R2E160-BI82-11

AC centrifugal fan

for solid fuel heating systems

R2E160-BI82-11 ebmpapst Datasheet
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Nominal data

Type	**R2E160-BI82-11**	
Motor	**M2E068-CF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		fa
Valid for approval / standard		CE
Speed	min^{-1}	2750
Power input	W	50
Current draw	A	0.23
Motor capacitor	µF	2
Capacitor voltage	VDB	400
Capacitor standard		P0 (CE)
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

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Technical features

Mass	3.5 kg
Size	160 mm
Surface of rotor	Uncoated
Material of impeller	Sheet steel, rust-resistant
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"F"
Humidity class	F0
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical leads	With plug
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

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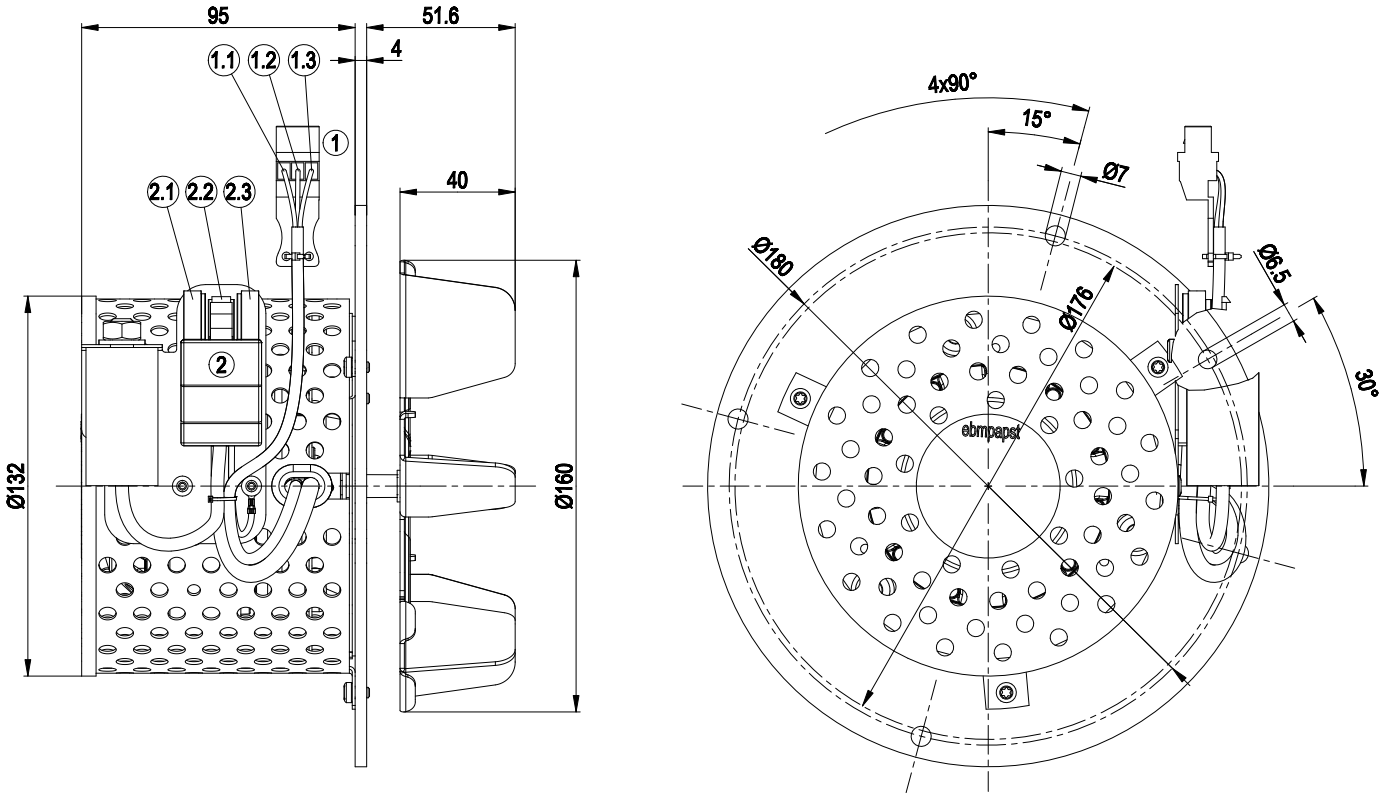
Product drawing



1	Hall IC connection line Raychem 3X AWG24, with connector shell Lumberg 3615-1 03 K02
1.1	GND (black)
1.2	OUT (white)
1.3	VCC (red)
2	Connection line silicone 4G 0.5mm², with connector shell Wieland 93.631.4253.0
2.1	N (black)
2.2	PE (yellow/green)
2.3	L (blue)

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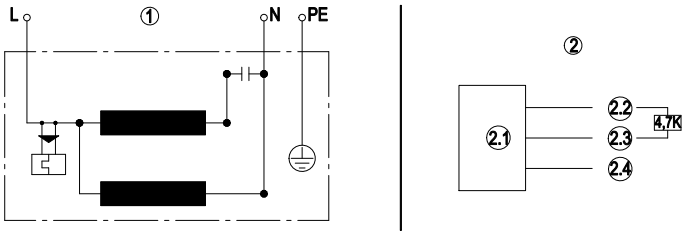
Connection screen



1	Fan connection diagram
L	blue
N	black
PE	green/yellow
2	Hall IC circuit
2.1	Hall IC
2.2	Red (+5V)
2.3	White (out)
2.4	Black (0V)

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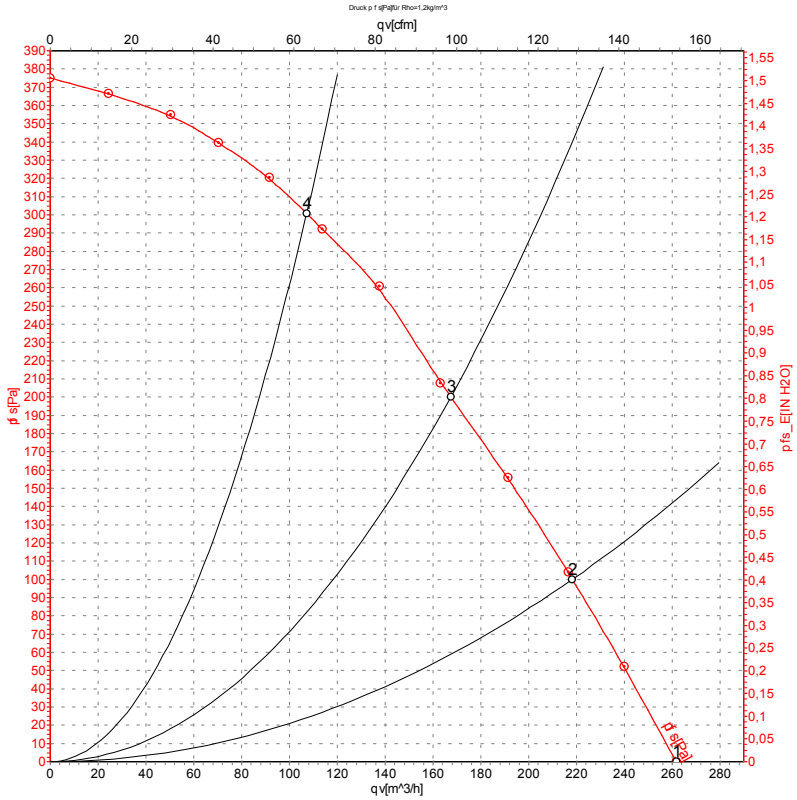
Charts: Air flow 50 Hz



Measurement: LU-119166

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_e	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	2750	50	0.23	260	0
2	230	50	2780	46	0.20	220	100
3	230	50	2790	45	0.20	170	200
4	230	50	2810	43	0.19	105	300

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase