R2E180-AI01-12

AC circulation blower for hot air

single-intake

R2E180-AI01-12 ebmpapst Datasheet
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Nominal data

Type	**R2E180-AI01-12**
Motor	**M2E068-CF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2000	1800
Power consumption	W	120	125
Current draw	A	0.53	0.55
Capacitor	µF	2	2
Capacitor voltage	VDB	400	400
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	80	75

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	2.1 kg
Fan size	180 mm
Rotor surface	Unpainted
Impeller material	Sheet steel, rust-resistant
Direction of rotation	Right and left
Degree of protection	IP00
Insulation class	"F"
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
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
With cable	Axial
Protection class	I (if protective earth is connected by customer to the housing's connection point)
Conformity with standards	EN 60335-1, motor does not have factory-installed overheating protection

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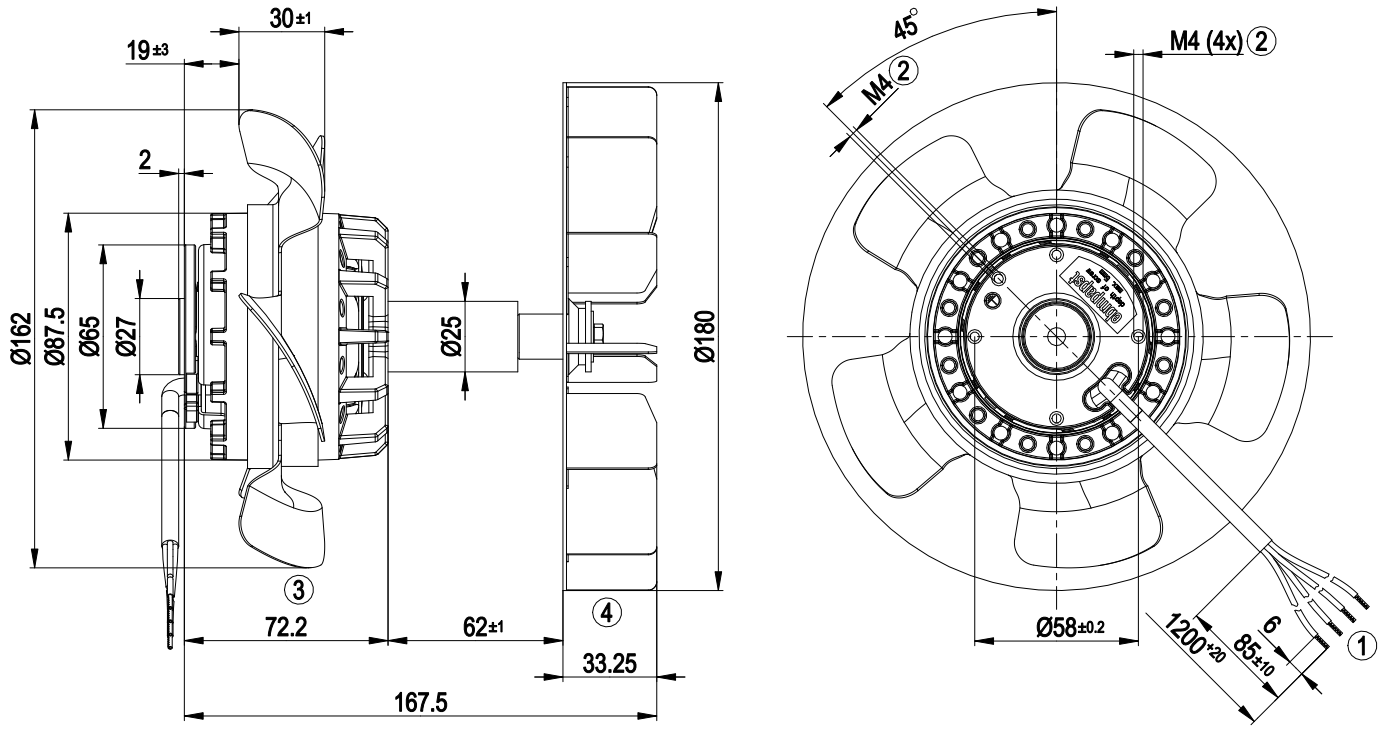
Product drawing



1	Cable silicone 4x 0.5 mm², 4x crimped splices
2	Max. clearance for screw 5 mm
3	Axial fan impeller (sheet steel, galvanized)
4	Centrifugal fan impeller (sheet steel, stainless)

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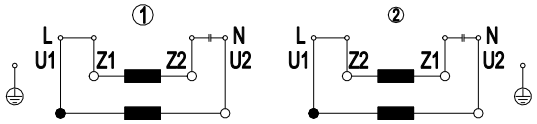
Connection diagram



Single-phase AC motor with motor run capacitor

1	Clockwise operation
2	Counterclockwise operation
U1	black
U2	gray
Z1	blue
Z2	brown

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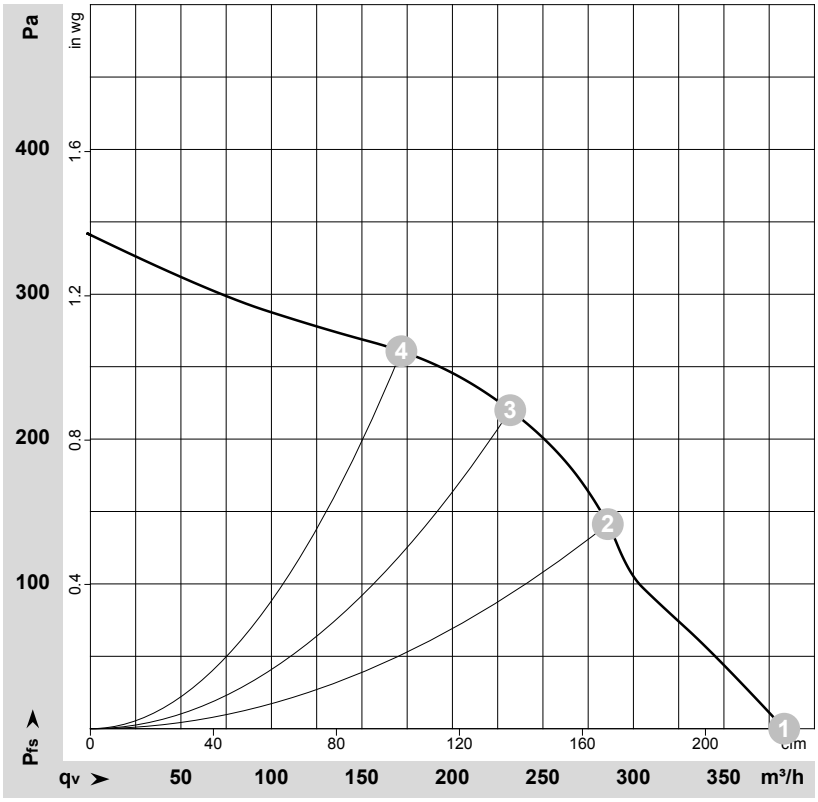
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-170644-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	2000	120	0.53	385	0	225	0.00
2	230	50	2210	92	0.40	285	140	170	0.56
3	230	50	2355	84	0.37	230	220	135	0.88
4	230	50	2435	78	0.34	170	260	100	1.04

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

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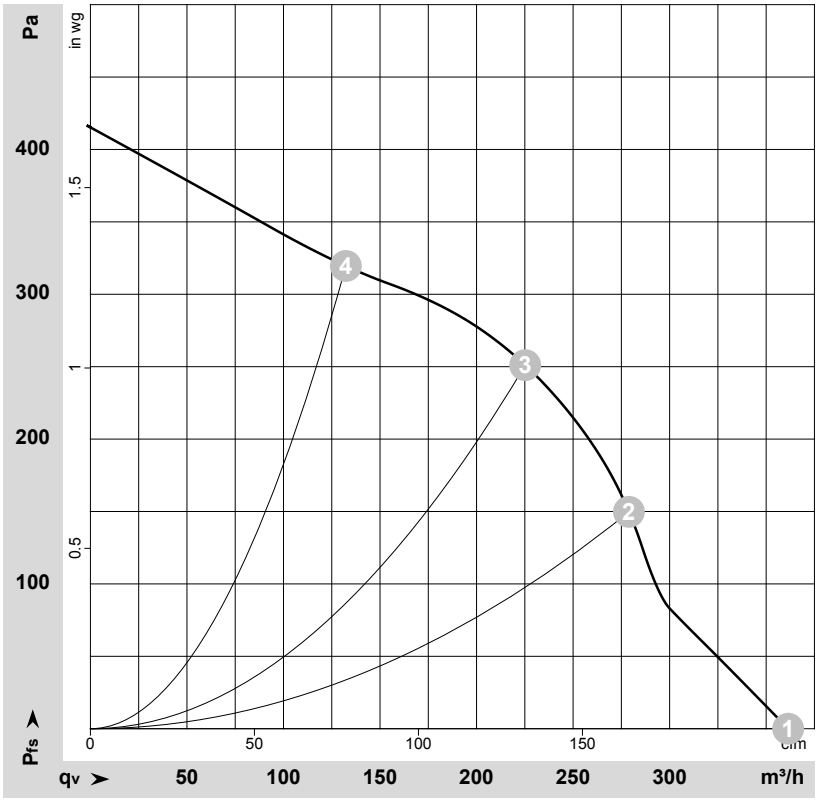
Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-171034-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	60	1800	125	0.55	360	0	210	0.00
2	230	60	2245	114	0.49	280	150	165	0.60
3	230	60	2490	106	0.46	225	250	130	1.00
4	230	60	2695	97	0.42	130	320	80	1.28

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