D3G318-BB34-11

EC centrifugal fan

forward curved, dual inlet

with housing (flange)



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ErP2015 EXCEEDS THE NORM

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
State		prelim.
Speed	min^{-1}	900
Power input	W	770
Current draw	A	3.3
Min. back pressure	Pa	250
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

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		55.8	28.4	35.4
Efficiency grade N		64.4	37	44
Power input P_{ed}	kW	0.43		
Air flow q_v	m^3/h	2495		
Pressure increase p_{fs}	Pa	315		
Speed n	min^{-1}	990		

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

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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 class	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)
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Approval	GOST

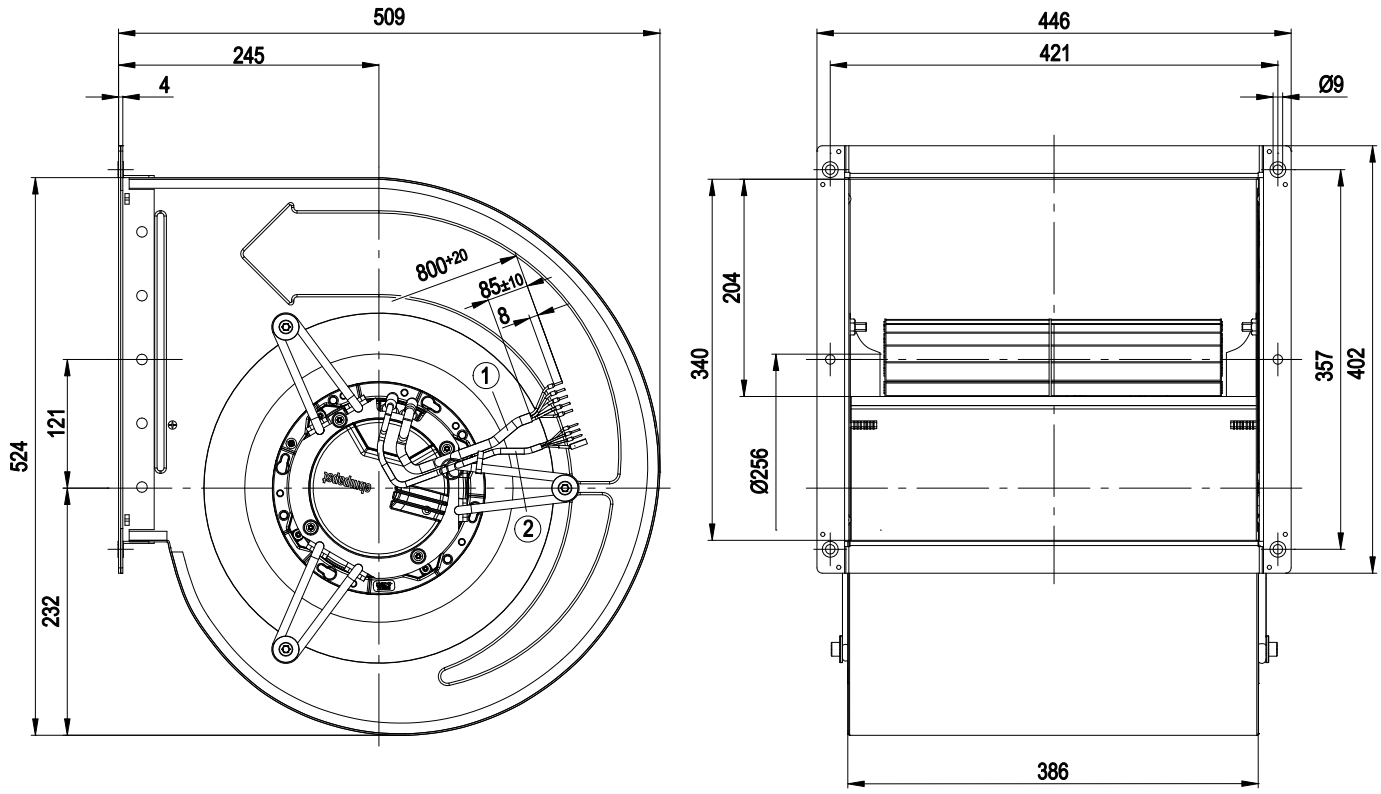
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Product drawing



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

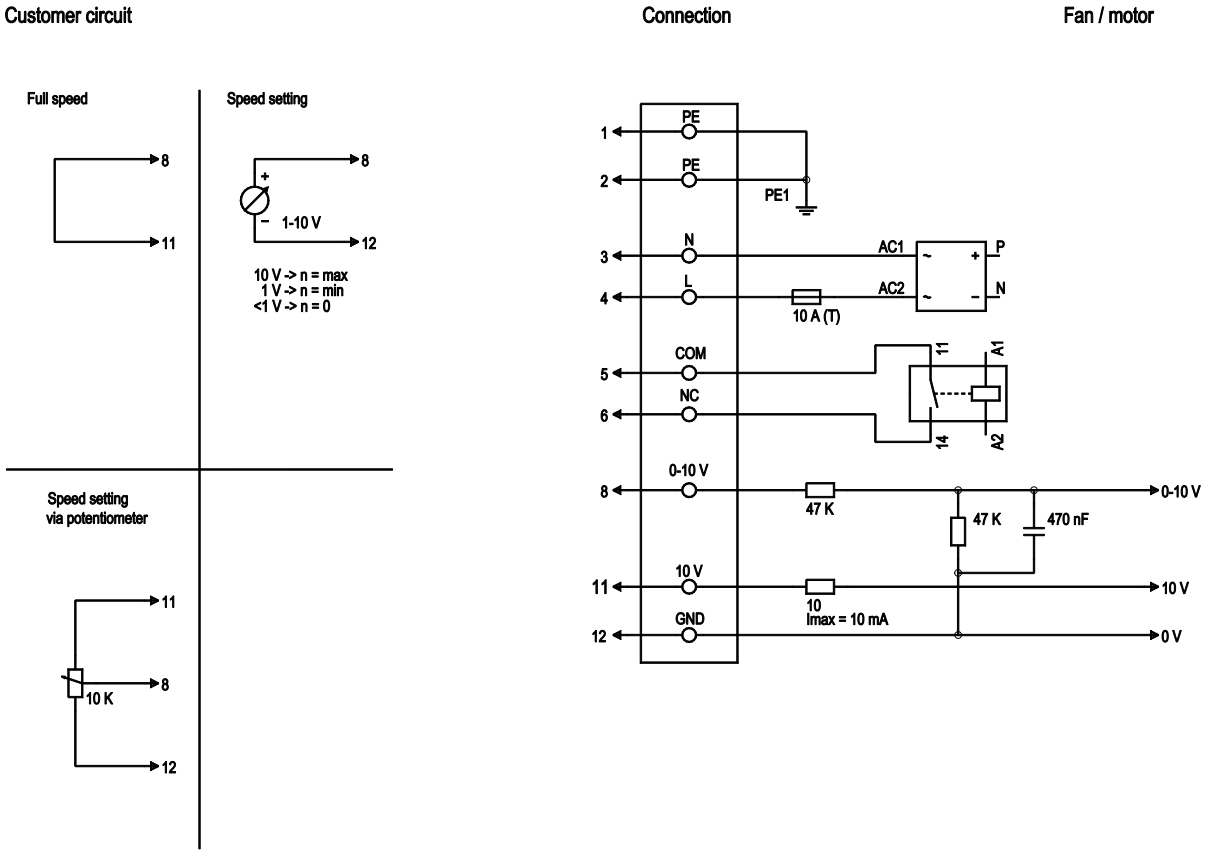
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Connection screen



Line	No.	Signal	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

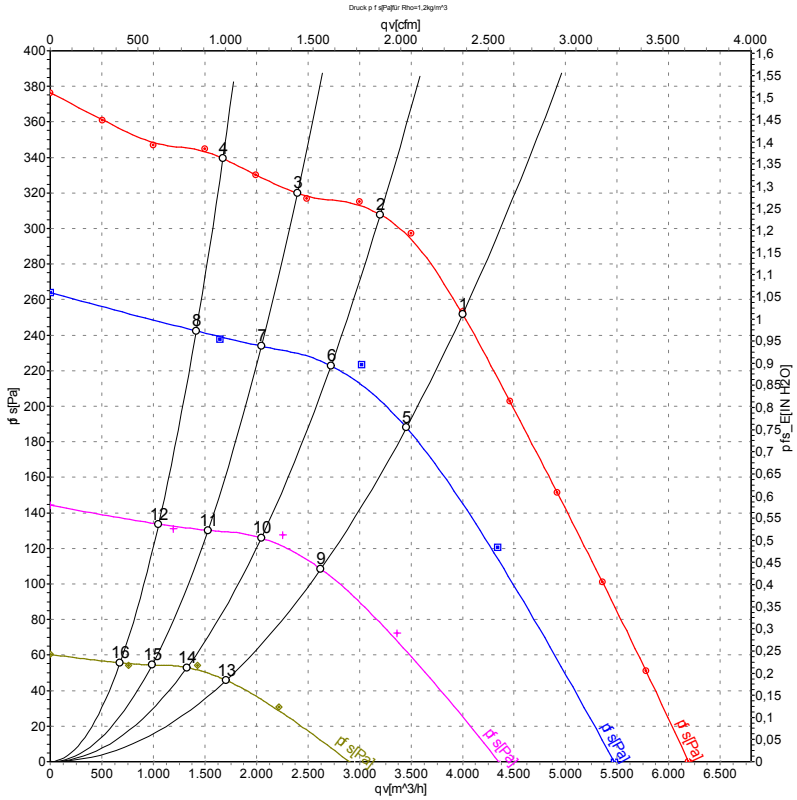
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Charts: Air flow 50 Hz



Measurement: LU-107936
Measurement: LU-107985
Measurement: LU-107986
Measurement: LU-107987

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}	LwA_{out}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	230	50	900	700	3.20	67	75	77	4000	250
2	230	50	955	567	2.57	65	73	77	3200	308
3	230	50	1000	421	1.97	65	73	77	2400	319
4	230	50	1040	346	1.61	64	73	76	1675	340
5	230	50	780	432	1.98	63	71	74	3455	189
6	230	50	810	345	1.64	60	69	71	2725	226
7	230	50	830	280	1.44	60	68	71	2050	234
8	230	50	845	225	1.25	60	68	72	1415	241
9	230	50	600	201	0.94	55	64	66	2625	109
10	230	50	615	157	0.75	53	62	63	2045	128
11	230	50	625	125	0.63	51	60	62	1530	130
12	230	50	635	99	0.53	51	59	61	1050	133
13	230	50	390	65	0.34	44	52	53	1705	46
14	230	50	400	53	0.28	41	50	50	1330	54
15	230	50	410	45	0.24	39	49	49	990	54
16	230	50	415	38	0.21	38	48	48	680	55

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

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