W3G300-BV12-47

EC axial fan

with brushless DC motor

Automotive



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Nominal data

Type	**W3G300-BV12-47**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	13
Nominal voltage range	VDC	9 .. 16
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3200
Power consumption	W	220
Current draw	A	16.7
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	85
-with power derating to	°C	105

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

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Technical description

Weight	2 kg
Size	300 mm
Motor size	84
Impeller material	PA plastic UL94 HB (black)
Fan housing material	PA plastic UL94 HB (black)
Number of blades	7
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP24 KM; (motor); electronics IP66/69K
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H4
Max. permitted ambient temp. for motor (transport/storage)	+105 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor mounting	Ball bearing
Motor bearing	(sealed)
Technical features	- Lowering input -Start at 85 °C (2 min) permitted - Fault output (high-side switch max. 30 mA) - Power limiter - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Overvoltage detection - Thermal overload protection for electronics - Line undervoltage detection
EMC regulations	According to ECE R10 Rev. 3
Electrical hookup	Plug
Motor protection	Reverse polarity and locked-rotor protection
With cable	Lateral
Approval	E1
Sound level	83 dB(A), sound power level according to ISO 13347
Comment	Type approval number – 036433

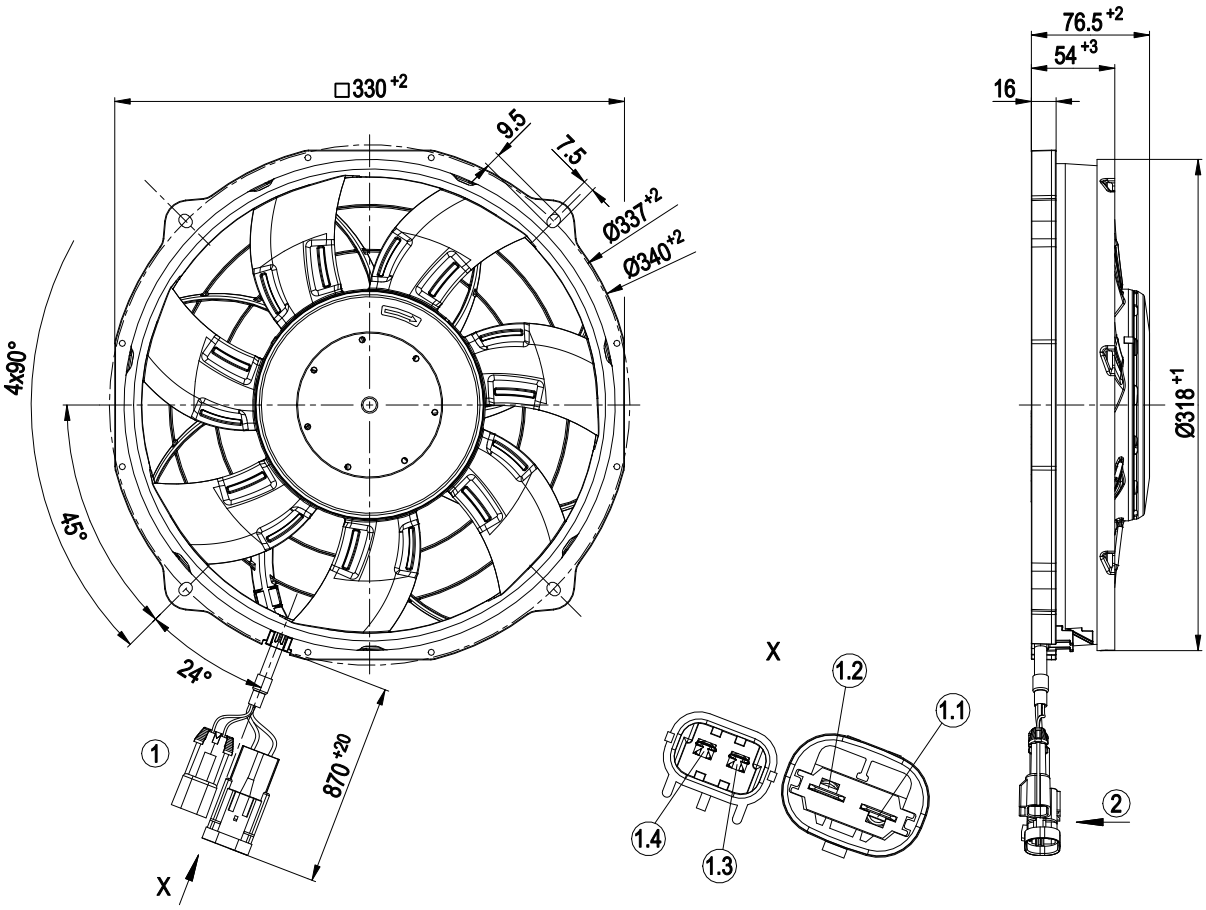
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Product drawing



1	Cable with 1x 2-pole connector housing TE 1544334-1 and 1x 2-pole connector housing Packard Electric 15300002
1.1	+ UB
1.2	GND
1.3	PWM/LIN
1.4	Diagnostic output
2	Airflow direction "V"

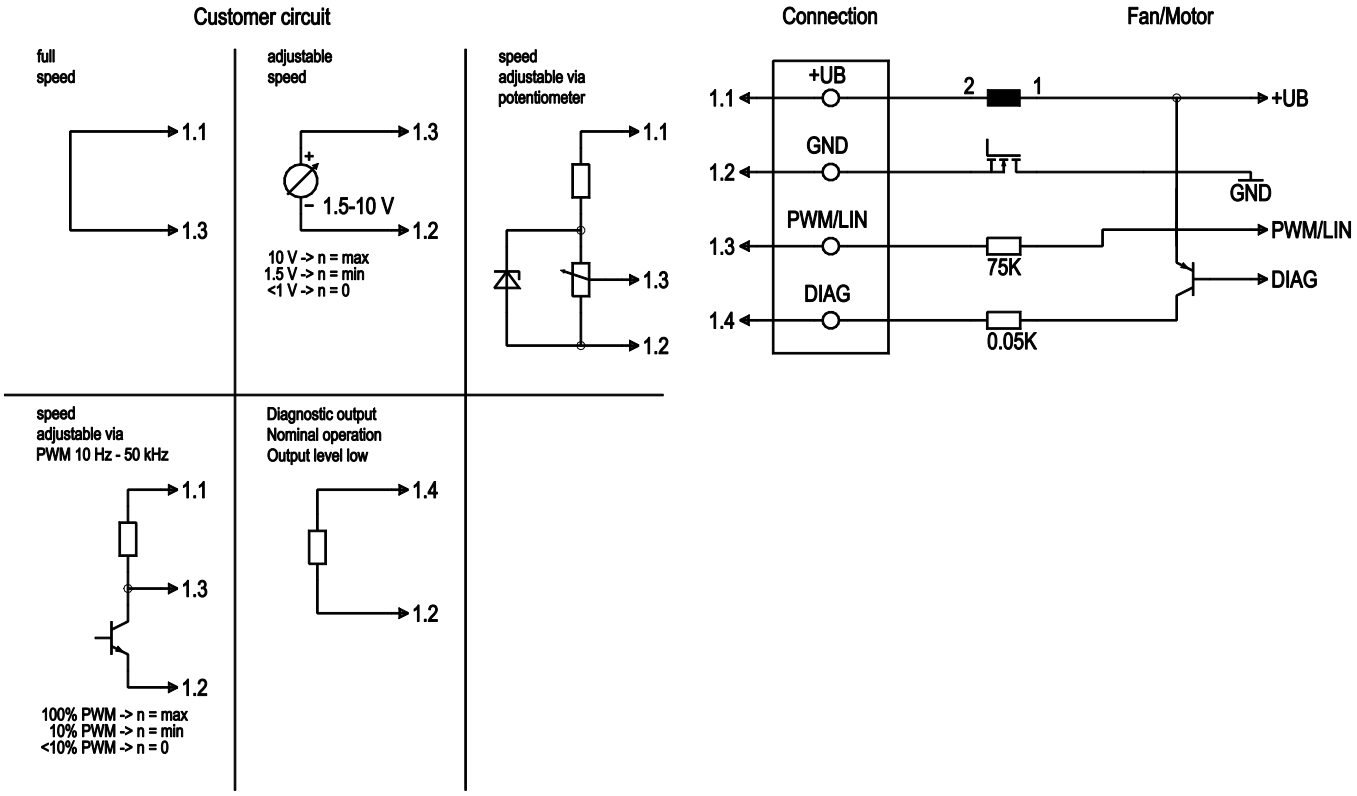
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Connection diagram



No.	Conn.	Designation	Function/assignment
	1.1	+UB	Power supply
	1.2	GND	Power supply GND, reference ground
	1.3	PWM/LIN	Analog voltage control input 0-10 V or PWM
	1.4	DIAG	Diagnostic output

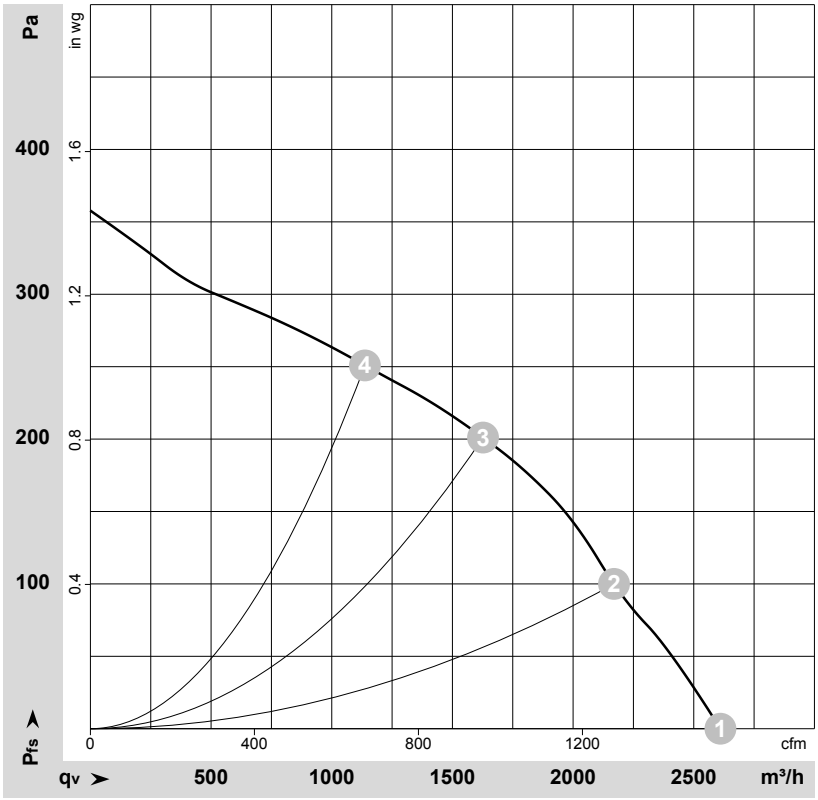
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-141600-1

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	13	3200	220	16.70	75	83	2610	0	1535	0.00
2	13	3135	237	18.18	75	83	2170	100	1275	0.40
3	13	2955	248	18.98	72	80	1625	200	960	0.80
4	13	2845	248	19.01	73	81	1140	250	670	1.00

U = Power supply · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · 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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