

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) 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

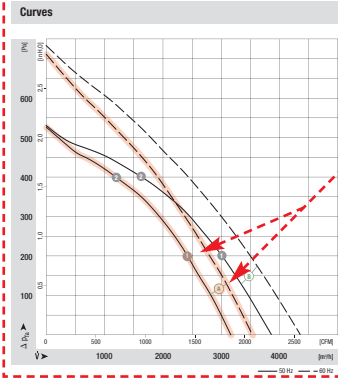


AC centrifugal fans
backward curved, 3-D, Ø 400


- **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 ⁽¹⁾	Max. power input (W)	Max. current (A)	Capacitor	Perm. amb. temp.	Elect. connection
Type	Motor		VAC	Hz	rpm	W	A	µF/VDB	°C	p. 536 f.
R4E 400	M4E 094-FA	⊕	1-230	50	1355	375	1.75	8.0/400	-40 to +60	A2a)
		⊖	1-230	60	1480	540	2.40	8.0/400	-40 to +50	
R4E 400	M4E 094-HA	⊕	1-230	50	1370	480	2.40	10.0/450	-40 to +60	A2a)
		⊖	1-230	60	1460	700	3.15	10.0/450	-40 to +60	

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



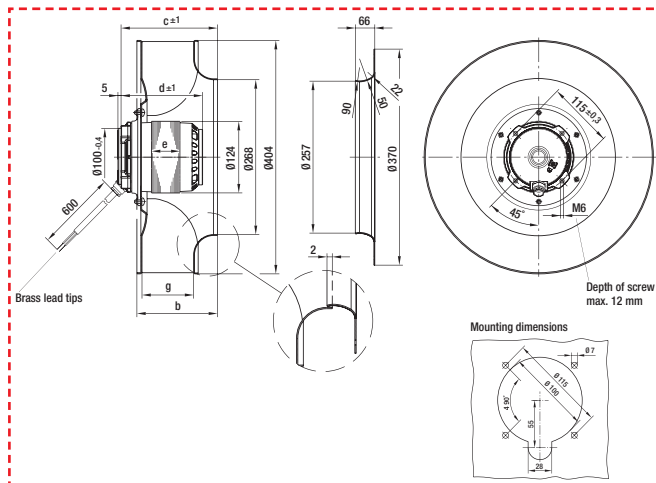
n [rpm]	P ₁ [W]	I [A]	Lp _A [dB(A)]
⊕ 1350	370	1.75	64
⊖ 1380	331	1.58	65
⊕ 1370	469	2.37	66
⊖ 1390	430	2.17	66



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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General information
AC centrifugal, backward
AC centrifugal, forward
EC centrifugal, backward
EC centrifugal, backward for clean rooms
EC centrifugal, forward
EC-SYSTEMS
Accessories
Technology
Contacts

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 axial fans 2-pole

S series, Ø 300



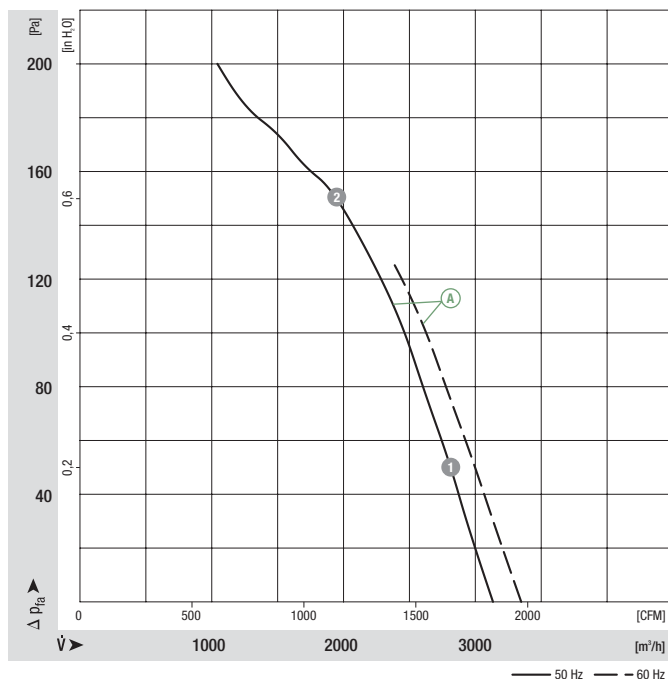
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **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	Max. operative range	Perm. amb. temp.	Mass without attachments	Electr. connection
Type	Motor	VAC	Hz	m³/h	rpm	W	A	µF/VDB	dB(A)	Pa	°C	kg	p. 416 f.	
*2D 300 ⁽¹⁾	M2D 074-DF	Ⓐ 3~ 230/400	50	3130	2580	210	0.62/0.36	—	72	200	-25 to +55	3.0	C1)/C2)	
		Ⓐ 3~ 230/400	60	3350	2750	300	0.83/0.48	—	73	125	-25 to +40			
*2E 300	M2E 074-DF	Ⓑ 1~ 230	50	3410	2700	230	1.10	8.0/400	73	200	-25 to +50	3.0	A1)	
		Ⓑ 1~ 230	60	3740	3000	350	1.55	8.0/400	76	50	-25 to +40			

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

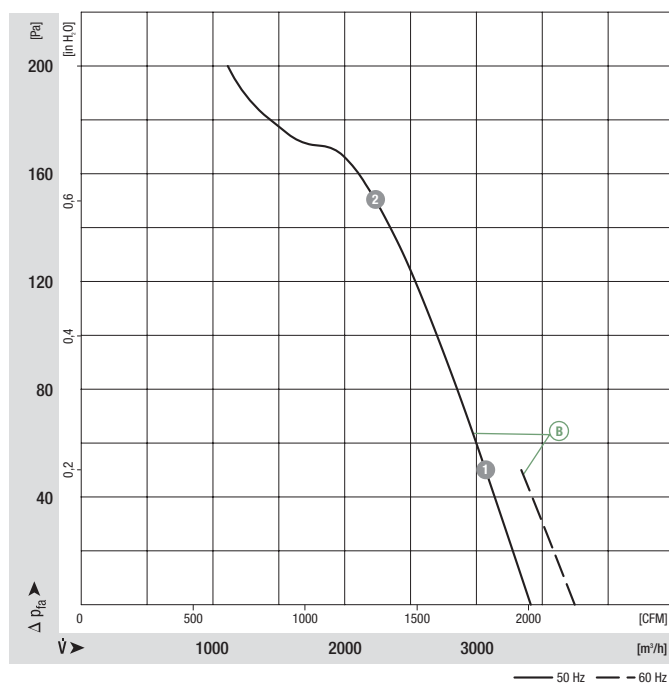
Curves



- **Motor protection:** Ⓐ Without TOP, Ⓑ TOP wired internally
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, Ⓑ also CE
- **Approvals:** CCC

Direction of air flow				
	< "V"/"A" > Without attachments	< "V"/"A" > With full round nozzle	< "V"/"A" > With guard grille for full nozzle	< "V"/"A" > With guard grille for short nozzle
"V"	A2D 300-AP02 -01	W2D 300-CP02 -30	S2D 300-BP02 -30	S2D 300-AP02 -30
"A"	A2D 300-AP02 -02	W2D 300-CP02 -31	S2D 300-BP02 -31	S2D 300-AP02 -31
"V"	A2E 300-AP02 -01	W2E 300-CP02 -30	S2E 300-BP02 -30	S2E 300-AP02 -30
"A"	A2E 300-AP02 -02	W2E 300-CP02 -31	S2E 300-BP02 -31	S2E 300-AP02 -31

Curves



n [rpm]	P ₁ [W]	I [A]
Ⓑ 1 2680	252	1.11
Ⓑ 2 2560	290	1.27