

EC axial fan

sickled blades (S series)

with full round nozzle

W1G300-CE33-52 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Nominal data

Type	W1G300-CE33-52	
Motor	M1G074-CF	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
Speed	min ⁻¹	1800
Power input	W	90
Current draw	A	2.0
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



EC axial fan

sickled blades (S series)

with full round nozzle

Technical features

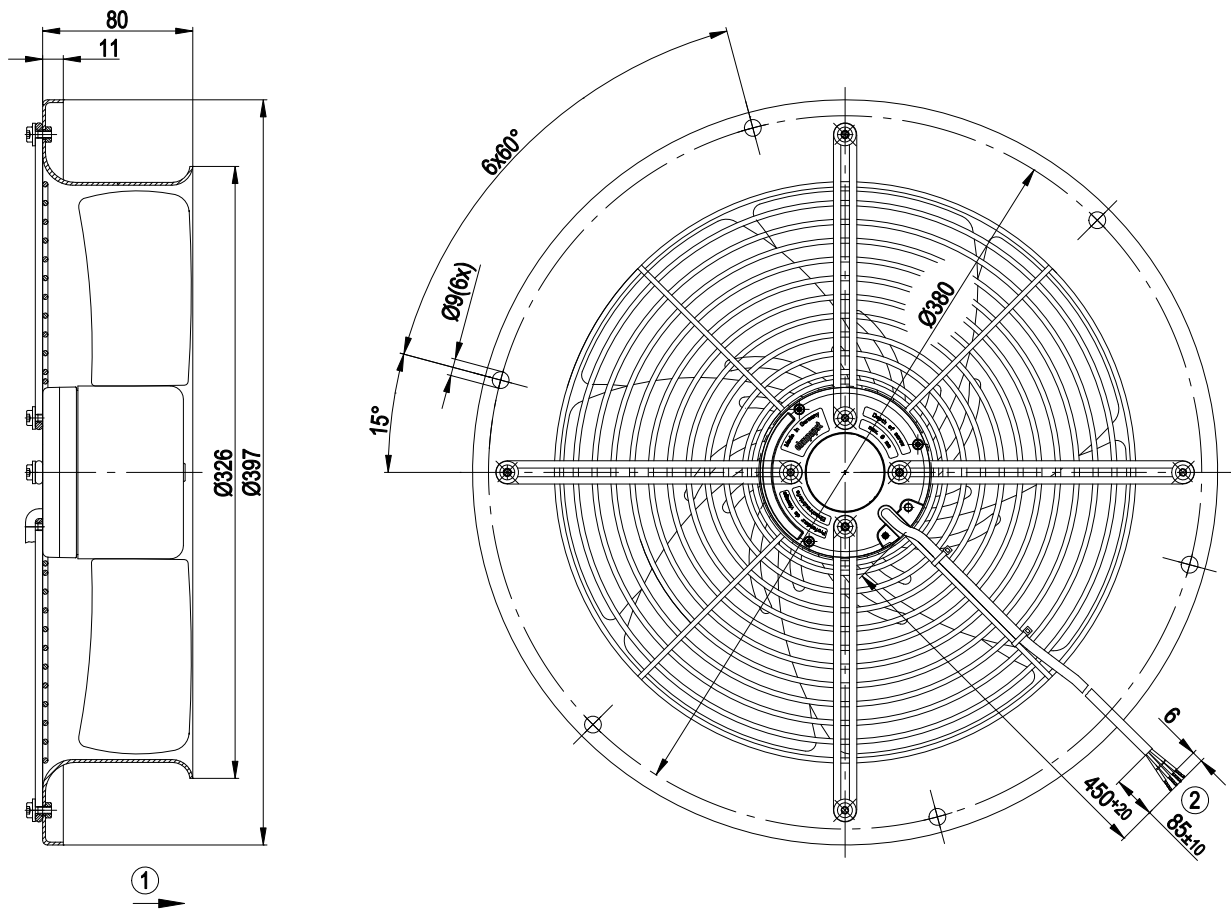
Mass	4.08 kg
Size	300 mm
Surface of rotor	Coated in black
Material of blades	Sheet steel, coated in black
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	7
Direction of air flow	"A"
Direction 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



EC axial fan

sickled blades (S series)
with full round nozzle

Product drawing



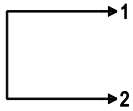
- | | |
|---|---|
| 1 | Direction of air flow "A" |
| 2 | Connection line AWG20, 4x brass lead tips crimped |



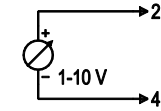
Connection screen

Customer circuit

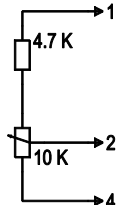
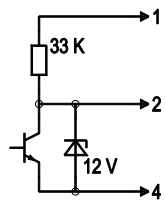
Full speed



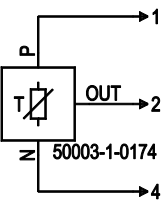
Speed setting



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

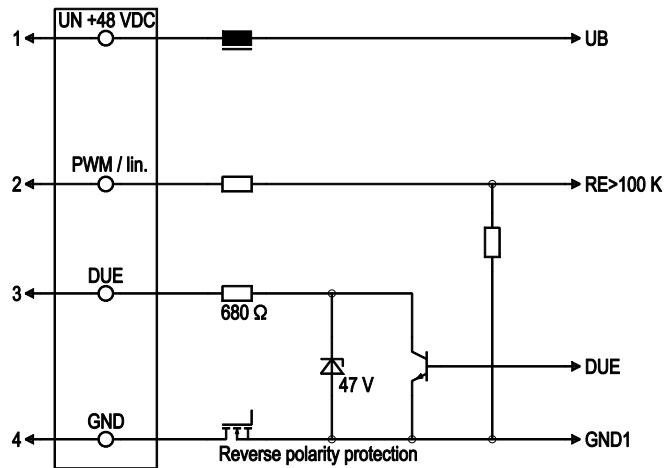
100 % PWM → n = max
10 % PWM → n = min
<10 % PWM → n = 0
Safe start
at Unom -30 %
from 40 % PWM

Set value
via temperature controller

T < 10 °C → n = 0
T > 45 °C → n = max

Connection

Fan / motor

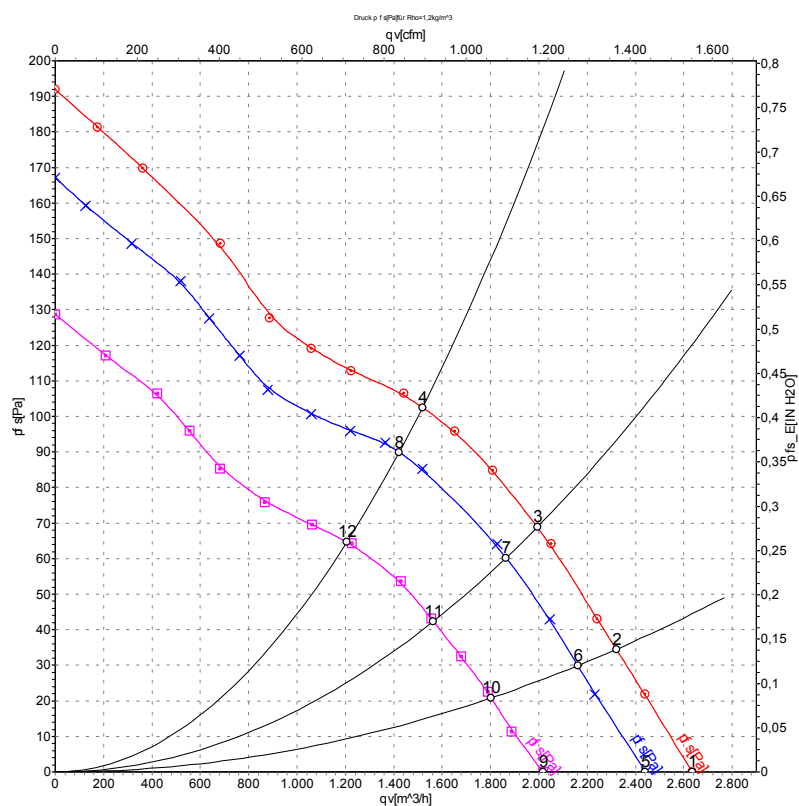


Line	No.	Signal	Colour	Function / assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %
1	2	PWM / lin	yellow	PWM / lin. control input, 0-10 V
1	3	DUE	white	Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA
1	4	GND	blue	Reference mass

EC axial fan

sickled blades (S series)
with full round nozzle

Charts: Air flow



Measurement: LU-54220
Measurement: LU-54219
Measurement: LU-54221

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	m³/h	Pa
1	57	1945	109	2.23	2635	0
2	57	1850	112	2.31	2320	34
3	57	1785	114	2.37	1995	69
4	57	1690	118	2.48	1520	103
5	48	1800	90	2.00	2440	0
6	48	1725	90	2.13	2160	30
7	48	1665	91	2.18	1865	60
8	48	1575	94	2.27	1420	90
9	36	1485	49	1.56	2020	0
10	36	1440	52	1.64	1805	21
11	36	1400	55	1.74	1565	42
12	36	1340	60	1.88	1205	65

