R4D310-RA34-09

AC centrifugal fan - RadiCal

backward curved, single inlet

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Nominal data

Type	**R4D310-RA34-09**
Motor	**M4D068-EC**

Phase		3~	3~
Nominal voltage	VAC	230	460
Connection		Δ	Y
Frequency	Hz	60	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	1350	1450
Power input	W	165	190
Current draw	A	0.5	0.26
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	60
Starting current	A	0.9	0.65

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

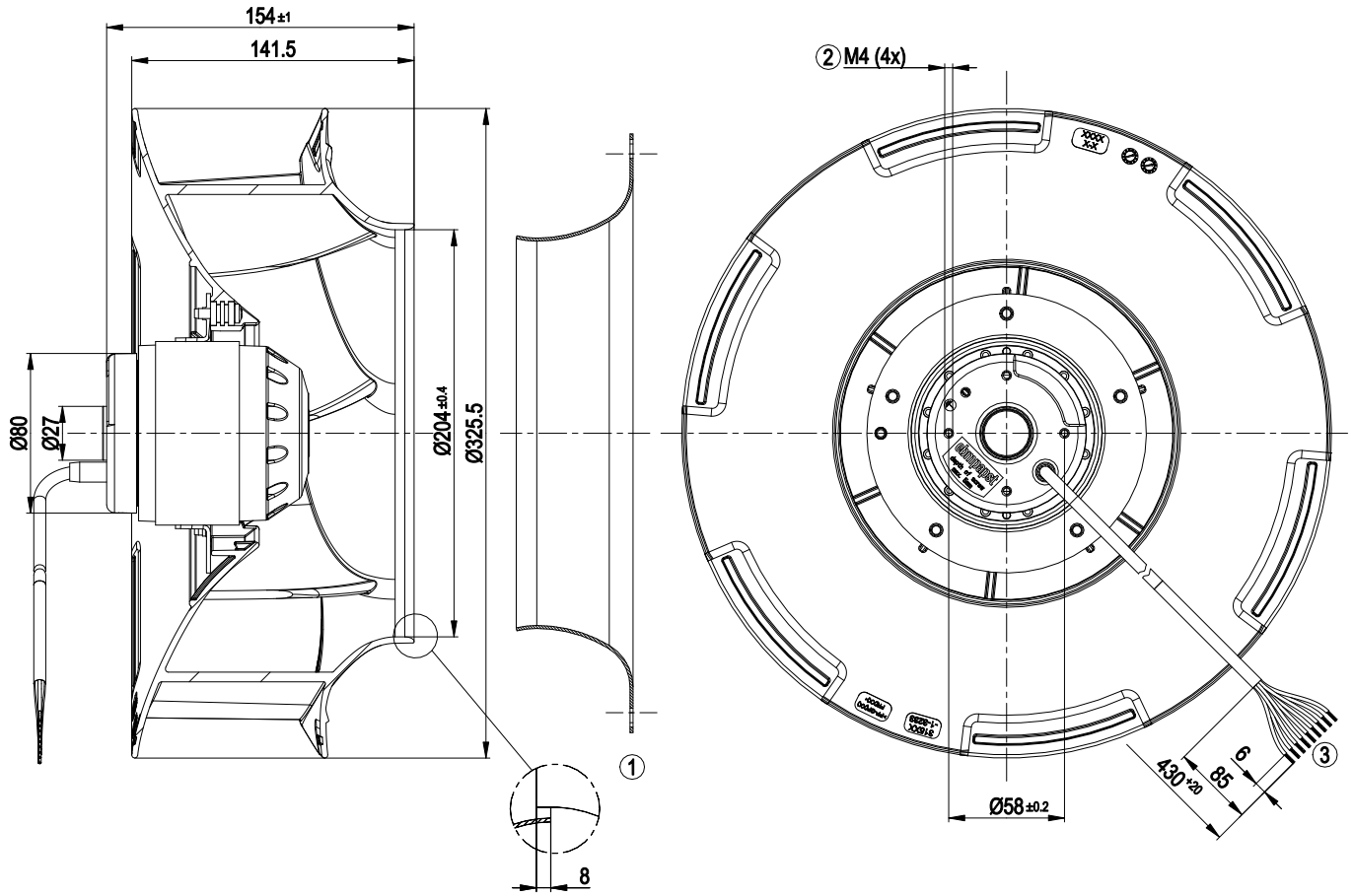
Mass	3.5 kg
Size	310 mm
Surface of rotor	Coated in black
Material of impeller	PP plastic
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity (F)/environmental protection class (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
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CSA C22.2 No.100; UL 1004-1

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Product drawing



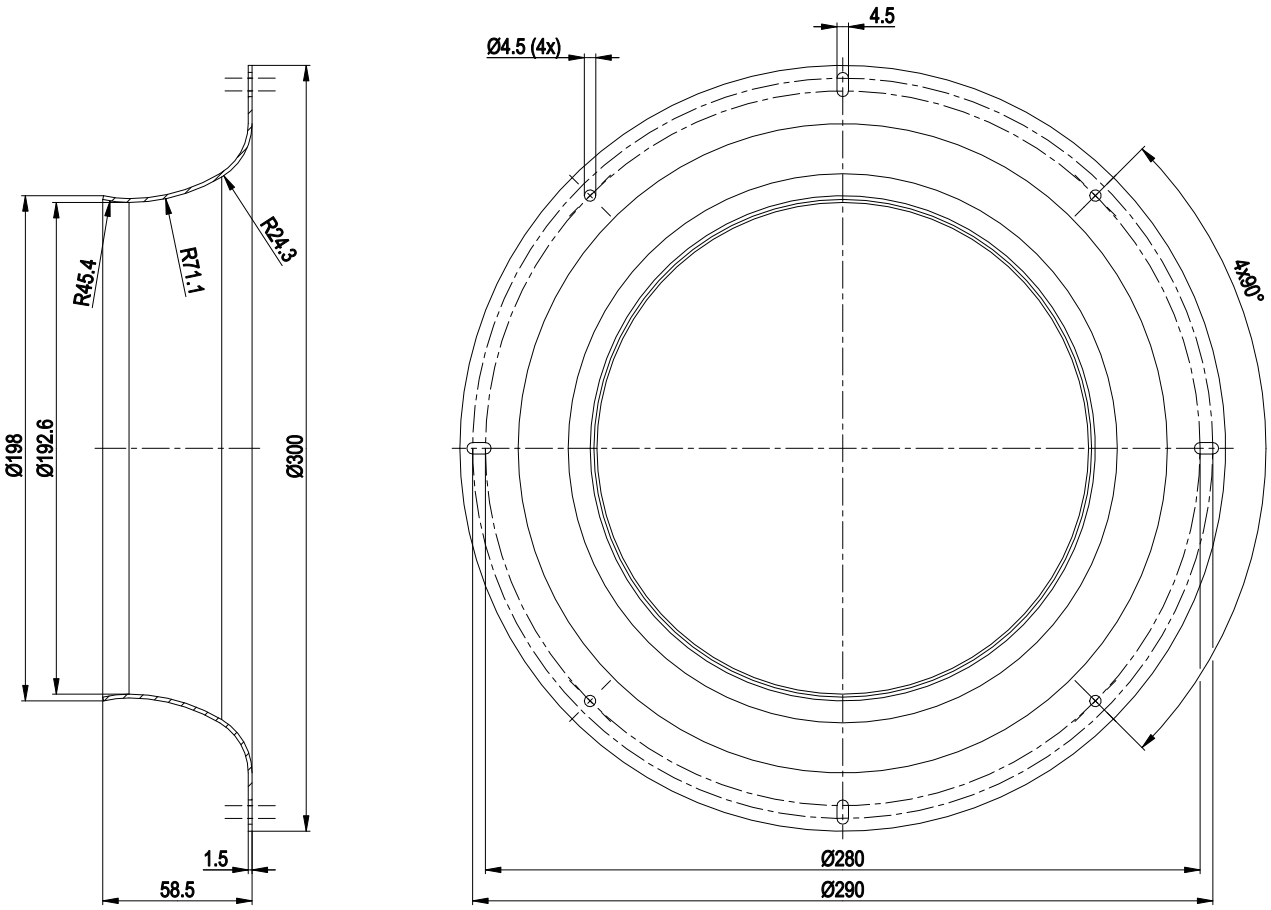
1	Accessory part: Inlet nozzle 31000-2-4013 not included in scope of delivery
2	Thread reach max. 5 mm
3	Connection line PFA AWG20 (green/yellow AWG18), 9x lead tips crimped

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Accessory part



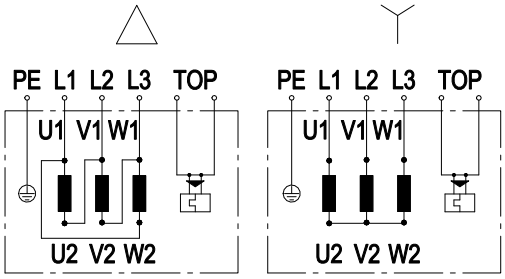
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Connection screen



Note: Change in direction of rotation by reversing two phases

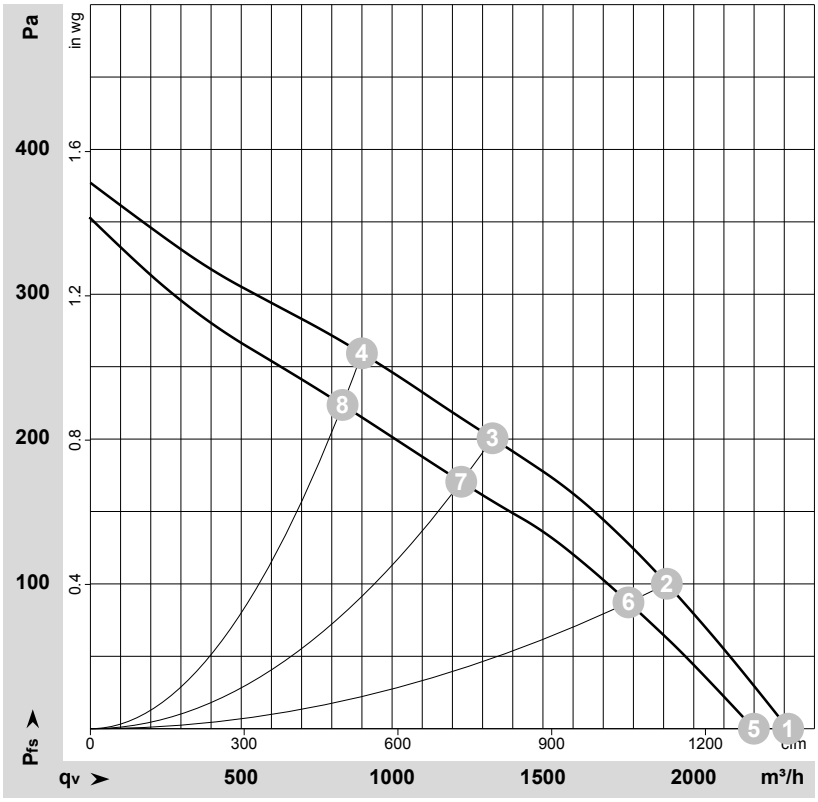
Δ	Delta connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow	TOP	2xgrey
PE	green/yellow				

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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-170531-1
Measurement: LU-170166-1

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

	Conn.	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	Y	460	60	1570	144	0.24	2315	0	1360	0.00
2	Y	460	60	1500	173	0.26	1910	100	1125	0.40
3	Y	460	60	1450	190	0.26	1335	200	785	0.80
4	Y	460	60	1480	178	0.26	900	260	530	1.04
5	Δ	230	60	1495	131	0.42	2200	0	1295	0.00
6	Δ	230	60	1400	156	0.48	1785	87	1050	0.35
7	Δ	230	60	1350	165	0.50	1230	171	725	0.69
8	Δ	230	60	1385	159	0.48	835	224	490	0.90

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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