D4E146-LV19-12

AC centrifugal fan

forward curved, dual inlet

with housing (flange)



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Nominal data

Type	**D4E146-LV19-12**
Motor	**M4E068-CF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		cu	cu
Valid for approval / standard		CE	CE
Speed	min^{-1}	1180	1170
Power input	W	53	65
Current draw	A	0.24	0.29
Motor capacitor	µF	2	2
Capacitor voltage	VDB	400	400
Capacitor standard		P2 (CE)	P2 (CE)
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	55	55
Starting current	A	0.33	0.33

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

Mass	2.5 kg
Size	146 mm
Surface of rotor	Uncoated
Material of terminal box	PP plastic
Material of impeller	PA plastic
Housing material	PP plastic
Motor suspension	Motor mounted vibration-free on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"F"
Humidity class	F0
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Speed steps	5
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical leads	Via terminal box, integrated capacitor connected via terminal box; With plug
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

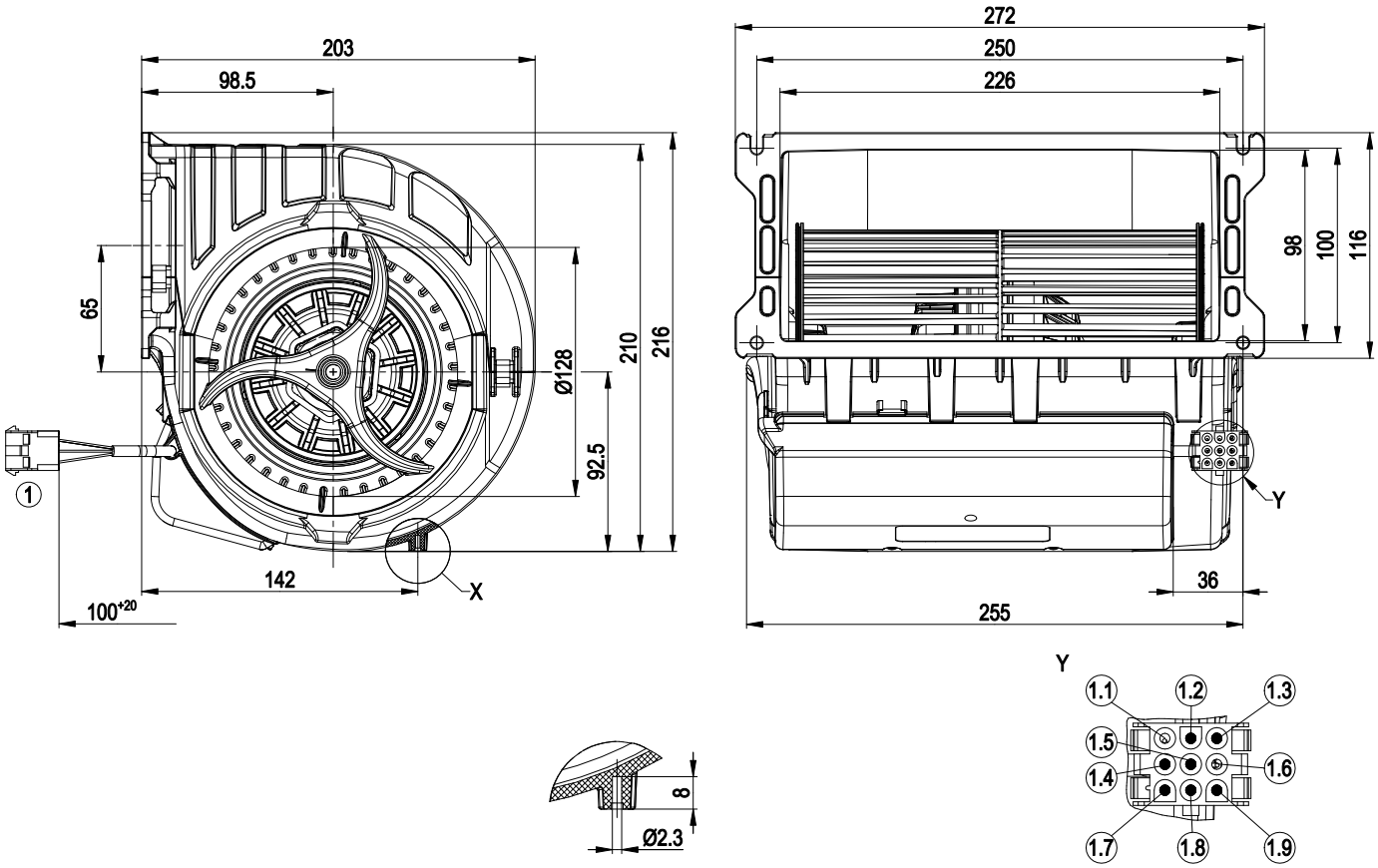
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Product drawing



1	Connection line ETFE AWG20, 1x plug pin Tyco 926886-1, connection line ETFE AWG22, 6x plug pin Tyco 926886-1, 1x connector housing 9-pole Tyco 927231-3
1.1	Step 1 (min.)
1.2	Step 2
1.3	Step 3
1.4	Step 4
1.5	Step 5 (max.)
1.6	-
1.7	-
1.8	N
1.9	Protective earth

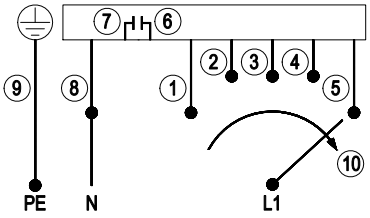
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Connection screen



When changing speeds, switch must break the circuit

1	Step 1 (min.)	2	Step 2	3	Step 3
4	Step 4	5	Step 5 (max.)	6	Capacitor
7	Capacitor	8	N	9	Protective earth
10	Speed increase				

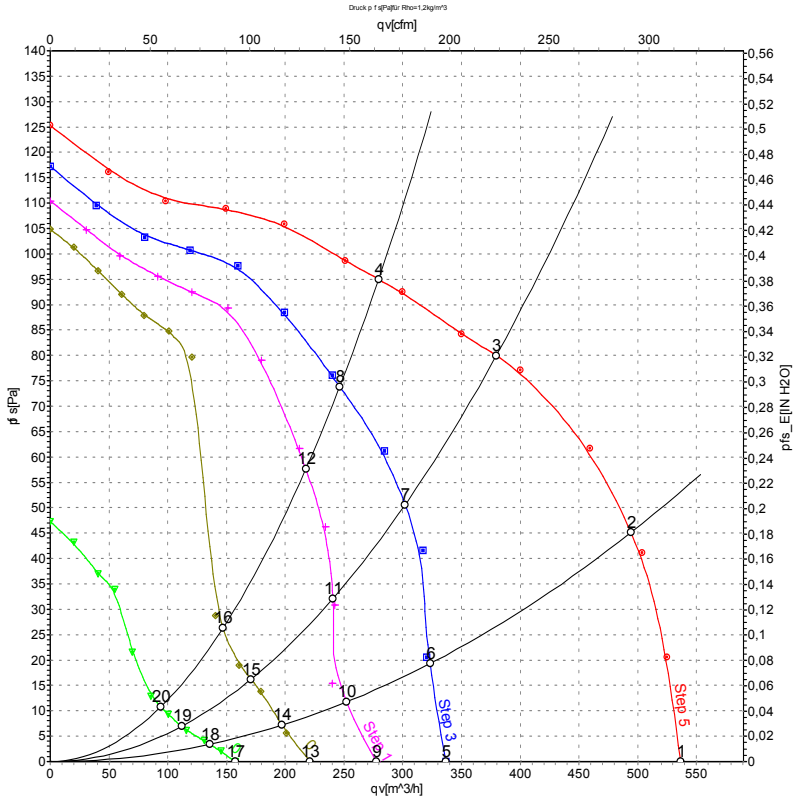
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Charts: Air flow 50 Hz



Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Stage	U	f	n	P_e	I	LwA_{in}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa
1	5	230	50	780	65	0.29	54	535	0
2	5	230	50	1075	58	0.26	56	495	45
3	5	230	50	1270	48	0.21	56	380	80
4	5	230	50	1335	44	0.20	56	280	95
5	4	230	50	495	54	0.24		335	0
6	4	230	50	685	52	0.23		325	17
7	4	230	50	1015	45	0.21		300	51
8	4	230	50	1190	40	0.19		245	74
9	3	230	50	390	50	0.22		275	0
10	3	230	50	555	48	0.22		250	10
11	3	230	50	630	48	0.22		240	15
12	3	230	50	1045	41	0.19		220	58
13	2	230	50	345	20	0.16		220	0
14	2	230	50	445	20	0.16		195	7
15	2	230	50	580	20	0.16		170	16
16	2	230	50	715	20	0.16		145	26
17	1	230	50	245	13	0.13		155	0
18	1	230	50	315	13	0.13		135	3
19	1	230	50	395	13	0.13		110	7
20	1	230	50	465	13	0.13		95	11

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LwA_{in} = Sound power level inlet side · qv = Air flow · p_{fs} = Pressure increase

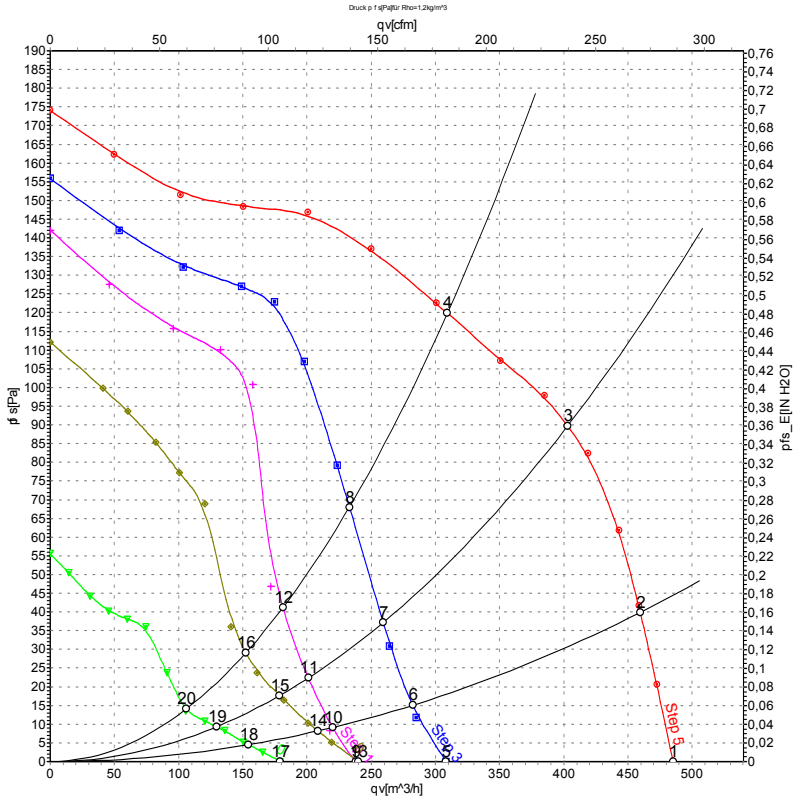
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Charts: Air flow 60 Hz



Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Stage	U	f	n	P_e	I	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	5	230	60	710	68	0.30	485	0
2	5	230	60	1010	66	0.29	460	40
3	5	230	60	1345	60	0.27	405	90
4	5	230	60	1505	54	0.25	310	120
5	4	230	60	465	52	0.24	310	0
6	4	230	60	625	51	0.24	280	14
7	4	230	60	870	50	0.24	260	37
8	4	230	60	1130	46	0.23	235	68
9	3	230	60	380	47	0.22	240	0
10	3	230	60	475	47	0.22	220	7
11	3	230	60	650	46	0.22	200	22
12	3	230	60	845	45	0.22	180	39
13	2	230	60	360	23	0.18	240	0
14	2	230	60	480	23	0.18	210	8
15	2	230	60	615	23	0.18	180	18
16	2	230	60	750	23	0.17	150	29
17	1	230	60	280	15	0.14	180	0
18	1	230	60	360	15	0.14	155	4
19	1	230	60	450	15	0.14	130	9
20	1	230	60	530	15	0.14	105	13

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