Movement by Perfection

The Royal League in ventilation, control and drive technology

Product documentation

Type
FN050-VDW.4I.A7P1

Article number
179975

ZIEHL-ABEGG

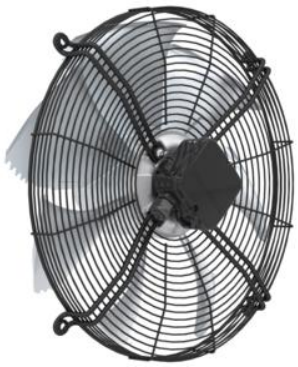
Product documentation

ZIEHL-ABEGG Contact
Adnan Muzaferovic

ZIEHL-ABEGG Subsidiary
Austria
ZIEHL-ABEGG Ges.m.b.H.
Prinz Eugen Strasse 19
4020 LINZ
AUSTRIA
Phone +43 732 7850950
Fax +43 732 785702
www.ziehl-abegg.at
info@ziehl-abegg.at

Type
FN050-VDW.4I.A7P1

Article number
179975



Contents

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

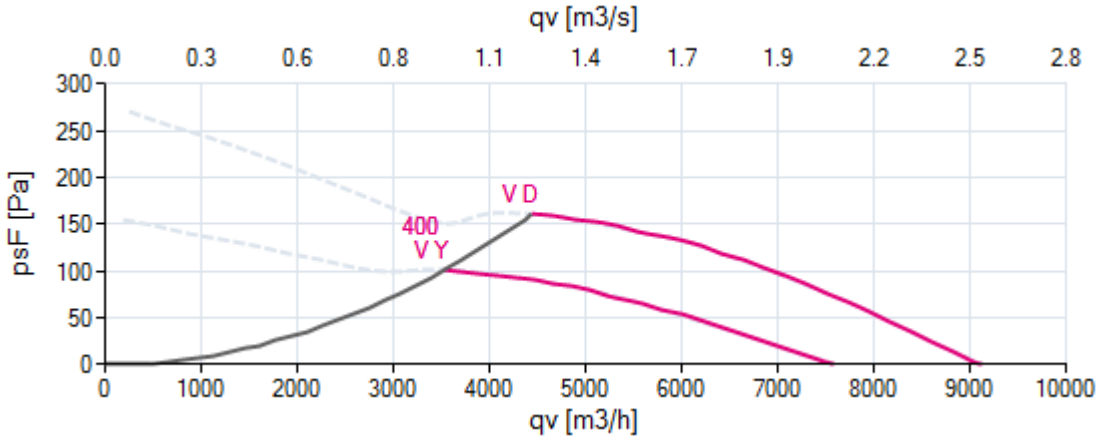
Article number	179975	
Type	FN050-VDW.4I.A7P1	
Designation	Axial fan with sickle blades	
Rated values	3~400V ±10% D/Y 50Hz P_1 0.77/0.49kW 1.7/0.84A ΔI=0% 1300/1025/min COSY 0,64 70°C 3~400V±10% D/Y 60Hz P_1 1.10/0.60kW 1.9/1.0A ΔI=0% 1400/980/min COSY 0,81 70°C 3~460V±10% D/Y 60Hz P_1 1.20/0.70kW 2.00/ 1.05A ΔI=0% 1480/1100/min COSY 0,76 70°C	
Electrical connection	Terminal box K62	
ErP Data	Measurement category ErP: A Air flow q_v on Eta opt: 5638 m3/h Pressure increase p_{fs} on Eta opt: 148 Pa Input power P_1 on Eta opt: 710 W Efficiency η_{statA}: 33.4 % Efficiency grade: N_{actual} = 40.7 / N_{target} = 40* *ErP 2015	
Type of protection	IP54	
Thermal class	THCL155	
Mounting type terminal box	Mounted on Stator	
Connection diagram	1360-108XB	
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 blades	Blades unpainted	
Guard grille type	ring grill	
Other	All connecting elements in stainless steel.	
Other	Balancing quality G 2,5	
Painting mot.suspens	Motor suspension powder-coated resistance class 2 (L-TI-0585)	
colour suspension	RAL 9005 (jet black)	
Operating manual	L-BAL-1.00	www.ziehl-abegg.com/bal
Weight	14.40	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.

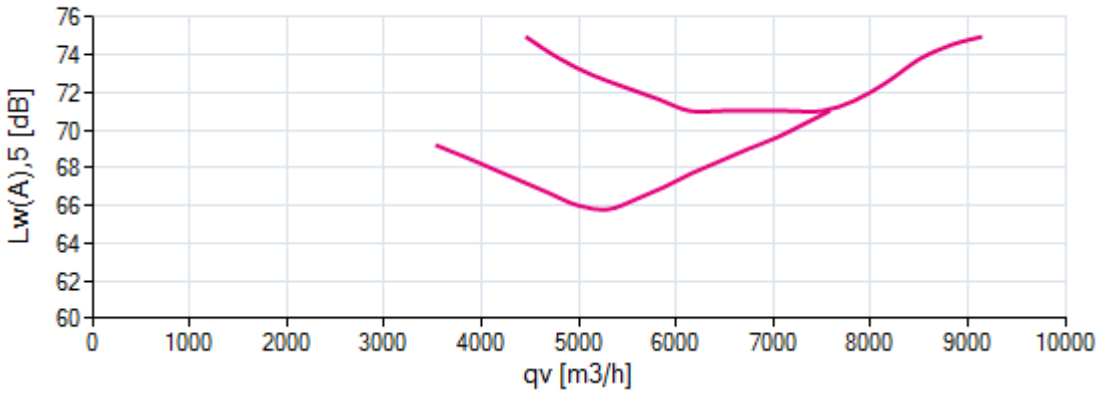
3. Characteristic Curve

FN050-VDW.4I.A7P1	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

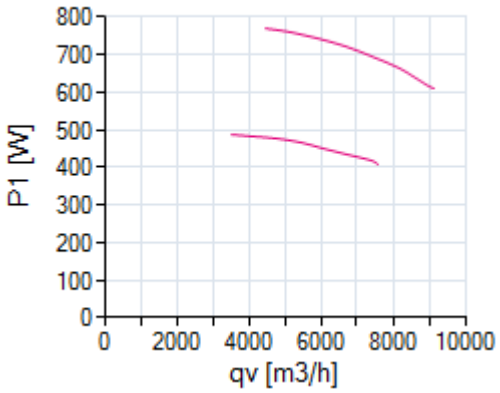
Air performance



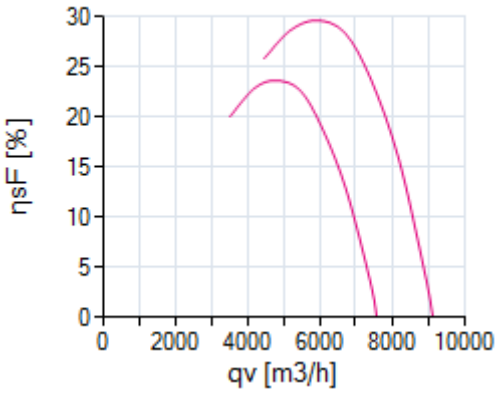
Acoustics



Power input



Efficiency

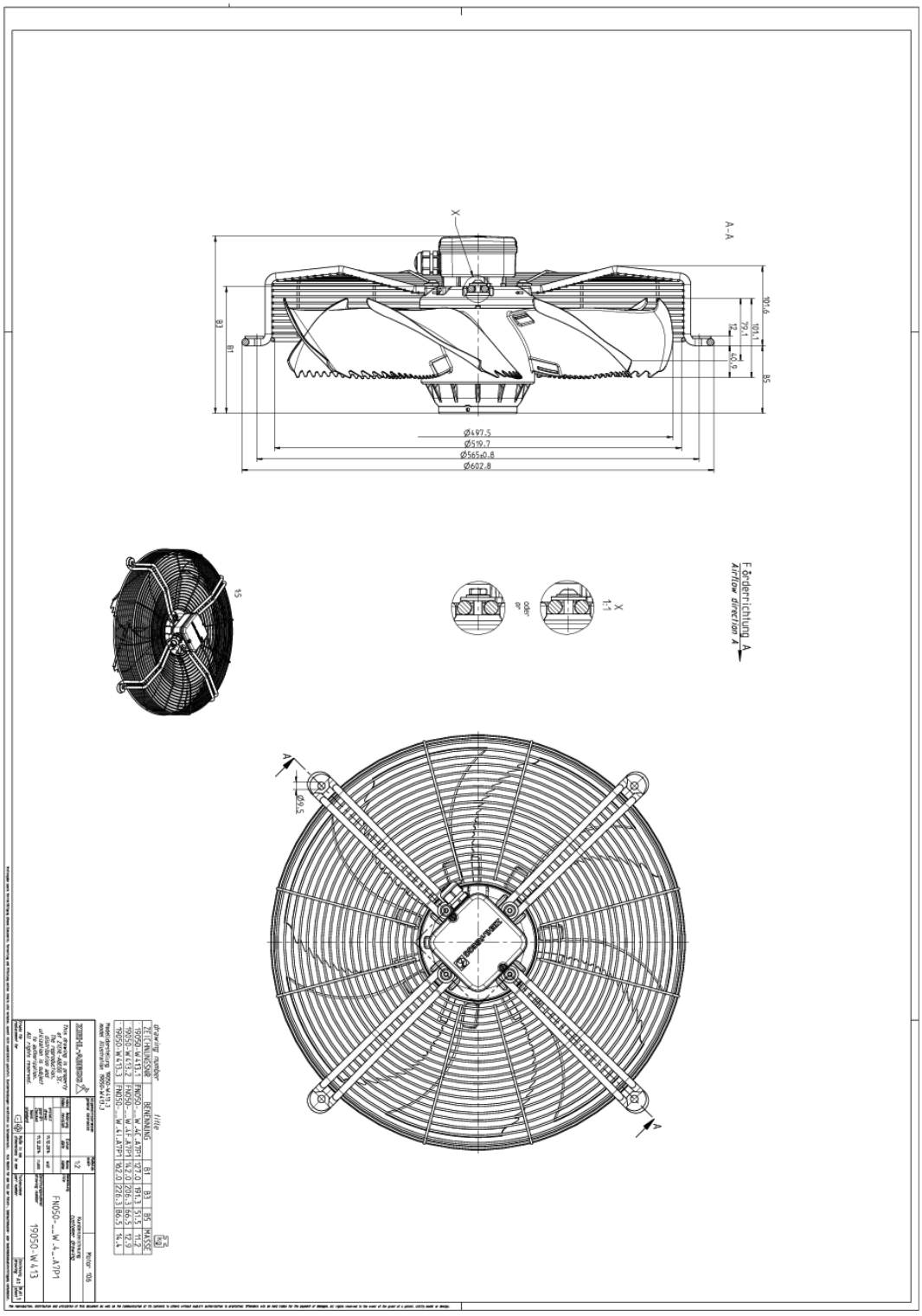


83855

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

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

4. Drawing

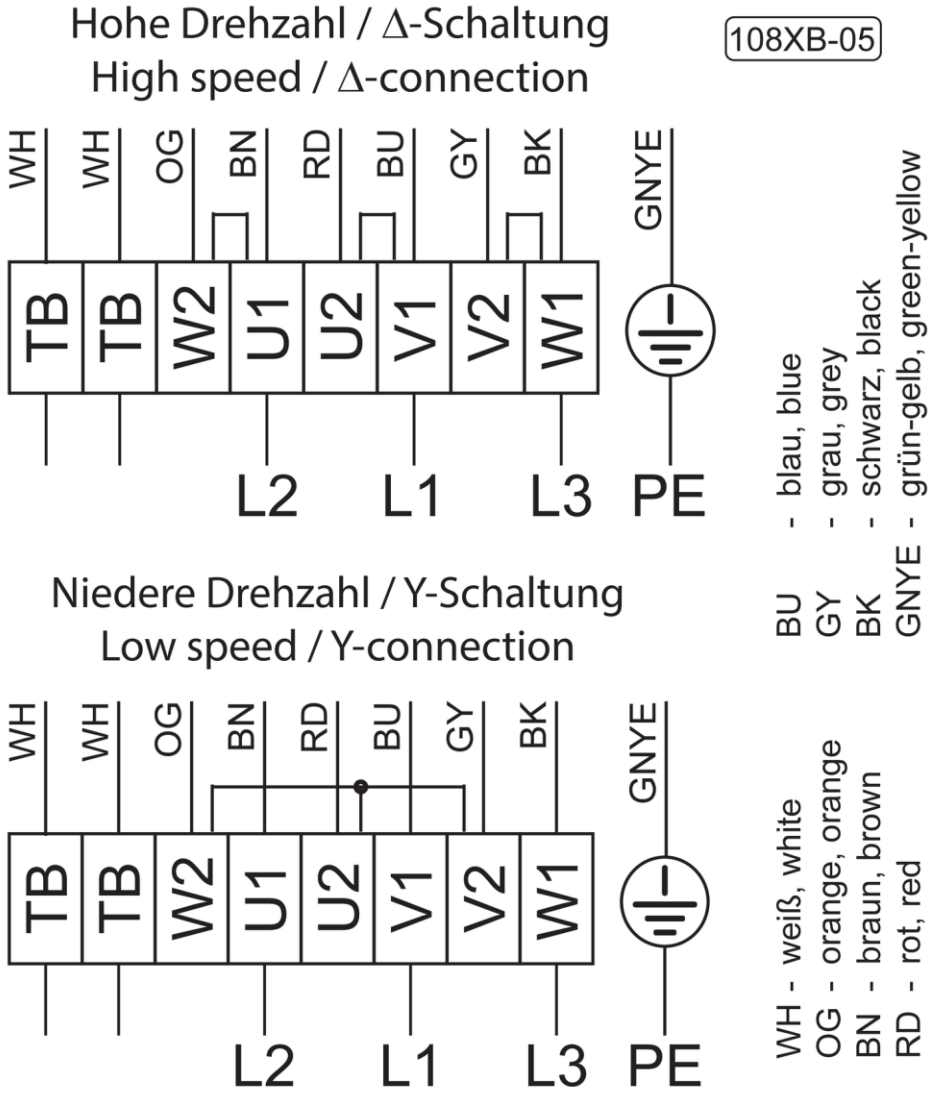


Dimensions in mm
The illustrations shown make no claim to completeness and are for orientation purposes only.

5. Connection diagram

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

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



6. EU-Declaration of conformity

EU declaration of conformity

- Translation -
(english)

ZA75-GB 2022/15 Index 018

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.., FP.., 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..

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

The above mentioned products of this declaration fulfil all relevant provisions of the following Directives of the Union:

- 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 harmonized standards have been applied:

- EN 60034-1:2010 + AC:2010
- EN 60204-1:2018
- EN 60529:1991 + A1:2000 + A2:2013 + AC:1993 + AC:2016 + AC:2019
- EN IEC 61000-6-2:2019
- 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, 14.04.2022
(location, date of issue)

ZIEHL-ABEGG SE
Tobias Gauss
Deputy Head of Technics Ventilation Technology
(name, function)

i.V.

(signature)

ZIEHL-ABEGG SE
Moritz Krämer
Head of Electrical Systems
(name, function)

i.V.

(signature)

ZIEHL-ABEGG

EC Declaration of Incorporation

- Translation -
(english)

ZA87-GB 2022/17 Index 012

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

The design of the partly completed machine:

- Axial fan DN.., FA.., FB.., FC.., FE.., FF.., FG.., FH.., FL.., FN.., FP.., 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:

- 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 EC Machinery Directive 2006/42/EC.

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

The following harmonized standards have been applied:

EN 60204-1:2018	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 13857:2019	Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs
Note:	Compliance with EN ISO 13857:2019 relates only to the installed contact protection if it is part of the scope of delivery.

The special technical documents in accordance with Appendix VII B have been created and are available in full.

The following persons are authorized to compile the technical documents, address see above.

Upon reasonable request, the special documents shall be transmitted to the public authority. The transfer can be made electronically, on data carriers or on paper. All property rights remain with the aforementioned manufacturer.

Start-up of this incomplete machine is prohibited until it is ensured that the machine in which it has been installed complies with the provisions of the EC Machinery Directive.

Künzelsau, 27.04.2022
(location, date of issue)

ZIEHL-ABEGG SE
Tobias Gauss
Deputy Head of Technics Ventilation Technology
(name, function)

i.V.

(signature)

ZIEHL-ABEGG SE
Moritz Krämer
Head of Electrical Systems
(name, function)

i.V.

(signature)

ZIEHL-ABEGG

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.