R3G500-RQ04-71

EC centrifugal fan - RadiCal®

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

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G500-RQ04-71**	
Motor	**M3G084-GF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	800
Power input	W	327
Current draw	A	2.1
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*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	57.4	42.3	46.3
Efficiency grade N		73.1	58	62
Power input P_{ed}	kW	0.32		
Air flow q_v	m^3/h	3630		
Pressure increase p_{fs}	Pa	166		
Speed n	min^{-1}	800		

Data definition with optimum efficiency. LU-123662
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

ebmpapst

EC centrifugal fan - RadiCal®

backward curved, single inlet

Technical features

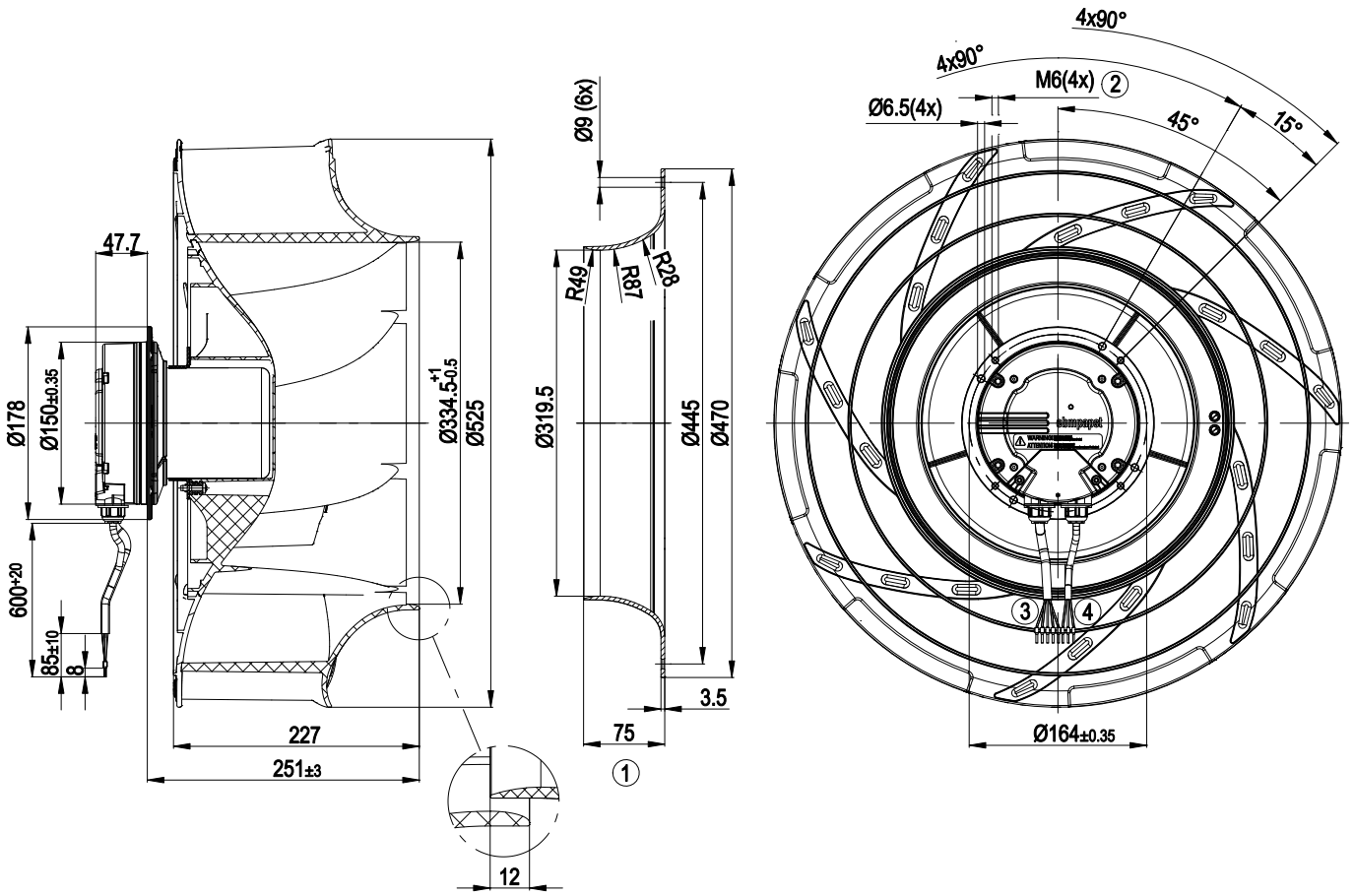
Mass	9.4 kg
Size	500 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	PP plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor 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	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 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 60335-1; CE
Approval	CCC; EAC

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan - RadiCal®

backward curved, single inlet

Product drawing



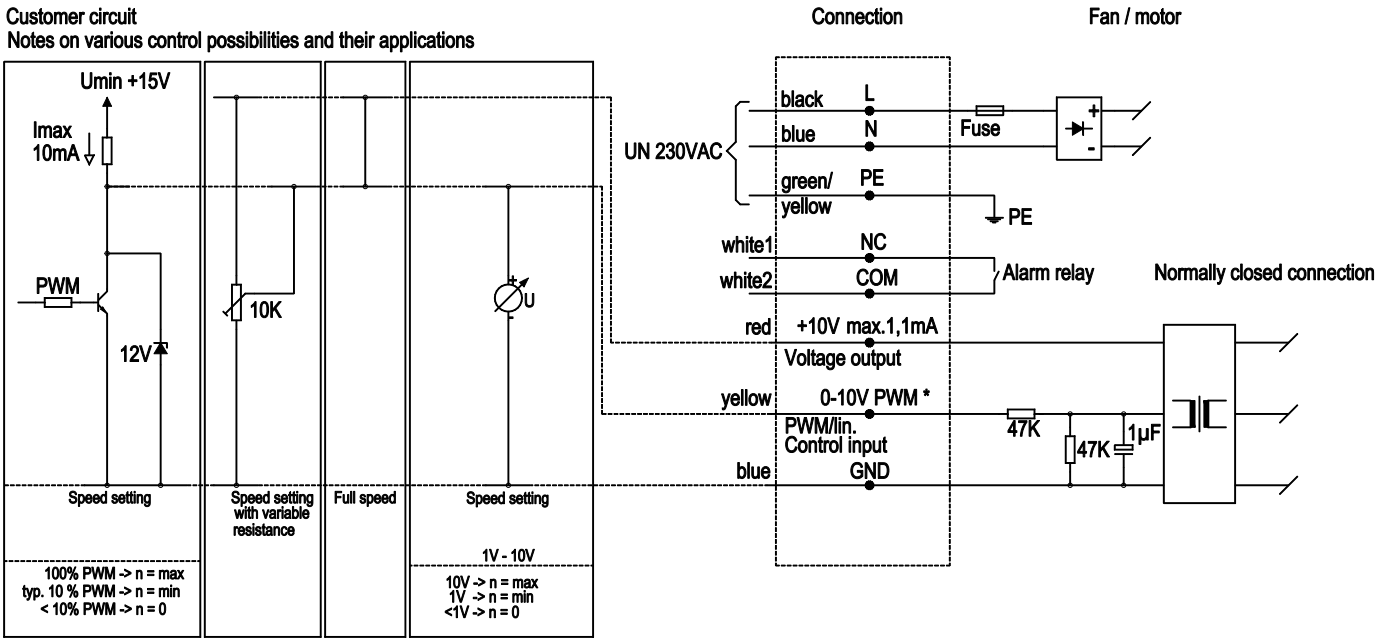
1	Accessory part: Inlet nozzle 50901-2-2943, not included in the standard scope of delivery
2	Depth of screw max. 10 mm
3	Connection line PVC AWG22, 5x crimped core-end sleeves
4	Connection line PVC AWG22, 3x crimped core-end sleeves

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan - RadiCal®

backward curved, single inlet

Connection screen

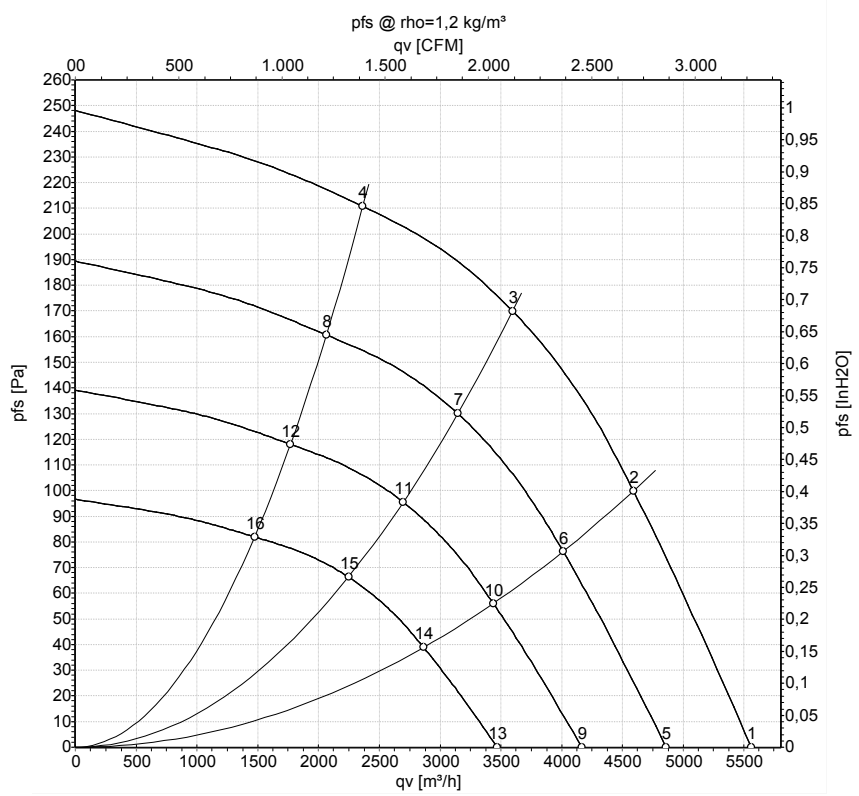


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan - RadiCal®

backward curved, single inlet

Charts: Air flow 50 Hz



Measurement: LU-123662

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}	LwA_{in}	LwA_{out}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	230	50	800	210	1.39	60	67	73	5560	0
2	230	50	800	296	1.92	55	63	69	4590	100
3	230	50	800	327	2.10	52	59	64	3595	170
4	230	50	800	287	1.86	51	57	63	2365	210
5	230	50	700	141	0.93	57	64	69	4860	0
6	230	50	700	197	1.28	52	59	65	4010	77
7	230	50	700	219	1.41	49	56	61	3145	131
8	230	50	700	191	1.24	47	54	60	2065	161
9	230	50	600	88	0.58	53	60	65	4165	0
10	230	50	600	124	0.81	48	55	61	3440	56
11	230	50	600	138	0.89	45	52	57	2695	96
12	230	50	600	120	0.78	43	50	56	1770	118
13	230	50	500	51	0.34	48	55	61	3470	0
14	230	50	500	72	0.47	44	51	57	2865	39
15	230	50	500	80	0.51	40	47	53	2245	67
16	230	50	500	70	0.45	39	45	51	1475	82

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

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com