W1G180-AB11-26

EC diagonal compact fan



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

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

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

Nominal data

Type	**W1G180-AB11-26**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	54
Nominal voltage range	VDC	50 .. 58
Type of data definition		fa
Speed	min^{-1}	3500
Power input	W	46
Current draw	A	1
Min. ambient temperature	°C	- 25
Max. ambient temperature	°C	+70

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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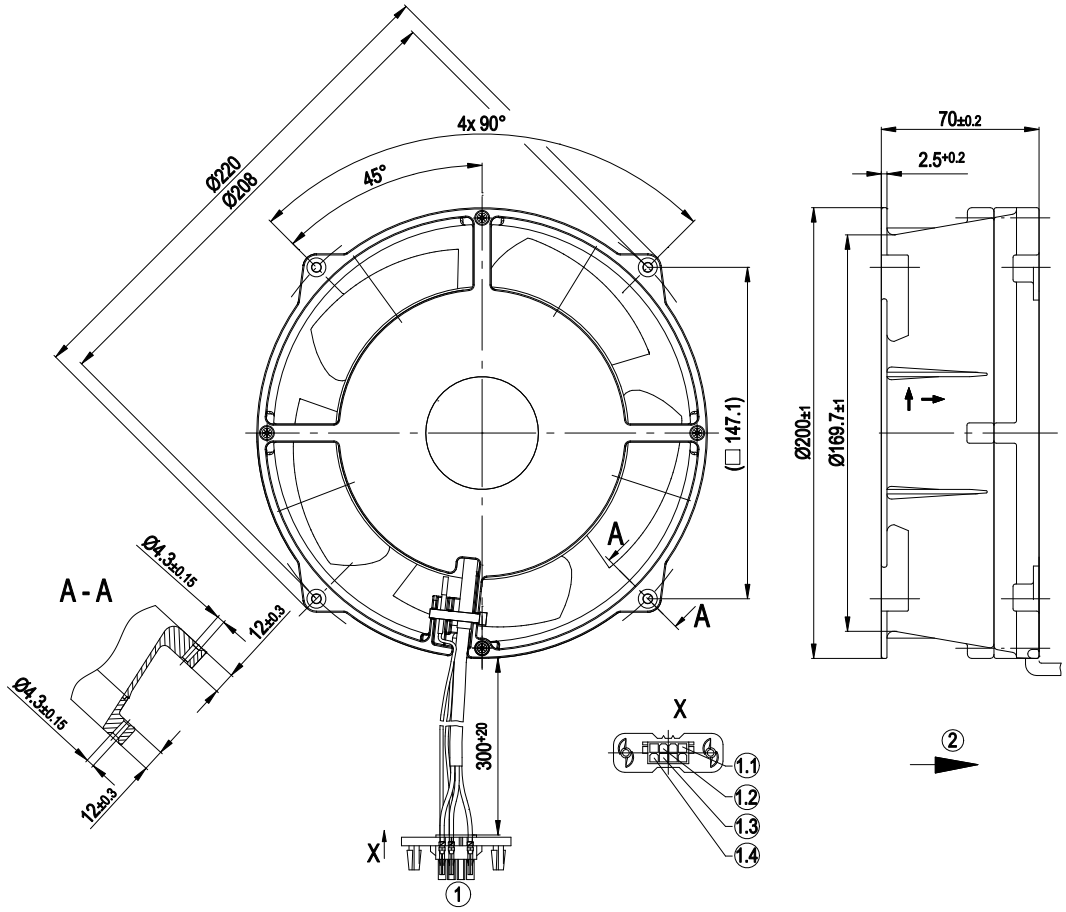
Technical features

Mass	1.7 kg
Size	180 mm
Surface of rotor	Coated in black
Material of impeller	Plastic PA66, fibreglass-reinforced
Material of wall ring	Die-cast aluminium, coated in black
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
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	- Control input 0-10 VDC / PWM - Tach output - Motor current limit - Soft start
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	Lateral
Product conforming to standard	EN 60950-1
Approval	UL 1004-1; CCC; CSA C22.2 Nr.77

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Product drawing

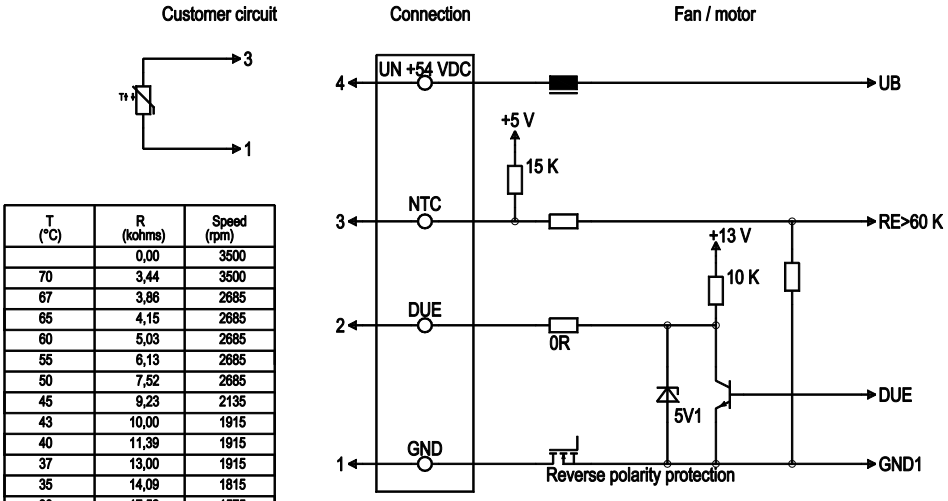


X	View X
1	Connector housing Molex No. 15-06-0080; mating connector Molex No. 15-06-0085 (not included in delivery); connecting line AWG22 with 3 female connectors Molex No. 39-00-0181
1.1	red (+)
1.2	Blue (-) and black (NTC)
1.3	white (s)
1.4	Yellow (control input) and black (NTC)
2	Direction of air flow "V"

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Connection screen



T (°C)	R (kohms)	Speed (rpm)
	0,00	3500
70	3,44	3500
67	3,86	2685
65	4,15	2685
60	5,03	2685
55	6,13	2685
50	7,52	2685
45	9,23	2135
43	10,00	1915
40	11,39	1915
37	13,00	1915
35	14,09	1815
30	17,52	1575
25	22,00	1330
20	27,52	1090
15	34,89	1005
10	44,52	920
5	56,85	835
0	73,05	750
-5	95,07	750
-10	124,68	750
-15	163,38	0
-40	717,18	0

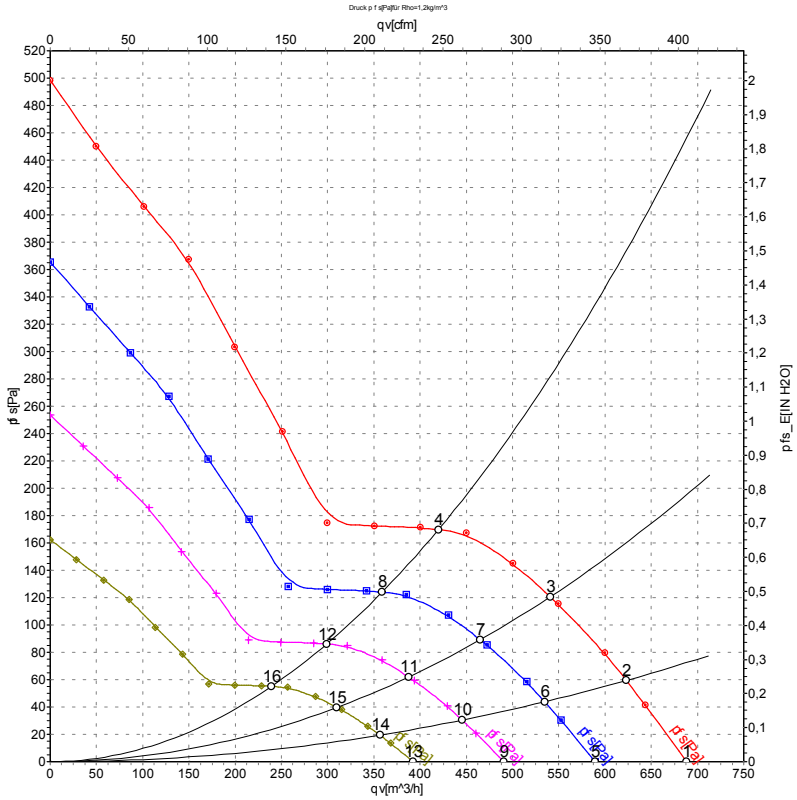
Marginal conditions:
Ub=54 V
at free air

Line	No.	Signal	Colour	Function / assignment
	1	GND	blue	Reference mass
	2	Tach	white	Speed monitoring output, 2 pulses per revolution, Isink max = 10 mA, Isource = 1 mA
	3	NTC	yellow	Control input NTC
	4	UN + 54 VDC	red	Power supply 54 VDC, see type plate for voltage range, residual ripple 3.5%

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Charts: Air flow



Measurement: LU-75700

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	54	3500	46	1.00	690	0
2	54	3500	52	1.15	625	59
3	54	3500	58	1.27	540	121
4	54	3500	56	1.22	420	170
5	54	3000	29	0.63	590	0
6	54	3000	33	0.73	535	44
7	54	3000	37	0.81	465	89
8	54	3000	35	0.76	360	124
9	54	2500	17	0.37	490	0
10	54	2500	19	0.42	445	30
11	54	2500	22	0.47	390	62
12	54	2500	20	0.44	300	86
13	54	2000	8.5	0.19	395	0
14	54	2000	9.8	0.22	355	20
15	54	2000	11	0.24	310	40
16	54	2000	10	0.23	240	55

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

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