R3G280-AB50-12

EC centrifugal fan

backward curved, single inlet

R3G280-AB50-12 ebmpapst Datasheet
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Nominal data

Type	**R3G280-AB50-12**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	115
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	1640
Power input	W	90
Current draw	A	1.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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

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Technical features

Mass	3 kg
Size	280 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, hot-galvanised
Number of blades	11
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 55022 (Class B)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1
Approval	UL 2111; CSA C22.2 Nr.77

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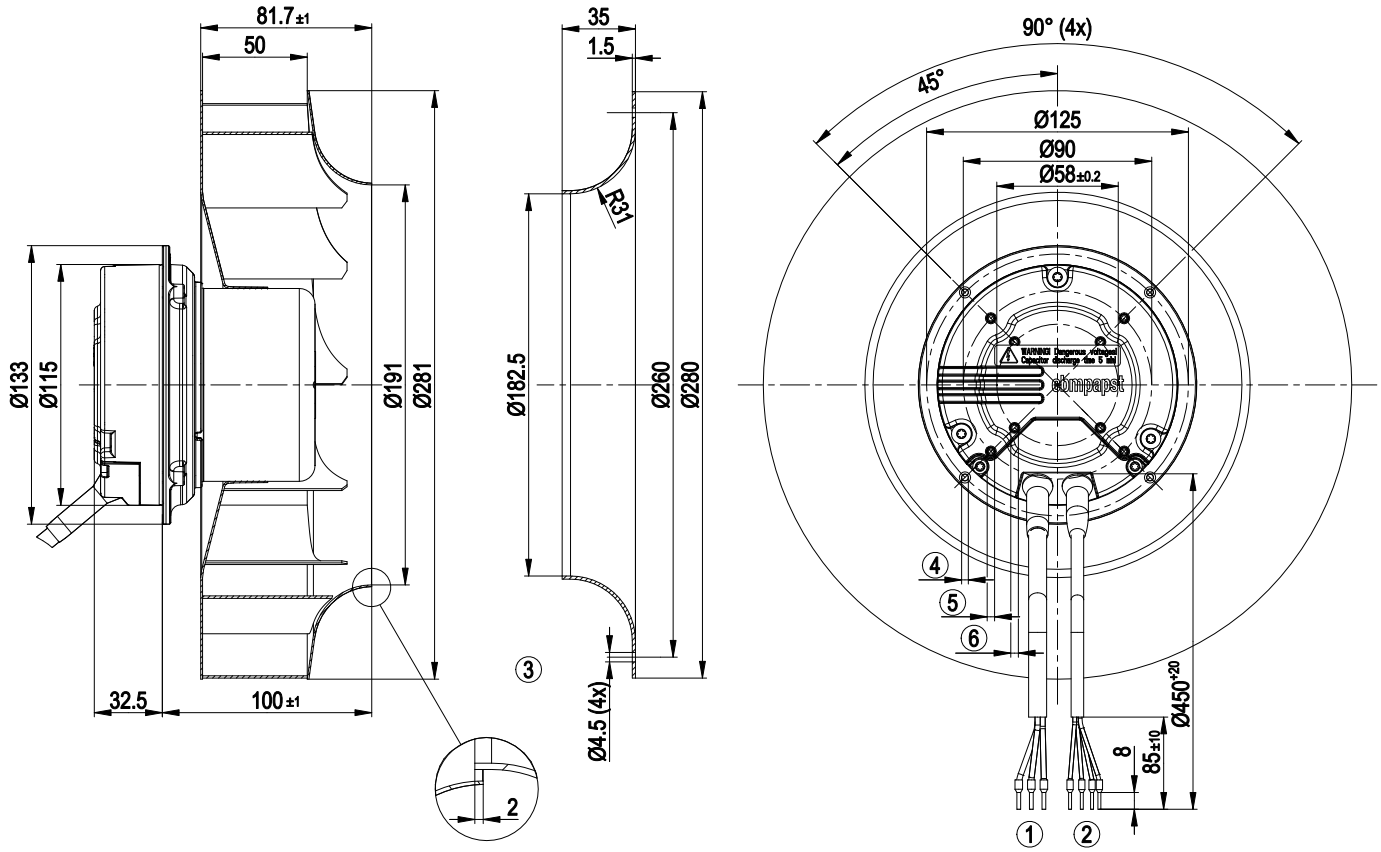
Product drawing



1	Connection line AWG18, 3 x crimped core-end sleeves
2	Connection line AWG22, 4 x crimped core-end sleeves
3	Accessory part: inlet nozzle 96360-2-4013 not included in the standard scope of delivery; other inlet nozzles on request
4	Depth of screw 8 - 10 mm
5	Pilot hole prepared for self-tapping screw M4, depth of screw max. 6 mm
6	Pilot hole prepared for self-tapping screw M4, depth of screw max. 8 mm

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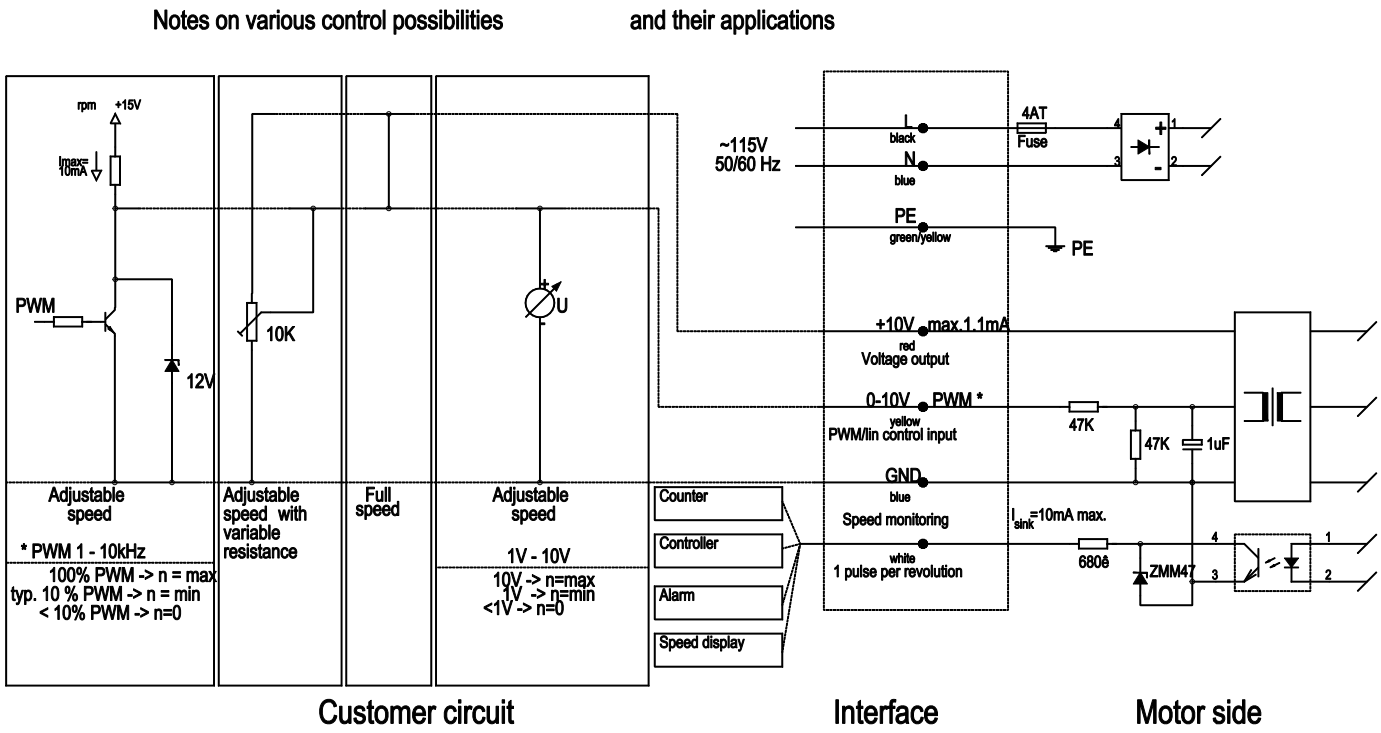
Connection screen



Not switchable via the supply voltage. Restart only after 5 minute delay via input voltage.

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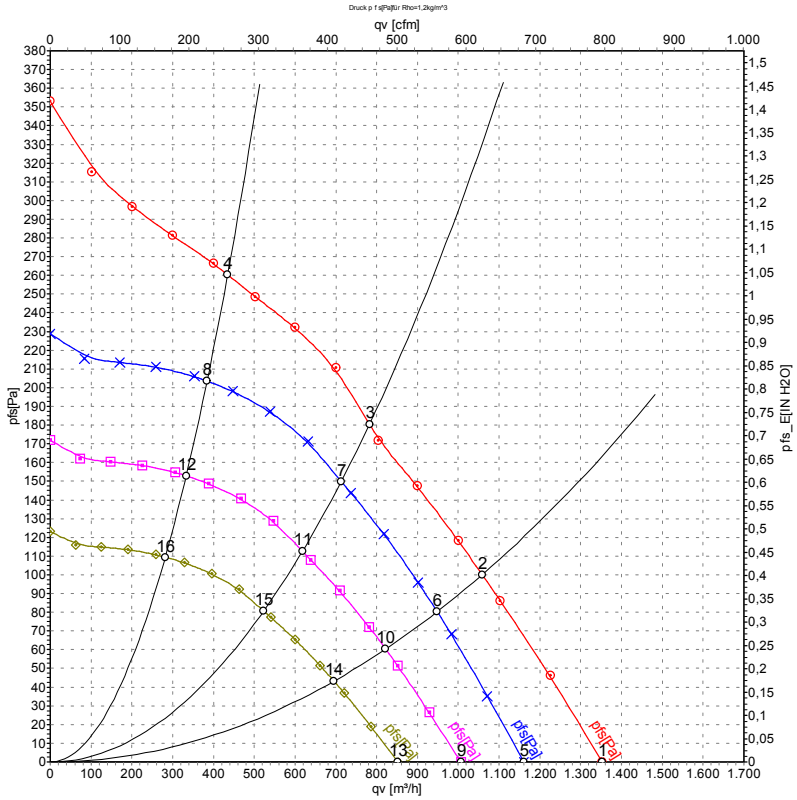
Charts: Air flow 50 Hz



Measurement: LU-135902

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	f	n	P_{ed}	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	115	50	1745	66	0.94	1350	0
2	115	50	1675	82	1.15	1060	100
3	115	50	1640	90	1.20	780	180
4	115	50	1695	79	1.10	435	260
5	115	50	1500	42	0.60	1160	0
6	115	50	1500	59	0.82	950	80
7	115	50	1500	67	0.93	715	150
8	115	50	1500	54	0.76	385	204
9	115	50	1300	27	0.39	1005	0
10	115	50	1300	39	0.54	820	60
11	115	50	1300	44	0.60	620	113
12	115	50	1300	35	0.49	335	153
13	115	50	1100	17	0.24	850	0
14	115	50	1100	23	0.32	695	43
15	115	50	1100	26	0.37	525	81
16	115	50	1100	21	0.30	280	109

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