D2D146-AA02-22

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**D2D146-AA02-22**
Motor	**M2D068-EC**

Phase		3~	3~
Nominal voltage	VAC	230	230
Wiring		Δ	Δ
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	2250	2700
Power consumption	W	290	280
Current draw	A	0.81	0.76
Min. back pressure	Pa	275	450
Min. back pressure	in. wg	1.1	1.81
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	60
Starting current	A	1.75	1.65

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

Weight	4.8 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	Hot-dip galvanized and spot-welded net
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H1; F2-2
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Connector with cable
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1
Approval	CSA C22.2 No. 100; UL 1004-1

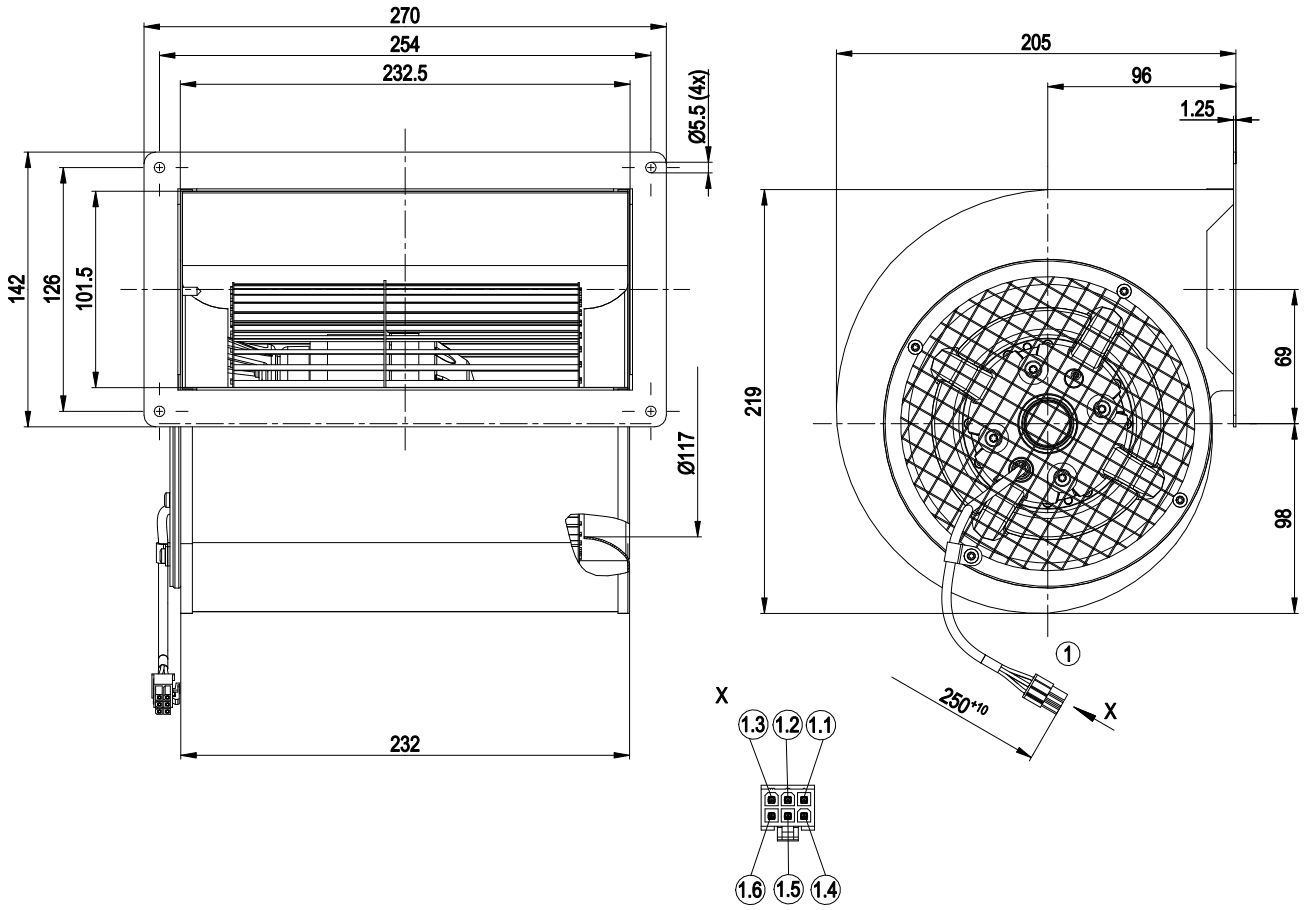
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Product drawing



1	Cable PFA AWG20 (green/yellow AWG18), 6-pole connector housing Molex 46992-0610, 6x socket Molex 39-00-0059
1.1	PE (green/yellow)
1.2	TOP (gray)
1.3	TOP (gray)
1.4	L1 (U1) black
1.5	L2 (V1) blue
1.6	L3 (W1) brown

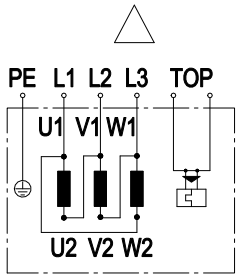
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Connection diagram



Note: Change of rotation direction by reversing two phases

Δ	Delta connection	L1	= U1 = black	L2	= V1 = blue
L3	= W1 = brown	TOP	2x gray	PE	green/yellow

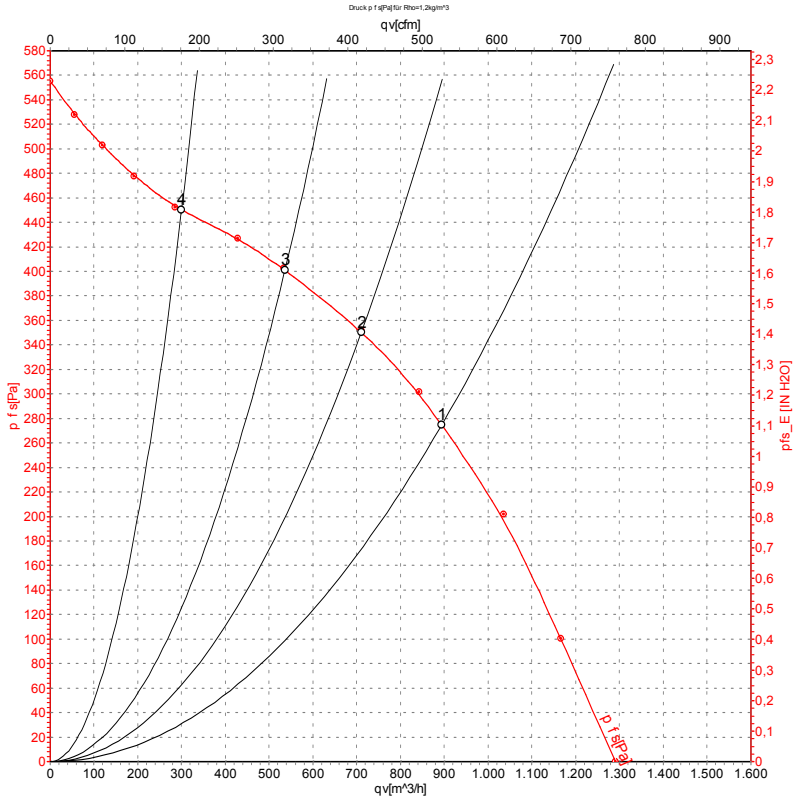
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Curves: Air performance 50 Hz



Measurement: LU-38467-1

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_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	400	50	2250	290	0.47	895	275	525	1.10
2	400	50	2420	241	0.39	710	350	420	1.41
3	400	50	2540	201	0.34	535	400	315	1.61
4	400	50	2685	149	0.27	300	450	175	1.81

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

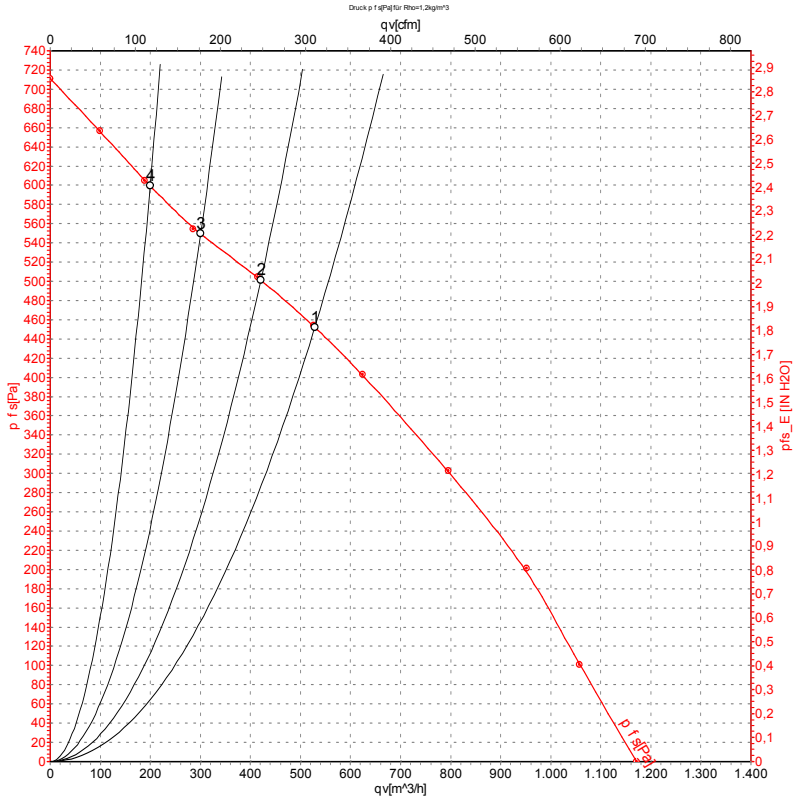
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Curves: Air performance 60 Hz



Measurement: LU-38468-1

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_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	400	60	2700	280	0.44	530	450	310	1.81
2	400	60	2855	240	0.38	420	500	250	2.01
3	400	60	2945	217	0.35	300	550	175	2.21
4	400	60	3070	185	0.30	200	600	120	2.41

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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