R3G280-AC66-30

EC centrifugal fan

backward curved, single inlet



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G280-AC66-30**	
Motor	**M3G084-CA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
Speed	min^{-1}	2000
Power input	W	135
Current draw	A	2.85
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 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	53.1	39.7	43.7
Efficiency grade N		71.4	58	62
Power input P_e	kW	0.18		
Air flow q_v	m³/h	1270		
Pressure increase p_{fs}	Pa	250		
Speed n	min^{-1}	1925		

Data definition with optimum efficiency. LU-61034
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

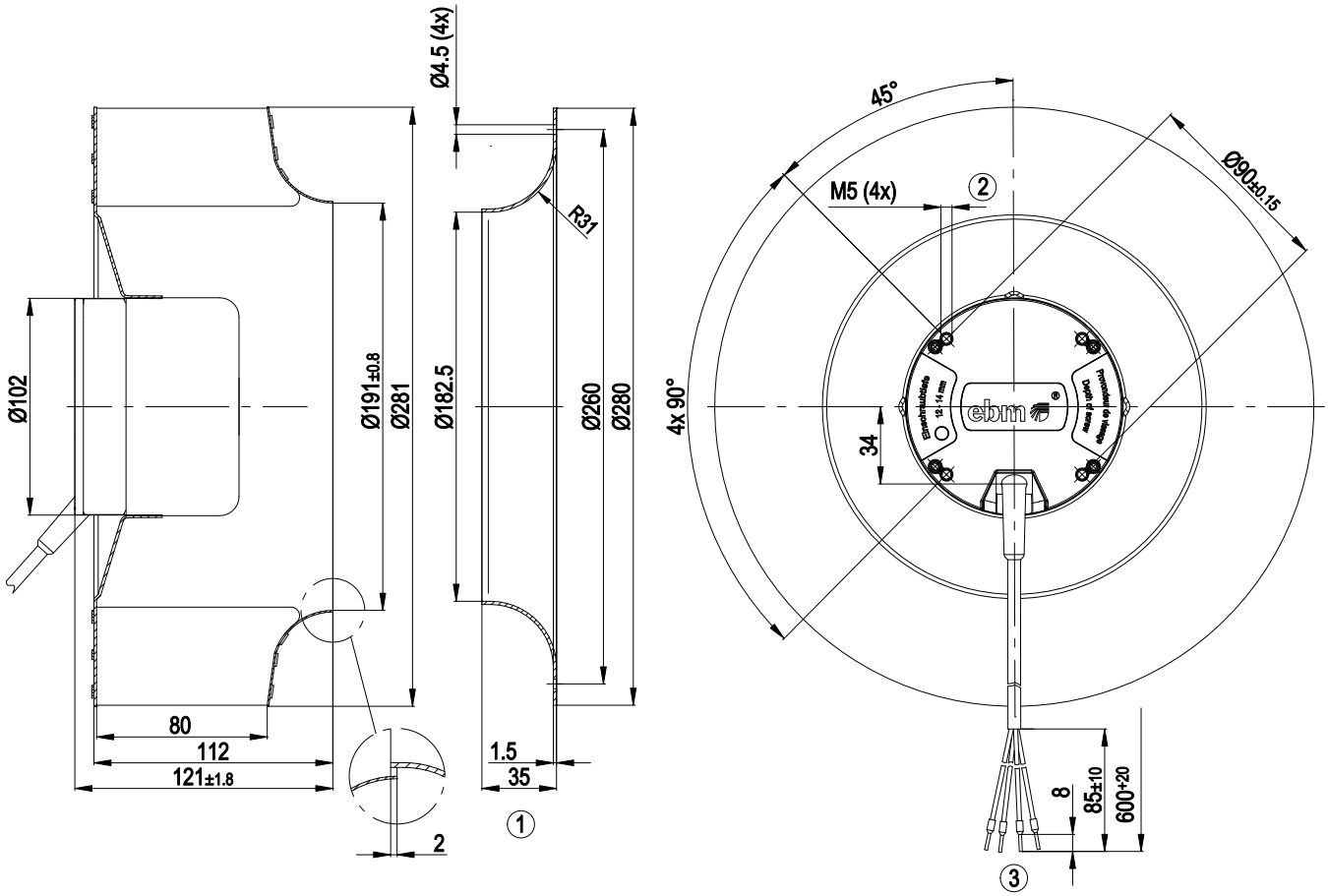
Mass	3.3 kg
Size	280 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet steel, galvanised
Number of blades	11
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Max. permissible ambient motor temp. (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	CCC; CSA C22.2 Nr.100; EAC; UL 1004-1

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Product drawing



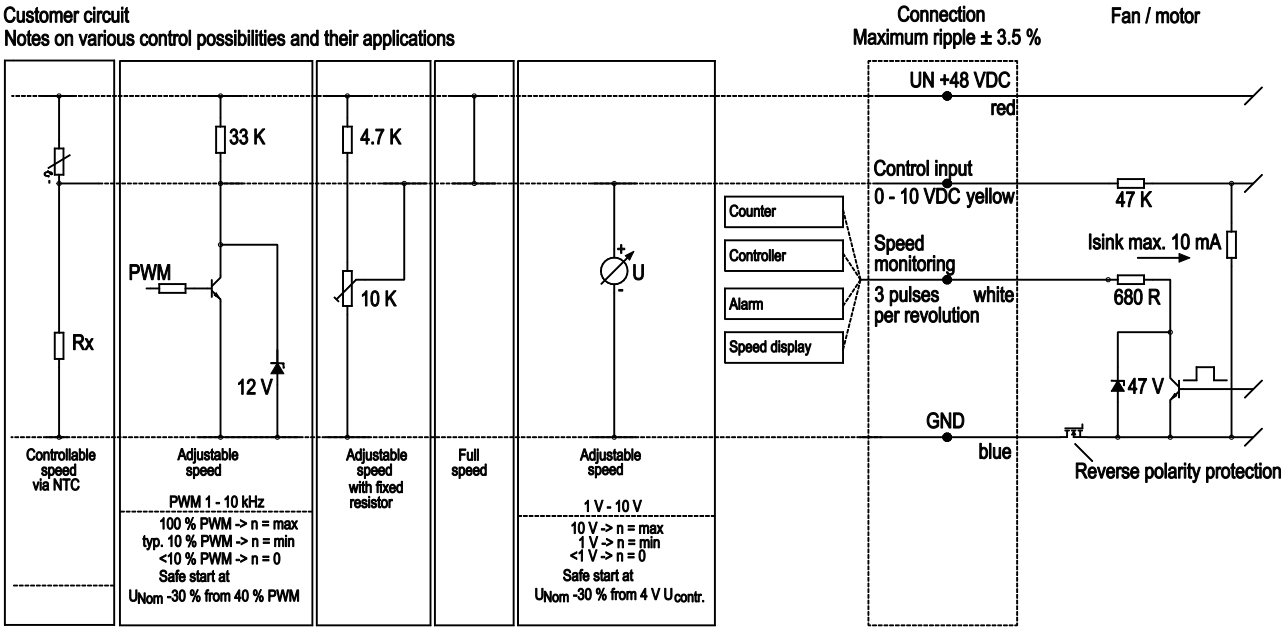
1	Accessory part: Inlet nozzle 96360-2-4013, not included in the standard scope of delivery
2	Depth of screw 12-14 mm
3	Connection line PVC AWG16, 4x crimped core-end sleeves

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Connection screen

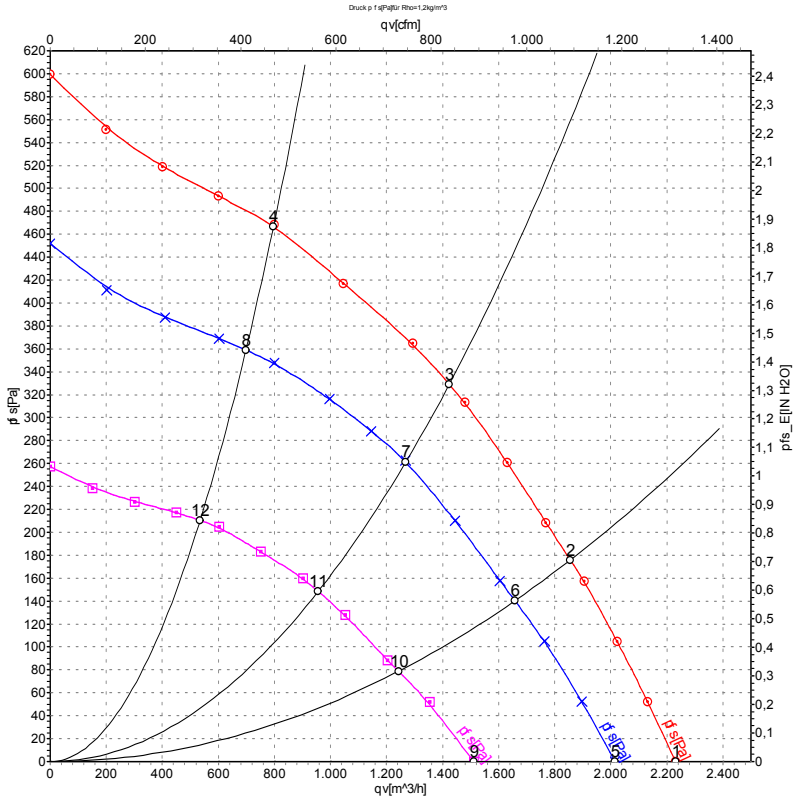


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Charts: Air flow



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

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: LwA measured as per ISO 13347 / LpA 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	2305	212	3.74	2230	0
2	57	2245	257	4.55	1855	176
3	57	2210	281	4.97	1425	329
4	57	2270	242	4.27	795	469
5	48	2000	135	2.85	2015	0
6	48	1955	173	3.64	1660	140
7	48	1920	185	3.80	1270	260
8	48	1980	160	3.35	700	360
9	36	1550	65	1.81	1510	0
10	36	1520	80	2.23	1245	79
11	36	1505	87	2.45	955	149
12	36	1530	75	2.09	535	210

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

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