W3G385-BS44-01

EC axial fan

with brushless DC motor

Automotive



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Nominal data

Type	**W3G385-BS44-01**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Type of data definition		fa
Speed (rpm)	min^{-1}	2600
Power input	W	250
Current draw	A	9.6
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	95/110
Starting current	A	12

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data in accordance with ecodesign regulation EU 327/2011 (EN 17166)

		Actual	Request 2015
01 Overall efficiency η_{es}	%	44.9	30.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		54.8	40
05 Variable speed drive		Yes	

09 Power input P_e	kW	0.27
09 Air flow q_v	m^3/h	2110
09 Pressure increase p_{fs}	Pa	186
10 Speed (rpm) n	min^{-1}	2340
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-141094

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Technical features

Mass	2.7 kg
Size	385 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 according to DIN ISO 1940-1	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 +95°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 - Tach output - 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	According to 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
Approval	R10; EAC
Remark	Type approval number – 036716

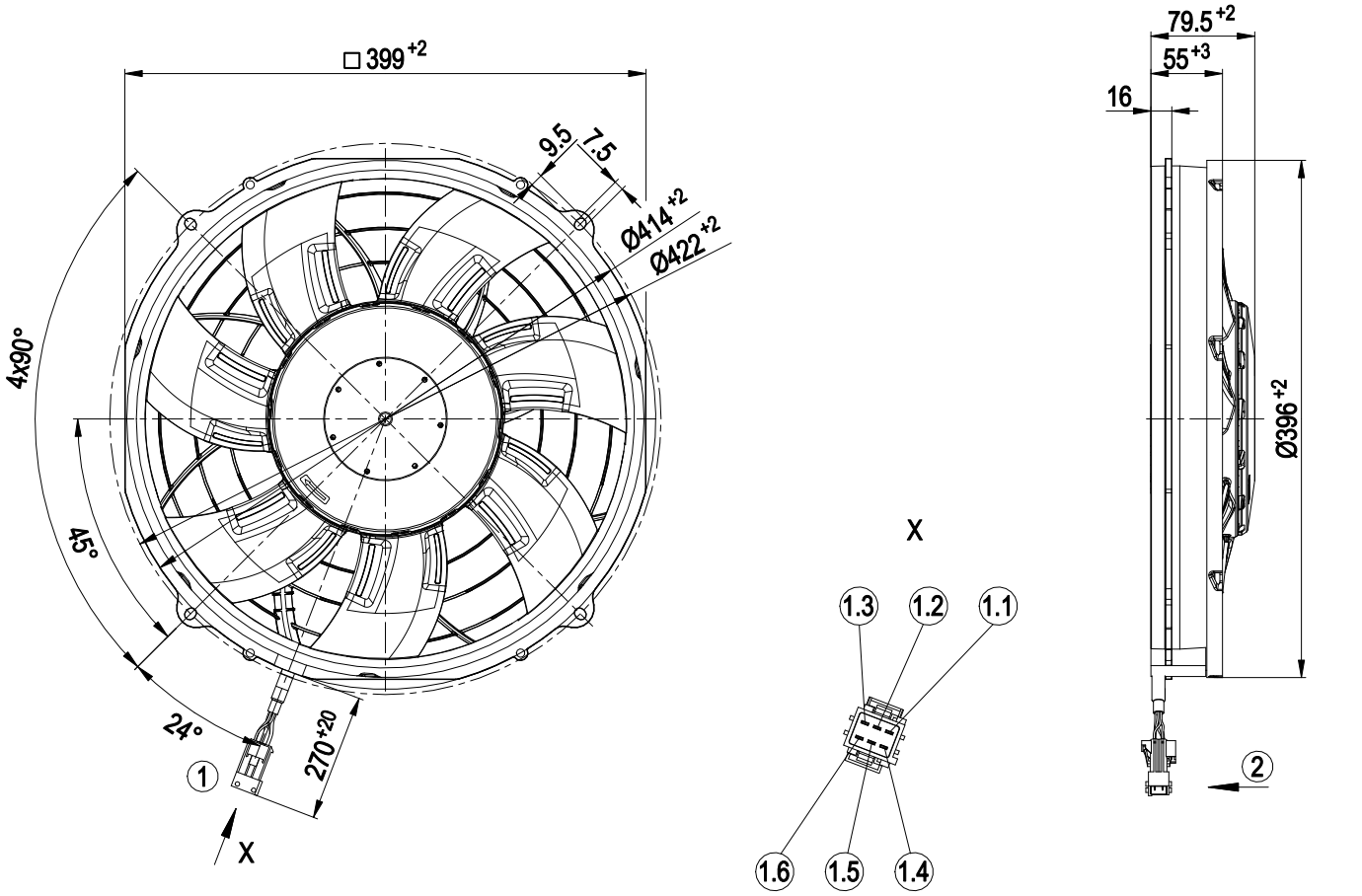
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Product drawing



1	Connection line FLRYW 2x 1.5 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"

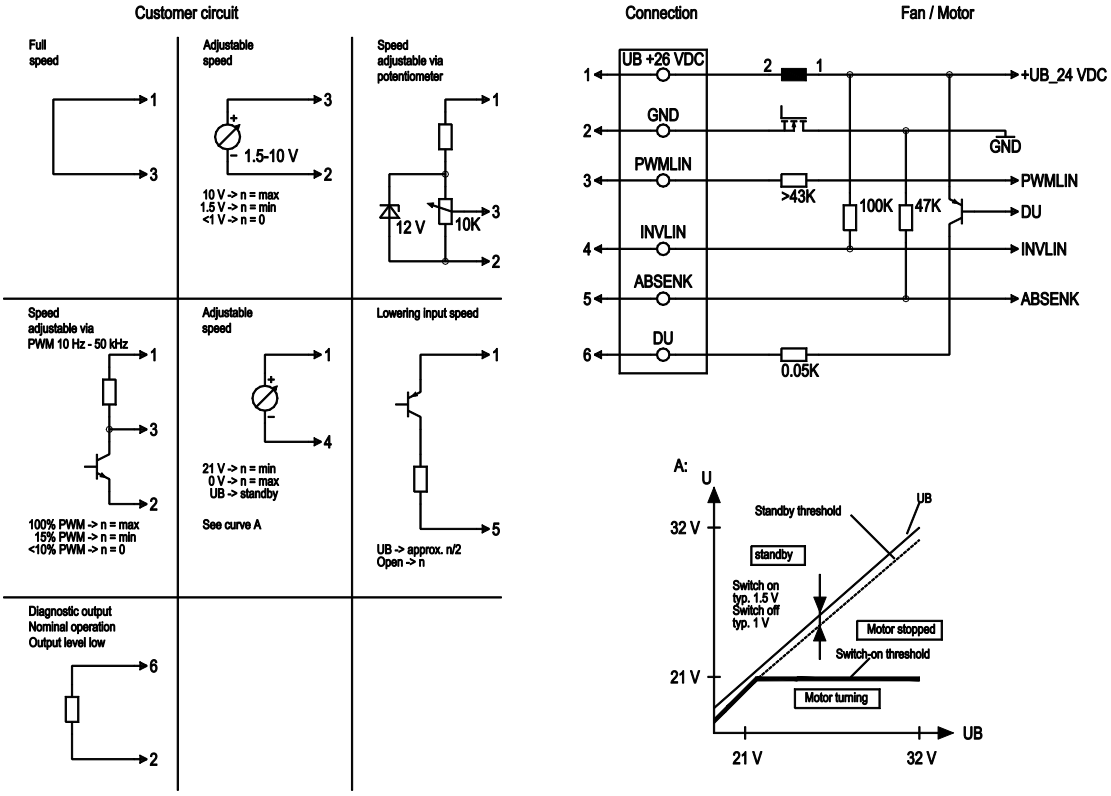
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Connection screen



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

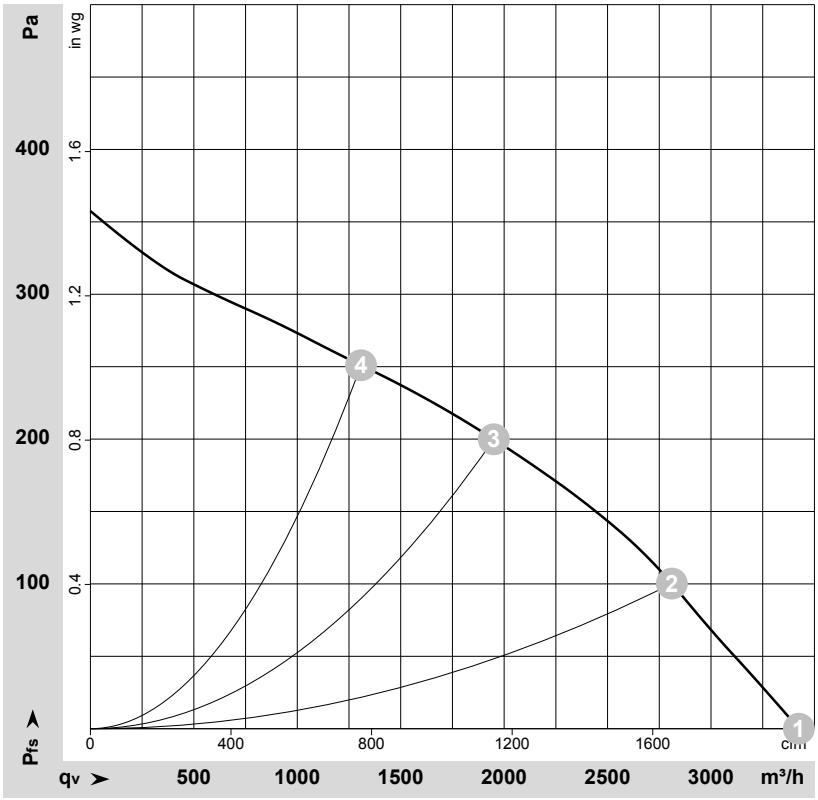
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Charts: Air flow



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-141094-1

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	2600	250	9.60	76	84	3425	0	2015	0.00
2	26	2495	273	10.47	74	83	2810	100	1655	0.40
3	26	2315	273	10.50	73	81	1950	200	1150	0.80
4	26	2215	274	10.54	74	82	1310	250	770	1.00

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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