Movement by Perfection

The Royal League in ventilation, control and drive technology

Product documentation

Type
FN050-VDQ.4I.V7P1

Article number
140322

ZIEHL-ABEGG

Product documentation

Customer
AIREFRIG AUSTRALIA

Project
Axial Fan

ZIEHL-ABEGG Contact
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1. Product specification - Technical data

Article number	140322
Type	FN050-VDQ.4I.V7P1
Designation	Axial fan with sickle blades
Rated values	3~400V ±10% D/Y 50Hz P_1 0.84/0.54kW 1.45/0.96A ΔI=15% 1340/940/min COSY 0,80 70°C
Electrical connection	Terminal box K62
ErP Data	Measurement category ErP: A Air flow q_v on Eta opt: 6159 m3/h Pressure increase p_{fs} on Eta opt: 149 Pa Input power P_1 on Eta opt: 760 W Efficiency η_{statA}: 34.2 % Efficiency grade: N_{actual} = 41.3 / N_{target} = 40* *ErP 2015
Type of protection	IP54
Thermal class	THCL155
Mounting type terminal box	Mounted on Stator
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
Material blades	Aluminium
Guard grille type	ring grill
Other	Balancing quality G 4,0
Painting housing	Bell mouth powder-coated resistance class 2 (L-TI-0585)
Colour housing	RAL 9005 (jet black)
Painting mot.suspens	Motor suspension powder-coated resistance class 2 (L-TI-0585)
colour suspension	RAL 9005 (jet black)
Weight	18.30 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.

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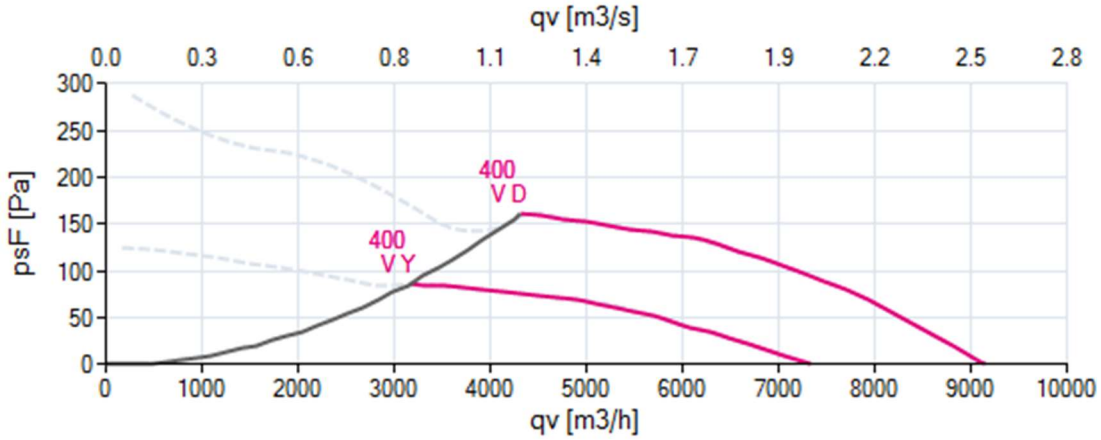
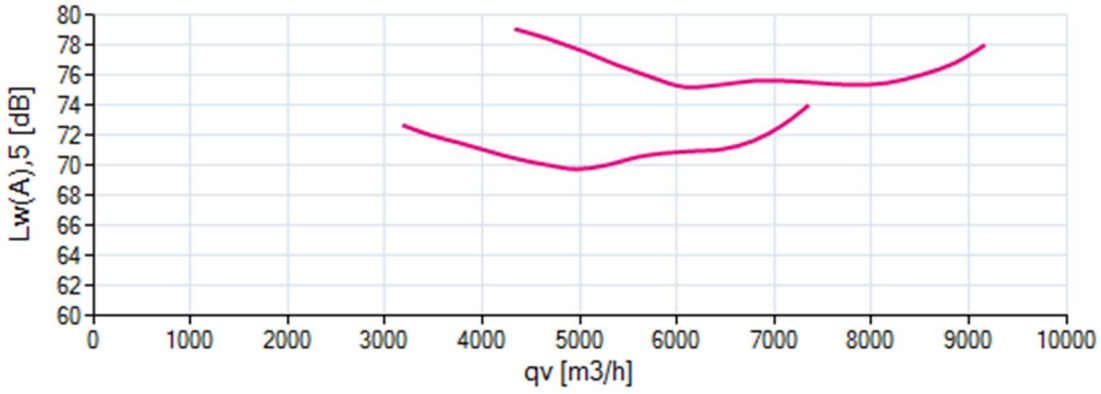
2. Characteristic Curve

FN050-VDQ.4I.V7P1	Gemessen in Volldüse mit druckseitigem Berührschutz in Förderrichtung V in Einbauart A nach ISO5801
3~ 400V 50Hz Y	Messdichte 1,16 kg/m³

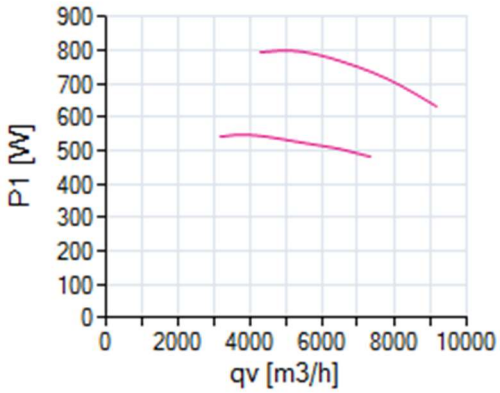
Air performance



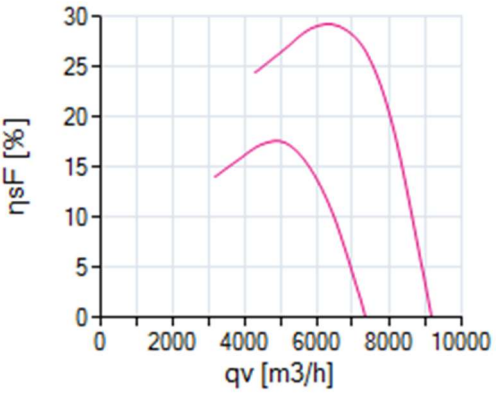
Acoustics



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.

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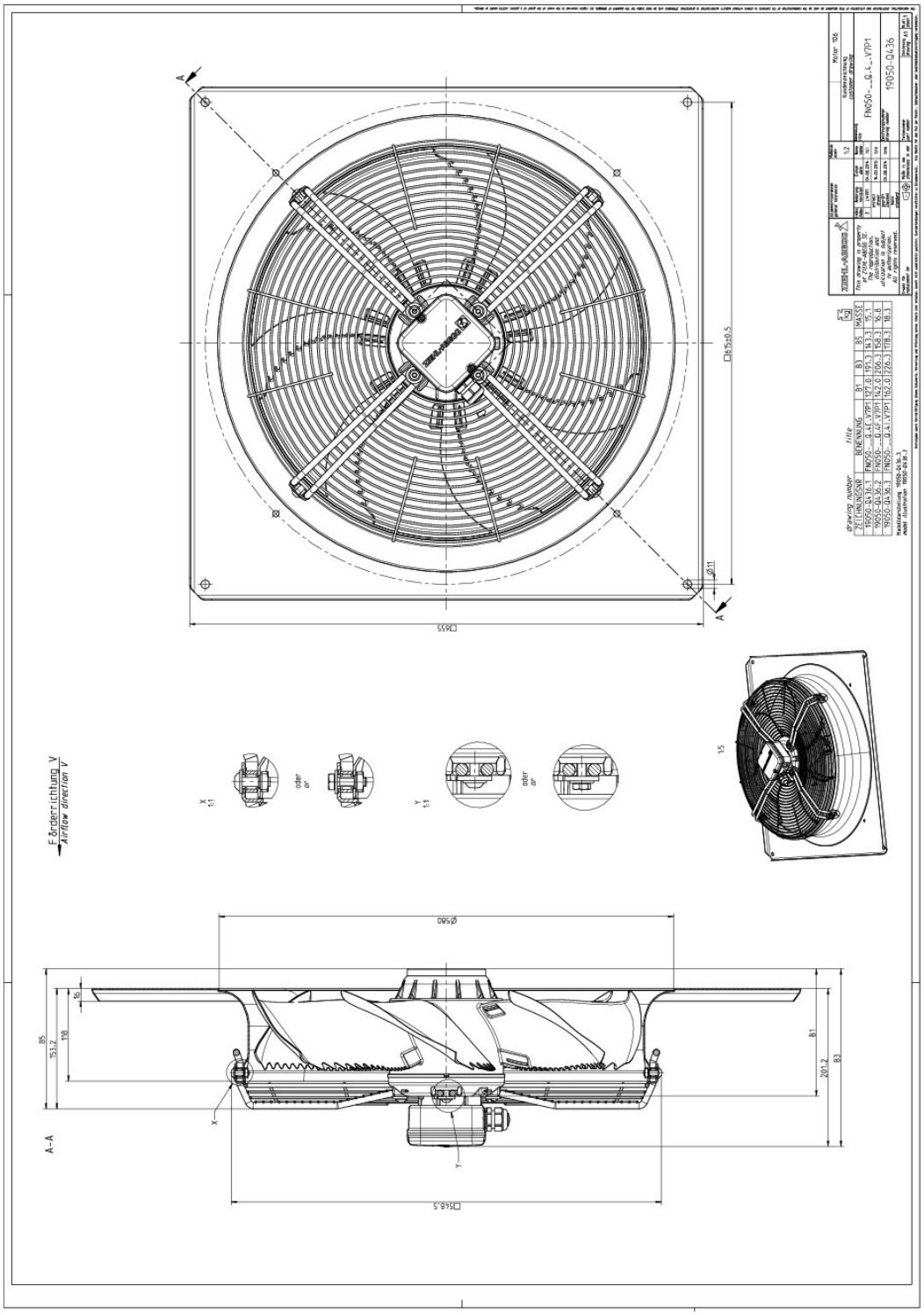
3. Drawing



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

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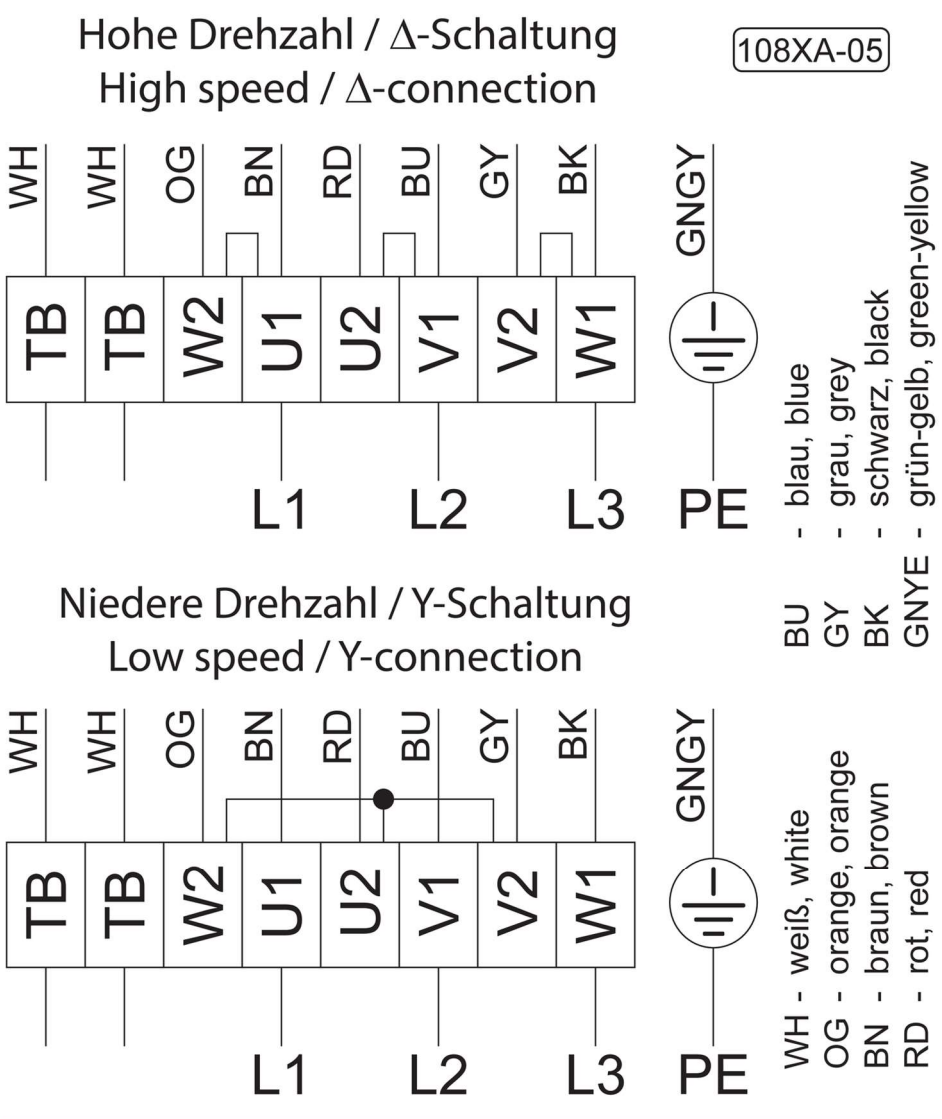
4. Connection diagram

3~ Motor mit 2 Drehzahlen (Δ/Y-Umschaltung) und Thermostatschalter (falls eingebaut). Ohne Brücke bei Verwendung von Drehzahlumschalter.

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



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5. EU-Declaration of conformity

EU declaration of conformity

- Translation -
(english)

ZA75-GB 2044 Index 016

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.., HR.., 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 + AC:2010
- EN 60204-1:2006 + A1:2009 + AC:2010
- EN 60529:1991 + A1:2000 + A2:2013 + AC:1993 + AC:2016 + AC:2019
- EN 61000-6-2:2005 + AC:2005
- EN 61000-6-3:2007 + A1:2011 + AC:2012

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, 28.10.2020
(location, date of issue)

ZIEHL-ABEGG SE
Dr. W. Angelis
Head of Technics Ventilation Technology
(name, function)

i. V. W. Angelis

(signature)

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

i. V. David Kappel

(signature)

ZIEHL-ABEGG

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EC Declaration of Incorporation

- Translation -
(english)

ZA87-GB 2044 Index 009

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

The design of the incomplete machine:

- 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.., HR.., RA.., RD.., RE.., RF.., RG.., RH.., RK.., RM.., RR.., RZ.., WR..
- Cross-flow fan QD.., QG.., QK.., QR.., QT..,

Motor type:

- Asynchronous 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.

The manufacturer is

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

The following harmonised standards have been used:

EN 60204-1:2006 + A1:2009 + AC:2010	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, 28.10.2020
(location, date of issue)

ZIEHL-ABEGG SE
Dr. W. Angelis
Head of Technics Ventilation Technology
(name, function)

i.V. W. Angelis

(signature)

ZIEHL-ABEGG SE
Dr. D. Kappel
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i. V. David Kappel

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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.

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