EC centrifugal fan

backward curved, single inlet

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner: Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**R1G280-AE45-16**	
Motor	**M1G074-CF**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 30
Type of data definition		fa
Speed	min-1	1710
Power input	W	95
Current draw	A	4.6
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

R1G280-AE45-16 ebmpapst Datasheet FansCo sales@fansco.com www.fansco.com

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Technical features

Mass	2.8 kg
Size	280 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet steel, hot-galvanised
Number of blades	11
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Humidity class	F0
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
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 55022 (Class B)
Electrical leads	With plug
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60950-1
Approval	UL 1004-1; CSA C22.2 Nr.77

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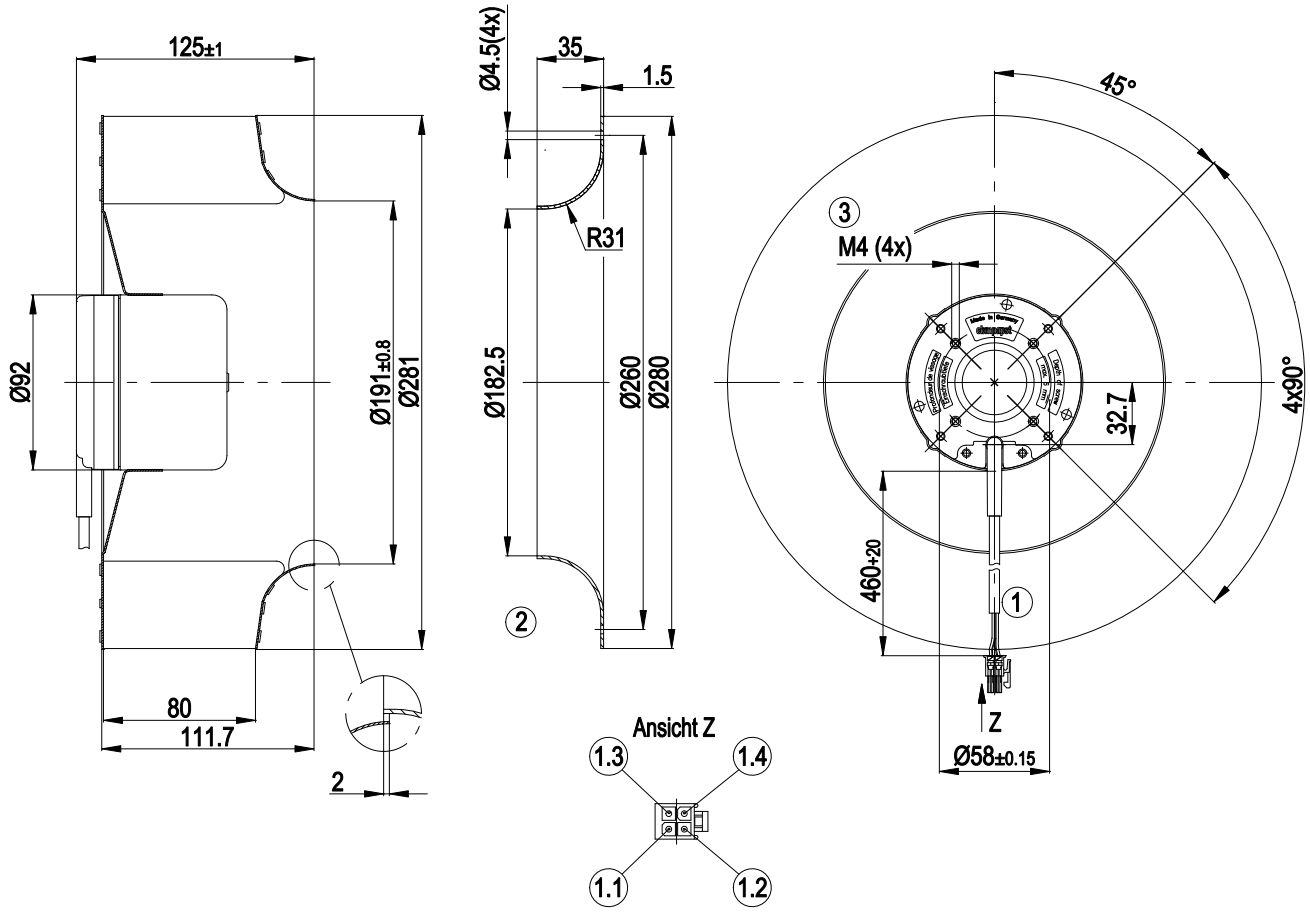
Product drawing



1	Connector housing (Molex 39-01-2040), connection line AWG20 with 4x connector socket (Molex 39-00-0059)
1.1	Control input (yellow)
1.2	S (white)
1.3	(blue)
1.4	+ (red)
2	Accessory part: Inlet nozzle 96360-2-4013, not included in the standard scope of delivery
3	Depth of screw max. 6 mm

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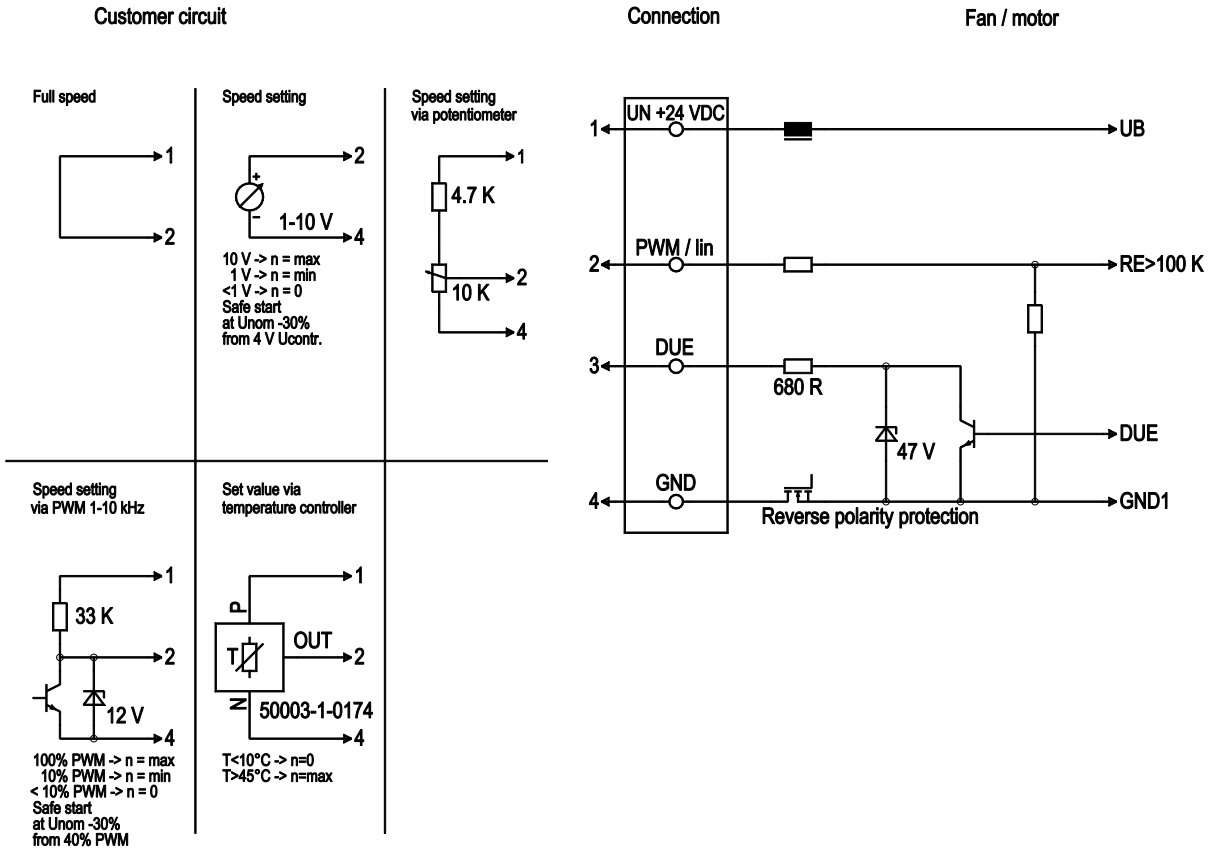
Connection screen



Line	No.	Signal	Colour	Function / assignment
1	1	Un +24V	red	Power supply 24 VDC, residual ripple 3.5 %
1	2	PWM / lin	yellow	PWM / lin, control input, 0-10 V
1	3	DUE	white	Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference mass

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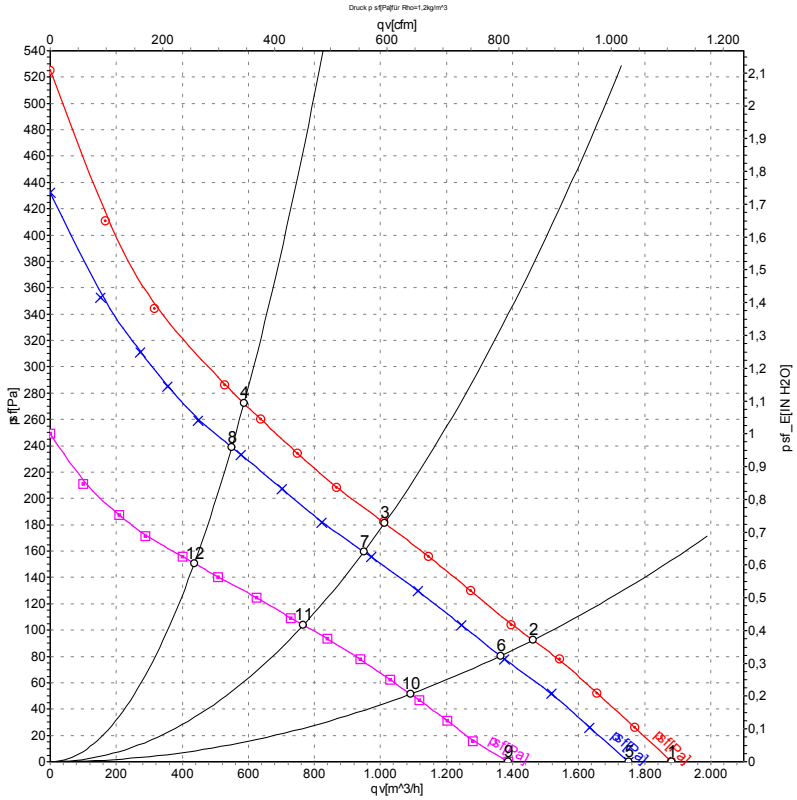
Charts: Air flow



Measurement: LU-54786
Measurement: LU-54783
Measurement: LU-54785

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_e	I	qv	p_{sf}
	V	min^{-1}	W	A	m^3/h	Pa
1	28	1835	118	4.90	1880	0
2	28	1680	125	5.33	1460	92
3	28	1610	129	5.56	1015	181
4	28	1740	122	5.13	585	272
5	24	1710	95	4.60	1750	0
6	24	1575	102	4.87	1365	80
7	24	1515	104	5.05	950	160
8	24	1630	99	4.69	550	240
9	16	1355	47	3.27	1385	0
10	16	1270	52	3.64	1090	52
11	16	1230	55	3.84	765	104
12	16	1300	51	3.52	435	151