G3G180-BD43-72

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

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Amtsgericht (court of registration) Stuttgart · HRA 590344

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**G3G180-BD43-72**
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}	2450
Power consumption	W	510
Current draw	A	3.15
Min. back pressure	Pa	300
Min. back pressure	in. wg	1.2
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}	%	46.4	34.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		55.9	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.31
09 Air flow q_v	m^3/h	760
09 Pressure increase p_{fs}	Pa	628
10 Speed (rpm) n	min^{-1}	2605
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-111416

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Technical description

Weight	7.5 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
Approval	UL 1004-3 + 60730-1; CSA C22.2 No. 77 + CAN/CSA-E60730-1

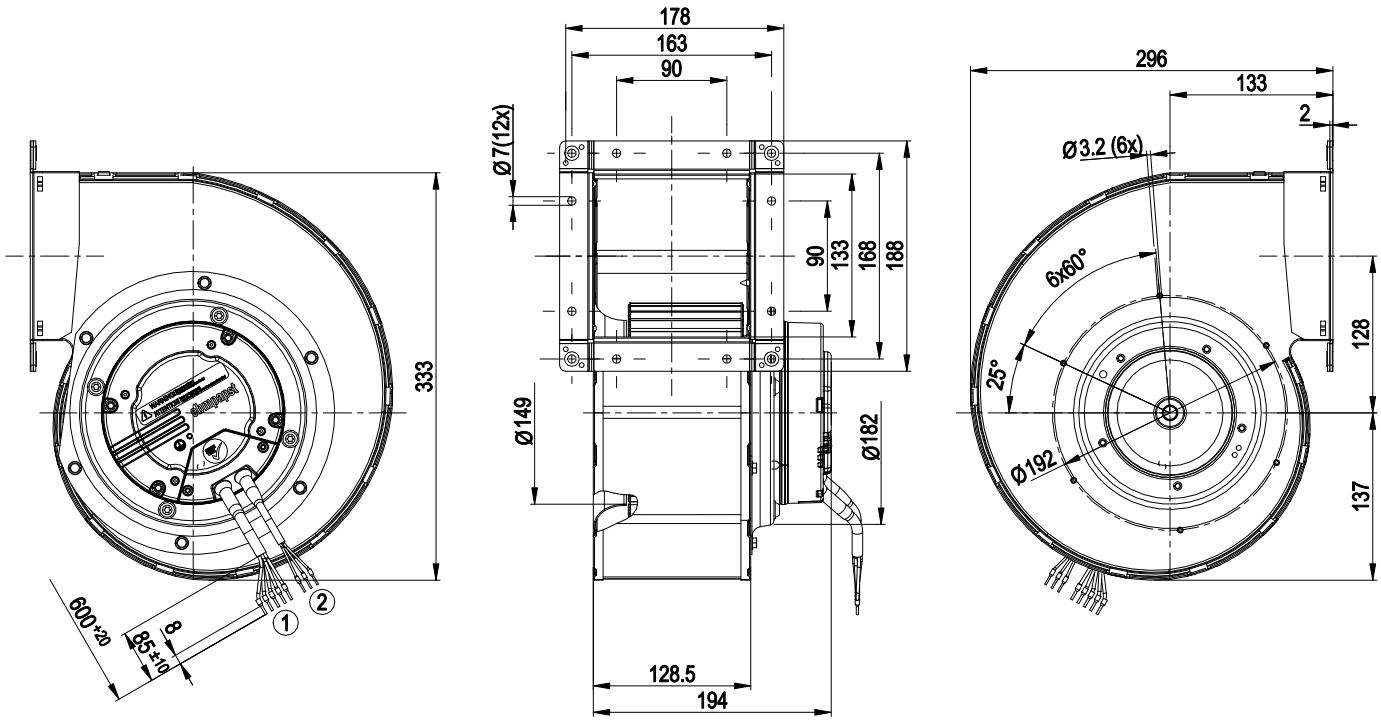
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Product drawing



1	Cable PVC AWG 18, 5x crimped ferrules
2	Cable PVC AWG 22, 3x crimped ferrules

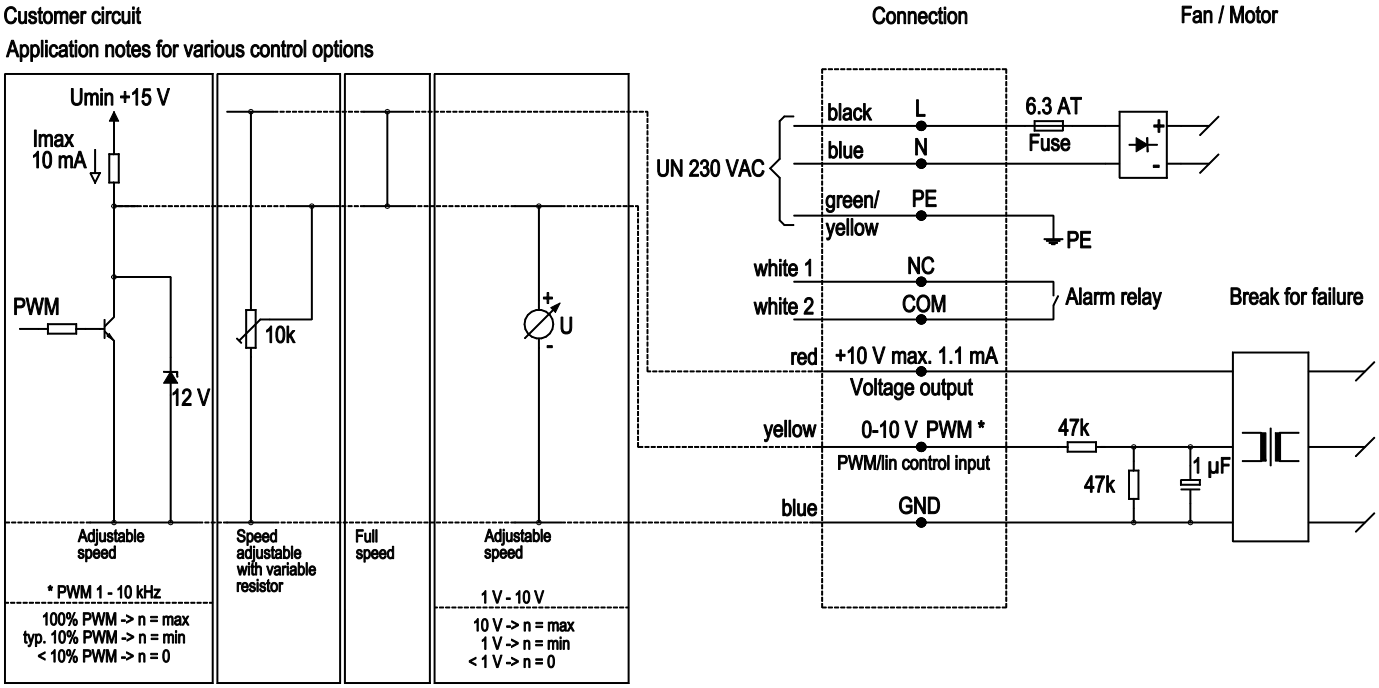
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Connection diagram



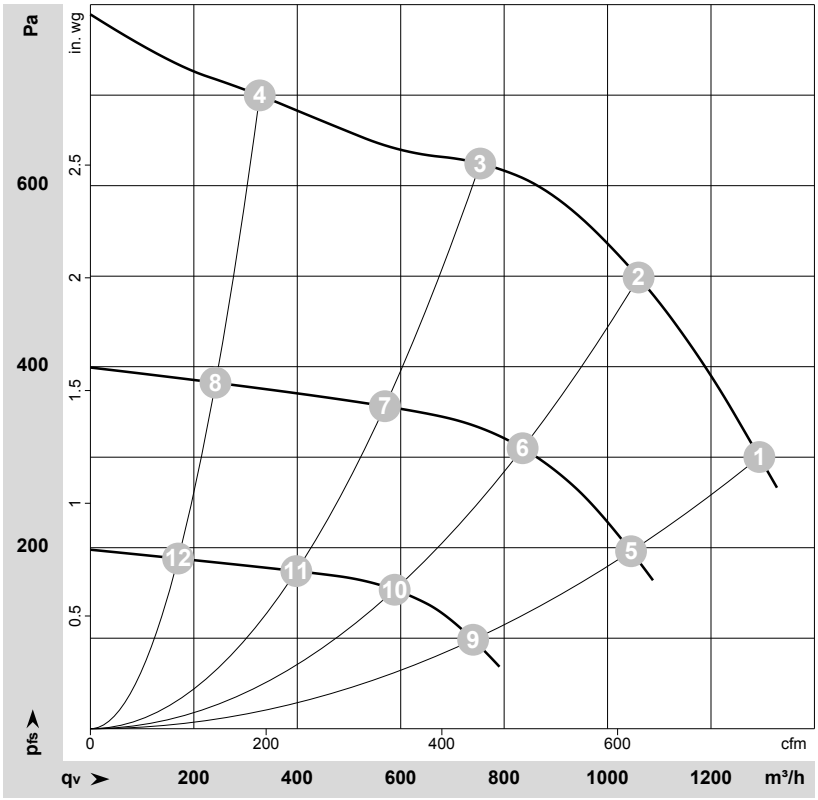
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-111416-1
Measurement: LU-112209-1
Measurement: LU-112210-1

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	2450	510	3.15	77	82	1295	300	760	1.20
2	1~	230	50	2525	419	2.69	75	80	1060	500	625	2.01
3	1~	230	50	2605	318	2.05	72	78	755	625	445	2.51
4	1~	230	50	2700	211	1.40	74	79	325	700	190	2.81
5	1~	230	50	2000	261	1.75	71	76	1045	210	615	0.84
6	1~	230	50	2000	194	1.31	68	74	835	320	490	1.28
7	1~	230	50	2000	124	0.88	65	72	570	361	335	1.45
8	1~	230	50	2000	93	0.68	65	72	240	383	140	1.54
9	1~	230	50	1400	93	0.68	62	67	740	108	435	0.43
10	1~	230	50	1400	73	0.54	59	65	590	157	345	0.63
11	1~	230	50	1400	45	0.35	55	62	400	175	235	0.70
12	1~	230	50	1400	39	0.31	56	62	170	188	100	0.75

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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