



Movement by Perfection



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



Product documentation

Type

FB050-VDK.4I.V4P

Article number

210543

Product documentation

Customer

Beijing Hengrui Mechanical and Electrical Equipment
Co,Ltd

Project

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en.bjhengrui.com

Type

FB050-VDK.4I.V4P

Article number

210543



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1. Recitals

The Product Specifications contained in this document are final, unless otherwise stated by a separate provision in the "ZIEHL-ABEGG deviation list document" with respect to information provided by the customer (cp. separate Chapter: Attachment).

Other regulations between the parties, regardless of time, form or content, are not part of the subject matter of the contract and the agreement on characteristics/of features (Product Specifications) between the parties.

Compliance with the following specifications is mandatory to ensure the functionality and safety of the product. If the following specifications given especially but not limited for operating conditions, transport, storage, mounting, start-up, maintenance and repair are not observed, the product may not operate safely and may cause a hazard to the life and limb of users and third parties.

Deviations from the following requirements may therefore lead both to the loss of the statutory material defect liability rights and to the liability of the buyer for the product that has become unsafe due to the deviation from the specifications.

2. Product specification - Technical data

Article number	210543
Type	FB050-VDK.4I.V4P
Designation	Axial fan with sheet blades
Rated values	3~400V $\pm 10\%$ D/Y 50Hz P ₁ 0.65/0.44kW 1.15/0.77A $\Delta I = 15\%$ 1340/960/min COSY 0,81 70°C test
Electrical connection	Terminal box K62
ErP Data	Efficiency η_{statA} : 34.6 % Efficiency grade: N _{actual} = 42.4 / N _{target} = 40* *ErP 2015
Type of protection	IP54
Thermal class	THCL155
Mounting type terminal box	Mounted on Stator
Min. operating temperature	-40°C***
Connection diagram	1360-108XA
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 unpainted
painting stator	Stator unpainted
Material blades	Aluminium
Painting impeller	Impeller unpainted
Guard grille type	ring grill
Painting mot.suspens	Motor suspension powder-coated resistance class 2 (L-TI-0585)
colour suspension	RAL 9005 (jet black)
Weight	11.30 kg

*** Operation mode:

Continuous operation with occasional starts (S1) according to DIN EN 60034-1:2011-02.

Occasional starting between -40 °C and -25 °C is permissible. Continuous operation below -25 °C only with special bearings for refrigeration applications on request.

Permissible minimum and maximum ambient temperature for operation:

Please refer to the technical documentation of the product for the minimum and maximum ambient temperature valid for the respective fan. Operation below -25 °C as well as partial load operation for refrigeration applications is only possible with special bearings for refrigeration applications on request. If special bearings for refrigeration applications are installed in the fan, please observe the permissible maximum temperatures in the technical documentation of the product.

3. Characteristic Curve

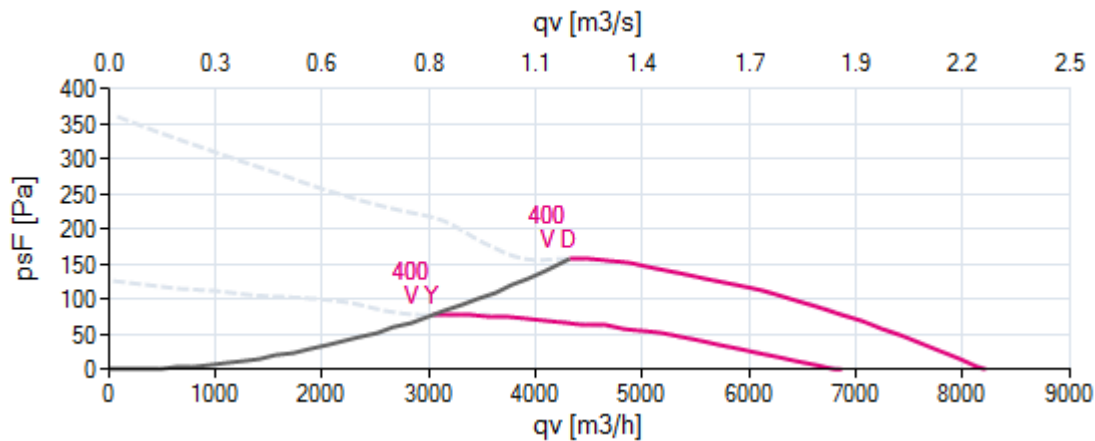
FB050-VDK.4I.V4P

Measured in full nozzle without guard grille in air flow direction V in installation type A according to ISO5801

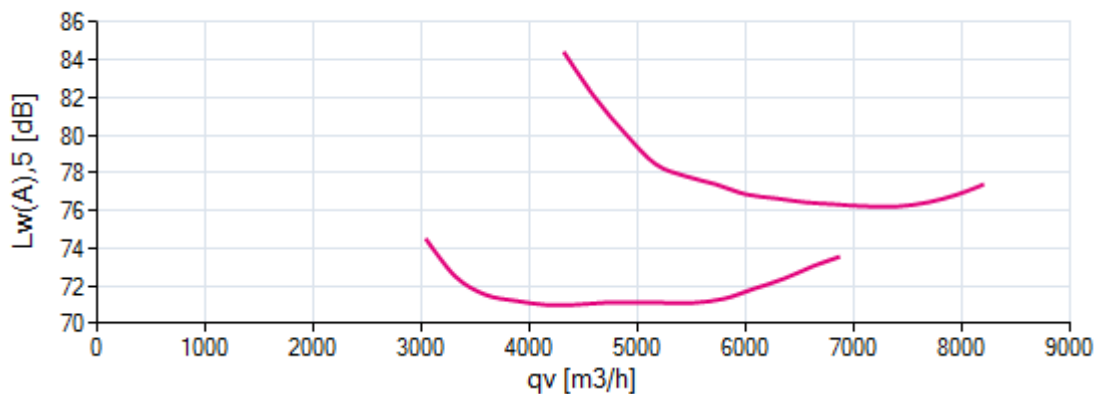
3~ 400V 50Hz D

measurement density 1,16 kg/m³

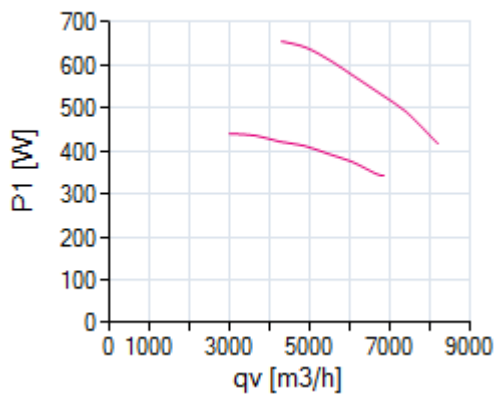
Air performance



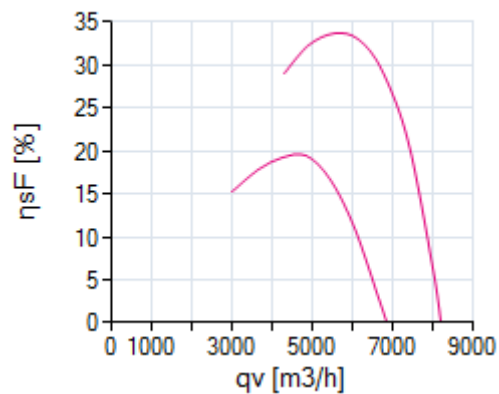
Acoustics



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.

[illegible]

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

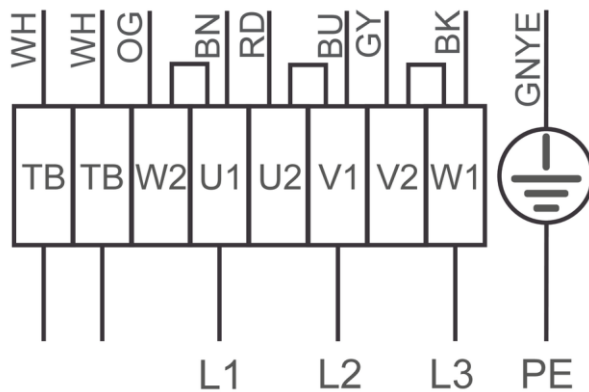
5. Connection diagram

wiring diagram: 1360-108XA

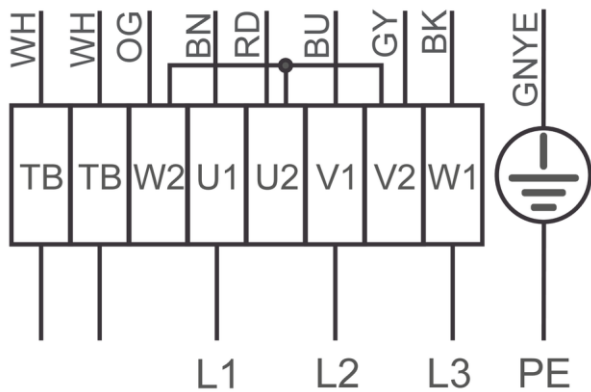
3~ motor, 2 speeds (Δ/Y switch over) with thermostatic switch (if built in). Without bridge when using speed change-overswitch.

BN brown
BU blue
BK black
RD red
GY grey
OG orange
WH white
GNYE green-yellow

High speed/D-connection



Low speed/Y-connection



6. 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

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english

ZIEHL-ABEGG 

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