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Limited partnership · Headquarters Mulfingen

County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

County court Stuttgart · HRB 590142

Nominal data

Type	W1G250-HH37-52	
Motor	M1G074-BF	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Type of data definition		fa
Speed	min ⁻¹	2750
Power input	W	105
Current draw	A	5.0
Max. back pressure	Pa	140
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



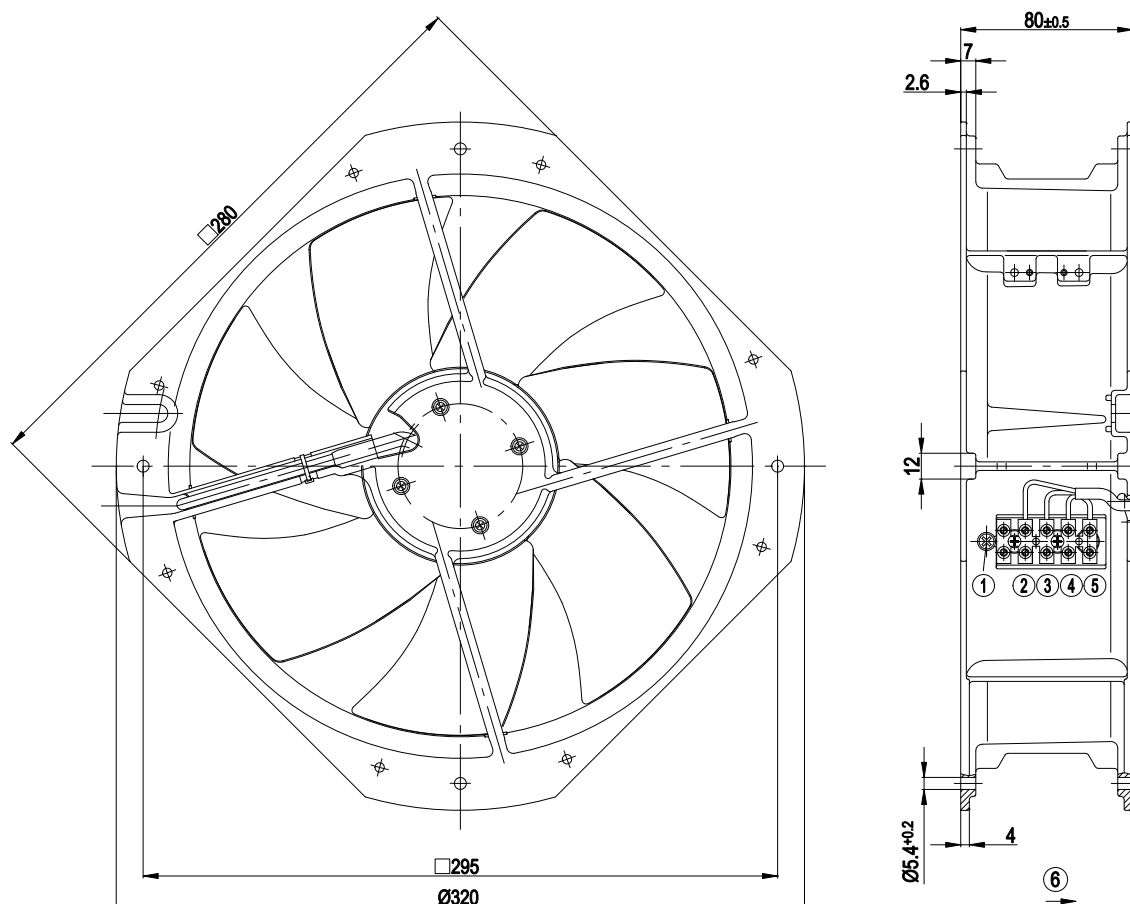
Technical features

Mass	2.4 kg
Size	250 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	7
Direction of air flow	"V"
Direction of rotation	Counter-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	- 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, household environment)
Electrical leads	Via terminal strip
Motor protection	Reverse polarity and locked-rotor protection
Product conforming to standard	EN 60950-1
Approval	GOST; UL 1004-1; CSA C22.2 Nr.77

EC axial compact fan

sickled blades (S series)

Product drawing

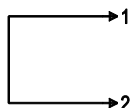


1	Protective earth
2	Yellow control input
3	Speed monitoring, white
4	(-) blue
5	(+) red
6	Direction of air flow "V"

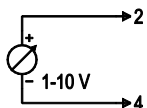
Connection screen

Customer circuit

Full speed

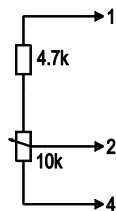


Adjustable speed

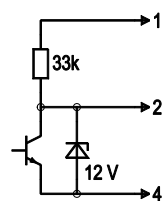


10 V $\rightarrow$ n = max
 1 V $\rightarrow$ n = min
 <1 V $\rightarrow$ n = 0
 Safe start at
 Unom -30%
 from 4 V Ucontr.

Speed adjustable via potentiometer

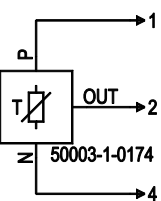


Speed adjustable via PWM 1-10 kHz



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

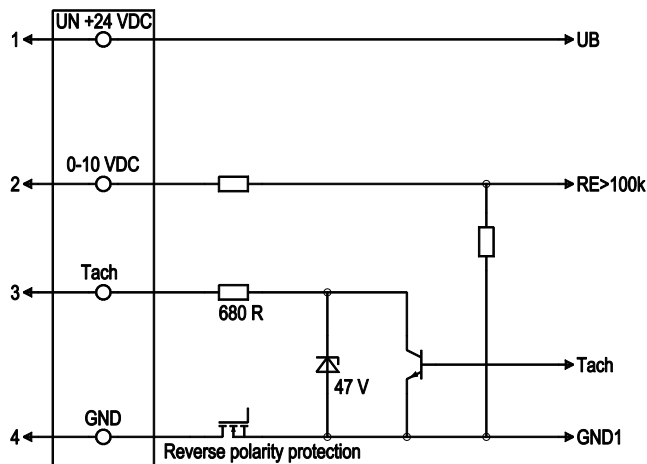
Preset target value via temperature controller



$T < 10^\circ\text{C} \rightarrow$ n = 0
 $T > 45^\circ\text{C} \rightarrow$ n = max

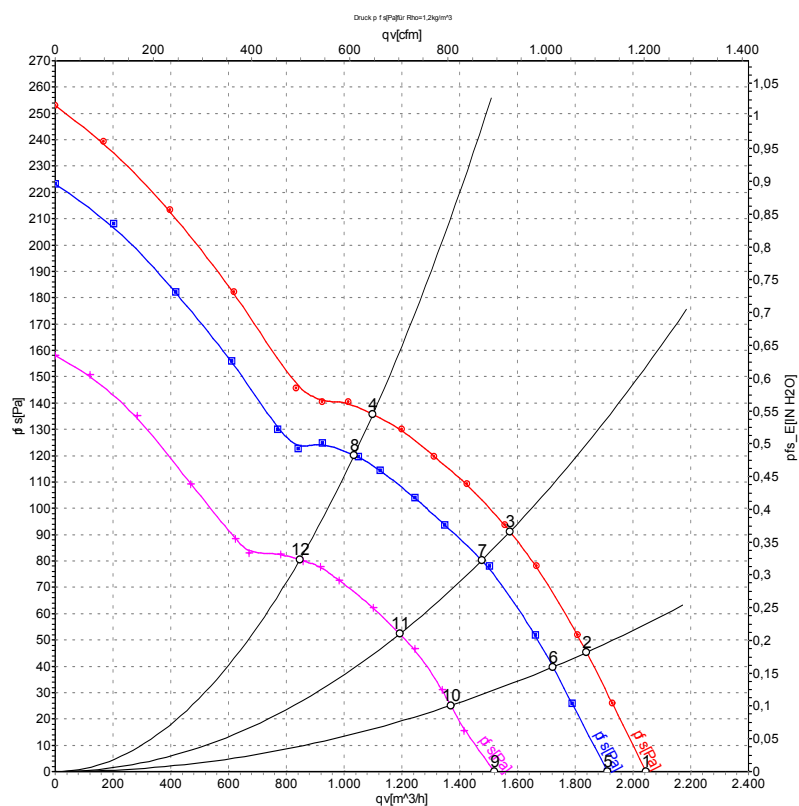
Connection

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-54187
 Measurement: LU-54186
 Measurement: LU-54185

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	qv	p _{fs}
	V	min ⁻¹	W	A	m³/h	Pa
1	28	2905	125	5.31	2045	0
2	28	2785	128	5.51	1840	46
3	28	2660	131	5.76	1575	91
4	28	2580	134	5.93	1100	136
5	24	2750	105	5.00	1920	0
6	24	2615	106	5.11	1725	40
7	24	2510	108	5.29	1475	80
8	24	2420	110	5.47	1035	120
9	16	2180	53	3.74	1520	0
10	16	2120	56	3.91	1370	25
11	16	2050	59	4.12	1195	52
12	16	1995	61	4.29	845	80

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