D2E146-KA51-10

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	**D2E146-KA51-10**
Motor	**M2E068-CA**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		fa
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	900
Power consumption	W	85
Current draw	A	0.37
Capacitor	µF	2.5
Capacitor voltage	VDB	420
Capacitor standard		S2 (CE)
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
Min. ambient temperature	°C	-20
Max. ambient temperature	°C	55
Starting current	A	0.39

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	2.4 kg
Fan size	146 mm
Rotor surface	Unpainted
Impeller material	PA plastic
Housing material	PP plastic
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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	Calotte bearing
Speed levels	3
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S2
Conformity with standards	EN 60335-1; CE

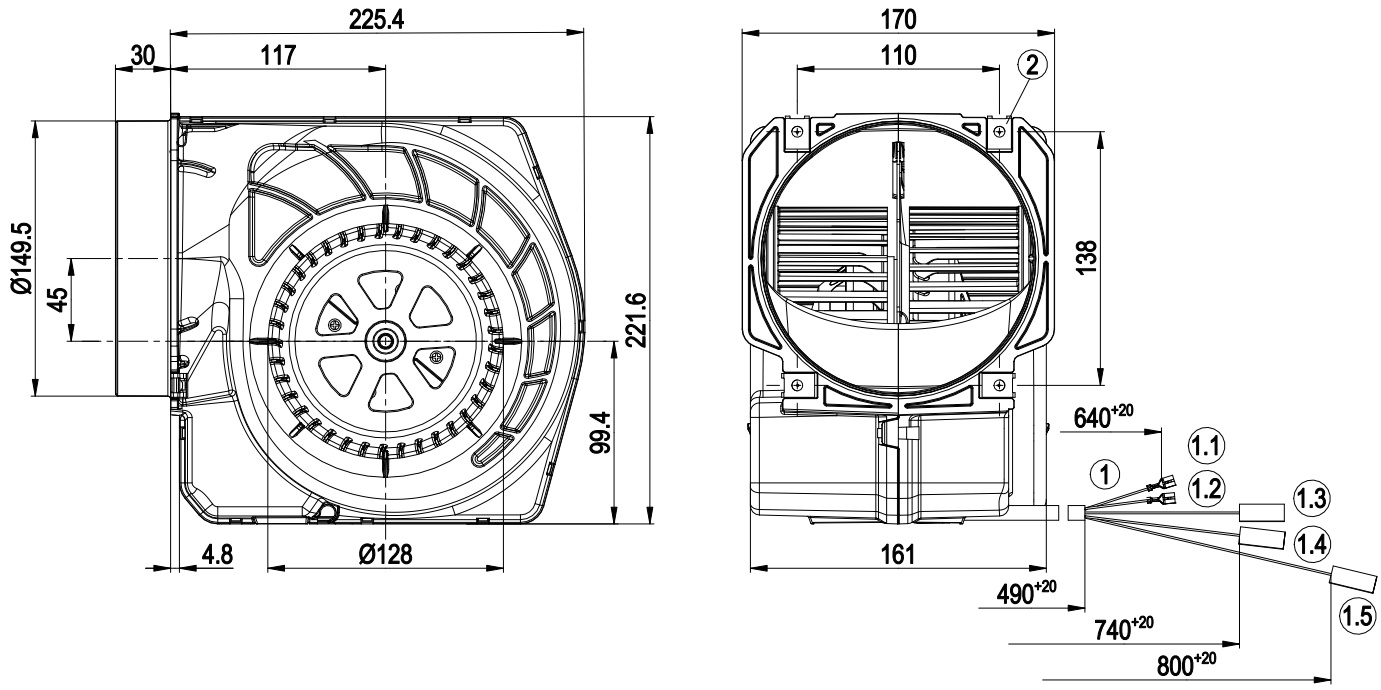
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Product drawing



1	Cable PVC AWG20
1.1	PE (green-yellow), flat push-on receptacle 6.3 x 0.8
1.2	N (blue), flat push-on receptacle 6.3 x 0.8
1.3	Step 1 (orange), flat push-on receptacle 6.3x0.8 with connector housing
1.4	Step 2 (white), flat push-on receptacle 6.3x0.8 with connector housing
1.5	Step 3 (brown), flat push-on receptacle 6.3x0.8 with connector housing
2	4x sheet metal nut for thread EN ISO 1478-ST4.8 (screw length at least 14.5 mm plus thickness of mounting material)

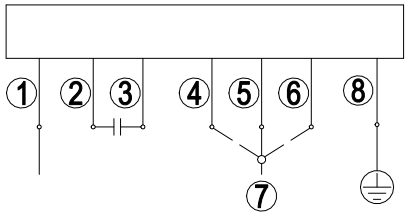
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Connection diagram



Note: High speed (step III); low speed (step I)

1	blue (N)	2	Capacitor (yellow)	3	Capacitor (black)
4	Step 1 (orange)	5	Step 2 (white)	6	Step 3 (brown)
7	L1	8	PE (green/yellow)		

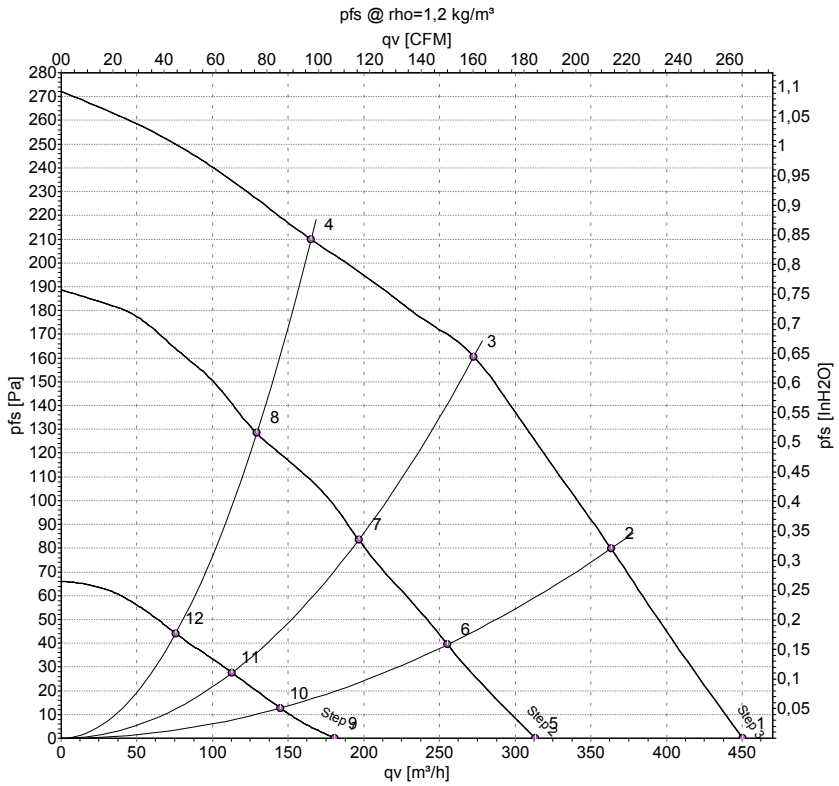
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Curves: Air performance 50 Hz



Measurement: LU-77269-1
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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

	Stage	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	inH2O
1	3	230	50	900	85	0.37	450	0	265	0.00
2	3	230	50	1280	81	0.35	365	80	215	0.32
3	3	230	50	1640	79	0.35	275	160	160	0.64
4	3	230	50	1935	77	0.34	165	210	95	0.84
5	2	230	50	630	52	0.28	315	0	185	0.00
6	2	230	50	900	52	0.27	255	39	150	0.16
7	2	230	50	1215	50	0.27	195	83	115	0.33
8	2	230	50	1530	48	0.27	130	128	75	0.51
9	1	230	50	380	37	0.22	180	0	105	0.00
10	1	230	50	535	37	0.22	145	13	85	0.05
11	1	230	50	710	36	0.22	115	28	65	0.11
12	1	230	50	900	36	0.21	75	44	45	0.18

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

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