D3G318-AA33-12

EC centrifugal fan

forward-curved, dual-intake

with housing (large flange)



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Nominal data

Type	**D3G318-AA33-12**
Motor	**M3G112-GA**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1250
Power consumption	W	850
Current draw	A	3.8
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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	57.5	37.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		64.4	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.82
09 Air flow q_v	m^3/h	2850
09 Pressure increase p_{fs}	Pa	546
10 Speed (rpm) n	min^{-1}	1260
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-107087

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Technical description

Weight	21 kg
Fan size	318 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F4-1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal
Condensation drainage holes	None
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- PFC, passive - Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Thermal overload protection for electronics/motor - Alarm relay - Integrated PID controller - RS-485 ebmBUS - Motor current limitation - Soft start - Line undervoltage / phase failure detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Conformity with standards	CE

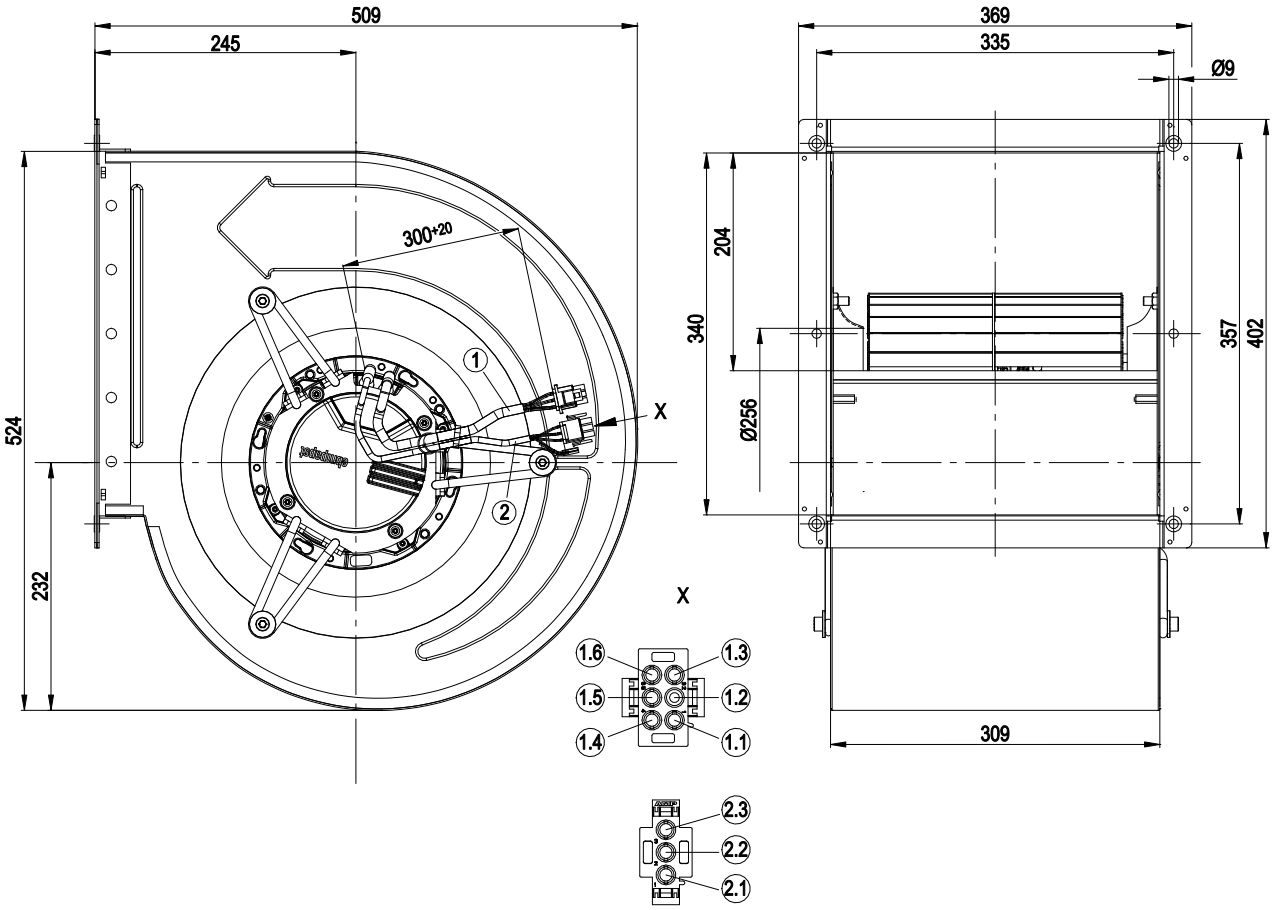
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Product drawing



Cable length measured from electronics housing: 300+20 mm

1	Cable PVC AWG18 with 6-pole connector housing TE 350715-4 and 5x plug pin TE 350218-1
1.1	PE (green/yellow)
1.2	not used
1.3	N (blue)
1.4	L (black)
1.5	NC (white 1)
1.6	COM (white 2)
2	Cable PVC AWG22 with 3-pole connector housing TE 350766-4, 3x plug pin TE 926885-1
2.1	0-10 V / PWM (yellow)
2.2	+10 V (red)
2.3	GND (blue)

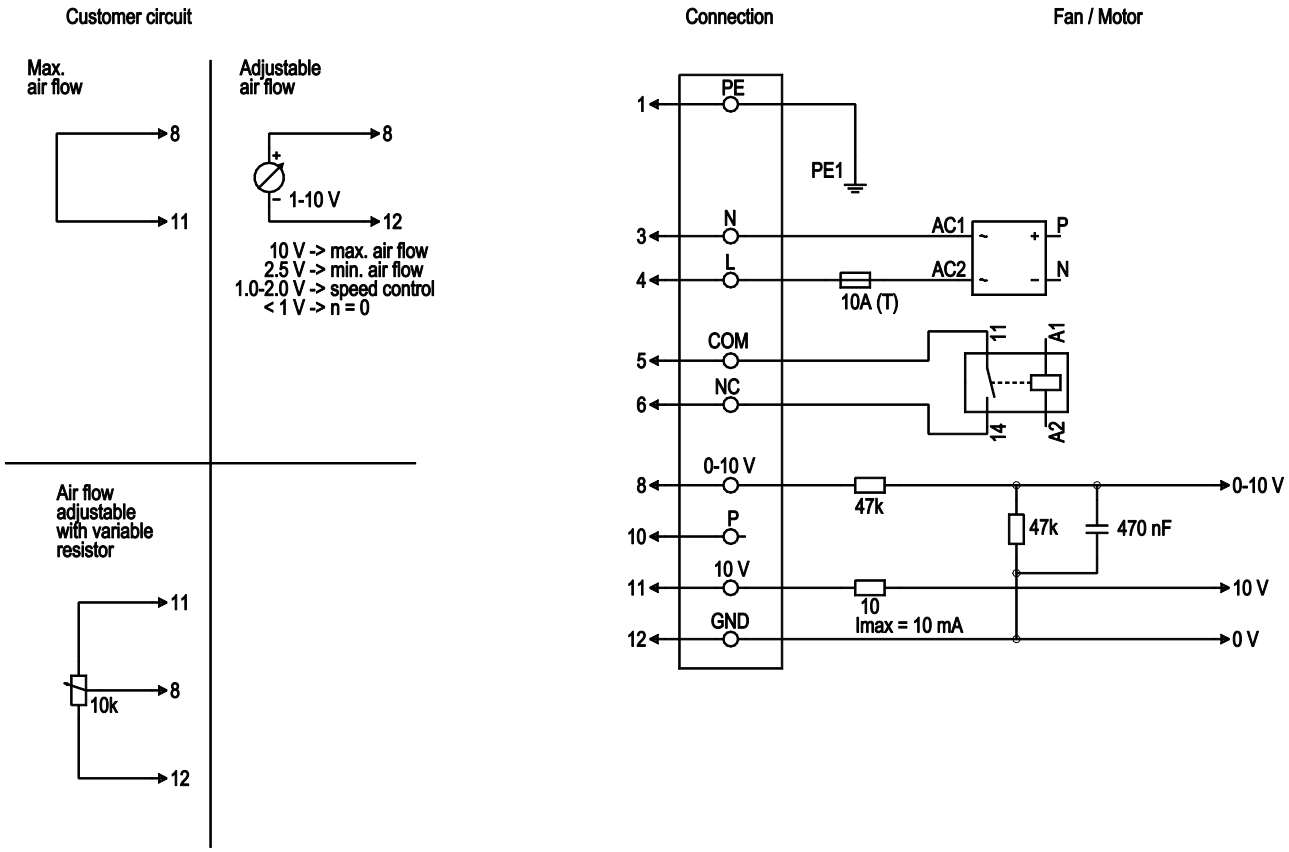
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	PE	green/yellow	Protective earth
1	3	N	blue	Power supply, neutral conductor, 50/60 Hz
1	4	L	black	Power supply, phase, 50/60 Hz
1	5	COM	white 1	Floating status contact, break for failure (2A, max. 250 VAC, min. 10 mA, AC1)
1	6	NC	white 2	Floating status contact, break for failure
2	8	0 - 10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kOhm, SELV
2	10	P	orange	For internal use only, not for customers
2	11	10 VDC	red	Voltage output 10 VDC (±3%), max. 10 mA, power supply for external devices (e.g. potentiometers), SELV
2	12	GND	blue	Reference ground for control interface, SELV

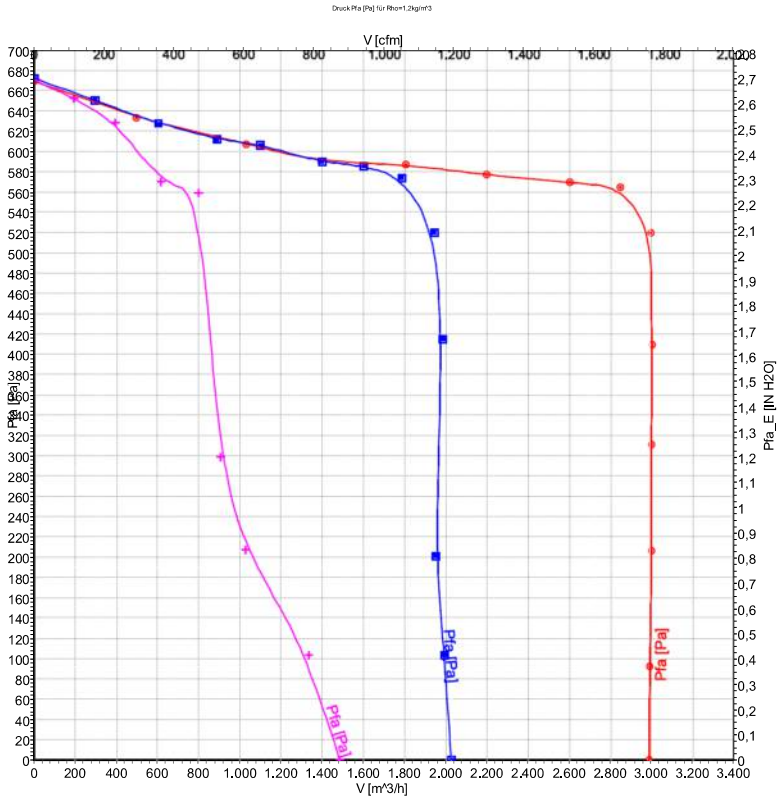
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Curves: Air performance 50 Hz



Measurement: LU-107087-1
Measurement: LU-107089-1
Measurement: LU-107090-1

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.

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