

R4E310-RA06-14 ebmpapst Datasheet

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Nominal data

Type	R4E310-RA06-14			
Motor	M4E068-EC			
Phase		1~	1~	1~
Nominal voltage	VAC	230	230	230
Frequency	Hz	50	60	60
Type of data definition		ml	ml	ml
Valid for approval / standard		CE	CE	UL 2111
Speed (rpm)	min ⁻¹	1325	1380	1380
Power input	W	137	185	192
Current draw	A	0.62	0.82	0.85
Motor capacitor	μF	4	4	4
Capacitor voltage	VDB	400	400	400
Capacitor standard		S0 (CE)	S0 (CE)	S0 (CE)
Min. back pressure	Pa	0	0	0
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	60	40	40
Starting current	A	1.23	1.12	

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

		Actual	Request 2015
01 Overall efficiency η_{es}	%	42.2	42.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		62	62
05 Variable speed drive		No	

Data definition with optimum efficiency.

The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

09 Power input P_e	kW	0.13
09 Air flow q_v	m ³ /h	1055
09 Pressure increase p_{fs}	Pa	184
10 Speed (rpm) n	min ⁻¹	1335
11 Specific ratio*		1.00

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

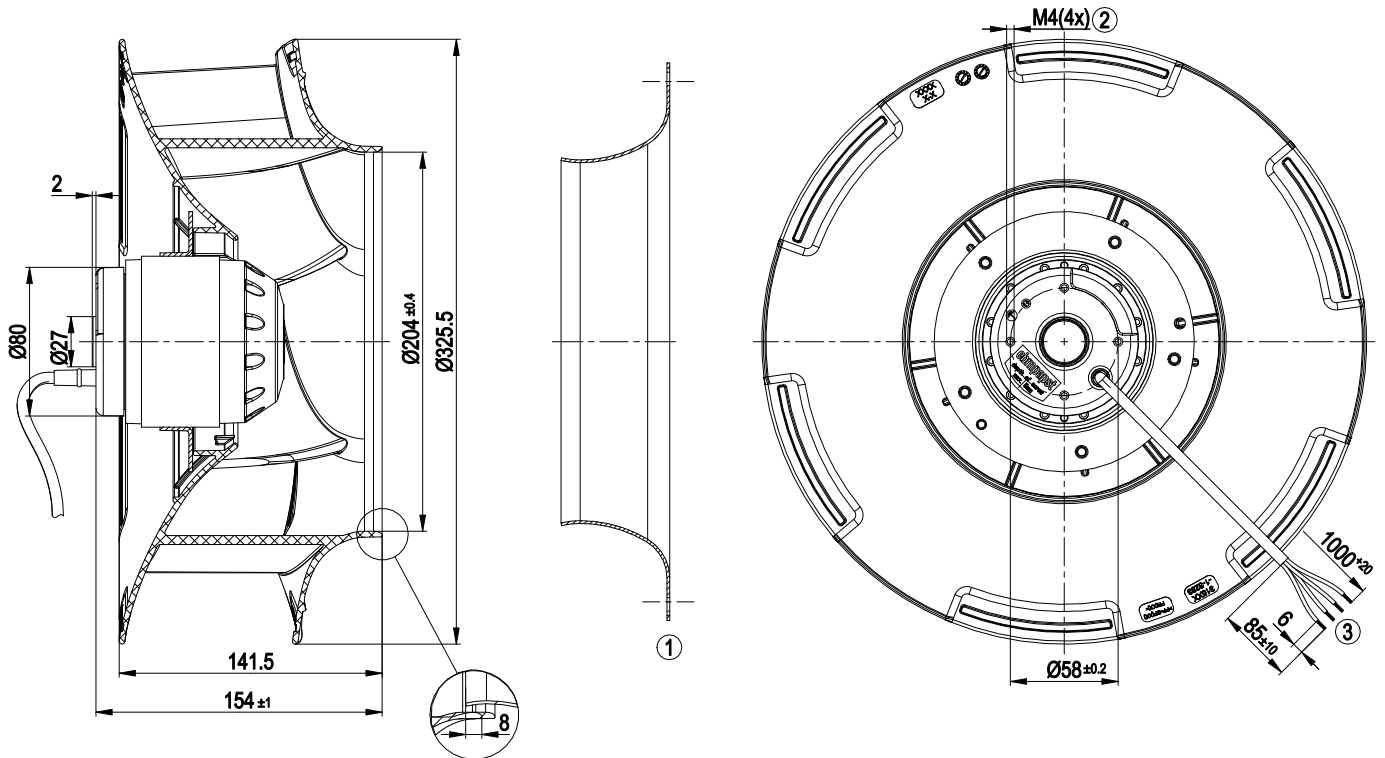
LU-136581



Technical features

Mass	3.4 kg
Size	310 mm
Surface of rotor	Coated in black
Material of impeller	PP plastic
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"B"
Humidity (F)/environmental protection class (H)	H0+
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CSA C22.2 No.77; UL 2111

Product drawing

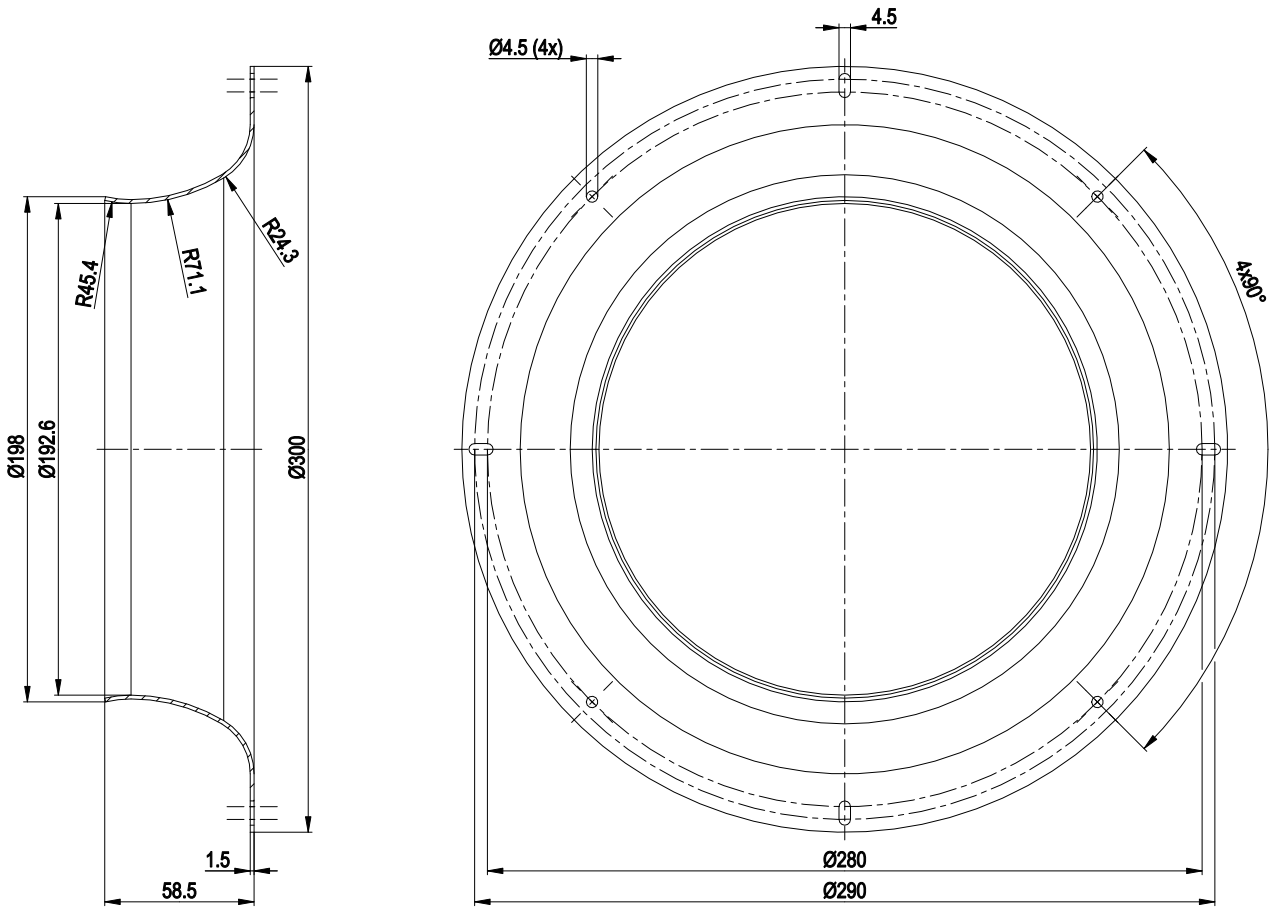


- | | |
|---|---|
| 1 | Accessory part: Inlet nozzle 31000-2-4013, not included in scope of delivery. |
| 2 | Thread reach max. 5 mm |
| 3 | Connection line silicone 4G 0.5 mm ² , 4x lead tips crimped |

AC centrifugal fan - RadiCal

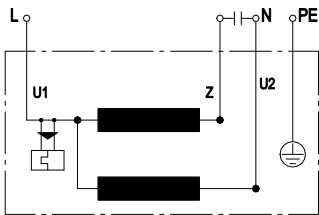
backward curved, single inlet

Accessory part



Accessory part: Inlet nozzle 31000-2-4013 not included in scope of delivery

Connection screen



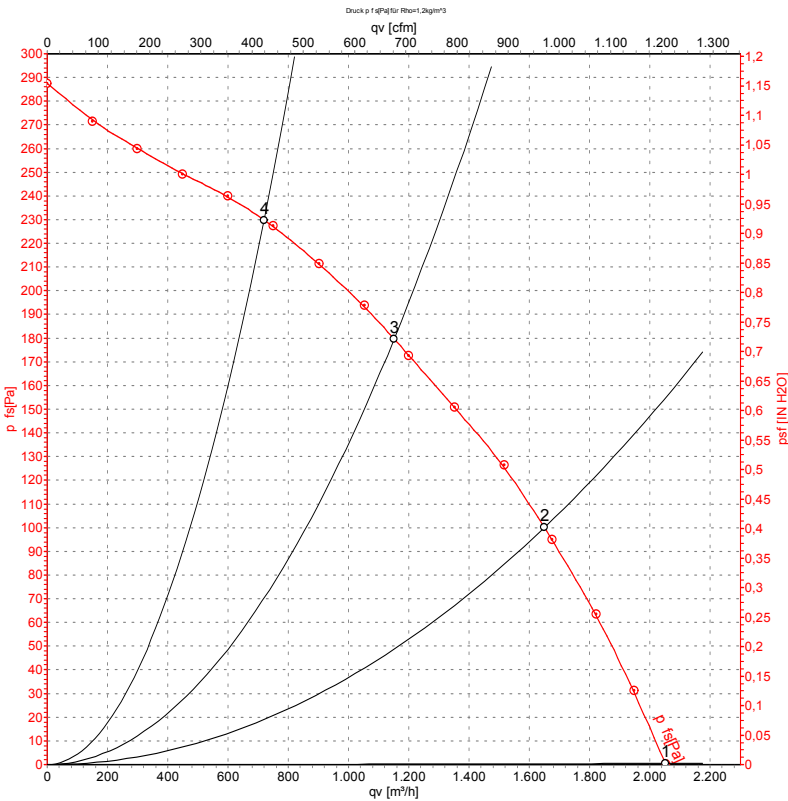
U1	blue	Z	brown	U2	black
PE	green/yellow				



AC centrifugal fan - RadiCal

backward curved, single inlet

Charts: Air flow 50 Hz



Measurement: LU-136581-1

Air performance measured as per ISO 5801
Installation category A. For detailed
information on the measuring set-up, please
contact ebm-papst. Suction-side noise
levels: LwA measured as per ISO 13347 /
LpA measured with 1m distance to fan axis.
The values given are valid under the
measuring conditions mentioned above and
may vary according to the actual installation
situation. With any deviation from the
standard set-up, the specific values have to
be checked and reviewed with the unit
installed.

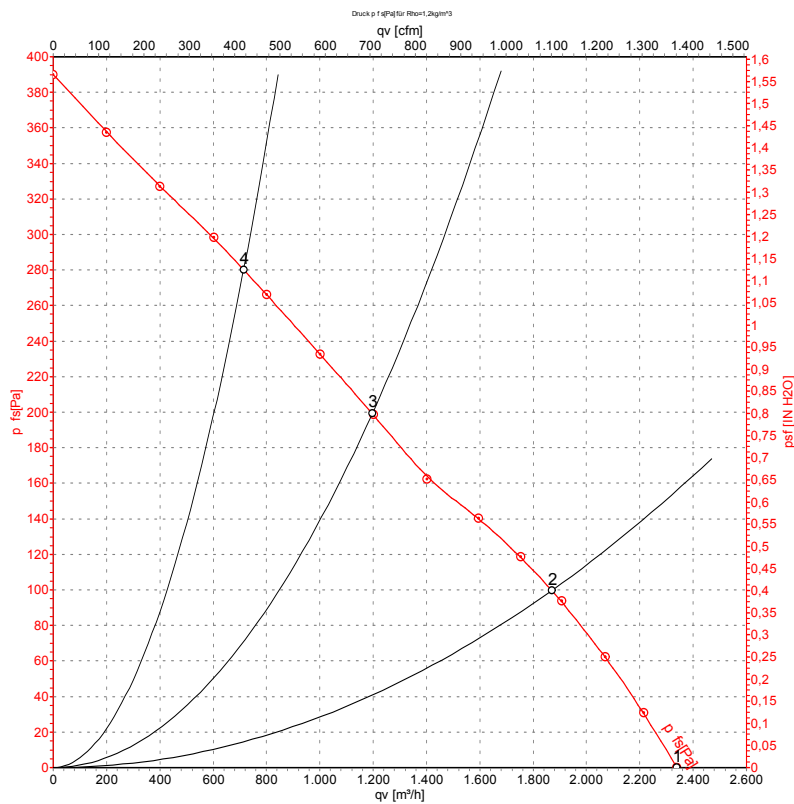
Measured values

	U	f	n	P _e	I	LpA _{in}	LwA _{in}	q _v	p _{fs}	q _v	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m³/h	Pa	cfm	inH2O
1	230	50	1390	109	0.50	58	66	2050	0	1205	0.00
2	230	50	1345	129	0.58	53	60	1650	100	970	0.40
3	230	50	1325	137	0.62	49	56	1150	180	675	0.72
4	230	50	1355	125	0.57	51	58	720	230	425	0.92

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_v = Air flow
p_{fs} = Pressure increase



Charts: Air flow 60 Hz



Measurement: LU-136587-1

Air performance measured as per ISO 5801
Installation category A. For detailed
information on the measuring set-up, please
contact ebm-papst. Suction-side noise
levels: L_{wA} measured as per ISO 13347 /
L_{pA} measured with 1m distance to fan axis.
The values given are valid under the
measuring conditions mentioned above and
may vary according to the actual installation
situation. With any deviation from the
standard set-up, the specific values have to
be checked and reviewed with the unit
installed.

Measured values

	U	f	n	P _e	I	LpA _{in}	LwA _{in}	q _v	p _{fs}	q _v	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m³/h	Pa	cfm	inH ₂ O
1	230	60	1580	148	0.64	62	69	2340	0	1375	0.00
2	230	60	1470	174	0.76	56	64	1870	100	1100	0.40
3	230	60	1380	185	0.82	52	61	1195	200	705	0.80
4	230	60	1490	168	0.73	55	63	715	280	420	1.12

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_v = Air flow
p_{fs} = Pressure increase

