R2E250-RA59-29

AC centrifugal fan

backward curved, single inlet

R2E250-RA59-29 ebmpapst Datasheet
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Nominal data

Type	**R2E250-RA59-29**
Motor	**M2E068-EC**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed (rpm)	min^{-1}	2400
Power input	W	200
Current draw	A	0.88
Motor capacitor	µF	6
Capacitor voltage	VDB	400
Capacitor standard		S2 (CE)
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45
Starting current	A	1.5

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

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Technical features

Mass	2.9 kg
Size	250 mm
Surface of rotor	Coated in black
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H0 - dry environment
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
Speed steps	4
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

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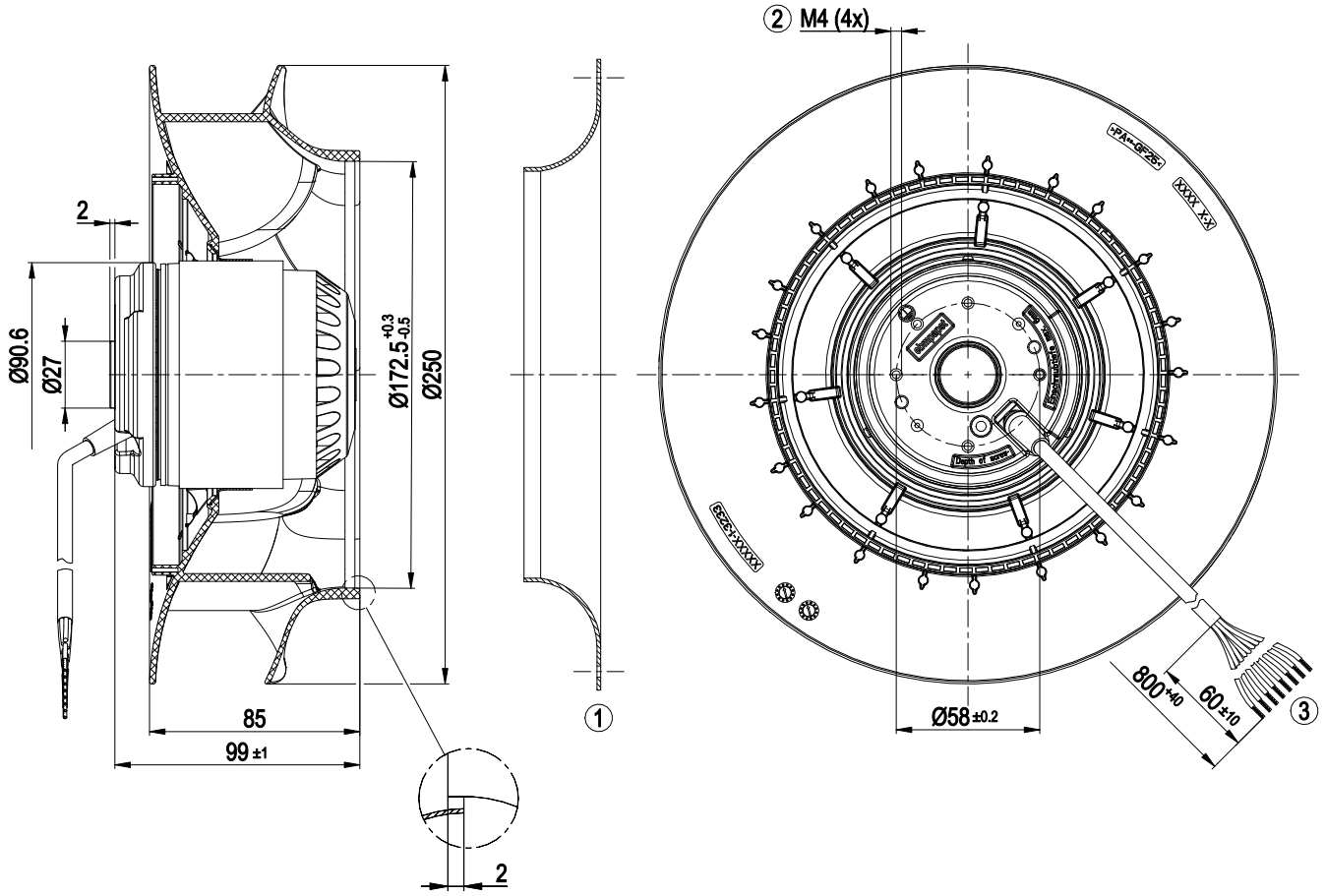
Product drawing



1	Accessory part: Inlet nozzle 96359-2-4013, not included in scope of delivery
2	Thread reach max. 6 mm
3	Connection line halogen and silicone-free 8G 0.5 mm²

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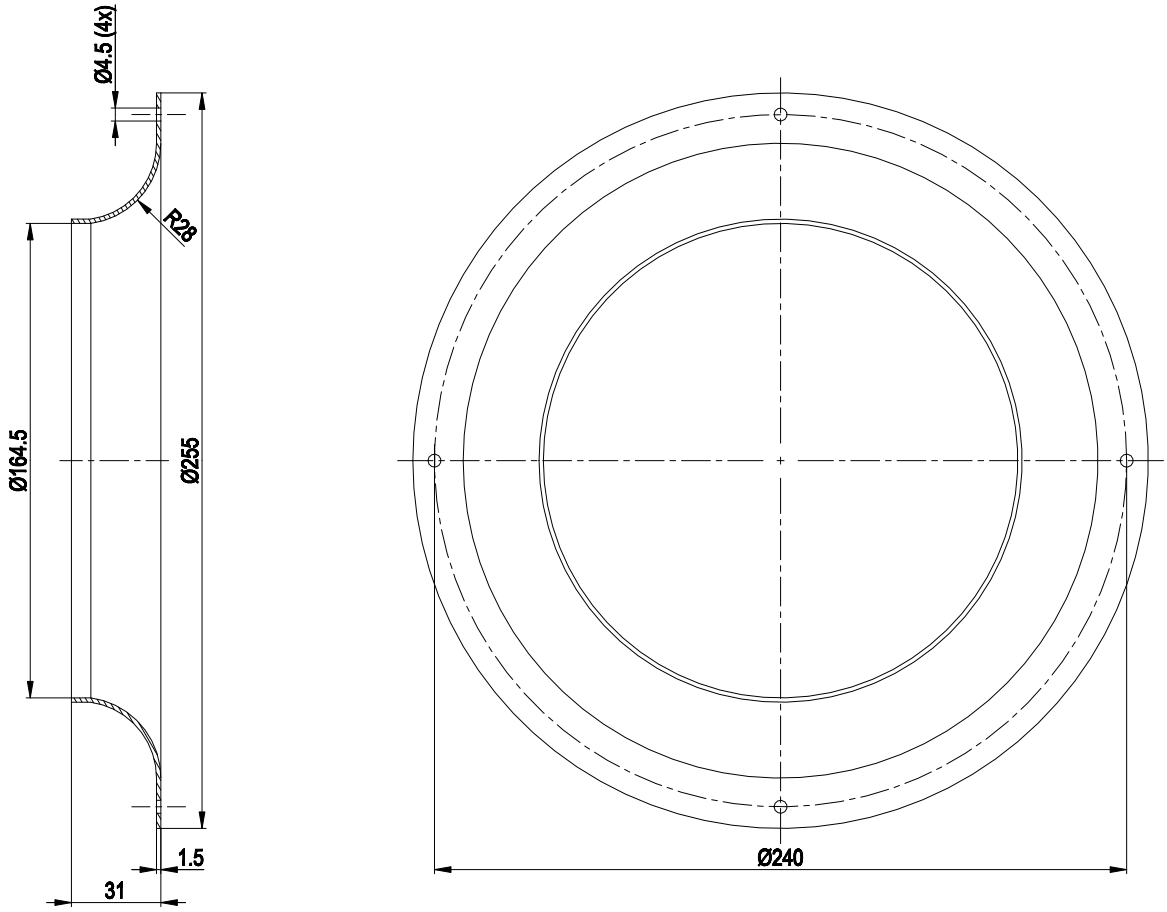
Accessory part



Accessory part: Inlet nozzle 96359-2-4013 not included in scope of delivery

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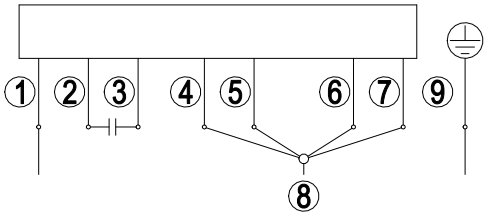
Connection screen



Note: fast speed (step IV); slow speed (step I); the switch must interrupt the circuit during the changeover.

1	N (blue)
2	brown
3	yellow
4	Step I black 1 / white
5	Step II black 2 / red
6	Step III black 3 / grey
7	Step IV black 4 / black
8	L1
9	= PE = green / yellow

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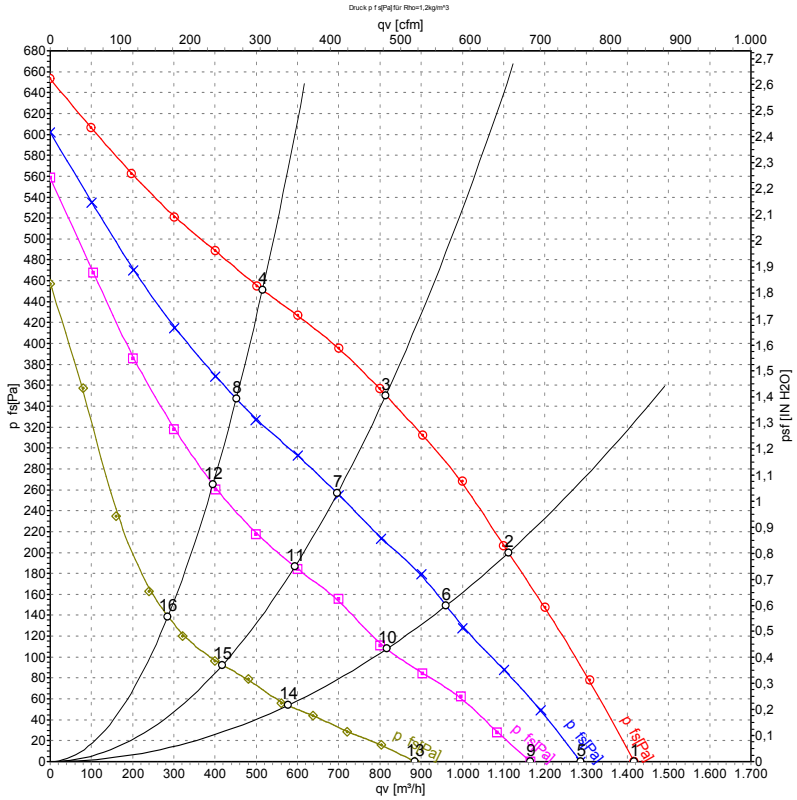
Charts: Air flow 50 Hz



Measurement: LU-132929-1
Measurement: LU-132930-1
Measurement: LU-132933-1
Measurement: LU-132935-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	50	2565	170	0.74	1415	0	835	0.00
2	230	50	2435	197	0.86	1110	200	655	0.80
3	230	50	2400	200	0.88	815	350	480	1.41
4	230	50	2480	187	0.81	515	450	305	1.81
5	230	50	2335	160	0.71	1285	0	755	0.00
6	230	50	2115	185	0.81	960	149	565	0.60
7	230	50	2080	188	0.82	695	257	410	1.03
8	230	50	2185	176	0.78	450	347	265	1.39
9	230	50	2120	159	0.71	1165	0	685	0.00
10	230	50	1805	182	0.80	815	107	480	0.43
11	230	50	1780	182	0.80	595	186	350	0.75
12	230	50	1910	173	0.76	395	264	230	1.06
13	230	50	1625	158	0.69	885	0	520	0.00
14	230	50	1280	168	0.73	575	53	340	0.21
15	230	50	1265	167	0.73	420	92	245	0.37
16	230	50	1390	163	0.72	285	139	170	0.56

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase