

AC centrifugal fan - RadiCal

backward-curved, single-intake

ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R2E133-RA03-12			
Motor	M2E042-CA			
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	UL 1004-3	CE
Speed (rpm)	min ⁻¹	2700	3100	3100
Power consumption	W	26	28	27
Current draw	A	0.12	0.15	0.14
Capacitor	µF	1.5	1.5	1.5
Capacitor voltage	VDB	400	400	400
Capacitor standard		S2 (CE)	UL	S2 (CE)
Min. back pressure	Pa	0	0	0
Min. back pressure	in. wg	0	0	0
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	45	60	60
Starting current	A	0.2	0.21	0.21

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



Technical description

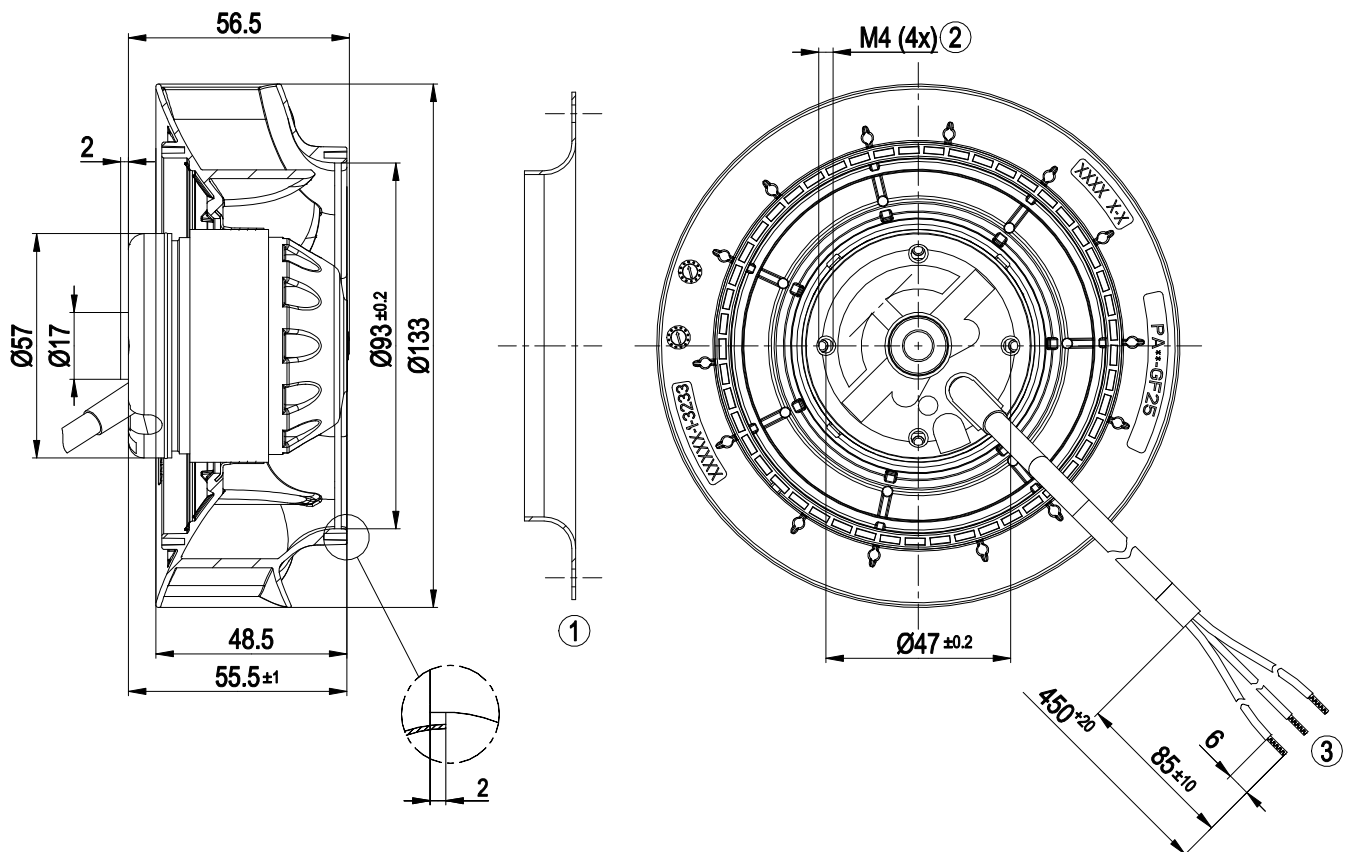
Weight	0.58 kg
Size	133 mm
Motor size	42
Rotor surface	Painted black
Impeller material	PP plastic, galvanized sheet-metal plate
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0+
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
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	Built-in component with basic insulation, protection class results from installation according to intended use
Conformity with standards	EN 60335-1; EN 60034-1; EN 60204-1; CE
Approval	CSA C22.2 No. 77; UL 1004-3



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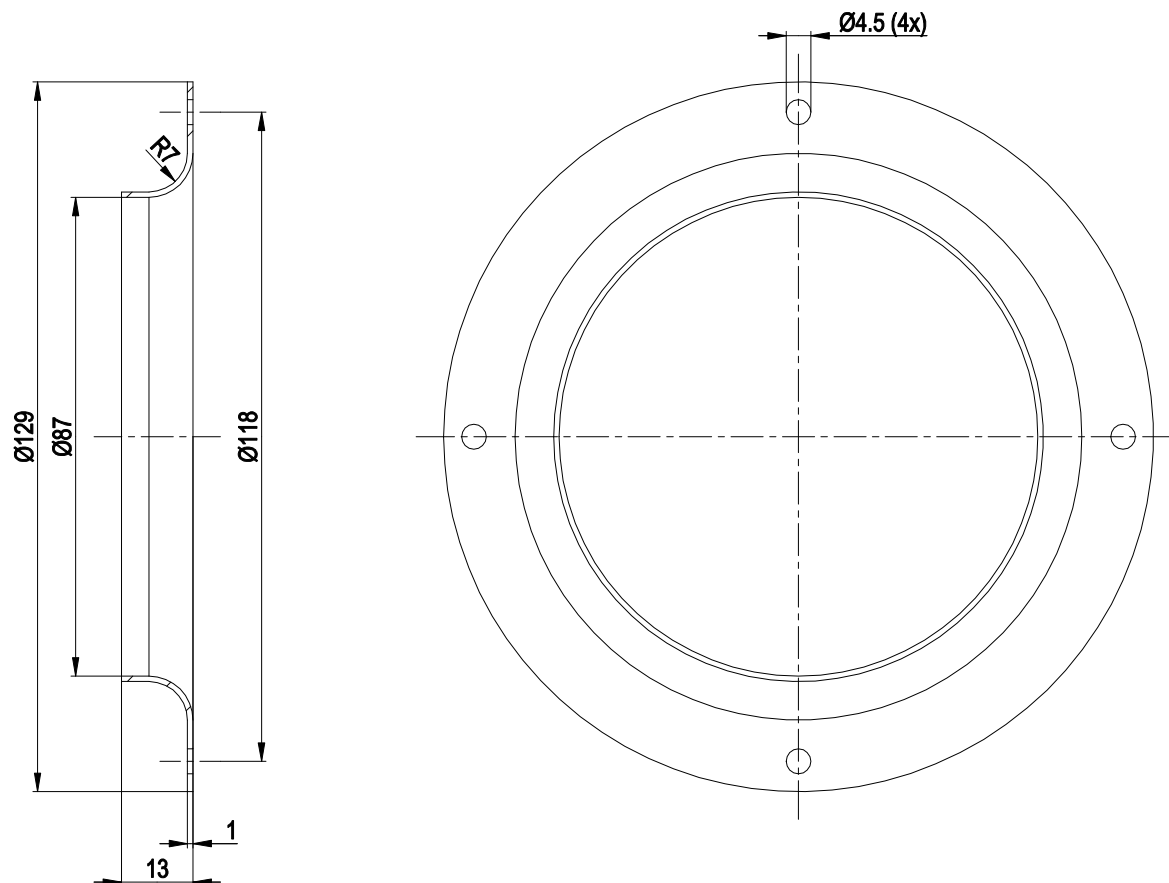
Product drawing



- | | |
|---|--|
| 1 | Accessory part: Inlet ring 09566-2-4013, not included in scope of delivery |
| 2 | Max. clearance for screw 4 mm |
| 3 | Cable AWG20, 3x crimped splices |

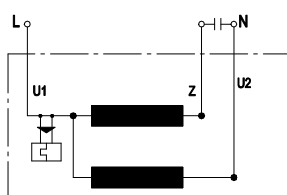


Accessory part



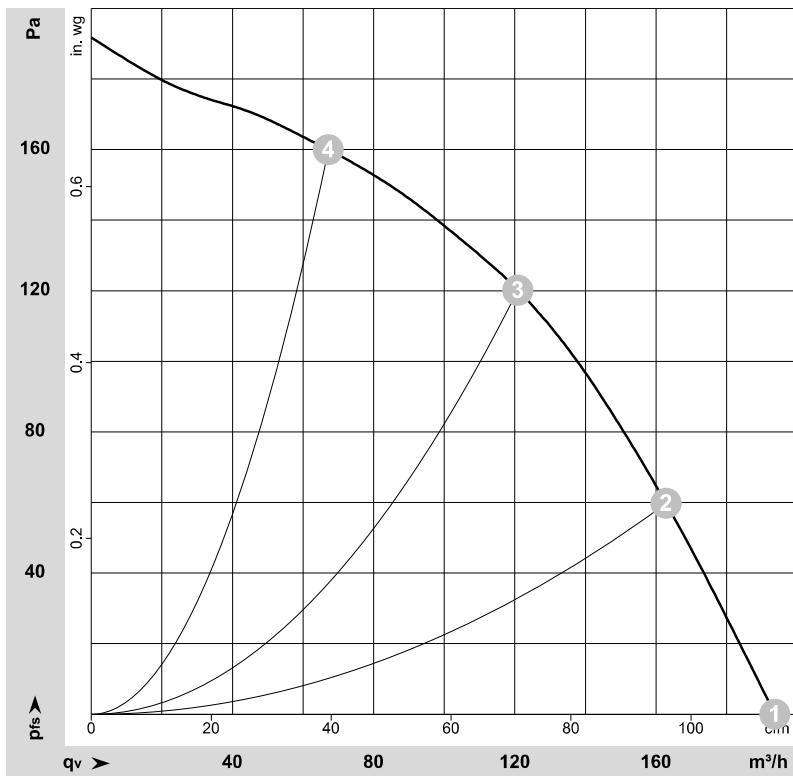
Inlet ring 09566-2-4013

Connection diagram



U1	blue	Z	brown	U2	black
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Curves: Air performance 50 Hz



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

Measurement: LU-131804-1

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.

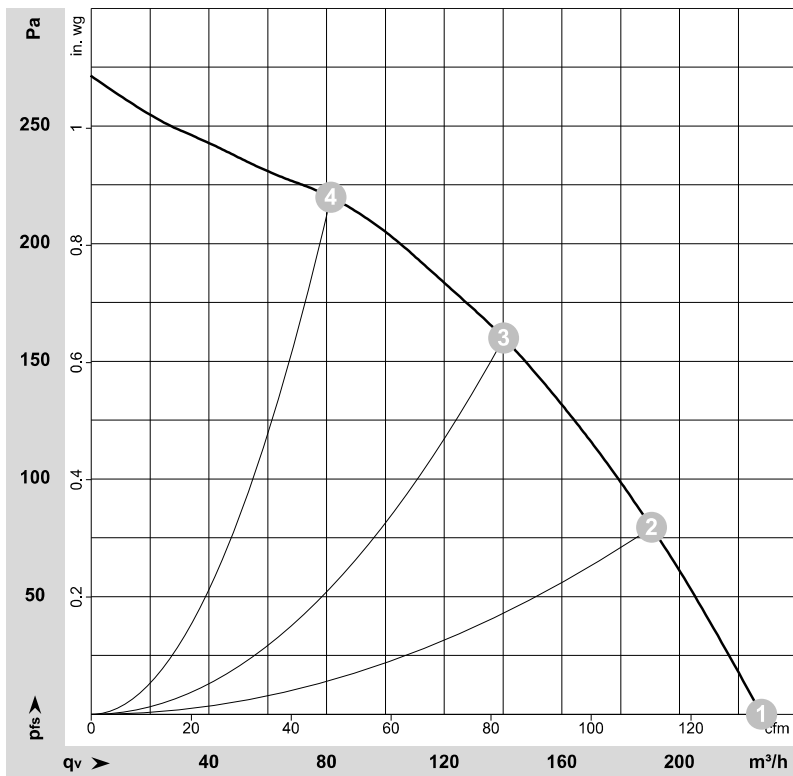
Measured values

	Wired	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	in. wg
1	1~	230	50	2765	24	0.11	49	58	195	0	115	0.00
2	1~	230	50	2725	25	0.11	47	56	165	60	95	0.24
3	1~	230	50	2700	26	0.12	44	53	120	120	70	0.48
4	1~	230	50	2735	24	0.11	49	58	65	160	40	0.64

Wired = Wiring · U = Voltage · 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



Curves: Air performance 60 Hz



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

Measurement: LU-131805-1

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

	Wired	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	in. wg
1	1~	230	60	3240	25	0.13	53	62	230	0	135	0.00
2	1~	230	60	3170	26	0.13	51	59	190	80	110	0.32
3	1~	230	60	3100	27	0.14	48	57	140	160	80	0.64
4	1~	230	60	3195	25	0.13	51	60	80	220	50	0.88

Wired = Wiring · U = Voltage · 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

