D3G283-AB37-01

EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

D3G283-AB37-01 ebmpapst Datasheet
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Nominal data

Type	**D3G283-AB37-01**
Motor	**M3G112-GA**

Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Type of data definition		ml
State		prelim.
Speed (rpm)	min^{-1}	1220
Power input	W	1000
Current draw	A	1.7
Min. back pressure	Pa	270
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}	%	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 input 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 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-107486

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Technical features

Mass	18.6 kg
Size	283 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 - Integrated PID controller - Motor current limit - PFC, passive - Soft start - Control input 0-10 VDC / PWM - 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 61000-6-3 (household 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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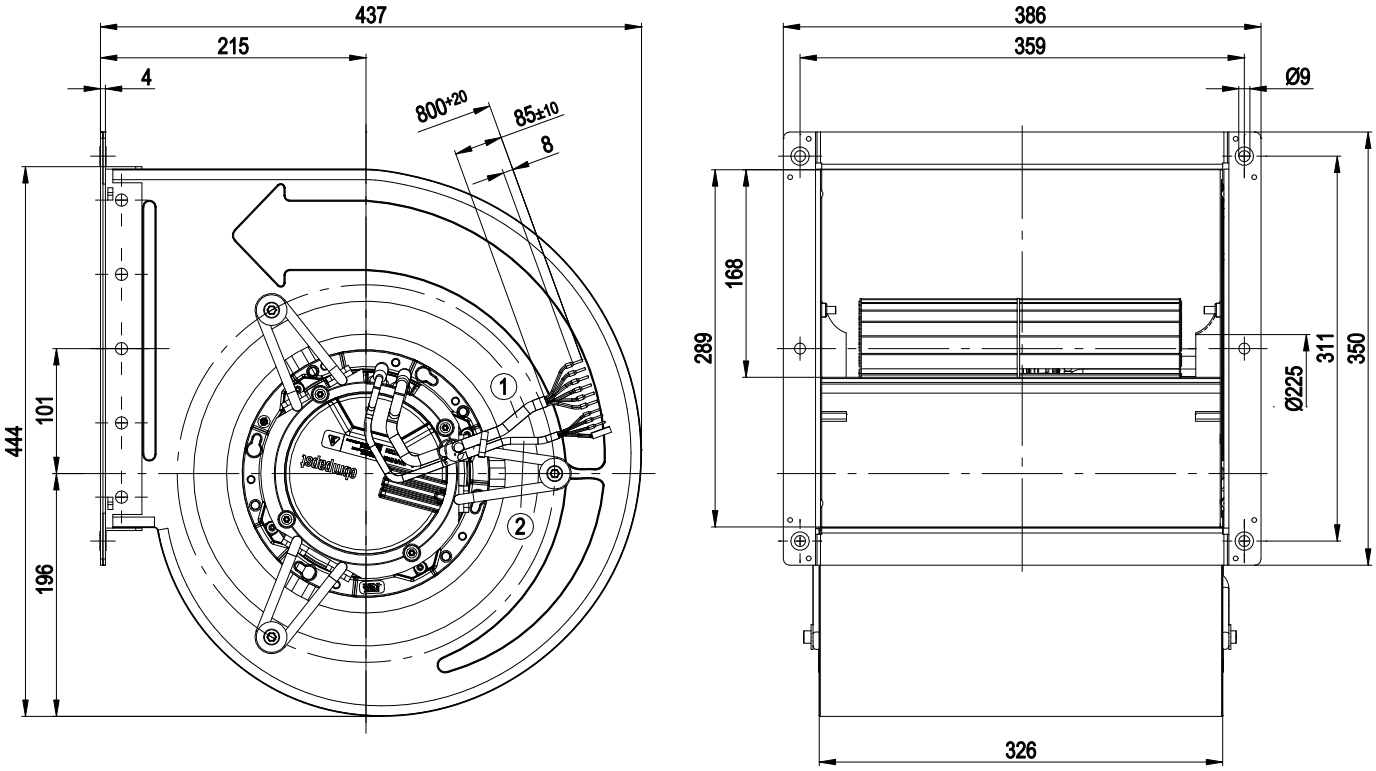
Product drawing



1	Connection line PVC AWG18, 6x crimped core-end sleeves
2	Connection line PVC AWG22, 3 x crimped core-end sleeve

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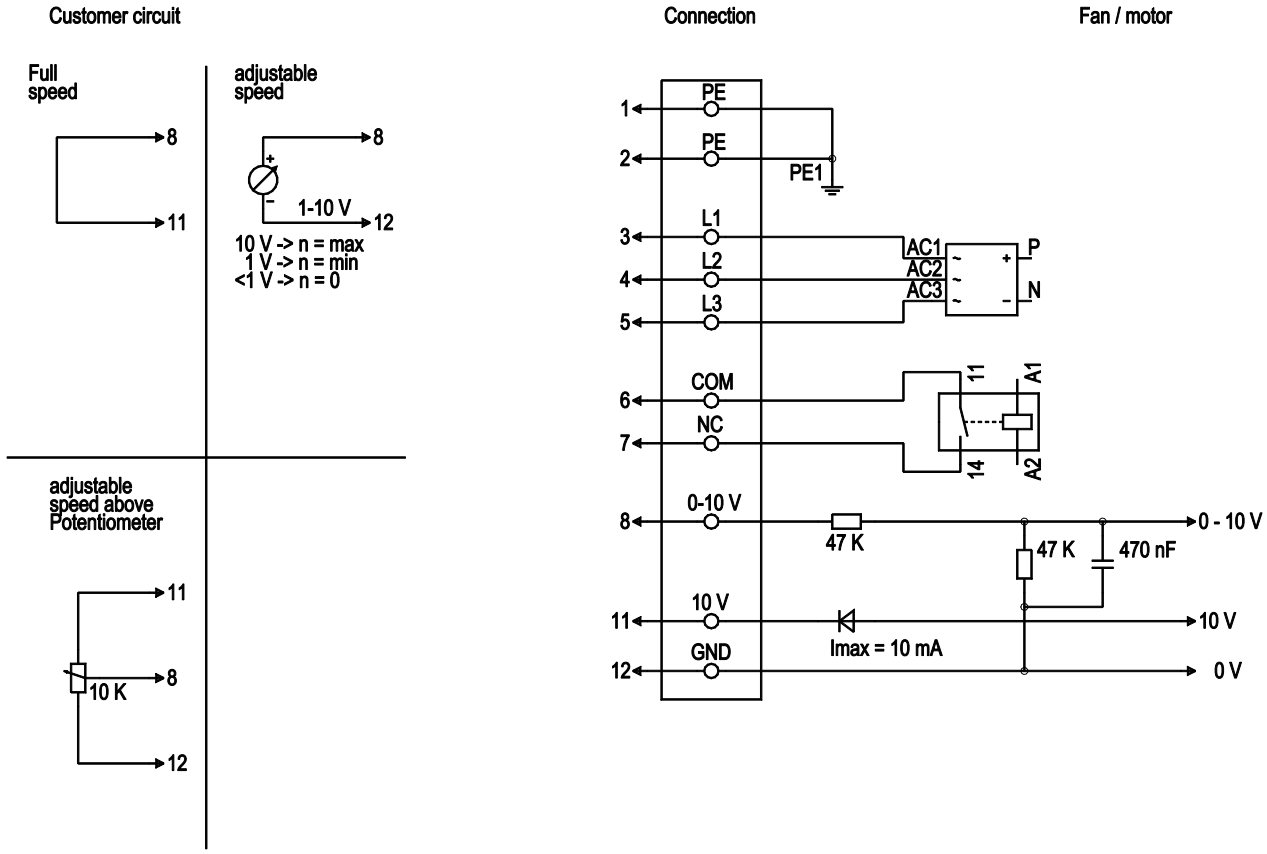
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
1	1, 2	PE	green/yellow	Protective earth
1	3, 4, 5	L1, L2, L3	black	Supply voltage 50 / 60 Hz
1	6	COM	white 1	Floating status contact, break for failure (2 A, max. 250 VAC, min. 10 mA, AC1)
1	7	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 kOhm, SELV
2	11	+ 10 V	red	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for ext. devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference mass for control interface, SELV

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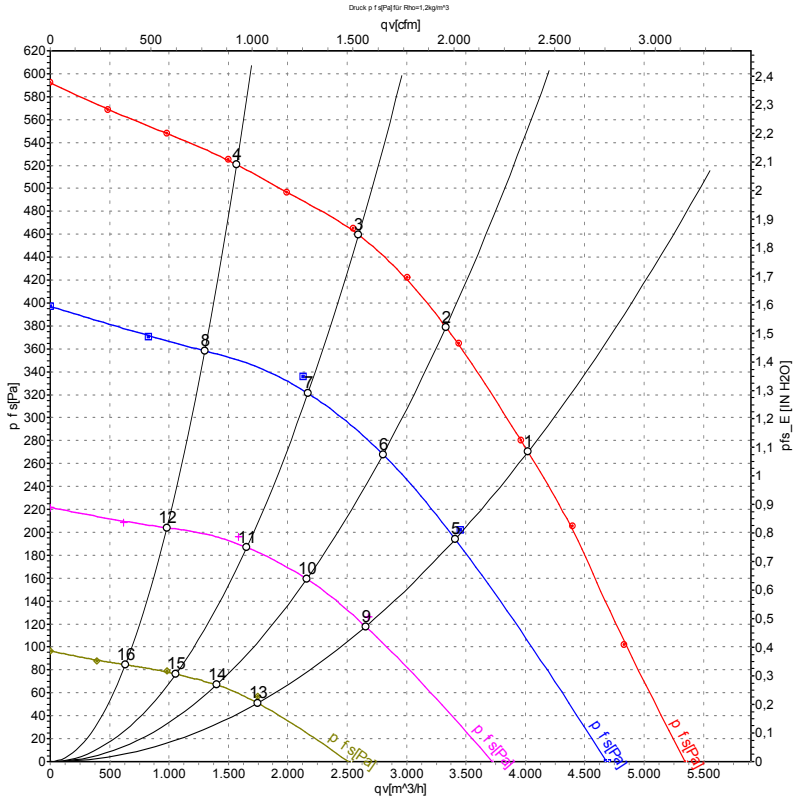
Charts: Air flow 50 Hz



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

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}	LwA_{out}	q_V	p_{fs}	q_V	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 = 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 · LwA_{out} = Sound power level outlet side
q_V = Air flow · p_{fs} = Pressure increase