

EC centrifugal fan combination

forward curved

with housing

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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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	41.3	32.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		52.5	44
05 Variable speed drive		Yes	

Data definition with optimum efficiency.

The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

09 Power input P_{ed}	kW	0.17
09 Air flow q_v	m³/h	1205
09 Pressure increase p_{fs}	Pa	190
10 Speed n	min ⁻¹	1910
11 Specific ratio*		1.00

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-143396

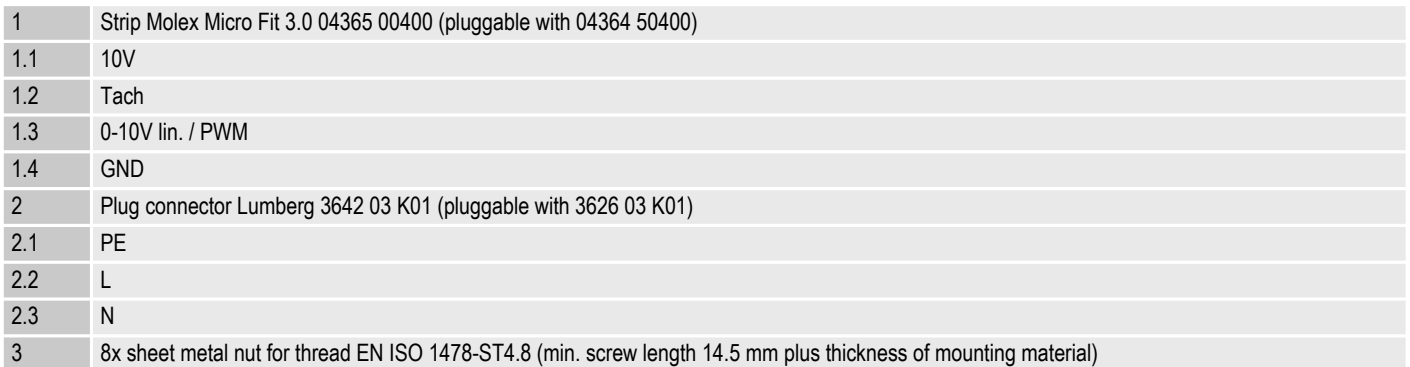


Technical features

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 61000-6-4 (industrial 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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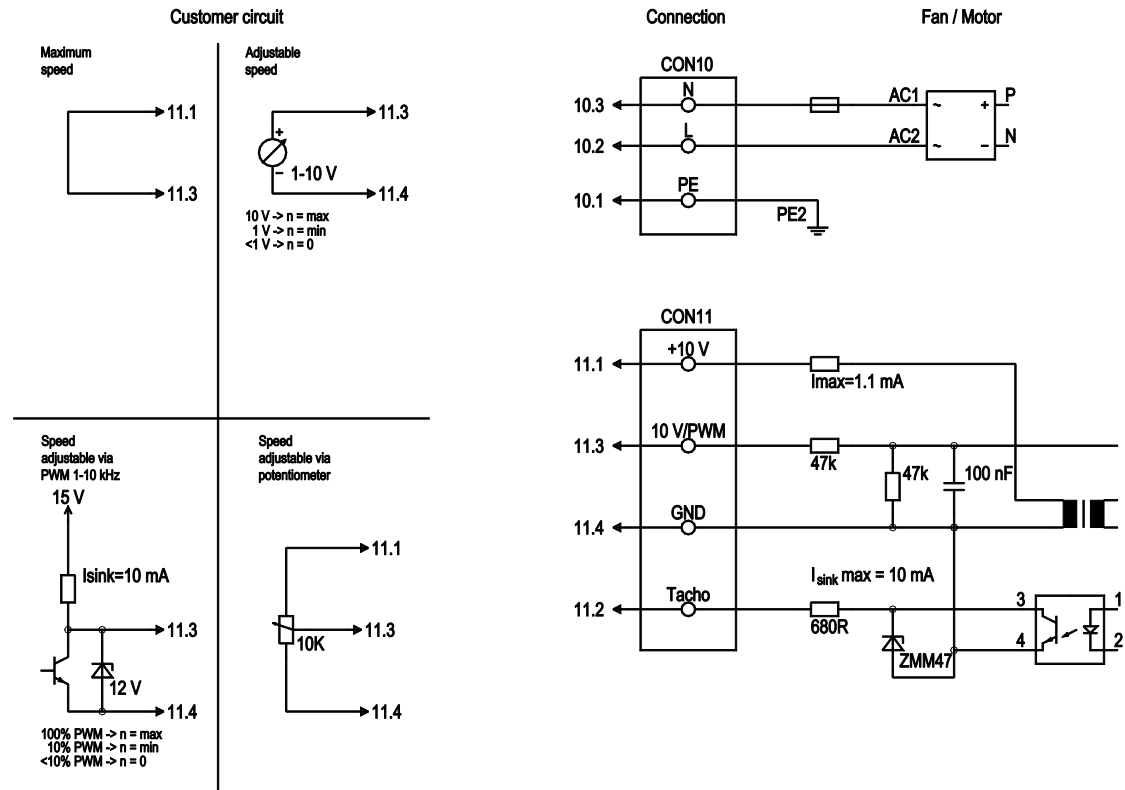
Product drawing



EC centrifugal fan combination

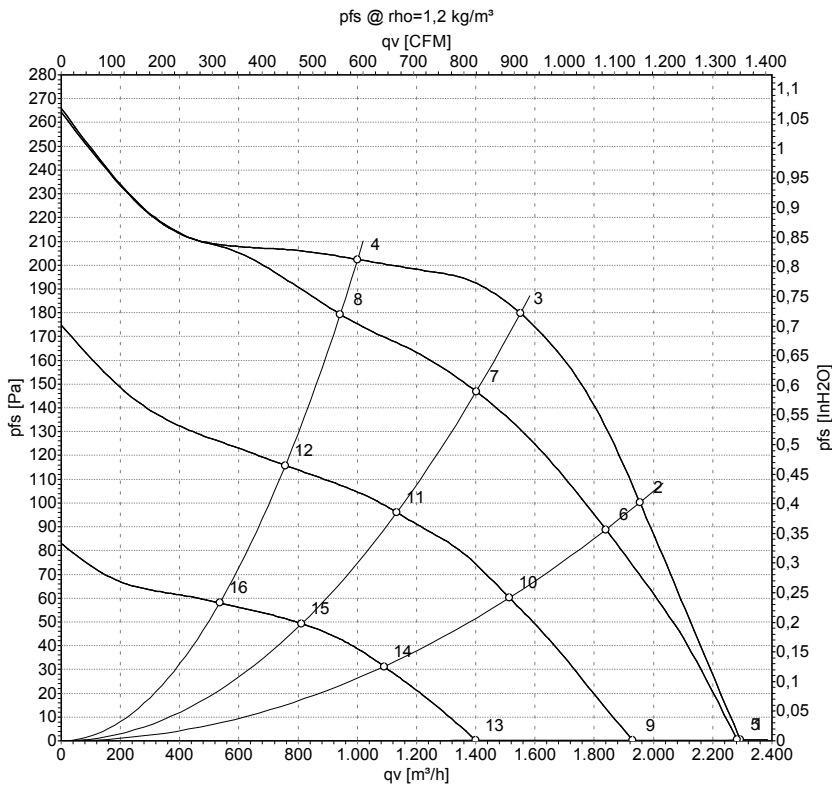
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
CON10	10.1	PE		Protective earth
CON10	10.2	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
CON10	10.3	N		Neutral conductor
CON11	11.1	10 V/max. 1.1 mA		Voltage output 10 V, 1.1 mA, electrically isolated, not short-circuit-proof
CON11	11.2	Tach		Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA
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

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)	m³/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

