R3G310-RP12-36

EC centrifugal fan - RadiCal

backward-curved, single-intake

R3G310-RP12-36 ebmpapst Datasheet
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Nominal data

Type	**R3G310-RP12-36**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2020
Power consumption	W	250
Current draw	A	5.3
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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}	%	64.9	45.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		81	62
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.29
09 Air flow q_v	m³/h	1655
09 Pressure increase p_{fs}	Pa	376
10 Speed (rpm) n	min^{-1}	1985
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-164203

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Technical description

Weight	4.4 kg
Fan size	310 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic (black)
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
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	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for motor
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; EAC

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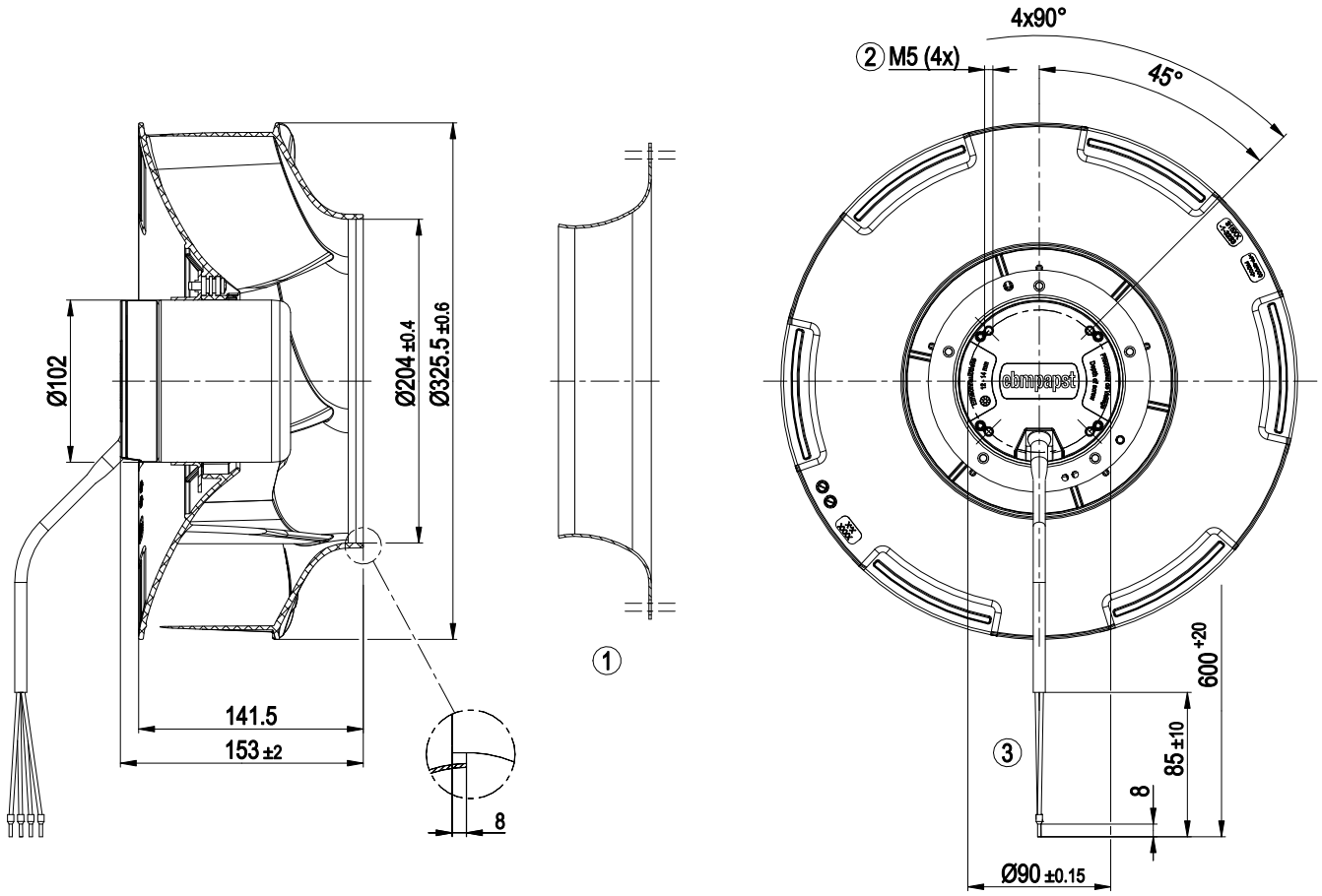
Product drawing



1	Accessory part: Inlet ring 31000-2-4013 not included in scope of delivery, other inlet rings on request
2	Max. clearance for screw 14 mm
3	Cable, PVC AWG16, 4x crimped ferrules

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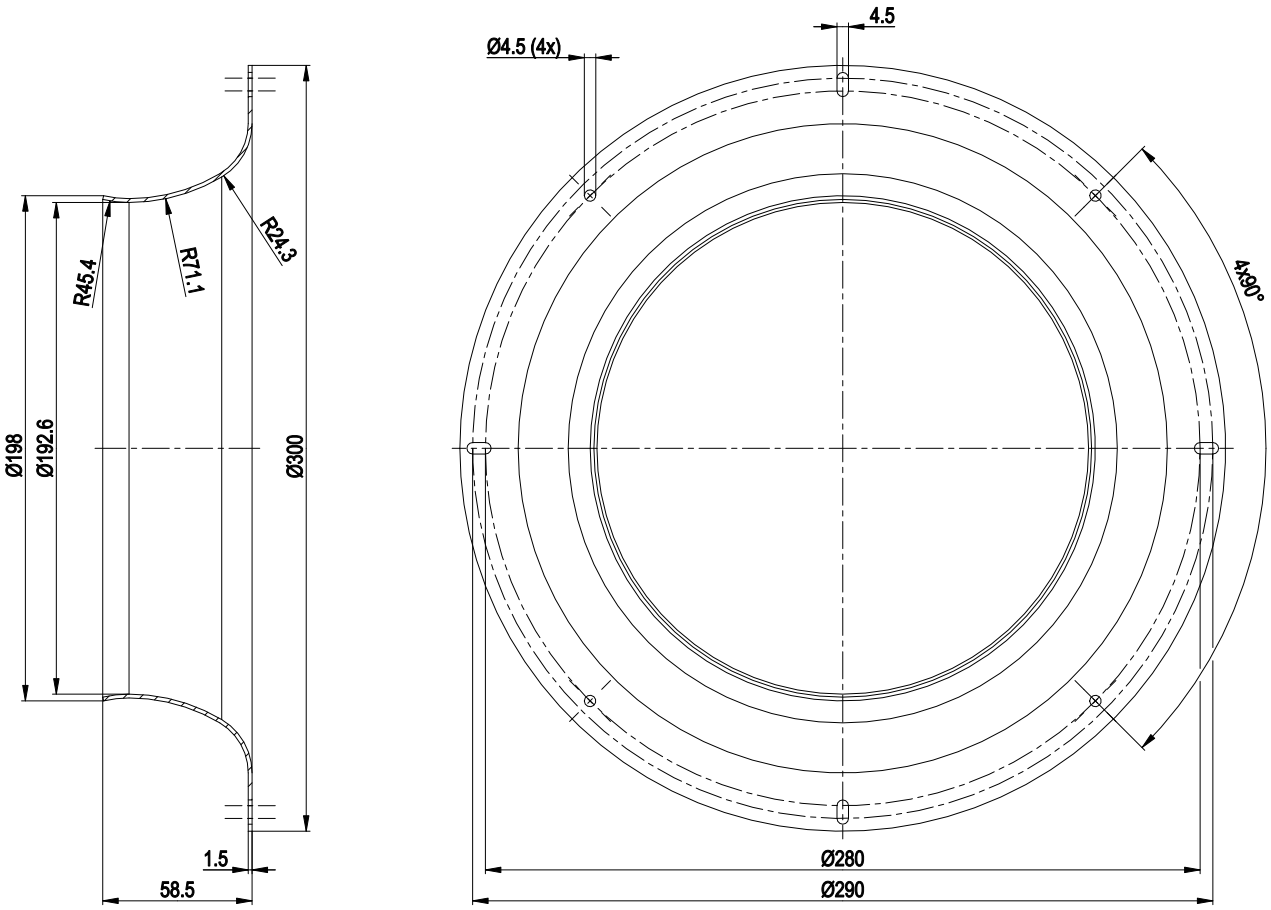
Accessory part



Accessory part: inlet ring 31000-2-4013 not included in scope of delivery

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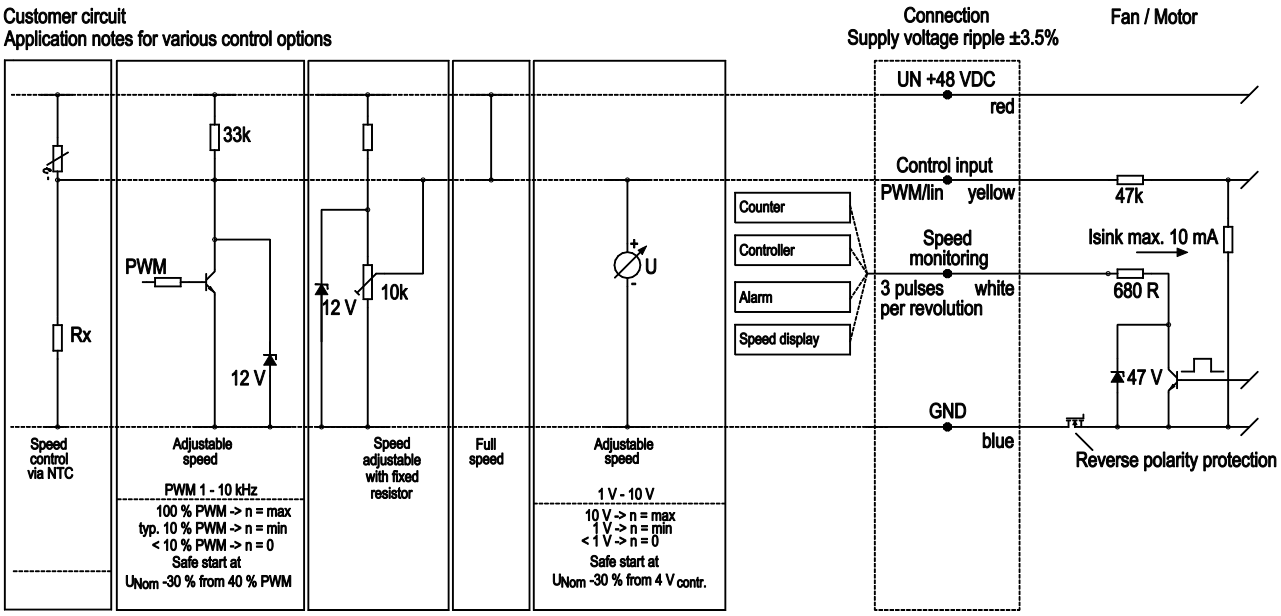
Connection diagram



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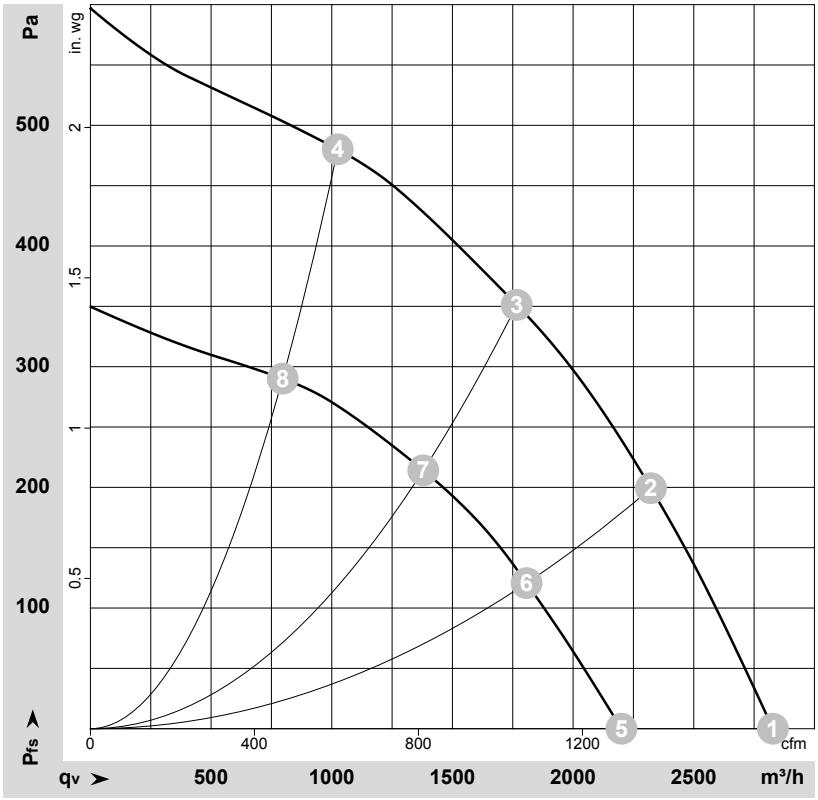
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-164203-1
Measurement: LU-164486-1

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	in. wg
1	48	2020	250	5.30	2830	0	1665	0.00
2	48	1995	287	5.99	2325	200	1365	0.80
3	48	1990	299	6.22	1765	350	1040	1.41
4	48	2015	274	5.69	1025	480	605	1.93
5	36	1580	121	3.36	2200	0	1295	0.00
6	36	1555	139	3.88	1805	121	1065	0.49
7	36	1555	145	4.02	1380	214	810	0.86
8	36	1570	132	3.66	795	290	470	1.16

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