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	**R3G310-AN26-39**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	2000
Power consumption	W	190
Current draw	A	8.0
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}	%	61.7	45
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		78.7	62
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.24
09 Air flow q_v	m^3/h	1380
09 Pressure increase p_{fs}	Pa	350
10 Speed (rpm) n	min^{-1}	1970
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-106463

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Technical description

Weight	4.3 kg
Fan size	310 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted black
Impeller material	Sheet aluminum, painted 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	H2+
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 - 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	CSA C22.2 No. 100; UL 1004-1

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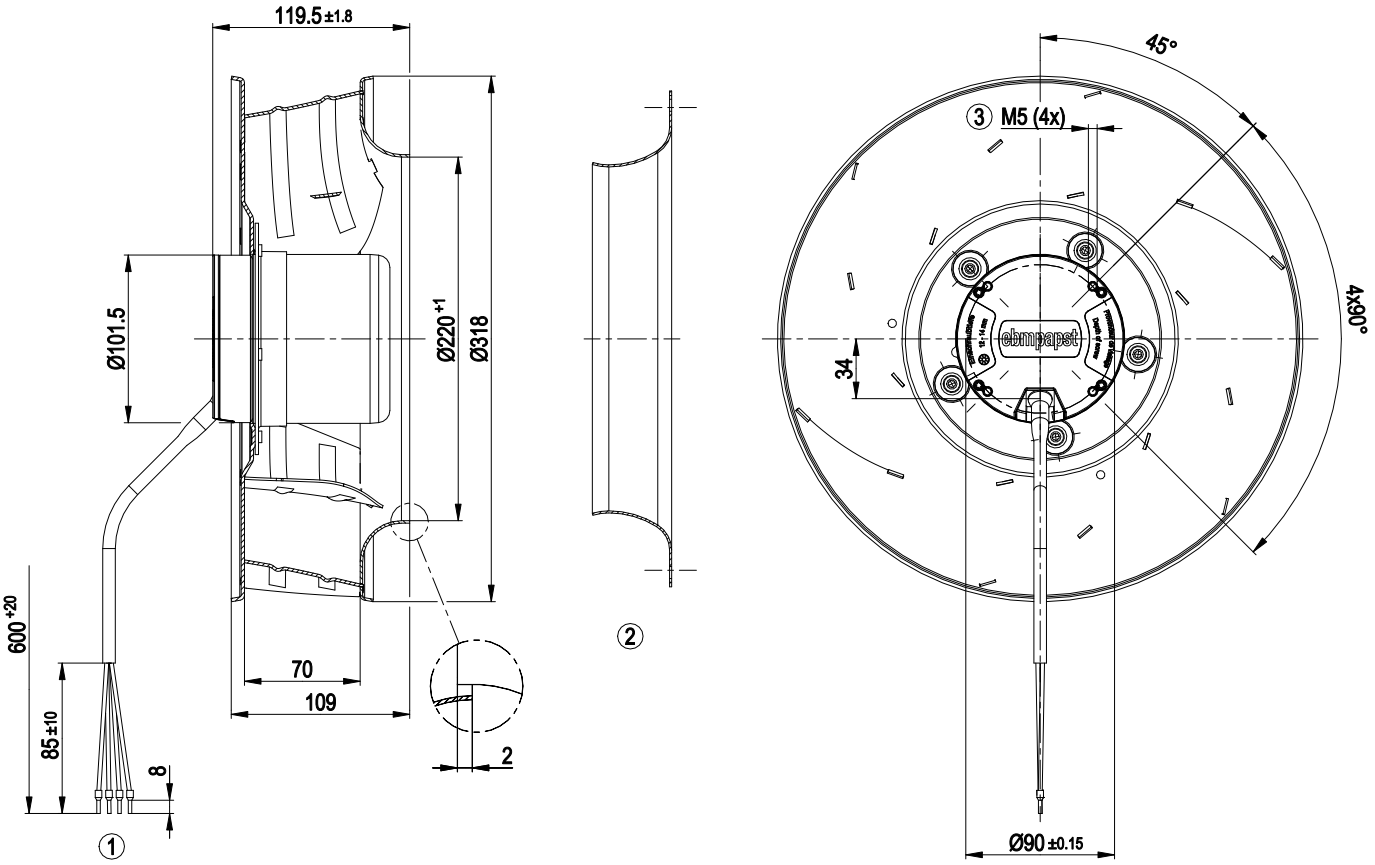
Product drawing



1	Cable PVC AWG16, 4x crimped ferrules
2	Accessory part: inlet ring 31050-2-4013 not included in scope of delivery
3	Max. clearance for screw 14 mm

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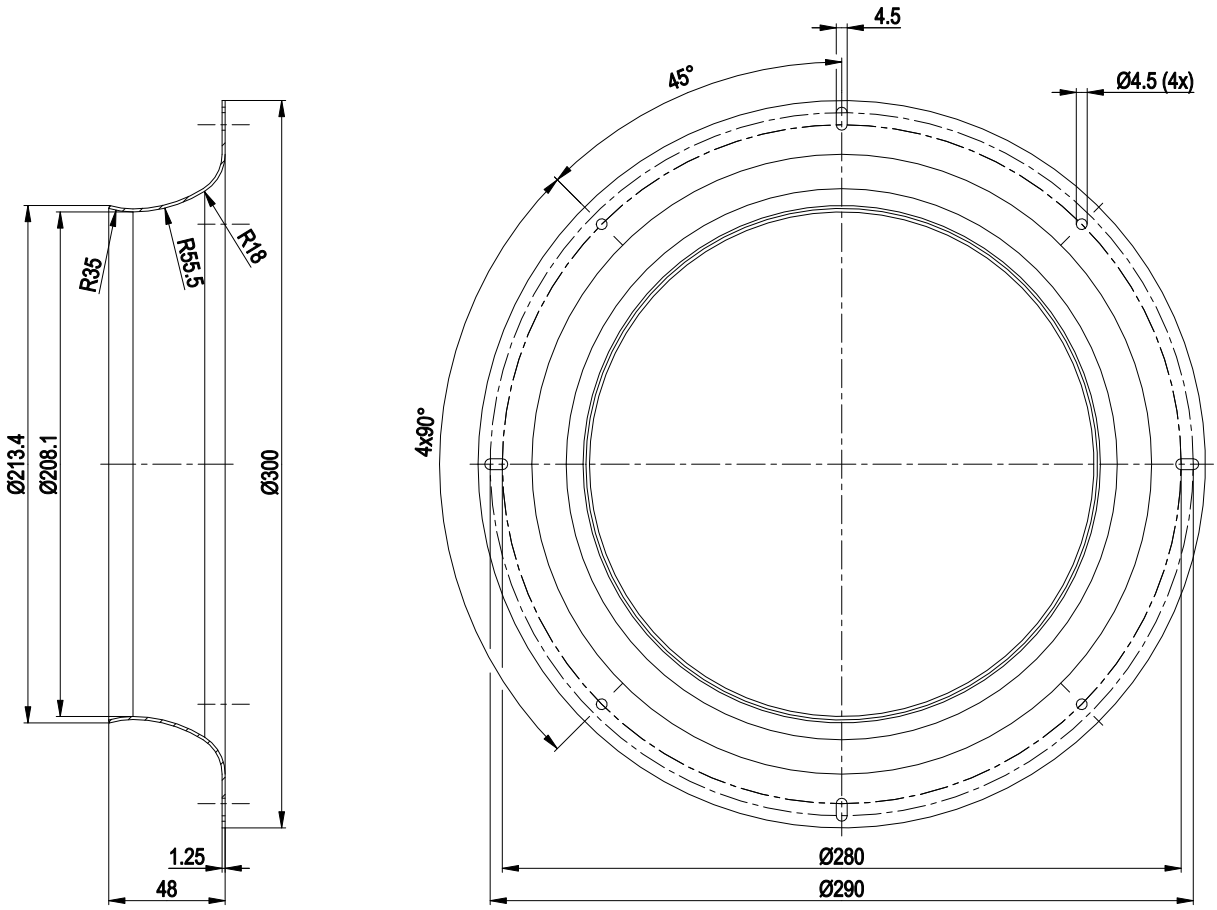
Accessory part



inlet ring 31050-2-4013 not included in scope of delivery

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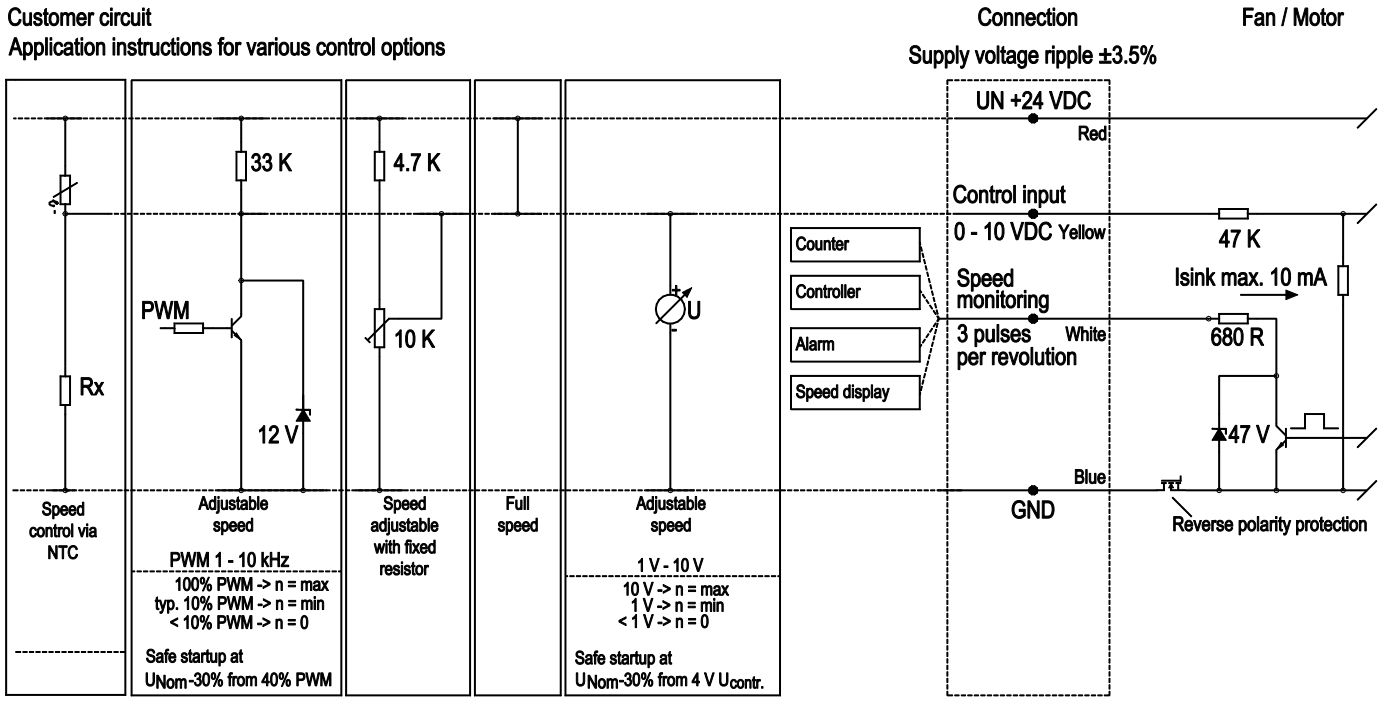
Connection diagram



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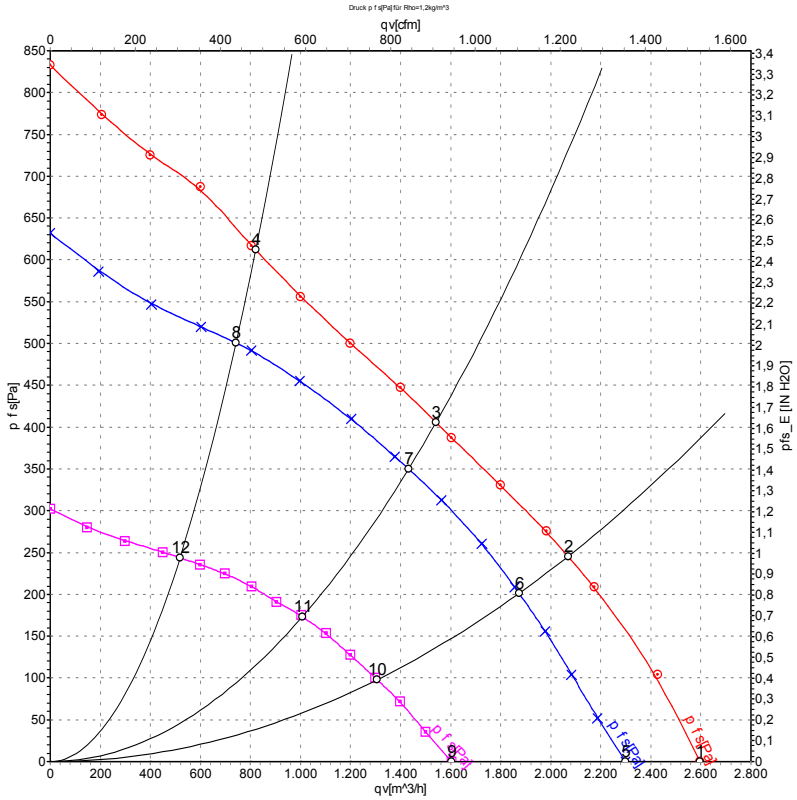
Curves: Air performance



Measurement: LU-106467-1
Measurement: LU-106463-1
Measurement: LU-106468-1

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	28	2335	277	9.94	2595	0	1530	0.00
2	28	2210	308	11.03	2070	245	1220	0.98
3	28	2135	309	11.08	1540	406	910	1.63
4	28	2235	309	11.10	820	611	485	2.45
5	24	2000	190	8.00	2300	0	1355	0.00
6	24	1990	231	9.67	1875	200	1105	0.80
7	24	1970	244	10.24	1430	350	845	1.41
8	24	1995	226	9.45	745	500	435	2.01
9	16	1425	71	4.48	1605	0	945	0.00
10	16	1405	85	5.36	1305	98	770	0.39
11	16	1395	89	5.63	1010	174	595	0.70
12	16	1410	82	5.14	520	244	305	0.98

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