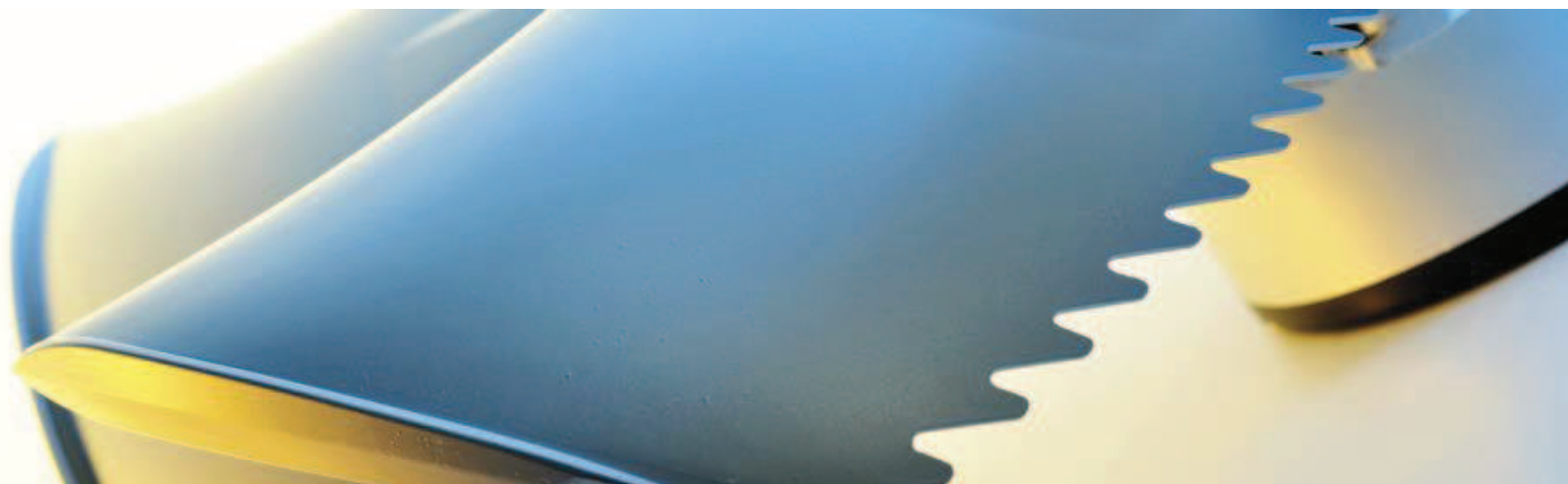


Movement by Perfection



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



Product documentation

Type
FB045-4EK.4F.V4L

Article number
107023

Beijing Hengrui Mechanical and Electrical Equipment Co.,Ltd
+86 10-62547612
zhangyu@bjhengrui.cn
en.bjhengrui.com

1. Product specification - Technical data

Article number	107023
Type	FB045-4EK.4F.V4L
Designation	Axial fan with sheet blades
Rated values	1~230V $\pm 10\%$ 50Hz P ₁ 0.41kW 1.9A 1320/min 8.0uF/400V 1~230V 60Hz P ₁ 0.57kW 2.5A 1520/min 8,0uF/400V test
Electrical connection	Terminal box K62
ErP Data	Efficiency η_{statA} : 32.3 % Efficiency grade: N _{actual} = 41.7 / N _{target} = 40* *ErP 2015
Type of protection	IP54
Thermal class	THCL155
Mounting type terminal box	Mounted on Stator
Min. operating temperature	-25°C
Connection diagram	1360-104XA
Rating plate	1x fixed
Fitting position	H/Vu/Vo
Motor protection	thermal contact
Impregnation	Moisture and hot climate protection
Condensation	Condensation water holes in stator/rotor open
Quality of bearings	ball bearing with long-time lubrication
Material Rotor	Aluminium
Painting rotor	Rotor 1 coat paint resistance class 1 (L-TI-0596)
colour rotor	RAL 9005 (jet black)
painting stator	Stator 1 coat paint resistance class 1 (L-TI-0596)
colour stator	RAL 9005 (jet black)
Material blades	Aluminium
Painting impeller	Impeller 1 coat paint resistance class 1 (L-TI-0596)
Colour blades	RAL 9005 (jet black)
Painting mot.suspens	Motor suspension 1 coat paint resistance class 1 (L-TI-0596)
colour suspension	RAL 9005 (jet black)

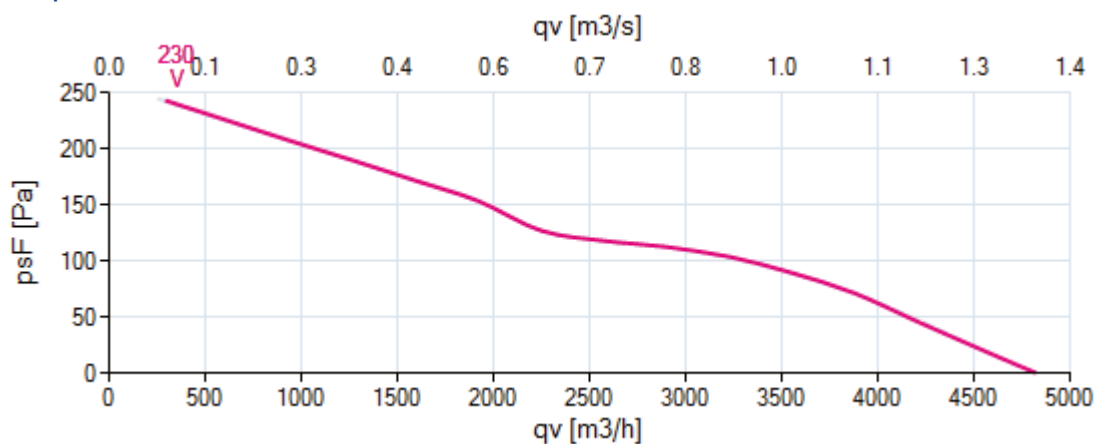
2. Characteristic Curve

FB045-4EK.4F.V4L

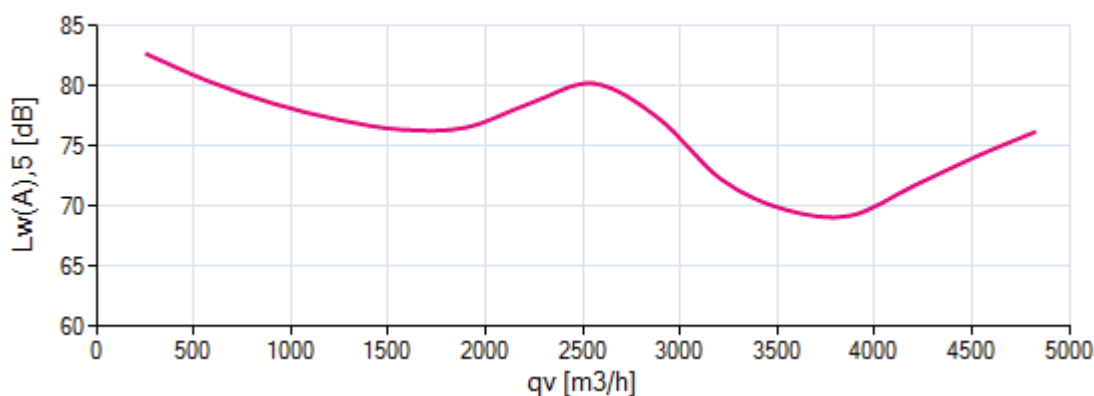
1~ 230V 50Hz

measurement density 1,16 kg/m³

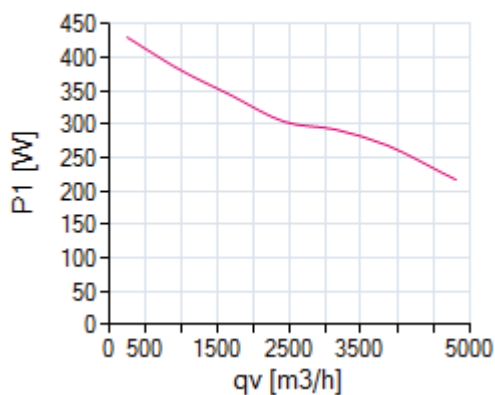
Air performance



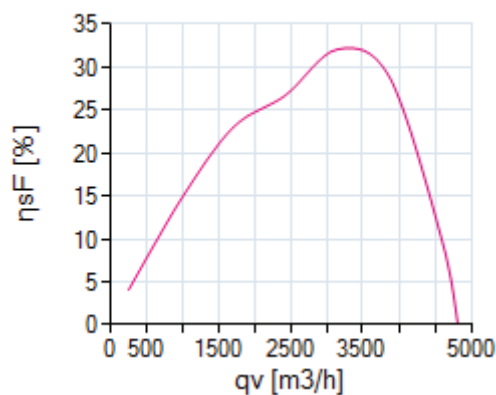
Acoustics



Power input



Efficiency



Please note: It's not allowed to use this fan in the stall area!*

*In doubt please ask your responsible ZIEHL-ABEGG sales contact.

B-B

ZEICHNUNG-NR.	TYP	BALGR.	B	B2	B5	MASS
12045-K402.2	FB045-K4-V4-VL	106-50	141	40.5	68.5	9.2

in kg

MASS
9.2

Zeichnerische Darstellung entspricht 12045-K402.4

ZIEHL-ABEGG		ISO 2768 - mK		Baupl. 106	
This drawing is property of Ziehl-Abegg AG. All rights reserved. Distribution and utilization is subject to approval. All rights reserved.		FB045-K4-V4-K62		12045-K402	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4		12045-K402.5	
Drawing: 12045-K402.2		12045-K402.4			

The illustrations shown make no claim to completeness and are for orientation purposes only.

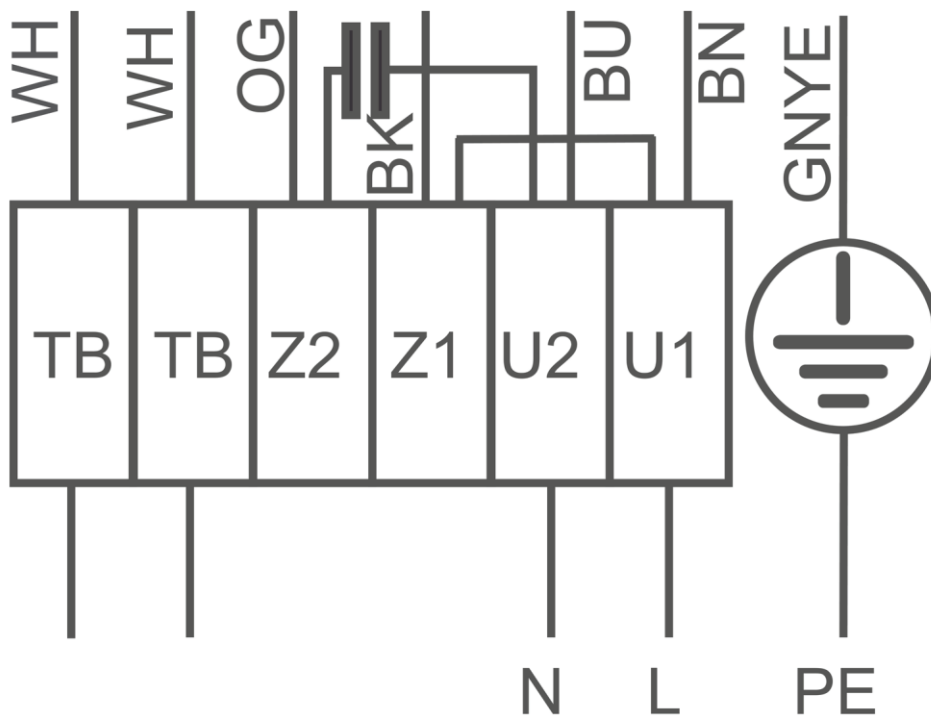
4. Connection diagram

wiring diagram: 1360-104XA

1~Motor with capacitor and thermostatic switch (if built in).

BN brown
BU blue
BK black
OG orange
WH white
GNYE green-yellow

Clockwise rotation



5. EU-Declaration of conformity

EU declaration of conformity

- Translation -
(english)

ZA75-GB 1910 Index 015

Manufacturer:
ZIEHL-ABEGG SE
Heinz-Ziehl-Straße
74653 Künzelsau
Germany

The manufacturer is solely responsible for issuance of the declaration of conformity.

The products:

- External rotor motor MK..., MW...
- Axial fan DN..., FA..., FB..., FC..., FE..., FF..., FG..., FH..., FL..., FN..., FS..., FT..., FV..., VN..., VR..., ZC..., ZF..., ZG..., ZN...
- Centrifugal fan ER..., GR..., RA..., RD..., RE..., RF..., RG..., RH..., RK..., RM..., RR..., RZ..., WR...
- Cross-flow fan QG..., QK..., QR..., QT...

The motor type:

- Asynchronous internal or external rotor motor
- Asynchronous internal or external rotor motor with integrated frequency inverter
- Electronically commutated internal or external rotor motor
- Electronically commutated internal or external rotor motor with integrated EC controller

These products comply with the following EU directives:

- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- ErP Directive 2009/125/EC, in conjunction with Regulation (EU) no. 327/2011

The following harmonised standards have been used:

EN 60034-1:2010 + Cor.:2010	EN 61000-6-3:2007 + A1:2011 + AC:2012
EN 60204-1:2006 + A1:2009 + AC:2010	EN 61000-6-2:2005 + AC:2005
EN 60529:1991 + A1:2000 + A2:2013	

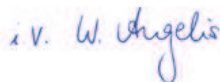
Compliance with the ErP Directive 2009/125/EC does not refer to external rotor motors MK..., MW...

All ErP-relevant information comprises measurements which are determined using a standardised measurement set-up. More details can be obtained from the manufacturer.

Compliance with the EMC Directive 2014/30/EU refers only to those products when they are connected by mounting / operating instructions. If these products are integrated into a system or supplemented with other components (e.g. sensing controls) and operated, the manufacturer or operator is responsible of the overall system for compliance with the EMC Directive 2014/30/EU.

Künzelsau, 05.03.2019
(location, date of issue)

ZIEHL-ABEGG SE
Dr. W. Angelis
Technical Director Air Movement Division
(name, function)



(Signature)

ZIEHL-ABEGG SE
Dr. D. Kappel
Deputy Head of Electrical Systems
(name, function)



(Signature)

ZIEHL-ABEGG 

EC Declaration of Incorporation

as defined by the EC Machinery Directive 2006/42/EC, Annex II B

The design of the incomplete machine:

- Axial fan FA..., FB..., FC..., FE..., FF..., FG..., FS..., FT..., FH..., FL..., FN..., FV..., DN..., VR..., VN..., ZC..., ZF..., ZG..., ZN...
- Centrifugal fan RA..., RD..., RE..., RF..., RG..., RH..., RK..., RM..., RR..., RZ..., GR..., ER..., WR...
- Cross-flow fan QK..., QR..., QT..., QD..., QG...

Motor type:

- Induction internal or external rotor motor (also with integrated frequency inverter)
- Electronically commutated internal or external rotor motor (also with integrated EC controller)

complies with the requirements in Appendix I, Articles 1.1.2, 1.1.5, 1.4.1, 1.5.1 in EG Machinery Directive 2006/42/EG.

Manufacturer

ZIEHL-ABEGG SE
Heinz-Ziehl-Strasse
D-74653 Künzelsau

The following harmonised standards have been used:

EN 60204-1:2006+A1:2009	Safety of machinery; electrical equipment of machines; Part 1: General requirements
EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction
EN ISO 13857:2008	Safety of machinery; safety distances to prevent danger zones being reached by the upper limbs
Note:	The maintenance of the EN ISO 13857:2008 relates only to the installed accidental contact protection, provided that it is part of the scope of delivery.

The specific technical documentation in accordance with Appendix VII B has been written and is available in its entirety.

The person authorised for compiling the specific technical documentation is: Dr. W. Angelis, address see above. The specific documentation will be transmitted to the official authorities on justified request. The transmission can be electronic, on data carriers or on paper. All industrial property rights remain with the above-mentioned manufacturer.

It is prohibited to commission this incomplete machine until it has been secured that the machine into which it was incorporated complies with the stipulations of the EC Machinery Directive.

Künzelsau, 12.12.2017

Dr. W. Angelis - Technical Director Ventilation Division

Dr. W. Angelis

ZAZA87-GB-1750 Index 007

1

english

ZIEHL-ABEGG 

00296702-GB



The Royal League in ventilation, control and drive technology

Intelligent control technology for any application

ZIEHL-ABEGG system capabilities:
Everything from a single source – perfectly matched for optimal performance

Please contact us. We would be pleased to design an individual solution for your requirements.

We would like to welcome you on our worldwide exhibitions. Please find our next exhibitions [here](#).