D2D146-BG03-15

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**D2D146-BG03-15**
Motor	**M2D068-GA**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	440	480
Nominal voltage range	VAC	380 .. 440	380 .. 480	380 .. 440	380 .. 480
Wiring		Y	Y	Y	Y
Frequency	Hz	50	60	50	60
Method of obtaining data		ml/ce	ml/ce	ml/ce	ml/ce
Valid for approval/standard		CE	UL 507	CE	UL 507
Speed (rpm)	min^{-1}	2580	2700	2650	2960
Power consumption	W	350	500	430	560
Current draw	A	0.6	0.78	0.65	0.76
Min. back pressure	Pa	290	315	300	385
Min. back pressure	inH2O	1.16	1.26	1.2	1.55
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	60	60	60	60

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}	%	35.6	33.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		46.1	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	5.8 kg
Fan size	146 mm
Rotor surface	Painted black
Impeller material	Sheet steel, hot-dip galvanized
Housing material	Sheet steel, hot-dip galvanized
Guard grille material	Steel, phosphated and coated with black plastic
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	F5
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None
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 60335-1; CE
Approval	CCC; CSA C22.2 No. 100; UL 1004-1

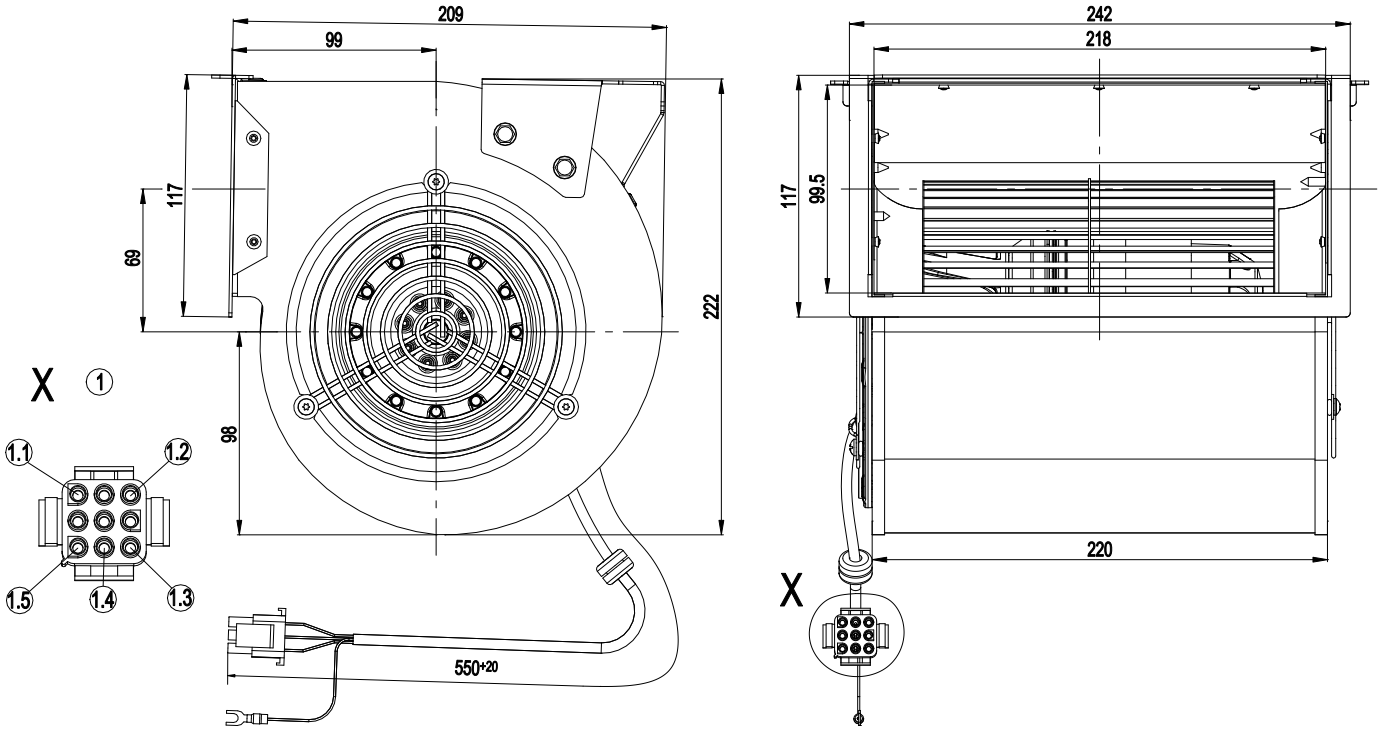
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Product drawing



1	Connector housing AMP Universal Mate-N-Lok 350720-1, pluggable with 350782-1
1.1	blue
1.2	brown
1.3	black
1.4	gray
1.5	gray

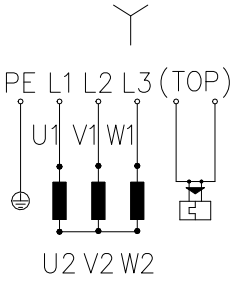
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Connection diagram



Y	Star connection	L1	black	L2	blue
L3	brown	U1	black	V1	blue
W1	brown	U2	green	V2	white
W2	yellow	TOP	gray		

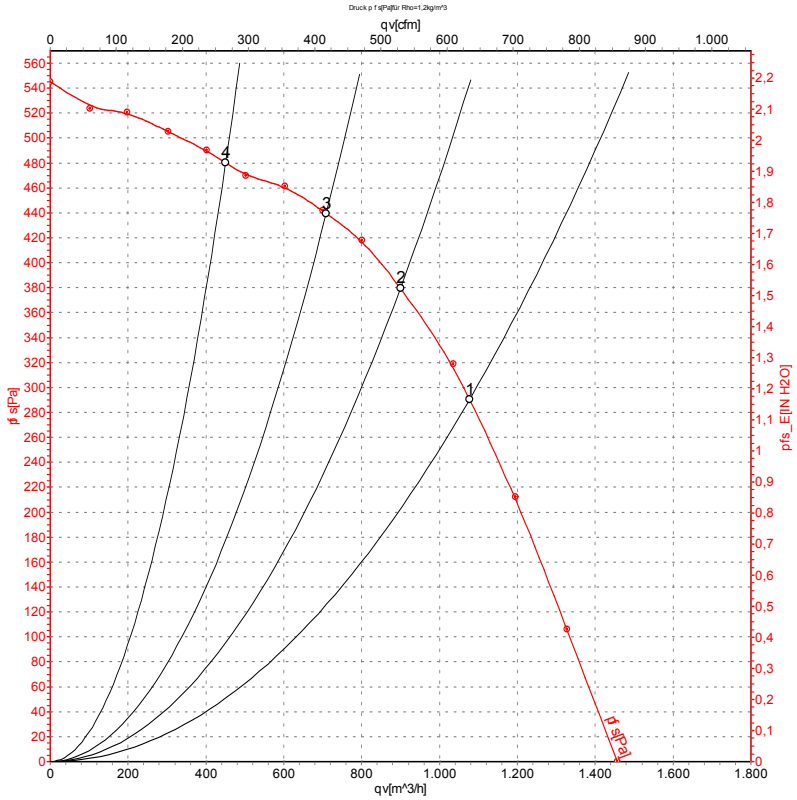
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AC centrifugal fan

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Curves: Air performance 50 Hz



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	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Y	400	50	2580	350	0.60	1075	290	635	1.16
2	Y	400	50	2665	288	0.53	900	380	530	1.53
3	Y	400	50	2745	230	0.47	710	440	415	1.77
4	Y	400	50	2815	178	0.42	450	480	265	1.93

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

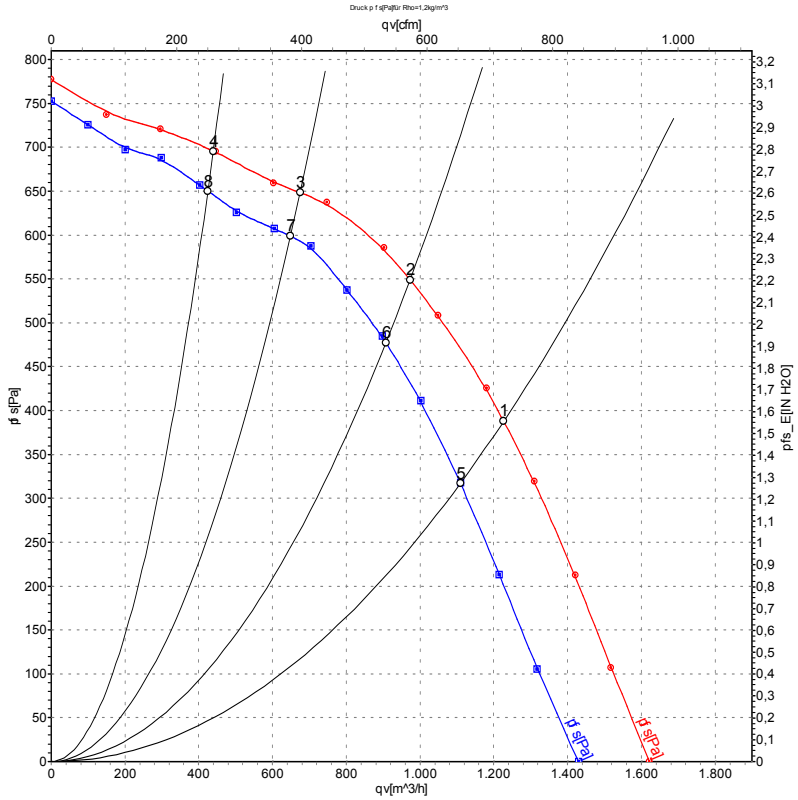
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AC centrifugal fan

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Curves: Air performance 60 Hz



Measurement: LU-110562-1
Measurement: LU-110561-1

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	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Y	480	60	2960	560	0.76	1225	385	720	1.55
2	Y	480	60	3120	447	0.63	975	550	575	2.21
3	Y	480	60	3275	330	0.50	675	650	395	2.61
4	Y	480	60	3365	255	0.43	440	700	260	2.81
5	Y	400	60	2700	500	0.78	1110	315	655	1.26
6	Y	400	60	2915	404	0.64	905	478	535	1.92
7	Y	400	60	3140	311	0.51	650	599	380	2.40
8	Y	400	60	3240	247	0.42	425	650	250	2.61

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

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