

R2E220-RA38-13

AC centrifugal fan - RadiCal

backward-curved, single-intake

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Nominal data

Type	R2E220-RA38-13			
Motor	M2E068-BF			
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	2100	2050	2050
Power consumption	W	88	107	116
Current draw	A	0.39	0.47	0.49
Capacitor	µF	2	2	2
Capacitor voltage	VDB	450	450	450
Capacitor standard		S0 (CE)	S0 (CE)	UL
Min. back pressure	Pa	0	0	0
Min. back pressure	inH ₂ O	0	0	0
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	50	60	60
Starting current	A	0.51	0.52	

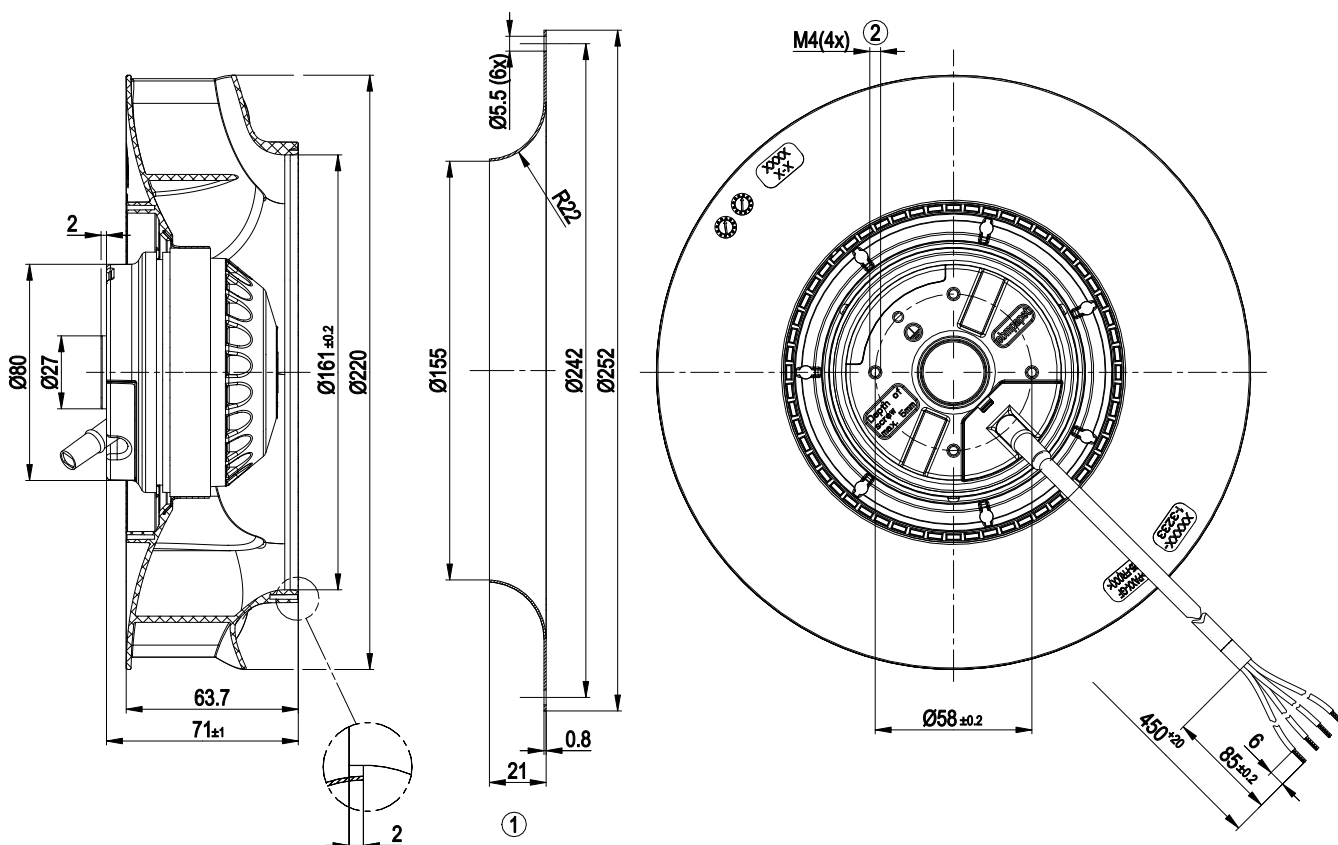
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

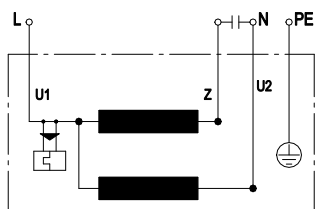
Weight	1.3 kg
Fan size	220 mm
Rotor surface	Unpainted
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
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	CSA C22.2 No. 77; UL 2111

Product drawing



- | | |
|---|--|
| 1 | Accessory part: Inlet ring 09609-2-4013, not included in scope of delivery |
| 2 | Max. clearance for screw 5 mm |
| 3 | Cable PFA AWG20, 4x crimped splices |

Connection diagram

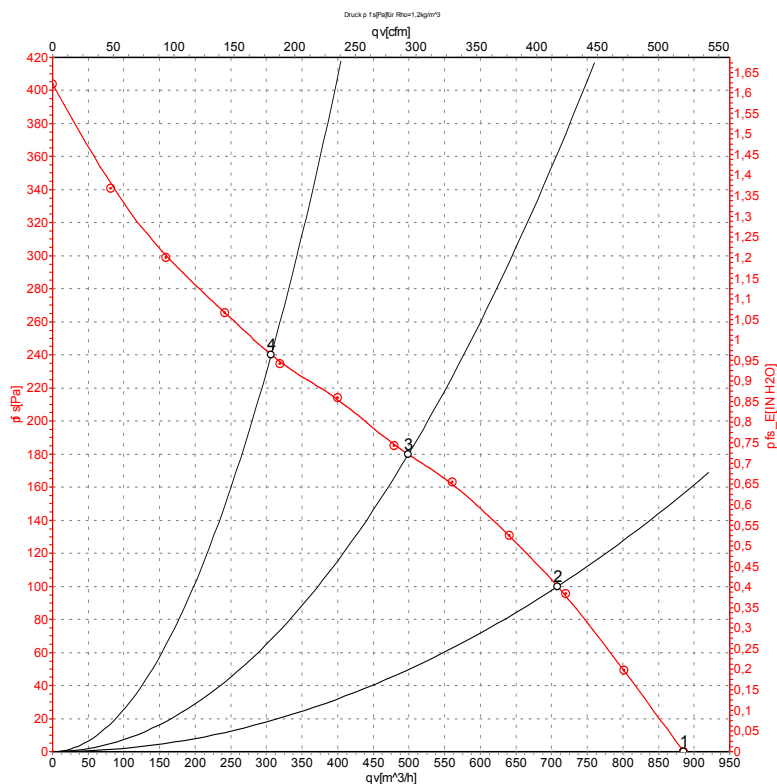


U1	blue	Z	brown	U2	black
PE	green/yellow				

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Curves: Air performance 50 Hz



Measurement: LU-130008-1

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 have to be checked on the installed unit.

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	50	2350	80	0.36	59	68	885	0	520	0.00
2	230	50	2240	86	0.38	54	62	710	100	415	0.40
3	230	50	2100	88	0.39	51	60	500	180	295	0.72
4	230	50	2185	86	0.38	54	63	305	240	180	0.96

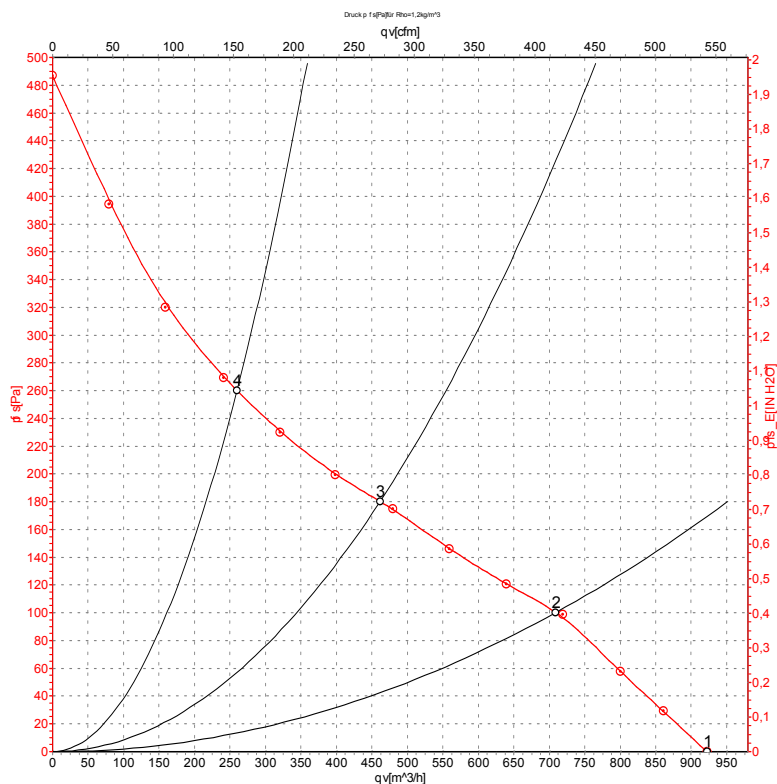
U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
 q_v = Air flow · p_{fs} = Pressure increase



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Curves: Air performance 60 Hz



Measurement: LU-130009-1

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 have to be checked on the installed unit.

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	2450	102	0.46	60	69	920	0	545	0.00
2	230	60	2220	106	0.46	54	62	710	100	415	0.40
3	230	60	2050	107	0.47	51	60	460	180	270	0.72
4	230	60	2215	105	0.46	56	65	260	260	155	1.04

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 q_v = Air flow · p_{fs} = Pressure increase

