K3G160-AD03-02

EC centrifugal fan combination

forward-curved

with housing

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**K3G160-AD03-02**
Motor	**M3G074-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1090
Power consumption	W	170
Current draw	A	0.8
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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}	%	46.8	32.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		57.9	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.17
09 Air flow q_v	m^3/h	1355
09 Pressure increase p_{fs}	Pa	189
10 Speed (rpm) n	min^{-1}	1595
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-167856

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Technical description

Weight	6.24 kg
Size	160 mm
Motor size	74
Rotor surface	Galvanized
Electronics housing material	PP plastic
Impeller material	Sheet steel, galvanized
Housing material	PP plastic
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP44, electronics IP20; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0+
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
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Motor current limitation - PFC, active - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for motor
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

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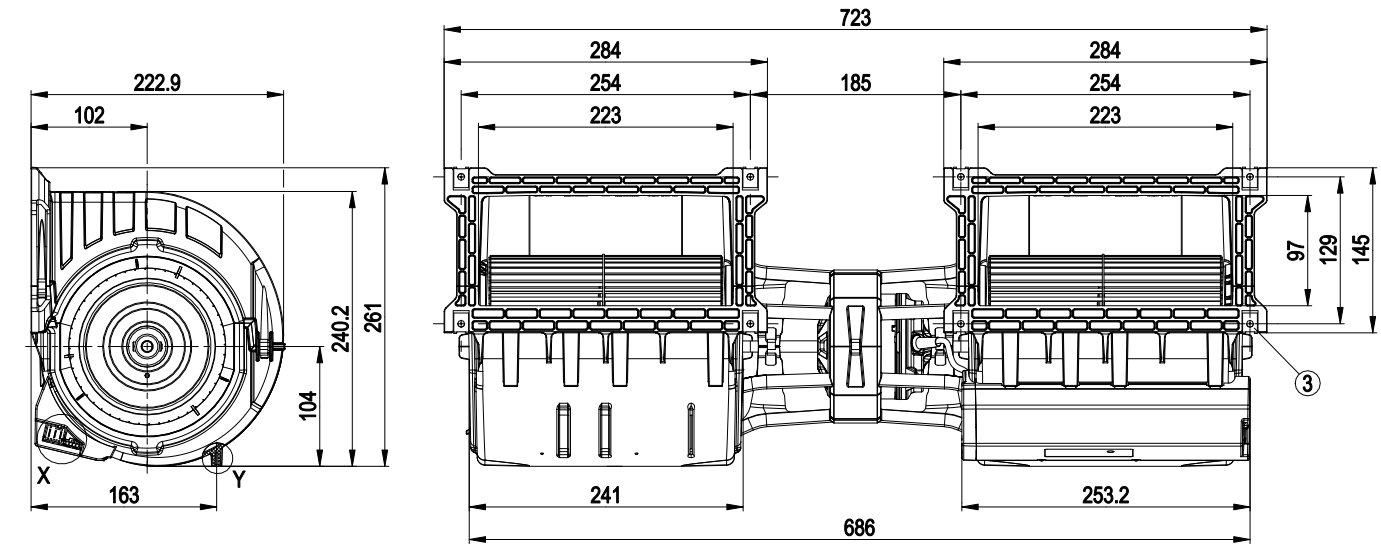
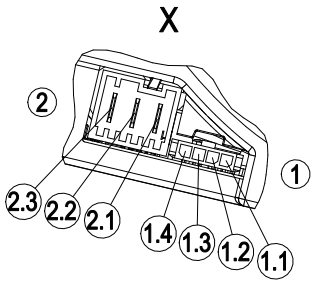
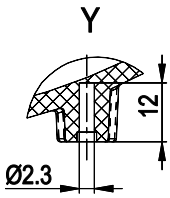
Product drawing







1	Header Molex Micro Fit 3.0 043650 0400 (pluggable with 043645 0400)
1.1	10 V
1.2	Tach
1.3	0-10 V lin. / PWM
1.4	GND
2	Connector Lumberg 3642 03 K01 (pluggable with 3626 03 K01)
2.1	PE
2.2	L
2.3	N
3	8x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of attachment)

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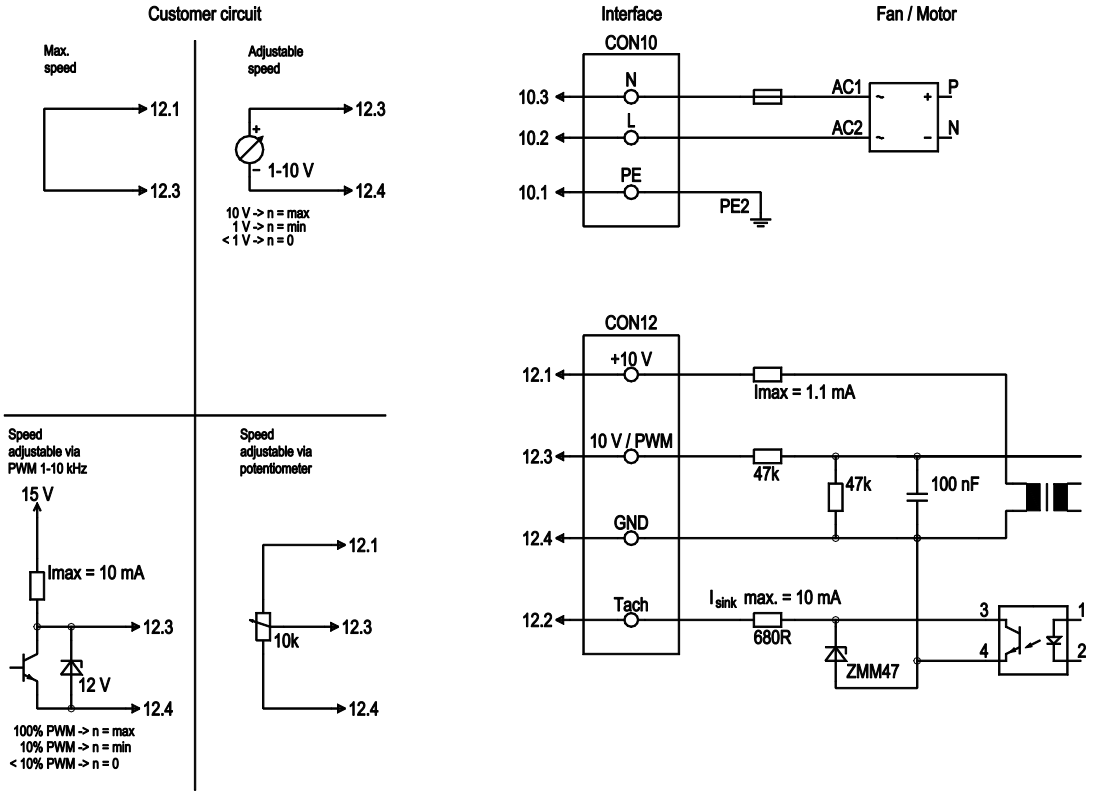
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
CON10	10.1	PE	green/yellow	Protective earth
CON10	10.2	L	black	Power supply 230 VAC, 50-60 Hz or 330 VDC, see nameplate for voltage range
CON10	10.3	N	blue	Neutral conductor
CON12	12.1	10 V / max. 1,1 mA	red	Voltage output 10 V, 1.1 mA, electrically isolated, not short-circuit-proof
CON12	12.2	Tach	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA
CON12	12.3	0-10 V	yellow	Control input 0-10 V or PWM, electrically isolated
CON12	12.4	GND	blue	GND connection of control interface

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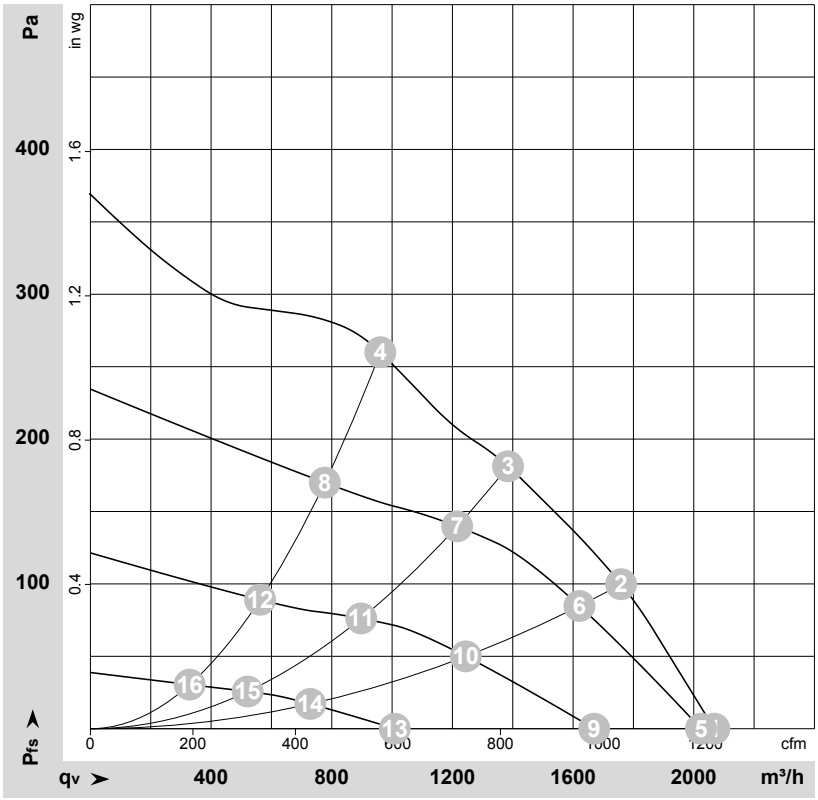
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-167856-1
Measurement: LU-168257-1
Measurement: LU-168255-1
Measurement: LU-168253-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	230	50	1090	170	0.80	61	72	2070	0	1215	0.00
2	230	50	1325	170	0.80	58	68	1760	100	1035	0.40
3	230	50	1570	170	0.80	57	68	1385	180	815	0.72
4	230	50	1850	170	0.80	60	70	960	260	565	1.04
5	230	50	1065	169	0.79	61	71	2025	0	1190	0.00
6	230	50	1255	142	0.67	55	66	1620	90	955	0.36
7	230	50	1365	114	0.56	53	63	1215	141	715	0.57
8	230	50	1450	84	0.45	54	64	775	168	455	0.67
9	230	50	880	92	0.47	55	66	1670	0	985	0.00
10	230	50	955	66	0.38	48	60	1245	53	730	0.21
11	230	50	1020	45	0.32	45	56	900	77	530	0.31
12	230	50	1060	38	0.29	46	56	560	87	330	0.35
13	230	50	530	23	0.25	41	52	1010	0	595	0.00
14	230	50	570	18	0.24	36	46	730	18	430	0.07
15	230	50	600	13	0.23	34	45	520	26	305	0.10
16	230	50	615	11	0.23	34	44	330	30	195	0.12

U = Voltage · f = Frequency · 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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