

W1G300-EC24-03

EC axial fan

with brushless DC motor

Automotive



W1G300-EC24-03 ebmpapst Datasheet

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General partner Elektrobau Muldingen GmbH · Headquarters Muldingen

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Nominal data

Type	W1G300-EC24-03	
Motor	M1G074-CF	
Nominal voltage	VDC	26
Nominal voltage range	VDC	18 .. 32
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	3040
Power consumption	W	245
Current draw	A	10.5
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}	%	40.4	29.9	09 Power consumption P_e	kW	0.25
02 Measurement category		A		09 Air flow q_v	m ³ /h	1605
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	202
04 Efficiency grade N		50.5	40	10 Speed (rpm) n	min ⁻¹	2910
05 Variable speed drive		Yes		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 = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-188866



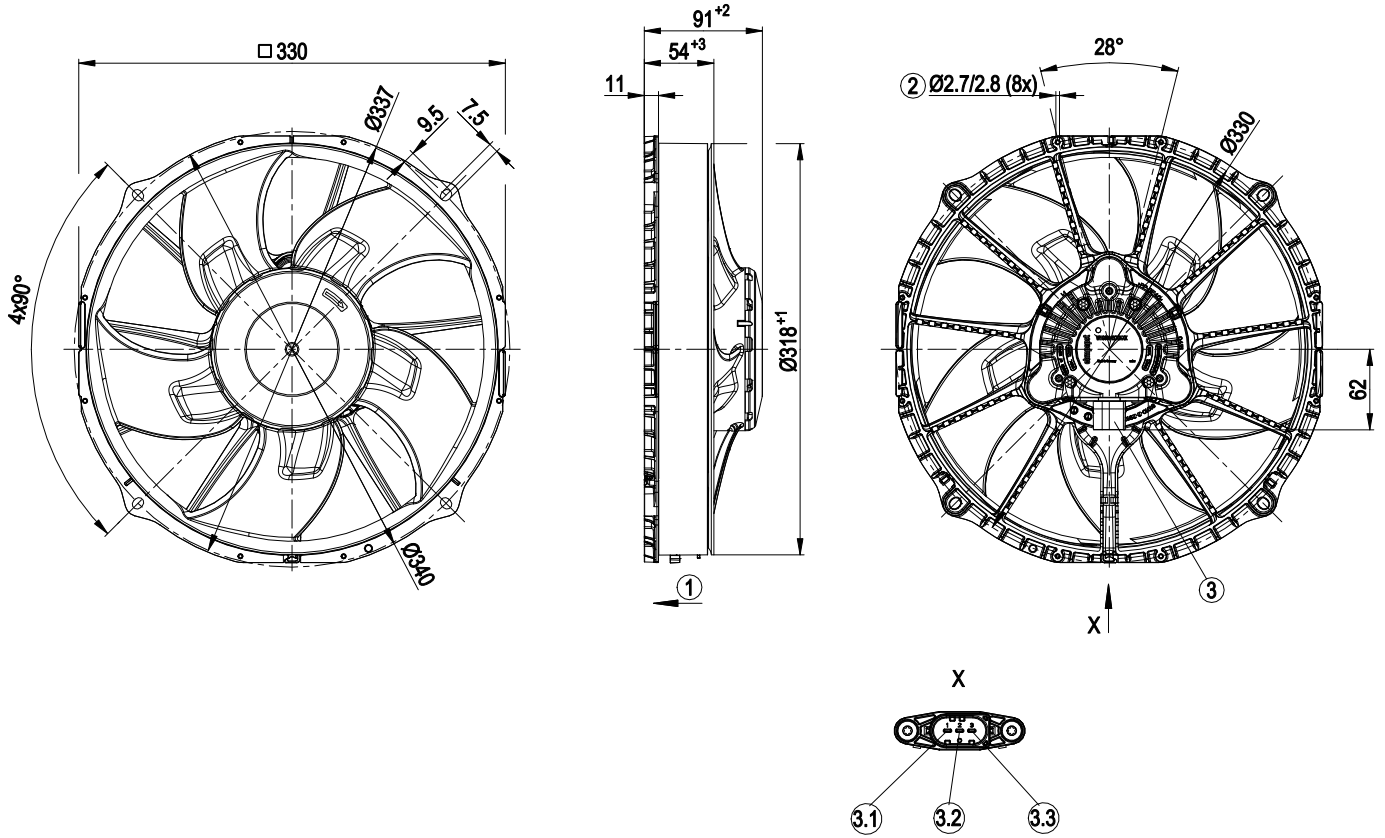
Technical description

Weight	2.6 kg
Size	300 mm
Motor size	74
Electronics housing material	Die-cast aluminum, painted black
Impeller material	PA6 plastic
Housing material	Die-cast aluminum
Fan housing material	PP plastic
Number of blades	5
Motor suspension	Motor vibration-damped on both sides
Airflow direction	V
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	Above +70°C with power derating; External sources of heat above 85°C can affect the service life
Max. permitted ambient temp. for motor (transport/storage)	+90 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	<ul style="list-style-type: none"> - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC - Temperature derating - Overvoltage detection - Thermal overload protection for electronics
Speed levels	3
EMC regulations	According to ECE R10 Rev. 5
Electrical hookup	Plug
Motor protection	Locked-rotor protection
Approval	E1; EAC

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Product drawing



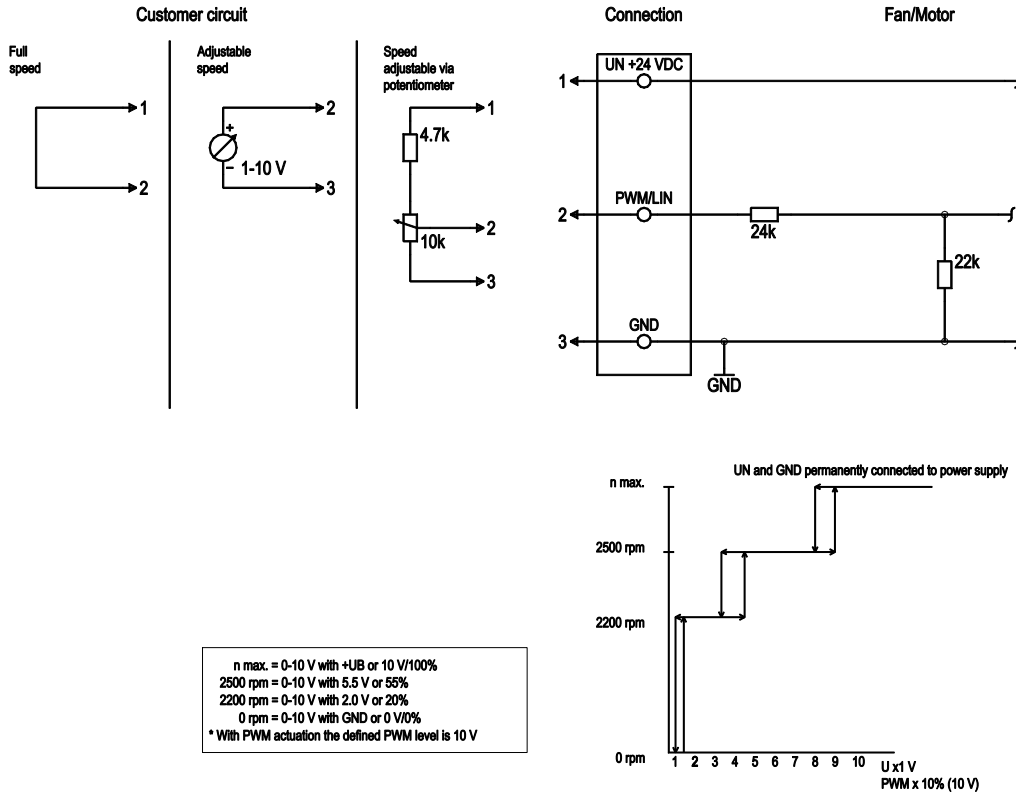
1	Airflow direction "V"
2	on both sides for screws for fastening plastics, Ø 3.5 mm
3	3-pole plug, pluggable with cable from accessories
3.1	+ UB
3.2	0-10 V
3.3	GND
Accessory part: Cable (420 mm) with mating connector, part no. 02020-4-1021 not included in scope of delivery 3-pole mating connector TE 1-1718627-1, 2x socket TE 1241396-1, 1x socket TE 1241388-1, 2x seal TE 963292-1, 1x seal TE 963294-1	



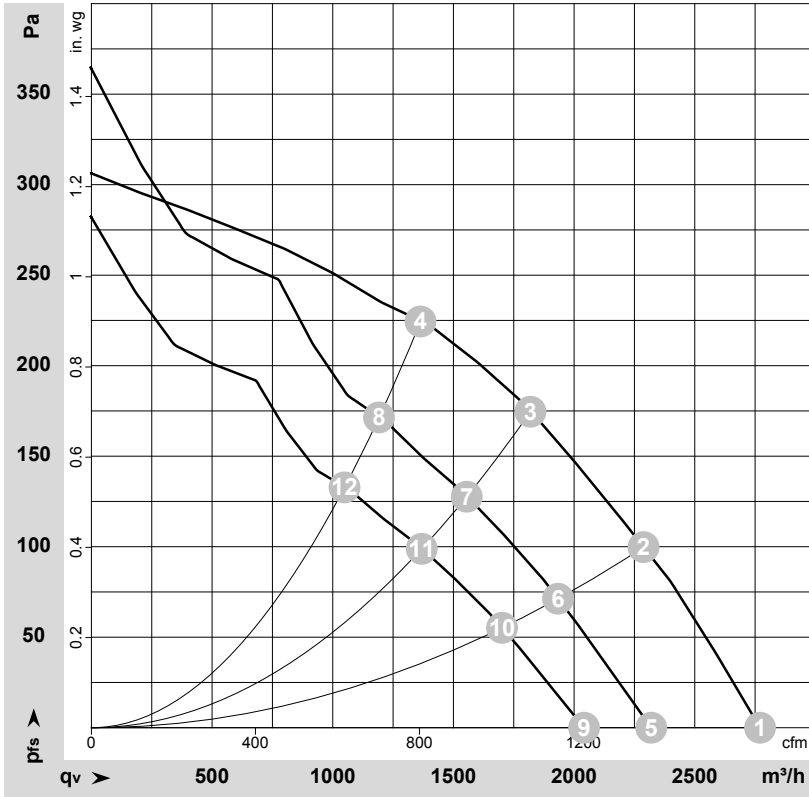
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Connection diagram



Curves: Air performance



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-188866-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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	26	2985	233	8.93	76	82	2770	0	1630	0.00
2	26	2960	252	9.69	75	82	2290	100	1345	0.40
3	26	2925	251	9.63	76	84	1820	175	1070	0.70
4	26	2860	249	9.55	76	84	1365	225	805	0.90
5	26	2500	137	5.24	71	77	2320	0	1365	0.00
6	26	2500	152	5.85	71	78	1935	71	1140	0.29
7	26	2500	157	6.02	72	80	1555	128	915	0.51
8	26	2500	166	6.38	73	80	1190	172	700	0.69
9	26	2200	93	3.57	68	74	2040	0	1200	0.00
10	26	2200	104	3.98	68	75	1700	55	1000	0.22
11	26	2200	107	4.10	69	77	1370	99	805	0.40
12	26	2200	113	4.34	69	77	1050	133	615	0.53

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

