

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

R 2 E 190 -A0 26 -05

1 2 3 4 5 6 7

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

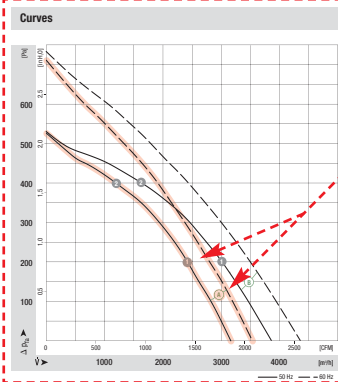


AC centrifugal fans
backward curved, 3-D, Ø 400


- **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	Nominal voltage	Frequency	Speed/rpm ⁽¹⁾	Max. power input (1)	Max. current (1)	Capacitor	Perm. amb. temp.	Elect. connection
Type	Motor		VAC	Hz	rpm	W	A	µF/VDB	°C	p. 536 f.
R4E 400	M4E 094-FA	⊙	1-2 230	50	1355	375	1.75	8.0/400	-40 to +60	A2a)
R4E 400	M4E 094-HA	⊙	1-2 230	60	1480	540	2.40	8.0/400	-40 to +50	A2a)
		⊙	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 +60	A2a)

subject to alterations (1) Nominal data in operating point with maximum load



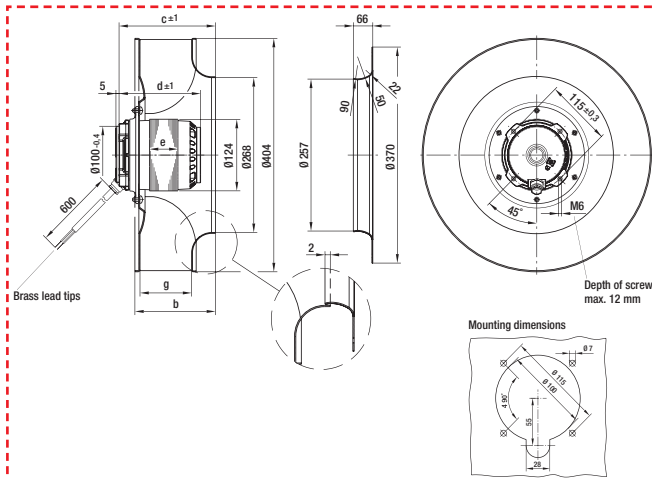
n [rpm]	P ₁ [W]	I [A]	Lp _A [dB(A)]
⊙ 1350	370	1.75	64
⊙ 1380	331	1.58	65
⊙ 1370	469	2.37	66
⊙ 1390	430	2.17	66



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

Centrifugal fan	Dimensions						Inlet nozzle (long)
	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



ebmpapst

Inlet nozzle p. 550 Guard grille p. 553 Capacitor p. 560 f. Elect. 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.

AC centrifugal fans

backward curved, 3-D, Ø 310

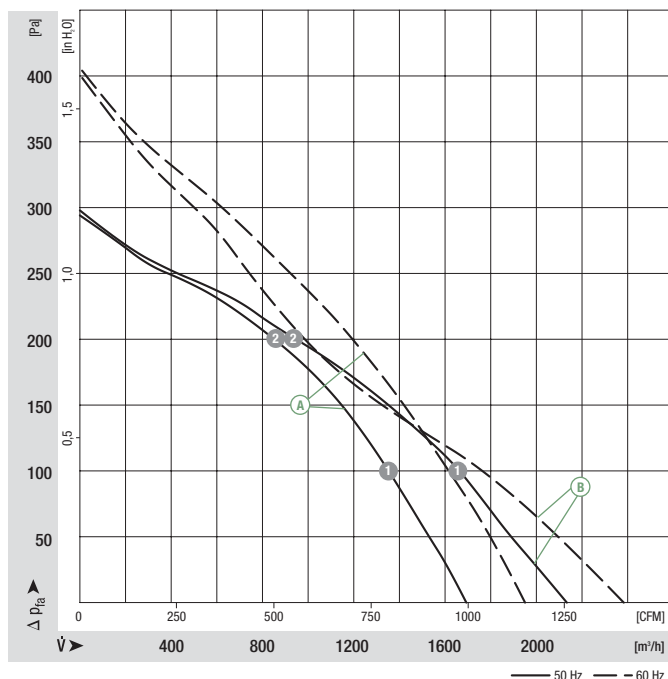


- **Material:** Impeller: Sheet aluminium, laser-welded
Rotor: Coated in black
- **Number of blades:** 6
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** Ⓐ "B", Ⓑ "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Frequency	Air flow	Speed/rpm	Power input	Current draw	Capacitor	Sound pressure level	Perm. amb. temp.	Electr. connection
Type	Motor	VAC	Hz	m³/h	rpm	W	A	µF/VDB	dB(A)	°C	p. 596 f.	
R4E 310	M4E 068-EC	Ⓐ	1~ 230	50	1690	1410	95	0.46	4.0/400	62	-25 to +70	A1)
			1~ 230	60	1950	1650	125	0.56	4.0/400	66	-25 to +65	
R4E 310	M4E 068-EC	Ⓑ	1~ 230	50	2130	1370	120	0.54	4.0/400	59	-25 to +85	A1)
			1~ 230	60	2380	1530	160	0.71	4.0/400	62	-25 to +50	

subject to alterations

Curves (established with long inlet nozzle)



	n [rpm]	P ₁ [W]	I [A]
Ⓐ 1	1370	114	0.55
Ⓐ 2	1360	118	0.57
Ⓑ 1	1310	140	0.63
Ⓑ 2	1320	140	0.63

- **Motor protection:** TOP wired internally
- **Cable exit:** Axial
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE
- **Approvals:** CCC



Mass of centrifugal fan

Dimensions



Centrifugal fan	kg	b	c	g	Inlet nozzle (long)	Inlet nozzle (short)
R4E 310-AR06 -01	3.3	104.0	123.0	70.0	31050-2-4013	31051-2-4013
R4E 310-AS06 -01	3.4	139.0	154.0	101.0	31050-2-4013	31051-2-4013

Inlet nozzle (long)

