R3G355-AM33-79

EC centrifugal fan

backward curved, single inlet

R3G355-AM33-79 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G355-AM33-79**	
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}	1880
Power input	W	520
Current draw	A	3.1
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*	1.01

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		60.7	44.3	48.3
Efficiency grade N		74.4	58	62
Power input P_{ed}	kW	0.5		
Air flow q_v	m^3/h	1995		
Pressure increase p_{fs}	Pa	500		
Speed n	min^{-1}	1890		

Data established at point of optimum efficiency

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Technical features

Mass	5.76 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
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - 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 61800-5-1; CE
Approval	UL 2111; CSA C22.2 Nr.77

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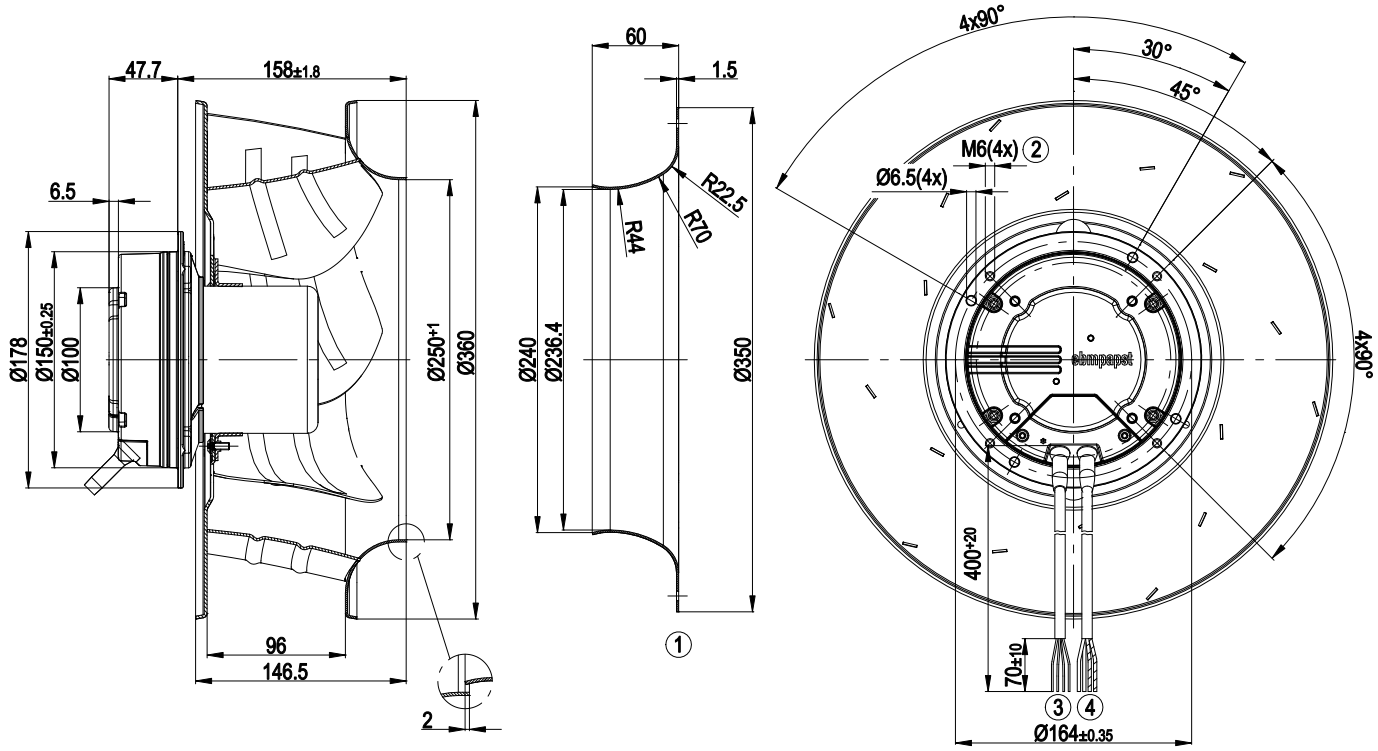
Product drawing



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	Connecting line PVC AWG22, 4 x lead ends without stripped insulation
4	Connecting line PVC AWG18, 4 x lead ends without stripped insulation

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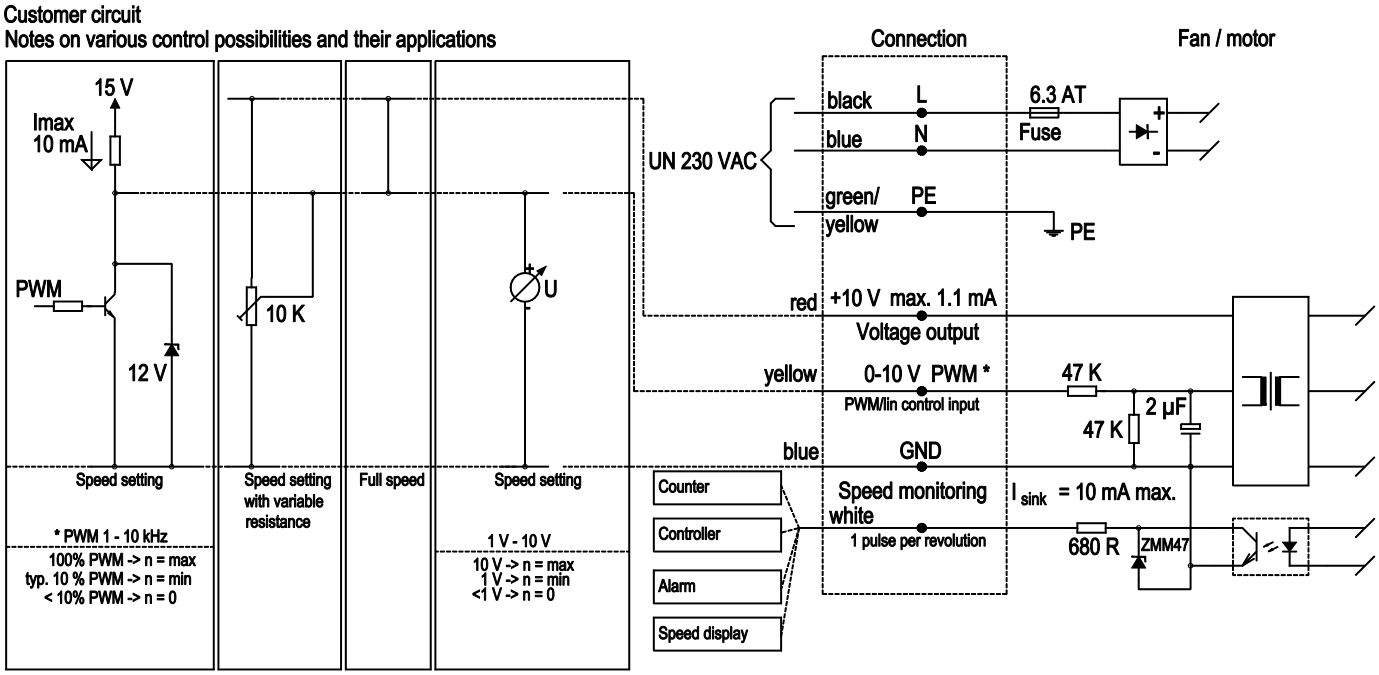
Connection screen



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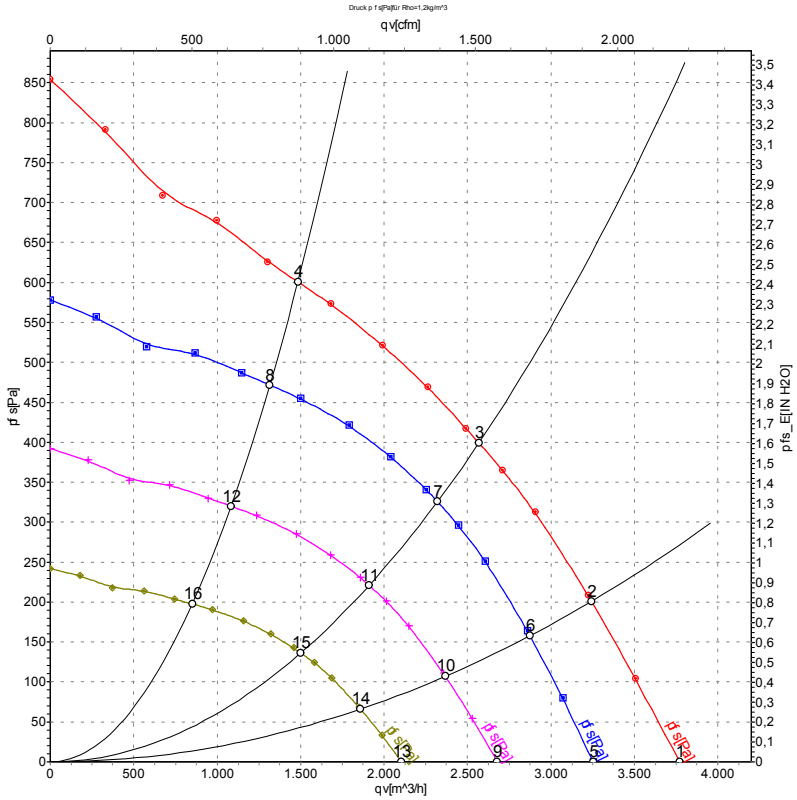
Charts: Air flow 50 Hz



Measurement: LU-65960

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	1970	409	2.48	3770	0
2	230	50	1920	477	2.86	3245	200
3	230	50	1880	520	3.10	2570	400
4	230	50	1920	481	2.89	1485	600
5	230	50	1700	263	1.59	3255	0
6	230	50	1700	332	1.99	2875	159
7	230	50	1700	382	2.30	2320	326
8	230	50	1700	335	2.01	1315	472
9	230	50	1400	147	0.89	2680	0
10	230	50	1400	186	1.11	2365	108
11	230	50	1400	214	1.28	1910	221
12	230	50	1400	187	1.13	1085	320
13	230	50	1100	71	0.43	2105	0
14	230	50	1100	90	0.54	1860	67
15	230	50	1100	104	0.62	1500	136
16	230	50	1100	91	0.55	850	198

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