



TOTAL INGENIEROS S.A.C

VENTAS, PROYECTOS, SERVICIOS EN INGENIERIA Y SISTEMAS DE REFRIGERACIÓN



Fans

for transformer cooling
06/2017 edition

The Royal League in ventilation, control and drive technology

ZIEHL-ABEGG 

1. Especificación de producto - Datos técnicos

N.º de artículo	162306
Tipo	FN056-4DK.4M.V7P2
Denominación	Axial fan with sickle blades
Datos de medición	3~230/400V ±10% D/Y 50Hz P1 1.05kW 3.8/2.2A ΔI=0% 1280/min COSY 0,68 70°C 3~230/400V±10% D/Y 60Hz P1 1.35kW 4.6/2.6A ΔI=0% 1320/min COSY 0,73 55°C 3~265/460V±10% D/Y 60Hz P1 1.55kW 4.60/ 2.70A ΔI=0% 1420/min COSY 0,72 55°C
Conexión eléctrica	Terminal box K62
Datos ErP	Efficiency η_{statA} : 33.7 % Efficiency grade: $N_{actual} = 40.1$ / $N_{target} = 40^*$ *ErP 2015
Tipo de protección	IP54
Clase de aislamiento térmico	THCL155
Tipo de montaje de la caja de bornas	Mounted on Stator
Min. operating temperature	-40°C***
Diagrama de conexiones	1360-106XA
Placa de características	1x fixed
Posición de montaje	H/Vu/Vo
Protección del motor	thermal contact
Impregnación	Moisture and hot climate protection
condensación	Condensation water holes in stator/rotor open
Calidad de los rodamientos	ball bearing with long-time lubrication
Material del rotor	Aluminium
Pintura del rotor	unpainted
Material de las palas	Aluminium
Pintura del rodete	unpainted
Tipo de rejilla	ring grill
Pintura de la suspensión del motor	Motor suspension powder-coated consistency class 2
Color de la suspensión	RAL 9005 (jet black)
Weight	15.50kg

*** 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.

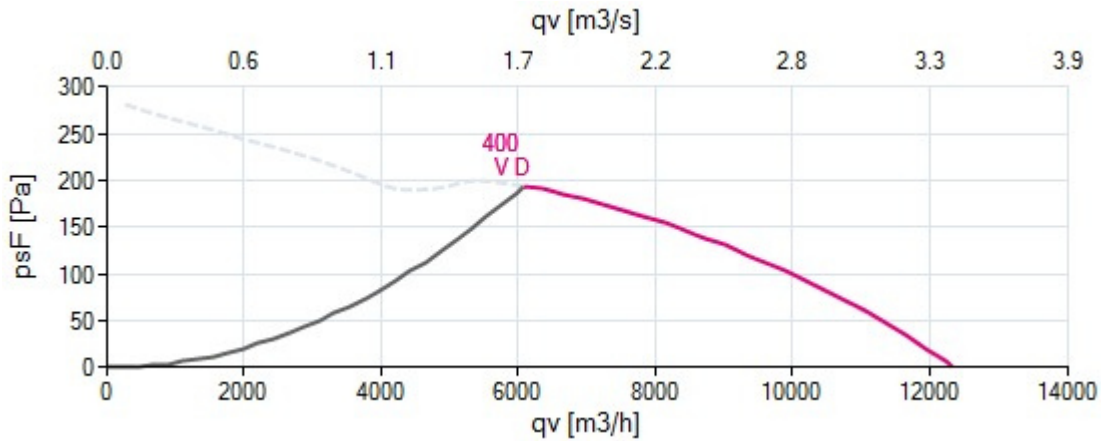
2. Curva característica

FN056-4DK.4M.V7P2

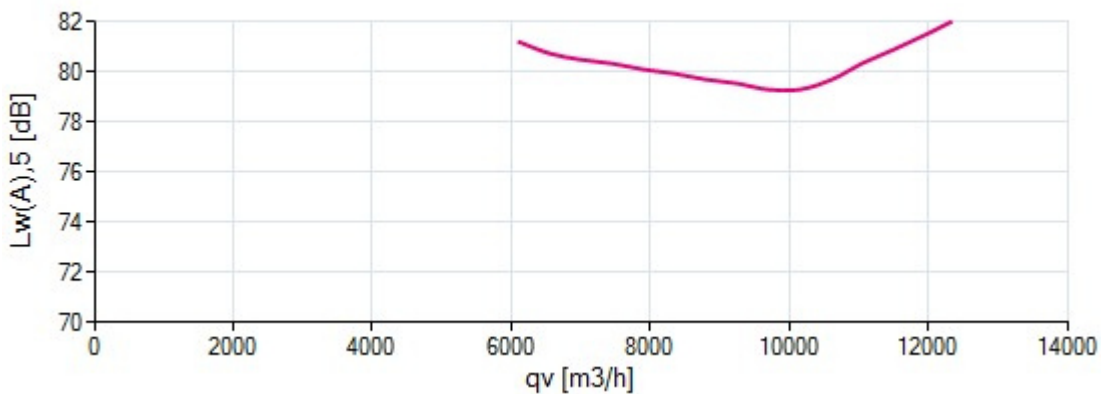
3~ 230V 60Hz D

Densidades de medida 1,16 kg/m³

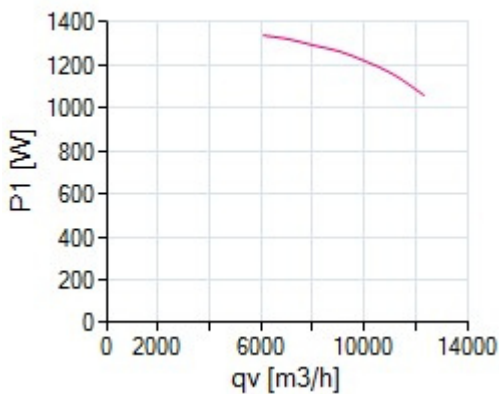
Rendimiento del aire



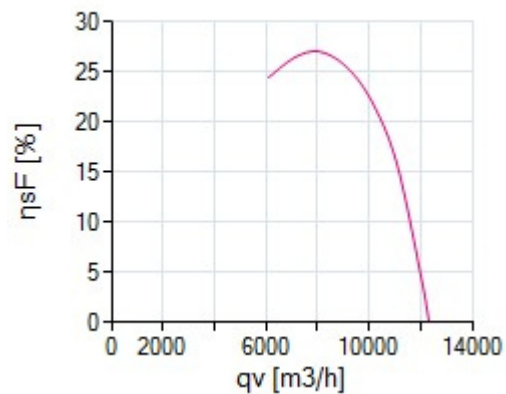
Acústica



Potencia de entrada



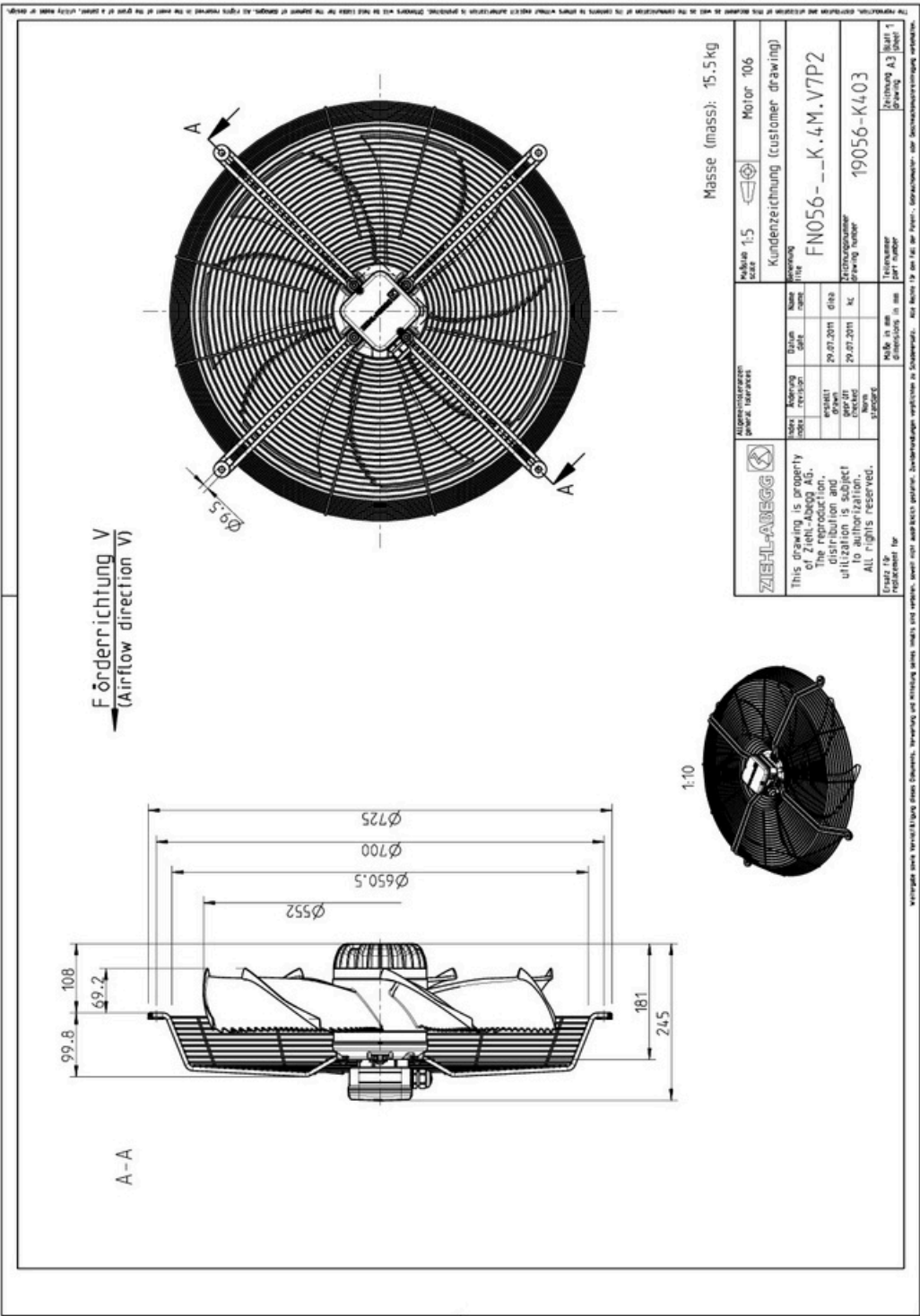
Eficiencia



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

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

3. Plano



Dimensiones en mm
El esquema adjunto es sólo a efectos de dimensiones.

4. Diagrama de conexiones

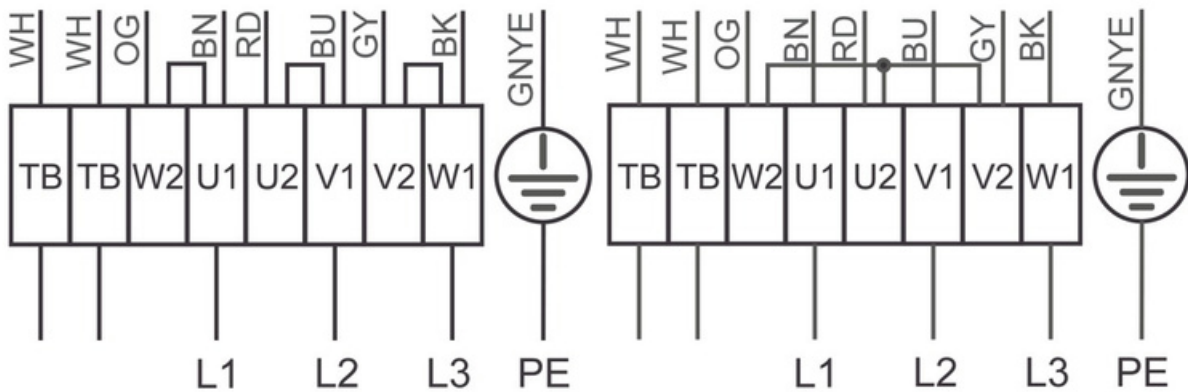
1360-106XA

3~ motor with one speed and thermostatic switch (if built in).

U1 brown
V1 blue
W1 black
U2 red
V2 grey
W2 orange
TB white

Δ-connection

Y-connection



5. EU-Declaración de conformidad

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)

i. v. W. Angelis

(Signature)

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

i. v. Dr. D. Kappel

(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

ZAZA87-GB-1750 Index 007

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english

ZIEHL-ABEGG 

The Royal League

Die Königsklasse



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](#).