D3G283-AB37-35

EC centrifugal fan

forward-curved, dual-intake

with housing (large flange)

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**D3G283-AB37-35**
Motor	**M3G112-GA**

Phase		3~
Nominal voltage	VAC	400
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	1220
Power consumption	W	1000
Current draw	A	1.7
Min. back pressure	Pa	270
Min. back pressure	inH2O	1.08
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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	52.4	36.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		60.3	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.56
09 Air flow q_v	m^3/h	1995
09 Pressure increase p_{fs}	Pa	485
10 Speed (rpm) n	min^{-1}	1390
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-107486

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Technical description

Weight	19.4 kg
Fan size	283 mm
Rotor surface	Painted black
Terminal box material	PC/ABS plastic
Electronics housing material	Die-cast aluminum, painted black
Impeller material	Sheet steel, painted black
Housing material	Sheet steel, painted black
Guard grille material	Steel, coated with black plastic (RAL 9005)
Motor suspension	Motor mounted on brackets for one-sided vibration damping
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Alarm relay - Integrated PID controller - Motor current limitation - PFC, passive - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for electronics/motor - 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 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
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	EAC

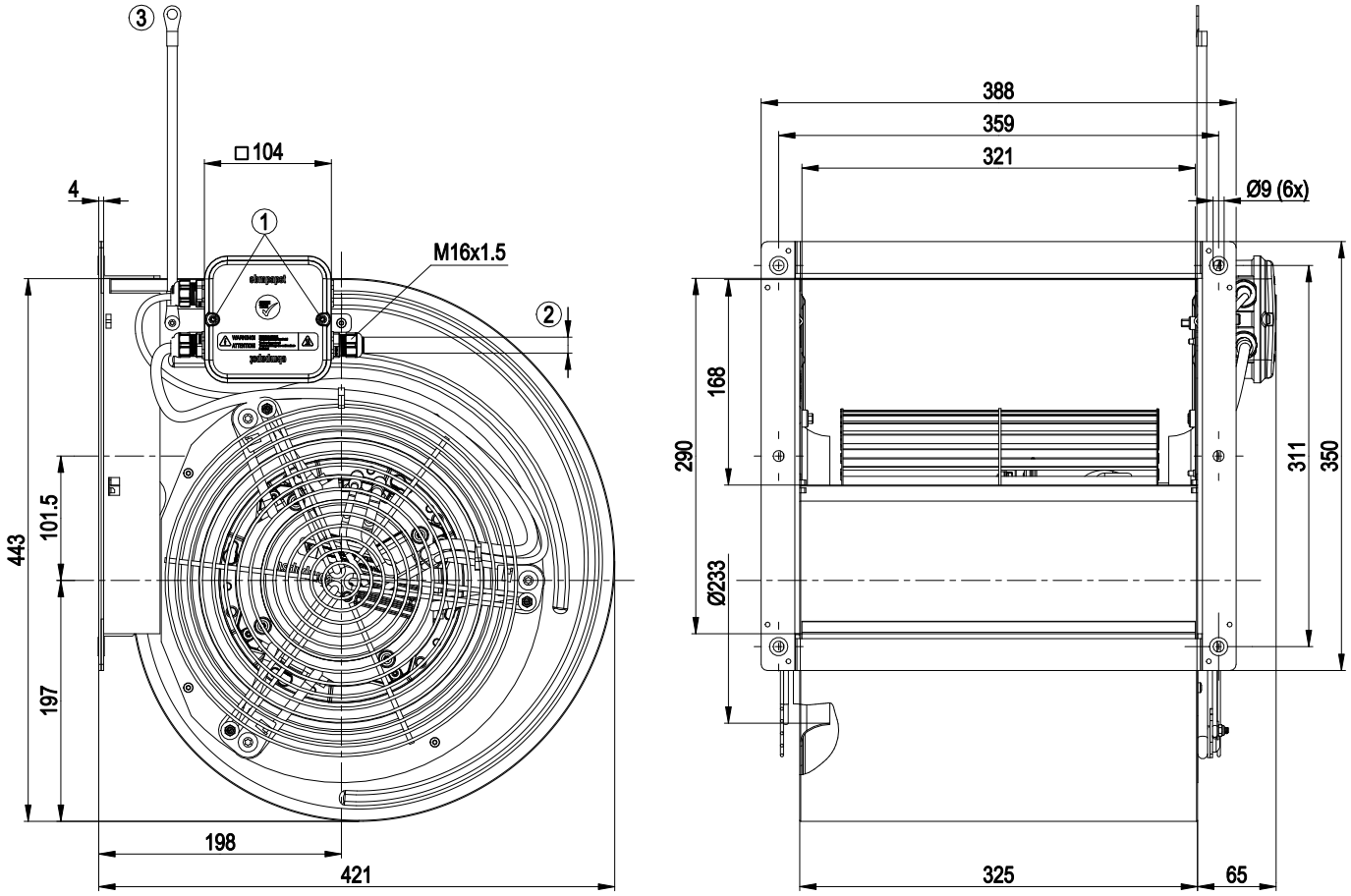
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Product drawing



1	Tightening torque 1 ± 0.1 Nm
2	Cable diameter min. 4 mm, max. 10 mm, tightening torque 2.4 ± 0.4 Nm
3	Ground conductor 450 mm with ring terminal Ø8.5

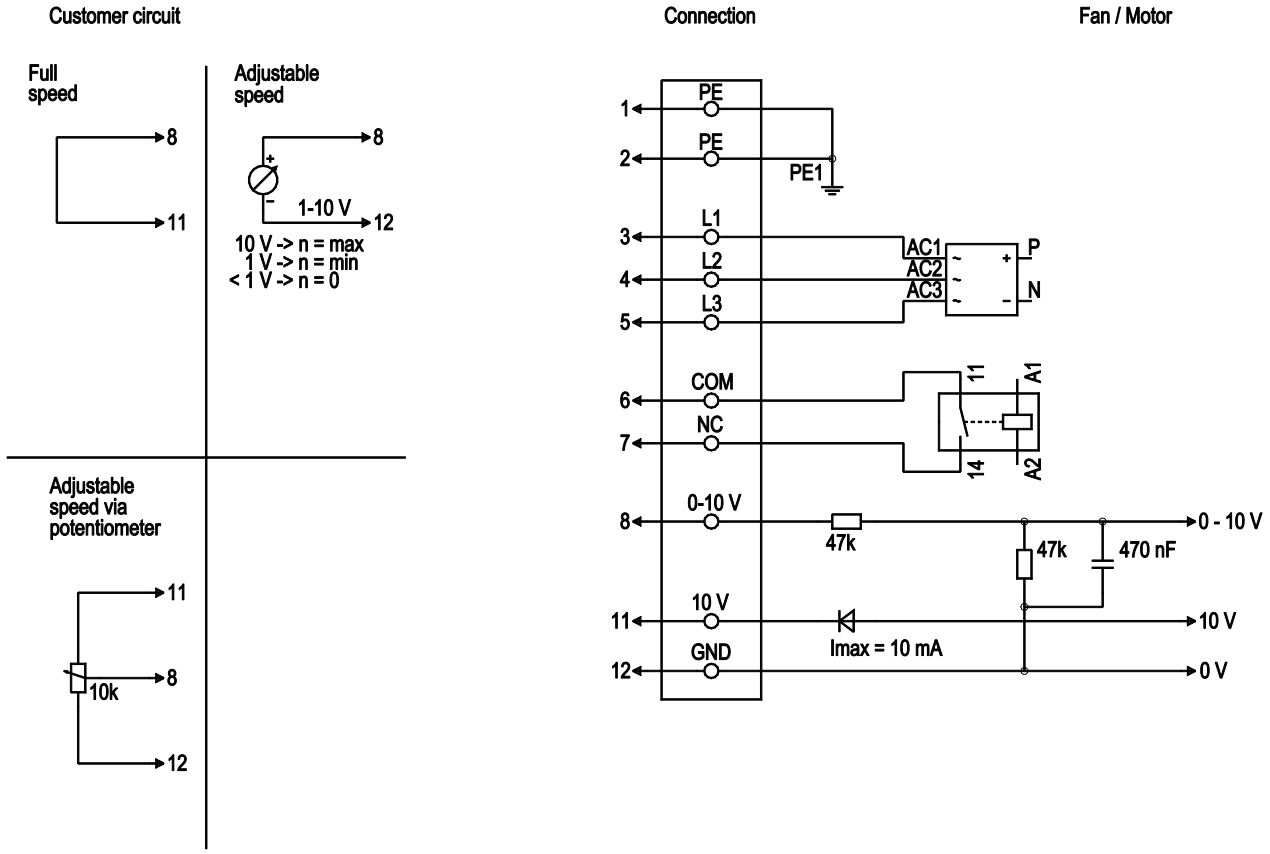
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1, 2	PE	green/yellow	Protective earth
1	3, 4, 5	L1, L2, L3	black	Power supply 50 / 60 Hz
1	6	COM	white 1	Floating status contact, break for failure (2A, max. 250 VAC, min. 10 mA, AC1)
1	7	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	11	+ 10 V	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

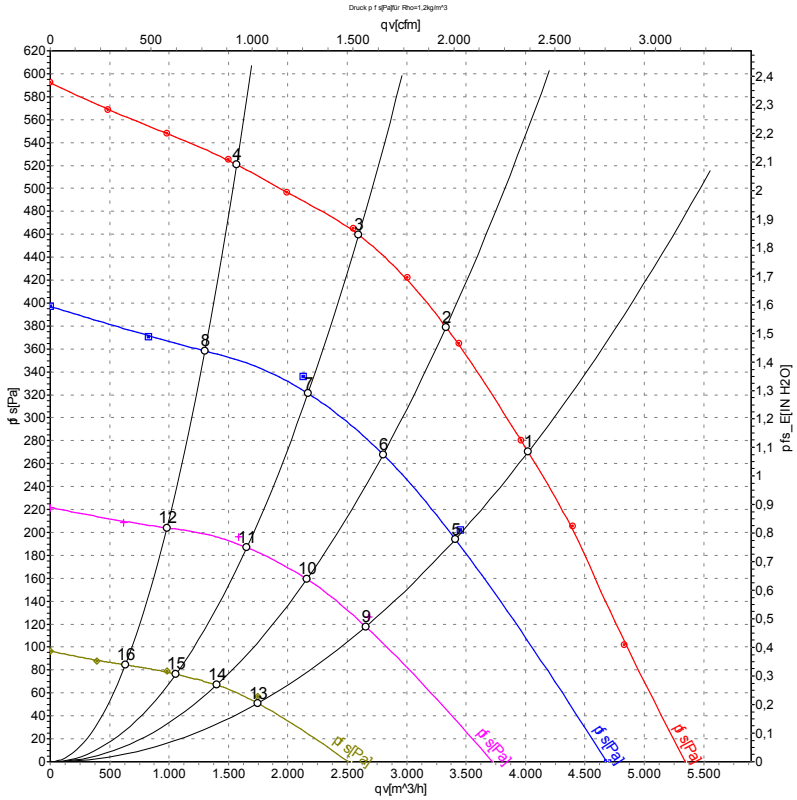
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Curves: Air performance 50 Hz



Measurement: LU-107486-1
Measurement: LU-107607-1
Measurement: LU-107606-1
Measurement: LU-107605-1

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

	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	LwA_{out}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	400	50	1220	1000	1.70	74	84	87	4025	270	2370	1.08
2	400	50	1270	855	1.39	73	83	87	3330	379	1960	1.52
3	400	50	1330	685	1.18	72	81	87	2595	461	1530	1.85
4	400	50	1420	482	0.88	72	81	85	1570	521	925	2.09
5	400	50	1045	606	1.04	70	80	83	3410	206	2005	0.83
6	400	50	1090	509	0.91	69	78	84	2800	268	1650	1.08
7	400	50	1135	409	0.78	68	77	85	2170	332	1275	1.33
8	400	50	1180	290	0.58	66	75	80	1305	358	765	1.44
9	400	50	820	301	0.60	65	74	76	2655	128	1565	0.51
10	400	50	845	248	0.51	63	71	73	2160	159	1270	0.64
11	400	50	870	193	0.41	60	69	71	1655	192	975	0.77
12	400	50	890	139	0.32	59	68	70	985	204	580	0.82
13	400	50	545	95	0.24	52	62	64	1745	57	1030	0.23
14	400	50	555	80	0.22	51	61	63	1400	67	825	0.27
15	400	50	565	65	0.19	50	60	62	1060	77	625	0.31
16	400	50	585	51	0.17	49	59	60	635	84	375	0.34

U = Power supply · 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
LwA_{out} = Sound power level outlet side · qv = Air flow · p_{fs} = Pressure increase

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