W1G180-AB31-01

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-AB31-01**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Type of data definition		fa
Speed	min^{-1}	4550
Power input	W	93
Current draw	A	4.3
Max. back pressure	Pa	380
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

EC diagonal compact fan

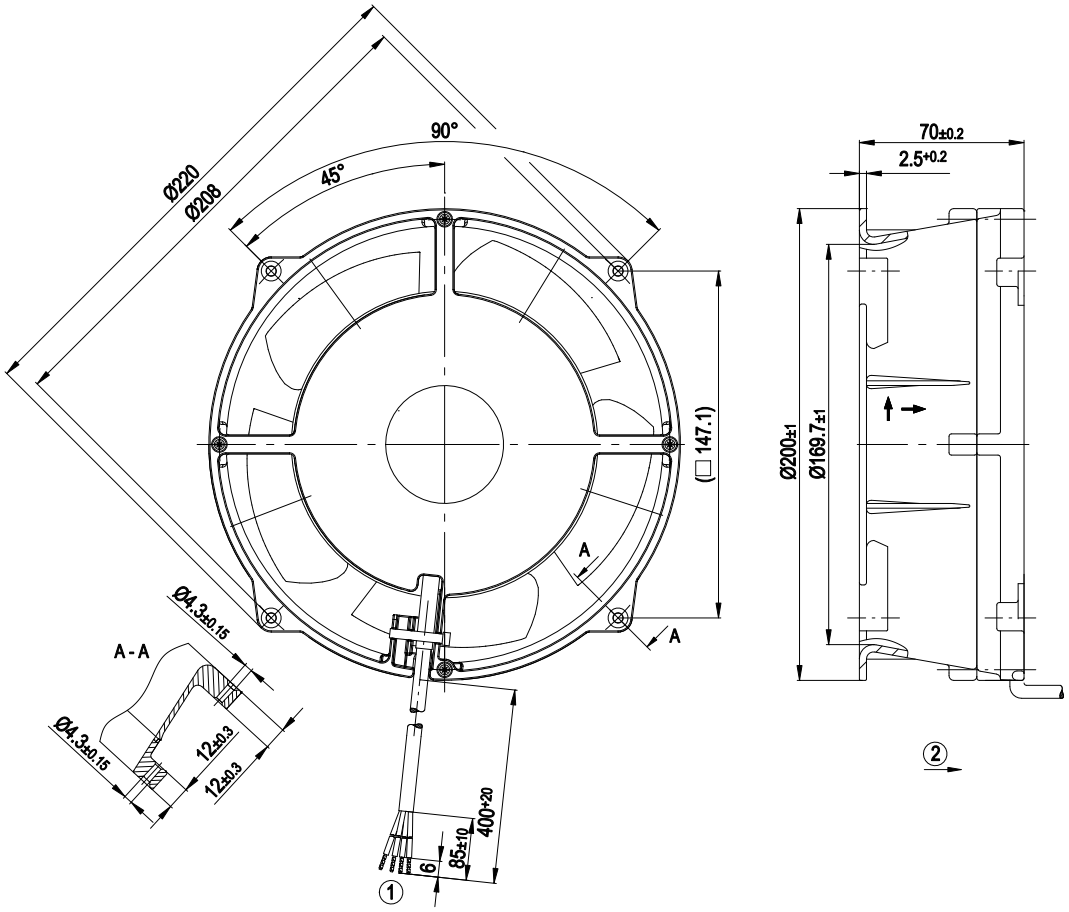
Technical features

Mass	1.8 kg
Size	180 mm
Surface of rotor	Galvanised
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 20
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	- 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)
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Lateral
Product conforming to standard	EN 60950-1
Approval	CSA C22.2 Nr.113; EAC; UL 507

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

EC diagonal compact fan

Product drawing

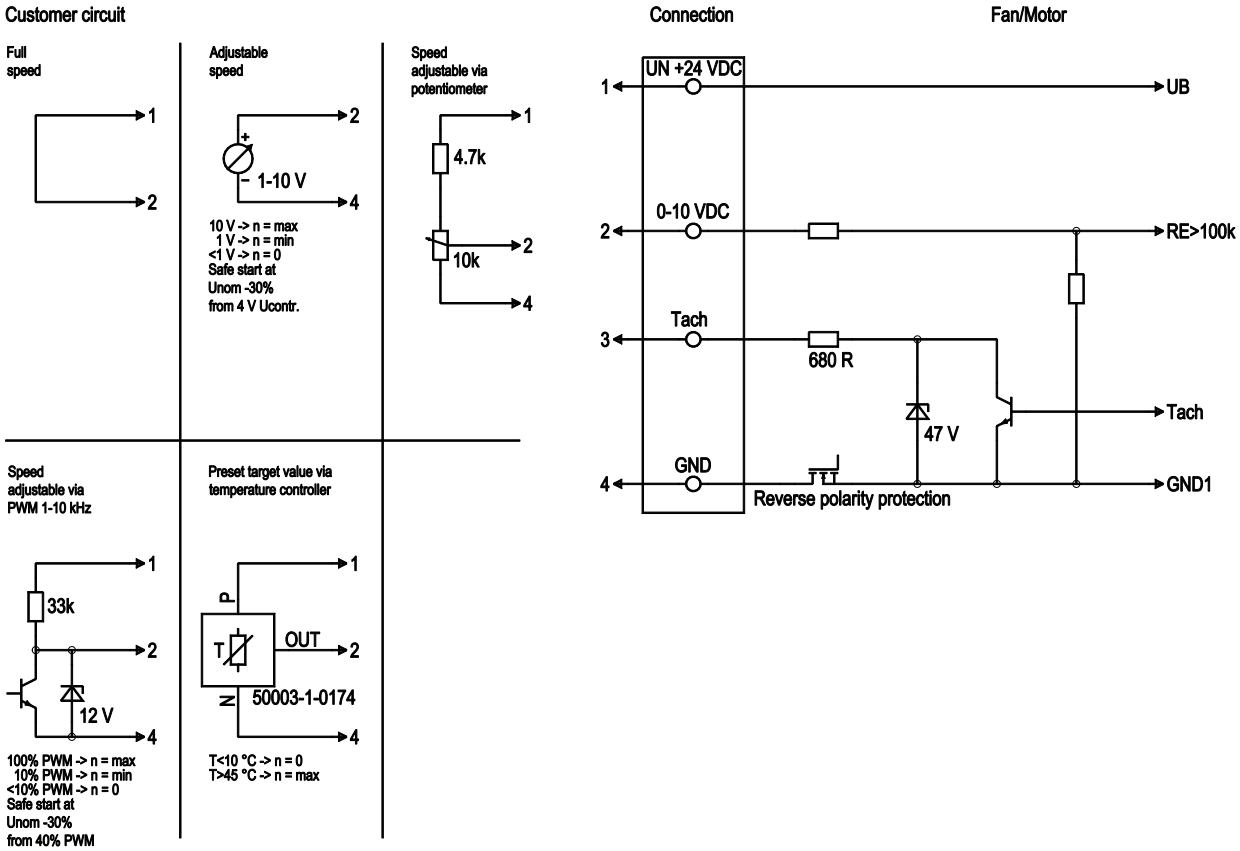


1	Connecting cable AWG 20, 4x brass lead tips crimped
2	Direction of air flow "V"

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

EC diagonal compact fan

Connection screen

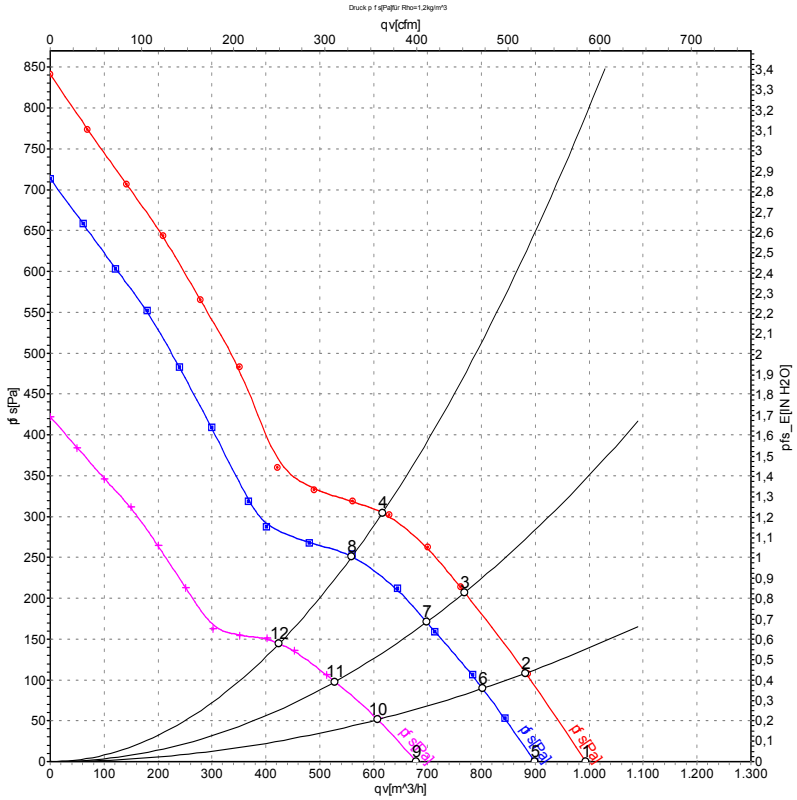


No.	Conn.	Designation	Colour	Function / assignment
1	1	Un +24 VDC	red	Power supply 24 VDC, residual ripple 3.5 %
1	2	0-10 VDC	yellow	Control input Re > 100 K
1	3	Tach	white	Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference mass

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

EC diagonal compact fan

Charts: Air flow



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	28	5060	127	5.02	995	0
2	28	4900	133	5.31	880	111
3	28	4780	139	5.57	770	208
4	28	4750	140	5.64	615	305
5	24	4550	93	4.30	900	0
6	24	4460	102	4.73	800	90
7	24	4350	106	4.93	700	170
8	24	4325	108	5.00	560	250
9	16	3465	45	3.27	680	0
10	16	3370	48	3.41	610	54
11	16	3315	49	3.52	530	98
12	16	3300	50	3.55	425	144

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

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