R3G280-AC66-38

EC centrifugal fan

backward-curved, single-intake

R3G280-AC66-38 ebmpapst Datasheet
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Nominal data

Type	**R3G280-AC66-38**	
Motor	**M3G084-CA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2000
Power consumption	W	135
Current draw	A	2.85
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}	%	53.1	43.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		71.4	62
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.18
09 Air flow q_v	m^3/h	1270
09 Pressure increase p_{fs}	Pa	250
10 Speed (rpm) n	min^{-1}	1925
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-61034

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Technical description

Weight	3.3 kg
Fan size	280 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	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 - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for motor
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 55022 (Class B)
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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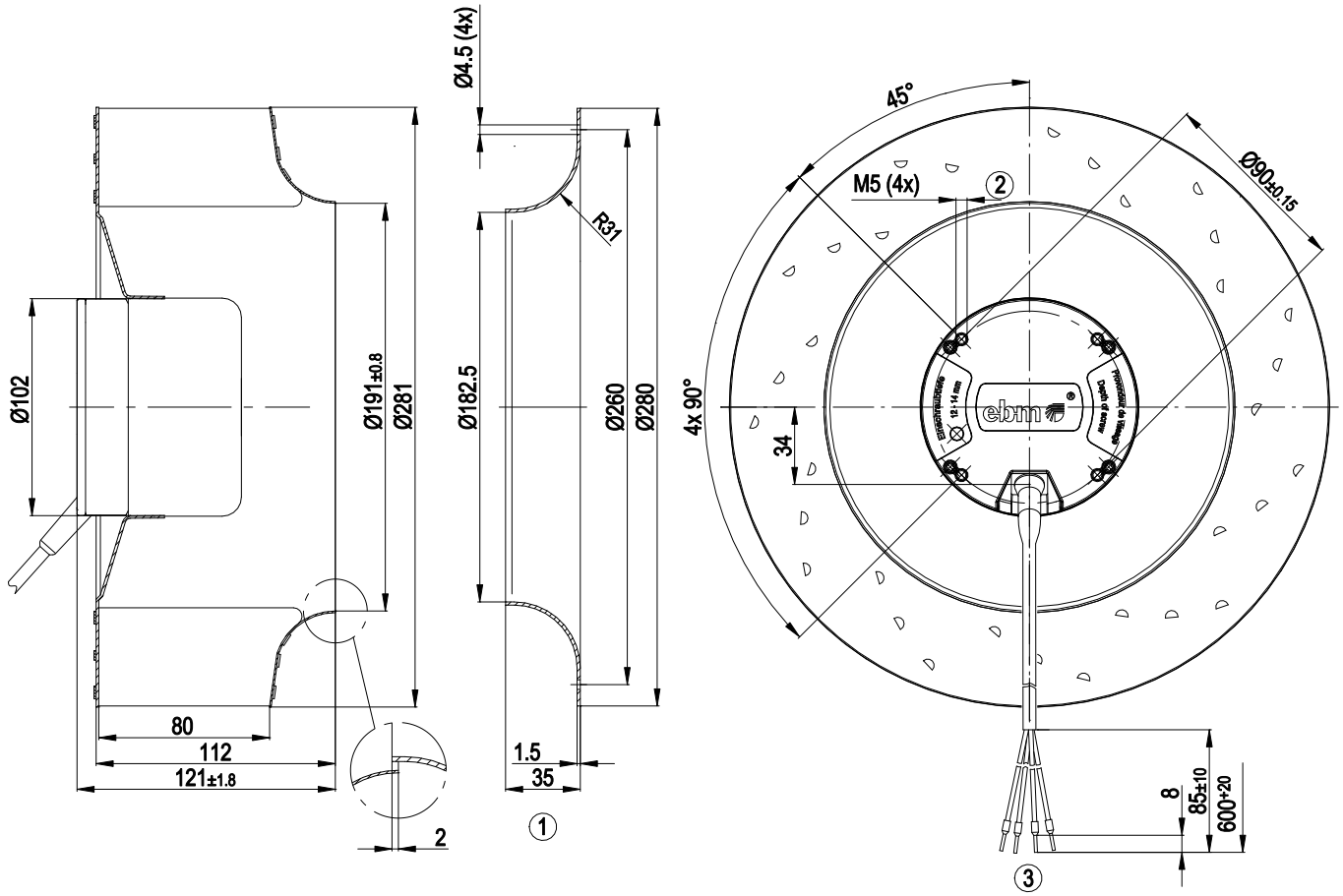
Product drawing



1	Accessory part: inlet ring 96360-2-4013 not included in scope of delivery
2	Clearance for screw 12-14 mm
3	Cable silicone 4x 1.50 mm², 4x crimped ferrules

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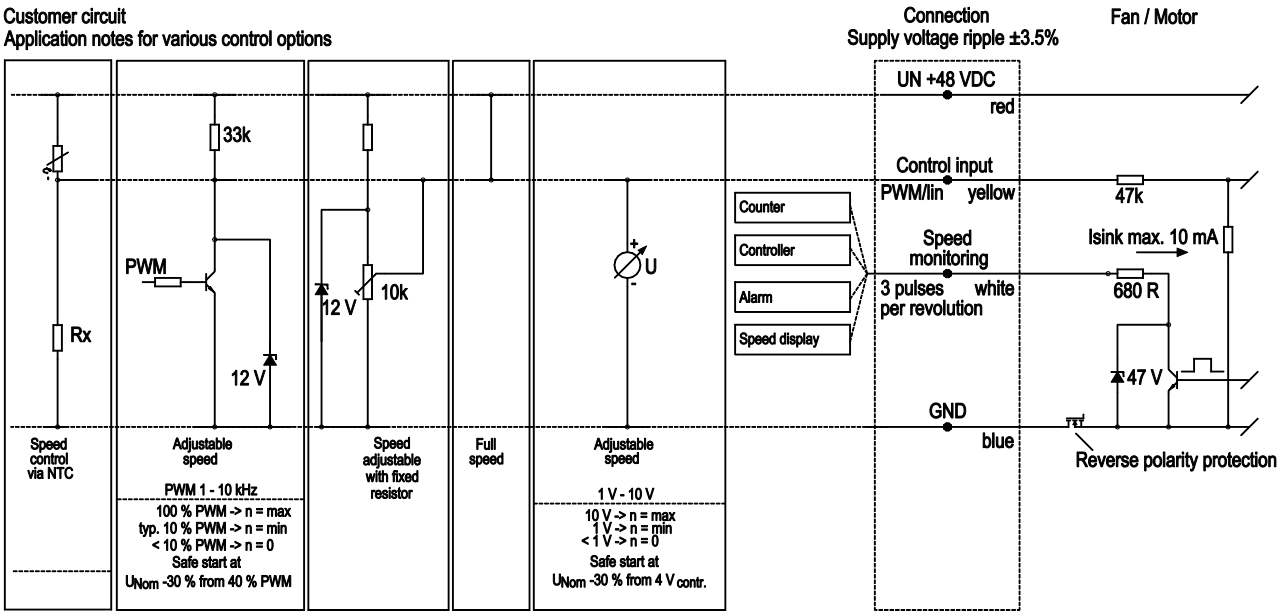
Connection diagram



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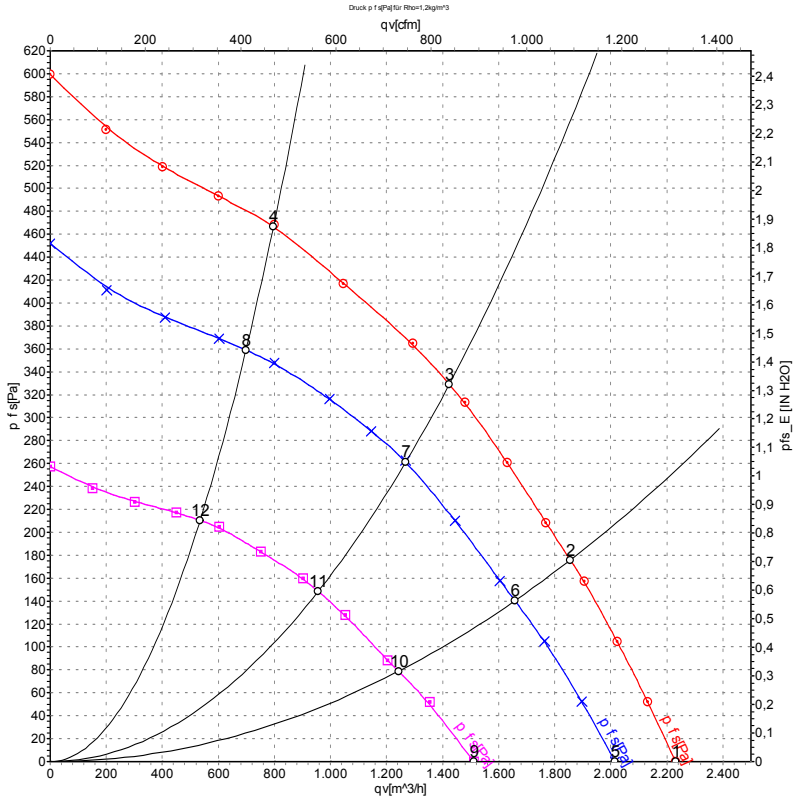
Curves: Air performance



Measurement: LU-72884-1
Measurement: LU-61034-1
Measurement: LU-72885-1

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	2305	212	3.74	2230	0	1315	0.00
2	57	2245	257	4.55	1855	176	1090	0.71
3	57	2210	281	4.97	1425	329	840	1.32
4	57	2270	242	4.27	795	469	470	1.88
5	48	2000	135	2.85	2015	0	1185	0.00
6	48	1955	173	3.64	1660	140	975	0.56
7	48	1920	185	3.80	1270	260	745	1.04
8	48	1980	160	3.35	700	360	410	1.45
9	36	1550	65	1.81	1510	0	890	0.00
10	36	1520	80	2.23	1245	79	730	0.32
11	36	1505	87	2.45	955	149	565	0.60
12	36	1530	75	2.09	535	210	315	0.84

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