EC centrifugal fan

forward curved, dual inlet

with housing (flange)

D3G160-GN02-10 ebmpapst Datasheet
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Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

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

Nominal data

Type	**D3G160-GN02-10**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	1330
Power input	W	165
Current draw	A	1.3
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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	3 kg
Size	160 mm
Surface of rotor	Thick layer passivated
Material of impeller	Sheet steel, galvanised
Housing material	PP plastic
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
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, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	PTC resistor
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1

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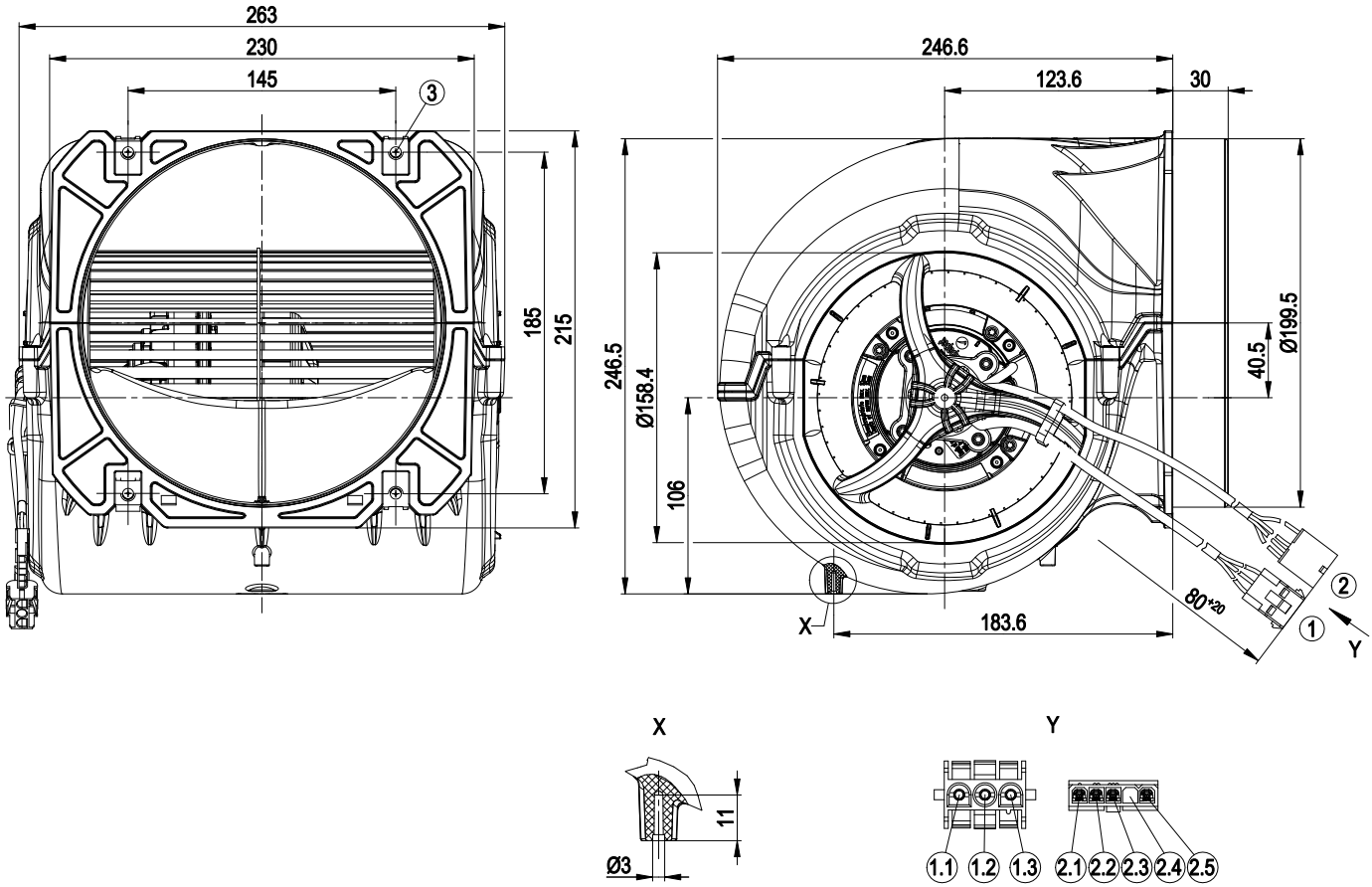
Product drawing



1	Connection line PVC AWG20, Tyco 3-pin connector housing 350767-1, 3x Tyco plug pin 926883-1
1.1	L (black)
1.2	N (blue)
1.3	PE (green/yellow)
2	Connection line PVC AWG22, connector housing 5-pin Molex 39-01-4056, 4x plug pin Molex 39-00-0061
2.1	+10 V (red)
2.2	Tach (white)
2.3	0-10 V PWM (yellow)
2.4	Not assigned
2.5	GND (blue)
3	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus thickness of mounting material)

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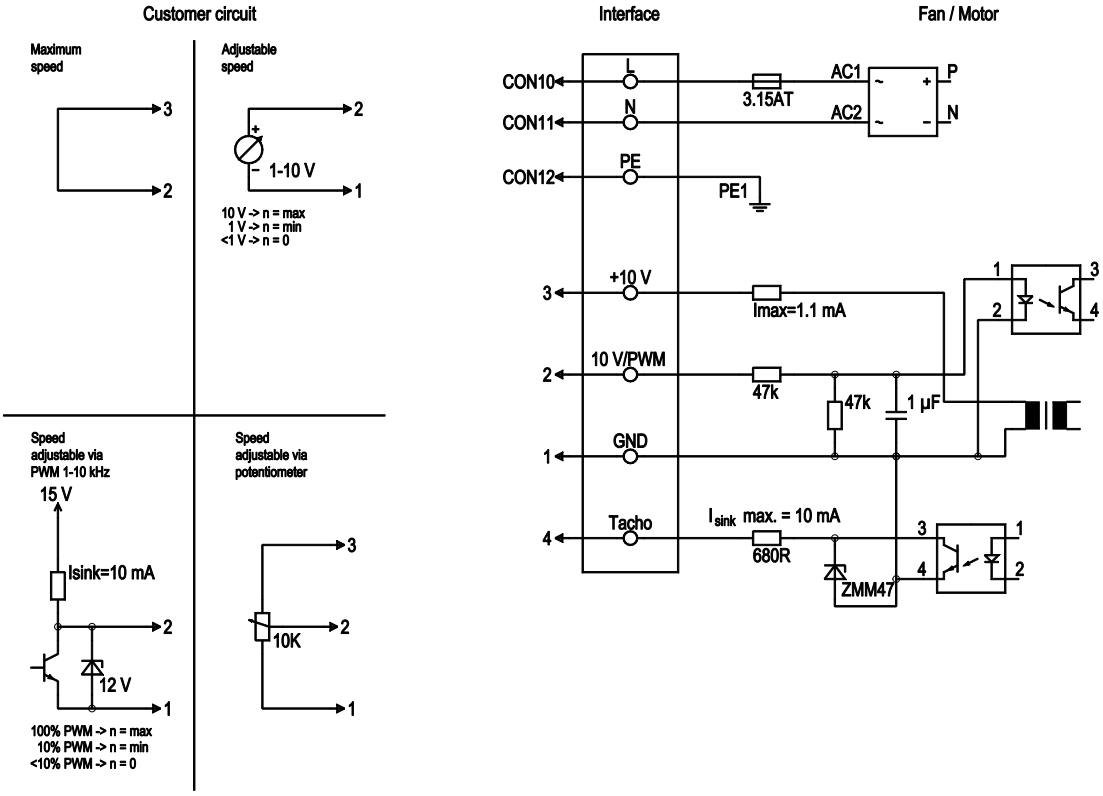
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
	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	10V/ max 1.1mA	red	Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof, Isink = 10 mA
	4	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA

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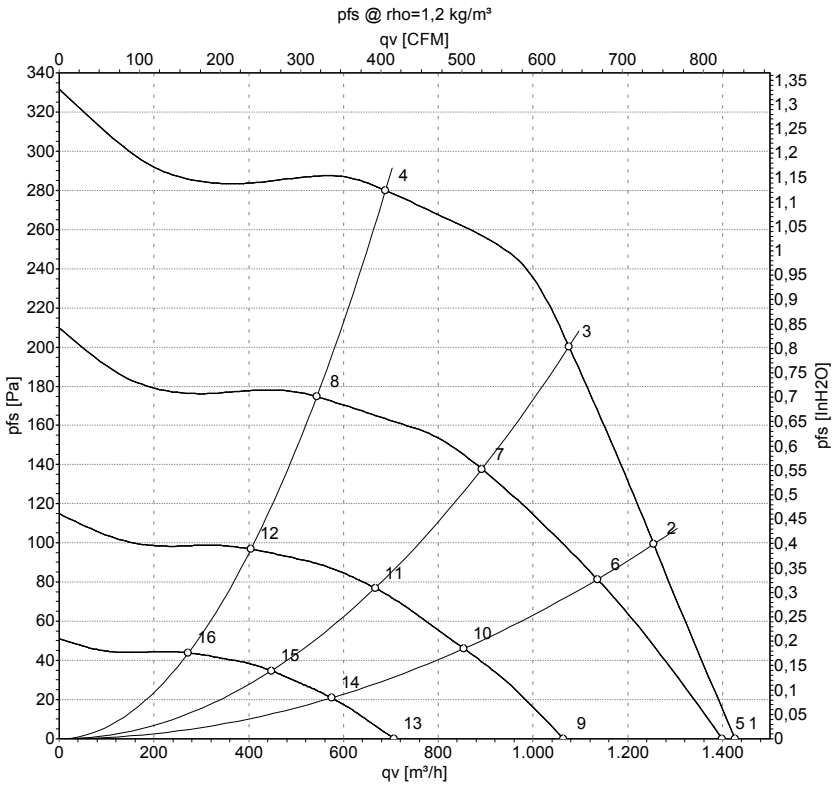
Charts: Air flow 50 Hz



Measurement: LU-144933

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	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	50	1330	165	1.30	60	73	1425	0
2	230	50	1520	165	1.30	59	72	1255	100
3	230	50	1715	165	1.28	58	70	1075	200
4	230	50	1860	115	0.96	56	68	690	280
5	230	50	1310	156	1.21			1400	0
6	230	50	1380	121	1.00			1135	81
7	230	50	1430	94	0.79			890	138
8	230	50	1490	61	0.52			545	175
9	230	50	1015	72	0.60			1065	0
10	230	50	1050	56	0.48			855	46
11	230	50	1080	43	0.39			665	77
12	230	50	1120	29	0.28			405	97
13	230	50	695	25	0.24			705	0
14	230	50	720	19	0.18			575	21
15	230	50	735	16	0.15			450	35
16	230	50	765	12	0.12			275	44

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
p_{fs} = Pressure increase