D2E146-KA45-01

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)



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Nominal data

Type	**D2E146-KA45-01**
Motor	**M2E068-CA**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	1350	1400
Power consumption	W	120	125
Current draw	A	0.53	0.55
Capacitor	µF	3	3
Capacitor voltage	VDB	400	400
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	50	100
Min. back pressure	inH2O	0.2	0.4
Max. ambient temperature	°C	55	40
Starting current	A	0.56	

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	2.5 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	"F"
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	Ball bearing
Speed levels	4
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	With plug; Via terminal box, capacitor integrated and connected
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
Approval	VDE

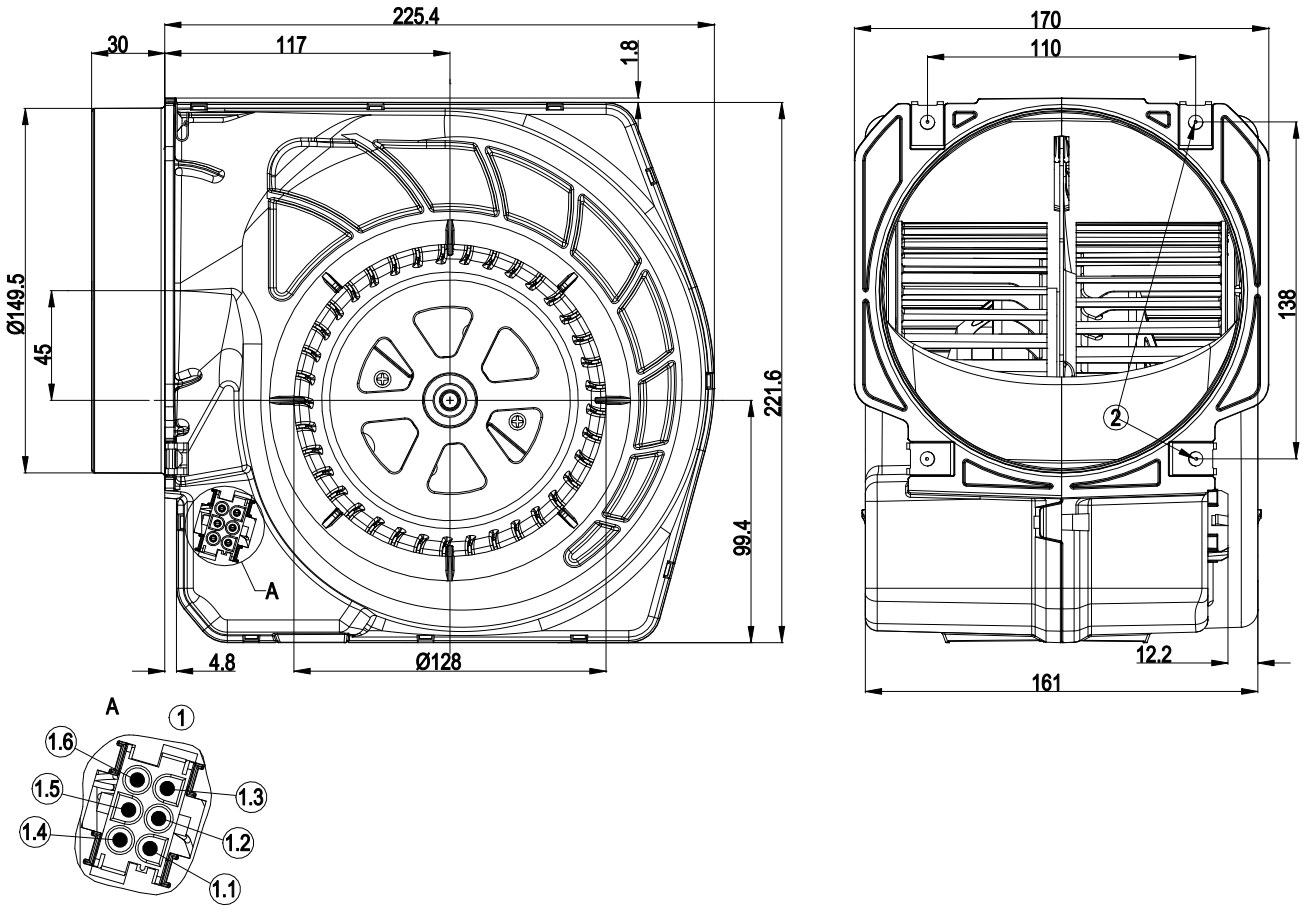
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Product drawing



1	Coded plug system AMP Universal Mate-N-Lok; connector housing: AMP 926 682-3; 6x plug pin AMP 926 886-1
1.1	L = step 1
1.2	L = step 2
1.3	L = step 3
1.4	L = step 4
1.5	N
1.6	Protective earth
2	4x sheet metal nut for thread EN ISO 1478-ST4.8 (screw length at least 14.5 mm plus thickness of mounting material)

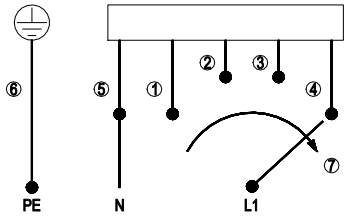
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Connection diagram



The switch must interrupt the circuit when switching.

1	Step 1 (min.)	2	Step 2	3	Step 3
4	Step 4 (max.)	5	N	6	PE protective earth
7	Speed increasing				

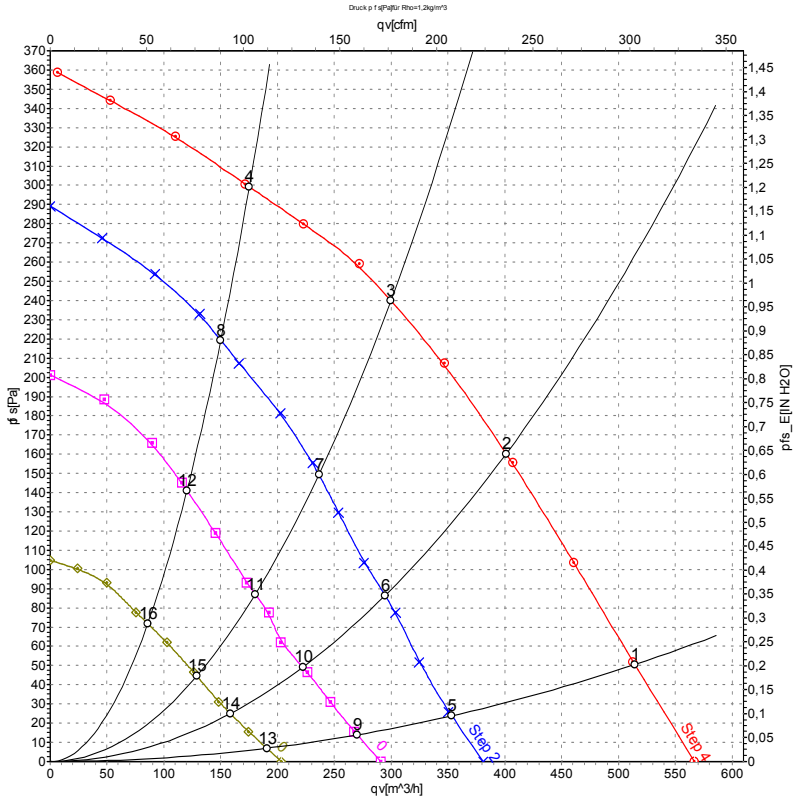
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Curves: Air performance 50 Hz



Measurement: LU-65092-1
Measurement: LU-65094-1
Measurement: LU-65096-1
Measurement: LU-65098-1

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

	Stage	U	f	n	P_e	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	4	230	50	1350	120	0.53	54	66	515	50	305	0.20
2	4	230	50	1715	113	0.49	57	69	400	160	235	0.64
3	4	230	50	2035	107	0.47	59	71	300	240	175	0.96
4	4	230	50	2300	100	0.44	62	74	175	300	105	1.20
5	3	230	50	930	74	0.37	45	57	355	23	210	0.09
6	3	230	50	1260	72	0.36	49	61	295	86	175	0.35
7	3	230	50	1615	68	0.35	53	65	235	150	140	0.60
8	3	230	50	1975	62	0.34	56	68	150	219	90	0.88
9	2	230	50	705	60	0.31	38	50	270	14	160	0.06
10	2	230	50	960	59	0.31	42	54	220	49	130	0.20
11	2	230	50	1235	57	0.31	46	58	180	87	105	0.35
12	2	230	50	1585	54	0.30	50	62	120	141	70	0.57
13	1	230	50	495	49	0.27	29	41	190	7	110	0.03
14	1	230	50	690	49	0.27	33	45	160	25	95	0.10
15	1	230	50	885	48	0.26	37	49	130	44	75	0.18
16	1	230	50	1130	47	0.26	41	53	85	72	50	0.29

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase

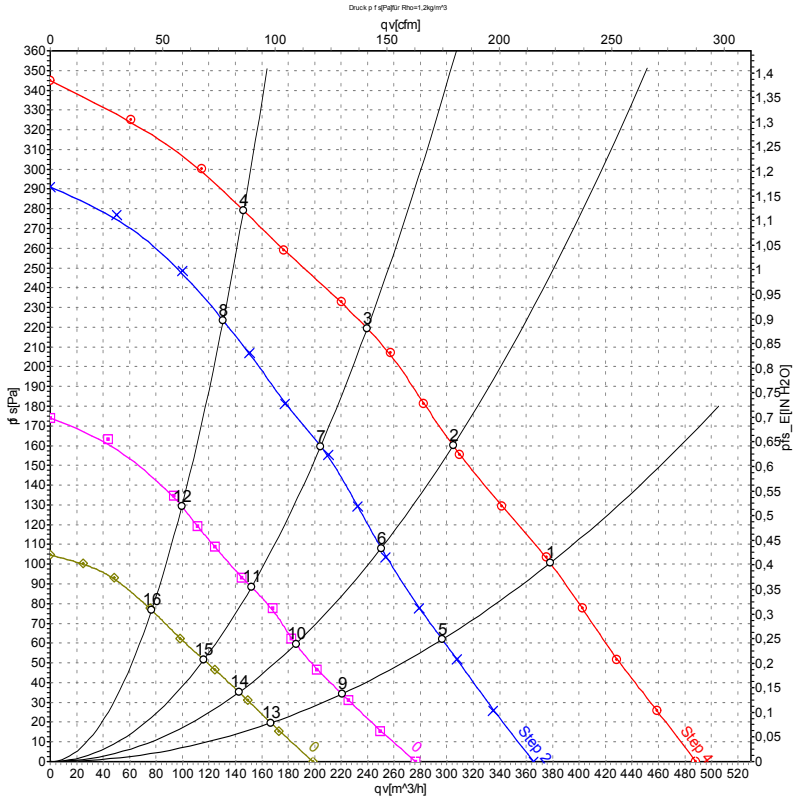
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Curves: Air performance 60 Hz



Measurement: LU-65093-1
Measurement: LU-65095-1
Measurement: LU-65097-1
Measurement: LU-65099-1

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

	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	4	230	60	1400	125	0.55	380	100	220	0.40
2	4	230	60	1700	125	0.54	305	160	180	0.64
3	4	230	60	1955	124	0.54	240	220	140	0.88
4	4	230	60	2205	122	0.53	145	280	85	1.12
5	3	230	60	1115	80	0.42	295	62	175	0.25
6	3	230	60	1400	78	0.42	250	108	145	0.43
7	3	230	60	1675	77	0.42	205	160	120	0.64
8	3	230	60	1980	74	0.41	130	223	75	0.90
9	2	230	60	835	61	0.35	220	34	130	0.14
10	2	230	60	1045	60	0.35	185	59	110	0.24
11	2	230	60	1240	60	0.35	150	88	90	0.35
12	2	230	60	1520	58	0.35	100	130	60	0.52
13	1	230	60	620	49	0.27	165	20	100	0.08
14	1	230	60	790	48	0.27	145	35	85	0.14
15	1	230	60	950	47	0.26	115	52	70	0.21
16	1	230	60	1165	46	0.26	75	77	45	0.31

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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