D3G097-BN05-10

EC centrifugal fan

forward-curved

with housing (without flange)



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Nominal data

Type	**D3G097-BN05-10**
Motor	**M3G045-BI**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1850
Power consumption	W	37
Current draw	A	0.35
Min. back pressure	Pa	0
Min. back pressure	inH2O	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	1.6 kg
Fan size	97 mm
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Guard grille material	Steel, coated with gray plastic (RAL 9006)
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	F3-1
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
Mode	S1
Motor bearing	Ball bearing
Technical features	- Speed setting input (230 V) - Motor current limitation - Soft start - Thermal overload protection for electronics/motor
Speed levels	2
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
Motor protection	Locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

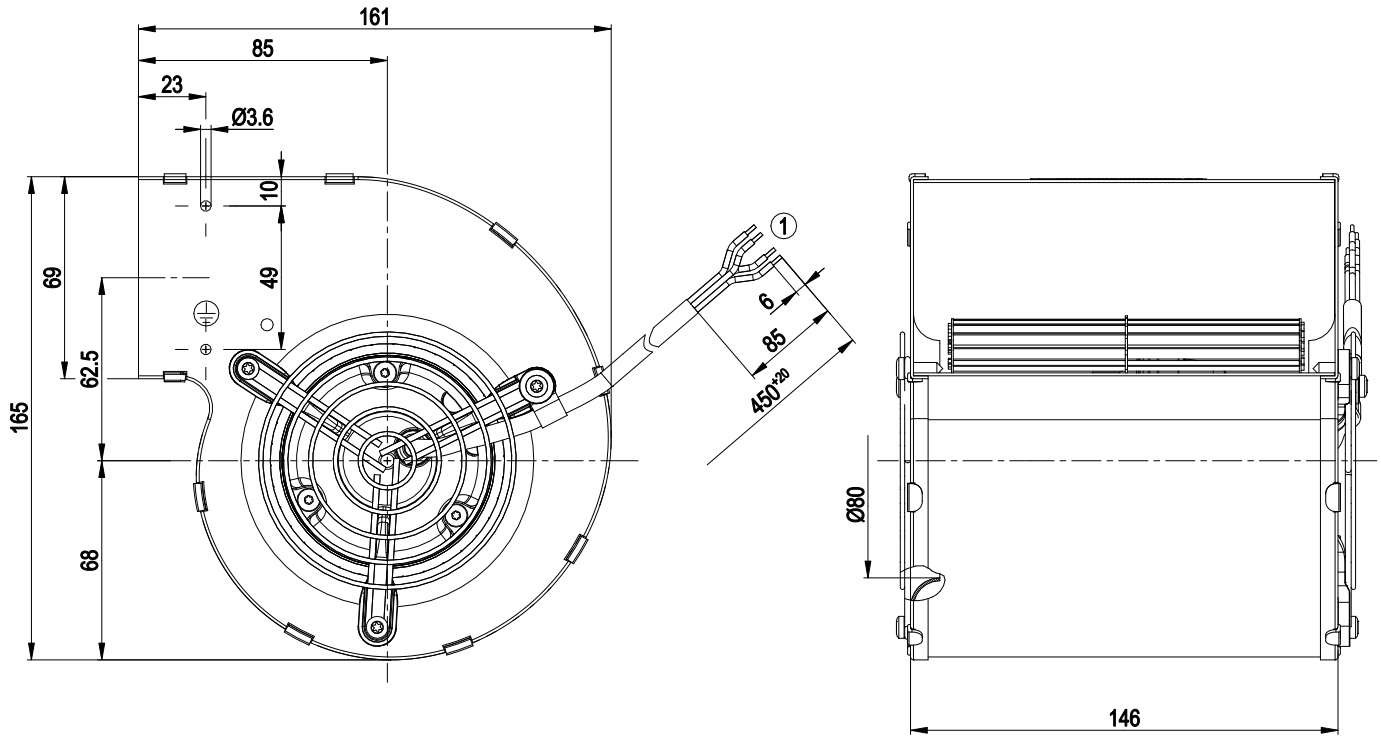
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Product drawing



1	Cable PVC 4G AWG20, 4x crimped splices

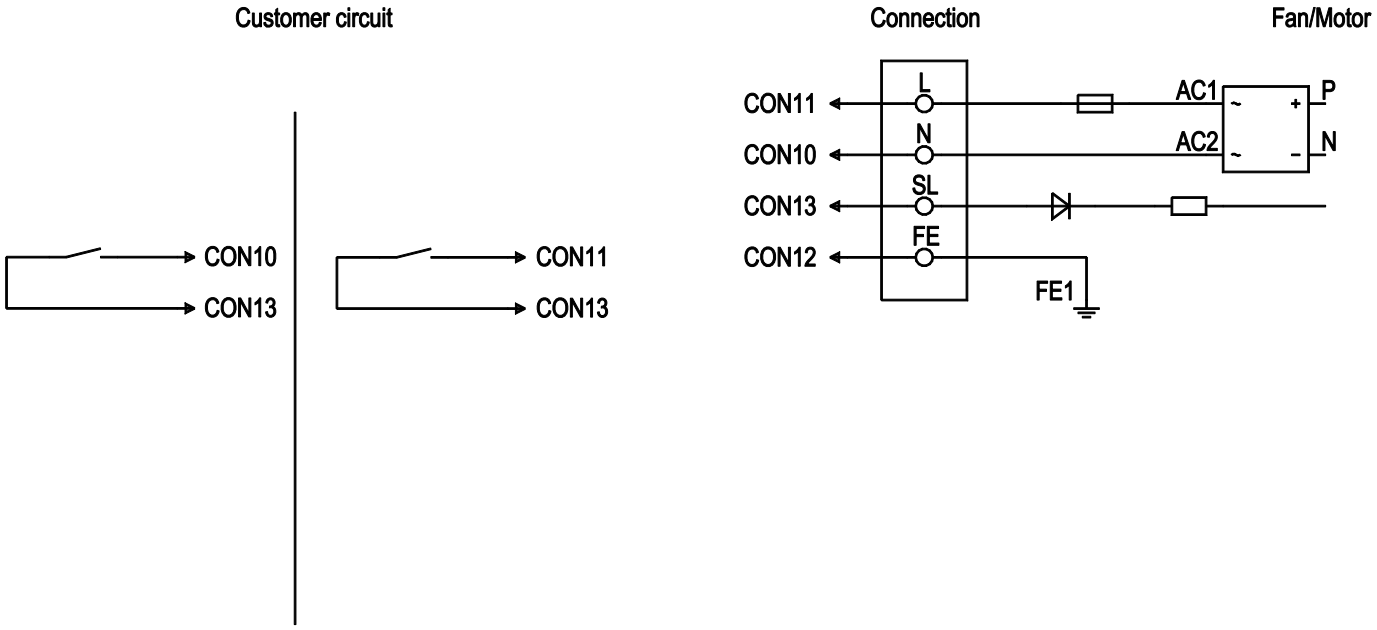
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Connection diagram



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

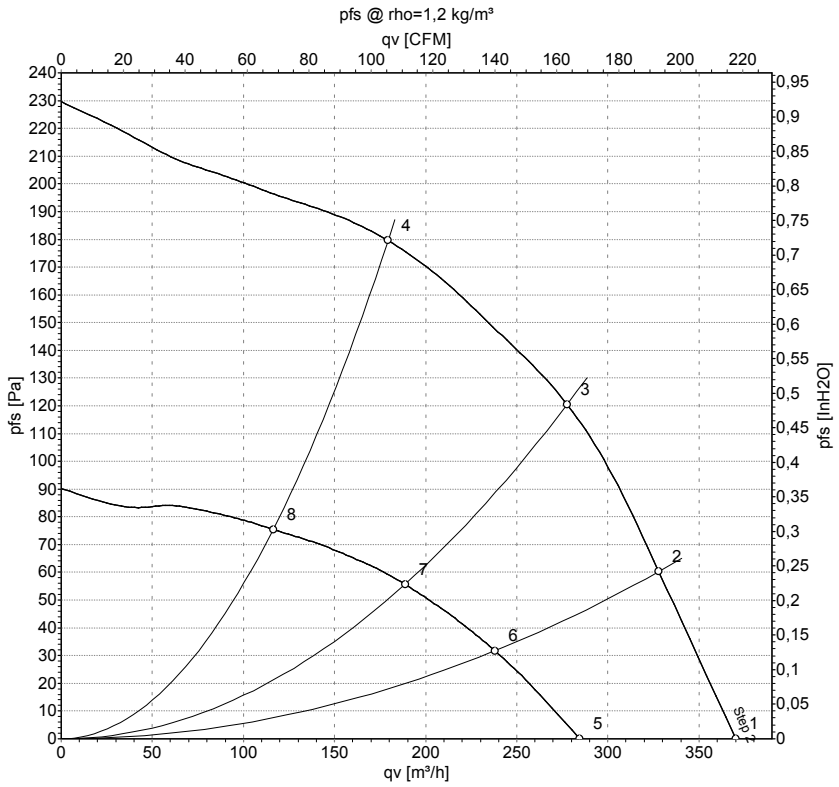
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Curves: Air performance 50 Hz



Measurement: LU-141433-1
Measurement: LU-140107-1

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

	Stage	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	2	230	50	1850	37	0.35	54	66	370	0	220	0.00
2	2	230	50	2075	37	0.35	53	64	330	60	195	0.24
3	2	230	50	2340	36	0.34	52	63	280	120	165	0.48
4	2	230	50	2605	27	0.28	51	61	180	180	105	0.72
5	1	230	50	1405	17	0.18			285	0	165	0.00
6	1	230	50	1490	15	0.17			240	32	140	0.13
7	1	230	50	1575	12	0.15			190	56	110	0.22
8	1	230	50	1680	9.0	0.12			115	75	70	0.30

U = Power supply · 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
qv = Air flow · p_{fs} = Pressure increase

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