AC centrifugal fan

D2E146-AV13-F7 ebmpapst Datasheet
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Nominal data

Type	**D2E146-AV13-F7**
Motor	**M2E068-EC**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		-
Speed (rpm)	min^{-1}	2400
Power input	W	360
Current draw	A	1.6
Motor capacitor	µF	8
Capacitor voltage	VDB	450
Capacitor standard		S2 (CE)
Min. back pressure	Pa	300
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	35

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	4.3 kg
Size	146 mm
Surface of rotor	Uncoated
Material of impeller	Sheet steel, galvanised
Housing material	Sheet steel, galvanised
Material of support structure	Sheet steel, galvanised
Material of guard grille	Steel, coated with grey plastic (RAL 9006)
Motor suspension	Motor mounted anti-vibration on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H0 - dry environment
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, open rotor
Operation mode	S1
Motor bearing	Calotte bearing
Speed steps	4
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
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

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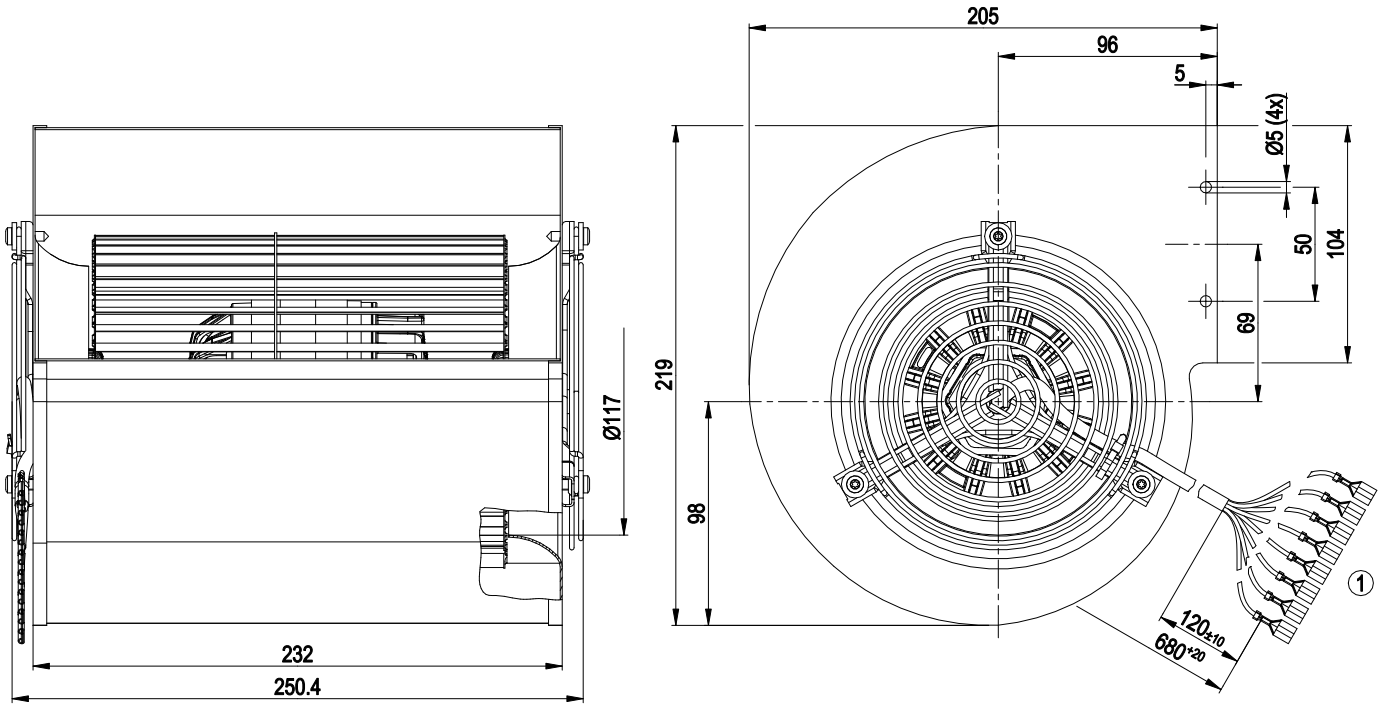
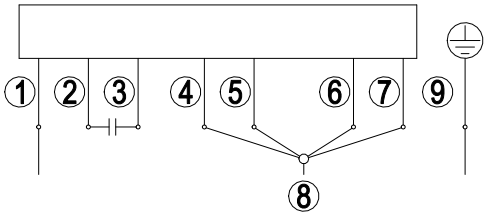
Product drawing



1	Connection line Raychem Spec. 44, AWG22 (green/yellow, grey AWG20), 8x threaded pin 6.3x0.8 crimped

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
9	= PE = green / yellow

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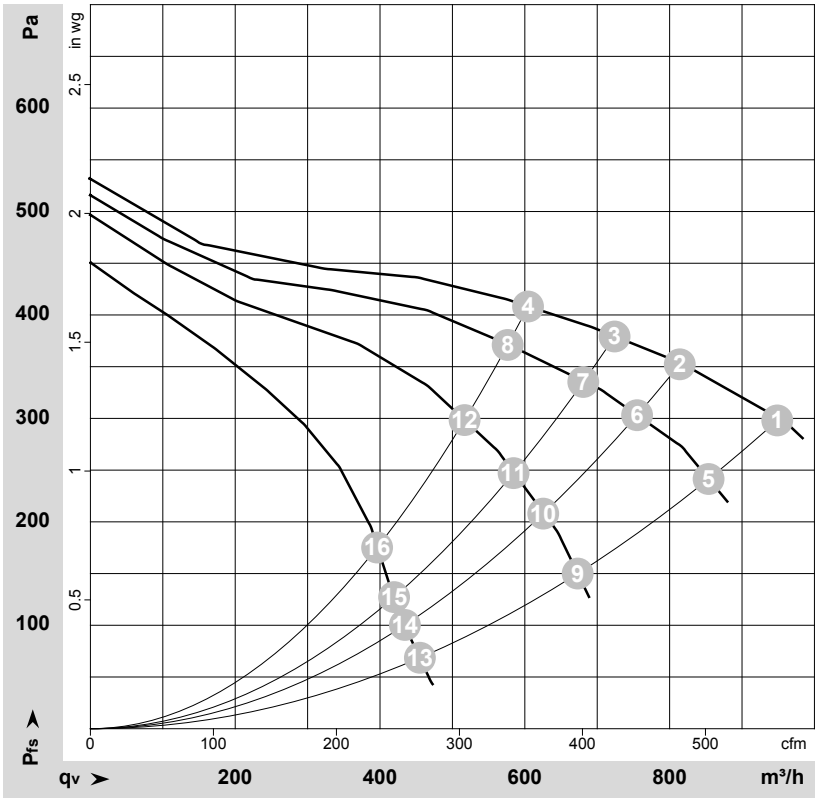
Charts: Air flow 50 Hz



ρ = 1.173 kg/m³ ± 2 %

Measurement: LU-171066-1
Measurement: LU-171220-1
Measurement: LU-171221-1
Measurement: LU-171222-1

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	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	4	230	50	2400	360	1.60	940	300	555	1.20
2	4	230	50	2500	334	1.47	815	354	480	1.42
3	4	230	50	2555	319	1.41	725	379	425	1.52
4	4	230	50	2615	301	1.34	605	408	355	1.64
5	3	230	50	2155	290	1.32	855	242	505	0.97
6	3	230	50	2315	267	1.23	755	303	445	1.22
7	3	230	50	2405	252	1.17	680	336	400	1.35
8	3	230	50	2500	234	1.09	575	372	340	1.49
9	2	230	50	1720	251	1.16	675	150	395	0.60
10	2	230	50	1935	236	1.10	625	209	370	0.84
11	2	230	50	2075	222	1.06	585	248	345	1.00
12	2	230	50	2245	203	0.99	515	298	305	1.20
13	1	230	50	1180	214	0.98	455	68	270	0.27
14	1	230	50	1360	209	0.96	435	99	255	0.40
15	1	230	50	1500	203	0.94	420	126	245	0.51
16	1	230	50	1740	191	0.90	395	177	235	0.71

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