

EC centrifugal fan

forward curved, dual inlet
with housing (flange)

D3G160-GN02-11 ebmpapst Datasheet
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Nominal data

Type	D3G160-GN02-11	
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 (rpm)	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

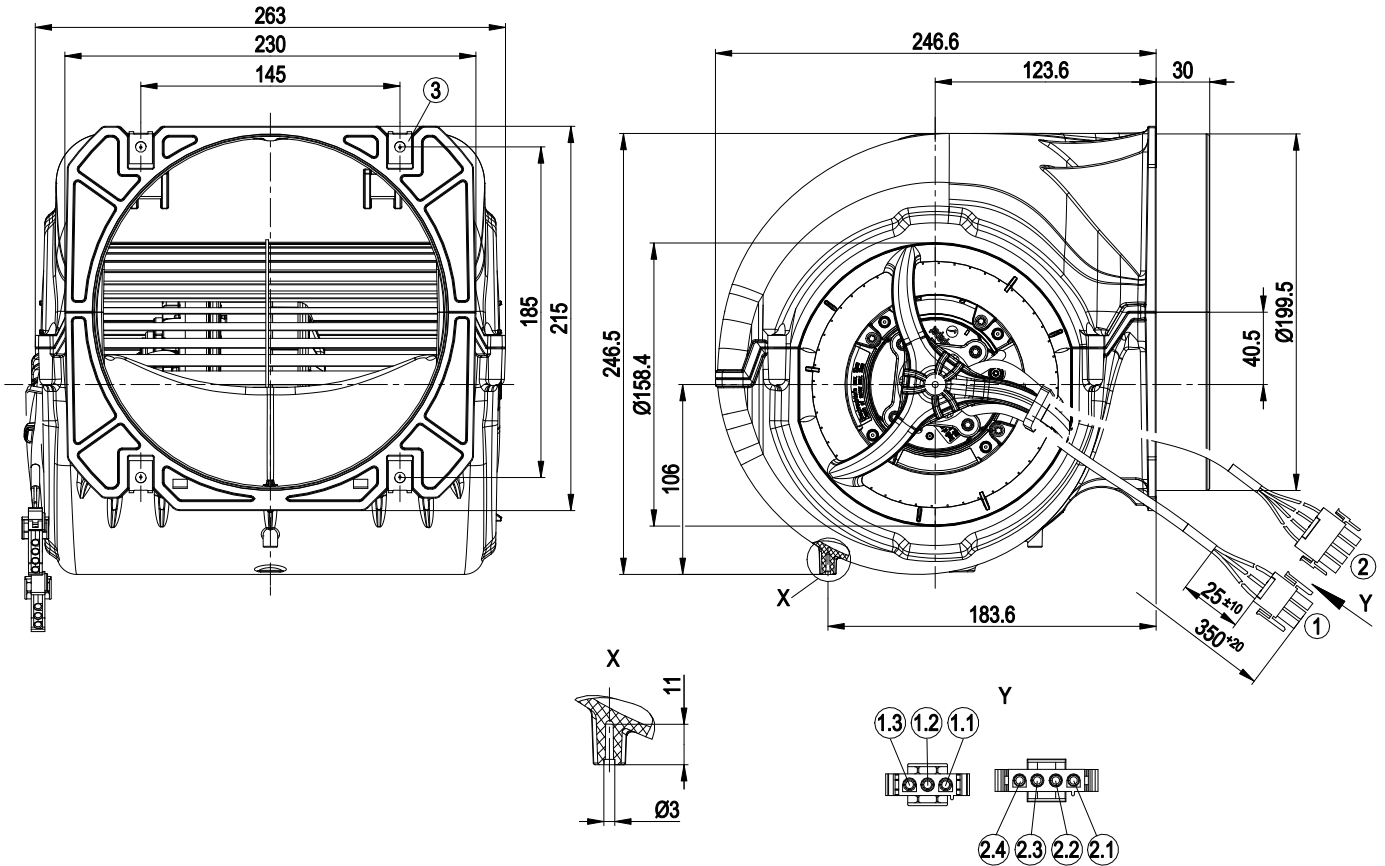
Mass	3 kg
Size	160 mm
Surface of rotor	Thick layer passivated
Material of impeller	Sheet steel, galvanised
Housing material	PP plastic
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
Max. permissible 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 - Output limit - 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
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Motor protection	PTC resistor
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE



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Product drawing

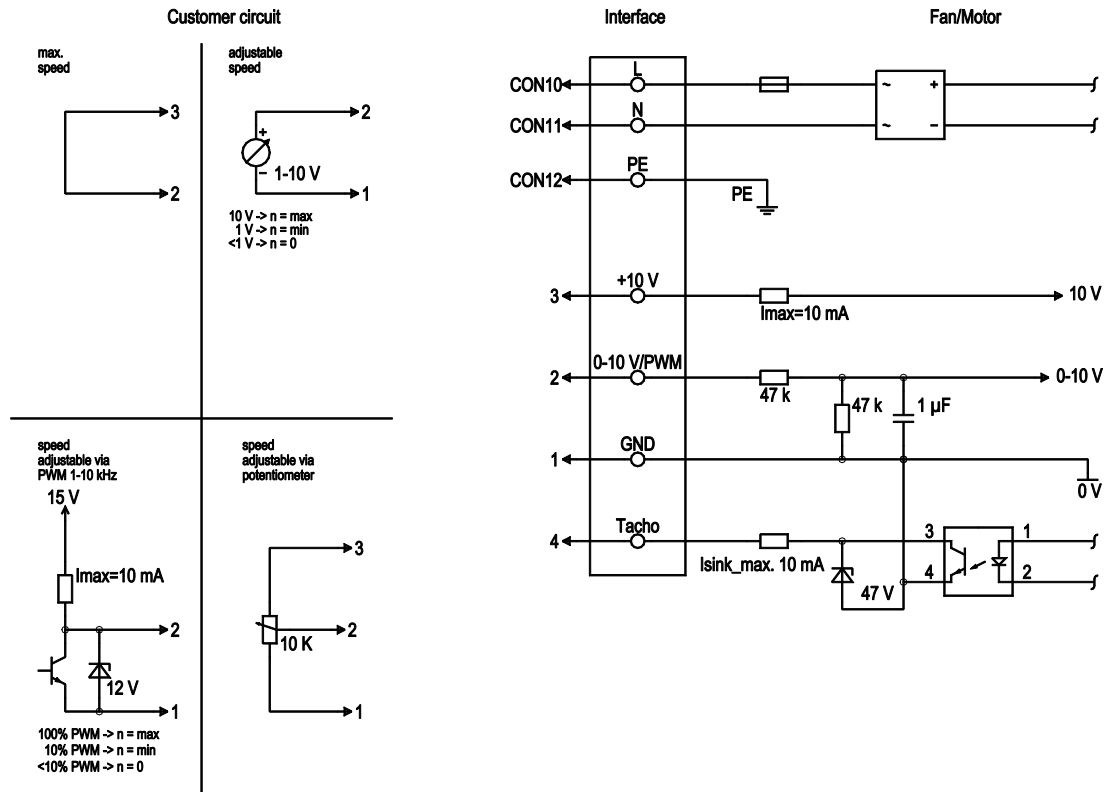


1	Connection line PVC AWG20, connector housing 3-pole tyco 1241809-2, 3x plug pin tyco 926885-1 crimped
1.1	PE (green/yellow)
1.2	N (blue)
1.3	L (black)
2	Connection line PVC AWG22, tyco 4-pole connector housing 926298-6, 4x tyco plug pin 926885-1 crimped
2.1	+10 V (red)
2.2	GND (blue)
2.3	0-10 V PWM (yellow)
2.4	Tach (white)
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	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, $R_i=100\text{ k}\Omega$, SELV
	4	Tach	white	Speed monitoring output, open collector, 1 pulse per revolution, $I_{sink\ max} = 10\text{ mA}$, SELV
	3	+10 V	red	Fixed voltage output 10 VDC $\pm 3\%$, $I_{max. 10\text{ mA}}$, short-circuit-proof, power supply for ext. devices (e.g. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

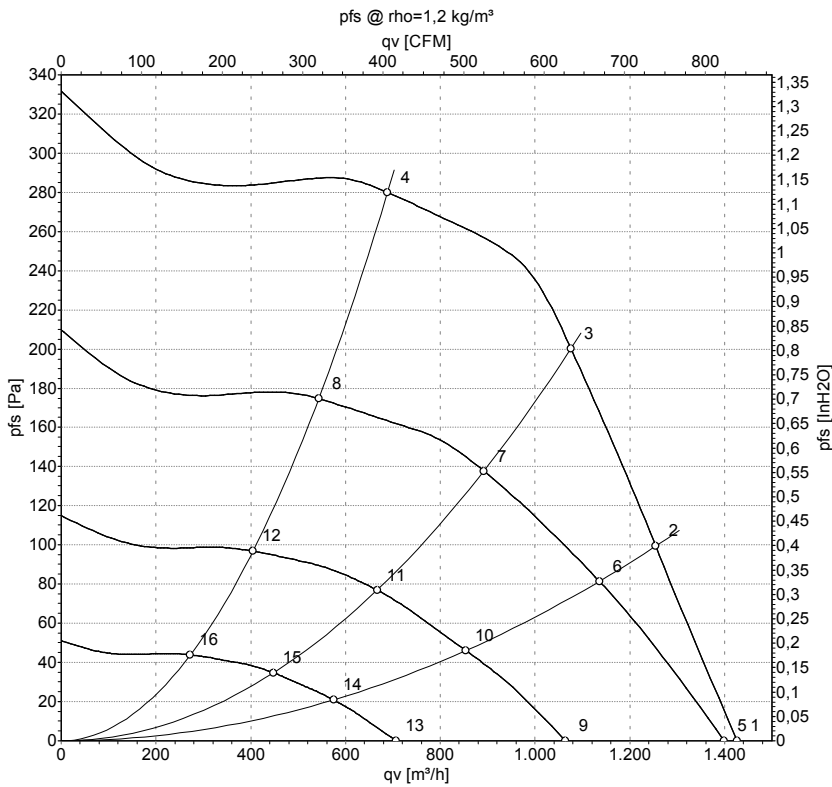


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Charts: Air flow 50 Hz



Measurement: LU-144933-1

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}	q _v	p _{fs}	q _v	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m³/h	Pa	cfm	inH2O
1	230	50	1330	165	1.30	60	73	1425	0	840	0.00
2	230	50	1520	165	1.30	59	72	1255	100	740	0.40
3	230	50	1715	165	1.28	58	70	1075	200	635	0.80
4	230	50	1860	115	0.96	56	68	690	280	405	1.12
5	230	50	1310	156	1.21			1400	0	825	0.00
6	230	50	1380	121	1.00			1135	81	670	0.33
7	230	50	1430	94	0.79			890	138	525	0.55
8	230	50	1490	61	0.52			545	175	320	0.70
9	230	50	1015	72	0.60			1065	0	625	0.00
10	230	50	1050	56	0.48			855	46	505	0.18
11	230	50	1080	43	0.39			665	77	395	0.31
12	230	50	1120	29	0.28			405	97	240	0.39
13	230	50	695	25	0.24			705	0	415	0.00
14	230	50	720	19	0.18			575	21	340	0.08
15	230	50	735	16	0.15			450	35	265	0.14
16	230	50	765	12	0.12			275	44	160	0.18

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

