D2E146-HR29-83

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Nominal data

Type	**D2E146-HR29-83**	
Motor	**M2E068-CF**	
Phase		1~
Nominal voltage	VAC	115
Frequency	Hz	60
Method of obtaining data		fa
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	1000
Power consumption	W	160
Current draw	A	1.40
Capacitor	µF	16
Capacitor voltage	VDB	250
Capacitor standard		S2 (CE)
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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 kg
Fan size	146 mm
Terminal box material	PP plastic, black
Impeller material	Sheet steel, galvanized
Housing material	PP plastic, black
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20; installation- and position-dependent
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 60335-1; CE
Approval	UL 1004-1; VDE; CSA C22.2 No. 100

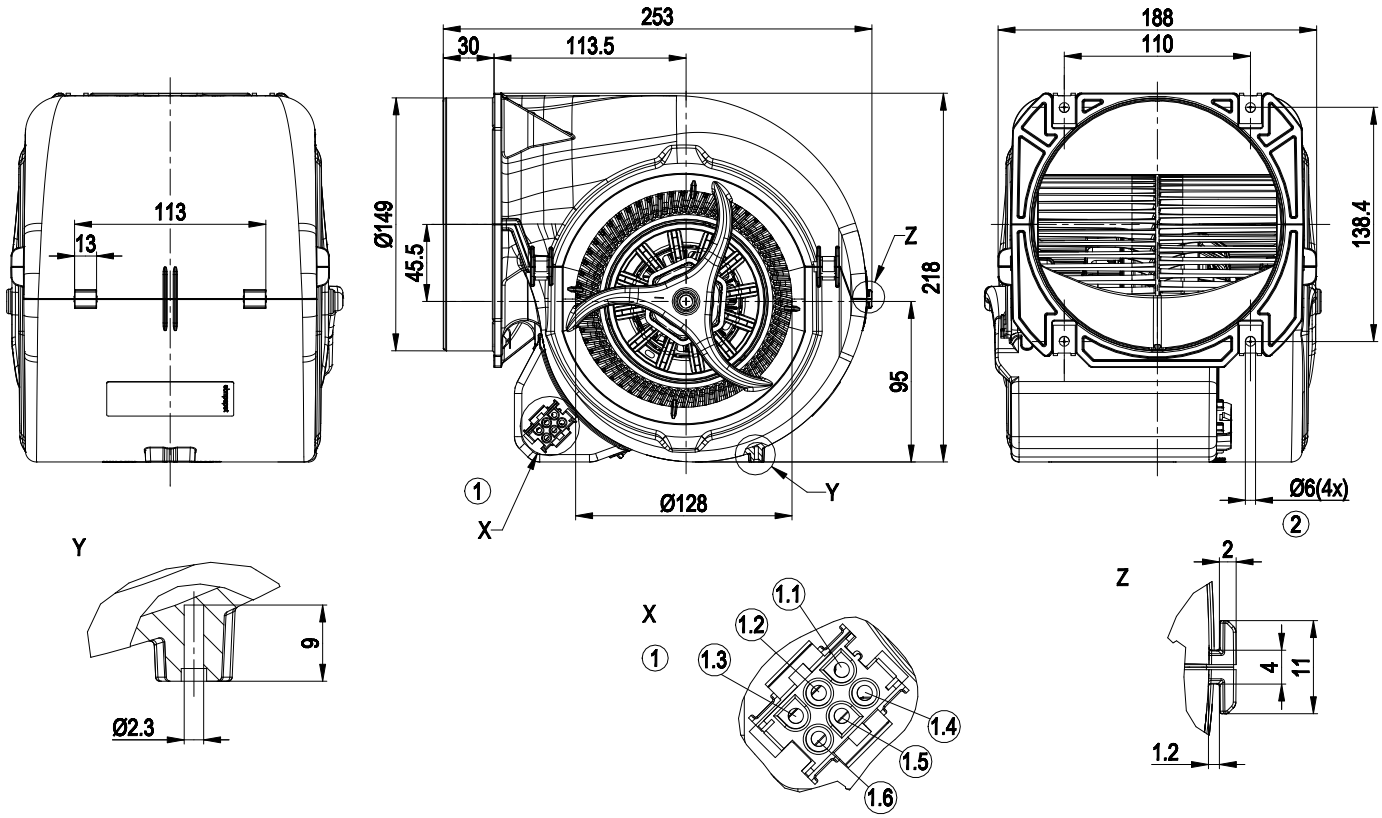
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Product drawing



1	Coded plug system AMP Universal Mate-N-Lok; connector housing: AMP 926 682-3; 6x plug pin AMP 926 886-1
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)

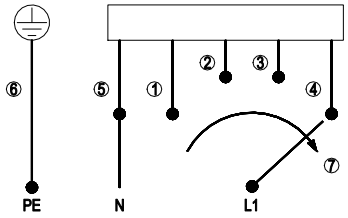
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Connection diagram



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				

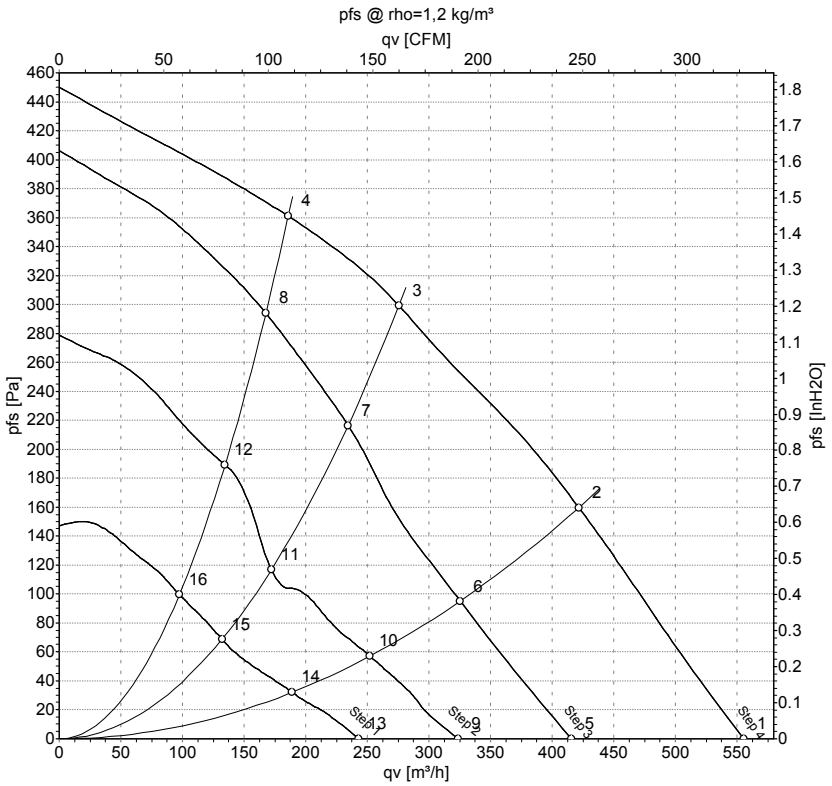
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Curves: Air performance 60 Hz



Measurement: LU-78945-1
Measurement: LU-78947-1
Measurement: LU-78949-1
Measurement: LU-78951-1

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	115	60	1000	160	1.40	555	0	325	0.00
2	4	115	60	1555	160	1.39	420	160	250	0.64
3	4	115	60	2145	157	1.37	275	300	160	1.20
4	4	115	60	2390	153	1.35	185	360	110	1.45
5	3	115	60	750	111	1.12	415	0	245	0.00
6	3	115	60	1210	109	1.12	325	95	190	0.38
7	3	115	60	1795	105	1.11	235	217	140	0.87
8	3	115	60	2205	100	1.10	170	294	100	1.18
9	2	115	60	585	90	0.98	325	0	190	0.00
10	2	115	60	950	89	0.97	250	57	150	0.23
11	2	115	60	1360	86	0.96	170	111	100	0.45
12	2	115	60	1755	84	0.96	135	189	80	0.76
13	1	115	60	470	76	0.87	245	0	145	0.00
14	1	115	60	735	75	0.87	190	32	110	0.13
15	1	115	60	1050	73	0.86	130	69	80	0.28
16	1	115	60	1310	72	0.85	100	99	60	0.40

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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