R4D355-RM10-05

AC centrifugal fan - RadiCal

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R4D355-RM10-05**
Motor	**M4D094-EA**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400	480	480
Wiring		Δ	Y	Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60	60	60
Method of obtaining data		ml	ml	ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE	CE	CE
Speed (rpm)	min^{-1}	1380	1160	1550	1110	1620	1280
Power consumption	W	275	200	400	255	445	315
Current draw	A	0.63	0.34	0.72	0.44	0.74	0.44
Min. back pressure	Pa	0	0	0	0	0	0
Min. back pressure	in. wg	0	0	0	0	0	0
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	60	60	60	60	60	60
Starting current	A	2.02	0.68	2.05	0.66	2.4	0.78

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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	46.5	45.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		63	62
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.27
09 Air flow q_v	m^3/h	2005
09 Pressure increase p_{fs}	Pa	231
10 Speed (rpm) n	min^{-1}	1385
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_{fs} / 100 000 Pa

LU-150981

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Technical description

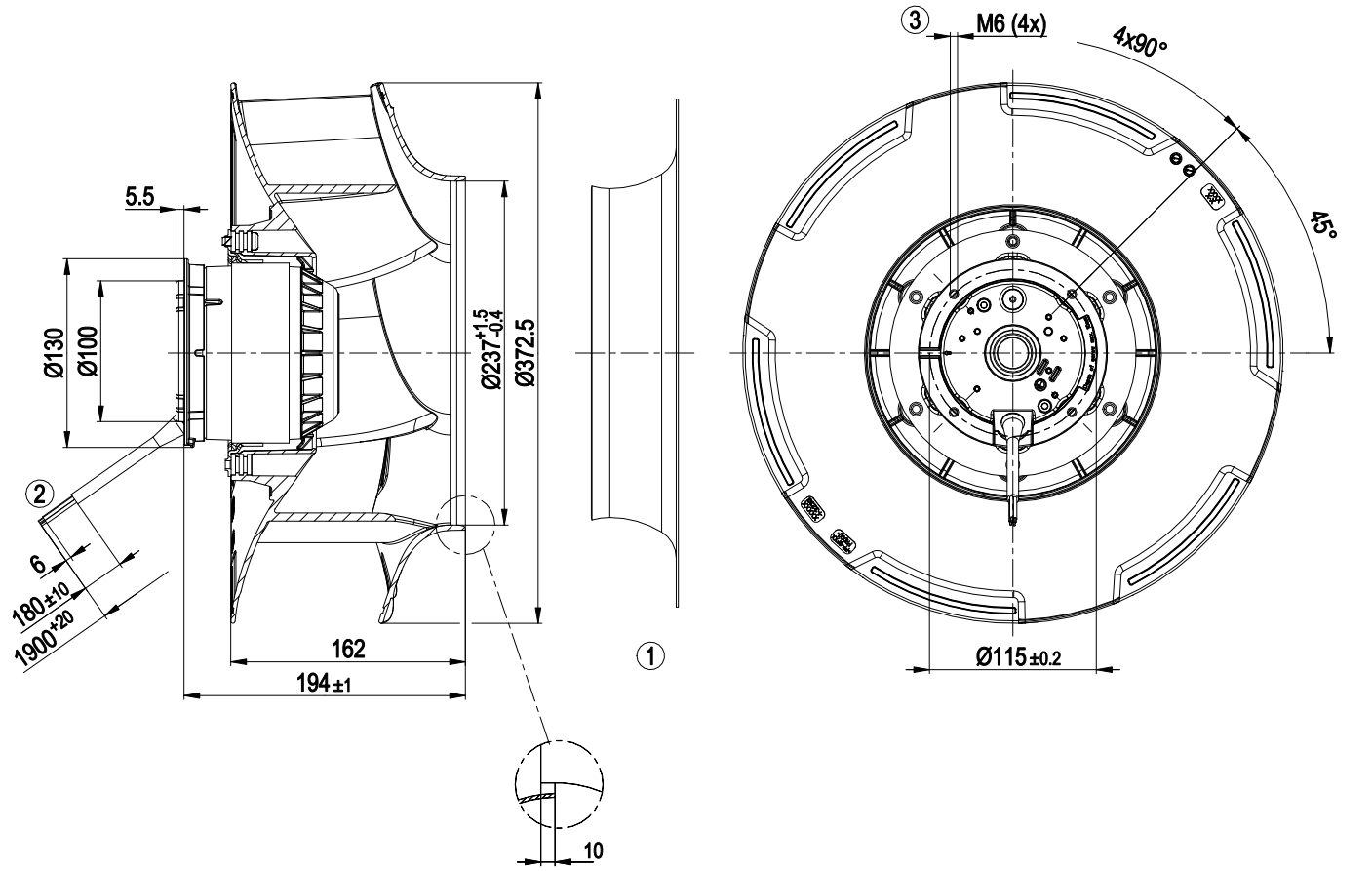
Weight	6 kg
Size	355 mm
Motor size	94
Rotor surface	Painted black
Impeller material	PP plastic
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54; installation- and position-dependent as per EN 60034-1
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); CE

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Product drawing



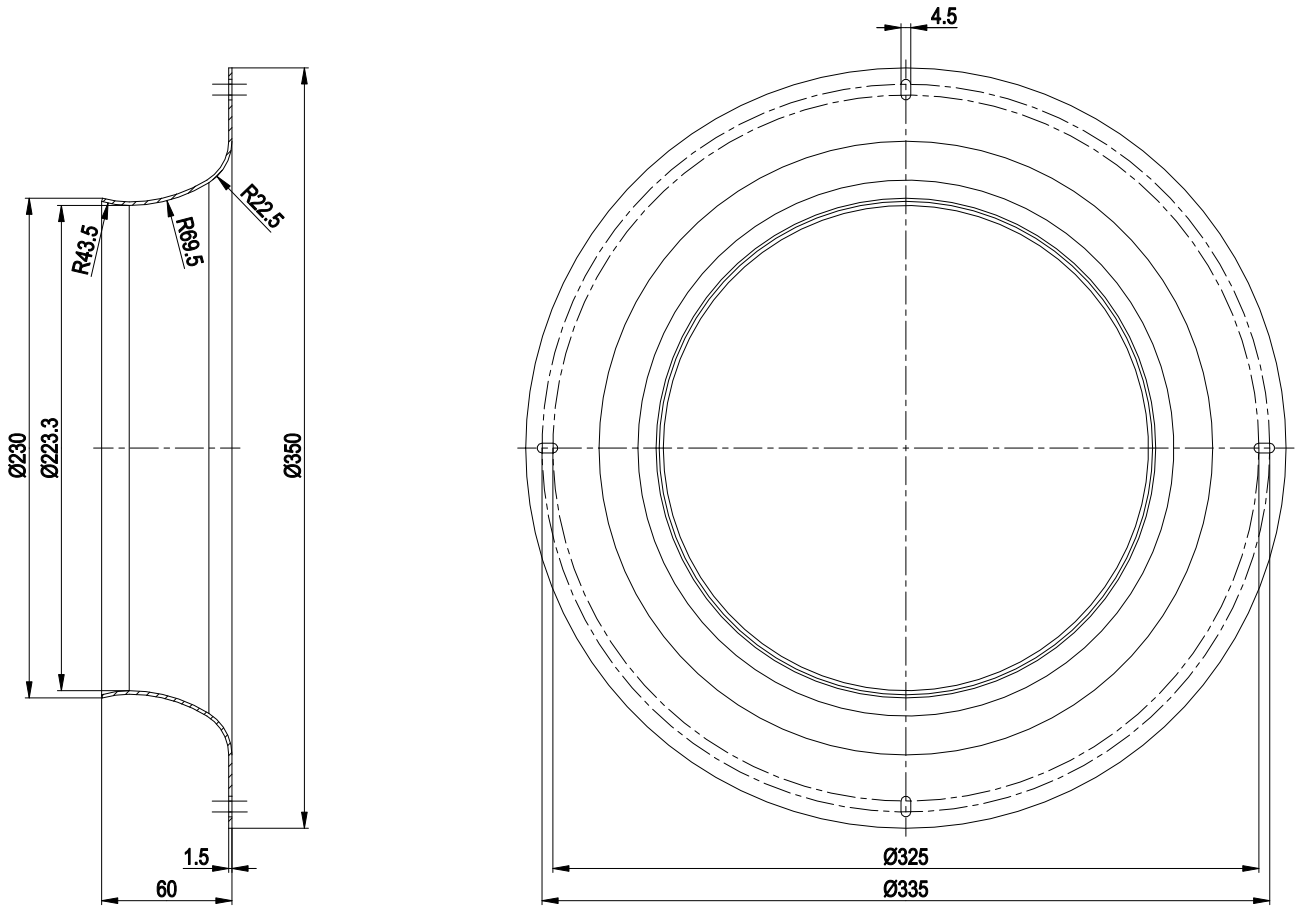
1	Accessory part: inlet ring 35500-2-4013 not included in scope of delivery
2	Cable silicone 9G 0.5 mm², 9x crimped splices
3	Max. clearance for screw 10 mm

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Accessory part



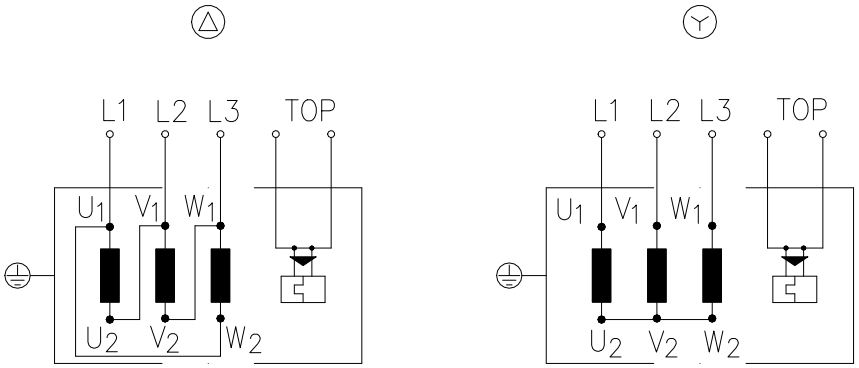
Inlet ring 35500-2-4013 not included in scope of delivery

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Connection diagram



Change of rotation direction by reversing two phases

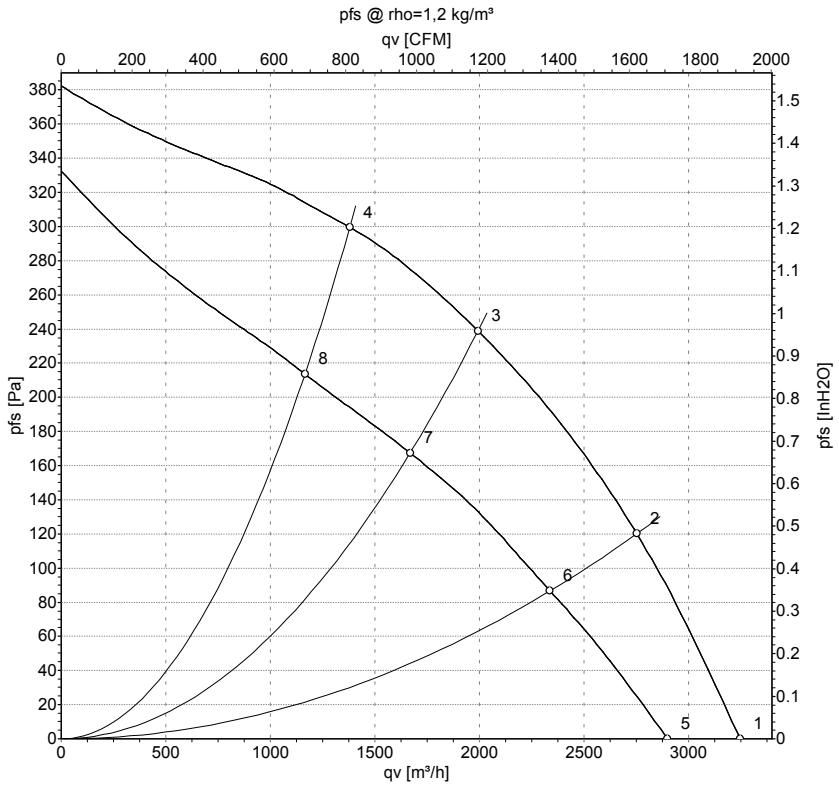
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

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Curves: Air performance 50 Hz



Measurement: LU-150981-1
Measurement: LU-150989-1

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

	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	Δ	400	50	1420	206	0.58	3250	0	1910	0.00
2	Δ	400	50	1395	258	0.61	2755	120	1620	0.48
3	Δ	400	50	1380	275	0.63	1995	240	1175	0.96
4	Δ	400	50	1390	262	0.61	1380	300	810	1.20
5	Y	400	50	1270	155	0.27	2900	0	1705	0.00
6	Y	400	50	1190	189	0.32	2340	87	1375	0.35
7	Y	400	50	1160	200	0.34	1670	167	980	0.67
8	Y	400	50	1180	192	0.32	1165	214	685	0.86

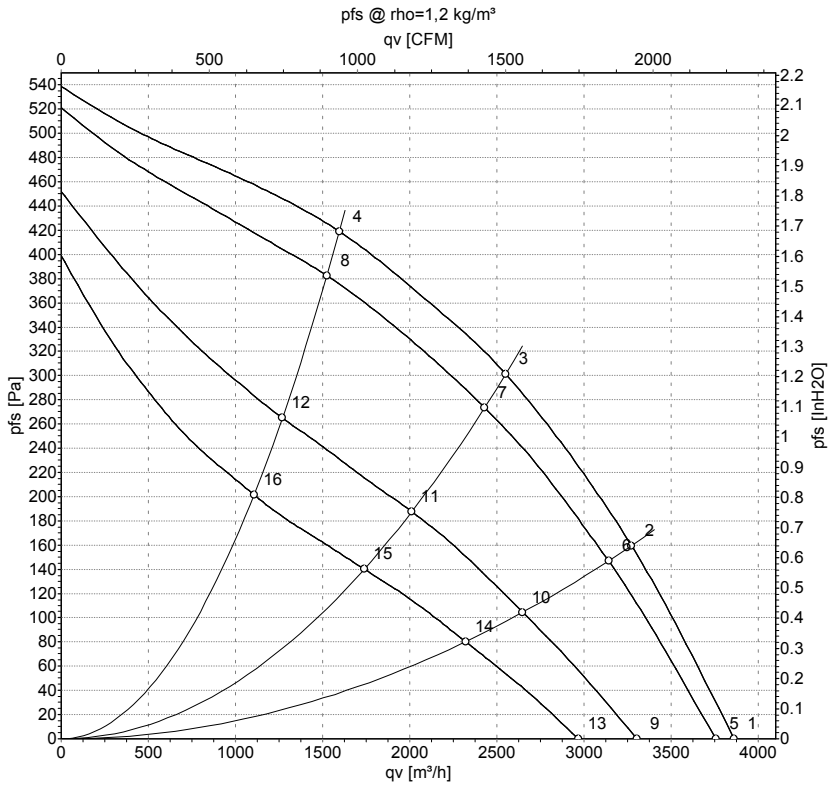
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



Measurement: LU-150985-1
Measurement: LU-150983-1
Measurement: LU-150993-1
Measurement: LU-150991-1

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

	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	Δ	480	60	1680	320	0.63	3860	0	2270	0.00
2	Δ	480	60	1640	404	0.70	3270	160	1925	0.64
3	Δ	480	60	1620	445	0.74	2550	300	1500	1.20
4	Δ	480	60	1640	414	0.71	1595	420	940	1.69
5	Δ	400	60	1630	295	0.57	3755	0	2210	0.00
6	Δ	400	60	1575	368	0.67	3140	147	1850	0.59
7	Δ	400	60	1550	400	0.72	2430	274	1430	1.10
8	Δ	400	60	1565	378	0.68	1525	383	900	1.54
9	Y	480	60	1440	247	0.34	3305	0	1945	0.00
10	Y	480	60	1330	295	0.41	2645	104	1560	0.42
11	Y	480	60	1280	315	0.44	2010	188	1185	0.75
12	Y	480	60	1305	301	0.41	1270	265	745	1.06
13	Y	400	60	1300	215	0.36	2965	0	1745	0.00
14	Y	400	60	1165	247	0.41	2320	80	1365	0.32
15	Y	400	60	1110	255	0.44	1740	140	1025	0.56
16	Y	400	60	1140	249	0.42	1105	202	650	0.81

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

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