R3G355-AN04-71

EC centrifugal fan

backward-curved, single-intake



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Nominal data

Type	**R3G355-AN04-71**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1710
Power consumption	W	450
Current draw	A	2.9
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}	%	60.8	47.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		75	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.44
09 Air flow q_v	m^3/h	2185
09 Pressure increase p_{fs}	Pa	400
10 Speed (rpm) n	min^{-1}	1715
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

LU-66839

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

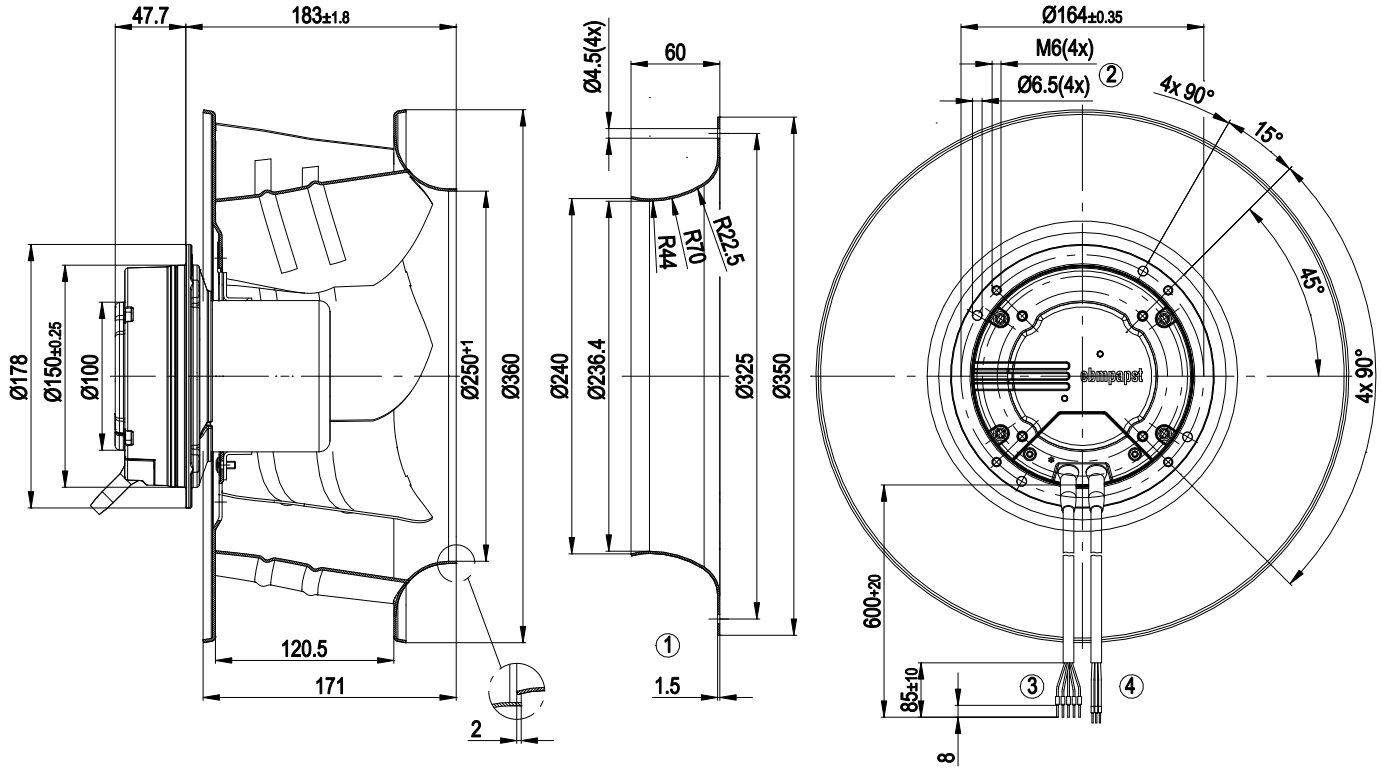
Weight	5.7 kg
Size	355 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection 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
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
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
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 assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 61800-5-1; CE; UKCA
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; CCC; EAC; UL 1004-3 + 60730-1

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Product drawing



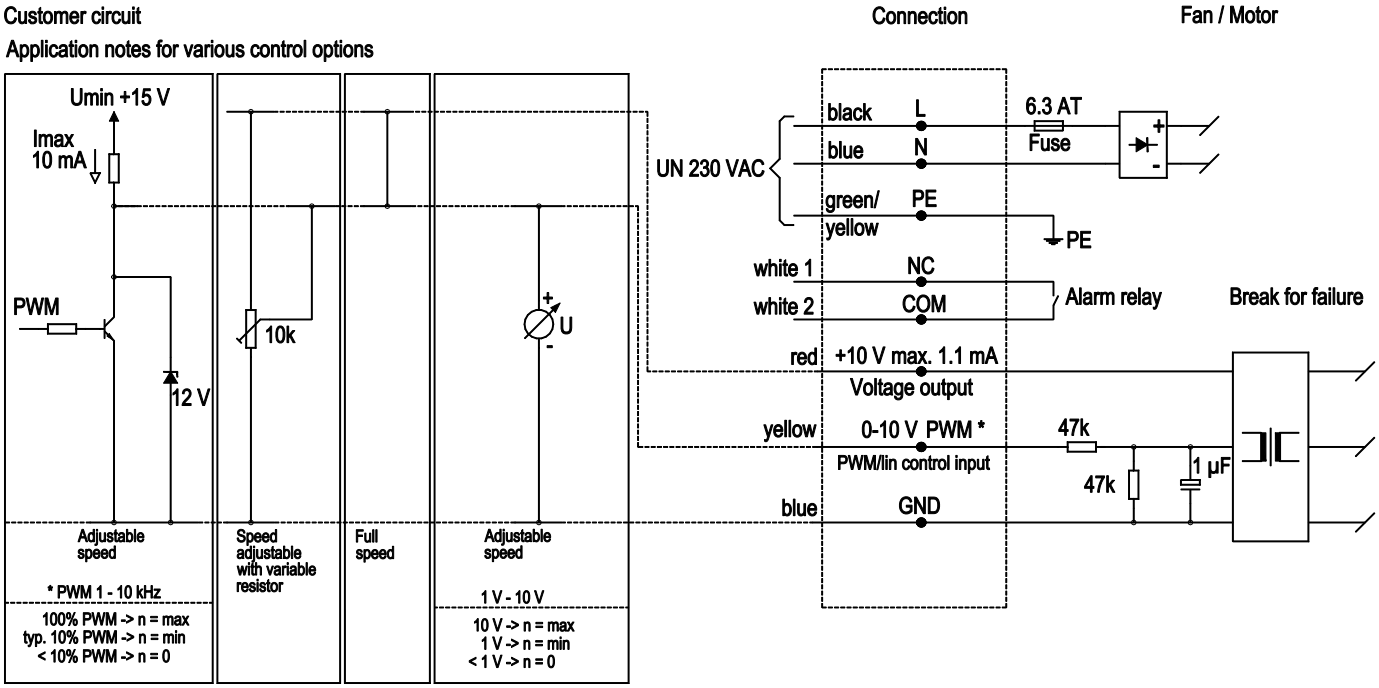
1	Accessory part: Inlet ring 35560-2-4013 not included in scope of delivery, other inlet rings on request
2	Clearance for screw 8 - 10 mm
3	Cable AWG18, 5x crimped ferrules
4	Cable AWG22, 3x crimped ferrules

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Connection diagram

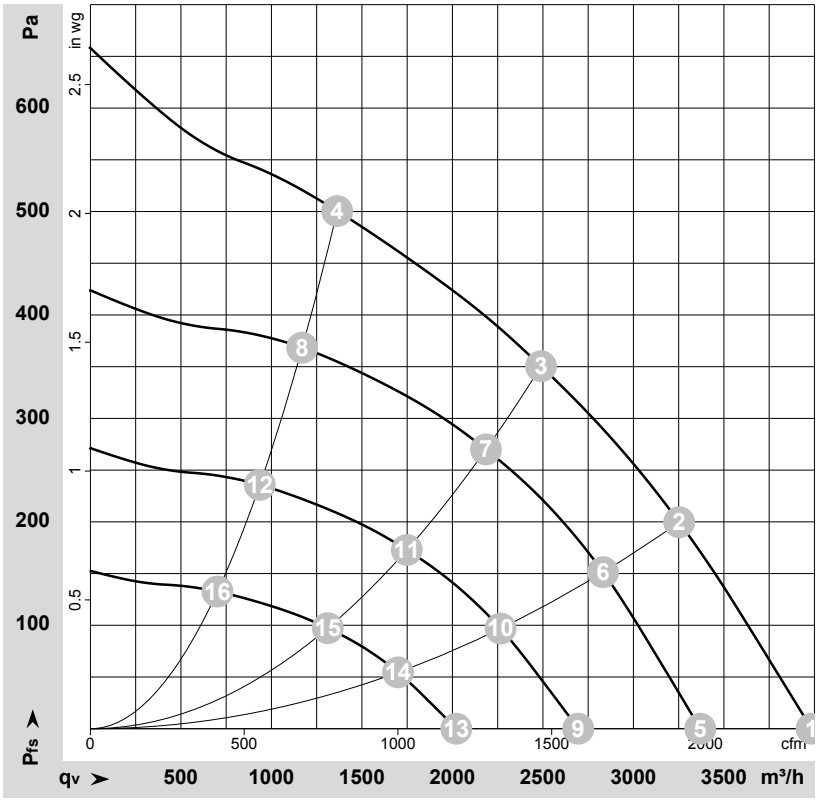


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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-66839-1

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

	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	230	50	1775	362	2.31	3985	0	2345	0.00
2	230	50	1720	431	2.74	3255	200	1915	0.80
3	230	50	1710	450	2.90	2490	350	1465	1.41
4	230	50	1745	409	2.59	1365	500	805	2.01
5	230	50	1500	219	1.40	3370	0	1985	0.00
6	230	50	1500	285	1.81	2830	152	1665	0.61
7	230	50	1500	306	1.95	2185	271	1285	1.09
8	230	50	1500	259	1.64	1170	370	690	1.49
9	230	50	1200	112	0.72	2695	0	1585	0.00
10	230	50	1200	146	0.93	2265	97	1335	0.39
11	230	50	1200	156	1.00	1750	173	1030	0.69
12	230	50	1200	132	0.84	935	237	550	0.95
13	230	50	900	47	0.30	2020	0	1190	0.00
14	230	50	900	62	0.39	1700	55	1000	0.22
15	230	50	900	66	0.42	1310	97	770	0.39
16	230	50	900	56	0.35	700	133	415	0.53

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

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