D2E146-HS01-05

AC centrifugal fan

forward-curved, dual-intake

with housing (large flange)



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Nominal data

Type	**D2E146-HS01-05**
Motor	**M2E068-DF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	1450
Power consumption	W	200
Current draw	A	0.88
Capacitor	µF	5
Capacitor voltage	VDB	400
Capacitor standard		S2 (CE)
Min. back pressure	Pa	50
Min. back pressure	inH2O	0.2
Min. ambient temperature	°C	-20
Max. ambient temperature	°C	50
Starting current	A	0.92

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	2.94 kg
Fan size	146 mm
Rotor surface	Partly cast in aluminum
Terminal box material	PP plastic, black
Impeller material	PP plastic, glass-fiber reinforced
Housing material	PP plastic, black
Motor suspension	Motor vibration-damped on both sides
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	Shaft horizontal or rotor on bottom; rotor on top on request
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

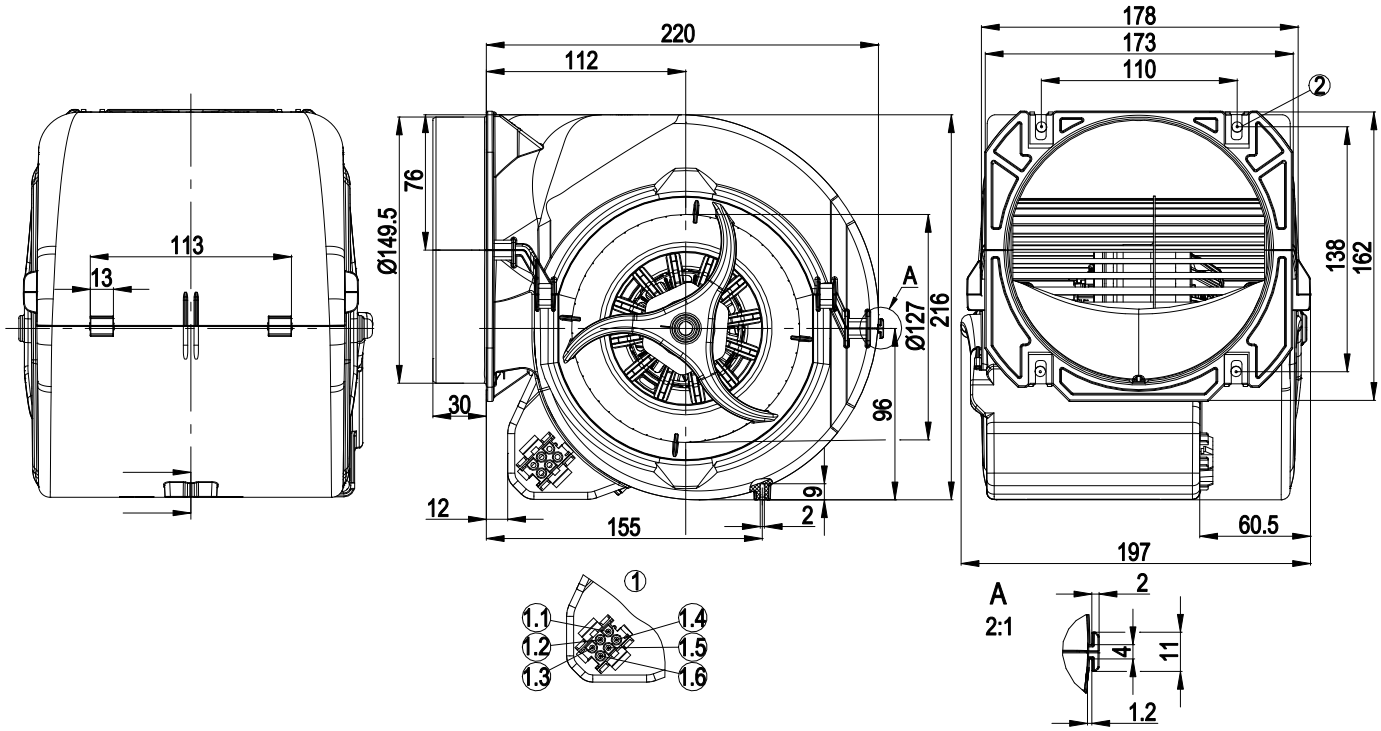
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Product drawing



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)

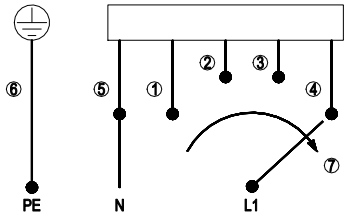
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Connection diagram



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				

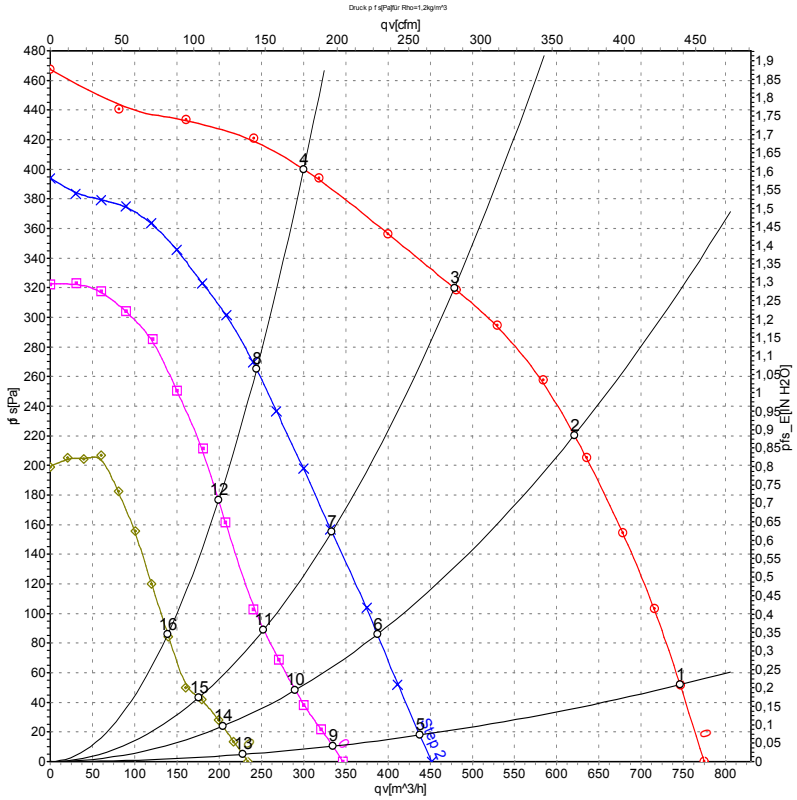
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Curves: Air performance 50 Hz



Measurement: LU-131563-1
Measurement: LU-110223-1
Measurement: LU-110225-1
Measurement: LU-110227-1

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		230	50	1450	200	0.88	745	50	440	0.20
2		230	50	1965	179	0.78	620	220	365	0.88
3		230	50	2280	162	0.72	480	320	280	1.28
4		230	50	2545	140	0.63	300	400	175	1.61
5	3	230	50	875	120	0.57	440	18	260	0.07
6	3	230	50	1240	115	0.56	390	86	230	0.35
7	3	230	50	1590	109	0.54	335	155	195	0.62
8	3	230	50	2090	93	0.50	245	265	145	1.06
9	2	230	50	680	104	0.51	335	10	195	0.04
10	2	230	50	965	102	0.50	290	48	170	0.19
11	2	230	50	1245	98	0.49	255	89	150	0.36
12	2	230	50	1690	89	0.47	200	176	120	0.71
13	1	230	50	470	90	0.45	230	5	135	0.02
14	1	230	50	660	88	0.44	205	24	120	0.10
15	1	230	50	870	87	0.44	175	44	105	0.18
16	1	230	50	1195	83	0.43	140	86	80	0.35

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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