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**KBR Thermo box fan AC**  
**KBR Thermo box fan EC**  
**KBR/F Smoke extraction fan**



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# 1 Introduction

## 1.1 Product description

The product is a centrifugal thermo box fan with a casing made from galvanized steel and mineral wool as insulation. The product is applicable for transportation of clean or contaminated air in extract air ventilation systems.

## 1.2 Intended use

KBR and KBR EC are applicable for kitchen exhaust ventilation with a maximum constant airflow temperature of 120 °C. KBR/F is applicable for smoke extraction with a maximum constant airflow temperature of 200 °C in normal working conditions. If there is a fire, KBR/F can have a maximum

constant airflow temperature of 400 °C for 2 hours one time. If KBR/F has a maximum constant airflow temperature of 400 °C for 2 hours, it must be replaced.

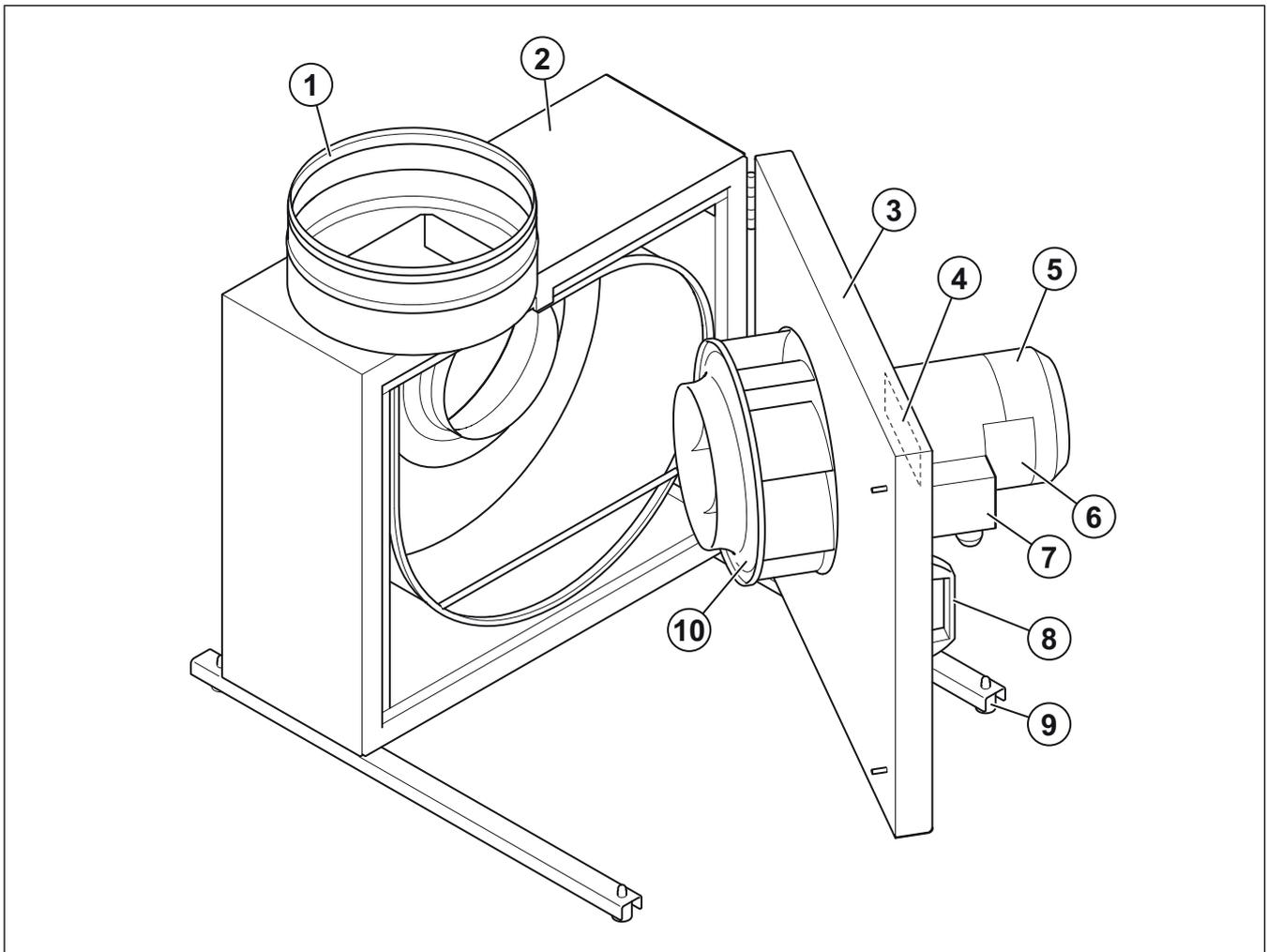
The product is not applicable for transportation of air that contains explosive, flammable or aggressive media. The product is not applicable for locations where there is a risk of explosion.

## 1.3 Document description

This document contains instructions for installation, operation and maintenance of the product. The procedures must be done by approved personnel only.

Speak to Systemair for more information on how to install the product in different installation locations.

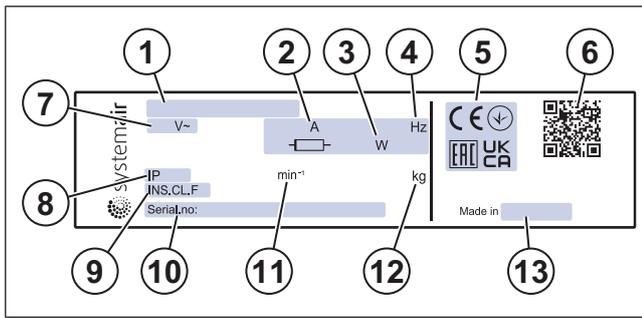
## 1.4 Product overview



1. Duct connection
2. Casing
3. Service door
4. Name plate
5. Motor

6. Motor name plate
7. Connection box
8. Handle
9. Mounting feet
10. Fan impeller

## 1.5 Name plate



1. Type designation: Product name, dimension and motor type. Refer to 1.5.1 Type designation.
2. Current, A
3. Input power, W
4. Frequency, Hz
5. Certifications
6. Scannable code 1
7. Voltage, V
8. IP class, enclosure class
9. Insulation class
10. Serial number: part number/production number/production date
11. Nominal fan speed
12. Weight, kg
13. Country of production

### Note:

The data on the name plate applies to “standard air” that is specified in the standard ISO5801.

### 1.5.1 Type designation

Product name	KBR	KBR EC	KBR/F
Dimension	280	280	280
	315	315	315
	355	355	355
Motor type	D2: 2 pole, 3-phase	EC: Electronically commuted 1-phase	D2: 2 pole, 3-phase
	D2-4: 2-4 pole, 3-phase	EC-K: Electronically commuted 1-phase, normal power	D2-4: 2-4 pole, 3-phase
	DV: 4 pole, 3-phase	EC-L: Electronically commuted 1-phase, high power	DV: 4 pole, 3-phase
	E4: 4 pole, 1-phase		E4: 4 pole, 1-phase

## 1.6 Product liability

Systemair is not liable for damages that the product causes in these conditions:

- The product is incorrectly installed, operated or maintained.
- The product is repaired with parts that are not original spare parts from Systemair.
- The product is used together with accessories that are not original accessories from Systemair.
- The product is used without motor protection.

## 2 Safety

### 2.1 Safety definitions

Warnings, cautions and notes are used to point out specially important parts of the manual.



#### Warning

If you do not obey these instructions, there is a risk of death or injury.



#### Caution

If you do not obey these instructions, there is a risk of damage to the product, other materials or the adjacent area.

1. Use a mobile device to scan the scannable code and go to the Systemair documentation portal for more documentation and document translations.

**Note:**

Information that is necessary in a given situation.

## 2.2 Safety instructions

**Warning**

Read the warning instructions that follow before you do work on the product.

- Read this manual and make sure that you understand the instructions before you do work on the product.
- Obey local conditions and laws.
- The ventilation contractor and the operator are responsible for correct installation and intended use.
- Keep this manual at the location of the product.
- Do not install or operate the product if it is defective.
- Do not remove or disconnect safety devices.
- Make sure that you can read all warning signs and labels on the product when it is installed. Replace labels that have damage.
- Only permit approved personnel to work on the product and to be in the adjacent area during all work on the product.
- Make sure that you know how to stop the product quickly in an emergency.
- Use applicable safety devices and personal protective equipment during all work on the product.

- Before you do work on the product, stop the product and wait until the fan impeller stops. Make sure that there is no voltage on the motor terminals.
- If the maintenance is not correctly and regularly done, there is risk of injury and damage to the product.
- Only do the maintenance as given in this manual. Speak to Systemair technical support if other servicing is necessary.
- Always use spare parts from Systemair.
- Sound levels exceeding 70 dB(A) may occur depending on model and size. Visit [www.systemair.com](http://www.systemair.com) for more detailed information about your product.
- The product is not to be used by persons, including children, with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Do not allow children to play with the device.

## 2.3 Personal protective equipment

Use personal protective equipment during all work on the product.

- Approved eye protection
- Approved protective helmet
- Approved hearing protection
- Approved protective gloves
- Approved protective shoes
- Approved work clothing

## 3 Transportation and storage



### Warning

Make sure that the product does not become damaged or wet during transportation. A damaged or wet product can cause fire or electric shock.

- Before you move the product to the installation location, examine the packaging for damages.
- Do not move the product by the cables, terminal box, fan impeller, protection grille, inlet cone or silencer.
- If lifting equipment is used, make sure that the lifting equipment can hold the weight of the product. Refer to the name plate for information. Do not lift the product by the packaging.



### Warning

Do not walk below a lifted product.

- Keep the correct side of the packaging up during transportation. Refer to the arrows on the packaging.
- Load and unload the product carefully.
- Keep the product in a dry and clean location during storage. Make sure that the ambient temperature during storage is between  $-10$  and  $+30$  °C. A stable ambient temperature prevents damage from condensation.
- Keep the product in storage for maximum 1 year.

## 4 Installation

### 4.1 To do before the installation of the product

- Make sure that you have the necessary installation accessories:
  - Refer to [13 Accessory overview](#) for an overview of the accessories.
  - If you install the product outdoors, it is necessary to install a weather protection roof.
  - To decrease vibrations transmitted from the product to the duct system, Systemair recommends to install vibration dampers, fast clamps or flexible connections.
  - If you install the product with free suction or free discharge, it is necessary to install a protection grille. Make sure that the safety distance agrees with the standard DIN EN ISO 13857 and the standard DIN 24167-1.
- Use installation material with fire resistance rating for the installation location.
- Examine the packaging for transportation damage and remove the packaging from the product carefully.
- Examine the product and all components for damage.
- Make sure that the motor effect and the fan performance agrees with the expectations at the installation location.
- Make sure that the information on the name plate and the motor name plate agrees with the operation conditions.
- Install the product in a location where there is space for commissioning, troubleshooting and maintenance.
- Make sure that the installation location is clean and dry, for full safety during electrical work.
- Make sure that the installation surface has sufficient capacity to hold the weight of the product.
- Refer to the airflow direction arrows on the name plate or on the product to install the product in the correct position.
- Make sure that all cable glands are tight against the cables to prevent leaks.

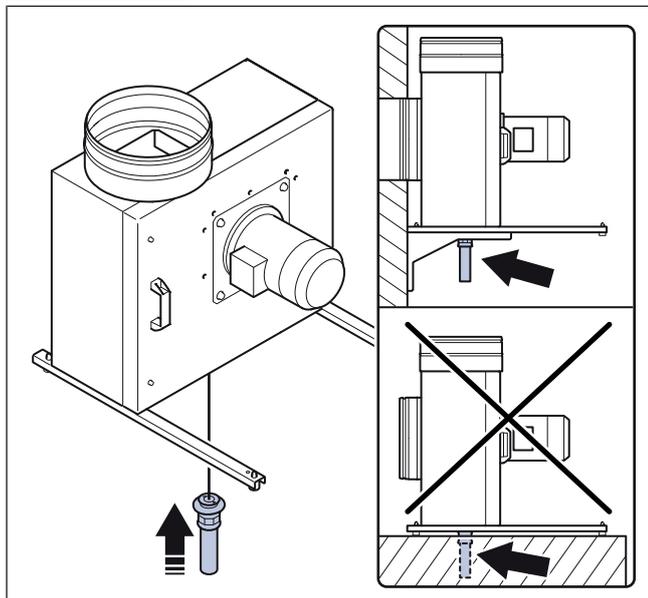
## 4.2 To install the product

- 1 Install the product on the mounting feet. Make sure that the weight of the product is equal on the mounting feet. Make sure the drain plug is always put at the lowest point of the product to drain the condensation.



### Caution

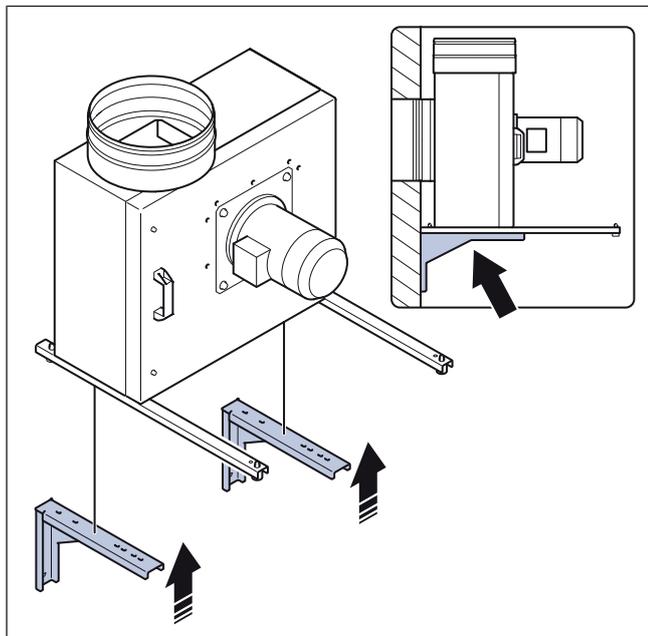
Risk of damage to the product if there is much water that cannot drain.



- 2 If wall brackets are used, install the wall brackets.

### Note:

Wall brackets for installation on walls are available as accessories.



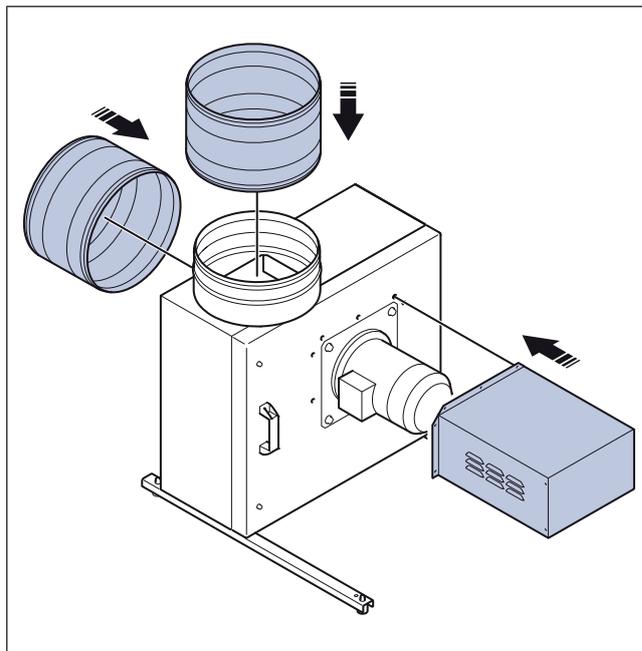
- 3 Connect the ducts to the product, refer to 4.2.1 To connect the ducts to the product.

### 4.2.1 To connect the ducts to the product

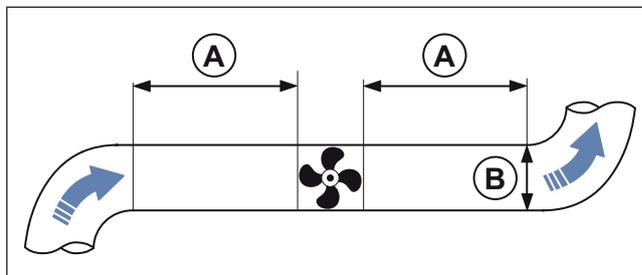
- 1 Put the ducts on the duct connections of the product.

### Note:

Systemair recommends to use flexible connections or FK fast clamps to attach the duct to the product. Flexible connections and FK fast clamps are available as accessories.



- 2 Tighten the fast clamps around the duct and the product with the screws that are supplied with the fast clamps. Make sure that there is a distance between the duct and the product to decrease vibrations transmitted from the product to the duct system.
- 3 If you install the product near a duct bend, do these steps to prevent vibrations, unwanted noise and decreased air pressure:
  - a. Measure the distance (A) between the product and the duct bend.
  - b. Make sure that the distance (A) is a minimum of 2.5 x the diameter (B) of the duct system. For circular ducts, (B) is the nominal diameter. For rectangular ducts, (B) is the hydraulic diameter.



## 5 Electrical connection

### 5.1 To do before the electrical connection

- Make sure that the electrical connection agrees with the product specification on the motor name plate.
- Make sure that the environment for electrical connection is clean and dry.
- Make sure that the wiring diagram that is included with the supply of the product agrees with the terminals in the connection box.

### 5.2 To connect the product to the power supply

- Complete the electrical connection for the motor. Refer to the motor wiring diagram that is included with the product.
- Make sure that the cross section of the protective earthing is equal to or larger than the cross section of the phase conductor.
- Install a circuit breaker in the permanent electrical installation, with a contact opening of a minimum 3 mm at each pole.
- If a residual current device (RCD) is installed, make sure that it is an all-current sensitive RCD. Consider if the product has a frequency converter, uninterruptible power supply (UPS), or an EC motor. EC motors have a leakage current to earth that is  $\leq 3.5$  mA.

### 5.3 Speed controller for EC motors

- EC motors are controlled through a stepless 0–10 V signal.
- Do not use power supply for the speed controller.
- Refer to [12.3 Wiring diagrams](#) and the instruction manual for the external speed controller.

### 5.4 Motor protection for EC motors

EC motors have an integrated motor protection. Reset the motor protection by disconnecting the fan from power supply for 60 seconds.

### 5.5 Speed controller for AC motors

#### Note:

The speed controller alternatives are different for different motor types. Make sure that your motor is compatible with the speed controller type before you use it.

The speed can be controlled with a frequency converter if the installed frequency converter has built in all-pole sine filter and shielded cables are not needed.

### 5.6 To install motor protection for AC motors

- If the product has an built in motor protection, reset by disconnecting the product from power for 60 seconds.
- If the motor has temperature monitors such as thermal contacts (TK) or thermistors lead out into the terminal box, these must always be connected in the control circuit using appropriate motor protection.
- Make sure that an overheated motor cannot start again automatically when it becomes cool.
- Install the motor cables and the temperature monitor apart.
- If the motor does not have temperature monitors, install a motor protection switch.

## 6 Commissioning



### Caution

- If strong vibrations occur during commissioning, immediately increase or decrease the fan speed until the vibrations are decreased. Continuous strong vibrations can cause damage to components.
- Do not increase the fan speed to a higher rpm value than the maximum value that is given on the name plate.

The commissioning report is found at [www.systemair.com](http://www.systemair.com).

### 6.1 To do before the commissioning

- Make sure that the installation and electrical connection are correctly done.
- Visually examine the product and accessories for damage.
- Make sure that the safety devices are correctly installed.
- Make sure that there are no blockages in the air inlet and the air outlet.
- Make sure that installation material and unwanted objects are removed from the product and the ducts.

### 6.2 To do the commissioning

- 1 Set the installed safety switch in the OFF position.
- 2 If it is possible to get access to the fan impeller, do the steps that follows:
  - a. If it is necessary, remove parts of the installation.
  - b. Turn the fan impeller by hand and make sure that it turn easily.
  - c. Record the result in the commissioning report.
- 3 Make sure to turn the product in a direction that agrees with the related arrow on the product.
  - a. Record the result in the commissioning report.
- 4 If you removed parts of the installation to get access to the fan impeller, install the removed parts again.
- 5 Set the installed safety switch in the ON position.
- 6 Start the product.
- 7 Set the minimum operation speed.
- 8 Increase the operation speed gradually to the maximum operation speed.
  - a. Examine the vibrations in the casing and the bearing areas at all speed levels.
  - b. Make sure that the vibrations agree with the specifications in DIN ISO 14694.
  - c. Make sure that none of the speed levels cause unwanted noise in the product.
  - d. Record the result in the commissioning report.
- 9 Record the necessary data in the commissioning report.

## 7 Operation



### Caution

EC motors must be set to ON/OFF via the control input. To stop the product via mains supply decreases the life time of the motor. Systemair recommends to install external speed controller for easy access to control the input signal.

### 7.1 To start a product with an EC motor

- 1 Make sure that the 0–10 V signal is set to “0” with the speed controller.
- 2 Set the installed safety switch in the ON position and wait 5 seconds.
- 3 Adjust the fan speed with the 0–10 V signal speed controller. If an external speed controller is not installed, adjust the fan speed directly with the integrated potentiometer.

### 7.2 To start a product with an AC motor

- 1 Set the installed safety switch in the ON position.
- 2 Install the external speed controller. Refer to the instruction manual for the installed speed controller.

### 7.3 To stop the product

- 1 Set the installed speed controller in the OFF position. Refer to the instruction manual for the installed speed controller.
- 2 Set the installed safety switch in the OFF position.

#### 7.3.1 To stop the product in an emergency

- Set the installed safety switch in the OFF position.

## 8 Maintenance



### Warning

Set the installed safety switch in the OFF position before you do the maintenance unless the instructions tell you differently. Make sure that the safety switch is not accidentally set in the ON position.

### 8.1 Maintenance schedule

The intervals are calculated from continuous operation of the product.

Maintenance task	Usual operation conditions		Unusual operation conditions. <sup>1</sup>		
	Each 6 months	Each year	Each 3 months	Each 6 months	Each year
Visually examine the product and its components for damage, corrosion and dirt.		X		X	
Examine the fan impeller for damage and imbalance.		X		X	
Clean the product and the ventilation system.	X		X		
Do a check of all fasteners and make sure that they are fully tightened.		X			X
Make sure that the product and its components are correctly operated.	X			X	
Measure the power consumption and compare the result with the information on the name plate.		X		X	
If vibration dampers are installed, make sure that they operate correctly and examine them for damage and corrosion.		X			X
Make sure that the electrical protective equipment and the mechanical protective equipment operates correctly.		X			X
Make sure that you can read the name plates of the product.		X		X	
Examine all cable connections for damage. Make sure that the cable glands are tight against the cables.		X			X
If flexible connections are installed, examine them for damage.	X			X	

1. The unusual operation conditions are classified as follows: If a stable ambient temperature is higher than 30 °C or lower than -10° C, if the temperature changes are large or if very contaminated air is transported.

## 8.2 To clean the product



**Caution**

- Do not clean the product with a high-pressure washer.
- Do not clean the product with steel brushes or sharp objects.
- Do not bend the fan impeller blades.
- Be careful not to move the balance weights on the fan impeller.

- Remove dirt from the fan and the duct.
- If access to the fan impeller is possible, clean the fan impeller with a moist cloth or soft brush.

## 8.3 Spare parts

- When you send an order for spare parts, include the serial number of the product. The serial number is found on the name plate.
- For more information about spare parts, contact technical support.
- Always use spare parts from Systemair.
- To find spare parts, refer to the scannable code on the name plate.

## 9 Troubleshooting

### Note:

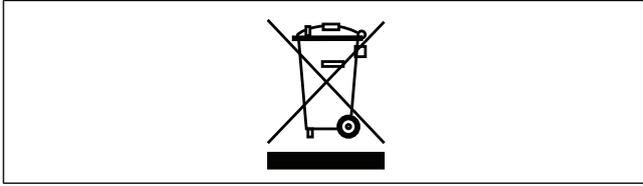
If you cannot find a solution to your problem in this section, speak to Systemair technical support.

Problem	Cause	Solution
The product does not operate smoothly.	The fan impeller is not correctly balanced.	Speak to Systemair technical support.
	There is dirt on the fan impeller.	Clean the fan impeller carefully. Refer to <a href="#">8.2 To clean the product</a> .
	The fan impeller has damages or deformations because the transported air contains aggressive media.	Speak to Systemair technical support.
	The fan impeller does not turn in the correct direction.	Make sure that the electrical connection is correctly done.
	The fan impeller has deformations because of too high temperatures.	<ul style="list-style-type: none"> <li>• Replace the fan impeller.</li> <li>• Make sure that the temperature of the transported air is not higher than the value on the name plate.</li> </ul>
	There are unusually strong vibrations in the product or the duct system.	Make sure that the product is correctly installed. Do a check of the duct system.
	The product is operated in a resonant frequency range.	Increase or decrease the fan speed until the product operates smoothly. Refer to <a href="#">6 Commissioning</a> .
The air output is not sufficient.	The fan impeller does not turn in the correct direction.	Make sure that the electrical connection is correctly done.
	The electrical connection is not correctly done.	Make sure that the electrical connection agrees with the wiring diagrams.
	The air pressure is too low because of incorrect installation.	Do the necessary changes in the duct system and installed components to increase the air pressure. Refer to <a href="#">6 Commissioning</a> .
	The airflow shutters are closed or not fully open.	Adjust the airflow shutters.
	There is blockage in the air inlet or the duct system.	Remove the blockage.
	The product is not applicable for the installation location.	Make sure that the product is applicable for the installation location.
	The motor power is decreased because of too high temperature in the motor.	<ul style="list-style-type: none"> <li>• Do a check of the ambient temperature.</li> <li>• Make sure that the space around the motor is sufficient to keep the temperature down.</li> </ul>
	<p><b>Note:</b></p> <p>This is applicable for EC motors only.</p>	
There is unusual noise when the product starts or operates.	There is strain in the connections of the duct system.	Loosen the connections, align the parts of the duct system correctly and tighten the connections.

Problem	Cause	Solution
Thermal contacts, PTC or resistors are released.	The fan impeller does not turn in the correct direction.	Make sure that the electrical connection is correctly done.
	A phase loss occurred.	If the motor is a 3-phase motor, make sure that no phase is missing.  <b>Note:</b> This is not applicable for EC motors.
	The motor is overheated.	<ul style="list-style-type: none"> <li>Do a check of the motor cooling impeller.</li> <li>If it is possible, measure the resistance to do a check of the motor winding.</li> </ul>
	The capacitor is not connected or not correctly connected.  <b>Note:</b> This is not applicable for EC motors or 3-phase AC motors.	Connect the capacitor correctly. Refer to the included motor wiring diagram.
	There is blockage in the motor.	Speak to Systemair technical support.
The fan speed does not get the nominal value.	Defective motor winding.	If it is possible, measure the resistance to do a check of the motor winding.
	The speed control is not correctly set.	Set the speed control correctly.
	The fan impeller cannot turn freely because of mechanical blockage.	Remove the blockage.
	Phase loss occurs.	If the motor is a 3-phase motor, make sure that no phase is missing.
The motor does not rotate.	A component in the power supply is defective.	Do a check of the power supply. Replace defective components and connect the power supply again.
	The electrical connection is not correctly done.	Make sure that the electrical connection agrees with the wiring diagrams.
	The motor protection is released because the motor is overheated.	Let the motor become cool. Reset the motor protection. Find the cause of the overheated motor.
	A phase loss occurred.	If the motor is a 3-phase motor, make sure that no phase is missing.
The electronic components or the motor is overheated.	The motor is overloaded or the ambient temperature is too high.	Let the motor become cool. Reset the motor protection. Find the cause of the overheated motor.
	The motor is overloaded.	Make sure that the product is applicable for the installation location.
	The ambient temperature is too high.	Make sure that the product is applicable for the installation location.
	The cooling of the product is not sufficient.	Make sure that the space around the motor is sufficient to keep the temperature down.

## 10 Disposal

The product follows the WEEE directive. This symbol on the product or the packaging of the product shows that this product is not domestic waste. The product must be recycled at an approved disposal location for electrical and electronic equipment.



### 10.1 To disassemble and discard the parts of the product

- 1 Disconnect and disassemble the product in the opposite sequence of electrical connection and installation.
- 2 Recycle the product parts and the packaging at an applicable disposal location.
- 3 Obey the local and national requirements for disposal.

## 11 Warranty

For warranty claims, send a written maintenance plan and the commissioning report to Systemair. The warranty is only applicable for these conditions:

- The product is correctly installed and operated.
- Motor protection is used.
- The instructions in the data sheets are obeyed.
- Maintenance instructions are obeyed.
- A product that is not operated continuously is operated for a minimum of 1 hour each month.

## 12 Technical data

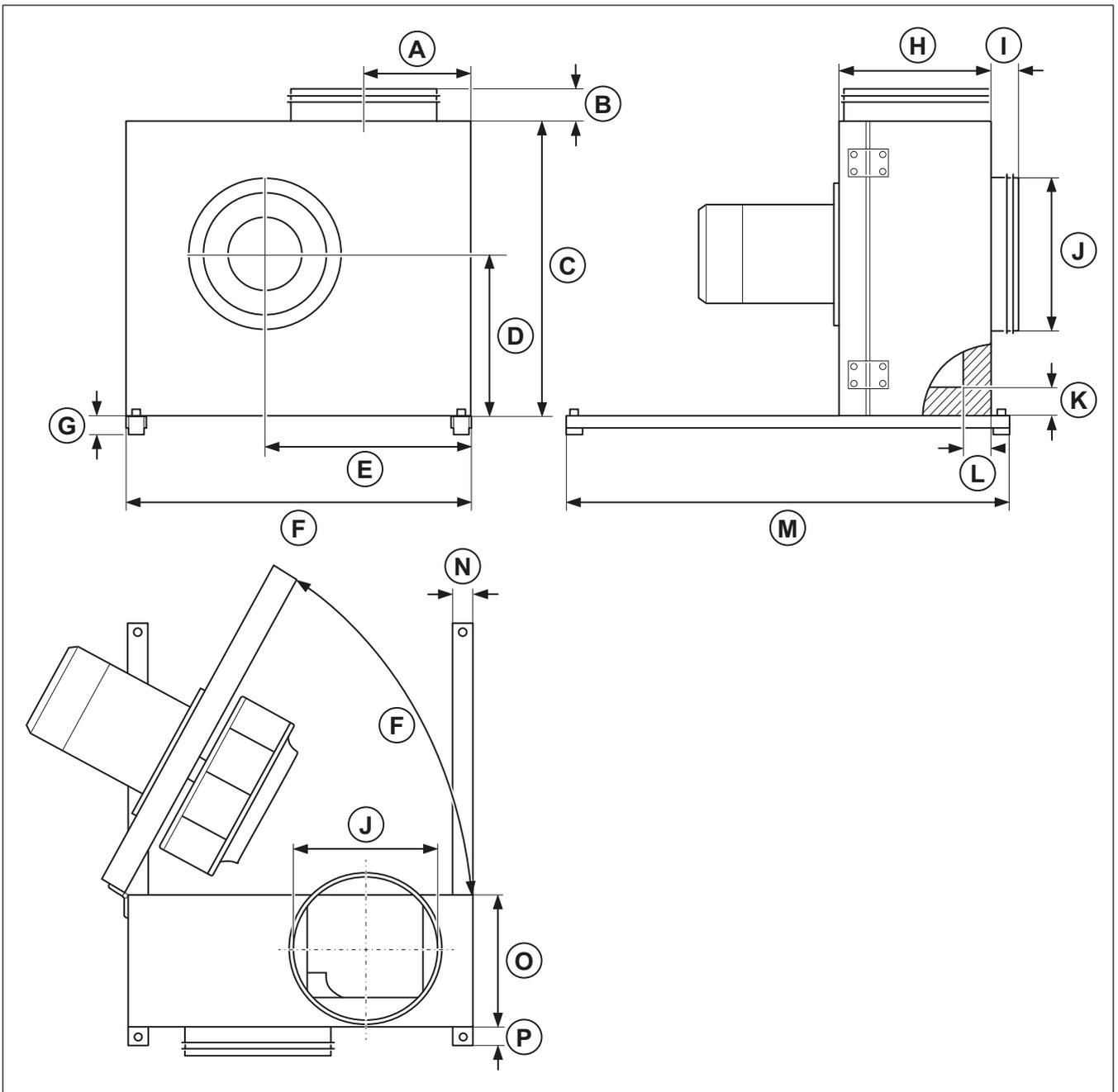
### 12.1 Technical data overview

	KBR	KBR/F
Maximum temperature of transported air, °C	120	200
Sound pressure, dB	Refer to the data sheet in the online catalogue at <a href="http://www.systemair.com">www.systemair.com</a> .	
IP class		
Voltage, current, frequency, enclosure class, weight	Refer to the name plate. Refer to <a href="#">1.5 Name plate</a> for more information.	
Motor data	Refer to the motor name plate or the technical documentation from the motor manufacturer.	

## 12.2 Product dimensions

### Note:

If the unit of measure is not specified, the dimensions are given in millimetres.



	A	B	C	D	E	F	G	H	I	ØJ	K	L	M	N	O	P
<b>KBR 280 AC</b>	171	125	537	295	360	625	29	291	115	280	50	50	620	38	234	55
<b>KBR/F 280 AC</b>	171	60	537	295	360	625	29	291	50	280	50	50	620	38	234	55
<b>KBR 280 EC</b>	171	125	537	295	360	625	29	291	115	280	50	50	620	38	234	55
<b>KBR 315 AC</b>	187.5	125	600	339	398	690	29	307	115	315	50	50	770	38	249	55
<b>KBR/F 315 AC</b>	187.5	60	600	339	398	690	29	307	50	315	50	50	770	38	249	55
<b>KBR 315 EC</b>	187.5	125	600	339	398	690	29	307	115	315	50	50	770	38	249	55
<b>KBR 355 AC</b>	206.7	125	655	372	451	770	29	331	115	355	50	50	770	38	273	55
<b>KBR/F 355 AC</b>	206.7	60	655	372	451	770	29	331	50	355	50	50	770	38	273	55
<b>KBR 355 EC</b>	206.7	125	655	372	451	770	29	331	115	355	50	50	770	38	273	55

## 12.3 Wiring diagrams

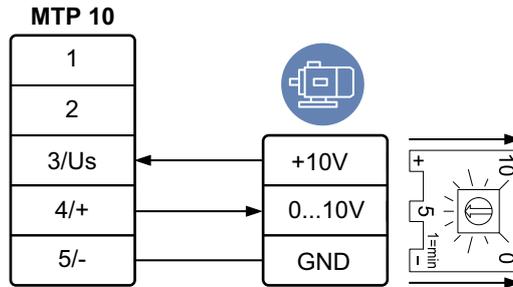
Refer to the wiring diagram documents that are included in the supply of the product.

### 12.3.1 Wiring diagrams for speed controllers for EC motors

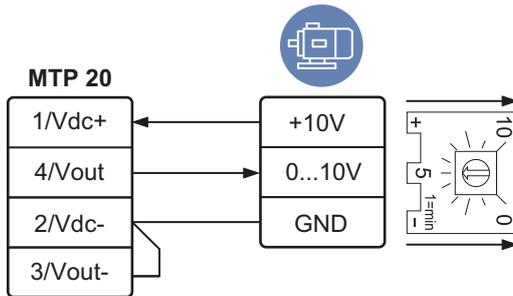
#### Note:

An internal potentiometer is installed on the terminal block from the factory. Remove the internal potentiometer when you use an external speed controller for the EC fan.

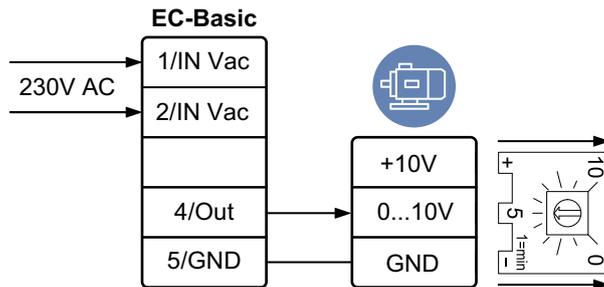
#### MTP 10



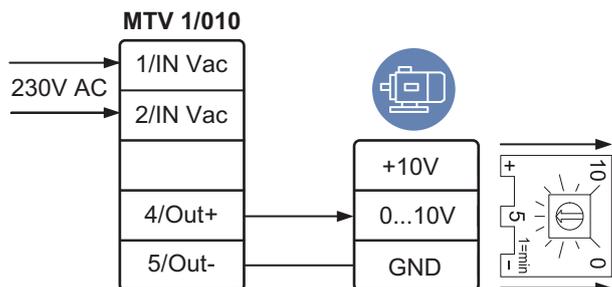
#### MTP 20



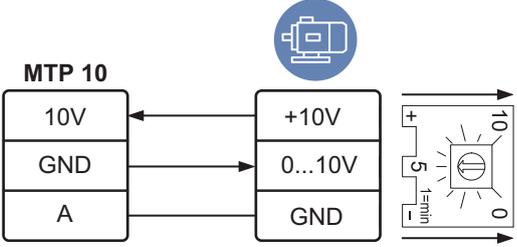
#### EC-Basic



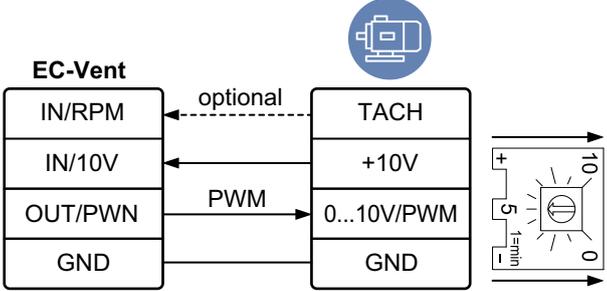
#### MTV-1/10



**S-5EC/FRQ**

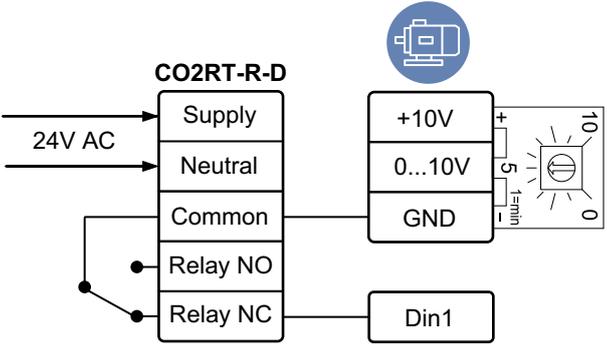


**EC-Vent**

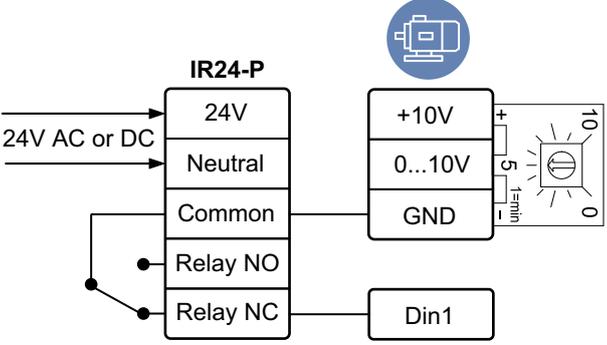


**12.3.2 Wiring diagrams for ON/OFF controls for EC motors**

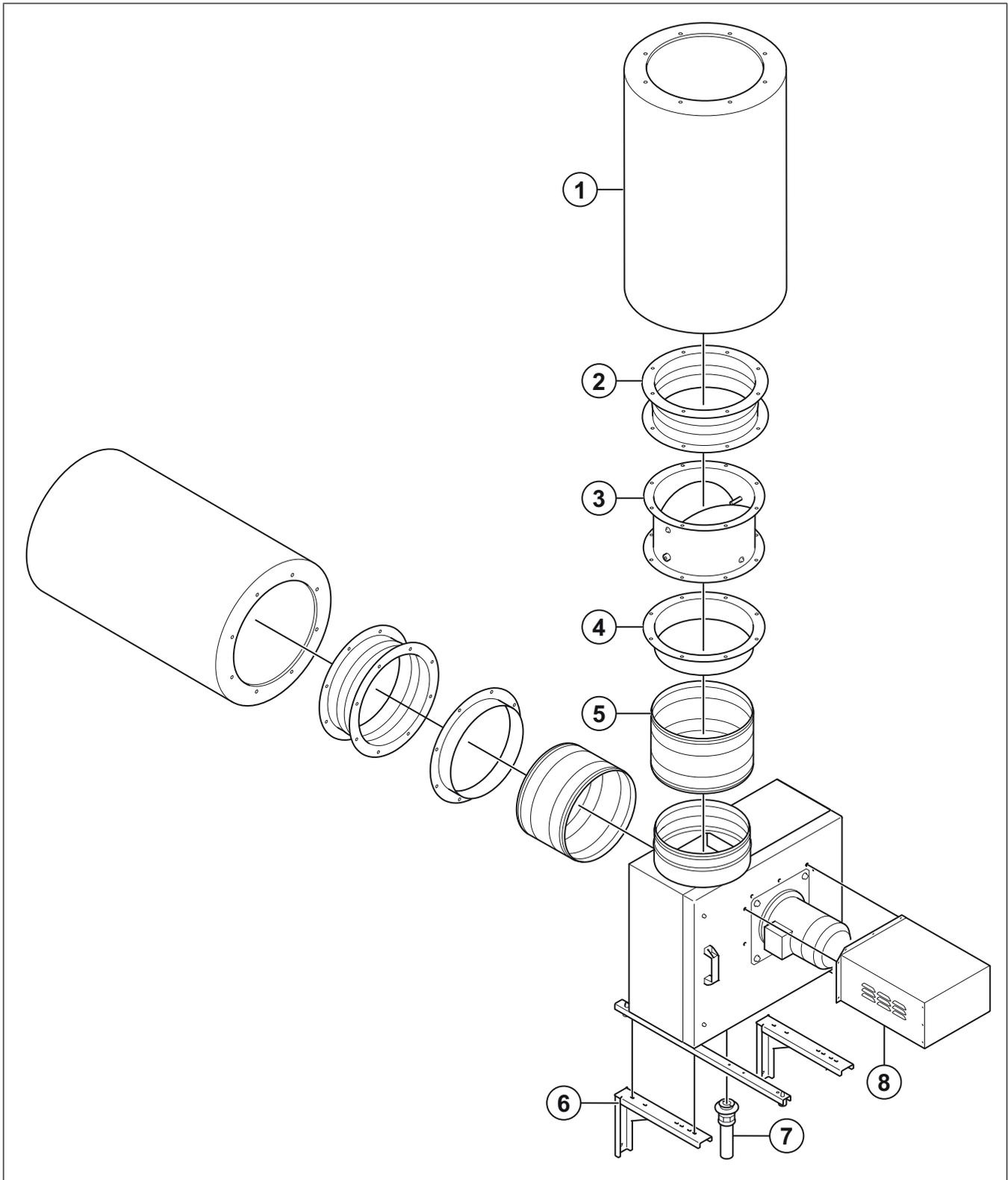
**CO2RT-R(-D)**



**IR24-P**



## 13 Accessory overview



- |  |  |
|--|--|
| 1. RSA: Silencer                                       | 5. ASF: Flexible connection, applicable for KBR fans |
| 2. EVH: Flexible connection, applicable for KBR/F fans | 6. WBK: Wall bracket                                 |
| 3. LRK: Airflow shutter                                | 7. ALS: Drain plug                                   |
| 4. UGF: Transition flange                              | 8. WSD: Motor weather protection                     |

### Note:

The selection of accessories shown are not supplied with the product. For more information and other available accessories, refer to [www.systemair.com](http://www.systemair.com) or speak to Systemair technical support.

# 14 EU Declaration of Conformity-Thermo fans

We, the manufacturer

<b>Company</b>	Systemair GmbH
<b>Address</b>	Seehöfer Straße 45 97944 Boxberg Germany

declare under our sole responsibility that the product

<b>Product designation</b>	Thermo fans
<b>Type/Model</b>	AxZent; KBR; MUB/T; MUB/T-S; DVN; DVNI

fulfils all relevant provisions of the

<b>Machinery directive</b>	<p><b>2006/42/EC</b></p> <p><b>DIN EN ISO 12100:2013</b> Safety of machinery - General principles for design Riskassessment and risk reduction</p> <p><b>DIN EN 60204-1:2019-06</b> Safety of machinery - Electrical equipment of machines - Part 1: General requirements</p>
<b>Directive electromagnetic compatibility (EMC)</b>	<p><b>2014/30/EU</b></p> <p><b>DIN EN IEC 61000-6-1:2019-11</b> Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments</p> <p><b>DIN EN IEC 61000-6-4:2020-09</b> Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments</p>
<b>RoHS directive</b>	<p><b>2011/65/EU</b></p> <p><b>IEC 63000:2016</b> Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances</p>

**Person authorized to compile the technical file:**



Matthias Hennegriff  
Technical Director

This declaration relates exclusively to the machinery in the state in which it was placed on the market and excludes components which are added and/or operations carried out subsequently by the final user. Boxberg, Germany 2022-03-29



Stefan Fischer  
Managing Director

# 15 EU Declaration of Conformity-Smoke extract fans

We, the manufacturer

<b>Company</b>	Systemair GmbH
<b>Address</b>	Seehöfer Straße 45 97944 Boxberg Germany

declare under our sole responsibility that the product

<b>Product designation</b>	Smoke extract fans
<b>Type/Model</b>	KBR/F; MUB/F

fulfils all relevant provisions of the

<b>Machinery directive</b>	<p><b>2006/42/EC</b></p> <p><b>DIN EN ISO 12100:2013</b> Safety of machinery - General principles for design Riskassessment and risk reduction</p> <p><b>DIN EN 60204-1:2019-06</b> Safety of machinery - Electrical equipment of machines - Part 1: General requirements</p>
<b>Directive electromagnetic compatibility (EMC)</b>	<p><b>2014/30/EU</b></p> <p><b>DIN EN IEC 61000-6-1:2019-11</b> Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments</p> <p><b>DIN EN IEC 61000-6-4:2020-09</b> Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments</p>
<b>RoHS directive</b>	<p><b>2011/65/EU</b></p> <p><b>IEC 63000:2016</b> Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances</p>
	<p><b>DIN EN 12101-3:2015</b> Smoke an heat control systems, Part 3: Specification for powered smoke and heat exhaust ventilators</p>

Person authorized to compile the technical file:



Matthias Hennegriff  
Technical Director

This declaration relates exclusively to the machinery in the state in which it was placed on the market and excludes components which are added and/or operations carried out subsequently by the final user. Boxberg, Germany 2022-03-29



Stefan Fischer  
Managing Director

# 16 UKCA Declaration of Conformity-Thermo fans

We, the manufacturer

<b>Company</b>	Systemair GmbH
<b>Address</b>	Seehöfer Straße 45 97944 Boxberg Germany

declare under our sole responsibility that the product

<b>Product designation</b>	Thermo fans
<b>Type/Model</b>	AxZent; KBR; MUB/T; MUB/T-S; DVN; DVNI

fulfils all relevant provisions of the

<b>Supply of Machinery (Safety) Regulations 2008</b>	<p><b>2006/42/EC</b></p> <p><b>DIN EN ISO 12100:2013</b> Safety of machinery - General principles for design Riskassessment and risk reduction</p> <p><b>DIN EN 60204-1:2019-06</b> Safety of machinery - Electrical equipment of machines - Part 1: General requirements</p>
<b>Electromagnetic Compatibility Regulations 2016</b>	<p><b>2014/30/EU</b></p> <p><b>DIN EN IEC 61000-6-1:2019-11</b> Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments</p> <p><b>DIN EN IEC 61000-6-4:2020-09</b> Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments</p>
<b>The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012</b>	<p><b>2011/65/EU</b></p> <p><b>IEC 63000:2016</b> Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances</p>

Person authorized to compile the technical file:



Matthias Hennegriff  
Technical Director

This declaration relates exclusively to the machinery in the state in which it was placed on the market and excludes components which are added and/or operations carried out subsequently by the final user. Boxberg, Germany 2022-03-29



Stefan Fischer  
Managing Director

# 17 UKCA Declaration of Conformity-Smoke extract fans

We, the manufacturer

<b>Company</b>	Systemair GmbH
<b>Address</b>	Seehöfer Straße 45 97944 Boxberg Germany

declare under our sole responsibility that the product

<b>Product designation</b>	Smoke extract fans
<b>Type/Model</b>	KBR/F; MUB/F

fulfils all relevant provisions of the

<b>Supply of Machinery (Safety) Regulations 2008</b>	<p><b>2006/42/EC</b></p> <p><b>DIN EN ISO 12100:2013</b> Safety of machinery - General principles for design Riskassessment and risk reduction</p> <p><b>DIN EN 60204-1:2019-06</b> Safety of machinery - Electrical equipment of machines - Part 1: General requirements</p>
<b>Electromagnetic Compatibility Regulations 2016</b>	<p><b>2014/30/EU</b></p> <p><b>DIN EN IEC 61000-6-1:2019-11</b> Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments</p> <p><b>DIN EN IEC 61000-6-4:2020-09</b> Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments</p>
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	<p><b>DIN EN 12101-3:2015</b> Smoke an heat control systems, Part 3: Specification for powered smoke and heat exhaust ventilators</p>

Person authorized to compile the technical file:



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Stefan Fischer  
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