R3G310-AN12-30

EC centrifugal fan

backward-curved, single-intake



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Nominal data

Type	**R3G310-AN12-30**
Motor	**M3G084-FA**

Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2000
Power consumption	W	190
Current draw	A	4.0
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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	60	45.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		76.9	62
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.24
09 Air flow q_v	m^3/h	1330
09 Pressure increase p_{fs}	Pa	350
10 Speed (rpm) n	min^{-1}	1955
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-63897

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Technical description

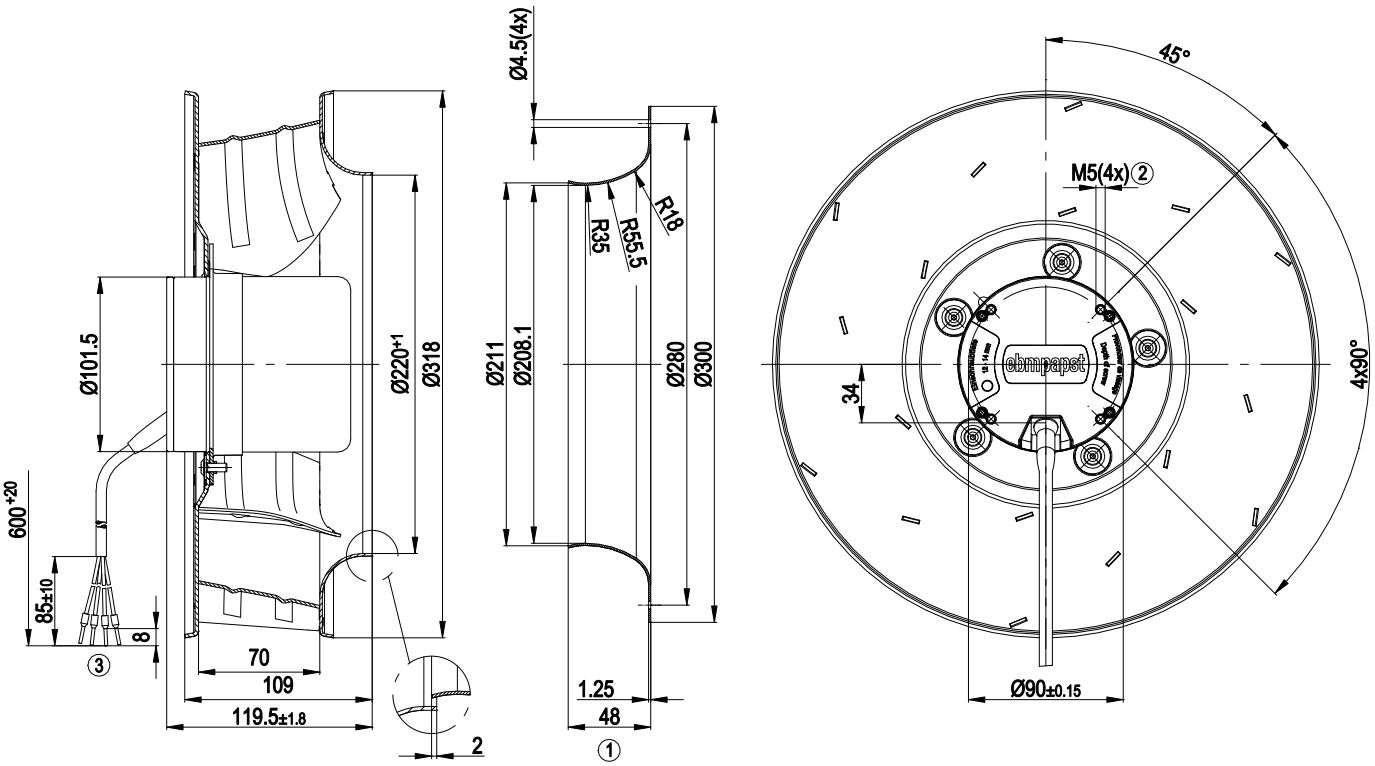
Weight	4.4 kg
Size	310 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection 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 - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Reverse polarity protection
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class assignment	Built-in component, protection class is based on the intended installation. This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 61800-5-1; CE
Approval	CSA C22.2 No. 100; CCC; EAC; UL 1004-1

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Product drawing



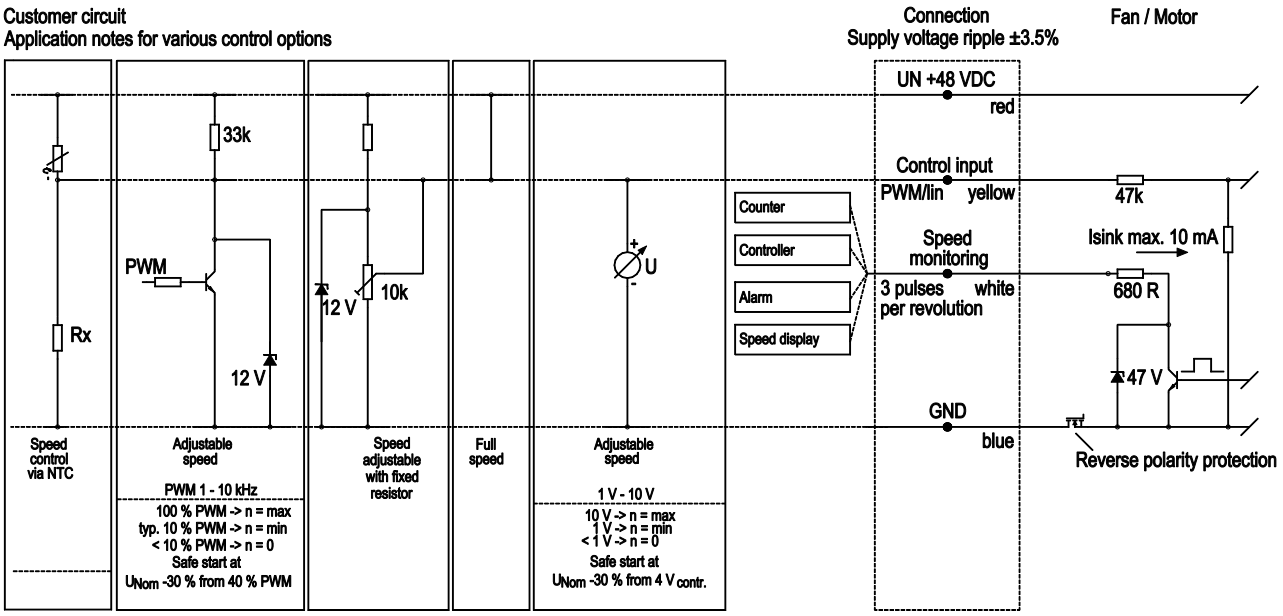
1	Accessory part: inlet ring 31050-2-4013 not included in scope of delivery
2	Max. clearance for screw 14 mm
3	Cable PVC AWG16, 4x crimped ferrules

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Connection diagram

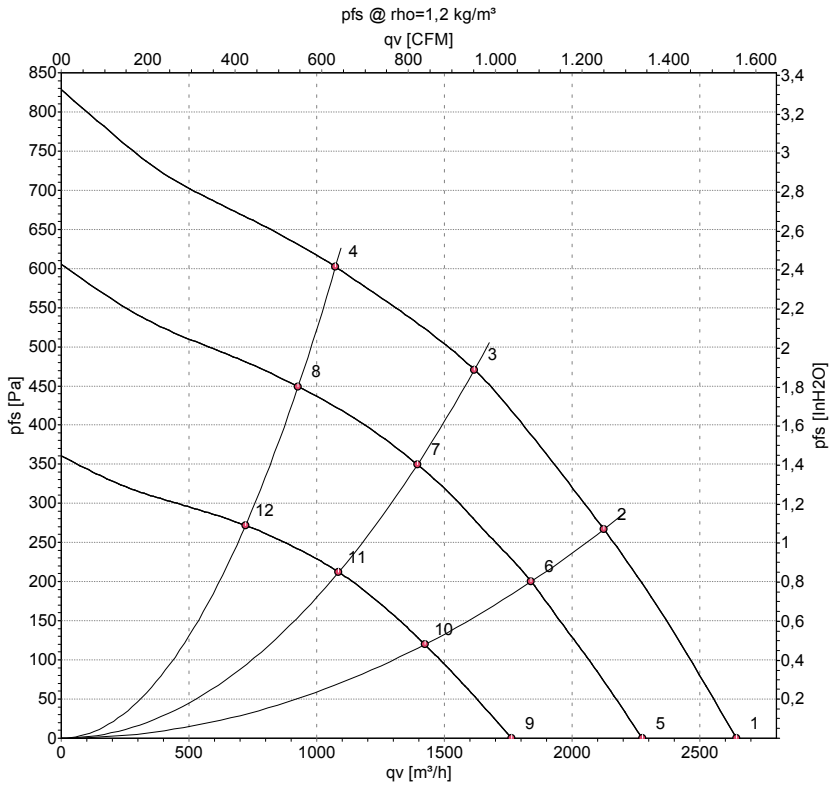


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Curves: Air performance



Measurement: LU-63899-1
Measurement: LU-63897-1
Measurement: LU-63898-1

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	57	2325	295	5.22	2645	0	1555	0.00
2	57	2280	349	6.18	2125	267	1250	1.07
3	57	2260	372	6.59	1620	472	950	1.89
4	57	2280	353	6.26	1075	602	630	2.42
5	48	2000	190	4.00	2275	0	1340	0.00
6	48	1970	229	4.80	1840	200	1085	0.80
7	48	1955	242	5.09	1395	350	820	1.41
8	48	1970	230	4.83	925	450	545	1.81
9	36	1555	94	2.63	1765	0	1040	0.00
10	36	1535	111	3.11	1425	120	840	0.48
11	36	1525	118	3.31	1085	214	640	0.86
12	36	1535	112	3.14	720	273	425	1.10

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

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