W3G300-RQ30-43

EC axial fan

with brushless DC motor

Automotive



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Nominal data

Type	**W3G300-RQ30-43**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2850
Power consumption	W	185
Current draw	A	7
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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	43.4	29.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		54.2	40
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.19
09 Air flow q_v	m^3/h	1600
09 Pressure increase p_{fs}	Pa	167
10 Speed (rpm) n	min^{-1}	2795
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

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Technical description

Weight	2.6 kg
Size	300 mm
Motor size	74
Impeller material	PA6 plastic
Fan housing material	PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H2
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 (typical)
Technical features	- Lowering input - Error output (high-side switch) - INVLIN (inverse linear control input) - Power limiter - Load dump (58 V) - Motor current limitation - Soft start - Set value input Lin 0-10 VDC / PWM (1.4 V corresponds to V=min, 10 V corresponds to V=max) - Thermal overload protection for electronics - Reverse polarity protection
EMC regulations	E1 approval according to ECE R10 Rev. 3
Electrical hookup	Connector with cable; Standby current less than 500 µA
With cable	Lateral
Approval	E1; EAC
Comment	Type approval number – 036433

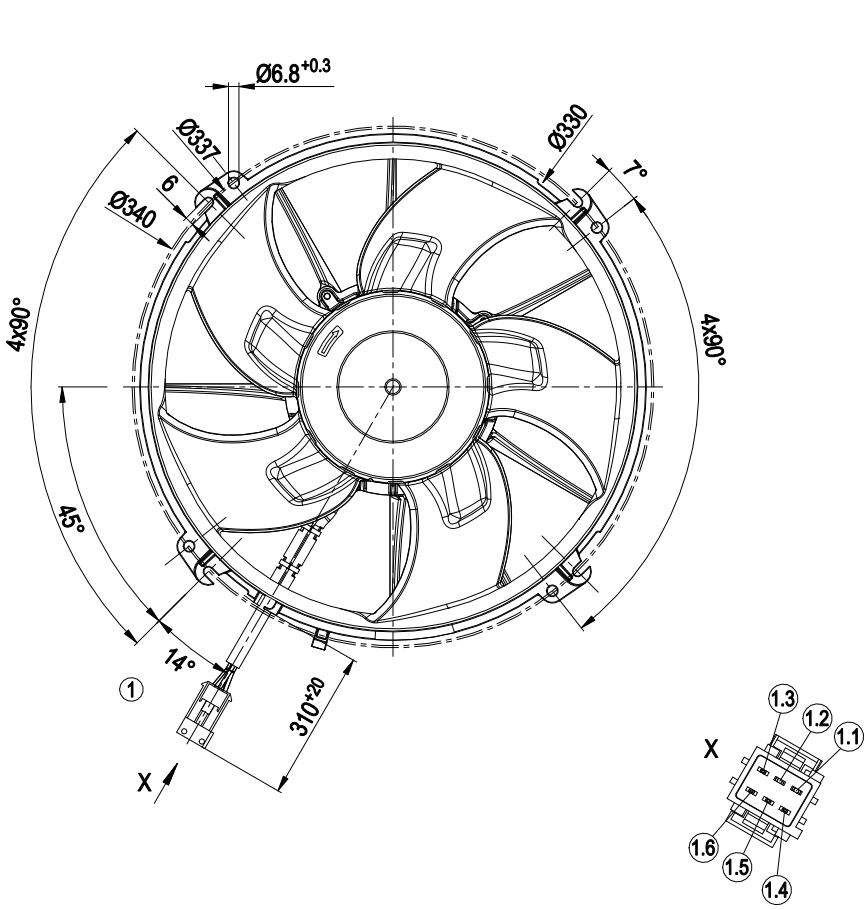
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Product drawing



1	Cable FLRY-Y 2x 2.35 mm², FLRY-Y 4x 1.55 mm²
	6-pole connector housing TE 1-962349-1, 2x flat plug TE 2-962916-1, 4x flat plug TE 1-962915-1 1x seal TE 963205-1, 2x seal TE 828905-1, 4x seal TE 828904-1
1.1	+ UB (black)
1.2	GND (brown)
1.3	PWM/LIN (yellow)
1.4	INVLIN (orange)
1.5	ABSENK (blue)
1.6	DU (white)
	Accessory part: Cable (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	Airflow direction "V"

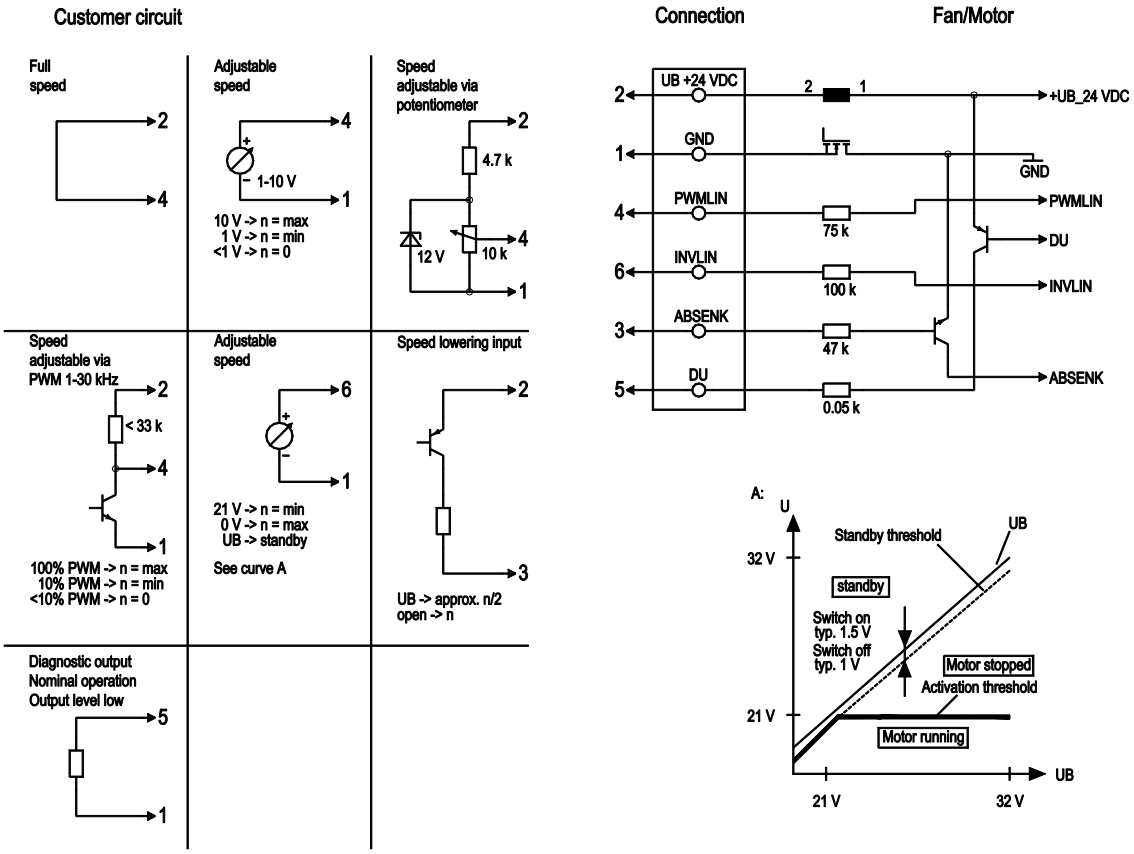
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	2	+ UB 24 VDC	black	Power supply 24 VDC
	1	- UB 0 VDC	brown	Power supply GND, reference ground
	4	PWMLIN	yellow	Analog voltage control input 0-10 V or PWM
	6	INVLIN	orange	Control input, inverse linear
	3	Absenk	blue	Lowering input
	5	DU	white	Diagnostic output

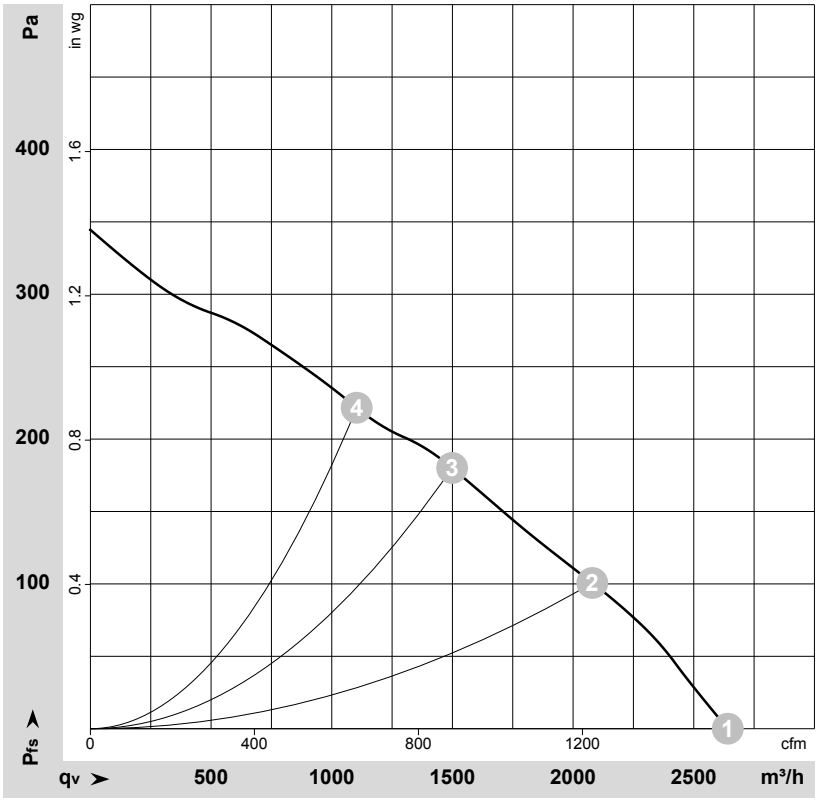
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-117675-1

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	2850	185	7.00	2640	0	1555	0.00
2	26	2815	190	7.32	2080	100	1225	0.40
3	26	2790	195	7.52	1500	180	880	0.72
4	26	2755	204	7.86	1105	220	650	0.88

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

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