R2E180-CB54-16

AC centrifugal fan

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R2E180-CB54-16**
Motor	**M2E068-BF**

Phase		1~	1~	1~
Nominal voltage	VAC	115	115	115
Frequency	Hz	50	60	60
Method of obtaining data		fa	fa	fa
Valid for approval/standard		CE	CE	UL 2111
Speed (rpm)	min^{-1}	2500	2750	2750
Power consumption	W	55	70	75
Current draw	A	0.49	0.62	0.64
Capacitor	µF	5	5	5
Capacitor voltage	VDB	220	220	220
Capacitor standard		S0 (CE)	S0 (CE)	UL
Min. back pressure	Pa	0	0	0
Min. back pressure	inH2O	0	0	0
Max. ambient temperature	°C	55	55	55
Starting current	A	0.83	0.86	

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

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Technical description

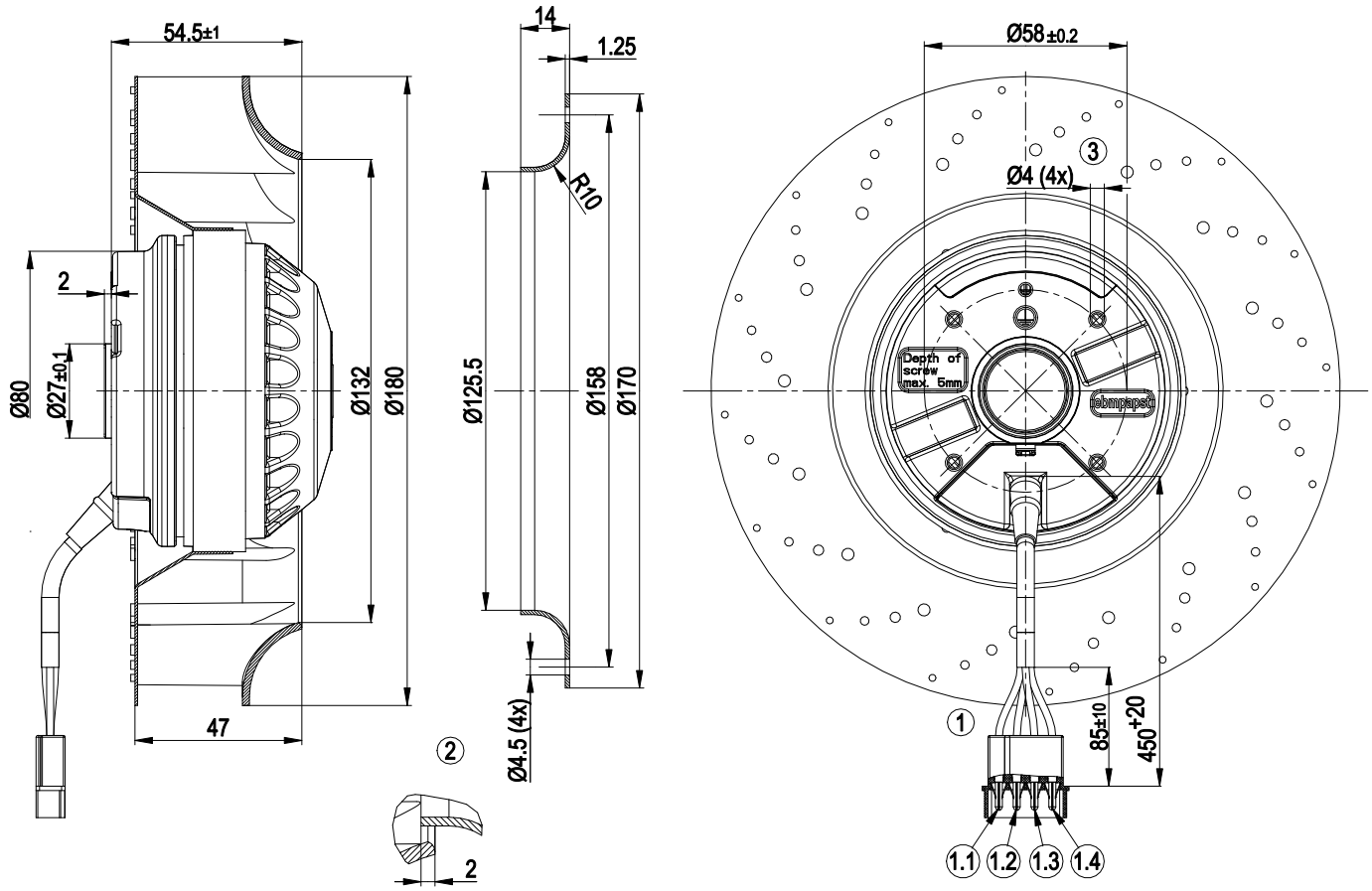
Weight	1.3 kg
Fan size	180 mm
Rotor surface	Painted black
Impeller material	PA66 plastic, glass-fiber reinforced
Number of blades	16
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / 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	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1; EN 60204-1; CE
Approval	UL 2111; CSA C22.2 No. 77

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Product drawing



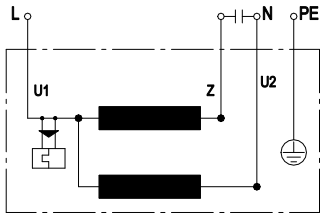
1	Cable PVC 4G 0.5 mm², 4-pole connector housing tyco 1-480426-0, 4x crimped plug pin tyco 163555-6
1.1	brown
1.2	blue
1.3	green/yellow
1.4	black
2	Accessory part: inlet ring 09576-2-4013, not included in scope of delivery
3	Max. clearance for screw 5 mm

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Connection diagram



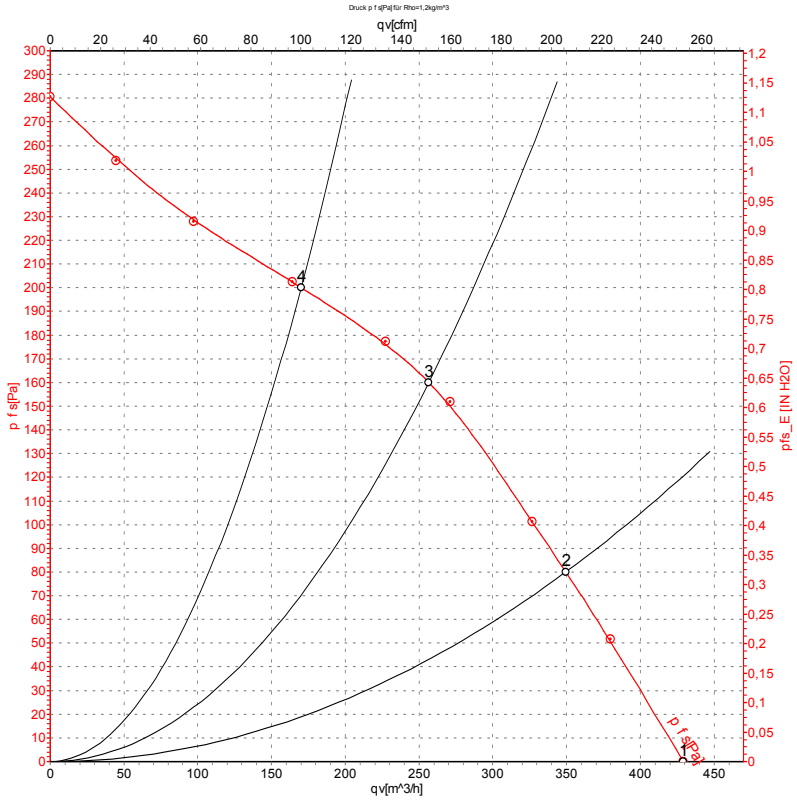
U1	blue	Z	brown	U2	black
PE	green/yellow				

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Curves: Air performance 50 Hz



Measurement: LU-39022-1

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	inH2O
1	115	50	2500	55	0.49	430	0	250	0.00
2	115	50	2490	56	0.50	350	80	205	0.32
3	115	50	2535	54	0.48	255	160	150	0.64
4	115	50	2600	51	0.46	170	200	100	0.80

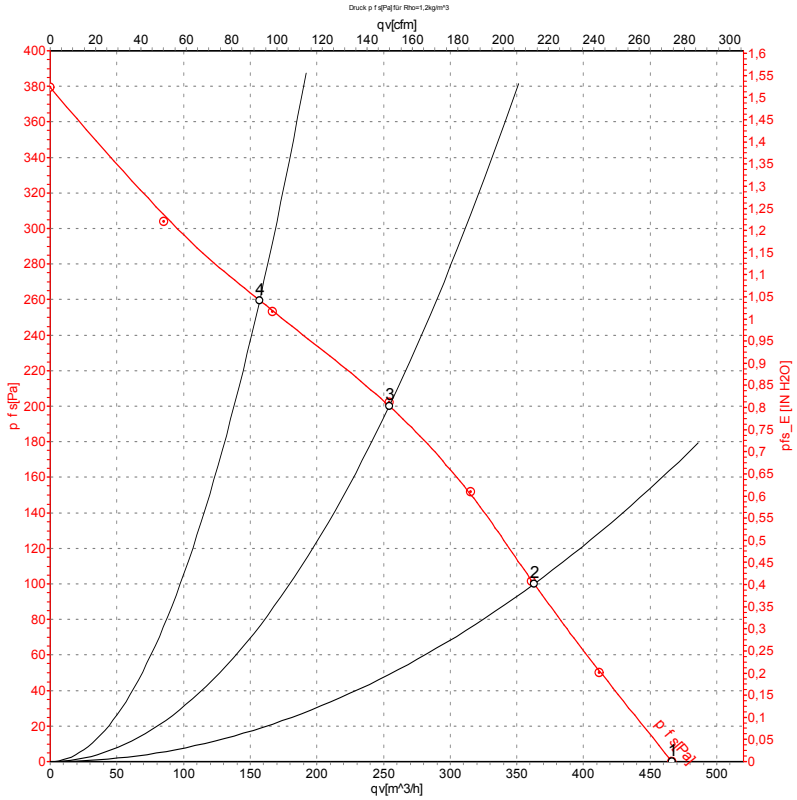
U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



Measurement: LU-39021-1

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	inH2O
1	115	60	2750	70	0.62	465	0	275	0.00
2	115	60	2645	73	0.63	365	100	215	0.40
3	115	60	2760	69	0.60	255	200	150	0.80
4	115	60	2905	64	0.55	155	260	90	1.04

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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