

R3G310-AN12-30

EC centrifugal fan

backward curved, single inlet



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Nominal data

Type	R3G310-AN12-30	
Motor	M3G084-FA	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
Speed	min ⁻¹	2000
Power input	W	190
Current draw	A	4.0
Min. ambient temperature	°C	- 25
Max. ambient temperature	°C	+60

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		62.2	40.6	44.6
Efficiency grade N		79.6	58	62
Power input P_e	kW	0.22		
Air flow q_v	m ³ /h	1280		
Pressure increase p_{fs}	Pa	350		
Speed n	min ⁻¹	1980		

Data established at point of optimum efficiency



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Technical features

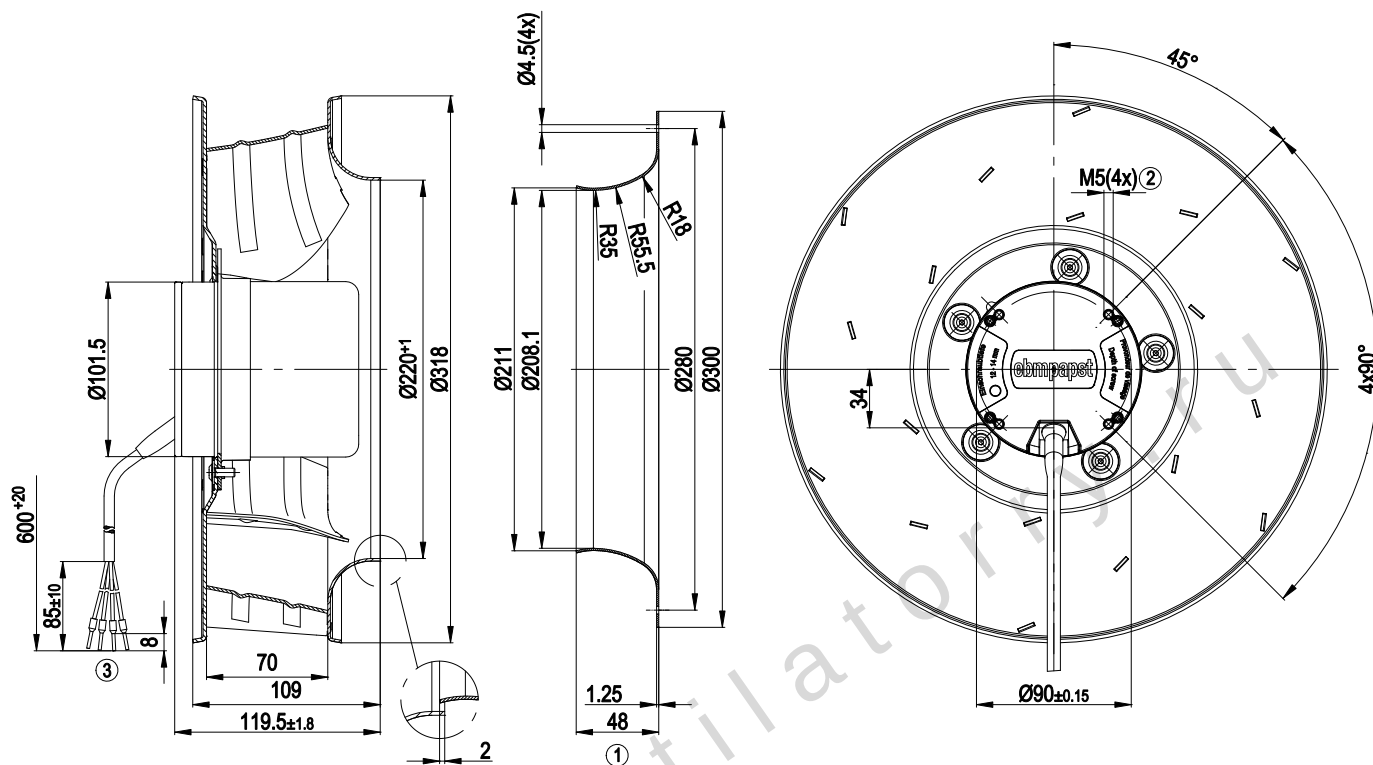
Mass	4.35 kg
Size	310 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 55022 (Class B)
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Product conforming to standard	EN 60950-1
Approval	UL 1004-1; CCC; GOST; CSA C22.2 Nr.100

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Product drawing



- | | |
|---|---|
| 1 | Accessory part: Inlet nozzle 31050-2-4013, not included in the standard scope of delivery |
| 2 | Depth of screw 12 - 14 mm |
| 3 | Connection line PVC AWG16, 4x crimped core-end sleeves |

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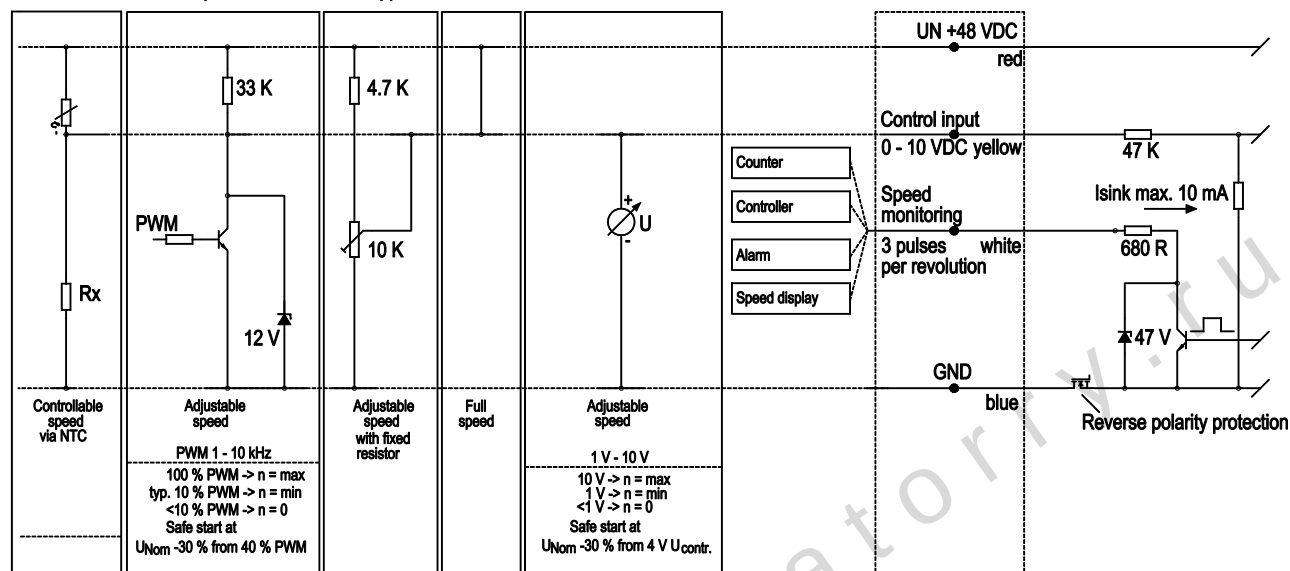
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Connection screen

Customer circuit

Notes on various control possibilities and their applications

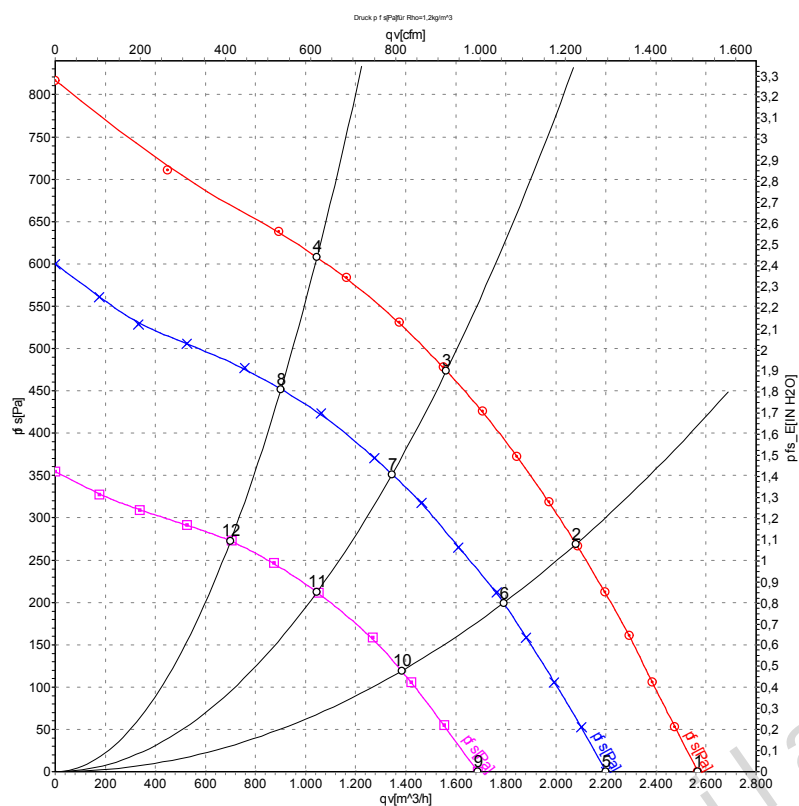


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Charts: Air flow



Measurement: LU-57147
Measurement: LU-57146
Measurement: LU-57148

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: L_{WA} measured as per ISO 13347 / L_{pA} measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	n	P _{ed}	I	qv	p _{fs}
	V	min ⁻¹	W	A	m ³ /h	Pa
1	57	2370	263	4.65	2570	0
2	57	2325	317	5.61	2080	269
3	57	2295	347	6.15	1560	474
4	57	2310	335	5.93	1045	608
5	48	2030	171	3.59	2200	0
6	48	2000	204	4.29	1790	200
7	48	1980	225	4.72	1345	350
8	48	1990	217	4.55	900	450
9	36	1570	84	2.35	1690	0
10	36	1555	101	2.83	1385	119
11	36	1545	110	3.07	1045	213
12	36	1550	106	2.96	700	274

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase