

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	D3G133-LU01-01	
Motor	M3G055-DF	

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60

Method of obtaining data		fa
Speed (rpm)	min ⁻¹	1620
Power consumption	W	82
Current draw	A	0.7
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
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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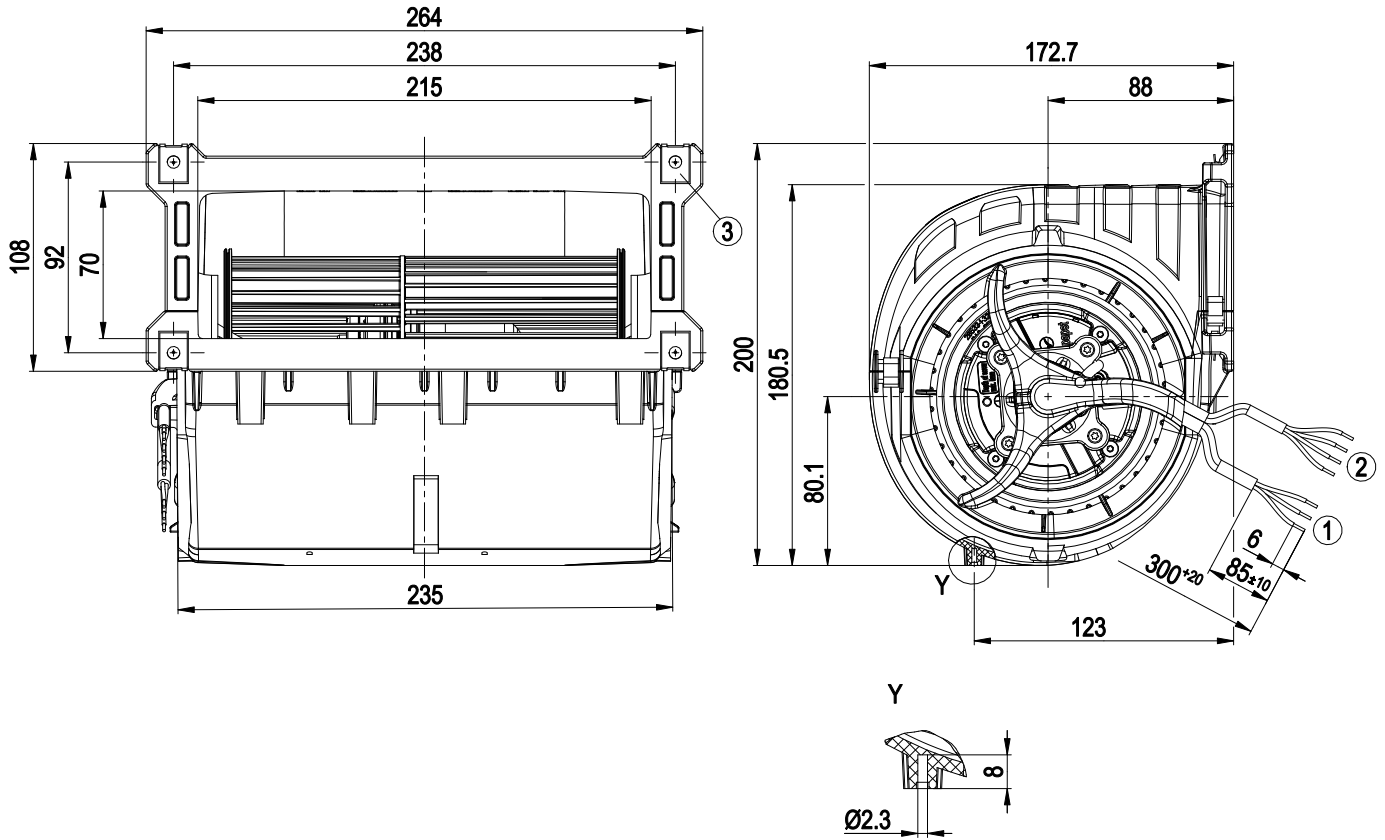
Technical description

Weight	2.1 kg
Size	133 mm
Motor size	55
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	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	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball 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
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 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class assignment	I; If a protective earth is connected. The built-in component has several local protection class assignments. The final protection class is determined by the intended installation.
Conformity with standards	EN 60335-1; CE
Comment on CE	Ecodesign Directive 2009/125/EC + Fan Directive (EC) No. 327/2011 does not apply, as power consumption <125W.
Approval	CCC; EAC

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Product drawing



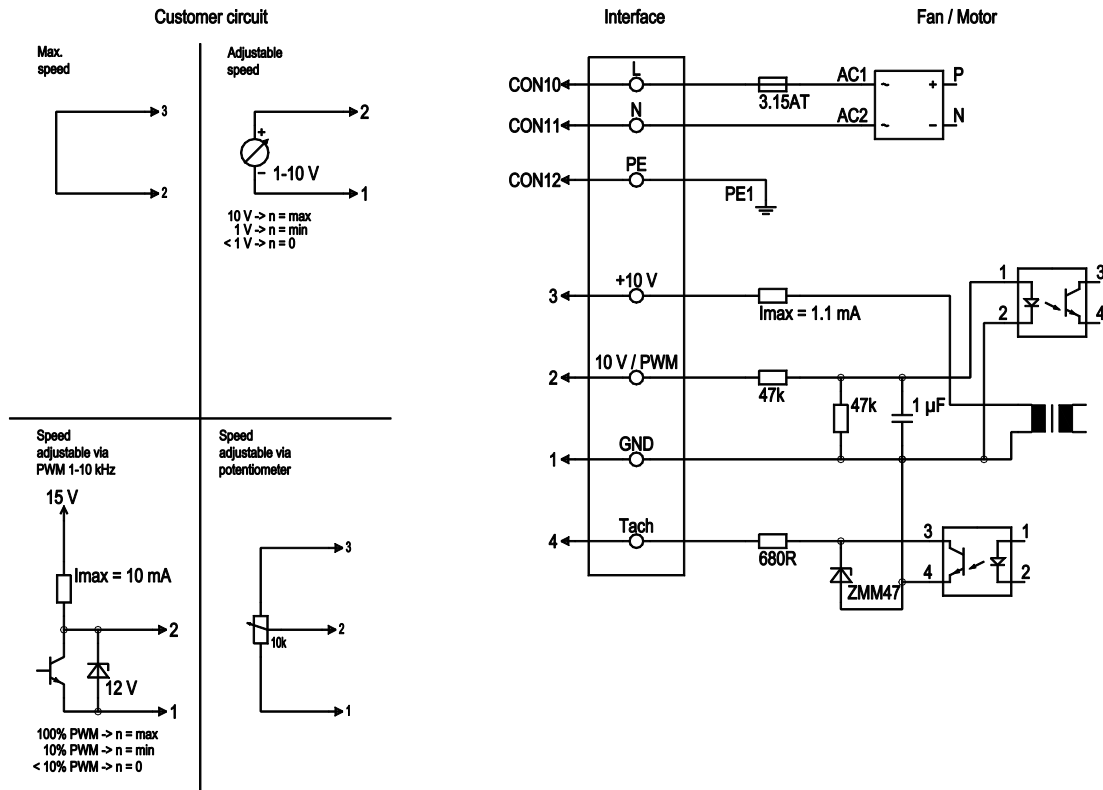
1	Cable PVC AWG20
	3x splice
2	Cable PVC AWG22
	4x splice
3	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of mounting)

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Connection diagram



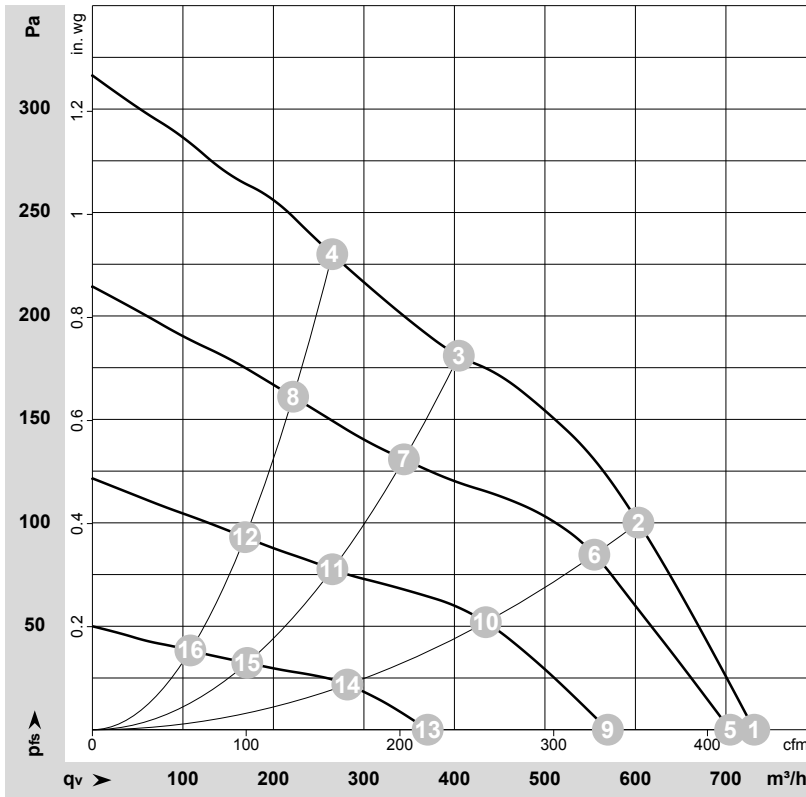
No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND connection for control interface
	2	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically 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



$$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-133818-1
Date: 2011-05-04
Nozzle: 65580-1-2950

Measurement: LU-133819-1
Date: 2011-05-04

Measurement: LU-133820-1
Date: 2011-05-04

Measurement: LU-133822-1
Date: 2011-05-04

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	1620	82	0.70	56	68	730	0	430	0.00
2	1~	230	50	1875	81	0.68	54	66	605	100	355	0.40
3	1~	230	50	2210	74	0.65	55	67	405	180	240	0.72
4	1~	230	50	2375	57	0.53	56	67	265	230	155	0.92
5	1~	230	50	1590	77	0.67			705	0	415	0.00
6	1~	230	50	1745	64	0.58			555	86	325	0.35
7	1~	230	50	1905	47	0.43			345	131	200	0.53
8	1~	230	50	2000	36	0.36			220	161	130	0.65
9	1~	230	50	1290	41	0.39			570	0	335	0.00
10	1~	230	50	1385	32	0.32			435	52	255	0.21
11	1~	230	50	1485	24	0.26			265	78	155	0.31
12	1~	230	50	1540	18	0.21			170	93	100	0.37
13	1~	230	50	870	13	0.16			370	0	220	0.00
14	1~	230	50	920	11	0.14			280	22	165	0.09
15	1~	230	50	965	9.0	0.12			170	32	100	0.13
16	1~	230	50	1000	7.0	0.09			110	38	65	0.15

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