D3G250-ED01-78

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

D3G250-ED01-78 ebmpapst Datasheet
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Nominal data

Type	**D3G250-ED01-78**	
Motor	**M3G084-GF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1085
Power input	W	450
Current draw	A	2.8
Min. back pressure	Pa	100
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}	%	50.9	34.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		60.7	44
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.28
09 Air flow q_v	m^3/h	1605
09 Pressure increase p_{fs}	Pa	292
10 Speed (rpm) n	min^{-1}	1235
11 Specific ratio*		1.00

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-109916

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Technical features

Mass	13 kg
Size	250 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)	H1
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. 1.1 mA - Tach output - Motor current limit - 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 detection
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; CE
Approval	EAC

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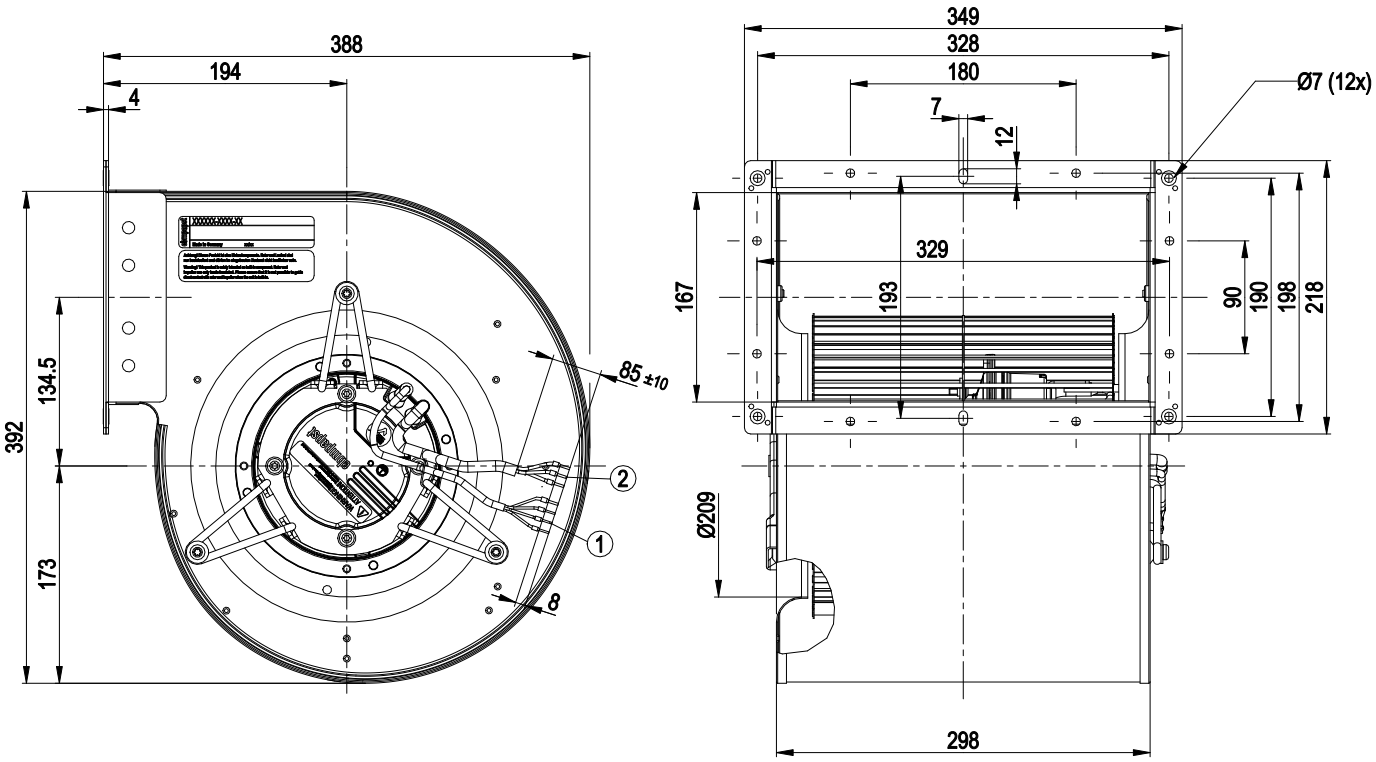
Product drawing



Cable length from electronics housing: 2500+20 mm

1	Connection line PVC AWG22, 4x crimped core-end sleeves
2	Connection line PVC AWG18, 3x crimped core-end sleeves

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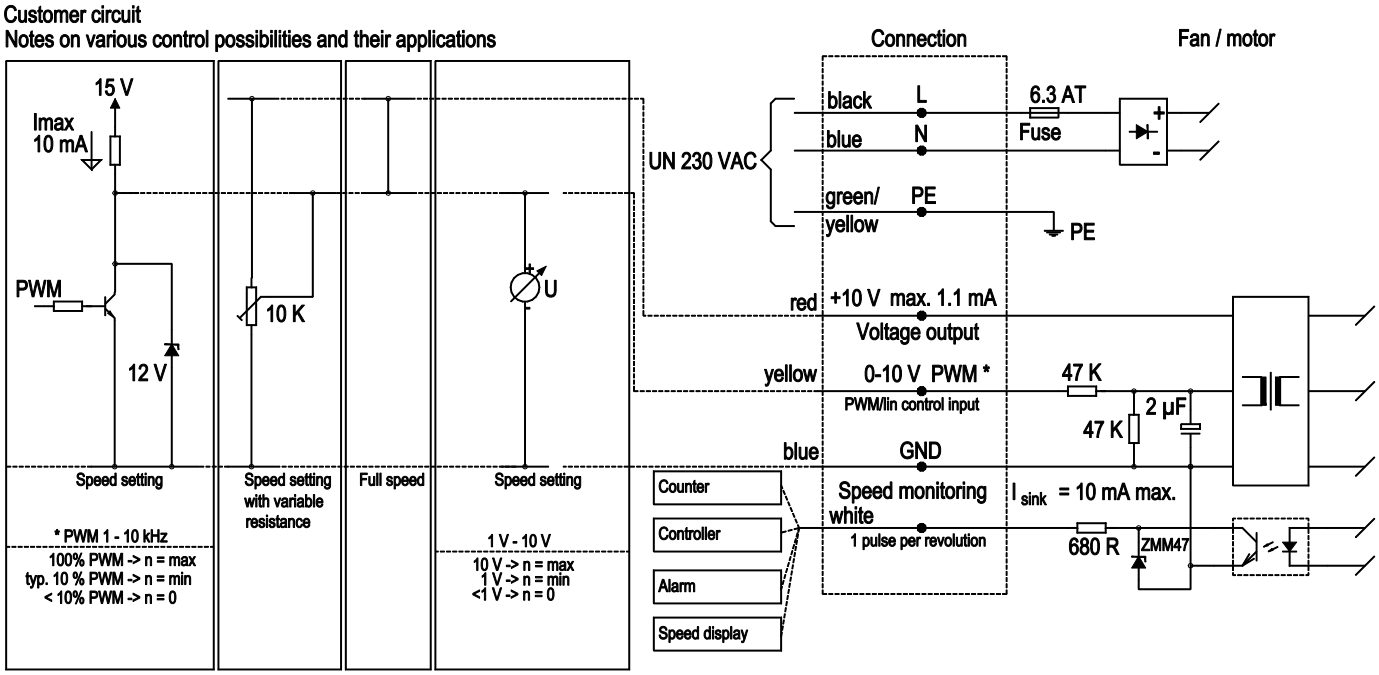
Connection screen



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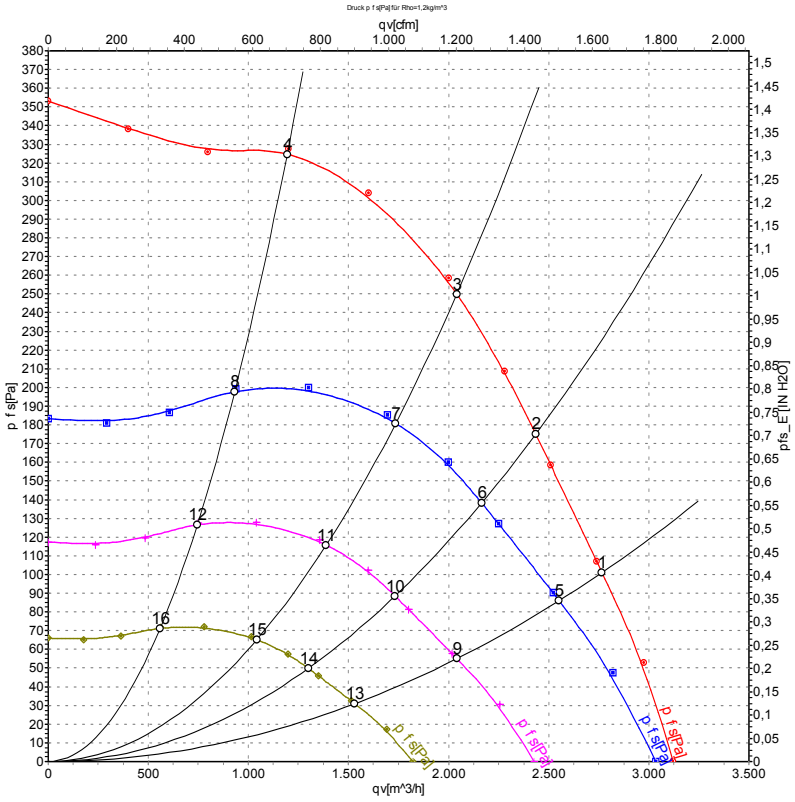
Charts: Air flow 50 Hz



Measurement: LU-109916-1

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}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	1085	450	2.80	71	2765	100	1625	0.40
2	230	50	1125	401	2.55	69	2435	175	1435	0.70
3	230	50	1175	346	2.20	67	2040	250	1200	1.00
4	230	50	1285	232	1.50	65	1195	325	700	1.30
5	230	50	1000	346	2.21	69	2550	86	1500	0.35
6	230	50	1000	282	1.80	66	2165	138	1275	0.55
7	230	50	1000	213	1.36	63	1735	182	1020	0.73
8	230	50	1000	110	0.71	58	930	199	550	0.80
9	230	50	800	177	1.13	63	2040	55	1200	0.22
10	230	50	800	145	0.92	60	1730	88	1020	0.35
11	230	50	800	109	0.70	56	1390	116	815	0.47
12	230	50	800	56	0.37	52	745	127	440	0.51
13	230	50	600	75	0.48	55	1530	31	900	0.12
14	230	50	600	61	0.39	51	1300	50	765	0.20
15	230	50	600	46	0.29	48	1040	66	615	0.26
16	230	50	600	24	0.15	44	560	72	330	0.29

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · q_V = Air flow · p_{fs} = Pressure increase