D2E146-HT73-92

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)



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Nominal data

Type	**D2E146-HT73-92**
Motor	**M2E068-EC**

Phase		1~	1~
Nominal voltage	VAC	200	200
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	1930	2150
Power consumption	W	350	390
Current draw	A	1.76	1.96
Capacitor	µF	10	10
Capacitor voltage	VDB	400	400
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	0	200
Min. back pressure	inH2O	0	0.8
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	45	45

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	3.7 kg
Fan size	146 mm
Rotor surface	Unpainted
Terminal box material	PP plastic, black
Impeller material	Sheet steel, galvanized
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	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball 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 60335-2-31; CE
Approval	CSA C22.2 No. 100; UL 1004-1

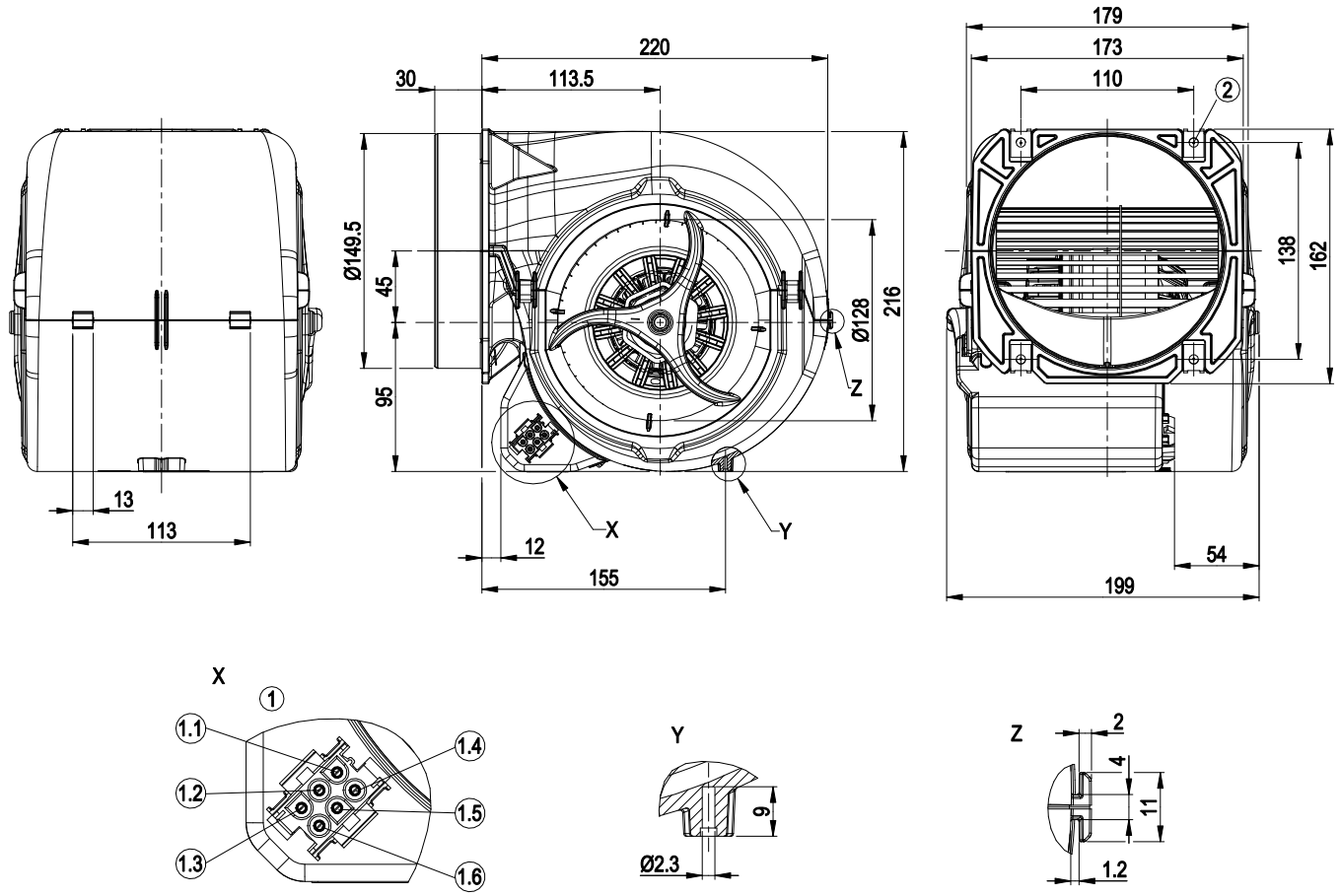
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Product drawing



1	Coded plug system: 6-pole connector housing tyco 926682-3, 6x plug pin tyco 926886-1
1.1	L = step 1 (min.)
1.2	L = step 2
1.3	L = step 3
1.4	L = step 4 (max.)
1.5	N
1.6	PE
2	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of mounting)

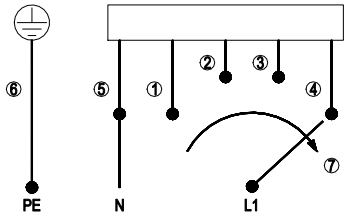
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Connection diagram



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				

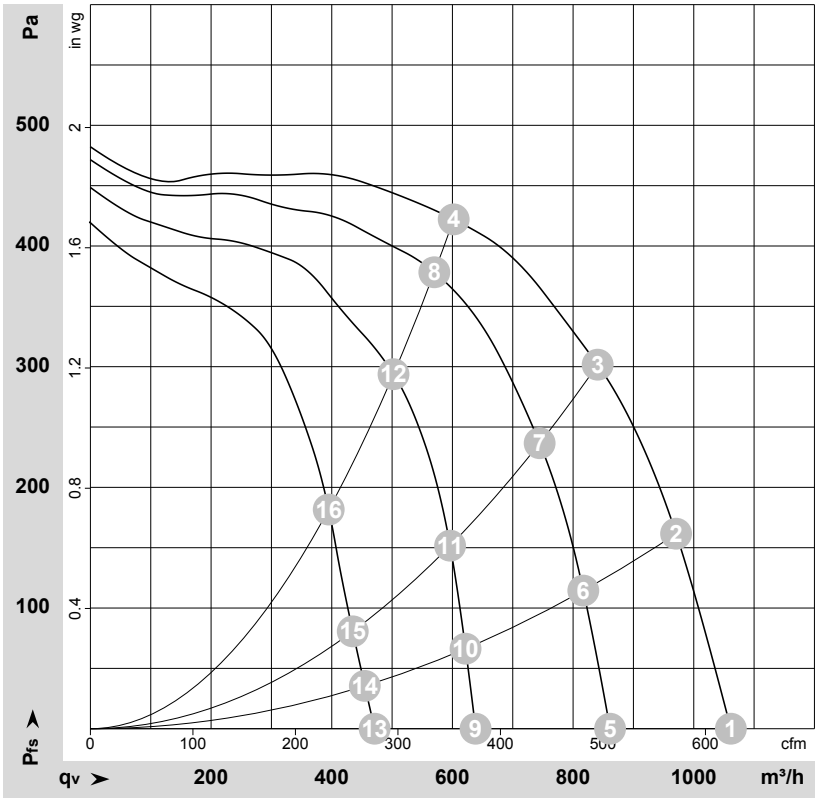
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-118963-1
Measurement: LU-118969-1
Measurement: LU-118972-1
Measurement: LU-118974-1

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	200	50	1930	350	1.76	1060	0	625	0.00
2	4	200	50	2130	324	1.61	970	160	570	0.64
3	4	200	50	2335	291	1.45	840	300	495	1.20
4	4	200	50	2560	244	1.22	600	420	355	1.69
5	3	200	50	1555	293	1.49	860	0	505	0.00
6	3	200	50	1805	272	1.40	815	117	480	0.47
7	3	200	50	2085	246	1.28	745	237	440	0.95
8	3	200	50	2405	204	1.10	570	380	335	1.53
9	2	200	50	1155	240	1.24	640	0	375	0.00
10	2	200	50	1385	233	1.21	620	70	365	0.28
11	2	200	50	1665	219	1.16	595	152	350	0.61
12	2	200	50	2130	186	1.02	500	294	295	1.18
13	1	200	50	865	203	1.06	470	0	275	0.00
14	1	200	50	1020	199	1.04	455	35	270	0.14
15	1	200	50	1215	194	1.03	435	78	255	0.31
16	1	200	50	1690	176	0.96	395	185	230	0.74

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

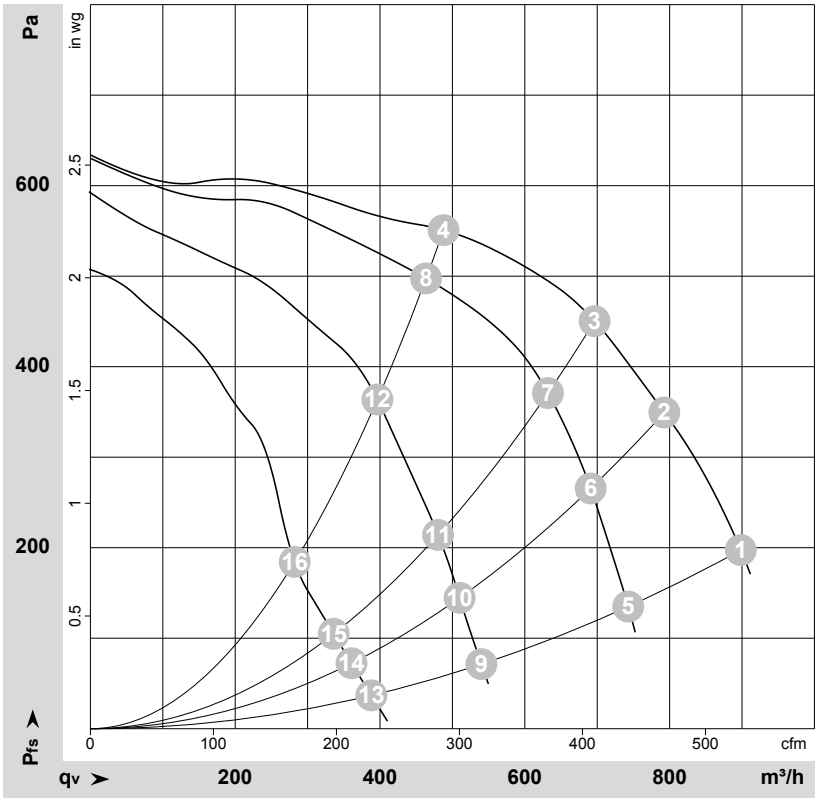
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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-118975-1
Measurement: LU-118978-1
Measurement: LU-118979-1
Measurement: LU-118980-1

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	200	60	2150	390	1.96	900	200	530	0.80
2	4	200	60	2430	372	1.87	795	350	465	1.41
3	4	200	60	2640	359	1.80	695	450	410	1.81
4	4	200	60	2935	326	1.65	490	550	285	2.21
5	3	200	60	1770	299	1.58	745	136	435	0.55
6	3	200	60	2120	285	1.53	690	266	405	1.07
7	3	200	60	2395	272	1.49	630	372	370	1.49
8	3	200	60	2800	238	1.39	465	498	275	2.00
9	2	200	60	1305	237	1.29	540	70	320	0.28
10	2	200	60	1580	231	1.27	510	145	300	0.58
11	2	200	60	1855	224	1.25	480	216	285	0.87
12	2	200	60	2355	202	1.19	395	364	235	1.46
13	1	200	60	965	195	1.08	390	37	230	0.15
14	1	200	60	1150	192	1.07	360	72	210	0.29
15	1	200	60	1330	190	1.06	335	105	200	0.42
16	1	200	60	1750	181	1.04	280	176	165	0.71

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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