EC centrifugal fan - RadiCal

backward-curved, single-intake

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G355-RP54-74**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	1790
Power consumption	W	480
Current draw	A	3.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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}	%	61.9	48.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		75.7	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.48
09 Air flow q_v	m^3/h	2410
09 Pressure increase p_{fs}	Pa	406
10 Speed (rpm) n	min^{-1}	1800
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-194689

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Technical description

Size	355 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limitation - PFC, passive - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 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 61800-5-1; CE
Approval	EAC; UL 1004-3

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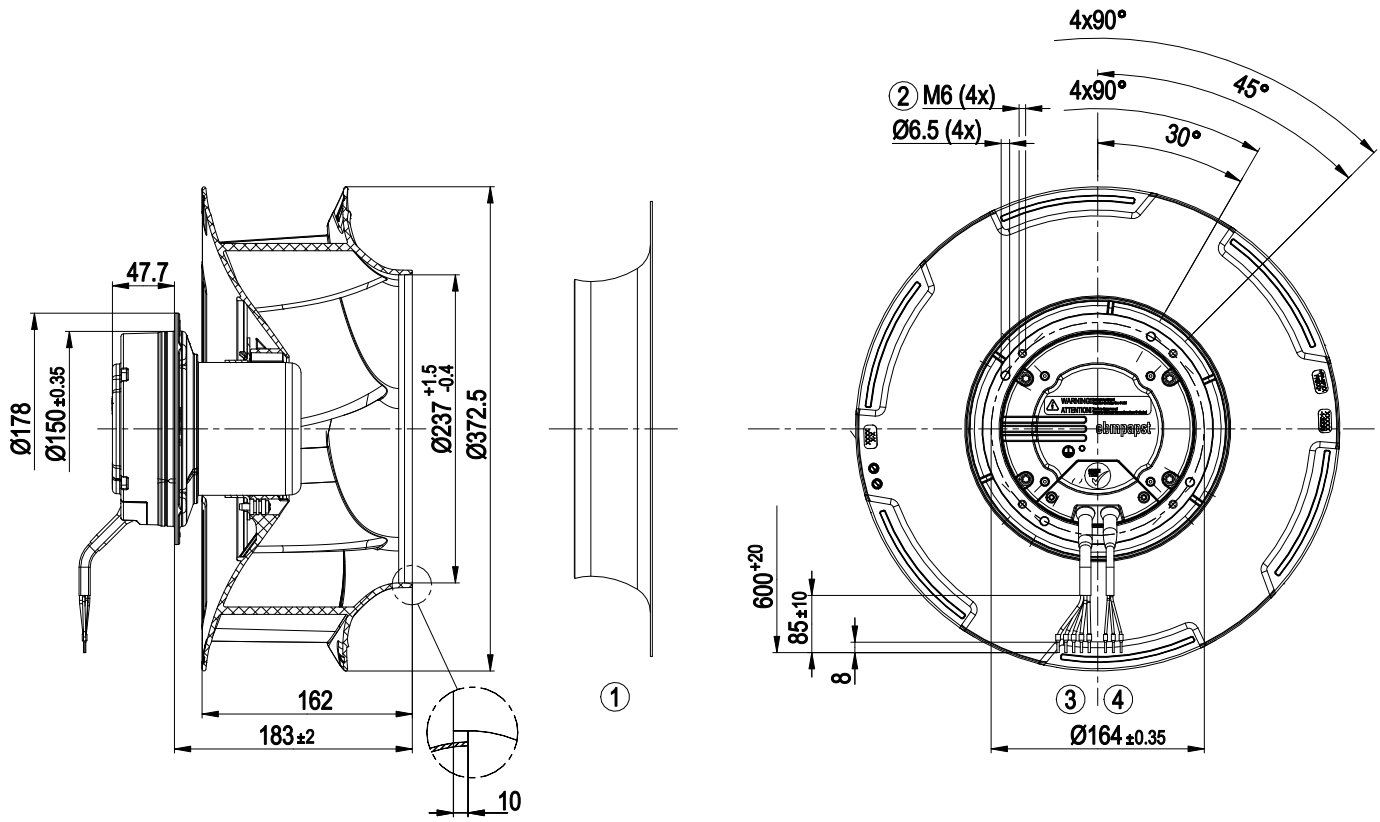
Product drawing



1	Accessory part: inlet ring 35500-2-4013 not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Cable PVC AWG18
	5x wire-end ferrule
4	Cable PVC AWG22
	3x wire-end ferrule

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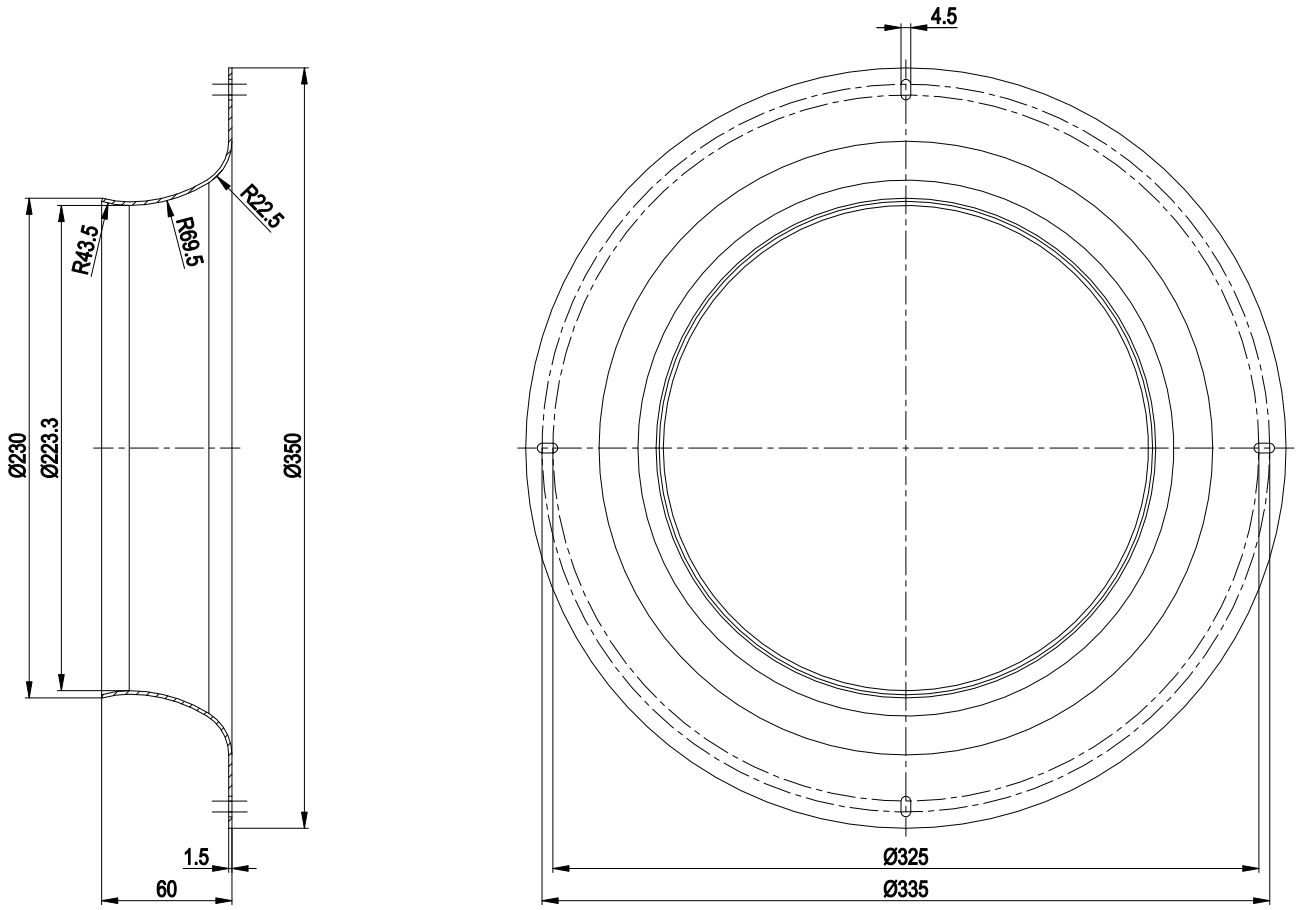
Accessory part



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

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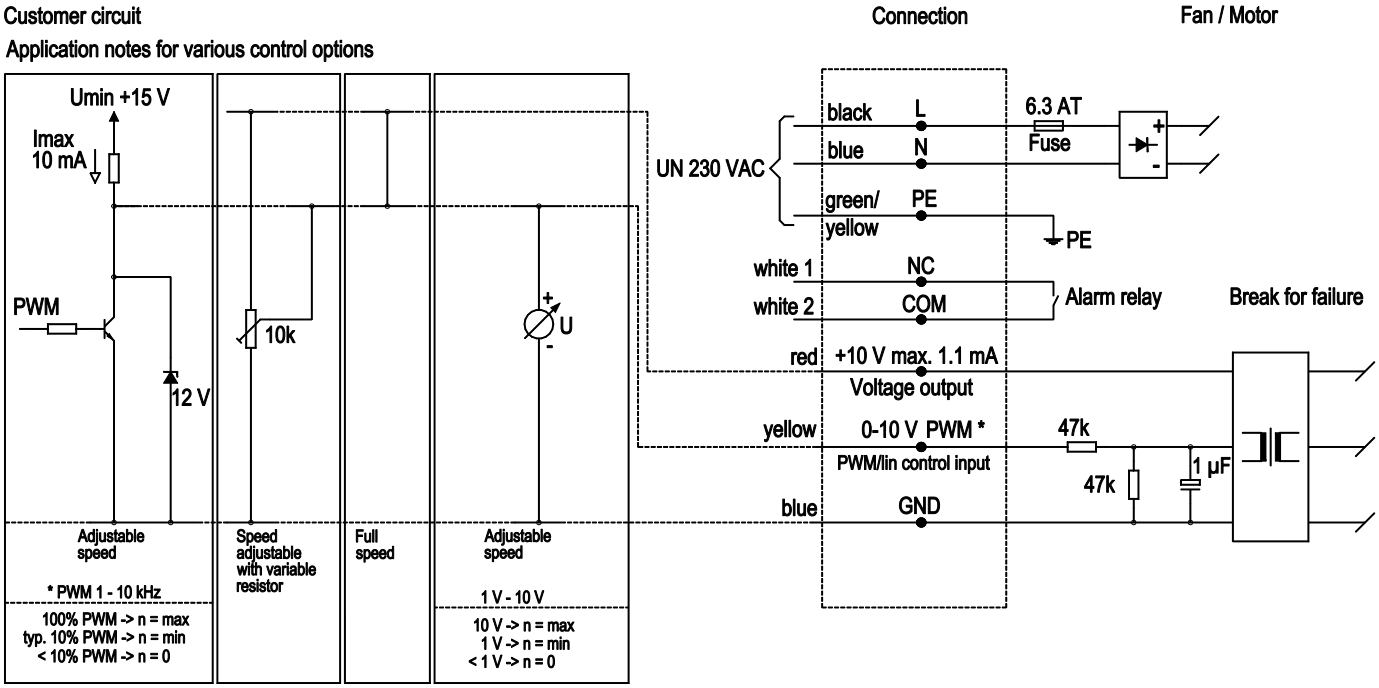
Connection diagram



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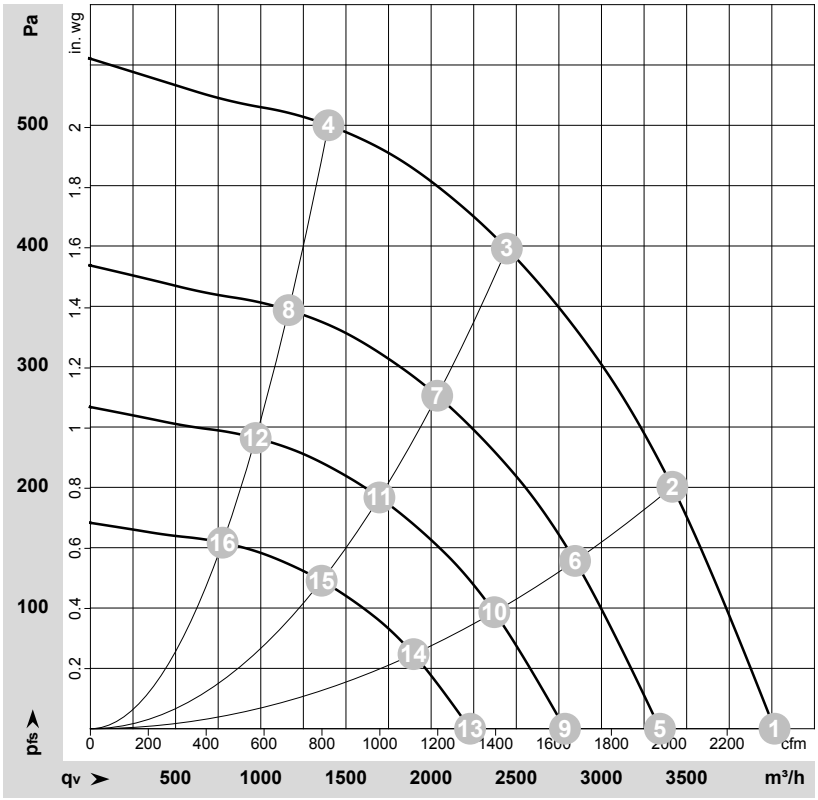
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-194689-1

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_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1~	230	50	1790	333	2.17	4015	0	2365	0.00
2	1~	230	50	1790	449	2.91	3415	200	2010	0.80
3	1~	230	50	1790	480	3.10	2445	400	1440	1.61
4	1~	230	50	1790	417	2.70	1395	500	820	2.01
5	1~	230	50	1500	192	1.25	3345	0	1970	0.00
6	1~	230	50	1500	260	1.68	2845	139	1675	0.56
7	1~	230	50	1500	280	1.81	2035	277	1200	1.11
8	1~	230	50	1500	241	1.56	1165	347	685	1.39
9	1~	230	50	1250	111	0.72	2785	0	1640	0.00
10	1~	230	50	1250	150	0.97	2370	97	1395	0.39
11	1~	230	50	1250	162	1.05	1695	192	1000	0.77
12	1~	230	50	1250	139	0.90	970	241	570	0.97
13	1~	230	50	1000	57	0.37	2230	0	1310	0.00
14	1~	230	50	1000	77	0.50	1895	62	1115	0.25
15	1~	230	50	1000	83	0.54	1355	123	800	0.49
16	1~	230	50	1000	71	0.46	775	154	455	0.62

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