

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. 572).

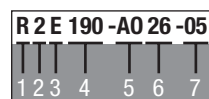
In case you require technical background information on ebm-papst product groups, simply turn to the chapters "Impellers" (p. 576), "Motors" (p.590) and "Control technology" (p. 594).

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) Type of motor

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

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

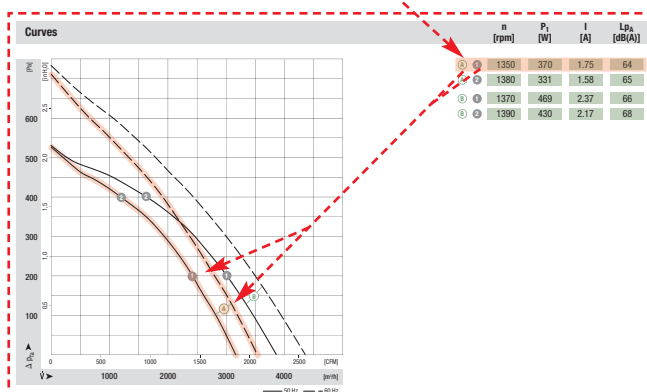
Nominal data		Curve								Elect. connection
Type	Motor		Nominal voltage	Frequency	Speed/rpm ⁽¹⁾	Max. power input (1)	Max. current (1)	Capacitor	Perm. amb. temp.	p. 596 f.
			VAC	Hz	rpm	W	A	µF/VDB	°C	
R4E 400	M4E 094-FA	Ⓐ 1-2	230	50	1355	375	1.75	8.0/400	-40 to +60	A2a)
		1-2	230	60	1480	540	2.40	8.0/400	-40 to +50	
R4E 400	M4E 094-HA	Ⓐ 1-2	230	50	1370	480	2.40	10.0/450	-40 to +60	A2a)
		1-2	230	60	1460	700	3.15	10.0/450	-40 to +50	

subject to alterations

(1) Nominal data in operating point with maximum load

subject to alterations

(1) Nominal data in operating point with maximum load





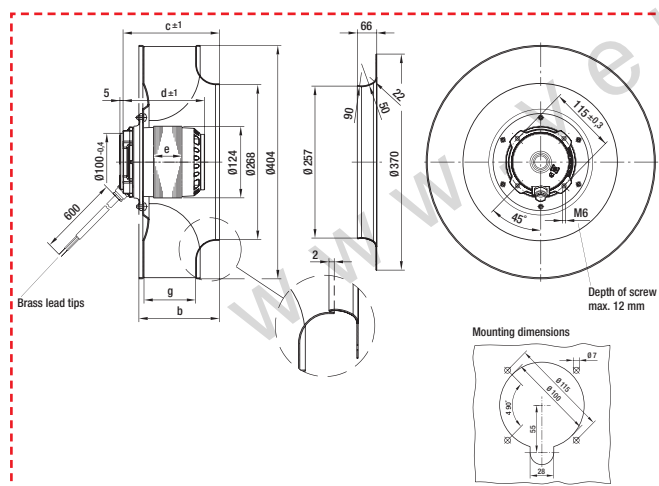
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What a product page is made up of (reduced scale - 50%)

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Diagonal
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE

		Mass of centrifugal fan	Dimensions					
Centrifugal fan			kg	b	c	d	e	g
RAE 400-AR05 -06		7.1	141.0	172.0	128.0	50.0	90.0	54476-2-4013
RAE 400-AP17 -06		8.8	164.0	193.0	148.0	70.0	113.0	54476-2-4013



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Inlet no.
p. 550

Guard g
p. 553

Capacitor
p. 560 f.

Electr. connections
p. 596 f.

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- Product description

Depending on the product, information is provided here on the following:
material, number of blades, direction of air flow, direction of rotation,
system of protection, insulation class, mounting position, condensate
discharge holes, mode of operation, design, bearing, technical equipment,
EMC, leakage current, motor protection, electrical connection, cable exit,
protection class, capacitor, product conforming to standards, approvals
and options.

- **Nominal data**

AC products (up to motor size 074) and EC products (DC-fed):

Free-blowing or at minimal backpressure

AC products (from motor size 094) and EC products (AC-fed):

In operating point at maximum load

- **Graphic rendition of products**

All drawings represent the design principle and are not to scale.

Dimensions are either given in the product drawing or, with varying dimensions, in the table of dimensions given above the drawing.

Indication of relevant accessories and additional information

The pages indicated at the bottom refer to the accessories, e.g. inlet nozzles, guard grilles, wall rings, etc. for this particular product, as well as additional information (e. g. the connection diagram).

- **Curves and operating points**

The diagram gives air performance curves pertaining to the product. Refer to the operating point table to the right for information on speed, power consumption, current draw, sound level or sound pressure level and overall efficiency of the impeller.