EC centrifugal fan

backward-curved, single-intake

R3G355-AM36-81 ebmpapst Datasheet
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Nominal data

Type	**R3G355-AM36-81**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1650
Power consumption	W	355
Current draw	A	4.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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}	%	60.5	46.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		75.8	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.34
09 Air flow q_v	m^3/h	1805
09 Pressure increase p_{fs}	Pa	374
10 Speed (rpm) n	min^{-1}	1660
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-71711

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

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Technical description

Weight	5.7 kg
Size	355 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
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 top; rotor on bottom on request
Condensation drainage holes	None
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	CE
Approval	EAC; CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-3 + 60730-1

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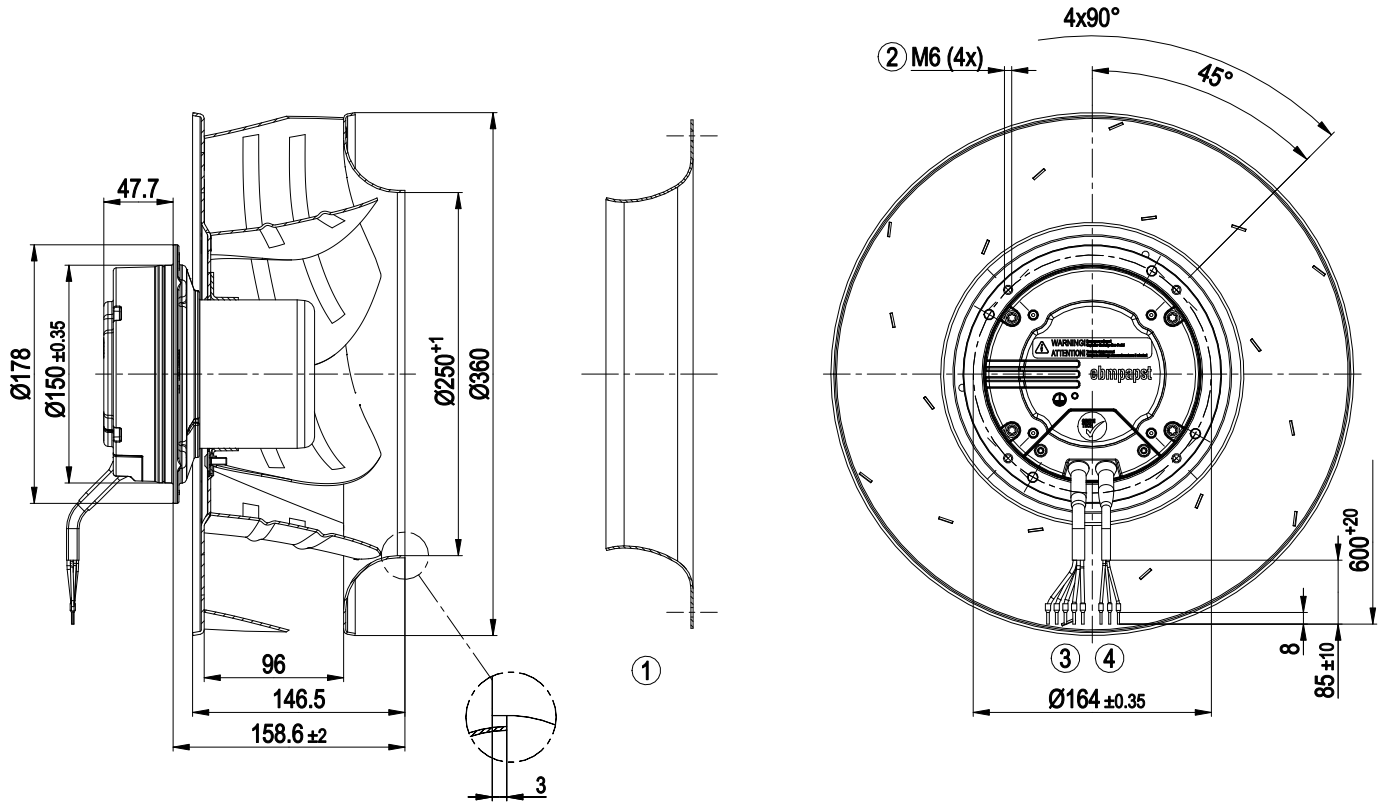
Product drawing



1	Accessory part: inlet ring 35560-2-4013 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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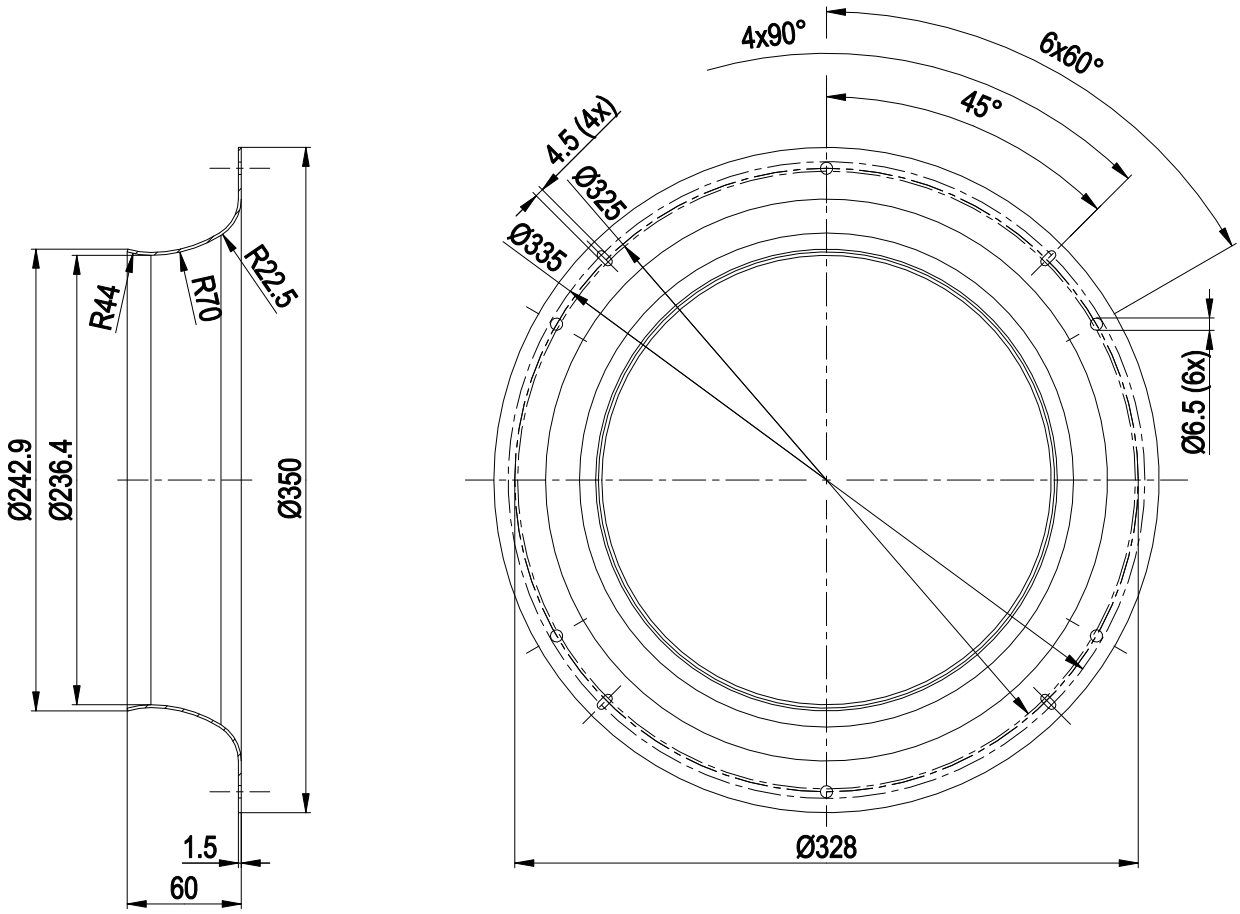
Accessory part



Inlet ring 35560-2-4013

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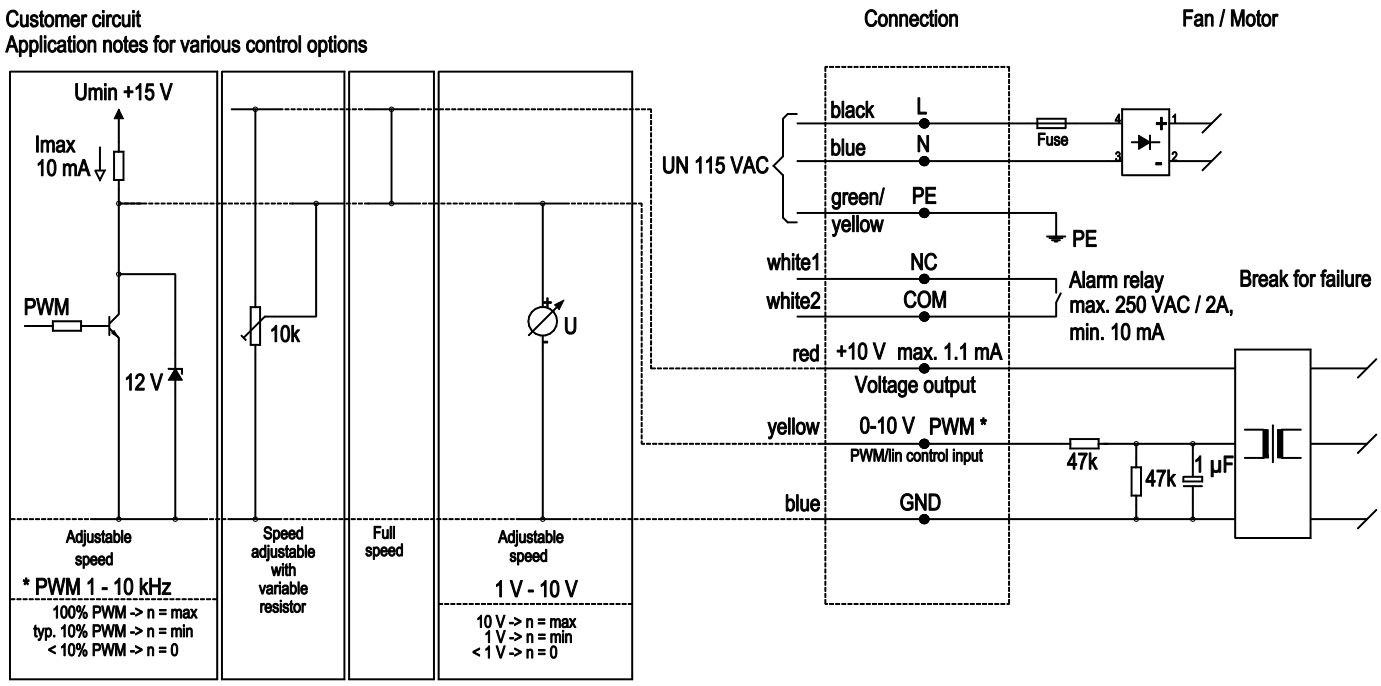
Connection diagram



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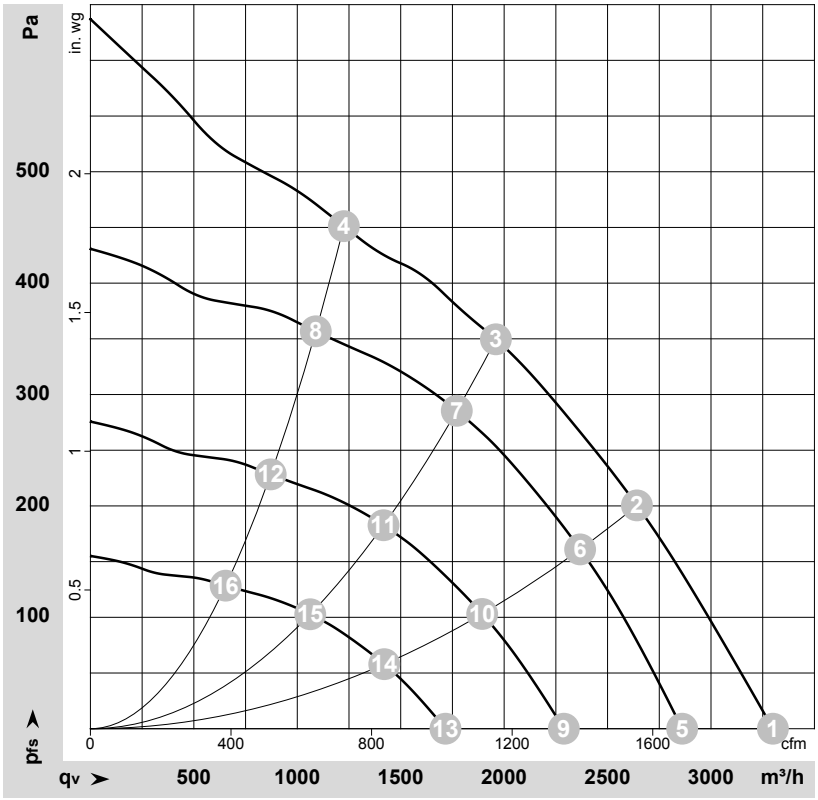
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-71711-1

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~	115	50	1730	278	3.24	3300	0	1940	0.00
2	1~	115	50	1675	338	3.89	2640	200	1555	0.80
3	1~	115	50	1650	355	4.10	1960	350	1155	1.41
4	1~	115	50	1685	326	3.75	1225	450	720	1.81
5	1~	115	50	1500	181	2.11	2860	0	1685	0.00
6	1~	115	50	1500	244	2.80	2365	163	1395	0.65
7	1~	115	50	1500	262	2.99	1770	286	1040	1.15
8	1~	115	50	1500	229	2.63	1090	357	640	1.43
9	1~	115	50	1200	93	1.08	2290	0	1345	0.00
10	1~	115	50	1200	125	1.43	1895	105	1115	0.42
11	1~	115	50	1200	134	1.53	1415	183	835	0.73
12	1~	115	50	1200	117	1.35	870	228	515	0.92
13	1~	115	50	900	39	0.46	1715	0	1010	0.00
14	1~	115	50	900	53	0.61	1420	59	835	0.24
15	1~	115	50	900	57	0.64	1065	103	625	0.41
16	1~	115	50	900	50	0.57	655	128	385	0.51

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