W3G300-BV25-21

EC axial fan

with brushless DC motor

Automotive



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Nominal data

Type	**W3G300-BV25-21**
Motor	**M3G084-BF**

Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Type of data definition		fa
Speed (rpm)	min^{-1}	3940
Power input	W	380
Current draw	A	14.6
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

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Technical features

Mass	2 kg
Size	300 mm
Motor size	84
Material of impeller	PA plastic
Material of wall ring	PA plastic
Number of blades	7
Direction of air flow	V
Balance quality per DIN ISO 21940-11	G 10
Direction of rotation	Clockwise, seen on rotor
Type of protection	Motor IP24 KM, electronics IP6K9K (mating connector fitted)
Insulation class	"B"
Humidity (F) / environmental protection class (H)	H4
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
Condensation drainage 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	ECE R10 Rev.3
Electrical connection	Connector with connection line; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Lateral
Safety classification	III; Requires supply with safety extra-low voltage SELV. This component to be built-in can have several local protection class ratings. The specification refers to the basic design of this component. The final protection class is based on the intended installation and connection of the component.
Approval	E1; EAC
Remark	Type approval number – 036433

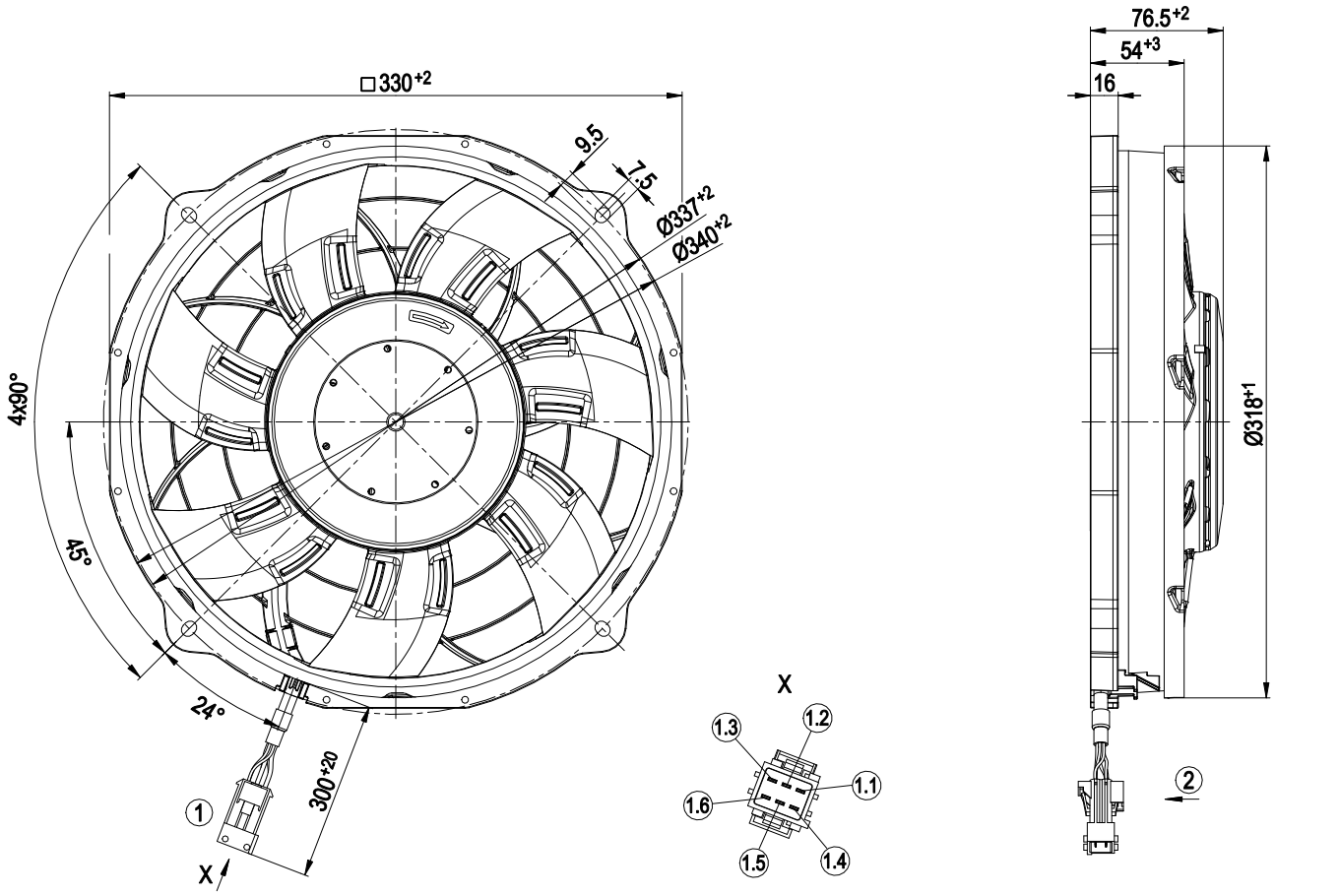
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Product drawing



1	Connection line FLRYW 2x 3 mm², 4x 0.75 mm²
	6-pole connector housing TE 1-962349-1, 2x flat connector TE 2-962916-1, 4x flat connector TE 1-962915-1 1x seal TE 963205-1, 2x seal TE 828905-1, 4x seal TE 828904-1
1.1	+ UB
1.2	GND
1.3	PWM/LIN
1.4	INVLIN
1.5	ABSENK
1.6	Diagnostic output
	Accessory part: Connection line (460 mm) with mating connector, part no. 02002-4-1021 not included in scope of delivery 6-pole mating connector TE 1-963212-1, 4x receptacle TE 929939-1, 2x receptacle TE 929937-1
2	Direction of air flow "V"

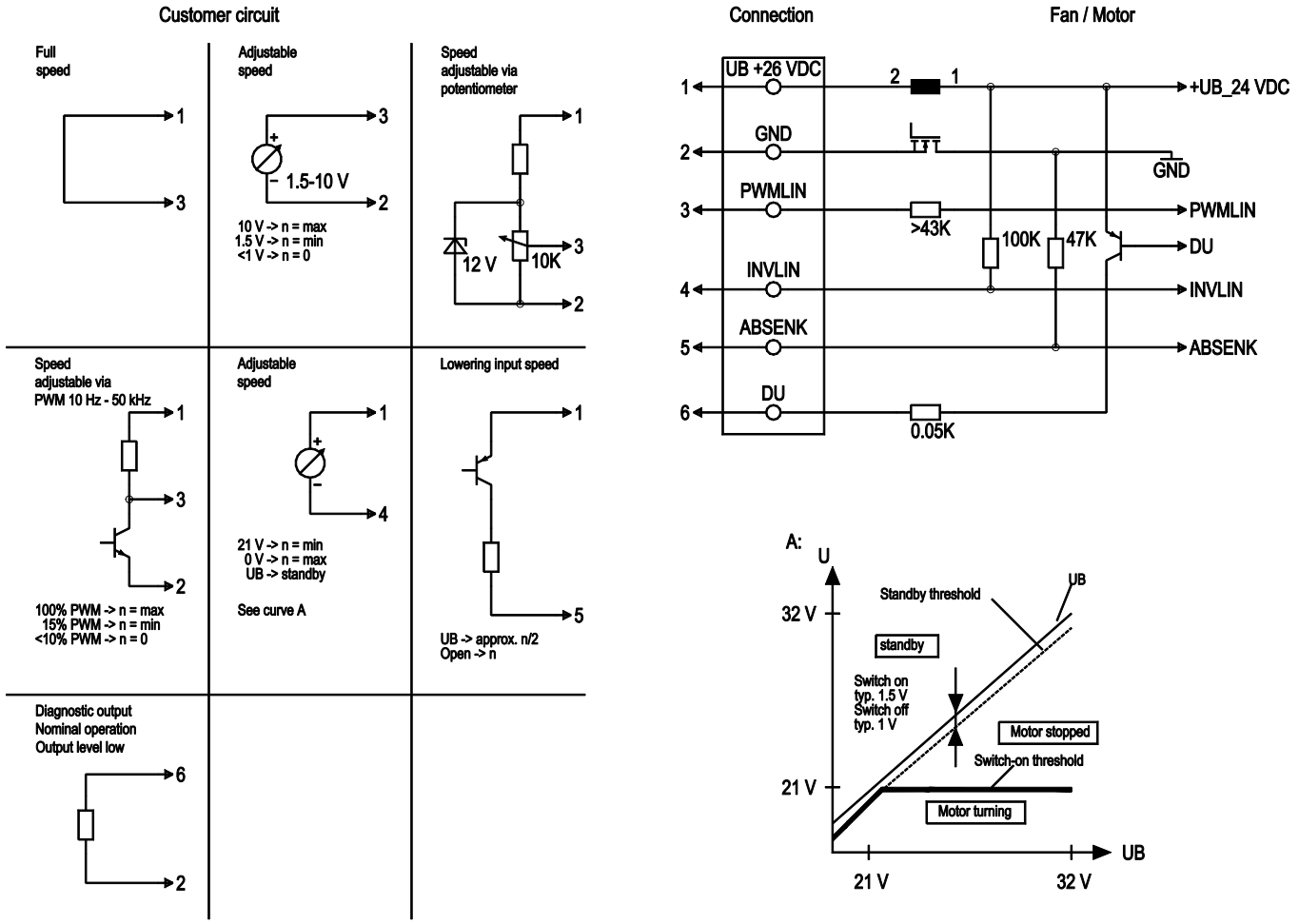
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Connection screen



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

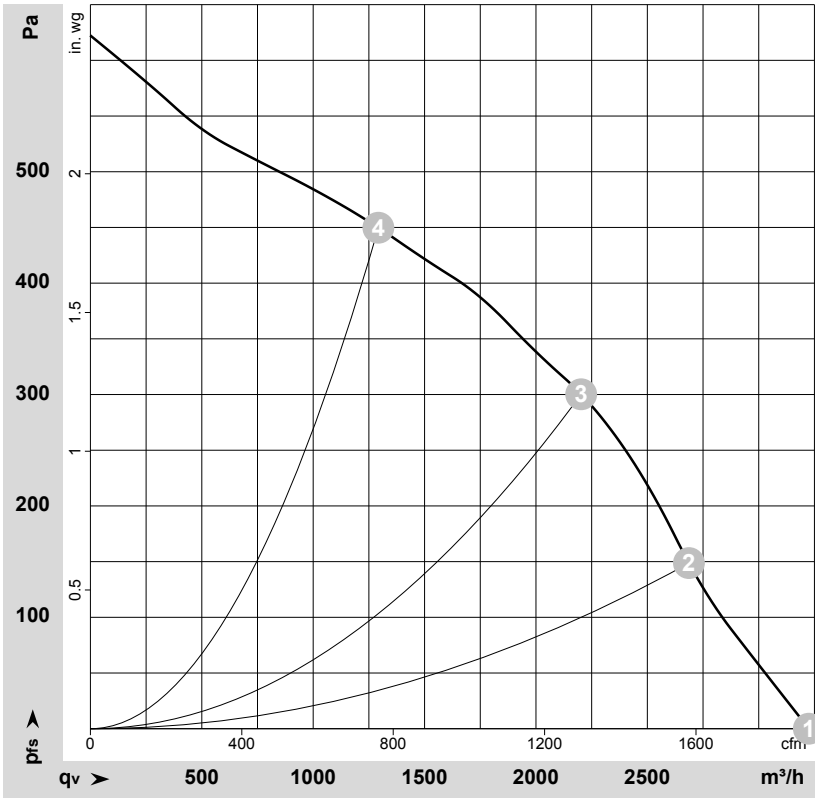
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Charts: Air flow



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-141116-1

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}	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	3940	380	14.60	79	87	3225	0	1900	0.00
2	26	3820	405	15.55	79	87	2685	150	1580	0.60
3	26	3725	460	17.63	78	86	2205	300	1295	1.20
4	26	3620	504	19.36	82	89	1295	450	760	1.81

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

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