R3G250-AT39-71

EC centrifugal fan - RadiPac

backward curved, single inlet



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
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**R3G250-AT39-71**
Motor	**M3G084-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	3000
Power input	W	448
Current draw	A	2.8
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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	63.1	47.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		77.2	62
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.45
09 Air flow q_v	m^3/h	1550
09 Pressure increase p_{fs}	Pa	601
10 Speed (rpm) n	min^{-1}	2940
11 Specific ratio*		1.01

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

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

LU-108683

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Technical features

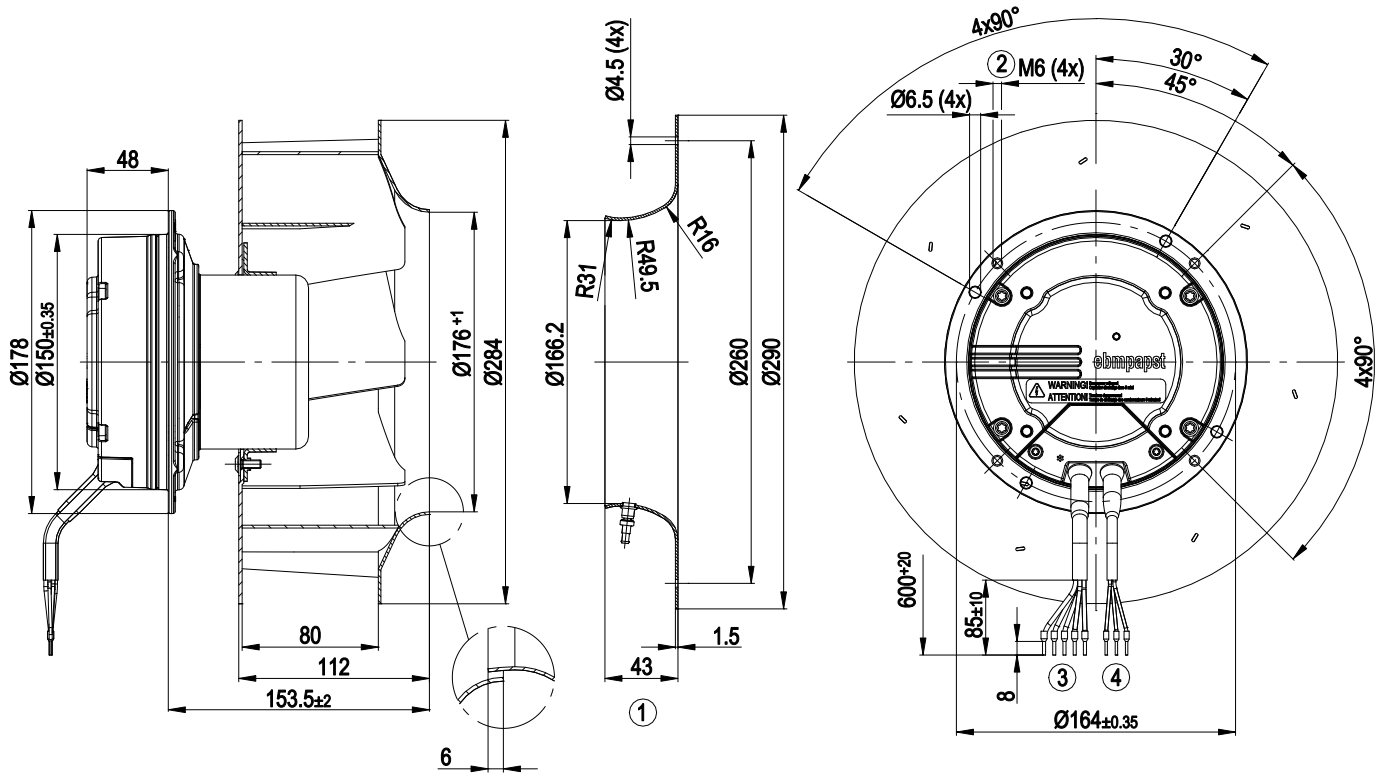
Mass	4.42 kg
Size	250 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet aluminium, laser-welded
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
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 - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
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	CCC; EAC

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Product drawing



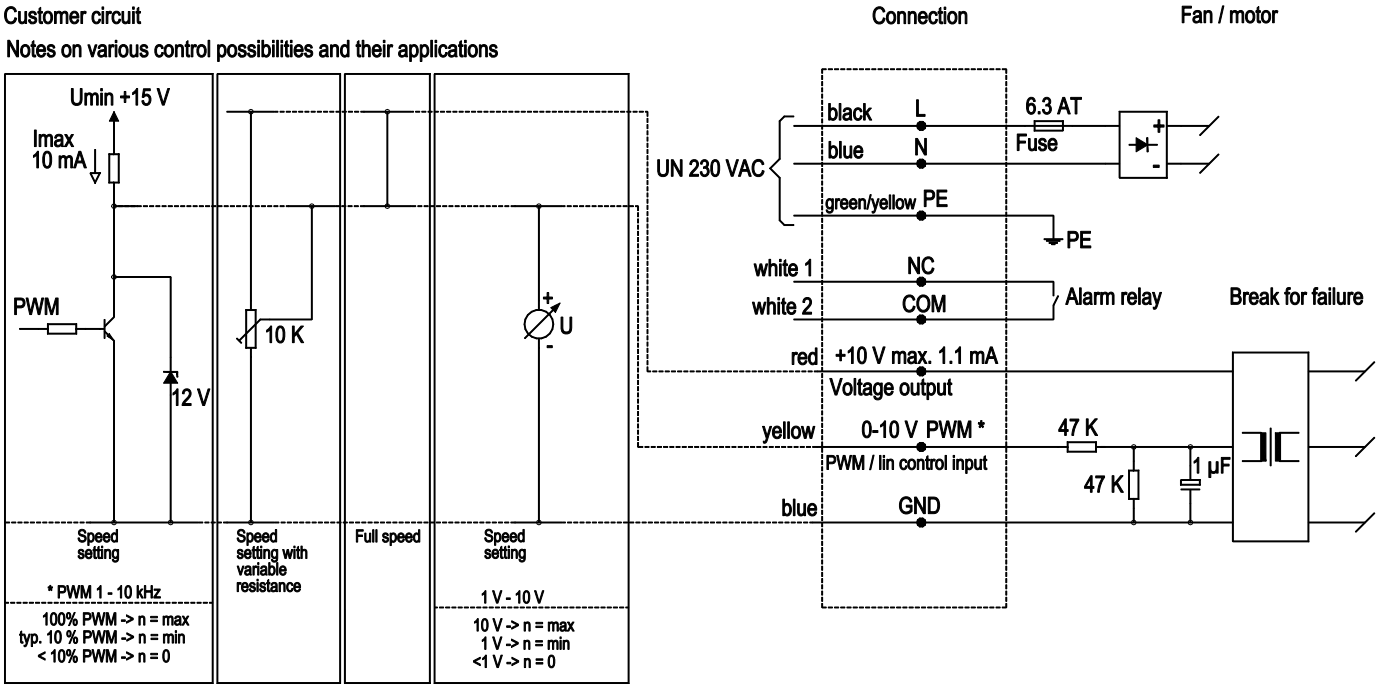
1	Accessory part: Inlet nozzle 25075-2-4013 (k-factor: 70) not included in scope of delivery
2	Depth of screw max. 10 mm
3	Connection line PVC AWG18, 5x crimped core-end sleeves
4	Connection line PVC AWG22, 3x crimped core-end sleeves

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Connection screen

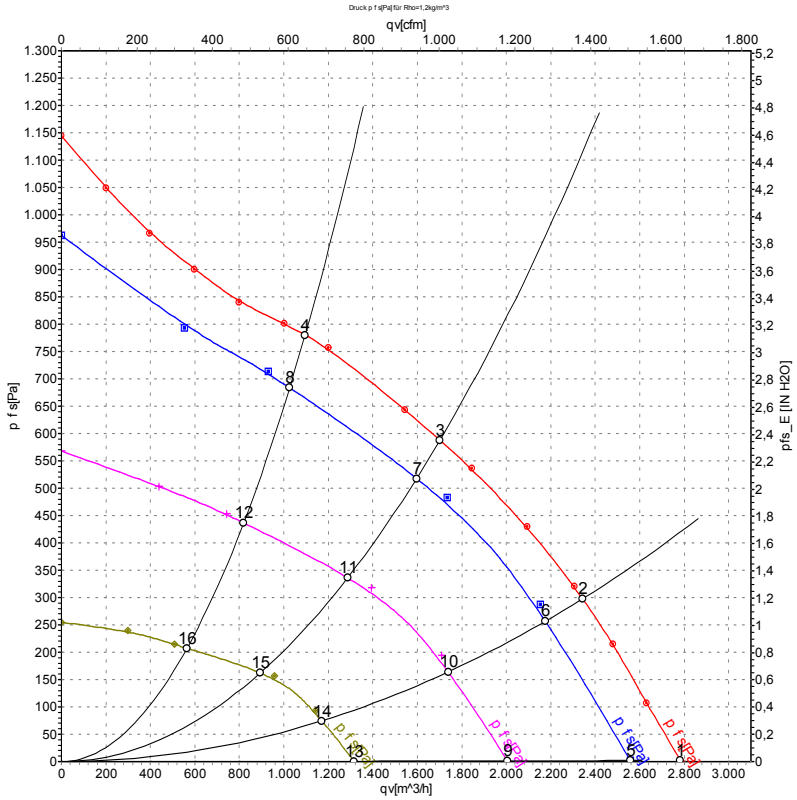


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Charts: Air flow 50 Hz



Measurement: LU-108683-1
Measurement: LU-124170-1
Measurement: LU-124171-1
Measurement: LU-124172-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	3175	380	2.48	2785	0	1640	0.00
2	230	50	3045	436	2.72	2345	300	1380	1.20
3	230	50	3000	448	2.80	1700	590	1000	2.37
4	230	50	3020	436	2.72	1095	780	645	3.13
5	230	50	2925	294	1.90	2555	0	1505	0.00
6	230	50	2845	335	2.16	2175	271	1280	1.09
7	230	50	2790	341	2.25	1595	522	940	2.10
8	230	50	2835	326	2.14	1025	686	605	2.75
9	230	50	2300	142	0.97	2005	0	1180	0.00
10	230	50	2265	166	1.12	1740	174	1025	0.70
11	230	50	2240	174	1.19	1285	340	755	1.36
12	230	50	2270	163	1.13	820	438	485	1.76
13	230	50	1510	44	0.34	1315	0	775	0.00
14	230	50	1520	53	0.40	1170	78	690	0.31
15	230	50	1555	58	0.45	895	165	525	0.66
16	230	50	1555	55	0.43	565	208	335	0.84

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

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