R1G280-AE47-15

EC centrifugal fan

backward curved, single inlet

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2
74673 Mulfingen
Phone: +49 7938 81-0
Fax: +49 7938 81-110
www.ebmpapst.com
info1@de.ebmpapst.com

Nominal data

Type	**R1G280-AE47-15**	
Motor	**M1G074-CF**	
Nominal voltage	[VDC]	48
Nominal voltage range	[VDC]	36 .. 57
Type of data definition		rfa
Speed	[min^{-1}]	1710
Power input	[W]	95
Current draw	[A]	2.3
Min. ambient temperature	[°C]	- 25
Max. ambient temperature	[°C]	+60

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

EC centrifugal fan

backward curved, single inlet

Technical features

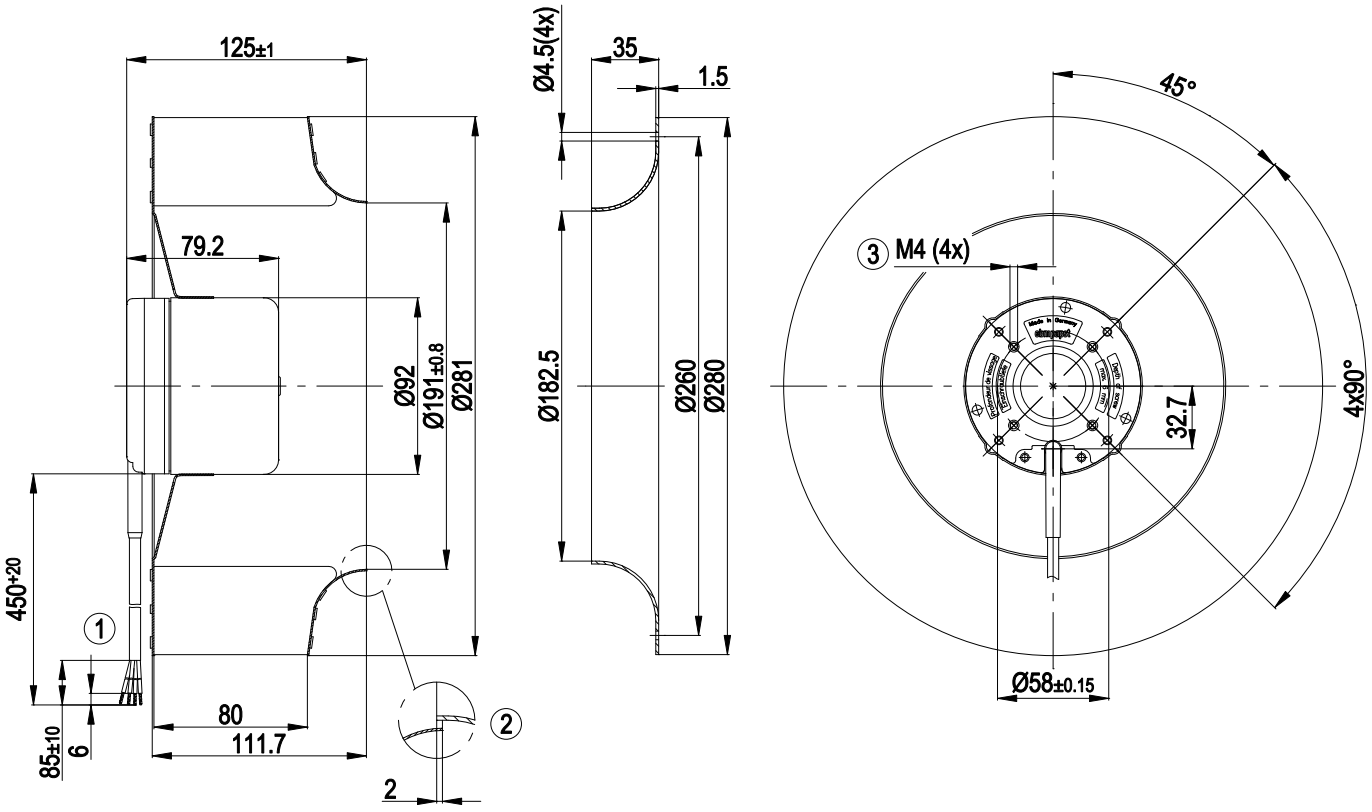
Size	280 mm
Stability	Salt fog resistant in accordance with TELCORDIA GR-487-CORE, release No. 2, M 2000
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Any
EMC interference emission	Acc. to EN 55022 (Class B)
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
Humidity class	F4-2
Insulation class	"B"
Cable exit	Variable
Condensate discharge holes	None
Bearing motor	Ball bearing
Mass	2.8 kg
Material of impeller	Sheet steel, coated in black
Motor protection	Reverse polarity and locked-rotor protection
Surface of rotor	Coated in black
Number of blades	11
Type of protection	IP 44
Technical features	- Control input 0-10 VDC / PWM - Tach output - Motor current limit - Soft start
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Approval	CCC; CSA; UL

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · 74673 Mulfingen · Phone: +49 7938 81-0 · Fax: +49 7938 81-110 · www.ebmpapst.com · info1@de.ebmpapst.com

EC centrifugal fan

backward curved, single inlet

Product drawing



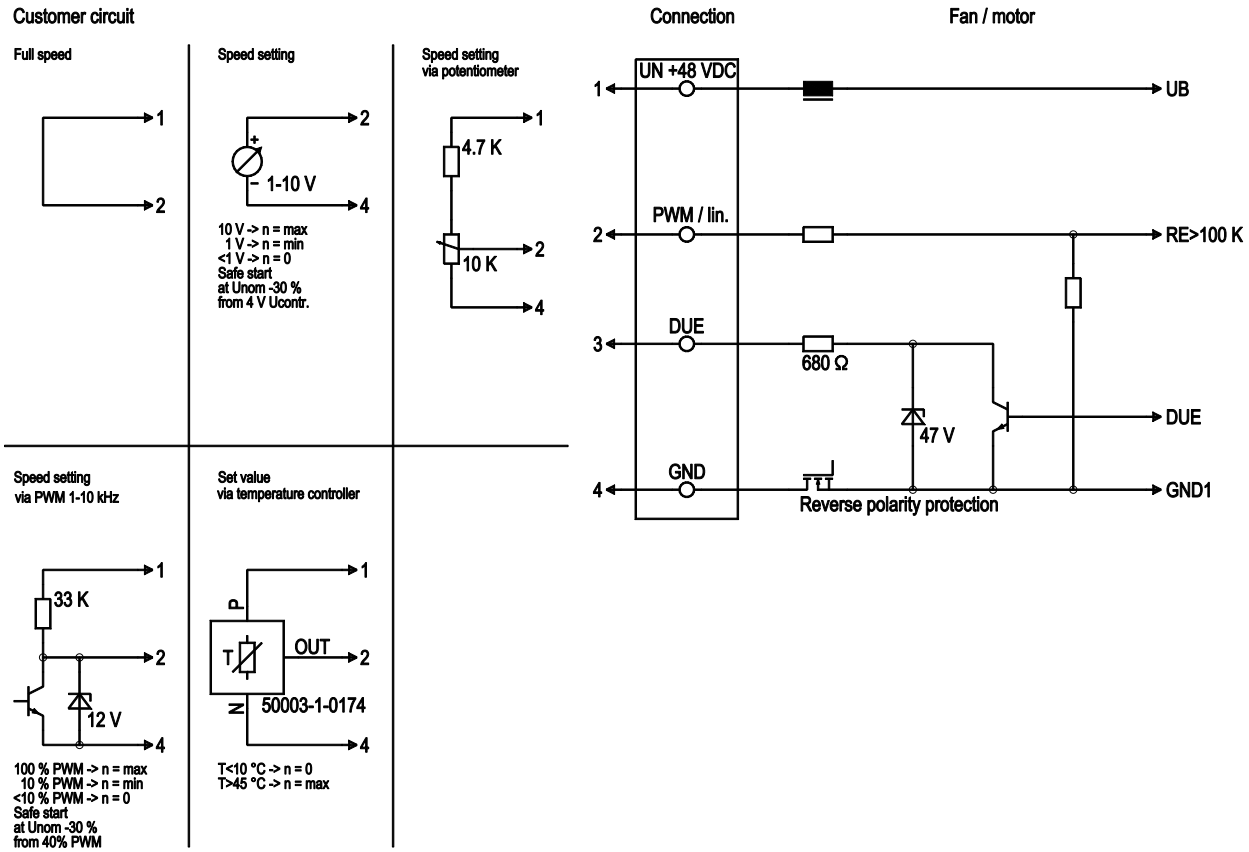
1	Connection line AWG20, 4 x brass lead tips crimped
2	Accessory part: Inlet nozzle 96360-2-4013, not included in the standard scope of delivery
3	Depth of screw max. 6 mm

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · 74673 Mulfingen · Phone: +49 7938 81-0 · Fax: +49 7938 81-110 · www.ebmpapst.com · info1@de.ebmpapst.com

EC centrifugal fan

backward curved, single inlet

Connection screen



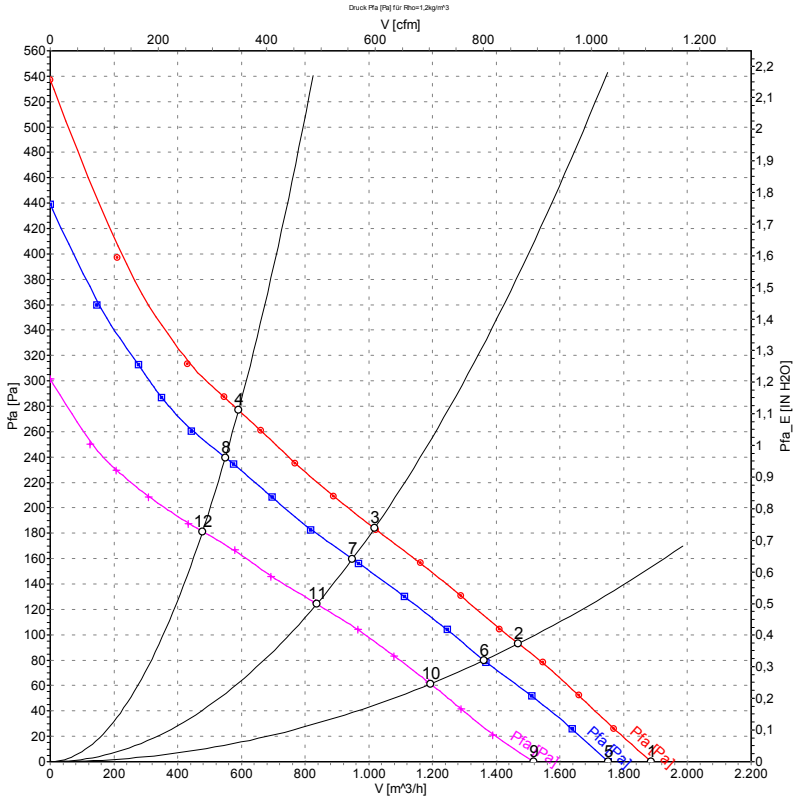
Line	No.	Signal	Colour	Function / assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %
1	2	PWM / lin	yellow	PWM / lin. control input, 0-10 V
1	3	DUE	white	Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA
1	4	GND	blue	Reference mass

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · 74673 Mulfingen · Phone: +49 7938 81-0 · Fax: +49 7938 81-110 · www.ebmpapst.com · info1@de.ebmpapst.com

EC centrifugal fan

backward curved, single inlet

Charts: Air flow



Measurement: LU-54793
Measurement: LU-54792
Measurement: LU-54790

Measured values

	U	n	P_1	I	$\dot{V}$	p_{fa}
	[V]	[min^{-1}]	[W]	[A]	[m^3/h]	[Pa]
1	57	1845	118	2.54	1885	0
2	57	1695	126	2.76	1470	93
3	57	1620	130	2.87	1020	184
4	57	1755	123	2.66	590	277
5	48	1710	95	2.30	1750	0
6	48	1580	99	2.46	1360	80
7	48	1515	102	2.55	950	160
8	48	1635	98	2.39	550	240
9	36	1480	61	1.90	1515	0
10	36	1385	67	2.10	1195	62
11	36	1335	70	2.19	835	124
12	36	1420	64	2.01	480	181

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · 74673 Mulfingen · Phone: +49 7938 81-0 · Fax: +49 7938 81-110 · www.ebmpapst.com · info1@de.ebmpapst.com