D3G250-AB27-63

EC centrifugal fan

forward-curved, dual-intake

with housing (large flange)



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Nominal data

Type	**D3G250-AB27-63**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1500
Power consumption	W	380
Current draw	A	1.7
Min. back pressure	Pa	400
Min. back pressure	inH2O	1.61
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}	%	49.3	35
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		58.3	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.38
09 Air flow q_v	m^3/h	1500
09 Pressure increase p_{fs}	Pa	406
10 Speed (rpm) n	min^{-1}	1480
11 Specific ratio*		1.00

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-112430

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Technical description

Weight	9.9 kg
Fan size	250 mm
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	IP20
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
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	With plug
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

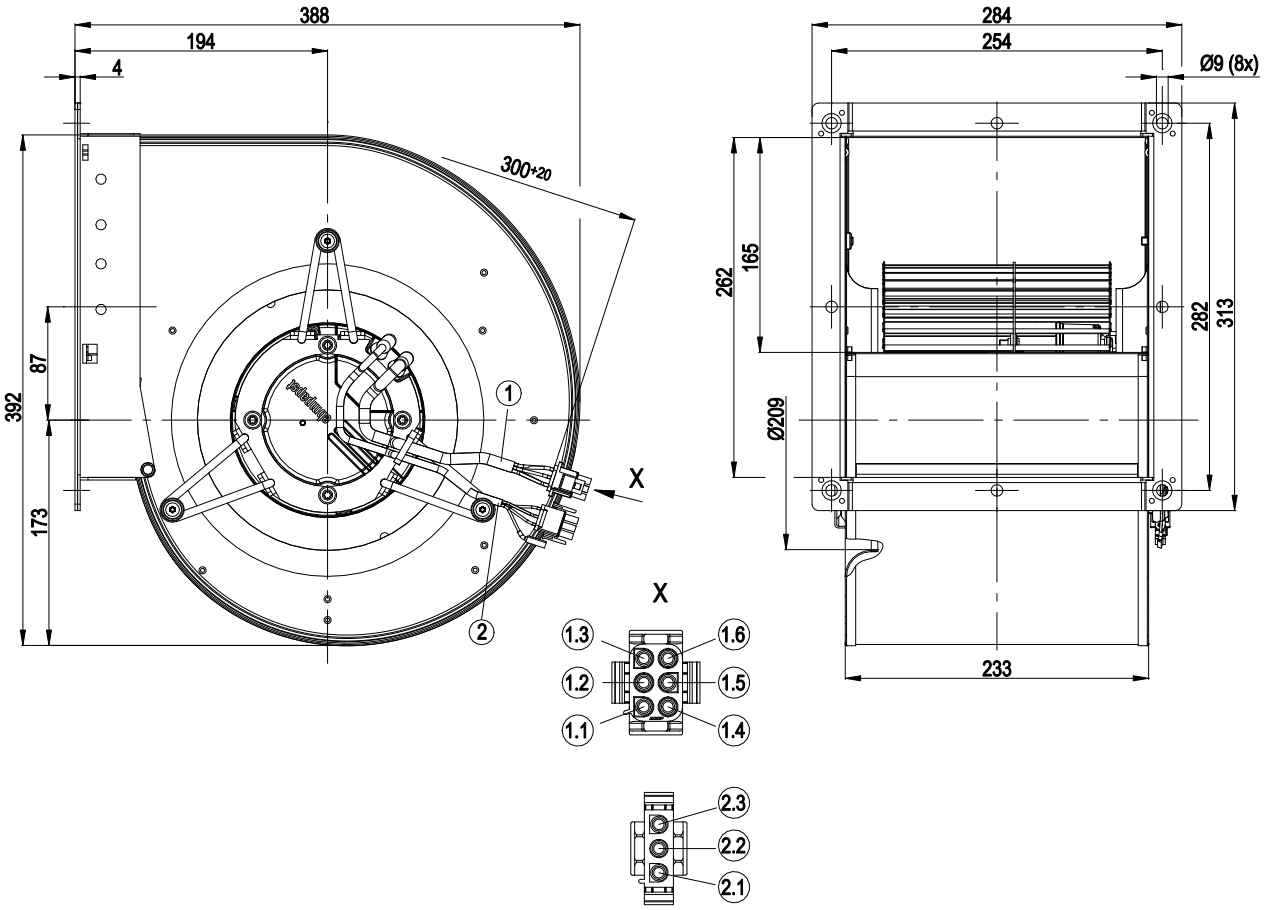
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Product drawing



1	Cable PVC AWG 18 with 6-pole connector housing TE 350 715-4, 5x plug pin TE 350218-1 with seal 794276-1 and 794275-1
1.1	PE (green/yellow)
1.2	not used
1.3	N (blue)
1.4	L (black)
1.5	NC (white 2)
1.6	COM (white 1)
2	Cable PVC AWG 22 with 3-pole connector housing TE 350 766-4, 3x plug pin TE 926885-1 with seal 794272-1 and 794271-1
2.1	0-10 V / PWM (yellow)
2.2	+10 V (red)
2.3	GND (blue)

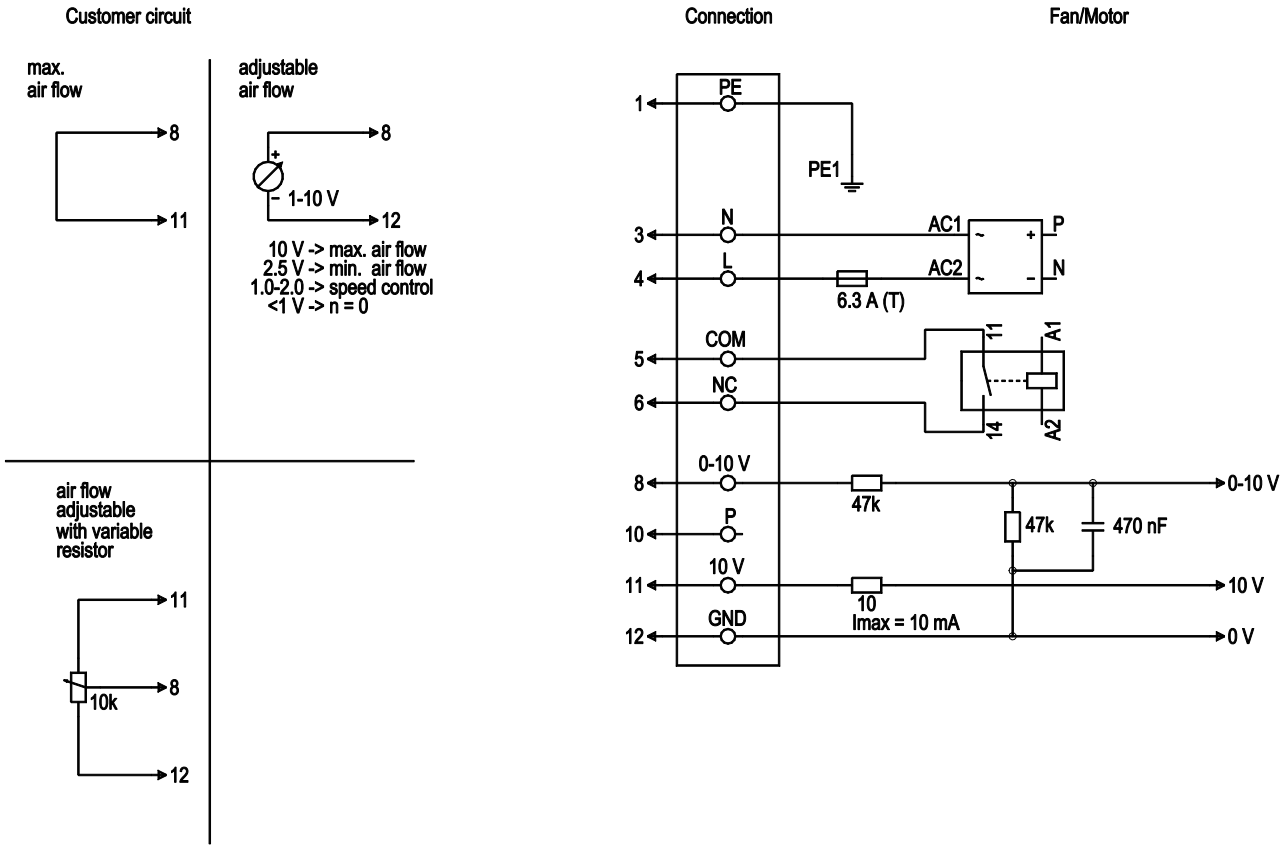
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Connection diagram



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	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 ext. devices (e.g. potentiometers), SELV
2	12	GND	blue	Reference ground for control interface, SELV
2	8	0 - 10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kohms, SELV

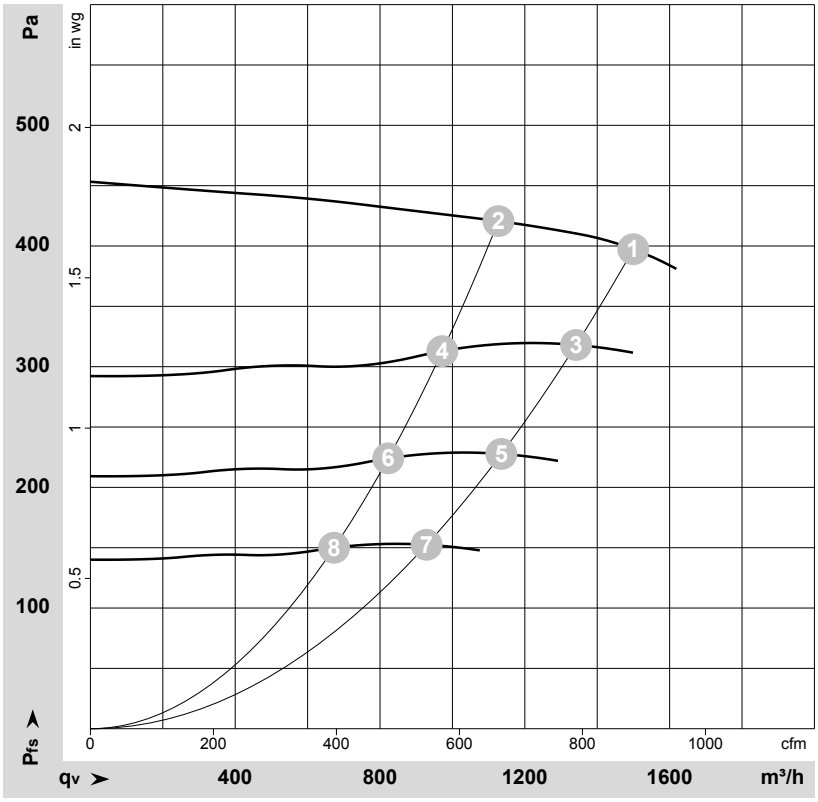
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-120864-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	1500	380	1.70	1500	400	885	1.61
2	230	50	1500	343	1.50	1125	420	665	1.69
3	230	50	1300	269	1.18	1340	320	790	1.28
4	230	50	1300	221	0.97	970	313	570	1.26
5	230	50	1100	163	0.71	1135	229	670	0.92
6	230	50	1100	134	0.59	825	224	485	0.90
7	230	50	900	89	0.39	930	154	545	0.62
8	230	50	900	73	0.32	675	150	395	0.60

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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