D2E140-HR97-05

AC centrifugal fan

forward curved, dual inlet

with housing (flange)

D2E140-HR97-05 ebmpapst Datasheet
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Nominal data

Type	**D2E140-HR97-05**
Motor	**M2E068-CF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min^{-1}	1150	1050
Power input	W	130	130
Current draw	A	0.58	0.58
Motor capacitor	µF	2	2
Capacitor voltage	VDB	400	400
Capacitor standard		P2 (CE)	P2 (CE)
Min. back pressure	Pa	0	0
Max. ambient temperature	°C	50	40
Starting current	A	0.57	0.59

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	2.4 kg
Size	140 mm
Surface of rotor	Uncoated
Material of impeller	PP plastic, white
Housing material	PP plastic, black
Motor suspension	Motor mounted via brackets on one side
Direction of rotation	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	Calotte bearing
Speed steps	4
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical leads	With plug; Via terminal box, integrated capacitor connected via terminal box
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	GOST; CCC; VDE

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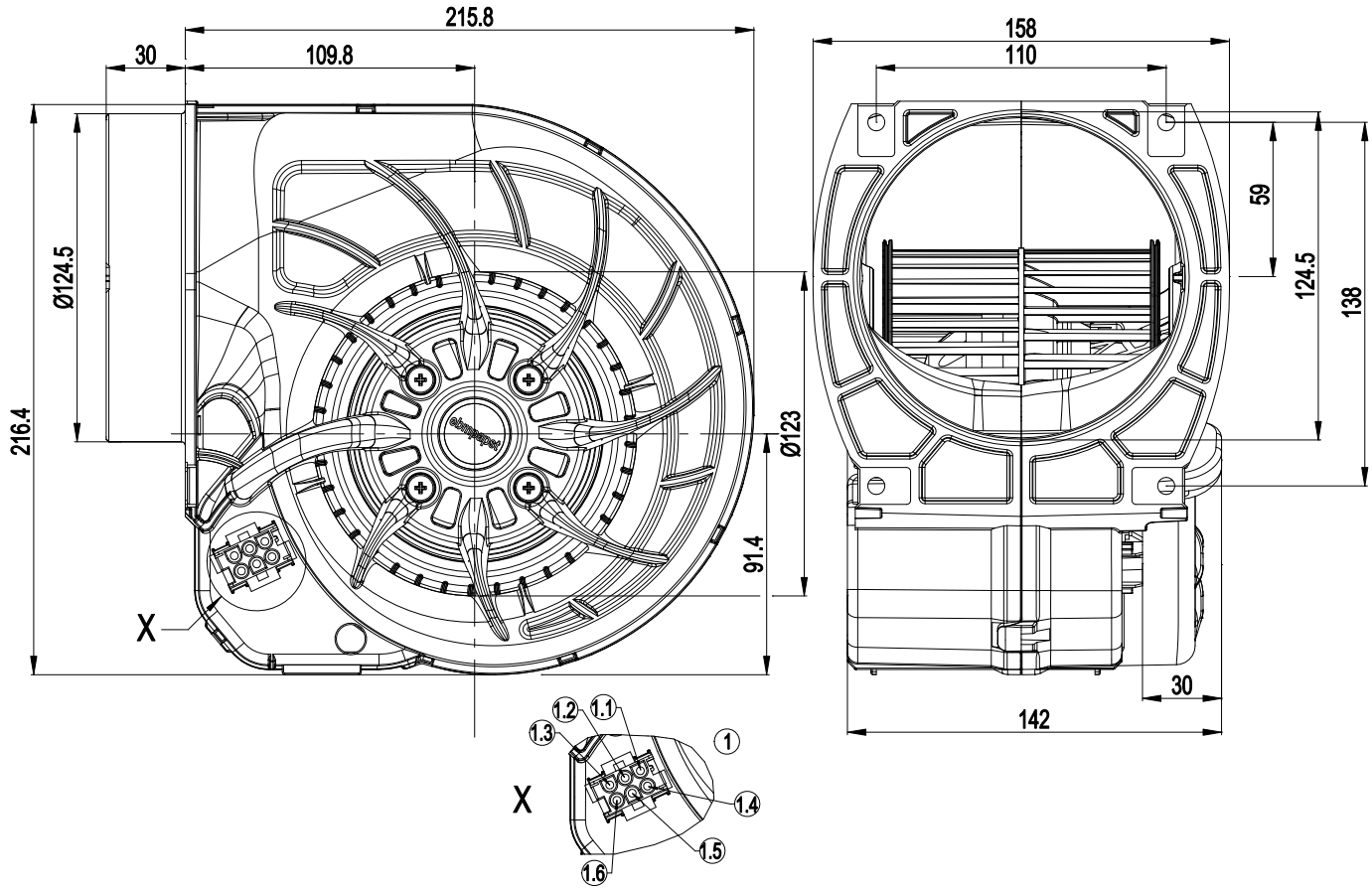
Product drawing



1	Connector housing AMP Mate-N-Lok 350 715-4
1.1	L= Stage 1
1.2	L = step 2
1.3	L= Stage 3
1.4	L= Stage 4 (max.)
1.5	N
1.6	Protective earth

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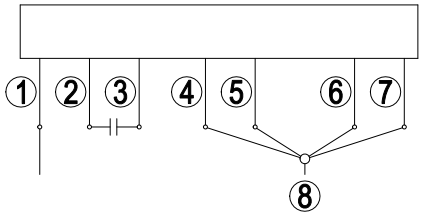
Connection screen



Note: fast speed (step IV); slow speed (step I); the switch must interrupt the circuit during the changeover.

1	= N = blue
2	brown
3	yellow
4	Step I black 1 / white
5	Step II black 2 / red
6	Step III black 3 / grey
7	Step IV black 4 / black
8	L1

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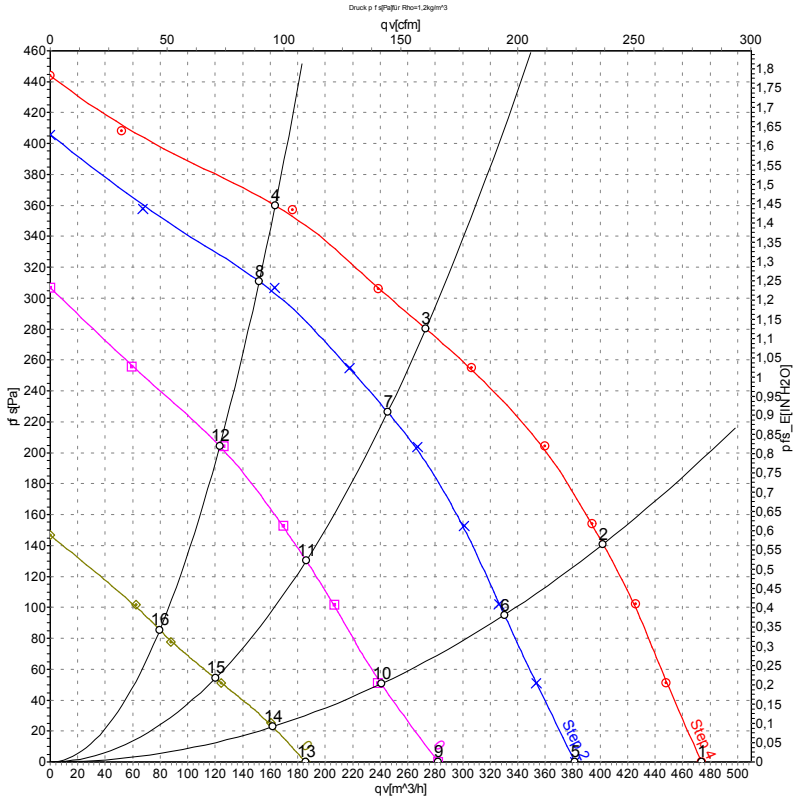
Charts: Air flow 50 Hz



Measurement: LU-43529
Measurement: LU-43530
Measurement: LU-43531
Measurement: LU-43532

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	4	230	50	1150	130	0.58	475	0
2	4	230	50	1705	117	0.51	400	140
3	4	230	50	2220	100	0.43	275	280
4	4	230	50	2390	92	0.40	165	360
5	3	230	50	955	97	0.43	380	0
6	3	230	50	1415	92	0.41	330	95
7	3	230	50	1995	81	0.36	245	226
8	3	230	50	2230	73	0.34	150	313
9	2	230	50	710	75	0.34	280	0
10	2	230	50	1020	73	0.33	240	48
11	2	230	50	1510	68	0.31	185	130
12	2	230	50	1815	63	0.30	125	206
13	1	230	50	490	57	0.26	185	0
14	1	230	50	705	56	0.26	160	24
15	1	230	50	1000	55	0.25	120	54
16	1	230	50	1185	54	0.25	80	85

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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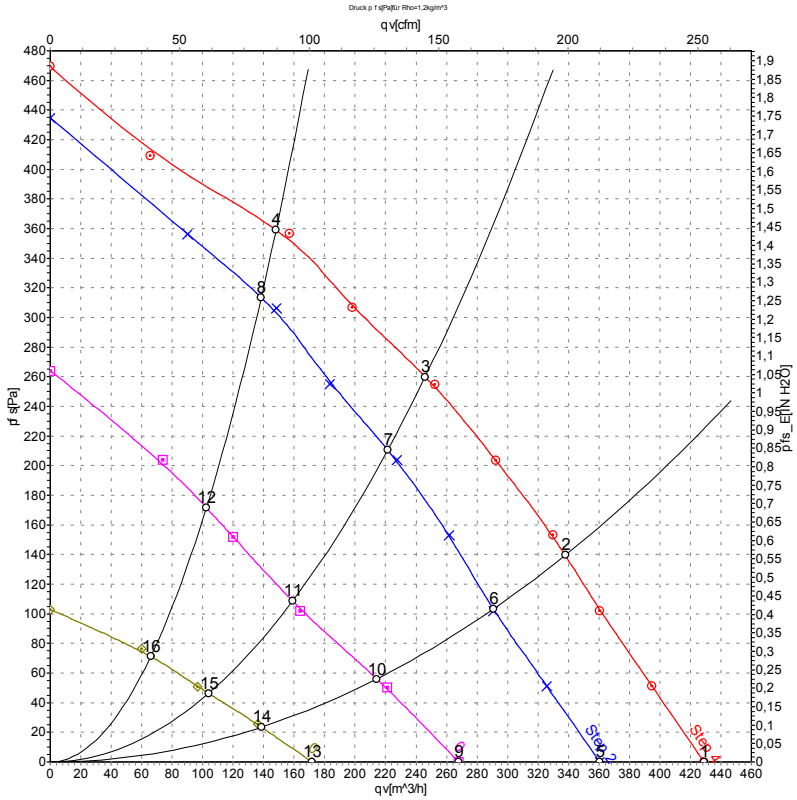
Charts: Air flow 60 Hz



Measurement: LU-43534
Measurement: LU-43535
Measurement: LU-43536
Measurement: LU-43533

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	4	230	60	1050	130	0.58	430	0
2	4	230	60	1635	127	0.56	340	140
3	4	230	60	2120	122	0.53	245	260
4	4	230	60	2380	118	0.51	150	360
5	3	230	60	905	100	0.44	360	0
6	3	230	60	1415	97	0.44	290	102
7	3	230	60	1920	93	0.43	220	211
8	3	230	60	2220	90	0.42	140	315
9	2	230	60	665	75	0.35	270	0
10	2	230	60	1045	73	0.34	215	57
11	2	230	60	1400	71	0.34	160	108
12	2	230	60	1675	70	0.34	100	172
13	1	230	60	455	56	0.27	170	0
14	1	230	60	700	55	0.27	140	24
15	1	230	60	925	54	0.27	105	46
16	1	230	60	1085	53	0.26	65	72

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase