

R2E250-RA50-27 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Muldingen  
County court Stuttgart · HRA 590344General partner Elektrobau Muldingen GmbH · Headquarters Muldingen  
County court Stuttgart · HRB 590142

## Nominal data

Type	R2E250-RA50-27		
Motor	M2E068-EC		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min <sup>-1</sup>	2500	2450
Power input	W	210	285
Current draw	A	0.93	1.25
Motor capacitor	µF	5	5
Capacitor voltage	VDB	400	400
Capacitor standard		P0 (CE)	P0 (CE)
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	70	30
Starting current	A	1.5	1.4

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

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency $\eta_{es}$	%	40.6	40.4	44.4
Efficiency grade N		58.2	58	62
Power input $P_e$	kW	0.21		
Air flow $q_v$	m <sup>3</sup> /h	905		
Pressure increase $p_{fs}$	Pa	334		
Speed n	min <sup>-1</sup>	2505		

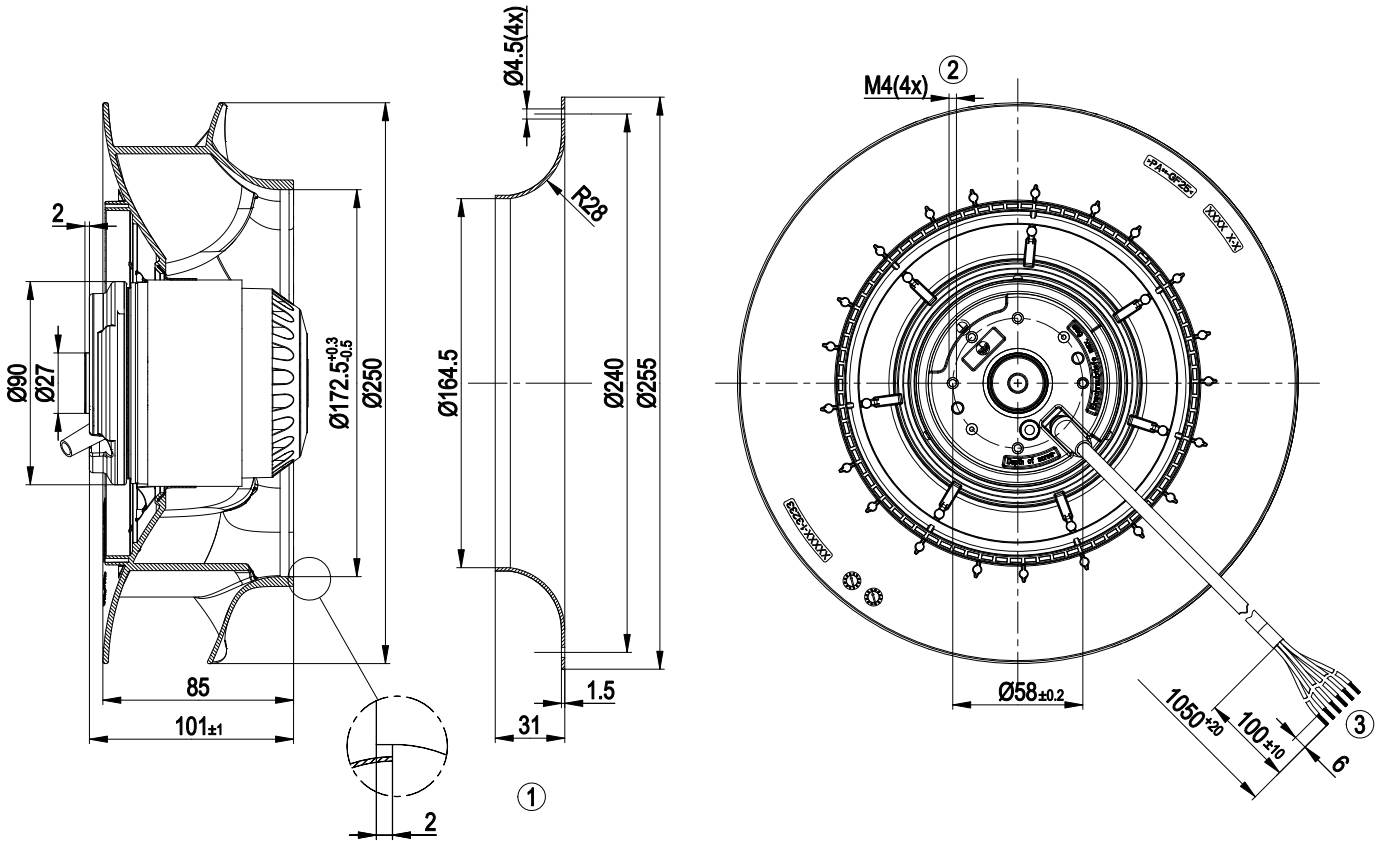
Data definition with optimum efficiency. LU-135153  
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



## Technical features

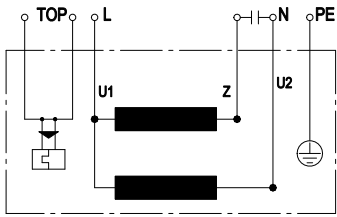
<b>Mass</b>	2.9 kg
<b>Size</b>	250 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of impeller</b>	PA plastic
<b>Number of blades</b>	7
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 44; Depending on installation and position as per EN 60034-5
<b>Insulation class</b>	"F"
<b>Humidity class</b>	F1-2
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensate discharge holes</b>	Rotor-side
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	< 0.75 mA
<b>Motor protection</b>	Thermal overload protector (TOP) brought out
<b>Cable exit</b>	Variable
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1; CE

Product drawing



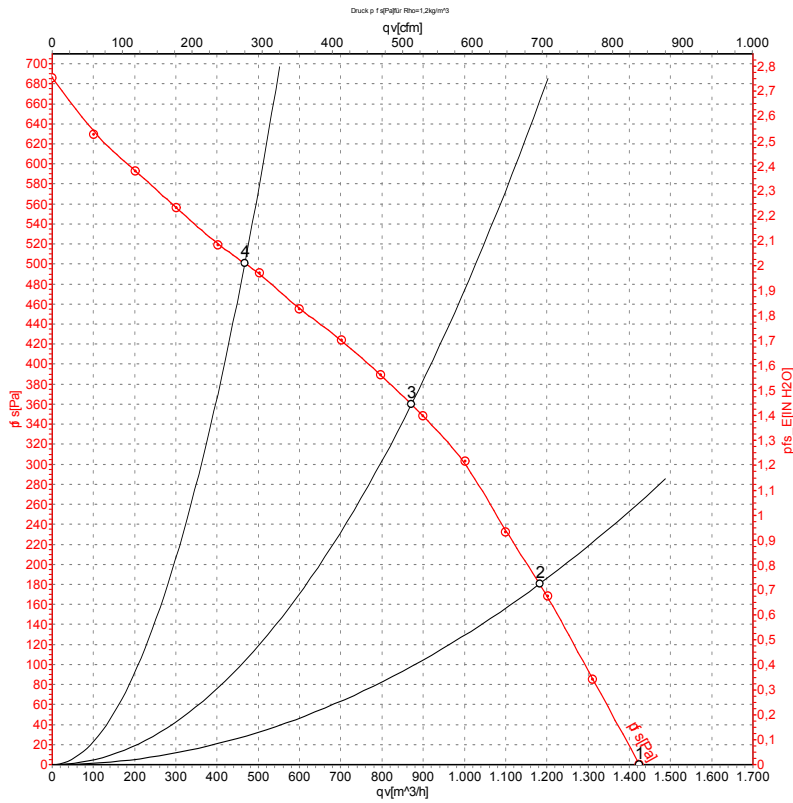
- |   |  |
|---|--|
| 1 | Accessory part: Inlet nozzle 96359-2-4013, not included in scope of delivery |
| 2 | Depth of screw max. 6 mm   |
| 3 | Connection line silicone 6G 0.5 mm <sup>2</sup> , 6x lead tips crimped       |

## Connection screen



U1	Blue	Z	brown	U2	black
PE	green/yellow	TOP	2 x grey		

## Charts: Air flow 50 Hz



Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. 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.

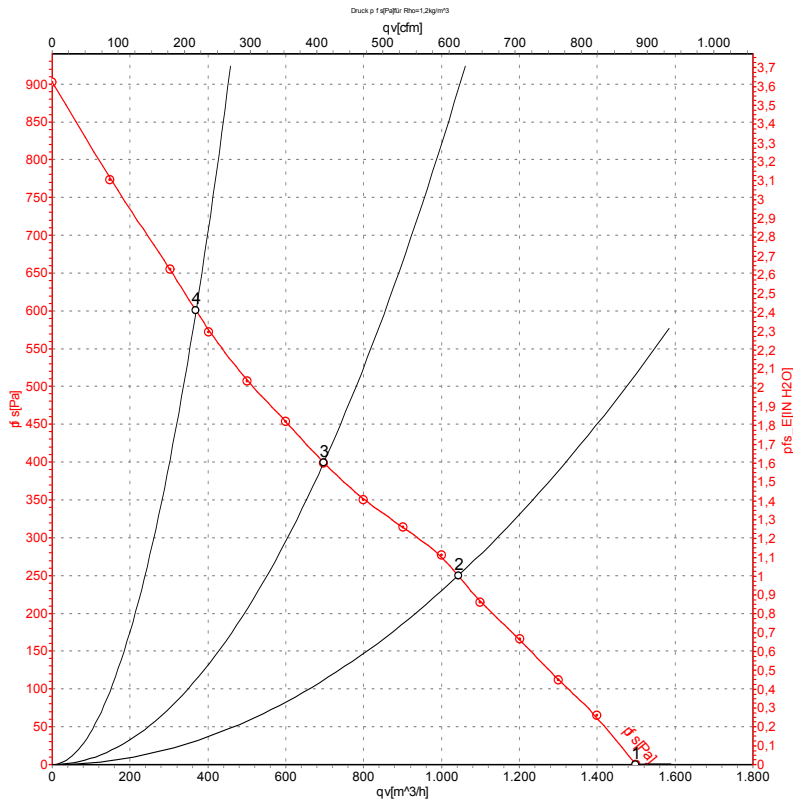
## Measured values

	U	f	n	P <sub>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	230	50	2630	179	0.78	67	75	1425	0
2	230	50	2535	206	0.90	62	70	1180	180
3	230	50	2500	210	0.93	58	67	870	360
4	230	50	2585	189	0.83	64	72	465	500

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · LpA<sub>in</sub> = Sound pressure level inlet side · LwA<sub>in</sub> = Sound power level inlet side · qv = Air flow  
 p<sub>fs</sub> = Pressure increase



## Charts: Air flow 60 Hz



Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. Suction-side noise levels: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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 <sub>e</sub>	I	L <sub>pA<sub>in</sub></sub>	L <sub>wA<sub>in</sub></sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	230	60	2775	246	1.07	68	77	1500	0
2	230	60	2450	285	1.25	61	69	1045	250
3	230	60	2460	272	1.19	60	69	700	400
4	230	60	2785	246	1.06	68	76	370	600

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · L<sub>pA<sub>in</sub></sub> = Sound pressure level inlet side · L<sub>wA<sub>in</sub></sub> = Sound power level inlet side · qv = Air flow  
 p<sub>fs</sub> = Pressure increase

