D2E146-KB27-01

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)



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Nominal data

Type	**D2E146-KB27-01**
Motor	**M2E068-CF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	1250	1950
Power consumption	W	160	170
Current draw	A	0.70	0.75
Capacitor	µF	4	4
Capacitor voltage	VDB	400	400
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	0	200
Min. back pressure	in. wg	0	0.8
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	2.7 kg
Size	146 mm
Motor size	68
Rotor surface	Partly cast in aluminum
Terminal box material	PP plastic, black
Impeller material	PA66 plastic, glass-fiber reinforced
Housing material	PP plastic, black
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
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 mounting	Ball 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 60335-2-31; CE
Approval	EAC

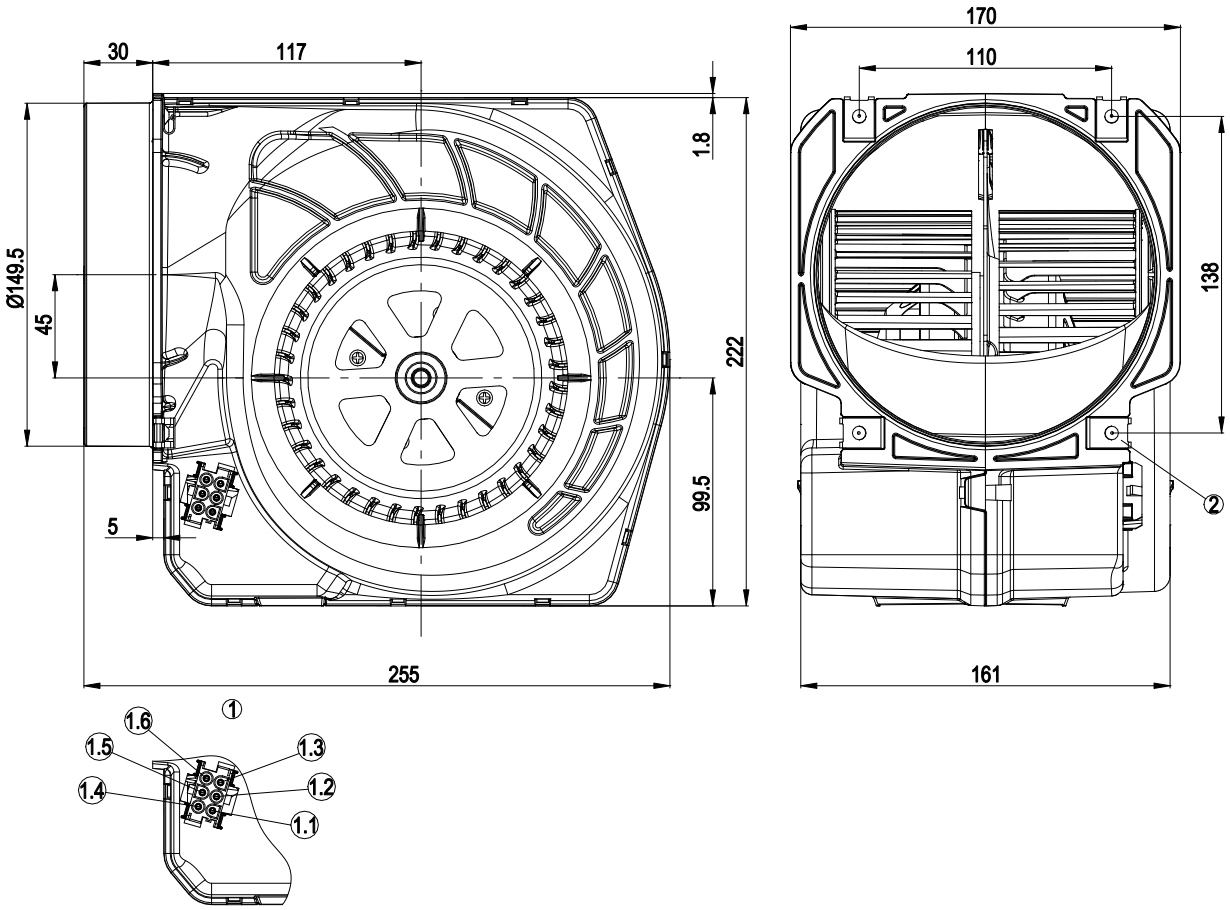
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Product drawing



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)

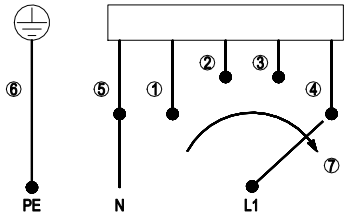
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Connection diagram



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				

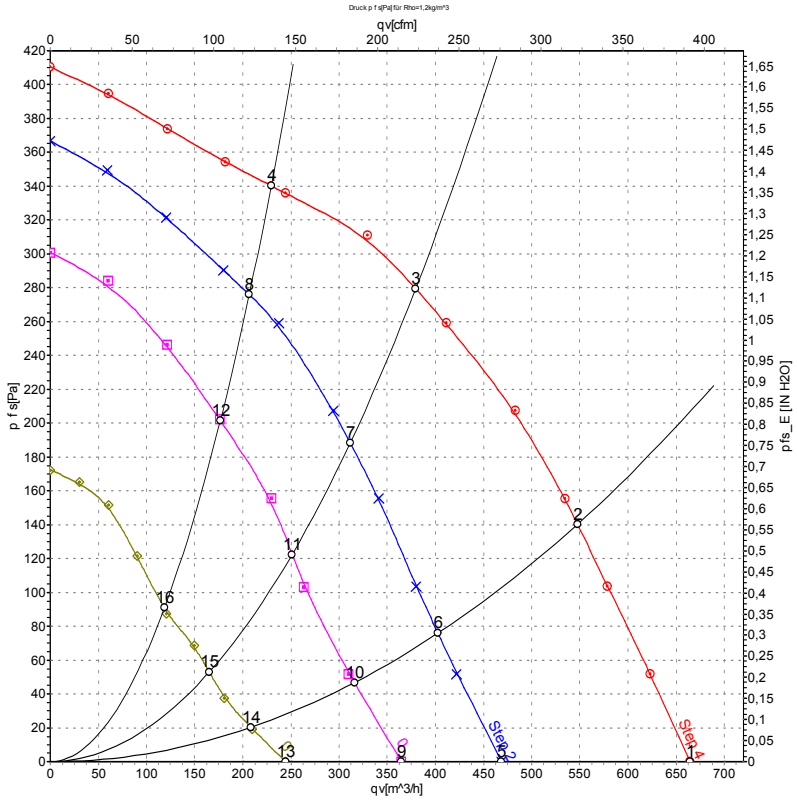
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Curves: Air performance 50 Hz



Measurement: LU-65660-1
Measurement: LU-65663-1
Measurement: LU-65665-1
Measurement: LU-65667-1

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	1250	160	0.70	665	0	390	0.00
2	4	230	50	1740	150	0.65	550	140	325	0.56
3	4	230	50	2200	136	0.60	380	280	225	1.12
4	4	230	50	2450	123	0.55	230	340	135	1.36
5	3	230	50	915	104	0.51	470	0	275	0.00
6	3	230	50	1290	100	0.50	405	76	235	0.31
7	3	230	50	1825	91	0.47	310	188	185	0.75
8	3	230	50	2200	81	0.45	205	276	120	1.11
9	2	230	50	720	86	0.44	365	0	215	0.00
10	2	230	50	1000	85	0.43	315	46	185	0.18
11	2	230	50	1460	79	0.42	250	122	150	0.49
12	2	230	50	1890	72	0.40	175	202	105	0.81
13	1	230	50	500	72	0.37	245	0	145	0.00
14	1	230	50	695	70	0.37	210	20	120	0.08
15	1	230	50	970	68	0.36	165	53	95	0.21
16	1	230	50	1275	66	0.35	120	90	70	0.36

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

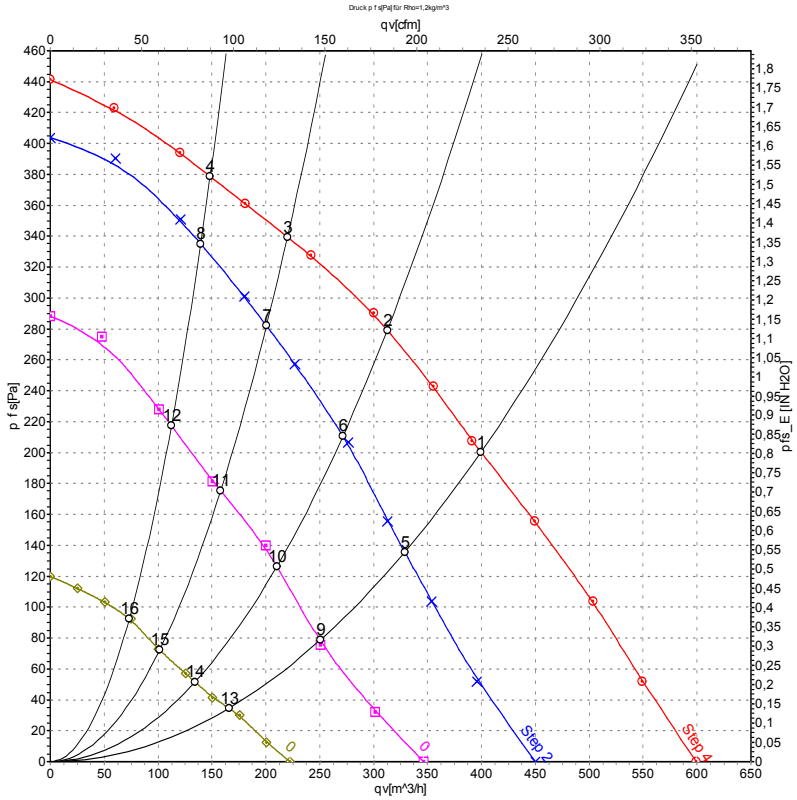
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Curves: Air performance 60 Hz



Measurement: LU-65661-1
Measurement: LU-65664-1
Measurement: LU-65666-1
Measurement: LU-65668-1

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	60	1950	170	0.75	400	200	235	0.80
2	4	230	60	2220	165	0.72	315	280	185	1.12
3	4	230	60	2440	162	0.71	220	340	130	1.36
4	4	230	60	2570	161	0.70	150	380	85	1.53
5	3	230	60	1560	108	0.57	330	136	195	0.55
6	3	230	60	1920	104	0.57	270	212	160	0.85
7	3	230	60	2235	100	0.56	200	282	120	1.13
8	3	230	60	2430	96	0.56	140	335	80	1.34
9	2	230	60	1200	85	0.48	250	76	145	0.31
10	2	230	60	1480	84	0.48	210	127	125	0.51
11	2	230	60	1780	81	0.48	160	175	95	0.70
12	2	230	60	1980	79	0.48	110	218	65	0.88
13	1	230	60	785	67	0.40	165	35	100	0.14
14	1	230	60	980	67	0.40	135	52	80	0.21
15	1	230	60	1150	66	0.40	100	72	60	0.29
16	1	230	60	1270	65	0.40	75	93	45	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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