AC centrifugal fan - RadiCal

backward-curved, single-intake

Nominal data

Type	**R4D560-RB17-08**
Motor	**M4D138-LA**

Phase		3~
Nominal voltage	VAC	380
Wiring		Δ
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		-
Speed (rpm)	min^{-1}	1400
Power consumption	W	1970
Current draw	A	4.6
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	60
Starting current	A	22.6

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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	54.8	54.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		62.1	62
05 Variable speed drive		No	

09 Power consumption P_e	kW	2.02
09 Air flow q_v	m^3/h	7595
09 Pressure increase p_{fs}	Pa	525
10 Speed (rpm) n	min^{-1}	1415
11 Specific ratio*		1.01

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-157818

R4D560-RB17-08 ebmpapst Datasheet FansCo sales@fansco.com www.fansco.com

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Technical description

Weight	26 kg
Size	560 mm
Motor size	138
Rotor surface	Cast in aluminum
Impeller material	PP plastic
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
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	On rotor and stator sides
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); CE
Approval	VDE; EAC

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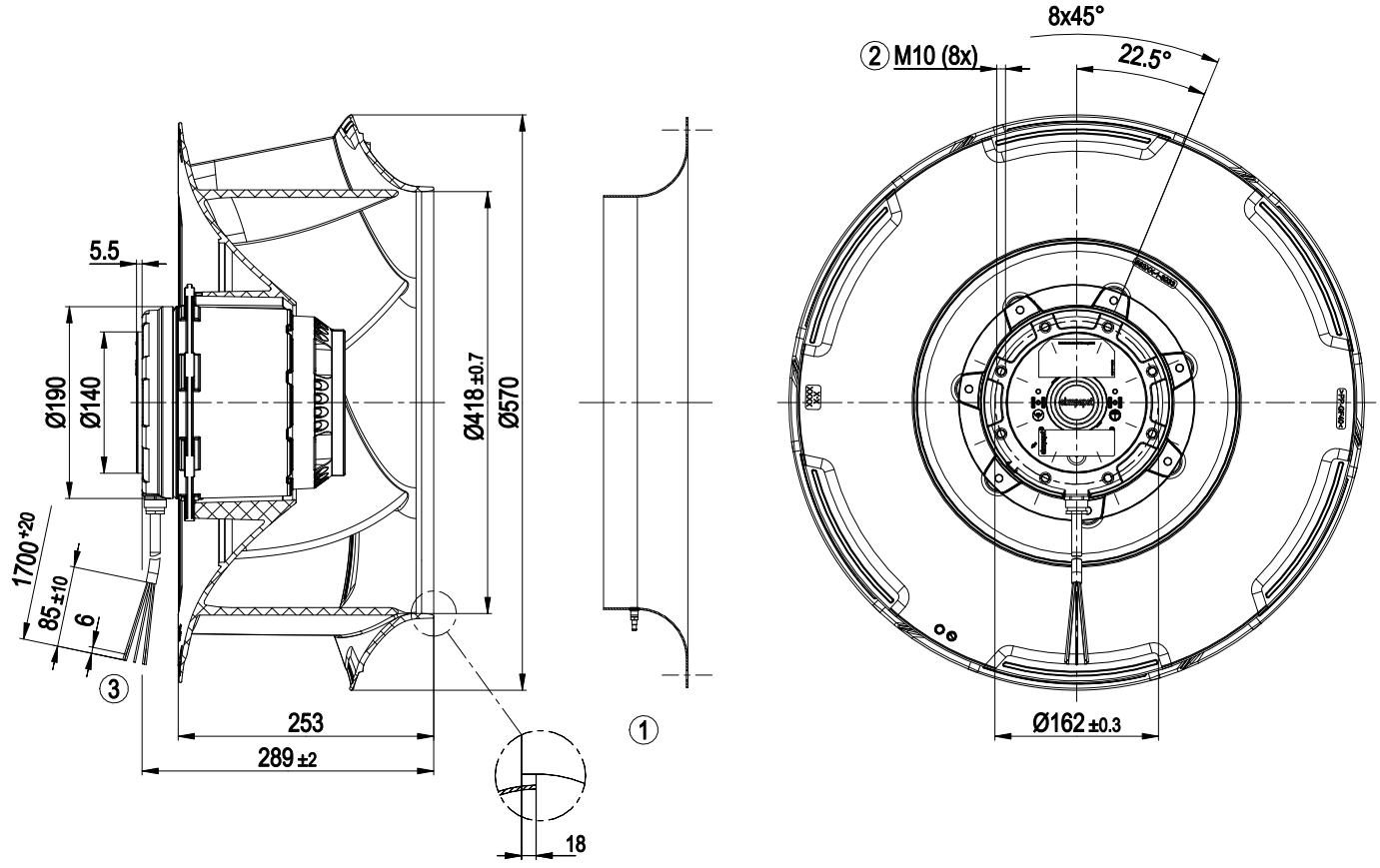
Product drawing



1	Accessory part: Inlet ring 54495-2-4013 with pressure tap (k-factor: 405) not included in scope of delivery
2	Max. clearance for screw 18 mm
3	Cable halogen-silicone-free 9G 0.75 mm²
	9x splice

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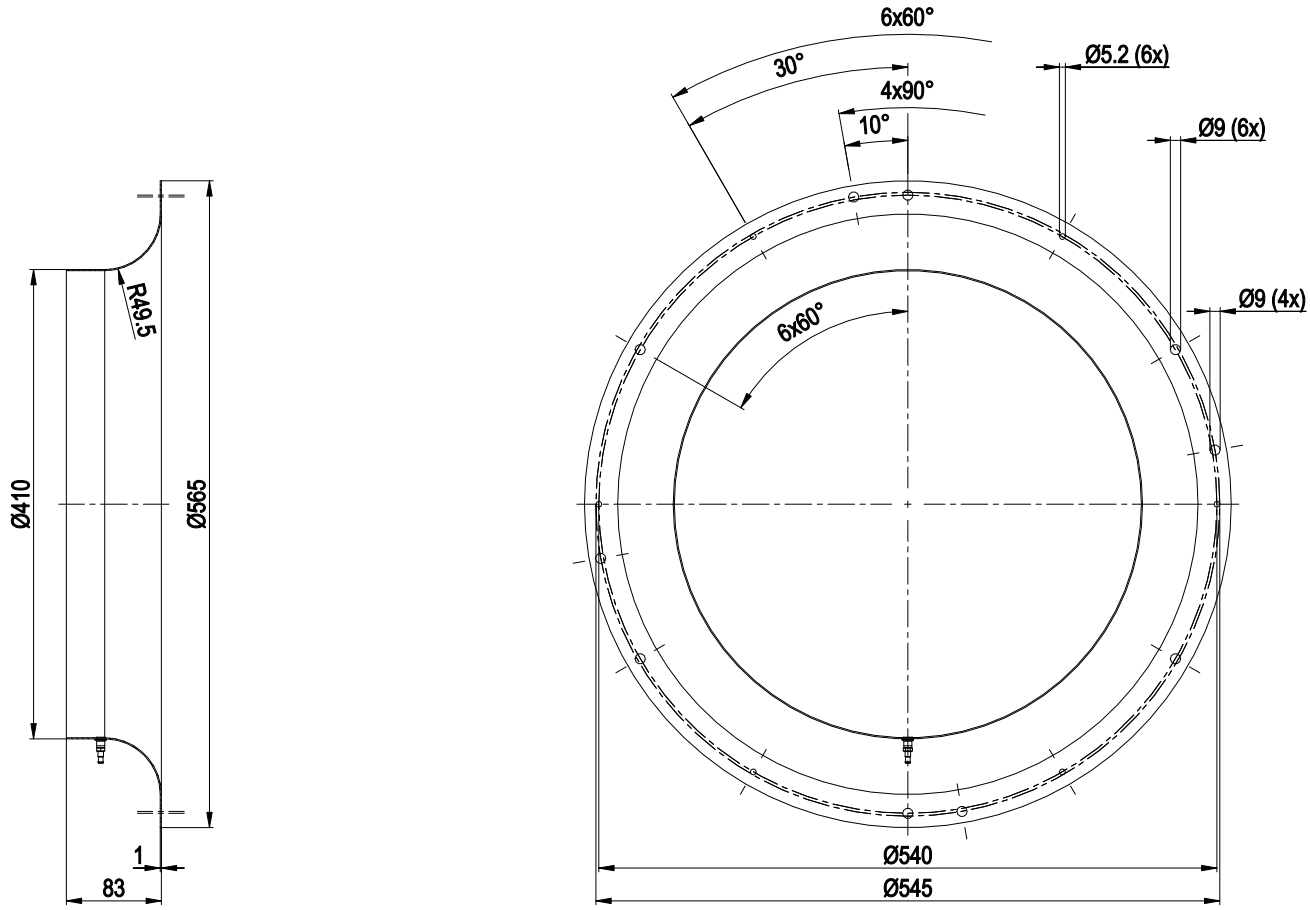
Accessory part



Inlet ring 54495-2-4013 with pressure tap (k-factor: 405)

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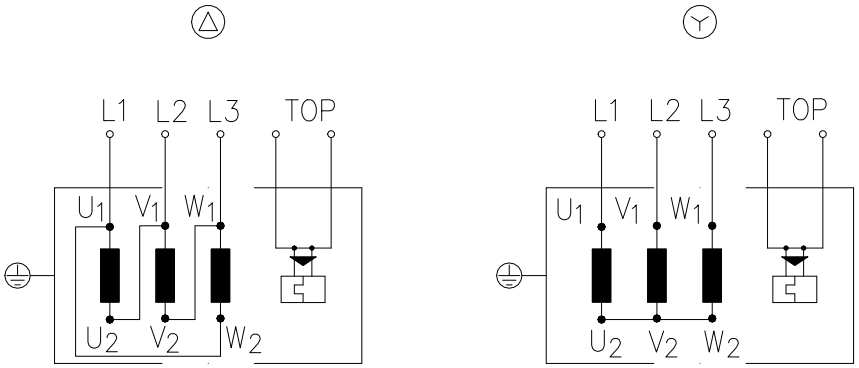
Connection diagram



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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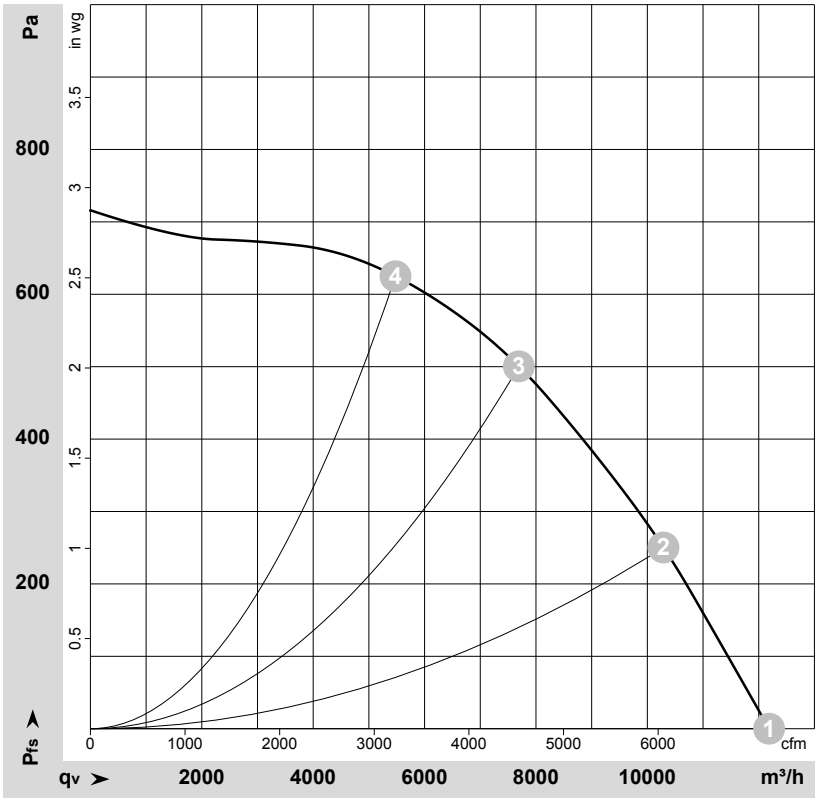
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-157999-1

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	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Δ	380	50	1430	1515	4.28	77	84	87	12185	0	7170	0.00
2	Δ	380	50	1410	1827	4.59	73	80	84	10290	250	6055	1.00
3	Δ	380	50	1400	1970	4.60	71	78	82	7695	500	4530	2.01
4	Δ	380	50	1405	1901	4.60	72	79	83	5480	625	3225	2.51

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase