

# AC centrifugal fan

forward-curved, dual-intake

with housing (large flange)

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## Nominal data

Type	D2E160-GL07-01	
Motor	M2E074-HA	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		-
Speed (rpm)	min <sup>-1</sup>	1700
Power consumption	W	470
Current draw	A	2.06
Capacitor	µF	12
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	50

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change

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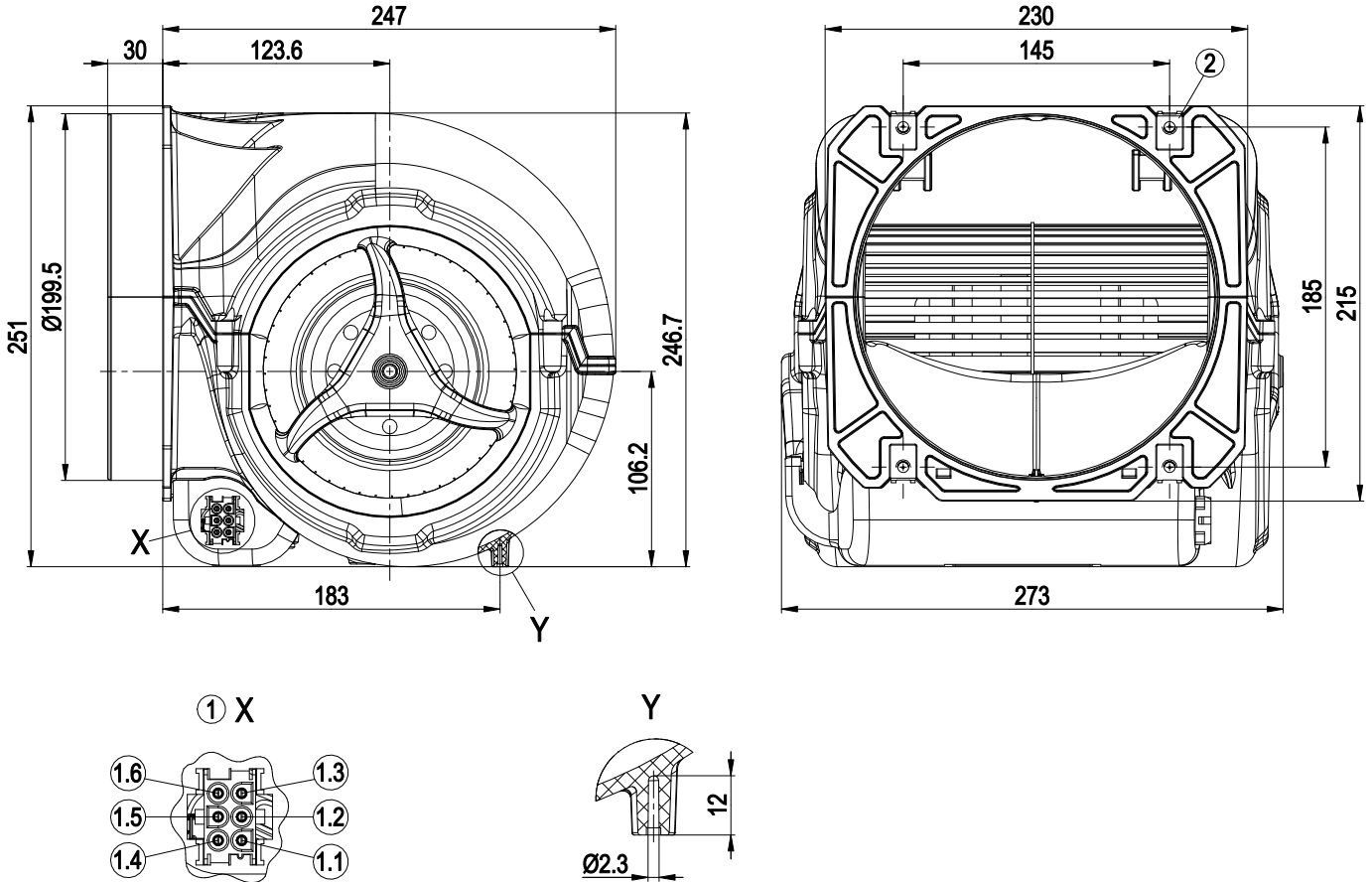
## Technical description

Weight	6.78 kg
Size	160 mm
Motor size	74
Rotor surface	Unpainted
Terminal box material	PP plastic
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	Plug; Via terminal box, capacitor integrated and connected
Motor protection	Thermal switch auto reset, internally connected
With cable	Axial
Protection class assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Motor capacitor according to EN 60252-1 in safety protection class	S2
Conformity with standards	EN 60335-1; EN 60335-2-31
Approval	EAC; CCC

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## Product drawing

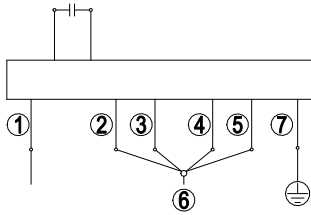


1	Coded plug system: 6-pole connector housing TE 2178773-1, 6x plug pin TE 926886-1 The following cables: 21956-4-1040 (length 300 mm); 21957-4-1040 (length 450 mm); 21958-4-1040 (length 650 mm); 21959-4-1040 (length 1000 mm) are available as accessories
1.1	L = step 1
1.2	L = step 2
1.3	L = step 3
1.4	L = step 4
1.5	N
1.6	PE
2	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of attachment)

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## Connection diagram



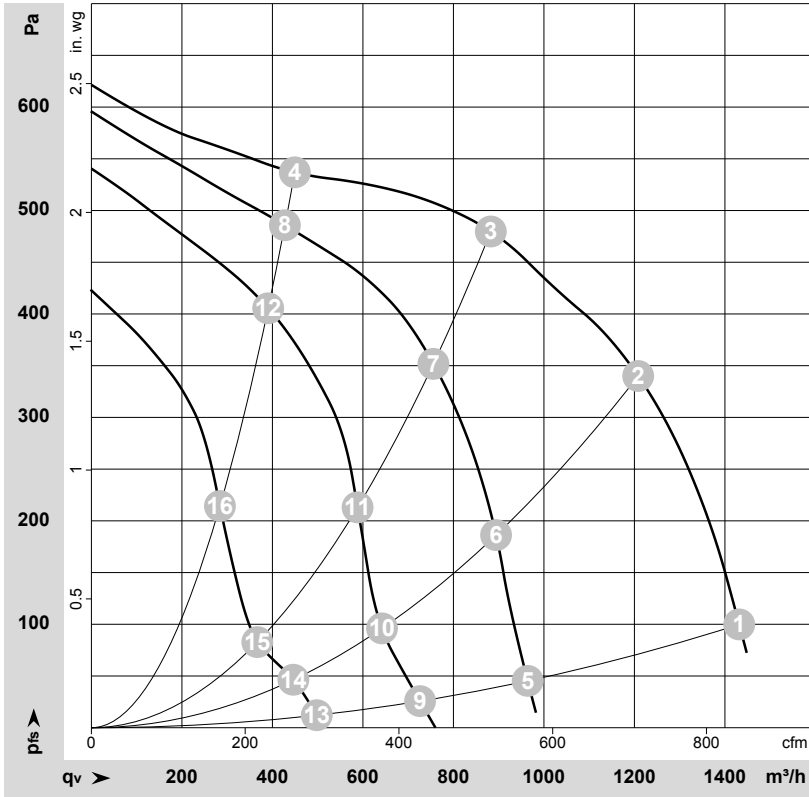
Note: High speed (step IV); low speed (step I); the switch must interrupt the circuit on switching.

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

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## Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-127474-1  
Date: 2010-07-13  
Nozzle: 16010-1-2950

Measurement: LU-127462-1  
Date: 2010-07-13

Measurement: LU-127463-1  
Date: 2010-07-13

Measurement: LU-127464-1  
Date: 2010-07-13

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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	Wired	U	f	n	P <sub>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
			V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	cfm	in. wg
1	4	1~	230	50	1700	470	2.06	62	75	1430	100	845	0.40
2	4	1~	230	50	2195	436	1.93	62	74	1210	340	710	1.36
3	4	1~	230	50	2525	367	1.69	62	75	885	480	520	1.93
4	4	1~	230	50	2700	309	1.52	65	77	450	540	265	2.17
5	3	1~	230	50	1135	377	1.69			965	44	565	0.18
6	3	1~	230	50	1665	350	1.60			895	192	525	0.77
7	3	1~	230	50	2180	291	1.43			755	352	445	1.41
8	3	1~	230	50	2595	210	1.22			430	486	250	1.95
9	2	1~	230	50	875	319	1.44			725	26	425	0.10
10	2	1~	230	50	1180	310	1.41			640	92	380	0.37
11	2	1~	230	50	1720	282	1.33			590	213	345	0.86
12	2	1~	230	50	2380	206	1.11			390	406	230	1.63
13	1	1~	230	50	620	270	1.23			500	12	295	0.05
14	1	1~	230	50	865	260	1.19			445	48	265	0.19
15	1	1~	230	50	1080	256	1.17			365	82	215	0.33
16	1	1~	230	50	1740	227	1.09			285	214	165	0.86

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase