D3G200-BF07-H2

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**D3G200-BF07-H2**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1410
Power consumption	W	500
Current draw	A	2.25
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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}	%	48.5	34
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		58.5	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.25
09 Air flow q_v	m^3/h	1205
09 Pressure increase p_{fs}	Pa	332
10 Speed (rpm) n	min^{-1}	1715
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-155417

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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	IP55
Insulation class	"F"
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	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Operation and alarm display - Tach output - Alarm relay - Integrated PID controller - Power limiter - Motor current limitation - PFC, active - RS-485 MODBUS-RTU - 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 / phase failure detection
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	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	CSA C22.2 No. 77 + CAN/CSA-E60730-1; EAC; UL 1004-7 + 60730-1

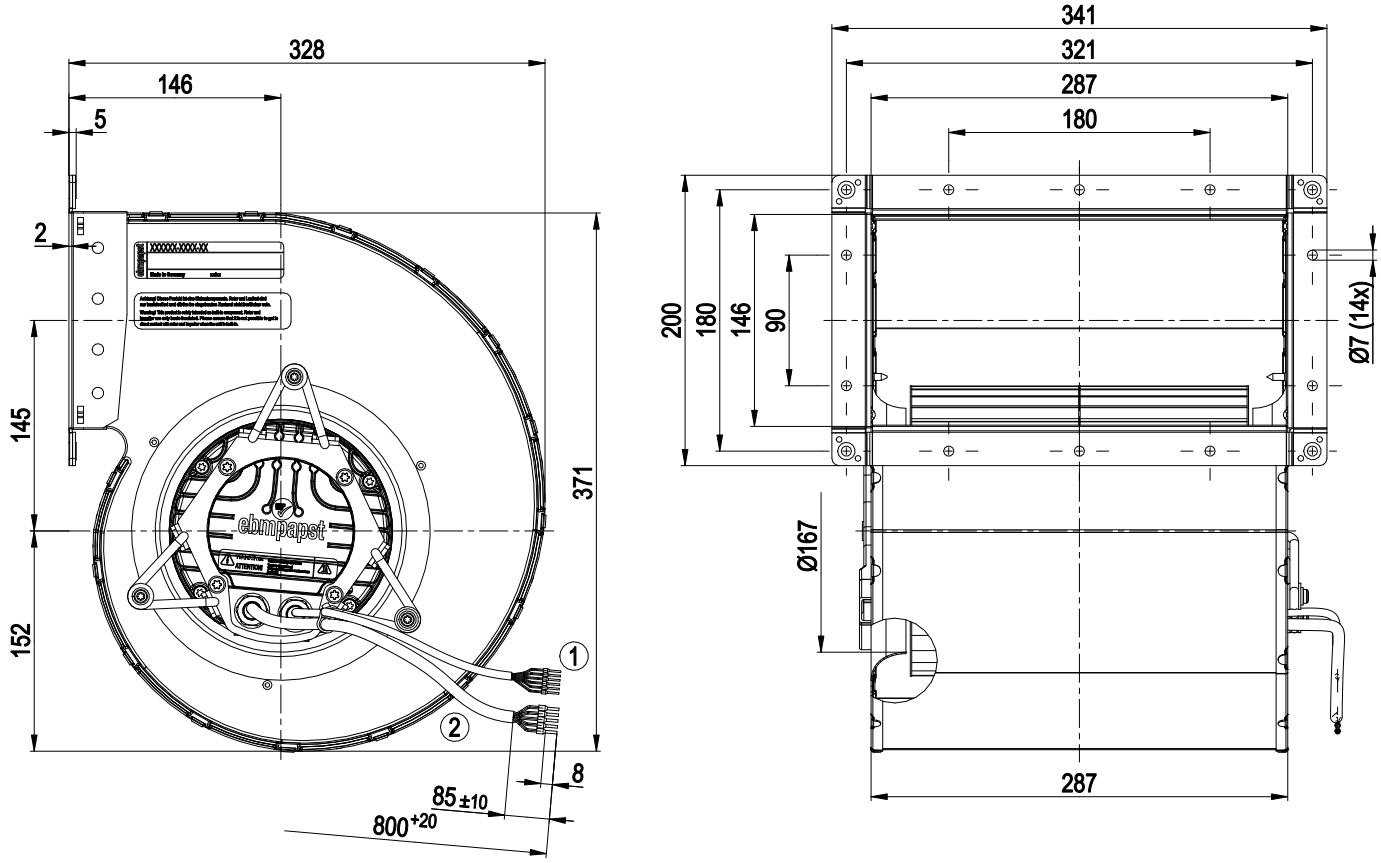
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Product drawing



1	Cable PVC AWG22		6x wire-end ferrule	2	Cable PVC AWG18
	5x wire-end ferrule				

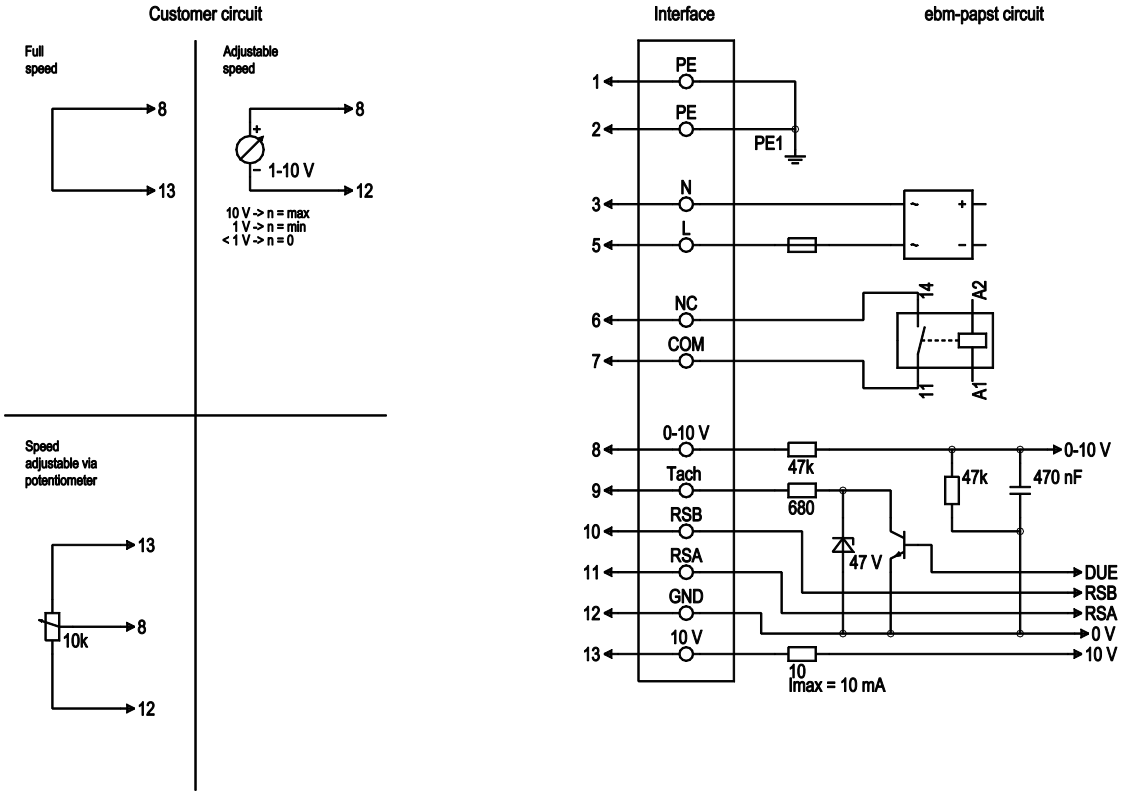
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1, 2	PE	green/yellow	Protective earth
1	3	N	blue	Power supply, neutral conductor, 50/60 Hz
1	5	L	black	Power supply, phase, 50/60 Hz
1	6	NC	white 1	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) / min. 10 mA; basic insulation on supply side and reinforced insulation on control interface side
1	7	COM	white 2	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) / min. 10 mA; basic insulation on supply side and reinforced insulation on control interface side
2	8	0-10 V	yellow	Analog input (set value) SELV, 0-10 V, Ri = 100 kΩ, adjustable curve
2	9	Tacho	gray	Tach output: open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
2	10	RSB	brown	RS485 interface for MODBUS, RSB; SELV
2	11	RSA	white	RS485 interface for MODBUS, RSA; SELV
2	12	GND	blue	Reference ground for control interface, SELV
2	13	+10 V	red	Fixed voltage output 10 VDC, +10 V ±3%, max. 10 mA, short-circuit-proof power supply for external devices (e.g. pot); SELV

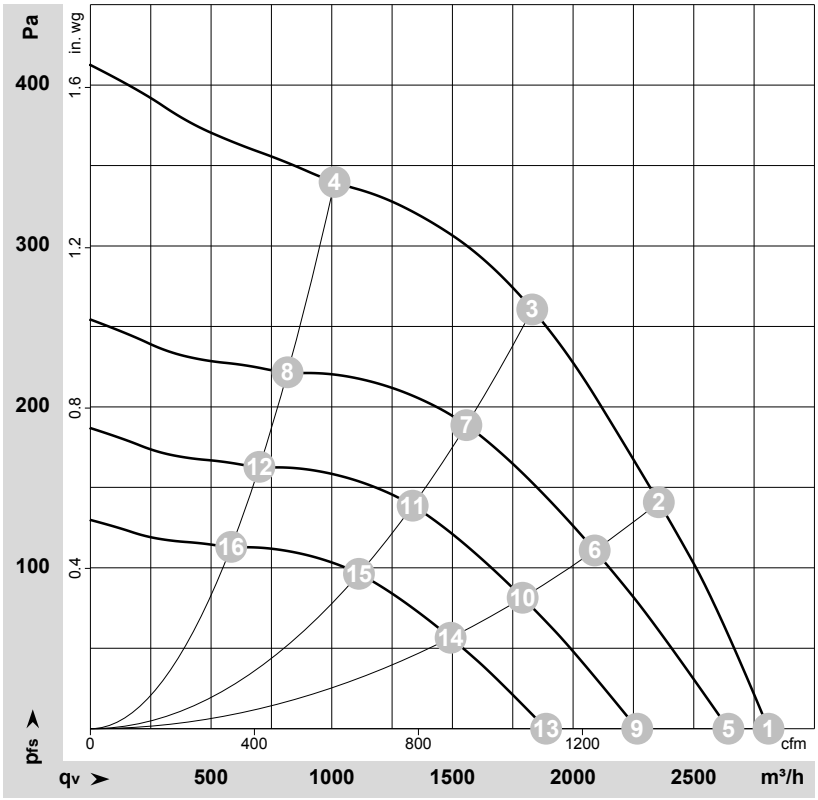
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-155417-1

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

	Wired	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	1~	230	50	1410	500	2.25	67	81	2810	0	1655	0.00
2	1~	230	50	1580	455	1.99	65	78	2355	140	1385	0.56
3	1~	230	50	1645	359	1.58	62	75	1830	260	1080	1.04
4	1~	230	50	1735	232	1.04	60	73	1010	340	595	1.36
5	1~	230	50	1400	429	1.88	65	79	2645	0	1555	0.00
6	1~	230	50	1400	318	1.39	62	75	2090	111	1230	0.45
7	1~	230	50	1400	221	0.97	59	72	1560	189	915	0.76
8	1~	230	50	1400	122	0.54	55	68	815	221	480	0.89
9	1~	230	50	1200	270	1.18	61	76	2265	0	1335	0.00
10	1~	230	50	1200	200	0.88	58	71	1790	81	1055	0.33
11	1~	230	50	1200	139	0.61	55	68	1335	139	785	0.56
12	1~	230	50	1200	77	0.34	51	64	700	162	410	0.65
13	1~	230	50	1000	157	0.68	57	71	1890	0	1110	0.00
14	1~	230	50	1000	116	0.51	53	67	1495	57	880	0.23
15	1~	230	50	1000	81	0.35	50	63	1115	97	655	0.39
16	1~	230	50	1000	44	0.20	47	60	585	113	345	0.45

Wired = Wiring · 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

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