D2E146-HS99-99

AC centrifugal fan

forward-curved, dual-intake

with housing (large flange)

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Nominal data

Type	**D2E146-HS99-99**
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}	2250
Power consumption	W	170
Current draw	A	0.75
Capacitor	µF	5
Capacitor voltage	VDB	400
Capacitor standard		S2 (CE)
Min. back pressure	Pa	300
Min. back pressure	inH2O	1.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45
Starting current	A	0.93

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	2.9 kg
Fan size	146 mm
Rotor surface	Partly cast in aluminum
Impeller material	PP plastic, white
Housing material	PP plastic, black
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, 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	Shaft horizontal or rotor on top; rotor on bottom on request
Condensation drainage holes	On stator side
Mode	S1
Motor bearing	Ball bearing
Speed levels	3
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

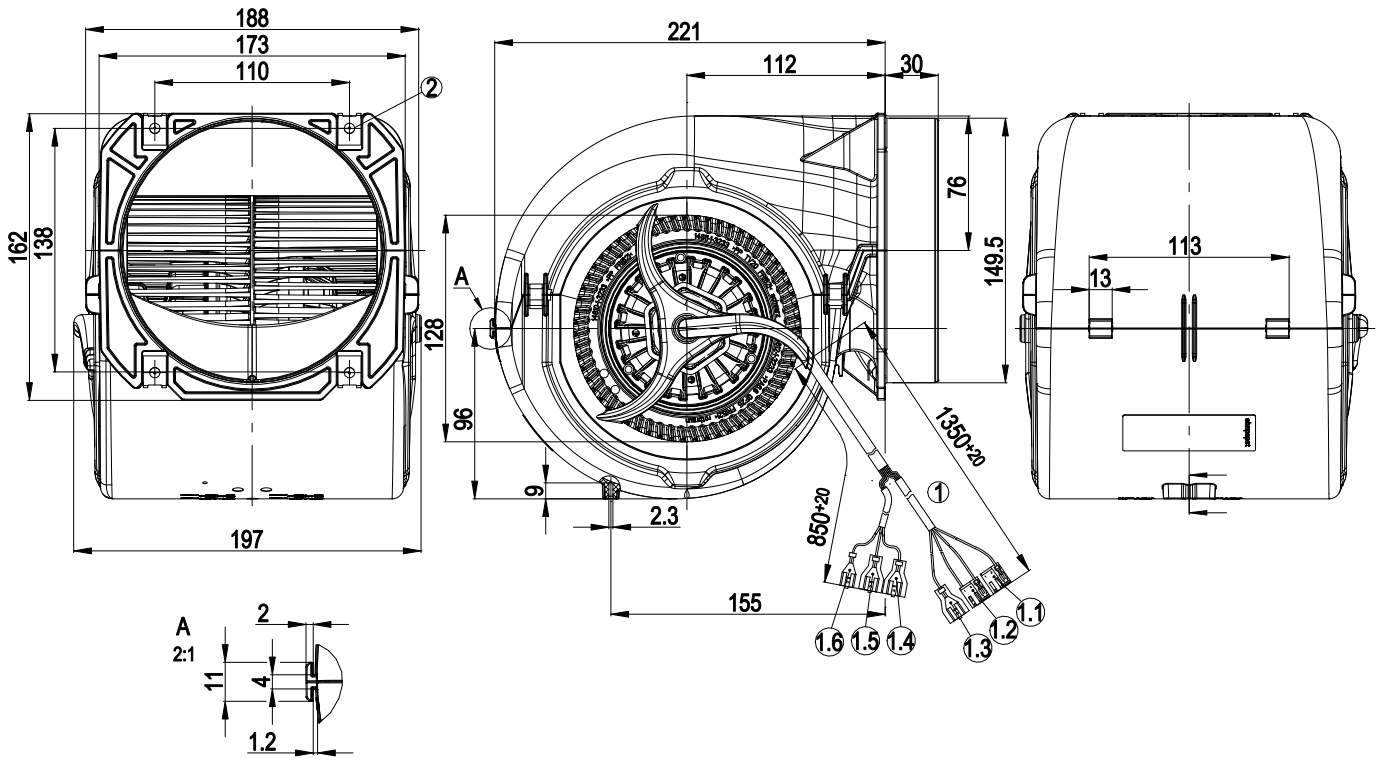
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Product drawing



1	Cable ETFE AWG22, ground conductor ETFE AWG20
1.1	Connector housing JST no. VHR-3N-R, color: red, black wire in 3 = step 3
1.2	Connector housing JST no. VHR-3N, color: white, blue wire in 1 = N; gray wire in 3 = step 2
1.3	Flat push-on receptacle 6.3 x 0.8 mm with insulating sleeve with white wire = step 1
1.4	Flat push-on receptacle 6.3 x 0.8 mm with insulating sleeve with yellow wire = capacitor connection
1.5	Flat push-on receptacle 6.3 x 0.8 mm with insulating sleeve with brown wire = capacitor connection
1.6	Flat push-on receptacle 6.3 x 0.8 mm with green / yellow wire = ground conductor

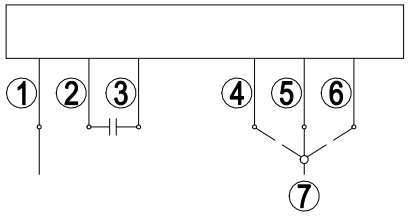
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Connection diagram



Note: High speed (step III); low speed (step I)

1	= N = blue	2	brown	3	yellow
4	Step 1 (white)	5	Step 2 (gray)	6	Step 3 (black)
7	L1				

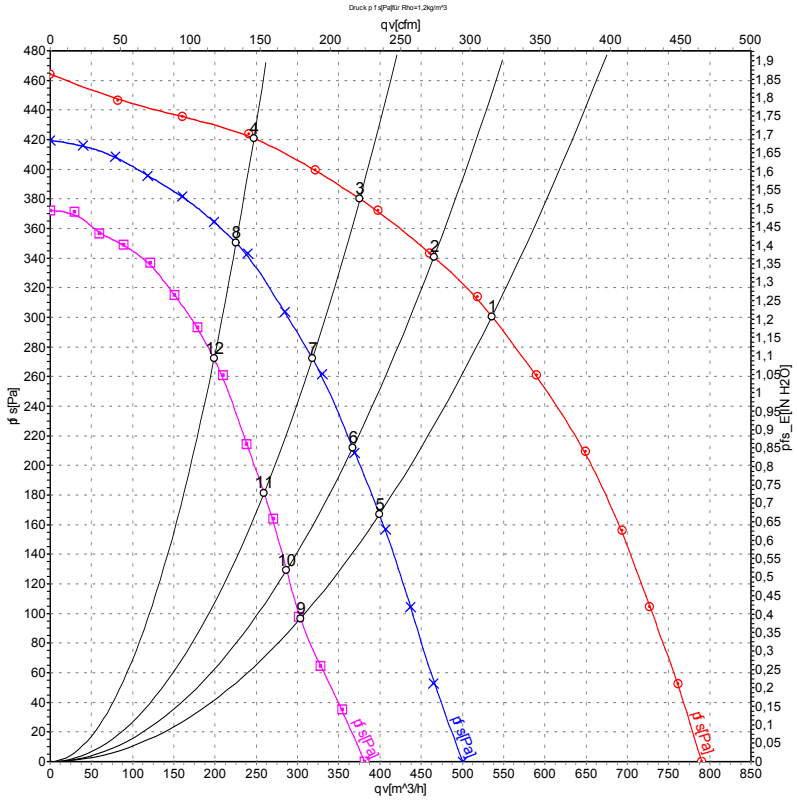
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Curves: Air performance 50 Hz



Measurement: LU-132700-1
Measurement: LU-132704-1
Measurement: LU-132705-1

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

	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	230	50	2250	170	0.75	535	300	315	1.20
2	230	50	2330	162	0.72	465	340	275	1.36
3	230	50	2450	152	0.68	375	380	220	1.53
4	230	50	2580	138	0.62	245	420	145	1.69
5	230	50	1690	122	0.60	400	168	235	0.67
6	230	50	1880	116	0.58	365	212	215	0.85
7	230	50	2090	107	0.56	320	273	185	1.10
8	230	50	2370	91	0.51	225	350	130	1.41
9	230	50	1290	109	0.53	305	94	180	0.38
10	230	50	1470	105	0.52	285	129	170	0.52
11	230	50	1720	100	0.51	260	182	150	0.73
12	230	50	2120	85	0.47	200	272	115	1.09

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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