R2E175-AC91-30

AC centrifugal fan

backward-curved, single-intake

for rail applications

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R2E175-AC91-30**
Motor	**M2E068-BF**

Phase		2~	2~
Nominal voltage	VAC	400	400
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2550	2850
Power consumption	W	65	70
Current draw	A	0.18	0.20
Capacitor	µF	0.5	0.5
Capacitor voltage	VDB	700	700
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	65	90

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
Fan size	175 mm
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	H3
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
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) with basic insulation
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); EN 45545-2, R22/R23, HL3: 2013; IEC 61373: 2010

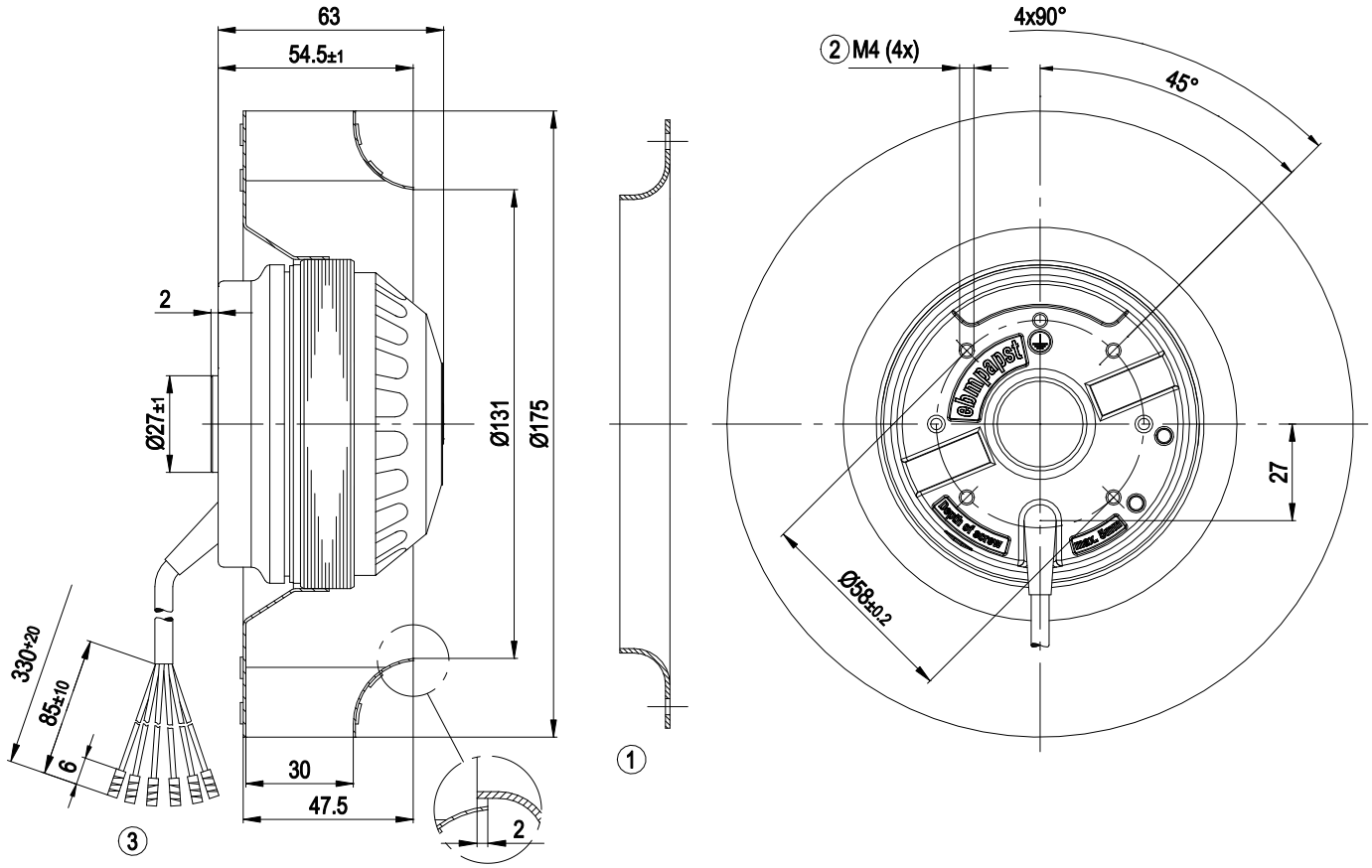
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Product drawing



1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable halogen-free, BETAtrans® 3 GKW flex, sw 6G 0.5 mm², 6x crimped splices

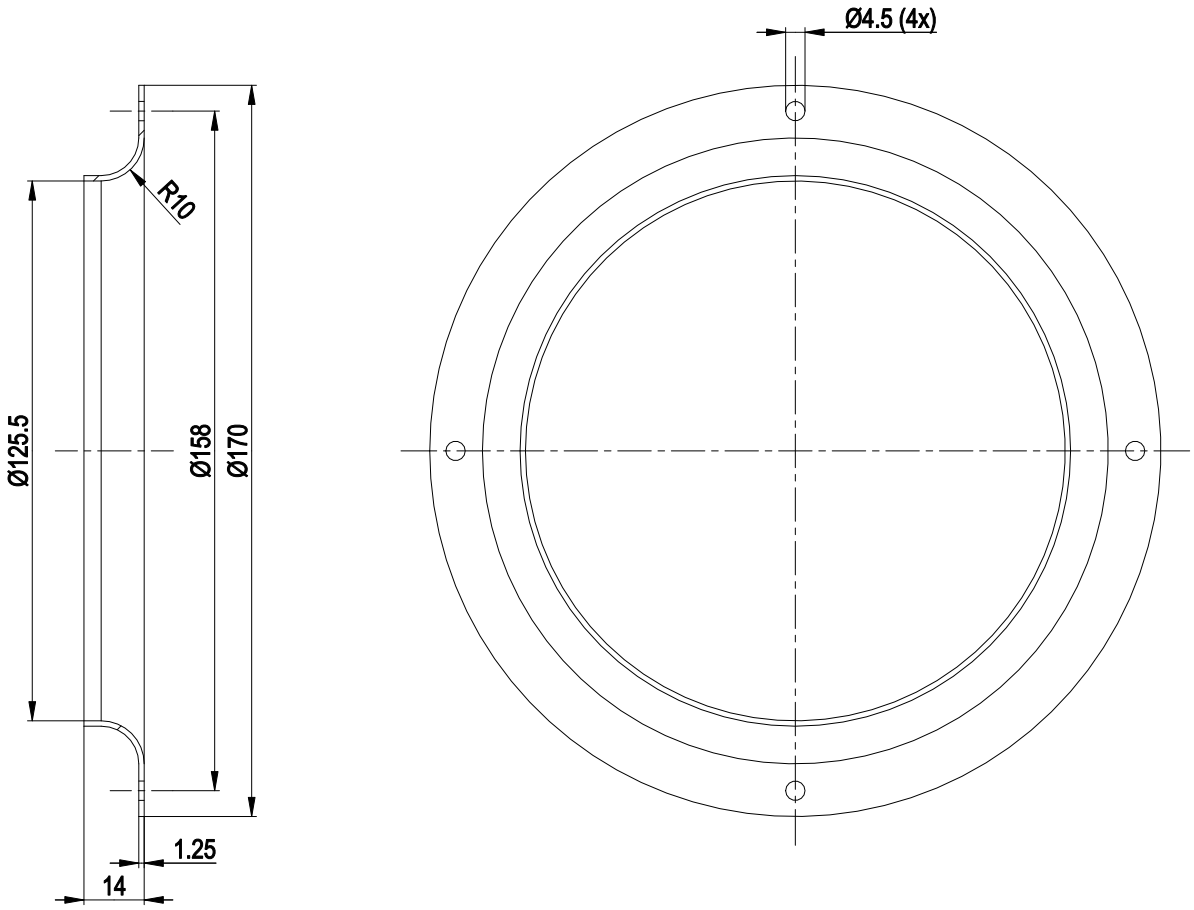
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Accessory part



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

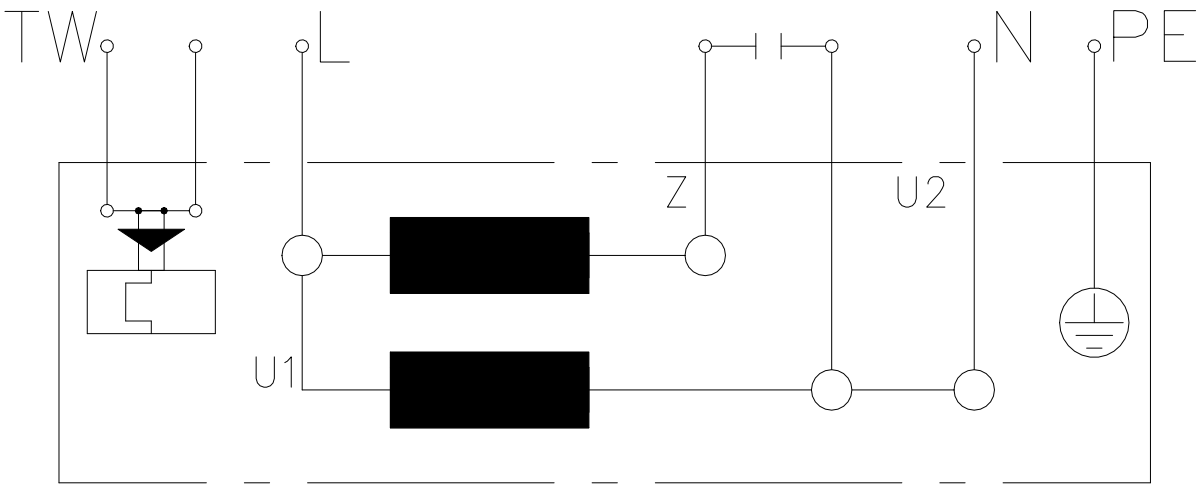
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Connection diagram



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

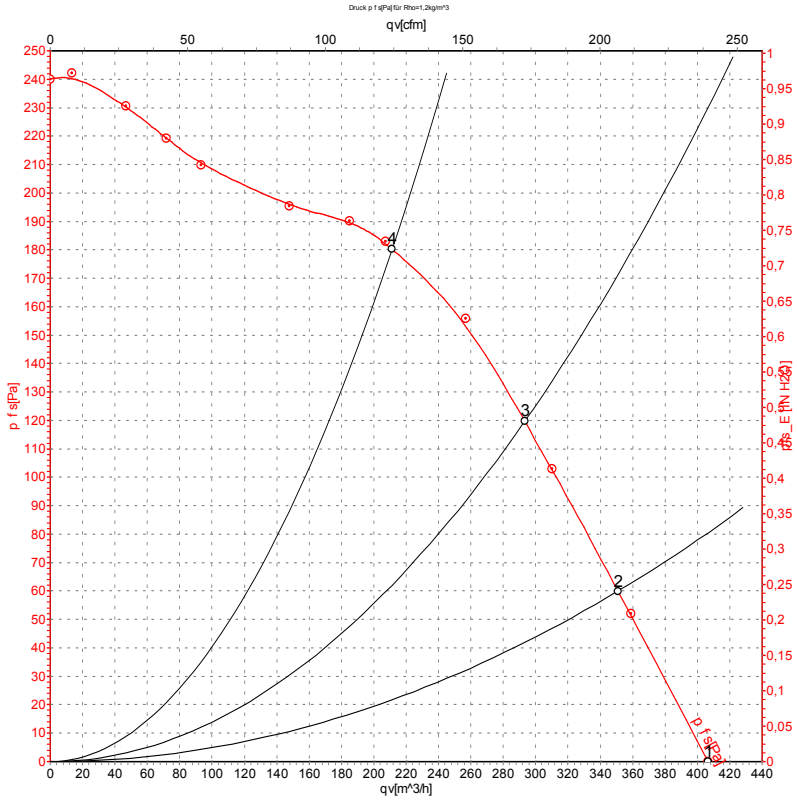
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Curves: Air performance 50 Hz



Measurement: LU-13667-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	400	50	2550	65	0.18	405	0	240	0.00
2	400	50	2495	65	0.18	350	60	205	0.24
3	400	50	2490	65	0.18	295	120	170	0.48
4	400	50	2525	63	0.18	210	180	125	0.72

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

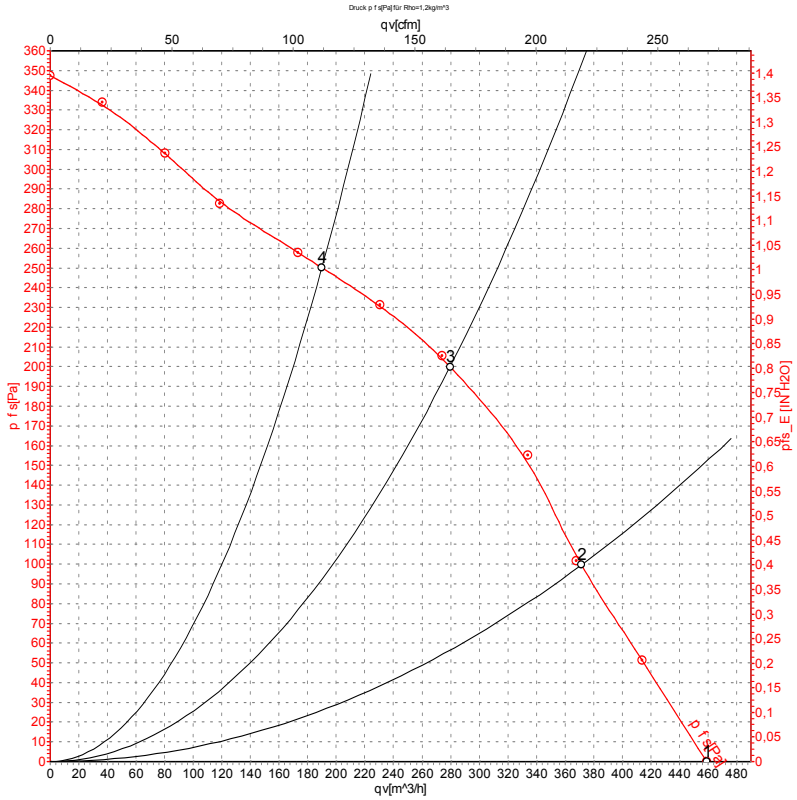
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Curves: Air performance 60 Hz



Measurement: LU-13666-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	400	60	2850	70	0.17	460	0	270	0.00
2	400	60	2785	71	0.18	370	100	220	0.40
3	400	60	2825	70	0.18	280	200	165	0.80
4	400	60	2910	67	0.17	190	250	110	1.00

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

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