R3G355-AM08-32

EC centrifugal fan

backward-curved, single-intake

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.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-AM08-32**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1560
Power consumption	W	178
Current draw	A	3.7
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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}	%	64.7	45
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		81.7	62
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.24
09 Air flow q_v	m^3/h	1805
09 Pressure increase p_{fs}	Pa	284
10 Speed (rpm) n	min^{-1}	1525
11 Specific ratio*		1.00

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-119970

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Technical description

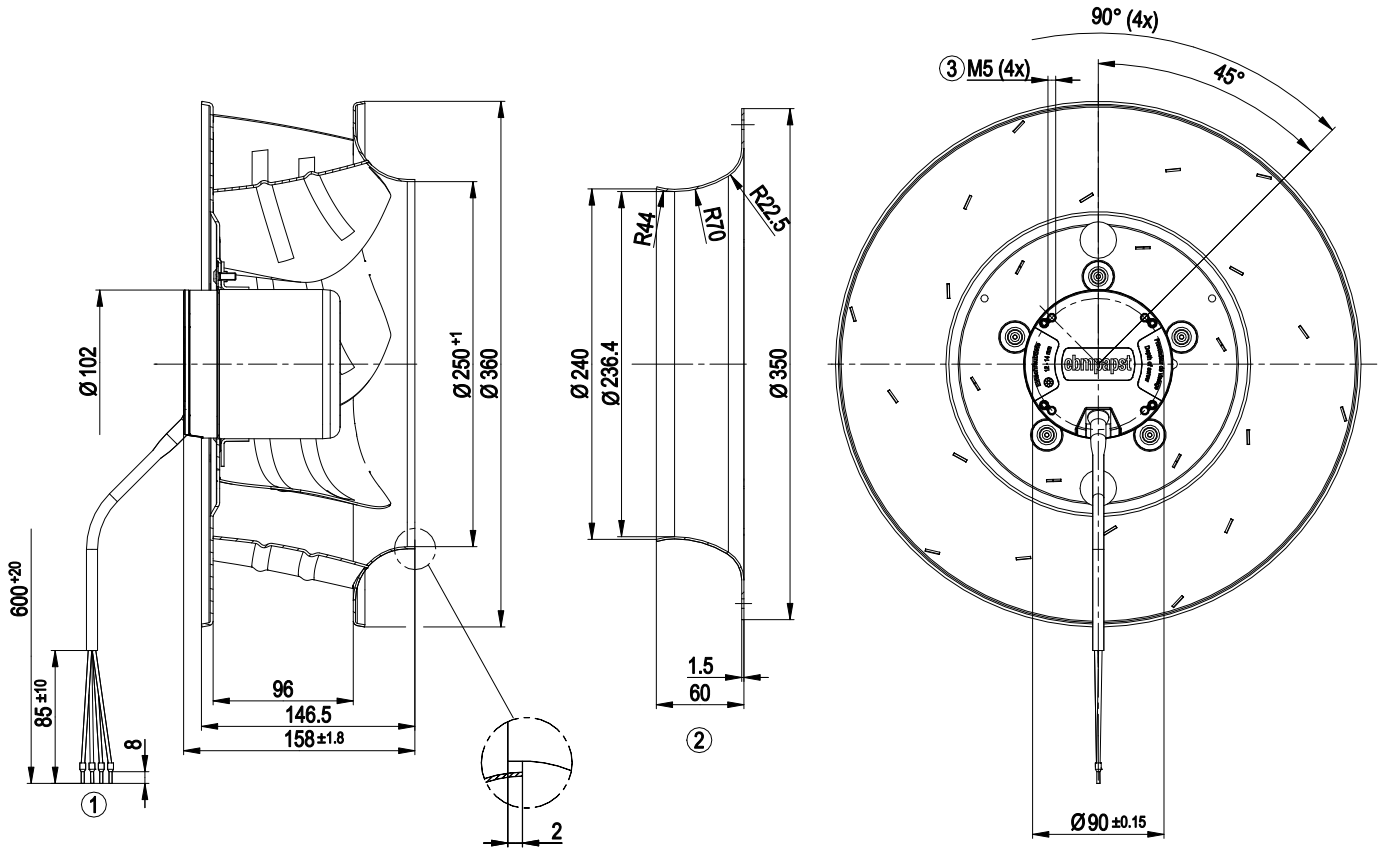
Weight	4.9 kg
Fan size	355 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection 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
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - PWM control input
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Conformity with standards	EN 60950-1
Approval	UL 1004-1; CSA C22.2 No. 100; VDE

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Product drawing



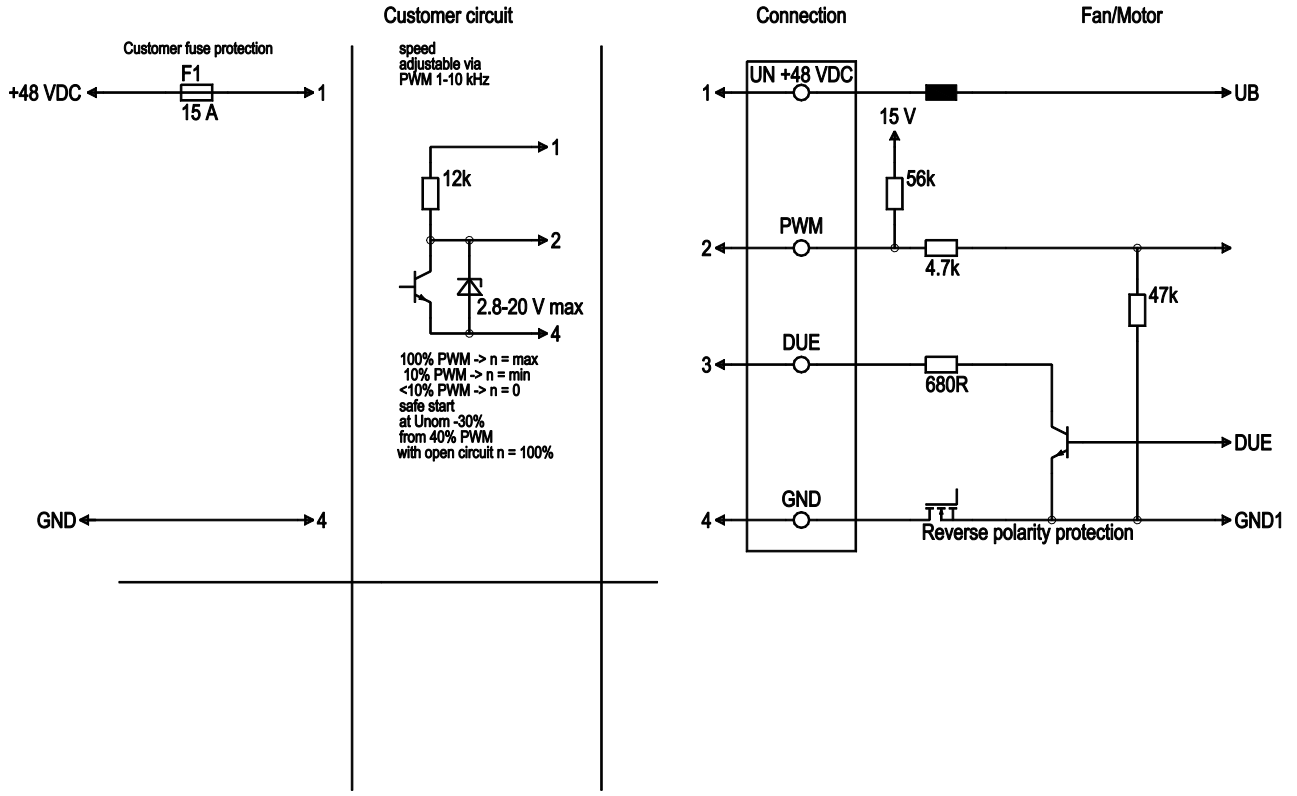
1	Cable PVC AWG16, 4x crimped ferrules
2	Accessory part: inlet ring 35560-2-4013 not included in scope of delivery
3	Clearance for screw 12 - 14 mm

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Connection diagram



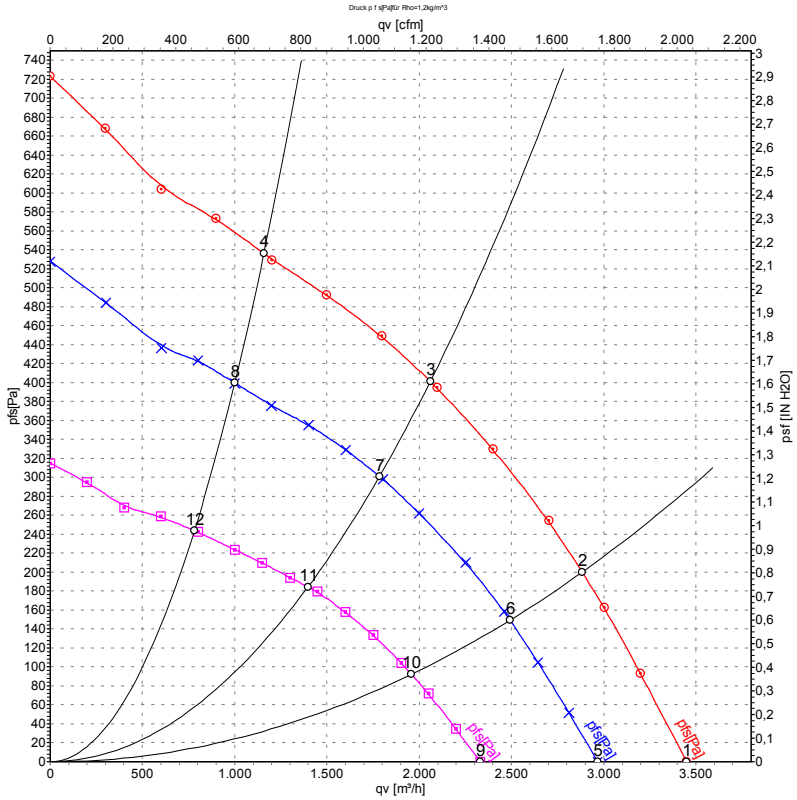
No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%
1	2	PWM	yellow	PWM level 2.8 V-20 V/cable break detection
1	3	Tach	white	Tach output, open col. 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

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Curves: Air performance



Measurement: LU-119983-1
Measurement: LU-119970-1
Measurement: LU-119980-1

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	n	P_{ed}	I	qv	p_{fs}	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	57	1825	292	5.20	3450	0	2030	0.00
2	57	1775	350	6.24	2885	200	1695	0.80
3	57	1755	376	6.72	2060	402	1215	1.61
4	57	1790	340	6.06	1160	536	680	2.15
5	48	1560	178	3.70	2970	0	1745	0.00
6	48	1540	231	4.88	2490	150	1465	0.60
7	48	1525	248	5.24	1785	300	1050	1.20
8	48	1550	223	4.71	1000	400	590	1.61
9	36	1230	93	2.60	2330	0	1370	0.00
10	36	1210	113	3.16	1960	92	1155	0.37
11	36	1200	121	3.40	1395	185	820	0.74
12	36	1215	109	3.05	780	244	460	0.98

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

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