D3G133-BF05-20

EC centrifugal fan

forward-curved, dual-intake

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
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**D3G133-BF05-20**
Motor	**M3G055-CF**

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}	1300
Power consumption	W	85
Current draw	A	0.8
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	3.2 kg
Size	133 mm
Motor size	55
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Motor suspension	Motor mounted with brackets on one side
Direction of rotation	Clockwise, 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. 10 mA - Fault output (open collector) - 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 61000-6-3 (household environment)
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

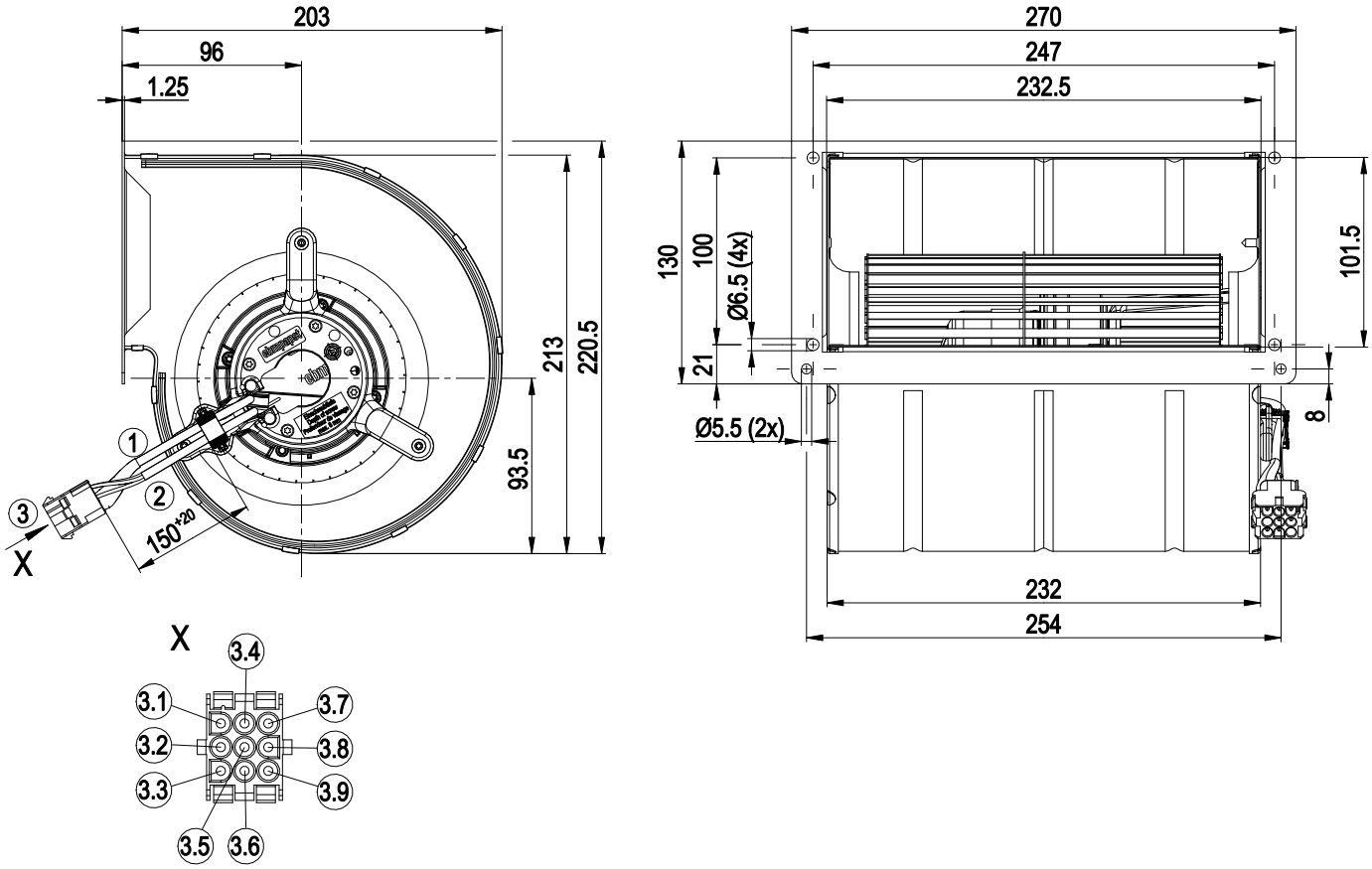
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Product drawing



1	Cable PVC 3G 0.5 mm², 3x plug pin tyco 926886-1
2	Cable PVC 4x 0.25 mm², 4x plug pin tyco 926886-1
3	1x 9-pole connector housing tyco 927231-7
3.1	Fan good / fan bad (white)
3.2	+10 V (red)
3.3	GND (blue)
3.4	0-10 V PWM (yellow)
3.5	L (brown)
3.6	not used
3.7	not used
3.8	N (blue)
3.9	PE (green/yellow)

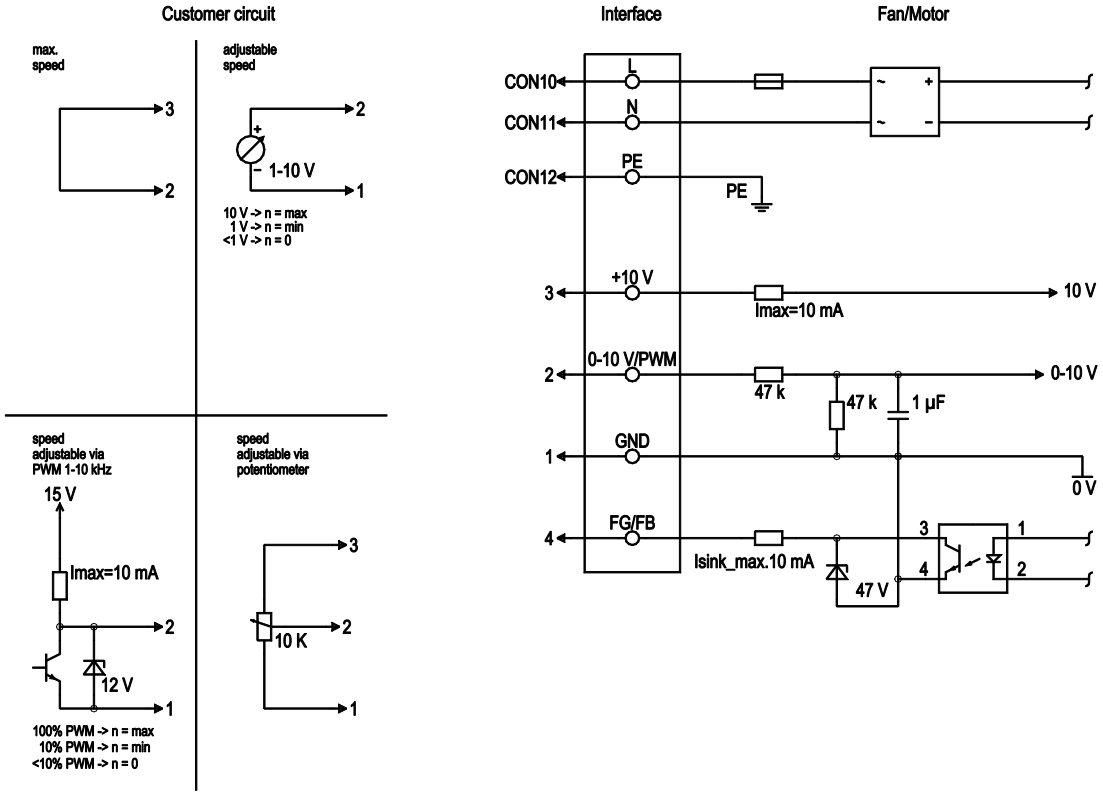
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	brown	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Fan good / Fan bad	white	Fan good / fan bad: open collector, fan good = high, electrically isolated, Isink max = 10 mA
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

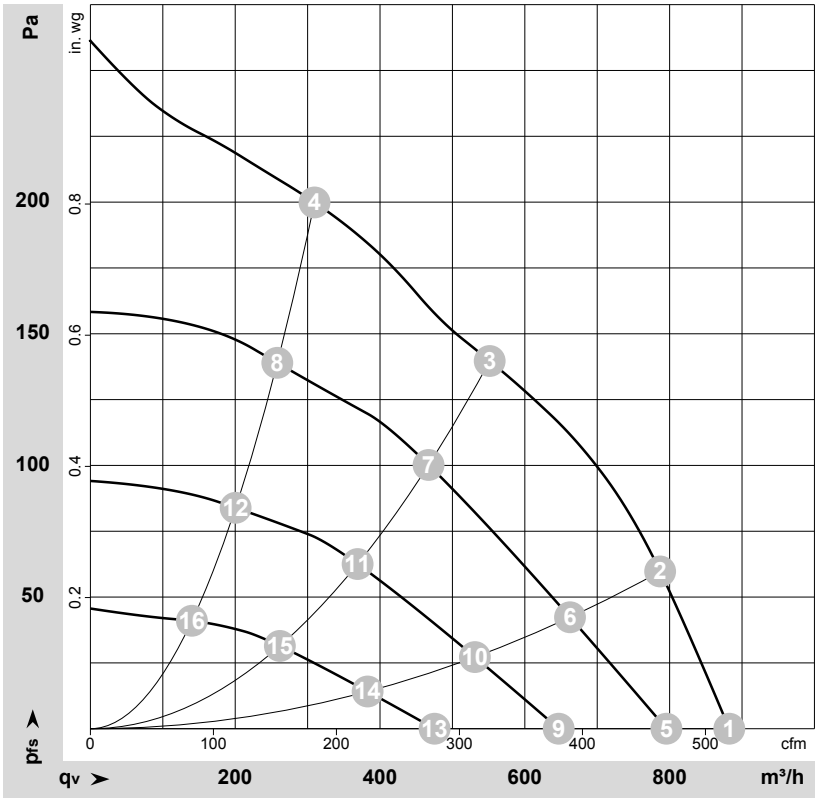
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-155842-1
Measurement: LU-156192-1
Measurement: LU-156194-1
Measurement: LU-156196-1

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	1300	85	0.80	52	65	880	0	520	0.00
2	1~	230	50	1460	85	0.80	52	64	785	60	465	0.24
3	1~	230	50	1750	66	0.65	50	62	550	140	325	0.56
4	1~	230	50	1990	48	0.48	52	63	310	200	180	0.80
5	1~	230	50	1145	66	0.64	51	63	795	0	470	0.00
6	1~	230	50	1285	55	0.55	48	61	660	43	390	0.17
7	1~	230	50	1490	38	0.41	45	57	465	106	275	0.43
8	1~	230	50	1670	28	0.31	47	58	260	139	150	0.56
9	1~	230	50	930	34	0.37	46	58	645	0	380	0.00
10	1~	230	50	1035	28	0.31	43	55	530	28	315	0.11
11	1~	230	50	1185	20	0.23	39	50	370	66	215	0.26
12	1~	230	50	1305	15	0.19	40	52	200	84	120	0.34
13	1~	230	50	685	14	0.16	38	50	475	0	280	0.00
14	1~	230	50	755	12	0.14	35	47	385	14	225	0.06
15	1~	230	50	850	9.0	0.11	31	42	260	33	155	0.13
16	1~	230	50	900	7.0	0.10	31	42	140	41	80	0.16

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

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