R3G355-AN04-71

EC centrifugal fan

backward curved, single inlet



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ErP2015 EXCEEDS THE NORM

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
Type of data definition		ml
Speed	min^{-1}	1710
Power input	W	450
Current draw	A	2.9
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	60.8	43.8	47.8
Efficiency grade N		75	58	62
Power input P_{ed}	kW	0.44		
Air flow q_v	m^3/h	2185		
Pressure increase p_{fs}	Pa	400		
Speed n	min^{-1}	1715		

Data definition with optimum efficiency. LU-66839
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

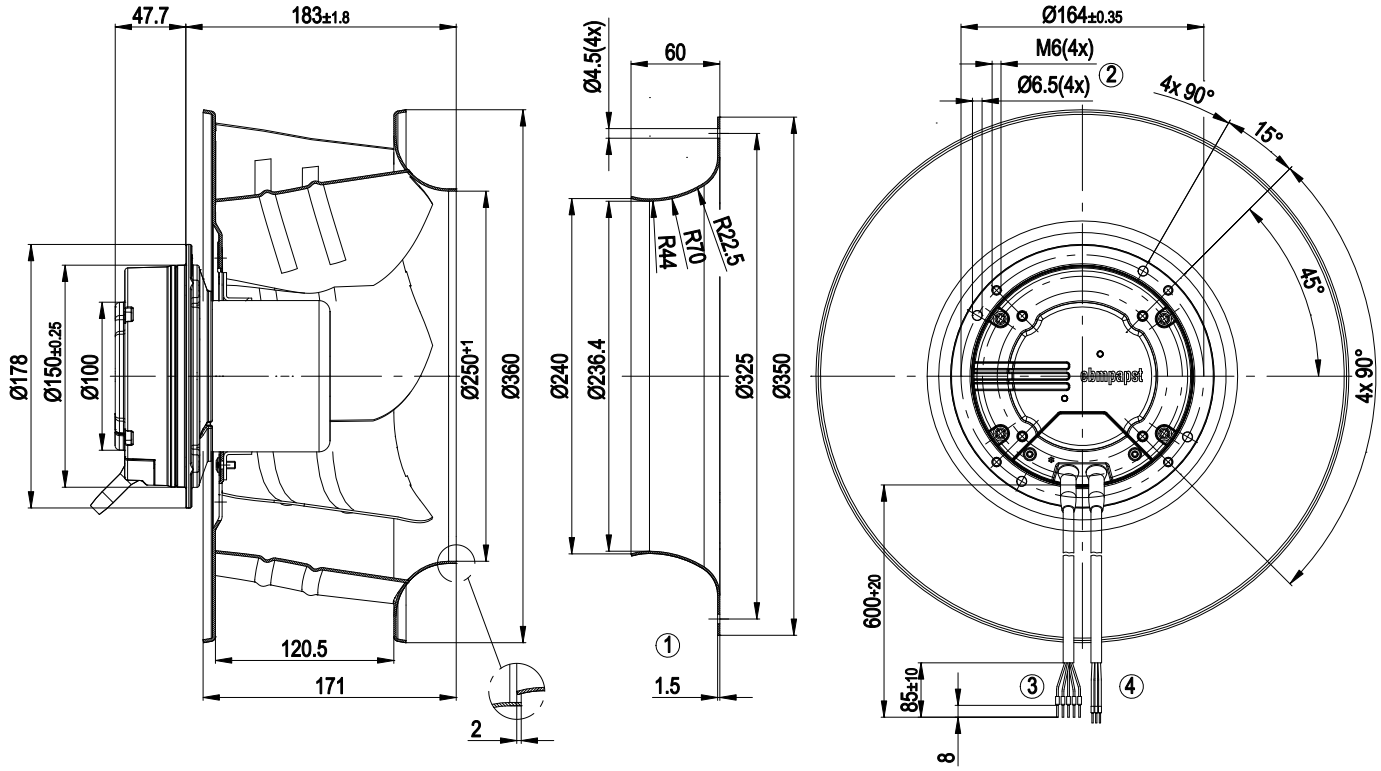
Mass	5.84 kg
Size	355 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on top; rotor on bottom on request
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60950-1; CE
Approval	CCC; CSA C22.2 Nr.77; EAC; UL 2111

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Product drawing



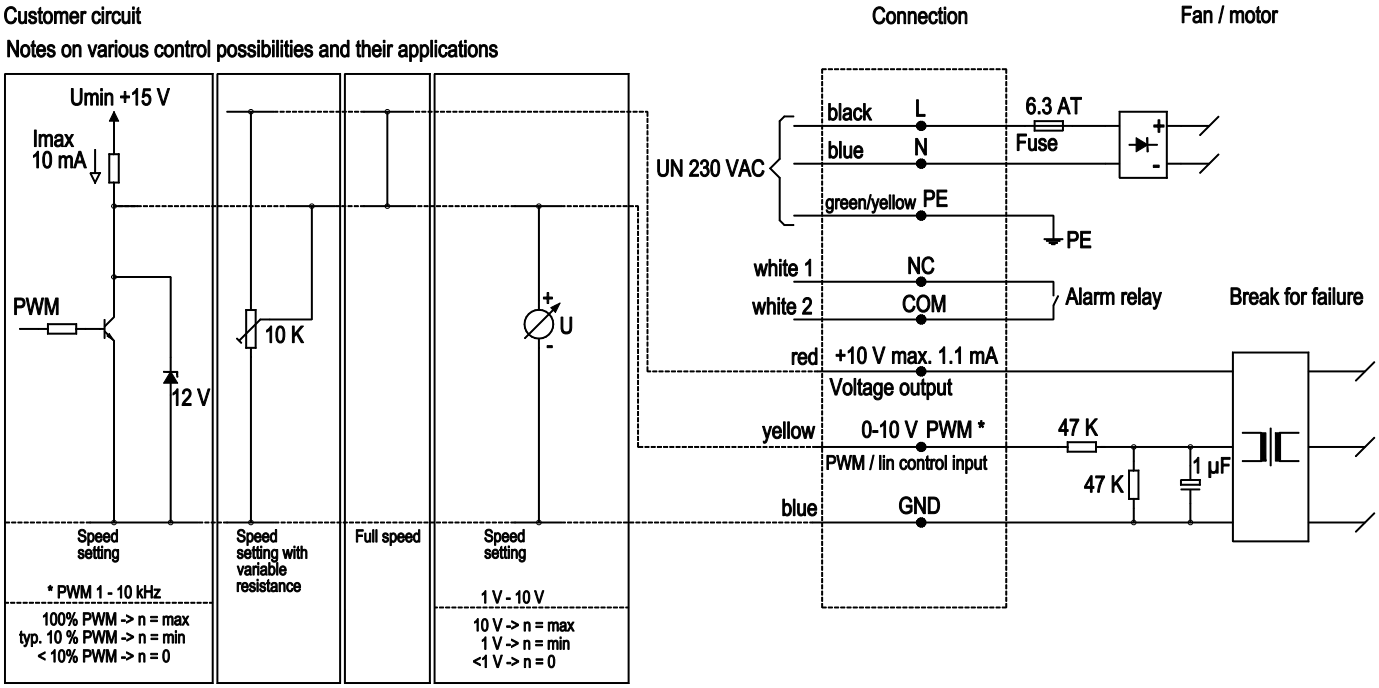
1	Accessory part: inlet nozzle 35560-2-4013 not included in the standard scope of delivery; other inlet nozzles on request
2	Depth of screw 8 - 10 mm
3	Connection line AWG18, 5x crimped core-end sleeves
4	Connection line AWG22, 3 x crimped core-end sleeves

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Connection screen

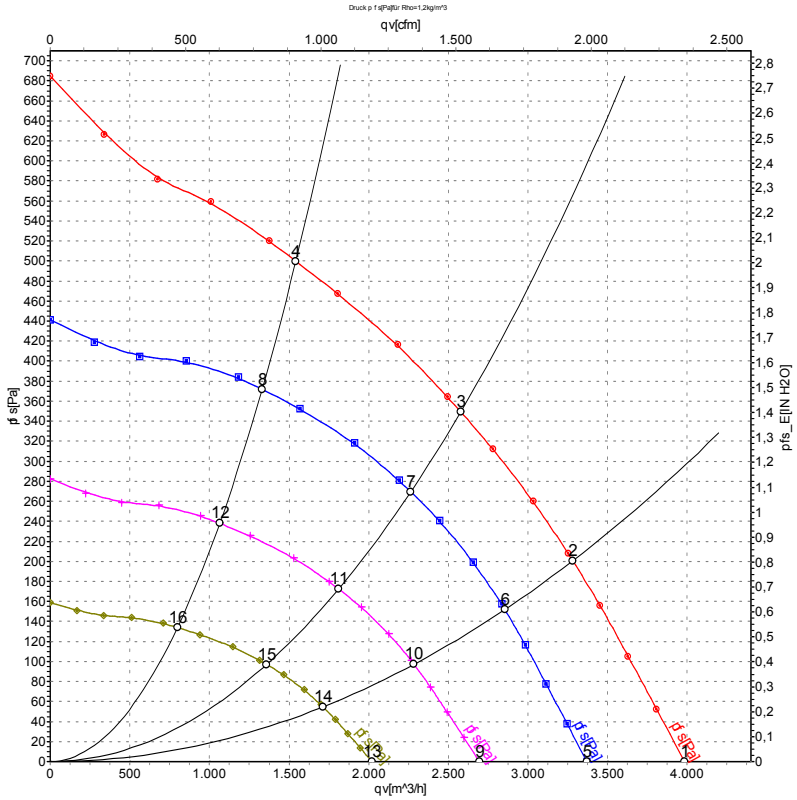


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Charts: Air flow 50 Hz



Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1775	362	2.31	3985	0
2	230	50	1725	429	2.73	3280	200
3	230	50	1710	450	2.90	2580	350
4	230	50	1740	418	2.65	1545	500
5	230	50	1500	219	1.40	3370	0
6	230	50	1500	283	1.80	2855	152
7	230	50	1500	306	1.95	2265	270
8	230	50	1500	268	1.70	1330	372
9	230	50	1200	112	0.72	2695	0
10	230	50	1200	145	0.92	2285	98
11	230	50	1200	157	1.00	1810	172
12	230	50	1200	137	0.87	1065	238
13	230	50	900	47	0.30	2020	0
14	230	50	900	61	0.39	1715	55
15	230	50	900	66	0.42	1360	97
16	230	50	900	58	0.37	800	134

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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