D2E160-GM93-01

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

D2E160-GM93-01 ebmpapst Datasheet
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Nominal data

Type	**D2E160-GM93-01**	
Motor	**M2E068-EC**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		-
Speed (rpm)	min^{-1}	1400
Power consumption	W	340
Current draw	A	1.49
Capacitor	µF	10
Capacitor voltage	VDB	400
Capacitor standard		S2 (CE)
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45

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	6.9 kg
Fan size	160 mm
Rotor surface	Partly cast in aluminum
Impeller material	Sheet steel, galvanized
Housing material	PP plastic
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	4
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Via terminal box, capacitor integrated and connected; With plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Axial
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

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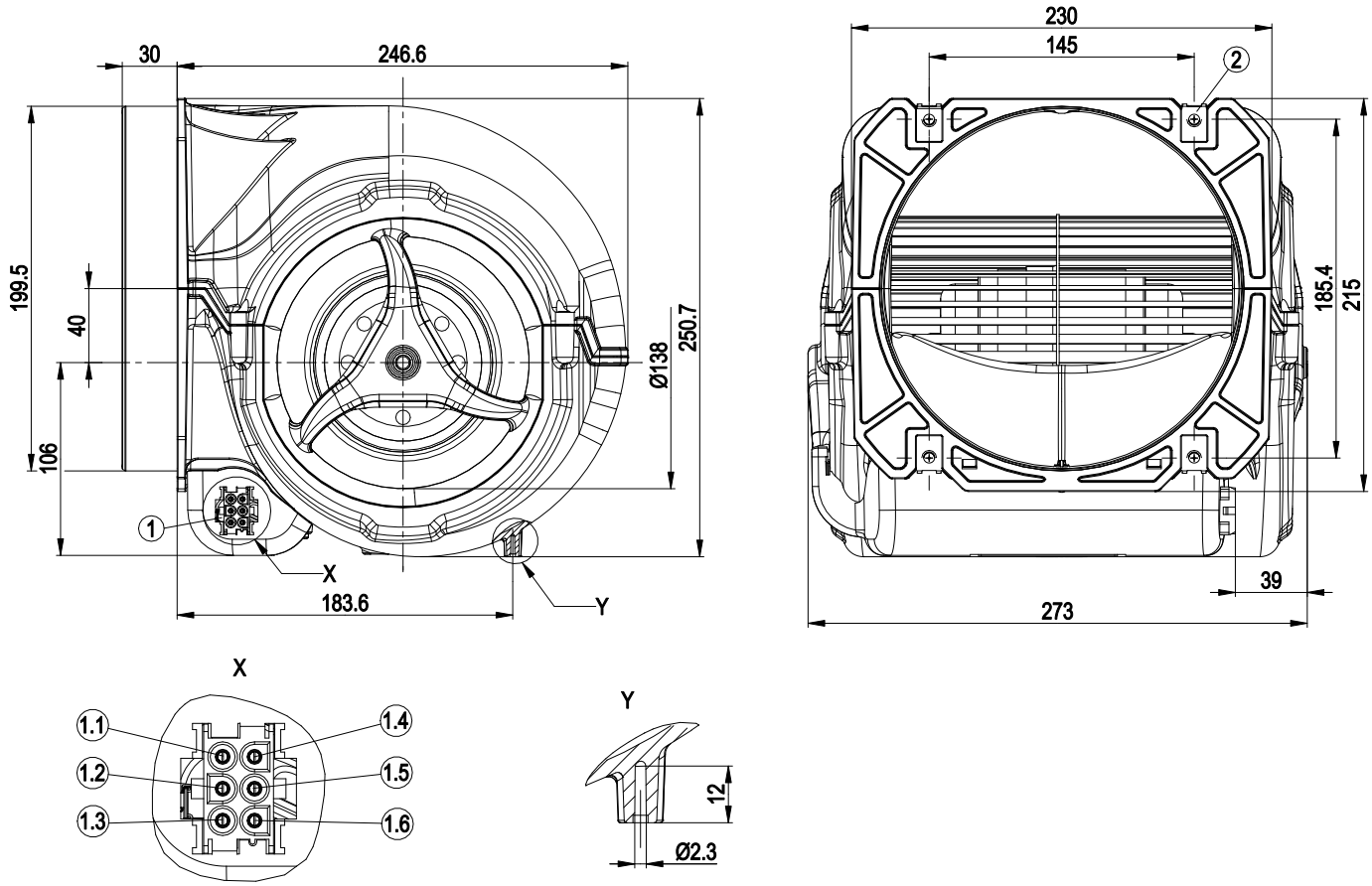
Product drawing



1	Coded plug system Tyco Universal-Mate-N-Lok, connector housing: Tyco 926682-3, 6x plug pin Tyco 926886-1
1.1	PE (green/yellow)
1.2	N (blue)
1.3	Step 4 (black)
1.4	Step 3 (gray)
1.5	Step 2 (red)
1.6	L step 1 (white) (min.)
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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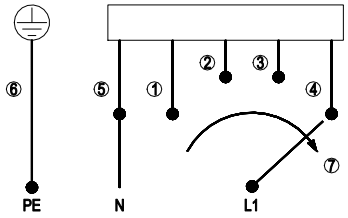
Connection diagram



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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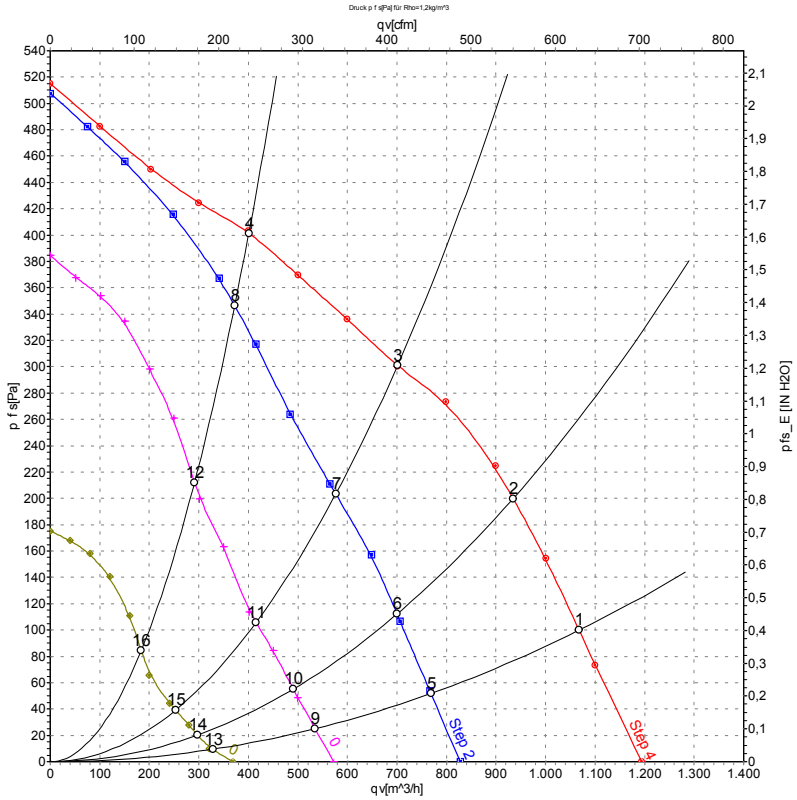
Curves: Air performance 50 Hz



Measurement: LU-110681-1
Measurement: LU-110684-1
Measurement: LU-110688-1
Measurement: LU-110692-1

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	LpA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa	cfm	in. wg
1	4	230	50	1400	340	1.49	58	1070	100	630	0.40
2	4	230	50	1645	337	1.47	58	935	200	550	0.80
3	4	230	50	1985	329	1.45	59	700	300	415	1.20
4	4	230	50	2280	312	1.39		400	403	235	1.62
5	3	230	50	1035	211	1.12	47	770	52	455	0.21
6	3	230	50	1260	208	1.12	48	700	112	410	0.45
7	3	230	50	1610	199	1.11	53	575	203	340	0.81
8	3	230	50	2115	179	1.09		370	346	220	1.39
9	2	230	50	730	160	0.92	37	535	25	315	0.10
10	2	230	50	900	158	0.92	38	490	55	290	0.22
11	2	230	50	1170	154	0.91	44	415	105	245	0.42
12	2	230	50	1665	143	0.90		290	211	170	0.85
13	1	230	50	455	129	0.78	23	330	8	195	0.03
14	1	230	50	565	128	0.78	24	295	20	175	0.08
15	1	230	50	730	126	0.77	30	255	39	150	0.16
16	1	230	50	1055	122	0.77		185	84	110	0.34

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · q_V = Air flow · p_{fs} = Pressure increase