D2E146-HS07-04

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)



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Nominal data

Type	**D2E146-HS07-04**
Motor	**M2E068-DF**

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}	1550	1750
Power consumption	W	220	240
Current draw	A	0.97	1.06
Capacitor	µF	5	5
Capacitor voltage	VDB	400	400
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	50	150
Min. back pressure	inH2O	0.2	0.6
Min. ambient temperature	°C	-20	-20
Max. ambient temperature	°C	50	40

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	3.2 kg
Fan size	146 mm
Terminal box material	PP plastic
Impeller material	Sheet steel, galvanized
Housing material	PP plastic
Guard grille material	PP plastic
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
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, open rotor
Mode	S1
Motor bearing	Calotte 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

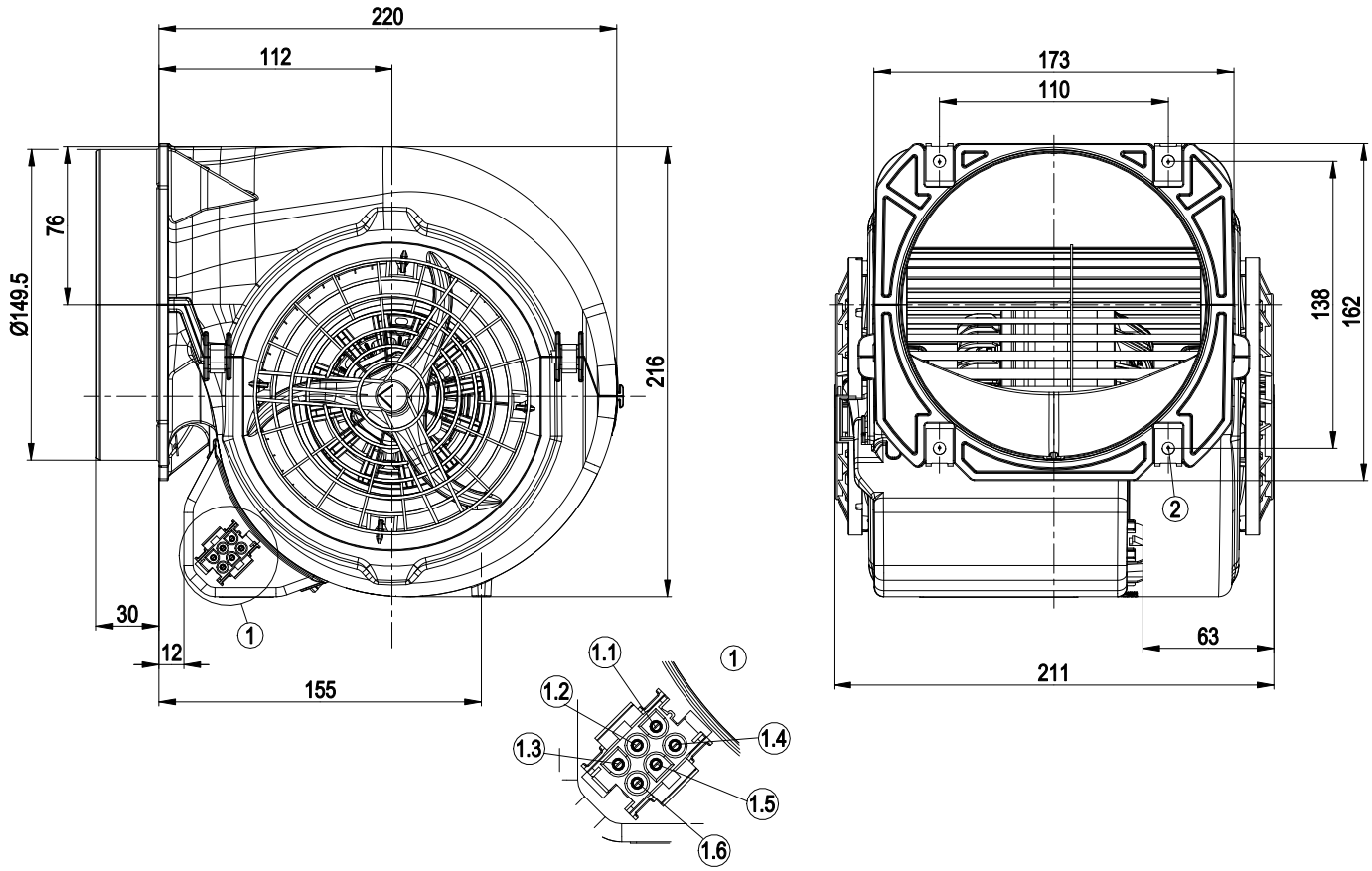
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Product drawing



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 (min. screw length 14.5 mm plus material thickness of mounting)

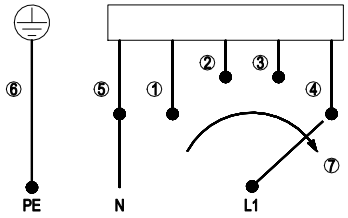
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Connection diagram



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				

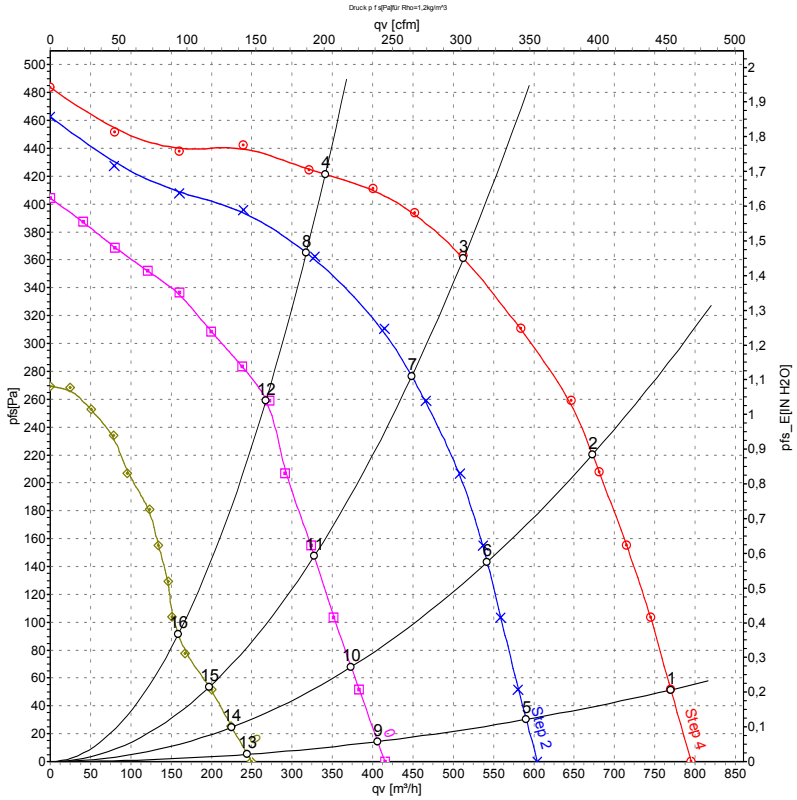
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Curves: Air performance 50 Hz



Measurement: LU-66967-1
Measurement: LU-66969-1
Measurement: LU-66970-1
Measurement: LU-66972-1

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	50	1550	220	0.97	770	50	455	0.20
2	4	230	50	1935	203	0.88	675	220	395	0.88
3	4	230	50	2285	180	0.78	510	360	300	1.45
4	4	230	50	2520	156	0.69	340	420	200	1.69
5	3	230	50	1215	174	0.77	590	30	345	0.12
6	3	230	50	1575	164	0.74	540	144	320	0.58
7	3	230	50	2015	146	0.68	450	276	265	1.11
8	3	230	50	2370	120	0.60	320	366	185	1.47
9	2	230	50	860	137	0.63	405	14	240	0.06
10	2	230	50	1100	133	0.61	375	68	220	0.27
11	2	230	50	1475	125	0.59	330	148	195	0.59
12	2	230	50	1960	109	0.54	270	262	160	1.05
13	1	230	50	515	108	0.51	245	5	145	0.02
14	1	230	50	680	106	0.50	225	24	130	0.10
15	1	230	50	900	103	0.49	195	54	115	0.22
16	1	230	50	1195	100	0.48	160	91	95	0.37

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

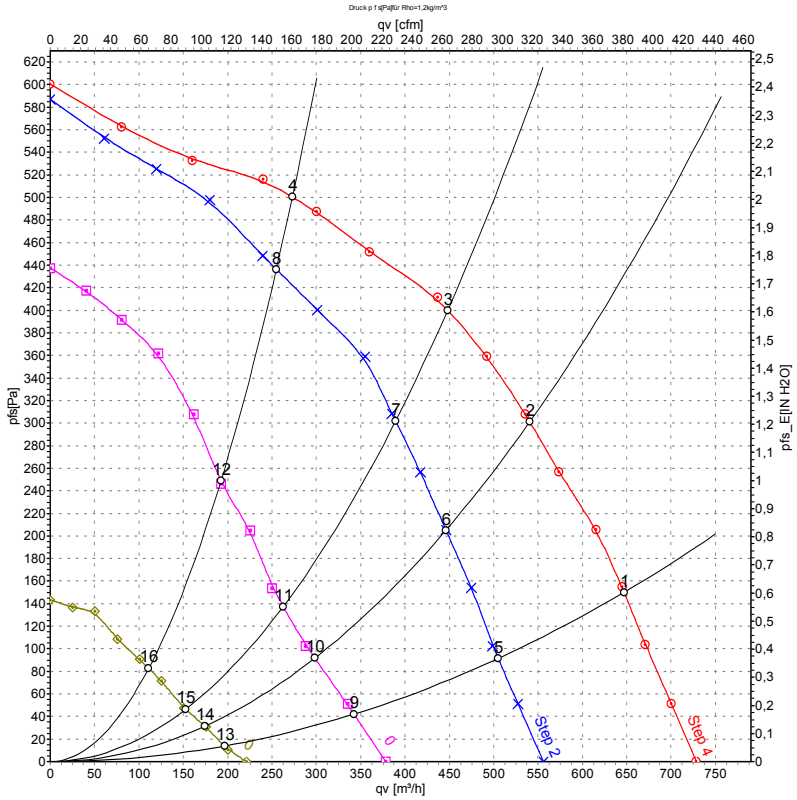
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Curves: Air performance 60 Hz



Measurement: LU-66991-1
Measurement: LU-66992-1
Measurement: LU-66993-1
Measurement: LU-66994-1

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	1750	240	1.06	645	150	380	0.60
2	4	230	60	2105	234	1.02	540	300	320	1.20
3	4	230	60	2405	226	0.99	450	400	265	1.61
4	4	230	60	2765	214	0.95	275	500	160	2.01
5	3	230	60	1360	178	0.83	505	91	295	0.37
6	3	230	60	1750	174	0.82	445	205	265	0.82
7	3	230	60	2100	167	0.81	390	302	230	1.21
8	3	230	60	2605	149	0.77	255	436	150	1.75
9	2	230	60	930	132	0.65	340	42	200	0.17
10	2	230	60	1180	129	0.64	300	91	175	0.37
11	2	230	60	1420	127	0.64	265	137	155	0.55
12	2	230	60	1930	121	0.63	195	246	115	0.99
13	1	230	60	550	102	0.52	195	13	115	0.05
14	1	230	60	710	101	0.52	175	32	100	0.13
15	1	230	60	840	100	0.51	155	46	90	0.18
16	1	230	60	1150	98	0.51	110	83	65	0.33

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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