R2E175-AC77-31

AC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R2E175-AC77-31**
Motor	**M2E068-BF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2450	2700
Power consumption	W	57	70
Current draw	A	0.27	0.31
Capacitor	µF	1.5	1.5
Capacitor voltage	VDB	450	450
Capacitor standard		S0 (CE)	S0 (CE)
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	65	80
Starting current	A	0.45	0.45

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

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Technical description

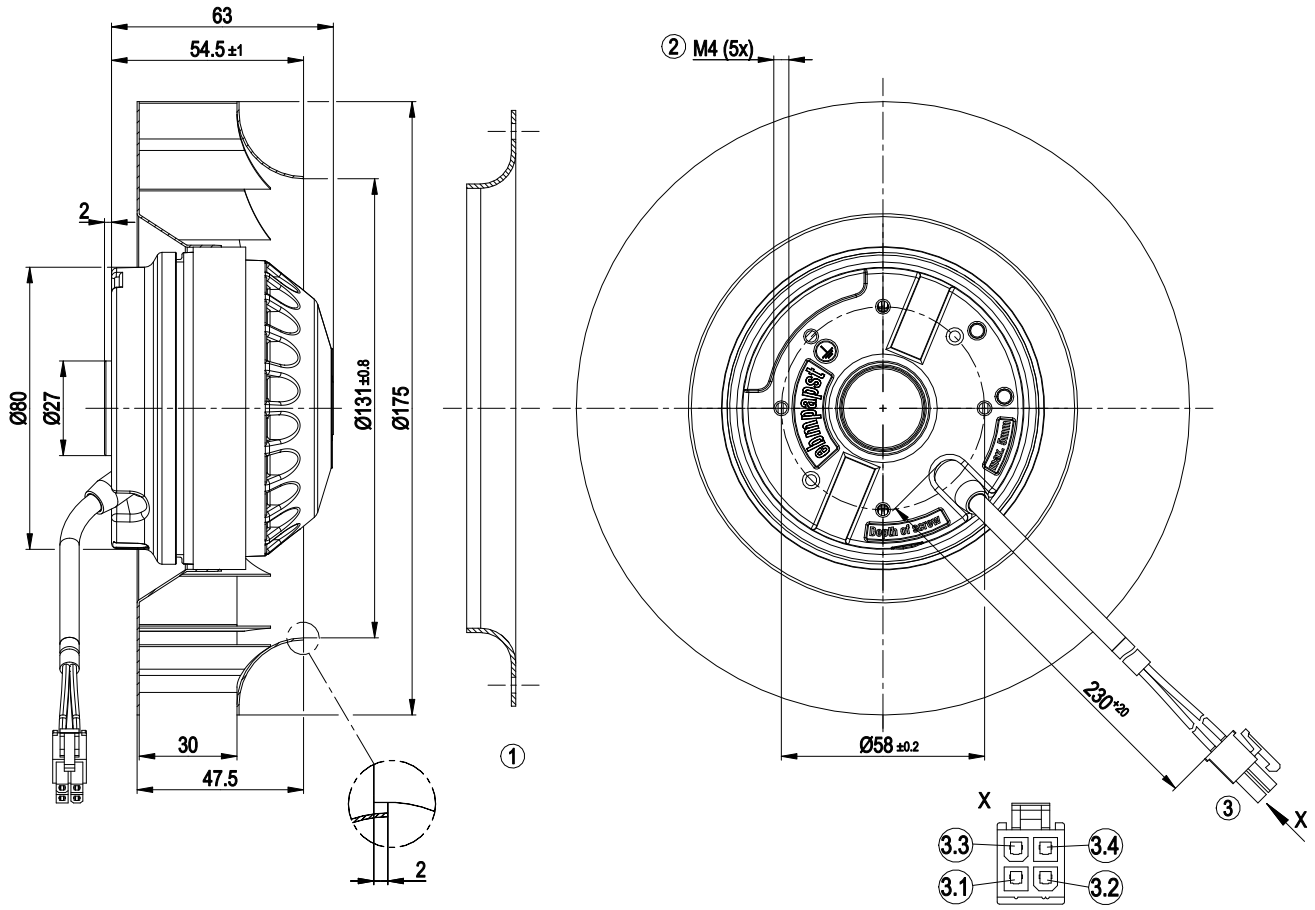
Weight	1.4 kg
Size	175 mm
Motor size	68
Rotor surface	Painted black
Impeller material	Sheet steel, painted black
Number of blades	16
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / 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	Connector with cable
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (if the protective earth is connected by the customer to the marked PE connection point)
Conformity with standards	EN 60335-1; CE

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Product drawing



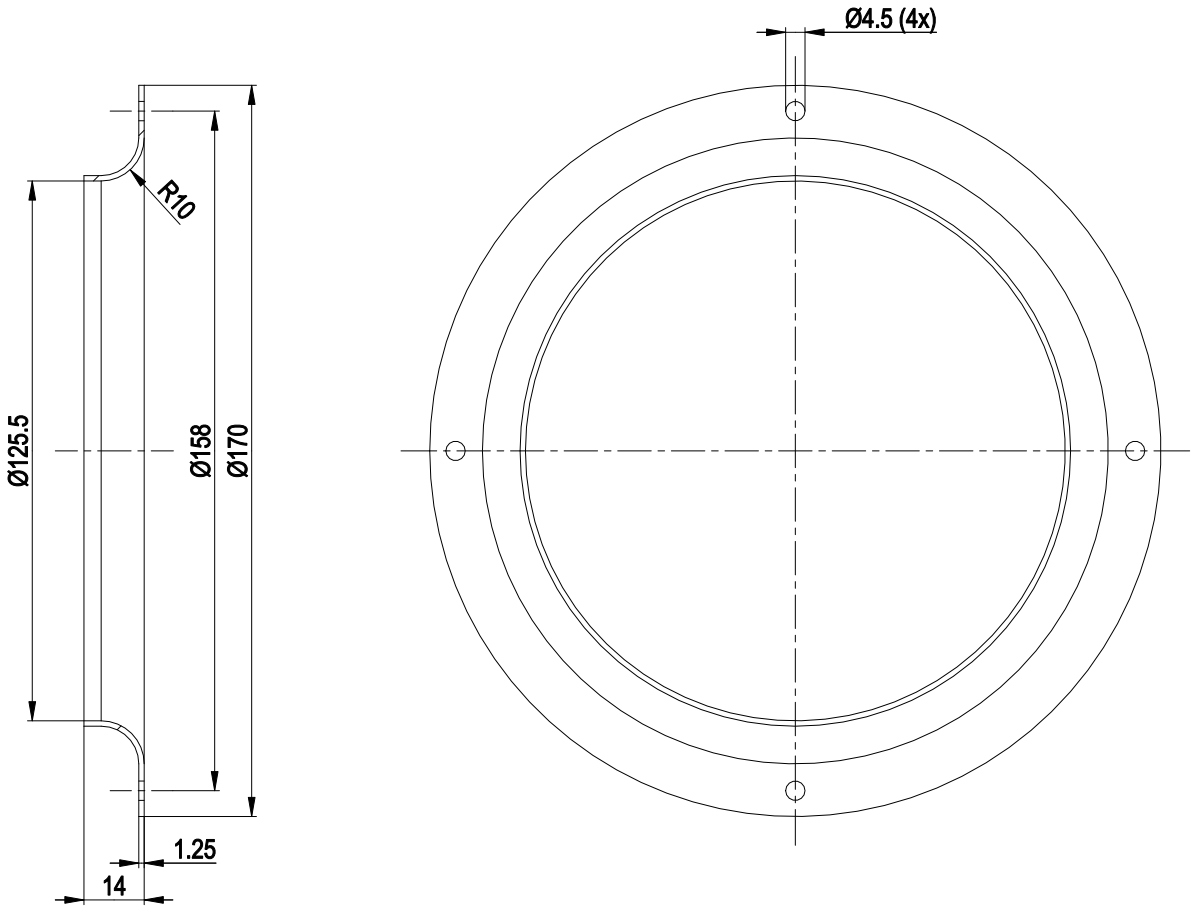
1	Accessory part: Inlet ring 09576-2-4013, not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable silicone 4G 0.5 mm²
	4-pole connector housing Molex 46992-0410, 4x socket Molex 39-00-0038
3.1	U2 (black)
3.2	U1 (blue)
3.3	Z (brown)
3.4	PE (green/yellow)

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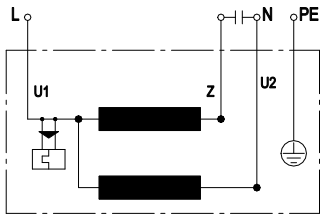
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Accessory part



1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery

Connection diagram



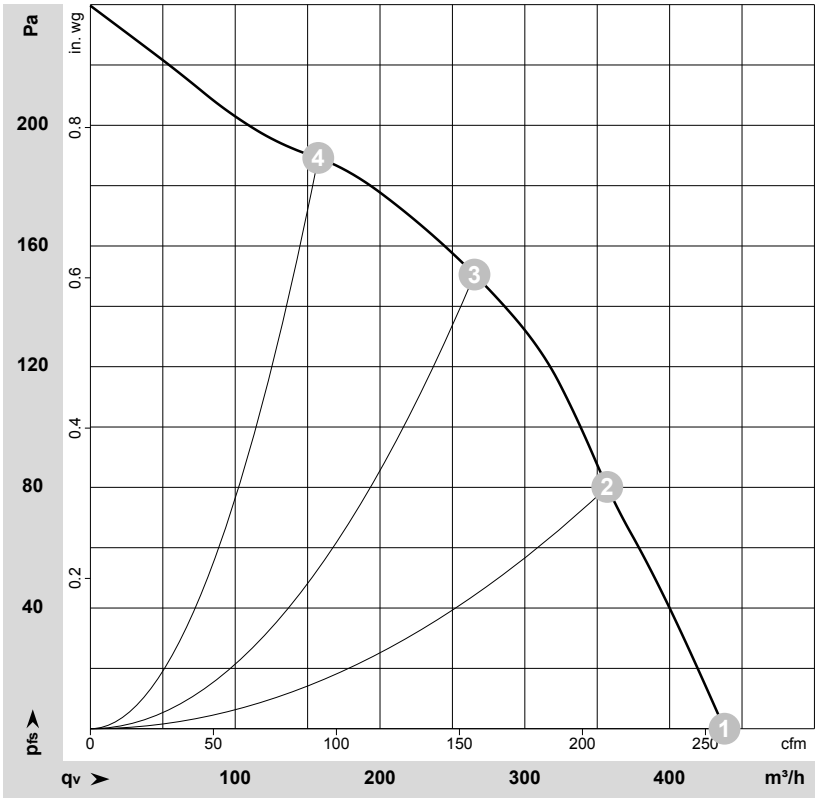
U1	blue	Z	brown	U2	black
PE	green/yellow				

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-196867-1

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

	Stage	Wired	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
			V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1	1~	230	50	2525	55	0.26	440	0	260	0.00
2	1	1~	230	50	2450	57	0.27	355	80	210	0.32
3	1	1~	230	50	2530	55	0.26	265	150	155	0.60
4	1	1~	230	50	2585	53	0.25	155	190	90	0.76

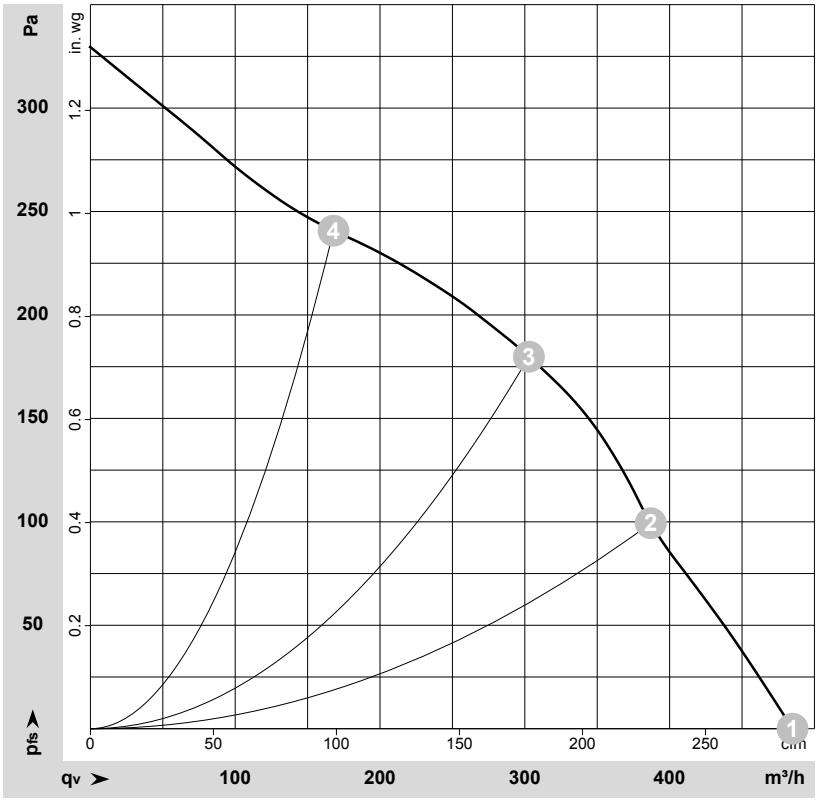
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-196925-1

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

	Stage	Wired	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
			V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1	1~	230	60	2795	68	0.30	485	0	285	0.00
2	1	1~	230	60	2700	70	0.31	385	100	230	0.40
3	1	1~	230	60	2795	68	0.30	305	180	180	0.72
4	1	1~	230	60	2920	64	0.28	170	240	100	0.96

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

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