D2E146-HS21-51

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)



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Nominal data

Type	**D2E146-HS21-51**
Motor	**M2E068-DF**

Phase		1~
Nominal voltage	VAC	240
Nominal voltage range	VAC	230 .. 240
Frequency	Hz	50
Method of obtaining data		fa
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	1570
Power consumption	W	295
Current draw	A	1.25
Capacitor	µF	6
Capacitor voltage	VDB	450
Capacitor standard		S2 (CE)
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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 kg
Size	146 mm
Motor size	68
Rotor surface	Unpainted
Terminal box material	PP plastic
Impeller material	PP plastic
Housing material	PP plastic
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 mounting	Calotte bearing
Speed levels	4
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	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

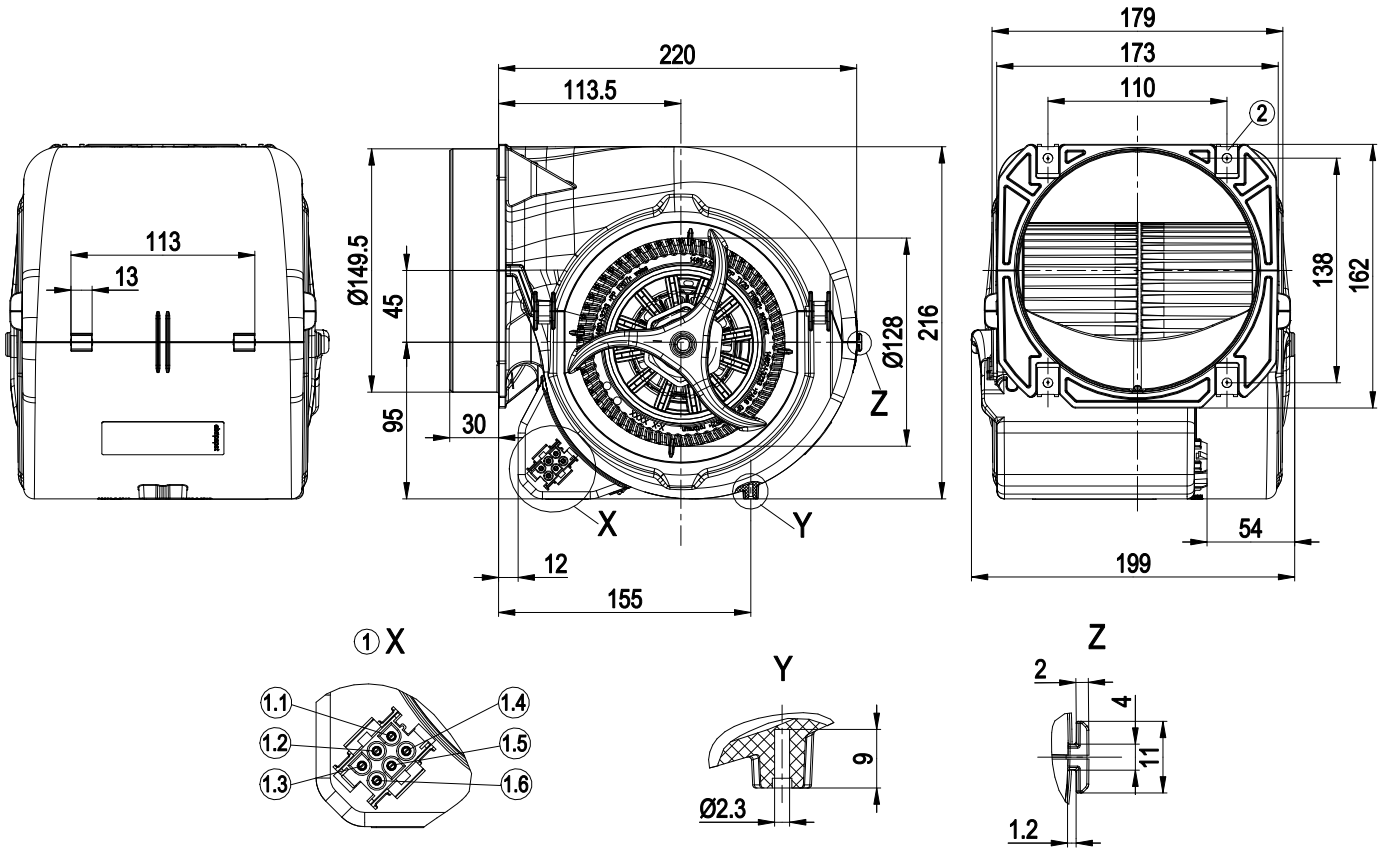
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Product drawing



1	Coded plug system: 6-pole connector housing tyco 2178773-1, 6x plug pin tyco 926886-1
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 attachment)

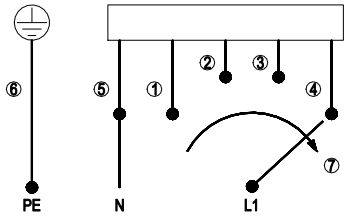
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Connection diagram



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				

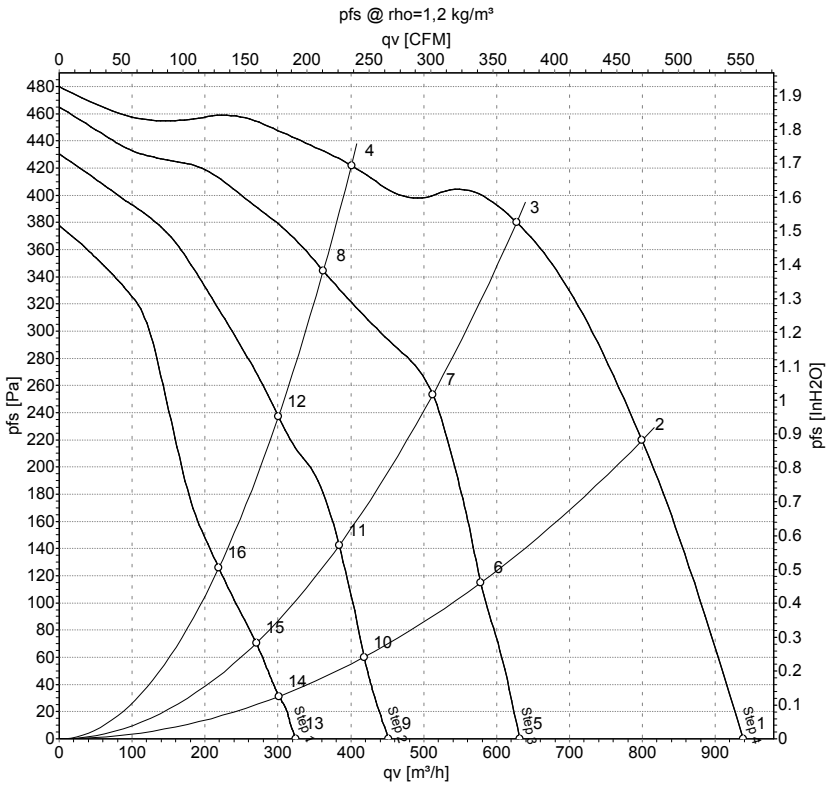
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Curves: Air performance 50 Hz



Measurement: LU-71026-1
Measurement: LU-71027-1
Measurement: LU-71029-1
Measurement: LU-71031-1

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	in. wg
1	4	240	50	1570	295	1.25	940	0	550	0.00
2	4	240	50	2030	265	1.11	800	220	470	0.88
3	4	240	50	2285	236	0.99	630	380	370	1.53
4	4	240	50	2525	213	0.89	400	420	235	1.69
5	3	240	50	1115	200	0.88	630	0	370	0.00
6	3	240	50	1485	191	0.86	580	113	340	0.45
7	3	240	50	1930	172	0.80	510	256	300	1.03
8	3	240	50	2265	149	0.74	360	344	215	1.38
9	2	240	50	810	162	0.74	450	0	265	0.00
10	2	240	50	1095	157	0.72	420	59	245	0.24
11	2	240	50	1450	149	0.70	385	142	225	0.57
12	2	240	50	1890	134	0.66	300	237	175	0.95
13	1	240	50	600	137	0.63	325	0	190	0.00
14	1	240	50	805	134	0.62	300	31	180	0.12
15	1	240	50	1040	131	0.61	270	72	160	0.29
16	1	240	50	1370	125	0.60	220	126	130	0.51

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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