W3G300-BV12-41

EC axial fan

Automotive



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W3G300-BV12-41**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	13
Nominal voltage range	VDC	9 .. 16
Type of data definition		fa
Speed	min^{-1}	3200
Power input	W	220
Current draw	A	16.7
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	105

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}		41.5	25.8	29.8
Efficiency grade N		51.7	36	40
Power input P_e	kW	0.24		
Air flow q_v	m³/h	1600		
Pressure increase p_{fs}	Pa	205		
Speed n	min^{-1}	2945		

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

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Technical features

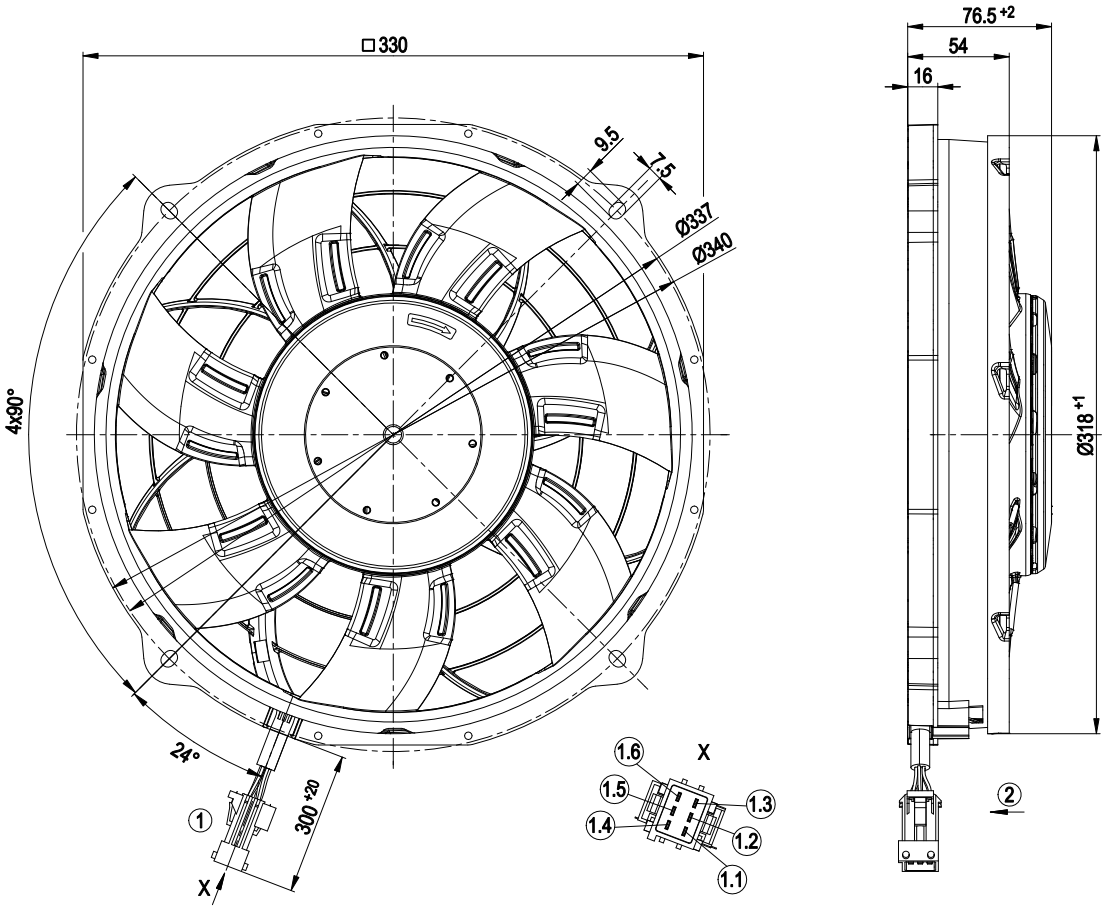
Mass	2 kg
Size	300 mm
Material of blades	PA plastic
Material of wall ring	PA plastic
Number of blades	7
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 24 KM; (Motor); electronics IP 66 / 69 K
Insulation class	"B"
Humidity class	F4-1
Note ambient temperature	Over +85° 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
Technical features	- Lowering input - Fault output (high-side switch max. 30 mA) Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Overvoltage detection - Over-temperature protected electronics - Line undervoltage detection
EMC directives	ECE R10 Rev.3
Electrical leads	With plug
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Lateral
Approval	GOST; E1

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Product drawing



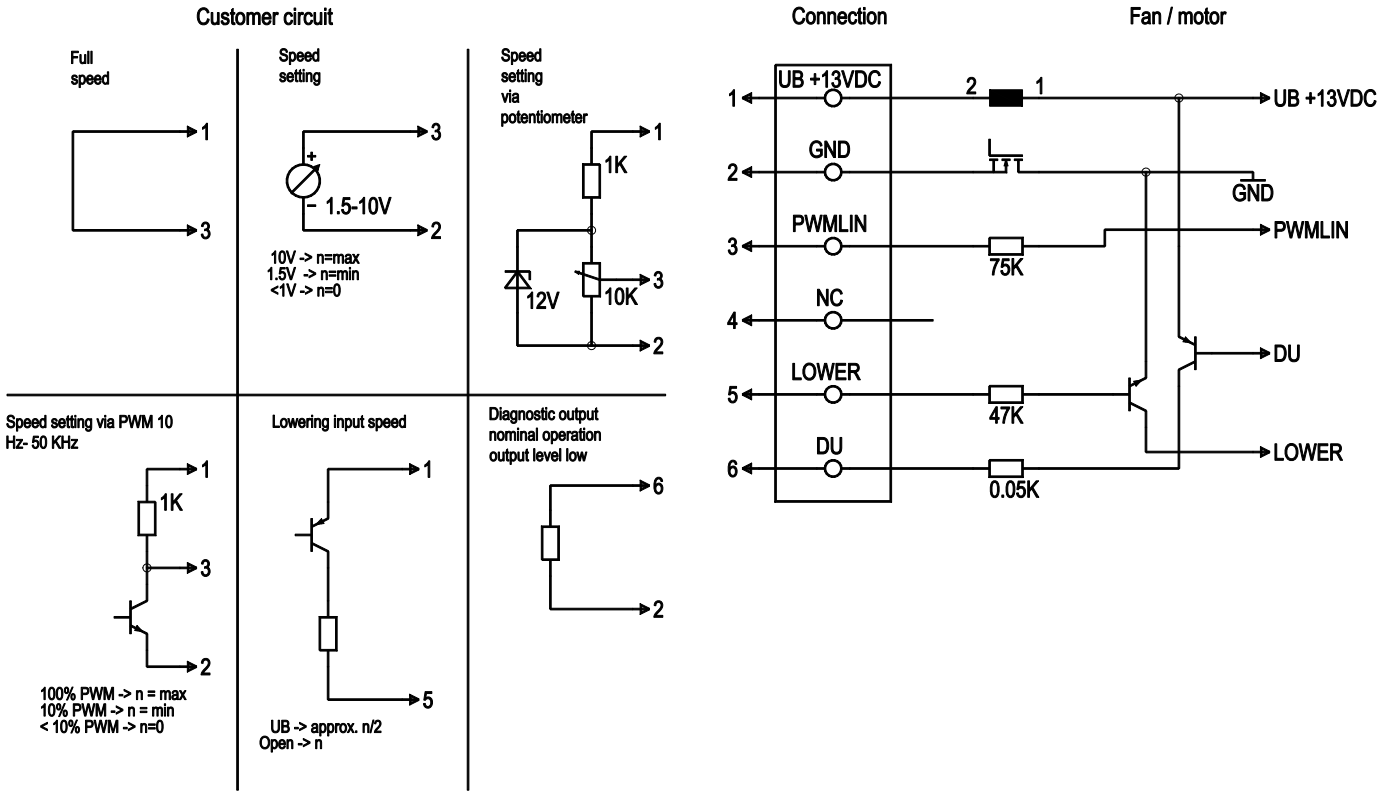
1	Connection line with plug AMP Junior Power Timer, 6-pole, coded Accessory part: connection line (460 mm) with mating connector Part No. 02002-4-1021 not included in the standard scope of delivery
1.1	+UB (black)
1.2	GND (brown)
1.3	PWM/LIN (yellow) optional LIN-BUS
1.4	NC (orange)
1.5	LOWER (blue)
1.6	Diagnostic output (white)
2	Direction of air flow "V"

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Connection screen



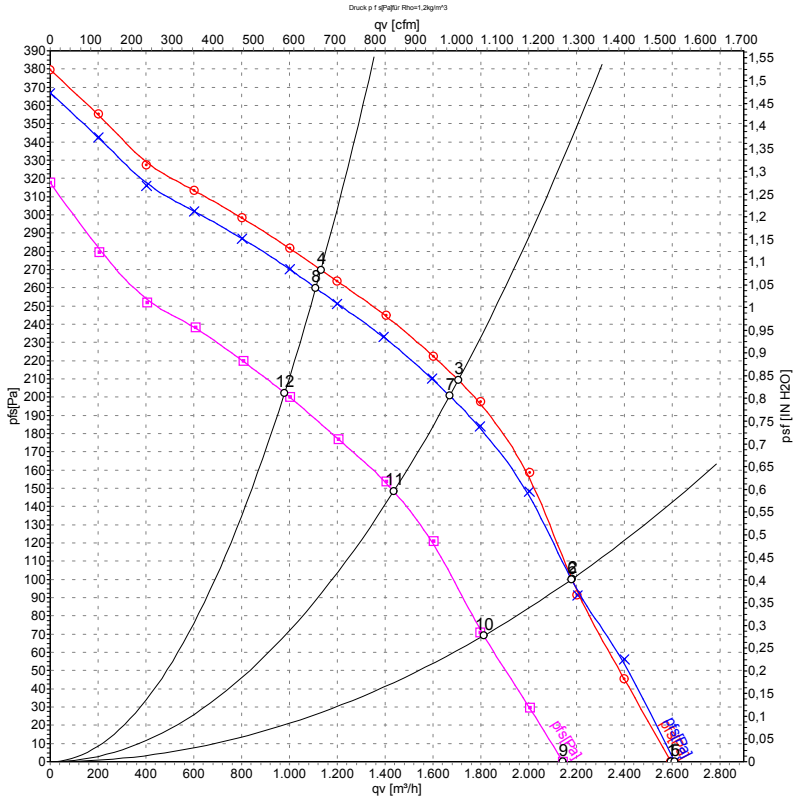
No.	Pin	Signal	Function / assignment
	1	UB +13 VDC	Power supply 13 VDC
	2	GND	Power supply GND, reference ground
	3	PWMLIN	Analogue voltage control input 0 -10 V or PWM
	4	NC	Not assigned
	5	ABSENK	Lowering input
	6	DU	Diagnostic output

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Charts: Air flow



Measurement: LU-141602
Measurement: LU-141600
Measurement: LU-141601

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	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	16	3200	220	13.20			2595	0
2	16	3140	235	14.22			2180	100
3	16	3015	254	15.88			1705	209
4	16	2885	255	15.91			1130	270
5	13	3200	220	16.70	75	83	2610	0
6	13	3140	235	18.13	75	82	2180	100
7	13	2960	247	18.93	73	80	1670	200
8	13	2840	248	19.04	75	82	1110	260
9	9	2655	125	13.77			2145	0
10	9	2630	138	15.26			1815	68
11	9	2555	156	17.00			1435	149
12	9	2505	172	18.93			980	202

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow · p_{fs} = Pressure increase

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