

# How to use this catalogue



The ebm-papst catalogue combines a technical and a product-specific section.

**Technical section:** General information on how to select and find ebm-papst products for your specific application is found in the chapters "Selection" (p. 10) and "Technical parameters" (p. 392).

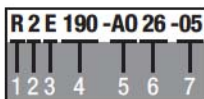
In case you require technical background information on ebm-papst product groups, simply turn to the chapters "Impellers" (p. 396), "Motors" (p.410) and "Control technology" (p. 414).

**Product-specific section:** The product-specific section is organised according to product diameters, lines, materials and/or design principles.

## Headline

The headline indicates which technology (AC or EC), which design (centrifugal, axial, etc.), and which line (e.g. S-Range) the product belongs to. Impeller diameter or other features are also indicated.

## Part designation / Type



This key designates and identifies all ebm-papst products and serves as part number:

### 1) Type

- A - axial fan
- S - axial fan with guard grille
- W - axial fan with wall ring
- V - axial combination
- R - centrifugal fan, single inlet
- G - centrifugal blower, single inlet (with scroll housing)
- B - centrifugal fan, dual inlet
- D - centrifugal blower, dual inlet (with scroll housing)
- K - centrifugal combination
- M - motor
- P - pumps

### 2) Number of poles (AC) / number of cores (EC)

2-, 4-, 6-, 8- and 12-pole (Z = 12) / 1- and 3-core

### 3) Motor type

- D - 3-phase motor
- E - single-phase motor with operating capacitor
- G - EC motor
- S - shaded-pole motor
- Q - square shaded-pole motors

### 4) Impeller diameter in mm

### 5) Key for mechanical design

### 6) Key for electrical design

### 7) Key for mechanical variants

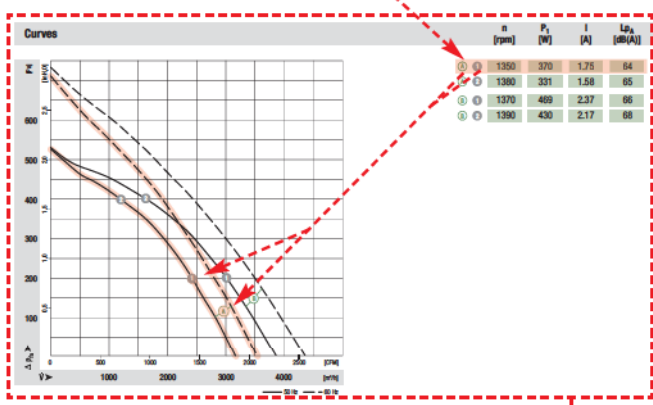
## AC centrifugal fans

backward curved, 3-D, Ø 400



- Material: Impeller: Sheet aluminium, joined by tabs  
Rotor: Coated in black
- Number of blades: 6
- Direction of rotation: Clockwise, seen on rotor
- Type of protection: IP 54 (acc. to EN 60529)
- Insulation class: "F"
- Mounting position: Any
- Condensate discharges: None
- Mode of operation: Continuous operation (S1)
- Bearings: Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Frequency	Speed (rpm)	Min. power input (W)	Min. current (A)	Capacitor	Perm. amb. temp.	Electr. connection
Type	Motor		VAC	Hz	rpm	W	A	µF/VDB	°C	p. 586 f.
R4E 400	M4E 094-FR	①	1-2 230	50	1355	375	1.75	8.0/400	-40 to +60	A2a)
		②	1-2 230	60	1480	540	2.40	8.0/400	-40 to +50	
R4E 400	M4E 094-HA	③	1-2 230	50	1370	400	2.40	10.0/450	-40 to +50	A2a)
		④	1-2 230	60	1480	700	3.15	10.0/450	-40 to +50	



What a product page is made up of (reduced scale - 50%)



# How to select your ebm-papst product



## Solutions for ventilation offered by ebm-papst

*In the field of ventilation, ebm-papst offers the perfect solution for a vast number of applications. Depending on motor, impeller and control technology, there is almost no limit to the number of possible combinations, thus making sure you can find the best solution for your application.*

## Criteria for selection

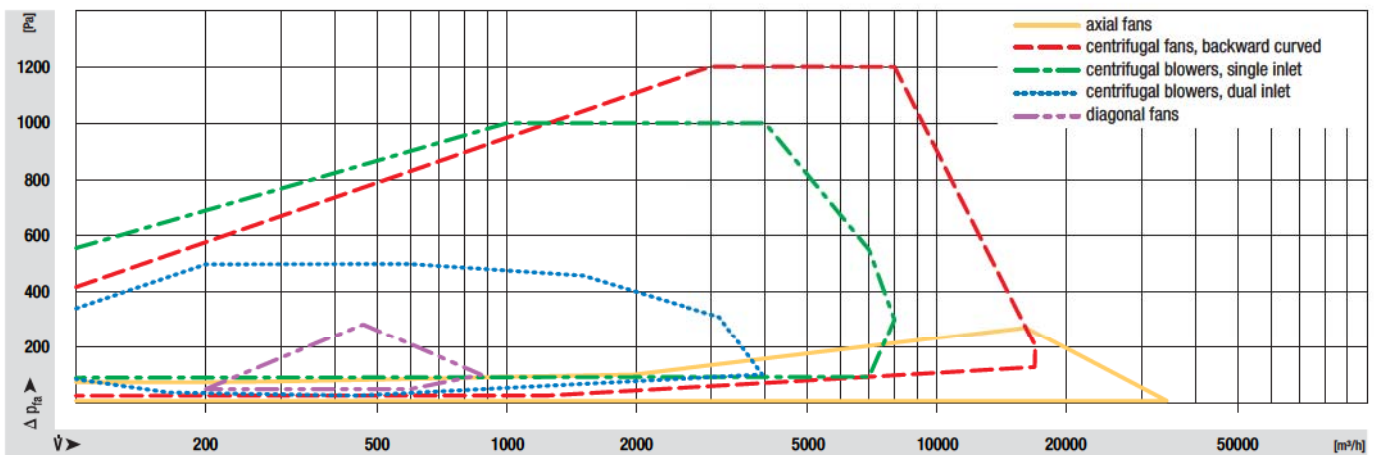
When selecting a fan for a specific application, these parameters play an important role:

- Air flow with given back pressure
- Voltage supply, divided into DC and AC voltage (1~, 3~)
- Noise generation
- Efficiency
- Available mounting space

## Selecting a fan

The following diagram shows the range of characteristic curves for the most important fan designs and serves as a helpful tool in preselecting a design on the basis of air flow and back pressure.

Characteristic curves of the various designs





# How to order your ebm-papst product



**Have you found the suitable ebm-papst product and would like to order it now?**  
*In this case, simply contact your nearest ebm-papst sales office by E-mail, fax or phone.*

## Don't know exactly which ebm-papst product you need to order?

In this case, simply contact your nearest ebm-papst sales office by E-mail, fax or phone. Our specialists in ventilation and drive technology are always there to help you find the best solution for your specific application.

Using the questions provided in the checklist here as a guideline, you can make sure your ebm-papst contact has all the necessary information to handle your enquiry as efficiently and quickly as possible.

## How your ebm-papst product is delivered

In our order confirmation, you will find information on when, how and where to the delivery will be made.

We deliver:

- Ex works (excluding packaging)
- Via freight carrier (we also use postal services for shipments up to 30 kg)

All the other details such as packaging, freight, insurance and customs duty will be settled with your ebm-papst contact prior to the time we issue our order confirmation.

## Is there anything else you need to know about your ebm-papst product?

In this case, simply contact your nearest ebm-papst sales office by E-mail, fax or phone. We have the answer to your problem and are always glad to be able to be of assistance.

Using the questions provided in the checklist here as a guideline, you can make sure your ebm-papst contact has all the necessary information to handle your enquiry as efficiently and quickly as possible.

## Checklist

- Part designation / type
- Quantity needed
- Field of application
- Ambient conditions (humidity, temperature, climate)
- Impeller diameter
- Air flow
- Back pressure
- Voltage supply

For your nearest sales office, please turn to page 430.

