

R3G250-AK41-71

# EC centrifugal fan

backward curved, single inlet



**ebm-papst Mulfingen GmbH & Co. KG**

Bachmühle 2

74673 Mulfingen

Phone: +49 7938 81-0

Fax: +49 7938 81-110

[www.ebmpapst.com](http://www.ebmpapst.com)

[info1@de.ebmpapst.com](mailto:info1@de.ebmpapst.com)

## Nominal data

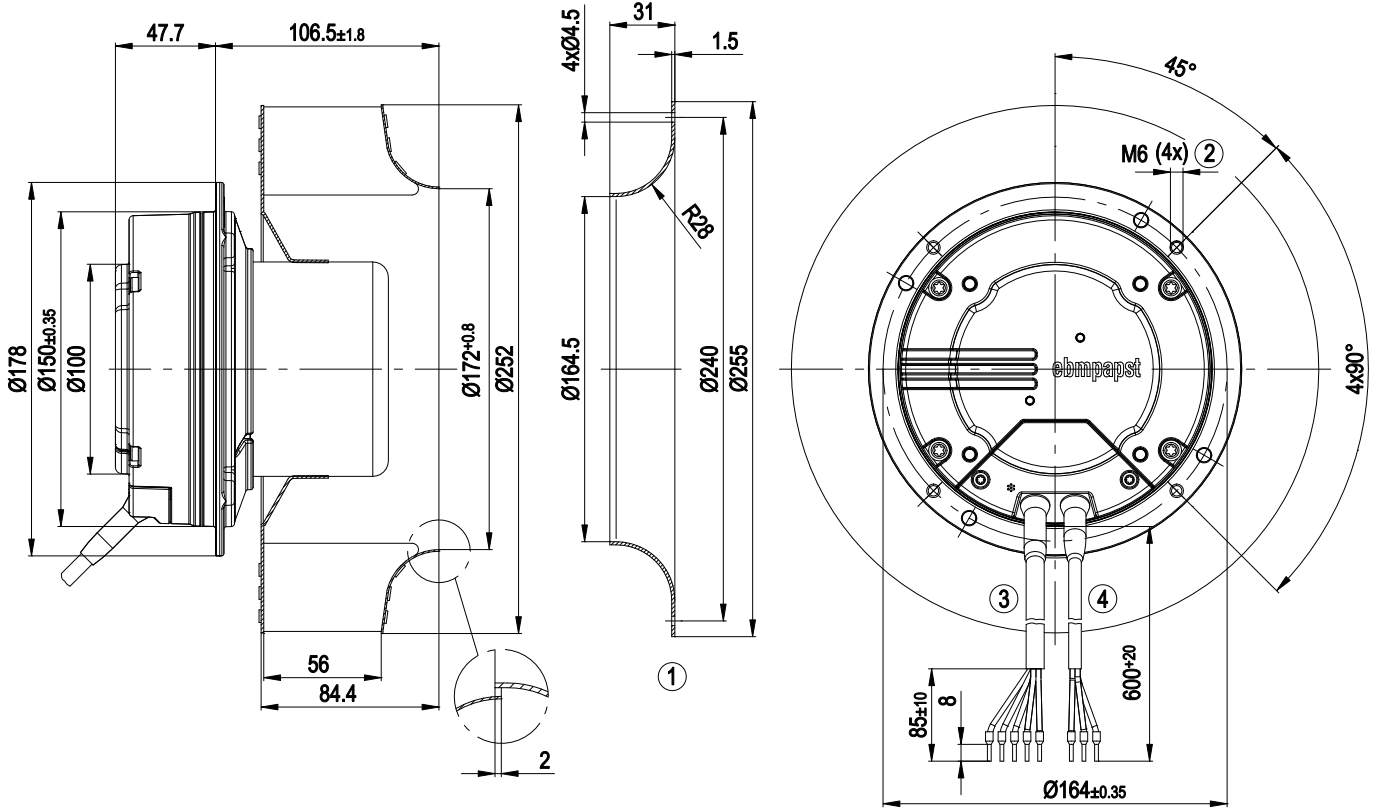
Type	R3G250-AK41-71	
Motor	M3G084-DF	
Phase		1~
Nominal voltage	[VAC]	230
Nominal voltage range	[VAC]	200 .. 277
Frequency	[Hz]	50/60
Type of data definition		ml
Speed	[min <sup>-1</sup> ]	3390
Power input	[W]	490
Current draw	[A]	3.1
Min. ambient temperature	[°C]	-25
Max. ambient temperature	[°C]	45

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit  
Subject to alterations

## Technical features

Leakage current	<= 3.5 mA
Size	250 mm
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Shaft horizontal or rotor on top; rotor on bottom on request
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
Humidity class	F3-1
Insulation class	"B"
Cable exit	Variable
Condensate discharge holes	None
Bearing motor	Ball bearing
Mass	4.48 kg
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet steel, hot-galvanised
Motor protection	Thermal overload protector (TOP) wired internally
Product conforming to standard	EN 61800-5-1
Surface of rotor	Coated in black
Number of blades	11
Type of protection	IP 54
Protection class	I
Technical features	<ul style="list-style-type: none"> <li>- Control input 0-10 VDC / PWM</li> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Over-temperature protected electronics / motor</li> <li>- Alarm relay</li> <li>- Line undervoltage detection</li> <li>- Motor current limit</li> <li>- Soft start</li> </ul>
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Approval	CSA C22.2 Nr.77; UL 2111; VDE

Product drawing

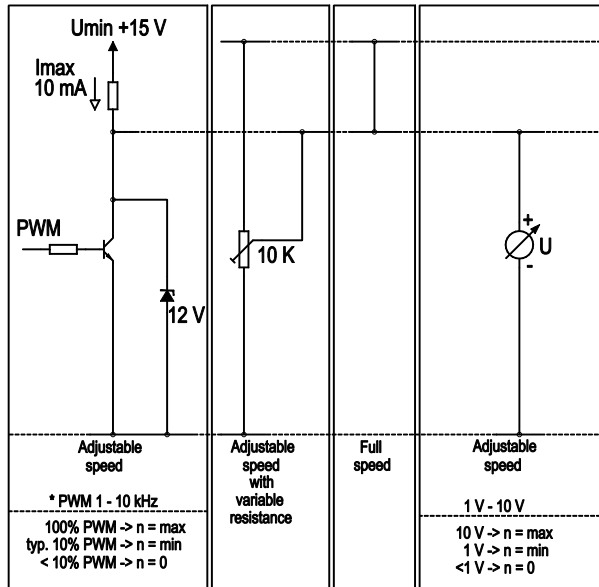


1	Accessory part: inlet nozzle 96359-2-4013 not included in the standard scope of delivery; other inlet nozzles on request
2	Depth of screw 8-10 mm
3	Connection line AWG18, 5 x crimped core-end sleeves
4	Connection line AWG22, 3 x crimped core-end sleeves

## Connection screen

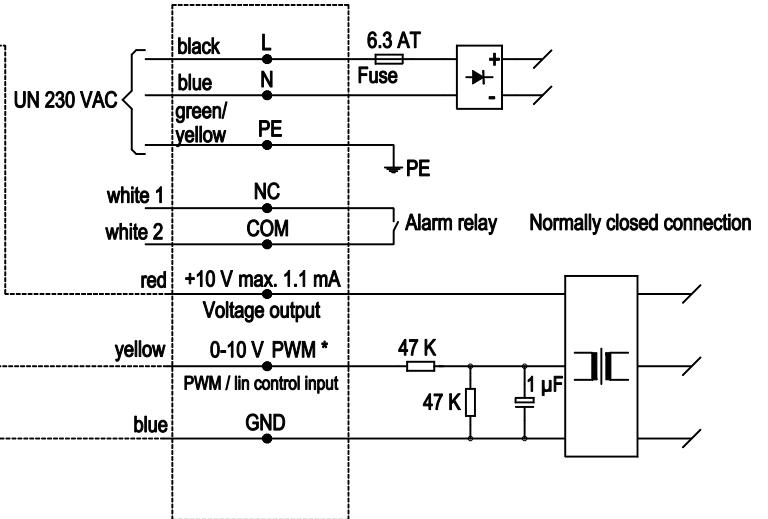
### Customer circuit

Notes on various control possibilities and their applications

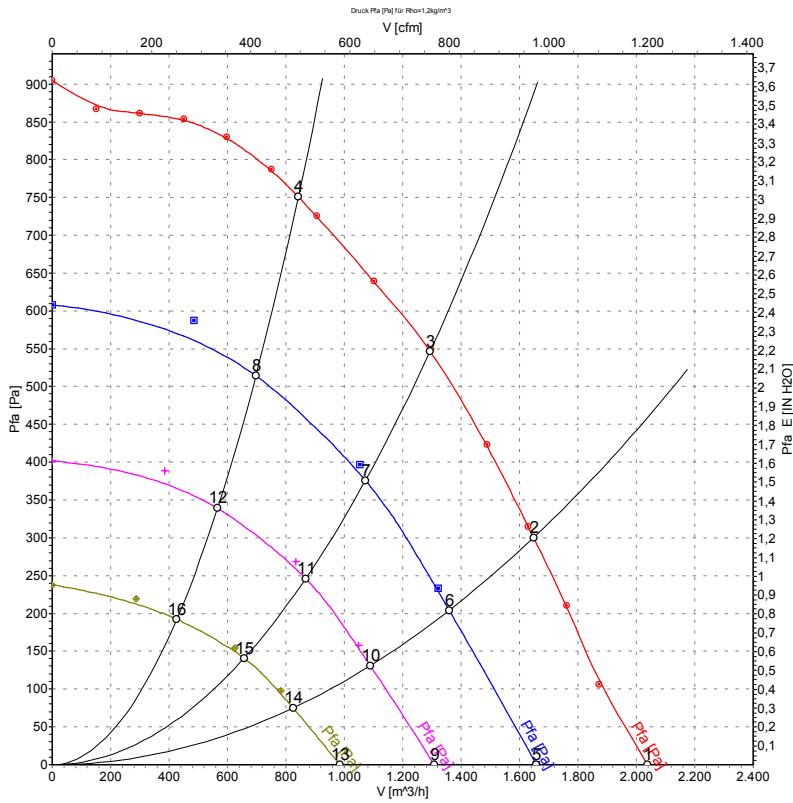


### Connection

### Fan / motor



## Charts: Air flow 50 Hz



Measurement: LU-111414  
 Measurement: LU-111481  
 Measurement: LU-111482  
 Measurement: LU-111483

## Measured values

	U	f	n	P <sub>1</sub>	I	Lp <sub>A,ss</sub>	Lw <sub>A,ss</sub>	Ŷ	p <sub>fa</sub>
	[V]	[Hz]	[min <sup>-1</sup> ]	[W]	[A]	[dB(A)]	[dB(A)]	[m <sup>3</sup> /h]	[Pa]
1	230	50	3385	324	2.11	77	84	2040	0
2	230	50	3400	412	2.66	75	82	1650	300
3	230	50	3390	490	3.10	74	81	1295	550
4	230	50	3385	430	2.78	76	83	840	750
5	230	50	2800	180	1.20	74	81	1660	0
6	230	50	2800	230	1.52	70	78	1360	207
7	230	50	2800	264	1.71	68	76	1070	386
8	230	50	2800	225	1.48	70	78	695	516
9	230	50	2250	100	0.71	70	77	1310	0
10	230	50	2250	129	0.89	66	73	1090	134
11	230	50	2250	137	0.94	62	69	870	251
12	230	50	2250	124	0.86	63	71	565	340
13	230	50	1700	48	0.37	65	72	985	0
14	230	50	1700	55	0.42	60	67	825	77
15	230	50	1700	63	0.47	55	63	655	143
16	230	50	1700	56	0.42	56	64	425	193