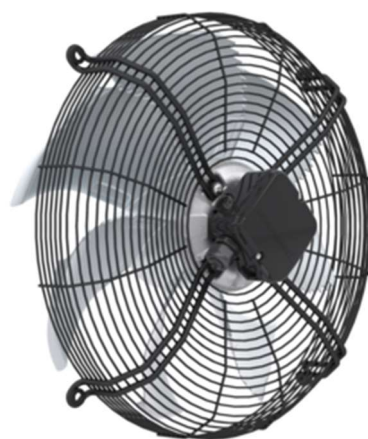


Movement by Perfection



The Royal League in ventilation, control and drive technology



Product documentation

Type  
FN050-VDK.4I.V7P1

Article number  
142502

## Product documentation

Customer  
AIREFRIG AUSTRALIA

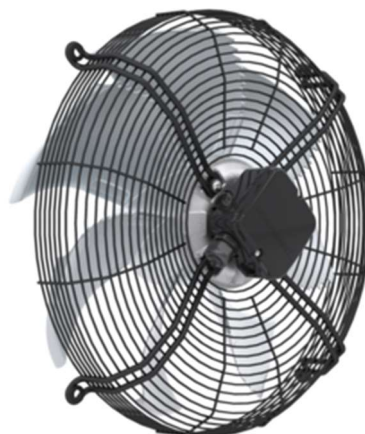
ZIEHL-ABEGG Contact  
Alex Moraes

Project  
Axial Fan

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[info@ziehl-abegg.com.au](mailto:info@ziehl-abegg.com.au)

Type  
FN050-VDK.4I.V7P1

Article number  
142502



### Contents

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## 1. Product specification - Technical data

Article number	142502
Type	FN050-VDK.4I.V7P1
Designation	Axial fan with sickle blades
Rated values	3~400V $\pm 10\%$ D/Y 50Hz P <sub>1</sub> 0.84/0.54kW 1.45/0.96A $\Delta I = 15\%$ 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 m <sup>3</sup> /h Pressure increase $p_{fs}$ on Eta opt: 149 Pa Input power P <sub>1</sub> on Eta opt: 760 W Efficiency $\eta_{statA}$ : 34.2 % Efficiency grade: N <sub>actual</sub> = 41.3 / N <sub>target</sub> = 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
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 blades	Blades 1 coat paint resistance class 1 (L-TI-0596)
Colour blades	RAL 9005 (jet black)
Guard grille type	ring grill
Other	Balancing quality G 4,0
Painting mot.suspens	Motor suspension 1 coat paint resistance class 1 (L-TI-0596)
colour suspension	RAL 9005 (jet black)
Weight	13.30 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.

## 2. Characteristic Curve

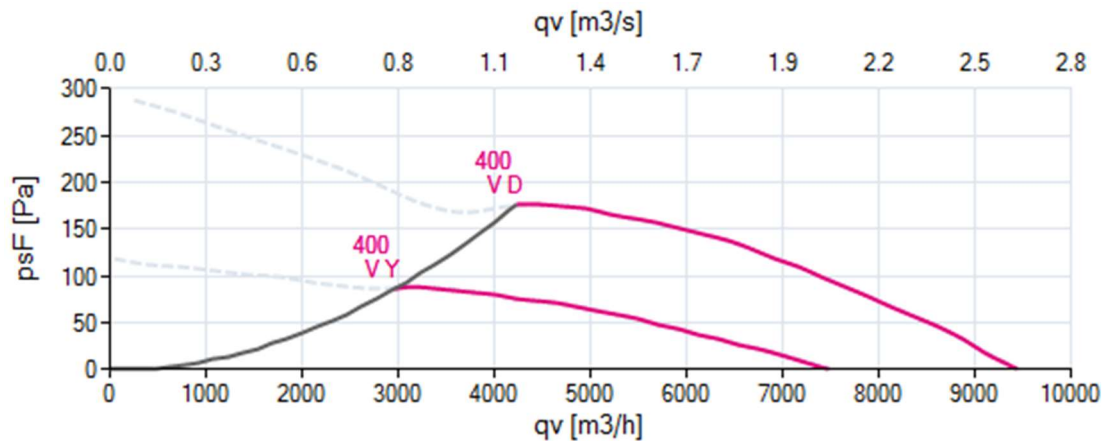
FN050-VDK.4I.V7P1

Gemessen in Volldüse ohne Berührschutz in Förderrichtung V in Einbauart A nach ISO5801

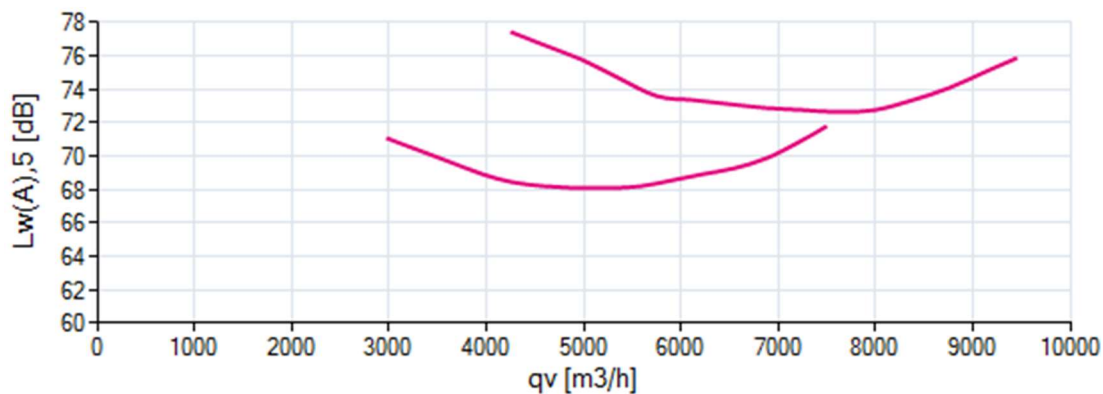
3~ 400V 50Hz Y

Messdichte 1,16 kg/m<sup>3</sup>

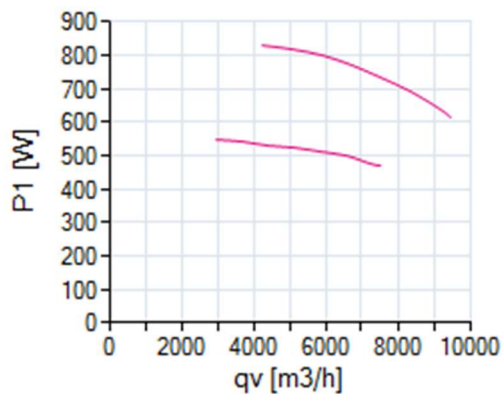
### Air performance



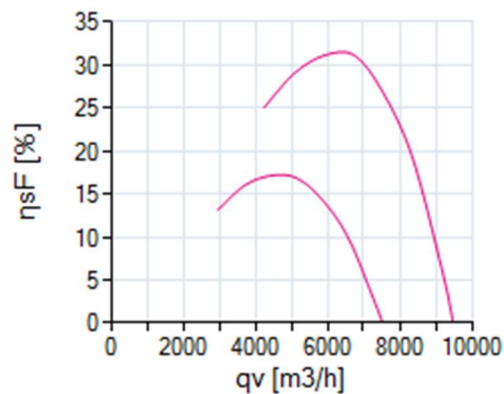
### Acoustics



### 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.

(drawing number)	(title)	kg (mass)
ZIEHL-ABRAHAM	BENENNUNG	B1 B3 B5 MASSE
19050-K4.01.1	FH050-...K4.0.V7P1	127.0 191.0 53.0 10.3
19050-K4.01.2	FH050-...K4.0.V7P1	162.0 206.0 68.0 11.8
19050-K4.01.3	FH050-...K4.1.V7P1	162.0 226.0 68.0 13.3

Zeichnerische Darstellung entspricht 19050-K4.01.2  
 Graphical representation is 19050-K4.01.2

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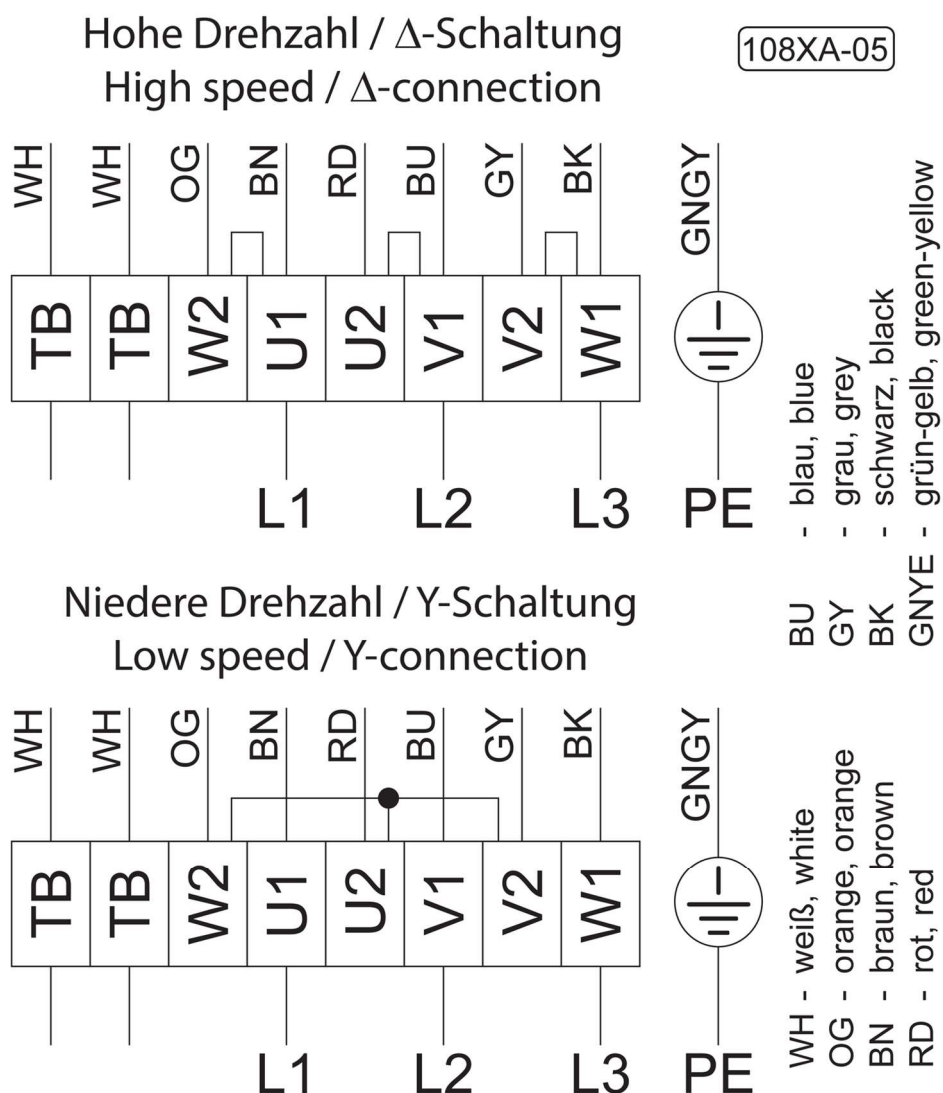
The illustrations shown make no claim to completeness and are for orientation purposes only.



#### 4. Connection diagram

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

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



## 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)

(signature)

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

(signature)

**ZIEHL-ABEGG**

## 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)



(signature)

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



(signature)

**ZIEHL-ABEGG** 





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

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