W3G300-ME49-12

EC axial fan

with brushless DC motor

Fan housing with guide vanes, Automotive

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Nominal data

Type	**W3G300-ME49-12**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	1450
Power consumption	W	23
Current draw	A	0.9
Min. ambient temperature	°C	-20
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 kg
Size	300 mm
Motor size	84
Blade material	PA plastic
Fan housing material	PP plastic
Number of blades	7
Airflow direction	V
Balancing grade according to DIN ISO 1940-1	G 16
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
Max. permitted ambient temp. for motor (transport/storage)	+85 °C
Min. permitted ambient temp. for motor (transport/storage)	-20 °C
Installation position	Any
Mode	S1
Motor bearing	Ball bearing; (sealed)
Life expectancy	40,000 h (typical)
Technical features	- Tach output - Power limiter - Load dump (58 V) - Motor current limitation - Soft start - Control input 10-0 VDC / PWM - Temperature derating - Thermal overload protection for electronics - Reverse polarity protection
Electrical hookup	Connector with cable; Standby current less than 500 µA

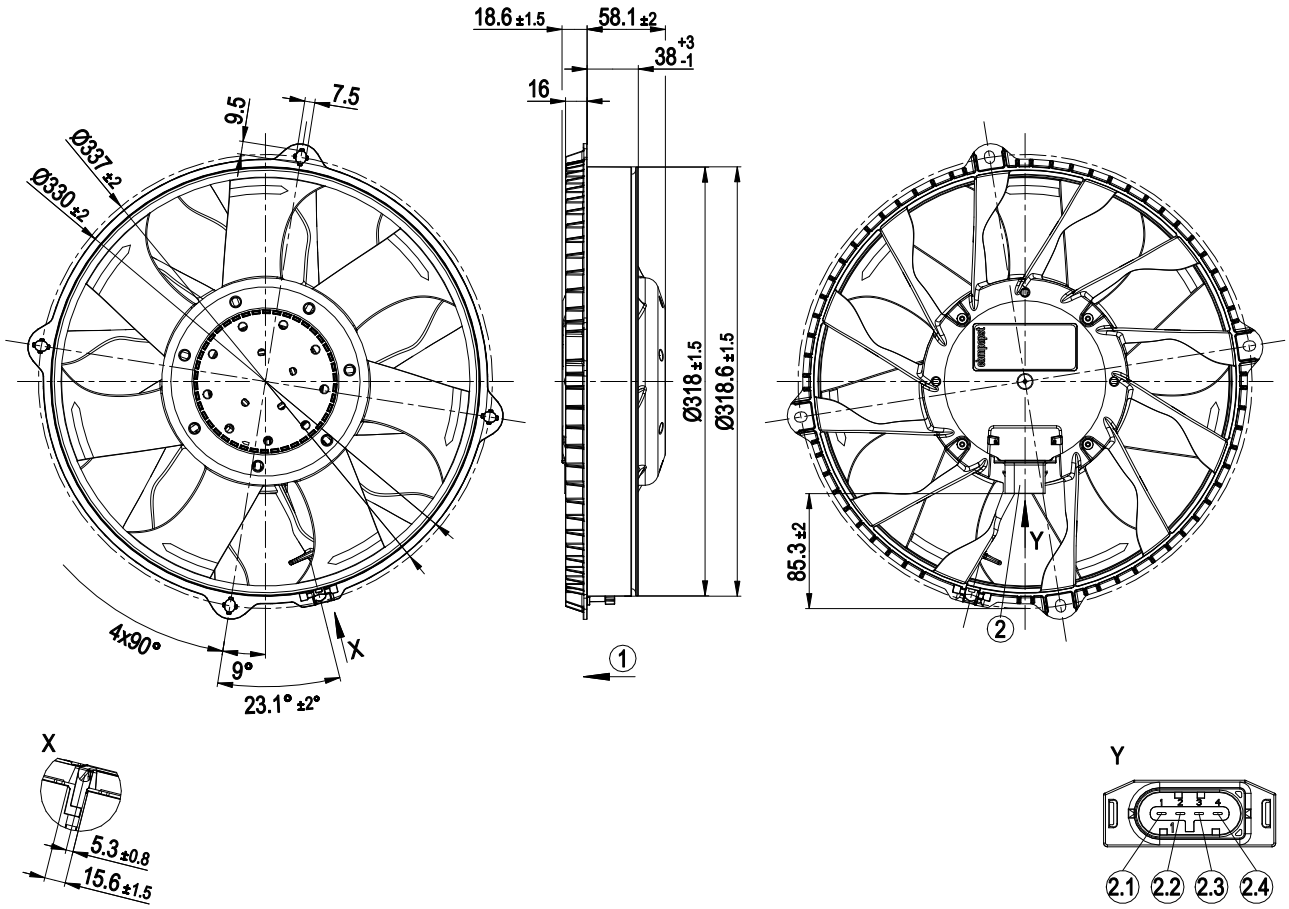
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Product drawing



1	Airflow direction "V"
2	4-pole plug, pluggable with cable 02040-4-1021
2.1	Tach
2.2	PWM/LIN
2.3	+ UB
2.4	GND
	Cable (460 mm) with mating connector part no. 02040-4-1021 included separately
	Cable FLRYB 2x 2.5 mm², 2x 0.75 mm²
	4x wire-end ferrule

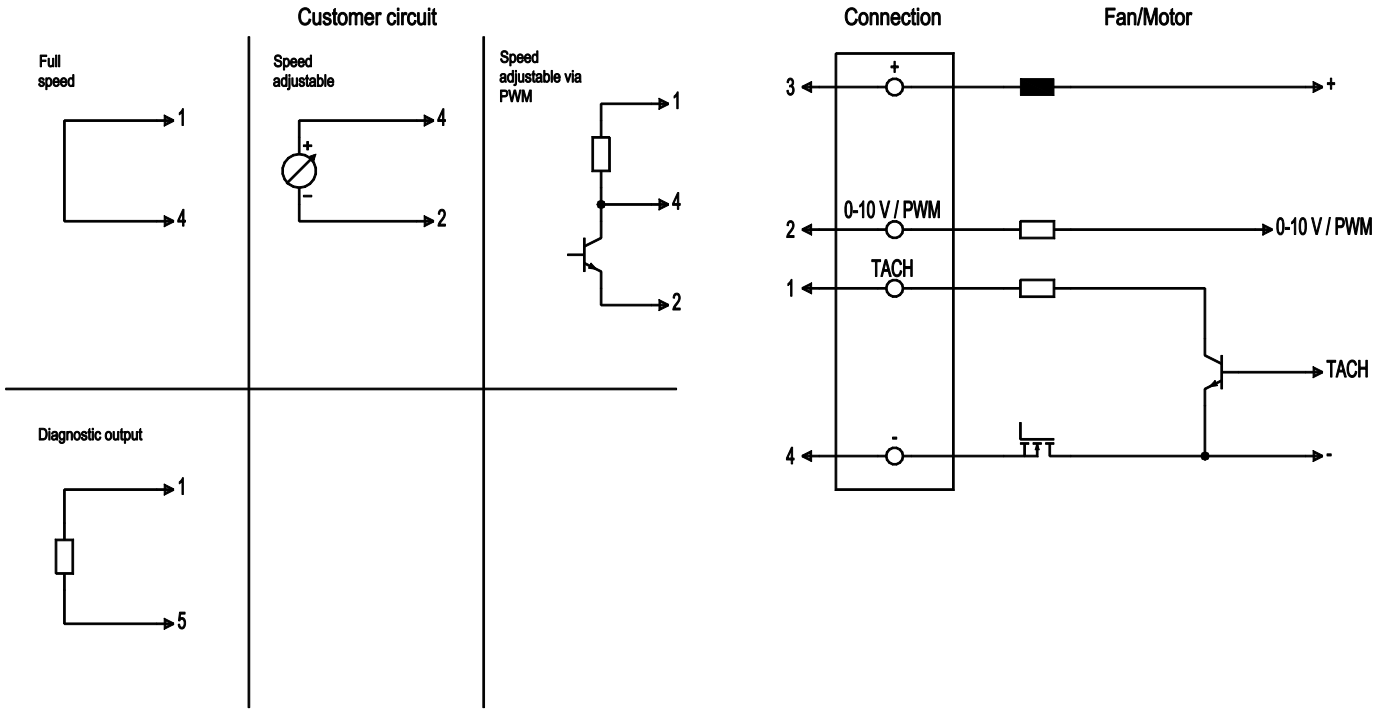
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	1	Tacho	white	Tach output: Open collector, 1 pulse per revolution, Isink max = 10 mA, Ri = 450 Ω
	2	0-10 V / PWM	yellow	Control input: Ri > 27 kΩ 0-10 V: (typ. 0.5 V -> Standby; 1.5 V -> n = min.; 9.5 V -> n = max.) or PWM: (12 V - Ub; 1 kHz - 10 kHz; typ. < 1% -> standby; 10% -> n = min.; 95% -> n = max.)
	3	+	black	Power supply +
	4	-	brown	Power supply -

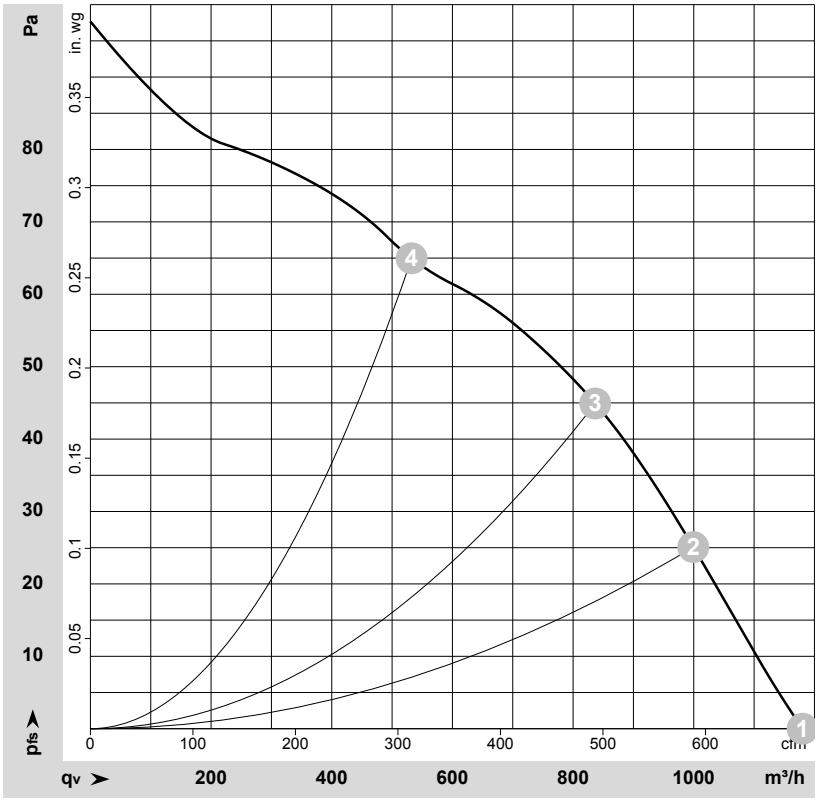
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-203916-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	26	1450	23	0.90	1180	0	695	0.00
2	26	1450	25	0.95	1000	25	590	0.10
3	26	1450	26	1.02	835	45	495	0.18
4	26	1450	27	1.04	530	65	315	0.26

U = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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