AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Nominal data

Type	**D2E146-HS01-A5**
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	in. wg	0.2
Min. ambient temperature	°C	-30
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	3 kg
Size	146 mm
Motor size	68
Rotor surface	Unpainted
Terminal box material	PP plastic
Impeller material	PP plastic
Housing material	PP plastic
Guard grille 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
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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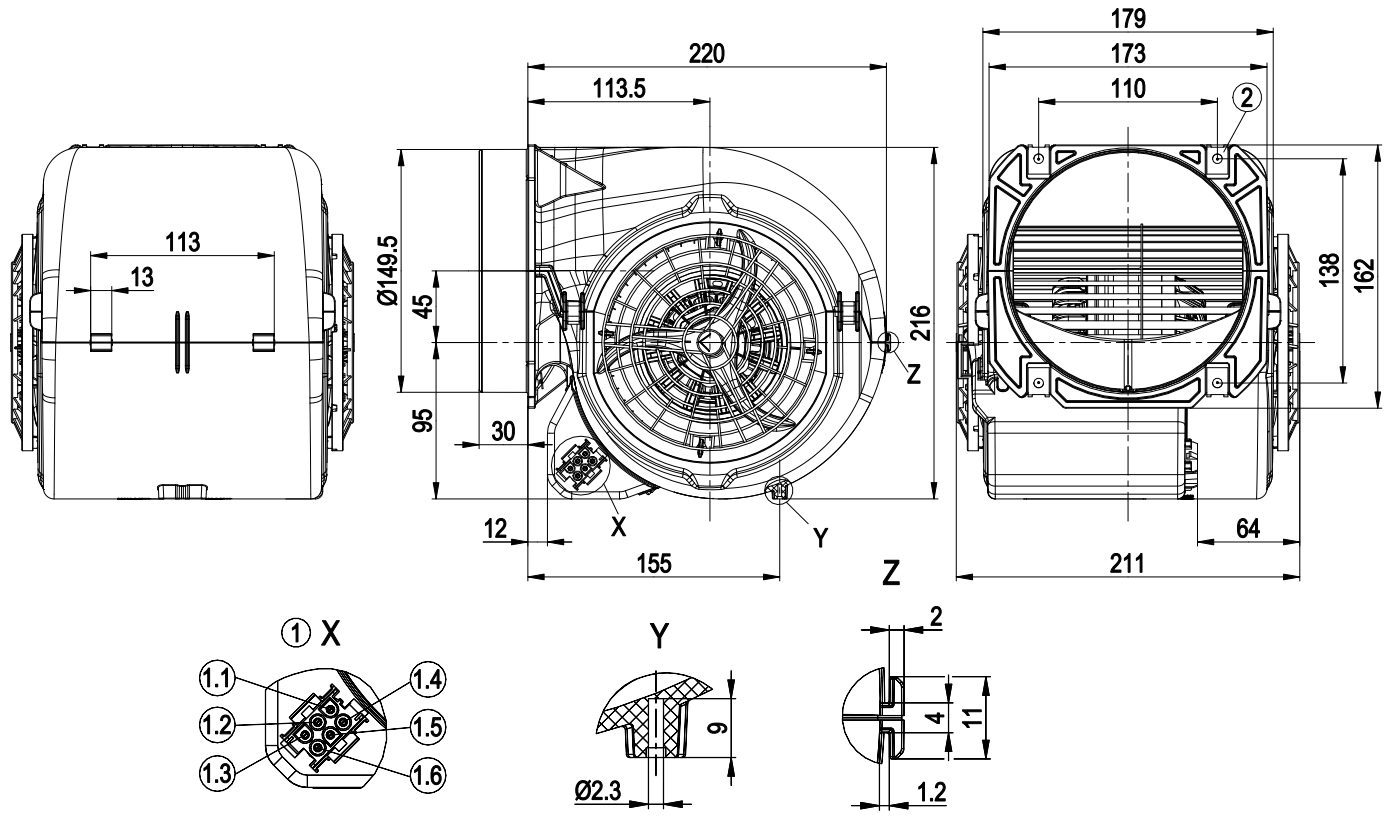
Product drawing



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 mounting)

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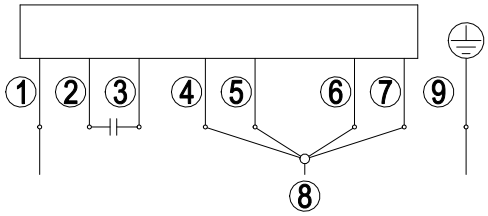
Connection diagram



Note: High speed (step IV); low speed (step I); the switch must interrupt the circuit when switching.

1	N (blue)
2	brown
3	yellow
4	Step I black 1 / white
5	Step II black 2 / red
6	Step III black 3 / gray
7	Step IV black 4 / black
8	L1
9	= PE = green/yellow

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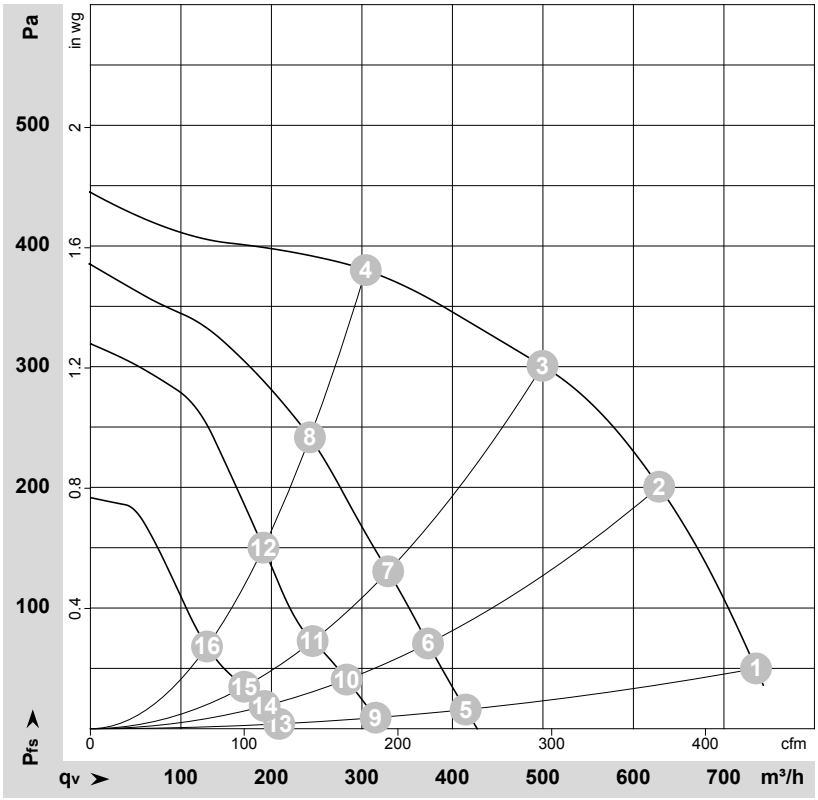
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-168305-1
Measurement: LU-168371-1
Measurement: LU-168372-1
Measurement: LU-168376-1

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	230	50	1450	200	0.88	735	50	435	0.20
2	4	230	50	1880	182	0.79	630	200	370	0.80
3	4	230	50	2180	168	0.74	500	300	295	1.20
4	4	230	50	2485	147	0.67	305	380	180	1.53
5	3	230	50	850	120	0.57	415	16	245	0.06
6	3	230	50	1135	118	0.56	375	71	220	0.29
7	3	230	50	1455	114	0.55	330	131	195	0.53
8	3	230	50	1990	99	0.52	245	242	145	0.97
9	2	230	50	650	104	0.50	315	9	185	0.04
10	2	230	50	865	102	0.49	285	41	165	0.16
11	2	230	50	1095	100	0.49	245	73	145	0.29
12	2	230	50	1570	94	0.47	190	151	110	0.61
13	1	230	50	440	92	0.44	210	4	125	0.02
14	1	230	50	605	90	0.44	195	20	115	0.08
15	1	230	50	760	89	0.44	170	35	100	0.14
16	1	230	50	1060	86	0.43	130	68	75	0.27

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