

R4E250-BA09-03

AC centrifugal fan

forward curved, single inlet



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ErP2013
 EXCEEDS THE NORM

Nominal data

Type	R4E250-BA09-03		
Motor	M4E094-HA		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		fa	ml
Valid for approval / standard		CE	CE
Speed	min ⁻¹	1310	1470
Power input	W	570	690
Current draw	A	2.48	3.05
Motor capacitor	µF	10	10
Capacitor voltage	VDB	450	450
Min. back pressure	Pa	0	100
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	70	55
Starting current	A	6	5.1

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	B
Efficiency category	Total
Variable speed drive	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_e	%	36.2	32.6	39.6
Efficiency grade N		45.6	42	49
Power input P_e	kW	0.33		
Air flow q_v	m ³ /h	1165		
Pressure increase p_f	Pa	379		
Speed n	min ⁻¹	1420		

Data definition with optimum efficiency.

LU-56042

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



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Technical features

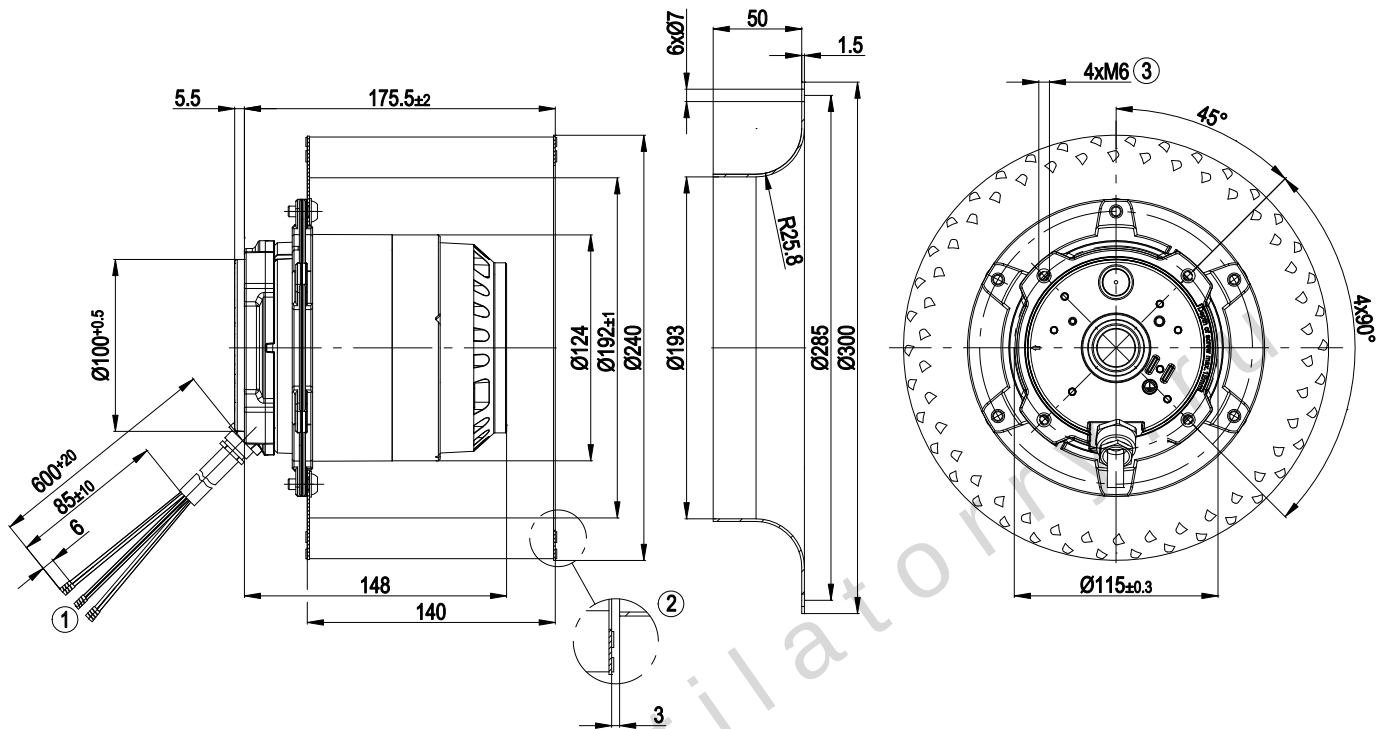
Mass	8.5 kg
Size	250 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, hot-dip galvanised
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2004)
Approval	CCC; EAC

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Product drawing



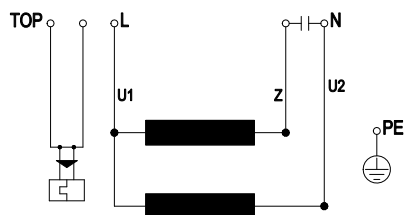
1	Connection line silicone, 6 x brass lead tips crimped
2	Accessory part: Inlet nozzle 25010-2-4013, not included in the standard scope of delivery
3	Depth of screw max. 12 mm

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Connection screen



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

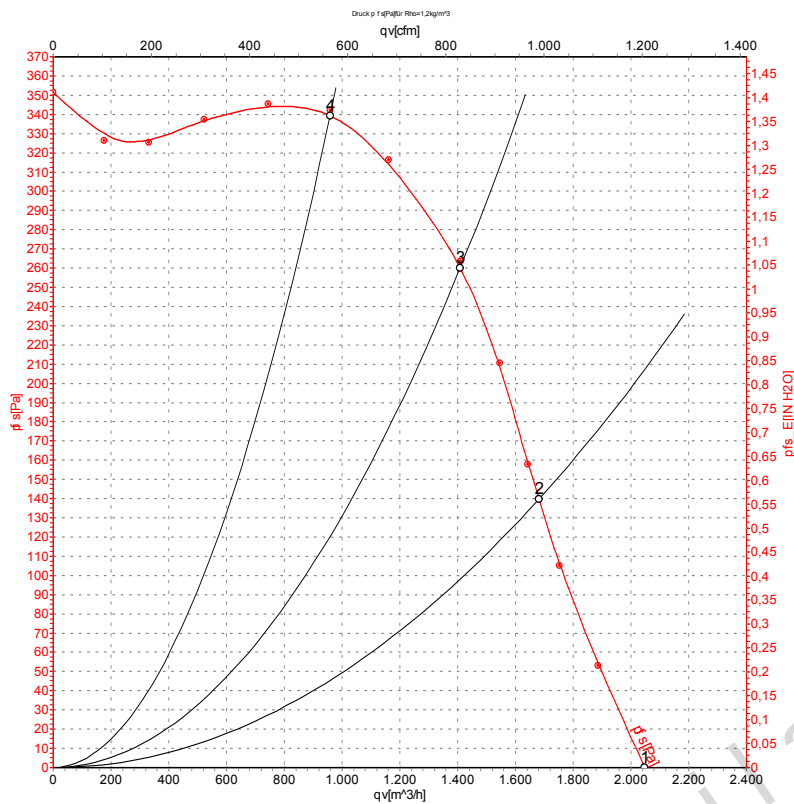
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Charts: Air flow 50 Hz



Air performance measured as per ISO 5801
Installation category A. For detailed
information on the measuring set-up, please
contact 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	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa
1	230	50	1310	570	2.48	2050	0
2	230	50	1370	454	2.29	1680	140
3	230	50	1405	379	2.00	1410	260
4	230	50	1435	293	1.73	960	340

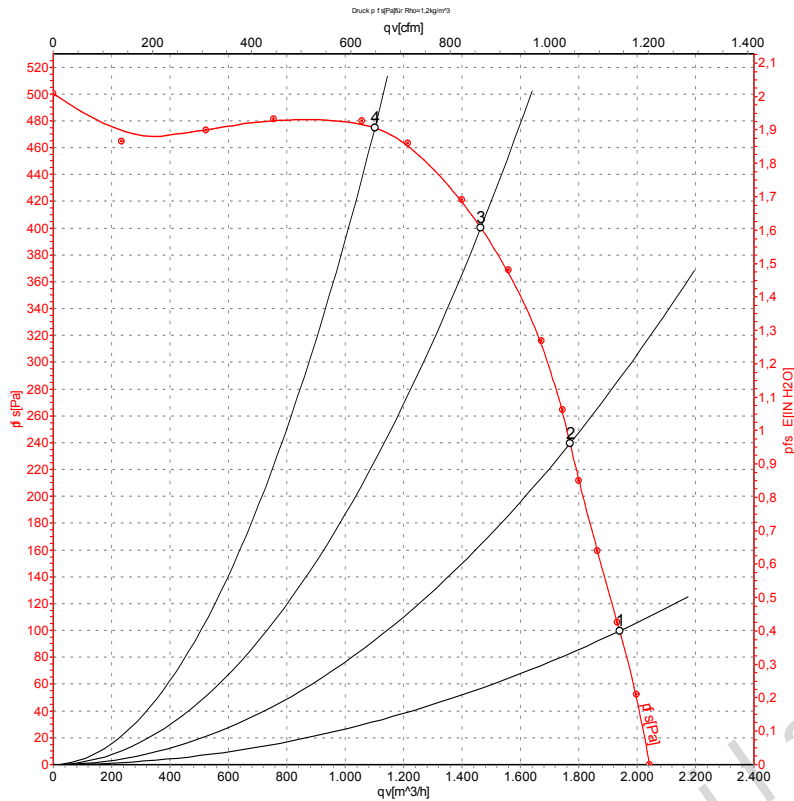
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Air performance measured as per ISO 5801
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levels: L_{WA} measured as per ISO 13347 /
L_{pA} measured with 1m distance to fan axis.
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measuring conditions mentioned above and
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standard set-up, the specific values have to
be checked and reviewed with the unit
installed.

Measured values

	U	f	n	P _e	I	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa
1	230	60	1470	690	3.05	1940	100
2	230	60	1550	620	2.76	1770	240
3	230	60	1635	505	2.22	1465	400
4	230	60	1690	412	1.79	1100	475

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