D2E160-EE03-05

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Nominal data

Type	**D2E160-EE03-05**	
Motor	**M2E074-FA**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		-
Speed (rpm)	min^{-1}	1650
Power consumption	W	415
Current draw	A	1.81
Capacitor	µF	10
Capacitor voltage	VDB	400
Capacitor standard		S2 (CE)
Min. back pressure	Pa	100
Min. back pressure	in. wg	0.4
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	7.9 kg
Size	160 mm
Motor size	74
Rotor surface	Unpainted
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
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	5
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1; EN 60204-1
Approval	EAC

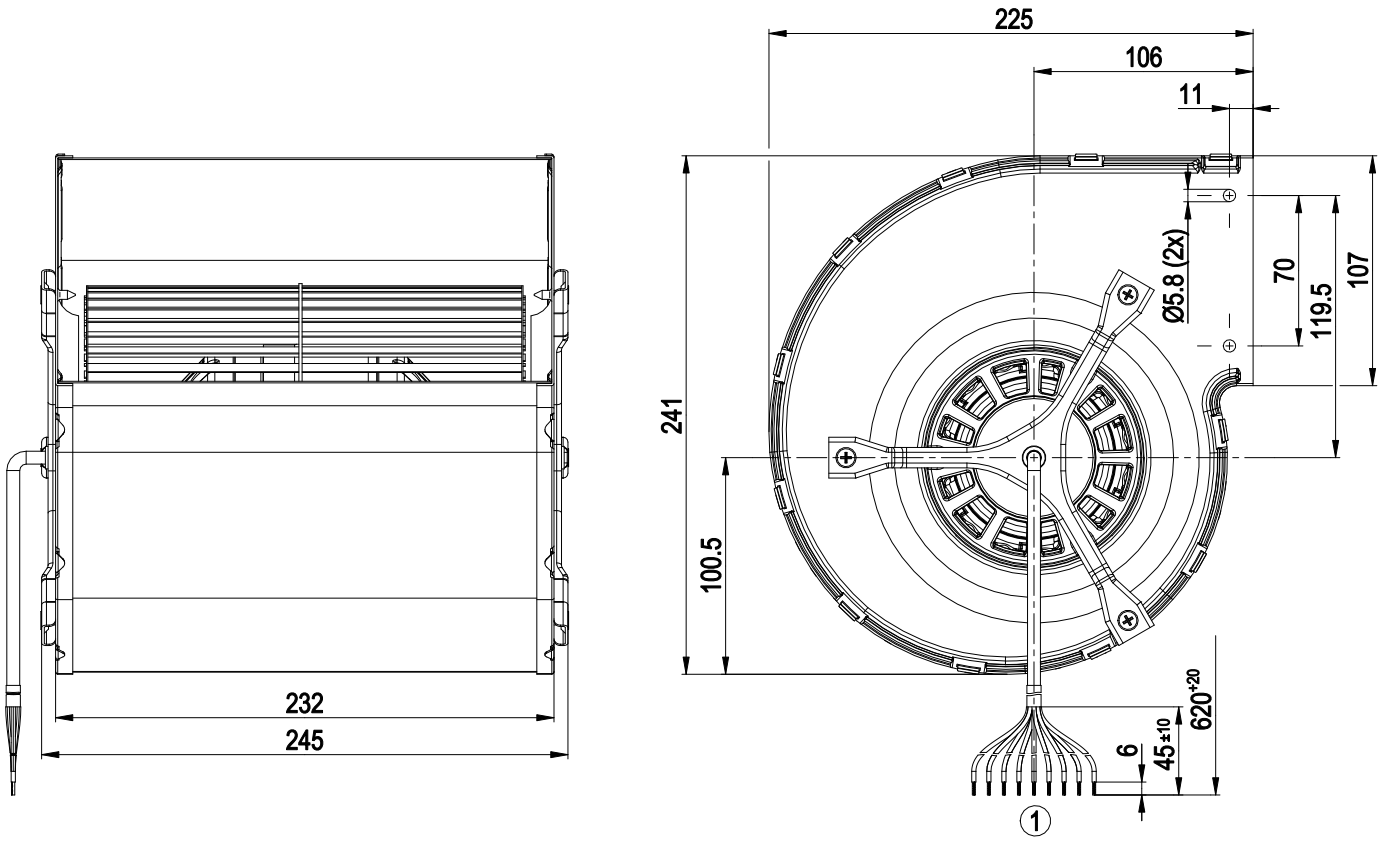
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Product drawing



1	Cable ETFE AWG20		9x splice

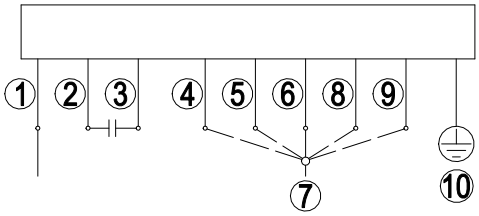
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Connection diagram



Note: High speed (step IV); low speed (step I); the switch must interrupt the circuit on switching.

1	= N = blue
2	brown
3	yellow
4	Step I black 1 / white
5	Step II black 2 / red
6	Step III black 3 / gray
7	L1
8	Step IV black 4 / orange
9	Step V black 5 / black
10	PE (green/yellow)

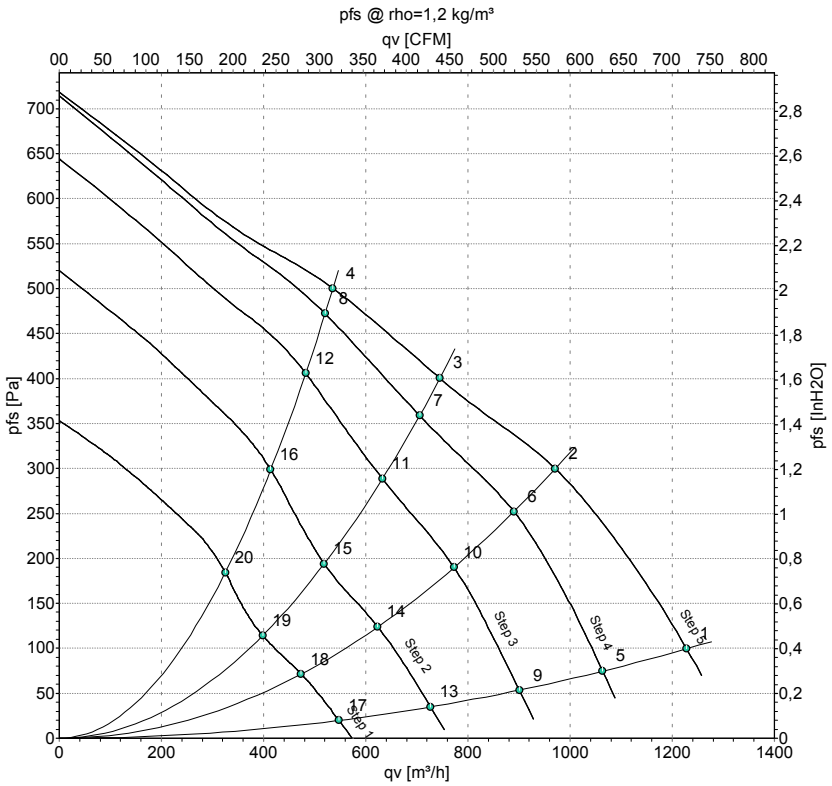
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Curves: Air performance 50 Hz



Measurement: LU-129245-1
Measurement: LU-129248-1
Measurement: LU-129250-1
Measurement: LU-129253-1
Measurement: LU-129254-1

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	in. wg
1	5	230	50	1650	415	1.81	1230	100	725	0.40
2	5	230	50	2005	388	1.70	970	300	570	1.20
3	5	230	50	2225	371	1.63	745	400	440	1.61
4	5	230	50	2385	351	1.57	535	500	315	2.01
5	4	230	50	1365	325	1.49	1065	76	625	0.31
6	4	230	50	1835	304	1.44	890	255	525	1.02
7	4	230	50	2105	284	1.40	705	359	415	1.44
8	4	230	50	2315	261	1.35	520	473	305	1.90
9	3	230	50	1150	277	1.31	900	54	530	0.22
10	3	230	50	1610	260	1.27	775	195	455	0.78
11	3	230	50	1895	244	1.24	635	288	375	1.16
12	3	230	50	2150	224	1.21	480	407	285	1.63
13	2	230	50	940	231	1.13	725	35	430	0.14
14	2	230	50	1305	220	1.10	625	125	365	0.50
15	2	230	50	1575	211	1.08	520	193	305	0.77
16	2	230	50	1855	197	1.06	415	301	245	1.21
17	1	230	50	725	192	0.97	550	20	325	0.08
18	1	230	50	1010	186	0.95	475	72	280	0.29
19	1	230	50	1215	182	0.94	400	114	235	0.46
20	1	230	50	1465	175	0.93	325	185	190	0.74

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

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