W3G300-BV25-35 **Sample**

EC axial fan

with brushless DC motor

Commercial vehicles

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W3G300-BV25-35 ebmpapst Datasheet
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Nominal data

Type	**W3G300-BV25-35**
Motor	**M3G084-BF**

Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3800
Power consumption	W	360
Current draw	A	13.9
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	85

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	2.16 kg
Size	300 mm
Motor size	84
Impeller material	PA plastic
Fan housing material	PA plastic
Number of blades	7
Airflow direction	V
Balancing grade according to DIN ISO 21940-11	G 10
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM, electronics IP6K9K (mating connector installed)
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H4
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
Max. permitted ambient temp. for motor (transport/storage)	+85 °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)
Life expectancy	40,000 h (depending on load profile and ambient conditions)
Technical features	- Locked-rotor detection - Error output (high-side switch) - Power limiter - Load dump protection - Motor current limitation - Reverse operation (reversal of rotation) - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Thermal overload protection for electronics - Reverse polarity protection
Electrical hookup	Connector with cable; Standby current less than 500 µA
With cable	Lateral

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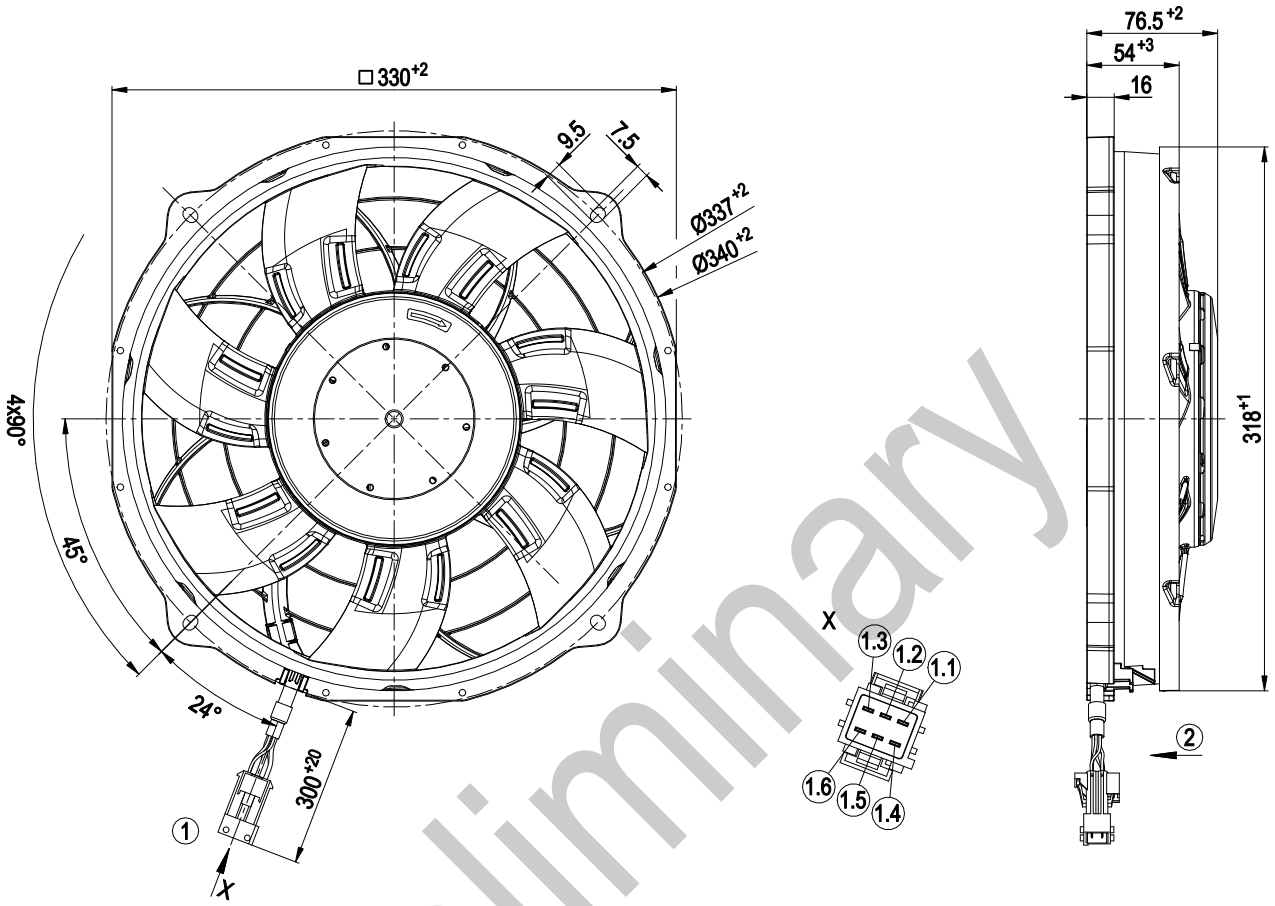
Product drawing



1	Cable FLRYW 2x 3 mm², 4x 0.75 mm²
	6-pole connector housing TE 1-962349-1, 2x flat plug TE 2-962916-1, 3x flat plug TE 1-962915-1 1x seal TE 963205-1, 2x seal TE 828905-1, 3x seal TE 828904-1, 1x dummy plug TE 828922-1
1.1	+ UB
1.2	GND
1.3	PWM/LIN
1.4	not used
1.5	Reverse
1.6	Diagnostic output
2	Airflow direction "V"

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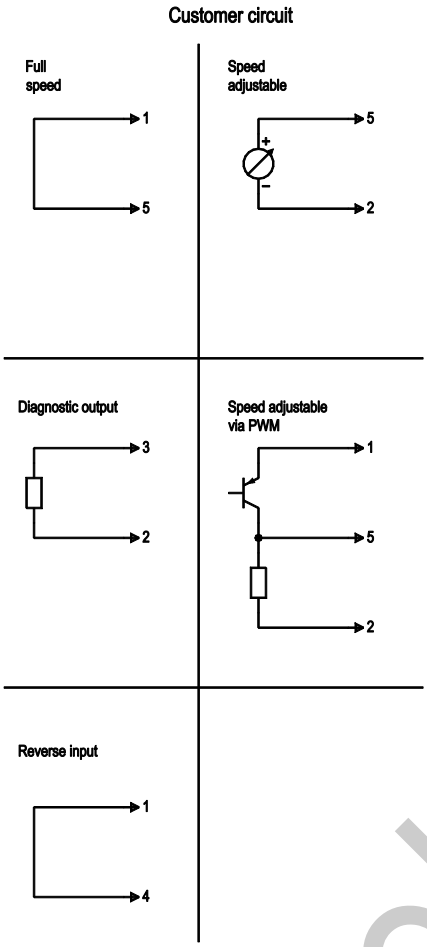
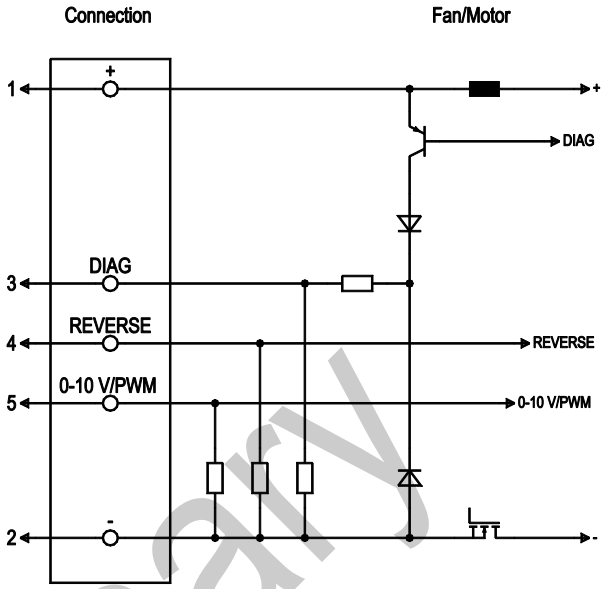
Connection diagram





No.	Conn.	Designation	Function/assignment
	1	+	Power supply, see nameplate for voltage range
	2	-	Power supply, see nameplate for voltage range
	3	DIAG	Diagnostic output: Open collector, Isource max = 10 mA, Rsource = 2 kΩ, Rsink = 100 kΩ fan error -> high
	4	Reverse	Reverse input: Ri > 10 kΩ 8 V -UB: High -> reversal of direction of rotation
	5	0-10 V / PWM	Control input: Ri > 27 kΩ PWM: (12 V -UB; 1 kHz - 10 kHz; typ. < 1% -> standby; 10% -> n = min.; > 95% -> n = max.) or 0-10 V: (typ. < 0.5 V -> standby; 1.5 V -> n = min.; > 9.5 V -> n = max.)

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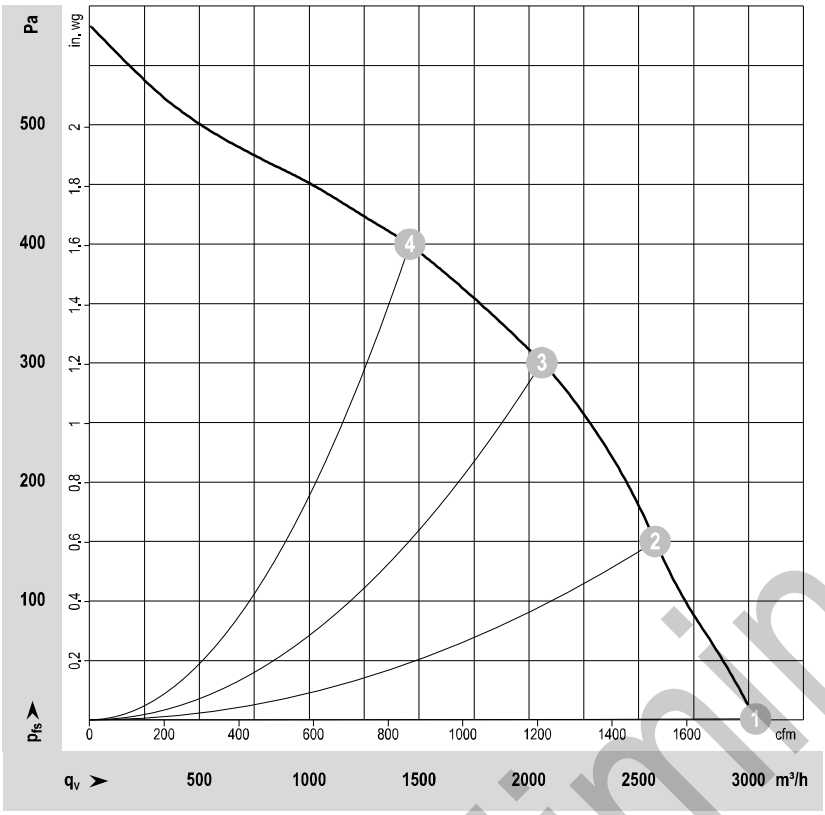
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-19061-1

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.

Fan performance

	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)	m³/h	Pa	cfm	in. wg
1	26	3800	360	13.90	79	87	3032	0	1784	0.00
2	26	3740	408	15.67	80	88	2575	150	1515	0.60
3	26	3640	464	17.86	78	87	2059	300	1211	1.20
4	26	3580	497	19.16	79	87	1458	400	858	1.61

U = Voltage · 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