

# EC axial compact fan

sickle-shaped blades (S series), with brushless DC motor

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## Nominal data

Type	W2G130-AA31-01	
Motor	M2G055-BD	
Nominal voltage	VDC	12
Nominal voltage range	VDC	6 .. 16
Method of obtaining data		fa
Speed (rpm)	min <sup>-1</sup>	2950
Power consumption	W	16
Current draw	A	1.1
Max. back pressure	Pa	60
Max. back pressure	in. wg	0.24
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

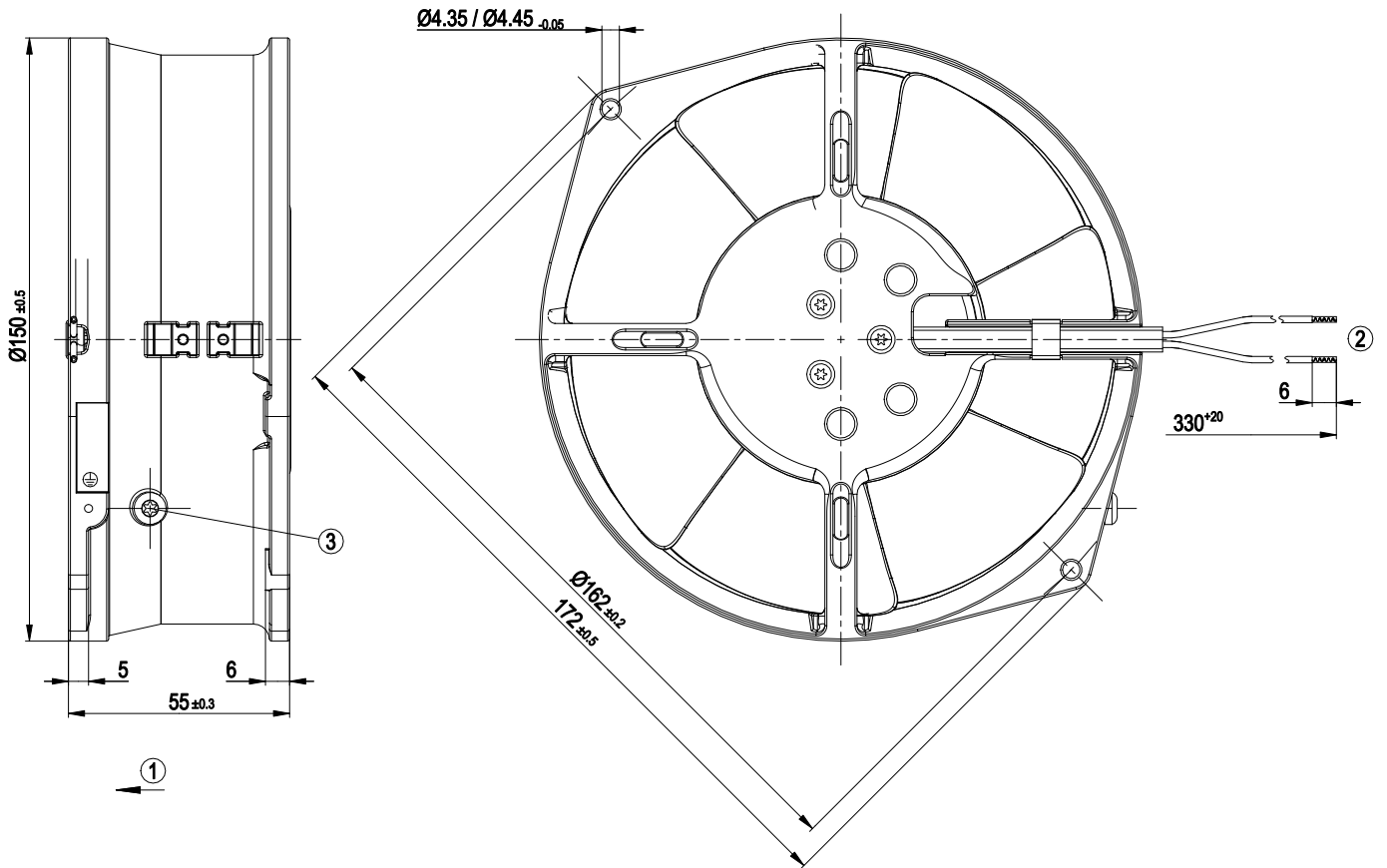
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change



### Technical description

<b>Weight</b>	0.9 kg
<b>Size</b>	130 mm
<b>Motor size</b>	55
<b>Rotor surface</b>	Painted black
<b>Blade material</b>	Sheet steel, painted black
<b>Fan housing material</b>	Die-cast aluminum, painted black
<b>Number of blades</b>	7
<b>Airflow direction</b>	V
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP20
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	H0 - dry environment
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	-40 °C
<b>Installation position</b>	Any
<b>Condensation drainage holes</b>	None
<b>Mode</b>	S1
<b>Motor mounting</b>	Ball bearing
<b>Technical features</b>	- Tach output - Motor current limitation
<b>Motor protection</b>	Reverse polarity and locked-rotor protection
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1
<b>Approval</b>	UL 507; EAC

## Product drawing

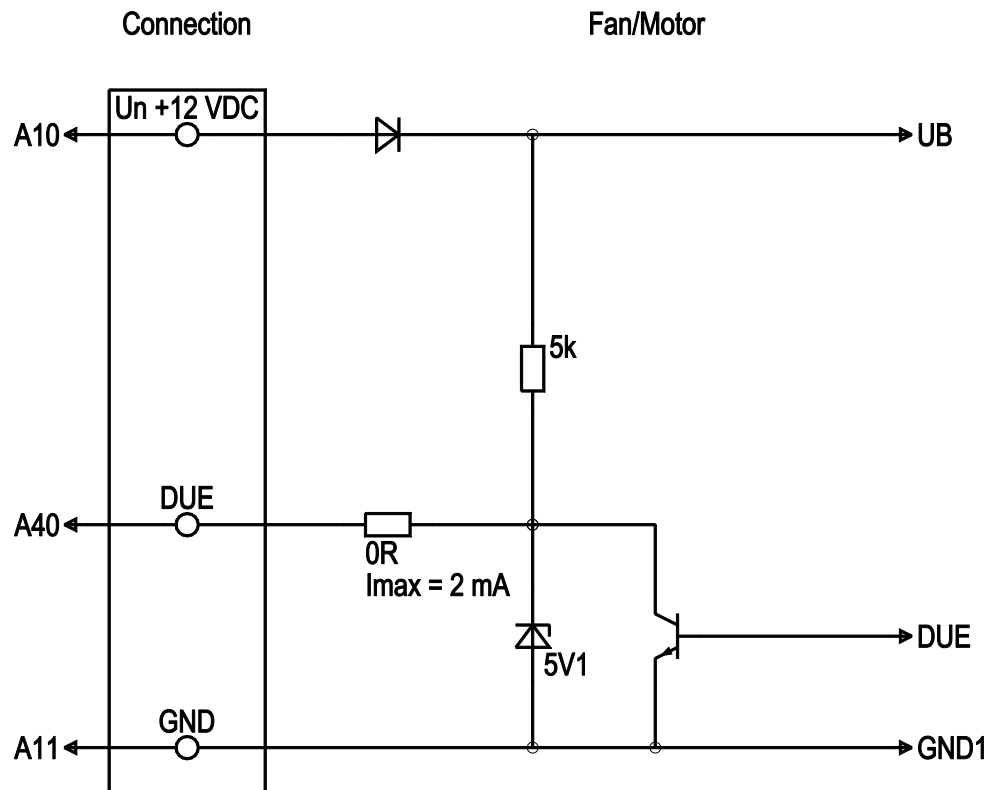


1	Airflow direction "V"
2	Cable PVC AWG20, 2x crimped splices
3	M4 screw for fastening ground connector

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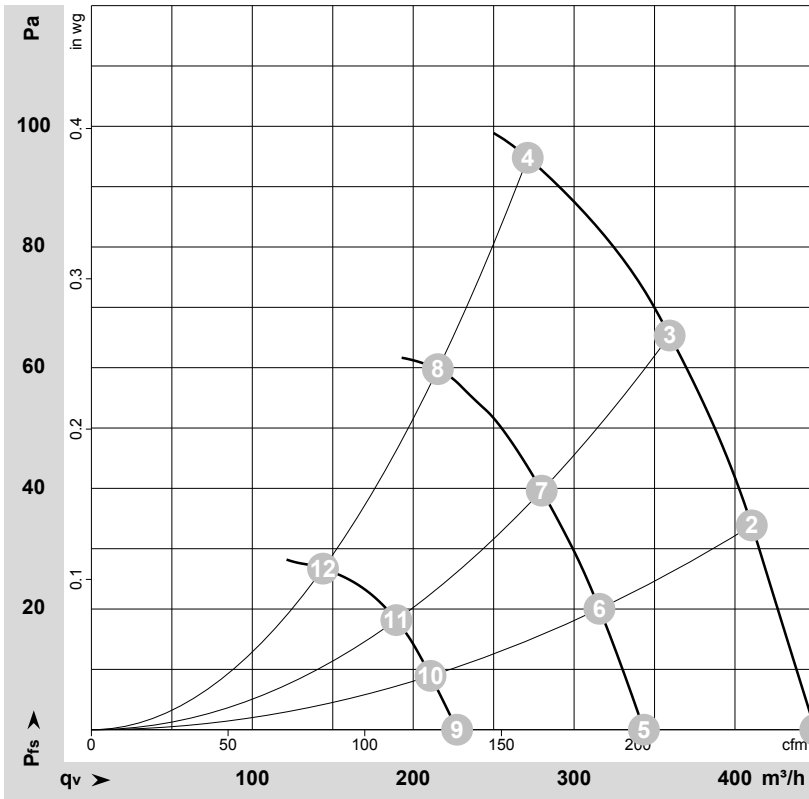
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## Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	A10	UN +12 VDC	red	Power supply 12 VDC, maximum ripple 3.5%
2	A40	DUE	white	Tach output, 2 pulses per revolution, Isink max = 2 mA, Isource = 2 mA
3	A11	GND	blue	Reference ground

## Curves: Air performance



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-24332-1  
 Measurement: LU-24331-1  
 Measurement: LU-24333-1

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 <sub>ed</sub>	I	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
	V	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
1	16	3850	27	1.70	450	0	265	0.00
2	16	3785	29	1.78	410	34	240	0.14
3	16	3700	30	1.85	360	65	210	0.26
4	16	3670	30	1.90	270	95	160	0.38
5	12	2950	16	1.10	345	0	200	0.00
6	12	2925	16	1.20	315	20	185	0.08
7	12	2895	16	1.23	280	40	165	0.16
8	12	2865	16	1.26	215	60	125	0.24
9	8	1990	5.0	0.65	225	0	135	0.00
10	8	1970	5.0	0.65	210	9	125	0.04
11	8	1945	5.0	0.67	190	18	110	0.07
12	8	1935	6.0	0.72	145	27	85	0.11

U = Power supply · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase



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