R3G355-AM29-71

EC centrifugal fan

backward curved, single inlet

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G355-AM29-71**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml/cu
Speed	min^{-1}	1890
Power input	W	502
Current draw	A	3.15
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}	%	61.7	44.3	48.3
Efficiency grade N		75.4	58	62
Power input P_{ed}	kW	0.5		
Air flow q_v	m^3/h	2110		
Pressure increase p_{fs}	Pa	477		
Speed n	min^{-1}	1895		

Data definition with optimum efficiency. LU-68189
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	5.68 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 bottom; rotor on top on request
Condensate discharge holes	None
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
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3
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 61800-5-1; CE
Approval	CCC; CSA C22.2 Nr.77; EAC; UL 2111

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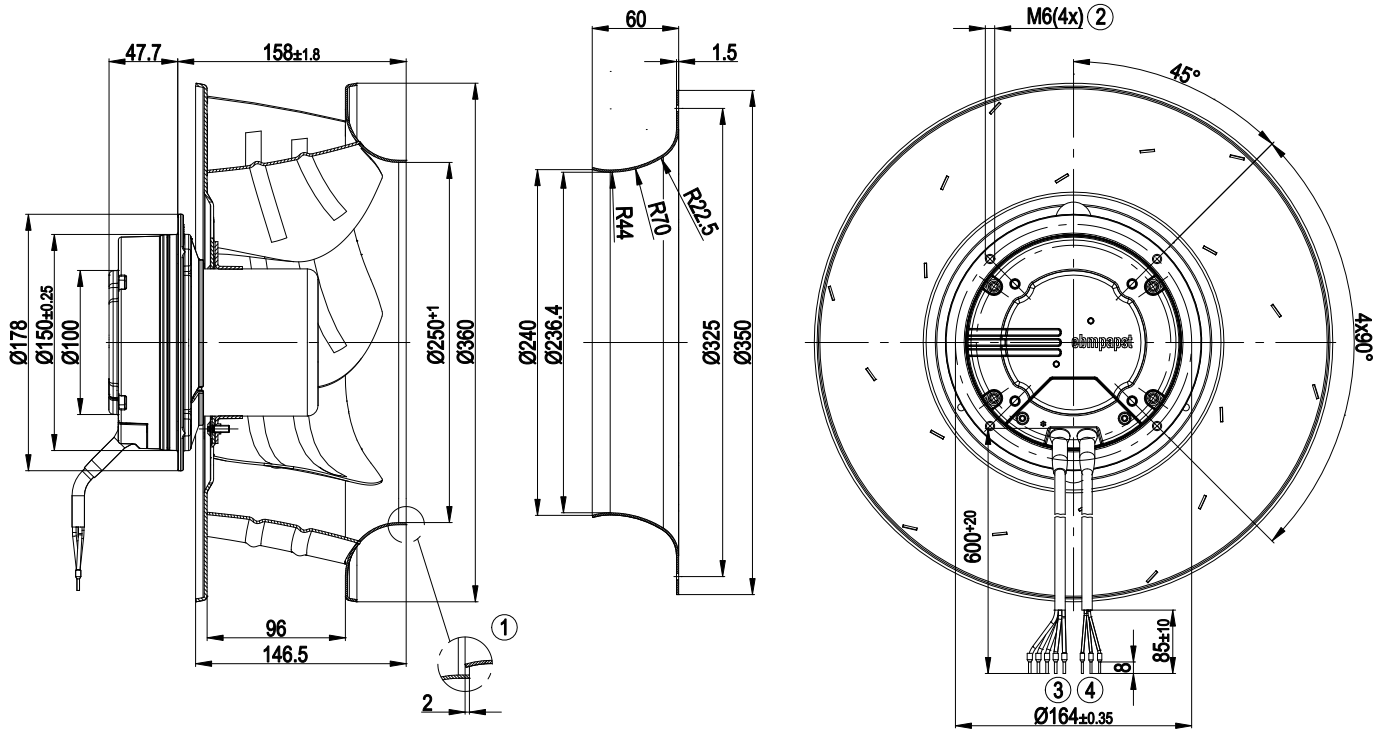
Product drawing



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 AWG22, 3 x crimped core-end sleeves
4	Connection line AWG18, 5 x crimped core-end sleeves

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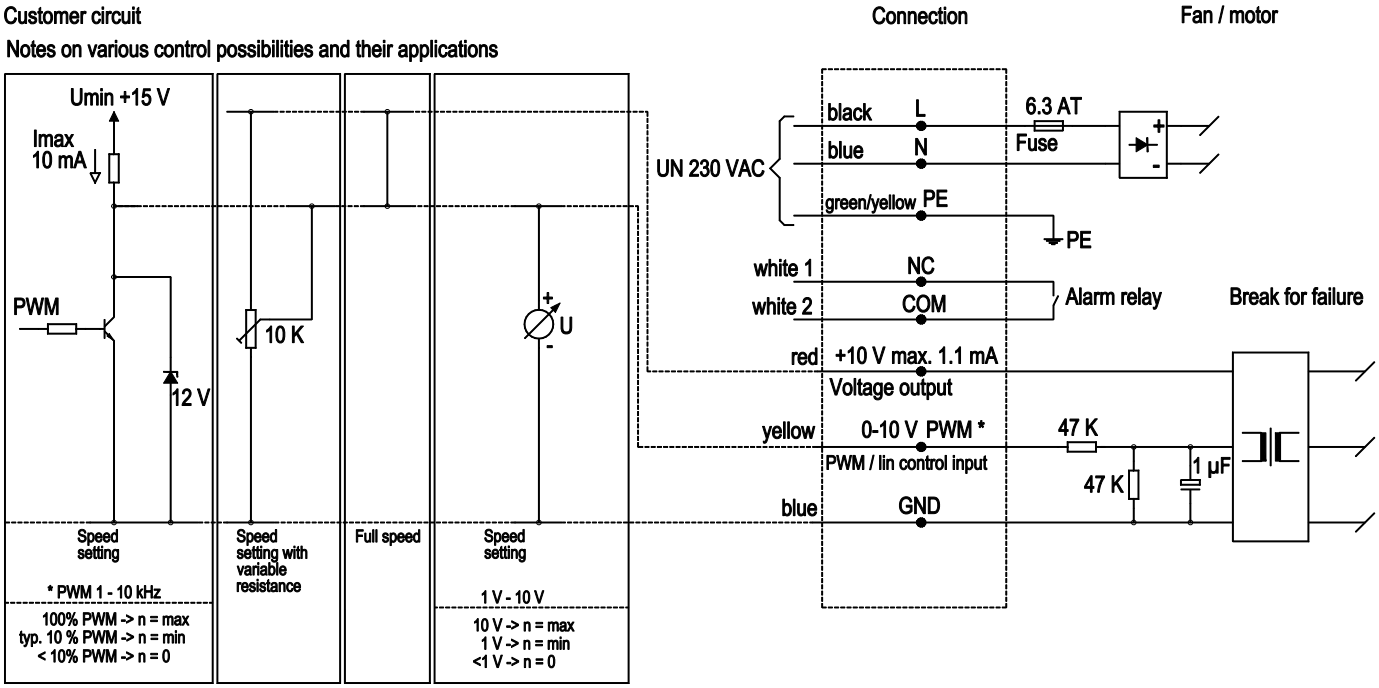
Connection screen



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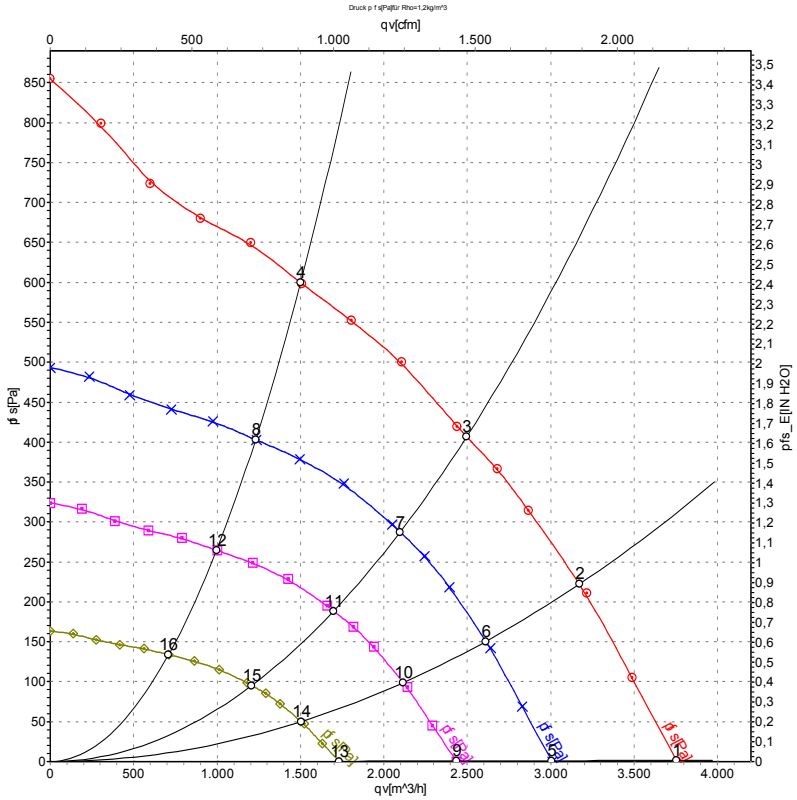
Charts: Air flow 50 Hz



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	LpA_{in}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa
1	230	50	1975	391	2.48	77	3750	0
2	230	50	1920	468	2.95	73	3170	225
3	230	50	1890	502	3.15	69	2495	405
4	230	50	1925	473	2.99	71	1500	600
5	230	50	1580	201	1.27	71	3005	0
6	230	50	1580	261	1.64	67	2610	152
7	230	50	1580	298	1.89	64	2100	288
8	230	50	1580	261	1.65	64	1230	403
9	230	50	1280	107	0.68	65	2435	0
10	230	50	1280	139	0.87	61	2115	100
11	230	50	1280	159	1.01	58	1700	189
12	230	50	1280	139	0.88	59	995	265
13	230	50	910	38	0.24	55	1730	0
14	230	50	910	50	0.31	52	1505	50
15	230	50	910	57	0.36	49	1210	95
16	230	50	910	50	0.32	50	710	134

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · qv = Air flow · p_{fs} = Pressure increase