

W1G200-HH77-52

EC axial compact fan

sickled blades (S series)



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Nominal data

Type	W1G200-HH77-52	
Motor	M1G074-BF	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Type of data definition		fa
Speed (rpm)	min ⁻¹	2950
Power input	W	55
Current draw	A	2.6
Max. back pressure	Pa	120
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

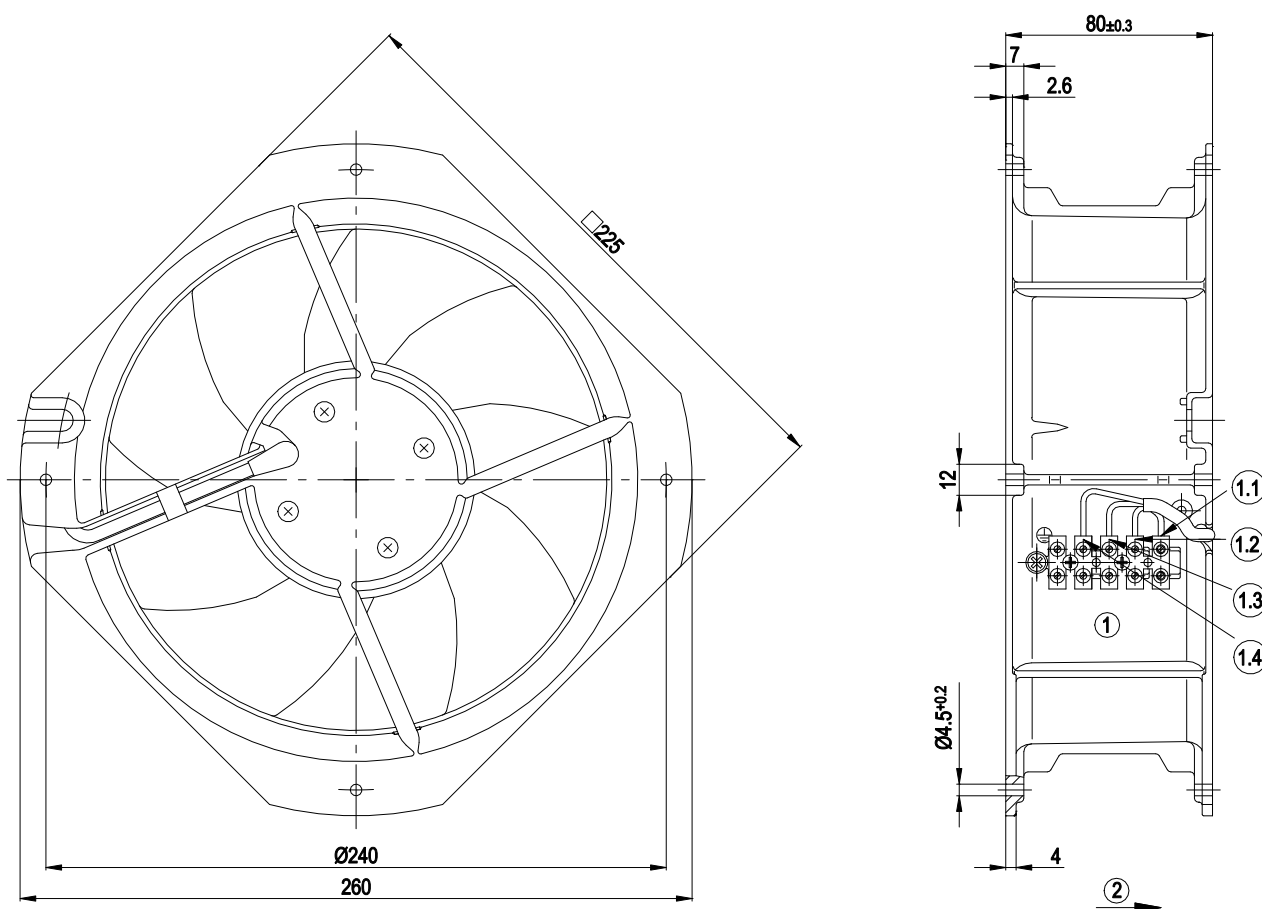
ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations



Technical features

Mass	2.13 kg
Size	200 mm
Surface of rotor	Coated in black
Material of blades	Sheet steel, coated in black
Material of wall ring	Die-cast aluminium
Number of blades	9
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Humidity (F)/environmental protection class (H)	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	<ul style="list-style-type: none"> - 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)
Electrical leads	Via terminal strip
Motor protection	Reverse polarity and locked-rotor protection
Product conforming to standard	EN 60335-1
Approval	UL 1004-1; EAC; CSA C22.2 No.77

Product drawing

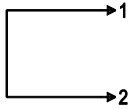


1	Connection: terminal strip with 5 terminals.
1.1	UN +24 VDC (red)
1.2	GND (blue)
1.3	DUE (white)
1.4	0-10 VDC (yellow)
2	Direction of air flow "V"

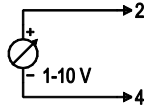
Connection screen

Customer circuit

Full speed

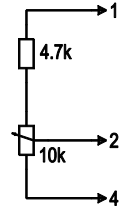


Adjustable speed

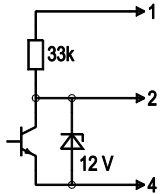


10 V → n = max
1 V → n = min
<1 V → n = 0
Safe start at
Unom -30%
from 4 V Ucontr.

Speed adjustable via potentiometer

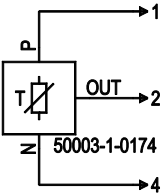


Speed adjustable via PWM 1-10 kHz



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

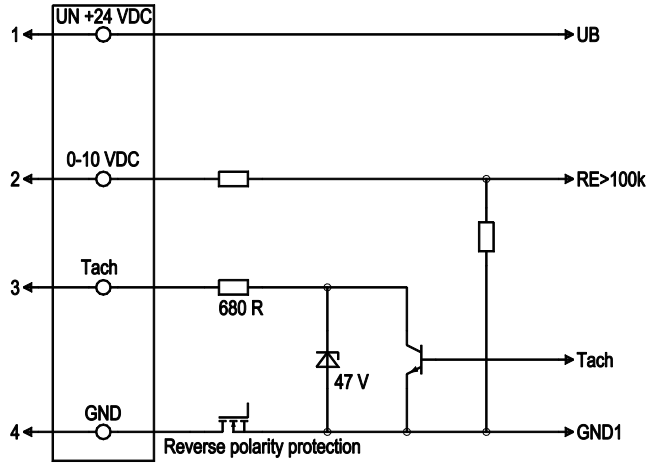
Preset target value via temperature controller



T < 10 °C → n = 0
T > 45 °C → n = max

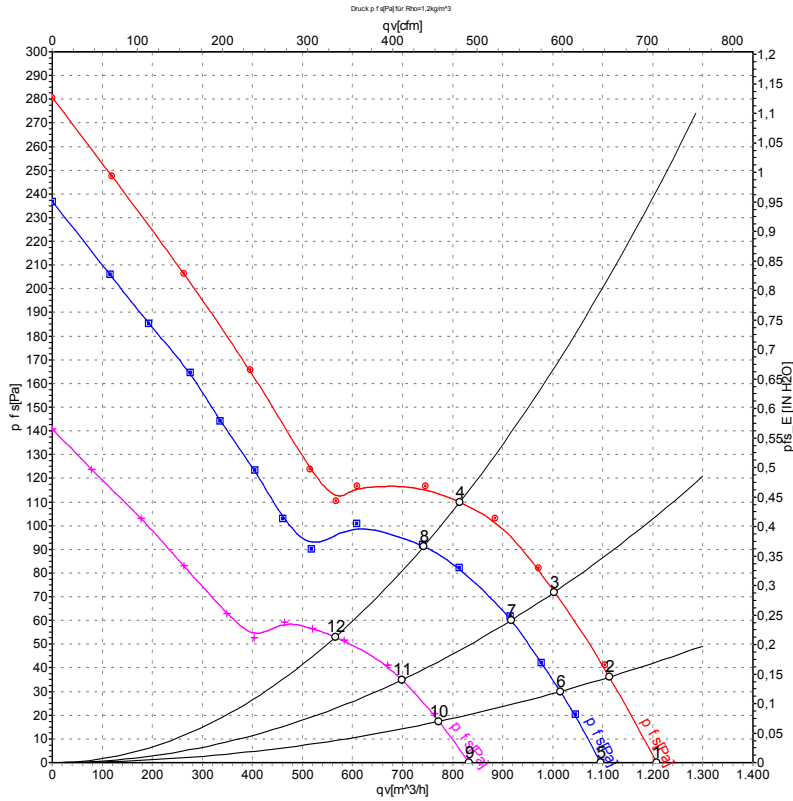
Connection

Fan/Motor



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

Charts: Air flow



Measurement: LU-48037-1
 Measurement: LU-48036-1
 Measurement: LU-48038-1

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 _{ed}	I	q _v	p _{fs}	q _v	p _{fs}
	V	min ⁻¹	W	A	m ³ /h	Pa	cfm	inH ₂ O
1	28	3285	73	2.91	1205	0	710	0.00
2	28	3190	76	3.01	1115	38	655	0.15
3	28	3095	78	3.10	1005	72	590	0.29
4	28	3065	82	3.26	815	110	480	0.44
5	24	2950	55	2.60	1095	0	645	0.00
6	24	2915	57	2.67	1015	30	595	0.12
7	24	2860	60	2.76	915	60	540	0.24
8	24	2785	62	2.88	740	90	435	0.36
9	16	2285	28	2.08	835	0	490	0.00
10	16	2245	28	2.09	770	18	455	0.07
11	16	2200	29	2.13	700	35	410	0.14
12	16	2145	30	2.18	565	53	335	0.21

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

