

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 <sup>-1</sup>	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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency $\eta_{es}$	%	60.8	47.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		75	62
05 Variable speed drive		Yes	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

\* Specific ratio =  $1 + p_{fs} / 100\,000\text{ Pa}$

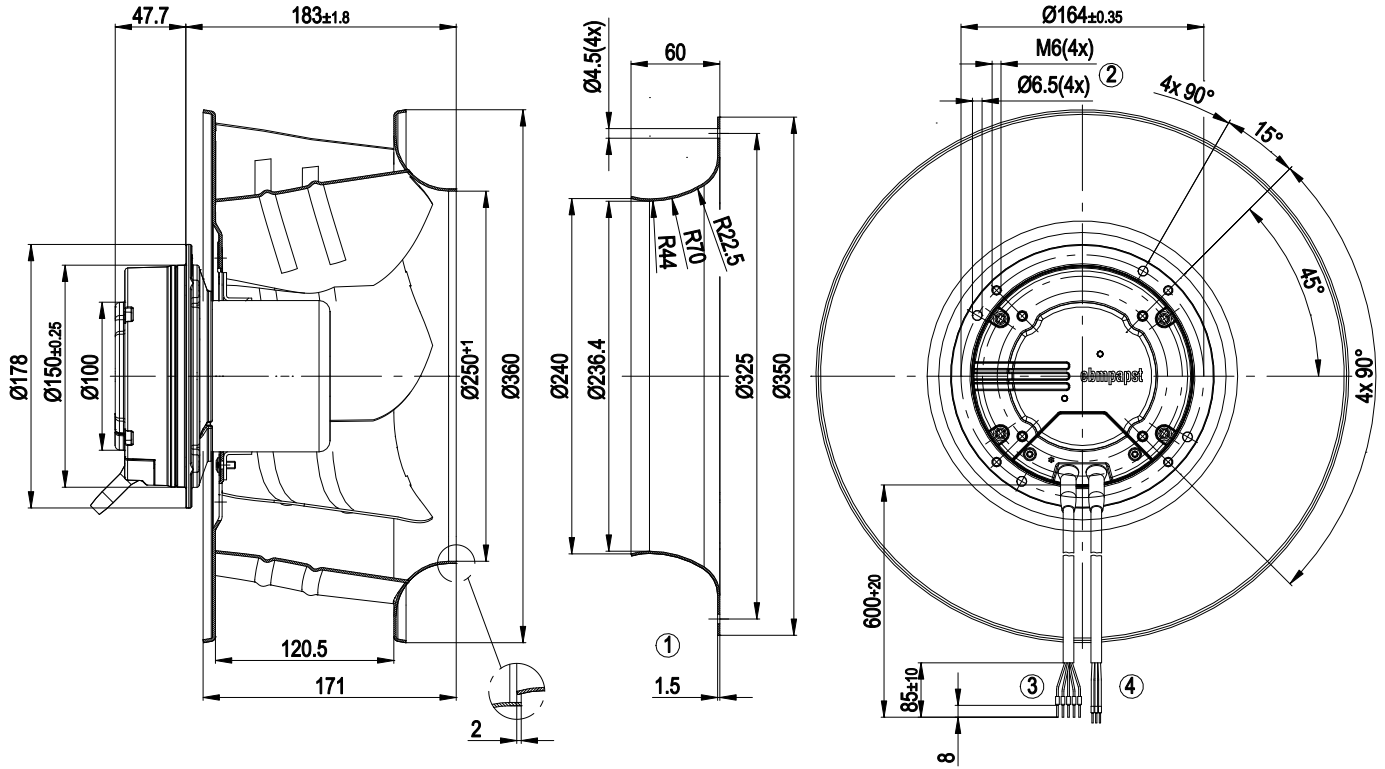
LU-66839



## Technical description

<b>Weight</b>	5.84 kg
<b>Fan size</b>	355 mm
<b>Rotor surface</b>	Painted black
<b>Electronics housing material</b>	Die-cast aluminum
<b>Impeller material</b>	Sheet aluminum
<b>Number of blades</b>	6
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP54
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	F3-1
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	-40 °C
<b>Installation position</b>	Shaft horizontal or rotor on top; rotor on bottom on request
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Alarm relay</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Thermal overload protection for electronics/motor</li> <li>- Line undervoltage detection</li> </ul>
<b>EMC immunity to interference</b>	According to EN 61000-6-2 (industrial environment)
<b>EMC circuit feedback</b>	According to EN 61000-3-2/3
<b>EMC interference emission</b>	According to EN 61000-6-3 (household environment)
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	<= 3.5 mA
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60950-1; CE
<b>Approval</b>	CCC; CSA C22.2 No. 77; UL 2111; EAC

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

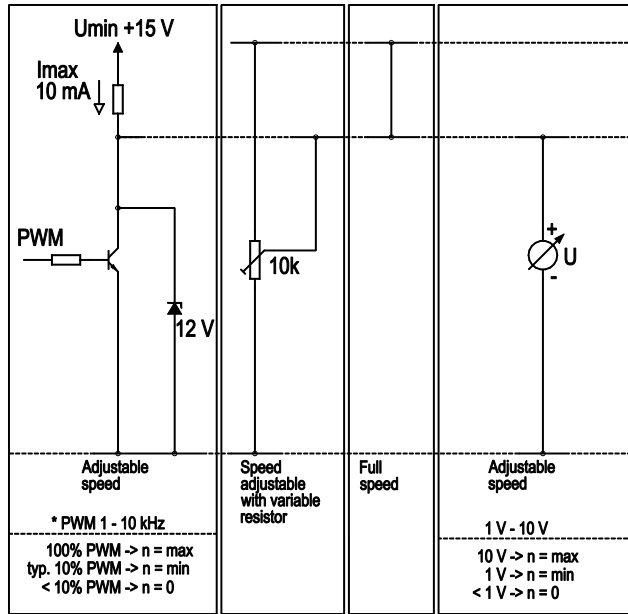
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## Connection diagram

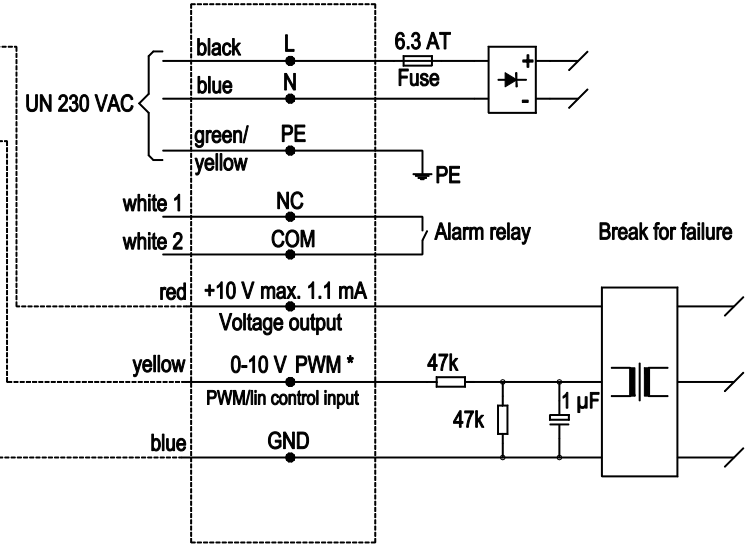
Customer circuit

Application notes for various control options

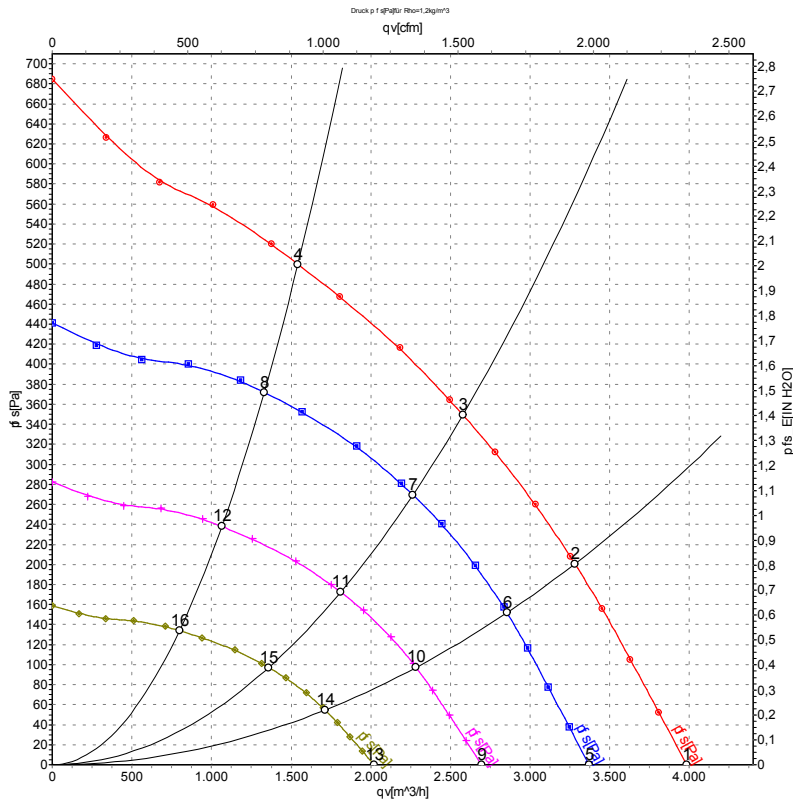


Connection

Fan / Motor



## Curves: Air performance 50 Hz



Measurement: LU-66839-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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 <sub>ed</sub>	I	qv	p <sub>fs</sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	CFM	inH2O
1	230	50	1775	362	2.31	3985	0	2345	0.00
2	230	50	1725	429	2.73	3280	200	1930	0.80
3	230	50	1710	450	2.90	2580	350	1515	1.41
4	230	50	1740	418	2.65	1545	500	910	2.01
5	230	50	1500	219	1.40	3370	0	1985	0.00
6	230	50	1500	283	1.80	2855	152	1680	0.61
7	230	50	1500	306	1.95	2265	270	1335	1.08
8	230	50	1500	268	1.70	1330	372	785	1.49
9	230	50	1200	112	0.72	2695	0	1585	0.00
10	230	50	1200	145	0.92	2285	98	1345	0.39
11	230	50	1200	157	1.00	1810	172	1065	0.69
12	230	50	1200	137	0.87	1065	238	625	0.96
13	230	50	900	47	0.30	2020	0	1190	0.00
14	230	50	900	61	0.39	1715	55	1010	0.22
15	230	50	900	66	0.42	1360	97	800	0.39
16	230	50	900	58	0.37	800	134	470	0.54

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

