

D3G200-DF07-H1 ebmpapst Datasheet

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## Nominal data

<b>Type</b>	<b>D3G200-DF07-H1</b>	
<b>Motor</b>	<b>M3G084-FA</b>	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min <sup>-1</sup>	1410
Power consumption	W	500
Current draw	A	2.25
Min. back pressure	Pa	0
Min. back pressure	inH <sub>2</sub> O	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 ErP Directive

		Actual	Req. 2015			
01 Overall efficiency $\eta_{es}$	%	46.3	34.4	09 Power consumption $P_{ed}$	kW	0.3
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	1390
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	321
04 Efficiency grade N		55.9	44	10 Speed (rpm) n	min <sup>-1</sup>	1660
05 Variable speed drive		Yes		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 =  $1 + p_s / 100\,000\text{ Pa}$

LU-165840



# EC centrifugal fan

forward-curved, dual-intake  
with housing (large flange)

## Technical description

<b>Weight</b>	10.6 kg
<b>Fan size</b>	200 mm
<b>Rotor surface</b>	Painted black
<b>Electronics housing material</b>	Die-cast aluminum
<b>Impeller material</b>	Sheet steel, galvanized
<b>Motor suspension</b>	Motor mounted on brackets for one-sided vibration damping
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP55
<b>Insulation class</b>	"F"
<b>Moisture (F) / Environmental (H) protection class</b>	F3-1
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	-40 °C
<b>Installation position</b>	Shaft horizontal or rotor on top; rotor on bottom on request
<b>Condensation drainage holes</b>	None
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing; (sealed)
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 10 mA</li> <li>- Operation and alarm display</li> <li>- Alarm relay</li> <li>- Integrated PID controller</li> <li>- Power limiter</li> <li>- Motor current limitation</li> <li>- PFC, active</li> <li>- RS-485 MODBUS-RTU</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Thermal overload protection for electronics/motor</li> <li>- Line undervoltage / phase failure detection</li> </ul>
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	<= 3.5 mA
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 61800-5-1; EN 60335-1; CE
<b>Approval</b>	EAC; UL 1004-7 + 60730; C22.2 No.77 + CAN/CSA-E60730-1

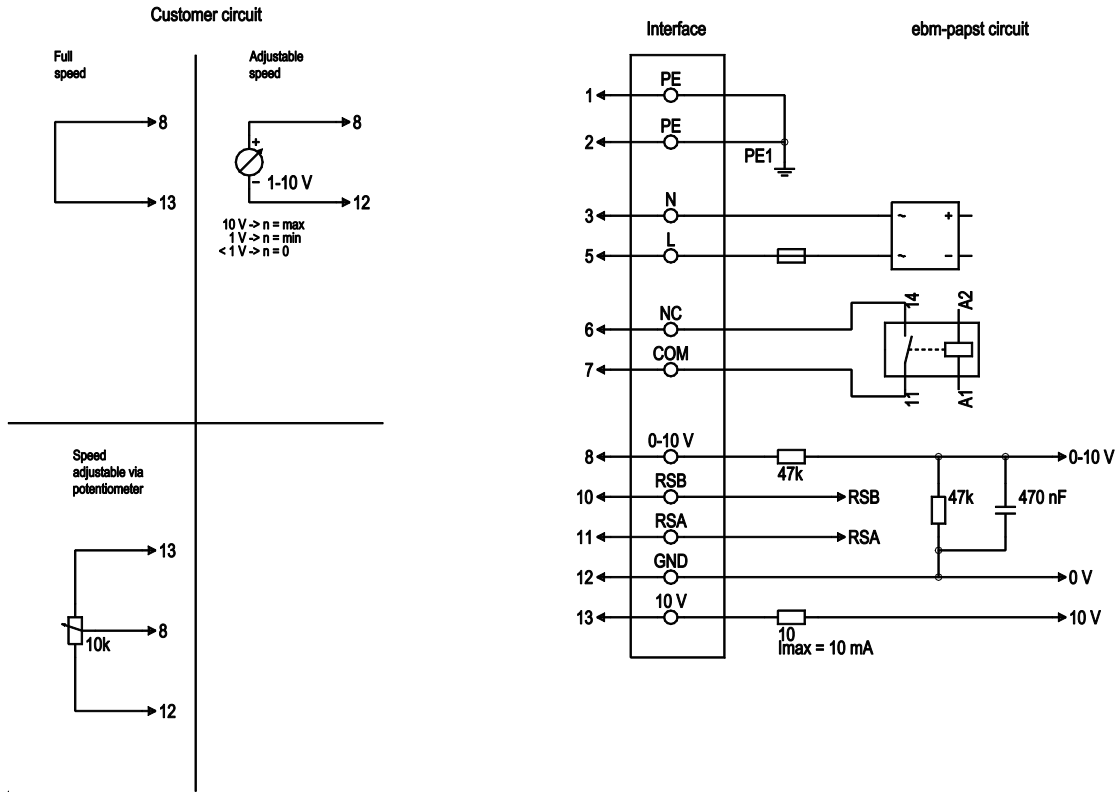




# EC centrifugal fan

forward-curved, dual-intake  
with housing (large flange)

## Connection diagram



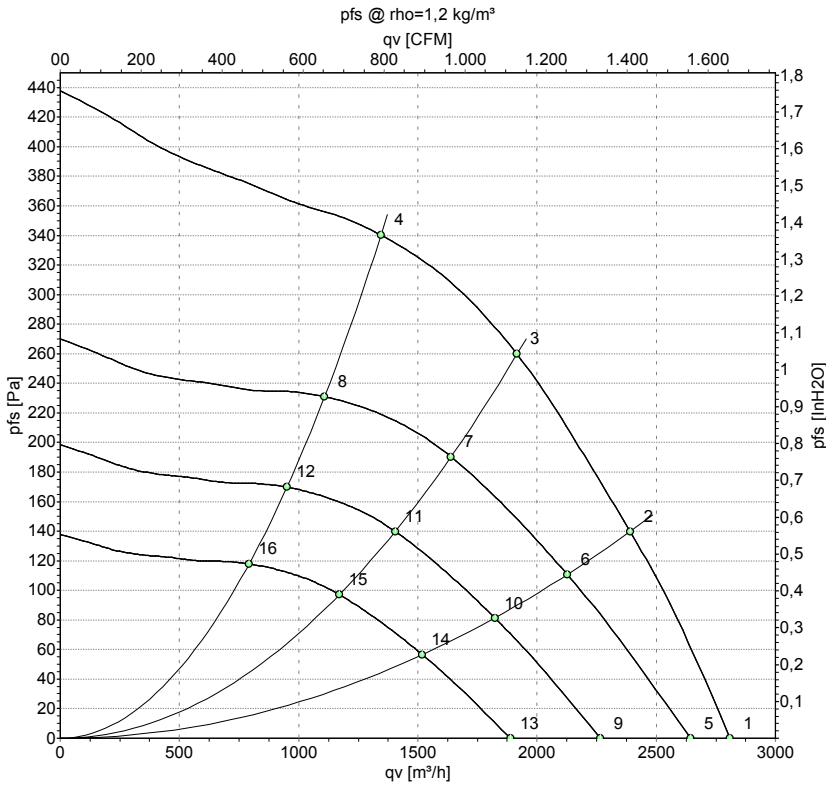
No.	Conn.	Designation	Color	Function/assignment
1	1, 2	PE	green/yellow	Protective earth
1	3	N	blue	Power supply, neutral conductor, 50/60 Hz
1	5	L	black	Power supply, phase, 50/60 Hz
1	6	NC	white 1	Status relay, floating status contact; break for failure, contact rating 250 VAC / 2A (AC1) / min. 10 mA,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



# EC centrifugal fan

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with housing (large flange)

## Curves: Air performance 50 Hz



Measurement: LU-155417-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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 <sub>ed</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	qv	p <sub>fs</sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	CFM	inH2O
1	230	50	1410	500	2.25	67	81	2810	0	1655	0.00
2	230	50	1575	461	2.02	65	78	2390	140	1405	0.56
3	230	50	1635	375	1.64	63	76	1915	260	1130	1.04
4	230	50	1700	281	1.24	61	73	1345	340	790	1.36
5	230	50	1400	429	1.88	65	79	2645	0	1555	0.00
6	230	50	1400	325	1.42	62	75	2125	111	1250	0.45
7	230	50	1400	235	1.03	59	72	1640	190	965	0.76
8	230	50	1400	158	0.69	56	69	1110	231	655	0.93
9	230	50	1200	270	1.18	61	76	2265	0	1335	0.00
10	230	50	1200	205	0.89	58	72	1825	82	1075	0.33
11	230	50	1200	148	0.65	55	68	1405	140	825	0.56
12	230	50	1200	99	0.44	52	65	950	170	560	0.68
13	230	50	1000	157	0.68	57	71	1890	0	1110	0.00
14	230	50	1000	118	0.52	54	67	1520	57	895	0.23
15	230	50	1000	86	0.38	50	63	1170	97	690	0.39
16	230	50	1000	57	0.25	47	60	790	118	465	0.47

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
qv = Air flow · p<sub>fs</sub> = Pressure increase

