

# Movement by Perfection





Product documentation

Type RH18V-4IP.Z8.AR

Article number 177317



# The Royal League Die Königsklasse

# **Product documentation**

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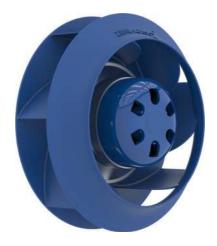
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### **Contents**

1.	Product specification - Technical data	3
2.	Characteristic curve	4
3.	Drawing	5
4.	Connection diagram	6
5	FU-Declaration of conformity	7



Article number 177317



## 1. Product specification - Technical data

177317 **Article number** 

RH18V-4IP.Z8.AR **Type** 

Designation Single inlet impeller with backward curved blades.

Rated values 1~200-240V 50/60Hz P<sub>1</sub> 170W 1.75-1.45A

4440min<sup>-1</sup> 60°C

**Electrical connection** Integrated controller with variable attached cable

3x 0,82 mm2 and 4x 0,325 mm2 x 50cm

Efficiency  $\eta_{\text{statA}}$ : 53.9 % **ErP Data** 

Efficiency grade: Nactual = 72.5 / Ntarget = 62\*

\*tErP 2015

-30°C\*\*\* Min. operating temperature

Thermal class Thermal class 155

Control ECblue basic+RPM-regulated

**PVC** Cable quality

**Painting stator** Stator unpainted

coating rotor Rotor with 2 coatpaint

Colour sheet rotor RAL 5002 (ultramarine blue)

**Material impeller** Impeller made of High Performance Composite Material

Painting impeller unpainted

Colour impeller like RAL 5002 (ultramarine blue)

**Connection diagram** 1360-404

Installation position Fitting position H/Vu/Vo

**Motor protection** integrated active temperaturemanagement

Type of protection IP54

Impregnation Moisture and hot climate protection **Quality of bearings** ball bearing with long-time lubrication

Labelling UL/CSA E347018 ZB-155

**Painting motor** Stator/rotor separately **Colour motor** Stator/rotor separately

**Balance quality** G 6.3 Weight 1.30kg



<sup>\*</sup> Operation mode

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

Occasional starting between -30 °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 are installed in the fan, please observe the permissible maximum temperatures in the technical documentation of the product

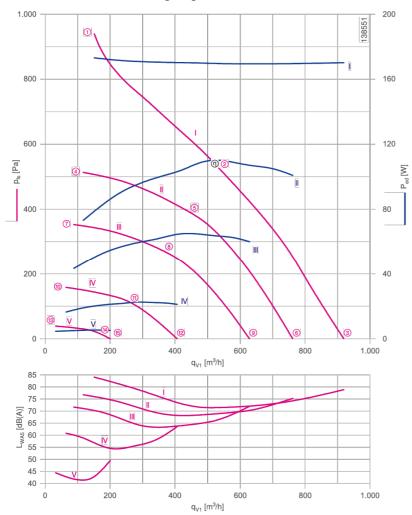


## 2. Characteristic curve

### Characteristic curve

Frequency: 50 Hz

Measured with full nozzle without inlet guard grille

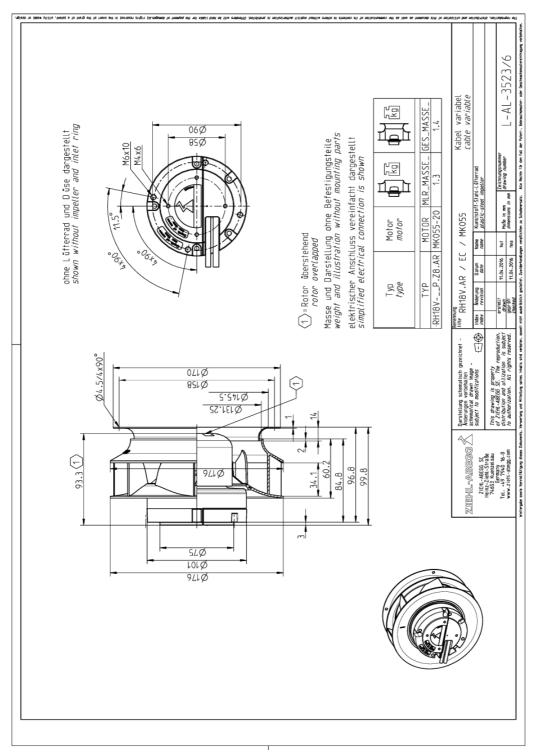


I = 4650/min, II = 3840/min, III = 3190/min, IV = 2130/min, V = 1060/min

Operating		1	2	3	4	(5)	6	7	8	9	10	11)	12	13	14)	15
point																
Characteristic		I	I	I	II	II	II	III	III	III	IV	IV	IV	V	V	V
curve																
Connection		Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
Voltage V	/	235	230	235	235	235	235	235	235	235	235	235	235	235	235	235
Current A	A	1.50	1.50	1.50	0.68	0.94	0.96	0.42	0.58	0.56	0.19	0.24	0.23	0.06	0.07	0.07
Speed n	nin⁻¹	5200	4440	4630	3840	3840	3840	3200	3200	3200	2130	2130	2130	1060	1060	1060
Suction side d	dB(A)	84	72	79	77	68	75	72	63	72	61	54	64	44	42	50



# 3. Drawing



## Dimensions in mm

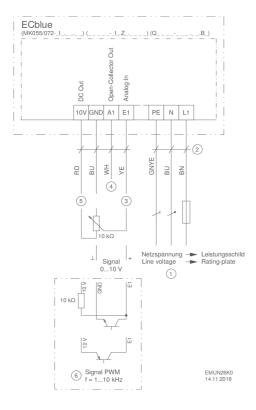
The illustrations shown make no claim to completeness and are for orientation purposes only.





# 4. Connection diagram

1360-404







## 5. EU-Declaration of conformity

### EU declaration of conformity

- Translation -(english)

ZA75-GB 1910 Index 015

ZIEHL-ABEGG SE Manufacturer:

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

Dr. D. Kappel Technical Director Air Movement Division Deputy Head of Electrical Systems

(name, function) (name, function)

(Signature)

(Signature)

ZIEHL-ABEGG SE

i. V. louid happel





## **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

ENISO 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.

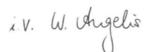
The specific technical documentation in accordance with Appendix VII B has been written and is available in its entirety.

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



ZAZA87-GB-1750 Index 007

english

ZIEHL-ABEGG

30296702-GB



Article number 177317

# 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.

