K3G146-AD01-01

EC centrifugal fan combination

forward curved

with housing

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G146-AD01-01**
Motor	**M3G074-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	1400
Power input	W	243
Current draw	A	1.8
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	41.3	25.8	32.8
Efficiency grade N		52.5	37	44
Power input P_{ed}	kW	0.17		
Air flow q_v	m^3/h	1205		
Pressure increase p_{fs}	Pa	190		
Speed n	min^{-1}	1910		

Data definition with optimum efficiency. LU-143396
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	4.2 kg
Size	146 mm
Surface of rotor	Galvanised
Material of electronics housing	PP plastic
Material of impeller	PP plastic
Housing material	PP plastic
Motor suspension	Motor mounted anti-vibration on both sides
Direction of rotation	Clockwise, seen on rotor
Type of protection	Motor IP 44, electronic IP 20; Depending on installation and position
Insulation class	"F"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

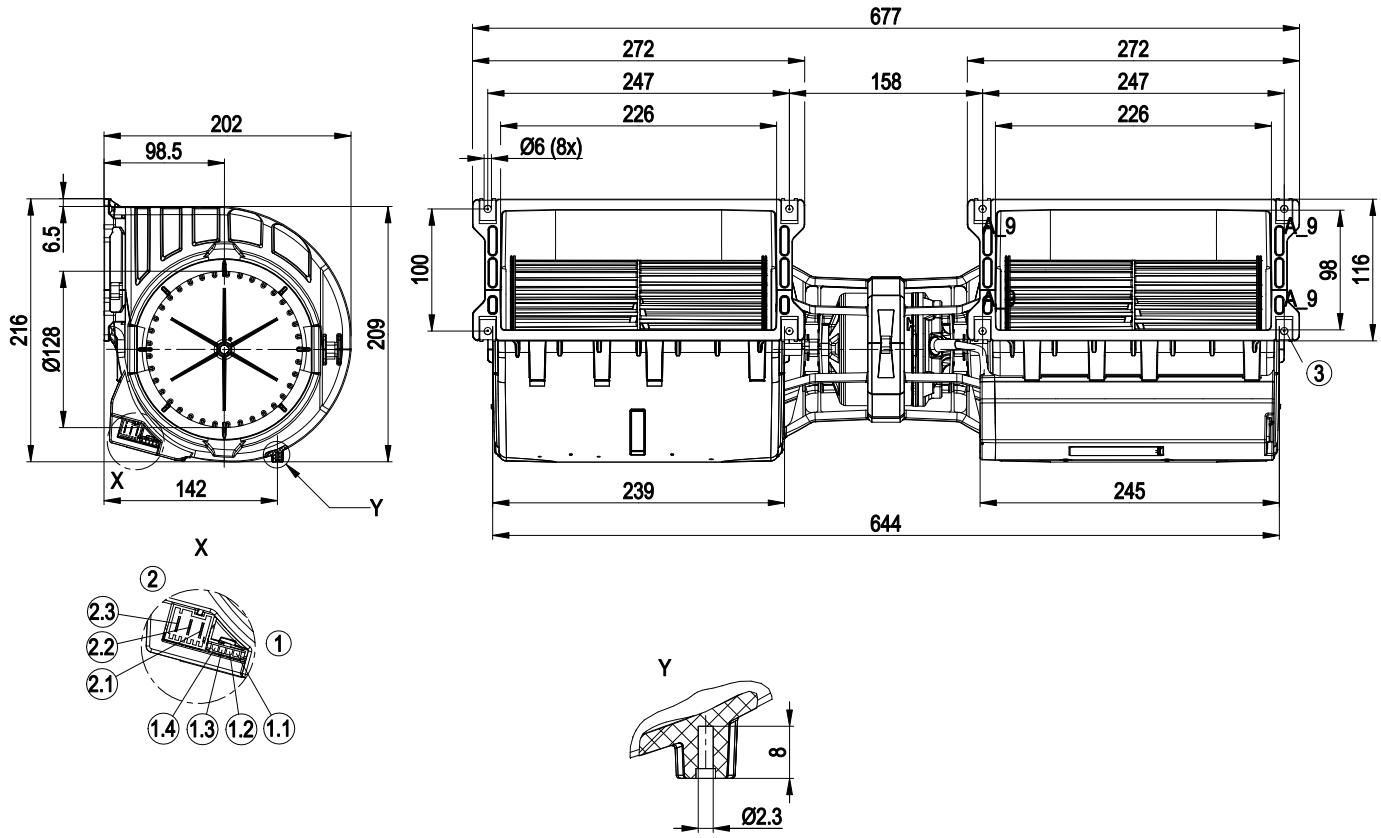
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Product drawing



1	Strip Molex Micro Fit 3.0 04365 00400 (pluggable with 04364 50400)
1.1	10V
1.2	Tach
1.3	0-10V lin. / PWM
1.4	GND
2	Plug 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 thickness of mounting material)

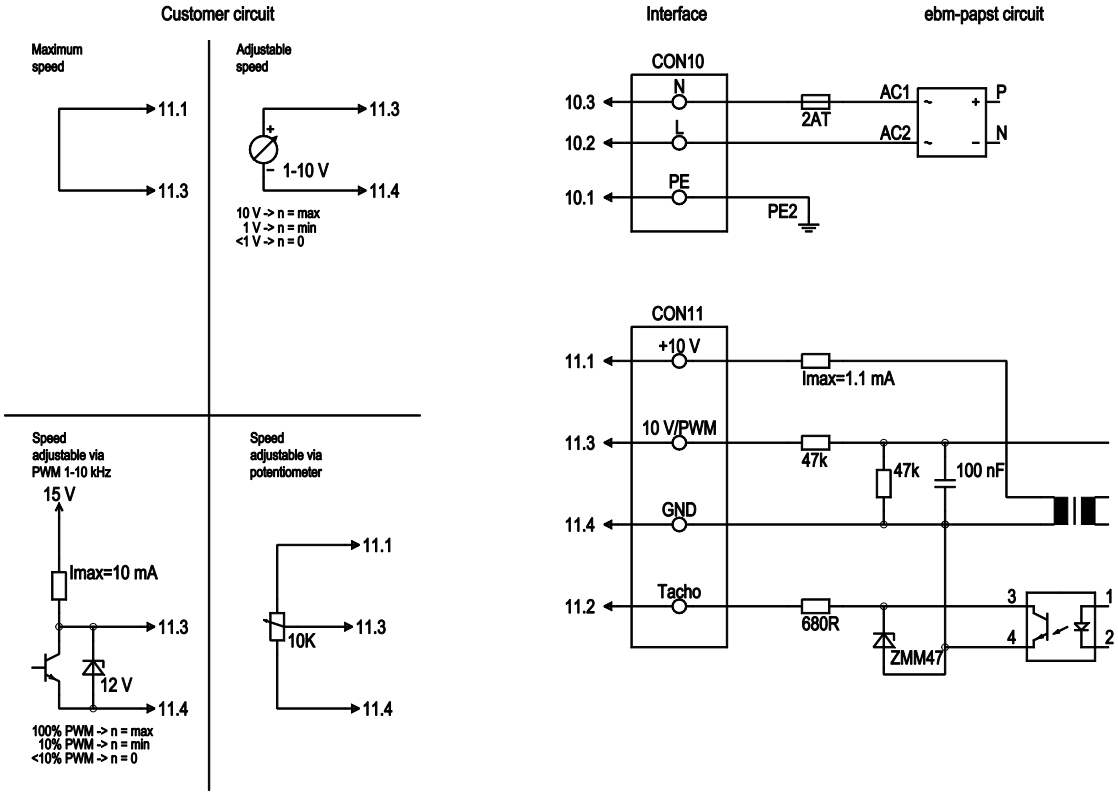
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
CON10	10.1	PE	green/yellow	Protective earth
CON10	10.2	L	blue	Neutral conductor
CON10	10.3	N	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
CON11	11.1	10 V/max. 1.1 mA	red	Voltage output 10 VDC 1.1 mA, electrically isolated, not short-circuit-proof
CON11	11.2	Tach	white	Tach output: open collector, 1 pulses per revolution, electrically isolated
CON11	11.3	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
CON11	11.4	GND	blue	GND - Connection for control interface

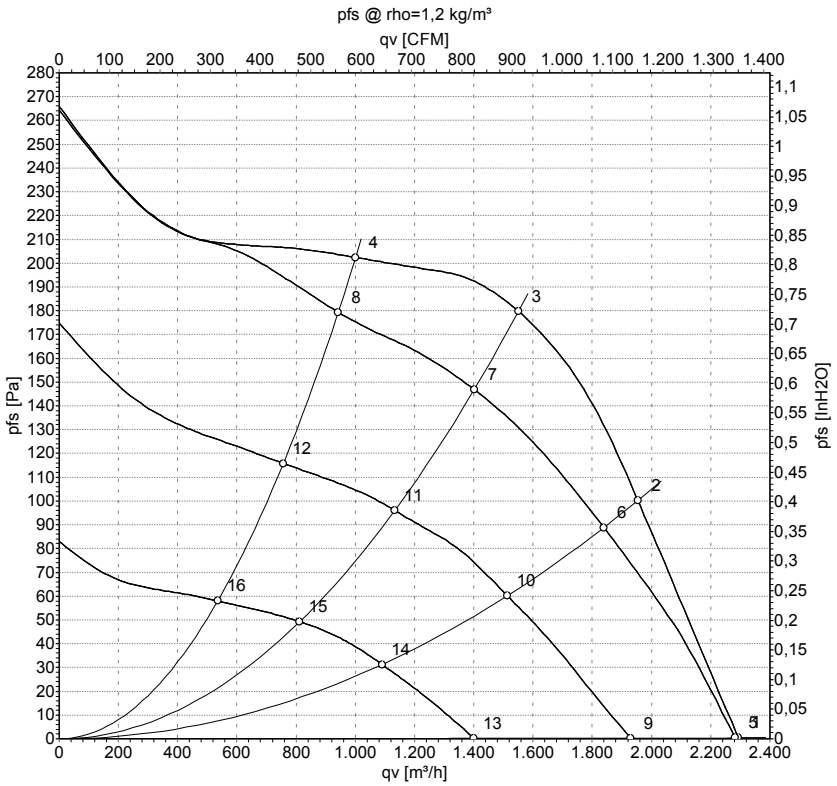
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Charts: Air flow 50 Hz



Measurement: LU-143396

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	50	1400	243	1.80	63	73	2295	0
2	230	50	1680	243	1.80	60	71	1955	100
3	230	50	1880	219	1.62	60	70	1550	180
4	230	50	1920	151	1.15	58	68	1000	200
5	230	50	1400	240	1.77			2280	0
6	230	50	1580	204	1.51			1840	89
7	230	50	1700	163	1.23			1400	148
8	230	50	1805	127	1.00			940	179
9	230	50	1215	145	1.11			1930	0
10	230	50	1305	114	0.89			1515	60
11	230	50	1380	89	0.70			1135	96
12	230	50	1450	68	0.54			755	116
13	230	50	910	59	0.47			1400	0
14	230	50	955	46	0.37			1090	31
15	230	50	995	36	0.30			810	49
16	230	50	1030	27	0.24			535	58

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
p_{fs} = Pressure increase

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