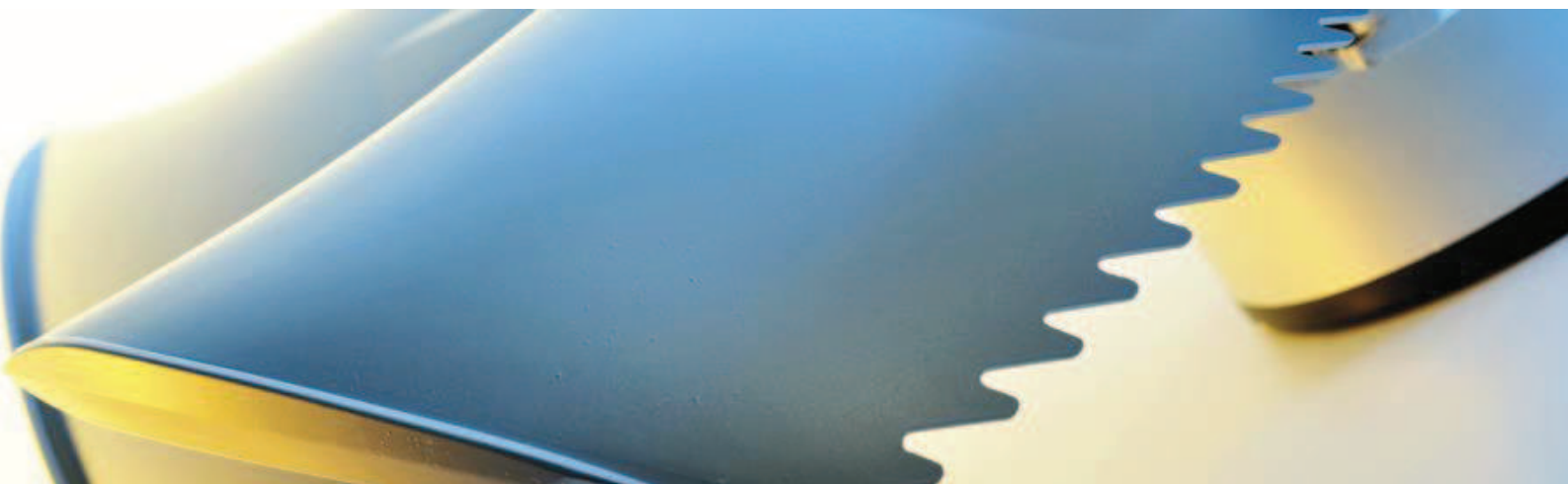


Movement by Perfection



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



Product documentation

Type
ZN050-ZIL.DC.V7P2

Article number
184815

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

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	184815
Type	ZN050-ZIL.DC.V7P2
Designation	ZAplus axial fan with sickle blades
Rated values	3~380-480V 50/60Hz P ₁ 900W 1.55-1.25 1550 min ⁻¹ 70°C
Electrical connection	Integrated controller
ErP Data	Measurement category ErP: A Air flow q _v on Eta opt: 5992 m ³ /h Pressure increase p _{fs} on Eta opt: 272 Pa Input power P _{ed} on Eta opt: 900 W Efficiency η _{statA} : 56.3 % Efficiency grade: N _{actual} = 62.9 / N _{target} = 40* *ErP 2015
Type of protection	IP55
Thermal class	THCL155
efficiency class	IE5
Connection diagram	AP00001C
Rating plate	2x fixed
Fitting position	H/Vu/Vo
Motor protection	integrated active temperature management
Impregnation	Moisture and hot climate protection
Condensation	Condensation water hole(s) in 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 5002 (ultramarine blue)
Material blades	High Performance Composite Material
Colour blades	black
Labelling UL/CSA	E213826 ZB-155, MK116-ZIK.07.UA
Guard grille type	ring grill
IO-function	BASIC-MODBUS
Colour housing	black
Painting safe. guard	Safety guard powder-coated with safety guard
Guard grill pre.side	Guard grill for pressure side supplied loosely
Client`s loose parts	Connecting elements in the accessories bag supplied loosely.
Weight	14.40 kg

*** Operation mode:

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

Occasional starting between -35 °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

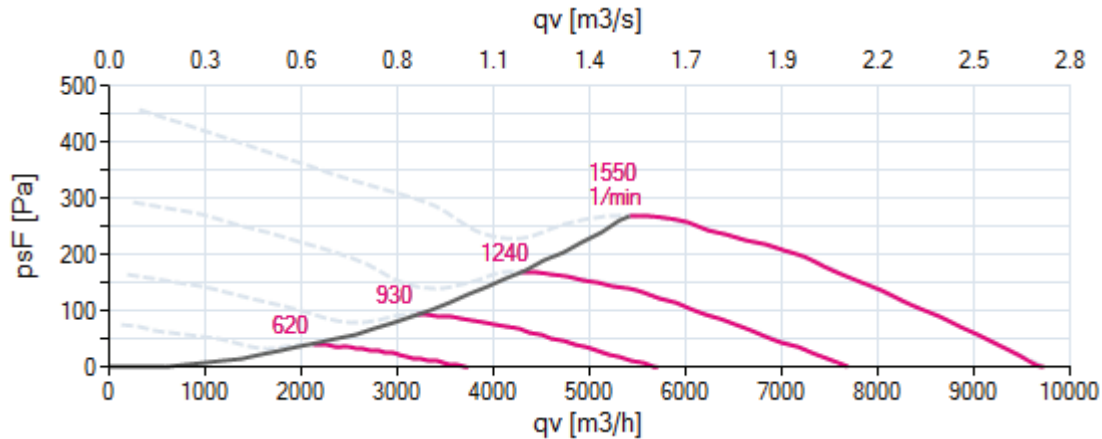
ZN050-ZIL.DC.V7P2

Measured in ZAplus with pressure side guard grille in air flow direction V in installation type A according to ISO5801

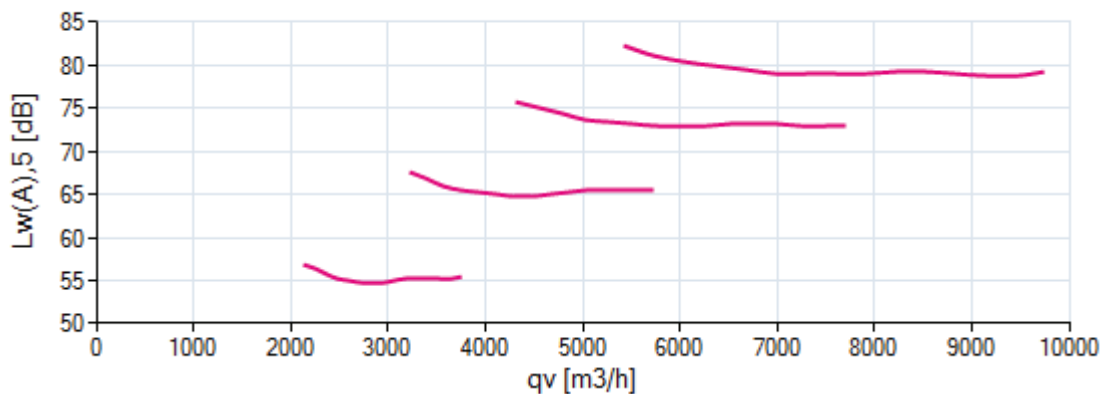
3~ 400V 50Hz

measurement density 1,16 kg/m³

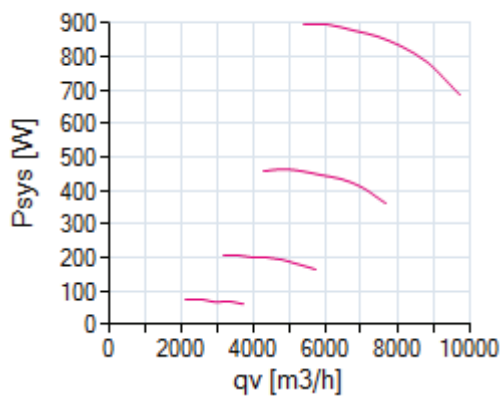
Air performance



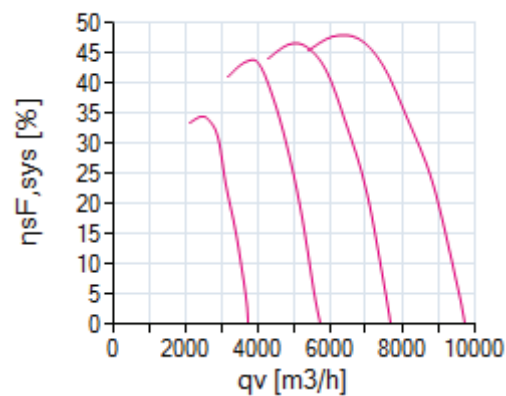
Acoustics



Power input



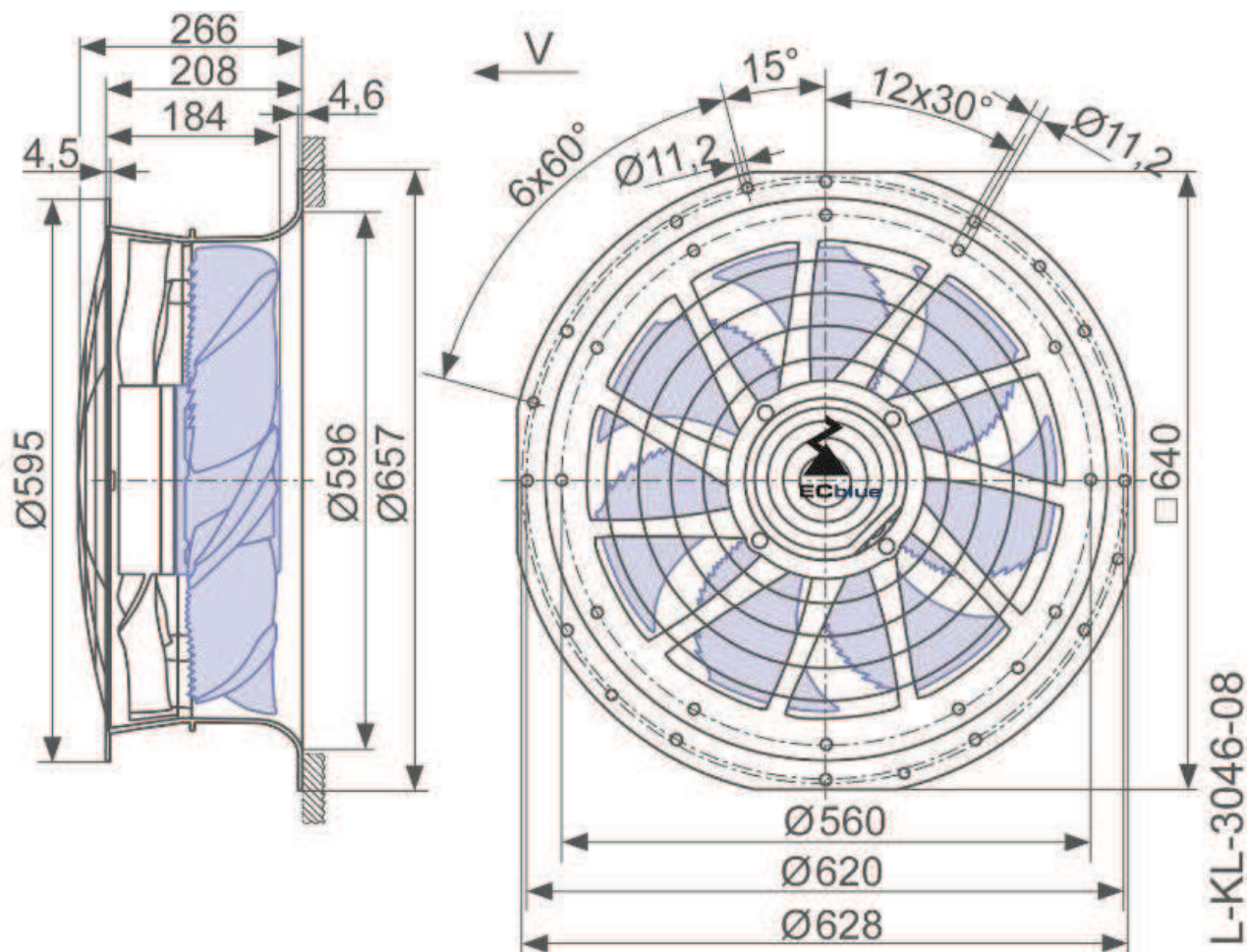
Efficiency



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

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

4. Drawing



Dimensions in mm

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

The diagram illustrates the wiring for the ECblue BASIC-MODBUS unit. Key components and connections include:

- Power Supply:** 24V and 10V DC outputs, with ground (GND) connections. A 10V output is also shown for the external speed setting.
- Digital Inputs:** D1 and E1 terminals for digital input signals.
- Analog Input:** A terminal for analog input.
- RS-485 Ports:** PORT 1 and PORT 2, each with A (D+), B (D-), and ID1/ID2 terminals. Ground connections for MODBUS (RS-485) are shown.
- External Speed Setting:** A 10 kΩ potentiometer connected to the 10V output and ground, with a wiper connected to the D1 terminal. The potentiometer is labeled "Aus / Ein Off / On" and "10 kΩ".
- Terminal Block:** L1, L2, L3, N, and PE terminals for line voltage and ground.
- Legend:**
 - Netzspannung / Line voltage: L1, L2, L3, N, PE
 - Leistungsschild / Rating-plate: L1, L2, L3, N, PE
- Notes:**
 - ①: Netzspannung / Line voltage
 - ②: Kontaktbelastung / Contact rating max. AC 250 V 2 A
 - ③: Aus / Ein Off / On
 - ④: Externe Drehzahlvorgabe / External speed setting
 - ⑤: Eingang Input 0...10 V 4...20 mA
 - ⑥: PWM f = 1...10 kHz

6. EU-Declaration of conformity

EU declaration of conformity

- Translation -
(english)

ZA75-GB 2021/20 Index 017

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

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 harmonised standards have been used:

- EN 60034-1:2010 + AC:2010
- EN 60204-1:2018
- 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, 17.05.2021
(location, date of issue)

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

Dr. W. Angelis

(signature)

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

Dr. D. Kappel

(signature)

ZIEHL-ABEGG 



EC declaration of incorporation

- Translation -
(english)

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

ZA87-GB 2021/20 Index 010

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...

The 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 EC Machinery Directive 2006/42/EC.

The manufacturer is

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

The following harmonised standards have been used:

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 13857:2008	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.

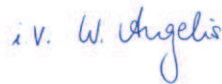
The person authorised for compiling the specific technical documentation is: Dr. W. Angelis, address see above.

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, 17.05.2021
(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

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](#).