W3G300-BV25-82

EC axial fan

with brushless DC motor

Automotive

W3G300-BV25-82 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W3G300-BV25-82**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Type of data definition		fa
Speed	min-1	3350
Power input	W	230
Current draw	A	9
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	85/110

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

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	44.3	26.5	30.5
Efficiency grade N		53.8	36	40
Power input P_e	kW	0.32		
Air flow q_v	m³/h	1795		
Pressure increase p_{fs}	Pa	260		
Speed n	min-1	3345		

Data definition with optimum efficiency. LU-154847
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	2 kg
Size	300 mm
Material of blades	PA plastic
Material of wall ring	PA plastic
Number of blades	7
Direction of air flow	"V"
Balance quality according to DIN ISO 1940-1	G 10
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 24 KM
Insulation class	"B"
Humidity class	F4-1
Note ambient temperature	Over +95° C with power derating
Max. permissible ambient motor temp. (transp./ storage)	+110 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing; (sealed)
Life expectancies	40,000 h (typical)
Technical features	- Lowering input - Fault output (high-side switch max. 30 mA) - INVLIN (control input, inverse linear) - Output limit -Load dump (58 V) - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Overvoltage detection - Over-temperature protected electronics - Line undervoltage detection
EMC directives	According to ECE R10 Rev. 3
Electrical leads	With plug; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Lateral
Product conforming to standard	EN 45545-2, HL3: 2013; EN 50155: 2008; EN 61373, Cat. 1B: 2010
Approval	E1; EAC
Remark	EMC regulation: EN 50121-3-2 in preparation

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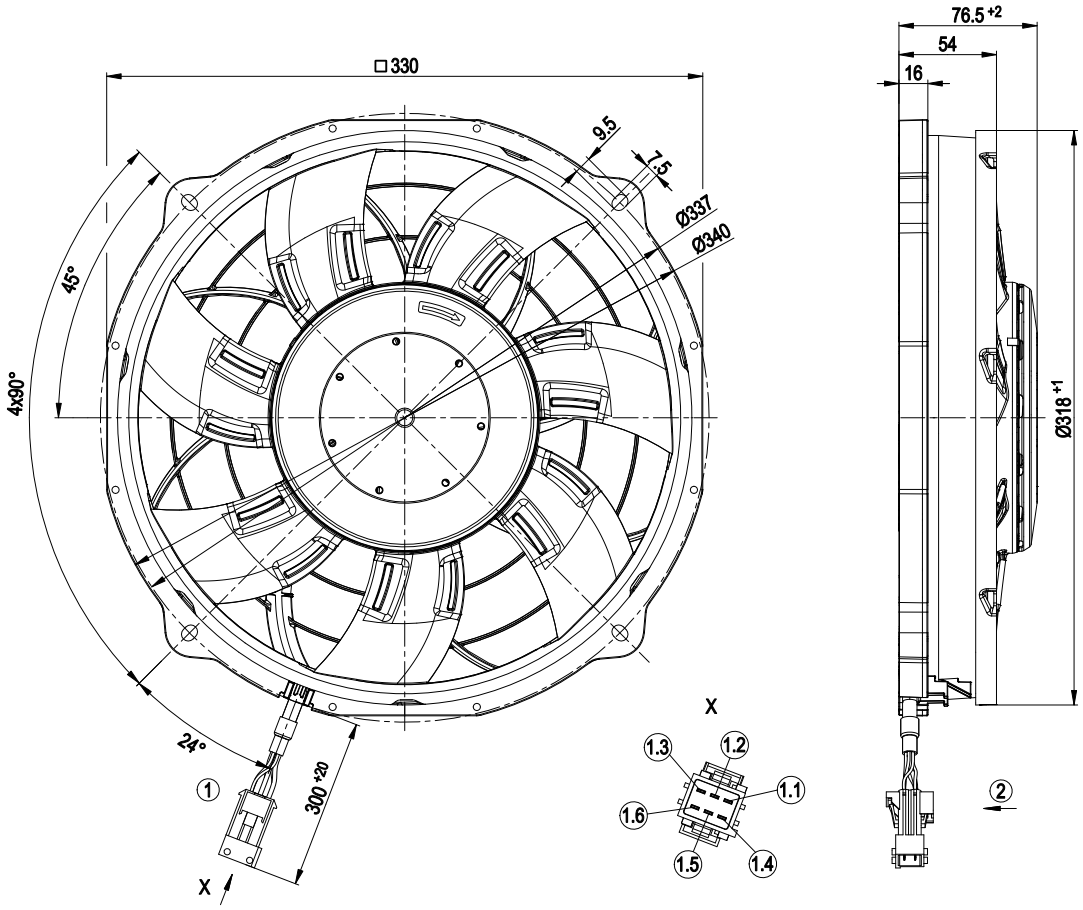
Product drawing



1	Connection line with plug tyco Junior Power Timer 1-962349-1, 6-pole, coded
	Connection line (460 mm) with mating connector part no. 02002-4-1021 not included in scope of delivery
1.1	+ UB (black)
1.2	GND (brown)
1.3	PWM/LIN (yellow)
1.4	INVLIN (orange)
1.5	ABSENK (blue)
1.6	Diagnostic output (white)
2	Direction of air flow "V"

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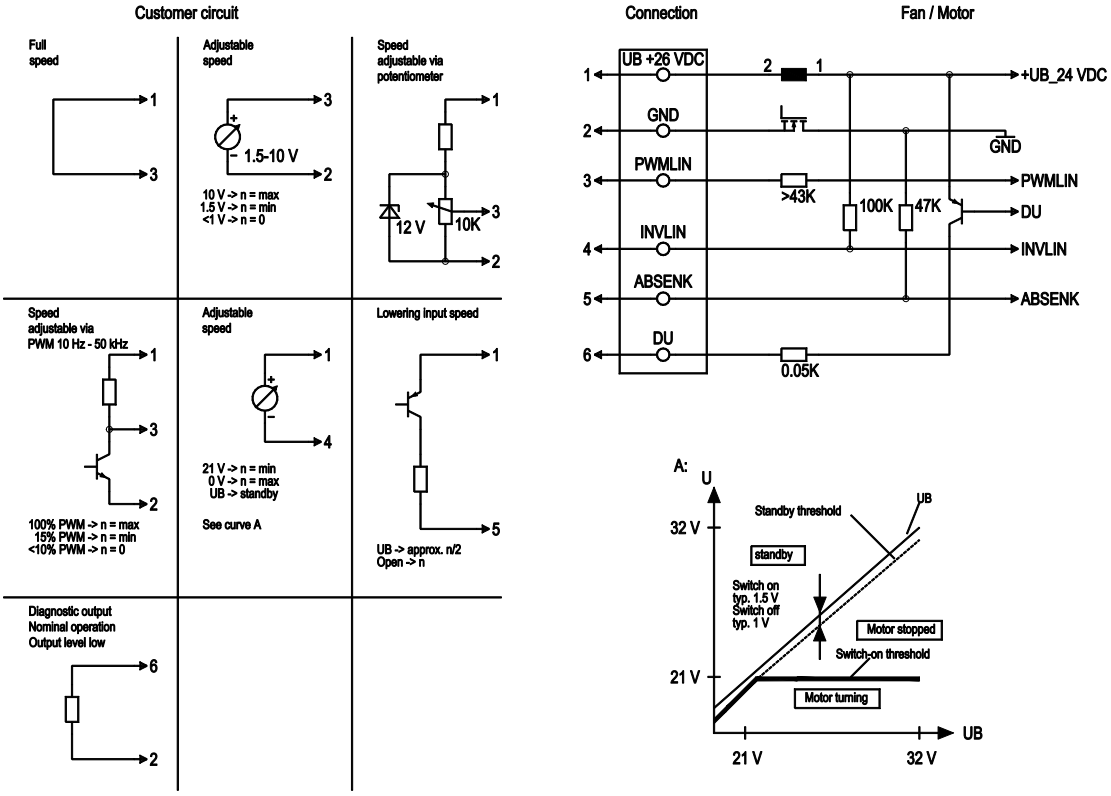
Connection screen



No.	Conn.	Designation	Function / assignment
	1	UB +26 VDC	Power supply 26 VDC
	2	GND	Power supply GND, reference ground
	3	PWMLIN	Analogue voltage control input 0 -10 V or PWM
	4	INVLIN	Control input, inverse linear
	5	ABSENK	Lowering input
	6	DU	Diagnostic output

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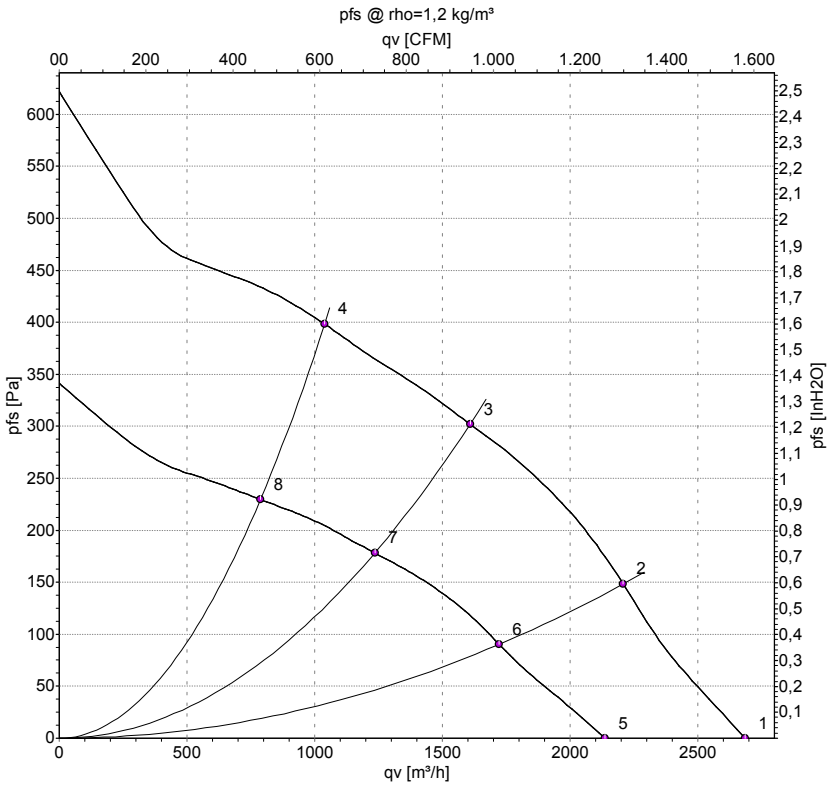
Charts: Air flow



Measurement: LU-154847
Measurement: LU-154861

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	m^3/h	Pa
1	26-32	3350	230	9.0*	2685	0
2	26-32	3350	277	10.7*	2210	150
3	26-32	3350	341	13.1*	1610	300
4	26-32	3350	379	14.6*	1040	400
5	16	2680	120	7.51	2135	0
6	16	2640	138	8.60	1725	90
7	16	2590	159	9.92	1235	178
8	16	2555	172	10.74	790	230

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