

AC centrifugal fan - RadiCal

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R2E250-RC08-13			
Motor	M2E074-DF			
Phase		1~	1~	1~
Nominal voltage	VAC	230	230	230
Frequency	Hz	50	60	60
Method of obtaining data		ml	ml	ml
Valid for approval/standard		CE	CE	UL 2111
Speed (rpm)	min ⁻¹	2650	2850	2850
Power consumption	W	230	340	350
Current draw	A	1.02	1.5	1.47
Capacitor	µF	5	5	5
Capacitor voltage	VDB	400	400	400
Capacitor standard				UL
Min. back pressure	Pa	0	0	0
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	65	45	45
Starting current	A	2.4	2.27	

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to ErP Directive
(EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_s	%	44.7	44.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		62	62
05 Variable speed drive		No	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

09 Power consumption P_e	kW	0.22
09 Air flow q_v	m³/h	905
09 Pressure increase p_{fs}	Pa	405
10 Speed (rpm) n	min ⁻¹	2670
11 Specific ratio *		1.00

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

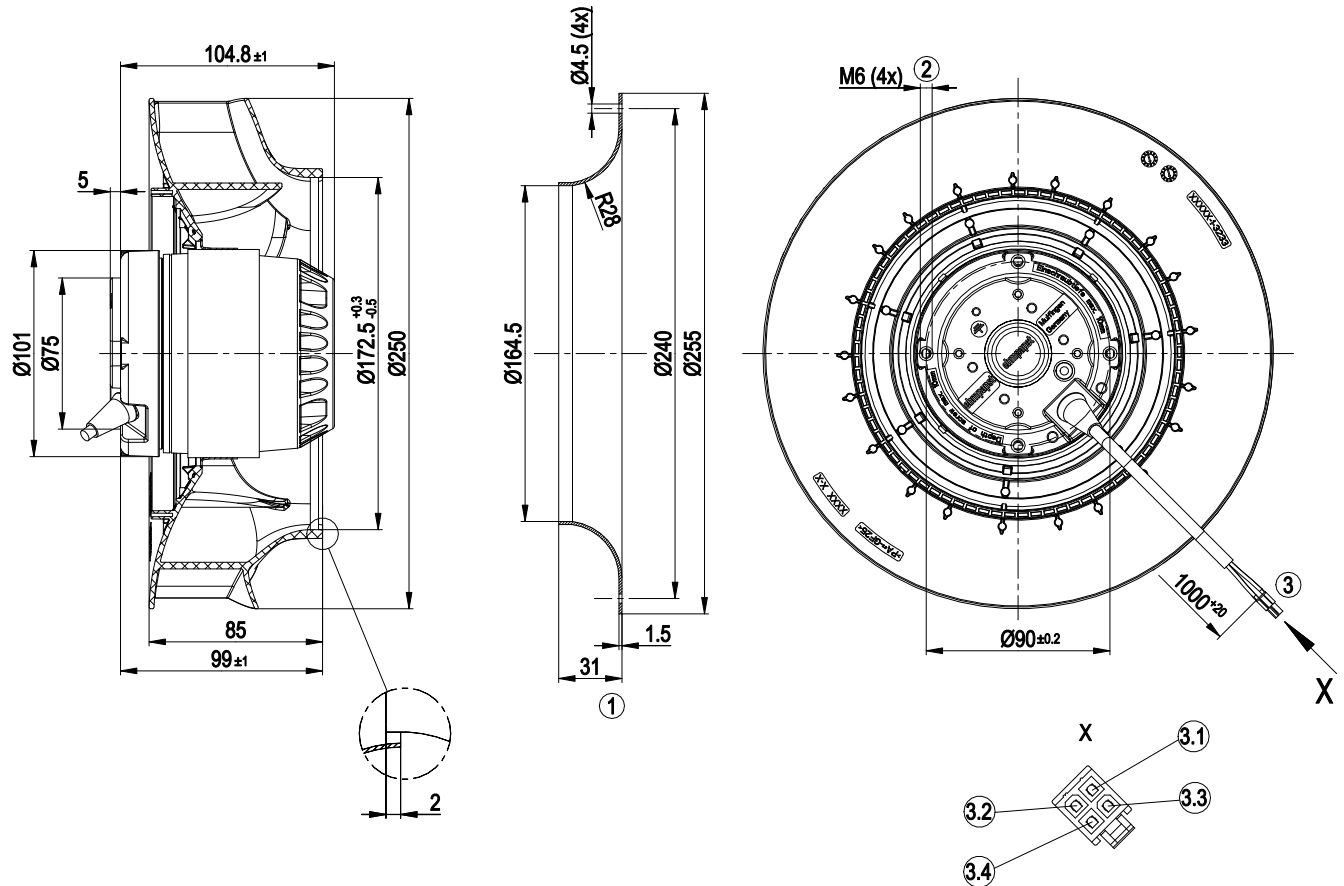
LU-132660



Technical description

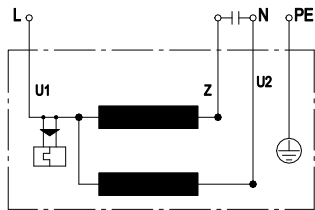
Weight	3.2 kg
Fan size	250 mm
Motor size	74
Rotor surface	Painted black
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Degree of protection	Depending on installation position acc. to EN 60034-5
Insulation class	«F»
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0,75 mA
Electrical hookup	Plug with connection line
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	UL 1004-3; CSA C22.2 № 77

Product drawing



1	Accessory part: inlet ring 96359-2-4013, not included in scope of delivery.
2	Max. clearance for screw 10 mm
3	Connection line PFA AWG20 (green/yellow AWG18), 4-pole plug housing Molex 46992-0410, 4 receptacles Molex 39-00-0038
3.1	blue
3.2	black
3.3	brown
3.4	green/yellow

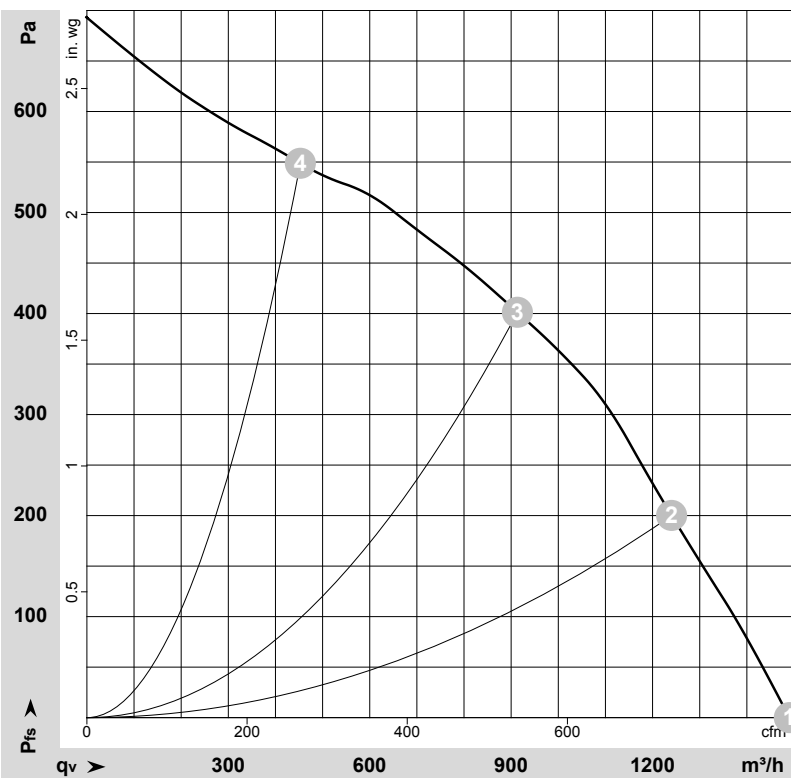
Connection diagram



U1	blue	Z	brown	U2	black
PE	green/yellow				



Curves: Air performance 50 Hz


 $\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-132660-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters must be checked in the installed unit.

Measured values

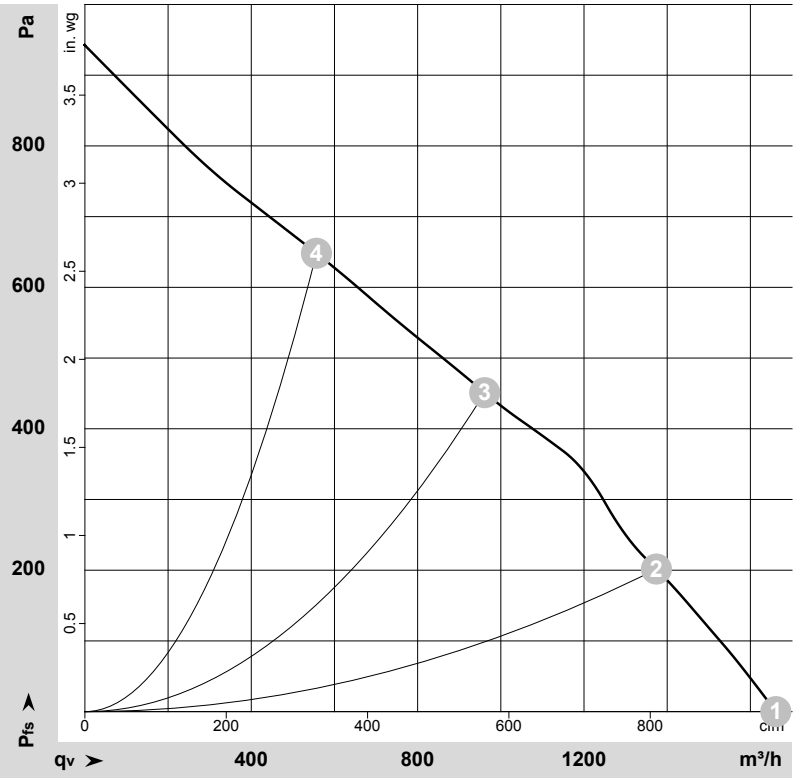
	U	f	n	P _e	I	q _v	P _{fs}	q _v	P _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	in. wg
1	230	50	2750	194	0.86	1490	0	875	0.00
2	230	50	2680	227	1.00	1240	200	730	0.80
3	230	50	2650	230	1.02	915	400	535	1.61
4	230	50	2740	199	0.88	455	550	265	2.21

U = Power supply · f = Frequency · n = Speed (rpm) · P

e = Power consumption · I = Current draw · q_v = Air flow · p

s = Pressure increase

Curves: Air performance 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-132662-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters must be checked in the installed unit.

Measured values

	U	f	n	P _e	I	q _v	P _{fs}	q _v	P _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	in. wg
1	230	60	3065	291	1.27	1660	0	980	0.00
2	230	60	2880	333	1.45	1375	200	810	0.80
3	230	60	2850	340	1.50	960	450	565	1.81
4	230	60	3005	301	1.31	555	650	330	2.61

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase

