D3G250-EE71-29

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**D3G250-EE71-29**
Motor	**M3G112-EA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		cs
Speed (rpm)	min^{-1}	1800
Power consumption	W	770
Current draw	A	3.5
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	49.5	37
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		56.5	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.77
09 Air flow q_v	m^3/h	2095
09 Pressure increase p_{fs}	Pa	603
10 Speed (rpm) n	min^{-1}	1795
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-125927

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Technical description

Weight	14.3 kg
Size	250 mm
Motor size	112
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
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	H1
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; (sealed)
Technical features	- Output 10 VDC, max. 10 mA - Alarm relay - Motor current limitation - PFC, active - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
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
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	EAC

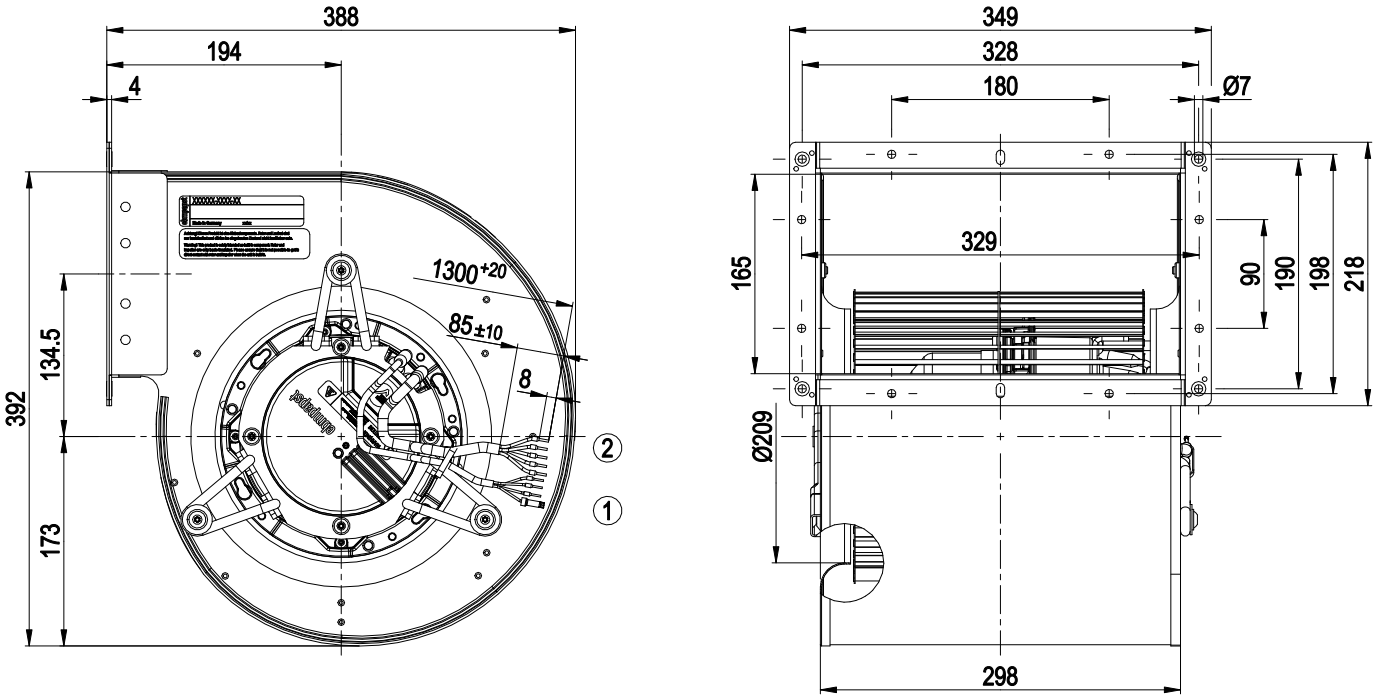
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Product drawing



1	Cable PVC AWG22
	3x wire-end ferrule, 1x end connector
2	Cable PVC AWG18
	5x wire-end ferrule

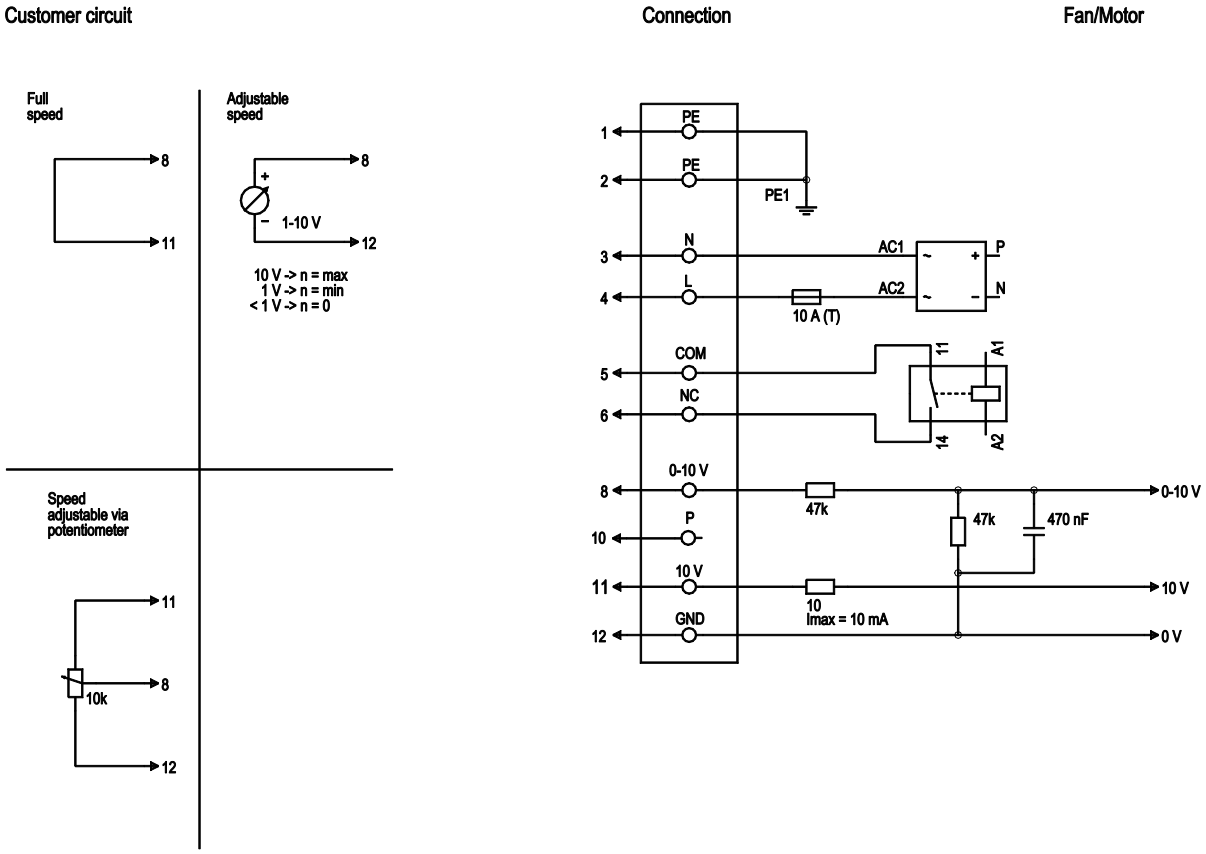
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1,2	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 (2 A, 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 kΩ, SELV
2	10	P	orange	not used
2	11	10 VDC	red	Voltage output 10 VDC (±3%), max. 10 mA, power supply for external devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference ground for control interface, SELV

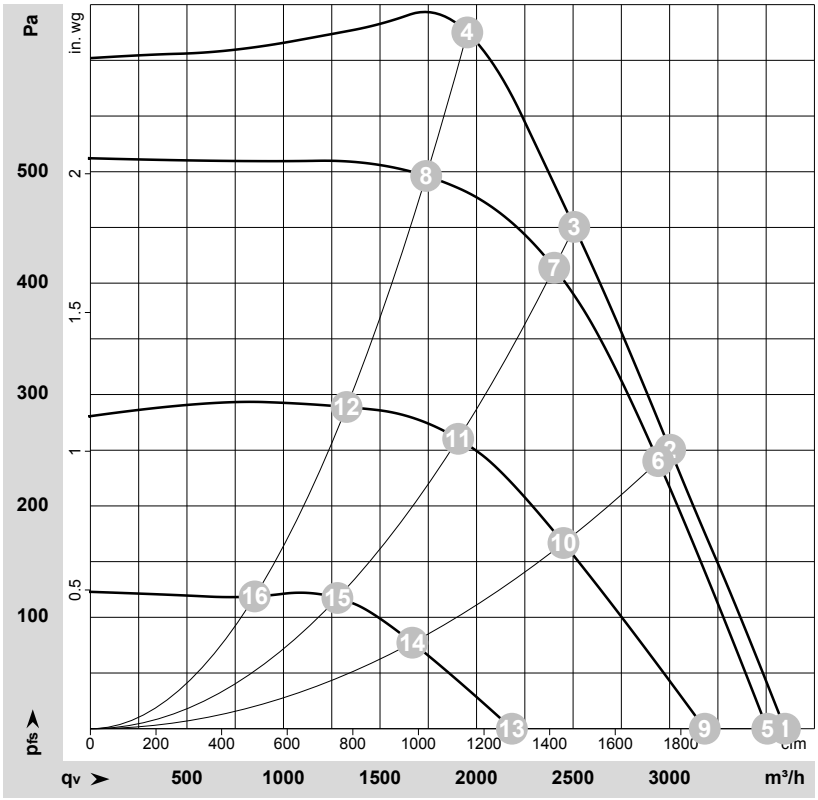
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-125927-1
Measurement: LU-128485-1
Measurement: LU-128486-1
Measurement: LU-128487-1

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

	Wired	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	1~	230	50	1260	770	3.50	76	85	3595	0	2115	0.00
2	1~	230	50	1450	757	3.40	73	82	3005	250	1765	1.00
3	1~	230	50	1620	767	3.43	72	81	2505	450	1475	1.81
4	1~	230	50	1825	754	3.37	72	81	1950	625	1150	2.51
5	1~	230	50	1235	714	3.22	76	85	3505	0	2065	0.00
6	1~	230	50	1425	715	3.22	73	82	2940	252	1730	1.01
7	1~	230	50	1560	656	2.97	71	80	2400	418	1415	1.68
8	1~	230	50	1625	519	2.38	69	79	1740	498	1025	2.00
9	1~	230	50	1125	526	2.41	74	82	3180	0	1875	0.00
10	1~	230	50	1170	387	1.79	68	77	2450	174	1440	0.70
11	1~	230	50	1230	301	1.41	65	74	1905	262	1120	1.05
12	1~	230	50	1255	229	1.09	63	72	1325	289	780	1.16
13	1~	230	50	775	179	0.86	64	73	2185	0	1285	0.00
14	1~	230	50	805	130	0.62	58	67	1665	81	980	0.33
15	1~	230	50	835	100	0.50	55	64	1280	119	755	0.48
16	1~	230	50	840	78	0.42	52	62	850	118	500	0.47

Wired = Wiring · U = Voltage · 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
q_V = Air flow · p_{fs} = Pressure increase

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