EC axial fan - HyBlade

sickle-shaped blades (S series)

with round full nozzle

W1G300-DC19-52 ebmpapst Datasheet
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Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W1G300-DC19-52**	
Motor	**M1G074-CF**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Speed (rpm)	min-1	1830
Power consumption	W	80
Current draw	A	3.8
Max. back pressure	Pa	100
Max. back pressure	inH2O	0.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

Weight	3.8 kg
Fan size	300 mm
Rotor surface	Painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F0
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
With cable	Lateral
Conformity with standards	EN 60950-1
Approval	UL 1004-1; CSA C22.2 No. 77; EAC

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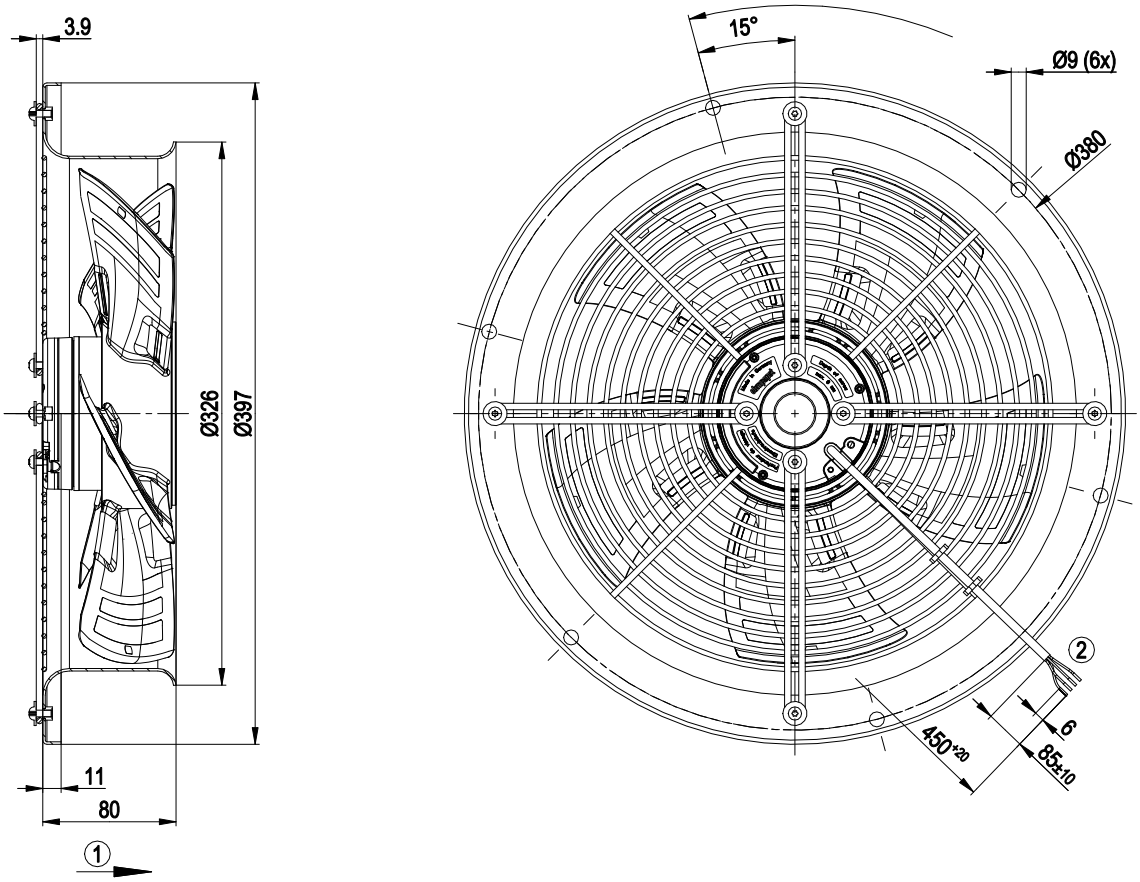
Product drawing



1	Direction of air flow "A"
2	Cable PVC AWG20, 4x crimped splices

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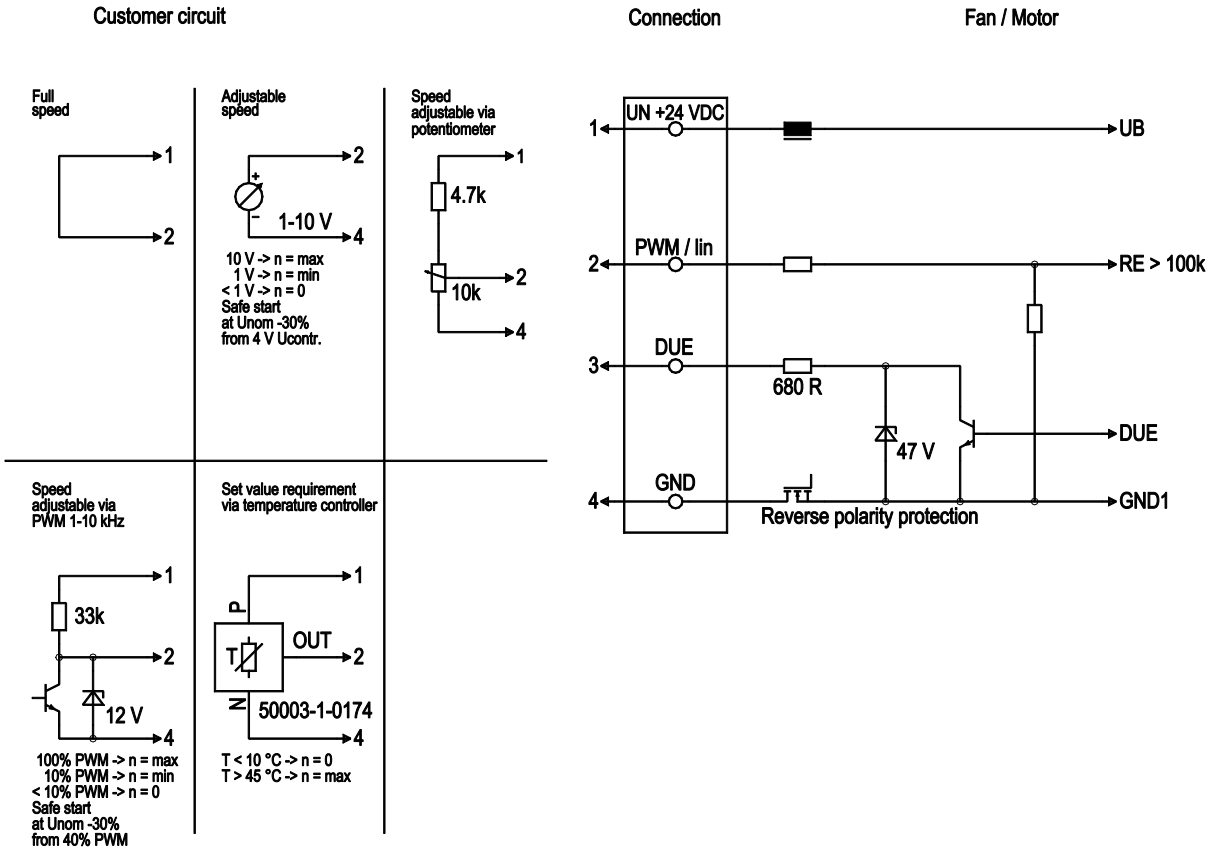
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	Un +24V	red	Power supply 24 VDC, maximum ripple 3.5%
1	2	PWM / lin	yellow	PWM / lin., control input, 0-10 V
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

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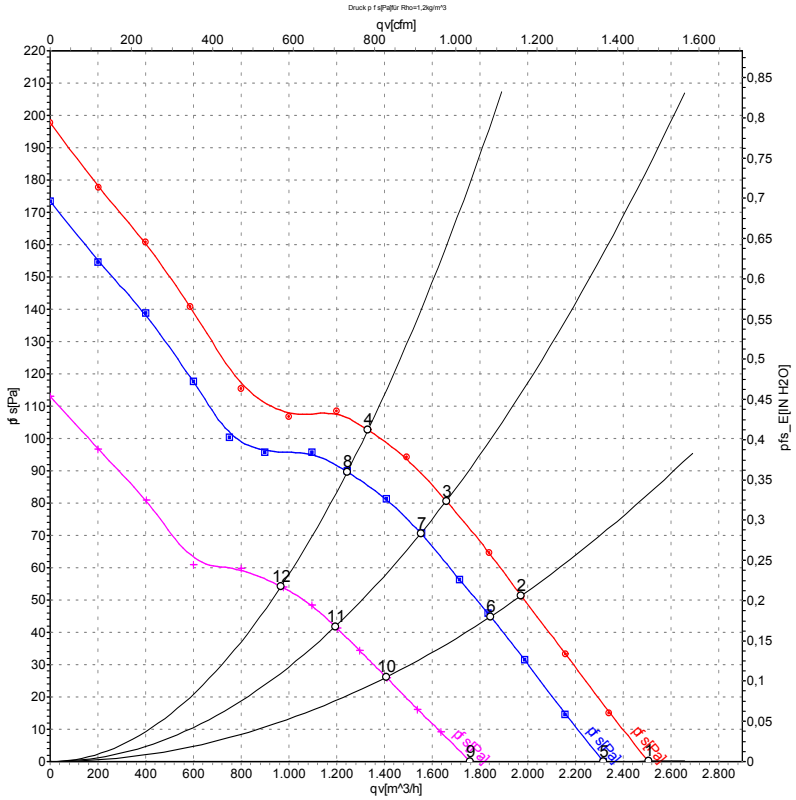
Curves: Air performance



Measurement: LU-114664-1
Measurement: LU-114661-1
Measurement: LU-114665-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	n	P_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	28	1965	102	4.11	61	69	2505	0	1475	0.00
2	28	1855	105	4.31	60	67	1975	51	1160	0.20
3	28	1805	107	4.42	59	67	1660	81	975	0.33
4	28	1745	109	4.56	63	71	1330	103	785	0.41
5	24	1810	80	3.80	60	67	2320	0	1365	0.00
6	24	1730	86	4.03	58	67	1845	45	1085	0.18
7	24	1690	87	4.10	57	66	1555	70	915	0.28
8	24	1635	89	4.21	62	70	1245	90	735	0.36
9	16	1380	37	2.63	52	60	1760	0	1035	0.00
10	16	1330	40	2.82	51	58	1410	26	830	0.10
11	16	1305	41	2.92	51	59	1195	42	705	0.17
12	16	1280	43	3.04	56	64	965	54	570	0.22

U = Power supply · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side · q_V = Air flow
p_{fs} = Pressure increase