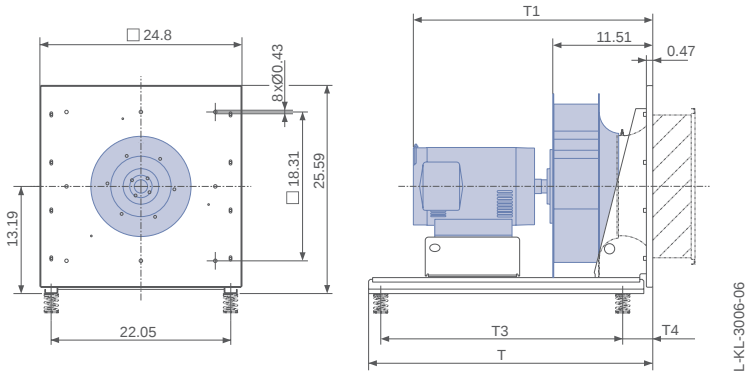


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
0.75	ER45C-6DM.C7.CR	143T	I	1140	1.5	1140	60
1.00	ER45C-6DM.D7.CR	145T	II	1150	1.8	1410	74
1.50	ER45C-6DM.E7.CR	182T	III	1170	2.6	1615	84
2.00	ER45C-6DM.F7.CR	184T	IV	1170	3.5	1740	90
3.00	ER45C-4DM.E7.CR	182T	V	1755	9.6	2030	70
5.00	ER45C-4DM.F7.CR	184T	VI	1750	4.0	2410	82
7.50	ER45C-4DM.G7.CR	213T	VII	1770	6.6	2625	89

Dimensions in Inch

Plenum fan ER in installation position H

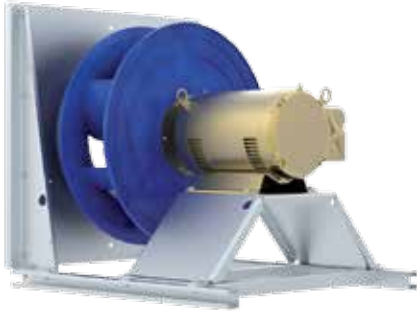


Rated power	Type	T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
0.75	ER45C-6DM.C7.CR	22.44	22.69	18.11	1.73	MSN 5	30x30 / 40
1.00	ER45C-6DM.D7.CR	22.44	22.49	19.13	1.73	MSN 5	30x30 / 40
1.50	ER45C-6DM.E7.CR	28.35	24.87	22.36	1.73	MSN 6	30x30 / 55
2.00	ER45C-6DM.F7.CR	28.35	26.37	22.60	1.73	MSN 6	30x30 / 55
3.00	ER45C-4DM.E7.CR	28.35	25.56	24.33	2.83	MSN 6	30x30 / 55
5.00	ER45C-4DM.F7.CR	28.35	24.87	22.05	1.81	MSN 6	30x30 / 55
7.50	ER45C-4DM.G7.CR	28.35	26.37	22.60	1.81	MSN 6	40x30 / 55

Plenum fan Cpro-Series

Motor PEM

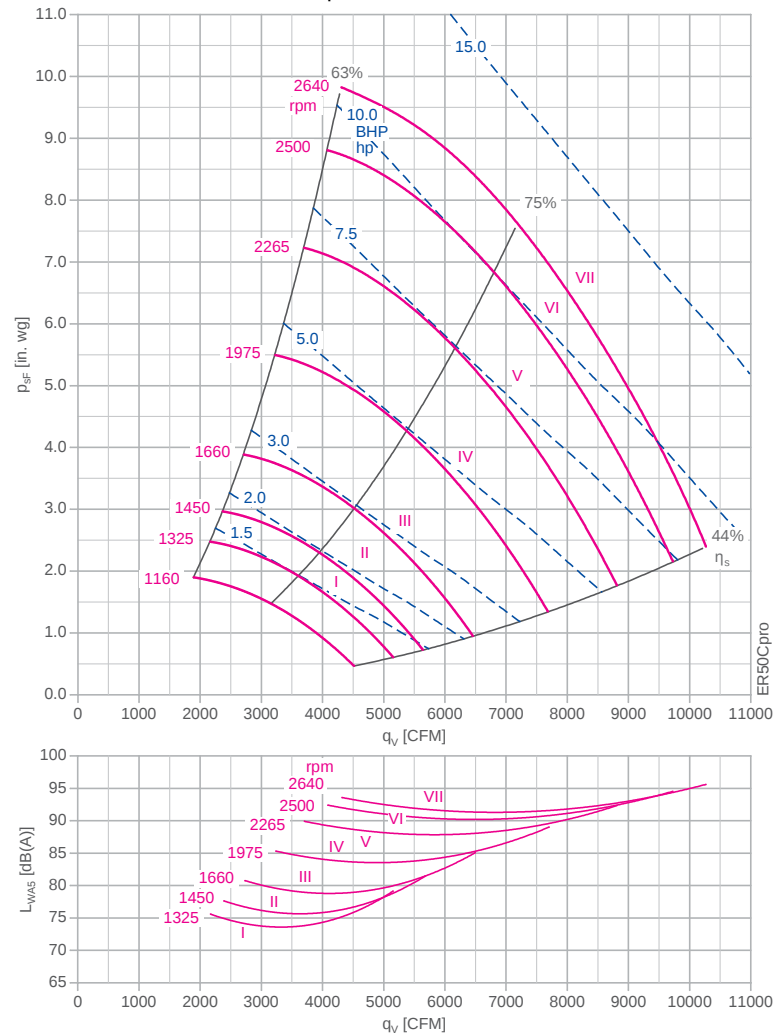
ER50Cpro



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104°F / 40°C
- Min. permissible ambient temperature: -4°F / -20°C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- ER-plenum fan made as rugged bolted construction built with galvanized sheet steel
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460V, 60Hz, three phase

Performance curve ER..Cpro



➤ Connection diagram	Page 134
➤ Suction guard grille	Page 121
➤ Spring vibration dampers	Page 122
➤ Rubber dampers	Page 122
➤ Flexible air intakes	Page 123

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
1.50	ER50C-6DM.E7.CR	112820/BV03	137
2.00	ER50C-6DM.F7.CR	112821/BV03	154
3.00	ER50C-6DM.G7.CR	112822/BV03	196
5.00	ER50C-4DM.F7.CR	112823/BV03	152
7.50	ER50C-4DM.G7.CR	112824/BV03	198
10.00	ER50C-4DM.H7.CR	112825/BV03	198
15.00	ER50C-4DM.I7.CR	112826/BV03	302

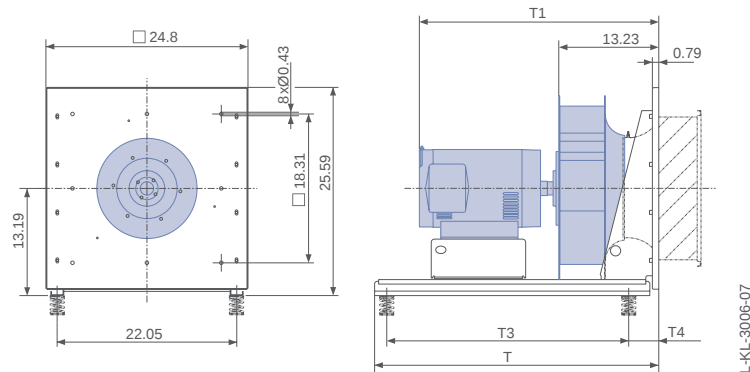


Technical data

Rated power P_N [hp]	Type	Motor size	Performance curve no.	Rated speed n_N [rpm]	Rated current I_N [A]	Max. speed n_{max} [rpm]	Max. frequency f_{max} Hz
1.50	ER50C-6DM.E7.CR	182T	I	1170	2.6	1325	69
2.00	ER50C-6DM.F7.CR	184T	II	1170	3.5	1450	75
3.00	ER50C-6DM.G7.CR	213T	III	1160	4.4	1660	86
5.00	ER50C-4DM.F7.CR	184T	IV	1750	6.6	1975	68
7.50	ER50C-4DM.G7.CR	213T	V	1770	9.6	2265	76
10.00	ER50C-4DM.H7.CR	215T	VI	1770	12.5	2500	85
15.00	ER50C-4DM.I7.CR	254T	VII	1765	17.7	2640	90

Dimensions in Inch

Plenum fan ER in installation position H

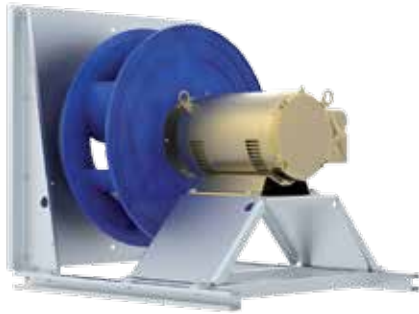


Rated power P_N [hp]	Type	T	T1	T3	T4	Spring damper	Rubber damper
1.50	ER50C-6DM.E7.CR	28.66	26.54	23.62	1.97	MSN 6	30x30 / 40
2.00	ER50C-6DM.F7.CR	28.66	28.04	23.86	1.97	MSN 6	30x30 / 40
3.00	ER50C-6DM.G7.CR	28.66	27.23	23.07	4.49	MSN 7	30x30 / 55
5.00	ER50C-4DM.F7.CR	28.66	28.04	23.94	2.05	MSN 6	30x30 / 55
7.50	ER50C-4DM.G7.CR	28.66	27.23	24.02	3.94	MSN 7	30x30 / 55
10.00	ER50C-4DM.H7.CR	28.66	28.36	22.83	5.12	MSN 7	40x30 / 55
15.00	ER50C-4DM.I7.CR	34.96	31.98	29.76	3.70	MSN 7	40x30 / 55

Plenum fan Cpro-Series

Motor PEM

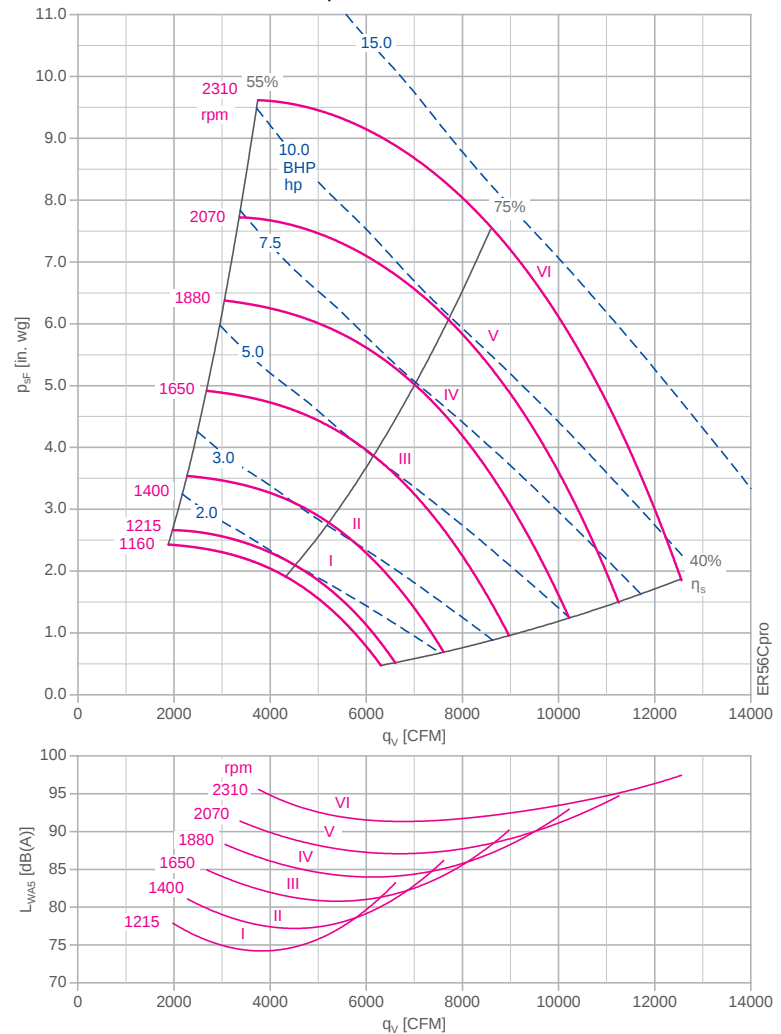
ER56Cpro



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104°F / 40°C
- Min. permissible ambient temperature: -4°F / -20°C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- ER-plenum fan made as rugged bolted construction built with galvanized sheet steel
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460V, 60Hz, three phase

Performance curve ER..Cpro



- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
2.00	ER56C-6DM.F7.CR	112827/BV03	179
3.00	ER56C-6DM.G7.CR	112828/BV03	218
5.00	ER56C-6DM.H7.CR	112829/BV03	236
7.50	ER56C-4DM.G7.CR	112830/BV03	221
10.00	ER56C-4DM.H7.CR	112831/BV03	221
15.00	ER56C-4DM.I7.CR	112832/BV03	329

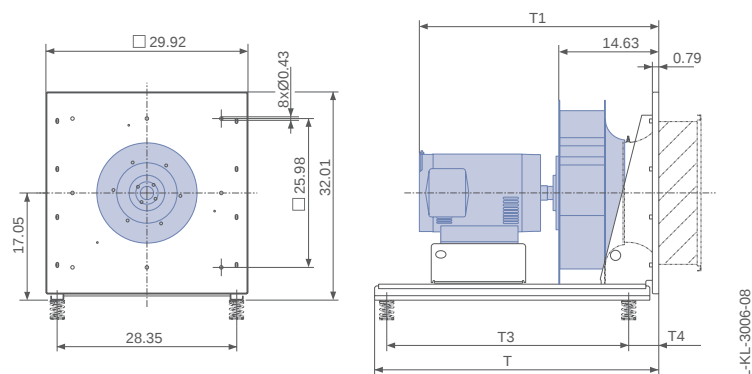


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
2.00	ER56C-6DM.F7.CR	184T	I	1170	3.5	1215	63
3.00	ER56C-6DM.G7.CR	213T	II	1160	4.4	1400	72
5.00	ER56C-6DM.H7.CR	215T	III	1160	7.3	1650	85
7.50	ER56C-4DM.G7.CR	213T	IV	1770	9.6	1880	64
10.00	ER56C-4DM.H7.CR	215T	V	1770	12.5	2070	70
15.00	ER56C-4DM.I7.CR	254T	VI	1765	17.7	2310	79

Dimensions in Inch

Plenum fan ER in installation position H

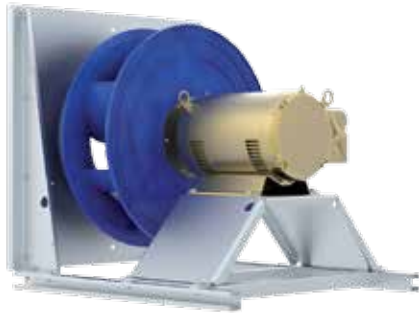


Rated power	Type	T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
2.00	ER56C-6DM.F7.CR	28.35	29.44	24.57	1.69	MSN 7	30x30 / 55
3.00	ER56C-6DM.G7.CR	28.35	28.63	22.91	4.65	MSN 7	30x30 / 55
5.00	ER56C-6DM.H7.CR	28.35	29.76	22.36	5.20	SD 4	40x30 / 55
7.50	ER56C-4DM.G7.CR	28.35	28.63	23.07	4.49	MSN 7	30x30 / 55
10.00	ER56C-4DM.H7.CR	28.35	29.76	21.73	5.83	SD 4	40x30 / 55
15.00	ER56C-4DM.I7.CR	34.65	33.38	28.98	4.49	SD 4	40x30 / 55

Plenum fan Cpro-Series

Motor PEM

ER63Cpro

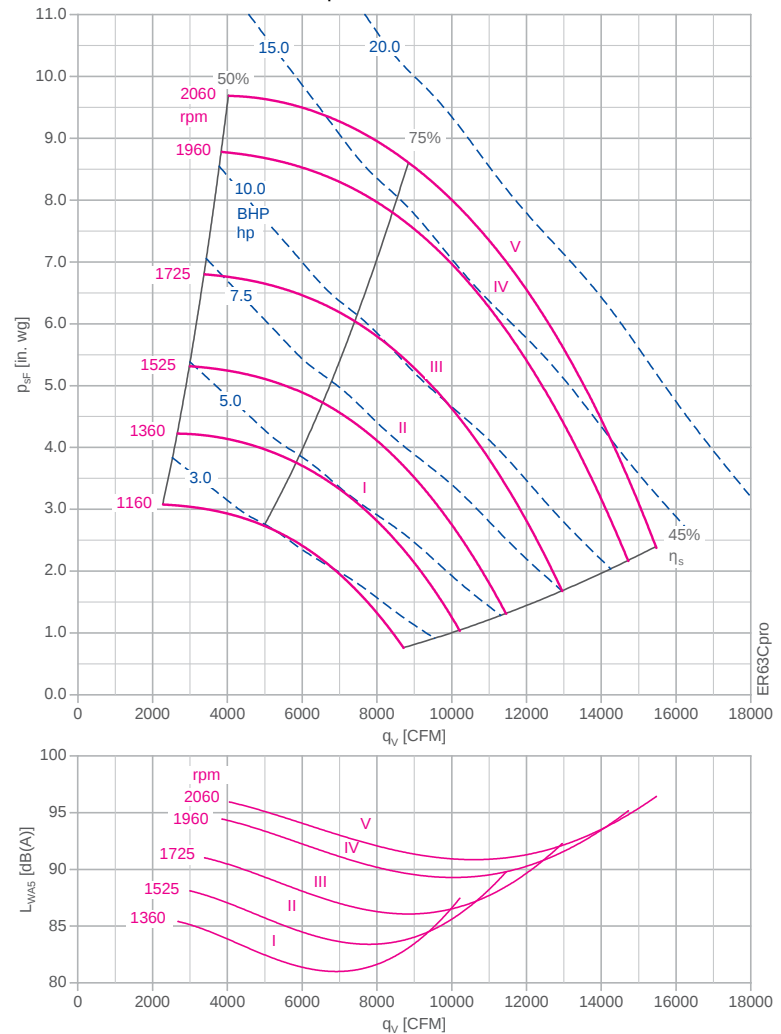


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104°F / 40°C
- Min. permissible ambient temperature: -4°F / -20°C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- ER-plenum fan made as rugged bolted construction built with galvanized sheet steel
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460V, 60Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power

P_N [hp]	Type ER..C	Article no. ER..C	 max.
5.00	ER63C-6DM.H7.CR	112833/BV03	256
7.50	ER63C-6DM.I7.CR	112834/BV03	377
10.00	ER63C-6DM.K7.CR	112835/BV03	373
15.00	ER63C-4DM.I7.CR	112836/BV03	346
20.00	ER63C-4DM.K7.CR	112837/BV03	353

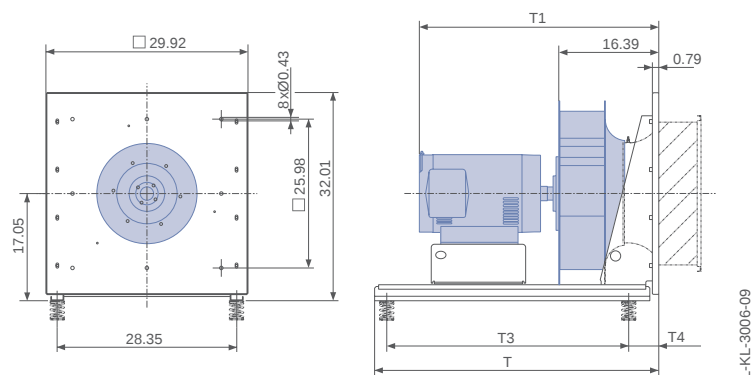


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
5.00	ER63C-6DM.H7.CR	215T	I	1160	7.3	1360	71
7.50	ER63C-6DM.I7.CR	254T	II	1180	10.7	1525	80
10.00	ER63C-6DM.K7.CR	256T	III	1180	14.3	1725	86
15.00	ER63C-4DM.I7.CR	254T	IV	1765	17.7	1960	67
20.00	ER63C-4DM.K7.CR	256T	V	1765	23.5	2060	70

Dimensions in Inch

Plenum fan ER in installation position H



Rated power	Type	T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
5.00	ER63C-6DM.H7.CR	34.65	31.33	30.87	1.69	MSN 7	30x30 / 55
7.50	ER63C-6DM.I7.CR	34.65	36.45	28.90	4.76	SD 4	40x30 / 55
10.00	ER63C-6DM.K7.CR	34.65	36.45	25.91	7.76	SD 4	40x40 / 55
15.00	ER63C-4DM.I7.CR	34.65	34.95	28.11	5.55	SD 4	40x30 / 55
20.00	ER63C-4DM.K7.CR	34.65	34.95	26.61	7.05	SD 4	40x30 / 55



Plenum fan ER..C

Product overview

ER22C / Size 9	Page 44
ER25C / Size 10	Page 46
ER28C / Size 11	Page 48
ER31C / Size 12.5	Page 50
ER35C / Size 14	Page 52
ER40C / Size 16	Page 54
ER45C / Size 18	Page 56
ER50C / Size 20	Page 58
ER56C / Size 22	Page 60
ER63C / Size 25	Page 62
ER71C / Size 28	Page 64
ER80C / Size 32	Page 66
ER90C / Size 36	Page 68
ER10C / Size 40	Page 70
ER11C / Size 45	Page 72

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

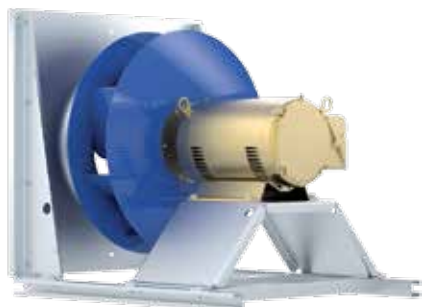
System components

General notes

Plenum fan C-Series

Motor PEM

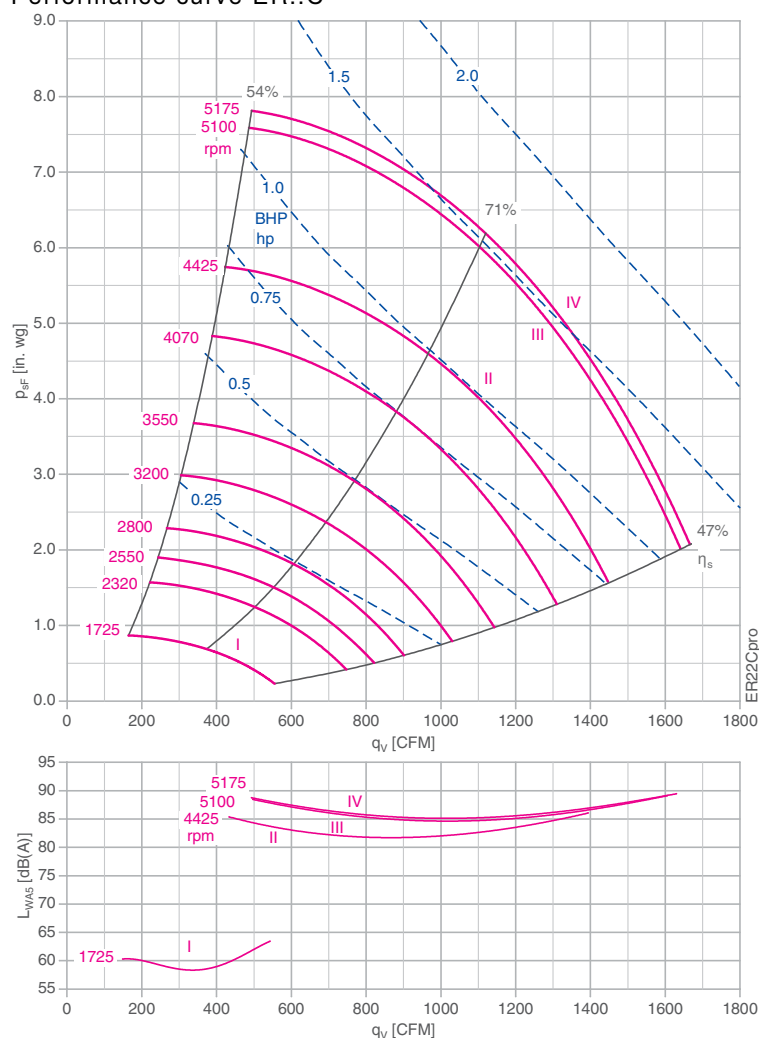
ER22C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve ER..C



- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

The CRP rating does not include ER22C

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
0.50	ER22C-4DM.B7.1R	112768/AS01	40
1.00	ER22C-2DM.B7.1R	112770/AS03	40
1.50	ER22C-2DM.C7.1R	112771/AS03	54
2.00	ER22C-2DM.D7.1R	112772/AS03	58

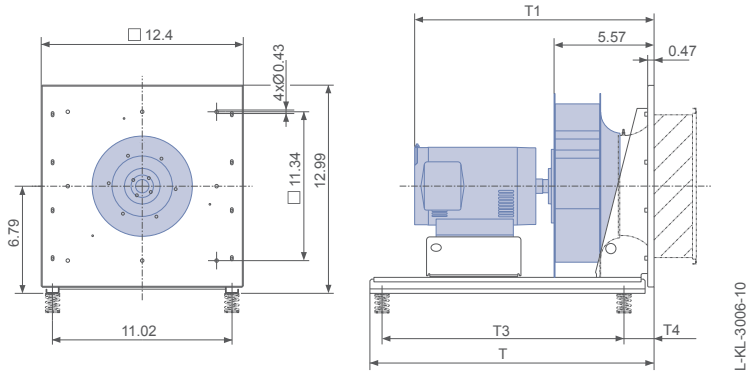


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
0.50	ER22C-4DM.B7.1R	056	I	1725	1.00	1725	60
1.00	ER22C-2DM.B7.1R	056	II	3500	1.45	4425	77
1.50	ER22C-2DM.C7.1R	143T	III	3450	2.10	5100	89
2.00	ER22C-2DM.D7.1R	145T	IV	3450	2.50	5175	90

Dimensions in Inch

Plenum fan ER in installation position H



Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
0.50	ER22C-4DM.B7.1R	18.11	14.31	13.94	1.81	MSN 4	30x30 / 40
1.00	ER22C-2DM.B7.1R	18.11	14.31	13.94	1.81	MSN 4	30x30 / 40
1.50	ER22C-2DM.C7.1R	18.11	15.56	14.02	2.52	MSN 4	30x30 / 55
2.00	ER22C-2DM.D7.1R	18.11	16.06	14.41	2.52	MSN 5	30x30 / 55

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

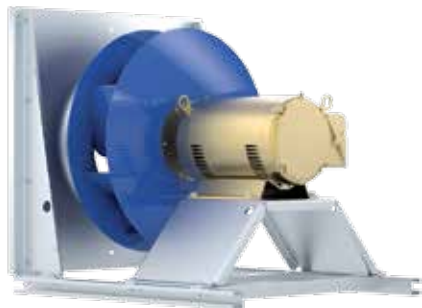
System components

General notes

Plenum fan C-Series

Motor PEM

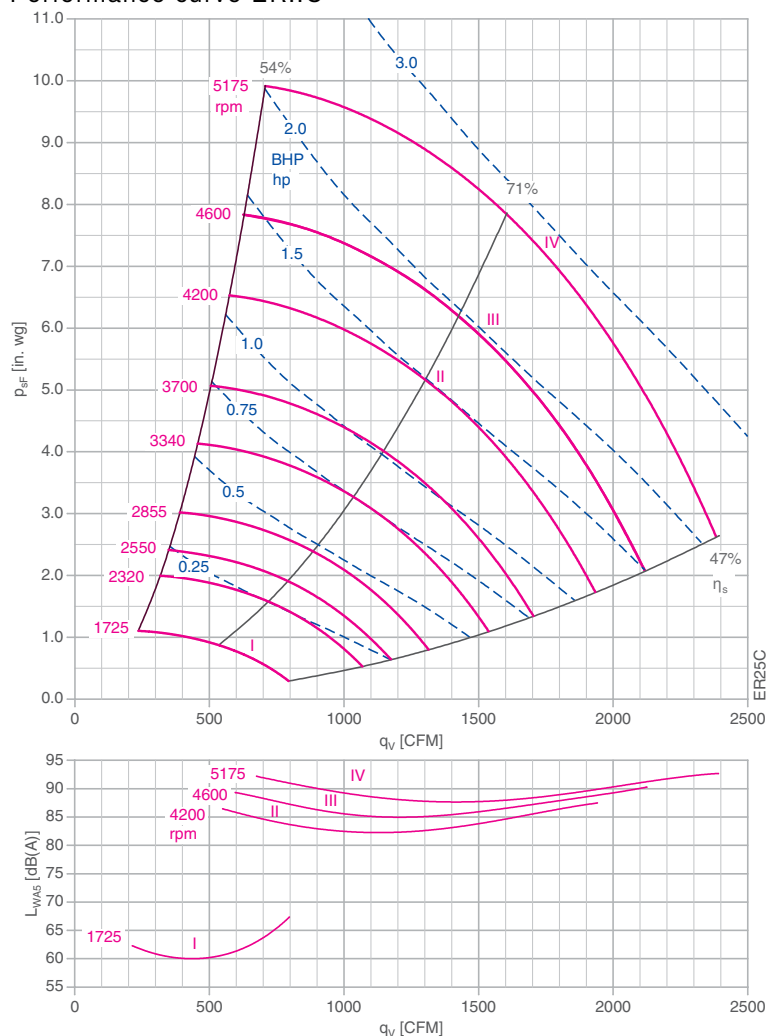
ER25C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve ER..C



- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

The CRP rating does not include ER25C

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
0.50	ER25C-4DM.B7.1R	112776/AS01	47
1.50	ER25C-2DM.C7.1R	112779/AS03	61
2.00	ER25C-2DM.D7.1R	112780/AS03	65
5.00	ER25C-2DM.E7.1R	112781/AS03	106

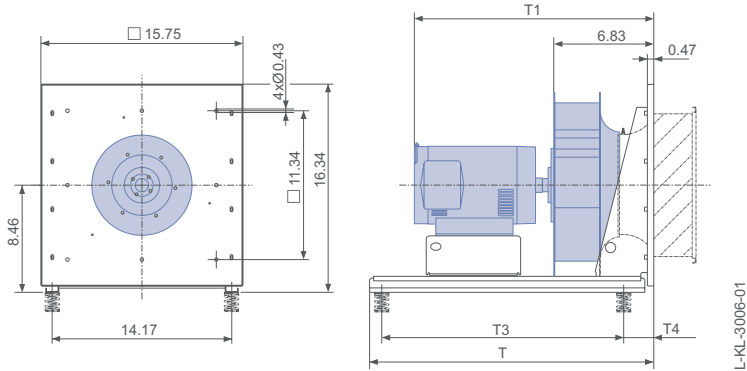


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
0.50	ER25C-4DM.B7.1R	056	I	1725	1.00	1725	60
1.50	ER25C-2DM.C7.1R	143T	II	3450	2.10	4200	73
2.00	ER25C-2DM.D7.1R	145T	III	3450	2.50	4600	80
5.00	ER25C-2DM.E7.1R	182T	IV	3450	6.00	5175	90

Dimensions in Inch

Plenum fan ER in installation position H



Rated power	Type	T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
0.50	ER25C-4DM.B7.1R	18.11	14.96	13.94	1.81	MSN 4	30x30 / 40
1.50	ER25C-2DM.C7.1R	18.11	16.21	13.78	2.68	MSN 4	30x30 / 55
2.00	ER25C-2DM.D7.1R	18.11	16.71	14.25	2.68	MSN 5	30x30 / 55
5.00	ER25C-2DM.E7.1R	22.44	19.22	18.90	1.57	MSN 5	40x30 / 55

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

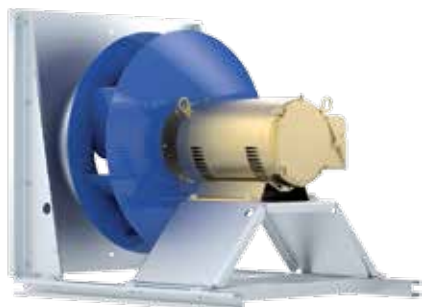
System components

General notes

Plenum fan C-Series

Motor PEM

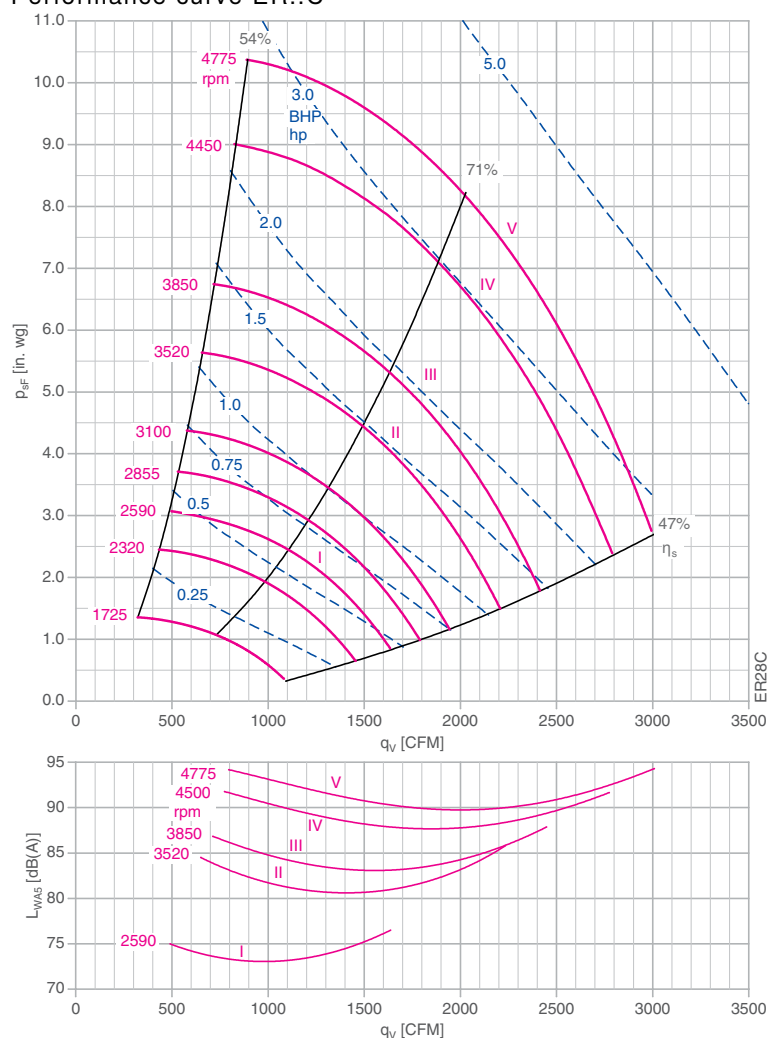
ER28C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve ER..C



- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

The CRP rating does not include ER28C

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
1.00	ER28C-4DM.C7.1R	112786/AS03	63
1.50	ER28C-2DM.C7.1R	112787/AS03	63
2.00	ER28C-2DM.D7.1R	112788/AS03	67
3.00	ER28C-2DM.D7.1R	112789/AS03	77
5.00	ER28C-2DM.E7.1R	112790/AS03	106

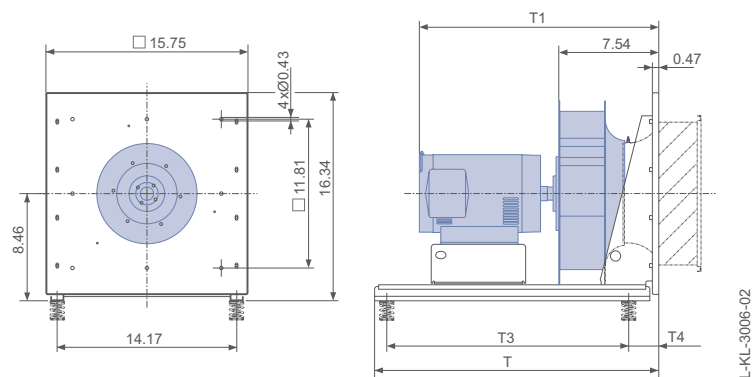


Technical data

Rated power P_N [hp]	Type	Motor size	Performance curve no.	Rated speed n_N [rpm]	Rated current I_N [A]	Max. speed n_{max} [rpm]	Max. frequency f_{max} Hz
1.00	ER28C-4DM.C7.1R	143T	I	1760	1.50	2590	90
1.50	ER28C-2DM.C7.1R	143T	II	3450	2.10	3520	61
2.00	ER28C-2DM.D7.1R	145T	III	3450	2.50	3850	67
3.00	ER28C-2DM.D7.1R	145T	IV	3450	3.70	4450	77
5.00	ER28C-2DM.E7.1R	182T	V	3450	6.00	4775	83

Dimensions in Inch

Plenum fan ER in installation position H

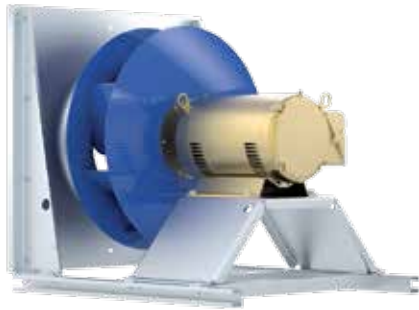


Rated power P_N [hp]		T	T1	T3	T4	Spring damper	Rubber damper
		inch	inch	inch	inch		
1.00	ER28C-4DM.C7.1R	18.11	16.84	13.70	3.03	MSN 4	30x30 / 40
1.50	ER28C-2DM.C7.1R	18.11	16.84	13.70	3.03	MSN 4	30x30 / 40
2.00	ER28C-2DM.D7.1R	18.11	17.34	13.23	3.50	MSN 4	30x30 / 55
3.00	ER28C-2DM.D7.1R	18.11	17.84	12.68	4.06	MSN 5	30x30 / 55
5.00	ER28C-2DM.E7.1R	18.11	19.85	18.98	1.89	MSN 5	40x30 / 55

Plenum fan C-Series

Motor PEM

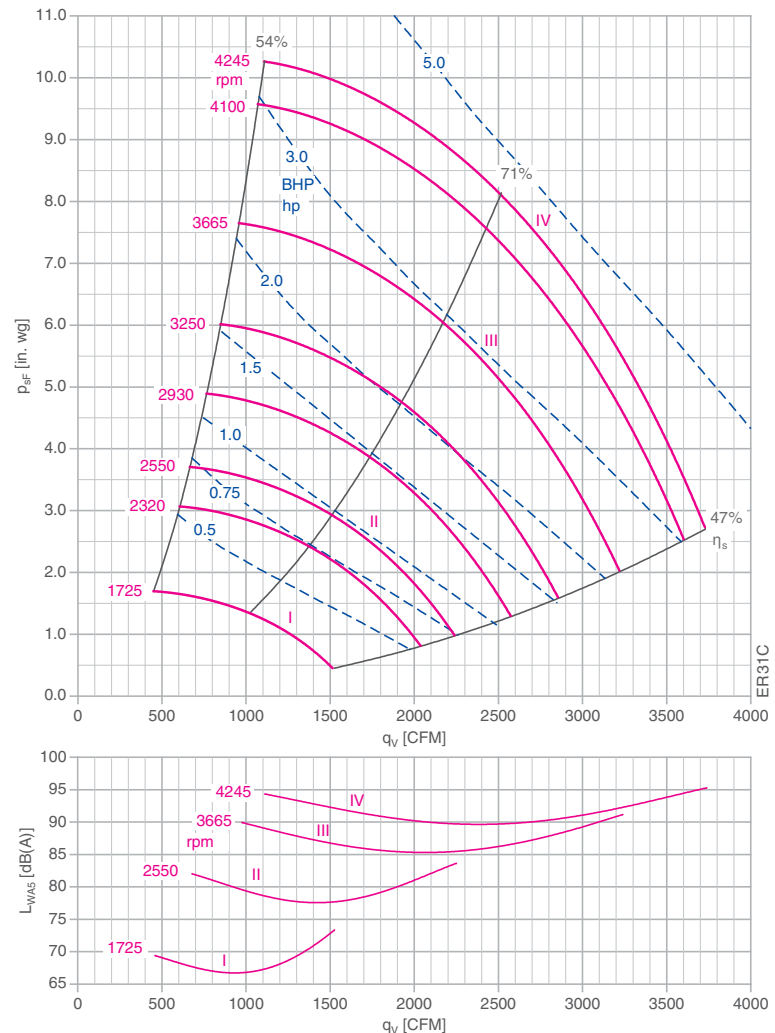
ER31C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve ER..C



- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

The CRP rating does not include ER31C

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
0.50	ER31C-4DM.B7.1R	112791/AS01	52
1.00	ER31C-4DM.C7.1R	112793/AS03	66
1.50	ER31C-4DM.D7.1R	112794/AS03	77
2.00	ER31C-4DM.D7.1R	112795/AS03	76
3.00	ER31C-2DM.D7.1R	112796/AS03	80
5.00	ER31C-2DM.E7.1R	112797/AS03	109

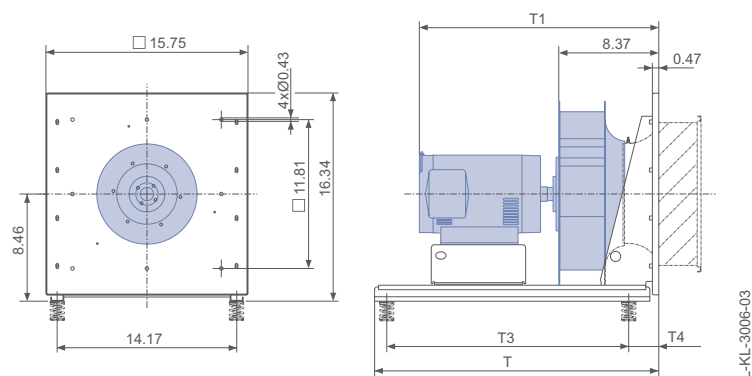


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
0.50	ER31C-4DM.B7.1R	056	I	1725	1.00	1725	60
1.00	ER31C-4DM.C7.1R	143T	II	1760	1.50	2550	89
1.50	ER31C-4DM.D7.1R	145T		1755	2.20	2610	89
2.00	ER31C-4DM.D7.1R	145T		1725	2.70	2610	90
3.00	ER31C-2DM.D7.1R	145T	III	3450	3.70	3665	64
5.00	ER31C-2DM.E7.1R	182T	IV	3450	6.00	4245	74

Dimensions in Inch

Plenum fan ER in installation position H

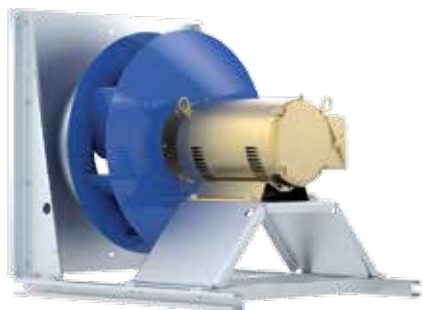


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
0.50	ER31C-4DM.B7.1R	18.11	16.38	14.09	2.44	MSN 4	30x30 / 40
1.00	ER31C-4DM.C7.1R	18.11	17.63	13.23	3.70	MSN 4	30x30 / 55
1.50	ER31C-4DM.D7.1R	18.11	18.63	12.36	4.57	MSN 5	30x30 / 55
2.00	ER31C-4DM.D7.1R	18.11	18.63	12.36	4.57	MSN 5	30x30 / 55
3.00	ER31C-2DM.D7.1R	18.11	18.63	12.13	4.80	MSN 5	40x30 / 55
5.00	ER31C-2DM.E7.1R	22.44	20.64	18.90	2.44	MSN 5	40x30 / 55

Plenum fan C-Series

Motor PEM

ER35C

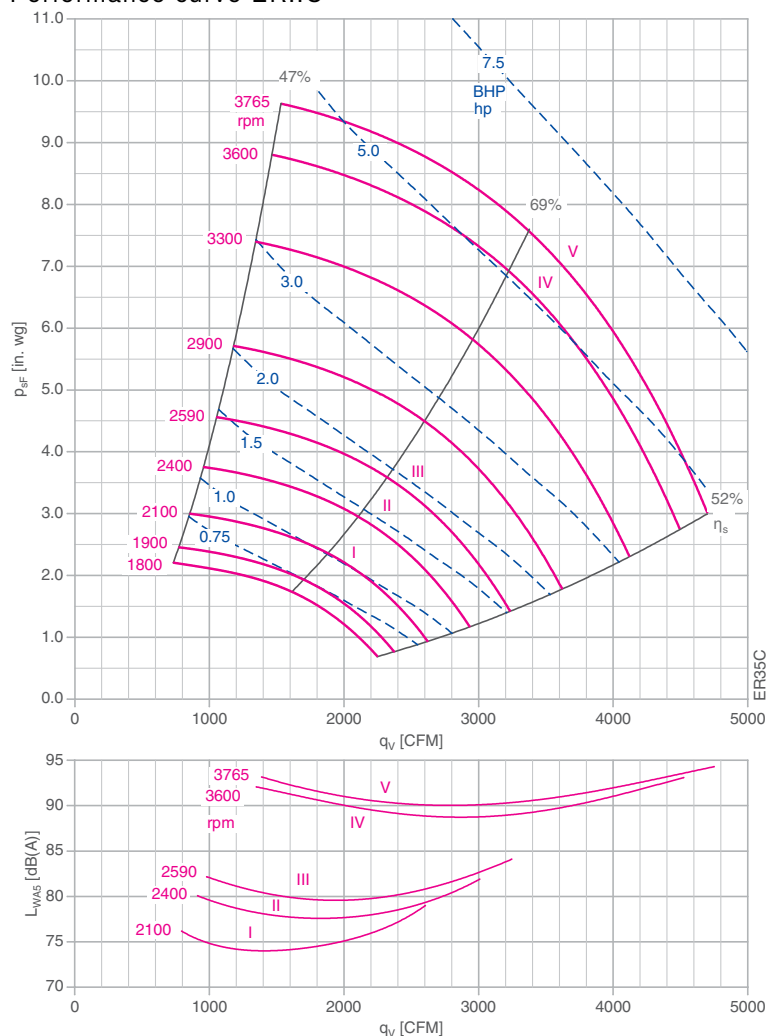


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
1.00	ER35C-4DM.C7.1R	112799/AS03	75
1.50	ER35C-4DM.D7.1R	112800/AS03	79
2.00	ER35C-4DM.D7.1R	112801/AS03	86
5.00	ER35C-2DM.E7.1R	112803/AS03	118
7.50	ER35C-2DM.F7.1R	112804/AS03	127

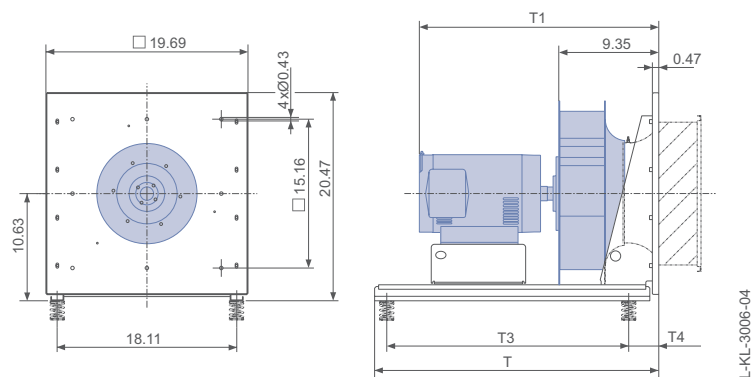


Technical data

Rated power P_N [hp]	Type	Motor size	Performance curve no.	Rated speed n_N [rpm]	Rated current I_N [A]	Max. speed n_{max} [rpm]	Max. frequency f_{max} Hz
1.00	ER35C-4DM.C7.1R	143T	I	1760	1.50	2100	73
1.50	ER35C-4DM.D7.1R	145T	II	1755	2.20	2400	83
2.00	ER35C-4DM.D7.1R	145T	III	1725	2.70	2590	90
5.00	ER35C-2DM.E7.1R	182T	IV	3450	6.00	3600	63
7.50	ER35C-2DM.F7.1R	184T	V	3470	8.00	3765	65

Dimensions in Inch

Plenum fan ER in installation position H

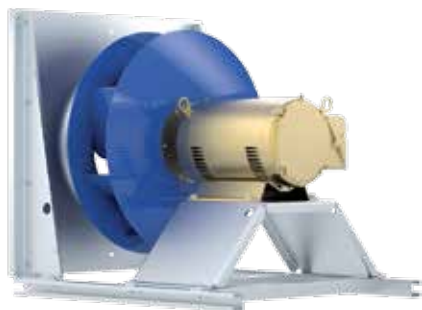


Rated power P_N [hp]		T	T1	T3	T4	Spring damper	Rubber damper
		inch	inch	inch	inch		
1.00	ER35C-4DM.C7.1R	22.44	18.52	17.48	1.81	MSN 5	30x30 / 55
1.50	ER35C-4DM.D7.1R	22.44	19.02	18.19	1.81	MSN 5	30x30 / 55
2.00	ER35C-4DM.D7.1R	22.44	19.52	18.43	1.81	MSN 5	30x30 / 55
5.00	ER35C-2DM.E7.1R	22.44	21.53	17.64	3.23	MSN 6	40x30 / 55
7.50	ER35C-2DM.F7.1R	22.44	21.90	17.56	3.70	MSN 6	40x30 / 55

Plenum fan C-Series

Motor PEM

ER40C

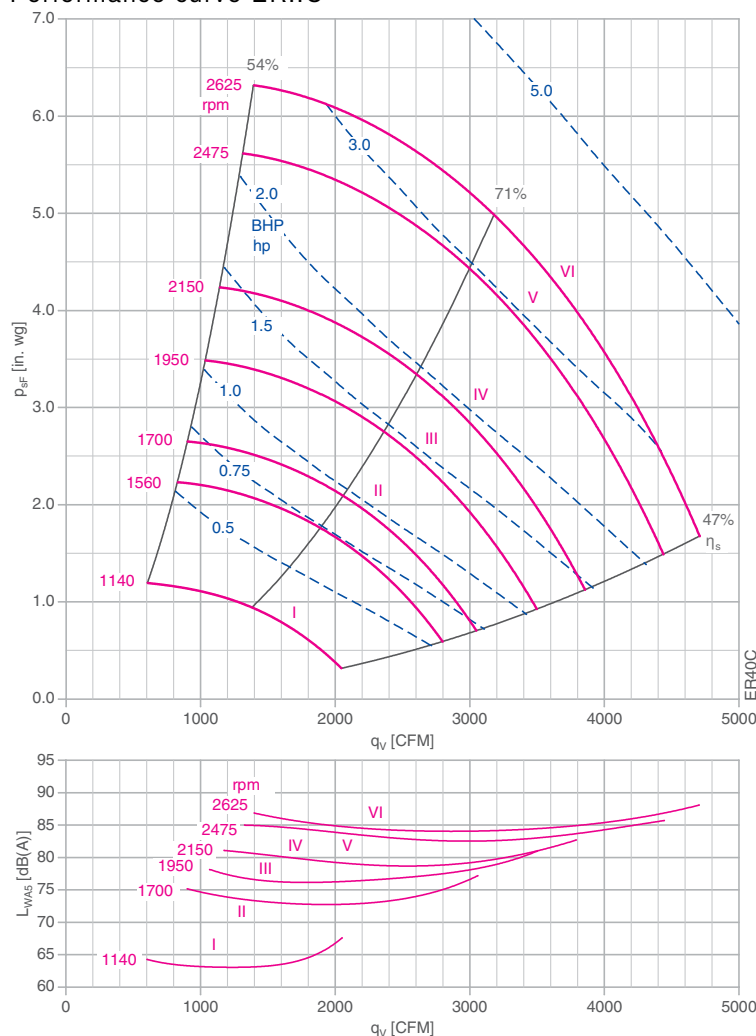


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
0.75	ER40C-6DM.C7.1R	112805/AS01	80
1.00	ER40C-6DM.D7.1R	112806/AS03	90
1.50	ER40C-4DM.D7.1R	112807/AS03	87
2.00	ER40C-4DM.D7.1R	112808/AS03	93
3.00	ER40C-4DM.E7.1R	112809/AS03	118
5.00	ER40C-4DM.F7.1R	112810/AS03	123

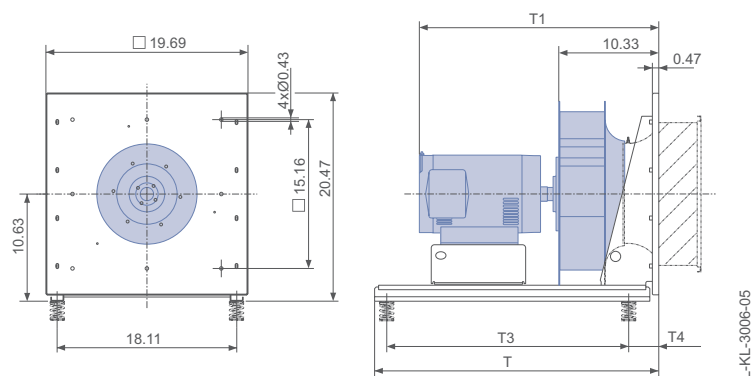


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
0.75	ER40C-6DM.C7.1R	143T	I	1140	1.50	1140	60
1.00	ER40C-6DM.D7.1R	145T	II	1150	1.80	1700	89
1.50	ER40C-4DM.D7.1R	145T	III	1755	2.20	1950	67
2.00	ER40C-4DM.D7.1R	145T	IV	1725	2.70	2150	75
3.00	ER40C-4DM.E7.1R	182T	V	1755	4.00	2475	86
5.00	ER40C-4DM.F7.1R	184T	VI	1750	6.60	2625	90

Dimensions in Inch

Plenum fan ER in installation position H

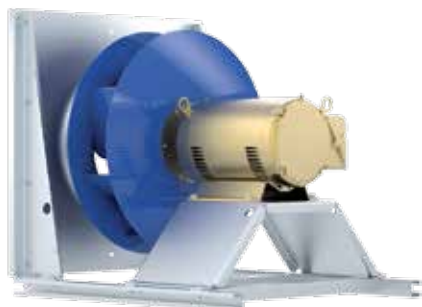


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
0.75	ER40C-6DM.C7.1R	22.44	20.74	17.48	1.81	MSN 5	30x30 / 40
1.00	ER40C-6DM.D7.1R	22.44	20.54	18.58	1.81	MSN 5	30x30 / 40
1.50	ER40C-4DM.D7.1R	22.44	20.04	18.66	1.81	MSN 5	30x30 / 40
2.00	ER40C-4DM.D7.1R	22.44	20.54	18.90	1.81	MSN 5	30x30 / 40
3.00	ER40C-4DM.E7.1R	22.44	22.55	16.69	4.17	MSN 6	30x30 / 55
5.00	ER40C-4DM.F7.1R	22.44	22.92	16.93	4.33	MSN 6	30x30 / 55

Plenum fan C-Series

Motor PEM

ER45C

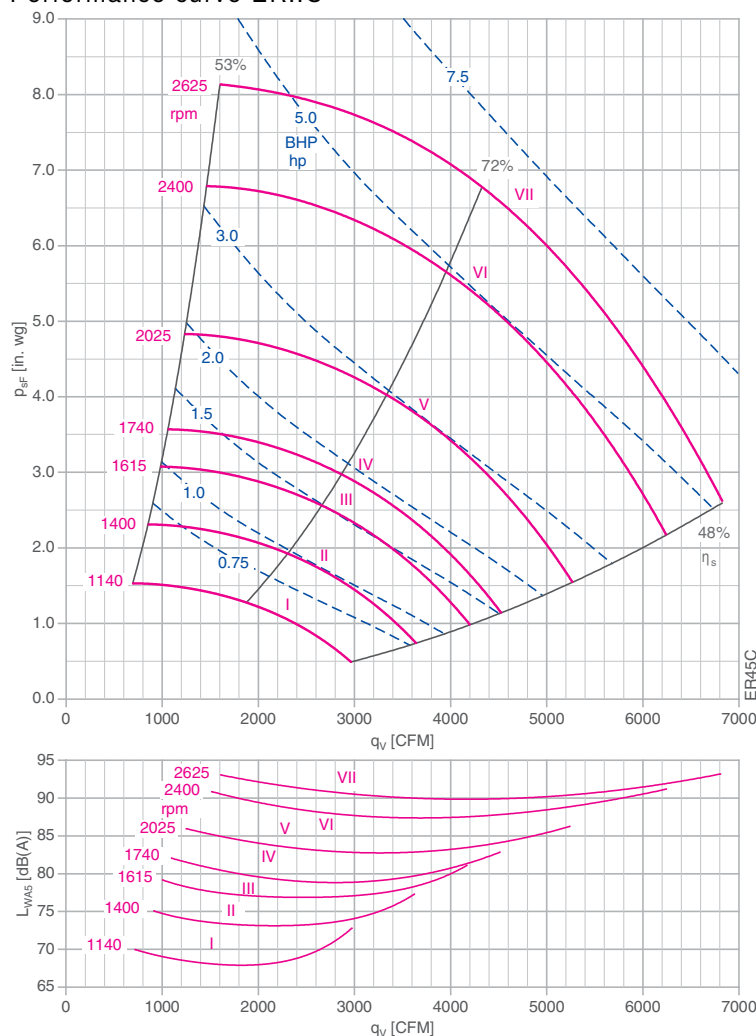


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
0.75	ER45C-6DM.C7.1R	112812/AS01	103
1.00	ER45C-6DM.D7.1R	112813/AS03	113
1.50	ER45C-6DM.E7.1R	112814/AS03	146
2.00	ER45C-6DM.F7.1R	112815/AS03	157
3.00	ER45C-4DM.E7.1R	112816/AS03	141
5.00	ER45C-4DM.F7.1R	112817/AS03	147
7.50	ER45C-4DM.G7.1R	112818/AS03	192

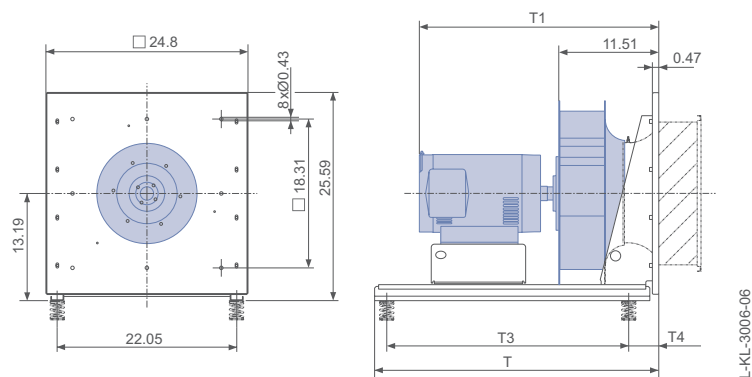


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
0.75	ER45C-6DM.C7.1R	143T	I	1140	1.50	1140	60
1.00	ER45C-6DM.D7.1R	145T	II	1150	1.80	1400	74
1.50	ER45C-6DM.E7.1R	182T	III	1170	2.60	1615	84
2.00	ER45C-6DM.F7.1R	184T	IV	1170	3.50	1740	90
3.00	ER45C-4DM.E7.1R	182T	V	1755	4.00	2025	70
5.00	ER45C-4DM.F7.1R	184T	VI	1750	6.60	2400	82
7.50	ER45C-4DM.G7.1R	213T	VII	1770	9.70	2625	90

Dimensions in Inch

Plenum fan ER in installation position H

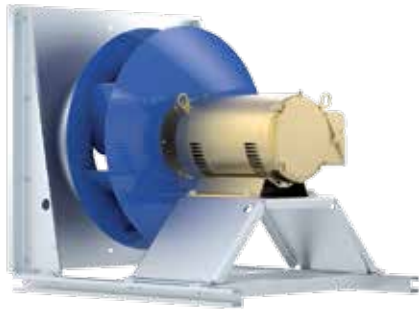


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
0.75	ER45C-6DM.C7.1R	22.44	22.14	18.11	1.73	MSN 5	30x30 / 40
1.00	ER45C-6DM.D7.1R	22.44	21.94	19.13	1.73	MSN 5	30x30 / 40
1.50	ER45C-6DM.E7.1R	28.35	24.32	22.36	1.73	MSN 6	30x30 / 55
2.00	ER45C-6DM.F7.1R	28.35	24.32	22.60	1.73	MSN 6	30x30 / 55
3.00	ER45C-4DM.E7.1R	28.35	23.95	22.05	1.81	MSN 6	30x30 / 55
5.00	ER45C-4DM.F7.1R	28.35	24.32	22.60	1.81	MSN 6	30x30 / 55
7.50	ER45C-4DM.G7.1R	28.35	25.69	24.33	2.83	MSN 6	40x30 / 55

Plenum fan C-Series

Motor PEM

ER50C

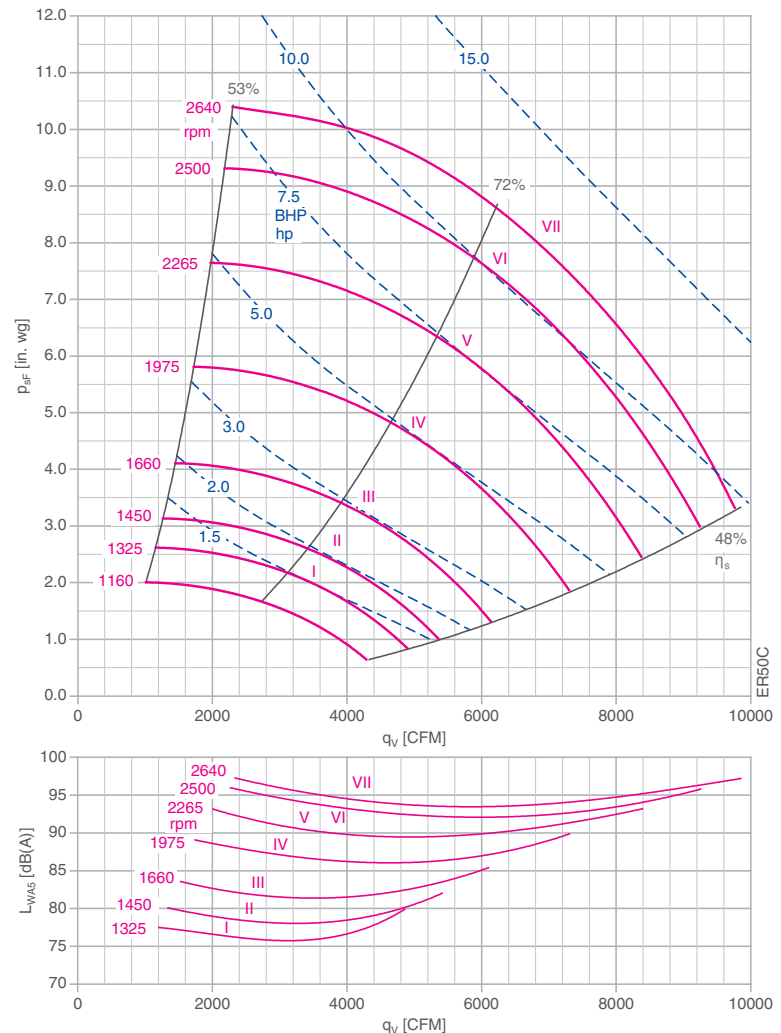


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
1.50	ER50C-6DM.E7.1R	112820/AS03	158
2.00	ER50C-6DM.F7.1R	112821/AS03	169
3.00	ER50C-6DM.G7.1R	112822/AS03	203
5.00	ER50C-4DM.F7.1R	112823/AS03	158
7.50	ER50C-4DM.G7.1R	112824/AS03	203
10.00	ER50C-4DM.H7.1R	112825/AS03	227
15.00	ER50C-4DM.I7.1R	112826/AS03	314

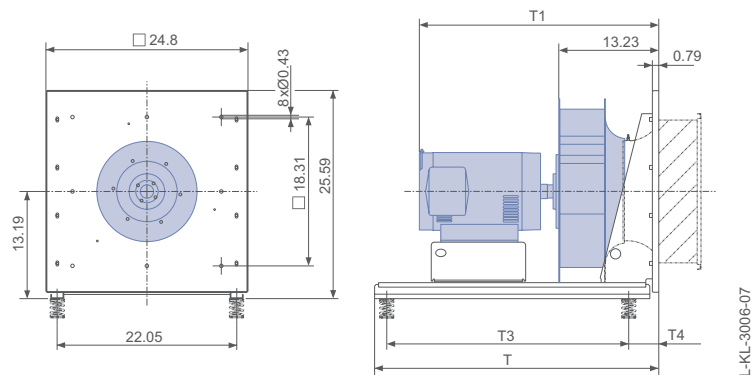


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
1.50	ER50C-6DM.E7.1R	182T	I	1170	2.60	1325	69
2.00	ER50C-6DM.F7.1R	184T	II	1170	3.50	1450	75
3.00	ER50C-6DM.G7.1R	213T	III	1160	4.40	1660	86
5.00	ER50C-4DM.F7.1R	184T	IV	1750	6.60	1975	68
7.50	ER50C-4DM.G7.1R	213T	V	1770	9.70	2265	78
10.00	ER50C-4DM.H7.1R	215T	VI	1770	12.50	2500	85
15.00	ER50C-4DM.I7.1R	254T	VII	1765	17.70	2640	90

Dimensions in Inch

Plenum fan ER in installation position H

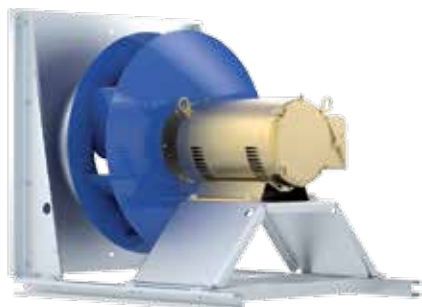


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
1.50	ER50C-6DM.E7.1R	28.66	25.95	23.62	1.97	MSN 6	30x30 / 40
2.00	ER50C-6DM.F7.1R	28.66	25.95	23.86	1.97	MSN 6	30x30 / 40
3.00	ER50C-6DM.G7.1R	28.66	26.64	23.07	4.49	MSN 7	30x30 / 55
5.00	ER50C-4DM.F7.1R	28.66	25.95	23.94	2.05	MSN 6	30x30 / 55
7.50	ER50C-4DM.G7.1R	28.66	27.32	24.02	3.94	MSN 7	30x30 / 55
10.00	ER50C-4DM.H7.1R	28.66	26.64	22.83	5.12	MSN 7	40x30 / 55
15.00	ER50C-4DM.I7.1R	34.96	30.20	29.76	3.70	MSN 7	40x30 / 55

Plenum fan C-Series

Motor PEM

ER56C

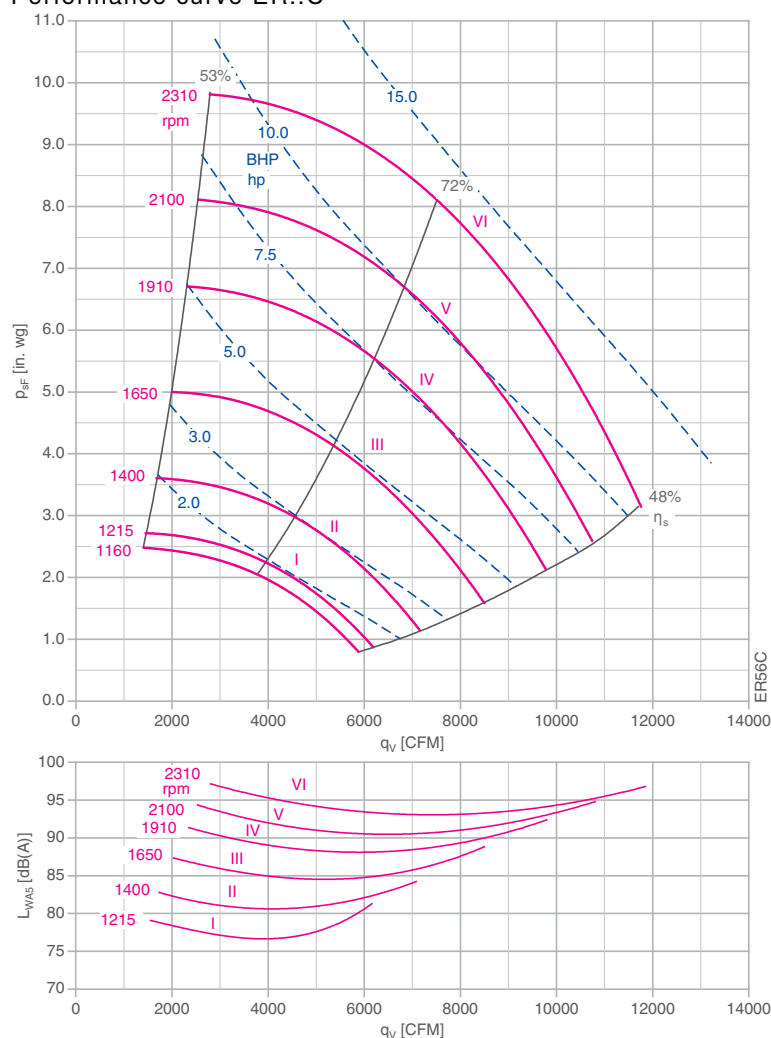


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
2.00	ER56C-6DM.F7.1R	112827/AS03	194
3.00	ER56C-6DM.G7.1R	112828/AS03	227
5.00	ER56C-6DM.H7.1R	112829/AS03	241
7.50	ER56C-4DM.G7.1R	112830/AS03	227
10.00	ER56C-4DM.H7.1R	112831/AS03	251
15.00	ER56C-4DM.I7.1R	112832/AS03	344

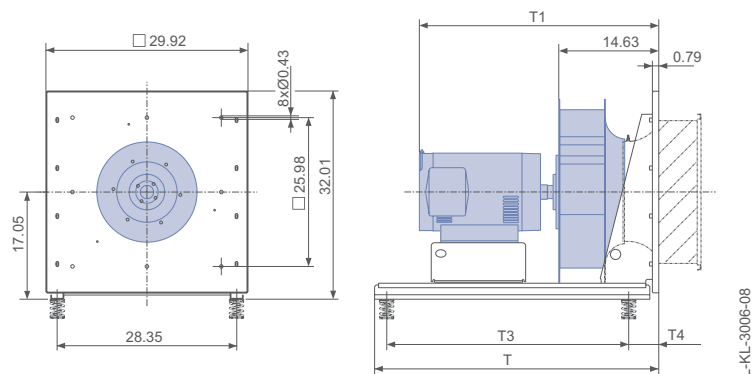


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
2.00	ER56C-6DM.F7.1R	184T	I	1170	3.50	1215	63
3.00	ER56C-6DM.G7.1R	213T	II	1160	4.40	1400	72
5.00	ER56C-6DM.H7.1R	215T	III	1160	7.40	1650	85
7.50	ER56C-4DM.G7.1R	213T	IV	1770	9.70	1910	65
10.00	ER56C-4DM.H7.1R	215T	V	1770	12.50	2100	72
15.00	ER56C-4DM.I7.1R	254T	VI	1765	17.70	2310	79

Dimensions in Inch

Plenum fan ER in installation position H

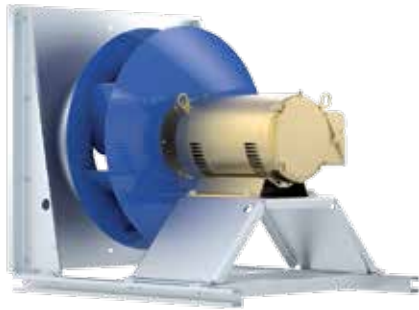


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
2.00	ER56C-6DM.F7.1R	28.35	27.21	24.57	1.69	MSN 7	30x30 / 55
3.00	ER56C-6DM.G7.1R	28.35	27.90	22.91	4.65	MSN 7	30x30 / 55
5.00	ER56C-6DM.H7.1R	28.35	27.90	22.36	5.20	SD 4	40x30 / 55
7.50	ER56C-4DM.G7.1R	28.35	28.58	23.07	4.49	MSN 7	30x30 / 55
10.00	ER56C-4DM.H7.1R	28.35	27.90	21.73	5.83	SD 4	40x30 / 55
15.00	ER56C-4DM.I7.1R	34.65	31.46	28.98	4.49	SD 4	40x30 / 55

Plenum fan C-Series

Motor PEM

ER63C

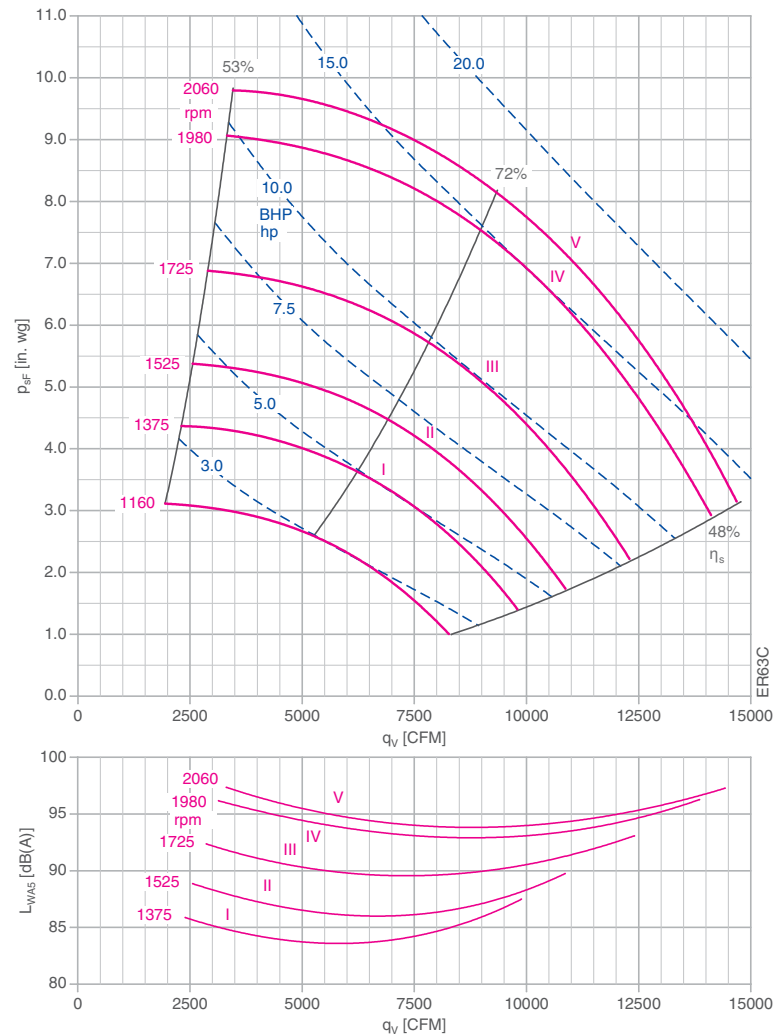


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
5.00	ER63C-6DM.H7.1R	112833/AS03	277
7.50	ER63C-6DM.I7.1R	112834/AS03	404
10.00	ER63C-6DM.K7.1R	112835/AS03	408
15.00	ER63C-4DM.I7.1R	112836/AS03	396
20.00	ER63C-4DM.K7.1R	112837/AS03	396

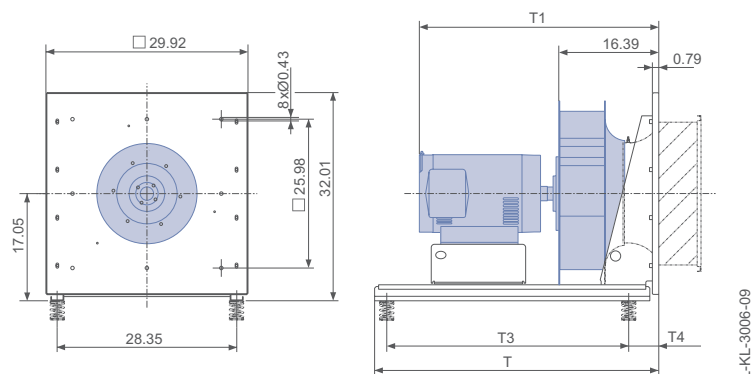


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
5.00	ER63C-6DM.H7.1R	215T	I	1160	7.40	1375	71
7.50	ER63C-6DM.I7.1R	254T	II	1180	10.70	1525	80
10.00	ER63C-6DM.K7.1R	256T	III	1180	14.30	1725	88
15.00	ER63C-4DM.I7.1R	254T	IV	1765	17.70	1980	68
20.00	ER63C-4DM.K7.1R	256T	V	1765	23.50	2060	70

Dimensions in Inch

Plenum fan ER in installation position H

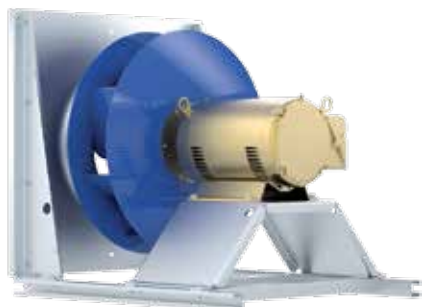


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
5.00	ER63C-6DM.H7.1R	34.65	29.46	30.87	1.69	MSN 7	30x30 / 55
7.50	ER63C-6DM.I7.1R	34.65	32.27	28.90	4.76	SD 4	40x30 / 55
10.00	ER63C-6DM.K7.1R	34.65	35.70	25.91	7.76	SD 4	40x40 / 55
15.00	ER63C-4DM.I7.1R	34.65	33.02	28.11	5.55	SD 4	40x30 / 55
20.00	ER63C-4DM.K7.1R	34.65	34.20	26.61	7.05	SD 4	40x30 / 55

Plenum fan C-Series

Motor PEM

ER71C

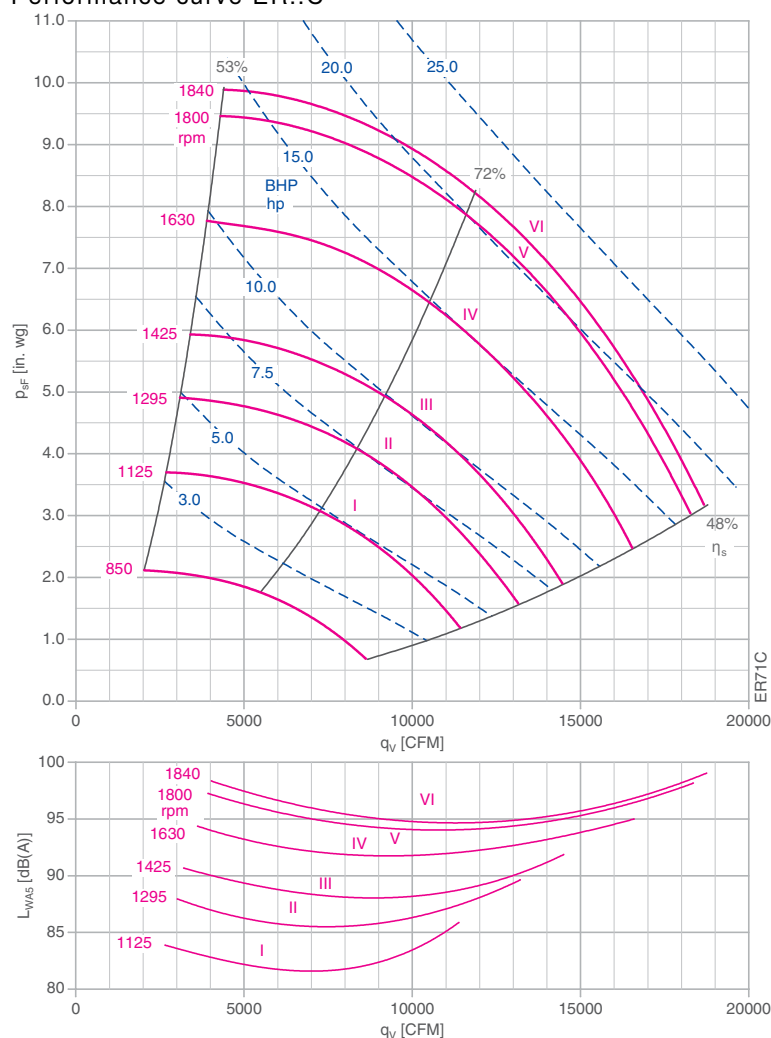


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
5.00	ER71C-8DM.I7.1R	112838/AS01	350
7.50	ER71C-6DM.I7.1R	112839/AS03	466
10.00	ER71C-6DM.K7.1R	112840/AS03	470
15.00	ER71C-6DM.L7.1R	112841/AS03	555
20.00	ER71C-4DM.K7.1R	112842/AS03	458
25.00	ER71C-4DM.L7.1R	112843/AS03	555

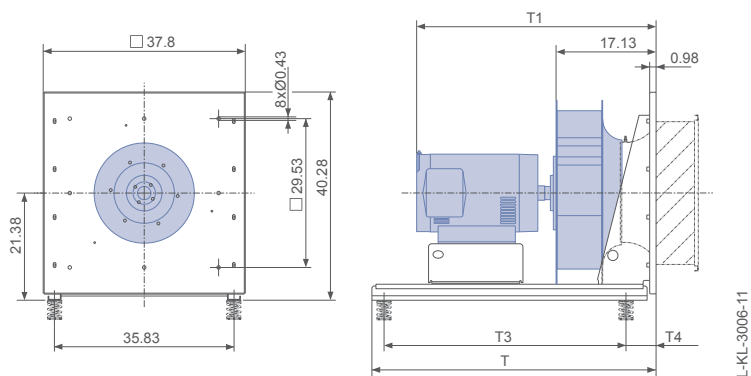


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
5.00	ER71C-8DM.I7.1R	254T	I	850	9.80	1125	79
7.50	ER71C-6DM.I7.1R	254T	II	1180	10.70	1295	68
10.00	ER71C-6DM.K7.1R	256T	III	1180	14.30	1425	72
15.00	ER71C-6DM.L7.1R	284T	IV	1180	20.00	1630	83
20.00	ER71C-4DM.K7.1R	256T	V	1765	23.50	1800	61
25.00	ER71C-4DM.L7.1R	284T	VI	1770	30.00	1840	63

Dimensions in Inch

Plenum fan ER in installation position H

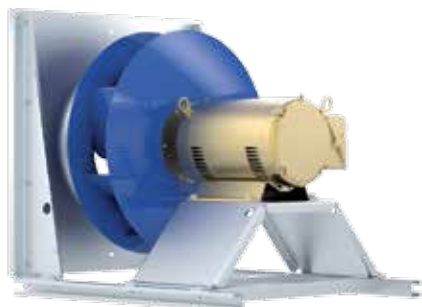


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
5.00	ER71C-8DM.I7.1R	41.14	34.28	33.86	2.36	SD 4	40x40 / 55
7.50	ER71C-6DM.I7.1R	41.14	34.28	35.20	2.36	SD 4	40x40 / 55
10.00	ER71C-6DM.K7.1R	41.14	37.71	36.69	3.07	SD 5	50x50 / 55
15.00	ER71C-6DM.L7.1R	41.14	39.83	33.70	6.06	SD 5	50x50 / 55
20.00	ER71C-4DM.K7.1R	41.14	36.21	37.40	2.36	SD 5	50x50 / 55
25.00	ER71C-4DM.L7.1R	41.14	37.33	34.80	4.96	SD 5	50x50 / 55

Plenum fan C-Series

Motor PEM

ER80C

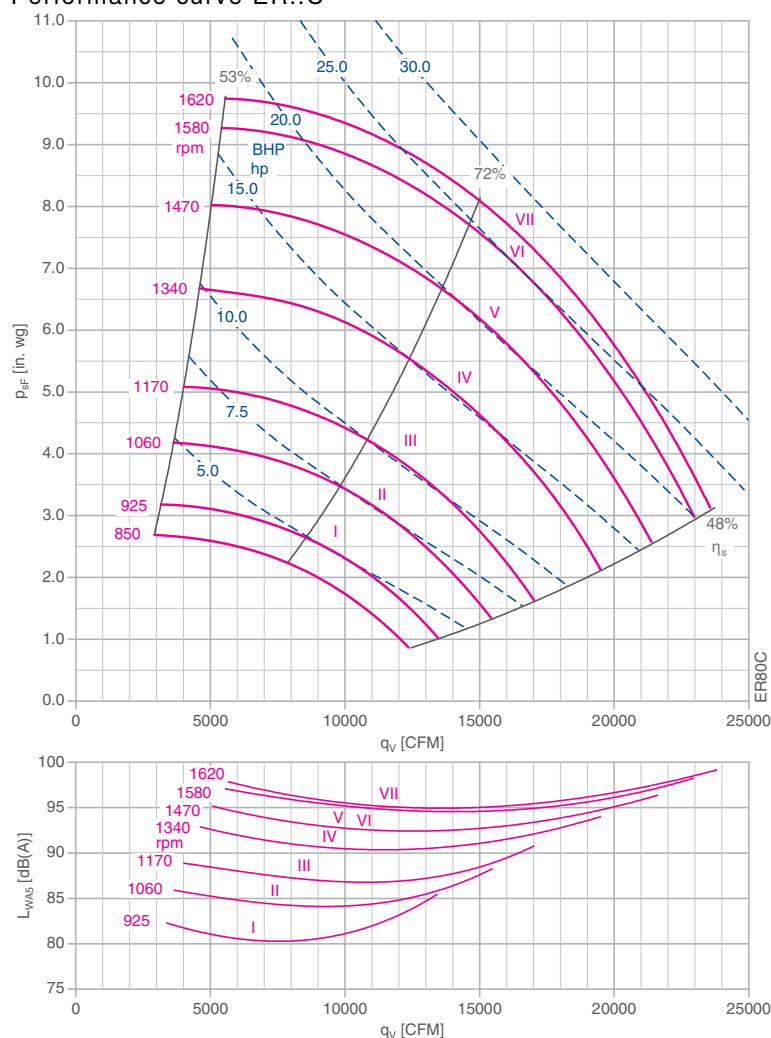


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

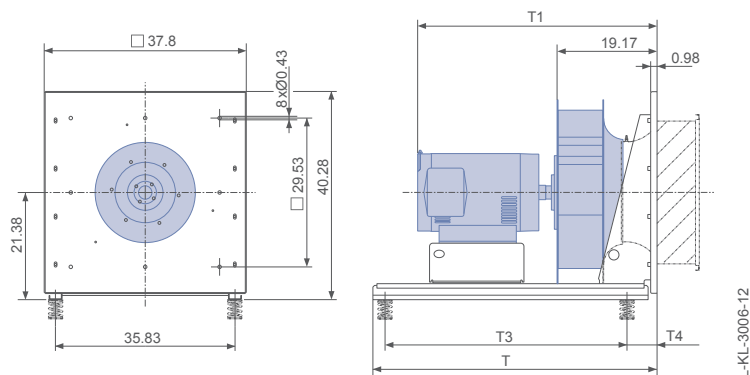
Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
5.00	ER80C-8DM.I7.1R	112844/AS01	410
7.50	ER80C-8DM.K7.1R	112845/AS01	488
10.00	ER80C-8DM.L7.1R	112846/AS01	628
15.00	ER80C-6DM.L7.1R	112847/AS03	615
20.00	ER80C-6DM.M7.1R	112848/AS03	657
25.00	ER80C-6DM.N7.1R	112849/AS03	763
30.00	ER80C-6DM.P7.1R	112850/AS03	759

Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
5.00	ER80C-8DM.I7.1R	254T	I	850	9.80	925	65
7.50	ER80C-8DM.K7.1R	256T	II	880	12.70	1060	73
10.00	ER80C-8DM.L7.1R	284T	III	870	13.90	1170	81
15.00	ER80C-6DM.L7.1R	284T	IV	1180	20.00	1340	68
20.00	ER80C-6DM.M7.1R	286T	V	1180	26.00	1470	75
25.00	ER80C-6DM.N7.1R	324T	VI	1180	70.70	1580	80
30.00	ER80C-6DM.P7.1R	326T	VII	1180	38.00	1620	82

Dimensions in Inch

Plenum fan ER in installation position H

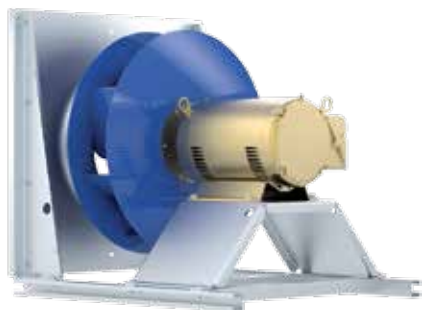


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
5.00	ER80C-8DM.I7.1R	41.14	36.32	34.57	2.36	SD 4	40x40 / 55
7.50	ER80C-8DM.K7.1R	41.14	38.26	36.46	3.31	SD 5	50x50 / 55
10.00	ER80C-8DM.L7.1R	41.14	43.70	31.50	8.27	SD 5	50x50 / 55
15.00	ER80C-6DM.L7.1R	41.14	41.88	32.76	7.01	SD 5	50x50 / 55
20.00	ER80C-6DM.M7.1R	41.14	42.38	30.79	8.98	SD 5	50x50 / 55
25.00	ER80C-6DM.N7.1R	41.14	42.51	29.61	10.16	SD 6	50x50 / 55
30.00	ER80C-6DM.P7.1R	41.14	43.01	29.76	10.00	SD 6	50x50 / 55

Plenum fan C-Series

Motor PEM

ER90C

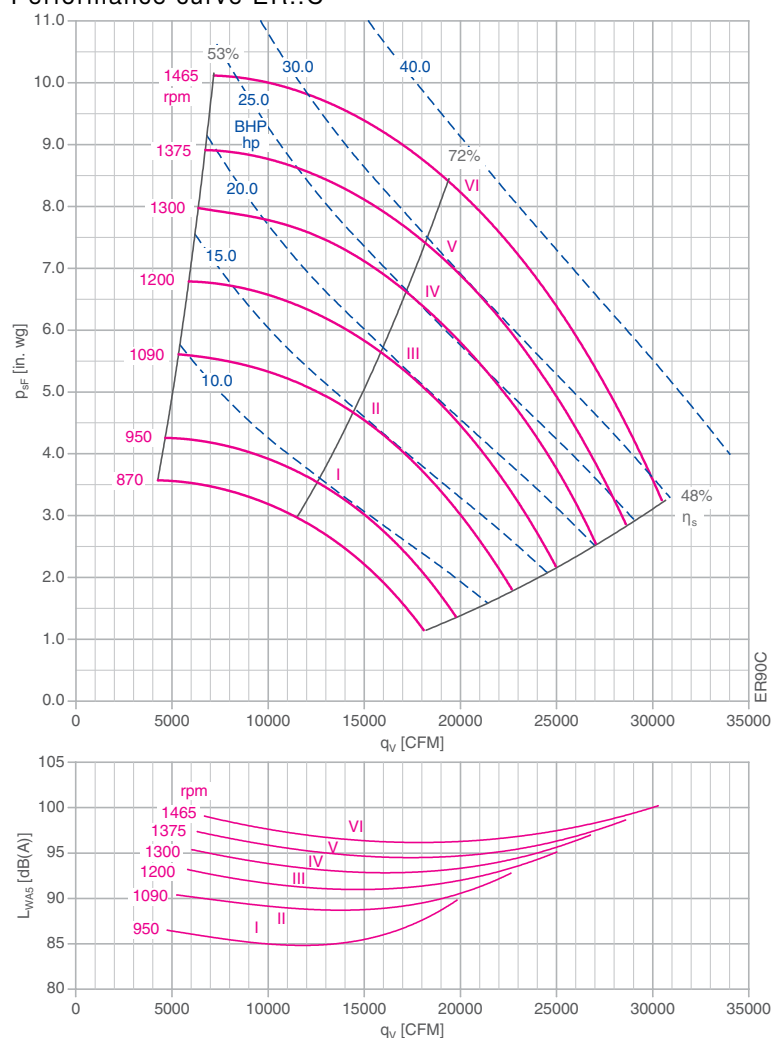


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
10.00	ER90C-8DM.L7.1R	112851/AS01	767
15.00	ER90C-8DM.M7.1R	112852/AS01	706
20.00	ER90C-6DM.M7.1R	112853/AS03	795
25.00	ER90C-6DM.N7.1R	112854/AS03	903
30.00	ER90C-6DM.P7.1R	112855/AS03	899
40.00	ER90C-6DM.R7.1R	112856/AS03	1258

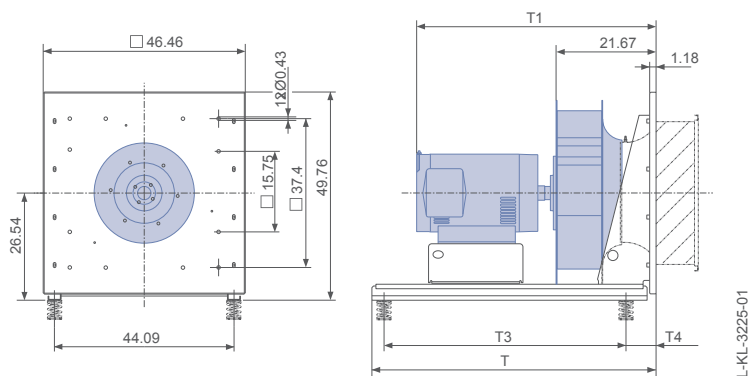


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
10.00	ER90C-8DM.L7.1R	284T	I	870	13.90	950	66
15.00	ER90C-8DM.M7.1R	286T	II	870	21.10	1090	75
20.00	ER90C-6DM.M7.1R	286T	III	1180	26.00	1200	61
25.00	ER90C-6DM.N7.1R	324T	IV	1180	70.70	1300	66
30.00	ER90C-6DM.P7.1R	326T	V	1180	38.00	1375	70
40.00	ER90C-6DM.R7.1R	364T	VI	1185	50.00	1465	75

Dimensions in Inch

Plenum fan ER in installation position H

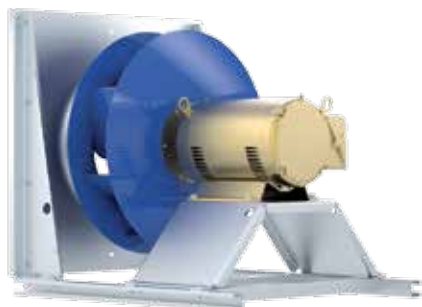


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
10.00	ER90C-8DM.L7.1R	45.67	46.20	39.69	4.80	SD 5	75x50 / 40
15.00	ER90C-8DM.M7.1R	45.67	46.20	41.18	3.31	SD 5	75x50 / 40
20.00	ER90C-6DM.M7.1R	45.67	44.88	38.90	5.59	SD 5	75x50 / 40
25.00	ER90C-6DM.N7.1R	45.67	45.01	37.87	6.61	SD 6	75x50 / 40
30.00	ER90C-6DM.P7.1R	45.67	45.51	38.03	6.46	SD 6	75x50 / 40
40.00	ER90C-6DM.R7.1R	51.97	45.75	45.35	5.24	SD 6	75x50 / 40

Plenum fan C-Series

Motor PEM

ER10C

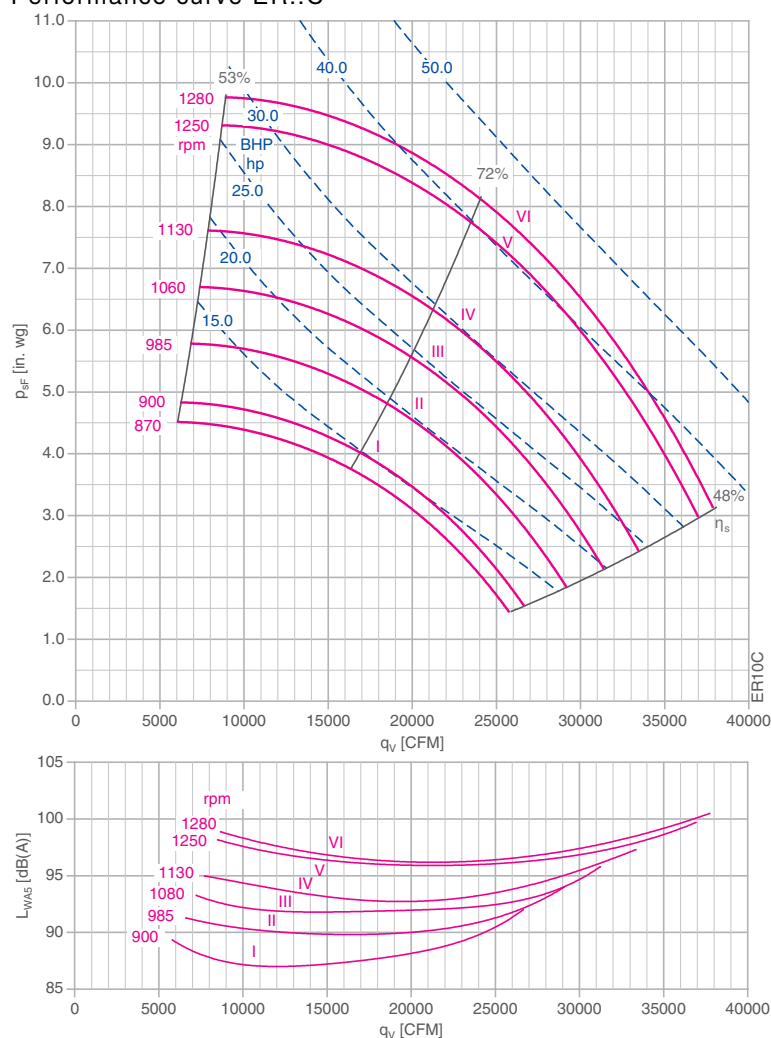


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve ER..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
15.00	ER10C-8DM.M7.1R	112857/AS21	801
20.00	ER10C-8DM.N7.1R	112858/AS21	1024
25.00	ER10C-8DM.P7.1R	112859/AS21	1053
30.00	ER10C-8DM.R7.1R	112860/AS21	1225
40.00	ER10C-6DM.R7.1R	112861/AS23	1354
50.00	ER10C-6DM.S7.1R	112862/AS23	1394

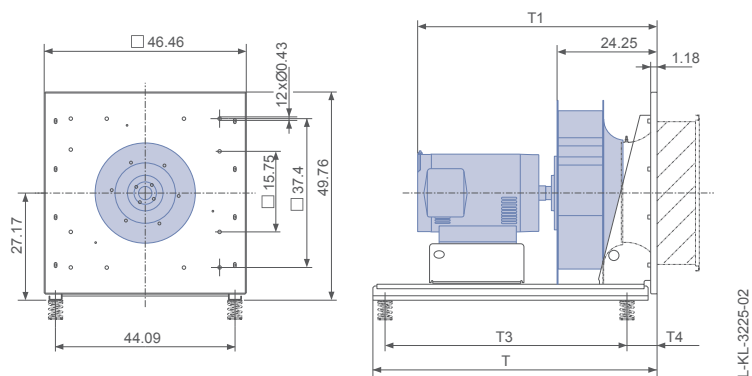


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
15.00	ER10C-8DM.M7.1R	286T	I	870	21.10	900	62
20.00	ER10C-8DM.N7.1R	324T	II	870	29.00	985	68
25.00	ER10C-8DM.P7.1R	326T	III	870	36.00	1060	73
30.00	ER10C-8DM.R7.1R	364T	IV	880	40.50	1130	80
40.00	ER10C-6DM.R7.1R	364T	V	1185	50.00	1250	64
50.00	ER10C-6DM.S7.1R	365T	VI	1185	62.00	1280	65

Dimensions in Inch

Plenum fan ER in installation position H

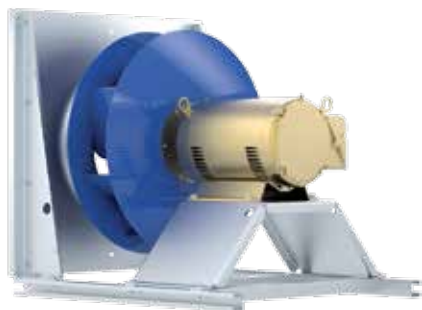


Rated power		T	T1	T3	T4	Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch		
15.00	ER10C-8DM.M7.1R	45.67	48.78	38.82	5.67	SD 5	75x50 / 40
20.00	ER10C-8DM.N7.1R	51.97	50.68	45.12	5.47	SD 6	75x50 / 40
25.00	ER10C-8DM.P7.1R	51.97	50.68	44.65	5.95	SD 6	75x50 / 40
30.00	ER10C-8DM.R7.1R	51.97	52.61	41.18	9.41	SD 6	75x50 / 40
40.00	ER10C-6DM.R7.1R	51.97	48.33	42.99	7.60	SD 6	75x50 / 40
50.00	ER10C-6DM.S7.1R	51.97	49.71	42.36	8.23	SD 7	75x50 / 40

Plenum fan C-Series

Motor PEM

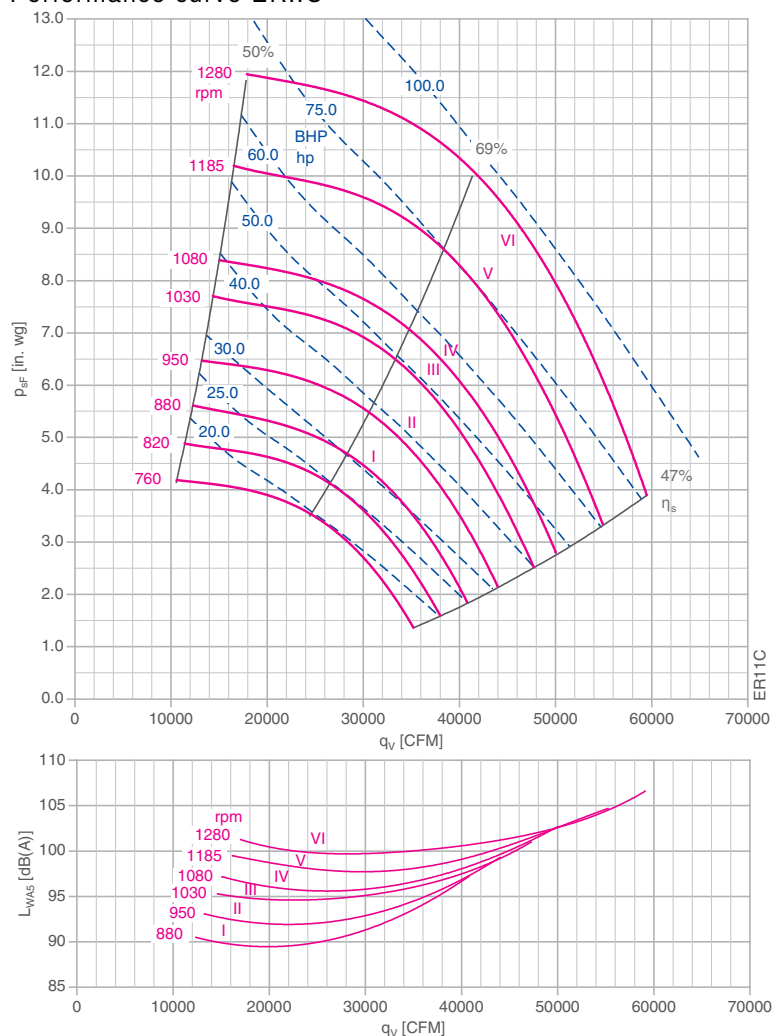
ER11C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve ER..C



- Connection diagram Page 134
- Suction guard grille Page 121
- Spring vibration dampers Page 122
- Rubber dampers Page 122
- Flexible air intakes Page 123

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings include the effects of spring dampers
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Basic version ER

Rated power P_N [hp]	Type ER..C	Article no. ER..C	max.
30.00	ER11C-8DM.R7.1R	114201/AS01	1671
40.00	ER11C-8DM.S7.1R	114202/AS01	1729
50.00	ER11C-8DM.T7.1R	114203/AS01	1973
60.00	ER11C-8DM.U7.1R	114204/AS01	2046
75.00	ER11C-6DM.U7.1R	114205/AS03	2139
100.00	ER11C-6DM.W7.1R	114206/AS03	2646

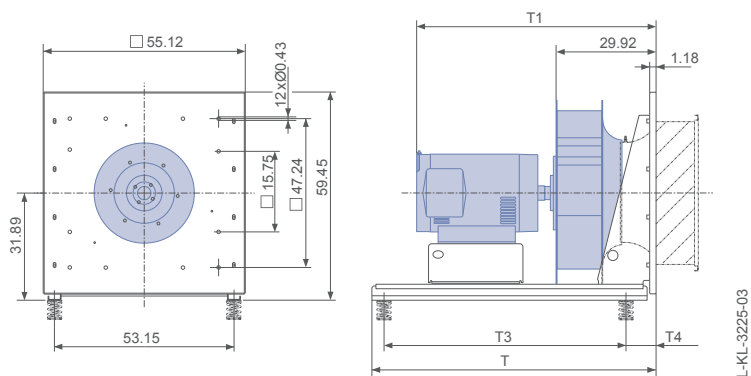


Technical data

Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
30.00	ER11C-8DM.R7.1R	364T	I	880	40.50	880	60
40.00	ER11C-8DM.S7.1R	365T	II	870	56.00	950	65
50.00	ER11C-8DM.T7.1R	404T	III	885	66.20	1030	70
60.00	ER11C-8DM.U7.1R	405T	IV	880	77.00	1080	74
75.00	ER11C-6DM.U7.1R	405T	V	1185	86.90	1185	60
100.00	ER11C-6DM.W7.1R	444T	VI	1185	116.00	1280	65

Dimensions in Inch

Plenum fan ER in installation position H



Rated power		T	T1	T3	T4		Spring damper	Rubber damper
P_N [hp]		inch	inch	inch	inch	inch		
30.00	ER11C-8DM.R7.1R	64.17	58.67	57.09	2.76		SD 6	75x50 / 55
40.00	ER11C-8DM.S7.1R	64.17	58.67	57.09	2.76		SD 7	75x50 / 55
50.00	ER11C-8DM.T7.1R	64.17	62.78	59.84	2.76		SD 8	75x50 / 55
60.00	ER11C-8DM.U7.1R	64.17	62.78	59.84	2.76		SD 8	75x50 / 55
75.00	ER11C-6DM.U7.1R	64.17	58.67	59.84	2.76		SD 8	75x50 / 55
100.00	ER11C-6DM.W7.1R	70.67	62.77	57.48	10.87	28.74	SD 8	100x75 / 40*



Ventilation unit GR..Cpro

Product overview

GR28Cpro / Size 11	Page 76
GR31Cpro / Size 12.5	Page 78
GR35Cpro / Size 14	Page 80
GR40Cpro / Size 16	Page 82
GR45Cpro / Size 18	Page 84
GR50Cpro / Size 20	Page 86
GR56Cpro / Size 22	Page 88
GR63Cpro / Size 25	Page 90

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

System
components

General notes

Ventilation unit Cpro-Series

Motor PEM

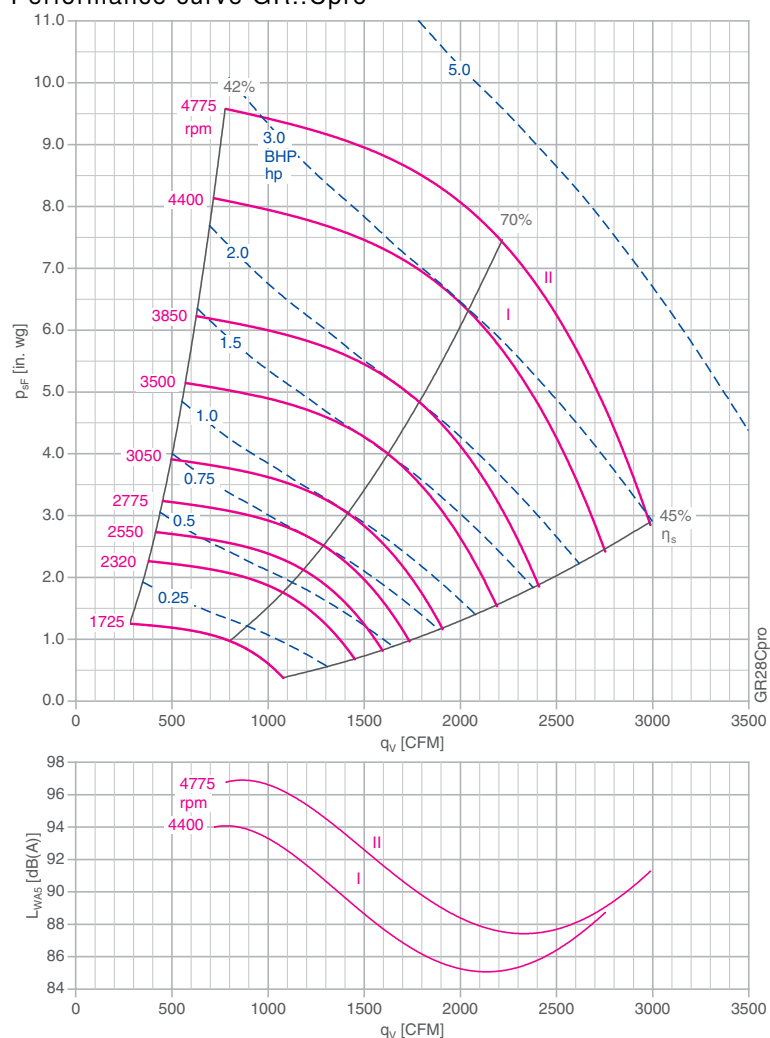
GR28Cpro



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve GR..Cpro



- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
1.00	GR28C-4DM.C2.CR	115187/HA03	62	115187/OA03	115187/UA03	60
3.00	GR28C-2DM.D2.CR	115188/HA03	73	115188/OA03	115188/UA03	71
5.00	GR28C-2DM.E2.CR	115189/HA03	90	115189/OA03	115189/UA03	88

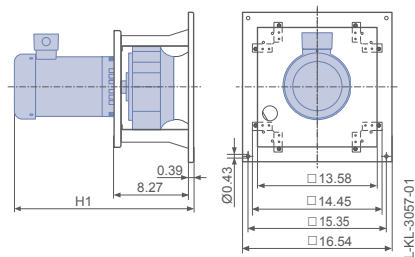


Technical data

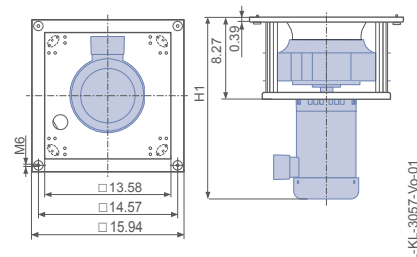
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
1.00	GR28C-4DM.C2.CR	143TC		1760	1.50	2640	90
3.00	GR28C-2DM.D2.CR	145TC	I	3450	3.80	4400	77
5.00	GR28C-2DM.E2.CR	182TC	II	3450	6.00	4775	83

Dimensions in Inch

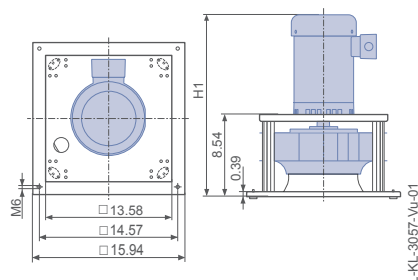
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power		Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
1.00	GR28C-4DM.C2.CR	17.81	17.52	17.52
3.00	GR28C-2DM.D2.CR	19.19	18.90	18.90
5.00	GR28C-2DM.E2.CR	19.32	19.03	19.03

Ventilation unit Cpro-Series

Motor PEM

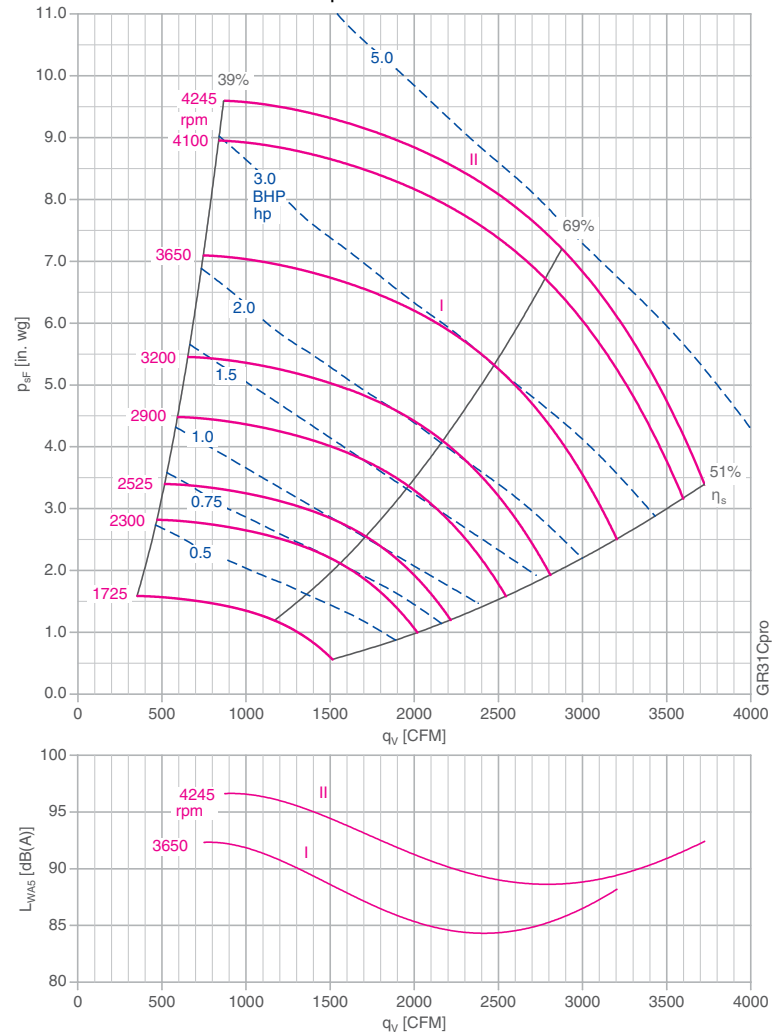
GR31Cpro



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve GR..Cpro



- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
1.00	GR31C-4DM.C2.CR	115190/HA03	68	115190/OA03	115190/UA03	64
3.00	GR31C-2DM.D2.CR	115191/HA03	79	115191/OA03	115191/UA03	75
5.00	GR31C-2DM.E2.CR	115192/HA03	97	115192/OA03	115192/UA03	93

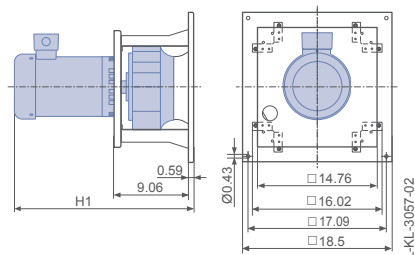


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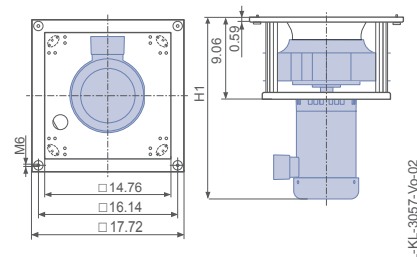
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
1.00	GR31C-4DM.C2.CR	143TC		1760	1.50	2610	89
3.00	GR31C-2DM.D2.CR	145TC	I	3450	3.80	3650	64
5.00	GR31C-2DM.E2.CR	182TC	II	3450	6.00	4245	75

Dimensions in Inch

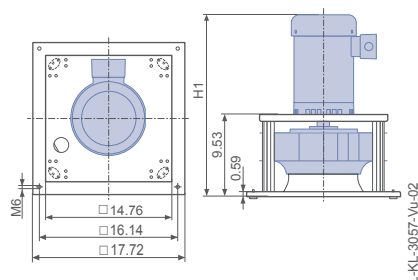
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power		Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
1.00	GR31C-4DM.C2.CR	18.82	18.33	18.33
3.00	GR31C-2DM.D2.CR	20.20	19.70	19.70
5.00	GR31C-2DM.E2.CR	20.33	19.83	19.83

Ventilation unit Cpro-Series

Motor PEM

GR35Cpro

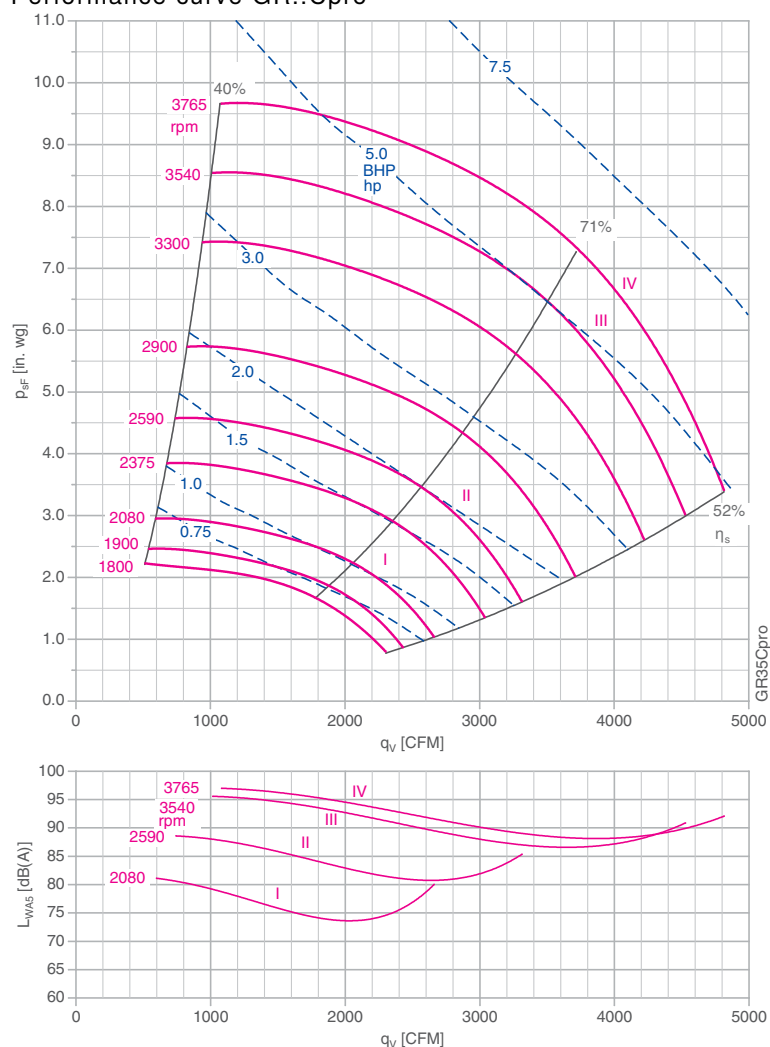


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve GR..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H			Installation position Vo		
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
1.00	GR35C-4DM.C2.CR	115193/HA03	75	115193/OA03	115193/UA03	71
2.00	GR35C-4DM.D2.CR	115194/HA03	77	115194/OA03	115194/UA03	73
5.00	GR35C-2DM.E2.CR	115195/HA03	104	115195/OA03	115195/UA03	99
7.50	GR35C-2DM.F2.CR	115196/HA03	117	115196/OA03	115196/UA03	112

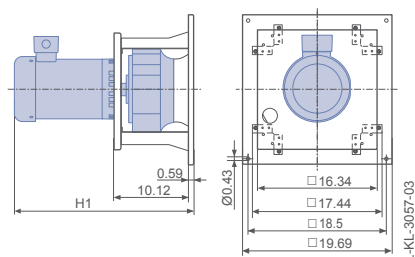


Technical data

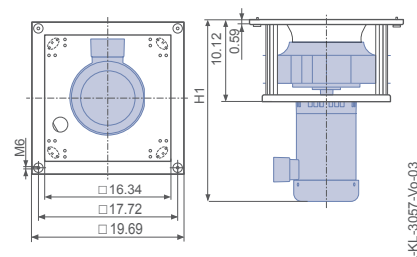
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
1.00	GR35C-4DM.C2.CR	143TC	I	1760	1.50	2080	70
2.00	GR35C-4DM.D2.CR	145TC	II	1750	2.90	2590	88
5.00	GR35C-2DM.E2.CR	182TC	III	3450	6.00	3540	61
7.50	GR35C-2DM.F2.CR	184TC	IV	3450	8.60	3765	65

Dimensions in Inch

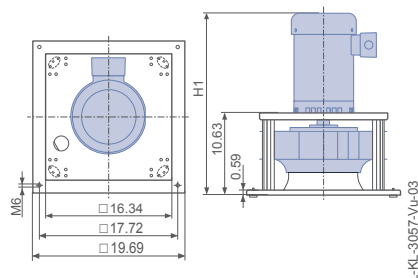
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power		Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
1.00	GR35C-4DM.C2.CR	19.70	19.21	19.21
2.00	GR35C-4DM.D2.CR	20.20	19.71	19.71
5.00	GR35C-2DM.E2.CR	21.21	20.72	20.72
7.50	GR35C-2DM.F2.CR	22.59	22.10	22.10

Ventilation unit Cpro-Series

Motor PEM

GR40Cpro

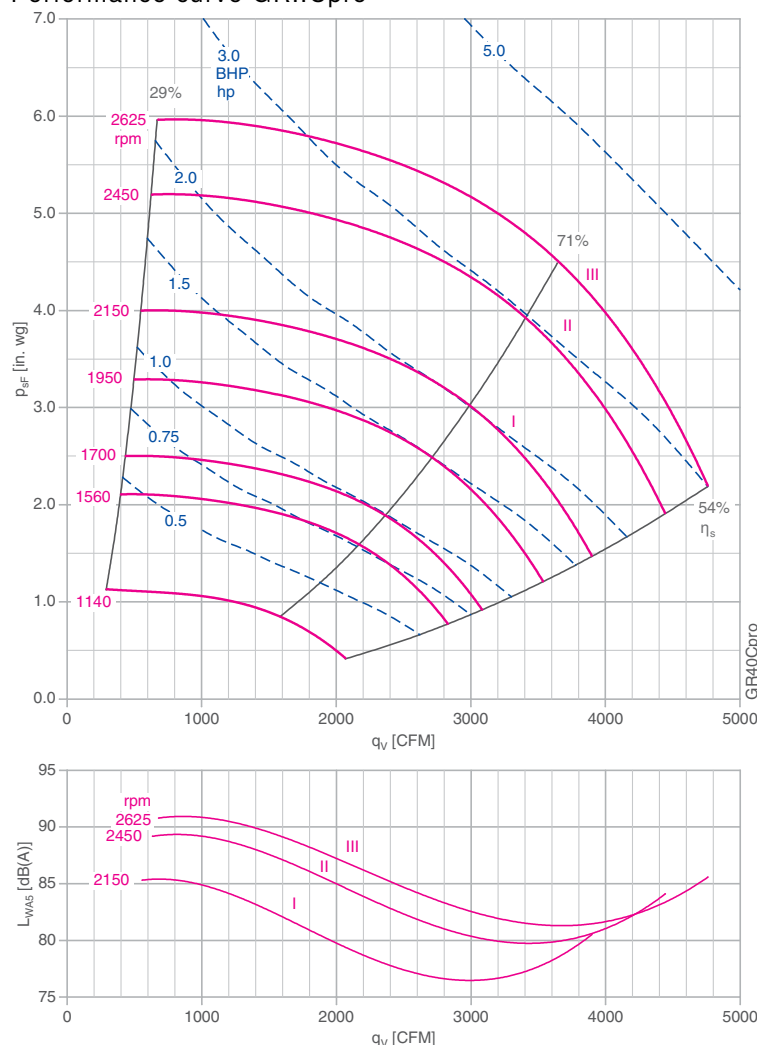


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: ZAmid Technology RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve GR..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H			Installation position Vo		
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
2.00	GR40C-4DM.D2.CR	115197/HA03	93	115197/OA03	115197/UA03	88
3.00	GR40C-4DM.E2.CR	115198/HA03	128	115198/OA03	115198/UA03	123
5.00	GR40C-4DM.F2.CR	115199/HA03	141	115199/OA03	115199/UA03	137

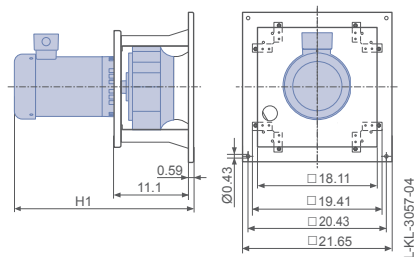


Technical data

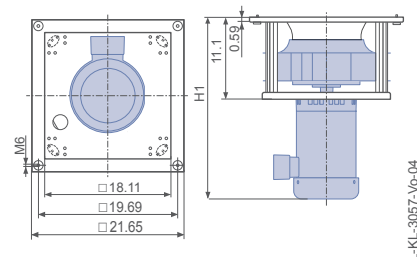
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
2.00	GR40C-4DM.D2.CR	145TC	I	1750	2.90	2150	73
3.00	GR40C-4DM.E2.CR	182TC	II	1765	4.20	2450	84
5.00	GR40C-4DM.F2.CR	184TC	III	1750	6.60	2625	90

Dimensions in Inch

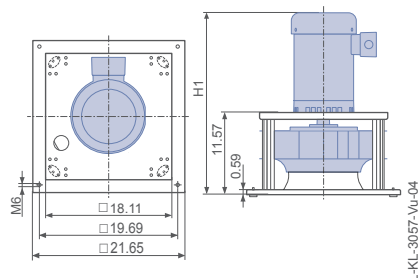
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power		Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
2.00	GR40C-4DM.D2.CR	21.25	20.77	20.77
3.00	GR40C-4DM.E2.CR	23.64	23.16	23.16
5.00	GR40C-4DM.F2.CR	25.14	24.66	24.66

Ventilation unit Cpro-Series

Motor PEM

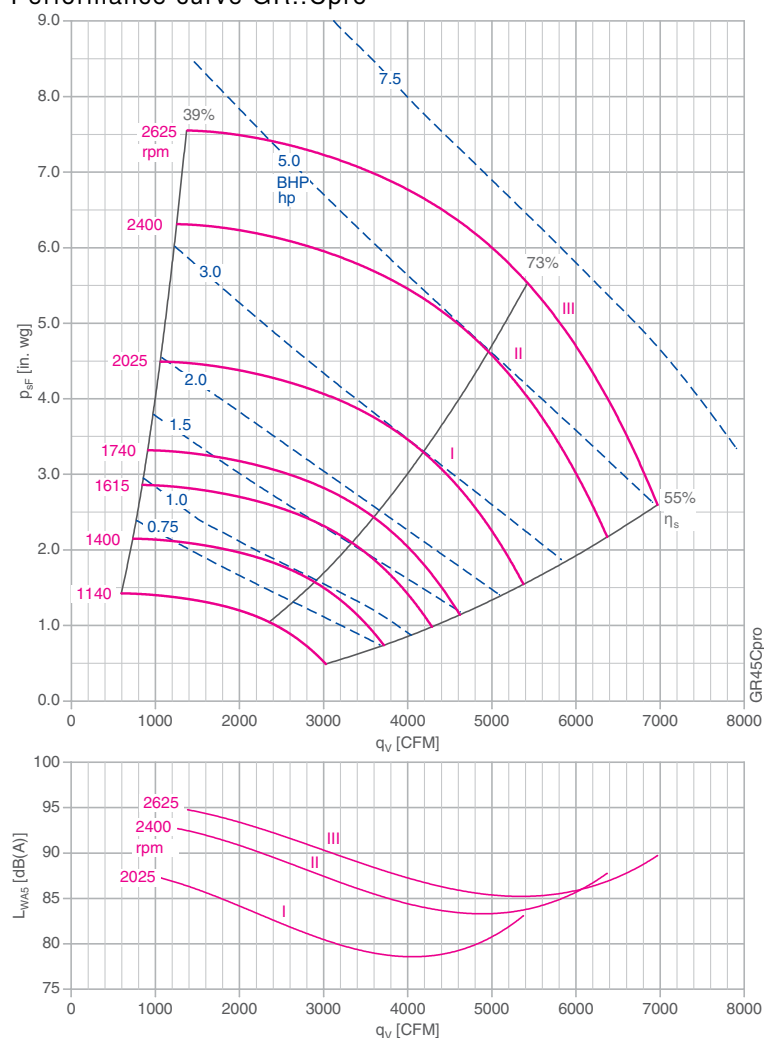
GR45Cpro



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve GR..Cpro



- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
3.00	GR45C-4DM.E2.CR	115200/HA03	148	115200/OA03	115200/UA03	139
5.00	GR45C-4DM.F2.CR	115201/HA03	161	115201/OA03	115201/UA03	152
7.50	GR45C-4DM.G2.CR	115202/HA03	187	115202/OA03	115202/UA03	181

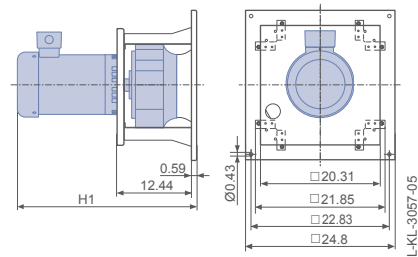


Technical data

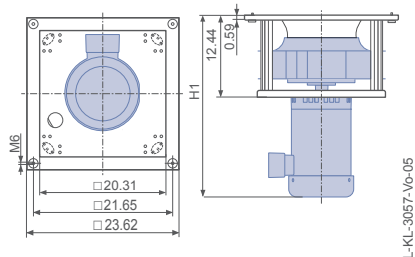
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
3.00	GR45C-4DM.E2.CR	182TC	I	1765	4.20	2025	68
5.00	GR45C-4DM.F2.CR	184TC	II	1750	6.60	2400	82
7.50	GR45C-4DM.G2.CR	213TC	III	1770	9.70	2625	90

Dimensions in Inch

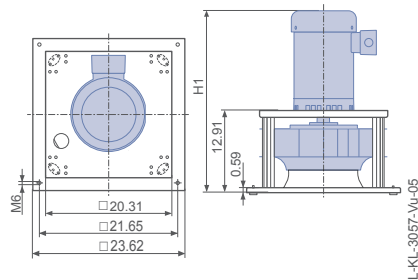
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power		Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
3.00	GR45C-4DM.E2.CR	25.00	24.52	24.52
5.00	GR45C-4DM.F2.CR	26.49	26.02	26.02
7.50	GR45C-4DM.G2.CR	26.54	26.07	26.07

Ventilation unit Cpro-Series

Motor PEM

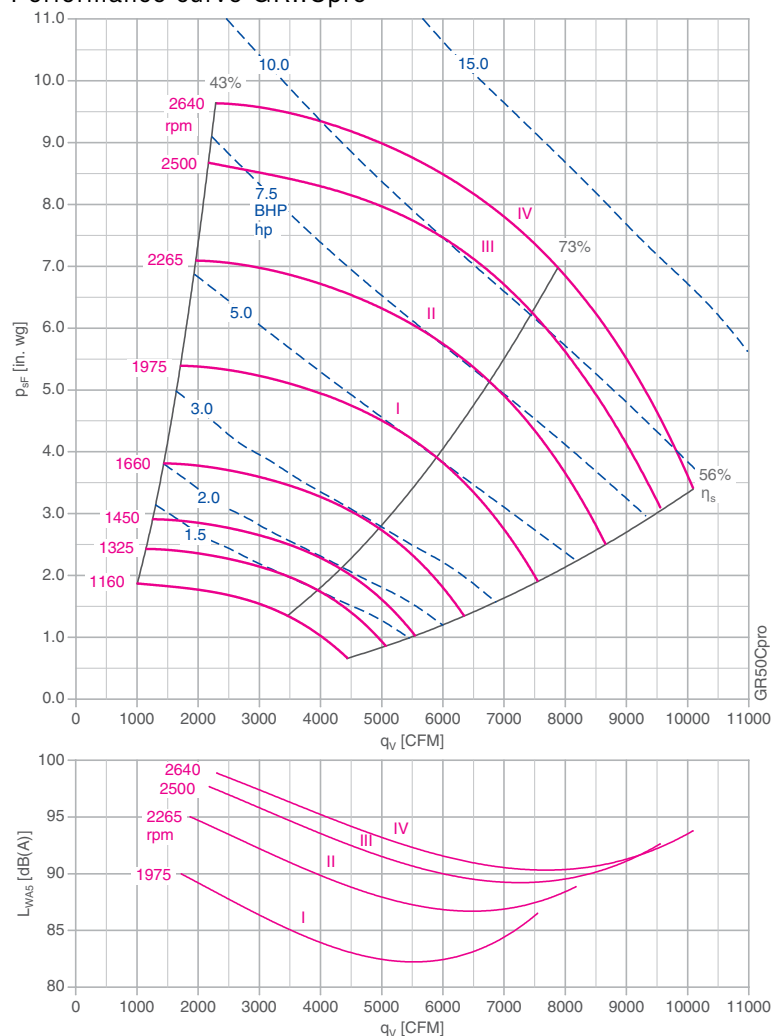
GR50Cpro



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve GR..Cpro



- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H			Installation position Vo		
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
5.00	GR50C-4DM.F2.CR	115203/HA03	185	115203/OA03	115203/UA03	185
7.50	GR50C-4DM.G2.CR	115204/HA03	214	115204/OA03	115204/UA03	214
10.00	GR50C-4DM.H2.CR	115205/HA03	229	115205/OA03	115205/UA03	229
15.00	GR50C-4DM.I2.CR	115206/HA03	331	115206/OA03	115206/UA03	331

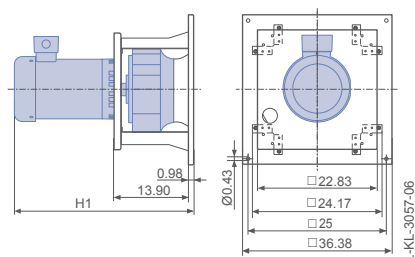


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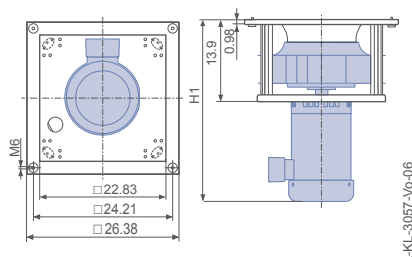
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
5.00	GR50C-4DM.F2.CR	184TC	I	1750	6.60	1975	68
7.50	GR50C-4DM.G2.CR	213TC	II	1770	9.70	2265	76
10.00	GR50C-4DM.H2.CR	215TC	III	1770	12.50	2500	85
15.00	GR50C-4DM.I2.CR	254TC	IV	1765	17.70	2640	90

Dimensions in Inch

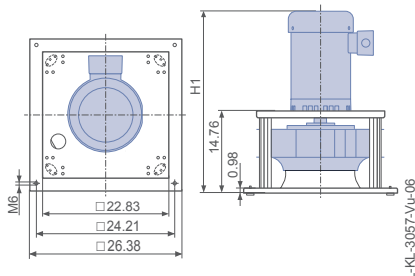
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power		Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
5.00	GR50C-4DM.F2.CR	27.38	27.38	27.38
7.50	GR50C-4DM.G2.CR	27.43	27.43	27.43
10.00	GR50C-4DM.H2.CR	28.56	28.56	28.56
15.00	GR50C-4DM.I2.CR	31.44	31.44	31.44

Ventilation unit Cpro-Series

Motor PEM

GR56Cpro

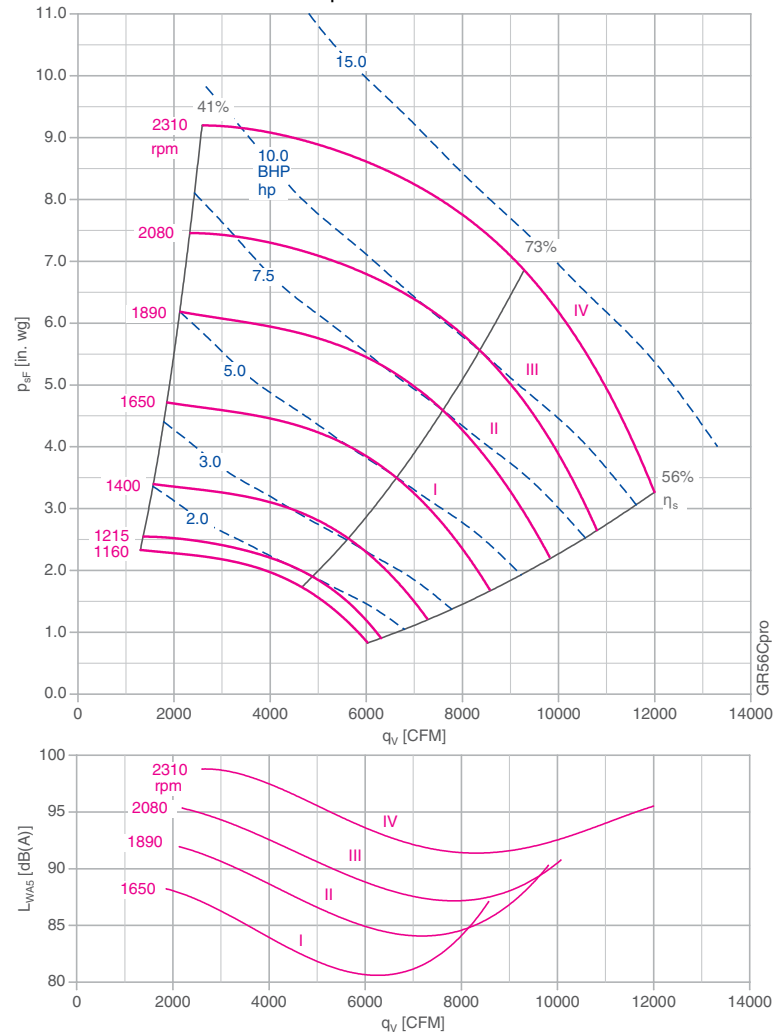


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve GR..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
5.00	GR56C-6DM.H2.CR	115207/HA03	249	115207/OA03	115207/UA03	251
7.50	GR56C-4DM.G2.CR	115208/HA03	240	115208/OA03	115208/UA03	243
10.00	GR56C-4DM.H2.CR	115209/HA03	256	115209/OA03	115209/UA03	258
15.00	GR56C-4DM.I2.CR	115210/HA03	357	115210/OA03	115210/UA03	359

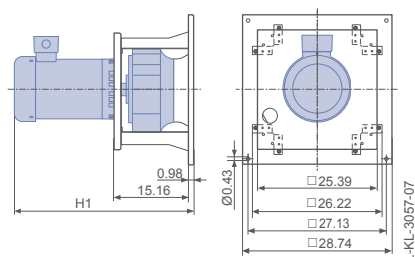


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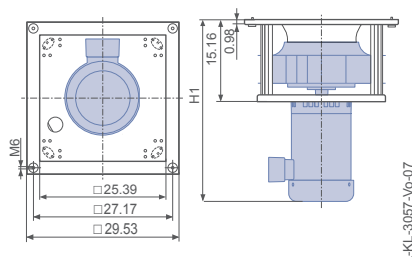
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
5.00	GR56C-6DM.H2.CR	215TC	I	1160	7.40	1650	85
7.50	GR56C-4DM.G2.CR	213TC	II	1770	9.70	1890	64
10.00	GR56C-4DM.H2.CR	215TC	III	1770	12.50	2080	71
15.00	GR56C-4DM.I2.CR	254TC	IV	1765	17.70	2310	79

Dimensions in Inch

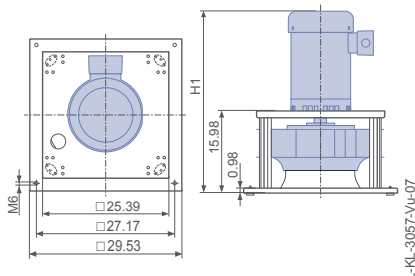
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power		Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
5.00	GR56C-6DM.H2.CR	30.78	29.96	29.96
7.50	GR56C-4DM.G2.CR	29.65	28.83	28.83
10.00	GR56C-4DM.H2.CR	30.78	29.96	29.96
15.00	GR56C-4DM.I2.CR	33.66	32.84	32.84

Ventilation unit Cpro-Series

Motor PEM

GR63Cpro

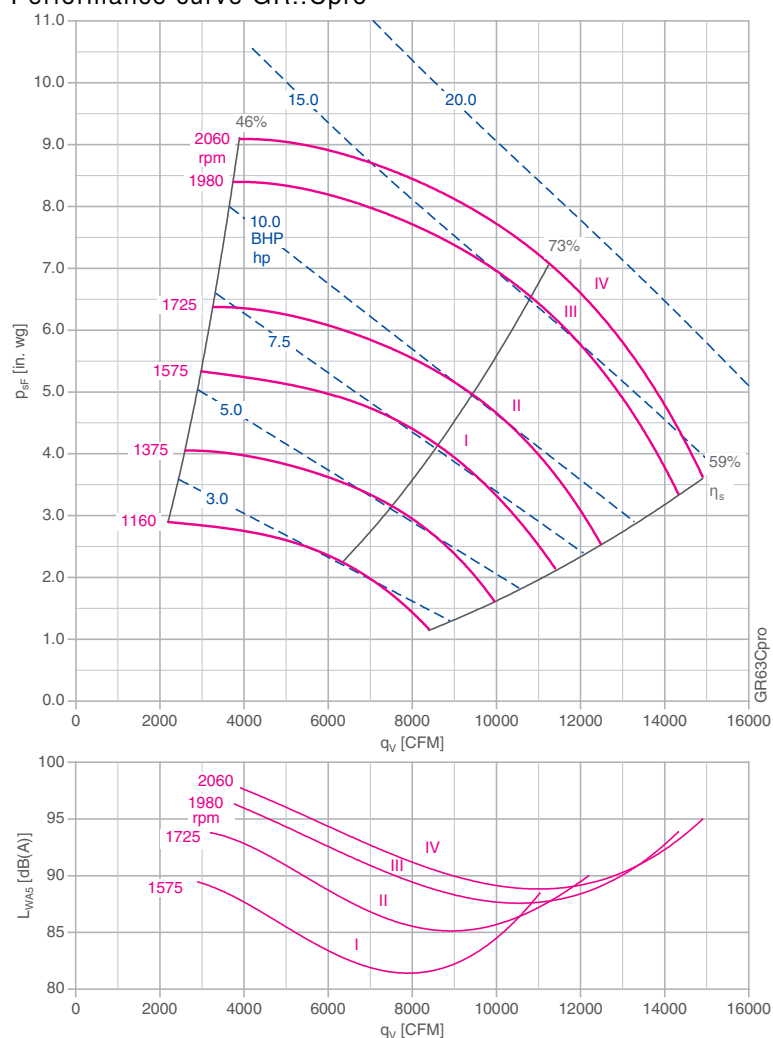


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: ZAmid Technology
RAL 5002 (ultramarine blue)
- On request: flame classification UL94/5VA
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve GR..Cpro



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
7.50	GR63C-6DM.I2.CR	115211/HA03	415	115211/OA03	115211/UA03	415
10.00	GR63C-6DM.K2.CR	115212/HA03	423	115212/OA03	115212/UA03	423
15.00	GR63C-4DM.I2.CR	115213/HA03	401	115213/OA03	115213/UA03	401
20.00	GR63C-4DM.K2.CR	115214/HA03	406	115214/OA03	115214/UA03	406

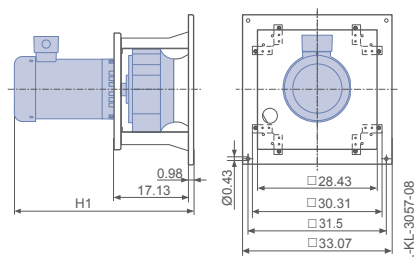


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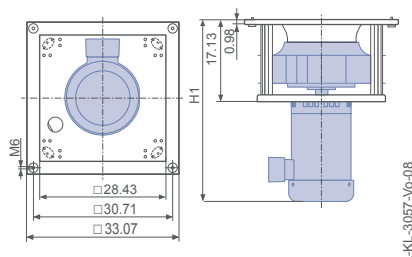
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
7.50	GR63C-6DM.I2.CR	254TC	I	1180	11.00	1575	80
10.00	GR63C-6DM.K2.CR	256TC	II	1180	14.30	1725	88
15.00	GR63C-4DM.I2.CR	254TC	III	1765	17.70	1980	67
20.00	GR63C-4DM.K2.CR	256TC	IV	1765	23.50	2060	70

Dimensions in Inch

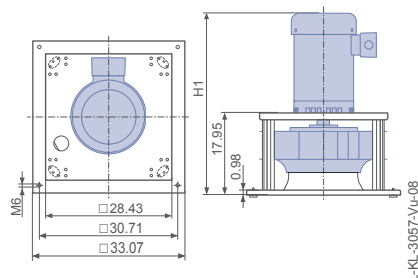
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power		Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1	H1	H1
7.50	GR63C-6DM.I2.CR	36.74	35.91	35.91
10.00	GR63C-6DM.K2.CR	36.74	35.91	35.91
15.00	GR63C-4DM.I2.CR	35.24	34.41	34.41
20.00	GR63C-4DM.K2.CR	35.24	34.41	34.41



Ventilation unit GR..C

Product overview

GR28C / Size 11	Page 94
GR31C / Size 12.5	Page 96
GR35C / Size 14	Page 98
GR40C / Size 16	Page 100
GR45C / Size 18	Page 102
GR50C / Size 20	Page 104
GR56C / Size 22	Page 106
GR63C / Size 25	Page 108

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

System
components

General notes

Ventilation unit C-Series

Motor PEM

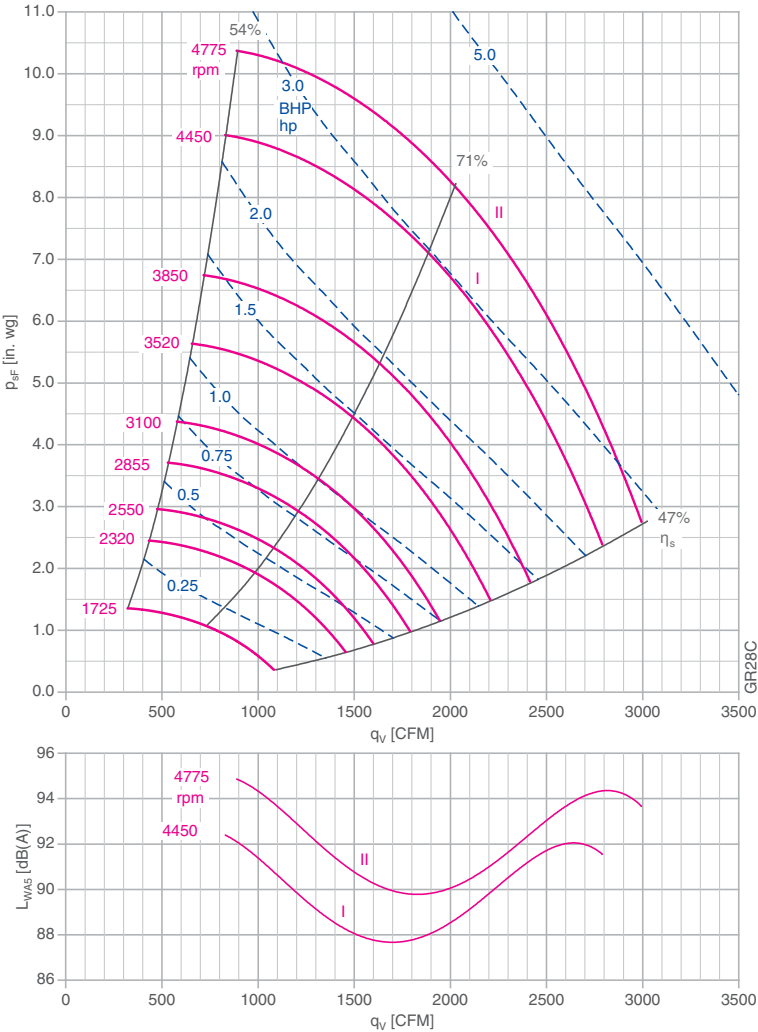
GR28C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve GR..C



- Connection diagram Page 134
- Suction guard grille Page 121

The CRP Rating does not include GR28C

Fan ordering information

Basic version GR						
Rated power		Installation position		Installation position		Installation position
P _N [hp]	Type	Article no.	H	Article no.	Article no.	Vu
	GR..C	GR..C	max.	GR..C	GR..C	max.
1.00	GR28C-4DM.C4.1R	113145/HA03	64	113145/OA03	113145/UA03	62
3.00	GR28C-2DM.D4.1R	113146/HA03	78	113146/OA03	113146/UA03	76
5.00	GR28C-2DM.E4.1R	113147/HA03	104	113147/OA03	113147/UA03	101

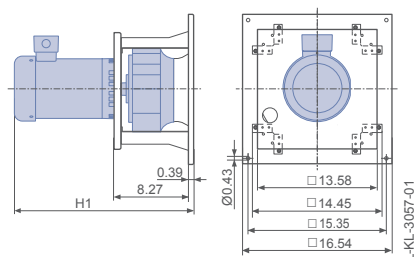


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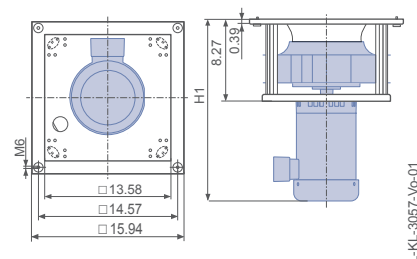
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
1.00	GR28C-4DM.C4.1R	143TC		1740	1.4	2590	90
3.00	GR28C-2DM.D4.1R	145TC	I	3450	3.7	4450	77
5.00	GR28C-2DM.E4.1R	182T	II	3490	5.6	4775	83

Dimensions in Inch

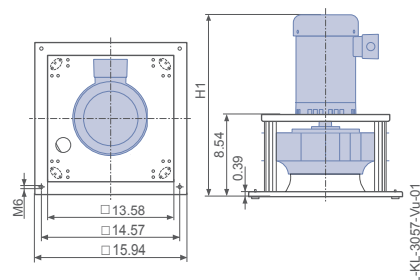
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power	Type	Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
1.00	GR28C-4DM.C4.1R	16.57	16.87	16.57
3.00	GR28C-2DM.D4.1R	18.44	18.74	18.44
5.00	GR28C-2DM.E4.1R	19.94	20.24	19.94

Ventilation unit C-Series

Motor PEM

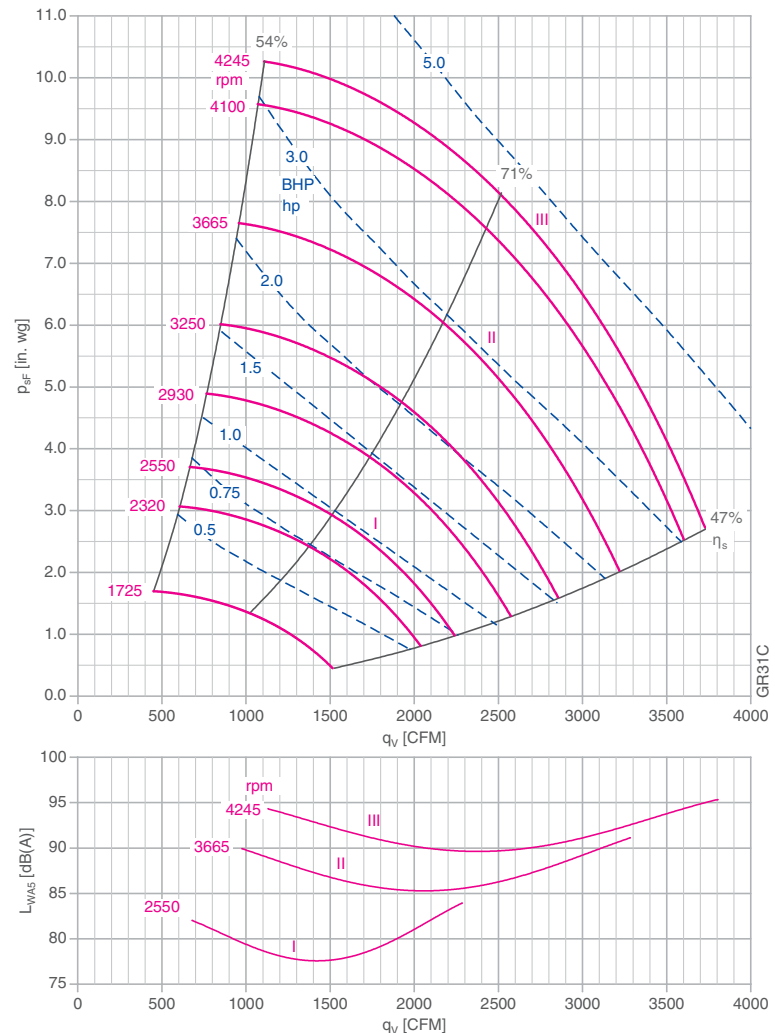
GR31C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve GR..C



- Connection diagram Page 134
- Suction guard grille Page 121

The CRP Rating does not include GR31C

Fan ordering information

Basic version GR						
Rated power	Installation position		Installation position		Installation position	
P _N	Type	Article no.	H	Article no.	Article no.	Vu
[hp]	GR..C	GR..C	max.	GR..C	GR..C	max.
1.00	GR31C-4DM.C4.1R	113148/HA03	72	113148/OA03	113148/UA03	68
3.00	GR31C-2DM.D4.1R	113149/HA03	86	113149/OA03	113149/UA03	82
5.00	GR31C-2DM.E4.1R	113150/HA03	111	113150/OA03	113150/UA03	108

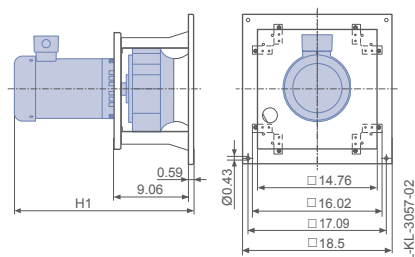


Technical data

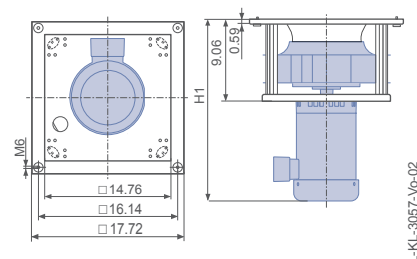
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
1.00	GR31C-4DM.C4.1R	143TC	I	1740	1.4	2550	89
3.00	GR31C-2DM.D4.1R	145TC	II	3450	3.7	3665	64
5.00	GR31C-2DM.E4.1R	182T	III	3490	5.6	4245	74

Dimensions in Inch

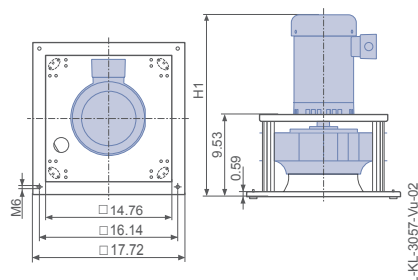
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power	Type	Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
1.00	GR31C-4DM.C4.1R	17.36	17.85	17.36
3.00	GR31C-2DM.D4.1R	19.23	19.72	19.23
5.00	GR31C-2DM.E4.1R	20.73	21.22	20.73

Ventilation unit C-Series

Motor PEM

GR35C

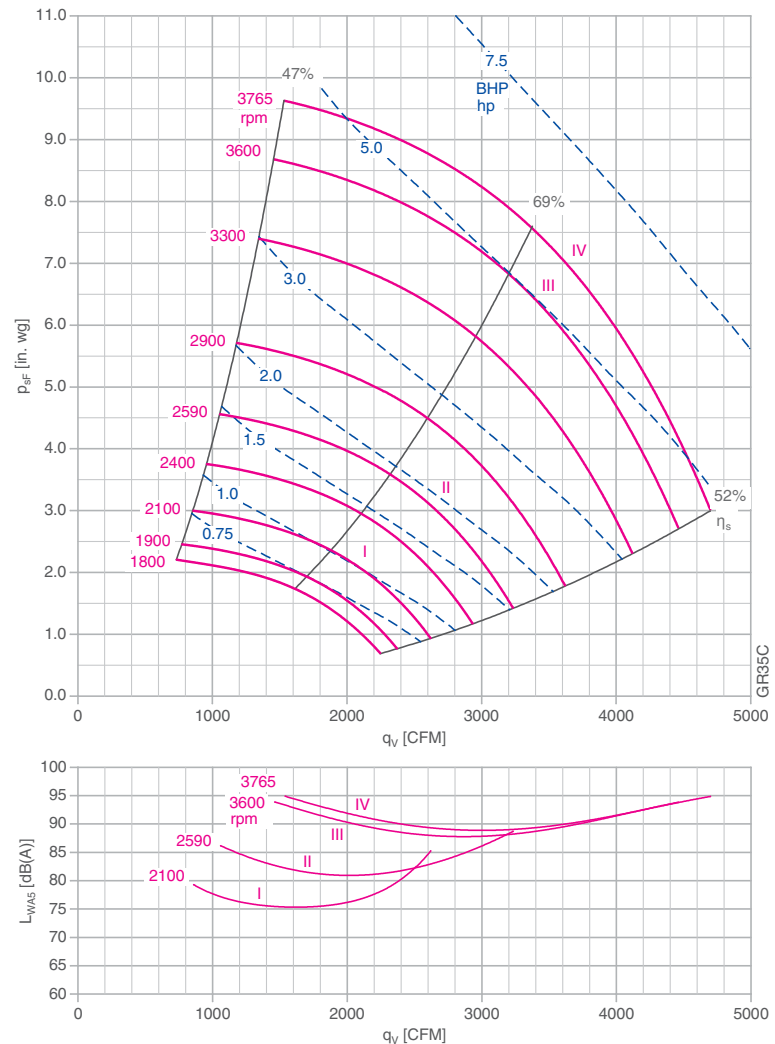


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve GR..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	$\frac{H}{max.}$	Article no. GR..C	Article no. GR..C	$\frac{Vu}{max.}$
1.00	GR35C-4DM.C4.1R	113151/HA03	78	113151/OA03	113151/UA03	74
2.00	GR35C-4DM.D4.1R	113152/HA03	88	113152/OA03	113152/UA03	84
5.00	GR35C-2DM.E4.1R	113153/HA03	118	113153/OA03	113153/UA03	114
7.50	GR35C-2DM.F4.1R	113154/HA03	127	113154/OA03	113154/UA03	123

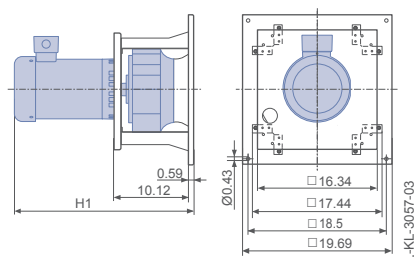


Technical data

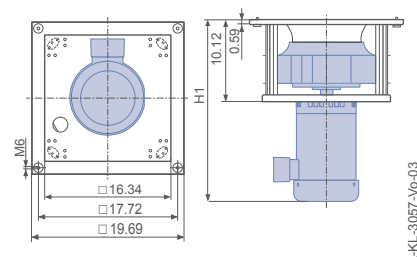
Rated power P_N [hp]	Type	Motor size	Performance curve no.	Rated speed n_N [rpm]	Rated current I_N [A]	Max. speed n_{max} [rpm]	Max. frequency f_{max} Hz
1.00	GR35C-4DM.C4.1R	143TC	I	1740	1.4	2100	73
2.00	GR35C-4DM.D4.1R	145TC	II	1755	2.75	2588	90
5.00	GR35C-2DM.E4.1R	182T	III	3490	5.6	3600	63
7.50	GR35C-2DM.F4.1R	184TC	IV	3470	8.0	3765	65

Dimensions in Inch

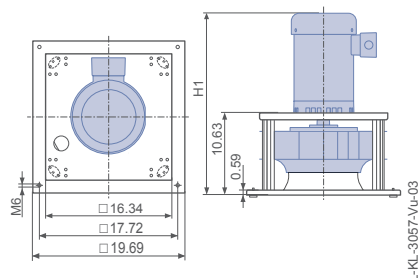
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power P_N [hp]	Type	Installation position H H1 inch	Installation position Vu H1 inch	Installation position Vo H1 inch
1.00	GR35C-4DM.C4.1R	18.25	18.74	18.25
2.00	GR35C-4DM.D4.1R	20.12	20.61	20.12
5.00	GR35C-2DM.E4.1R	21.62	22.11	21.62
7.50	GR35C-2DM.F4.1R	23.13	23.62	23.13

Ventilation unit C-Series

Motor PEM

GR40C

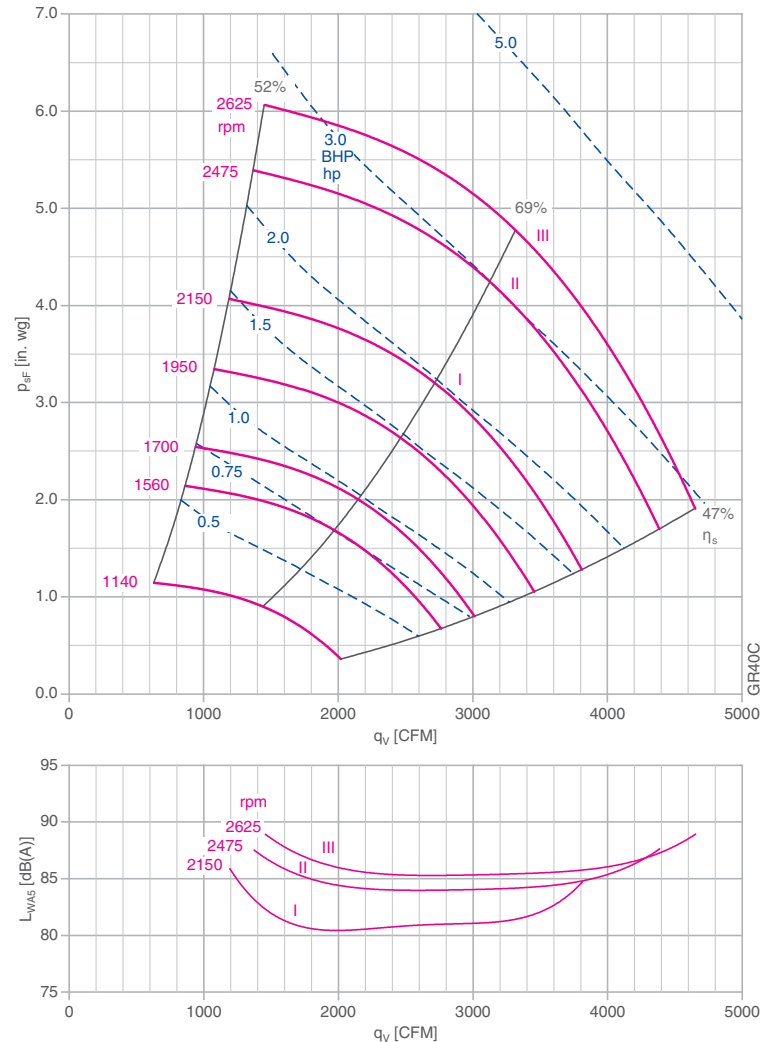


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve GR..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P _N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
2.00	GR40C-4DM.D4.1R	113155/HA03	105	113155/OA03	113155/UA03	101
3.00	GR40C-4DM.E4.1R	113156/HA03	128	113156/OA03	113156/UA03	123
5.00	GR40C-4DM.F4.1R	113157/HA03	133	113157/OA03	113157/UA03	129

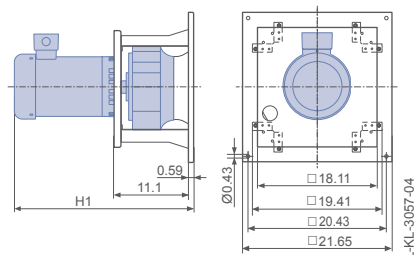


Technical data

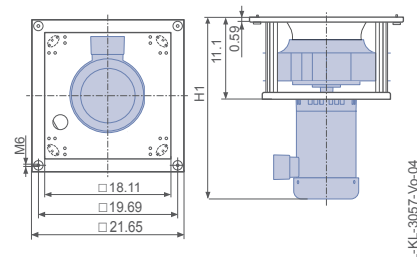
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
2.00	GR40C-4DM.D4.1R	145TC	I	1755	2.75	2150	75
3.00	GR40C-4DM.E4.1R	182TC	II	1755	4.00	2475	86
5.00	GR40C-4DM.F4.1R	184TC	III	1750	6.60	2625	90

Dimensions in Inch

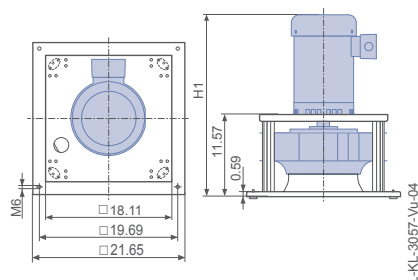
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power	Type	Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
2.00	GR40C-4DM.D4.1R	21.14	21.61	21.14
3.00	GR40C-4DM.E4.1R	22.64	23.11	22.64
5.00	GR40C-4DM.F4.1R	24.15	24.62	24.15

Ventilation unit C-Series

Motor PEM

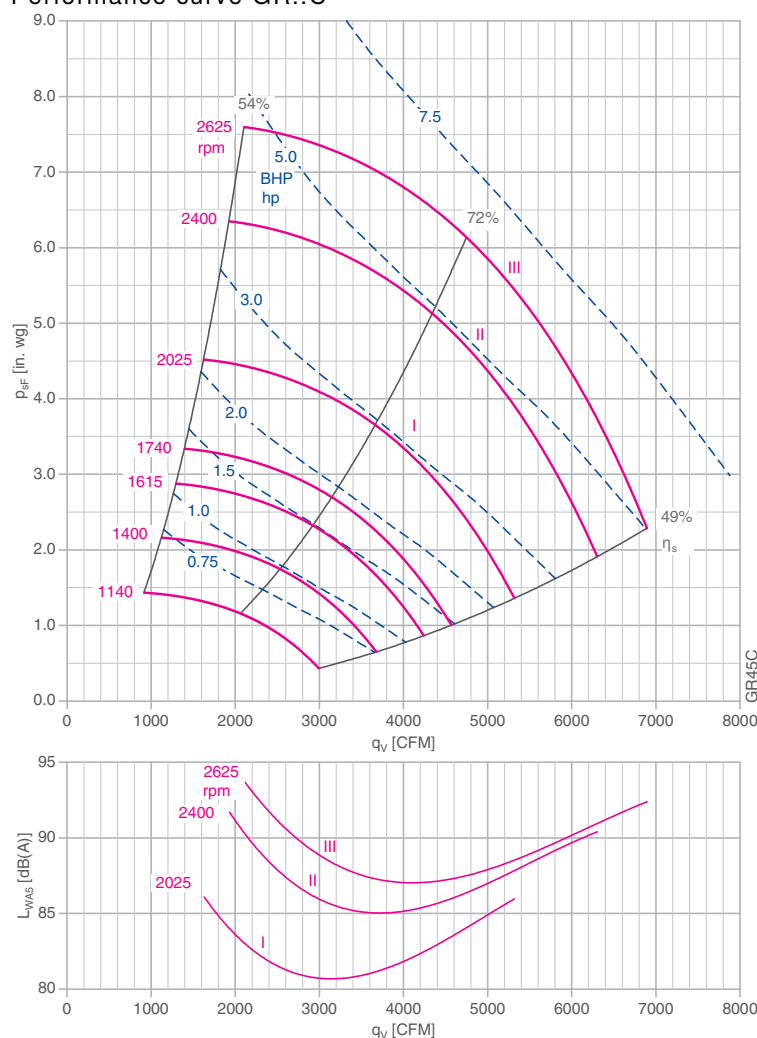
GR45C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve GR..C



- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
3.00	GR45C-4DM.E4.1R	113158/HA03	147	113158/OA03	113158/UA03	140
5.00	GR45C-4DM.F4.1R	113159/HA03	152	113159/OA03	113159/UA03	145
7.50	GR45C-4DM.G4.1R	113160/HA03	195	113160/OA03	113160/UA03	188

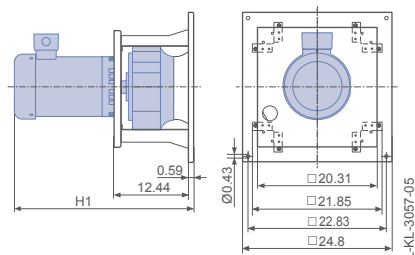


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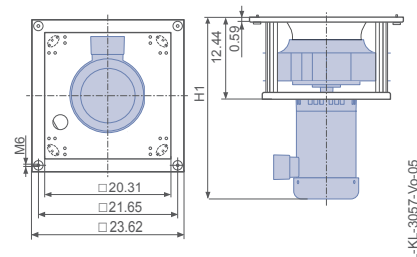
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
3.00	GR45C-4DM.E4.1R	182TC	I	1755	4.00	2025	70
5.00	GR45C-4DM.F4.1R	184TC	II	1750	6.60	2400	83
7.50	GR45C-4DM.G4.1R	213TC	III	1770	9.70	2625	90

Dimensions in Inch

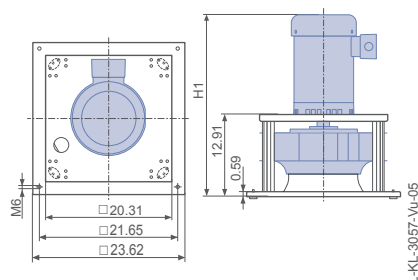
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power	Type	Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
3.00	GR45C-4DM.E4.1R	23.96	24.43	23.96
5.00	GR45C-4DM.F4.1R	25.47	25.94	25.47
7.50	GR45C-4DM.G4.1R	24.79	25.26	24.79

Ventilation unit C-Series

Motor PEM

GR50C

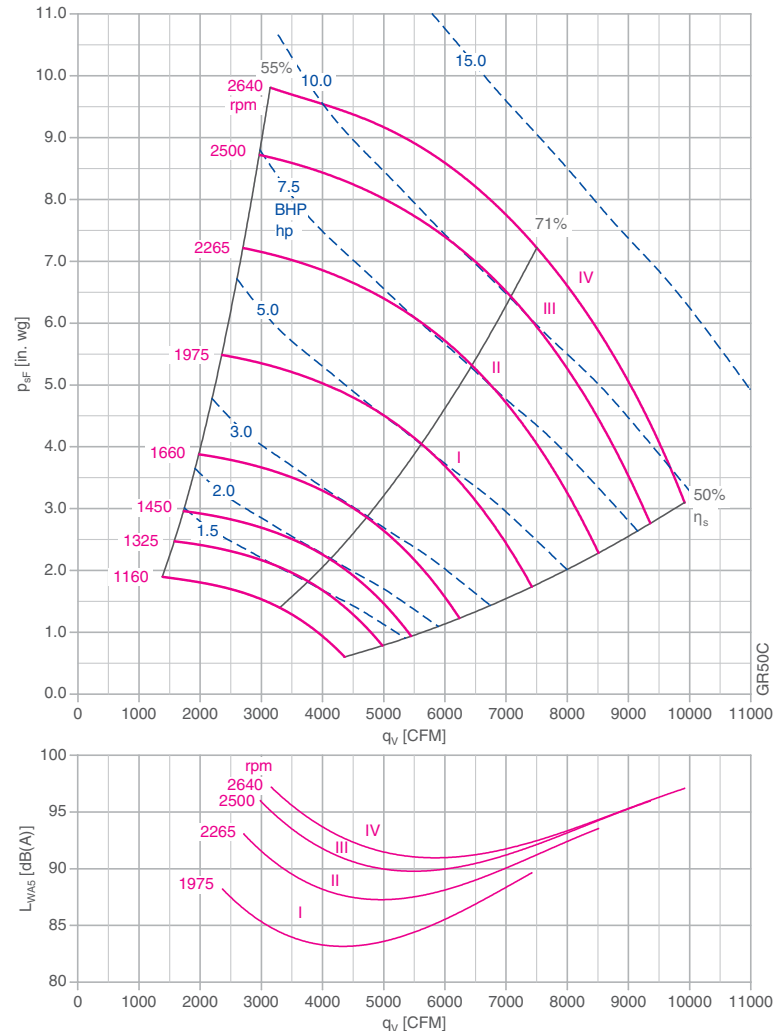


Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve GR..C



Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	max.	Article no. GR..C	Article no. GR..C	max.
5.00	GR50C-4DM.F4.1R	113161/HA03	184	113161/OA03	113161/UA03	184
7.50	GR50C-4DM.G4.1R	113162/HA03	227	113162/OA03	113162/UA03	227
10.00	GR50C-4DM.H4.1R	113163/HA03	251	113163/OA03	113163/UA03	251
15.00	GR50C-4DM.I4.1R	113164/HA03	326	113164/OA03	113164/UA03	326

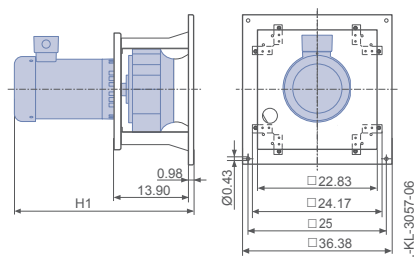


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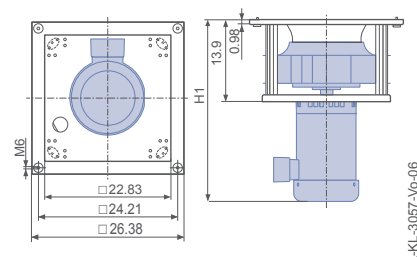
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
5.00	GR50C-4DM.F4.1R	184TC	I	1750	6.6	1975	68
7.50	GR50C-4DM.G4.1R	213TC	II	1770	9.6	2265	78
10.00	GR50C-4DM.H4.1R	215TC	III	1770	12.5	2500	85
15.00	GR50C-4DM.I4.1R	254TC	IV	1765	17.7	2640	90

Dimensions in Inch

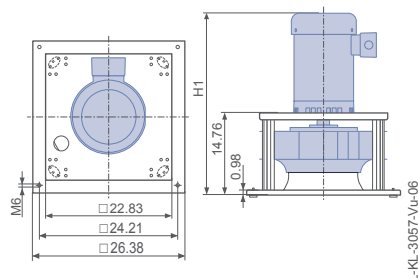
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power	Type	Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1 inch	H1 inch	H1 inch
5.00	GR50C-4DM.F4.1R	26.79	27.66	26.79
7.50	GR50C-4DM.G4.1R	26.11	26.98	26.11
10.00	GR50C-4DM.H4.1R	27.24	28.11	27.24
15.00	GR50C-4DM.I4.1R	30.85	31.72	30.85

Ventilation unit C-Series

Motor PEM

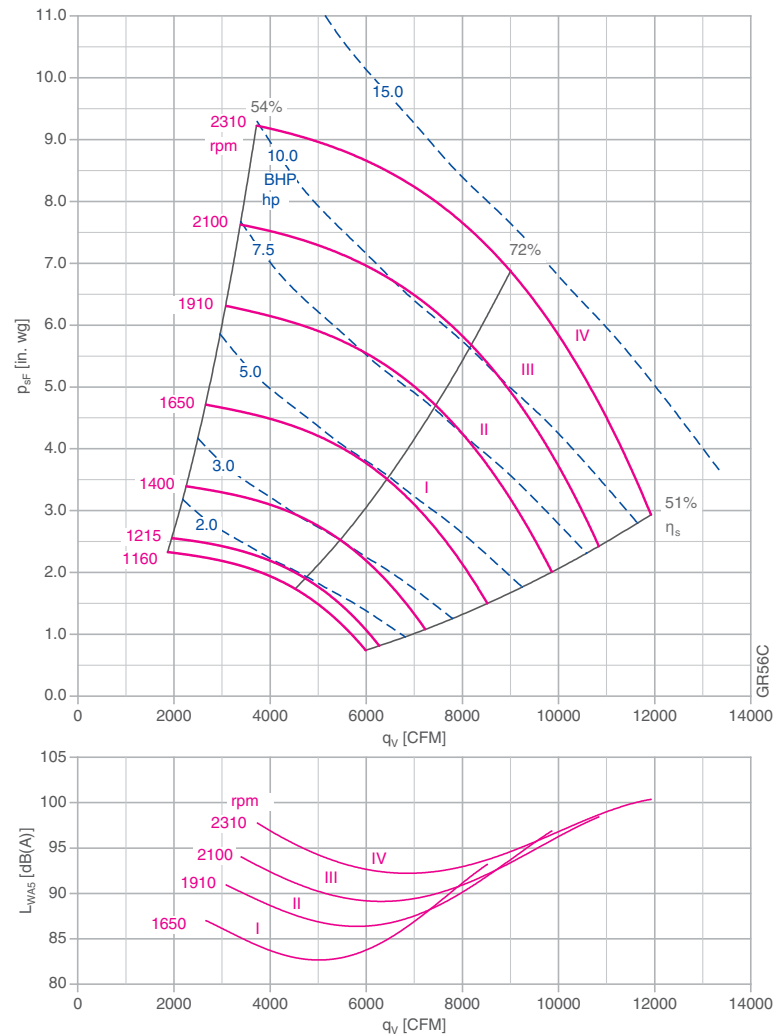
GR56C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve GR..C



- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

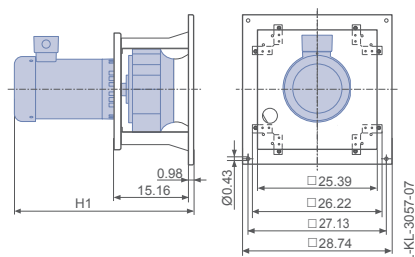
Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	$\frac{H}{max.}$	Article no. GR..C	Article no. GR..C	$\frac{H}{max.}$
5.00	GR56C-6DM.H4.1R	113165/HA03	280	113165/OA03	113165/UA03	283
7.50	GR56C-4DM.G4.1R	113166/HA03	256	113166/OA03	113166/UA03	259
10.00	GR56C-4DM.H4.1R	113167/HA03	280	113167/OA03	113167/UA03	283
15.00	GR56C-4DM.I4.1R	113168/HA03	355	113168/OA03	113168/UA03	359

Technical data

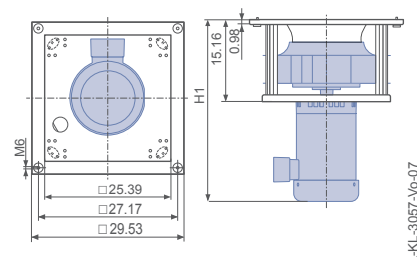
Rated power P_N [hp]	Type	Motor size	Performance curve no.	Rated speed n_N [rpm]	Rated current I_N [A]	Max. speed n_{max} [rpm]	Max. frequency f_{max} Hz
5.00	GR56C-6DM.H4.1R	215TC	I	1160	7.3	1650	85
7.50	GR56C-4DM.G4.1R	213TC	II	1770	9.6	1910	65
10.00	GR56C-4DM.H4.1R	215TC	III	1770	12.5	2100	72
15.00	GR56C-4DM.I4.1R	254TC	IV	1765	17.7	2310	79

Dimensions in Inch

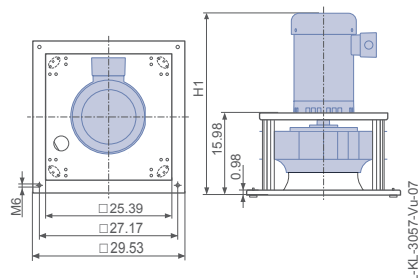
Ventilation unit GR in installation position H



Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power P_N [hp]	Type	Installation position H H1 inch	Installation position Vu H1 inch	Installation position Vo H1 inch
5.00	GR56C-6DM.H4.1R	29.72	30.55	29.72
7.50	GR56C-4DM.G4.1R	27.37	28.20	27.37
10.00	GR56C-4DM.H4.1R	28.50	29.33	28.50
15.00	GR56C-4DM.I4.1R	32.11	32.94	32.11

Ventilation unit C-Series

Motor PEM

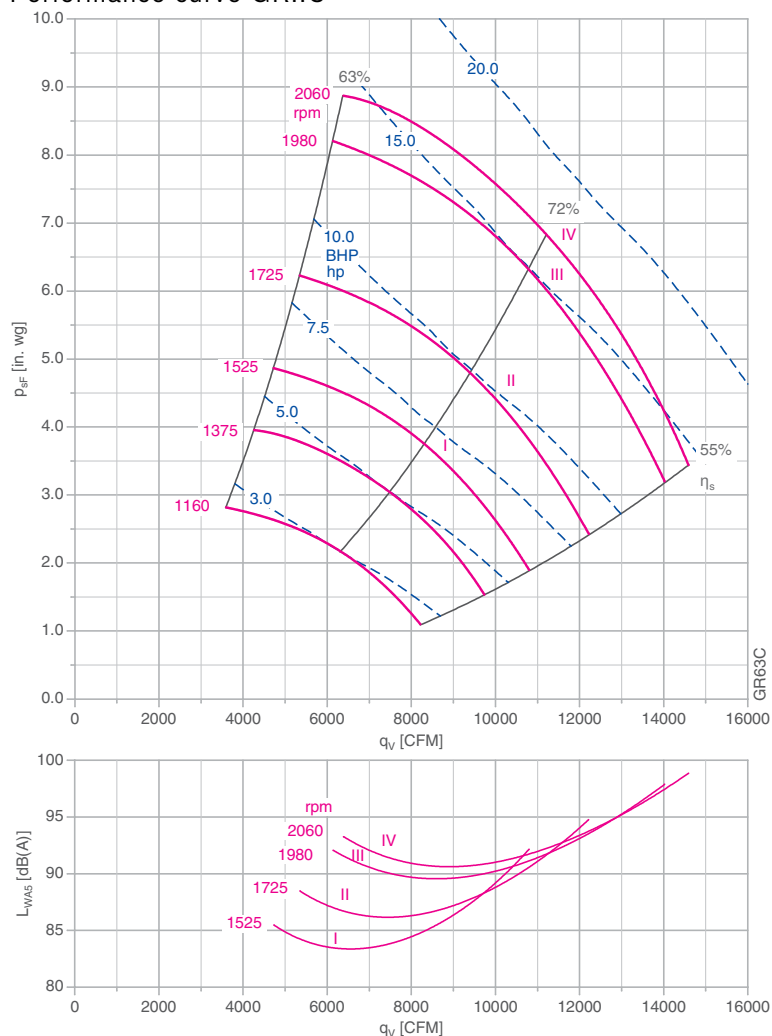
GR63C



Description

- Number of blades: 7
- Max. permissible ambient temperature: 104 °F / 40 °C
- Min. permissible ambient temperature: -4 °F / -20 °C
- Impeller: welded steel design, surface protection by powder coating RAL 5002
- Bolted supporting structure made of galvanized sheet steel or of sheet steel with an epoxy/polyester powder coating RAL 7032
- Inlet ring for optimum impeller inflow with measurement device for determining flow rate
- NEMA Premium efficiency motor 230/460 V, 60 Hz, three phase

Performance curve GR..C



- Connection diagram Page 134
- Suction guard grille Page 121

Performance curve

- Performance certified is for installation type A: free inlet, free outlet
- Performance ratings do not include the effects of appurtenances (accessories)
- The A-weighted sound power ratings shown have been calculated per AMCA Standard 301. Values shown are for inlet LWA5 sound power levels for installation type A: free inlet, free outlet

Fan ordering information

Basic version GR						
Rated power	Installation position H		Installation position Vo		Installation position Vu	
P_N [hp]	Type GR..C	Article no. GR..C	$\frac{H}{max.}$	Article no. GR..C	Article no. GR..C	$\frac{H}{max.}$
7.50	GR63C-6DM.I4.1R	113169/HA03	198	113169/OA03	113169/UA03	197
10.00	GR63C-6DM.K4.1R	113170/HA03	454	113170/OA03	113170/UA03	454
15.00	GR63C-4DM.I4.1R	113171/HA03	415	113171/OA03	113171/UA03	415
20.00	GR63C-4DM.K4.1R	113172/HA03	435	113172/OA03	113172/UA03	435

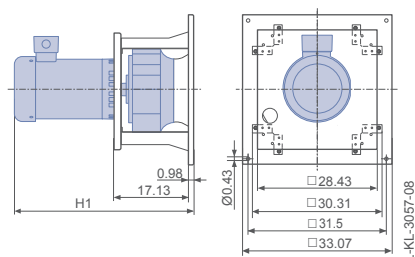


Technical data

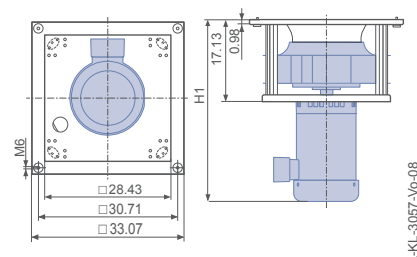
Rated power	Type	Motor size	Performance curve no.	Rated speed	Rated current	Max. speed	Max. frequency
P_N [hp]				n_N [rpm]	I_N [A]	n_{max} [rpm]	f_{max} Hz
7.50	GR63C-6DM.I4.1R	254TC	I	1180	10.5	1525	78
10.00	GR63C-6DM.K4.1R	256TC	II	1180	14.3	1725	88
15.00	GR63C-4DM.I4.1R	254TC	III	1765	17.7	1980	68
20.00	GR63C-4DM.K4.1R	256TC	IV	1765	23.5	2060	70

Dimensions in Inch

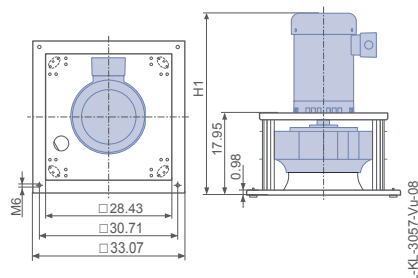
Ventilation unit GR in installation position H



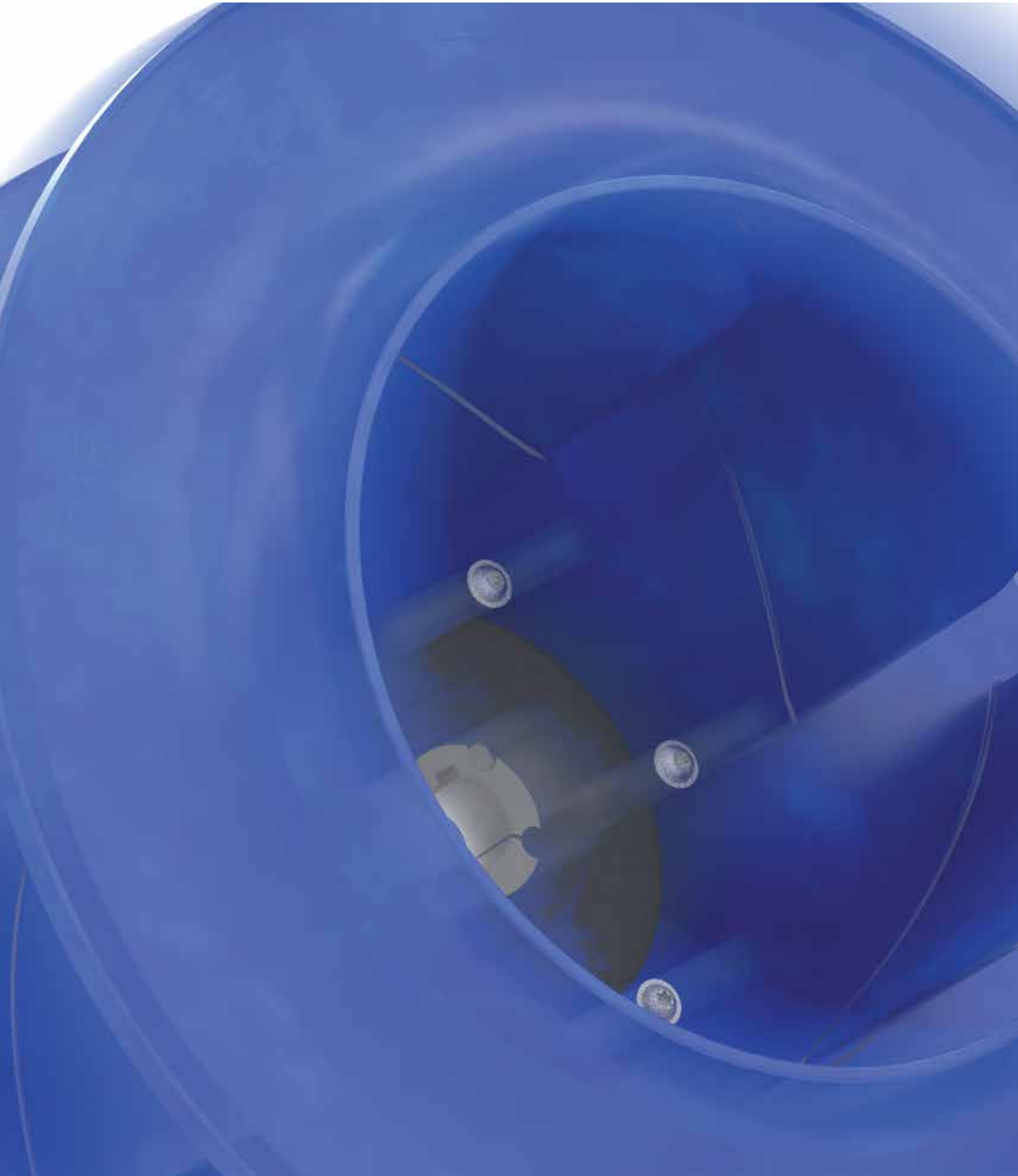
Ventilation unit GR in installation position Vo



Ventilation unit GR in installation position Vu



Rated power	Type	Installation position H	Installation position Vu	Installation position Vo
P_N [hp]		H1	H1	H1
		inch	inch	inch
7.50	GR63C-6DM.I4.1R	33.16	33.99	33.16
10.00	GR63C-6DM.K4.1R	35.16	35.99	35.16
15.00	GR63C-4DM.I4.1R	33.66	34.49	33.66
20.00	GR63C-4DM.K4.1R	33.66	34.49	33.66



High-performance centrifugal impeller RH..Cpro

Product overview

High-performance centrifugal impeller RH..Cpro Page 112

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

System
components

General notes

High-performance centrifugal impeller RH..Cpro with taperlock bush hub

Description

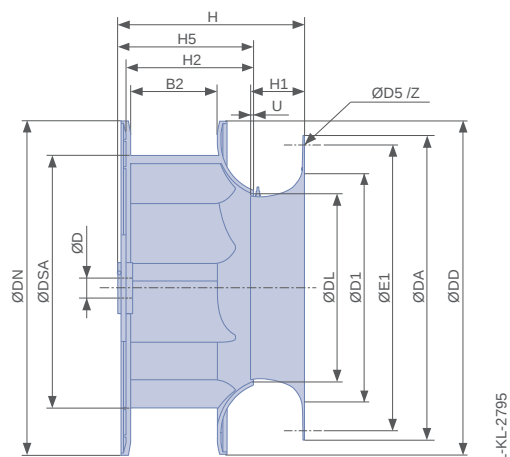
Scope of delivery: Bolted hub each including taperlock bush hub

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
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	
RH25C.CR/SM12-1	on request	5/8 - 1 1/8	2.99	10.91	11.42	6.46	11.42	10.12	7.95	0.33	10.12	6.85	1.85	4.49	5.08	0.10	6x60°
RH28C.CR/SM12-2	on request	5/8 - 1 1/8	3.35	11.93	12.68	5.04	12.68	11.26	8.86	0.33	11.14	7.52	2.05	4.96	5.59	0.12	6x60°
RH31C.CR/SM12-2	on request	5/8 - 1 1/8	3.74	13.50	14.17	8.03	14.17	12.60	9.96	0.33	12.48	5.31	2.32	5.51	6.14	0.12	4x90°
RH35C.CR/SM12-2	on request	5/8 - 1 1/8	4.17	14.88	15.98	9.06	15.98	14.17	11.26	0.33	13.86	9.21	2.60	6.14	6.77	0.14	4x90°
RH40C.CR/SM12-2	on request	5/8 - 1 1/8	4.65	16.46	17.99	10.16	17.99	15.98	12.68	0.33	15.43	10.28	2.91	6.93	7.52	0.16	4x90°
RH40C.CR/SM20	on request	7/8 - 1 5/8	4.65	16.46	17.99	10.16	17.99	15.98	12.68	0.33	15.43	10.35	2.91	6.93	7.60	0.16	4x90°
RH45C.CR/SM20	on request	7/8 - 1 5/8	5.24	18.27	20.28	11.46	20.28	17.99	14.33	0.33	17.24	11.54	3.27	7.76	8.43	0.18	4x90°
RH50C.CR/SM20	on request	7/8 - 1 5/8	5.91	20.24	22.80	12.91	22.80	20.24	16.14	0.33	19.21	12.87	3.70	8.70	9.41	0.20	4x90°
RH56C.CR/SM20	on request	7/8 - 1 5/8	6.57	22.20	25.35	14.29	25.35	22.52	17.91	0.33	21.18	14.29	4.09	9.72	10.43	0.24	4x90°
RH63C.CR/SM25	on request	1 3/8 - 2 1/8	7.36	24.96	28.39	16.02	28.39	25.20	20.08	0.41	23.62	16.14	4.61	10.83	11.81	0.26	6x60°

High-performance centrifugal impeller RH..Cpro with taperlock bush hub

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.



Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

System components

General notes

Series RH..Cpro

Type	max. Speed rpm	Taperlock bush hub	Moment of inertia with taperlock bush hub lb.ft ²	Impeller with taperlock bush hub
RH25C.CR	5350	SM12-1	0.427	6.61
RH28C.CR	4775	SM12-2	0.712	8.82
RH31C.CR	4245	SM12-2	1.044	8.82
RH35C.CR	3765	SM12-2	1.756	11.02
RH40C.CR	3340	SM12-2	2.943	13.23
RH40C.CR	3340	SM20	3.322	17.64
RH45C.CR	2970	SM20	5.054	19.84
RH50C.CR	2675	SM20	8.353	24.25
RH56C.CR	2310	SM20	14.475	30.86
RH63C.CR	2060	SM25	25.723	46.30



High-performance centrifugal impeller RH..C

Product overview

High-performance centrifugal impeller RH..C

Page 116

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

System
components

General notes

High-performance centrifugal impeller RH..C

with taperlock bush hub

Description

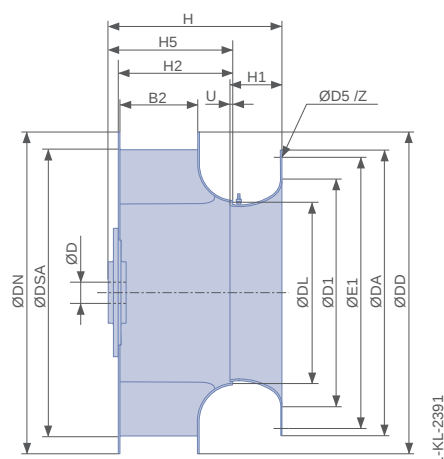
Scope of delivery: Bolted hub each including taperlock bush hub

Bore diameter: Specification corresponding to motor classification

Surface protection hub:

SM12 - SM20: Phosphate coating

SM25 - SM35: Phosphate coated and painted RAL 7011



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
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	
RH22C.1R/SM12-1	on request	5/8 - 1 1/8	2.44	9.96	10.12	5.71	10.12	9.02	7.05	0.33	9.17	5.79	1.65	3.62	4.21	0.08	6x60°
RH25C.1R/SM12-1	on request	5/8 - 1 1/8	2.76	10.91	11.42	6.42	11.42	10.16	7.95	0.33	10.12	6.42	1.85	4.06	4.69	0.10	6x60°
RH28C.1R/SM12-2	on request	5/8 - 1 1/8	3.07	11.93	12.68	7.13	12.68	11.26	8.86	0.33	11.14	7.05	2.05	4.53	5.12	0.12	6x60°
RH31C.1R/SM12-2	on request	5/8 - 1 1/8	3.43	13.50	14.17	7.99	14.17	12.60	9.96	0.33	12.48	7.83	2.32	5.04	5.67	0.12	4x90°
RH35C.1R/SM12-2	on request	5/8 - 1 1/8	3.86	14.88	15.98	8.98	15.98	14.21	11.26	0.33	13.86	8.74	2.60	5.67	6.30	0.14	4x90°
RH40C.1R/SM12-2	on request	5/8 - 1 1/8	4.37	16.46	17.99	10.12	17.99	15.98	12.68	0.33	15.43	9.76	2.91	6.42	7.01	0.16	4x90°
RH40C.1R/SM20	on request	7/8 - 1 5/8	4.37	16.46	17.99	10.12	17.99	15.98	12.68	0.33	15.43	9.84	2.91	6.42	7.09	0.16	4x90°
RH45C.1R/SM20	on request	7/8 - 1 5/8	4.92	18.27	17.36	11.42	20.28	18.03	14.33	0.33	17.24	10.98	3.27	7.20	7.87	0.18	4x90°
RH50C.1R/SM20	on request	7/8 - 1 5/8	5.51	20.24	22.80	12.83	22.80	20.28	16.14	0.33	19.21	12.28	3.70	8.11	8.82	0.20	4x90°
RH56C.1R/SM20	on request	7/8 - 1 5/8	6.14	22.20	25.35	14.29	25.35	22.52	17.91	0.33	21.18	13.54	4.09	9.02	9.69	0.24	4x90°
RH63C.1R/SM25	on request	1 3/8 - 2 1/8	6.85	24.96	28.39	15.98	28.39	25.24	20.08	0.41	23.62	15.39	4.61	10.08	11.06	0.26	6x60°
RH71C.1R/SM25	on request	1 3/8 - 2 1/8	7.72	27.72	31.93	17.99	31.93	28.39	22.56	0.41	26.38	17.20	5.16	11.34	12.32	0.28	6x60°
RH80C.1R/SM25	on request	1 3/8 - 2 1/8	8.70	30.87	35.98	20.28	35.98	32.01	25.43	0.41	29.53	19.29	5.83	12.80	13.78	0.31	6x60°
RH90C.1R/SM30	on request	1 7/8 - 2 3/8	9.80	34.41	40.55	22.83	40.55	36.06	28.66	0.41	33.07	21.73	6.57	14.41	15.51	0.35	8x45°
RH10C.1R/SM30	on request	1 7/8 - 2 3/8	11.02	38.35	45.63	25.71	45.63	40.55	32.24	0.41	37.01	24.29	7.36	16.22	17.32	0.39	8x45°
RH11C.1R/SM30	on request	2 3/8 - 2 7/8	15.35	42.32	50.67	28.54	50.67	45.08	35.83	0.41	40.98	30.12	8.19	21.26	22.36	0.43	16x22.5°
RH11C.1R/SM35	on request	3 3/8	15.35	42.32	50.67	28.54	50.67	45.08	35.83	0.41	40.98	30.28	8.19	21.26	22.52	0.43	16x22.5°

High-performance centrifugal impeller RH..C

with taperlock bush hub

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.



Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

System
components

General notes

Series RH..C

Type	max. Speed rpm	Taperlock bush hub	Moment of inertia with taperlock bush hub lb.ft ²	Impeller with taperlock bush hub
RH22C.1R	5940	SM12-1	0.427	6.61
RH25C.1R	5350	SM12-1	0.616	6.61
RH28C.1R	4775	SM12-2	0.996	8.82
RH31C.1R	4245	SM12-2	1.732	13.23
RH35C.1R	3765	SM12-2	2.681	15.43
RH40C.1R	3340	SM12-2	5.007	19.84
RH40C.1R	3340	SM20	5.316	24.25
RH45C.1R	2970	SM20	8.306	28.66
RH50C.1R	2675	SM20	15.828	39.68
RH56C.1R	2310	SM20	25.201	48.50
RH63C.1R	2060	SM25	51.186	79.37
RH71C.1R	1840	SM25	81.394	97.00
RH80C.1R	1620	SM25	166.015	149.91
RH90C.1R	1475	SM30	270.878	200.62
RH10C.1R	1280	SM30	522.985	293.21
RH11C.4R	1030	SM30	946.400	418.88
RH11C.1R	1190	SM30	1197.962	529.11
RH11C.1R	1320	SM35	1199.480	540.13



System components

Product overview

Inlet ring	Page 120
Suction guard grille	Page 121
Spring vibration dampers	Page 122
Rubber dampers	Page 122
Flexible air intakes	Page 123

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

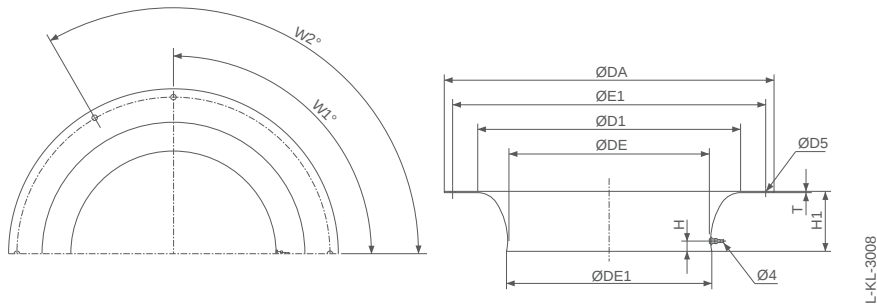
System
components

General notes

System components

Inlet ring for RH..Cpro / RH..C full nozzle

- Material: Sheet steel, galvanized
- With air flow meter
- Fastening diameter according to DIN EN 12 220



Inlet ring																	
Type	Article no. a	b	DA	DE	DE1	D1	D5	E1	H	H1	T	W1° (1)	ZxW1° (1)	W2° (2)	ZxW2° (2)	Inlet guard (3)	Nozzle
RH22C	00401503	00401736	9.96	5.31	5.31	7.05	0.33	9.17	0.47	1.65	0.06	60°	6x60°	-	-	00409757	2.20
RH25C	00401504	00401737	10.91	6.02	6.02	7.95	0.33	10.12	0.47	1.85	0.06	60°	6x60°	-	-	00409758	2.20
RH28C	00401505	00401738	11.93	6.73	6.73	8.86	0.33	11.14	0.47	2.05	0.06	60°	6x60°	-	-	00409759	2.20
RH31C	00401506	00401739	13.50	7.60	7.60	9.96	0.33	12.48	0.47	2.32	0.06	90°	4x90°	120°	3x120°	00409760	2.20
RH35C	00401296	00401740	14.88	8.58	8.78	11.26	0.33	13.86	0.47	2.60	0.06	90°	4x90°	120°	3x120°	00409761	2.20
RH40C	00401297	00401741	16.46	9.69	9.92	12.68	0.33	15.43	0.51	2.91	0.08	90°	4x90°	120°	3x120°	00409762	4.41
RH45C	00401298	00401742	18.27	10.94	11.22	14.33	0.33	17.24	0.55	3.27	0.08	90°	4x90°	120°	3x120°	00409763	6.61
RH50C	00401299	00401743	20.24	12.28	12.60	16.14	0.33	19.21	0.63	3.70	0.08	90°	4x90°	120°	3x120°	00409764	6.61
RH56C	00401300	00401744	22.20	13.66	13.98	17.91	0.33	21.18	0.71	4.09	0.08	90°	4x90°	120°	3x120°	00409765	8.82
RH63C	00401301	00401745	24.96	15.31	15.63	20.08	0.41	23.62	0.79	4.61	0.08	60°	6x60°	90°	4x90°	00409766	11.02
RH71C	00401302	00401746	27.72	17.20	17.60	22.60	0.41	26.38	0.91	5.16	0.08	60°	6x60°	90°	4x90°	00409767	13.23
RH80C	00401303	00401747	30.87	19.41	19.84	25.43	0.41	29.53	0.98	5.83	0.10	60°	6x60°	90°	4x90°	00409768	19.84
RH90C	00401304	00401748	34.41	21.85	22.32	28.66	0.41	33.07	1.14	6.57	0.10	45°	8x45°	-	-	00409769	24.25
RH10C	00401305	00401749	38.85	24.61	25.08	32.24	0.41	37.01	1.26	7.36	0.10	45°	8x45°	-	-	00409770	30.86
RH11C	00401306	00401750	42.32	27.32	27.83	35.83	0.41	40.98	1.42	8.19	0.10	22.5°	16x22.5°	-	-	00409771	37.48

a) With measuring device, made of galvanised sheet steel

b) With measuring device, plastic coated

(1) Fixation inlet jet

(2) Mounting inlet guard

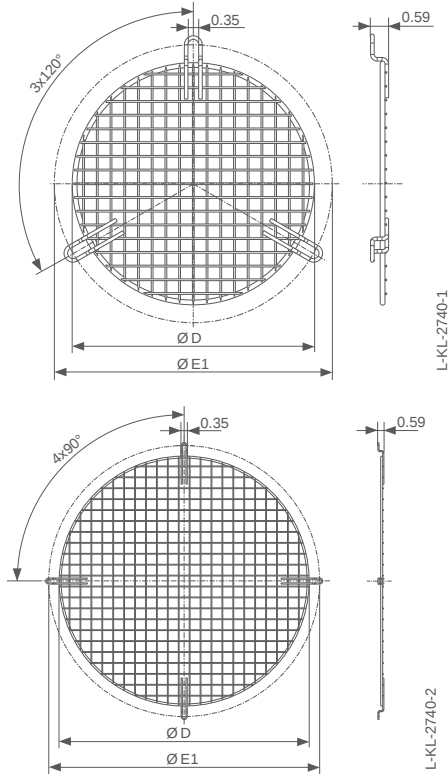
(3) Part no. inlet guard for plenum fan RH..Cpro/C, GR..Cpro/C



System components

Suction guard grille for plenum fan ER..Cpro / ER..C / GR..Cpro / GR..C / RH..Cpro / RH..C

- Material: Steel, coated, pebble grey
- maximum mesh width ≤ 0.39 inch



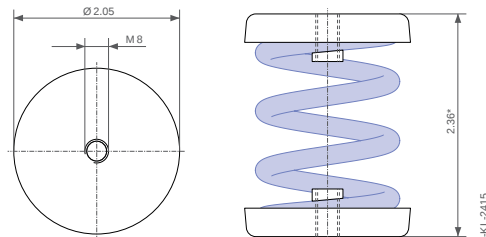
Impeller size		Article no.	Dimensions	
			D inch	E1 inch
ER22-25C	RH22C	00409757	7.99	9.17
ER28C	RH25C	00409758	8.86	10.12
ER31C	RH/GR28C	00409759	9.80	11.14
ER35C	RH/GR31C	00409760	10.75	12.48
ER40C	RH/GR35C	00409761	11.77	13.86
ER45C	RH/GR40C	00409762	13.19	15.43
ER50C	RH/GR45C	00409763	16.14	17.24
	RH/GR50C	00409764	16.14	19.21
ER56C	RH/GR56C	00409765	19.92	21.18

Impeller size		Article no.	Dimensions	
			D inch	E1 inch
ER63C	RH/GR63C	00409766	21.89	23.62
ER71C	RH71C	00409767	24.33	26.38
ER80C	RH80C	00409768	27.17	29.53
ER90C	RH90C	00409769	30.31	33.07
ER10C	RH10C	00409770	33.86	37.01
ER11C	RH11C	00409771	37.80	40.98

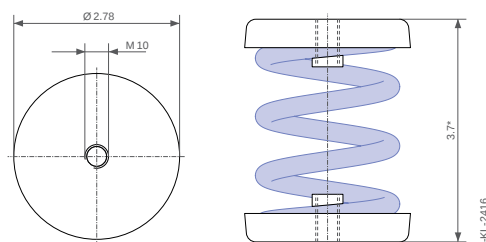
System components

Spring vibration dampers for ER modules

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



Type MSN, * unstressed



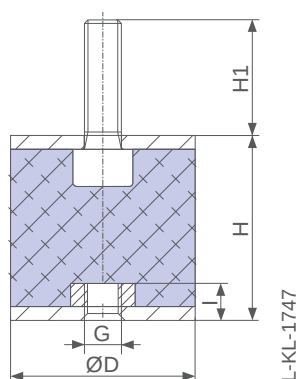
Type SD, * unstressed

Type	Article no.
MSN 3	02006459
MSN 4	02006458
MSN 5	02006446
MSN 6	02006447
MSN 7	02006448

Type	Article no.
SD 4	02006450
SD 5	02006451
SD 6	02006452
SD 7	02006453
SD 8	02006879

Rubber dampers for Cpro ER modules

- Material: Rubber
- galvanized metal plates

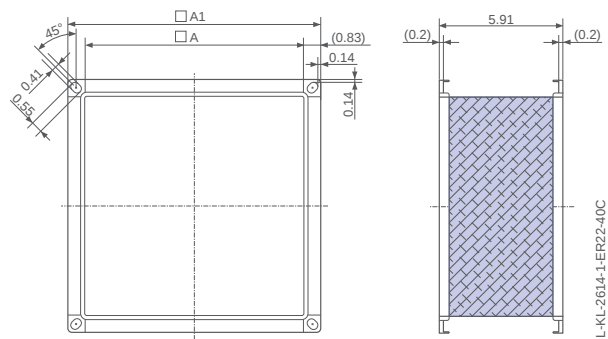


Type	Article no.	Dimensions				
		D	G	H	H1	I
		inch	inch	inch	inch	inch
30x30 / 40	02001048	1.18	M8	1.18	0.79	0.24
30x30 / 55	00090144	1.18	M8	1.18	0.91	0.24
40x30 / 55	02000124	1.57	M8	1.18	0.91	0.28
40x40 / 40	02001049	1.57	M8	1.57	0.91	0.28
40x40 / 55	00090156	1.57	M8	1.57	0.91	0.28
50x50 / 55	00090157	1.97	M10	1.97	1.30	0.31
75x50 / 40	02001674	2.95	M12	1.97	1.30	0.39
75x50 / 55	02000407	2.95	M12	1.97	1.30	0.39
100x75 / 40	00409724	3.94	M16	2.95	1.65	0.51

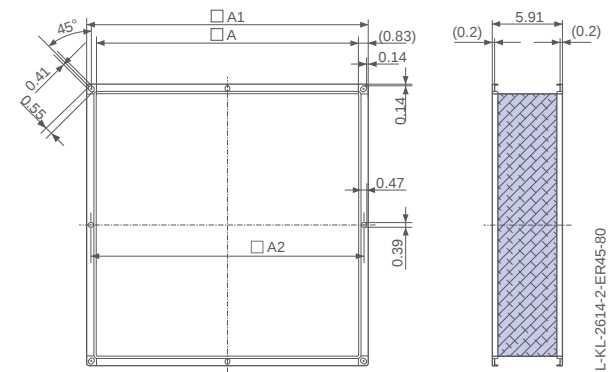
System components

Flexible air intakes for plenum fan ER..Cpro /ER..C

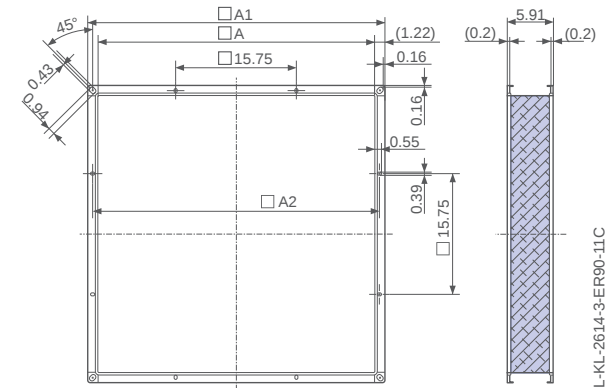
- Material: Polyester fabric, grey
- Frame: Galvanized steel



Impeller size	Article no.	Dimensions	
		A inch	A1 inch
ER22-25C	00403346	10.43	12.09
ER28-31C	00406513	11.02	12.68
ER35-40C	00406514	14.37	16.02



Impeller size	Article no.	Dimensions		
		A inch	A1 inch	A2 inch
ER45-50C	00406515	17.52	19.17	18.50
ER56-63C	00405986	25.20	26.85	26.14



Impeller size	Article no.	Dimensions		
		A inch	A1 inch	A2 inch
ER90-10C	00403351	36.22	38.66	37.40
ER11C	00403352	46.06	48.50	47.24



General notes

Overview

Explanation of technical details	Page 126
Aerodynamics and Acoustics	Page 130
Electrical connection and motor	Page 133
Connection diagrams	Page 134
Installation and usage information	Page 135

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

RH..C

System
components

General notes

Explanation of technical details

Symbols, Units of Measure

Symbol	unit	Description
p_{sF}	in. wg / Pa	Static pressure increase
P_{d2}	in. wg / Pa	Dynamic pressure
q_v	CFM / m ³ /h	Air flow
n_N	rpm / min ⁻¹	Rated speed
P_1	hp / kW	Motor input power
P_{sys}	hp / kW	Motor input power
U_N	V	Rated voltage
f_N	Hz	Nominal 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
$t_{R(min)}$	°F / °C	Max. permitted ambient temperature
$t_{R(max)}$	°F / °C	Max. permitted ambient temperature
L_{WA5}	dB	Suction side sound power level

Conversion factors

Pressure

		SI-unit	Further units		
		Pa (N/m ²)	mbar	in.wg	psi (lbf./in ²)
SI-unit	Pa (N/m ²)	1	0.01	0.004015	0.000145
Further units	mbar	100	1	0.401463	0.014503
	in.wg	249.10	2.49	1	0.036127
	psi (lbf./in ²)	6894.76	68.95	27.68	1

Airflow

		SI-unit	Further units		
		m ³ /s	m ³ /h	l/s	CFM
SI-unit	m ³ /s	1	3600	1000	2118.9
Further units	m ³ /h	0.000277	1	0.277777	0.588583
	l/s	0.001	3.6	1	2.1189
	CFM	0.000472	1.698994	0.471943	1

Input power

		W	kW	hp
SI-unit	W (J/s)	1	0.001	745.699
Further units	kW	1000	1	0.74569
	hp	0.00134102	1.34102	1

Temperature

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



Explanation of technical details

① ER35Cpro (example diagram)

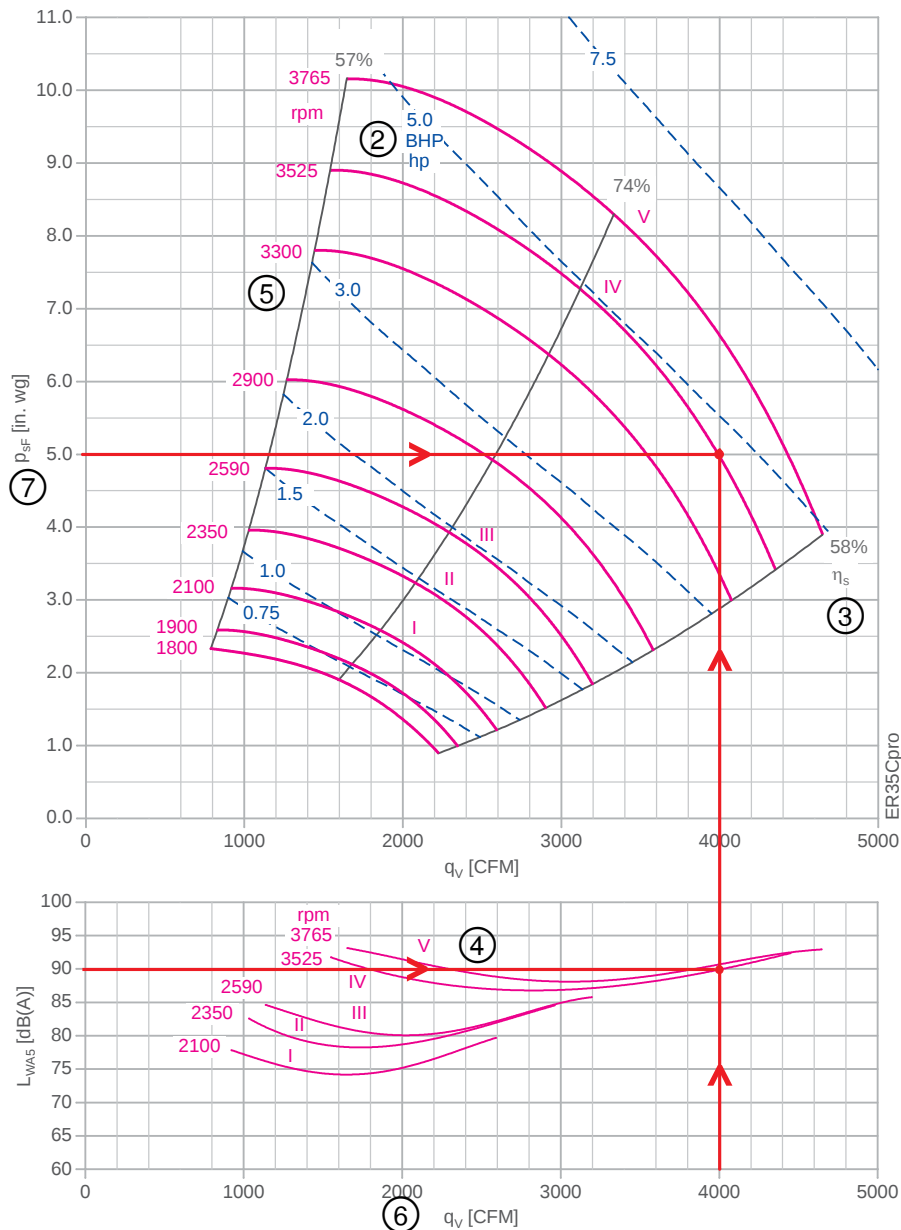


Diagram legend

- ① Fan frame size
- ② BHP: Impeller power requirement in hp. Applicable is: $BHP = (q_v [CFM] \cdot p_{SF} [in.wg]) / (6362 \cdot \eta_s)$
- ③ η_s : 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 rpm
- ⑥ q_v : Volume flow in CFM
- ⑦ p_{SF} : Static pressure rise in in.wg

All data based on measurement density $\rho \approx 0.075 \text{ lbs/ft}^3$.

The C-series performance characteristics were measured in the AMCA certified combination testbenches 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.

Dynamic pressure

Calculation of the dynamic pressure:

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

p_{d2} Dynamic pressure at fan outlet in in.wg

k Constant

q_v Air flow in CFM

k factors for the calculation of the dynamic pressure

Cpro-Series Diameter	k value	C-Series Diameter	k value
		22C.1R	$2.70 \cdot 10^{-7}$
25C.CR	$1.10 \cdot 10^{-7}$	25C.1R	$1.67 \cdot 10^{-7}$
28C.CR	$7.13 \cdot 10^{-8}$	28C.1R	$1.09 \cdot 10^{-7}$
31C.CR	$4.57 \cdot 10^{-8}$	31C.1R	$7.00 \cdot 10^{-8}$
35C.CR	$2.87 \cdot 10^{-8}$	35C.1R	$4.36 \cdot 10^{-8}$
40C.CR	$1.83 \cdot 10^{-8}$	40C.1R	$2.70 \cdot 10^{-8}$
45C.CR	$1.13 \cdot 10^{-9}$	45C.1R	$1.67 \cdot 10^{-8}$
50C.CR	$7.05 \cdot 10^{-9}$	50C.1R	$1.05 \cdot 10^{-8}$
56C.CR	$4.60 \cdot 10^{-9}$	56C.1R	$6.87 \cdot 10^{-9}$
63C.CR	$2.93 \cdot 10^{-9}$	63C.1R	$4.37 \cdot 10^{-9}$
		71C.1R	$2.72 \cdot 10^{-9}$
		80C.1R	$1.69 \cdot 10^{-9}$
		90C.1R	$1.05 \cdot 10^{-9}$
		10C.1R	$6.54 \cdot 10^{-10}$
		11C.4R	$4.18 \cdot 10^{-10}$
		11C.1R	$2.73 \cdot 10^{-10}$

Example:

Type ER45C-4DM.E7.CR, article no. 112816/BV03

Diameter	Constant
25C.1R	$1.10 \cdot 10^{-7}$
28C.1R	$7.13 \cdot 10^{-8}$
31C.1R	$4.57 \cdot 10^{-8}$
35C.1R	$2.87 \cdot 10^{-8}$
40C.1R	$1.83 \cdot 10^{-8}$
45C.1R	$1.13 \cdot 10^{-8}$
50C.1R	$7.05 \cdot 10^{-9}$
56C.1R	$4.60 \cdot 10^{-9}$
63C.1R	$2.93 \cdot 10^{-9}$

$$p_{d2} = 1.13 \cdot 10^{-8} \cdot q_v^2$$



High-performance centrifugal impeller

RH..Cpro / RH..C

Technical description

RH..C-pro-Series

Type	Number of pole	Start-up time [s]
25C.CR	2	04
28C.CR	2	06
31C.CR	2	07
35C.CR	2	07
	4	04
40C.CR	2	06
	4	05
45C.CR	2	05
	4	08
50C.CR	4	12
56C.CR	4	13
	6	08
63C.CR	4	15
	6	16

C-Series

Type	Number of pole	Start-up time [s]
22C.1R	2	03
25C.1R	2	04
28C.1R	2	06
31C.1R	2	07
35C.1R	2	07
	4	02
40C.1R	2	06
	4	05
45C.1R	2	05
	4	08
50C.1R	4	12
56C.1R	4	13
	6	08
63C.1R	4	15
	6	16
71C.1R	4	13
	6	18
80C.1R	4	13
	6	21
90C.1R	4	11
	6	19
	8	25
10C.1R	6	18
	8	27
11C.4R	6	21
	8	24
11C.1R	6	21
	8	24

Forces and stress during operation

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

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

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

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

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

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

Aerodynamics and Acoustics

Measurement method

The characteristic field display shows the pressure increase Δp_{sF} in Pa as a function of the air flow q_v in m³/h.

Technical terms of delivery

The specified performance data corresponds to the accuracy class **3** according to **DIN 24 166** and applies to the rated data and air flow rate characteristic curves at rated voltage.

Fan test bench

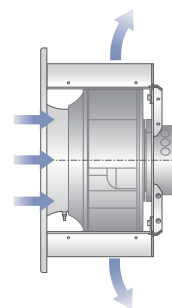
The fan characteristic curves are determined on a combined air and noise test bench.

The characteristic curves are measured according to **DIN EN ISO 5801**, or **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 is attached to the measuring chamber with direct air intake and direct air discharge (installation type A in compliance with **DIN EN ISO 5801** and **AMCA 210-99**).

Air density

The air temperature and humidity are conditioned during the measurement using heat exchangers and are largely kept constant. The characteristic curves shown refer to the measuring density. The mean measuring density is 0.075 lbs/ft³.

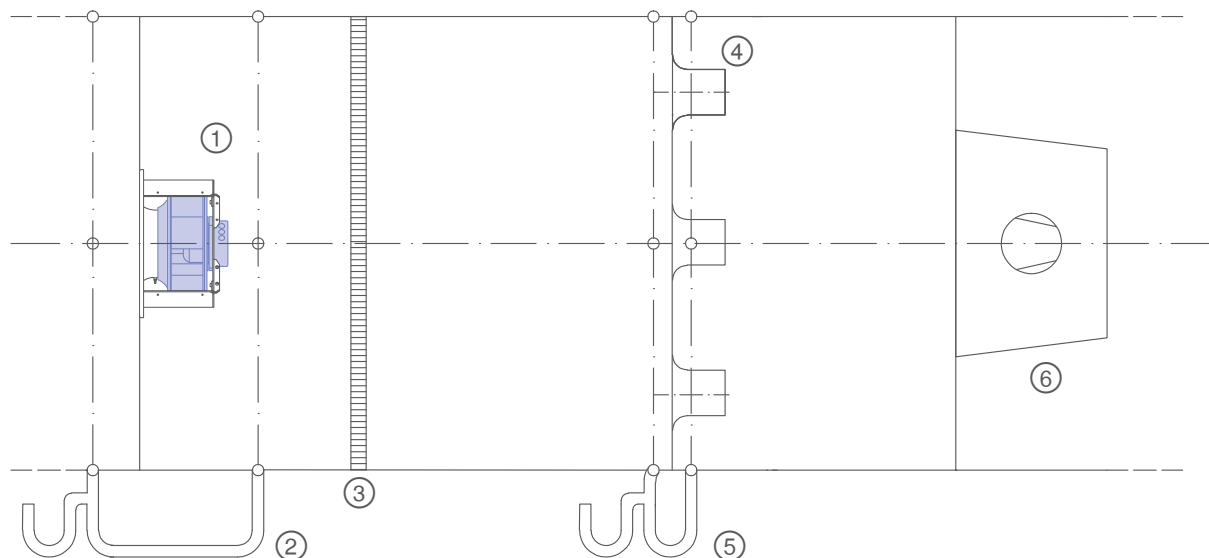


L-KL-3015

Installation type A according to ISO 5801



Technology Centre (InVent)



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



Noise level data

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

This is done by measuring the acoustic pressure level L_p of the individual third-octave bands at 12 points on the enveloping surface (Fig. 1a). The measured acoustic pressure levels for the third-octave bands are initially used to calculate the sound power level for the third-octave bands and then the intake side sound power level L_W . To do this, the fans are installed with a free intake (from the measuring chamber) and (air) outlet (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.

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

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

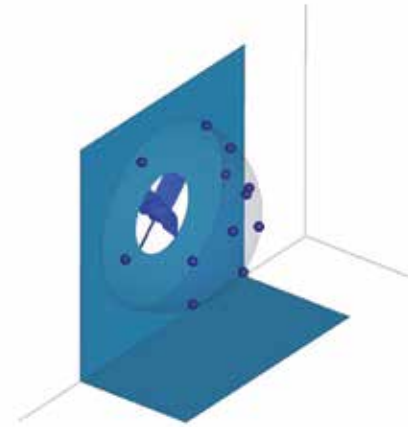


Fig. 1a: Microphone positions of fan



Fig. 1b: Fan test rig

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 acoustic pressure level

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

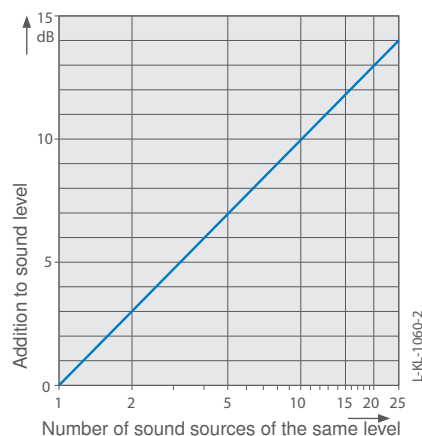


Fig. II: Addition of several sound sources

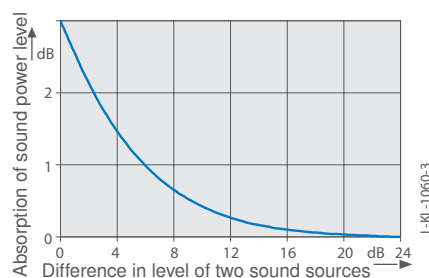


Fig. III: Sound sources of different level

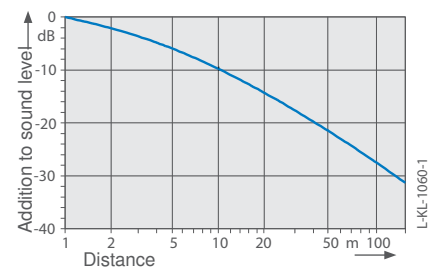


Fig. IV: Reduction of sound pressure level with distance

Electrical connection and motor

Fan drive

The three phase (3~) NEMA Premium motor integrated into the fan hub meets the requirements for circulating electric machines set forth in DIN EN 60 034-1 (VDE 0530 Part 1).
The rated voltage for three phase alternating current motors is 460 V.

Electrical connection

Voltage

The three phase alternating current motors are suitable for 460 V $\pm$ 10 % and for 60 Hz. For details please refer to data sheet.

Motor connection

Mains connection via terminal box.

Terminal box

The terminal boxes are made of shock-proof, weather-resistant die-cast aluminium.

Operation on the frequency inverter

ZIEHL-ABEGG centrifugal fans are suitable for operation with frequency inverters.

Information

ER..Cpro

ER..C

GR..Cpro

GR..C

RH..Cpro

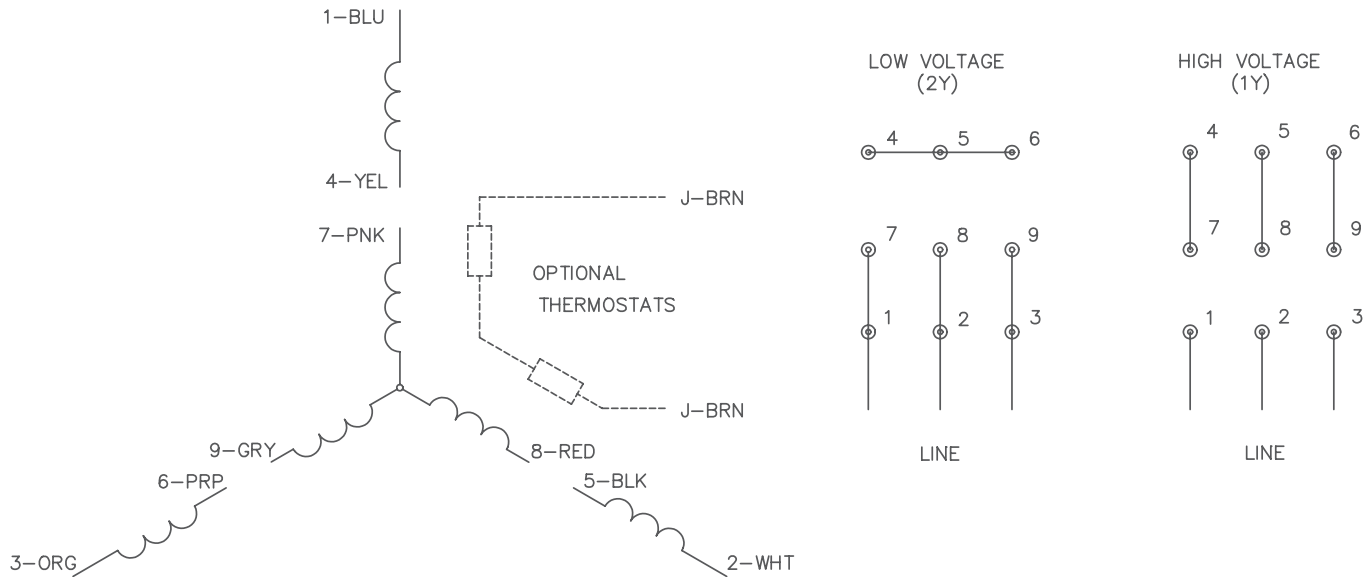
RH..C

System
components

General notes

Connection diagram for motors

Three-phase A.C. motor with PTC thermistor for one speed



Notes:

1. Interchange any two line leads to reverse rotation
2. Optional thermostats are provided when specified
3. Actual number of internal parallel circuits may be a multiple of those shown above
4. Lead colors are optional. Leads must always be numbered as shown.



Installation and usage information

Measuring device for determining air volume

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

Under normal conditions at 68°F / 20°C:

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

Under fluctuating air conditions:

$$q_v = k \cdot \sqrt{\rho_s / \rho \cdot \Delta p_w}$$

q_v	Air flow in CFM
Δp_w	Differential pressure of the static pressures in in.wg
k	Factor for specific nozzle properties, nozzle factor
ρ_s	Standard air density with 0.075 lbs/ft ³
ρ	Air density at current operating point in lbs/ft ³

Nozzle coefficients

Size	Cpro-Series	C-Series
9		437
10	558	558
11	697	697
12.5	883	883
14	1124	1124
16	1431	1431
18	1830	1830
20	2413	2413
22	2861	2861
25	3540	3540
28		4552
32		5760
36		7330
40		9281
45		11455

* $\rho = 0.075 \text{ lbs/ft}^3$

Example:

If an active pressure of 2.87 in.wg is measured for size ER63C, the airflow can be calculated as follows, using this simplified formula:

$$q_v = k \cdot \sqrt{\Delta p_w} = 3540 \cdot \sqrt{2.87} = 6000 \text{ CFM}$$

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

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

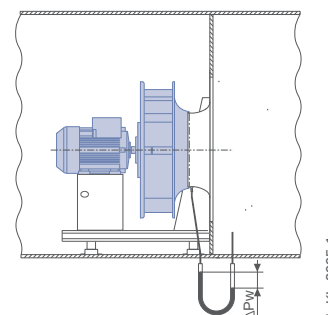
Notes pertaining to the measuring method

The measured values, which were determined using the active pressure method, are subject to a tolerance of +/- 8.0% as they pertain to the airflow result. This tolerance is reached above a minimum air velocity of approx. 29.53 ft/s at the place of greatest constriction.

The tolerances cannot be clearly quantified below this minimum air velocity.

This airflow measuring method is only suitable for acceptance measurements on site.

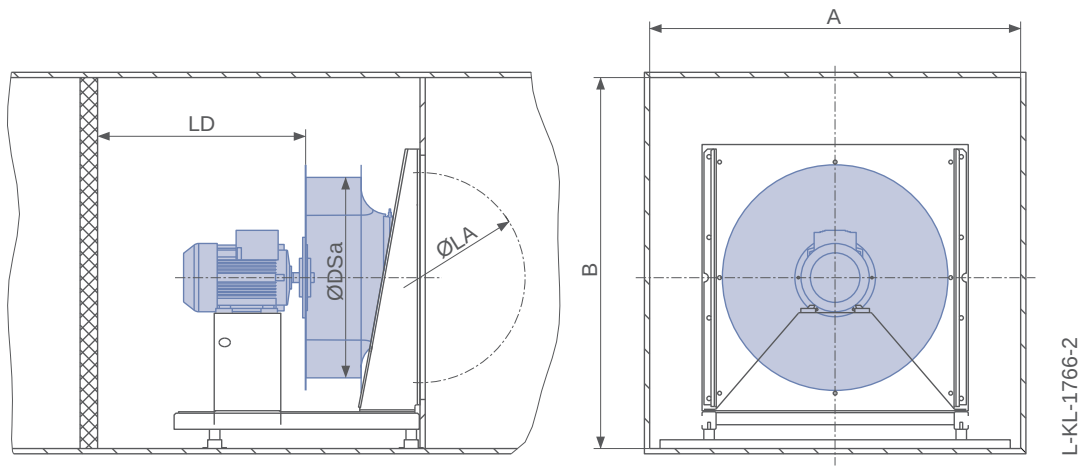
For a more accurate airflow determination in the existing installation setup, a counter calibration of the airflow has to be carried out on site to measure the active pressure. The nozzle factors determined during this process apply exclusively to this installation setup.



L-KL-2995-1

High-performance centrifugal fans

Installation instructions



Distances to other components

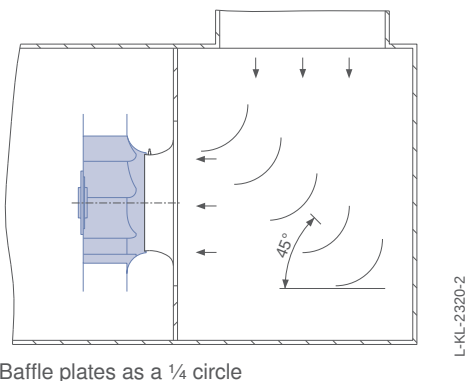
Distance on the suction side: $LA \geq 0.5 \times DSa$

In the case of disturbance flow (per example curved pipe at the suction side, flaps etc.): $LA \geq 1 \times DSa$

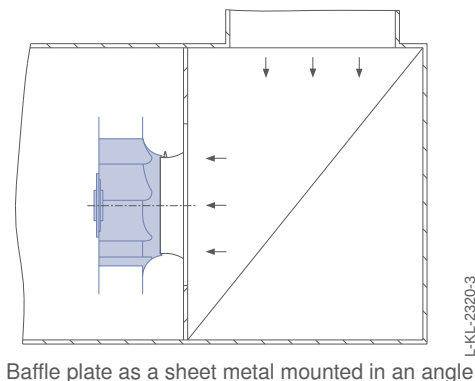
Distance on the duct side: $LD \geq 1 \times DSa$

Housing wall distances: $A \geq 1.8 \times DSa$; $A = B$

Additional baffle plates **must be** fitted in the suction chamber over the whole width of the AHU if there is a 90° change of direction before the intake.



Baffle plates as a 1/4 circle

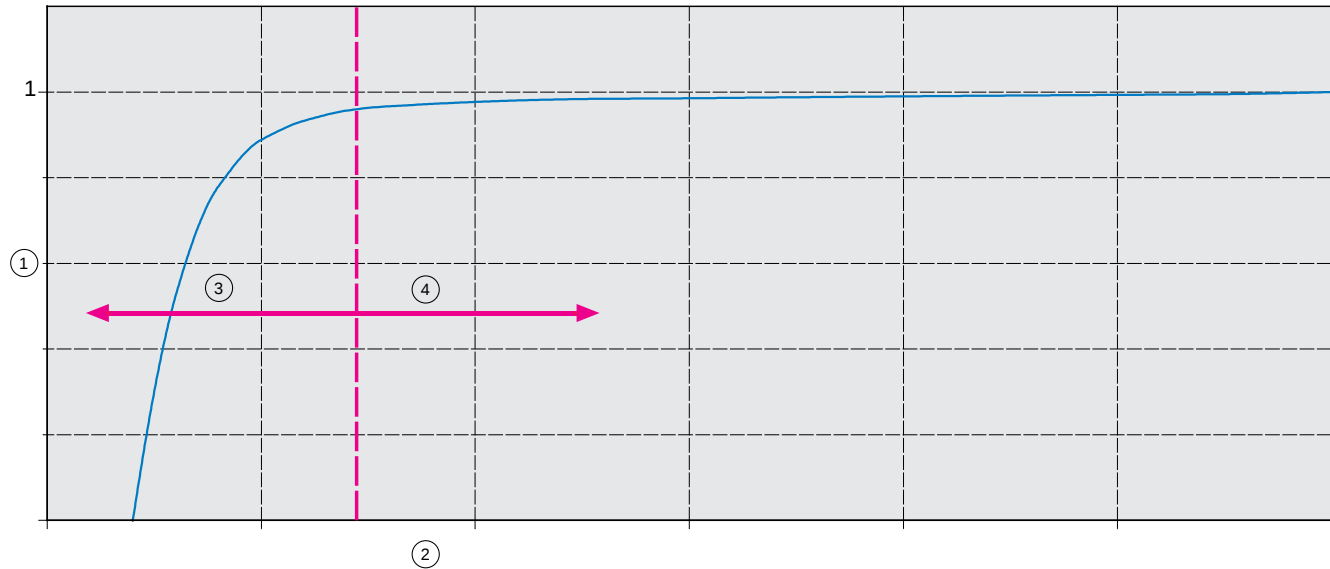


Baffle plate as a sheet metal mounted in an angle

Impact of installation in the air handling unit

Changes when installing into air handling unit

When selecting the Cpro-Series or C-Series, it is possible to enter the dimensions of the 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 analyzed this influence on the behavior 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.



- ① Devaluation
- ② Reference surface
- ③ Impermissible area acc. RAL Quality Assurance Association
- ④ Permissible area acc. RAL Quality Assurance Association

In box sections with unequal side lengths, a reference surface F (equivalent parameter) consisting of device-width A and device-high B can be calculated as an iteration when there is a minimum clearance of $0.3 \times DSa$ between the impeller and the device wall: $F = \sqrt{A \times B}$

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