D3G318-AA37-11

EC centrifugal fan

forward curved, dual inlet

with housing (large flange)



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**D3G318-AA37-11**	
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}	960
Power input	W	750
Current draw	A	3.4
Min. back pressure	Pa	260
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}	%	54.4	28.2	35.2
Efficiency grade N		63.2	37	44
Power input P_{ed}	kW	0.41		
Air flow q_v	m^3/h	1995		
Pressure increase p_{fs}	Pa	371		
Speed n	min^{-1}	1110		

Data definition with optimum efficiency. LU-107510
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	21.2 kg
Size	318 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminum
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)
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	EN 61800-5-1
Approval	EAC

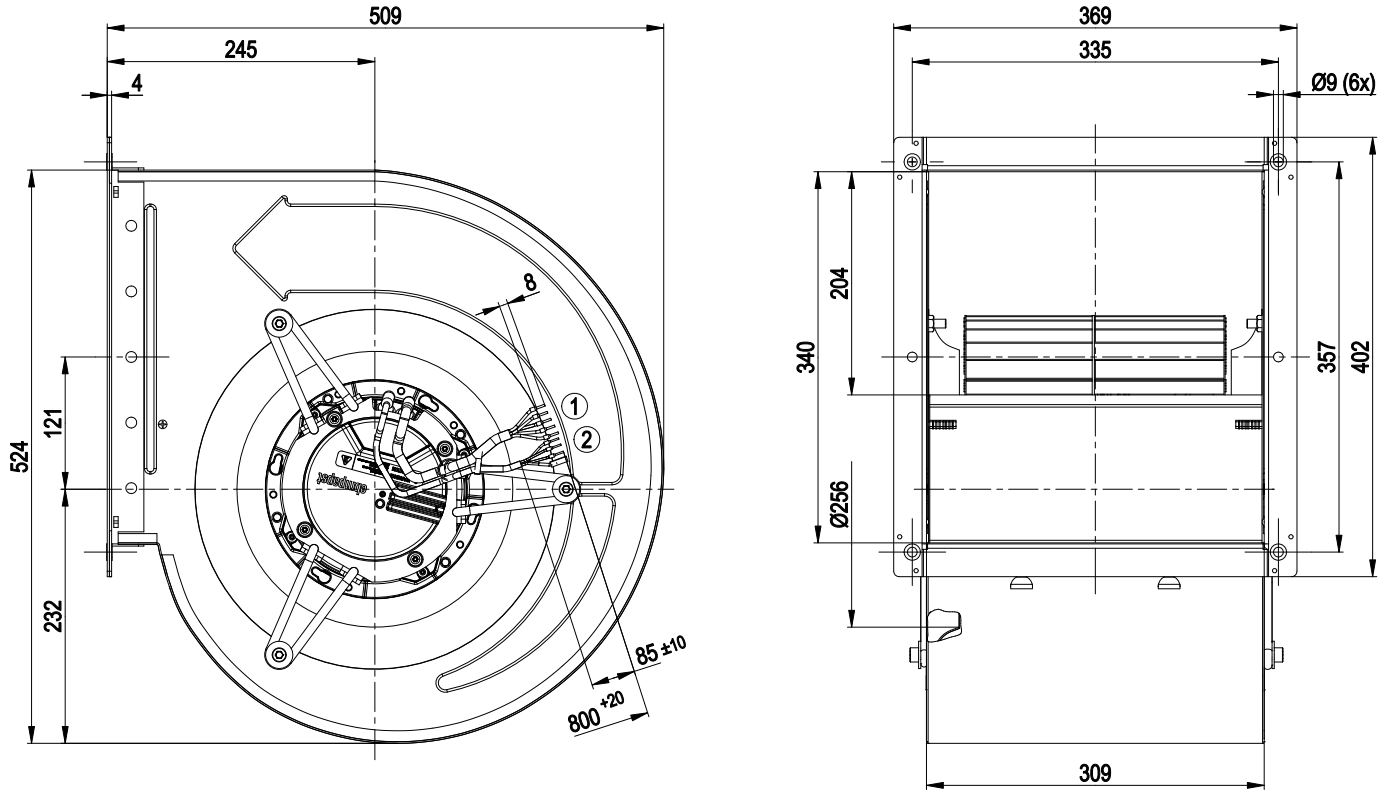
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Product drawing



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

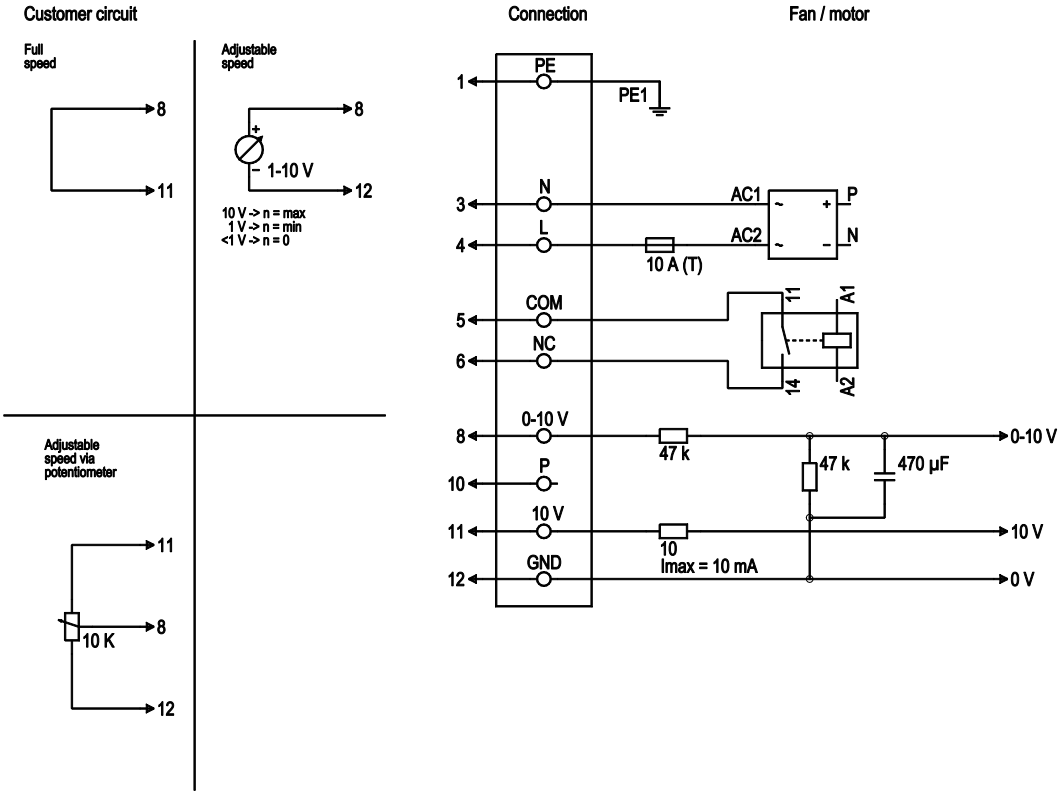
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
1	1	PE	green/yellow	Ground wire
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, normally closed connection (2 A, max. 250 VAC, min. 10 mA, AC1)
1	6	NC	white 2	Floating status message contact, normally closed connection
2	8	0-10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kΩ, SELV
2	10	P	orange	not assigned
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

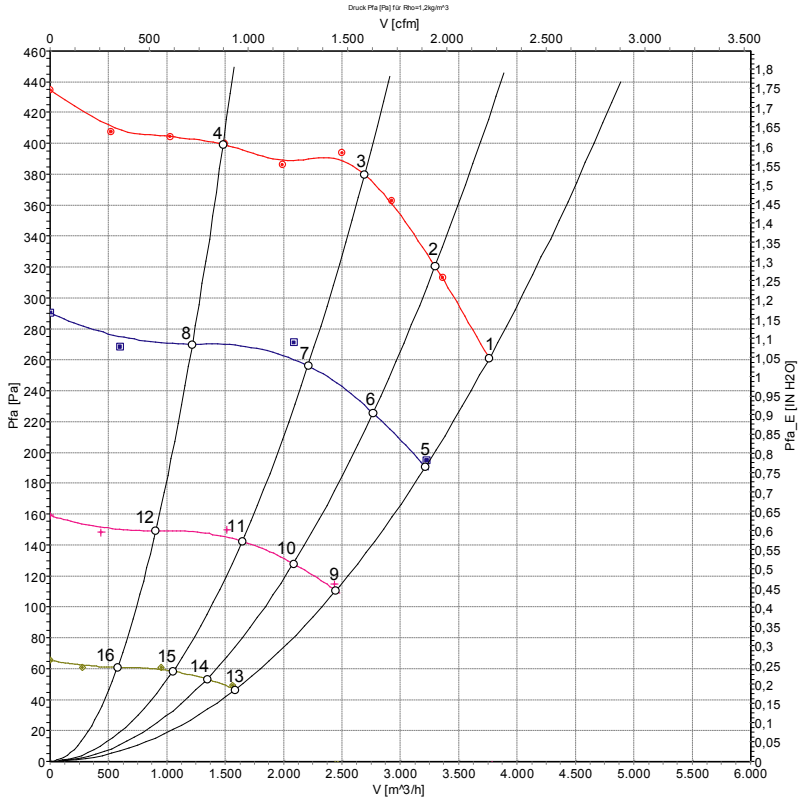
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Charts: Air flow



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	960	750	3.40	70	79	81	3760	260
2	230	50	995	670	3.00	68	77	79	3295	320
3	230	50	1040	570	2.58	67	75	78	2695	380
4	230	50	1085	329	1.70	67	75	78	1485	400
5	230	50	830	456	2.10	66	74	75	3215	196
6	230	50	850	393	1.81	64	72	74	2765	226
7	230	50	880	314	1.46	62	70	72	2210	263
8	230	50	905	210	1.13	60	69	71	1220	270
9	230	50	630	208	0.98	58	67	69	2450	114
10	230	50	645	180	0.88	57	66	67	2085	128
11	230	50	660	146	0.75	55	64	65	1650	145
12	230	50	680	100	0.54	52	61	62	905	149
13	230	50	410	67	0.38	47	55	55	1585	48
14	230	50	420	60	0.34	45	53	53	1345	53
15	230	50	425	52	0.29	43	51	51	1055	59
16	230	50	440	40	0.23	40	50	50	580	61

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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