R2E190-RA04-72

AC centrifugal fan - RadiCal

backward curved, single inlet



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Nominal data

Type	**R2E190-RA04-72**
Motor	**M2E068-BF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	2380	2550
Power input	W	60	80
Current draw	A	0.27	0.35
Motor capacitor	µF	2	2
Capacitor voltage	VDB	400	400
Capacitor standard		S2 (CE)	S2 (CE)
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	65	70
Starting current	A	0.385	0.4

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

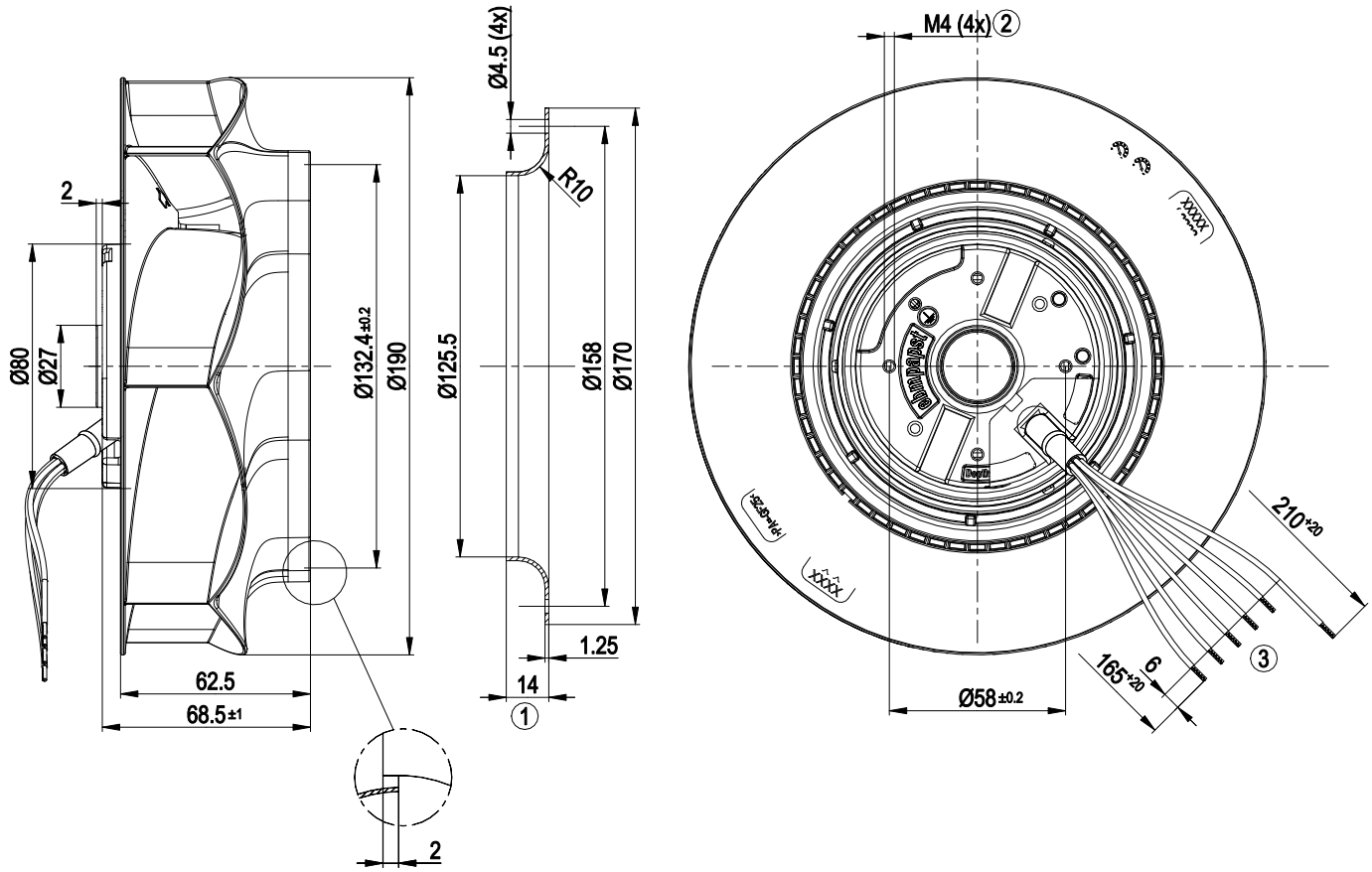
Mass	1.3 kg
Size	190 mm
Surface of rotor	Coated in black
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F2-2
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Speed steps	2
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
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



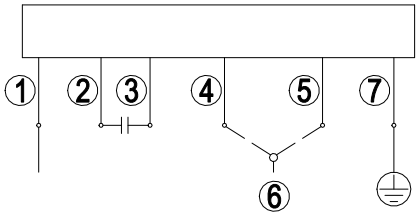
1	Accessory part: Inlet nozzle: 09576-2-4013 not included in scope of delivery
2	Thread reach max. 5 mm
3	Connection line halogen and silicone-free 6G 0.5 mm², 6x lead tips crimped

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Connection screen



Note: Fast speed (step II); slow speed (step I)

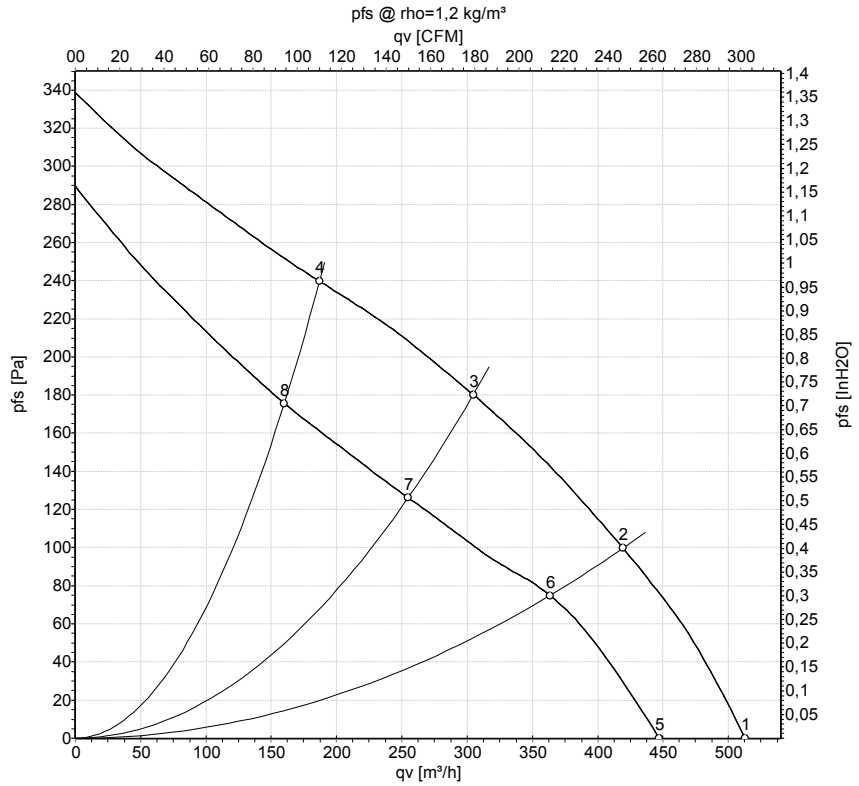
1	blue (N)	2	brown (capacitor)	3	yellow (capacitor)
4	Step I white	5	Step II black	6	L1
7	green/yellow (PE)				

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Charts: Air flow 50 Hz



Measurement: LU-140731-1
Measurement: LU-140733-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	2475	58	0.25	58	66	515	0	300	0.00
2	230	50	2430	59	0.26	60	71	420	100	245	0.40
3	230	50	2380	60	0.27	55	64	305	180	180	0.72
4	230	50	2425	59	0.26	55	63	185	240	110	0.96
5	230	50	2175	45	0.21	55	63	445	0	265	0.00
6	230	50	2110	47	0.22	57	66	365	76	215	0.31
7	230	50	2010	49	0.23	52	60	255	126	150	0.51
8	230	50	2095	47	0.22	49	57	160	175	95	0.70

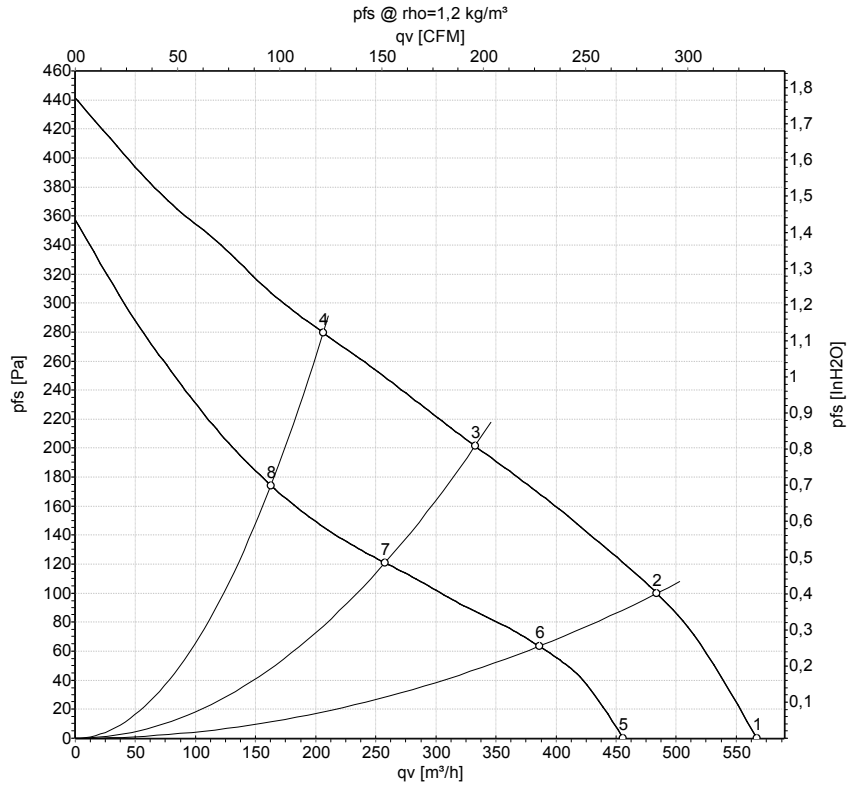
U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow
p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-140732-1
Measurement: LU-140734-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	60	2735	74	0.32	61	69	565	0	335	0.00
2	230	60	2690	74	0.33	63	71	485	100	285	0.40
3	230	60	2550	80	0.35	56	64	335	200	195	0.80
4	230	60	2635	76	0.33	58	66	205	280	120	1.12
5	230	60	2230	53	0.27	55	63	455	0	270	0.00
6	230	60	2170	53	0.27	55	63	385	64	225	0.26
7	230	60	1990	56	0.28	50	60	260	121	150	0.49
8	230	60	2095	54	0.28	48	58	165	173	95	0.69

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow
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