D3G318-BB34-11

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

D3G318-BB34-11 ebmpapst Datasheet
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Nominal data

Type	**D3G318-BB34-11**
Motor	**M3G112-GA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	850
Power input	W	750
Current draw	A	3.4
Min. back pressure	Pa	150
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

		Actual	Request 2015
01 Overall efficiency η_{es}	%	56.6	35.3
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		65.3	44
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.42
09 Air flow q_v	m^3/h	2510
09 Pressure increase p_{fs}	Pa	312
10 Speed (rpm) n	min^{-1}	970
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-176680

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Technical features

Mass	22.8 kg
Size	318 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet steel, galvanised
Housing material	Sheet steel, galvanised
Motor suspension	Motor anti-vibration mounted on one side via brackets
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Alarm relay - Motor current limit - PFC, active - Soft start - Control input 0-10 VDC Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage / phase failure detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	CE
Approval	EAC

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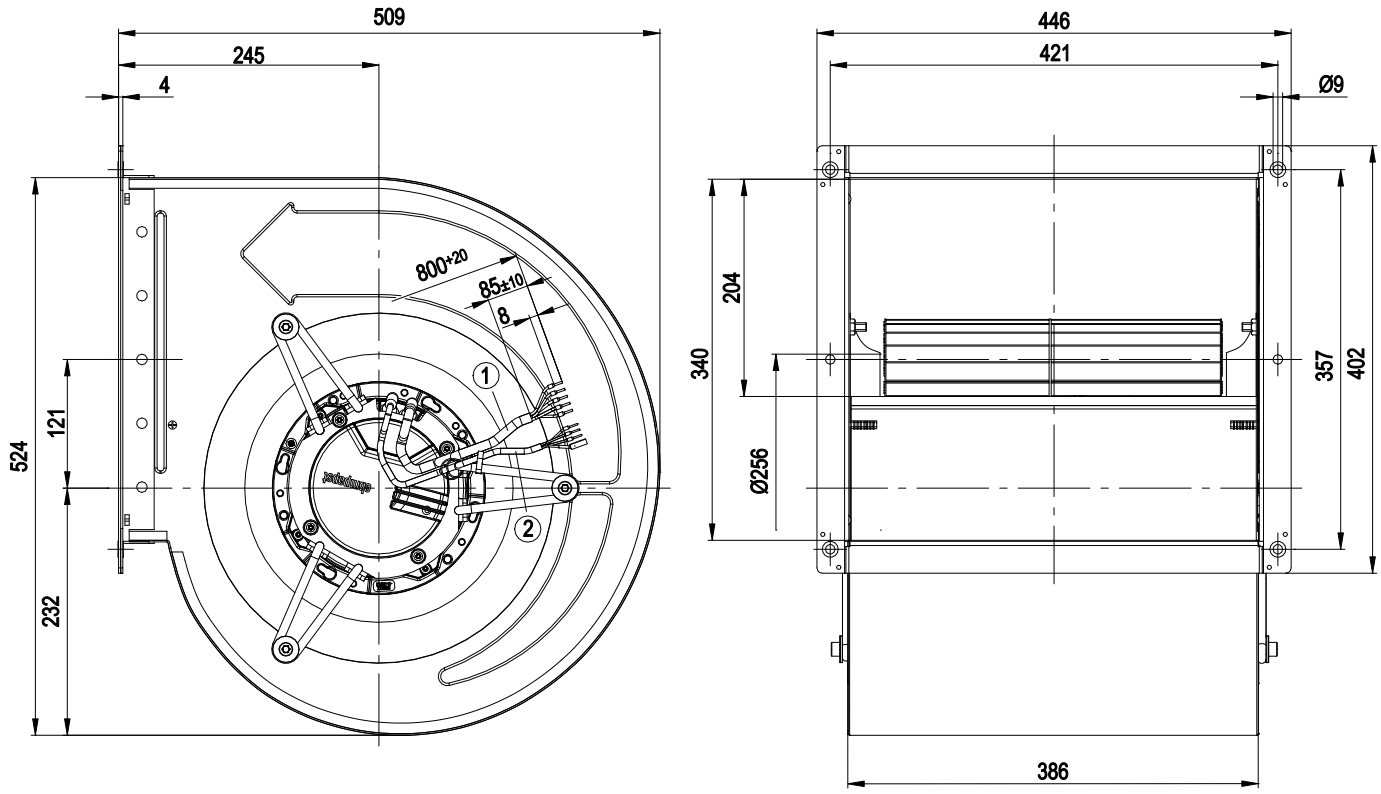
Product drawing



Cable length from electronics enclosure: 800+20 mm

1	Connection line PVC AWG18, 5x crimped core-end sleeves
2	Connection line PVC AWG22, 3x crimped core-end sleeves

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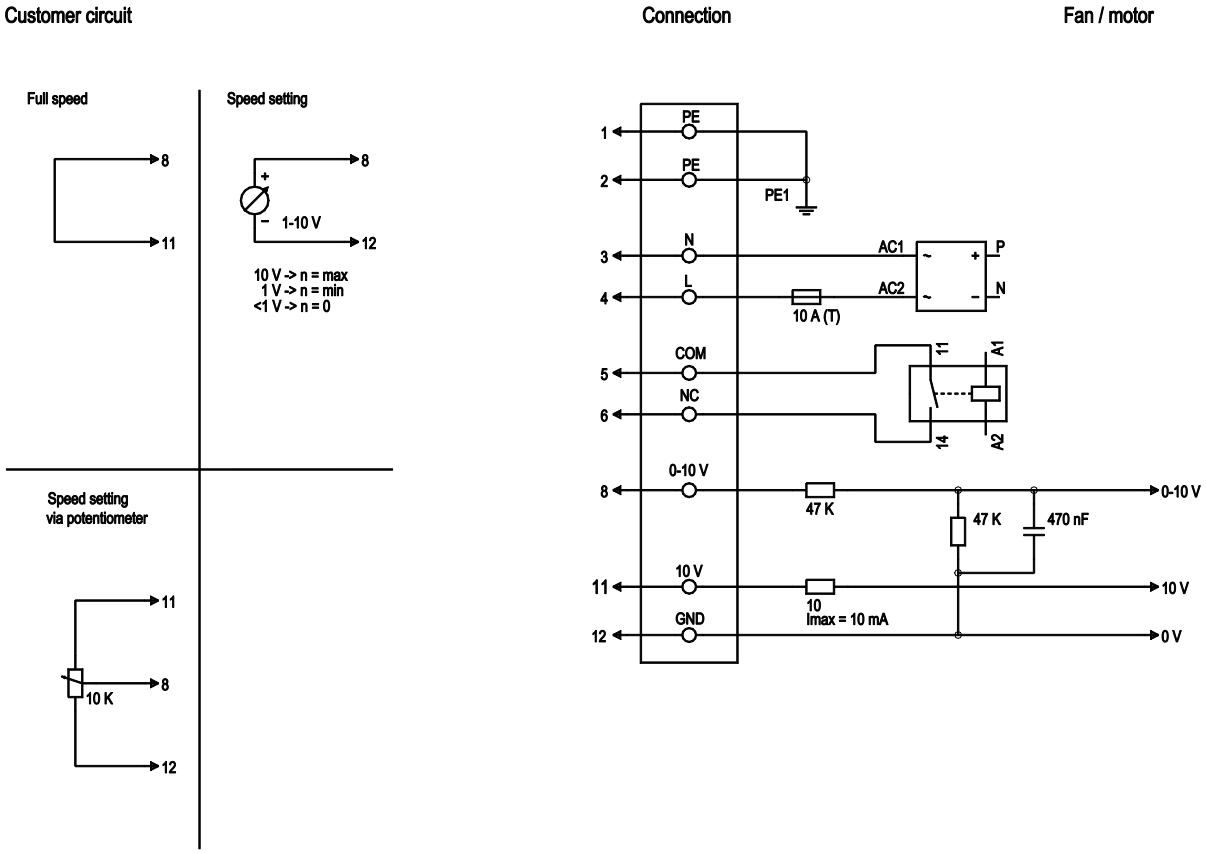
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
1	1,2	PE	green/yellow	Protective earth
1	3	N	blue	Supply voltage, neutral conductor, 50/60 Hz
1	4	L	black	Supply voltage, phase, 50/60 Hz
1	5	COM	white 1	Floating status message contact, break for failure (2 A, max. 250 VAC, min. 10 mA, AC1)
1	6	NC	white 2	Floating status message contact, break for failure
2	8	0-10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kΩ, SELV
2	11	10 VDC	red	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for external devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference mass for control interface, SELV

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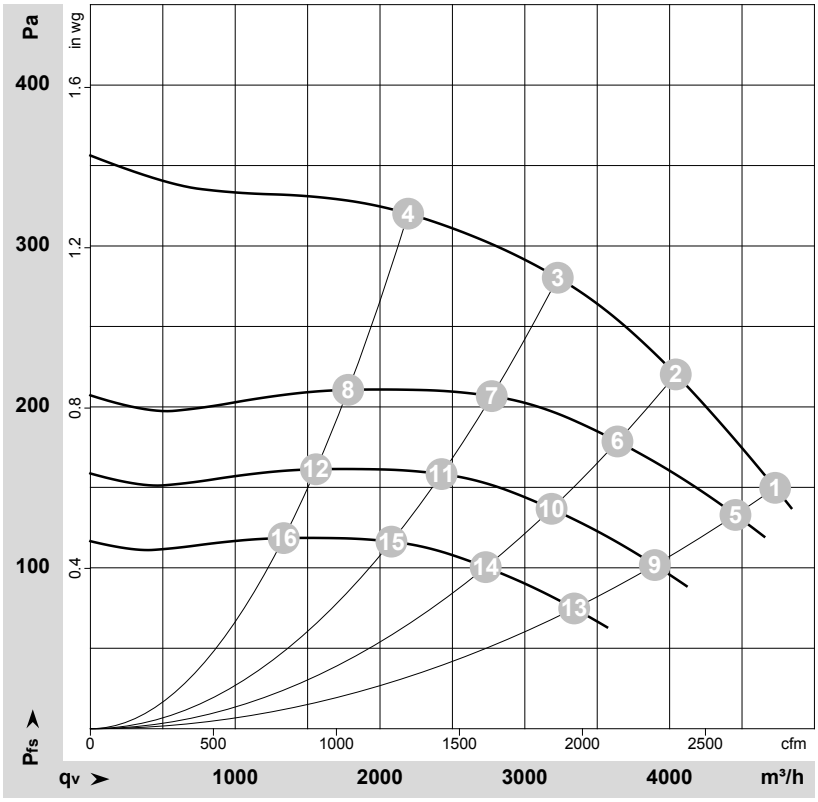
Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-176680-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

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	inH2O
1	230	50	850	750	3.40	63	78	4730	150	2785	0.60
2	230	50	890	643	2.92	60	76	4040	220	2380	0.88
3	230	50	930	532	2.45	58	73	3230	280	1900	1.12
4	230	50	985	386	1.83	57	71	2195	320	1290	1.28
5	230	50	800	638	2.87	61	76	4455	133	2620	0.53
6	230	50	800	470	2.13	57	73	3640	179	2140	0.72
7	230	50	800	338	1.56	54	69	2770	207	1630	0.83
8	230	50	800	207	0.98	52	66	1780	211	1050	0.85
9	230	50	700	427	1.92	58	73	3900	102	2295	0.41
10	230	50	700	315	1.43	54	69	3185	137	1875	0.55
11	230	50	700	226	1.04	51	66	2425	158	1425	0.63
12	230	50	700	138	0.66	48	62	1555	161	915	0.65
13	230	50	600	269	1.21	54	69	3340	75	1965	0.30
14	230	50	600	198	0.90	50	66	2730	101	1605	0.41
15	230	50	600	143	0.66	47	62	2080	116	1225	0.47
16	230	50	600	87	0.41	45	58	1335	118	785	0.47

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow p_{fs} = Pressure increase