

R3G250-AT39-71

# EC centrifugal fan - RadiPac

backward curved, single inlet



R3G250-AT39-71 ebmpapst Datasheet

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## 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 <sup>-1</sup>	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 $\eta_{es}$	%	63.1	47.9	09 Power input $P_{ed}$	kW	0.45
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	1550
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	601
04 Efficiency grade N		77.2	62	10 Speed (rpm) $n$	min <sup>-1</sup>	2940
05 Variable speed drive		Yes		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 =  $1 + p_{fs} / 100\,000\text{ Pa}$

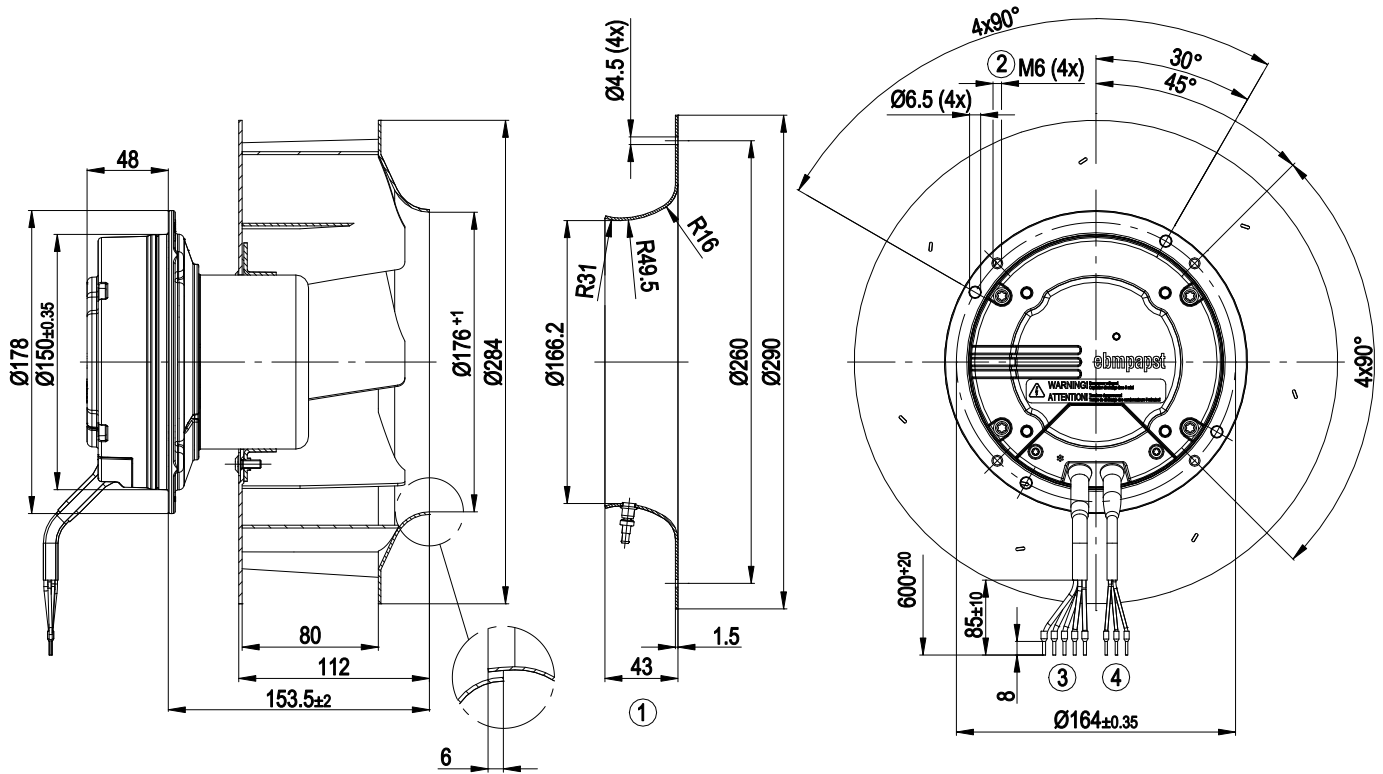
LU-108683



## 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	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Alarm relay</li> <li>- Motor current limit</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Over-temperature protected electronics / motor</li> <li>- Line undervoltage detection</li> </ul>
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

Product drawing

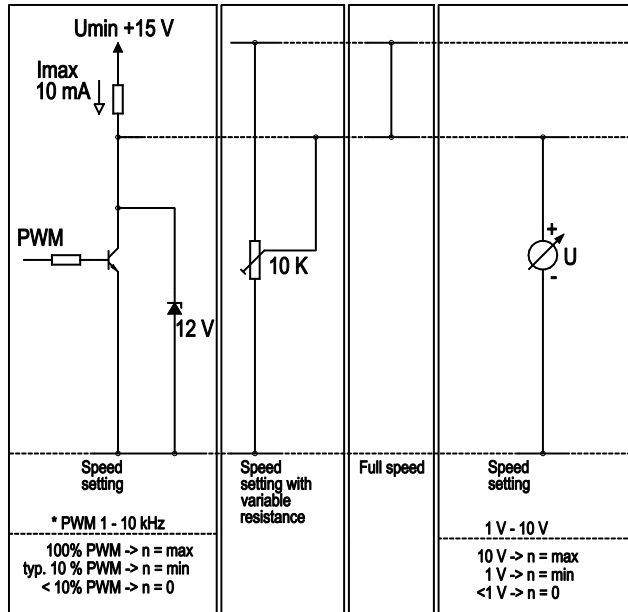


1	Accessory part: Inlet nozzle 25075-2-4013 (k-factor: 70) not included in scope of delivery
2	Depth of screw max. 10 mm
3	Connection line PVC AWG18, 5x crimped core-end sleeves
4	Connection line PVC AWG22, 3x crimped core-end sleeves

## Connection screen

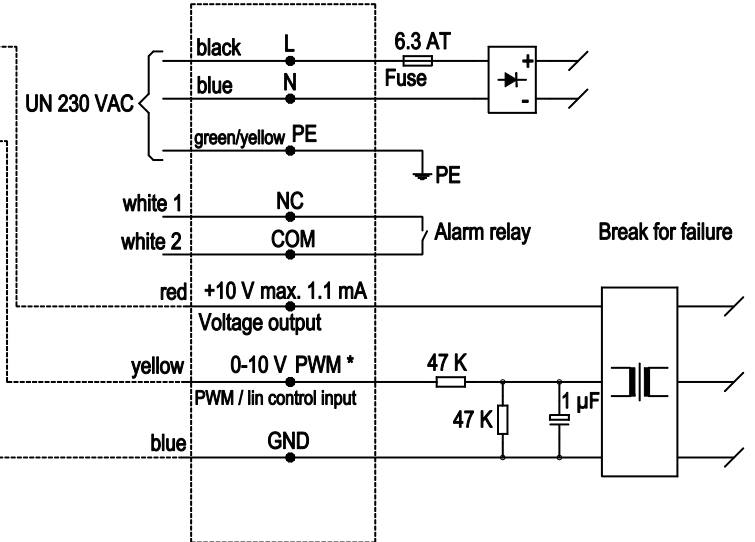
### Customer circuit

Notes on various control possibilities and their applications

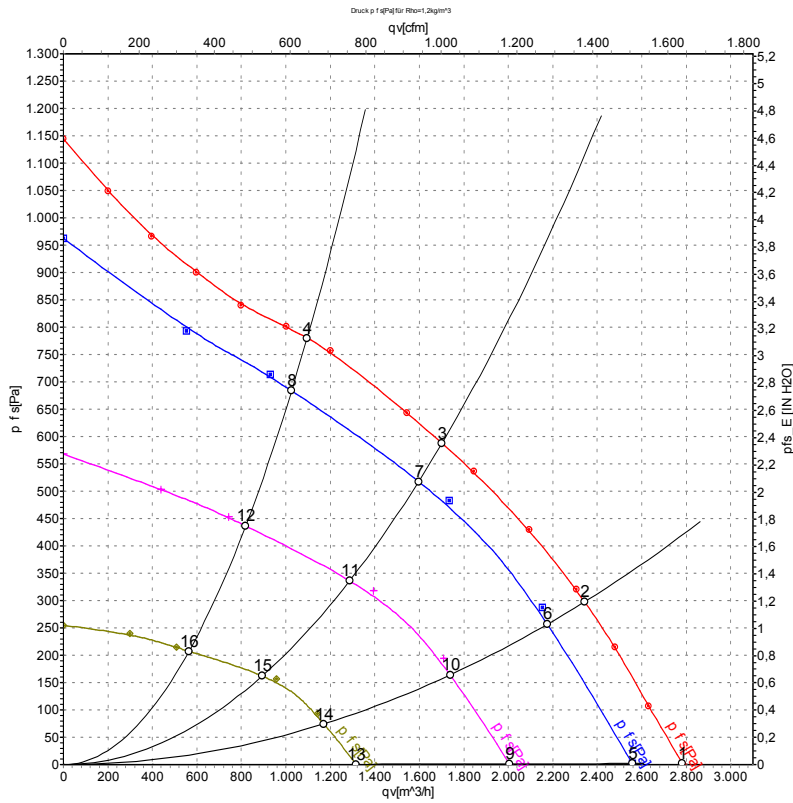


### Connection

### Fan / motor



## 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 ebmpapst. 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 <sub>ed</sub>	I	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /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<sub>ed</sub> = Power input · I = Current draw · q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase

