W3G300-BV46-12

EC axial fan

sickle-shaped blades (S series)

Fan housing with guard grille, Automotive

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W3G300-BV46-12**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2650
Power consumption	W	115
Current draw	A	4.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	95

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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	45.9	28.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		57.4	40
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.14
09 Air flow q_v	m³/h	1400
09 Pressure increase p_{fs}	Pa	154
10 Speed (rpm) n	min^{-1}	2585
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-203123

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Technical description

Weight	2.14 kg
Size	300 mm
Motor size	84
Impeller material	PA plastic
Fan housing material	PA plastic
Number of blades	7
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H4
Max. permitted ambient temp. for motor (transport/storage)	+95 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Tach output - Power limiter - Load dump (58 V) - Motor current limitation - Control input 0-10 VDC / PWM - Temperature derating - Overvoltage detection - Thermal overload protection for electronics - Line undervoltage detection - Reverse polarity protection
With cable	Lateral
Approval	EAC

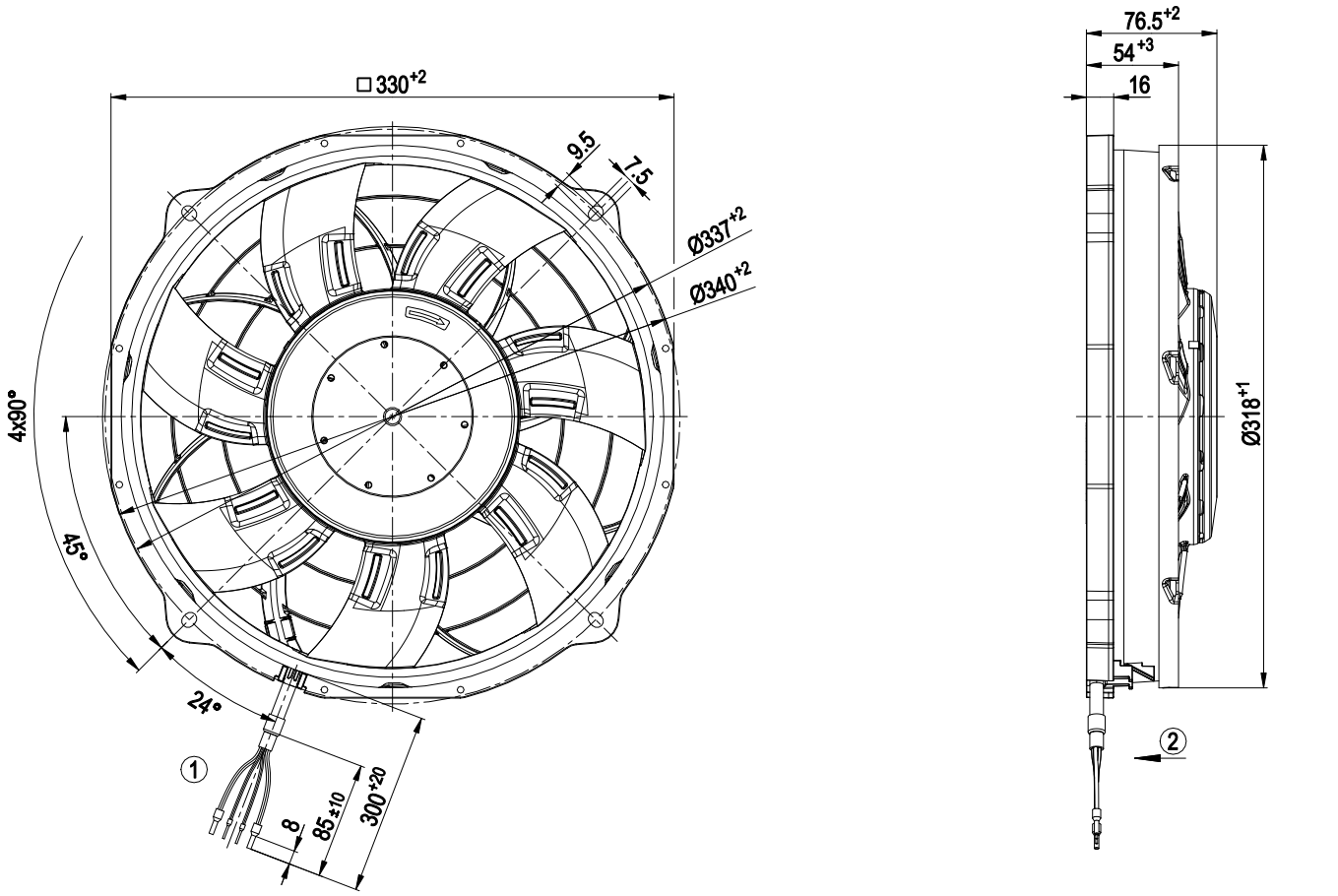
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Product drawing



1	Cable PFA AWG16 (black, brown), AWG18 (yellow, white)
	4x wire-end ferrule
2	Airflow direction "V"

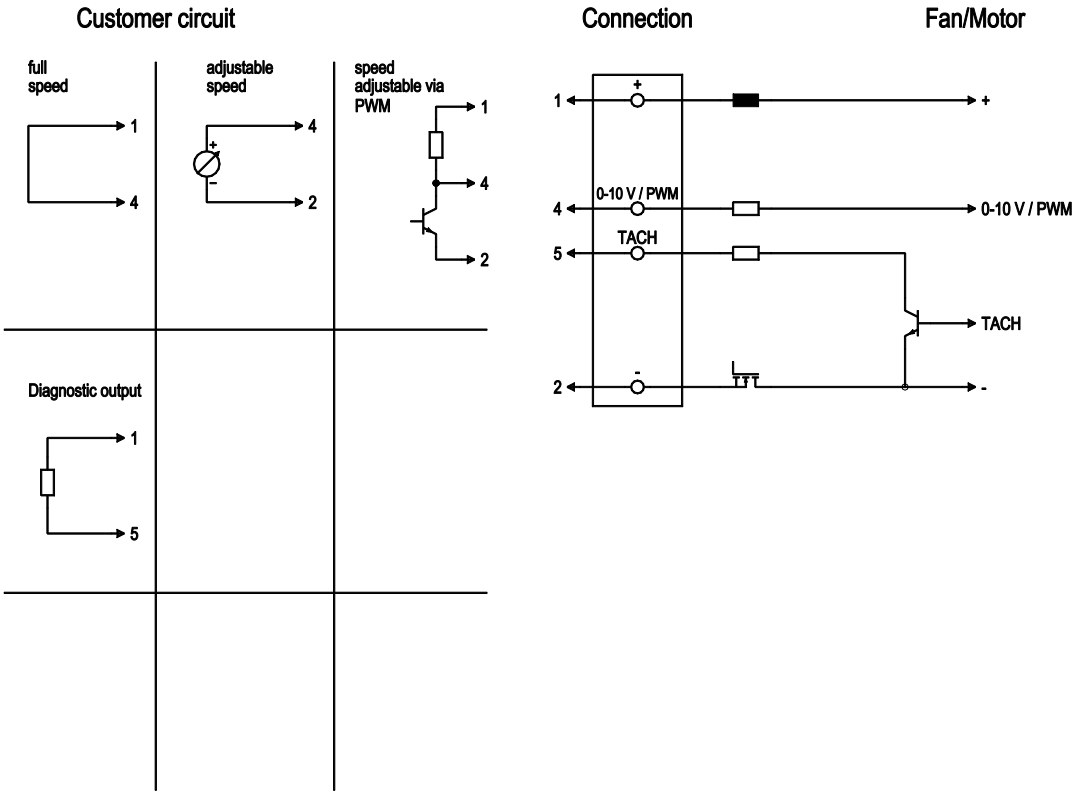
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1		+	black	Power supply +
2		-	brown	Power supply -
4		0-10 V / PWM	yellow	Control input: Ri > 36 kΩ 0-10 V (typ. <1 V ->n = 0; 1.5 V ->n = min.; >9.5 V ->n = max.) or PWM (>10 V; 10 Hz - 50 kHz; typ. < 10% -> n = 0; 15% -> n = min.; > 100% -> n = max.)
5		Tacho	white	Tach output: open collector, 1 pulse per revolution, Isink max = 10 mA, Ri = 470 Ω

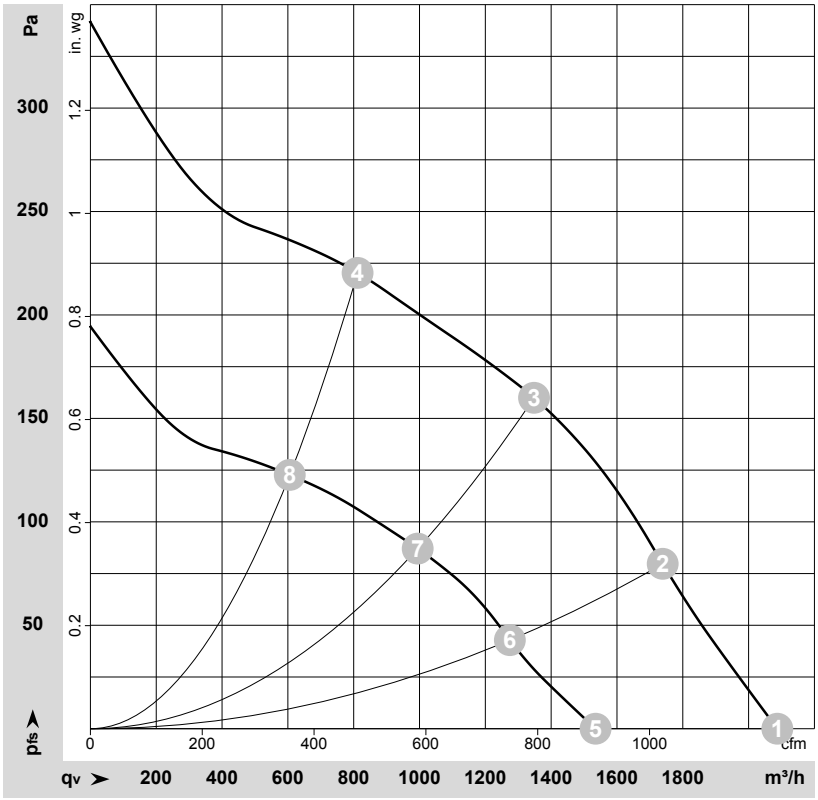
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-203123-1
Measurement: LU-203320-1

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_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	26-32	2650	115	4.40*	70	79	2085	0	1230	0.00
2	26-32	2605	130	5.00*	71	79	1740	80	1025	0.32
3	26-32	2575	150	5.80*	69	77	1350	160	795	0.64
4	26-32	2540	164	6.30*	72	80	810	220	480	0.88
5	16	1965	50	3.09			1535	0	905	0.00
6	16	1945	57	3.57			1275	43	750	0.17
7	16	1920	65	4.05			995	87	585	0.35
8	16	1905	72	4.46			605	123	355	0.49

U = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · * = Current measured at nominal voltage · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase

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