D2D146-BG03-17

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Nominal data

Type	**D2D146-BG03-17**
Motor	**M2D068-GA**

Phase		3~	3~
Nominal voltage	VAC	400	440
Nominal voltage range	VAC	380 .. 440	380 .. 440
Wiring		Y	Y
Frequency	Hz	50	50
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2580	2650
Power consumption	W	350	430
Current draw	A	0.6	0.65
Min. back pressure	Pa	290	300
Min. back pressure	in. wg	1.16	1.2
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	35.6	33.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		46	44
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.22
09 Air flow q_v	m^3/h	705
09 Pressure increase p_{fs}	Pa	416
10 Speed (rpm) n	min^{-1}	2750
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-110559

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Technical description

Weight	5.6 kg
Size	146 mm
Motor size	68
Rotor surface	Painted black
Impeller material	Sheet steel, painted black
Housing material	Sheet steel, galvanized
Guard grille material	Steel, coated with white-aluminum plastic (RAL 9006)
Motor suspension	Motor mounted with brackets on one side
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
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
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1; EN 60204-1; CE
Approval	CSA C22.2 No. 100; CCC; UL 1004-1

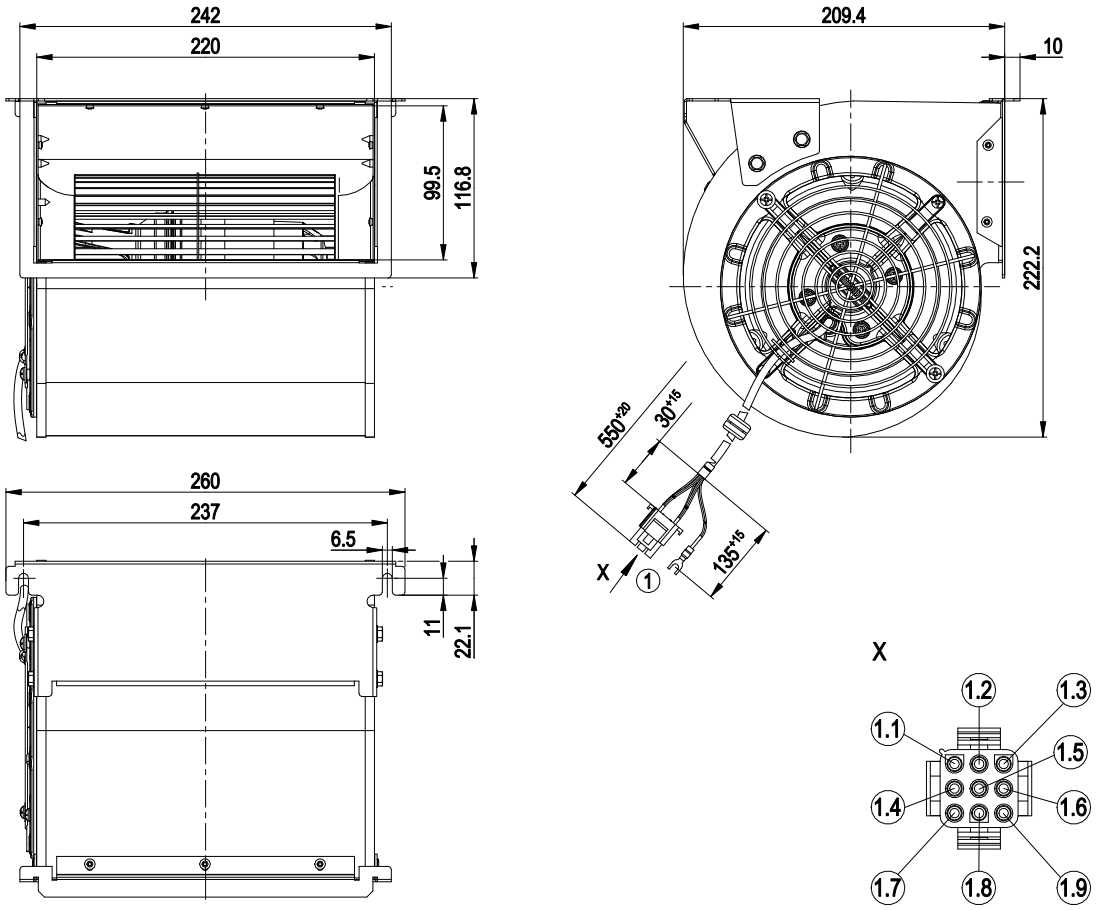
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Product drawing



1	Cable PFA AWG20
	9-pole connector housing TE 350720-1, 5x plug pin TE 926886-1, 1x spade terminal TE 130517-0
1.1	TOP (gray)
1.2	not used
1.3	V1 (blue)
1.4	TOP (gray)
1.5	not used
1.6	not used
1.7	U1 (black)
1.8	not used
1.9	W1 (brown)
	Accessory parts, included separately:
	Guard grill
	Tapping screw assembly (3x), tightening torque 1.6±0.2 Nm
	Zipped plastic bag

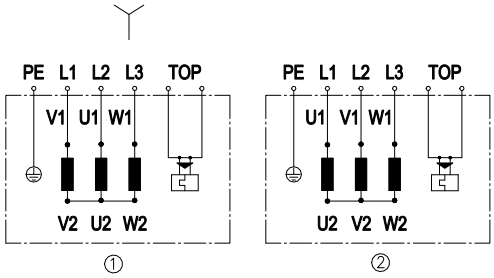
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Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor
Y	Star connection
1	Counterclockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= U1 = black
L2	= V1 = blue
L3	= W1 = brown
PE	green/yellow
TOP	2x gray

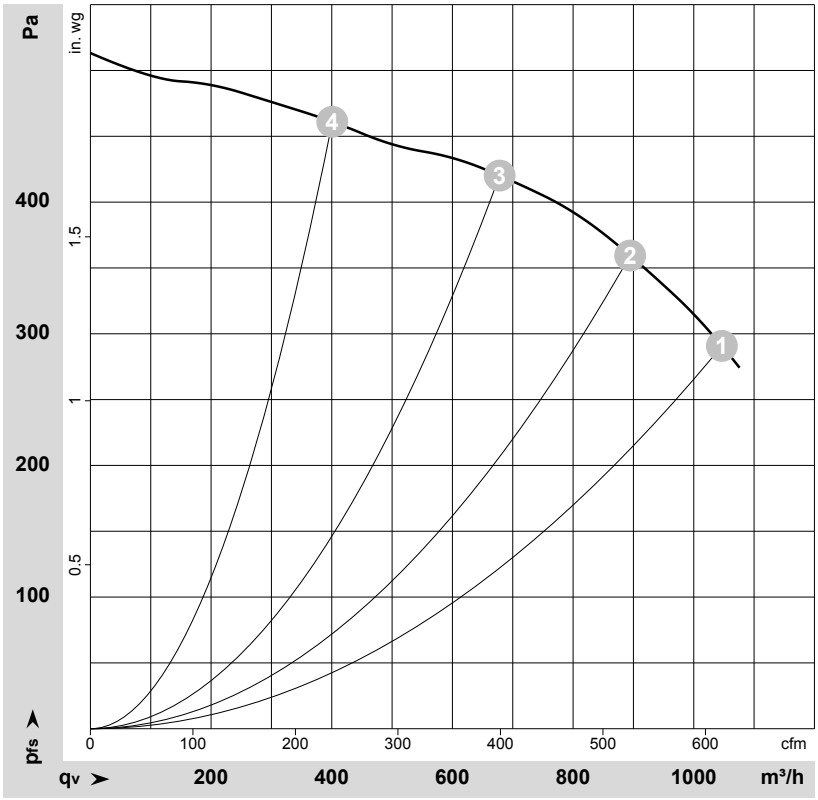
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-110559-1

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_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	Y	400	50	2580	350	0.60	1045	290	615	1.16
2	Y	400	50	2665	287	0.53	895	360	525	1.45
3	Y	400	50	2755	224	0.46	680	420	400	1.69
4	Y	400	50	2830	168	0.41	400	460	235	1.85

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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