

R4E310-RB20-11 ebmpapst Datasheet FansCo

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Nominal data

Type	R4E310-RB20-11		
Motor	M4E074-EI		
Phase		1~	1~
Nominal voltage	VAC	115	115
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min ⁻¹	1420	1640
Power consumption	W	165	220
Current draw	A	1.75	1.92
Capacitor	μF	20	20
Capacitor voltage	VDB	250	250
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	55	65
Starting current	A	5.05	4.46

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

Data according to Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	44.9	44.5	09 Power consumption P_e	kW	0.21
02 Measurement category		A		09 Air flow q_v	m ³ /h	1405
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	250
04 Efficiency grade N		62.4	62	10 Speed (rpm) n	min ⁻¹	1645
05 Variable speed drive		No		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = $1 + p_g / 100\,000\text{ Pa}$

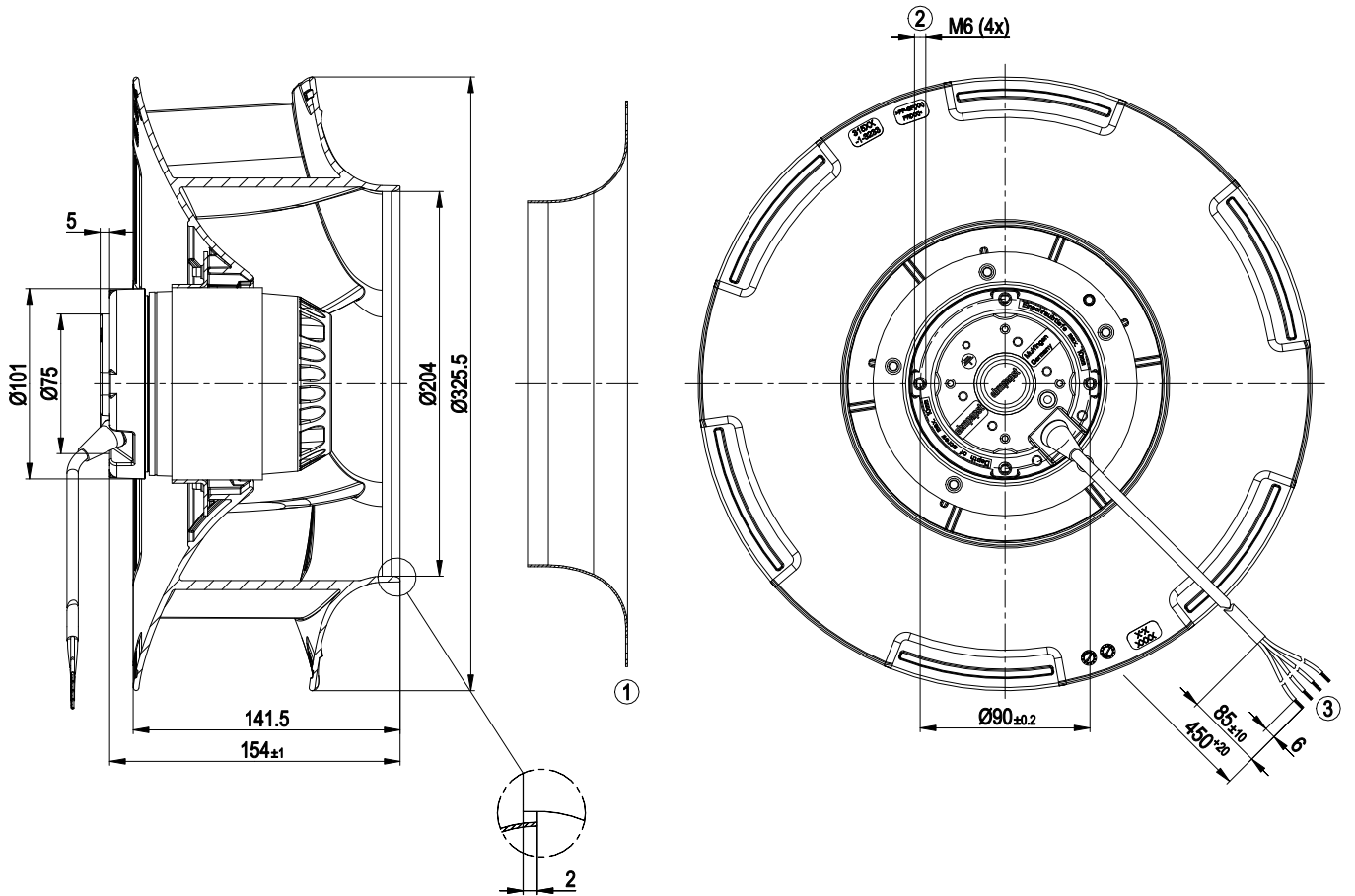
LU-148353



Technical description

Weight	4.36 kg
Size	310 mm
Motor size	74
Rotor surface	Painted black
Impeller material	PP plastic
Number of blades	6
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
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	UL 1004-1; CSA C22.2 No. 100

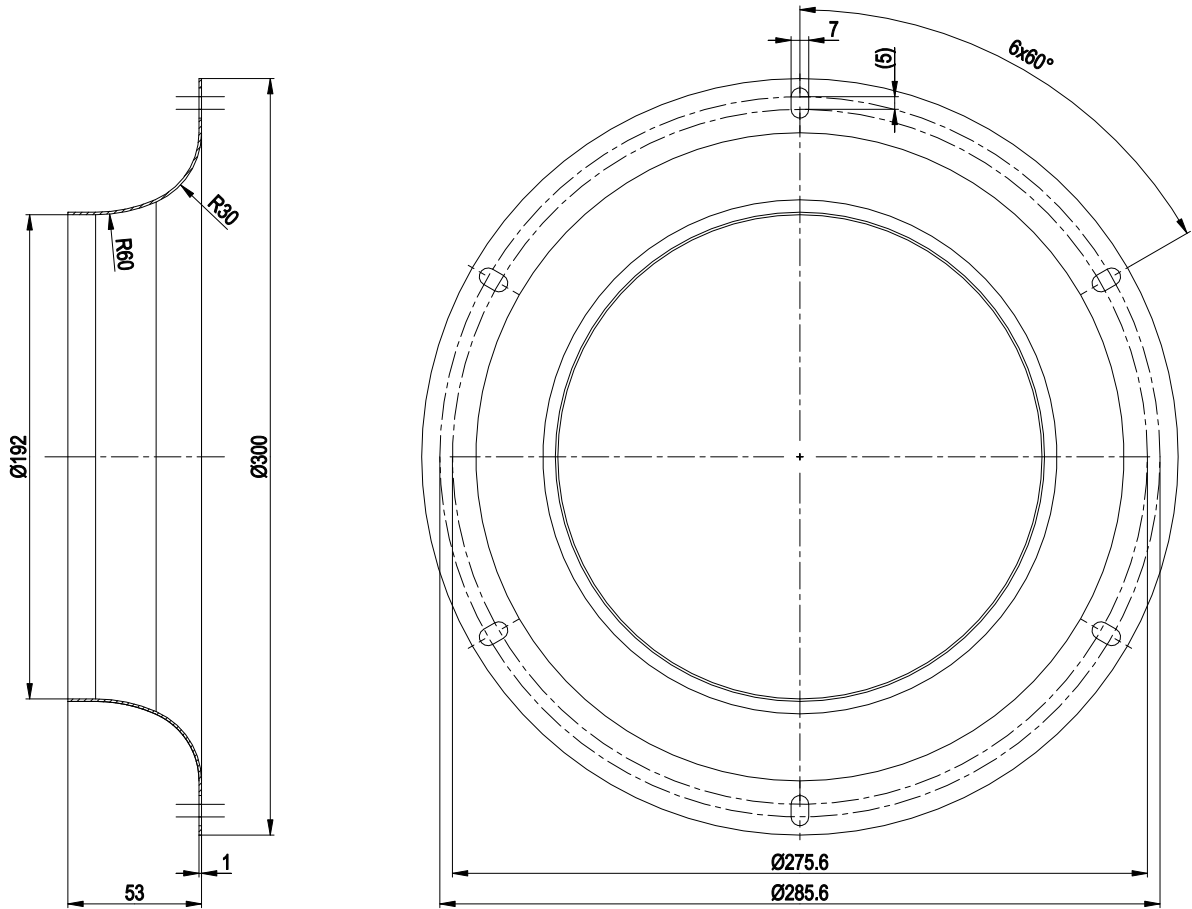
Product drawing



- | | |
|---|---|
| 1 | Accessory part: inlet ring 97512-2-4013 not included in scope of delivery |
| 2 | Max. clearance for screw 10 mm |
| 3 | Cable PFA AWG20, 4x crimped splices |

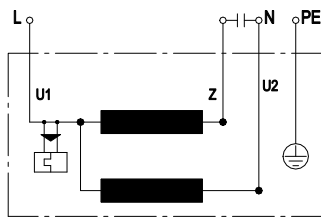


Accessory part



Accessory part: inlet ring 97512-2-4013 not included in scope of delivery

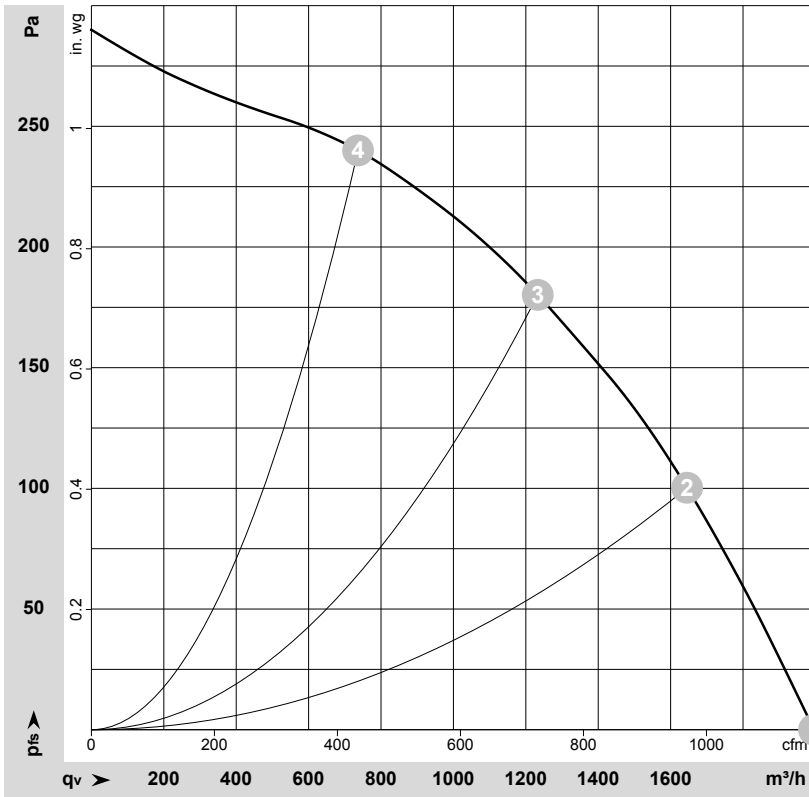
Connection diagram



U1	blue	Z	brown	U2	black
PE	green/yellow				



Curves: Air performance 50 Hz



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

Measurement: LU-148359-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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.

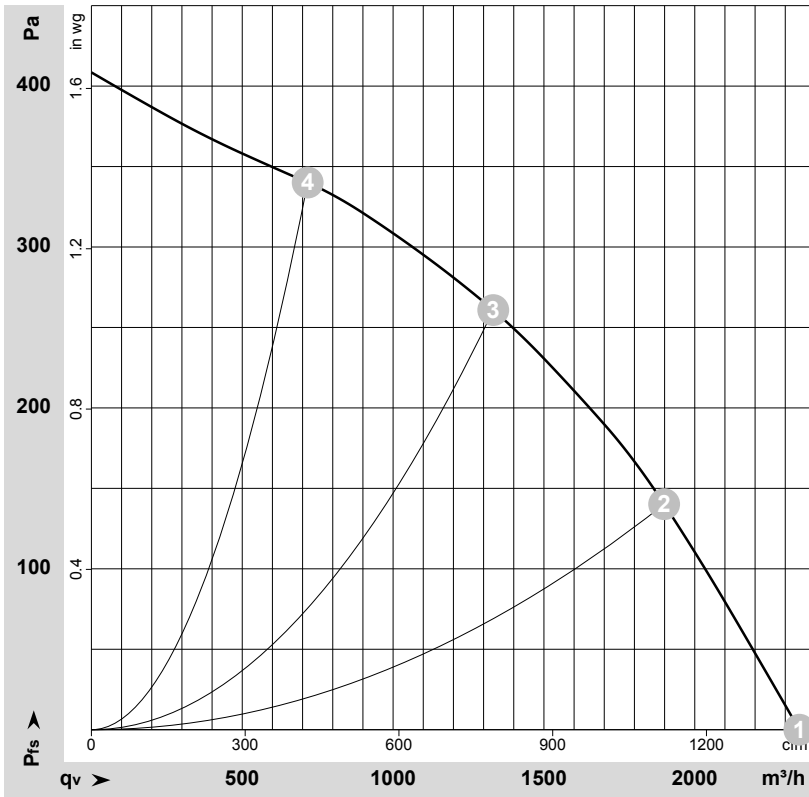
Measured values

	Wired	U	f	n	P _e	I	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	m ³ /h	Pa	cfm	in. wg
1	1~	115	50	1440	148	1.68	1995	0	1175	0.00
2	1~	115	50	1425	163	1.74	1645	100	970	0.40
3	1~	115	50	1420	165	1.75	1235	180	725	0.72
4	1~	115	50	1430	158	1.71	735	240	435	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



Curves: Air performance 60 Hz



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

Measurement: LU-148353-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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	115	60	1690	181	1.60	2345	0	1380	0.00
2	115	60	1660	207	1.83	1900	140	1120	0.56
3	115	60	1640	220	1.92	1330	260	785	1.04
4	115	60	1675	189	1.67	715	340	420	1.36

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

