D3G146-AK03-10

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Nominal data

Type	**D3G146-AK03-10**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	197 .. 253
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1270
Power consumption	W	106
Current draw	A	0.8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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	2.2 kg
Fan size	146 mm
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Housing material	PP plastic
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, 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 bottom; rotor on top on request
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- 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 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
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; CE

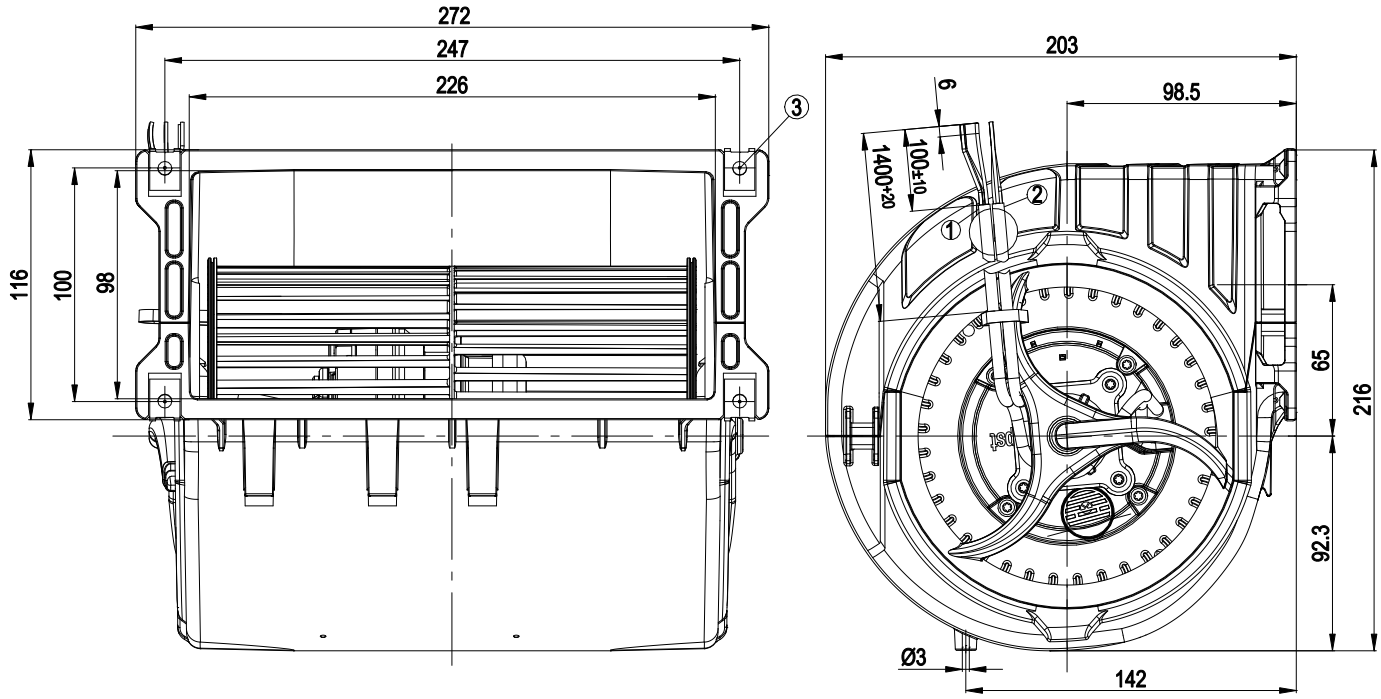
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Product drawing



1	Cable plastic, 3 x crimped splices
2	Control cable plastic, 2 x crimped splices
3	4 x sheet metal nut for thread EN ISO 1478-ST4.8 (screw length at least 14.5 mm plus thickness of mounting material)

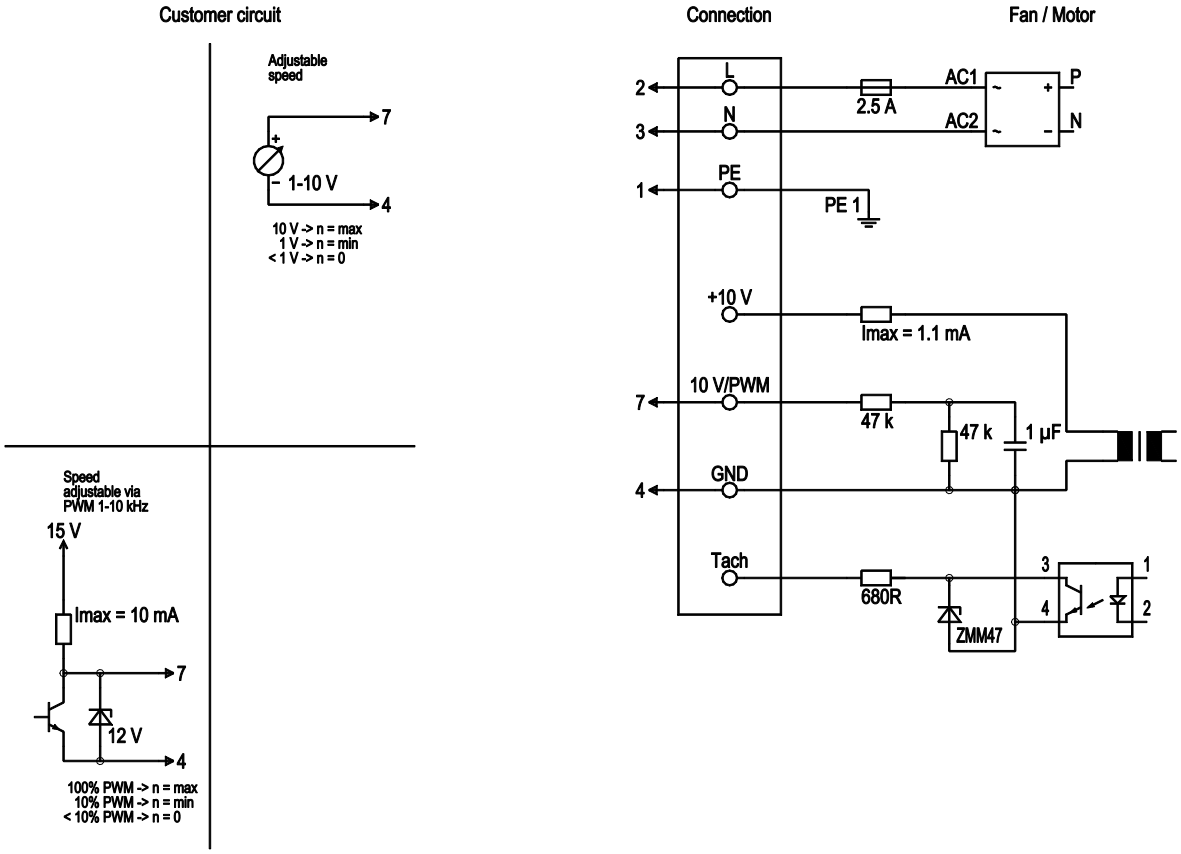
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	4	GND	blue	GND connection for control interface

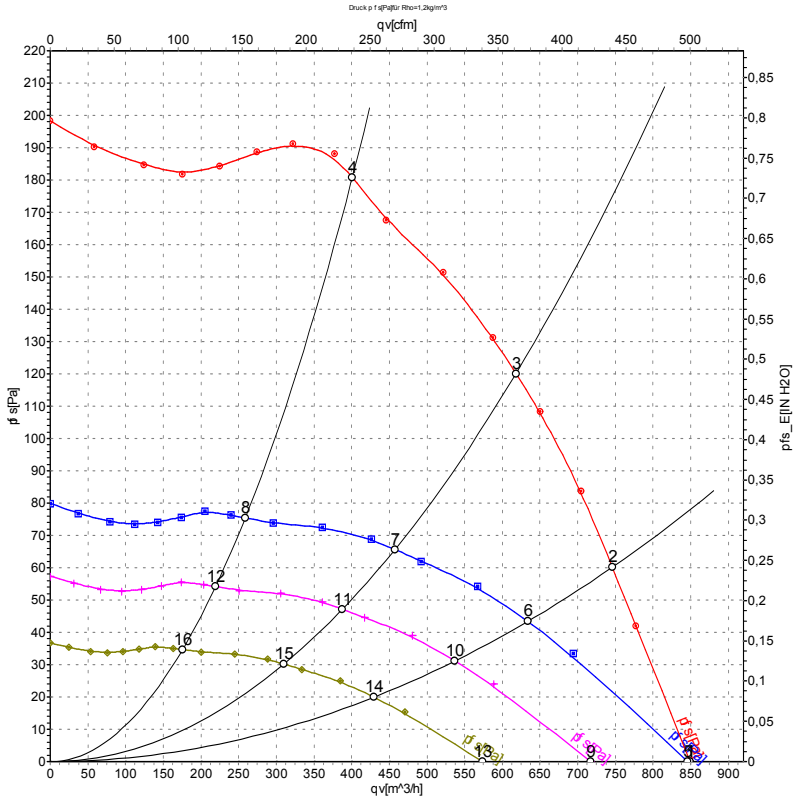
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Curves: Air performance 50 Hz



Measurement: LU-120022-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	1185	81	0.60	850	0	500	0.00
2	230	50	1385	79	0.60	745	60	440	0.24
3	230	50	1595	75	0.58	620	120	365	0.48
4	230	50	1825	64	0.51	400	180	235	0.72
5	230	50	1180	79	0.60	845	0	500	0.00
6	230	50	1180	49	0.37	635	43	375	0.17
7	230	50	1180	31	0.24	455	66	270	0.26
8	230	50	1180	17	0.14	260	75	150	0.30
9	230	50	1000	48	0.36	715	0	420	0.00
10	230	50	1000	30	0.23	535	31	315	0.12
11	230	50	1000	19	0.14	390	47	230	0.19
12	230	50	1000	11	0.08	220	54	130	0.22
13	230	50	800	25	0.19	575	0	340	0.00
14	230	50	800	15	0.12	430	20	255	0.08
15	230	50	800	9.5	0.07	310	30	180	0.12
16	230	50	800	5.4	0.04	175	35	105	0.14

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

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