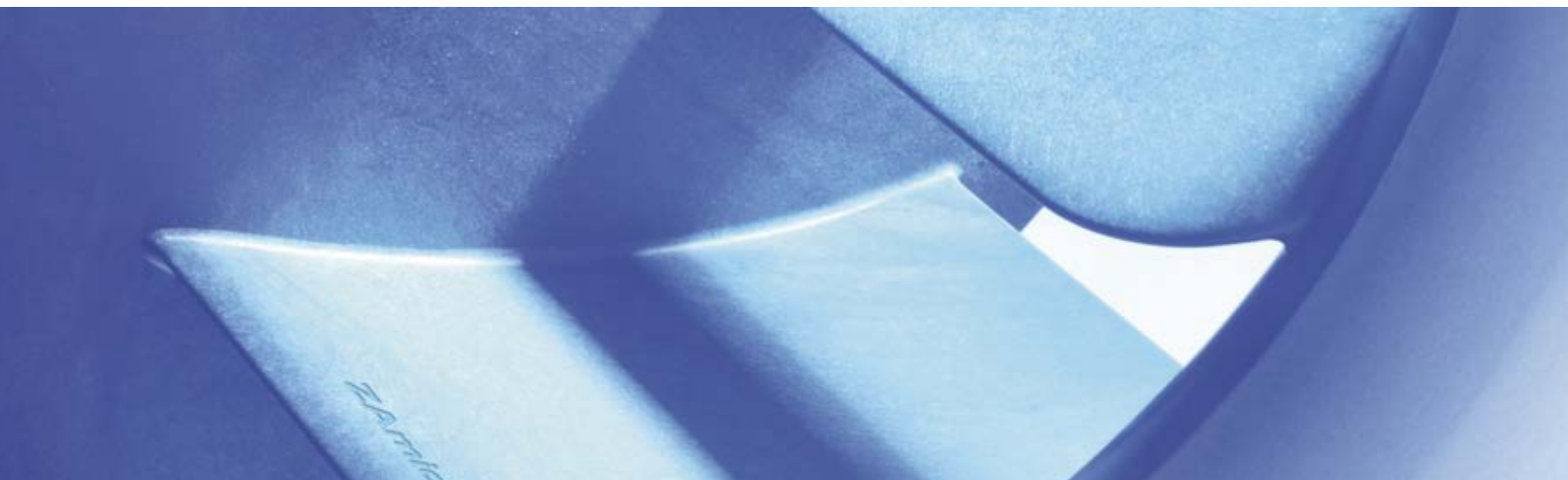


Movement by Perfection



The Royal League in ventilation, control and drive technology



[Product documentation](#)

Type  
**RH31C-ZIK.DC.CR**

Article number  
**115881**

## Product documentation

Customer

Project  
Station One

ZIEHL-ABEGG Subsidiary  
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Type  
RH31C-ZIK.DC.CR

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### Contents

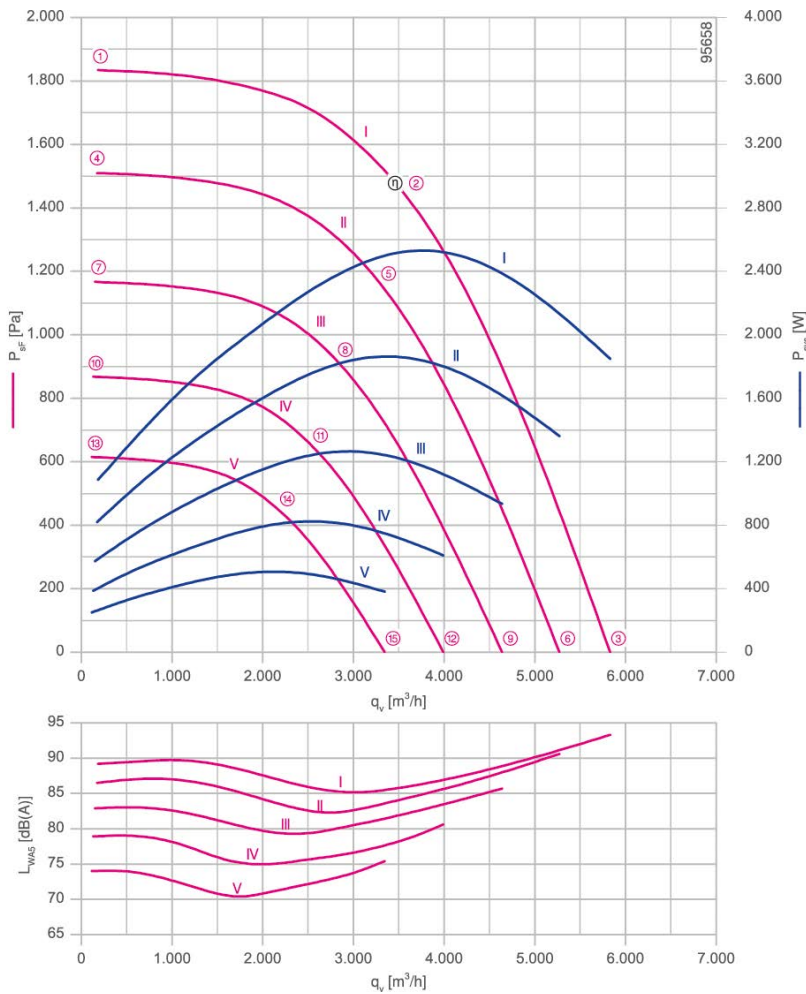
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### 1. Product specification

#### Technical data

Article number	115881
Type	RH31C-ZIK.DC.CR
Designation	Single inlet impeller with backward curved blades.
Rated values	3~380-480V 50/60Hz P <sub>1</sub> 2,50kW 4.00-3.20A 3640min <sup>-1</sup> 60°C
Electrical connection	Integrated controller
Control	ECblue basic
Min. operating temperature [°C]	-35
Painting stator	Stator unpainted
coating rotor	Rotor with 2 coatpaint
Colour sheet rotor	1K RAL 5002 (ultramarine blue)
Material impeller	Impeller made of ZAMid
Painting impeller	unpainted
Colour impeller	black
Connection diagram	1360-403
Installation position	H/Vu/Vo
Motor protection	integrated active temperaturemanagement
Type of protection	IP54
Thermal class	Thermal class 155
Impregnation	Moisture and hot climate protection
Balancing	6,3
Quality of bearings	ball bearing with long-time lubrication
Special bearing	Ballbearing in special design
Field of application	Conceived for individual application in railways. Bahnbetrieb.
Labelling UL/CSA	MK116-ZIK.07.UA
Certification	UL Listed Product
Other	Connecting elements made of stainless steel.
Other	Impeller parts secured with Loctite.
Weight kg	10,00
ErP Data	Efficiency $\eta_{\text{stA}}$ : 61,5 % Efficiency grade: $N_{\text{actual}} = 67,8 / N_{\text{target}} = 62^*$ *ErP 2015

## 2. Characteristic curve



### Characteristic curve

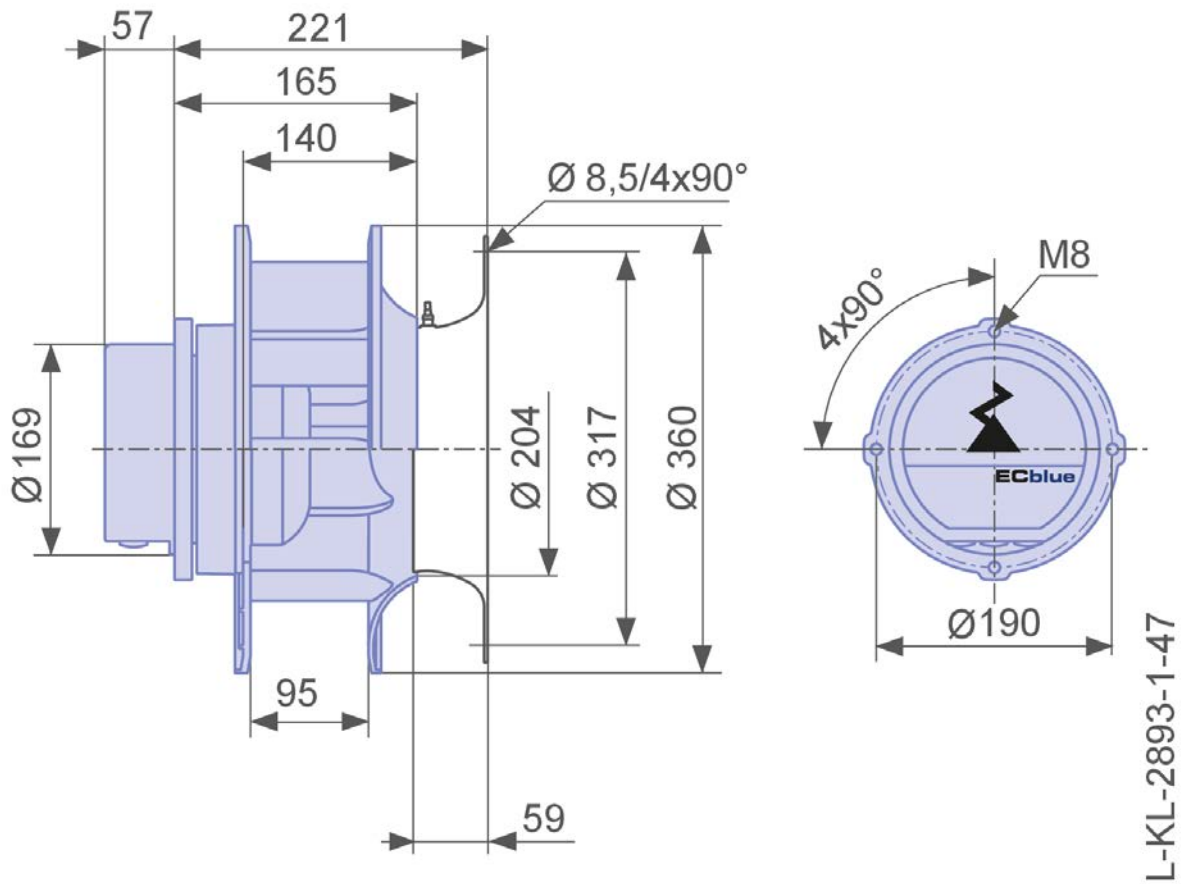
Frequency: 50/60 Hz

Measured with full nozzle without inlet guard grille

I = 3640/min, II = 3300/min, III = 2900/min, IV = 2500/min, V = 2100/min

Operating point	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	
Characteristic curve	I	I	I	II	II	II	III	III	III	IV	IV	IV	V	V	V	
Connection	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Voltage	V	400	395	400	395	395	400	400	395	400	400	400	400	400	405	400
Current	A	1,75	3,90	2,90	1,35	2,90	2,10	1,00	2,00	1,50	0,78	1,35	1,05	0,56	0,92	0,76
Speed	min <sup>-1</sup>	3640	3640	3640	3300	3300	3300	2900	2900	2900	2500	2500	2500	2100	2100	2100
Suction side sound power level	dB(A)	89	87	93	87	83	91	83	80	86	79	76	81	74	71	75

### 3. Drawing



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1 = maximale Einschraubtiefe  
maximum depth of screw

Masse und Darstellung ohne Befestigungsteile  
weight and illustration without mounting parts

ohne Lüfterrad und Düse dargestellt  
shown without impeller and inlet ring

Typ type	Motor motor	B2	DA	DD	DL	DN	D1_	E1	H	H1	H2	H5	H6	T1	U	Motor kg	Motor kg	GES. MASSE kg
TYP	MOTOR	B2	DA	DD	DL	DN	D1_	E1	H	H1	H2	H5	H6	T1	U	MLR_MASSE_	MLR_MASSE_	GES. MASSE_
RH31C-Z.IK.DC.CR	MK116-36	95.0	343.0	360.0	203.8	360.0	253.2	317.0	277.5	58.5	140.0	165.0	220.5	1.5	3.0	10	11	11
RH35C-Z.IK.DC.CR	MK116-36	106.0	378.0	406.0	230.2	406.0	286.0	352.0	300.0	65.5	156.0	181.0	243.0	1.5	3.5	11	12	12
RH40C-Z.IK.DC.CR	MK116-36	118.0	418.0	457.0	258.2	457.0	322.3	392.0	327.5	74.0	175.5	200.5	270.5	2.0	4.0	12	14	14
RH45C-Z.IK.DC.CR	MK116-36	133.0	464.0	515.0	291.0	515.0	364.1	438.0	357.0	83.0	196.5	221.5	300.0	2.0	4.5	13	15	15
RH55C-Z.IK.DG.CR	MK116-54	133.0	464.0	515.0	291.0	515.0	364.1	438.0	357.0	83.0	196.5	221.5	300.0	2.0	4.5	15	17	17

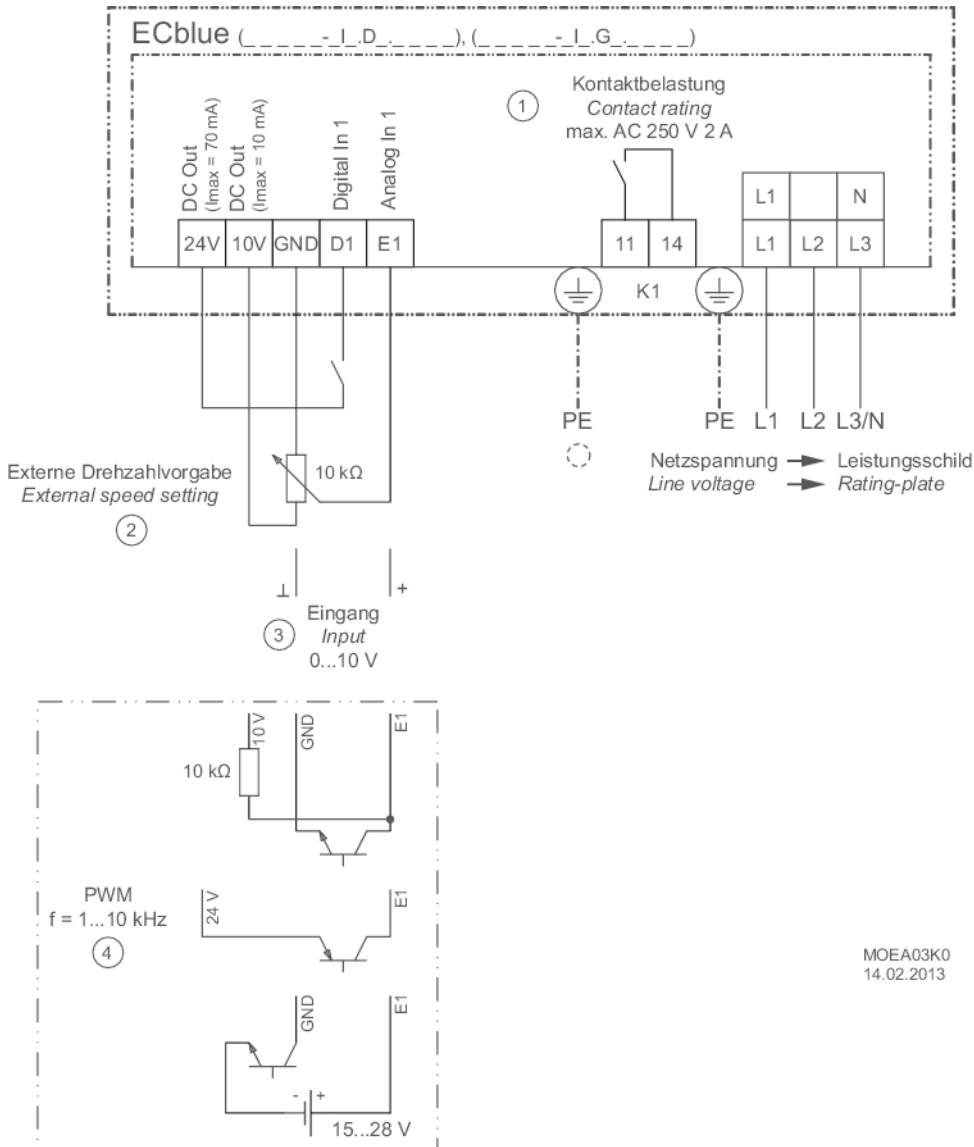
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Dimensions in mm  
Shown drawing is just to show the dimensions of the fan.

### 4. Connection diagram

1360-403



### 5. General product and handling description

#### **Operating conditions:**

The product is designed for conveying non-aggressive, non-explosive, non-fluid, non-adherent, non-abrasive, dust and article-free gaseous media, air-like mixtures und air.

For AC standard fans: The product only works properly with a suitable frequency converter with integrated all-pole active sine filter. The product can be damaged if it's used without an all-pole sine filter between the motor and the frequency converter. Voltage peaks and voltage fluctuations can destroy the product.

To provide error-free operation and prevent damage to the product, the product may only be operated in the admissible operating area according to the above mentioned data sheets and air performance curves.

The formation of small rusty spots during usage in accordance with the product specification and this general product and handling description can occur and does not affect the functionality of the product.

The product must never be used in obviously damaged condition.

Continuous intentional change of direction of rotation is not allowed.

Reverse current braking is not allowed.

#### **Assembly:**

The assembly has to meet the requirements of the assembly instructions to enable error-free operation.

#### **Commissioning:**

Commissioning should be done by appropriately qualified technical personnel according to the specifications in the operating and assembly instructions.

#### **Documentation:**

In case of defective parts or products or in case of any warranty, it may be necessary to analyse the root cause of the defect.

Therefore, ZIEHL-ABEGG may ask for documentation of proper life-cycle handling according to the instructions and the general product and handling description. ZIEHL-ABEGG may ask for appropriate documentation records in order to assess root cause of the defect.

#### **Maintenance and inspection:**

Any maintenance and inspection should be carried out in accordance with the operating and assembly instructions.

#### **Packaging, storage and transport:**

Packaging, storage and transport should be carried out in accordance with the operating and assembly instructions to avoid product damage.

Condensate formation inside the packaging can lead to formation of rust.

Long-term storage of the product should take place in dry environment. Shocks during storage can lead to product damage. Bearing streams should be avoided.

#### **Spare parts:**

In all warranty cases repairs has to be carried out by ZIEHL-ABEGG. In all other cases spare parts shall meet the specifications of the original installed parts to ensure error-free operation. Use of original ZIEHL-ABEGG spare parts is recommended.

#### **Specific application/Intended purpose:**

Suitability of the product for the specific application is beyond control of ZIEHL-ABEGG. Therefore, customer is necessarily obliged to test and approve the product in the application. ZIEHL-ABEGG will not warrant or guarantee any suitability of the product for customer's specific application or intended purpose.



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## 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](#).