G3G180-BD40-72

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

G3G180-BD40-72 ebmpapst Datasheet
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Nominal data

Type	**G3G180-BD40-72**
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}	2600
Power consumption	W	600
Current draw	A	3.9
Min. back pressure	Pa	400
Min. back pressure	in. wg	1.61
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

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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	46.3	35
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		55.3	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.37
09 Air flow q_v	m^3/h	755
09 Pressure increase p_{fs}	Pa	741
10 Speed (rpm) n	min^{-1}	2815
11 Specific ratio*		1.01

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-73319

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Technical description

Weight	7.38 kg
Size	180 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
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 or rotor on top; rotor on bottom on request
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
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

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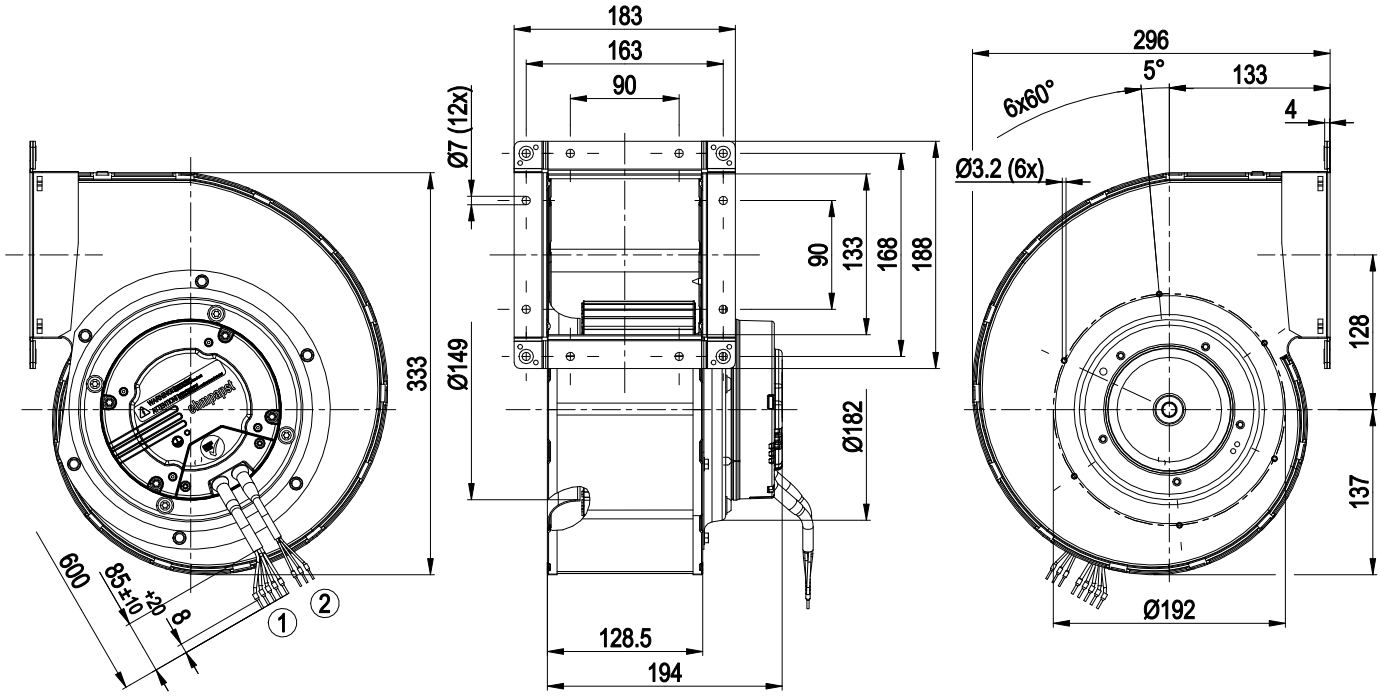
Product drawing



1	Cable PVC AWG18		5x wire-end ferrule	2	Cable PVC AWG22
	3x wire-end ferrule				

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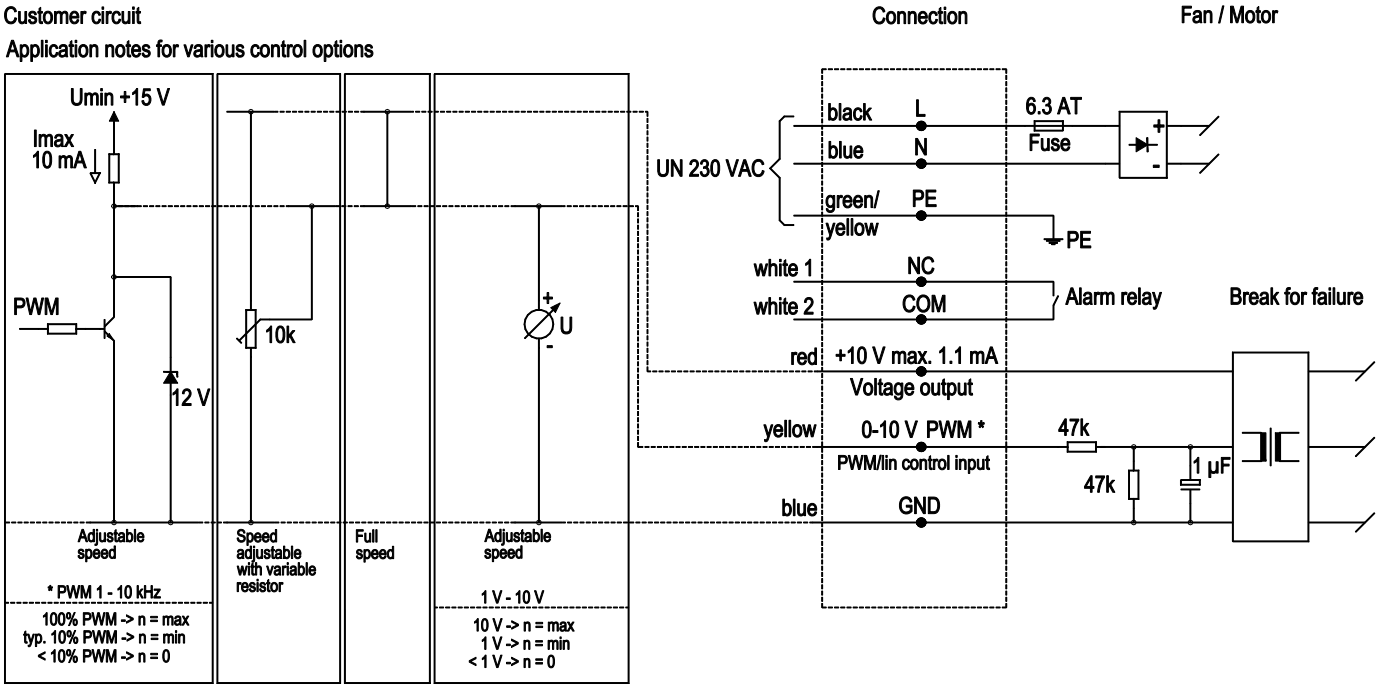
Connection diagram



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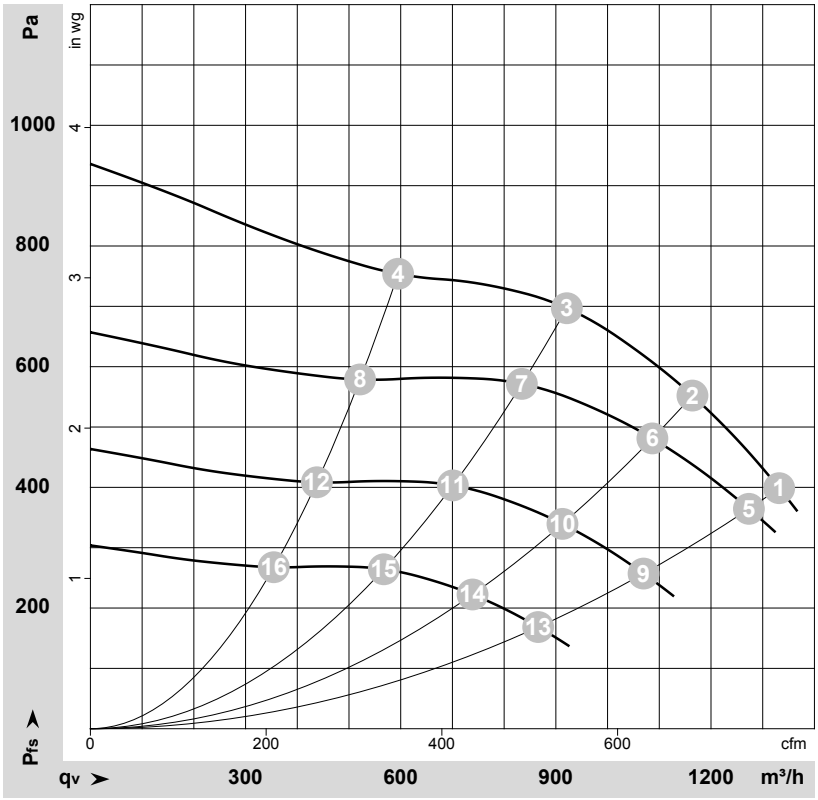
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-73319-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	50	2600	600	3.90	1330	400	785	1.61
2	230	50	2680	529	3.38	1165	550	685	2.21
3	230	50	2760	436	2.76	920	700	540	2.81
4	230	50	2855	325	2.06	595	750	350	3.01
5	230	50	2500	524	3.36	1275	366	750	1.47
6	230	50	2500	431	2.75	1085	481	640	1.93
7	230	50	2500	324	2.05	835	577	490	2.32
8	230	50	2500	219	1.39	520	577	305	2.32
9	230	50	2100	311	1.99	1070	258	630	1.04
10	230	50	2100	255	1.63	915	339	535	1.36
11	230	50	2100	192	1.22	700	407	415	1.63
12	230	50	2100	130	0.82	440	407	260	1.63
13	230	50	1700	165	1.06	865	169	510	0.68
14	230	50	1700	136	0.86	740	222	435	0.89
15	230	50	1700	102	0.65	565	267	335	1.07
16	230	50	1700	69	0.44	355	267	210	1.07

U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase