EC axial fan

sickle-shaped blades (S series)

with round full nozzle, Automotive

Nominal data

Type	**W3G300-CB77-01**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50
Speed (rpm)	min^{-1}	1700
Power consumption	W	120
Current draw	A	1.6
Max. ambient temperature	°C	60

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	4.4 kg
Size	300 mm
Motor size	74
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Blade material	Sheet steel, painted black
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1; H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for motor
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-3 + 60730-1

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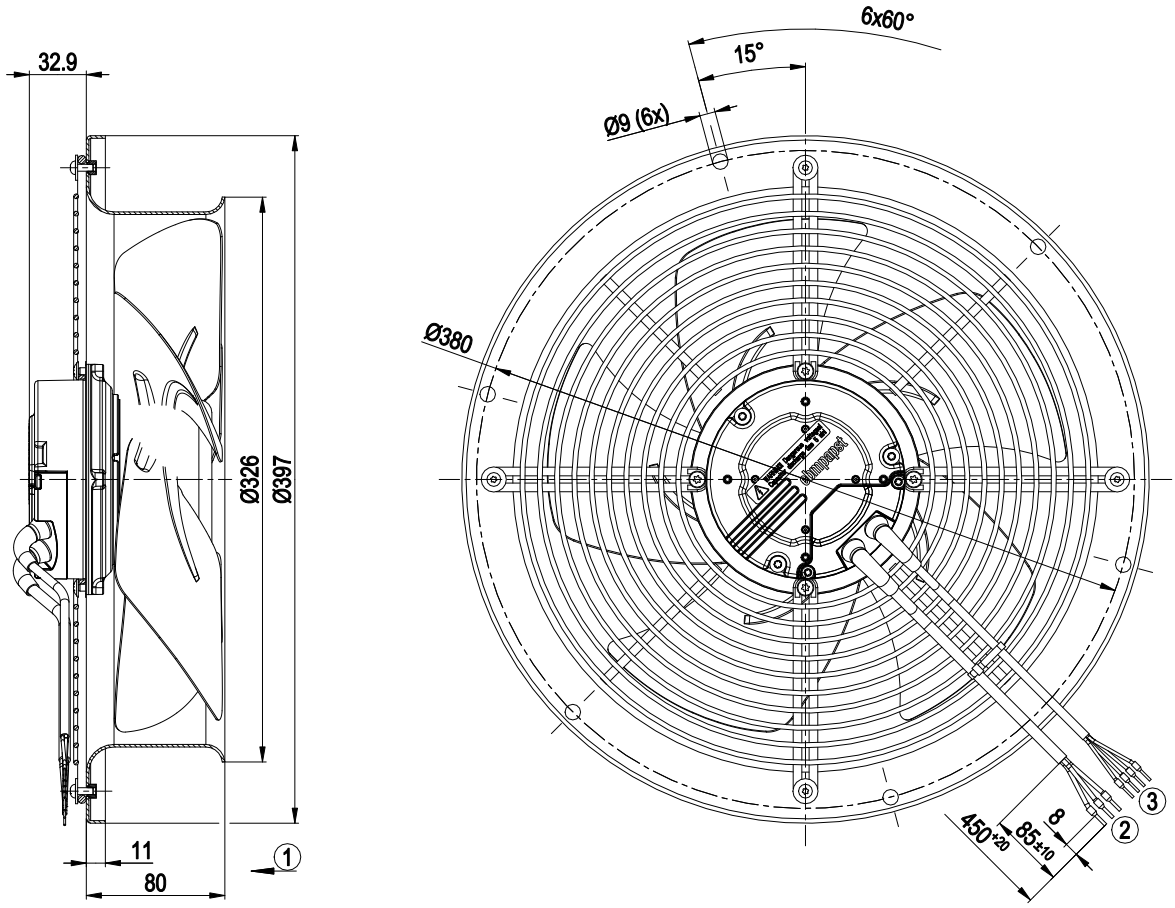
Product drawing



1	Airflow direction "V"
2	Cable PVC AWG18
	3x wire-end ferrule
3	Cable PVC AWG22
	4x wire-end ferrule

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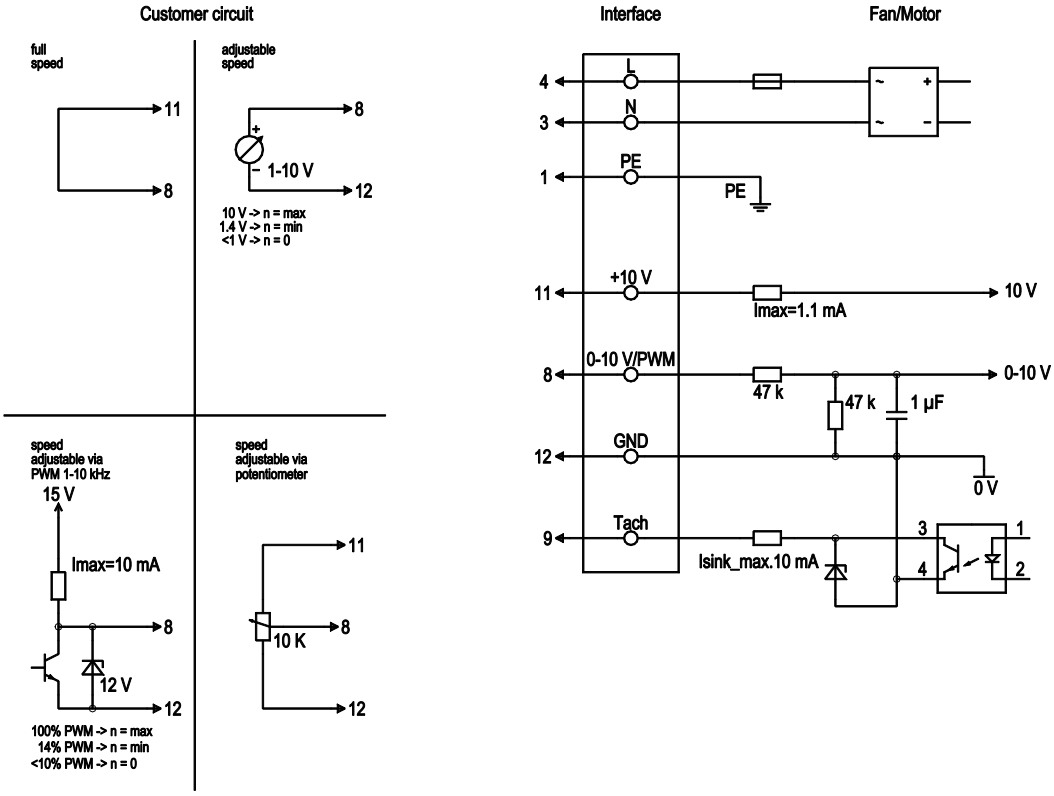
Connection diagram



Not switchable via power supply. Restart via input voltage only after 5 minute delay.

No.	Conn.	Designation	Color	Function/assignment
	4	L	black	Supply connection, power supply, phase, voltage range see nameplate, 50/60 Hz
	3	N	blue	Supply connection, power supply, neutral conductor, voltage range see nameplate, 50/60 Hz
	1	PE	green/yellow	Ground connection
	8	0-10 V / PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	9	Tacho	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	11	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax.= 1.1 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometers), SELV
	12	GND	blue	Reference ground for control interface, SELV

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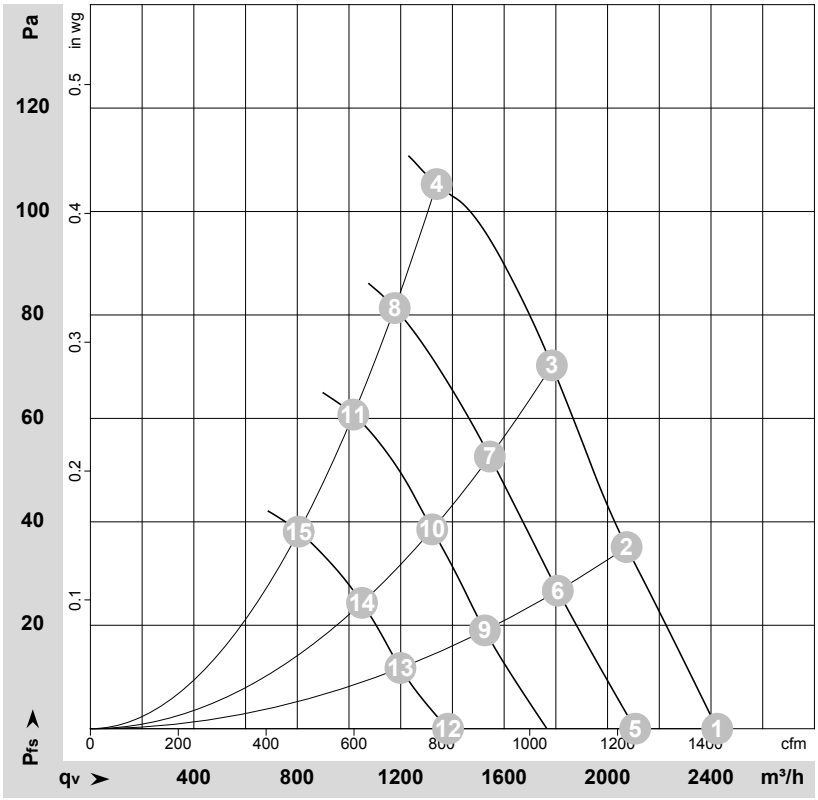
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-109175-1
Measurement: LU-109187-1
Measurement: LU-109188-1
Measurement: LU-109190-1

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	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	115	50	1855	92	1.21	2425	0	1425	0.00
2	115	50	1810	100	1.31	2075	35	1220	0.14
3	115	50	1790	106	1.38	1785	70	1050	0.28
4	115	50	1700	120	1.60	1340	105	790	0.42
5	115	50	1615	61	0.84	2105	0	1240	0.00
6	115	50	1585	67	0.92	1810	27	1065	0.11
7	115	50	1560	72	0.98	1545	53	910	0.21
8	115	50	1520	79	1.07	1175	82	695	0.33
9	115	50	1345	43	0.62	1525	19	900	0.08
10	115	50	1335	45	0.64	1320	39	780	0.16
11	115	50	1310	52	0.72	1015	61	600	0.24
12	115	50	1090	22	0.33	1385	0	815	0.00
13	115	50	1070	24	0.37	1200	11	705	0.04
14	115	50	1065	25	0.37	1050	24	620	0.10
15	115	50	1045	28	0.42	805	38	475	0.15

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