AC centrifugal fan

backward-curved

Nominal data

Type	**R2E180-AS47-32**
Motor	**M2E068-BF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		fa
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	2200
Power consumption	W	82
Current draw	A	0.36
Capacitor	µF	2
Capacitor voltage	VDB	450
Capacitor standard		S2 (CE)
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
Max. ambient temperature	°C	40
Starting current	A	0.5

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	180 mm
Rotor surface	Painted black
Impeller material	PA6 plastic, glass-fiber reinforced
Number of blades	16
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
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
Speed levels	5
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

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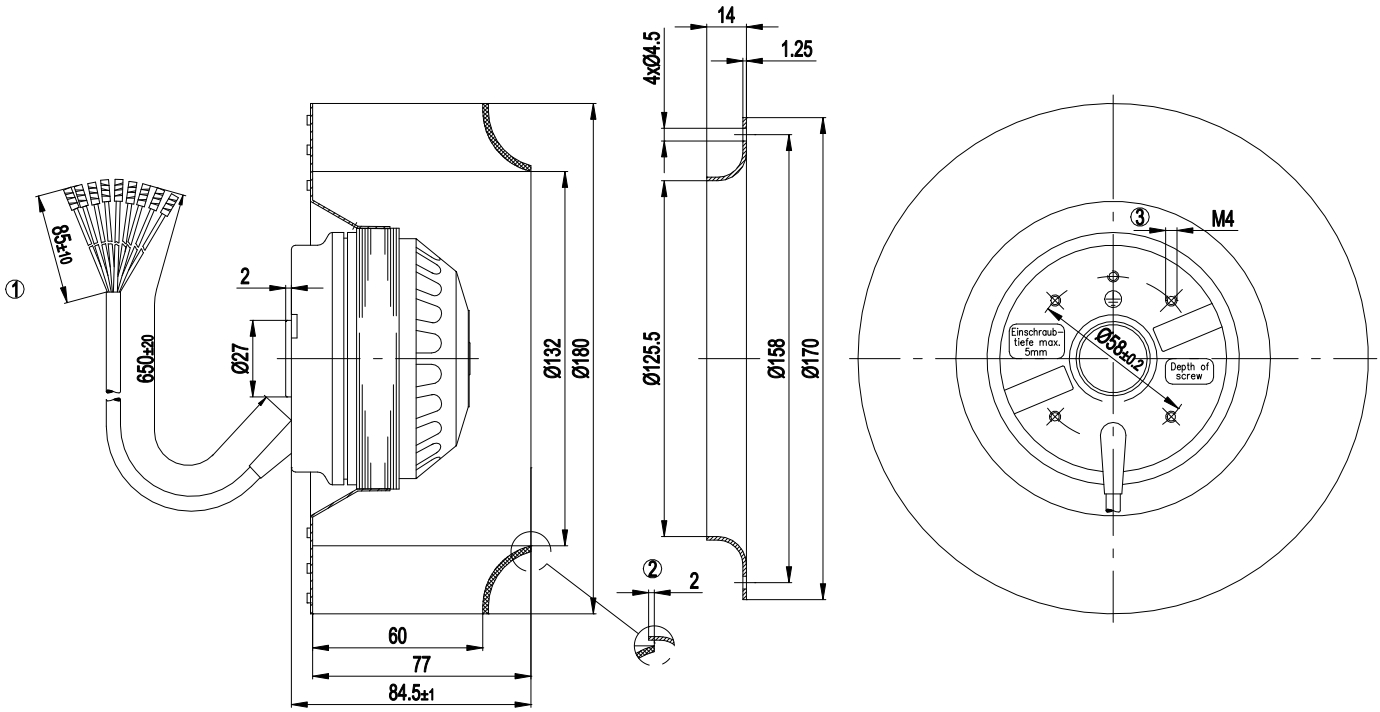
Product drawing



1	Cable AWG 20, 9x crimped splices
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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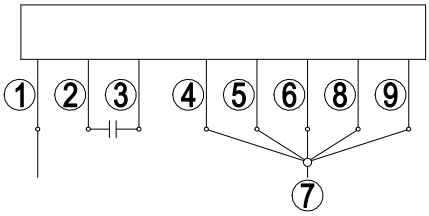
Connection diagram



Note: High speed (step V); low speed (step I)

1	= N = blue	2	brown	3	yellow
4	Step I white	5	Step II red	6	Step III gray
7	L1	8	Step IV orange	9	Step V black

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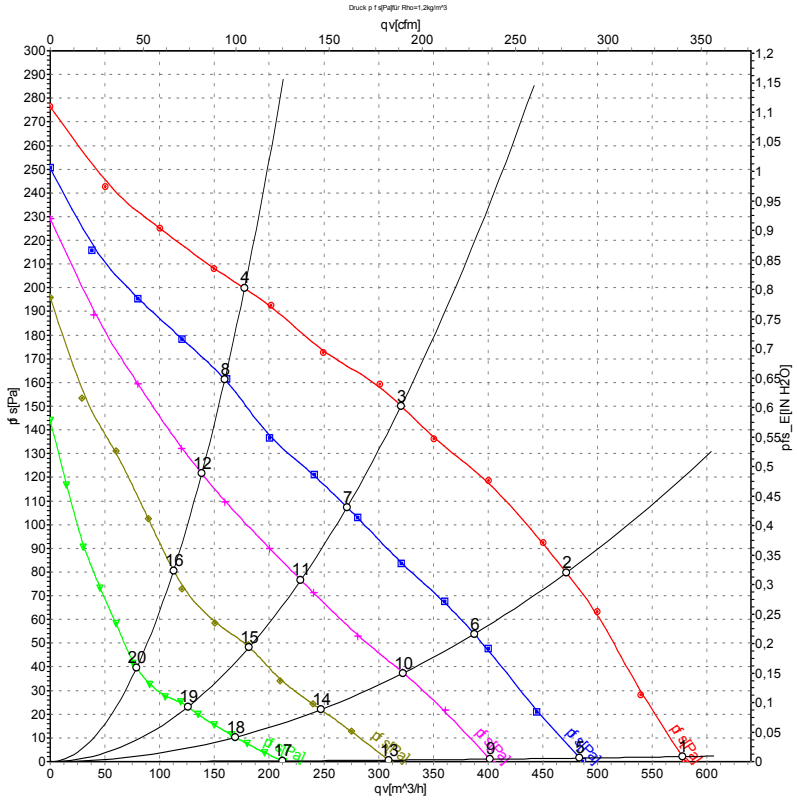
Curves: Air performance 50 Hz



Measurement: LU-122077-1
Measurement: LU-122078-1
Measurement: LU-122080-1
Measurement: LU-122082-1
Measurement: LU-122083-1

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	230	50	2200	82	0.36	580	0	340	0.00
2	230	50	2200	82	0.36	470	80	280	0.32
3	230	50	2300	79	0.35	320	150	190	0.60
4	230	50	2470	73	0.33	175	200	105	0.80
5	230	50	1865	63	0.29	485	0	285	0.00
6	230	50	1810	63	0.29	385	54	230	0.22
7	230	50	1955	60	0.28	270	107	160	0.43
8	230	50	2215	54	0.25	160	162	95	0.65
9	230	50	1550	55	0.26	400	0	235	0.00
10	230	50	1505	55	0.26	320	38	190	0.15
11	230	50	1660	53	0.25	230	77	135	0.31
12	230	50	1950	49	0.24	140	122	80	0.49
13	230	50	1190	48	0.23	310	0	180	0.00
14	230	50	1170	48	0.23	245	22	145	0.09
15	230	50	1310	47	0.23	180	49	105	0.20
16	230	50	1600	44	0.22	115	80	65	0.32
17	230	50	825	42	0.20	210	0	125	0.00
18	230	50	805	41	0.20	170	10	100	0.04
19	230	50	905	41	0.20	125	23	75	0.09
20	230	50	1120	40	0.20	80	39	45	0.16

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