R3G355-AM33-74

EC centrifugal fan

backward-curved, single-intake

R3G355-AM33-74 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G355-AM33-74**
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}	1880
Power consumption	W	520
Current draw	A	3.1
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 η_{es}	%	60.7	48.3
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		74.4	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.5
09 Air flow q_v	m^3/h	1995
09 Pressure increase p_{fs}	Pa	500
10 Speed (rpm) n	min^{-1}	1890
11 Specific ratio*		1.01

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-65960

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Technical description

Weight	5.8 kg
Fan size	355 mm
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	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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
Condensation drainage holes	None, open rotor
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- PFC, passive - Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Thermal overload protection for electronics/motor - Alarm relay - Line undervoltage detection - Motor current limitation - Soft start
EMC immunity to interference	According to EN 61000-6-2
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3
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	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	CSA C22.2 No. 77; UL 2111; VDE; CCC

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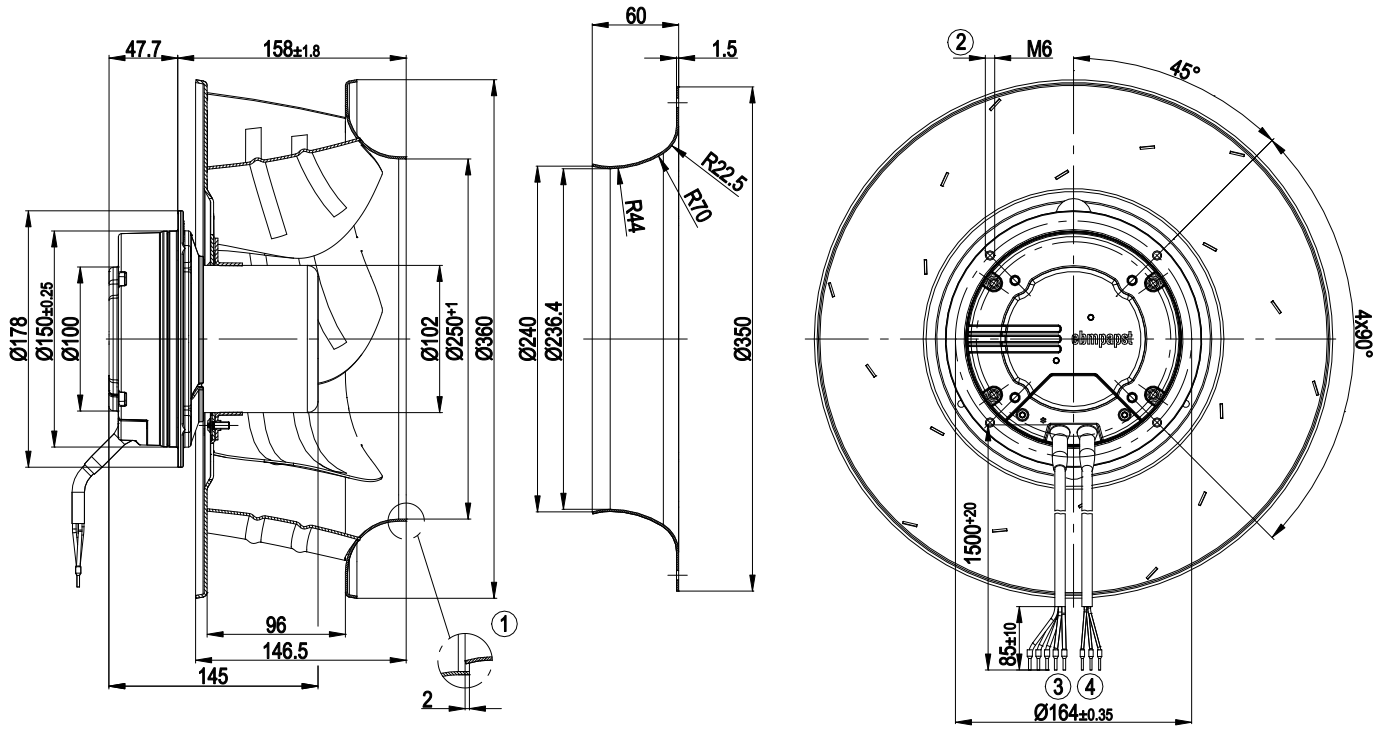
Product drawing



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, 5 x crimped ferrules
4	Cable AWG22, 3 x crimped ferrules

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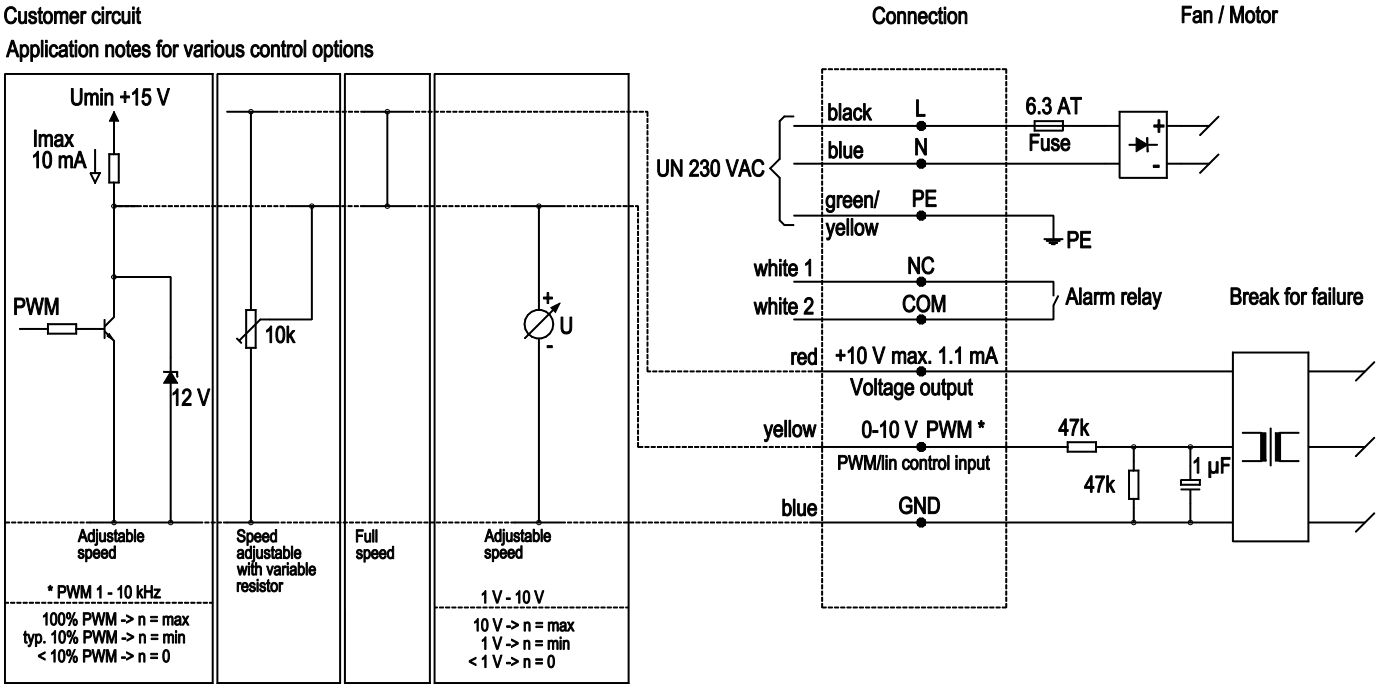
Connection diagram



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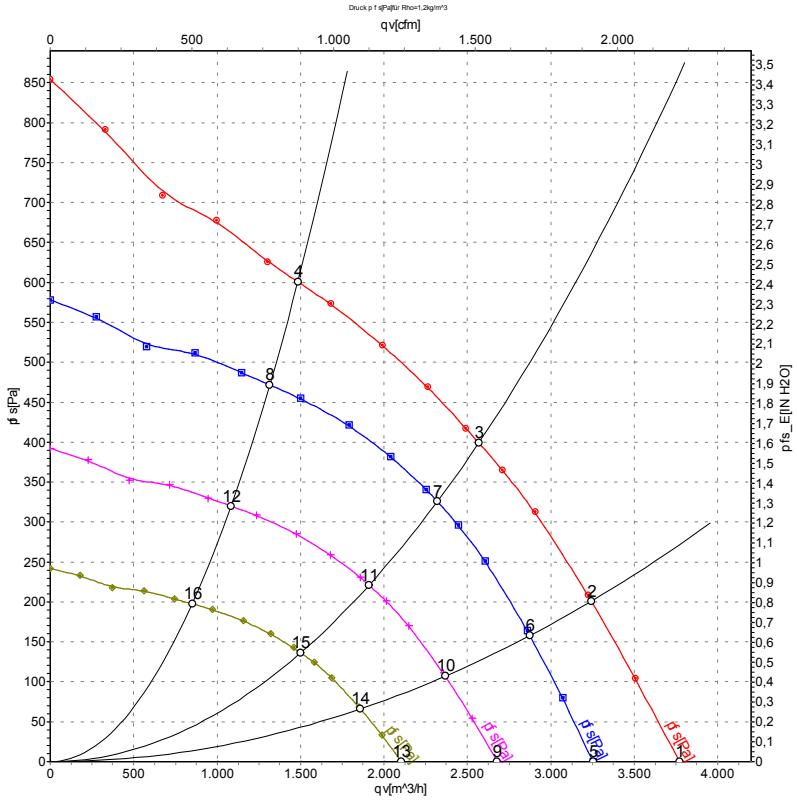
Curves: Air performance 50 Hz



Measurement: LU-65960-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	1970	409	2.48	3770	0	2220	0.00
2	230	50	1920	477	2.86	3245	200	1910	0.80
3	230	50	1880	520	3.10	2570	400	1510	1.61
4	230	50	1920	481	2.89	1485	600	875	2.41
5	230	50	1700	263	1.59	3255	0	1915	0.00
6	230	50	1700	332	1.99	2875	159	1690	0.64
7	230	50	1700	382	2.30	2320	326	1365	1.31
8	230	50	1700	335	2.01	1315	472	775	1.89
9	230	50	1400	147	0.89	2680	0	1575	0.00
10	230	50	1400	186	1.11	2365	108	1395	0.43
11	230	50	1400	214	1.28	1910	221	1125	0.89
12	230	50	1400	187	1.13	1085	320	635	1.28
13	230	50	1100	71	0.43	2105	0	1240	0.00
14	230	50	1100	90	0.54	1860	67	1095	0.27
15	230	50	1100	104	0.62	1500	136	885	0.55
16	230	50	1100	91	0.55	850	198	500	0.79

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