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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) 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
Method of obtaining data		ml
Speed (rpm)	min ⁻¹	3000
Power consumption	W	448
Current draw	A	2.8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment

Subject to change

Data according to Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	55.8	48	09 Power consumption P_{ed}	kW	0.46
02 Measurement category		A		09 Air flow q_v	m ³ /h	1595
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	522
04 Efficiency grade N		69.8	62	10 Speed (rpm) n	min ⁻¹	2840
05 Variable speed drive		Yes		11 Specific ratio*		1.01

Data obtained at optimum efficiency level.

* Specific ratio = $1 + p_b / 100\,000\text{ Pa}$

LU-159398

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings). The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again. The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

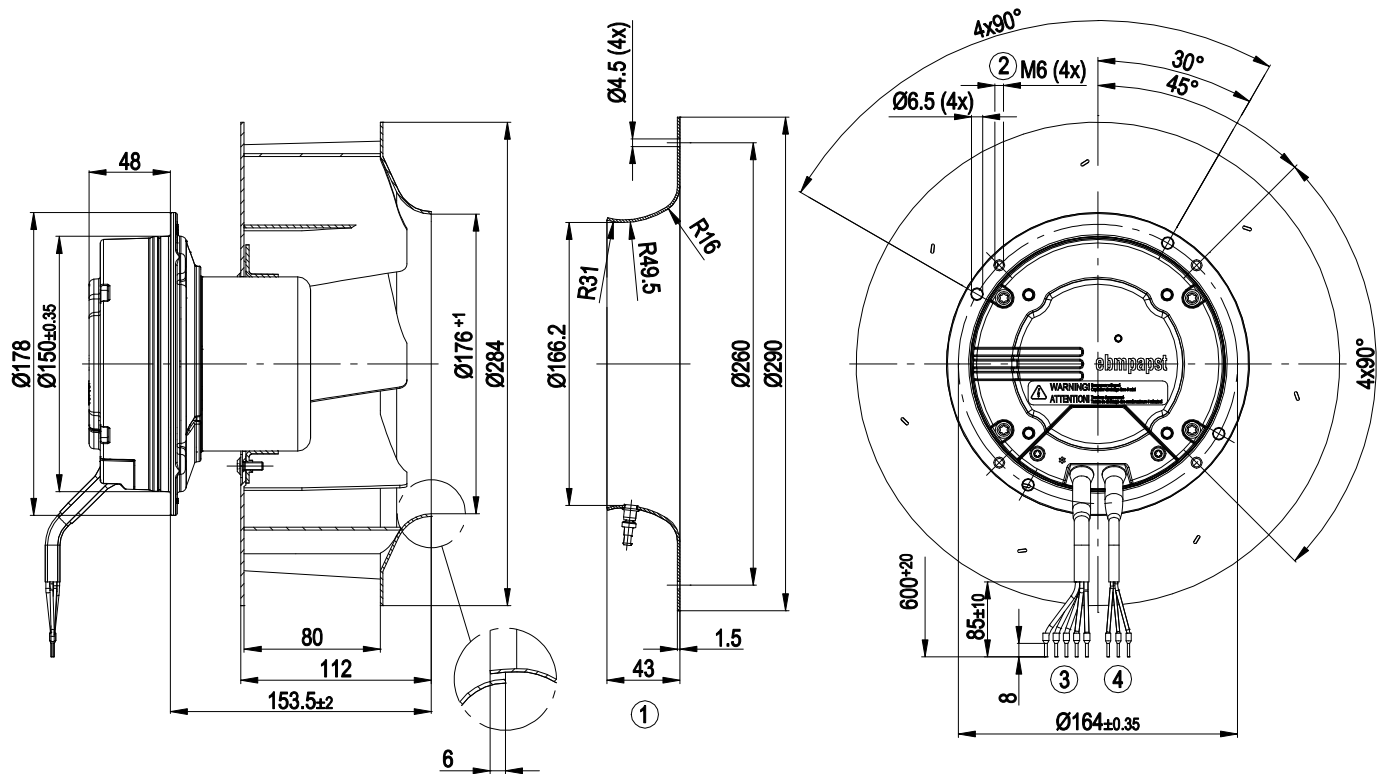


Technical description

Weight	4.4 kg
Size	250 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum, laser-welded
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE; UKCA
Approval	CCC; EAC



Product drawing

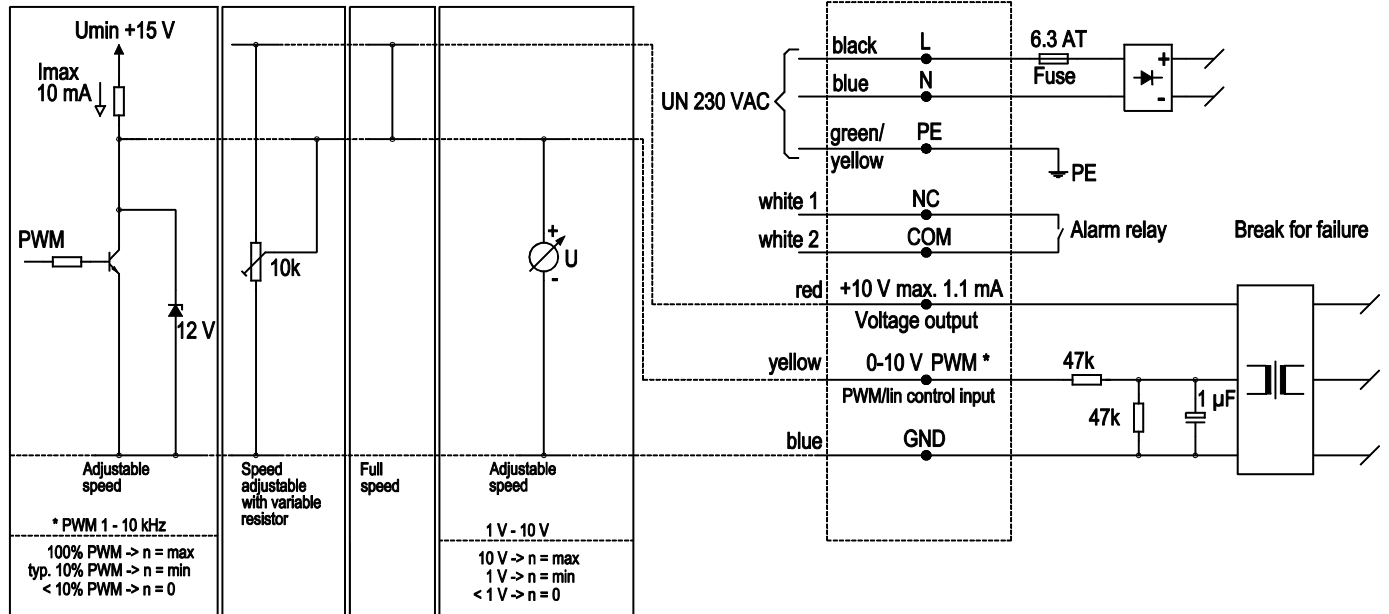


1	Accessory part: inlet ring 25075-2-4013 (k-factor: 70) not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Cable PVC AWG18, 5x crimped ferrules
4	Cable PVC AWG22, 3x crimped ferrules

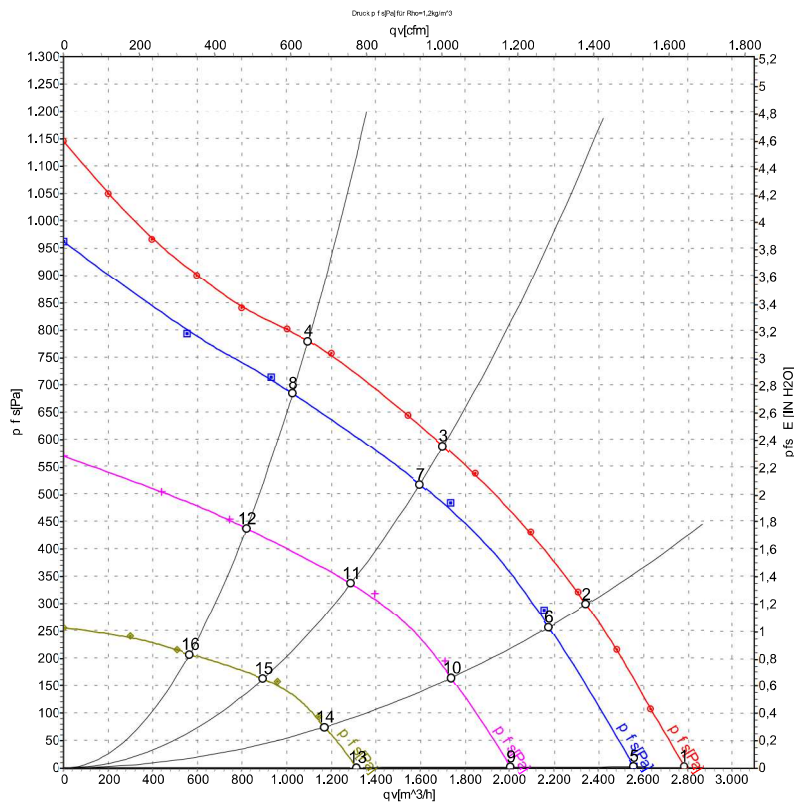
Connection diagram

Customer circuit

Application notes for various control options



Curves: Air performance 50 Hz



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

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	f	n	P _{ed}	I	q _v	p _{is}	q _v	p _{is}
	V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	in. wg
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 = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_v = Air flow · p_{is} = Pressure increase

