W3G385-BV44-22

EC axial fan

with brushless DC motor

Automotive



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W3G385-BV44-22**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2600
Power consumption	W	250
Current draw	A	9.6
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	95
-with power derating to	°C	110
Starting current	A	12

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	2.7 kg
Size	385 mm
Motor size	84
Impeller material	PA plastic
Fan housing material	Plastic, PA
Number of blades	7
Airflow direction	V
Balancing grade according to DIN ISO 1940-1	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	Over +95 °C with power derating
Max. permitted ambient temp. for motor (transport/storage)	+110 °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 - Tach output - Fault output (high-side switch max. 30 mA) - INVLIN (inverse linear control input) - Power limiter - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC/PWM - Temperature derating - Overvoltage detection - Thermal overload protection for electronics - Undervoltage detection
Electrical hookup	Connector with cable; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
With cable	Lateral
Approval	E1
Comment	Type approval number – 036716

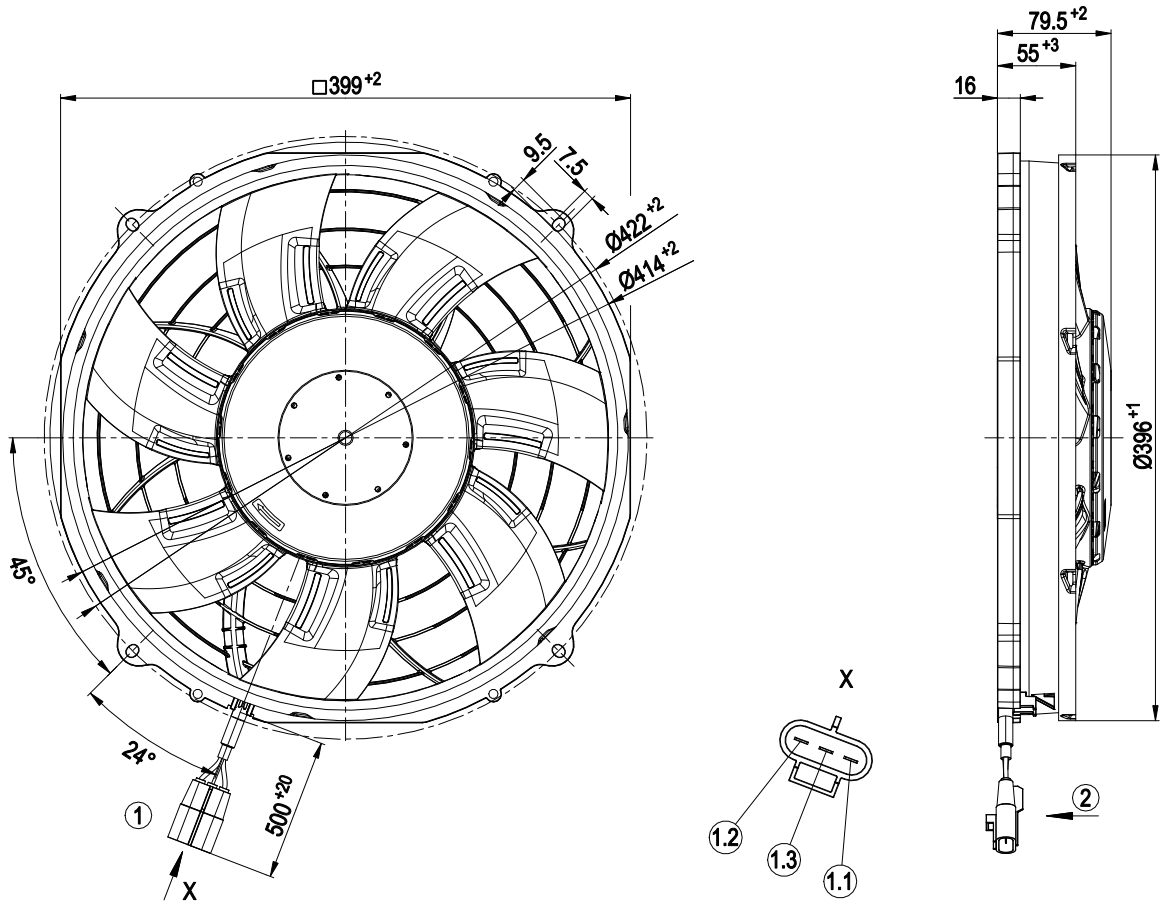
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Product drawing



1	Cable FLRYW 2x 2.5 mm², 1x 0.75 mm²
	3-pole connector housing Sumitomo M6188-0129, 2x flat plug Sumitomo M8100-0465, 1x flat plug Sumitomo M8100-0464, 2x seal Sumitomo 7165-0347, 1x seal Sumitomo 7165-0346
1.1	+ UB
1.2	GND
1.3	PWM/LIN
	3-pole mating connector Sumitomo F6189-0165, 2x flat plug Sumitomo F8100-0468, 1x flat plug Sumitomo F8100-0467, 2x seal Sumitomo 7165-0347, 1x seal Sumitomo 7165-0346

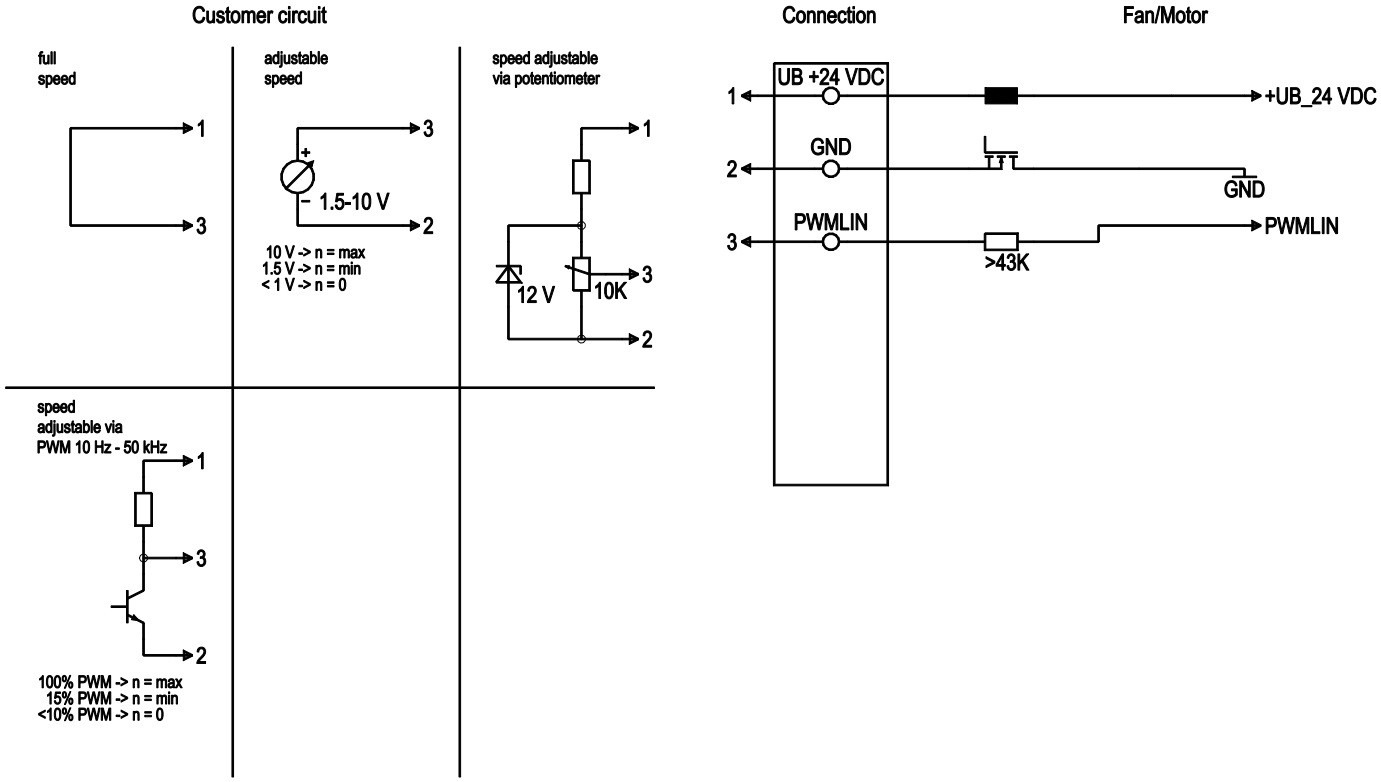
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Connection diagram



No.	Conn.	Designation	Function/assignment
	1	UB +24 VDC	Power supply 24 VDC
	2	GND	Power supply GND, reference ground
	3	PWM/LIN	Analog voltage control input 0-10 V or PWM

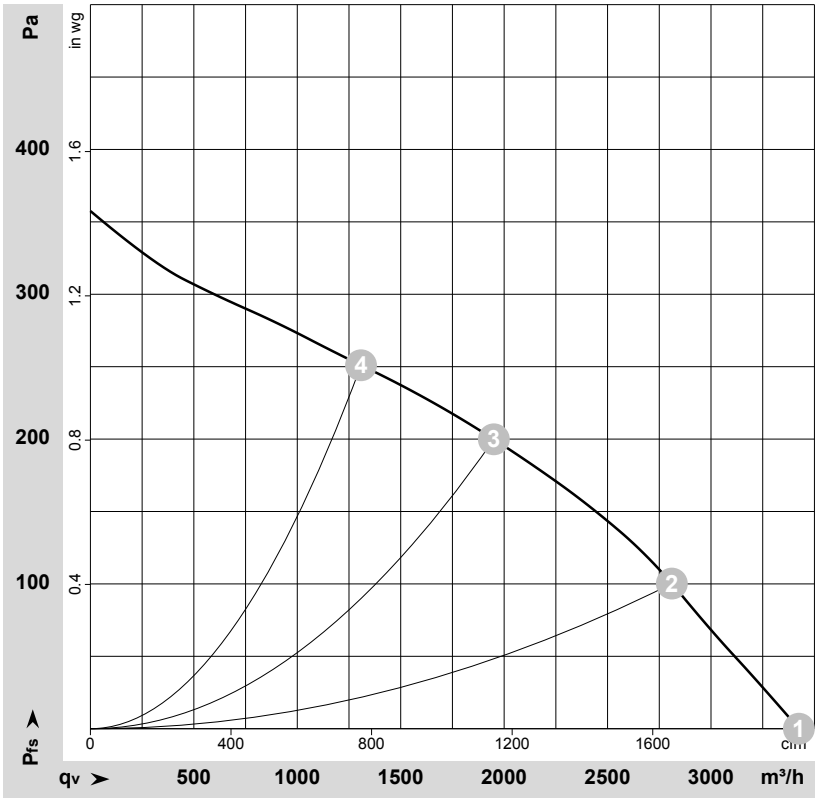
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-141094-1

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	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 = 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

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