D3G146-AK03-06

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**D3G146-AK03-06**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	197 .. 253
Frequency	Hz	50/60
Type of data definition		fa
Speed	min^{-1}	1270
Power input	W	106
Current draw	A	0.8
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

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Technical features

Mass	2.1 kg
Size	146 mm
Surface of rotor	Galvanised
Material of impeller	Plastic PA6, fibreglass-reinforced
Housing material	Plastic, Polyfort PP-T20
Motor suspension	Motor mounted with anti-vibration on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F3-1
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
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start
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	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

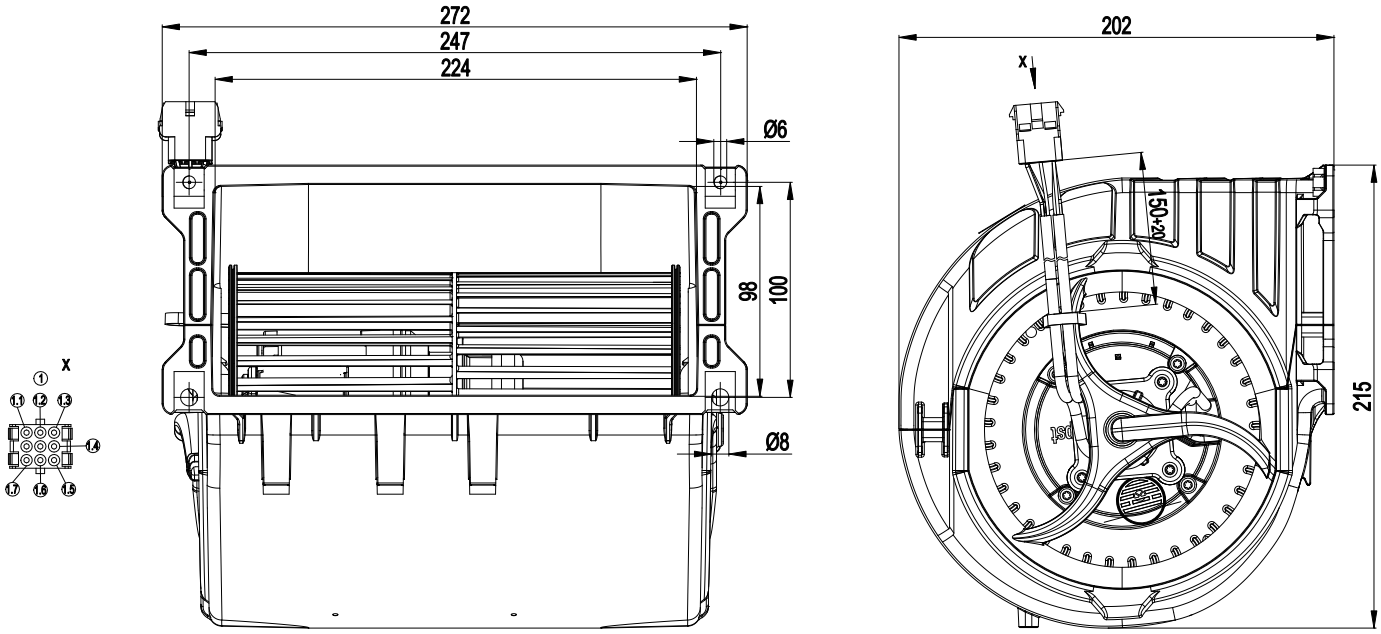
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Product drawing



1	AMP Universal Mate-N-Lok 927231-3
1.1	Blue (GDN) in 1
1.2	White (flat output) in 2
1.3	Yellow (0-10/PWM) in 3
1.4	Red (+10V) in 6
1.5	green / yellow (PE) in 9
1.6	blue (N) in 8
1.7	brown (L) in 7

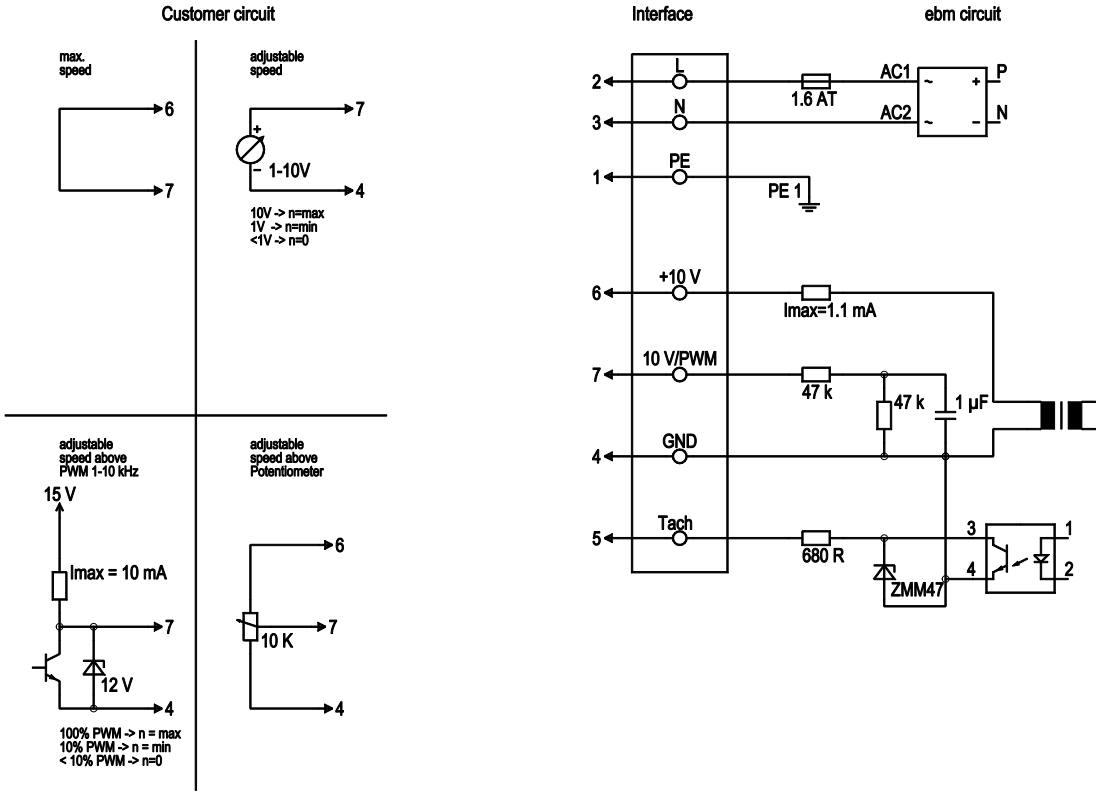
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Connection screen



Line	No.	Signal	Colour	Function / assignment
1	1	PE	green/yellow	Protective earth
1	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
1	3	N	blue	Neutral conductor
2	4	GND	blue	GND - Connection for control interface
2	5	Tach	white	Tach output: Open Collector, 1 pulse per revolution, electrically isolated
2	6	10V	red	max. 1.1 mA, voltage output 10 V/1.1 mA, electrically isolated, not short-circuit-proof
2	7	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated

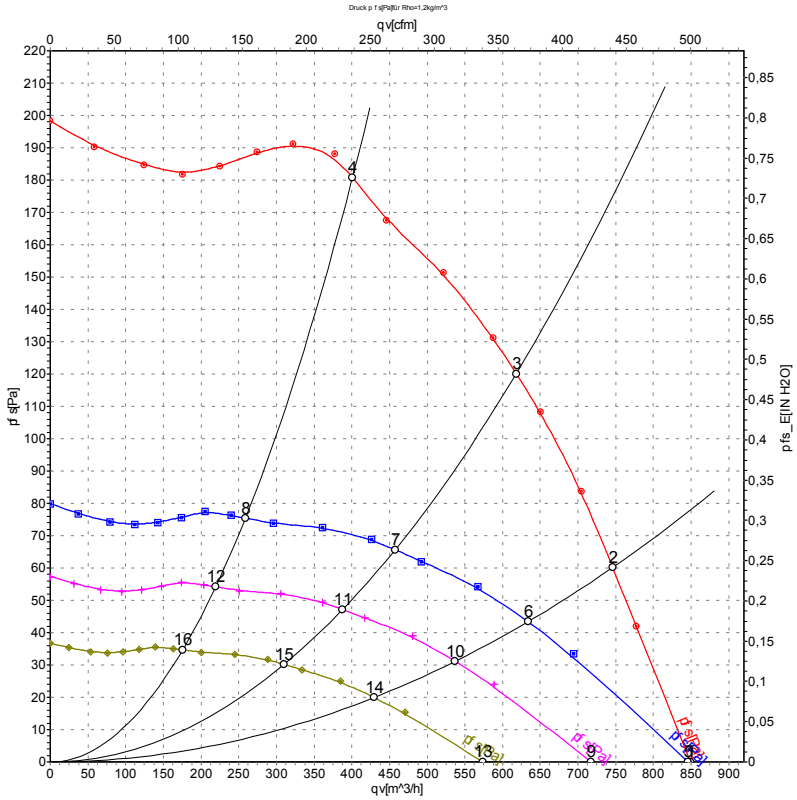
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Charts: Air flow 50 Hz



Measurement: LU-120022

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1185	81	0.60	850	0
2	230	50	1385	79	0.60	745	60
3	230	50	1595	75	0.58	620	120
4	230	50	1825	64	0.51	400	180
5	230	50	1180	79	0.60	845	0
6	230	50	1180	49	0.37	635	43
7	230	50	1180	31	0.24	455	66
8	230	50	1180	17	0.14	260	75
9	230	50	1000	48	0.36	715	0
10	230	50	1000	30	0.23	535	31
11	230	50	1000	19	0.14	390	47
12	230	50	1000	11	0.08	220	54
13	230	50	800	25	0.19	575	0
14	230	50	800	15	0.12	430	20
15	230	50	800	9.5	0.07	310	30
16	230	50	800	5.4	0.04	175	35

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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