G3G146-AB72-01

EC centrifugal fan

forward-curved, single-intake

with housing (flange)



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Nominal data

Type	**G3G146-AB72-01**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	115
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	2390
Power consumption	W	170
Current draw	A	2.1
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
Min. ambient temperature	°C	-25
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	3.5 kg
Fan size	146 mm
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Housing material	Die-cast aluminum
Direction of rotation	Clockwise, 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
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 top; rotor on bottom on request
Condensation drainage holes	None
Mode	Continuous operation (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 - Thermal overload protection for motor
EMC immunity to interference	According to EN 61000-6-2
EMC interference emission	According to EN 55022 (Class B)
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)
Conformity with standards	EN 60335-1
Approval	UL 2111; CSA C22.2 No. 77

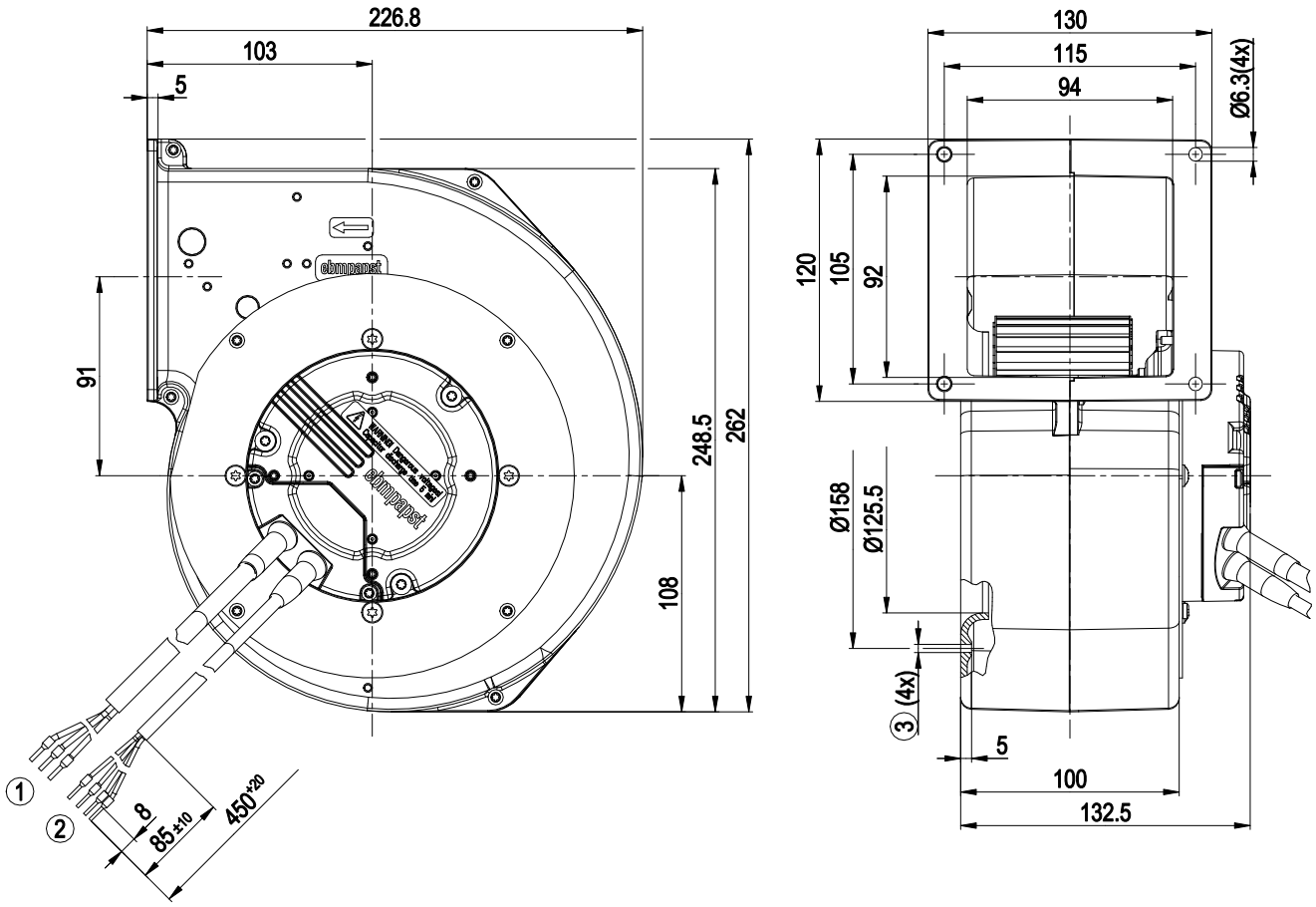
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Product drawing



1	Cable PVC AWG18, 3x crimped ferrules
2	Cable PVC AWG22, 4x crimped ferrules
3	For self-tapping M4 screws

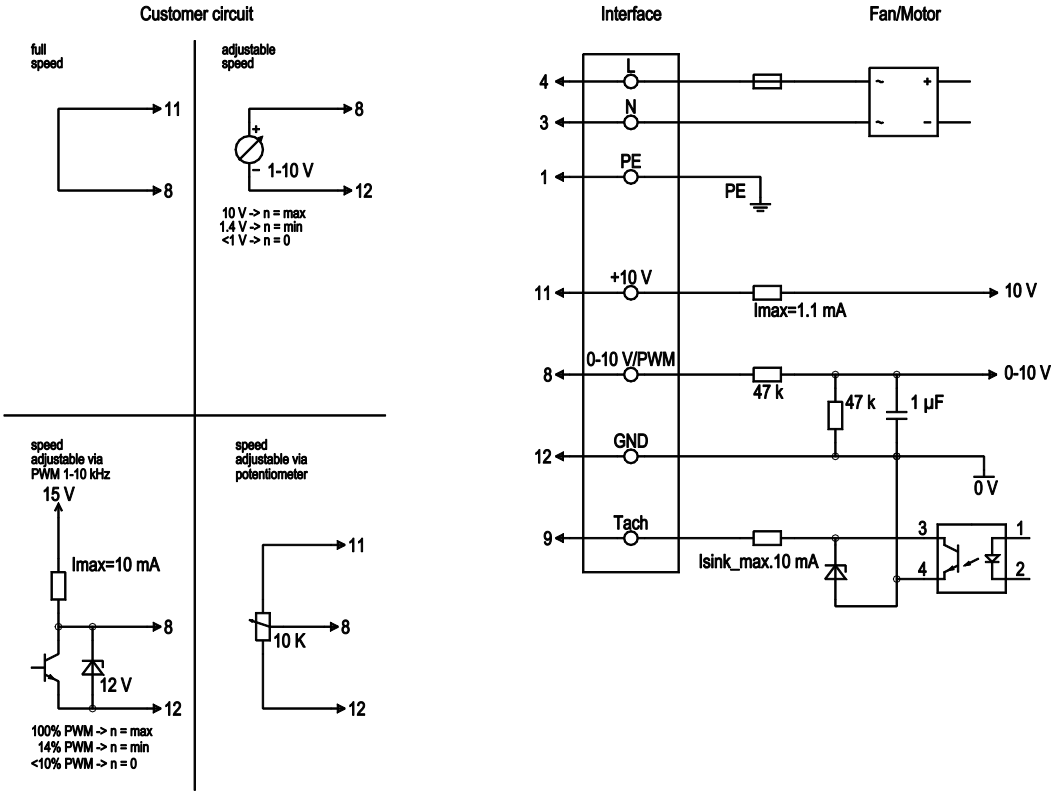
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Connection diagram



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

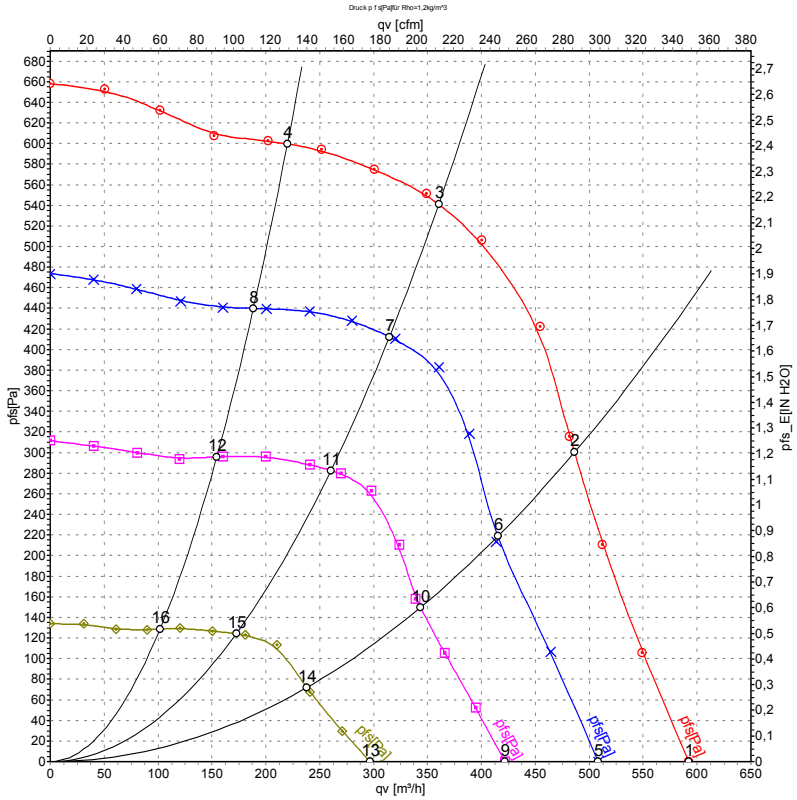
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Curves: Air performance 50 Hz



Measurement: LU-119429-1
Measurement: LU-75520-1
Measurement: LU-75521-1
Measurement: LU-75522-1

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	inH2O
1	115	50	2390	170	2.10	590	0	350	0.00
2	115	50	2805	170	2.10	485	300	285	1.20
3	115	50	3090	143	1.84	360	540	210	2.17
4	115	50	3275	110	1.44	220	600	130	2.41
5	115	50	2115	110	1.44	510	0	300	0.00
6	115	50	2470	111	1.46	415	211	245	0.85
7	115	50	2735	97	1.29	315	413	185	1.66
8	115	50	2825	71	0.97	190	440	110	1.77
9	115	50	1770	66	0.91	420	0	250	0.00
10	115	50	2060	66	0.91	345	148	200	0.59
11	115	50	2285	60	0.83	260	283	155	1.14
12	115	50	2335	44	0.63	155	296	90	1.19
13	115	50	1245	26	0.40	295	0	175	0.00
14	115	50	1435	26	0.40	240	71	140	0.29
15	115	50	1525	22	0.34	175	124	100	0.50
16	115	50	1570	18	0.29	100	128	60	0.51

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

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