D3G200-BB22-73

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

D3G200-BB22-73 ebmpapst Datasheet
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Nominal data

Type	**D3G200-BB22-73**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	207 .. 253
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1640
Power consumption	W	465
Current draw	A	3.0
Min. back pressure	Pa	225
Min. back pressure	in. wg	0.9
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	48.1	34.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		57.7	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.29
09 Air flow q_v	m^3/h	1255
09 Pressure increase p_{fs}	Pa	368
10 Speed (rpm) n	min^{-1}	1750
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-131521

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Technical description

Weight	10.1 kg
Size	200 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Motor suspension	Motor mounted on brackets for one-sided vibration damping
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	Shaft horizontal
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Connector with cable
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	UL 1004-3 + 60730-1; EAC; CSA C22.2 No. 77 + CAN/CSA-E60730-1

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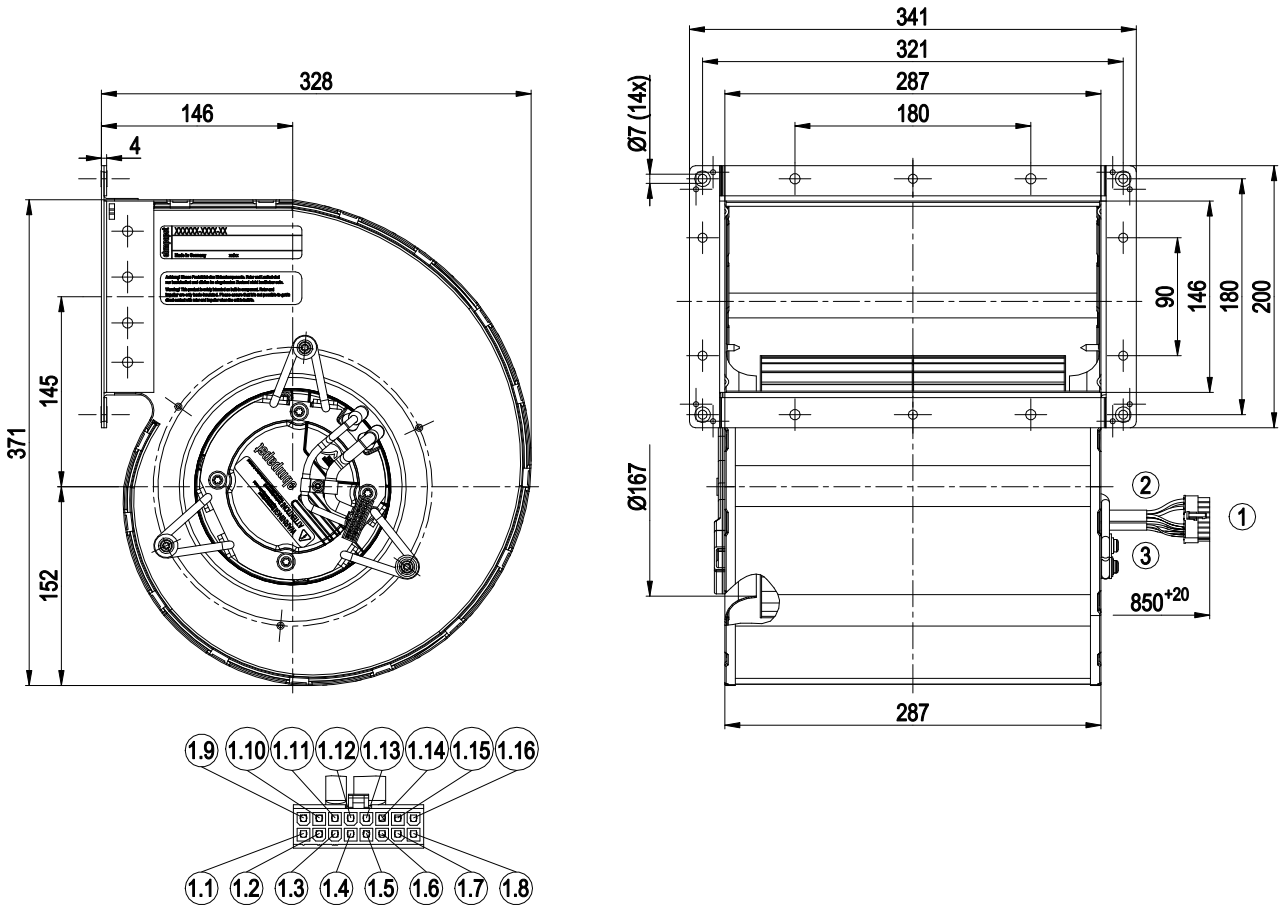
Product drawing



1	16-pole connector housing Molex 46992-1600
1.1	not used
1.2	+10 V
1.3	NC
1.4	not used
1.5	not used
1.6	not used
1.7	L
1.8	N
1.9	0-10 V PWM
1.10	GND
1.11	COM
1.12	not used
1.13	not used
1.14	not used
1.15	not used
1.16	PE
2	Cable PVC AWG18, 5x socket Molex 39-00-0059 crimped
3	Cable PVC AWG22, 3x socket Molex 39-00-0059 crimped

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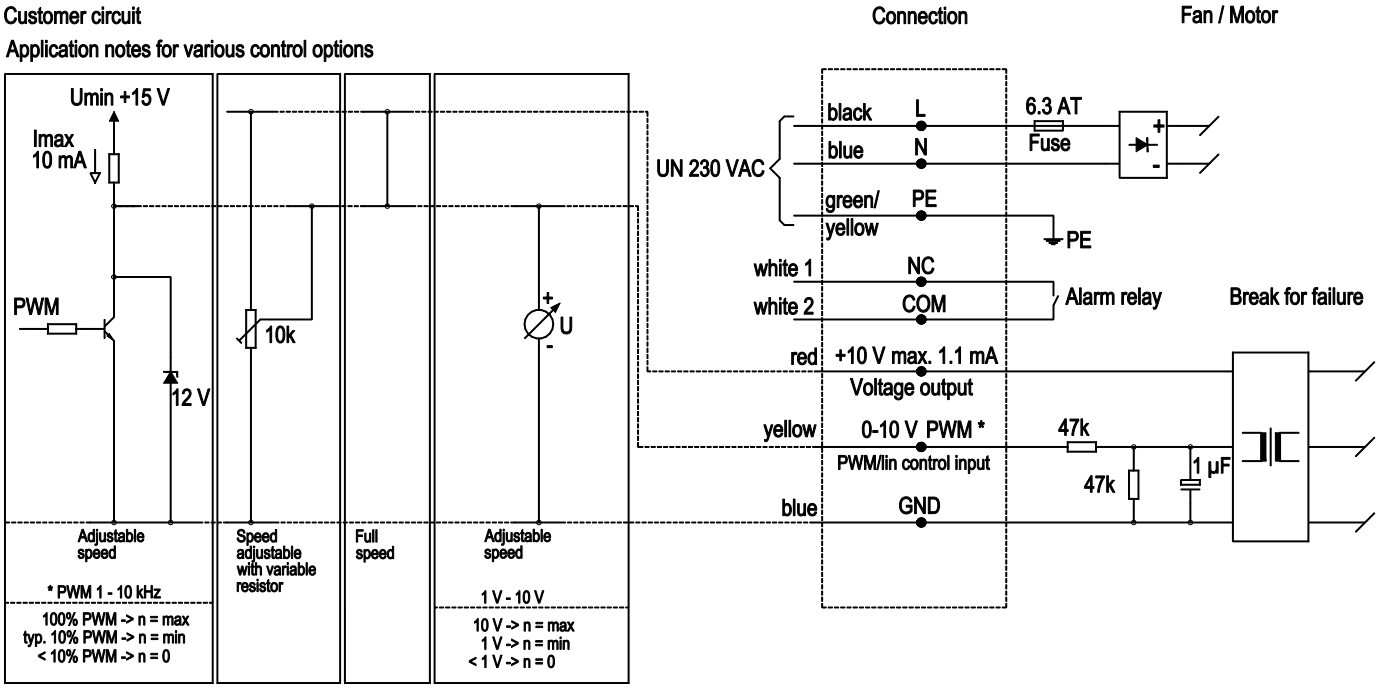
Connection diagram



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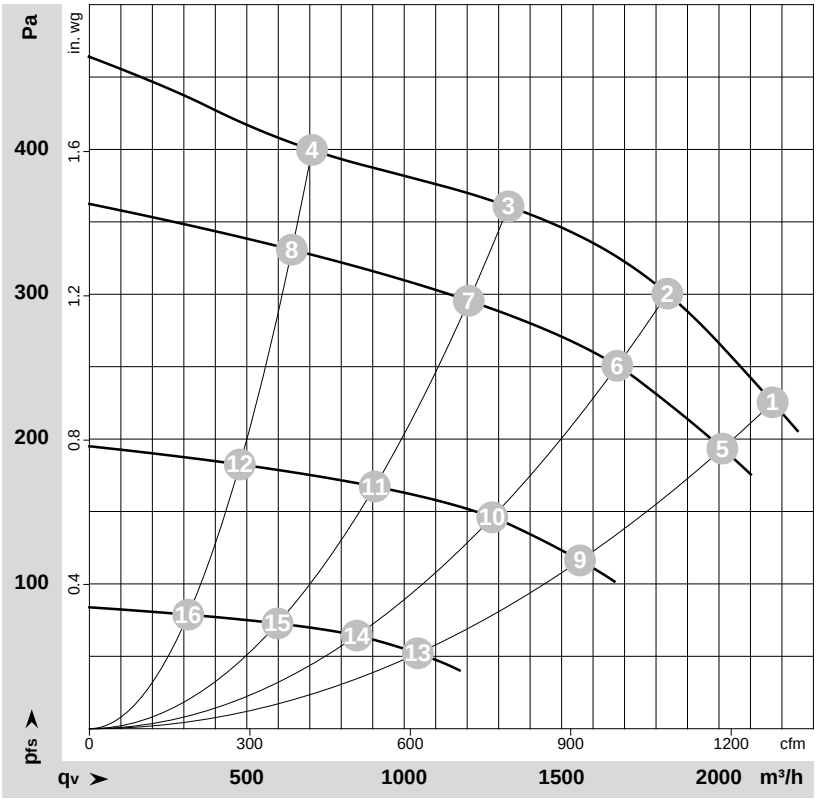
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-131521-1
Measurement: LU-186937-1
Measurement: LU-186939-1
Measurement: LU-186941-1

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

	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	230	50	1640	465	3.00	64	77	2170	225	1275	0.90
2	230	50	1665	399	2.62	63	76	1835	300	1080	1.20
3	230	50	1740	312	2.07	62	75	1330	360	785	1.45
4	230	50	1815	226	1.52	65	77	705	400	415	1.61
5	230	50	1490	356	2.37	63	76	2010	196	1185	0.79
6	230	50	1540	307	2.05	62	75	1675	252	985	1.01
7	230	50	1590	246	1.66	61	74	1205	309	710	1.24
8	230	50	1625	190	1.31	63	75	645	334	380	1.34
9	230	50	1155	164	1.14	56	69	1560	118	920	0.47
10	230	50	1175	137	0.97	55	68	1280	147	755	0.59
11	230	50	1200	107	0.78	54	67	905	174	535	0.70
12	230	50	1210	84	0.62	56	68	480	184	280	0.74
13	230	50	770	51	0.41	47	60	1045	53	615	0.21
14	230	50	785	44	0.36	46	58	850	65	500	0.26
15	230	50	795	36	0.30	45	57	600	75	350	0.30
16	230	50	800	31	0.26	46	57	315	79	185	0.32

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