

EC axial fan

sickled blades (S series)
with full round nozzle

W1G300-CE19-52 ebmpapst Datasheet
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Nominal data

Type	W1G300-CE19-52	
Motor	M1G074-CF	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Type of data definition		fa
Speed	min ⁻¹	1800
Power input	W	90
Current draw	A	4.0
Max. back pressure	Pa	105
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



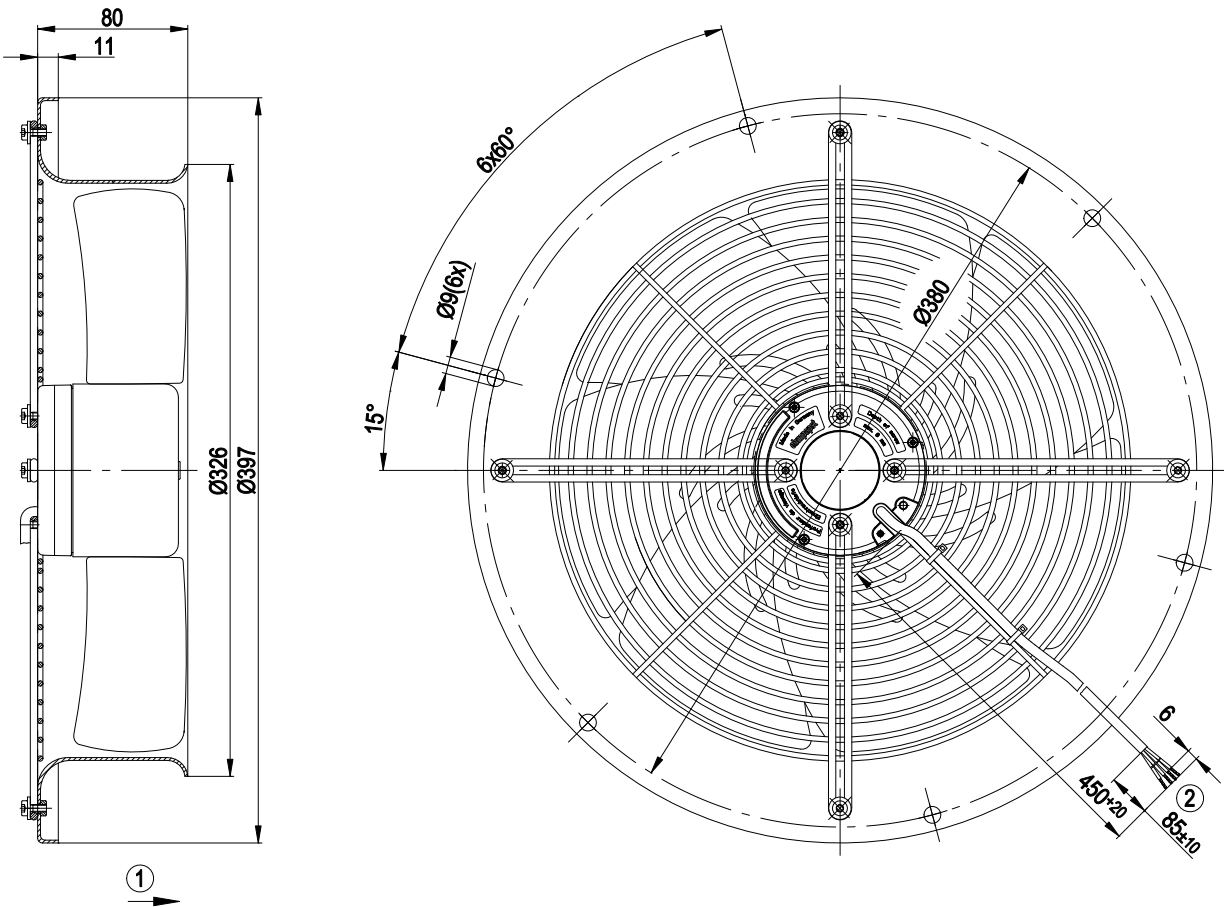
Technical features

Mass	4.12 kg
Size	300 mm
Surface of rotor	Coated in black
Material of blades	Sheet steel, coated in black
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	7
Direction of air flow	"A"
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)
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Lateral
Product conforming to standard	EN 60950-1
Approval	CSA C22.2 Nr.77; UL 1004-1

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Product drawing



- | | |
|---|---|
| 1 | Direction of air flow "A" |
| 2 | Connection line AWG20, 4x brass lead tips crimped |



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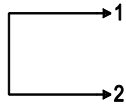
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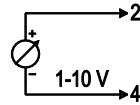
Connection screen

Customer circuit

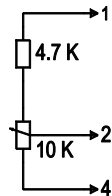
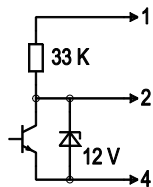
Full speed



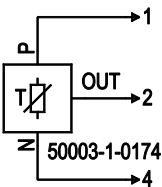
Speed setting



10 V → n = max
1 V → n = min
<1 V → n = 0
Safe start
at Unom -30%
from 4 V Ucontr.

Speed setting
via potentiometerSpeed setting
via PWM 1-10 kHz

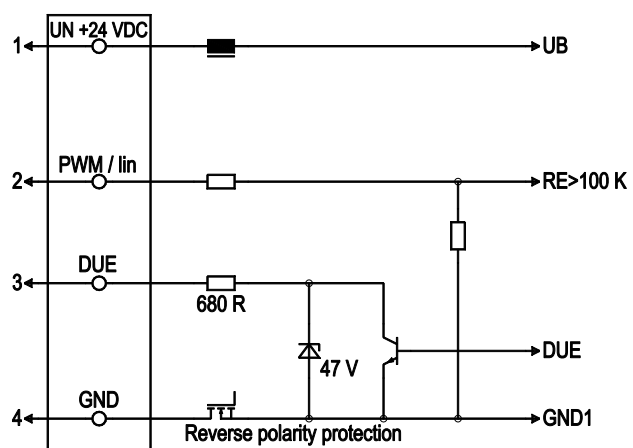
100% PWM → n = max
10% PWM → n = min
<10% PWM → n = 0
Safe start
at Unom -30%
from 40% PWM

Set value via
temperature controller

T < 10°C → n = 0
T > 45°C → n = max

Connection

Fan / motor

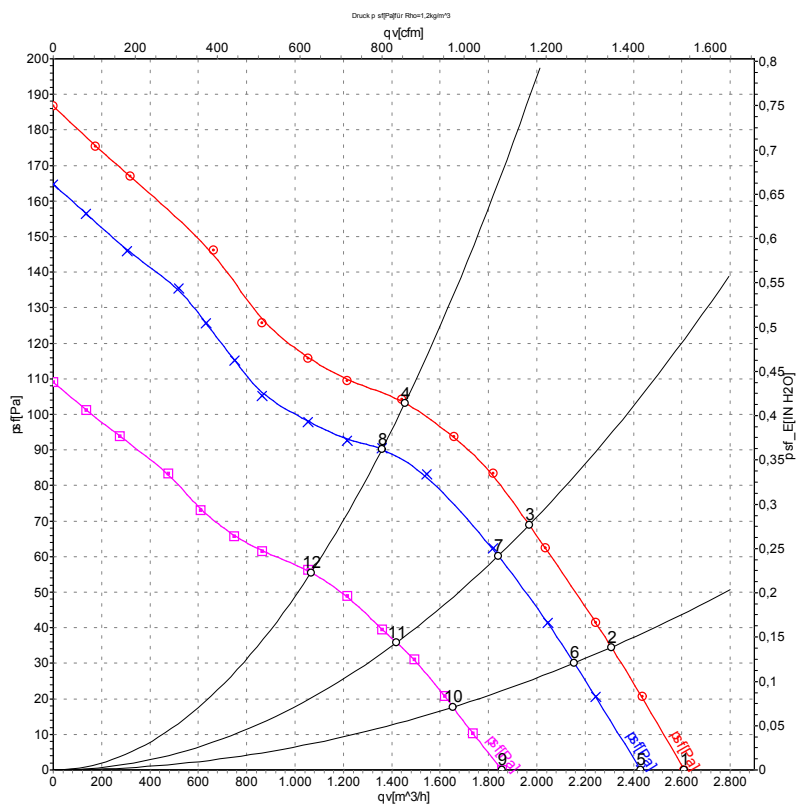


Line	No.	Signal	Colour	Function / assignment
1	1	Un +24V	red	Power supply 24 VDC, residual ripple 3.5 %
1	2	PWM / lin	yellow	PWM / lin, control input, 0-10 V
1	3	DUE	white	Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference mass

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Charts: Air flow



Measurement: LU-54226
Measurement: LU-54225
Measurement: LU-54227

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: L_{WA} measured as per ISO 13347 /
L_{pA} 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 _{st}
	V	min ⁻¹	W	A	m³/h	Pa
1	28	1920	109	4.35	2610	0
2	28	1835	111	4.49	2310	34
3	28	1765	114	4.64	1970	69
4	28	1655	119	4.92	1455	104
5	24	1800	90	4.00	2430	0
6	24	1715	91	4.20	2155	30
7	24	1650	93	4.34	1840	60
8	24	1550	97	4.53	1360	90
9	16	1360	40	2.80	1855	0
10	16	1320	42	2.96	1655	18
11	16	1285	44	3.09	1420	36
12	16	1220	48	3.35	1065	56

