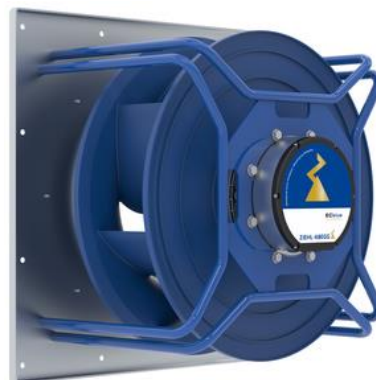




Movement by Perfection



The Royal League in ventilation, control and drive technology



Product documentation

Type  
GR50C-ZID.GL.CR

Article number  
116178/A11

Article number  
116178/A11

# The Royal League Die Königsklasse

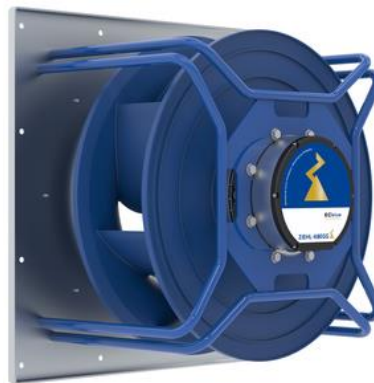
## Product documentation

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### 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

<b>Article number</b>	116178/A11
<b>Type</b>	GR50C-ZID.GL.CR
<b>Rated values</b>	3~380-480V 50/60Hz P(ed) 5.40kW 8.60-6.80A 2130min <sup>-1</sup> 40°C
<b>Electrical connection</b>	Integrated controller
<b>ErP Data</b>	Measurement category ErP: A Air flow q(v) on Eta opt: 11342 m <sup>3</sup> /h Pressure increase p(fs) on Eta opt: 1030 Pa Input power P(ed) on Eta opt: 5204 W Efficiency H(statA): 66.5 % Efficiency grade: N(actual) = 69.5 / N(target) = 62* *ErP 2015
<b>Heat Class</b>	Thermal class 155
<b>Efficiency Class</b>	IE5
<b>Io-Function</b>	BASIC-MODBUS
<b>Power Factor Controller</b>	no PFC
<b>Wireless Bluetooth</b>	
<b>Painting Stator</b>	Stator unpainted
<b>Coating Rotor</b>	Rotor 1 coatpaint resistance class 1 (L-TI-0596)
<b>Colour Sheet Rotor</b>	RAL 5002 (ultramarine blue)
<b>Material Impeller</b>	Impeller made of ZAmid
<b>Painting Impeller</b>	unpainted
<b>Colour Impeller</b>	like RAL 5002 (ultramarine blue)
<b>Connection Diagram</b>	AP00001C
<b>Installation Position</b>	Fitting position H/Vu/Vo
<b>Fitting Position Mot</b>	Mounting position H/Vu/Vo
<b>Motor Protection</b>	integrated active temperature management
<b>Type Of Protection</b>	IP55
<b>Impregnation</b>	Moisture and hot climate protection
<b>Inlet Nozzle</b>	Inlet nozzle with measuring device for volume flow
<b>Paint Nozzle</b>	powder-coated resistance class 1 (L-TI-0585)
<b>Colour Shade Nozzle</b>	RAL 7032 (pebble grey)
<b>Paint Guard Grill</b>	All sheet-metal parts powder-coated resistance class 1 (L-TI-0585)
<b>Colour Sheet Metal</b>	RAL 7032 (pebble grey)
<b>Bearing Quality</b>	ball bearing with long-time lubrication
<b>Labelling UI/Csa</b>	E213826 ZC-155, MK152-0013
<b>Other</b>	
<b>Painting Motor</b>	Stator/rotor separately
<b>Colour Motor</b>	Stator/rotor separately
<b>Min. Operating Temperature °C</b>	-35°C***
<b>Disclaimer Ct20/Doe</b>	Selected product is fully compliant with U.S. DOE and CT20 regulations for industrial fans and blowers.

# The Royal League

## Die Königsklasse

**Article number**  
116178/A11

**Operating Manual**

L-BAL-F078

**Weight**

54.00

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.

### 3. Characteristic Curve

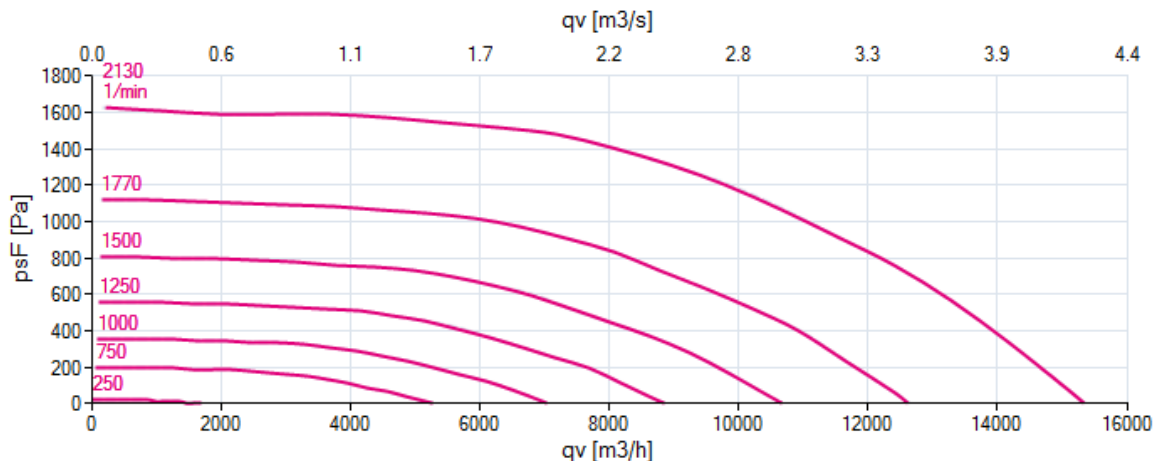
GR50C-ZID.GL.CR

measured in standard nozzle in installation type A according to ISO 5801

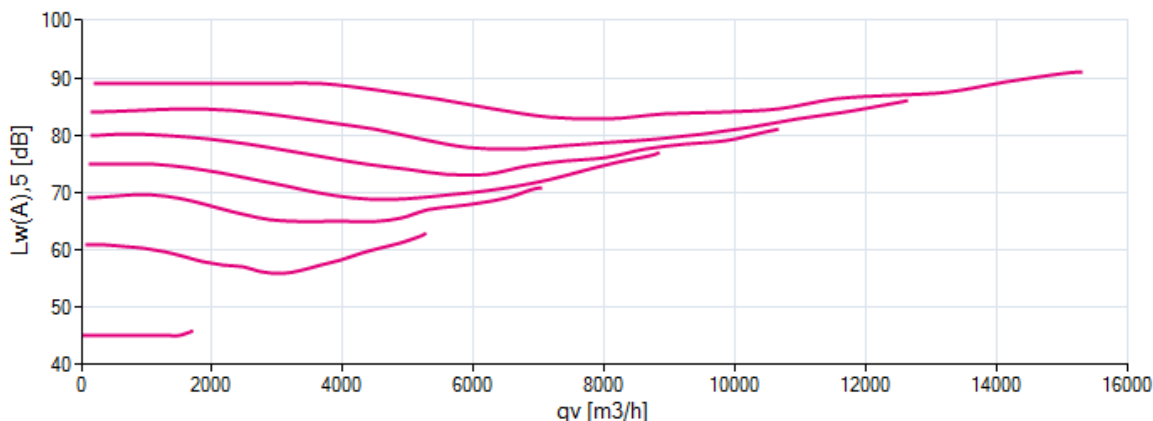
3~ 380-480V 50Hz

measurement density 1.16 kg/m<sup>3</sup>

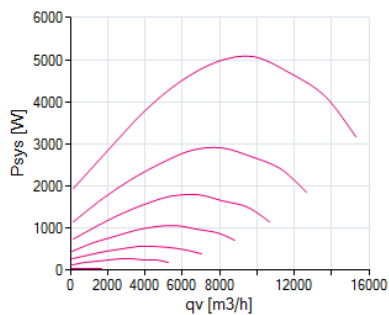
#### Air performance



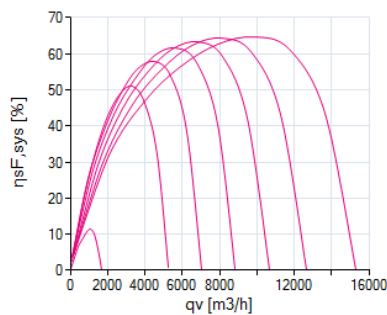
#### Acoustics



#### Power input



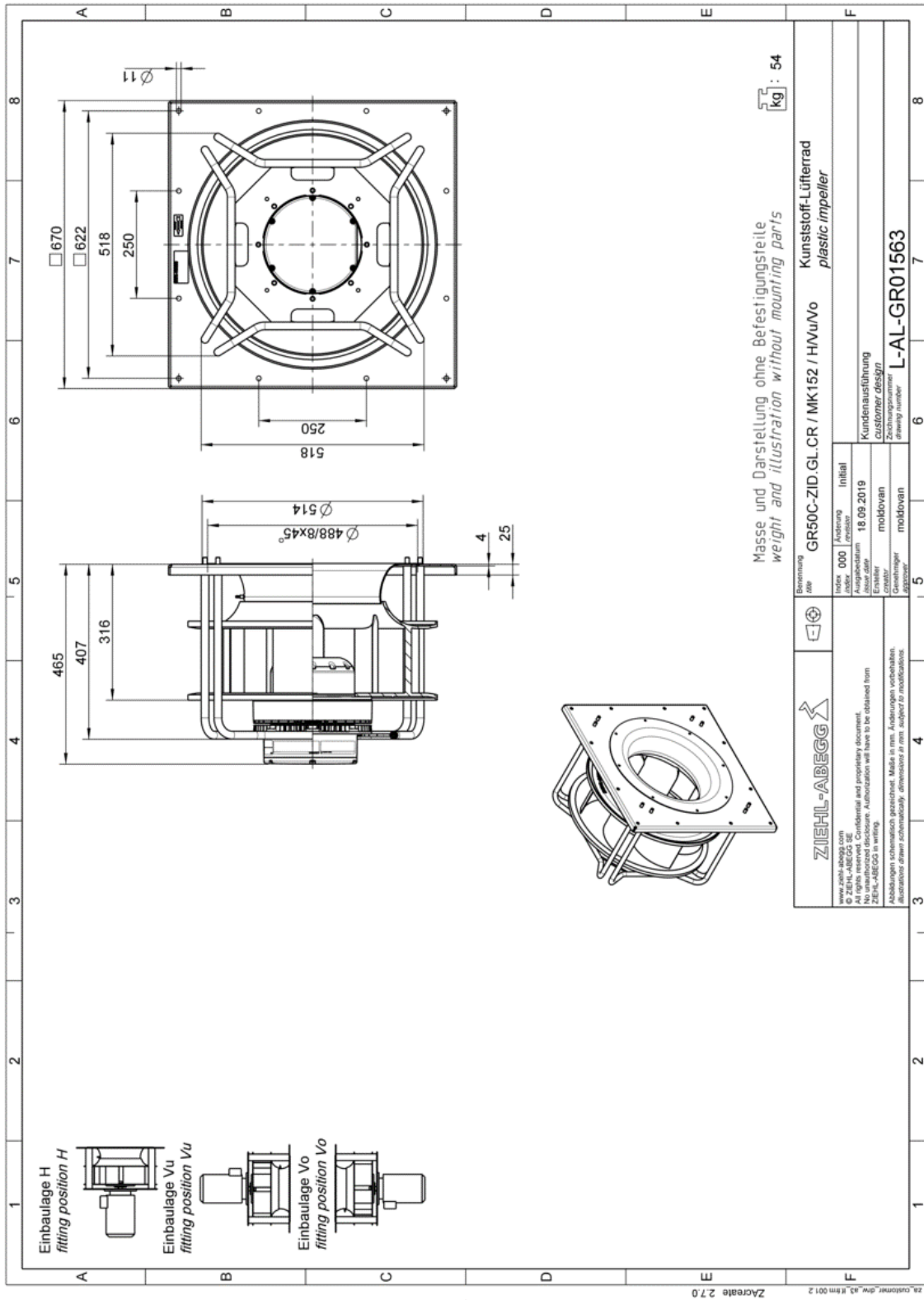
#### Efficiency



132823

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

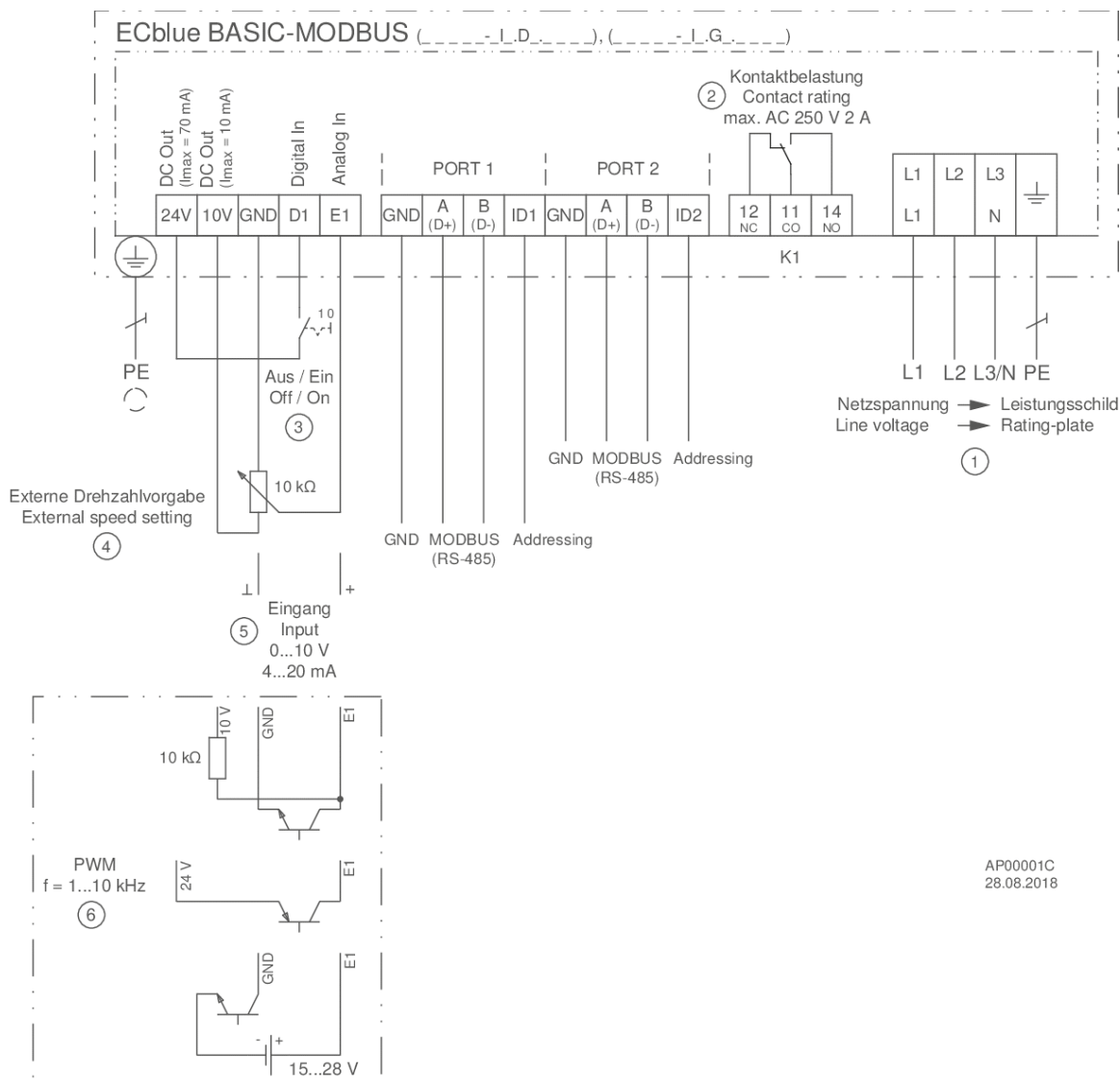


Dimensions in mm

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



### 5. Connection Diagram



## 6. EU-Declaration of Conformity

### EU declaration of conformity

- Translation -  
(english)  
ZA75-GB 2022/47 Index 019

**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..., FP..., 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...

#### 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 (also 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 harmonized standards have been applied:

- EN 60034-1:2010 + AC:2010
- EN 60204-1:2018
- EN 60529:1991 + A1:2000 + A2:2013 + AC:1993 + AC:2016 + AC:2019
- EN IEC 61000-6-2:2019
- EN IEC 61000-6-3:2021

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, 24.11.2022  
(Location, date of issue)

ZIEHL-ABEGG SE  
Moritz Krämer  
Director Product Development  
Ventilation Technology  
(name, function)



(signature)

ZIEHL-ABEGG SE  
Ralf Oesselke  
Director Projects & Series Development  
Ventilation Technology  
(name, function)



(signature)

ZIEHL-ABEGG 

### EC Declaration of Incorporation

- Translation -  
(english)

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

ZA87-GB 2023/47 Index 013

#### The design of the partly completed machine:

- Axial fan DN..., FA..., FB..., FC..., FE..., FF..., FG..., FH..., FL..., FN..., FP..., FS..., FT..., FV..., SG..., 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:

- 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 EC Machinery Directive 2006/42/EC.

**Manufacturer:** ZIEHL-ABEGG SE  
Heinz-Ziehl-Straße  
D-74653 Künzelsau

#### The following harmonized standards have been applied:

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 13857:2019	Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs
Note:	Compliance with EN ISO 13857:2019 relates only to the installed contact protection if it is part of the scope of delivery.

The special technical documents in accordance with Appendix VII B have been created and are available in full.

The following persons are authorized to compile the technical documents, address see above.

Upon reasonable request, the special documents shall be transmitted to the public authority. The transfer can be made electronically, on data carriers or on paper. All property rights remain with the aforementioned manufacturer.

**Start-up of this incomplete machine is prohibited until it is ensured that the machine in which it has been installed complies with the provisions of the EC Machinery Directive.**

Künzelsau, 22.11.2023  
(Location, date of issue)

ZIEHL-ABEGG SE  
Moritz Krämer  
Director Product Development  
Ventilation Technology  
(name, function)



(signature)

ZIEHL-ABEGG SE  
Ralf Oesselke  
Director Projects & Series Development  
Ventilation Technology  
(name, function)



(signature)



# The Royal League

## Die Königsklasse