R3G250-AD62-20

EC centrifugal fan

backward-curved, single-intake

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G250-AD62-20**	
Motor	**M3G084-CA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2700
Power consumption	W	140
Current draw	A	3.0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	70

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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	54.1	43.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		72.4	62
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.18
09 Air flow q_v	m^3/h	870
09 Pressure increase p_{fs}	Pa	360
10 Speed (rpm) n	min^{-1}	2580
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-56153

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Technical description

Weight	3 kg
Fan size	250 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Number of blades	11
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for motor
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Conformity with standards	EN 60950-1; CE
Approval	UL 1004-1; CSA C22.2 No. 100

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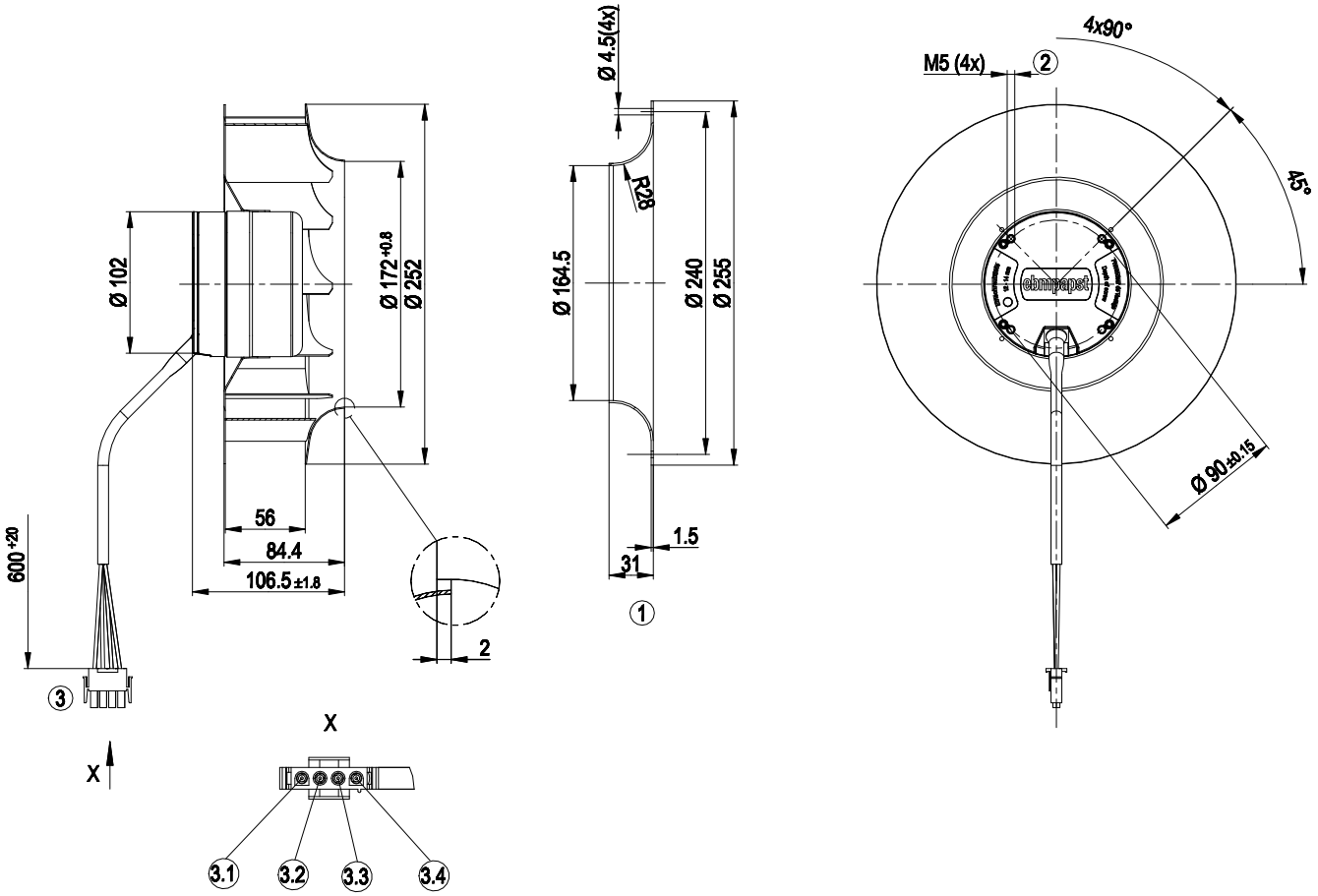
Product drawing



1	Accessory part: inlet ring 96359-2-4013 not included in scope of delivery
2	Max. clearance for screw 14 mm
3	Cable PVC AWG16 with connector housing AMP 350779-1, 4x plug pin 926887-1 crimped.
3.1	blue (GND)
3.2	yellow (PWM) control input
3.3	white (tach) speed monitoring
3.4	red (+48 V)

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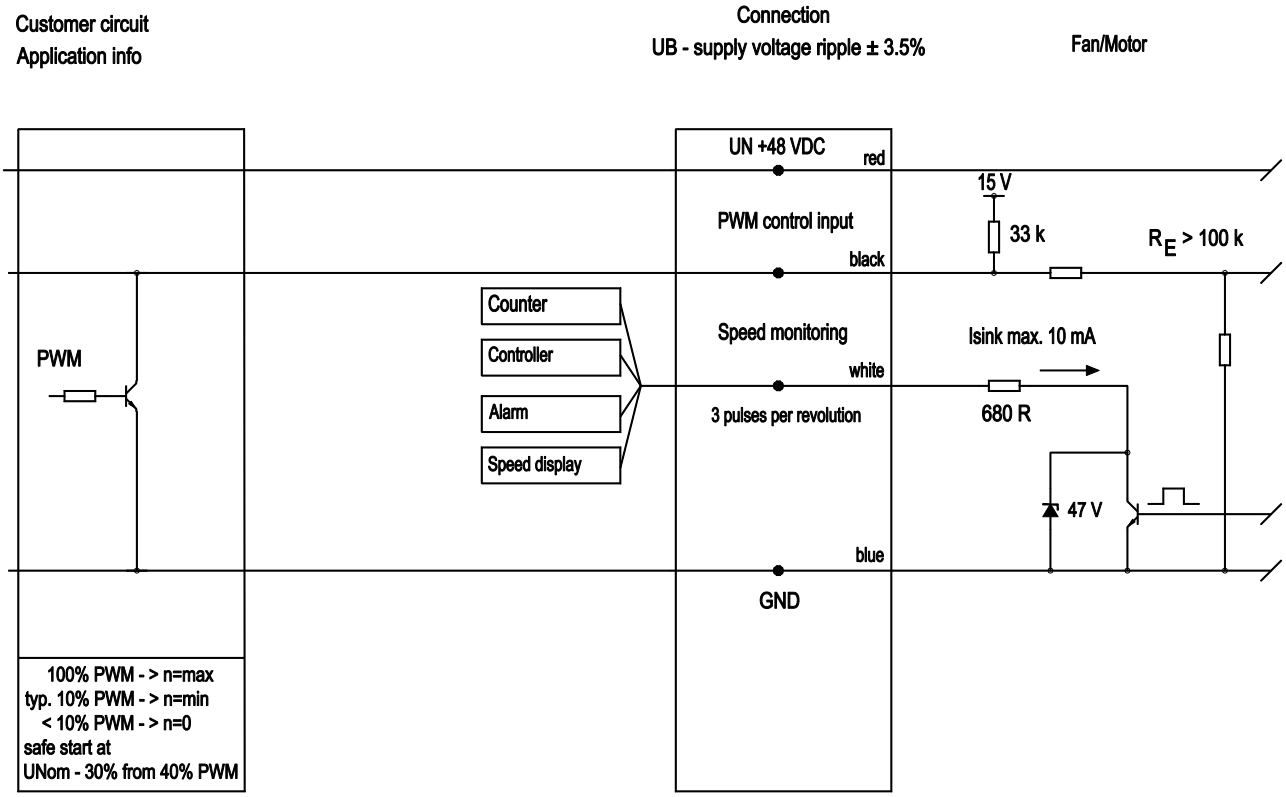
Connection diagram



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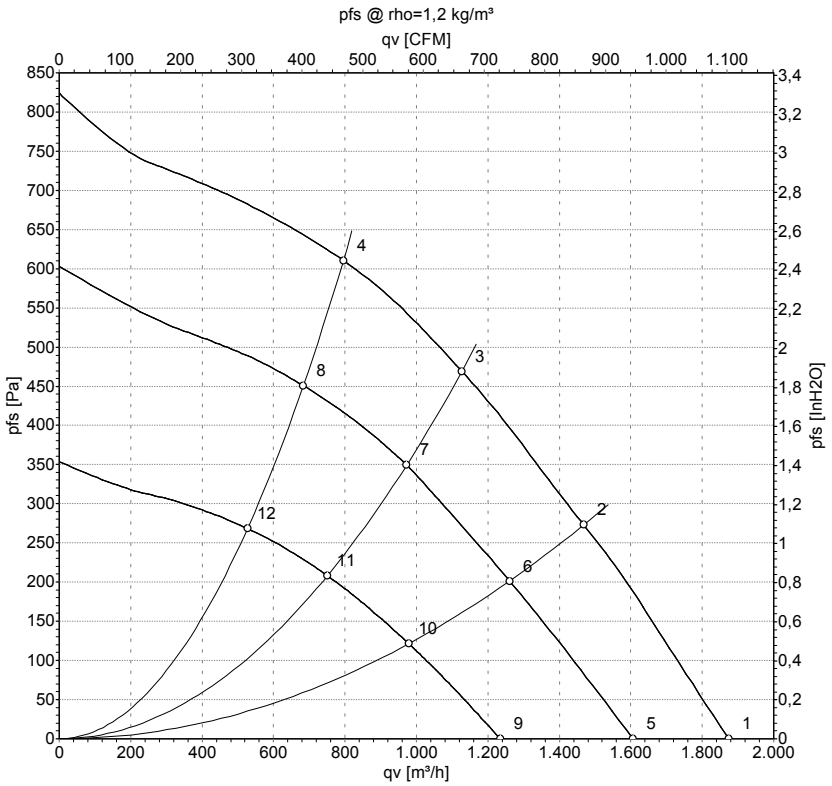
Curves: Air performance



Measurement: LU-55813-1
Measurement: LU-55811-1
Measurement: LU-55814-1

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	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	57	3120	218	3.86	1875	0	1105	0.00
2	57	3045	276	4.89	1470	273	865	1.10
3	57	3015	301	5.33	1125	469	665	1.88
4	57	3035	287	5.08	795	611	470	2.45
5	48	2700	140	3.00	1605	0	945	0.00
6	48	2620	179	3.77	1260	200	740	0.80
7	48	2600	196	4.12	975	350	575	1.41
8	48	2615	185	3.88	685	450	400	1.81
9	36	2065	68	1.92	1235	0	725	0.00
10	36	2035	86	2.41	980	121	575	0.49
11	36	2020	94	2.64	750	210	440	0.84
12	36	2030	89	2.49	525	270	310	1.08

U = Power supply · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase