W3G385-CT65-24

EC axial fan

with brushless DC motor

W3G385-CT65-24 ebmpapst Datasheet
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Nominal data

Type	**W3G385-CT65-24**	
Motor	**M3G084-CF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3300
Power consumption	W	525
Current draw	A	20
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	70

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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	44.7	32.3
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		52.4	40
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.61
09 Air flow q_v	m^3/h	2705
09 Pressure increase p_{fs}	Pa	329
10 Speed (rpm) n	min^{-1}	3065
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

LU-141959

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Technical description

Weight	3.2 kg
Size	385 mm
Motor size	84
Blade material	PA plastic
Fan housing material	PA plastic
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
Max. permitted ambient temp. for motor (transport/storage)	+80 °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
Life expectancy	40,000 h (typical)
Technical features	- Tach output - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Standstill on cable break - Thermal overload protection for electronics - Reverse polarity protection
Electrical hookup	Connector with cable; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
With cable	Lateral
Approval	EAC

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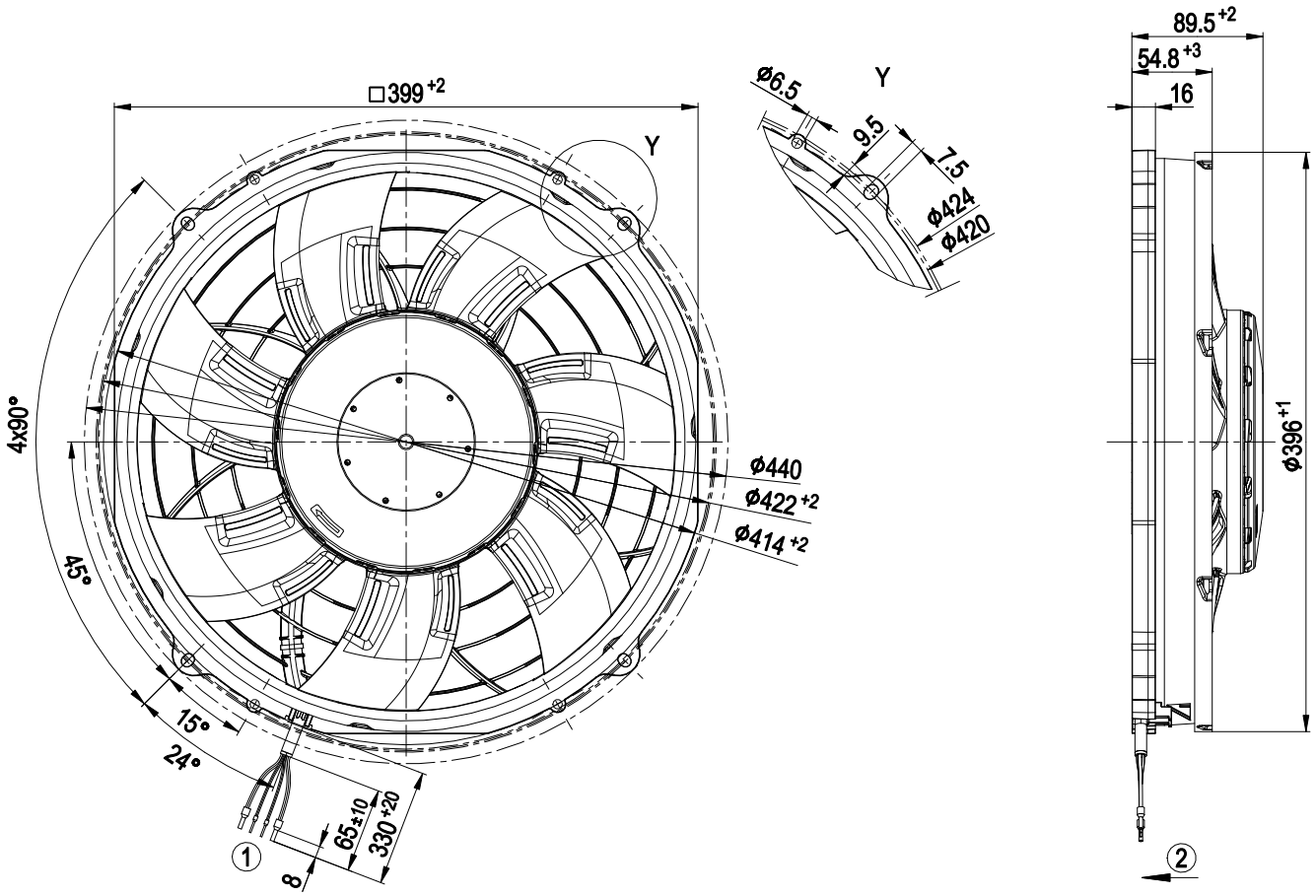
Product drawing



1	Cable FLRYW 2x 6.0 mm², 2x 1.0 mm²
	4x wire-end ferrule
	+ UB (black)
	Diagnostic output (white)
	PWM/LIN (yellow)
	GND (brown)
2	Airflow direction "V"

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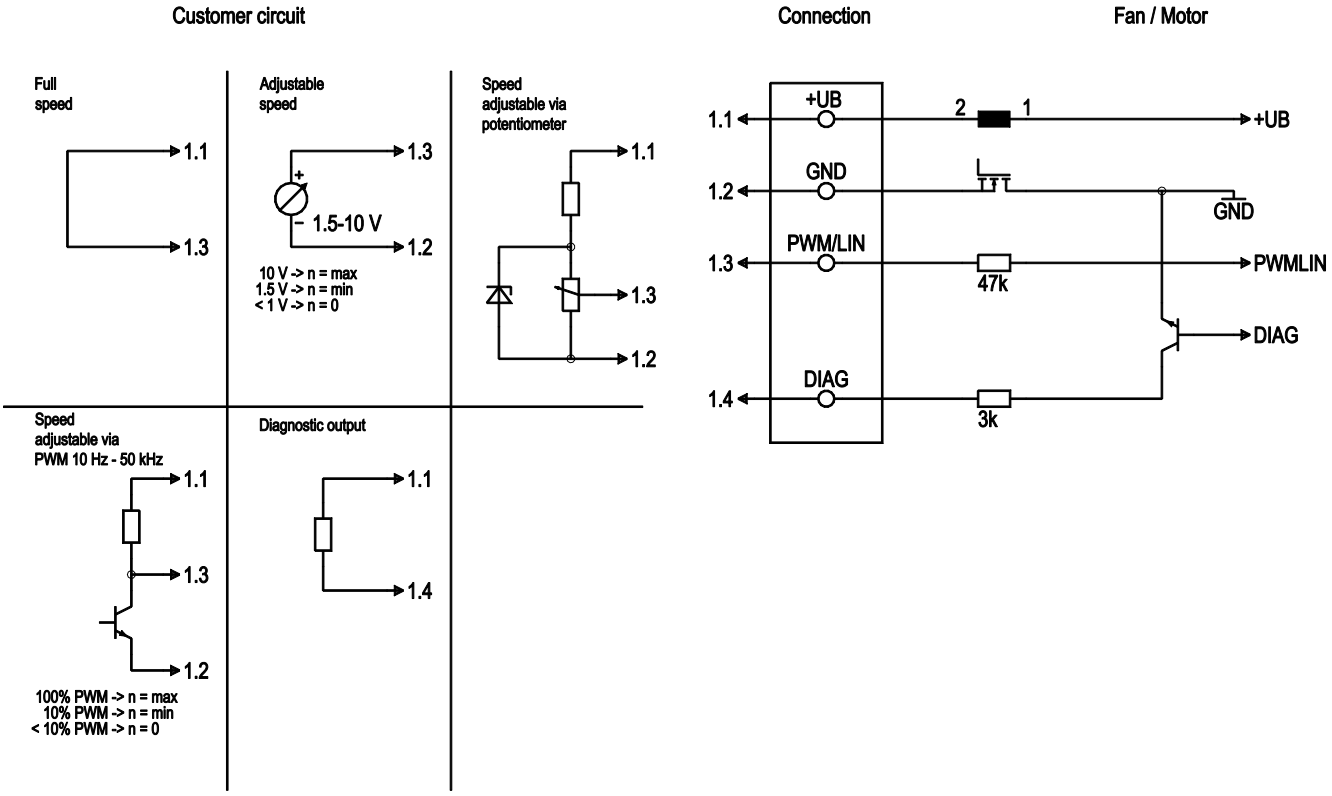
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	1.1	+UB	black	Power supply
	1.2	GND	brown	Power supply GND, reference ground
	1.3	PWM/LIN	yellow	Analog voltage control input 0-10 V or PWM
	1.4	DIAG	white	Diagnostic output, 2 pulses per revolution

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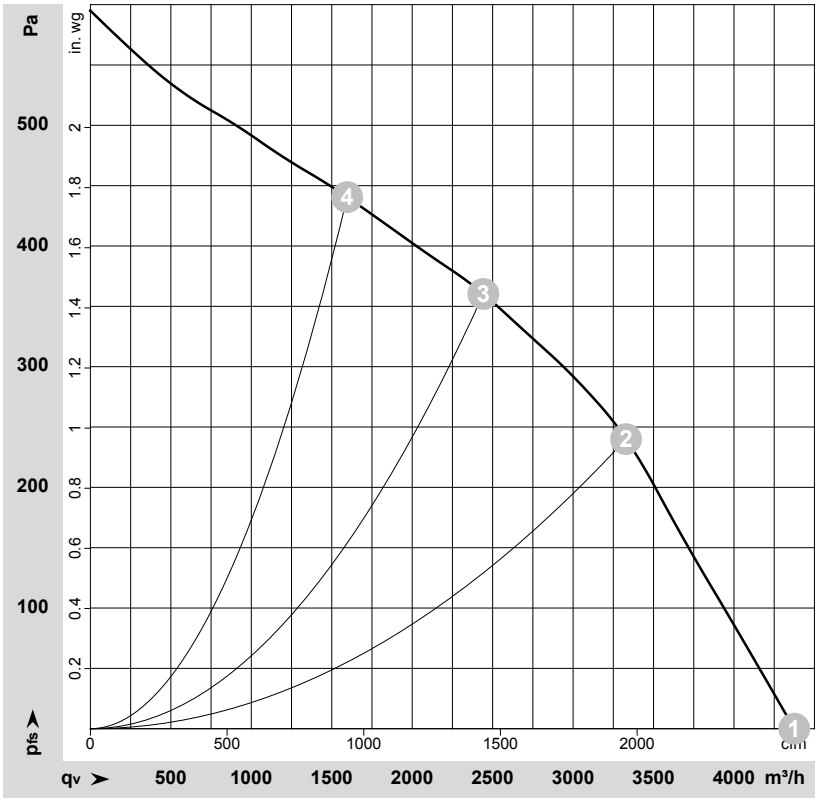
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-141959-1

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	3300	525	20.00	83	90	4375	0	2575	0.00
2	26	3170	618	23.80	81	88	3330	240	1960	0.96
3	26	3030	610	23.44	80	88	2440	360	1435	1.45
4	26	2895	613	23.56	82	89	1595	440	940	1.77

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