

# EC centrifugal fan

forward curved, dual inlet  
with housing (without flange)

D3G097-BN05-11 ebmpapst Datasheet  
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## Nominal data

<b>Type</b>	<b>D3G097-BN05-11</b>	
<b>Motor</b>	<b>M3G045-BI</b>	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min <sup>-1</sup>	1850
Power input	W	37
Current draw	A	0.35
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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

<b>Mass</b>	1.6 kg
<b>Size</b>	97 mm
<b>Material of impeller</b>	Sheet steel, galvanised
<b>Housing material</b>	Sheet steel, galvanised
<b>Material of support structure</b>	PA plastic
<b>Material of guard grille</b>	Steel, coated in white aluminium plastic (RAL 9006)
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 54; Depending on installation and position
<b>Insulation class</b>	"B"
<b>Humidity class</b>	F3-1
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Any
<b>Condensate discharge holes</b>	None
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Speed adjustment input (230 V)</li> <li>- Motor current limit</li> <li>- Soft start</li> <li>- Over-temperature protected electronics / motor</li> </ul>
<b>Speed steps</b>	2
<b>EMC interference immunity</b>	Acc. to EN 61000-6-2 (industrial environment)
<b>EMC harmonics</b>	Acc. to EN 61000-3-2/3
<b>EMC interference emission</b>	Acc. to EN 61000-6-3 (household environment)
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	<= 3.5 mA
<b>Electrical leads</b>	With plug
<b>Motor protection</b>	Locked-rotor protection
<b>Cable exit</b>	Variable
<b>Protection class</b>	I (if protective earth is connected by customer at the connection point of the housing)
<b>Product conforming to standard</b>	EN 60335-1; CE

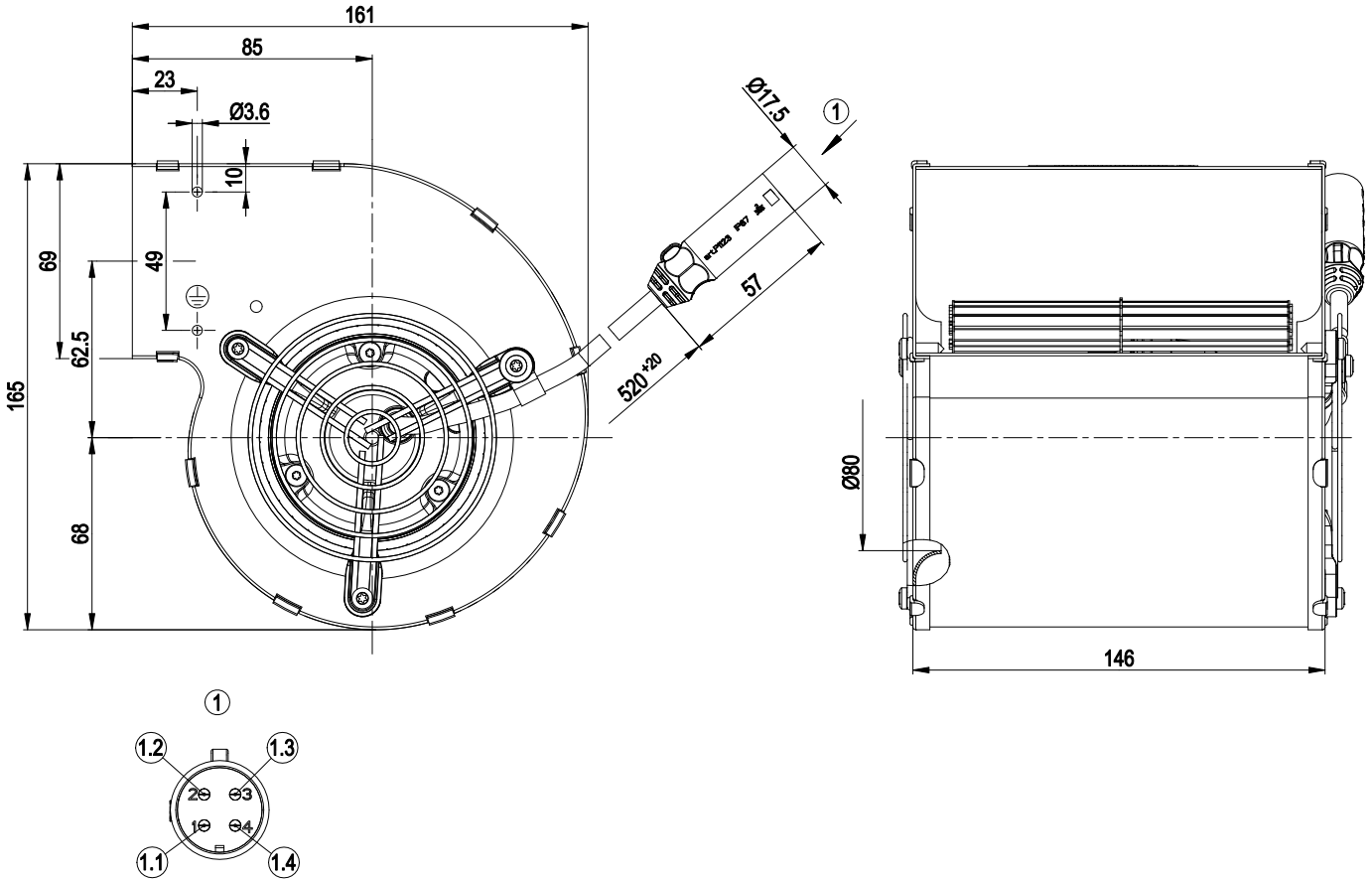


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## Product drawing



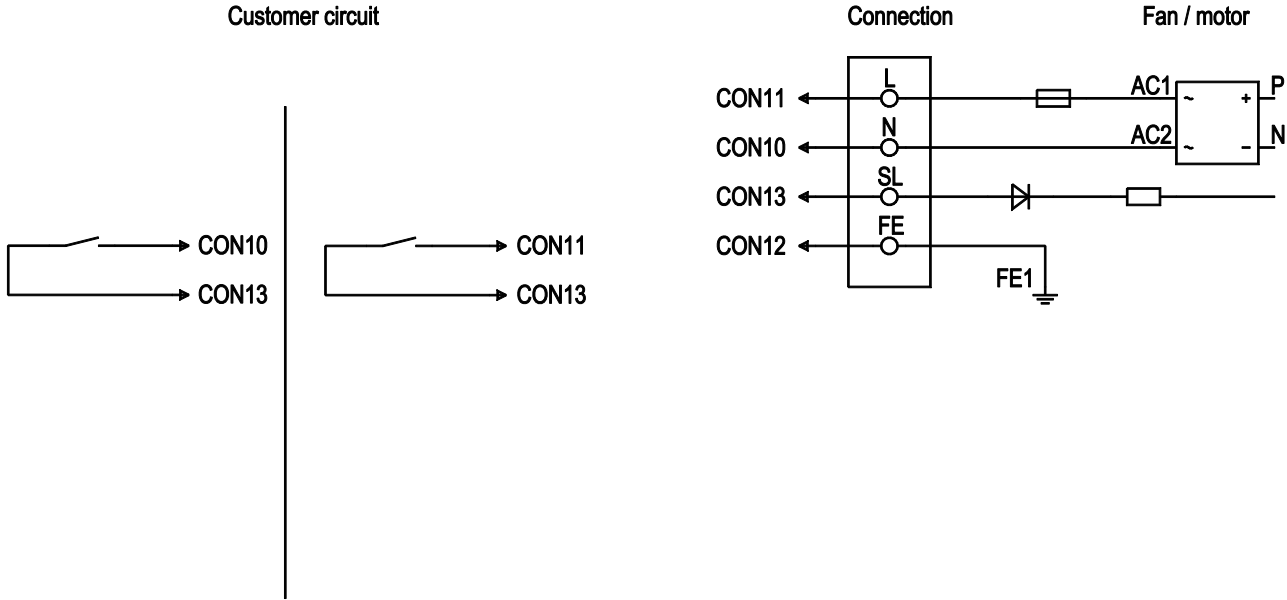
1	Connection line PVC 4G 0.5 mm <sup>2</sup> with PLASTIC connector P1123
1.1	N (blue)
1.2	L (black)
1.3	FE (green/yellow)
1.4	SL (brown)



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## Connection screen



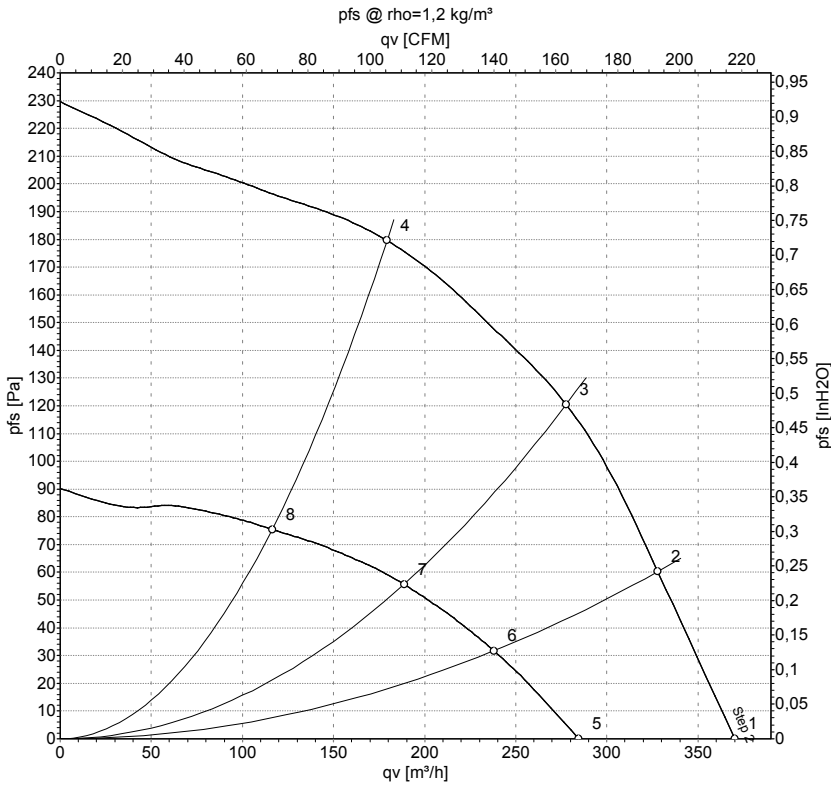
No.	Conn.	Designation	Colour	Function / assignment
	CON 11	L	black	Power supply 230 VAC, 50 - 60 Hz, see type plate for voltage range
	CON 10	N	blue	Neutral conductor
	CON 12	FE	green/yellow	Functional earthing
	CON 13	SL	brown	Speed selection: switch open = speed 1; switch closed = speed 2



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## Charts: Air flow 50 Hz



Measurement: LU-141433  
Measurement: LU-140107

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

	Stage	U	f	n	P <sub>ed</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	qv	p <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	2	230	50	1850	37	0.35	54	66	370	0
2	2	230	50	2075	37	0.35	53	64	330	60
3	2	230	50	2340	36	0.34	52	63	280	120
4	2	230	50	2605	27	0.28	51	61	180	180
5		230	50	1405	17	0.18			285	0
6		230	50	1490	15	0.17			240	32
7		230	50	1575	12	0.15			190	56
8		230	50	1680	9.0	0.12			115	75

U = Supply voltage · f = Frequency · n = Speed · P<sub>ed</sub> = Power input · I = Current draw · LpA<sub>in</sub> = Sound pressure level inlet side · LwA<sub>in</sub> = Sound power level inlet side · qv = Air flow  
p<sub>fs</sub> = Pressure increase

