EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Nominal data

Type	**D3G160-BP03-16**
Motor	**M3G055-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}	1170
Power consumption	W	83
Current draw	A	0.7
Min. back pressure	Pa	60
Min. back pressure	in. wg	0.24
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	4.25 kg
Size	160 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Hybrid bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Connector with cable
Motor protection	Electronic motor protection
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

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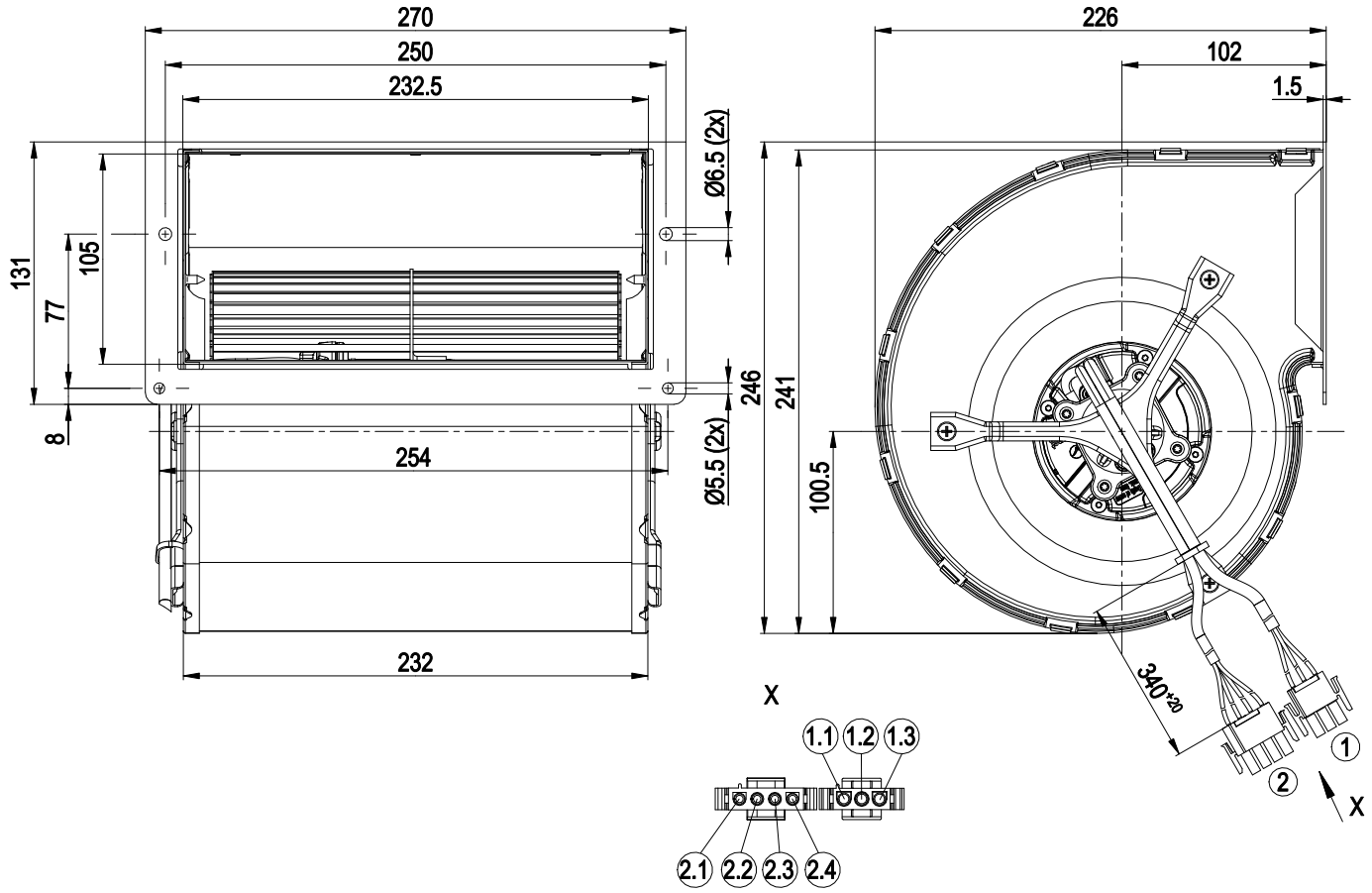
Product drawing



1	Cable PVC AWG20
	3-pole connector housing TE 2178473-2, 3x plug pin TE 926885-3
1.1	L (black)
1.2	N (blue)
1.3	PE (green/yellow)
2	Cable PVC AWG22
	4-pole connector housing TE 1-480702-0, 4x plug pin TE 926885-3
2.1	10 V/max. 1.1 mA (red)
2.2	0-10 V/PWM (yellow)
2.3	GND (blue)
2.4	Tach (white)

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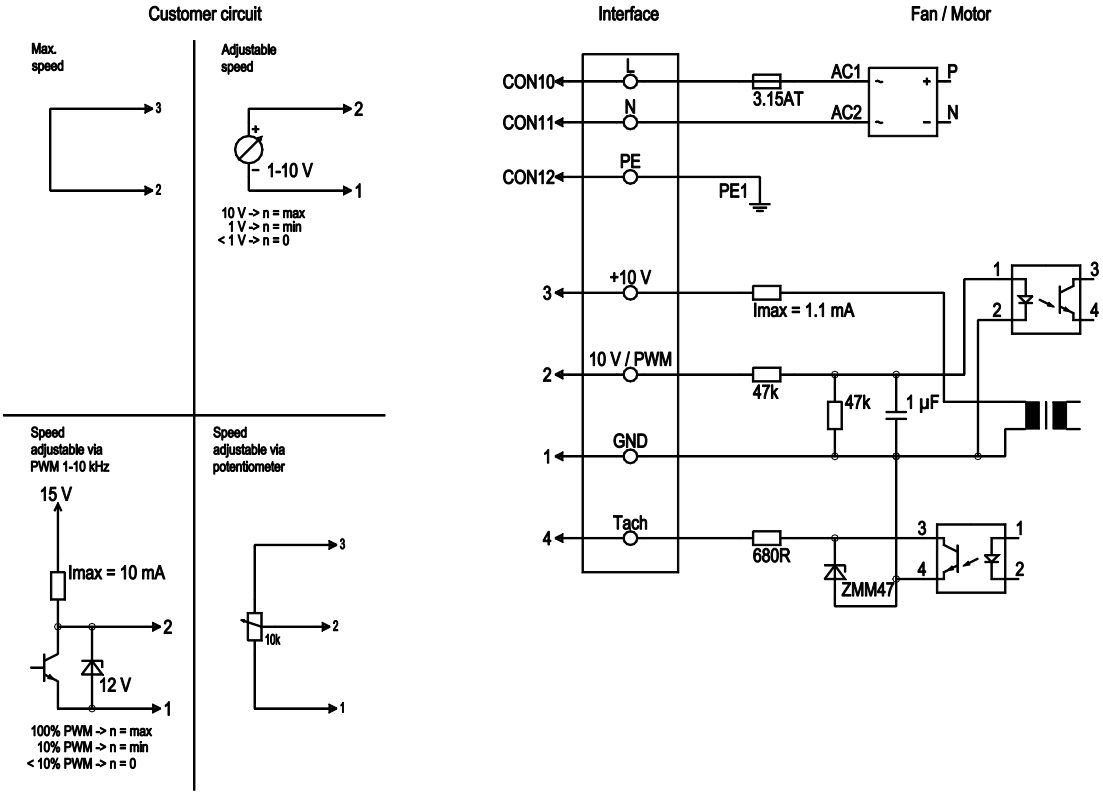
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND connection for control interface
	2	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	3	10 V / max. 1,1 mA	red	Voltage output 10 VDC 1.1 mA, electrically isolated, short-circuit-proof
	4	Tacho	white	Tach output: open collector, 1 pulse per revolution, electrically isolated

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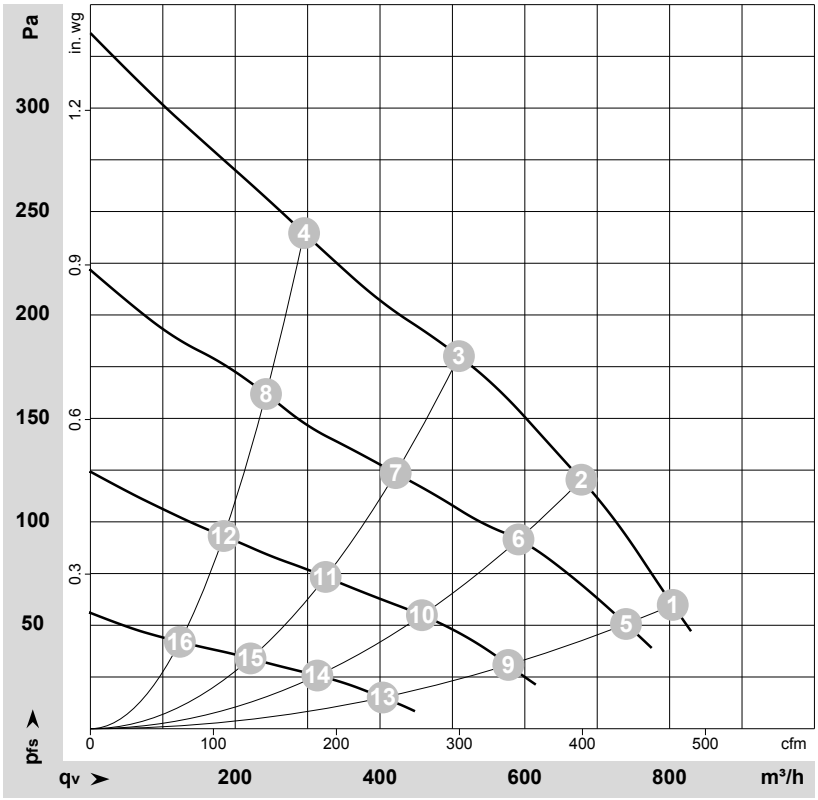
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-150949-1

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

	Wired	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	1~	230	50	1170	83	0.70	50	62	805	60	475	0.24
2	1~	230	50	1330	83	0.70	51	62	680	120	400	0.48
3	1~	230	50	1510	80	0.69	52	64	510	180	300	0.72
4	1~	230	50	1665	67	0.59	55	66	295	240	175	0.96
5	1~	230	50	1075	65	0.58			740	51	435	0.20
6	1~	230	50	1180	56	0.52			590	92	350	0.37
7	1~	230	50	1275	47	0.43			420	124	250	0.50
8	1~	230	50	1390	38	0.36			245	162	145	0.65
9	1~	230	50	865	33	0.32			575	31	340	0.12
10	1~	230	50	930	27	0.28			460	55	270	0.22
11	1~	230	50	1000	23	0.24			325	73	190	0.29
12	1~	230	50	1065	19	0.21			185	93	110	0.37
13	1~	230	50	620	13	0.16			405	15	240	0.06
14	1~	230	50	660	11	0.13			315	26	185	0.10
15	1~	230	50	695	10.0	0.12			220	34	130	0.14
16	1~	230	50	735	8.0	0.10			125	42	75	0.17

Wired = Wiring · 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